**Assignment No.3**

**Identify circumstances that lead to the failure of system and suggest aspects of system engineering process**

**Aim:** To conduct research to identify circumstances that lead to the failure of system and suggest aspects of system engineering process that may not have been followed correctly.

### Brand failure- Pan American Airline

### Pan American World Airways, commonly known as Pan Am, was the principal and largest international air carrier in the United States from 1927 until its collapse on December 4, 1991.

* Pan Am commissioned IBM to build PANAMAC, a large computer that booked airline and hotel reservations, which was installed in 1964. The airline also built world port, a terminal building at John F. Kennedy Airport in New York which was distinguished by its elliptical, four-acre (16,000 m²) roof.
* It carried 6.7 million passengers in 1966, and by 1968, its 150 jets flew to 86 countries on every continent except for Antarctica.

**Key problems:**

1)A Public relations failure:

1. On September 6, 1970, two men hijacked Pan Am flight 93, a Boeing 747 en route from Amsterdam to New York.
2. On December 17, 1973 five Palestinian terrorists bombed Pan Am flight 110 while passengers boarded, killing 30 people.
3. On July 9, 1982 Clipper Defiance, a Boeing 727 crashed minutes after takeoff from New Orleans Airport in the worst accident in aviation history. All 145 passengers and crew members perished, as well as eight people on the ground.

2) Lost basic trust of security in its customers:

1. Pan Am Flight 103 : On December 21, 1988 Pan Am flight 103 flying from London Heathrow Airport to New York John F. Kennedy Airport, was blown up and crashed on Lockerbie, Scotland when an explosive was detonated in its forward cargo hold.
2. A total of 270 people lost their lives

3) People started associating Pan Am as a major target for terrorists.

**Alternatives:**

1. Despite the company’s constant promises of commitment to increasing its airline’s security, the public was simply not willing to fly with Pan Am anymore.

But, after three years of flying with empty seats since Pan Am flight 103 disaster, in 1991 the company went bankrupt and shut down.

**Proposed Solution:**

1. Pan Am would have been saved from shutting down if they would have concentrated on security.
2. This solution was chosen because they face around 103 disasters which resulted in people losing faith in company and their security.
3. At that time all other airline companies had very good security so people preferred them over Pan Am.
4. Less focused was given on customer needs i.e. security of customer.

**Recommendations:**

1) Pan Am should have increased the security checkup of customer and also its staff members.

2) They should have kept better communication with on journey airports.

3) They should have included new technologies like metal detectors and scanner of detection of explosives.

4) Authorities of Pan Am were solely responsible to include this changes which would have Stop Company from failure.

**References:**

1. <https://www.slideshare.net/dharamp100/brand-failure-pan-american-airline>
2. Wikipedia