Cessna
A Textron Company

Composite Fuselage Crashworthiness

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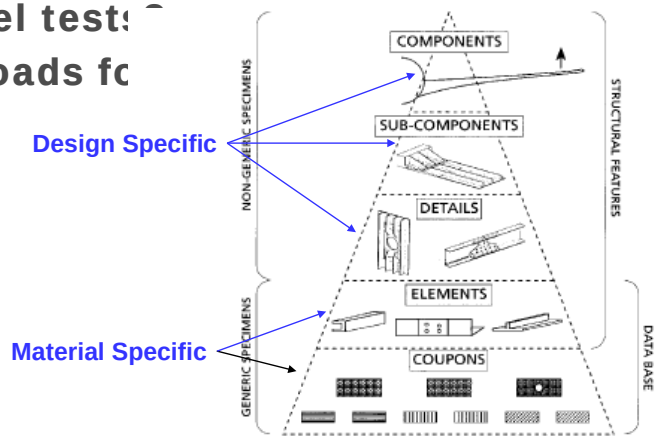
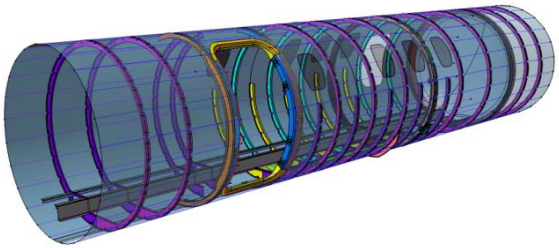
Current activity

- **Conducting R & D to determine risks, costs, benefits of a composite fuselage.**
- **Crash Loads-Data and Analysis**
  - **Starting with the building block approach with material properties, crippling, column, strain rate, etc.**
  - **Conducting literature searches for test data (CMH-17, NIAR) Much of the data is for larger / thicker structure.**
  - **AC20-107B requires comparison to similar metallic fuselage structure. Component tests? Barrel tests**
  - **LSDYNA correlation for use in predicting loads fo other crash conditions.**



Questions



- Is 30 f/s the standard for comparison?
- Is a drop test required or impact tests on components?
- How much structure needs to be analyzed/tested?
  - Affect of fairings, bulkheads, door openings, landing gear position?

  How much floor deformation is acceptable?
- Are the products of combustion limits based on time of egress? (business jet is much less time than a 787)