

THE INTERNATIONAL HYDROFOIL SOCIETY

17 Melcombe Court, Dorset Square, London, N.W.1. 6EP

Telephone 01-935 8678

Past Presidents: 1970-1971

Baron Hanns von Schertel

Peter Dorey

CIRCA 1978

PEGASUS - PATROL HYDROFOIL MISSILESHIP (PHM)

Launched November 1974 and was the first hydrofoil commissioned into the US Navy - on 9 July 1977.

'Equipped with two clusters of Harpoon Missiles, an Oto Melara 76mm rapid-fire gun, a Rapid Bloom Offboard Chaff System (RBOC) and Mk-94 gun fire control system, weight and space reserves permit expansion to other combatant missions such as antisubmarine warfare (ASW), anti-air warfare (AAW) and minelaying tasks. Speed and seakeeping ability makes PHM ideal for these missions.'

Design flexibility makes PHM easily adaptable for non-combatant missions such as fisheries law enforcement, protection of offshore resources, and search and rescue. PHM may also be fitted for use as a helicopter platform. This versatile ship is normally self-supporting for a minimum of five days at sea but the ability to replenish when under way adds unlimited potential for mission performance.'

MIAMI - FLORIDA

Three Westernmoen PT 150 hydrofoil ferries began scheduled services MIAMI-Florida and the Bahamas ports of Nassau and Freetown in November being operated by Bahamas Hydrofoil Cruises, 903 South American Way, Port of Miami, Florida 33132. Amenities during the three hour run include dancing, slot machines, a duty-free store and a children's special activities room. Tourist single US \$21.95 and \$39.95 return. First class \$5 extra each way. Children under five free and half fare 5 to 15 years of age.

Admiral James L Holloway III, US Navy Chief of Operations was interviewed by H & H in the new series SUMMIT introduced by this journal. Amongst other things the Admiral said 'We are planning to procure the full squadron of PHM type Hydrofoils and deploy them.' Our research and development plan includes using the PCH-1 (HIGHPOINT) and the AGEH-1 (PLAINVIEW) as well as the PHM to demonstrate other mission applications and demonstrate new technologies for hydrofoils.

In the same issue is the interview of Waldemar Graig (Grunberg) by the Chairman IHS (9 pages) and the Report of our AGM-Presidential Address and the paper THE EVOLUTION OF SAFETY REQUIREMENTS for DYNAMICALLY-SUPPORTED CRAFT by J M Cox OBE (Member).

In a radio programme To-Morrow's World when questioned on the likelihood of increasing competition between the hovercraft and hydrofoil industries Robert Bateman, Vice President and VGM Boeing Marine Systems, said that Boeing had identified routes offering a market potential for 200 Jetfoils. Half of that market fits hovercraft competition and he looked forward to competing. On the drawing board in Boeing is a 600 ton passenger/car ferry. He also said that on the Tower Pier-Zeebrugge route 98% passengers indicated that they would like to travel on a hydrofoil again.

President: Dott, Ing, Leopoldo Rodriquo

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SPRING 1978

JANES SURFACE SKIMMERS 1978

With acknowledgements to Macdonald & Janes

Foreword. Grumman for the last three years has been involved in exploiting the potential of hydrofoil ships which could be employed by the US Navy as ocean combatants. Preliminary designs have been completed for ships ranging in displacement from 1,330 to 1,625 tonnes. Foilborne ranges in the order of 3,000 nm, speeds in excess of 50 knots and continuous operation in sea state 6 are being considered. Multiple combat systems are under study, including vertical launch missiles and air capability. The larger designs being studied may employ VTOL Aircraft to provide long range target identification for anti-ship missiles and surveillance capability, up to 400 nm from the craft. The biggest ocean going hydrofoil ship studied so far would have a displacement of 2,400 tonnes - the conceptual design of this craft was delivered to US Navy in March 1977. She is canard, 106.85 metres, two 4300 shp engines.

..... hydrofoils for defence applications in the Soviet Union was the appearance in the Eastern Baltic mid 1977 of the SARANCHA. Built in Leningrad. Four SS-N-9 anti ship missiles, one SA-N-4 surface to air missile launcher on the for'd deck and a twin 30mm rapid fire AA cannon aft. 52 knots. Foil system retractable.

List of Hydrofoil Consultants has DOTY Associates, Rockville, Maryland added to last year's list.

Small Fast Warships & Security vessels

International Symposium, London Tara Hotel, Kensington, London, England
March 7, 8 & 9 1978

A HYDROFOIL FISHERIES PATROL VESSEL FOR THE UK by J.S. Coates SEAKEEPING & THE SMALL WARSHIP R.G. Heater RCNC K Nicholson & M.J. Stevens.

OPERATIONAL REQUIREMENTS & THE CHOICE OF CRAFT CAPTAIN D.M. Eckersley-Maslin RN & J.F. Coates RCNC

There are seventeen papers all of interest to hydrofoil people.

Christopher Hook. Life Hon Member. It is with the greatest regret that we announce the death of Christopher Hook who was the innovator of the fully submerged foil hydrofoil. He was working on his HYDROFIN till the last, dying on February 9 at the station of the way to lecture in the Midlands.

Extract from the London Daily Telegraph

Christopher Hook who has died aged 75, was the hydrofoil inventor who spent 35 years vainly trying to interest the Government in his invention.

