designer of the 135′ x 38′ (41m x 11.6m) catamarans. Power: 1950-hp (1462-kW) MTU 12V400 M64+ Tier III engines with ZF7600 reduction gears, plus after-treatment exhaust systems. Nichols Brothers of Freeland, Washington, was subcontracted to build the bolt-on superstructure, as it did for four 118′ (36m) Kvichak-constructed ferries in service on San Francisco Bay for WETA.

Kvichak was recently awarded a contract to build a 60′ (18m) catamaran research vessel for the California Department of Water Resources. Its mission: "monitoring

## Around and Around Vancouver

Aspen Power Catamarans of Burlington, Washington, and ArrowCat Marine, of neighboring Everett, successfully completed the *Pacific Yachting* Pacific Challenge issued in May 2014.

The Challenge to circumnavigate Vancouver Island burning only the fuel on board is a timed event for production powerboats not exceeding 40′ (12.2m) on the waterline. The Challenge also has a category for powerboats of less than 30′ (9.1m) LWL, and they may refuel once.

The start/finish line is in the Victoria, British Columbia, inner harbor. The distance is about 650 miles, depending on the route chosen. Vancouver Island is the largest island on North America's West Coast and the largest Pacific island east of New Zealand. It is roughly the same length, north to south, as England. Victoria is the political capital of the province.

"*Pacific Yachting* wants to encourage builders to produce tough, efficient family vessels, and that led to the *Pacific Yachting* Pacific Challenge," said PY editor Dale Miller. "With currents running up to 16 knots and weather often kicking up 20′ [6m] seas, the Challenge is a real test of not only a boat but also the ability and seamanship of skipper and crew. It also gives the builders a chance to, very quickly, find out if they need to make changes in their future builds."

The first vessel to successfully complete the Challenge was an Aspen C100 (Aspen Power Catamarans, Burlington, Washington), a 32-footer (9.8m) skippered by Larry Graf, Aspen's founder and owner. It sells for $287,440. The Aspen started the challenge at 2:55 p.m., June 20, 2014, and finished 47 hours and 5 minutes later.

The C100 is a wave-piercing, single-engine, award-winning multihull proa. Average speed was 13.6 miles per hour (22 kmh), and the total fuel burned was 267 U.S. gal [1,011 l]. Mileage was 2.43 miles per gal [1 k/l].

The C100, with a beam of 10′ (3m), is trailerable without special permits. It has a draft of 3′1″ (0.9m) and weighs in at 8,400 lbs (3,805 kg). The vessel's port hull is narrower than the starboard hull and has 35% less volume. The engine, transmission, and driveline are housed in the starboard hull. The hull design is patented and in October 2014 was judged as the best multihull in the world in the 30′–39′ (9.1m–11.9m) category by the AIM Marine Group editors. (AIM

water quality, phytoplankton, zooplankton, and benthic macroinvertebrates in the San Francisco Bay Estuary, San Pablo Bay Estuary," as well as inshore on the nearby ocean.

In our 2005 report on Kvichak, smaller boats were then its mainstay, notably the 41′ (12.5m) Response Boat-Medium, and a variety of oil-spill-containment vessels, and pilot boats.

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COURTESY PACIFIC YACHTING (BOTH)

***Top—The first boat to complete the* Pacific Yachting *Pacific Challenge, a 650-mile cruise around Vancouver Island, Canada, was the unusual Aspen C100, a 32′ (9.8m) proa of sorts, skippered by Aspen Power Catamarans' founder, Larry Graf.***
***Above—Arrowcat Marine's 30′ (9.1m) RS averaged 22.18 mph (35.7 kmh), burning fuel at a rate of 1.3 mpg (0.55 km/L).***

publishes *PassageMaker*, *Power & Motoryacht*, *Sail*, and *Yachts International*.)

Arrowcat Marine was the second builder to accept the Challenge. Arrowcat entered one of its 30′ RS high-speed planing cats powered by a pair of 200-hp (150-kW) Mercury Verado outboards. With a waterline length of less than 30′ the Arrowcat entry was allowed by the Challenge rules to refuel once, which it did in Barkley Sound at Ucluelet.

Skippered by Arrowcat's president, Kim Stebbens, the RS 30 left the dock in Victoria on August 22 and completed the ▶

circumnavigation in 28 hours, 59 minutes. The total fuel burn for the 643 miles traveled was 494 U.S. gallons (1,870 l), and the vessel averaged 22.18 miles per hour (35.7 kmh). Mileage was 1.3 miles per U.S. gal (0.6 km/L). Arrowcat, like Aspen, had two crew members onboard.

