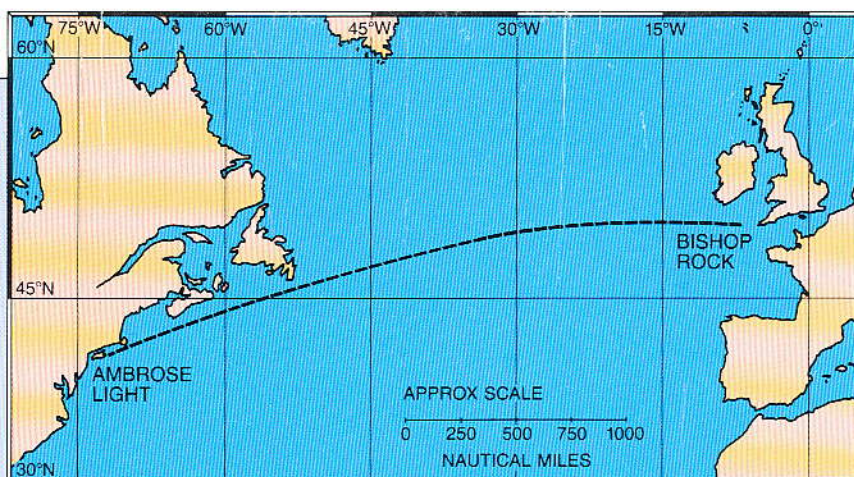


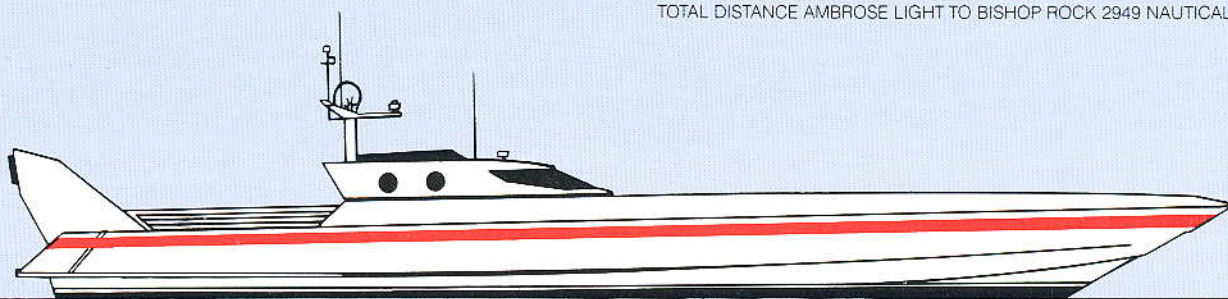
The Record – The Challenge

On July 7th 1952, SS United States set the latest World Record for the unrefuelled surface crossing of the Atlantic, between Ambrose Channel Light, New York and Bishop Rock Lighthouse, Scillies. Since then, a number of projects have been established to take this last major powered World Record, which still stands.

The very fact that it has lasted 37 years is evidence of the difficulty of the challenge, which requires a pinnacle of supreme teamwork and engineering to accomplish. Atlantic Sprinter is a British engineered experimental endurance racing boat capable of raising that record by more than 25%. Our objective is to achieve a significant record which will stand for some years and to generate massive worldwide quality media coverage for our sponsors.



TOTAL DISTANCE AMBROSE LIGHT TO BISHOP ROCK 2949 NAUTICAL MILES



Length overall	50.00m	164'-00
Length waterline	41.50m	136'-03
Beam moulded	8.75m	28'-03
Depth moulded	4.80m	15'-09
Draught	c2.00m	6'-06
Displacement light	110 tonnes	
Displacement max.	430 tonnes	
Fuel capacity	320 tonnes	83,760 imp gallons

Powerplant	Rolls-Royce RB-211-22B modified for shaft drive
Propulsion	2 x Kamewa 112 series waterjet units
Max thrust	600 Kn (60 tonnes) at 50kts (excluding engine exhaust)
Auxiliary power	2 x 55KW diesel engines
Emergency propulsion	2 x 350 HP Sabre diesels with retractable propulsion

Atlantic Sprinter founders – Adrian Hamilton; Don Shead, three times designer of World Champion offshore powerboats, and six times European Champion and Richard Noble OBE, founder of Project Thrust and holder of the World Land Speed Record at 633 mph.

