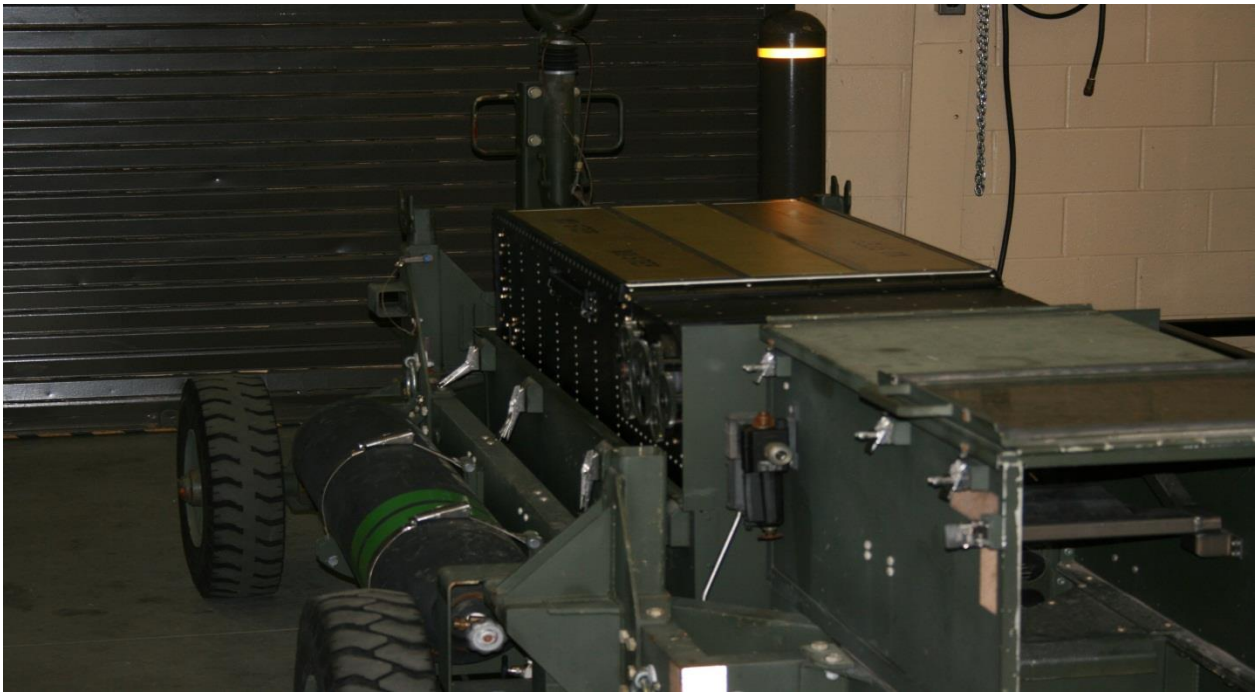

RIAC Success Story

RIAC Linkless Ammunition Loading System (LALS) Container Assembly Failure and Repair Analysis

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Customer:	US Air Force Support Equipment and Vehicles Program Office
Challenge:	RIAC was tasked to perform Failure and Repair Analyses to evaluate failures, address repair options, and determine if the new triple chain tensioner would be effective at reducing failures of the Linkless Ammunition Loading System (LALS) Storage Container. The objective of these analyses was to determine the cost effectiveness of implementing field level repair, depot level repair, or making the container a consumable item.
Approach:	The LALS Storage Container demonstrated reliable operation during testing and analysis. The container is effectively protected from major damage as long as the slip clutch is used in conjunction with the pneumatic drive tool to stop the LALS in the event of a jam anywhere in the ammunition conveyance path. The attrition of container assemblies in the field has been determined to be due to personnel damaging the containers beyond economical repair in order to extract rounds following a jam event.
Value:	The technical report includes revised procedures for ammunition jam clearing, structural repair, and structural inspection. These revised procedures provide more detailed guidance for maintaining and repairing

	the container. The jam clearing procedure uses a method that minimizes damage to the container. These new procedures result in containers being repaired at costs of $970-$7,900 per event versus being condemned and replaced at a cost of $109,000 for each container. There are approximately 370 LALS units in the US Air Force inventory which reflects potential cost savings of approximately $39,000,000.