Although he invented the first fully - submerged and incidence-controlled hydrofoil in 1942 other countries have developed the idea rather than Britain.

When he set up business in Cowes in 1945 his applications for permits to buy materials were rejected. After demonstrating his design on Kensington Round Pond in 1946 he moved to the Cote d'Azur and sold several hydrofin craft as pleasure boats.

87-11-7774-2
In 1951, after the French naval authorities had confirmed that his ideas were superior to rival designers, he took his hydrofoil to the United States where his plans were backed by the American National Advisory Committee for Aviation.

Returning to Britain for another attempt to gain Government help, he was advised by the Earl of Halsbury, chairman of the National Research Development Corporation, to work with the German hydrofoil expert, Gottard Sachsenberg despite a letter from Sachsenberg saying that Hook's hydrofin was superior to all boats of similar size built according to other hydrofoil systems."

Hook also designed the Flying Broomstick, a revolutionary catamaran with hydrofoils looking somewhat like a trampoline which he entered in 1972 for the World Sailing Speed Record event at Weymouth.

.....
W. Witt member, has taken a small stand at the UK Sunday Times Business to Business Exhibition on May 21 -24 to show the Hamilton-Walker (member, New Zealand) SURFACE SKIMMER - a hybrid hovercraft/hydrofoil.

Auckland Star 7.2.78 with acknowledgements.

The Jetfoil service Honolulu - Maui has ended (The three Jetfoils have been sold by Pacific Sea Transportation to Far East Hydrofoils) LVT Corporation is to divest itself of Pacific Sea Transportation and certain other smaller operations outside its main interests in steel, food & aerospace.

Leo Dromgoole, North Shore Bus operator and ferry owner is hoping to interest Railways Department in buying three Jetfoils for the Wellington-Lyttleton run.

HYDROFOIL SERVICES MAY LOSE \$70,000

The industrial dispute over Auckland's new hovermarine (hovercraft) is likely to cost its operators at least \$70,000 in lost revenue.

The 62-seater craft, bought for the fast ferry service between Auckland and Waiheke Island, has been idle since early December.

For most of that time it has been slipped by refitting and repainting, but it has also been at the centre of a manning dispute between the Seamen's Union and the North Shore Ferry Workers' Union.

Court Hearing

Hydrofoil Services Ltd, the company planning to operate the service, has applied to the Industrial Court to have the dispute settled. This will be heard on February 13.

By then the company will have lost \$70,000 in revenue, said a director, the Hon W J Scott.

Acknowledgements to South China Morning Paper, Hong Kong Sunday January, 8 1978

HYDROFOIL RAPPED OVER FERRY CRASH

The hydrofoil flying Albatross has received the lion's share of the blame for a collision with a ferry last year.

A Marine Court of Inquiry says it was travelling at an "immoderate speed".

And it condemns the vessel for not keeping a proper radar watch.

The hydrofoil and the Man Tack collided in fog off Hay Ling Chau on March 2.

The triple-deck ferry sank - and a 70 year old passenger later died.

Sources said last night that the Man Tack's owner - the Hongkong and Yaumati Ferry Co. Ltd - is considering taking legal action.

The firm may demand the Hongkong and Macau Hydrofoil Co. Ltd. cover the cost of repairing its vessel. This could go up to \$250,000.

The action would be based on the findings of the court which was headed by Judge Collier.

However the court ruled that no order as to costs be made against the hydrofoil's owners.

The judge's 30-page report was compiled after taking evidence for 13 days in October.

The court found that the collision was caused by excessive speed on the part of both vessels in fog.

But it said that there were no design faults in either vessel which contributed to the accident.

However, the bridge radar on the Flying Albatross could have been better sited. And the court censured both masters for travelling at excessive speeds in fog.

Judge Collier was told that the Flying Albatross was travelling at about 34 knots, and the Man Tack at seven to eight knots. They were within $\frac{1}{2}$ mile of each other. In attaching a greater share of the blame to Flying Albatross, the report said the hydrofoil was aware, by radar, of another vessel.

But it continued at an immoderate speed of about 34 knots on its foils.

By doing so she gave the other vessel less time and less chance to hear her own fog signals. Also by being foil-borne she prevented the stationing of a lookout outside the wheelhouse where there might be a chance of hearing signals from the Man Tack. The report said the Macau-bound Flying Albatross had the advantage of knowing the presence of another vessel.

But a proper radar watch was not kept, nor was intelligent and reasonable use made of reports the watch produced. It went on to criticise the Hydrofoil, which carried a crew of eight and three passengers, for not taking early and substantial action. Even with its extreme manoeuvrability it ran to within half a mile of a target with a combined approach speed of 41 to 42 knots.

The report made three specific criticisms of the Flying Albatross:

1. Excessive speed in reduced visibility despite warning of approaching targets on radar.
2. Inadequate radar watchkeeping.
3. Lack of positive action to avoid the development of close quarters.

The Man Tack, which was taking 157 passengers and a crew of 20 to Hongkong, was criticised for:

1. Not slowing down, stopping its engines or navigating with caution when fog signals from another ferry, the Man Tack, were heard ahead.
2. Not making sufficient fog signals early enough.
3. Not reducing speed after avoiding the Man Tack.

