



sun21 **FACTS ABOUT THE BOAT**

In 1996, shipbuilder Mark Wüst began designs for solar powered vessels to be showcased as part of the Swiss National Exhibition Expo 2002. Under his direction the private entity, MW-Line, developed four solar catamarans that carried more than one million passengers during the 156 days of the Expo. These vessels featured solar modules on their rooftop that were used to charge battery-operated electromotors.

With a foundation in place and his knowledge from the Expo, Mark Wüst set out to prove the widespread feasibility of solar power technology by building a solar boat capable of crossing the Atlantic. Wüst modified the design of the catamaran to make it suitable for long journeys across open seas. This included: the creation of a stronger and larger roof with more solar power generating capability; an increase in stability features to the roof and hull; the creation of living quarters and the addition of two steering cabins. In 2006, the Transatlantic21 Association was created to sponsor Wüst's efforts. Construction of the boat began in February 2006 and the boat was put in the water by the end of September that year.

The boat was christened - sun21 - in Basel, Switzerland on October 16th by Swiss President Micheline Calmy-Rey. It was tested on the Rhine River as it traveled from Basel to Rotterdam. sun21 departed from Spain in December 2006 on its transatlantic crossing. In February 2007, it reached the island of Martinique and became the first solar powered vessel to cross the Atlantic. Crew members for the transatlantic crossing included: Mark Wüst, Michel Thonney, Martin Vosseler, Beat von Scarpatetti and David Senn.

sun21's solar power is harvested from 48 modules on its roof with 214 W peak each (10,272 watts). During the transatlantic crossing, there was enough winter sunlight for a daily charge between 600 to 920 AH. In addition to creating enough power to operate the motors, solar power was used to operate all equipment on board (computers, radars systems, radios, satellite phones, video cameras, lights and even an electric toothbrush!)

Technical Data sun21

Type:	Aquabus C60
Length:	14 meters
Width:	6.6 meters
Draft:	maximum 1 meter with full load
Weight:	ca 12 tons
Motors:	2 electro motors, 8kW each "LEMCO"
Batteries:	520 Ah/C5, 48 V DC lead accumulators in each hull
Photovoltaic:	2x5 kW solar modules, ca 65 m ²
Propellers:	Carbon (installed in tunnel cave of the hull)
Speed:	maximum 9 knots (ca 16.5 km/h), constant speed ca 5-6 knots (ca 10-12km/h) 24 hours a day.

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