

"EFFISES"

The project

Main project task: New generation of fast Air Supported Vessels.
Main project focus: Design, verification of a 40m catamaran passenger ferry, displacement 170-180 tons, speed up to 70 knots and a 125m catamaran Express cargo/Ropax ship, displacement 4000-5000 tons, speed 50-60 knots. Both designs prepared for Water Jet propulsion.
Project budget: Euro 3.8 mill.
Project coordinator: SES Europe AS
Project partners: IZAR, Katamaran Konstr, Woods Air Movement, Twin Disc, DNV, ESIL, Comp Concepts Europe, LMG Marin, University of Strathclyde, National Technical University of Athens and SSPA Sweden.

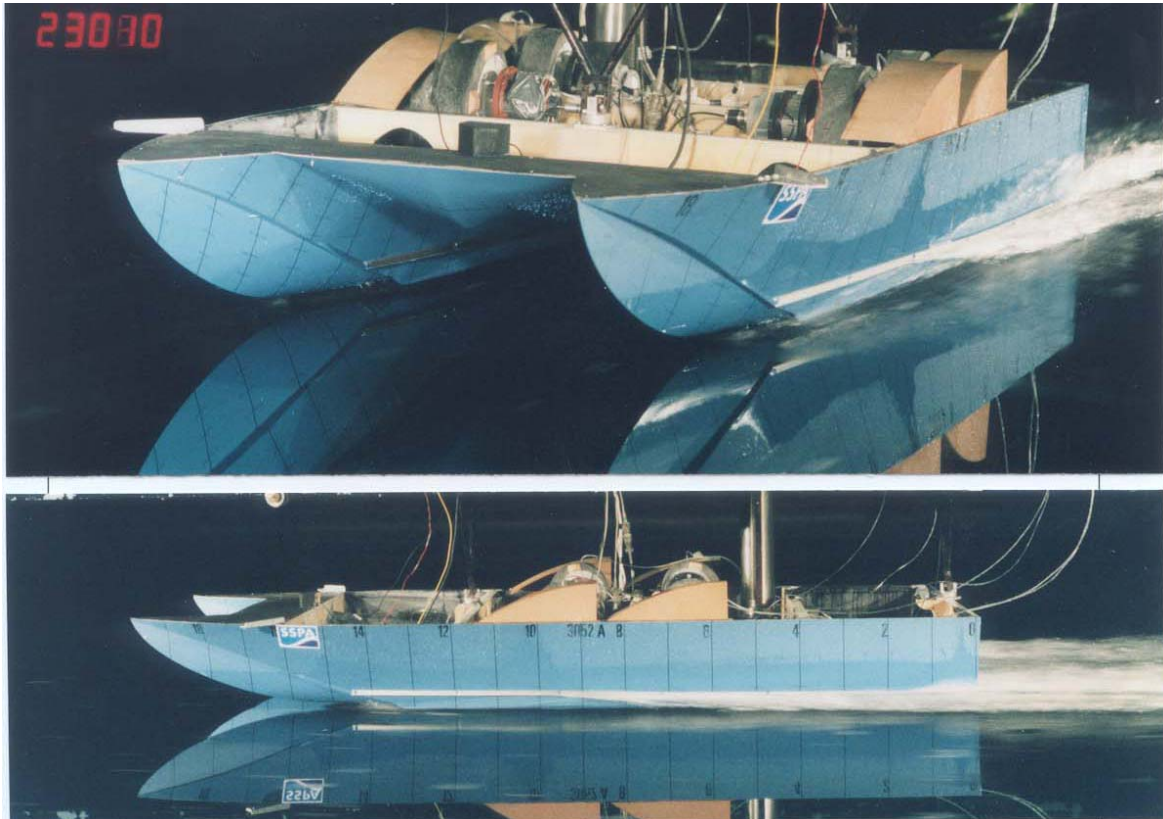


Project Partners in front of ASV 40m (test model) in Athens 2004

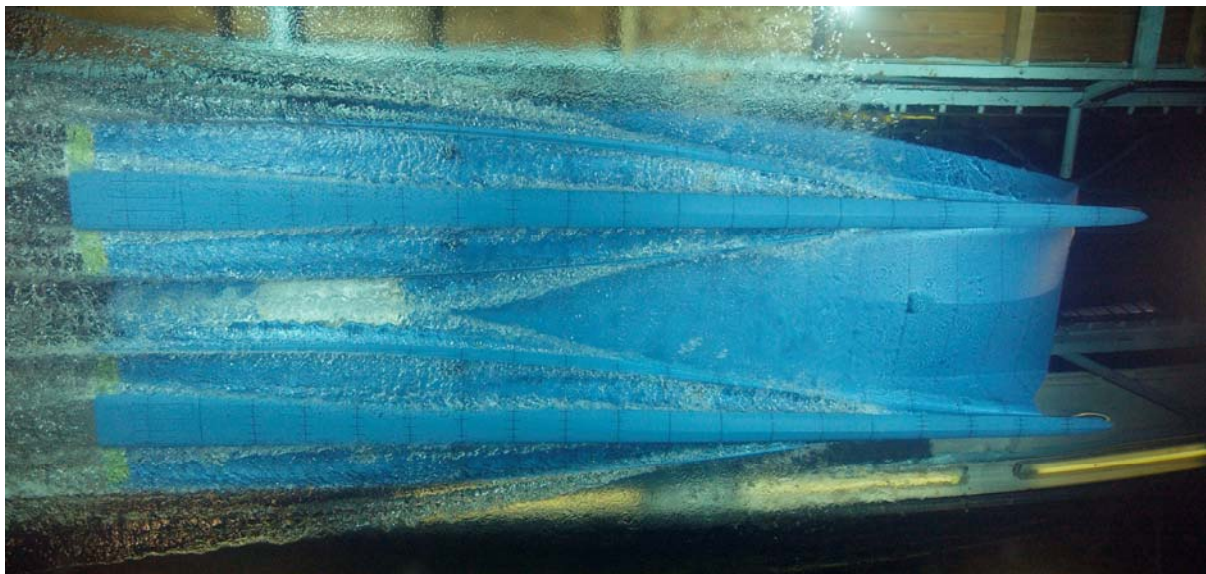
Tank testing

As an important part of the project 4 tank testing models were built. These models were tested both in calm water and in sea state and gave us a considerable amount of test data on:

- hull resistance
- speed vs. power
- fan power requirement
- air cushion ventilation aspects
- sea state capability
- sea state speed loss
- onboard accelerations
- load carrying capability



ASV 40m test model in 70kn (scale speed)



Under water picture of ASV 125m test model in 60kn (scale speed)

Evaluating test data from the towing tank at SSPA has proven the ASV concept to be superior all other catamarans in hull resistance at high speed.

Testing of manned models.

To verify test data from the towing tank and to further improve the ASV concept 2 manned models were built. These models have also been used as a test platform in the industrializing process of the concept to try out different technical solutions. The 10m test model of the ASV 40m fast passenger ferry has also been used to integrate water jet propulsion with the ASV concept.



10m test model of the ASV 40m at Danube, November 2006



9m test model of the ASV 125m at Danube, October 2005

When the "Effises" project was completed in 2005 evaluation showed that the demanding project goals were met with good margins. The hull resistance of the 40 m and 125 m ASV's outperformed conventional solutions with good margins, the load carrying capabilities and transport efficiency set new standards, and the onboard comfort was very positive.