The report said it was apparent that the Flying Albatross covered all but the very last part of the voyage before the collision on its foils.

And it said it would seem reasonable to expect a maximum speed for the voyage to be 32 to 33 knots.

The report noted that it was not possible for the craft to have made speed alterations before the collision, assuming the master's evidence of reaching the scene of the collision from Green Island (about 3.45 miles) in six minutes at 33 knots.

If the time is stretched to seven minutes, the radio officer's evidence of going on to the hull a minute before the collision could fit the circumstances, provided 13 knots was maintained until very close to the collision area.

The court found that the Flying Albatross had headway at the time of the impact.

Accounts by witnesses on the Man Tack that there were wide bow-waves when the hydrofoil was first sighted were consistent with the craft having just dropped to its hull and slowing down.

"The foregoing would indicate that the Flying Albatross did not become hull-borne until shortly before or even at the time of sighting Man Tack," it said.

The report said visibility was thought to be 500 to 600 ft. and it would seem that the Flying Albatross had considerable headway at the time of collision, possibly seven to nine knots.

It noted that the hydrofoil could stop very quickly. Sea trials showed that it took 17 seconds for her to stop dead from a speed of about 33 knots.

Regarding the Man Tack, the court said apart from the time of departure, there were no accurate times available. The vessel's log book was lost when it sank.

But, given the time of departure and collision time, it is possible to assess the speed at which Man Tack travelled over the 3.7 miles from Cheung Chau pier to the collision area. It took the Man Tack 22 minutes. The court said the Man Tack was travelling at seven to eight knots at the time of impact.

And it found the collision was caused, or contributed to, by the excessive speed of the Man Tack in fog and also by the Flying Albatross until or shortly before the moment of sighting the ferry.

The hydrofoil's radar watchkeeping was criticised by the court as the deck officer admitted that he did not request the ship's heading from the captain when keeping watch.

He was content to report bearings taken with the radar cursor as "10 old degrees" while a target was approaching rapidly on a steady bearing.

The report said the master must also be criticised for his lack of decision.

Despite the information his deck officer relayed, he continued at an unreasonable speed into what should have seemed a risky situation.

"He was content to rely on his supposed ability to stop his vessel in half the range of visibility, even though the actual range of visibility had never been accurately established."

The court made several recommendations to prevent similar mishaps.

They include the fitting of a compass-stabilised radar on all hydrofoils and the holding of a certificate of attendance at a radar simulator course by all masters and deck officers.

The radar on the Flying Albatross should be re-sited to a more accessible and comfortable place.

Consideration should be given to fitting headsets at the master's, chief engineer's and chief officer's positions because of the high noise level in the wheelhouse.

The court also recommended that the Marine Department and hydrofoil operators re-examine their schedules to allow a mid-day break of 30 to 45 minutes for crew members, with proper lunch facilities.

Regarding the construction of the Man Tack, the court suggested that positive stability at all angles of heel resulting from the flooding of any two adjacent compartments should be provided.

Another recommendation was that no passengers should be carried in holds, although the total number of passengers carried need not be reduced.

The court also recommended that no buoyant apparatus should be carried on the sundeck roof of the Man Tack class of ferries.

The dropping of life rafts from the roof of a tripple-deck ferry could kill or injure people already in the water. It said ferry crew members should be trained how to help passengers leave a sinking vessel.

A Marine Department official said yesterday that the Director of Marine, Mr. Malcolm Alexander, is studying the report.

Sitting with Judge Collier were two nautical assessors, Captain Maurice Burbridge and Captain Peter Gray, and a naval architect, Dr Brian Baxter.

A CODE OF PRACTISE FOR SHIP'S BRIDGE DESIGN

£15 DTI National Maritime Institute, Feltham, Middlesex TW14 OLQ, England

The Ergonomics Laboratory of EMI in consultation with National Maritime Institute from a study funded by the Marine Technological Requirements Board. This study is the result of many interviews in many types of ship including hydrofoils. It is advisory but of value to owners, design teams, manufacturers.

Jetfoil Utility Module

..... in their present structural arrangement with modification to allow "quick change" for other uses. By removing a portion of the seats space can be provided to carry equipment or troops for fast transport to remote operating areas. In the area for fishery protection, a substantial modification to the upper portion of the jetfoil is desirable. These modifications allow the addition of boarding craft, possible helicopter launch & recovery and accommodations for short or long term operations. Only light armament would be required for this type of hydrofoil. The ultimate configurations would be more heavily armed versions. They would have counterinsurgency capability, would carry ordnance for commando operations and could operate as small missile gunboats with heavier armament, including surface-to-surface missiles.

New Zealand Herald 17.9.77

LONE FRIGATE TO POLICE NEW ZEALAND FISH ZONE.

A single Navy frigate backed by aircraft and patrol boats faces the daunting task of policing New Zealand's new 200 mile fishing zone, the fourth largest in the world.

The Otago is the first of New Zealand's frigates to get the job. A planned voyage to Australia has been scrapped and it is now being prepared for it's new role. The new zone comes into force 1 October. Hundreds of vessels from Japan, the Soviet Union, Korea and other countries currently fish in the area. From April 1 1978 fishing vessels will be licensed and their numbers strictly controlled.

