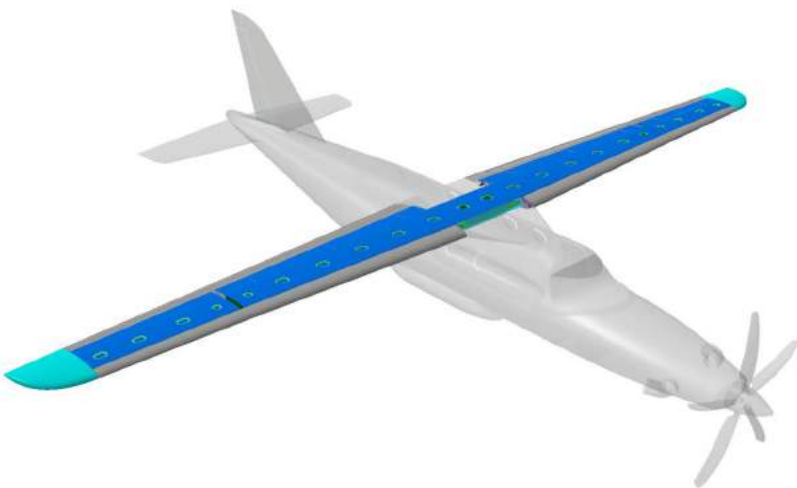
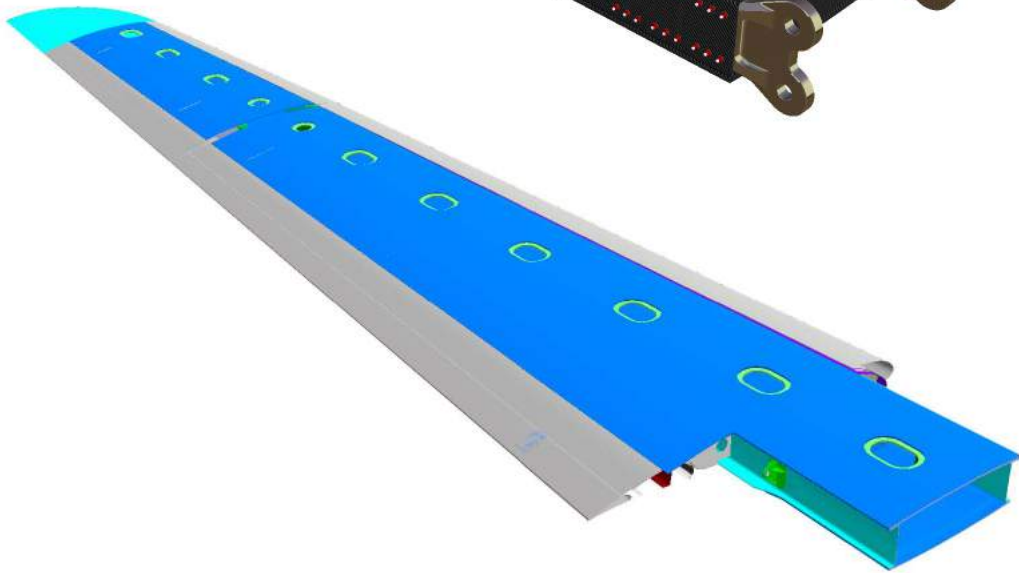




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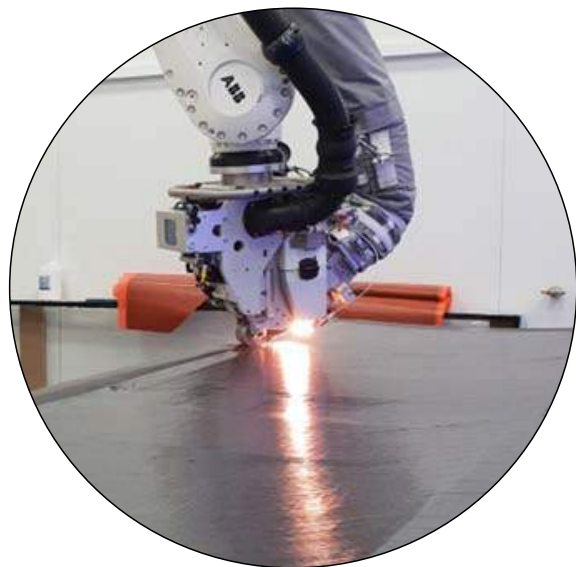


