

NORCOWE

www.i-tools.no

During the ongoing measurement campaign [OBLEX-F1](#) a sailbuoy equipped with wave and temperature sensors has also been used. Accurate measurements of wave characteristics are of importance to the offshore wind industry, as wave loads on the foundations have a large impact on the design criteria. Research on breaking wave loads on jackets is part of the University of Stavanger's contribution to NORCOWE, and is the subject of PhD student Jithin Jose's ongoing work. On the same theme is the forthcoming presentation at [Science Meets Industry Stavanger](#) by Finn Gunnar Nielsen from Statoil/UiB; "Relative contribution from wind and waves to loads on offshore wind."

While a traditional wave buoy gathers information from the position in which it has been stationed, the sailbuoy can be moved around in a wind farm from the leisurely position behind a PC in your home office. After having participated in the OBLEX-F1 campaign, the innovative and autonomous measurement platform was sent further north, close to the Ekofisk platforms in the North Sea, where it underwent a [validation process](#). Comparisons between the measurements from the sailbuoy and those of a qualified wave buoy nearby are being made, and preliminary results are very promising. The trial has been anything but plain sailing, as the sailbuoy has had to keep the position during both gale and storm conditions where waves of 12 m have been registered.



The sailbuoy photographed under calmer conditions (Photo: CMR)

The technology behind the sailbuoy was developed at [Christian Michelsen Research](#), and the validation project has seen involvement from the [Norwegian Meteorological Institute](#) and the University of Bergen, all NORCOWE partners. Conoco Philips also helped in the deployment and retrieval of the vessel.

The sailbuoy can be equipped with different sensors, and is commercialized through the company [Offshore Sensing AS](#).

[Article on remote sensing, including the sailbuoy \(in Norwegian\)](#)