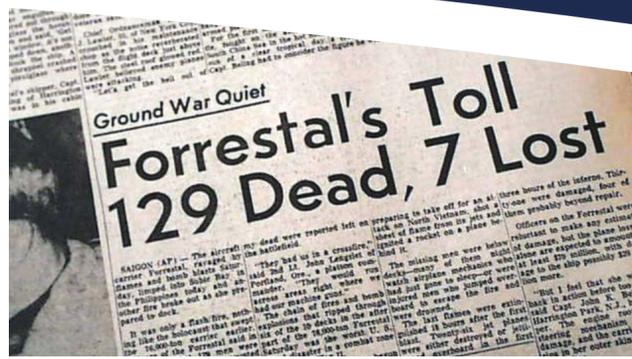


USS Forrestal, Gulf of Tonkin, Vietnam – 29 Jul 1967



On the 29th July 1967, the USS Forrestal was operating in the Gulf of Tonkin and was in the process of launching strike aircraft. A Zuni rocket which was loaded on an F-4B aircraft inadvertently fired when the aircraft switched from "external" to "internal" power; maintenance crews had circumvented both independent safe and arm systems in an effort to save time. The rocket struck another aircraft approximately 30 m away, rupturing a 1500 l fuel tank and igniting the JP-5 fuel beneath the aircraft.

The flow of the flaming fuel, burning rocket propellant, and wind across the flight deck created a large area of flame and intense heat in an extremely short time. The first major explosion occurred 94 seconds after the rocket fired. It spread the fire to the group of loaded aircraft on the starboard side aft of number 4 elevator.

The second explosion was even more violent, hurling bodies and debris up the box and spreading the fire to the five F-4 and RA-5C aircraft on the starboard side aft of the island. These two detonations decimated the fire fighters, riddled and threw back the hoses, and terminated the initial frontal assault on the fire.

The sequence of major explosions continued with violent detonations for about 5 minutes after the initiation of the fire. During this early phase, aircraft were moved forward and disarmed on the bow and ordnance located on the starboard side of the island, originally intended for the next air strike, was jettisoned. Similar jettisoning was in progress on the hangar deck and strike-down of ordnance to the magazines on the second deck assembly areas was begun.

After the major explosions ceased, firefighting quickly became effective despite continuing explosions of minor ordnance, internal fuel tanks, and ejection seats. The fire on the flight deck was then controlled and extinguished without serious difficulty.

As far as can be determined, the U.S.S. Forrestal was subjected to high order detonations of one 500 lb bomb, one 750 lb bomb, and seven 1,000 lb bombs. The incident was exacerbated by the presence of WWII era 1000 lb bombs, some manufactured as early as 1935, which were in poor condition and contained an explosive notoriously sensitive to heat and impact. In addition, 150,000 l of jet fuel from aircraft on the flight deck was ignited and contributed to the damage.

The disaster resulted in 134 deaths, 161 injuries, the destruction and damage of over 60 aircraft, and US\$74 million in damages.

The major outcome of this accident was an increased concern with the cook-off characteristics of aircraft munitions. The establishment of the modern Insensitive Munitions (IM) programs are a direct result of this accident.

134 Fatalities

161 Injuries

US\$72 Million Damages (1967)