The Quadrimaran
William Hockberger

The Quadrimaran has four identical wedge-shaped planing hulls that are flat on the bottom and sloped downward toward the stern. It was designed to operate at 45-60 knots but with relatively lower drag than other high-speed ships, yielding power and fuel savings to compensate for the increases in structure and outfit from having four hulls.

A 57-foot prototype impressed prospective investors and buyers, and several major European companies supported further development and designs, with the major classification societies involved. An 85-foot passenger ferry was built for Caribbean operation, and numerous other designs were done, but contractual and financial problems stopped further construction.

The concept gained a degree of acceptance in the US for possible high-speed sealift application, but recent analysis has shown that the problems experienced were due to fundamental technical reasons, which will be discussed and explained. The French inventor has reenergized his promotion of the Quadrimaran, so it is again a timely subject.

William Hockberger is a naval architect and independent consultant in marine systems planning, design and development. Following 27 years in the US Navy's ship design organization, he now works mainly on commercial marine systems, especially ferries and intermodal freight. He has a particular interest in high-performance ship design and chairs SNAME's SD-5 Panel on Advanced Ships and Craft.

Bill holds a bachelor's degree in naval architecture and marine engineering (MIT), master's degrees in operations research (MIT) and applied economics (American University), and is a Registered Professional Engineer. Besides SNAME he is a member of IHS and ASNE and an affiliate of the Transportation Research Board and active on its Committee on Ferry Transportation and Committee on the Logistics of Disaster Response and Business Continuity.