JOHN COBB

24th June, 1952.

Pathe News,
Pathe House,
133, Oxford Street,
London, W. 1.

Dear Sirs,

Further to my notification to you of Mr. Cobb's press conference on 1st July, I am asked to say that it will not be possible, on this occasion, to provide any facilities for filming.

As stated in the invitation to the conference, full facilities will be made available for the filming of Mr. Cobb and his boat at a later date.

Yours faithfully,

Angus Barr
Press Officer.

PRESS OFFICER: ANGUS BARR 46 GROSVENOR STREET, LONDON, W.1.

TELEPHONES { ANGUS BARR DAY: MAYFAIR 9232 NIGHT: LEE GREEN 0130
LAURENCE SULTAN DAY: MAYFAIR 9232 NIGHT: BRIXTON 1678

JOHN COBB

Press Preview of "Crusader"

The Railton - Vosper boat "Crusader" will be on view privately to members of the press on Friday 22nd August at Adams Bros., Ltd., Transport Wharf, Dickerage Lane, New Malden, Surrey from 10.30 a.m. to 12 noon. Mr. Cobb will be available to answer any questions about the craft.

You are cordially invited to be present. Acknowledgement is unnecessary but please bring this invitation with you.

The taking of photographs will be allowed.

Kevin Press Secs

Directions for reaching Adams Bros. Ltd. New Malden

From City or West End:

Cross river by PUTNEY BRIDGE and proceed via PUTNEY HIGH STREET and PUTNEY HILL to "GREEN MAN". Bear right on PORTSMOUTH ROAD (A308) and continue on A.3 - KINGSTON ROAD, KINGSTON-BY-PASS to COOMBE LANE (A.238). Turn right and continue down COOMBE LANE for about one mile. Then turn left into DICKERAGE ROAD and continue into DICKERAGE LANE. ADAMS BROS. LTD. will be on your left after passing under railway bridge.

Nearest stations: NORBITON or MALDEN (Southern Region)

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JOHN COBB

Press Release No. 1 — 1st July, 1952

"CRUSADER"

My Railton-Vosper boat

This boat has been built with the object of conducting research into high-speed travel on water. Its rather revolutionary layout was originally suggested to me by Reid Railton. Design and construction have been carried out by Vosper Ltd. in co-operation with the British Aluminium Company and the de Havilland Engine Company.

We decided that the boat should be powered by a jet engine since this form of propulsion has great advantages over the conventional propeller when aiming at very high speeds. As boat-speed increases, so the efficiency of a propeller decreases until, at the highest speed so far attained on water, only about one-third of the horsepower developed by the engine can be converted into propulsive force.

With a jet engine, on the other hand, the thrust remains nearly constant, irrespective of the speed of the boat, while the overall efficiency of propulsion actually increases rapidly with the boat-speed. Moreover, at speeds approaching 200 m.p.h., the horsepower available from a jet engine of given weight and bulk is rather greater than that provided by a piston engine of the same size, even if all the latter's power could be used propulsively instead of the one-third which is actually available. The designers of the boat and I were satisfied that, provided we could master the technique of applying it to boat propulsion, a jet engine was the logical choice.

With the agreement of the Ministry of Supply, the de Havilland Engine Company has made available a Ghost engine, similar to those fitted in the D.H. Comet. The land based and carrier borne Venom fighters, which have such a big responsibility in the defence of this country over the next few years, are also fitted with this type of engine. A de Havilland Vampire, with a similar Ghost engine, still holds the World's height record of over 59,000 feet.

The novel shape of the hull was dictated by the desire to prevent its being disturbed by the very large forces which are

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exerted by the surrounding air on the hull of a boat travelling at very high speed. With boats of conventional design, presenting large, fairly flat surfaces to the air, these forces may tend to lift (or depress) the hull to such an extent as to spoil its performance completely. Since the purpose of our project was to achieve speeds greater than have ever been reached before, it was obviously vital for us to avoid these forces as far as possible.

