

quickly removed from the aircraft with a minimum of personnel, by dragging them to and throwing them down a slide. An inflated slide does present a significant obstacle to firefighters attempting to enter an aircraft for interior fire attack and rescue. Once it is determined that evacuation has ceased, escape slides may need to be deflated or removed to facilitate entry into the aircraft. All escape slides can be used as rafts, so there is a simple process to disconnect them from the bottom doorsill.

Is opposing hose lines a problem while attacking aircraft interior fires? Although it is traditionally not one of the most desirable tactical situations, it may be unavoidable during an aircraft interior fire. As discussed previously, it is too important to access every opening for ventilation and possible rescue. Also the more agent applied through the most openings will facilitate quicker extinguishment. The faster the fire is controlled, the sooner firefighters can enter the interior and conduct further search and rescue. Also interior temperatures will be lowered to more survivable levels.

The NTSB showed rare behavior by holding ARFF accountable during the investigation. The airport fire chief was grilled during NTSB hearings regarding the response. He had to come up with reasons or excuses regarding certain things that happened or did not happen. Most important in the eyes of the NTSB was why the tail cone was not jettisoned by ARFF and why the two persons who perished in that area not rescued.

Another incident of interest occurred in 1988, when a 727 low impact crashed shortly after takeoff. There were 108 persons and 4,776 gallons of fuel

on board. The aircraft struck the ILS localizer antenna array and came to a rest 3,200 feet beyond the departure end of the runway, near the airport perimeter fence. The aircraft fuselage broke into three sections. The nose snapped off forward of the forward bulkhead and rotated onto its left side. The tail separated forward of the left rear galley area and service door.

The NTSB determined that although the fuselage had separated in two areas, the occupiable volume of the cabin was not substantially compromised. Survivors generally stated that impact forces were not severe. None of the passengers received incapacitating injuries that would have prevented their escape. Fire ensued after the right wing contacted the ground, quickly spread to engulf the right rear, and then penetrated through the fuselage separation. The aft cargo door was ripped off and fire spread into the cargo hold and through the cabin floor. The aft fuselage section had also rolled to the left under the number one engine was resting on the ground, as well as rotated counterclockwise which open 45 degrees gap on the left side. The entire aft fuselage section sustained various degrees of breakup and fire damage.

The center fuselage section came to rest right side up, supported by the remains of both wings. Approximately two thirds of the left side showed no evidence of fire damage and the windows were in tact. The remaining rear third of the left side showed varying degrees of fire damage to where the fuselage structure was consumed by fire in the area of the tail separation. More than half the right side sustained fire damage with some fuselage areas totally consumed by the fire. All the passenger windows on the right side were missing or melted. Two

large openings were burned away in the fuselage crown. There was a large area of burn-through in the cabin floor. Fire damage was extensive throughout the main cabin rearward of the forward fuselage break. The NTSB determined that fire blocking in the seat cushions did slow the interior fire spread and extended the interior survival time. The report also stated that both ends of the fuselage were open at the top and most of the circumference, allowing smoke and heat to vent and drawing in cool, clean air.

The main entry door separated from its hinges and was found on the ground. The forward service door (R1) frame was extensively damaged and the door was lodged in the wreckage. The right rear service door (R2) was relatively in good condition and was not opened. The aft air stairs and access door were not openable or usable. Both left side over-wing hatches were opened. One was found outside the aircraft and the other inside. The forward right over-wing hatch had been opened and was found inside the aircraft.

The left rear galley service door (L2) was found closed, but there was evidence of attempts to open the door. Ten (10) bodies were found in the galley area. As part of the investigation, an attempt was made to open the door from the outside, but was not successful because of debris on the floor. After the debris was removed, a second attempt was made to open the door from the inside. It was difficult to move the door inward because of the 30 degree down slope of the floor. With help from both inside and outside, the door was opened. An attempt to fully close the door was not successful. The NTSB concluded that the door could not be opened due to deformation of the door frame caused by the aircraft repeated ground impacts.