U.S. Air Force B-52 on a low-level test flight crashes near Burns, Oregon, killing five Boeing employees, on June 23, 1959.

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On June 23, 1959, a U.S. Air Force B-52D Stratofortress, named "Tommy's Tigator," assigned to the Boeing Airplane Company for experimental low-level flight tests, crashes and burns in the sparsely populated high-desert country at the edge of the Ochoco National Forest in Harney County, Oregon. The crew is composed of five Boeing employees and none survive.The flights are being conducted for the Strategic Air Command to determine the feasibility of flying the giant B-52, with a nuclear payload, under enemy radar warning systems. The point will eventually become moot with the development of intercontinental ballistic missiles.

Testing the Bomb

The Boeing B-52 Stratofortress was America's first long-range, swept-wing heavy bomber. Introduced in 1954, it replaced the World War II-era Boeing B-29 Superfortress and B-36 Peacemaker and was primarily designed to carry nuclear weapons. Prior to the advent of intercontinental ballistic missiles, the B-52s, flown by the U.S. Air Force, Strategic Air Command, were the country's first line of defense against surprise attacks during the Cold War. The Stratofortress, a large aircraft, 159 feet long with a 185-foot wingspan, was powered by eight Pratt & Whitney turbofan jet engines. Fully loaded with fuel and ordinance, the B-52 aircraft weighed 450,000 pounds.

The B-52D-75-BO (No. 56-0591) chosen for the test runs was named "Tommy's Tigator." She was built in 1957 by the Boeing aircraft assembly plant in Wichita, Kansas. It was one of a series of B-52s pulled off the assembly line by the U.S. Air Force (USAF) for "special purposes." Tommy's Tigator had participated in Operation Hardtack, during which nuclear tests were conducted at the Pacific Proving Ground between April 28 and August 18, 1958. The USAF Air Materials Command and Atomic Energy Commission detonated 35 nuclear devices at Bikini Atoll, Enewetak Atoll in the Marshall Islands, and Johnston Island in the Pacific Ocean. They included balloon, surface, underwater, and rocket-borne high-altitude tests. Tommy's Tigator, under the command of Captain Thomas M. "Tommy" Summer, was loaded with monitoring equipment and flew sorties through the radioactive atmosphere to collect radiation effects information during nine of the nuclear explosions.

Their Last Flight

At 11:05 a.m. on Tuesday, June 23, 1959, Tommy's Tigator took off from Boeing Field for an experimental low-level flight test. Five employees of the Boeing Airplane Company were on board the B-52D: Lewis E. Moore, commander/pilot; Joseph Q. Keller, copilot; Gerald G. Green, navigator; Charles K. McDaniel and Neil Johnson, flight-test engineers. The aircraft had been making test runs over Eastern Washington, Oregon, and Idaho since April 10, 1959, and was loaded with special electronic equipment for measuring stresses on the airframe and flight surfaces.

The bomber was scheduled to fly at lower than 500 feet above the ground on an elliptical course from The Dalles, Oregon, to Malheur Lake, Burns, and back to Walla Walla, Washington, at near maximum speed of 638 miles-per-hour. The Strategic Air Command (SAC) needed to know if the giant Stratofortress, specifically designed to fly at high altitudes, could survive the secondary structural stresses caused by violent air turbulence found at very low altitudes. The flights were being conducted to determine the feasibility of flying the world's largest bomber under enemy radar warning systems to deliver a nuclear payload. It was during the height of the Cold War (1946-1991) and the intended target would be the Soviet Union (USSR).

At 11:30 a.m., Tommy's Tigator radioed that it was over The Dalles and preparing to descend for the low-level test flight. No further reports were heard from the pilot after it passed the checkpoint. Leslie Heinz, a lineman for the Harney County Rural Electric Cooperative, was an eyewitness to the accident. He was working with a crew on power lines in a remote area approximately 35 miles west of Burns and three miles from the crash site. At about 12:00 noon, he spotted the B-52 flying southeast approximately 300 feet above the desert floor when it suddenly crashed. Said Heinz:

> "He was coming up a canyon below the level of the hills. About that time I saw things begin to fall from the airplane. Then I could see the plane catch fire. It was one big ball of fire. Then it hit this hill and exploded" ("Bits of Blackened Wreckage...").

