

will see Leosphere's Windcube and Wind Iris Lidars join Vaisala's Triton Wind Profiler as part of the market's most comprehensive range of measurement equipment.

"The advantages and opportunities remote sensing units bring throughout the lifecycle of a modern wind farm are now well-understood. It is common practice for wind-energy firms to deploy Lidar and Sodar to inform crucial decisions relating to site prospecting, resource assessment, and turbine performance testing," said Jarkko Sairanen, executive vice president of Weather and Environment for Vaisala. "Adoption of these more versatile measurement technologies to augment conventional met towers is a key factor in enabling the wind industry to increase the scale of project development, not only through larger, more advanced turbines, but also in new, remote markets worldwide."

Vaisala's customers can now benefit from a comprehensive product range that encompasses the Triton Wind Profiler — a robust and cost-effective Sodar unit that has been deployed on nearly 5,000 measurement campaigns worldwide — and the Windcube Vertical Profiler, the wind industry's leading Lidar system. The product range also includes the nacelle-mounted Wind Iris Power Optimization and Turbine Control units, specifically designed to help turbine owners increase efficiency in long-term wind energy production.

"The respective qualities of Sodar and Lidar are often weighed up against each other, but the fact is that both technologies have their place in a cost-effective, bankable wind measurement campaign," Sairanen said. "We have often spoken of the remote sensing 'revolution' that is underway in the wind sector — and with this complementary product offering, we're giving the industry the tools it needs to carry this out."

The Windcube Vertical Profiler, Scanning Windcube, Wind Iris Power Optimization, and Wind Iris Turbine Control units, along with the Triton Wind Profiler, are immediately avail-

able from Vaisala. Leosphere customers will see no change to the service they currently receive.

MORE INFO www.vaisala.com/leosphere

MAINTENANCE

AMSOIL to be main supplier for ZF Wind Power

Following years of committed partnership, field testing, and data-backed results with worldwide customers, AMSOIL has been selected by ZF Wind Power for gearbox lubrication during end-of-line testing at all of its manufacturing locations.

Those locations include Lommel, Belgium; Witten, Germany; Tianjin, China; Coimbatore, India; and its service facility in Vernon Hills, U.S.

The agreement solidifies AMSOIL as the global leader in wind gearbox oil reliability and performance. The company's global presence and unparalleled customer service have not gone unnoticed by original equipment manufacturers (OEMs).

"We are proud to partner with ZF Wind Power, a company known for its strong technological leadership, strategic partnerships, and strong focus on R&D," said Dave Meyer, AMSOIL VP, Wind & Industrial. "That reputation makes the decision to partner with AMSOIL a significant validation of our products and service. The agreement is consistent with ZF's vision to provide the highest quality products on the market."

AMSOIL PTN 320 Synthetic Gear Oil offers advanced gear protection in the crucial run-in period and is engineered to last. After more than nine years in use, it still passes rigorous OEM test requirements designed for new oil, proving its durability. The premium industrial lubricant's superior performance and long drain interval saves money and protects the environment.

ZF Wind Power is a globally established designer, manufacturer, and supplier of advanced gearbox solutions for wind turbines, currently operating four state-of-the-art manufacturing plants with an annual output capacity of approximately 18,000 MW. In addition to its manufacturing presence in Europe, India, China, and the U.S., ZF



AMSOIL PTN 320 Synthetic Gear Oil offers advanced gear protection in the crucial run-in period. (Courtesy: ZF Wind Power)



The Seacat Intrepid is a CTV used in offshore wind projects. (Courtesy: Seacat Services)

maintains worldwide sales and service operations.

MORE INFO amsoilwind.com

▀ MAINTENANCE

Seacat sees demand for CTV services for offshore

The fourth quarter of 2018, has, atypically, seen surging demand for offshore wind crew transfer, according to offshore energy support vessel (OESV) operator, Seacat Services, as it reported its latest operational figures. In the month of October, transfers and charter days exceeded the sum total for 2017, closely following third quarter figures that surpassed company records to date.

