CRMA has been developing multiple repairs for the Turbine Center Frame (TCF). In addition, the introduction of light workscopes delivers cost and time savings for customers. CRMA is a Primary Source for Engine Alliance’s GP7200 TCF and the only non-OEM shop to perform such repairs.

The issue
There were no existing repair solutions for TCF liner parts that were systematically replaced by new ones instead of being repaired. TCF maintenance costs were substantial and damaged parts were sitting on shelves waiting for new repairs to be developed. Furthermore, the heavy TCF workscope implied the module’s complete disassembly and systematic inspection of all parts, increasing processing time and scrap rates.

The adaptive solution developed by AFI KLM E&M
CRMA is proactive when it comes to developing repairs: 11 repairs have been developed for the TCF over a period of two years. These salvage solutions are applied on the most expensive TCF parts: the 36 flowpath parts of the liner assembly, affected by fretting and corrosion due to vibrations and the high temperature to which they are exposed during service. Salvage repairs are implemented to save between 50% and 70% of the liner assembly’s panels.

To support the industrialization of repairs, CRMA invested in machines such as 5-axis machine for fast and efficient parts processing. Tools were also developed to be custom-designed for the fairings and other liner parts, and then made using additive manufacturing. CRMA is using advanced technology to offer the best value with highest quality for its customers’ overhaul parts.

Implementation of light workscopes has shortened the TCF’s maintenance processing time and has reduced the exposure rate of the flowpath parts. As a result, the module can now be partially disassembled, with only the most damaged parts of the liner being repaired. CRMA is thus able to offer customers more cost effective repair solutions as an alternative option to a classic full overhaul.

Key benefits
- Cost reduction up to USD 1,250,000 per TCF
- Salvage repairs found for panels & fairings
- 50% to 70% of panels repaired instead of being replaced
- Light workscopes proposed for our customers
- OEM approved repairs
The MRO Lab
Adaptive Innovations

“The first shop worldwide developing GP7200 TCF panels repair”

This adaptive solution was developed by the CRMA Engineering team. For further information please contact your Sales Manager.