

115' JET A1 TANK | COMMERCIAL AIRPORT

JET FUEL | AVIATION



OVERVIEW

A commercial aviation operator had an airport fuel storage tank due for an API 653 inspection. The airside environment created unique access and permitting challenges, particularly around crane operations, which require FAA approval, making a traditional out-of-service inspection extremely costly and time-consuming.

SOLUTION

Square Robot performed an API 653 compliant in-service inspection using its submersible robot equipped with 256-element phased array UT technology. The team deployed Square Robot's Incline Lift System to raise the robot to the roof manway, completely eliminating the need for a mobile crane and the FAA permitting process that would have accompanied it.

OUTCOME

The inspection covered 70% of the tank bottom in just 3 days, achieving a 15-year inspection interval. By substituting the Incline Lift System for a crane, the team avoided a lengthy FAA permitting process and kept operations running without interruption.

KEY IMPACT METRICS

- ✓ Eliminated 710+ confined space entry hours
- ✓ > 8,000 lbs of CO₂ emissions contained
- ✓ 70% floor coverage achieved in 3 days
- ✓ FAA permitting avoided via Square Robot Incline Lift System
- ✓ API 653 inspection interval of 15 years