AYRS Newsletter with acknowledgements

- August 11th & 12th A.Y.R.S. Poole Meeting. This will include a race with windward and downwind courses for 'Ayrsoil' classes. The races will be held in sheltered water. Details from Ken R. May, Brook House, Salisbury, Wiltshire. Any member who can provide a bunk on a cruising yacht for owners of smaller craft please advise in advance.
- September 18 - 23rd Speed Sailing at Portland Harbour, England. This will again be organised by the Royal Yachting Association for attempts to break the world sailing speed records. So far a sponsor has not come forward and the meeting may have to be run at minimum cost. The A.Y.R.S has promised to continue to do all that we can to help, how much depends on members.

AYRSFOIL CLASS

During the show, on our stand, we witnessed a historic event. John Morwood David Chinery and John Stanton agreed on a hull shape for the 'Ayrsoil' class suitable for the lower sail area. The plan by John was drawn by David and has had a small chine added for the last few stations to improve the top speed. Now that the shape has been agreed quotations are being obtained for hulls with decks to be moulded in G.R.P. and it is expected that these will be available to members for between £80 and 100 each including deck. These hulls with transom sterns are much more suitable for foil experiments than the canoe suggested in our October news.

Royal Institution of Naval Architects during Spring Meeting 1978 - AGM

..... Presentation of Silver Medal to M.C. Eames (Fellow) IHS Member and T.G. Drummond.

28.2.78

IHS Insignia.

The society insignia still awaits a satisfactory solution and members are requested to give the matter thought. So far all have been turned down because they are not art design-wise good or the foil shape moving through water not technically correct. It has of course to be able to be used for all time and cover all types of hydrofoil.

HYDROFOIL in South Korea.

This is a PT20 named 'ANGEL' which was delivered in 1971 to HAN RYCO DEVELOPMENT Co., SEOUL.

AMATEUR YACHT SOCIETY AGM

John Morwood showed a series of diagrams of hydrofoil options available. He suggested members should use a canoe and a single seat fibreglass model, (available to members £55). By using ladders as crossbeams a number of foils could be tried to find the best size and shape.

A class called AYRSFOILERS is to be sponsored by the Society. There are to be four sizes to fit the sail area divisions of the World Sailing Speed Record. 10 sqm A-Class (13.94 sqm) B Class (21.84 sqm) C Class (27.88 sqm). Apart from sail area the only requirement agreed is that each craft shall be positively buoyant.

"It was the clear intention of members to encourage development of yachts with a satisfactory windward performance and any race should include up and down wind courses. It was suggested that at first, races should not go into rough waters.

BOEING.

A photograph has been received of Boeing Jetfoil Model 929-115 now under construction. Points made are, working from starboard bow to aft and up the port side:-

- Improved bow thruster.
- Deletion of upper deck overhang.
- Improved evacuation system with fewer, lighter, rafts.
- Upper deck windows to meet DOT requirements.
- Light weight, round, stacks.
- Relocated sidelights to meet USCG requirements.
- Deletion of bridge wing.
- Deletion of eyebrow over wheelhouse.
- Bow slot closure removed.
- High Performance forward foil.

WORKING MODEL OF A HYDROFOIL

Any member knowing of a successful working model hydrofoil please communicate.

HYDROFOIL TAXIS on the THAMES

There is now a hydrofoil taxi service on the Thames. Catamaran Cruises Limited, who operate from West India Dock pier, have imported a Russian Volga 275 hydrofoil, which can carry five passengers as well as the pilot and cruise at 30 knots. The craft is 28 feet long and draws only 3 feet of water off the foils and half this when foiling. It is powered by a Volvo Penta 280D diesel which develops 106 H.P. at 4,000 R.P.M. The P.L.A. has not so far imposed any speed restriction on the craft and on a demonstration run against the tide the journey from West India Dock pier to Westminster pier - a distance of about 5½ miles - took 12 minutes.

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Peter Dorey

LIST II

TECHNICAL PAPERS HELD IN THE LIBRARY
at 52 Welbeck Street, London W1.

- WATER TUNNEL TESTS OF THREE VENTED HYDROFOILS IN TWO-DIMENSIONAL FLOW by Thomas G Lang & Dorothy A Daybell.
- VENTILATED CAVITIES ON SUBMERGED THREE-DIMENSIONAL HYDROFOILS by F R Schiebe & J M Wetzel.
- 1968 PREDICTION OF SEAKEEPING CHARACTERISTICS OF HYDROFOIL SHIPS by Irving A Hirsch.
- OPTIMISATION OF WATERJET PROPULSION FOR HIGH SPEED SHIPS by L Arcand & C R Comolli.
- APPLICATION OF LIFTING-SURFACE THEORY TO PREDICTION OF HYDROELASTIC RESPONSE OF HYDROFOIL BOATS by C J Henry.
- THE MARINE GAS TURBINE by W H Lindsey.
- 1969 DISCUSSION OF APPENDIX IV-b of the REPORT OF THE ITTC CAVITATION COMMITTEE SURFACE-PIERCING STRUTS (STRUT VENTILATION) by Richard Rothblum.
- SOME EXPERIMENTS ON A SUPERCAVITATING PLANE HYDROFOIL WITH JET FLAP by Nguyen Ngoc Dinh.
- PROBLEMS AND PROSPECTS OF THE SUPERVENTILATED HYDROFOIL by Barry V Davis.
- AUTOMATIC CONTROL OF THE HYDROFOIL GUNBOAT TUCUMCARI by James E Vogt.
- HMCS BRAS d'OR - AN OPENSEA HYDROFOIL SHIP by M C Eames & E A Jones.
- A SCALING LAW FOR VENTILATION INCEPTION ON SURFACE PIERCING STRUTS by Richard S Rothblum.
- 1974 HIGH PERFORMANCE DIESELS IN PROPULSION SYSTEMS FOR HYDROFOILS by L J Lohaus.
- 1976 HYBRID RAM-WING/PLANING CRAFT - TO-DAY'S RACEBOATS, TO-MORROW'S OUTLOOK by Paul R Shipp.
- THE HYDROFOIL SMALL WATERPLANE AREA SHIP (HYWAS) by John R Meyer Jr & James H King.
- RECENT ADVANCES IN WING-IN-GROUND EFFECT VEHICLE TECHNOLOGY Major Roger W Gallington. Harvey R Chaplin & Fred H Krause & Jeffrey A Miller.

