



# National Transportation Safety Board

Left Engine Failure and  
Subsequent Depressurization  
Southwest Airlines Flight 1380  
Boeing 737-700  
Philadelphia, Pennsylvania  
April 17, 2018

Aircraft Structures  
presentation

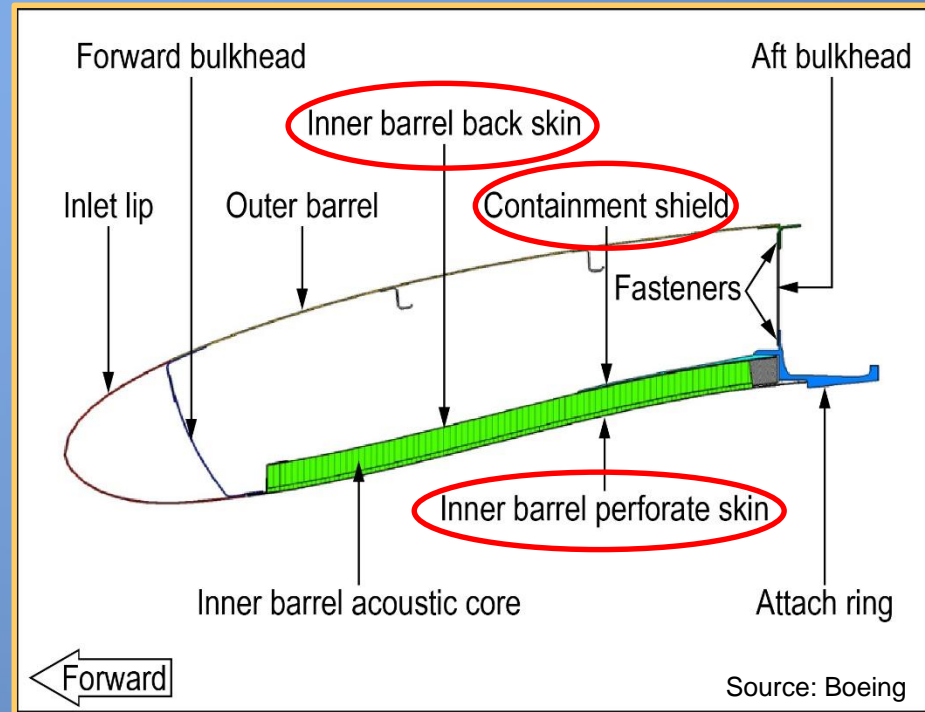


# Inlet Design Overview

## Right Engine Inlet



## Inlet Cross-Section





# Inlet Failure

Inboard View



Outboard View

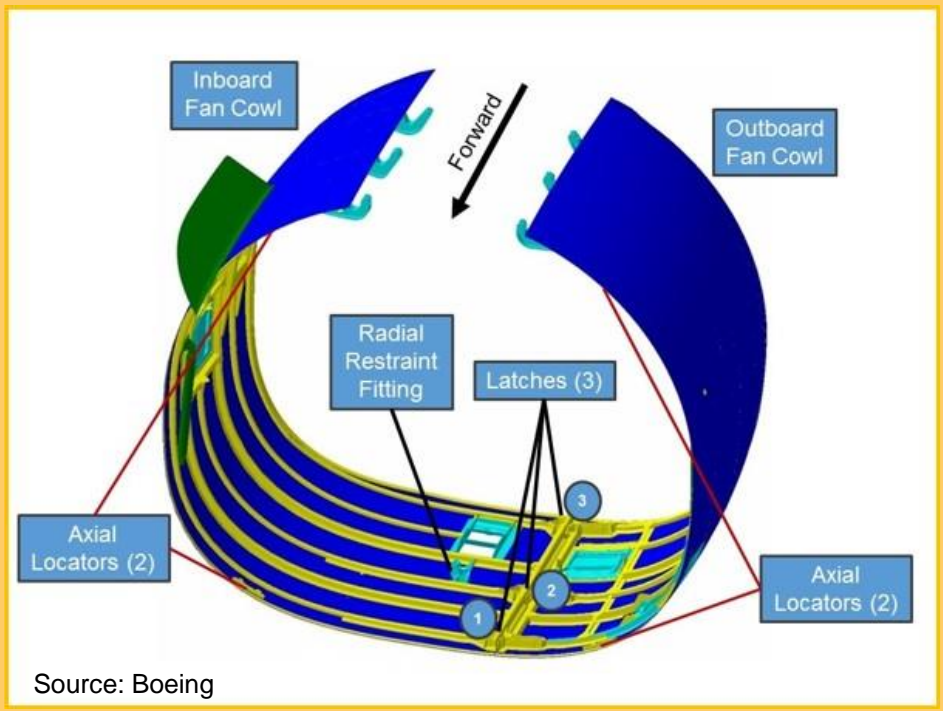


# Fan Cowl Design Overview

Right Engine Fan Cowl



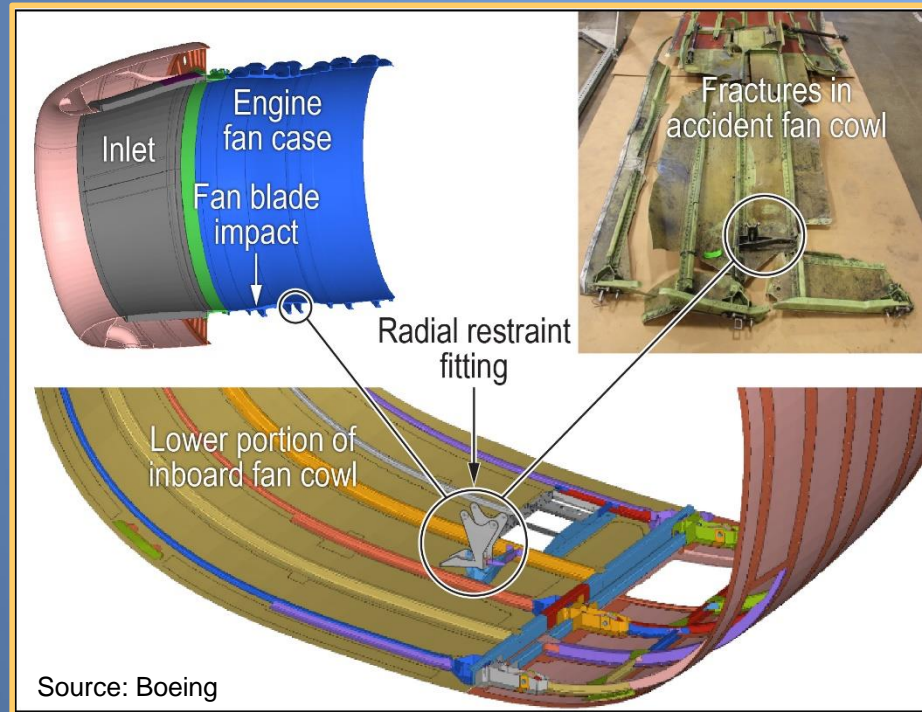
Left Engine Fan Cowl