Having arrived at a shape for the hull that was satisfactory in this respect, it was, at least, equally important to provide it with planing-surfaces that would ensure stable running at high speed. Lastly it was necessary to endow it with enough buoyancy to enable it to float satisfactorily when at rest. The main problem facing the designers has been to work out a compromise which should satisfy these three requirements.

The design was constantly checked at successive stages by the use of rocket-propelled models, at first by small models of one-sixteenth scale, and finally by a large model of one-sixth scale. This large model, propelled by a rocket of known thrust, was actually timed to achieve a speed of 97 m.p.h. We believe that the boat, as it now stands, represents a fundamentally sound solution of the problem, although considerable experimentation and development will probably be required before the final high-speed trials are made.

The construction of such a boat is, in itself, a considerable problem since it is necessary to obtain maximum strength with minimum weight penalty. In this case, a planned mixture of birch ply and high strength aluminium alloy has been used. The hull and sponsons are basically of plywood reinforced as necessary with aluminium alloy, while the outrigger beams are almost entirely of aluminium alloy. The actual planing surfaces are of aluminium sheet.

The overall length of the boat is 31 feet, with a span over the sponsons of 13 feet. The weight in running trim is expected to be nearly three tons.

Provision has been made for the experimental use of parachute-drogues to act as an "air-brake", in case such a thing should be found necessary.

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I should like to make special acknowledgement to Commander Peter Du Cane of Vosper Ltd., to Reid Railton and to the staffs of the Admiralty Experimental Station, Haslar, the De Havilland Engine Company, C.C. Wakefield & Company Ltd. and the Aerodynamic Section of the Fairey Aviation Company. Finally, I acknowledge gratefully the co-operation of the Rocket Propulsion Department of the Royal Aircraft Establishment, Farnborough which made possible the checking of our design by high-speed model.

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JOHN COBB

Press Release No. 2

1st July, 1952.

TRIALS AT LAKE WINDERMERE

Mr. John Cobb has decided to take his Railton-Vosper boat "Crusader" to Lake Winderemere for its first trials.

It is expected that these tests will take place towards the end of August.

E N D

NOTE You will be notified as soon as a definite date can be fixed for the trials.

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JOHN COBB

Press Release No.3 21st July, 1952.

LOCH NESS CHOSEN FOR "CRUSADER" SPEED TRIALS

Mr. John Cobb has now decided to take his Railton-Vosper boat "Crusader" to Loch Ness instead of to Lake Windermere. Loch Ness has been chosen because the American, Stanley Sayres, recently increased the World's Water Speed Record to 178.4 m.p.h. In order to exceed this figure, a greater length of water is required than Lake Windermere can offer.

It is expected that the boat will go to Loch Ness towards the end of August.

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NOTE You will be informed of the exact date of the move to Loch Ness as soon as possible.

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JOHN COBB

Press Release No. 4. 14th August, 1952.

Statement of Intention

My high-speed boat, "Crusader", is now complete and I hope that it will arrive at Drumnadrochit on Loch Ness, Invernesshire, on or about Tuesday 26th August. A number of trials will then be carried out and, if these are successfully completed, an attempt will be made to regain for Great Britain the World's water speed record.

You will be notified at least twenty - four hours before the boat is ready to make any attempt on the record.

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JOHN COBB

Press Release No. 5 — 20th August, 1952.

"CRUSADER" TRIALS

As stated in Press Release No. 4, "Crusader" will depart for Loch Ness on Friday, 22nd August and arrive at Temple Pier, Drumnadrochit on or about Tuesday, 26th August.

It was intended to carry out trials before proceeding to Loch Ness, but persistent heavy weather has made it impossible to put into operation the scheduled essential preliminary tests. Therefore, all these tests will have to be carried out on arrival at Loch Ness. For this purpose ideal weather conditions are necessary.

At Loch Ness there are very few calm days, so it may take some time to complete the first experiments and any modifications which may have to be made before high speed trials can take place. The mile course has not yet been marked out but just as soon as this, and the boat, are finally ready for any record attempt, it can be categorically stated that three days notice will be given.

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JOHN COBB

RAILTON - VOSPER "CRUSADER"

Constructed by Vosper Ltd., Portsmouth.

