

Asset Integrity

Case study: Quantified data for mooring life extension

Introduction

A SPAR platform in the Gulf of Mexico was projected to continue production past the original design life. To facilitate the new operating period, the client required quantifiable asset data in support of detailed mooring life extension assessments.

Solution

Our industry-leading Asset Integrity team have the experience and technology required to enable clients to adopt risk and condition-based asset maintenance. In many cases, this can allow asset life to be extended, at no cost to safety or performance.

Ashtead Technology provided a turnkey inspection service, generating real-world data including mooring chain measurements, 3D modelling, and wire rope cleaning and inspection.

Our specialists worked in conjunction with an engineering contractor over a one-week period to execute the life extension inspection on the SPAR, moored at 5,400ft water depth.

Our trained mooring inspectors used our optical Chain Measurement System (CMS), 3D Modelling, and mooring Rope Cleaning and Inspection System (RCIS) to gather the critical data.



Benefits delivered

Ashtead Technology's Asset Integrity team used a progressive inspection framework to efficiently gather the most valuable data for the offshore vessel time allocated. This ensured that costs and resources were utilised efficiently, cutting expenditure for the customer.

Chain measurements were used to calculate wear/corrosion rate and estimate future service life, with close visual inspection (CVI) of wire ropes following cleaning by the RCIS in order to assess wire rope condition.

Testimonial

"Using optical chain measurement technology for the bulk of the chain measurement and 3D photogrammetry for only the most degraded chain links, we were able to maximise vessel efficiency while providing detailed results with accuracy tolerances of 0.1% for finite element strength analysis.

"There's no "one size fits all" approach to mooring life extension. Ashtead Technology's portfolio of technologies allows us to customise life extension inspection programs to best meet our customers' objectives and minimise cost." mooring life extension decisions.

Derek Latimer
Project Manager - Asset Integrity