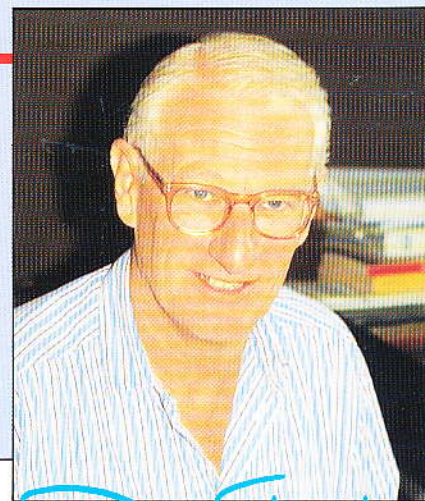


Richard Noble
1983

Adrian Hamilton



Don Shead

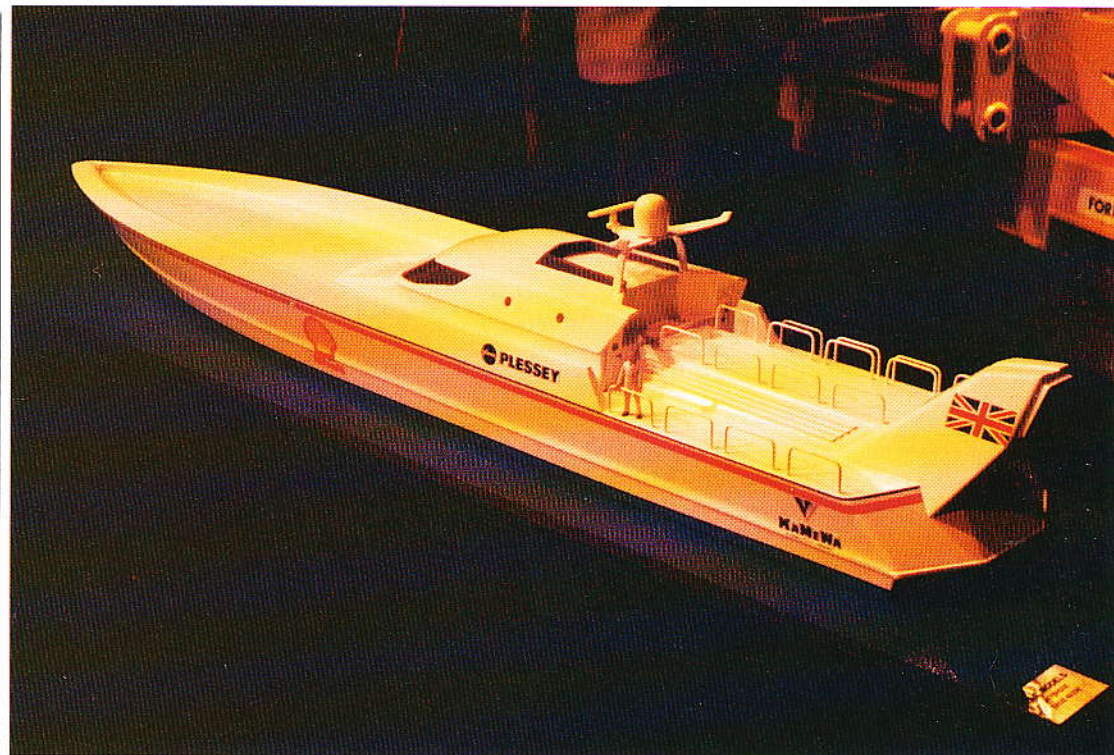


Adrian Hamilton

THE ATLANTIC SPRINTER CHALLENGE

Richard Noble, the fastest man on land at 633mph, now intends to become the fastest man non-stop across the Atlantic on water. For the *Atlantic Sprinter* project he has teamed up with Adrian Hamilton and world champion offshore powerboat designer Don Shead. Originally known as the Blue Riband, in 1933 the record became the Hales Trophy. The 2949 mile Atlantic record was set in 1952 by the ocean liner the *SS United States* from the Ambrose Light, New York, to the Bishop Rock Light off the Isles of Scilly at an average speed of 35.59 knots. Since 1952 several attempts have been made on the Atlantic crossing. The current record was set in 1986 by Richard Branson on his second attempt in *Virgin Atlantic Challenger II*, a 21.96m (72ft) Sonny Levi design powered by twin 2000hp MTUs driving surface-piercing propellers. It took him 3 days 8 hours and 32 minutes at an average speed of 36.79 knots. The current Hales Committee decided that they would not award the trophy to Branson because he had a special lightweight non-passenger challenger. They prefer to keep the trophy for commercial vessels of over 1000 tons.

