

The Stealth 520

proves that speed and fuel efficiency can coexist, thanks to cutting-edge engineering. By Chris Caswell

I have seen the future, and it looks like a small, but quite heavy, aircraft wing. Actually, because it was under the Stealth 520RUV on which I was riding, I couldn't see it. But I saw pictures.

More important, however, is that I felt its effects. The 520RUV doesn't look particularly unusual, although you don't see many catamaran express cruisers on the waterways. It's actually quite good-looking, with a swept-back house reminiscent of current Audi styling.

But when you put the hammers down, this is real warp-speed, Beam-Me-Up-Scotty, *Back-To-The-Future* stuff.

I'd be the first to admit that I'm jaded when it comes to boats: It takes a lot to get my adrenaline flowing. After running the Stealth, I couldn't wipe the grin off my face. My gums were dry. The muscles around my lips were in rictus. I wanted to come across to those aboard as a hardened yachting expert, but I was giggling like a kid.

We were off Miami in the Gulf Stream with the usual chop and wakes from other boats. The numbers on the GPS were hovering just below 50 knots (yep, 50 *knots!*). And we were just standing in the cabin talking like we were at the dock! No hanging onto rails, no wedging ourselves into bolstered seats, no problem walking around.

The engines were a muted thunder somewhere behind us and, when the Stealth sliced through the seas, it made a soft "whooshing" noise.

And it's all because of that wing I mentioned earlier. The starting point for the Stealth is a catamaran hull,



DOUBLE-WIDE: The cat hull allows for spacious accommodations and flexibility.

some 52 feet long and 18 feet wide. What makes this special is the hydrofoil wing that spans the tunnel amidships, as well as two smaller wings on the insides of the hulls aft. It's all quite precise, and it's the result of 30 years of research by Professor Karl-Gunter Hoppe, an expert in fluid mechanics.

Hoppe's breakthrough is the hydrofoil-supported catamaran, or HYSUCAT. The inherent stability and seaworthiness of the catamaran is merged with the efficient load-carrying capability of a hydrofoil into a system that is, well, the future. Sure, you say, stuff big engines into any catamaran and you've got a go-fast rocket. Just look at the offshore racing cats.

Au contraire! The Stealth 520RUV is achieving these speeds with a pair of little 6-cylinder diesels putting out just 800 horsepower each. Granted, these are MAN common-rail engines but 800 horses are 800 horses. However, it's not just about speed. While running flat out at 46-plus knots, the motoryacht version of the Stealth is sipping fuel at just under 80 gallons per hour, or about 0.7 miles per gallon.

As they say on those TV commercials, "But wait...there's more." It's not just about speed or fuel economy, either. The Stealth has a ride so soft you have to experience it to believe it. At speed, the hulls literally are being lifted by the foils as much as two feet, so the 520 draws only 20 inches at 35 knots. When the hulls encounter a sea, there is no pounding and the expected impact is diffused into a

LOA: 52'0"
BEAM: 18'0"
DRAFT: 3'9"
DISPL.: 37,500 lb.
FUEL: 460 gal.
WATER: 166 gal.
ENGINE OPTIONS: N/A
ENGINES TESTED: 2 x 800-hp MAN R-6 diesels
BASE PRICE: N/A



RPM	KNOTS	GPH
1000	9.4	15.0
1200	9.4	22.5
1500	13.7	33.0
1800	26.5	42.7
2000	37.3	48.7
2100	40.3	56.4
2375	46.1	79.7

TEST CONDITIONS: Speeds were measured by GPS off Miami, Florida, in moderate chop and light winds, with 50-percent loads of fuel and water, and 6 people on board.

mild hobby-horse ride.

Taking the good professor's idea and translating it into the Stealth is Bob Kyle, who heads up both Stealth and his fractional yacht ownership business, Voyage Yacht Share. Building the yachts in South Africa is experienced builder Ian Stopforth.

Kyle and Stopforth had the Stealth 520RUV, which stands for Resort Utility Vehicle, in Miami to show it off to executives at a cruise-ship conference. In the RUV configuration, it can handle up to 30 passengers plus tons of luggage, making it the perfect vessel to carry people to and from cruise liners. Fast, fuel efficient, and comfortable, it's also the solution for waterfront resorts that need either a ferry for guests or an all-purpose boat for dive excursions and sightseeing outings.

The foil between the hulls is precisely welded of stainless steel, much like an aircraft wing, with skins over internal ribs. It's quite heavy, as it needs to be to lift an 18-ton yacht, and quite sharp at the forward edge for efficiency.

Power from the twin MANs reaches the water through a pair of Kiwi-made Q-SPD surface drives, using the SD model, which is a direct-drive, non-trimmable version. The result is that the Stealth has all the simplicity of a conventional monohull with the advantages of both hydrofoils and surface drives.

If you've ever struggled with the trim controls on an adjustable surface drive, you know that it takes a deft touch to get the yacht up onto plane. Novice skippers can find themselves wallowing along at displacement speeds while throwing up huge roostertails of wasted energy. There's none of that here: Push the throttles forward and go fast.

The RUV version is a masterpiece of flexibility, with a variety of seating arrangements to suit different needs.

The helm is on a raised platform that gives a sweeping view in all directions, which is a damn good idea considering the rate of knots at which you're likely to be traveling. The electronic steering is light but precise and, even at full chat, I never had the feeling that I didn't have complete control.

The MAN R-6 diesels are full of torque and you have to be gentle with the throttles. Kyle nudged them forward while we were loping along at 30 knots and the acceleration was so fierce that it literally pushed me from a standing position to seated on one of the lounges.

That same torque comes into play as the Stealth transitions from idling along at harbor speed to a plane. It is almost eerie: There is no noticeable bow rise and the boat seems



to levitate vertically. In a flash, the scenery is flying past.

The motoryacht version, called the 540, is going to damage the concept that you need to trudge along at displacement speeds to keep fuel costs down. At 36 knots, the Stealth is almost getting the magical one mile per gallon. You can have your speed without guilt.

Kyle also points out that the speed and comfort of the Stealth opens up new opportunities. Pilots of private planes know about the "hundred-dollar hamburger," where they enjoy a day's flight to another airport café for lunch. With the Stealth, you can run from Road Town down to The Bitter End Yacht Club for breakfast or zip from New-

port Beach to Catalina for a buffalo burger, or pop out to Nantucket from Newport for some clams.

The 540 motoryacht version has a beam-to-beam master suite with centerline king berth, and two additional staterooms are aft in each hull, all with en suite heads. The galley barely impacts the vast salon, and the flying bridge is another entertainment area with five-abreast bucket seats and a wrap-around settee.

I came away from my short spin on the Stealth 520RUV a changed man. I had seen the future.

And it is unbelievably cool. □

Stealth Yachts, (703) 497-7469; www.stealthyachts.com

HIGH SPEED COMFORT: A key element on any yacht intended to travel at high speeds is a properly designed helm. The instrumentation is in the line of sight and the helm seats flip for standing.

