Kellstrom Defense has developed a patented, proprietary, and proven process to replace wing skins on military aircraft.

This innovative life extension solution provides substantial cost savings and schedule improvement compared to the full wing replacement alternative.

Once the wing skin is removed, complete inspection (NDI) of the entire wing ribs, spars, attachment points, and supports is performed. Wing structural components are repaired or replaced as required. Additional inspections include the Electrical Installation, Fuel Installation and Hydraulic Installation. Upgrades to these systems can also be incorporated during repairs. Finally, a newly manufactured wing skin is installed. The result is a completely repaired and refurbished main wing at a reduced cost and lead times as compared with the traditional replacement methods.

**Development Objectives**

- Replace wing skins that display either corrosion problems and/or life limiting crack growth beyond acceptable limits.
- Develop cost effective method for repair as compared to new manufacture of wing assembly.
- Allow for the entire wing structure to be inspected and repaired as required. Provide technicians access to internal components of the wing for inspection and if required repairs and/or upgrades:
  - Electrical Installation
  - Hydraulic Installation
  - Fuel Installation

**Benefits**

- Substantial cost savings
- Schedule improvement compared to full wing replacement alternative

**Applicability**

- Replacement wing cost - +$2.5M, +3 years delivery
- 4x less than the cost of a new wing
- Shortened delivery time by a factor of five
- The manufacturing of this product is protected by U.S. Patent Numbers: 9,598,183, 9,731,809, 9,731,842, 9,850,006, and 9,850,007. Additional Patents Pending.