- 1976 (cont.) A REVIEW OF SEA LOITER AIRCRAFT TECHNOLOGY Basil S Papadales Jr.
- THE ADVANCED NAVAL VEHICLE CONCEPT EVALUATION. Capt. Thomas L Meeks and Peter Mantle.
- SELECTION OF A HYDROFOIL TRANSMISSION & PROPELLER SYSTEM FOR A GENERAL ELECTRIC LM2500 GAS TURBINE by Joseph Toth & Vincent M Zardus.
- PRODUCTION PHM DESIGN-TO-A-COST HULL STRUCTURE by Ottis R Bullock & Brian Oldfield.
- RECENT STUDIES OF STRUTS AND FOILS FOR HIGH SPEED HYDROFOILS by Young T Shen & Raymond Wermter.
- HYDROFOIL HULLFORM SECTION by Charles G Pieroth.
- PREDICTION OF WAVE-INDUCED MOTIONS FOR HULLBORNE HYDROFOILS by R T Schmitke.
- THE ASSESSEMENT OF HIGH PERFORMANCE WATERCRAFT IN COASTGUARD MISSIONS by Clark Pritchett & Lt. Cdr. Fred Hamilton & Lt. Cdr. Berne C Miller.
- 1977 WATER ENTRY AND EXIT OF A FULLY VENTILATED FOIL by D P Wang.
- OPTIMAL SHAPE OF A PLANING SURFACE AT HIGH FROUDE NUMBER by L U Ting & Joseph B Keller.
- FORCED VIBRATIONS OF THIN, ELASTIC, RECTANGULAR PLATES WITH EDGES ELASTICALLY RESTRAINED AGAINST ROTATION by E A Susemihl & P A A Laura.
- NUMERICAL CALCULATIONS OF THE WAVE INTEGRALS IN LINEARIZED THEORY OF WATER WAVES by Hung-Tao Shen & Cesar Favel.
- NUMERICAL CALCULATION OF SECOND ORDER WAVE RESISTANCE by Young S Hong.
- HYDRODYNAMIC TRENDS FOR PRELIMINARY DESIGN OF FULLY CAVITATING HYDROFOIL SECTIONS by Blaine R Parkin, Robert F Davis & Joseph Fernandez.
- THE EVOLUTION OF SAFETY REQUIREMENTS FOR DYNAMICALLY SUPPORTED CRAFT eg HYDROFOILS, AIR CUSHION VEHICLES etc. by James Cox.
- DRAG & TURBULENT BOUNDARY LAYER OF FLAT PLATES & LOW REYNOLDS NUMBERS by Paul S Granville.
- ON A RECTANGULAR PRESSURE DISTRIBUTION OF OSCILLATING STRENGTH MOVING OVER A FREE SURFACE by Hsao-Hsin Chen.
- CALCULATION OF ATTACHED OR PARTIALLY SEPARATED FLOW AROUND AIRFOIL SECTIONS by Jerome H Milgram.
- ON THE EDGE SINGULARITY OF AN ACTUATOR DISK WITH LARGE CONSTANT NORMAL LOAD by G H Schmidt & J A Sparenberg.
- Undated AN EXPERIMENTAL STUDY OF SUPERVENTILATED FINITE ASPECT RATIO HYDROFOIL NEAR A FREE SURFACE by O Furuya & A J Acosta.
- WAVE IMPACTS ON HYDROFOIL SHIPS AND STRUCTURAL IMPLICATIONS by T G Drummond M Mackay R T Schmitke.

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Date: 28 June 1978

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Peter Dorey

NORTH AMERICAN CHAPTER (IHS-NA)

Our President attended a Dinner Meeting on 16 April 1978 at Admiral Kidd Officer's Club, San Diego, California. It was organised by Bob Johnston and marked the inauguration of the North American Chapter: IHS-NA

After a lighthearted story the President said:- I cannot abstain from saying how delightful this evening has been for my wife Alda and myself and how grateful we are to Bob (Johnston) and his wife for having organised this friendly meeting and to you all for having given us the opportunity to enjoy the warm American welcome and friendship.