Arrowcat's RS 30 has an overall length of 30′10″ (9.4m) with a 10′ beam. Draft, with engines down, is 30″ (76cm), and dry weight is 7,500 lbs (3,398 kg). While the basic Arrowcats are built offshore, all design, engineering, planning, and commissioning are done at the company shop in Everett, Washington.

"We were happy that two local builders were the first to accept the challenge," said Miller. "Both vessels, although substantially different in concept and design, are modestly priced family cruisers. By successfully completing the PY Pacific Challenge, they have proven their boats can operate safely and efficiently in the tough Pacific Northwest waters."

Both challengers reported having to reduce speed after rounding the northern tip of the island and starting down the west coast. The Aspen crew found themselves in 10′–12′ (3m–3.7m) standing waves, brought about by a combination of current, tides, and the remains of a gale flowing down from Alaska. The Arrowcat crew ran into a 10′ swell topped off with a 2′ (0.6m) wind chop. They hauled back the throttles and spent from about 3 a.m. until daylight making only 6–7 knots, not a comfortable speed for a high-speed planing cat.

# A Boat, an Online Event

Stephen Boden, 47, a native of Hamburg, Germany, and author of two books on minimalist cruising aboard small sailboats, decided that to venture farther than his 18′ (5.4m) model would take him, he needed something around 24′ (7.3m). With Alexander Vrolijk (son of yacht designer Rolf Vrolijk) and Jan Kuhnert, both of Judel/Vrolijk & Co., Hamburg, Germany, and a bottle of Bordeaux, they conceived what Boden describes as "a small, fast sailing ship that would be racy but yet affordable. Simple and inexpensive, yet very seaworthy."

They also wanted to appeal to a younger audience, eschewing traditional marketing methods. The project took a favorable turn in a new direction with fresh thinking when they met Michael Adlkofer, a professor of industrial design at the University of Hanover, who suggested that they make the design a project for his 18 students. Boden gave them "no brief, no mood boards, nothing," he says. "We were aiming for what we call 'mind freedom.'"

"Sailing is a fun sport," he says, "but very often it is not presented like that. We wanted to change it. So we published the whole development of Bente 24 in blogs, news portals, and on Facebook. Bente is not only a boat, it's an event."

Facebook followers, who numbered 20,000, also contributed ideas on the project as it progressed. Once the design was complete, a prototype hull (without rig and appendages)

The Aspen crew, while motoring along at top speed in the dark, ran over a floating tree, complete with all its branches. "After checking the boat and finding no damage, we proceeded," Graf said, "but at a slower speed!"

Both challengers found ways to improve their vessels going forward, and they discovered one problem in common: some instrument lights at the helm could not be dimmed enough so that they wouldn't interfere with night vision. Both builders have dealt with that issue, and also noted that crimped electrical connections are not as good as soldered ones when bashing through rough water for extended periods of time.

The Arrowcat crew noted that the Verado stock props had to be changed as the boat burned off fuel. They also noted that the vessel might perform better if fuel was carried a bit farther forward.

Aspen noted that a bulkhead, bolted into place to dampen sound, did not work as well as planned, so it will be mechanically fastened and bonded to the surrounding structure on future builds, Graf said.

Both builders agree the Challenge gave them an opportunity to test their boats in a way that regular boating could not. "That's why we do these challenges," Graf said, "and for the fun, of course!"

Graf, when he was president of Glacier Bay Catamarans, was the first builder to successfully complete the Bermuda Challenge. —*Roger McAfee*

COURTESY BENTE UG

***The Bente 24 (24.6'/7.5m), an open-transom, hard-chine hullform, was in some respects the product of a social media experiment, in which Facebook followers joined in on the project.***

was exhibited at the 2014 Hamburg International Boat Show and drew considerable interest.

Then a builder for the hard-chine, open-transom hullform was sought and found: Yacht Service in Światowida, Poland, which also makes hulls for X-Yachts and numerous others. Production was scheduled to begin in August 2015, employing infusion and a foam kit from DIAB with Divinycell HM80, Divinycell Matrix 10-8, and Divinycell PX300. The boat will have a cast-iron lifting keel with lead bulb. Auxiliary power is a Torqeedo electric outboard.

In keeping with current techy trends, Boden and Vrolijk ▸