Branson set up his own Virgin Atlantic Trophy for both refuelled and unrefuelled crossings, having refuelled three times himself to take on batches of 14 tonnes of fuel in mid Atlantic – an exercise that almost proved his undoing when the fuel filters could not handle the salt-water contamination in the supply system. Last year two attempts failed to make an impression on Branson's record. The 33.55m (110ft) *Gentry Eagle* powered by twin 3500hp MTUs driving KaMeWa waterjets with a central 4000hp Avro Lycoming turbine driving a surface-piercing propeller was aiming for a one-stop refuelling record with a 45-tonne fuel load. The 27.14m (89ft) *Azimut Atlantic Challenger* powered by four CRM diesels developing 7000hp and driving waterjets was attempting a non-stop record carrying an incredible 95 tonnes of fuel. This year both *Gentry* and *Azimut*



MODEL OF THE DON SHEAD-DESIGNED 50M (164FT) ATLANTIC SPRINTER POWERED BY A 30,000HP ROLLS ROYCE RB211 JET ENGINE FOR THE BLUE RIBAND RECORD. THE 110-TONNE CRAFT WILL HAVE TO CARRY 320 TONNES OF A1 JET AVIATION FUEL FOR THE NON-STOP CROSSING AT AN AVERAGE SPEED IN EXCESS OF 45 KNOTS

are planning further attempts once the weather clears.

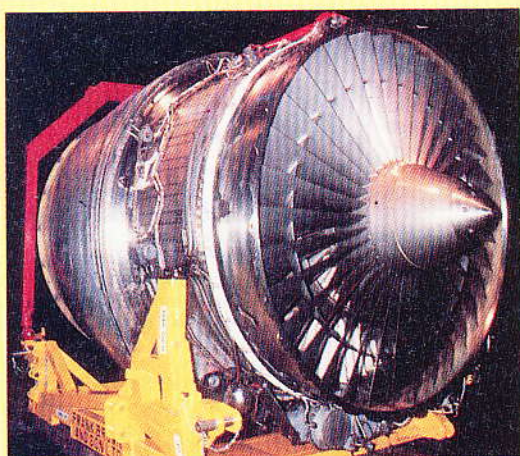
Richard Noble's *Sprinter* project is aiming for a 1990 attempt on the crossing that will add a whole new dimension by aiming for at least a 25% reduction on *SS United States'* original non-stop record time. A new Daily Mail Atlantic Trophy has been put up in recognition of the attempt in commemoration of the first transatlantic flight in 1919 by Alcock and Brown for the Northcliffe Prize. The new trophy is specifically for unrefuelled challenges and thus is technically and operationally the most difficult to achieve.

