

MULTIHULL CRAFT SURVEY Riding on “The Edge”

By DAG PIKE

It is easy to think of the Caribbean as calm seas and sunny waters. The reality is a regular trade wind which blows consistently and at times quite strongly.

The result is that many of the sea routes between the islands are exposed with waves topping out at around 12 feet and regular seas in the six to eight feet mark. There are many days when the waves are smaller and the conditions wonderful, but any passenger service has to look at the worst conditions and be prepared to cope with them.

This was the challenge facing a ferry operator based at St. Maarten in the Leeward Islands. There was little doubt about passenger potential on routes between the islands of St. Barth's, Saba and St. Maarten. The tourists were there wanting to make the trip, but the sea conditions made it very difficult to provide a regular service. Reliability is important to any ferry service, particularly if the passengers are on day trips and have to return the same day.

Ten operators had tried to establish these routes and ten had failed. It was not a good background to start up yet another service, but the operators thought that they had found the answer with a new wave piercing design developed by Gold Coast Yachts in St. Croix of the US Virgin Islands. A near neighbour of St. Maarten, Roger Hatfield of Gold Coast Yachts has considerable experience of the local waters and catamaran design.

Gold Coast Yachts' specialty is building sailing catamarans and it was this experience with soft riding, easily driven hulls which led to the development of a unique wave piercer design of power craft to cope with local conditions. Extensive trials were made with a 12 metre prototype and it was from this experience that they received a contract for an 18 metre version to operate on the exposed routes from St. Maarten.

Three months after delivery, “The Edge” has proved itself. Operating on the 18 mile route to St Bart's and the 24 mile route to Saba, “The Edge” has never missed a sailing, a remarkable record of boat and machinery reliability and performance, particularly in the difficult conditions.

The unique design of the Gold Coast wave piercer has the twin hulls extending a long way forward from the accommodation module. They are long and thin with a very fine entry with a curved almost oval cross section which, at the tip sweeps up into a narrow entry strut to support the module. The engines are located well

aft in the widest point of the hull, and the 425hp Luger diesels are coupled to Hamilton water jets.

The long, slim hulls operate in the wave piercing mode with a very gradual increase in the lift generated as the hull immerses to give a very smooth ride. Roger Hatfield believes that it is a mistake to have a flat top surface to the immersed forward hulls as this only encourages them to dig in and develop a pitch-poling lever, an experience of the earlier Incat designs. Incat solved the problem by shaping and extending a central hull to give lift if the hull immerses beyond a certain point but with forward hulls remove the need of additional buoyancy.

In operation "The Edge" gives quite remarkable performance. On a run out to St. Bart's with a full passenger load, the open sea conditions were irregular eight foot waves, the sort of conditions where I think I would have turned back for passenger safety and comfort. "The Edge" coped quite magnificently, although to improve ride comfort, the boat was "tacked" off the wind to create a longer effective wave length. We made the 18 mile passage in under an hour with only minimal seasickness among the inexperienced passengers. The run back with the wind and sea astern was a pure delight with minimal motion, and the bows showing very little tendency to bury as we overtook the waves.

For further information, please contact:

Gold Coast Yachts,
P.O. Box 1980,
Kingshill, St. Croix,
U.S. Virgin Islands, 00851

Dag Pike, "Riding on 'The Edge'", *Working Boat World*, p. 38.