

PRESSURIZED ZONE

# FUSELAGE Mid-Wing

ZONE 1

## Fuselage Mid-Wing

Forward barrel section plus center section and aft-of-wing barrel section (pressurized passenger / crew cabin)

The main passenger cabin, crew and galley areas are housed in the fuselage mid-wing. This pressurized zone is characterized by moderate environmental stress factors such as fluid condensation, humidity, temperatures in the -65° to +95°C range, and moderate dynamic vibration. The electrical wiring interconnect system utilizes mostly conventional interconnect technology, with an emphasis on general weight reduction, reliability, and speed-of-assembly. Production breaks are a significant challenge for the EWIS engineer, with cost control of interconnect interfaces a principal design requirement. The pressurized interface between the mid-wing fuselage and the wings requires careful attention in the specification and use of pressure bulkhead feedthrus.

Zone 1 Application Guidelines	
Environmental Stress Factors	Applicable RTCA/DO-160 Requirements
Vibration	DO-160 Category S and H (Table 8-1)
Shock	DO-160 Category A, Test Procedure 1
Ground Survival Temperature	-65° to 95°C; DO-160 Category A3 (Table 4-1)
Pressure Differential	Sea level to 10kft; DO-160 Category A3 (Table 4-1)
Operating Temperature	-55° to 85°C; DO-160 category A3 (Table 4-1) with Temperature change rate per DO-160 Category A (10 C min per minute)
Moisture	Exposure to humidity and condensation; DO-160 Category B



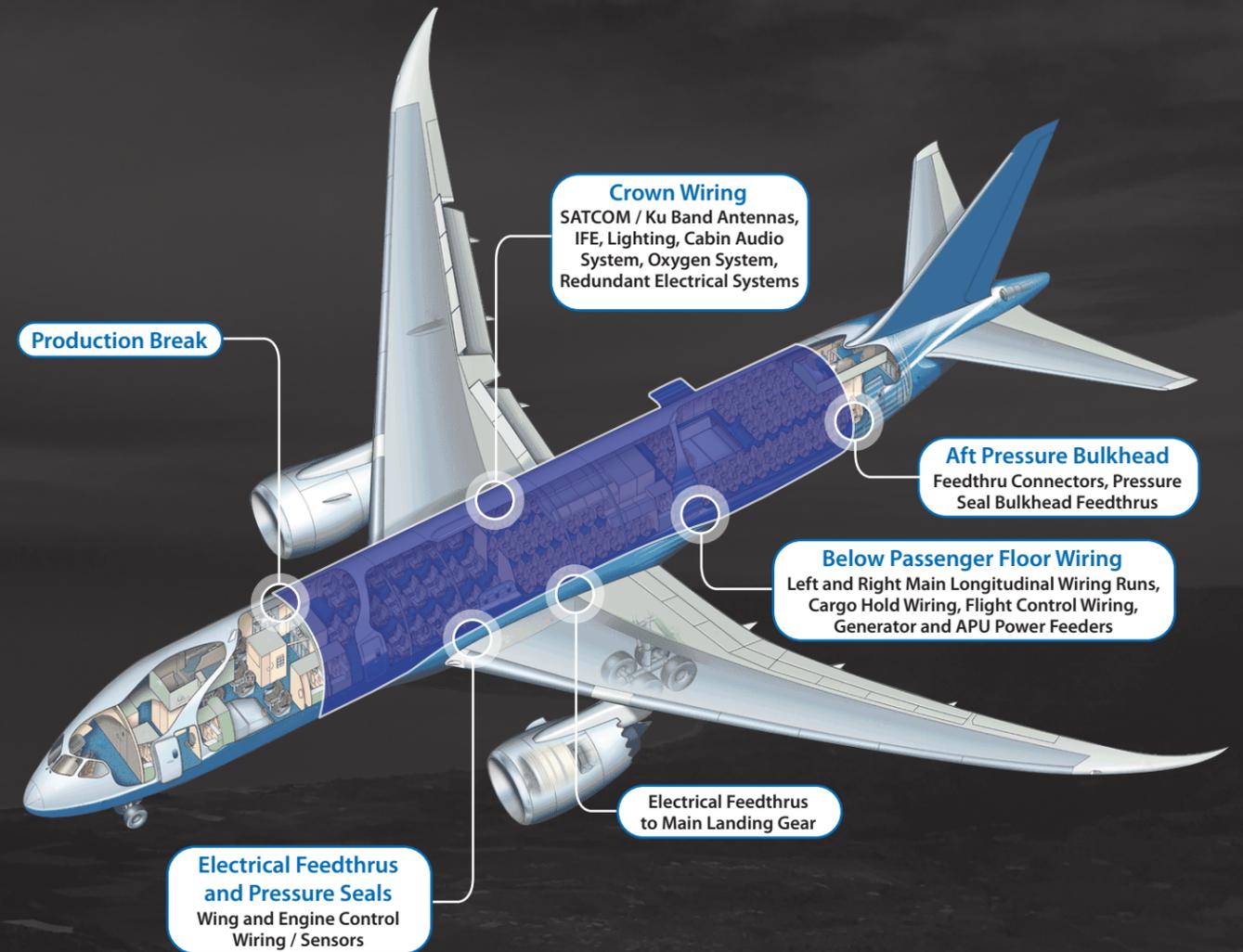
### Glenair SpliceSaver™

- Crimp wire termination solution saves time and labor over manual DO150 splicing
- Ideally suited for crown and floor wiring in Zone 1
- Three versions: single-piece, Spirallock®, and bussed
- Features Stinger™ crimp contact technology with integrated retention mechanism
- Small form-factor and lightweight composite
- Supports 1–3 wire terminations

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EWIS Technologies that Improve Harness Assembly Speed and Reliability in Pressurized Passenger / Crew Aircraft Zones



### DUMMY CONTACT SEALING PLUGS (DCSP)

- For reliable sealing of unused contact cavities—without the use of electrical contacts
- Ideally suited for Zone 8
- Powerful tool in EWIS weight reduction
- Leverages connector contact clip for secure retention of the sealing plug—no FOD
- Easy-to-install single piece design
- Visible quality control / confirmation of cavity fill from back of connector
- EWIS compliant test report available, ref. GT 15-106

