

1990: BAC1-11 Southampton

■ General context

- Commercial flight Birmingham-Malaga.
- Weather fine, and morning time
- 6 crew members
- 81 passengers

1990: BAC1-11 Southampton

■ Operational context

- 13 minutes after TKOF during climb at 17,300 feet
 - Explosive **decompression**
 - Captain windscreen had blown out
 - Cockpit door is sucked from its hinges and land on the central console
- Captain
 - Partially **sucked** outside because he had released both his seatbelts and shoulder harness
 - His legs had become trapped in around the control column forcing it **forward**
- As a consequence:
 - A/P was disconnected
 - The plane began to dive and roll...

1990: BAC1-11 Southampton (con'd)

- Operational context (con'd)
 - OAT -17°C
 - Cabin attendant (in the galley) grabbed the Captain around the waist in an attempt:
 - To pull him back into the cockpit.
 - And release his feet from the control column.
 - FO:
 - Regained control at 11,000 feet,
 - Reducing speed to 180kt
 - Reengaged the A/P
 - Chief steward:
 - Cleaned the cockpit
 - Strapped himself into the left observation seat
 - Held onto the Captain's feet to assist his colleague.

1990: BAC1-11 Southampton (con'd)

- Operational context (end)
 - FO:
 - Managed to land in Southampton
 - No documentation
(all maps, charts and manual had been lost in the blow-out)
 - Radio transmission very difficult due the noisy air stream
 - At 300 feet
 - Captain moved his legs
 - BAC1-11 landed **safely** at Southampton.

1990: BAC1-11 Southampton (con'd)

■ Consequences

- Pax shocked but unhurt
- Captain:
 - ➔ Broken
 - × Right arm
 - × Wrist
 - × Left thumb
 - ➔ Bruising
 - ➔ Frostbite
- Cabin attendant
 - ➔ Suffered from frostbite and bruising
- Aircraft
 - ➔ Left windscreen missing.

1990: BAC1-11 Southampton (con'd)



1990: BAC1-11 Southampton (con'd)

■ Analysis

- The windscreen had been **replaced** just 24 hours before the flight,
- **Wrong size bolts** (90) were used to fit the new window
- Although the difference in size was minimal (**1/10 mm below** the required diameter), it was enough to cause the windscreen to blow out.

1990: BAC1-11 Southampton (end)

■ Causes (AAIB)

- Windscreen fitting process was characterized by:
 - ➔ Series of poor work **practices**
 - ➔ Poor **judgments**
- The windscreen installation was:
 - ➔ **Not** designed “Vital Point”
 - ➔ Therefore not involving an independent final inspection
- Shift Maintenance Manager work was not subject to review by another manager
- The CAA supervisory:
 - ➔ Was superficial
 - ➔ Not supposed to monitor the working practices of the Shift Maintenance Manager.