From Bob and from various conversations we have had this evening I found that everyone of us is hydrofoiler minded. With this I mean experts as you all are who like the hydrofoil concept and who feel that this new means of advanced marine vehicle may solve water transportation problems.

As newly elected President of the International Hydrofoil Society, let me express my happiness in finding new friends pursuing the same aim as the society - to advance the study and research into the science and technologies of hydrofoils both power and sail, aims to which I have dedicated the last quarter of a century. Bob for sure told you that we are working very closely to establish the society on this side of the world, and I am sure that with Bob and with your efforts this can be realized for the common benefit of every hydrofoiler in the world.

We are trying to build up a specialized Library containing every world study concerning hydrofoils, a Library that is at the disposal of every member. (It is in H&H Office)

To summarise, we are trying hard to increase the society's assistance to all members and to increase the numbers of members willing to co-operate for the development of the hydrofoil concept, science and technology

The dinner was attended by thirty-two people (six ladies).

MEMBERS OF PARLIAMENT (LONDON) REPORT ON FISHING & OFFSHORE INDUSTRIES

The House of Commons in London examined a report on Fishing and the Offshore Industry (Report in Lloyds List) "It was claimed that fishery protection vessels took too long to reach the scene and when they did arrive there were too many modern trawlers which could outstrip them. A two-hour delay in reaching the scene was too long and a speed of the order of 25 knots was really needed, with one witness even suggesting 30 to 35 knots." So, given the likely need to overhaul a 20 knot trawler "We do not think there is a case for a TON class replacement which can sustain a speed of about 20 knots, with 25 knots available for pursuit."

President: Dott. Ing. Leopoldo Rodriguez

2.

The MP's were impressed with the advantage of having a helicopter available for quick close inspection of a number of vessels and in favourable circumstances for boarding also. So they recommend that this capability should be provided in the new class of ships that must eventually be provided for fishery protection purposes.

During its examination of the industry, the Committee examined the possibility of developing the hydrofoil for fishery protection purposes. However warning that these vessels are "formidably expensive" - ranging from £13 million to £25 million at 1976 prices the report suggests that to provide an all-round capability Britain would need to spend up to £175 million on the vessels and their coastal bases, plus more for reserves, maintenance and repair. And they suggest that thorough trials would be needed before a sound decision could be reached on the possibility.

NEW MEMBERS

With reference to Newsletter 28.4.78 giving a list of new members it is regretted there has been a typing mix-up of two names. The correct names and addresses are: Dr. Ing. Balzani Ferdinando Milano Via L Ariosto 21 Milano 20145 Italy. Giovanni Falzea. SS 113-No.52. Mortelle - Messina. Italy.

HYDROFOIL BOAT AT HIGH SPEEDS - LONDON DAILY TELEGRAPH 15.5.78

I am inventor of a hydrofoil boat of high speeds and have a respective patent in Great Britain. Which company or financier would be interested in a production of such a hydrofoil boat. Please contact H.B.20054, Daily Telegraph, EC4. A letter to the advertiser offering help did not get a reply.

EXTRACT FROM SOUTH CHINA MORNING POST - 2 May 1978

Recent attempts by the Far East Hydrofoil Co. Ltd. to break through the technical barrier for night services to Macau are reportedly not very successful.

The hope now apparently lies on the Vidar system being developed by Boeing. Delivery of the device is scheduled some time next year.

In the past few weeks, tests on Decca refinement equipment - accessories fitted to the conventional radar to increase the detection capability at night - were conducted on board the jetfoil Madeira.

Representing the Marine Department to assess the tests was Senior Surveyor of Ships, Captain John Mayo.

The radar had a clearer picture on the screen, Capt. Mayo commented yesterday, but the tests did not prove as good as expected.

The accessory equipment was fitted on board a jetfoil instead of a hydrofoil because the former is more stable, it was learned.

The Madeira is now at Taikoo Dockyard undergoing an annual survey. More tests had been originally arranged after the jetfoil came out of dock, but it is doubtful if these tests would be carried out in view of the results of the past tests.

Last year, Capt. Mayo went to Seattle to assess the Boeing Vidar - at the expense of the hydrofoil company.

3.

He found the device “quite good.” Vidar was brought here earlier, Capt. Mayo said. The one he saw in Seattle had some modifications.

He said yesterday that if the hydrofoil company brings the Vidar to Hong Kong in the future, tests will be necessary as the system may be further modified.

The hydrofoil company, headed by Mr. Stanley Ho, has for years conducted tests on different types of equipment in a bid to inaugurate a night service by hydrofoils and jetfoils, when this latest form of fast transport is put into service.

A pre-requisite before official approval is given for the night service is that the craft is able to detect small objects, such as floating logs or sampans, at a safe distance while the craft is “flying” on the water surface at night.

A few years ago, the company conducted tests on the LLTV system (low light television system) also developed by Boeing.

As the delivery date of this system will take a long time (also next year), during which the more advanced system, the Vidar is being developed, the company has opted for the latter, it is understood.

The company did not sit idle while awaiting for the Vidar to be available. It also went ahead with tests on Decca equipment.

Yesterday, the company declined to comment on the recent tests.

FERRY OPERATORS TO DISCUSS PROBLEMS

Ferry system operators from Europe, Asia and the Americas will discuss common problems varying from the environment, to computers, to vessels and terminal design when the Marine Transit Association holds its first annual symposium in Seattle on October 31 to November 4 at the Washington Plaza Hotel.

