AIRBUS

Press Release

Airbus to install new fuel-saving sails for maritime operations

This new technology could save up to 1,800 tons of CO2 emissions per year

@Airbus @bound4blue @LouisDreyfusArmateurs #WorldMaritimeDay

Toulouse, 28 September 2023 - Airbus will equip one of the vessels it uses to transport aircraft subassemblies, chartered from shipowner Louis Dreyfus Armateurs, with a wind-assisted propulsion technology that captures wind energy to generate thrust and, therefore, delivers savings in fuel consumption and CO2 emissions.

The eSAIL, developed by the Spain-based firm bound4blue, creates as much as six to seven times more lift than a conventional rigid sail. It consists of a sail-like vertical surface and an electric-powered air suction system that helps the airflow to re-adhere to the sail, generating additional lift and thereby reducing the load on the ship's main engines.

Three 22-metre-high eSAILs will be fitted to the Ville de Bordeaux ahead of a six-month performance monitoring period starting early 2024. The Ville de Bordeaux regularly ferries A320 Family subassemblies from Europe to Mobile in the United States for final assembly.

Fitting the eSAILs on the Ville de Bordeaux supports Airbus' commitment to halve CO2 emissions from its maritime operations by 2030, compared to a 2015 baseline. According to bound4blue estimations, these eSAILs could deliver fuel and CO2 emissions savings of up to 560 tons and 1,800 tons respectively for this ship annually.

The installation of eSAILs on the Ville de Bordeaux is co-funded by the European Union.

"We at Airbus have been studying wind-assisted technologies as a potential energy source for our maritime operations for many years," said **Nicolas Chrétien**, Head of Sustainability & Environment at Airbus. "As we embark on an exciting journey with our partners Louis Dreyfus Armateurs and bound4blue, we reaffirm our ambition to explore all innovation pathways to develop more sustainable maritime solutions and further reduce the carbon footprint of our industrial operations. This technology looks promising and we are eager to start testing it in real conditions by the end of the year."

"At Louis Dreyfus Armateurs, we are committed to supporting the decarbonization of the shipping industry, achieving net-zero greenhouse gas emissions by 2050," said **Mathieu Muzeau**, Transport & Logistic General Manager at Louis Dreyfus Armateurs. "Wind-assisted propulsion is one of the solutions we believe will help us reach this objective. To determine the best technology for our operations, we are eager to identify and test various forms of wind-assisted propulsion, including rotating vertical cylinders, flexible sails, rigid sails, and wings.

We are pleased to announce that we will soon install bound4blue's eSAILs on our ro-ro vessel, Ville de Bordeaux, which we operate for Airbus."

David Ferrer, CTO of bound4blue, said: "After having implemented and proven our technology on three ships already, we're excited to install our 22-metre eSAILs on Ville de Bordeaux. This deployment will mark the first-ever fixed suction sail installation on a Ro-Ro ship, demonstrating that suction sails can be deployed on ships with high weather deck and large windage area, not compromising the vessel's stability."

About Louis Dreyfus Armateurs

For more than 170 years, the Louis Dreyfus Armateurs Group has been offering players in the maritime world innovative industrial solutions adapted to their needs and integrated services ranging from the design and management of ships to maritime operations in the fields of transport, logistics and marine industrial solutions. Present worldwide with more than 2,600 employees and around 100 vessels, LDA is a French family-owned group. For more information, visit: www.lda.fr

About bound4blue

bound4blue develops automated wind-assisted propulsion systems as a turnkey solution for all shipowners and shipping companies seeking to reduce fuel costs and polluting emissions. bound4blue's eSAIL system is a validated solution for saving fuel and emissions, completely autonomous, with low maintenance and easy installation onboard, being the most cost-efficient wind propulsion technology today. The company, founded in 2014 with a vocation clearly focused on the renewable energy sector in the maritime field, has its headquarters in Cantabria (Spain) and offices in Barcelona and Singapore. The company has installed its eSAIL system on three ships and has signed additional agreements with other shipowners like Louis Dreyfus Armateurs, Marubeni Corporation and Odfjell to install the system on their fleets. For more information, visit: www.bound4blue.com

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