Jess Gibson and Sidney Jolley, two ranchers who witnessed the accident from afar, said the plane was flying at extremely low level, when it suddenly pulled straight up, burst into flames and crashed to the ground. Walter S. Elsbury, superintendent for the Hines Lumber Company, was working in the woods with a logging crew when he heard a crash and saw a cloud of black smoke billowing up from behind a ridge approximately a mile and a half away. He immediately radioed the main office at Burns and reported the incident. Then he headed toward the site with 15 loggers and half-a-dozen Caterpillar tractors to control the brush fires creeping toward the timberland. Although scattered pieces of wreckage were burning, the fire was mostly confined to an area where thousands of gallons of jet fuel had spilled from the wings tanks. Elsbury and his men smothered the big fire in short order, but the hot spots, caused by burning wreckage, took some time to locate and extinguish.

The Hines Lumber Company relayed Elsbury's report to the U.S. Forest Service, Oregon State Patrol, and Air Force. State patrol officers and airmen from the 634th Aircraft Control and Warning Squadron at the Burns Air Force Radar Station rushed to the crash site and prohibited access to all but authorized personnel. For security reasons, reporters and photographers were temporarily banned from the area, but the USAF Public Information Office released pertinent information as it became available. A Boeing

Airplane Company spokesman was quick to inform the media the B-52 was on a test mission only and not carrying any ordinance.

The Investigation

Colonel Rufus Holloway, vice-commander of the Ninth Bombardment Wing at Mountain Home Air Force Base, Idaho, was assigned the responsibility for securing the crash site and determining the cause of the accident. He immediately dispatched a four-man accident investigation team, commanded by Major Dorris Smith, to begin the laborious task of identifying and recovering the scattered pieces of the B-52. Early Wednesday morning, June 24, 1959, a team of experts from Boeing's B-52 production plant at Wichita, Kansas arrived to assist in the investigation.

The impact of the crash nearly disintegrated the aircraft with pieces and parts strewn for approximately a mile and a half in all directions. The bodies of the five crewmen were scattered through the scraggly junipers and pines and it took several hours before they were all found. There was a dry lake bed nearby enabling a rescue helicopter from the 337th Fighter Group to airlift the remains of the victims to Portland. The Boeing Airplane Company engaged the E. R. Butterworth and Sons Mortuary, 300 E Pine Street, Seattle, to take custody of the bodies and handle burial arrangements.

The first pieces of debris found along the flight path were from the tail section, then sections of the fuselage and parts of the main wing assemblies, housing the fuel tanks. Farther along the path, investigators found the burned-out cockpit, shredded by the explosion. The eight jet engines, some found over a quarter mile away from the flight path, sustained relatively minor damage, considering the force of the impact. After all the wreckage had been identified, photographed and mapped, the Air Force brought in heavy cranes and lifted the large pieces of the aircraft onto flatbed trucks. All the debris was collected and transported to a hangar at Mountain Home AFB for a detailed examination.

Mourning the Dead

On Friday, June 26, joint funeral services for the five Boeing flight-test crew members were held at the First United Methodist Church (now Daniels Recital Hall), 5th Avenue and Marion Street in Seattle. Lewis E. Moore was buried at Fall City Cemetery in Fall City. Gerald G. Green was buried at Evergreen-Washelli Veterans Memorial Cemetery in Seattle. Neil Johnson was buried at Forest Lawn Cemetery in West Seattle. Charles K. McDaniel was buried at Mountain View Cemetery in Auburn.

The body of Joseph Q. Keller was removed to Eureka, Kansas. Keller was buried at Evergreen Cemetery with other deceased members of his family.

Information and Resolution

The investigation by Air Force and Boeing experts concluded the accident was caused by the catastrophic failure of the horizontal stabilizer (tailplane), affecting the B-52's longitudinal stability. The plane was not designed for the excessive turbulence of high-speed, low-level flight and began to disintegrate. Minus the horizontal stabilizer, the nose of the plane pitched sharply upward and it stalled, struck a knoll and exploded. At an altitude of 500 feet, there was virtually no chance for the crew to escape.

Despite the tragic outcome, the test flight yielded one significant piece of information. The airmen monitoring the radar scopes at the Burns Air Force Radar Station were unable to detect the presence of the B-52 skimming the desert floor. The tactic was apparently effective, but unquestionably risky. Boeing engineers soon fixed the horizontal stabilizer problem and low-level flight testing was resumed.

Meanwhile, the Air Force had developed the Atlas (SM-65), the nation's first operational intercontinental ballistic missile. The first Atlas squadrons became fully operational in 1960, eventually eliminating the need for the B-52s as long-range carriers of nuclear weapons. The Stratofortress was retained in the Air Force's arsenal however, and used extensively for bombing sorties over Southeast Asia during the Vietnam War (1964-1975), the Persian Gulf War in 1991, and over Afghanistan in 2001.