Noble is no stranger to jet power, which was used in his Thrust record land vehicle, and has teamed up with Don Shead, a pioneer in the application of gas turbines in the marine market, having fitted a 1000hp Rolls Royce Gnome engine into the offshore racer *Miss Embassy* in the early 'Seventies. The power source for *Atlantic Sprinter* will be a 30,000hp Rolls Royce RB211 22B gas turbine normally fitted to Lockheed TriStar jumbo jets. Such a

powerful engine developing 48,000 ft/lbs of thrust has its own set of complications when used in the marine environment, offering formidable technical challenges for the design team. For an unrefuelled attempt *Sprinter* will have to carry 320 tonnes of A1 jet aviation gas. This has necessitated a 50m (164ft) sleek hull with a 41.5m (136ft) waterline and 5.75m (28.03ft) beam displacing 110 tonnes to carry the fuel load.

Two of the most difficult engineering problems will be modifying the Rolls Royce RB211 engine to cold-end shaft drive and the coupling of the engine to the two KaMeWa 112 series waterjets via a special GEC reduction gearbox.

Sprinter promises to be the most powerful 50m racer in history, capable of taking the Atlantic record at an average speed in excess of 45 knots. As designer Don Shead comments 'this is a once in a lifetime venture and an opportunity to set a truly inspirational record'. The project motto is outstanding engineering put to the ultimate test.



Noble's Transatlantic sprint

Richard Noble has launched a new record bid, swapping his land legs for sea legs in his latest challenge. The man whose Thrust 2 project brought the Land Speed Record back to Britain in 1983 has decided to bid for the Blue Riband, the award for the fastest crossing of the Atlantic from Ambrose (New York) to Bishop Rock (Scilly Isles). The current fastest crossing is held by Richard Branson's Virgin Atlantic Challenger but the time, set in 1986, included stops for refuelling. The non-stop, unrefuelled, record is still held by the liner SS United States and Noble's boat, Atlantic Sprinter, aims to trim 25% from that 1952 time. The boat, a 50 metre long Don Sheard design, is fitted with a Rolls Royce RB211-21B shaft-driven engine, the first gas turbine challenger for the record. The engine is a modified Tristar unit and helps give an impressive power to weight ratio that should push the boat along at around 45 knots. At the start of the run, Atlantic Challenger will have 320 tonnes of fuel on board (83,760 gallons). Inspiration and backing for the project came originally from Adrian Hamilton but others are already involved. Shell will fuel the challenger, Plessey aims to provide live coverage from the boat and the Cranfield Institute is providing technical back-up. Additionally, a Supporters' Club has been created, details from Atlantic Sprinter Supporters Club, PO Box 669, London SW8.

AUTOSPORT, APRIL 13, 1989

Interesting "Atlantic Sprinter" facts:

1. If filling at a conventional petrol station, it would take $7\frac{1}{2}$ days & nights to fill the Atlantic Sprinter tanks.
2. The engine maximum output torque is 48,000 ft lbs-equivalent twist to a spanner nine miles long with a 111b weight at the far end.
3. The waterflow through the two 1.1 metre diameter KaMeWa Waterjets generates 60 tonnes of thrust at 50 knots and is capable of emptying an Olympic swimming pool (2 million litres) in 64.5 seconds.
4. The RB-211-22B is usually found fitted to early Lockheed Tristar jumbo jets.

Comparison with other Atlantic contenders:

Name	Length	Power	Fuel Tonnes	Range	Target/Actual
Virgin	72	4000	14	800	36.62
Azimut	88	7000	90	3500	40 ?
Gentry	109	7000	45	2000	43
Sprinter	164	30000	300	3300	45 +

Other rumoured contenders:

Victory Stain	46M	Italy	Surface effect ferry
Ilan Voyager	50M	U.K.	Trimaran
Sea Containers	70M	U.K.	Wavepiercer Catamaran

Reports of other contenders have been rumoured in Italy, France, USA, Norway so far ...

Richard Noble says:

"We welcome the birth of this tremendous international competition of a type not seen since the Schneider Trophy and we are going to give it everything we've got".