

ATAM GROUP MagTrack ROBOTIC CRAWLER TEST



CASE STUDY



SHAPING FUTURE OFFSHORE WIND OPERATIONS AND MAINTENANCE THROUGH TESTING AND INDEPENDENT TECHNICAL GUIDANCE

Sending personnel to inspect wind turbines for damage can be a costly, dangerous, and time-consuming process, which is why advances in robotics and autonomous systems have the potential to make important contributions to reducing the cost of energy and the inherent risks of offshore working.

Remotely-operated vehicles (ROVs) like ATAM Group's MagTrack robotic crawler represent a breakthrough in offshore wind ROV technology. The MagTrack uses magnetic technology to grip and climb the turbine's tower, beaming back images of its blades using an in-built high definition camera.

The dedicated 27m turbine Training Tower at the Catapult's National Renewable Energy Centre in Blyth provided a perfect platform for ATAM to test MagTrack's effectiveness in conditions similar to those experienced on an offshore wind turbine. Engineers from the Catapult witnessed the test and supported ATAM with independent advice, making a number of recommendations to helping the Great Yarmouth-based firm deploy proof of concept and de-risk the ROV as a solution for the offshore wind industry. And in forthcoming tests, the Catapult will help investigate the feasibility of adapting ATAM MagTrack to crawl inside turbine blades and also deploy its available non-destructive testing tools from the magnetic platform: an innovation which has the potential to yield enormous benefits in terms of cost and technician safety.

“As oil and gas specialists, we found ORE Catapult's offshore wind engineering expertise invaluable in the deployment of the ATAM MagTrack. The tests were planned and executed perfectly; the Catapult's demonstration facilities are a unique and valuable resource in our transition to the offshore wind sector.”

Mark Loades, Managing Director, ATAM Group



Catapult engineers independently witnessed the ATAM MagTrack tests and provided tailored offshore wind expertise, accelerating its deployment.



O&M makes up 20% of offshore wind lifetime costs. Innovations like the ATAM MagTrack will help reduce downtime losses and increase power generated, making significant savings.



Our 27m Training Tower allows technology developers to test and demonstrate their new products in realistic wind farm conditions.