

SPECIALTY SEATING CBA Certification Challenges

FAA/Industry CBA Meeting

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Goodrich Proprietary

Cabin Attendant Seating



Cabin Attendant Seat Types:

- Most are certified both forward and aft facing
- Wall mounted (monument or partition mounted)
- Floor mounted (hard point or floor track mounted)
- Wall or Floor mounted Crew rest (high comfort)

Certification challenges

- Floor warping
- Retention of items of mass
 - under seat & headrest stowage, handsets, etc.
- Aircraft axis cant angles
- Rebound HIC
- Seat closure post test

Certification by Analysis challenges

- Forward HIC tests are rare, rebound HIC can be an issue
- Might use for seat pan cushion changes (lumbar loading)
- Too many joints to model accurately enough to show post test seat closure
- Majority of test failures occur at seat joints requiring detailed joint FE modeling





Cockpit Seat Types:

- All certified forward facing
- Pilot/copilot
- Flight engineer
- Observer

Certification challenges

- Floor warping
- Complex test setups
- Glare shield/ HUD HIC

Certification by Analysis challenges

- HIC tests?
- Might use for seat pan cushion changes (lumbar loading)

Business Jet PAX Seating



Seat Types:

- Most certified forward and aft facing
- Most have swivel and lateral motion

Certification challenges

- Floor warping
- Retention of items of mass
- Row-to-row HIC

Certification by Analysis challenges

- HIC tests?
- Might use for seat pan cushion changes (lumbar loading)



Seat Types:

- Most certified forward and aft facing
- Most have vertical energy attenuators

Certification challenges

- Floor warping
- Energy attenuators (required to pass lumbar loading)

Certification by Analysis challenges

- Energy attenuator
- HIC tests?
- Might use for seat pan cushion changes (lumbar loading)