Accessory and Component Suppliers

Supplier	Items Supplied
Adamant Engineering Co. Ltd., Dallow Road, Luton.	Steering Gear
Alford & Alder Ltd., Deacon Street, Walworth, S.E.17.	Steering Gear Drag Link
Aviation Developments Ltd., 229, High Holborn, W.C.1.	Chobert Rivets
N.S. & M.C. Barton Ltd., 7, Camp Road, Farnborough, Hants.	Nuts and Bolts
Bluemel Bros. Ltd., Wolston, Nr. Coventry.	Steering Wheel
British Aluminium Co.Ltd., Norfolk House, St. James's Square, S.W.1.	Aluminium
J. Burns Ltd., Wangye Works, Chadwell Heath, Essex.	Plastic Captive Nuts and Screws
Cellons Ltd., Kingston-on-Thames, Surrey.	Paint
The Clip-On Co. Ltd., Swanwick, Southampton.	Air Ducts
De Havilland Aircraft Co. Ltd., (Airspeed Division) Hatfield, Herts.	Doped Fabric
De Havilland Engine Co. Ltd., Stag Lane, Edgware, Middlesex.	Engine
Fina Petroleum Products Ltd., London, W. 1.	Fuel
Thos. Firth & John Brown Ltd., Atlas Works, Sheffield, 4.	Material for Rudder
Firth Vickers Stainless Steels Ltd., Staybrite Works, Weedon St., Sheffield. 9.	Material for Fin
Films & Equipment Ltd., Wardour Street, London, W. 1.	Plugs and Sockets
Flexo Plywood Industries Ltd., "Flexo" Works, South Chingford, E.4.	Plywood Angles

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P.Frankenstein & Sons (Manchester) Ltd., Victoria Rubber Works, Newton Heath, Manchester.	Life Jacket
G.Q. Parachute Co. Ltd., Stadium Works, Woking, Surrey.	Parachute Gear
Graviner Manufacturing Co. Ltd., Poyle Mill Works, Colnbrook, Bucks.	Fire Extinguishing System
Guest, Keen & Nettlefolds Ltd., Heath Street, Birmingham, 18.	Screws & Aerotight Nuts
The King Aircraft Corporation, Fifth Street, Montrose Avenue, Hillingdon, Glasgow, S.W.2.	Cowling Fasteners
Joseph Lucas Ltd., Birmingham.	Electrical Equipment
Wm. Mallinson & Co. (late Aeronautical & Panel Plywood), Plywood Department, 130/150 Hackney Road, E.2.	Plywood
Manganese Bronze & Brass Co., Dock Road, Birkenhead.	Rudder Bearing Bush
Palmer Tyre Ltd., Hergo House, Vincent Square, S.W.1.	Engine Piping
David Powis & Sons Ltd., Forward Works, Golden Hillock Rd., Sparkbrook, Birmingham, 11.	Boat Nails
R.F.D. Co. Ltd., Cattishall Lane, Godalming, Surrey.	Buoyancy
Rubery, Owen & Co. Ltd., Aviation Dept., Darlaston, South Staffs.	Stainless Steel Bolts
Rumbold & Co. Ltd., Kingsgate Place, Kilburn, N.W.6.	Seat and Upholstery
Saro Laminated Wood Products Ltd., Folly Works, Whippingham, I.O.W.	Nose Fairing
Smiths Industrial Instruments Ltd., Cricklewood Works, N.W.2.	Instruments
J.Stone & Co. Ltd., (Deptford), Deptford, S.E.14.	Rivets
Teleflex Products Ltd., Teleflex Works, Chadwell Heath, Essex.	Controls

JOHN COBB

Thomson & Taylor (Brooklands) Ltd., Brooklands Track, Weybridge.	Manufacture of Rudder and Fins
Tungum Sales Co. Ltd., Brandon House, Painswick Road, Cheltenham, Glos.	Engine Piping
C.C.Wakefield & Co. Ltd., London, W.1.	Castrol Oil
Wokingham Plastics, Denton Road, Wokingham, Berks.	Windscreen

8.8.1952.