

The positions of the bodies in the galley, as well as the downward slope of the floor, indicated that the panicked passengers were pushing against the Flight Attendant trying to open the door.

Two passengers escaped out the main cabin door (L1). Most of the survivors escaped out the left over-wing exits or through the large holes in the fuselage. Of the persons on board the flight, (12) passengers and (2) cabin crew perished. Eleven (11) passengers and two (2) Flight Attendants died of smoke inhalation. A fourteen person has successfully escaped the aircraft, but reentered, and died of severe burns eleven days later. The Flight Crew all were dazed and suffered serious internal trauma that prevented their self-evacuation. (21) passengers and (5) crew were seriously injured. (68) persons suffered minor or no injuries.

All ARFF units responded from four airport fire stations. Three ARFF units arrived within (5) minutes of notification and reported the aircraft was engulfed in fire. Flames had already burned through the forward roof area and fire was visible in the breaks in the fuselage and through the windows. The last of the survivors were evacuating the aircraft and reported being sprayed with foam. Three more units arrived within (6) minutes and the remaining five units within (11) minutes. The bulk of the fire was knocked down in five (5) minutes and fully extinguished in forty (40) minutes. 15,800 gallons of water and 650 gallons of foam concentrate was used. Approximately sixty (60) firefighters responded to the incident.

After the driver of one of the two first arriving ARFF units expended his agent to extinguish the exterior fire, he extended a

hose line from another ARFF unit up a ladder, into the forward fuselage through a hole in the roof. He used this hose line to extinguish much of the interior fire and prevent extension into the flight deck, until the trapped pilots could be rescued.

The incident again emphasizes what one hose line will accomplish on an aircraft interior fire. This is basic structural firefighting tactics, positioning a hose line between the fire and uninvolved areas and trapped persons.

Why wasn't the right rear galley service door utilized by the ten persons trapped in the galley or by firefighters to gain access to this area? This door was directly across the galley from the left rear door. Did the leaning of the tail section to the left make the floor too steep to access the door or raise it enough to prevent its operation by firefighters outside the aircraft. If the door was opened from the inside or outside, it would fall half open. Plug type doors will first swing inward, opening the door about halfway, before it has to swing out the opening and forward to fully open. It would have probably taken monumental strength to fully open the door from inside or outside due to the leaning of the tail section and the weight of the door.

Firefighters opening the left rear galley door from the outside was probably impossible due to the damaged door frame, downward slope of the floor, and the probability of bodies stacked against the inside of the door. The door had been cracked open slightly indicating that someone inside had tried to open it. Should this have been interpreted to mean persons might be incapacitated just behind the door, as was the case in this incident?

If access is not possible through normal entry and exit points, the next choice is crash-caused open-

ings. Passengers had escaped out of and firefighters had entered a crash caused opening in the front of the aircraft. Could firefighters have entered the break in the fuselage between the tail and the middle sections and performed interior firefighting and rescue? This was a location with a lot of fire when ARFF first arrived on scene. The tail had moved to the right 45 degrees from the main fuselage, creating a gap on the left side. Could an opening have been made with a rescue saw or other forcible entry power tools in the side of the fuselage that would have permitted the timely rescue of the ten persons trapped in the galley? We will never know this.

The fact is true that passengers will move towards all the available doors and over-wing exits in an attempt to evacuate. Any closed door or hatch on an aircraft with an interior fire could have persons trapped immediately behind it. The ultimate goal of responders should be to eventually and as quickly as possible access interior areas adjacent to all exit points. The NTSB report also discussed how vertical ventilation will remove smoke and heat, drawing in clean, cool air. This will increase survivability time and reduce interior fire damage.

ENGINE DISINTEGRATION STARTS INTERIOR FIRE ON CARGO AIRCRAFT

In 1991, an uncontained number 3 engine disintegration, during a takeoff roll, started an interior fire on a 727 cargo freighter. There were three persons and 3,000 gallons of fuel on board. The engine explosion ruptured and ignited the main fuel line, sending flames into the rear main cargo area. Shrapnel from the engine also penetrated the aircraft fuselage. Heavy acrid smoke quickly spread throughout the interior of the aircraft. The aircraft stopped