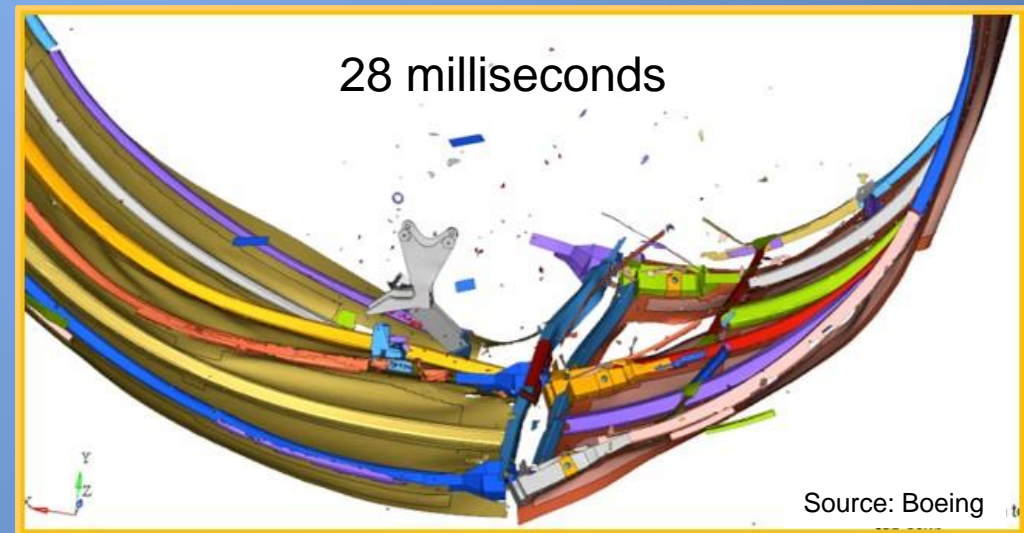


# Fan Cowl Failure

## Radial Restraint Fitting



## Structural Analysis Results



# Accident Sequence

## Inboard Aft Latch Trajectory



## Fan Cowl Impact





# Summary

- Design changes to ensure structural integrity of Boeing 737 next-generation fan cowl structure after fan-blade-out event
- Determination of other susceptible airframe and engine nacelle combinations
- Structural analysis of nacelle structure for all engine operating conditions



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