The figures come at a time when the industry is traditionally looking at a period of downtime as winter ap-

proaches, but demand for larger, more capable, workboats continues to rise.

Overall, while the results are a clear positive for individual operators, Seacat Services warns that it is an early indicator of an overheated market, as offshore wind-farm developers and operators, and turbine OEMs chase a limited number of high-quality offshore energy support vessels.

The shortage in vessels follows a period of low demand for CTVs, while offshore wind projects were in the planning phase, exacerbated by the unattractive commercial terms offered by developers during the lull. This saw some CTV firms exit the market or deploy vessels elsewhere, as the oil and gas sector begins to recover.

Furthermore, as standards continue to increase throughout the offshore wind market, the workboat industry now consists of an overall net lower number of vessels than before the lull – as a large number now no longer meet the high technical requirements from the industry and are subsequent-

ly repurposed, such as for near shore survey.

With the race to build-out offshore wind projects, however, CTVs are again in high demand, causing a shortage in vessel availability.

“While record figures may sound wholly beneficial for Seacat Services and other market providers, it’s also indicative of a wider vessel supply shortage that is already starting to cause a few challenges in build schedules and vessel pricing,” said Ian Baylis, managing director of Seacat Services. “This doesn’t just mean that shipyards need to build more boats, it means that until the industry can meet the demand, there is limited redundancy. With little room for mistakes, should a vessel fail or require removing from operations for scheduled maintenance, it’s something that should be of concern to project developers.

“At Seacat we’re currently in collaboration with a number of our industry colleagues to ensure that we meet the demands of the offshore wind sector,”

he said. “This has seen us provide our vessels for charter on other projects, or take other firms’ vessels where required.”

“But, with timelines for project development incredibly important in the industry, as we drive to a lower levelized cost of energy, it’s imperative that offshore developers start to provide the energy support vessel firms with longer term certainty to avoid similar scenarios in future,” Baylis said. “We’ve seen what boom and bust looks like in offshore oil and gas – there’s a real opportunity to ensure we don’t follow the same path in offshore wind.”

MORE INFO www.seacatservices.co.uk

MAINTENANCE

Altitec: South Africa needs to invest in blade repair capacity

Altitec, a leading turbine rotor blade inspection and repair specialist, recently highlighted the need for South Africa to expand its pool of blade repair technicians to support operations and maintenance in the sector.

As shown by Altitec’s 2018 Blade Repair Atlas, published in October, newer wind farms, those under 5 years old, typically require more active monitoring and maintenance. Nearly all of South Africa’s installed wind energy capacity is under 5 years old.

The development of wind energy in South Africa has gathered momentum in 2018 since Energy Minister Jeff Radebe signed 27 agreements with independent power producers on behalf of Eskom in April, which included 12 wind energy projects with a capacity of more than 1.3 GW. Looking to the future, the government expects South Africa’s total installed capacity to reach 11.5 GW by 2030.

New wind-energy capacity will drive employment in the country, not only during construction, but also over the longer term throughout the



Three-quarters of Altitec’s inspections and repairs around the world were carried out on wind farms younger than 5 years old. (Courtesy: Altitec)

operational life of the assets. Altitec’s *Blade Atlas*, which breaks down the activity of their rotor blade technicians on wind farms worldwide, younger wind farms require an average seven repairs per turbine, compared with only 2.2 repairs per turbine for farms older than 5 years.

Three-quarters of Altitec’s inspections and repairs around the world were carried out on wind farms younger than 5 years old, while 15 percent of operations were undertaken on wind farms in South Africa. Altitec segments its repairs in to three distinct types. The report shows that internal works made up 12 percent of all repairs by type in 2018, external repairs were 31 percent, with replacement of aerodynamic add-ons making up the 47 percent of all repairs Altitec carried out in the year.

“With the planned growth in wind farms over the next decade, South Africa will need a local cohort of highly-skilled rotor blade repair technicians to ensure the wind turbine fleet remains in optimal operation,” said Riccardo Buehler, director of Altitec South Africa. “The Altitec Academy in Cape Town provides local training built on global experience to guarantee technicians have the skills to inspect and record damage to blades, and identify and conduct the necessary repairs.”

