

Catalyst

A Journal of the Amateur Yacht Research Society

Volume 1. No. 1

January, 2000



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Weymouth Speedweek - '99

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Evening Seminar '99—by John Perry

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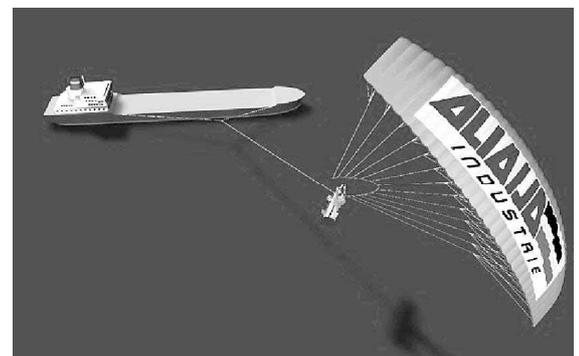
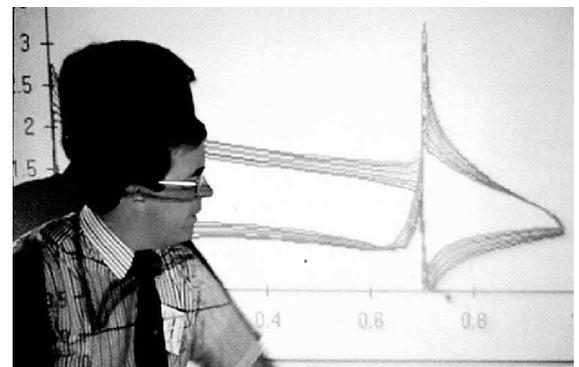
Guinness World Speed Record Award

Kite Sailing

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Solar & Human Power

Solar and Hybrid Powered Boats—by Theo Schmidt



On the Cover—



Michael Ellison Photo

Orion at Speedweek '99

Harvey Bowden's highly tuned and stripped out Firebird catamaran making a run at Weymouth.

Orion, winner of the Round the Island Race and second this year to Paragon, a 60 foot trimaran, registered speeds of 20+ knots at Speedweek.



Speed and Performance

Flat-out, unbridled boatspeed captivates our imaginations. Record setting boatspeed was Harvey Bowden's goal on Orion this year at Weymouth and Bob Dill's intent with Iron Duck last March in Nevada. We marvel at the sailing speed of Yellow Pages Endeavor and the human-powered speed of Decavitator. Boat performance, however, includes boatspeed and much, much more.

Boat speeds are also a subject of measurement—course and instrumentation. Speed at Weymouth is timed on a straight, one-tack course in sheltered water. Bob Dill set his world landsailing speed record with a radar gun on a dry lake in Nevada. IMS and PHRF and such rating systems measure boat speeds in a manner that must have something to do with wind, water, and boats. And "The Race" is handicapped with gold, silver, and brass as well as sheer terror and brinkmanship.

Current technology developments offer new and challenging opportunities to measure boat speeds, but we must understand what they can and cannot do. We have GPS, Laser Tape, Radar, and a seemingly endless array of sensors we can connect to computers, but what do we do with all those "data points"? How do we interpret them? One thing this technology can do, as Alex Brincko remarked, is make his chimney swing in wide circles every time he attached his GPS antenna to it. Information is not knowledge and certainly not understanding. We have much to learn about understanding and interpreting the current information overload.

So, can we establish meaningful speed records? Yes, we can if the course and measurement system are understood. As Richard Boehmer notes, top speed for one second doesn't compare to average speed over 500 meters or 24 hours, and speed on a one, most-favorable tack does not compare to speed around 360°.

We begin the speed discussion in this first issue of Catalyst with news of Weymouth Speedweek and the Newport Symposium, Richard Boehmer's "Overall Performance Index", and Bob Dill's "Rules of the Speed Game", and expect to pursue the subject in coming issues.

Boat performance measurements are more encompassing and more useful in that the measurements may be weighted for personal preferences. Dick Newick, with his Claiming Race proposal at Newport, opted for a knot/cost measurement. Charles Houghton of Elco electric launches and David Stookey of "Open-Water Rowing" might advocate a pleasure/cost measurement, and Theo Schmidt might add an ecological factor to it. Dave Culp would certainly propose a cost/ton mile for his Kite Tugs and I would call for "The Forgotten Factor". We begin in this issue with Dave Culp's Kites and Theo Schmidt's Solar Power mindful of the many subjects yet to explore.

What an interesting prospect we have! And with each answer, we gain two new questions. Today we begin with speed, kites, and solar power. Tomorrow is rich with opportunities.

—Tom Blevins

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Human & Solar Power—Theo Schmidt
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Iceboats—Bob Dill
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Kites, Wingsails Inclined Rigs—Dave Culp
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Speed Trials—Bob Downhill
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Catalyst is a quarterly journal of yacht research, design, and technology.

The Editors welcome submissions from both members of the Society and non-members. Electronic submissions to Fishwick@compuserve.com are preferred, but typed copy with illustrations may be sent to the Editors at the Society.

Catalyst is published quarterly by the Amateur Yacht Research Society, BCM AYRS, London WC1N 3XX, UK. Reg. Office: 9 Lynton Road, Thorpe Bay, Essex SS1 3BE, UK. Company No. 786327. Educational Charity No. 234081.

Subscription is through Society membership for £20 or US\$30 per annum for a Full Membership, and £10 or US\$15 for a Student or Retired Membership. First Class and Air Mail Delivery can be arranged for an extra fee.

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ISSN 1469-6754