Casualty List

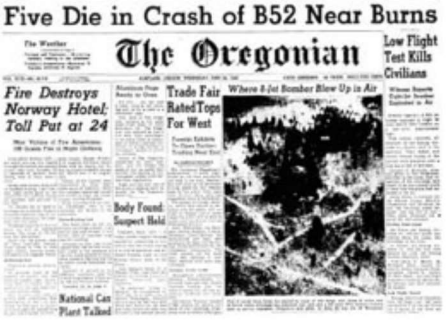
- Gerald G. Green, navigator, age 37, Kent, Washington
- Neil Johnson, flight engineer, age 28, Seattle, Washington
- Joseph Quentin Keller, copilot, age 37, Bellevue, Washington
- Charles Kenneth McDaniel, flight engineer, age 29, Auburn, Washington
- Lewis E. Moore, pilot, age 44, Kirkland, Washington

Boeing B-52D "Tommy's Tigator," Boeing plant, Seattle, February 1958

Courtesy United States Air Force

Boeing B-52D Stratofortress

Courtesy United States Air Force


Five Die in Crash of B52 Near Burns

The Oregonian

Low Flight Test Kills Civilians

Fire Destroys Norway Hotel; Toll Put at 24

Trade Fair Rated Tops For West

Where 8-Jet Bomber Blew Up in Air

Body Found; Suspect Held

National Cat Plant Talked

Front page, Portland *Oregonian*, June 24, 1959

Courtesy *The Oregonian*

Investigators examine wreckage of Boeing B-52D "Tommy's Tigator" near Burns, Oregon, June 24, 1959

Courtesy *The Seattle Times*

Crash Victims Had Extensive Engineering Backgrounds

JOSEPH Q. KELLER | GERALD G. GREEN | NEIL JOHNSON | CHARLES K. McDANIEL

The five Boeing Airplane Co. flight-test men who died in a flaming B-52 crash near Burns, Ore., yesterday had extensive aviation-engineering backgrounds.

Oldest of the five was Lewis E. Moore, 44, experimental test pilot, who joined Boeing as an inspector in 1948. Moore tended Eastern Washington College of Education.

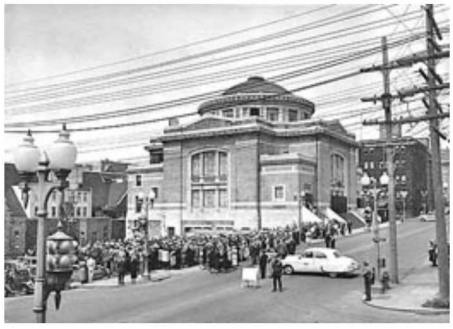
Johnson was graduated from the University of Illinois in aeronautical engineering. Johnson joined Boeing in June, 1957. He is survived by his wife.

Charles K. McDaniel, 29, flight-test analyst, was born in Tacoma and was graduated from Sumner High School and the University of Washington. He was employed by the Lockheed Aircraft Corp. from 1952 to 1954, joining Boeing in December, 1954.

LEWIS E. MOORE

Victims, Boeing B-52D "Tommy's Tigator" crash, June 23, 1959

Courtesy *The Seattle Times*



First United Methodist Church, 5th Avenue and Marion Street, Seattle, ca. 1950

Seattle Post-Intelligencer photo, Courtesy MOHAI (Image No. PI21268)

Sources: "Five Die in B-52 Crash," *Port Angeles Evening News*, June 24, 1959, p. 1; "Air Force Collects Wreckage of B-52," *Ibid*., June 25, 1959, p. 10; "Bits of Blackened Wreckage Scatter Over Wide Terrain in All Directions," *The Oregonian*, June 24, 1959, p. 1; "Low Flight Test Kills Civilians," *Ibid*., June 24, 1959, p. 1; "Air Force Team Sifts Wreckage at Scene of B-52 Crash," *Ibid*., June 25, 1959, p. 8; "B-52 Jet Bomber Destroyed in Explosion at Burns Helped Make History in H-Bomb Drop at Bikini," *Ibid*., June 27, 1959, p. 9; "Probe of B-52 Crash Planned," *The Seattle Times*, June 24, 1959, p. 20; "Crash Victims Had Extensive Engineering Backgrounds," *Ibid*., June 24, 1959, p. 20; "Joint Rites Set for 5 Plane Victims," *Ibid*., June 25, 1959, p. 45.

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