The MTA, formed in New York last autumn, provides a forum where, for the first time, marine transit operators, suppliers, designers, consultants, the educational and research communities, regulatory authorities and similar groups can discuss and explore problems of common interest and concern.

Carl Berkowitz, executive director of the New York department of transport, bureau of ferries and general aviation operations, is president of the organisation. Vice-president is Rupert Tingley, vice-president and general manager of CN Marine, Atlantic Canada’s largest operator of passenger ferry vessels.

The sessions will begin on October 31 with registration, a meeting of the board of directors and a welcome reception for the participants from around the world.

On the Wednesday’s programme includes establishment of committees, ferry terminal design concepts for intermodal interchange and technological changes in vessel design and construction.

On the Thursday, presentations will be given on techniques of traffic and revenue generation, labour relations and inflation trends, a demonstration of the Boeing jetfoil and a reception aboard the State of Alaska’s principal ferry Colombia.

On the Friday, the final day of the conference, there will be presentations on new applications of computer technology to marine transit operations and 15 minute presentations on major ferry system operations around the world.

Outstanding luncheon speakers will cover the topics of marine liability, legislation and the growing need for marine transit operations.

FISHING BOATS? WE'D MUCH RATHER BE CHASING SUBMARINES - AUCKLAND STAR - 27.5.78

Almost on the eve of publication of the Government's review of the Armed Services and the strategic situation, the Navy has launched a strong campaign to retain its traditional "blue water" role.

With the costs of new equipment rising and the establishment of the 200 mile exclusive economic zone, there have been powerful arguments in support of the theory that the Navy should be converted to a purely coastguard role.

The defence of the Navy's traditional role -- anti-submarine warfare and keeping the sea lanes around New Zealand open -- came in a speech by a Naval officer in Masterton.

Lieutenant Commander J. G. Power, from the Navy Office in Wellington said New Zealand could have a coastguard or a Navy - but not both.

"We do have lobbyists who advocate the formation of a specialist coastguard, but the realities of the situation are simple," he said.

A navy could do a coastguard task, but the reverse could not apply.

"I should point out that it has been consistent Government policy to maintain a bluewater navy," said Commander Power.

New Zealand's new fisheries zone was an asset needing careful management, "one which we cannot afford to stand aside and plundered by foreign states or companies."

Commander Power's statements come at a time when early research in the new zone is understood to indicate a much larger resource of fish than first thought.

New Zealand has possibly the lowest ratio of law enforcement resources to the square mile of ocean of any nation.

It lies in a belt of strong westerly winds (the "roaring forties") which generate a heavy swell for 15% of the summer and 40% of the winter.

This means that waves 1.6m or higher occur for more than 80% of the time. Winds of gale force or more blow for 20% of the time.

This means that even ships with recognised sea keeping qualities, such as the frigates, are often restricted in their agility to proceed on any course at any speed.

There are parts of the new zone which lie some 600 miles or more from any real shelter or land-based support so range, endurance and sea keeping qualities become important for fishermen and patrol vessels.

The Navy is concerned with the whole spectrum of fishery and resources law enforcement - detection, identification, inspection, apprehension and prosecution.

Lieutenant Commander Power pointed out that the surveillance and policing of the zone is a secondary peacetime task, since the Navy's main job is still to defend New Zealand and its interests from aggression.

"Air Force maritime aircraft are, of course, widely used to monitor the activities of foreign fishing vessels. But you can't arrest a ship from the air," he said.

The Navy's policing effort so far has generally proved adequate, but it has been achieved to some degree at the expense of other activities.

Says Commander Power: "For the longer term, we must see to it that we have the right amount of the right resources to carry out effective law enforcement.

"We have learned that in small countries, we can seldom afford really specialised solutions, and must always seek multi-purpose characteristics wherever they can be found."

The Navy holds high hopes that the new defence review will authorise a start to finding a replacement for the two oldest frigates.

NAVY ORDER WILL HIT HYDROFOIL PROJECT - FINANCIAL TIMES

Plans by British shipbuilders to build hydrofoils in under-used shipyards have been undermined by the Government only days before the Royal Navy places a £10m order for a Boeing Jetfoil craft.

Mr. Michael Casey, chief executive of British Shipbuilders, said last month that hydrofoil manufacture was one of the options open to the corporation in its moves to diversify from traditional shipbuilding and to provide more jobs.

This course appears to have been ruled out for the time being by a Ministry of Defence decision to buy the first hydrofoil for the Royal Navy off the shelf from Boeing, which has rejected the idea of building its hydrofoils in partnership with Britain. Such a scheme could, however, become "negotiable" in the future, Boeing said.

Last night the company said a decision was only two or three days away. The Royal Navy said it was "reasonably close."

By opting for Boeing, the Ministry of Defence will have robbed British Shipbuilders of the chance to have a majority stake in building hydrofoils, in partnership with another U.S. aerospace corporation.

Invitation

The Grumman Corporation of New York had invited Vosper Thornycroft, part of British Shipbuilders, to build at least 50 percent of its Flagstaff hydrofoils. These have been in production since 1968, and are in service with the U.S. Coast Guard.

