



# CASE STUDY

## SCOTLAND, ABERDEEN OFFICE

The Core Industrial Estate  
Berryhill Crescent, Murcar  
Aberdeen, AB23 8AN

+44 (0) 1224 823960

Kevin.McDonald@sonomatic.com

www.sonomatic.com

## INSPECTION OF BALLAST TANK PLATES AND WELDS USING SIMS



### 1. INTRODUCTION

Sonomatic were engaged to work on a Spar platform in the Gulf of Mexico to inspect the bottom of the ballast tank. The client wanted to inspect the plates and welds.



### 2. MAIN CHALLENGE

Navigation on the spar was a challenge due to the unknown visibility at the location.



### 3. INNOVATION

Sonomatic worked with the client to adapt the MagRover capability to have enhanced navigation and localisation by detecting features through the captured data, utilising a preloaded structural layout. Phased array and ToFD on the welds was carried out simultaneously, and database fusion was performed in real time for improved data management and confidence in the asset condition.



### 4. OUTCOME

The data quality was much greater than originally expected and produced results beyond the expectation of the client, this allowed the client to reduce the scope and in turn made cost savings.

The image shows the model of the tank that was created with the weld layout. Data was uploaded onto the model and could be displayed in different ways, for example the image shows plates coloured by minimum thickness on the plate.

