The Goldsboro B-52 Crash

In January 1961, a B-52 Stratofortress carrying two thermonuclear Mark-39 nuclear weapons experienced a fuel leak, and began to break apart mid-air over Goldsboro, North Carolina. As the pilots lost control of the aircraft, it becomes unclear exactly what happened to both bombs as multiple accounts have come to surface. It was originally thought that one bomb ejected and its attached parachute successfully deployed, allowing it to float slowly towards the ground before tangling in a tree. As for the other bomb, it was said to have remained onboard until impact, until plummeting into the ground. With the revelation of more accounts, other reports have conflicting records. Some accounts claim that both bombs fell from the B-52. One bomb’s parachute was said to have deployed, allowing the bomb to land intact. The safing pins were removed from the generator, which prevented detonation. As for the other bomb, the parachute did not deploy, leading to an impact that put the indicator “armed” mode. An additional part of the bomb necessary for detonation was reportedly too damaged to function.

Fortunately, the safety mechanism worked and neither bomb detonated, despite coming dangerously close. A forensic investigation found that all but one of the safety switches on the second bomb had triggered inadvertently. The final switch had not, preventing the device from exploding. There is a uncertainty regarding the number of safety switches, some claiming four and others claiming six. Most accounts claim that all but one of the switches had been set off. When excavators located the second bomb, the safety switch was off, and the device was set to “arm.” However, it was later revealed that the aircraft breakup caused damage to some switch contacts, making the switches ineffective. The indicator had likely been rotated to “armed” due to the impact. Had this gone differently, a nuclear explosion equivalent to nearly 3.8 million tons of TNT might have devastated the eastern North Carolina town of Goldsboro and the surrounding vicinity.

News of the crash shocked the small farming community, especially as they learned of its deadly cargo. However, information about how close the bombs came to detonation remained classified until 2013, when a FOIA request by Command and Control author Eric Schlosser revealed additional details about the bomb’s safety mechanisms.

To reduce the risk of accidental or unauthorized nuclear detonation, newly elected President John F. Kennedy ordered a reduction of Strategic Air Command alert activity, and the installation of permissive action links (PALs), which required a secret code to activate a nuclear bomb.