

COMPOSITE INTERIOR PANELS

WHAT

PROJECT MANAGER:
Steve Crouch, Composites Innovation Centre

INDUSTRY PARTNER:
EMTEQ

MAJOR CONTRIBUTORS:
The Composites Research Network

VISION

- To design and develop an interior panel solution for aircrafts with the goals of improving visual aesthetics and durability
- To develop a composite manufacturing capability that demonstrates new technology including out-of-autoclave (OOA) and heated tooling processes optimized for lean manufacturing

SUCCESS

- The project successfully demonstrated an OOA, heated tooling process for aircraft interior panels that enables a one-piece manufacturing flow.
- EMTEQ successfully completed first article inspection and delivery of production parts to their customer and achieved tremendous growth internally with the OOA capability.
- The CIC helped to create the Complex Layup and Bagging Workshop to educate the composite community on advanced technologies.

PROJECT HIGHLIGHTS

- The creation of extensive pre-production risk-reduction activities to make sure that EMTEQ had a safe working environment for its employees
- Updated EMTEQ's internal documentation to accommodate aerospace composite manufacturing requirements
- Tested and applied a self-heated tooling manufacturing process that allowed EMTEQ to have good temperature uniformity and control without taking up a lot of space.
- Produced first article inspection and first ship-set production parts

VALUE

- Created a new OOA aerospace composite manufacturing capability with a Manitoba company
- Demonstrated a self-heated tooling technology that can be transferred to future work packages
- Established a collaborative relationship between the CIC, EMTEQ, and the CRN
- Helped EMTEQ to introduce composites into its manufacturing capabilities and gain new clients for those composite parts