Comprehensive fatigue tests
have validated the strength
of our sandwich structure
composite wing demonstrator

**WING BOX
DEMONSTRATOR**

CHARACTERISTICS

Łukasiewicz – Institute of Aviation offers design, materials selection, manufacture and test of the most stressed part of the wing structure – the central part of the wing box for normal category (FAR Part 23) aircraft.

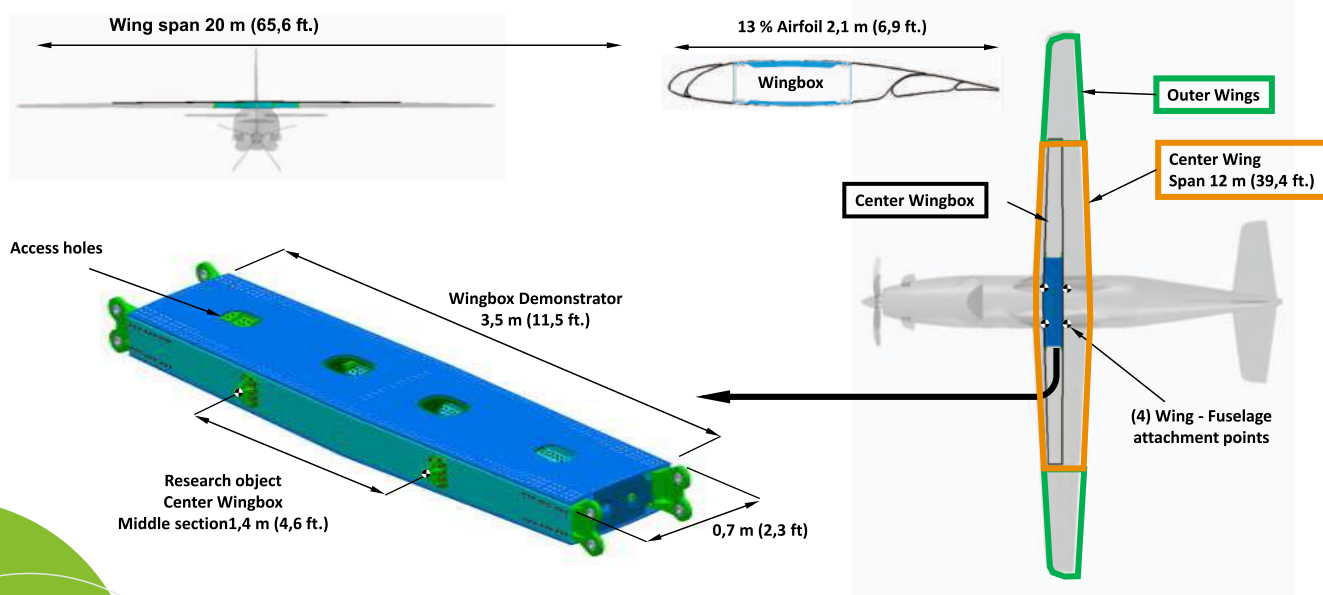


KEY FEATURES

- Aircraft take-off weight of 4740 kg.
- Sandwich wing covers structure.
- Access covers on top of the wing.
- Out-of-autoclave curing processes.
- Automated Fiber Placement utilized in Wing Covers.
- Thermoplastic press forming for secondary structure parts – supporting Ribs.

Tests and research methods:

- durability and Damage Tolerance,
- stress analysis methods,
- digital Image Correlation,
- comprehensive fatigue test,
- damage tolerance and repair.



The Łukasiewicz Research Network – Institute of Aviation

offers a wide range of specialized research, engineering services and products. We provide comprehensive solutions, ranging from dedicated analyzes, simulations, engineering design, through the selection, testing and certification of materials and structures, to rapid prototyping and additive manufacturing.

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