MORE INFO www.altitec.co.za

MAINTENANCE

Dropped objects remain a neglected hazard in offshore

Dropsafe, a global provider of dropped objects prevention technology for the energy and resources markets, has reported on the risk posed by dropped objects to the health and safety track record of the renewable energy industry. Collating the latest data on dropped object incidents, Dropsafe’s white paper, *The Neglected Hazard: A guide to Dropped Object risks in offshore wind*, shows that dropped objects are an ever-present, increasing threat to safe and cost-effective project development and operations in offshore wind.

Furthermore, despite recent efforts to improve reporting procedures and best practice approaches, the industry needs to take further steps to proactively mitigate this risk before a significant dropped-object incident dents the reputation of a major player – or the incident rate increases to the point that costly regulatory action must be taken.

Dropped objects in offshore wind include materials carried by personnel, lifted or carried from support vessels, or smaller items fitted to the wind turbine, such as nuts and bolts, lights, ventilation louvres, or hatches, falling from height. Incidents can occur either on the wind turbines themselves or on vessels being used for turbine installation and maintenance. This definition does not include the heavy lifts performed during construction, main component change-out, or decommissioning.

Although formal recognition was made of the risks from dropped objects in the offshore wind industry in 2014, a centralized approach to incident reporting in offshore wind has yet to be established, with different organizations such as the global offshore wind health and safety organization, G+, and the IMCA reporting

THE NEGLECTED HAZARD

A GUIDE TO DROPPED OBJECTS RISKS
IN OFFSHORE WIND



Dropsafe's white paper shows that dropped objects are an ever-present, increasing threat to safe and cost-effective project development and operations in offshore wind. (Courtesy: Dropsafe)

separate figures.

At the same time, best practice mitigation guidance for offshore wind firms remains limited. Indeed, in the 2018 G+ Working at Heights guidelines, end operators are encouraged to refer to the global dropped objects organization, DROPS, for further guidance. This DROPS guidance has yet to be officially published and ratified.

While the data isn't, therefore, always clear cut, in its 2017 figures,

the IMCA has reported a downward trend in lost time injuries (LTIs) from dropped objects — but this must also be factored against an overall decline in working hours across the industry.

Figures from the G+, conversely, show an increase in the total rate of recorded dropped object incidents that is 3.5 times that from the IMCA, and an overall uptick in incidents from 2015 to 2017.

"In offshore wind, a tough and un-

forgiving environment, reputation is key," said Mike Rice, commercial director of Dropsafe. "And in order to maintain current growth and industry momentum, it is the responsibility of businesses throughout the supply chain to consistently demonstrate that an offshore wind farm is not just a clean, reliable source of power, but also remains a safe place to work, all the way through its lifecycle."

"The industry is under pressure to keep a lid on costs, but this approach in pushing toward a lower levelized cost of energy cannot come at the expense of health and safety best practice," he said.

"Our experience from the offshore oil and gas markets shows that dropped objects present a fourfold threat to the safety of personnel, the integrity of equipment, financial performance, and ultimately the reputation of offshore wind firms and their high-profile stakeholders," Rice said. "Yet, despite this ever-present threat, the offshore wind industry has yet to follow the lead of other marine industries, both in reporting incidents, and in adopting robust mitigation measures across turbine and vessel fleets. This ultimately puts the sector at risk of having uniform regulations and standards imposed upon it that jeopardize its ability to manage long-term costs in a sustainable manner."

MORE INFO www.dropsafe.com

MANUFACTURING

Siemens Gamesa awarded order for Kansas project

Siemens Gamesa Renewable Energy will supply 48 SG 3.4-132 and 14 SWT-2.3-108 wind turbines for Southern Power's latest wind project — the 198.5-MW Reading wind facility in Lyon and Osage counties in Kansas.

The agreement also features a 20-year service and maintenance program. Known for its world-class