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1961 – North Carolina Nuked (Almost)

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January 24, 1961: Two nuclear bombs break loose from a crippled B-52 bomber and fall on North Carolina. Three out of four safety mechanisms on one bomb engaged. Only one safety switch kept the bomb from detonating and creating a Bay of North Carolina.



A secret document, recently declassified, reveals how close this disaster came to being a reality.

The U.S. Air Force's Cold War Strategy

During the Cold War with the Soviet Union, the United States created a general plan for nuclear war. This plan was called the Single Integrated Operational Plan and was one of the most secret issues in U.S. national security policy. SIOP integrated the capabilities of heavy bombers, land-based intercontinental missiles, and sea-based submarine-launched ballistic missiles to strike targets if they launched a nuclear attack against the U.S.

Under SIOP, one-third of the Strategic Air Command's (SAC) nuclear bombers had to be airborne and armed with nuclear bombs at all times. In this way, they would not be caught on the ground in the event of an attack and could proceed directly to Russia, China, or any of the Soviet-aligned states that had launched an attack.

The Doomed B-52 SAC Bomber

The B-52 Stratofortress bomber has been a mainstay of the U.S. Air Force since 1955. It is expected to continue in service into the 2040s. It is a subsonic swept wing bomber powered by eight turbojet engines housed in four engine pods.



B52 Stratofortress
(Wikipedia)

On January 23, 1961, a B-52 armed with two Mark 39 nuclear bombs took off from Seymour Johnson Air Base in Goldsboro, North Carolina, U.S.A., near the Eastern Seaboard. The aircraft was on a 24-hour alert mission under the SIOP plan. The Mark 39 nuclear bomb is a two-megaton bomb with over 100 times the power of the Hiroshima atomic bomb.

Around midnight, the B-52 rendezvoused with a tanker for mid-air fueling. The B-52 is a wet-wing aircraft in which the fuel tank is, in fact, the wing. During the refueling, the tanker crew advised the B-52 captain that he had a leak in his right wing and that he was losing fuel. The fueling was aborted, and ground control was notified.

Ground control directed the captain to assume a holding pattern off the coast until the majority of fuel had been consumed (an aircraft has a maximum allowable landing weight to avoid stress on the landing gear,

and the fuel on board the B-52 exceed that limit). However, when the aircraft reached its assigned position, the captain reported that the situation had worsened. He had lost 37,000 pounds of fuel in just three minutes. The aircraft was immediately directed to return to the Seymour Johnson Air Base and land.

As the aircraft descended through 10,000 feet, it began to break up. The captain ordered the crew to eject. Five landed safely, but one crew member who ejected did not survive. Two crew members died in the crash. The wreckage covered two-square miles of tobacco and cotton farmland in Faro, North Carolina, about twelve miles north of Goldsboro.

Bombs Away

As the B-52 tore apart in its uncontrolled descent, the two nuclear bombs broke free. Lanyards connected to each bomb were jerked and began the arming process.

One bomb behaved as designed. It continued its arming process. Two additional arming steps were activated. The first step deployed a parachute to drop the bomb. The bomb is designed to explode at altitude to cause the most wide-spread damage. In the second step, the firing capacitors were charged. These detonate ordinary explosives to force two nuclear masses together to create a critical mass that will cause a nuclear reaction.

However, the bomb did not explode. Its parachute tangled in a tree and it was hanging upright and undamaged when found. A fourth and last arming step did not take place. A safe/arm switch was found to be still in the safe position. Three of four safety precautions failed. It was only the fourth that saved North Carolina and the U.S. Eastern Seaboard.



The Surviving Mark 39 Bomb with Parachute Still Attached (Wikipedia)



The buried Mark 39 bomb (Wikipedia)

The parachute for the second bomb did not deploy. The bomb became only partially armed from the lanyard. It fell at 700 miles per hour into a field, disintegrated, and buried itself 180 feet down in mud. Its safe/arm switch was thrown off in the impact and found nearby. To great consternation, it was found to be in the armed position.

The buried bomb could not be recovered because of ground water. Its uranium payload is still buried in the field.

The Aftermath

The two-megaton Mark 39 nuclear bomb had a 100% kill radius of 17 miles. Radioactive fallout from the blast would have spread over the Eastern Seaboard of the U.S., hitting Washington, D.C., Baltimore, Philadelphia, and New York.

The wet-wing design of the B-52 was found to be experiencing 60% more stress during flight than older models of the bomber. This situation was rectified by Boeing in 1964 by redesigning the B-52's wing.

Summary

Many of the world's nuclear powers still have hundreds and thousands of nuclear weapons. The U.S. government has consistently said that there is no possibility of these weapons accidentally detonating. So far, that has been the case. But here is one that nearly did.

Eric Schlosser has written a disturbing book on the nuclear arms race entitled Command and Control. It is largely based on material he has gathered from the U.S. Freedom of Information Act. In his book, he

notes that from 1950 to 1968, there were 700 significant accidents and incidents involving 1,250 nuclear weapons. None of these were publicly disclosed.

Problems continue to exist. On January 15, 2014, the U.S. Air Force suspended 34 missile-launch officers stationed at the Malmstrom Air Force Base in Montana and revoked their security clearances. They were found to have been cheating on monthly exams to ensure that they were capable of managing the nuclear warheads on top of their Minuteman III intercontinental missiles buried in silos at the base.

Eleven officers, including two from the above group, were found guilty of drug use.

We clearly are at risk from a cataclysmic nuclear incident until the world frees itself of nuclear weapons.

Acknowledgements

Material for this article was taken from the following resources:

Report: Nuke that fell on N.C. in 1961 almost exploded, *USA Today*; September 20, 2013.

US nearly detonated atomic bomb over North Carolina – secret document, *The Guardian*; September 20, 2013.

A Sneak Peek at Eric Schlosser's Terrifying New Book on Nuclear Weapons, *Mother Jones*; September 14, 2013.

1961 Goldsboro B-52 crash, *Wikipedia*.

Single Integrated Operational Plan, *Wikipedia*.

Boeing B-52 Stratofortress, *Wikipedia*.

LGM-30 Minuteman, *Wikipedia*.



A Minuteman III Missile in its Silo
(Wikipedia)