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Rough ~~Draft~~

SUMMARY OF AIR FORCE NUCLEAR ACCIDENTS RS 1544/~~4406~~

(S-RD) (Gp-1) There have been numerous BROKEN ARROWS which resulted in loss or destruction of radioactive material. From each of these events we learn something that contributes to nuclear safety. Occasionally, it is worthwhile to reflect back and see where we have been. We certainly hope that a BROKEN ARROW will not occur but if it does the past should give us a guide to the future and how to better cope with it.

DATE	SYSTEM	REMARKS
1950		Aircraft malfunctioned and icing conditions resulted in deliberate jettison of weapon. Crew bailed out of aircraft.
1950		Aircraft departed during darkness and crashed into mountains 5 miles from end of runway. Weapon broke open upon impact. HE was scattered and burned. Detonators were installed and a training capsule was aboard the aircraft.
1950		Aircraft was on a routine mission flying at 7,000 feet on a clear day. Aircraft nosed down and flew into ground. Weapon HE detonated upon impact. No capsule was aboard.
1950		Aircraft lost engine on takeoff and attempted to swing around for emergency landing but crashed near base trailer court and burned. Fire was fought for 12-15 minutes before weapon detonated. Several individuals were killed. No capsule was aboard.
1952		Personnel error resulted in operation of release mechanism. Weapon was inadvertently released. No detonation occurred.
1956		Normal operating and preflight checks were being made. The manual U-2 locking pin was removed and four minutes later the weapon fell through closed bomb bay doors. Weapon did not burn or detonate; six detonators were smashed. Faulty pneumatic system wiring insulation and safety switch caused release.
1956		[redacted] The aircraft penetrated the bunker, impacted on one weapon and pushed it into two other weapons. Weapons were severely damaged, but did not burn or detonate. DOE b(3)
1957		Aircraft was on downwind leg of landing pattern when weapon was released. [redacted] Weapon release was caused by crew member grasping exposed release cable. DOE b(3)
1957		[redacted] The capsule in the M-102 case remained intact but was slightly damaged by heat. DOE b(3)
1958		Aircraft was involved in a mid-air collision with F-86 aircraft. [redacted] No fire or detonation occurred.
1958		Landing gear collapsed during aircraft ground movement. This caused aircraft to break apart and burn. [redacted]
1958		[redacted] HE detonated on impact. Damage occurred to civilian property.

DOE b(3)

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DATE	SYSTEM	REMARKS
1958		Due a faulty ATO bottle, aircraft caught fire during takeoff and crashed from an altitude of 1,500' [redacted] DOE b(3)
1958		During pilot's acceptance check, ATO bottles inadvertently discharged and aircraft caught fire. Firefighting efforts began quickly but were abandoned when fire engulfed the bomb bay. A minor explosion of undetermined origin was observed while aircraft and weapon burned.
1959		Three fuel tanks were inadvertently jettisoned from a parked aircraft. [redacted] DOE b(3)
1959		[redacted] Aircraft burned and one weapon was destroyed by fire. The other two weapons were salvaged. No detonation occurred.
1959		A mid-air collision of a B-52 and KC-135 aircraft resulted in both aircraft being destroyed. [redacted] DOE b(3)
Missouri 1960		Missile helium tank exploded and fuel burned. Missile and warhead were destroyed by fire, but no detonation occurred. Radiation was confined to missile launch area.
Goldsboro N.C. 1961		Aircraft crashed following rupture of wing tank. [redacted] One weapon parachute deployed and weapon received little damage. The other weapon broke apart upon impact. No detonation occurred. DOE b(3)
Utah 1961		Aircraft crashed due to fuel starvation. [redacted] There was no fire or detonation. DOE b(3)
Cumberland Md. 1964		Aircraft encountered severe turbulence, lost vertical stabilizer and crashed. Minor weapon breakup occurred. The two weapons were exposed to minor fire; however, there was no detonation.
Ellsworth 1964		[redacted] A short circuit resulted in the firing of one retrorocket. RV was torn from missile by overpressure from the fired retrorocket. RV fell to the floor of the silo; however, no fire or explosion resulted. RV and warhead were damaged beyond use. DOE b(3)
Dunbar AFB 1964		During taxi operations for Coco alert, main landing gear collapsed when it struck an obstacle. [redacted] The HE burned, however, there was no explosion. Radioactive contamination presented no problem. DOE b(3)
Wright Patterson 1965		An inadvertent disconnect of a refueling hose resulted in a C-124 being engulfed in flames. [redacted] DOE b(3)
Spain 1966	B-52/Mk 28	A B-52 and KC-135 aircraft collided during mid-air refueling. Four weapons in the MHU-20/C Clip-In were torn loose from forward bomb bay. Upper-left weapon deployed the 16' parachute and was recovered relatively intact. Upper and lower right weapons had an HE detonation on impact and scattered Pu over approximately 600 acres. Squashes, parachutes, and other components were recovered. The lower left weapon fell parachute-retarded into the Mediterranean Sea about 8 miles east of the collision point. US Navy recovered this weapon intact from 2850 feet below the surface.

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