Grumman said that Vosper could build the hull, sub-systems, and provide engines and other equipment for the first hydrofoil for the Royal Navy if the Flagstaff was chosen.

6.

Mr. Charles Rabel, marketing director for hydrofoils in the Grumman Corporation, said last night that the next generation of fast patrol craft, which could be hydrofoils, would be needed at a rate of 40 a year within 15 years.

“Once our production was established in the U.K., this could become our base for selling hydrofoils to the world,” he said.

But the Ministry of Defence is understood to have only a short-term interest in hydrofoils, for trial purposes. The seven island class offshore protection vessels, whose role will be simulated by the Jetfoil, will not need replacing for ten to 15 years.

Boeing has also had talks with Vosper Thornycroft, but these have not involved the partial manufacture of the first Jetfoil for the Royal Navy.

HYDROFOIL PLAN FOR SHIPYARDS - DAILY TELEGRAPH

A £10 million plan to build naval hydrofoil patrol craft in British shipyards has been put forward by the American aircraft company Grumman International. Half the profits on hydrofoil sales would go to the British companies involved in the project.

Grumman's 56.8 ton hydrofoil Flagstaff has been in service for 14 months with the American Coast Guard, patrolling the 200 mile exclusive economic zone along the Atlantic coast.

A second improved hydrofoil of this type is being built, and it is this design which Grumman hopes to have built in Britain.

A decision by the Royal Navy to buy the rival American Boeing Jetfoil design, which is twice the size, is expected to be announced soon. The Boeing craft will then be used to evaluate hydrofoils for a variety of roles, notably fishery protection, before plans are made to buy more such craft.

Grumman hopes its design will, in the long run, prove more attractive to the Royal Navy.

ROYAL NAVY HYDROFOIL

On 30 June 1978 the Royal Navy announced the purchase of a Boeing Jetfoil to be delivered in late 1979. It will be a 115 ton version of the fisheries protection and Economic Zone craft.

SCIENCE RESEARCH COUNCIL (UK)

The Council have made a Collaborative Training Award to a Naval Architecture graduate from Glasgow University to work on a hydrofoil project with a boatyard. This CTA scheme is new this year so hydrofoils are in at the start.

NEWS

Please will each member take a share in providing the news for the new IHS Section in Hovering Craft and Hydrofoil as it has to be filled each month now this system is to be started - it is up to us to co-operate and gather news for each other. Any mention of hydrofoils in Legislative Chambers is of interest.

BRIGHTON DIEPPE - SEALINK FERRIES

A new three times a day service Brighton-Dieppe has been announced by a Director -- John Coote today, 6 June 1978.

SEAJET operated by JETLINK FERRIES will start early next year. It will take 100 minutes to complete the journey. Both Terminals will be custom built. Brighton Marina will be the UK Terminal.

One way journeys in peak of season will be £18 dropped to £13 off peak. Special return fares and rates for group travel will be available. Special weekend and package trips to Paris and Normandy will be organised. IHS offers warm best wishes for success.

Extract from UK Hovercraft Society Newsletter

HM2 Mk4 for Uruguay will operate a high-speed service from Colonia (Uruguay) to Buenos Aires (Argentina) a distance of about 30 miles across to the River. Plate. BELT S.A.'s service using the HM2 will compete with a Buenos Aires-based PT50 hydrofoil operation, which runs a service between Buenos Aires, Colonia and Montevideo.

BOEING HYDROFOIL SERVICE FROM THE IRISH SEA

The Chairman attended a Press Conference to announce that the British & Irish Steam Packet Co of Dublin will commence a Dublin - Liverpool service to start in April 1980. This is the first order of a jetfoil by a European customer and is valued at 11.6 million dollars including spares, operational and maintenance training and shipping costs. B&I spent two years in detailed planning of the deal. Fares will be midway between current surface and air rates. B&I estimate that the first year traffic will be over 150,000 passengers. Both terminals are to be close to the city centres.

HONG KONG Hydrofoil Collision

The Official report of this collision will be published in Hovering Craft & Hydrofoil as an IHS paper.

FOUNDERS GOLD (CHALLENGE) MEDAL

This Gold Medal has been presented as an encouragement to youth. It will be awarded to the man or woman whether IHS or not, who has most advanced the study and research into the science and technology of hydrofoils, either power or sail. The recipient must be thirty years of age or under at the next Hovering Craft & Hydrofoil Exhibition & Conference. The period of the award is for work done in the up to 6 years before the conference. Further details will be announced in due course. It is requested that members will get the news of this award given a wide circulation in the media and in the hydrofoil world.

SUBSCRIPTIONS

Information in a special paper has been sent giving new subscription rates. If you did not receive this, please communicate with Honsec at once.

Last Newsletter 28.4.78

28.6.78.

THE INTERNATIONAL HYDROFOIL SOCIETY

17 Melcombe Court, Dorset Square, London, NW1 6EP

Telephone : 01-723 4285 or 01-935 8678

President: Dott. Ing. Leopoldo Rodriquez

NEWSLETTER-FALL 1979

NAVALTECNICA MESSINA

The Keel has been laid of the largest hydrofoil built up to now in Italy. The RHS 200, length 35,50 mt, beam 7 mt, displacement 120 tons, 40 knots. She has a stabilised automation system to enhance seakeeping. 310 passengers. It will have a helicopter platform.

HOVERCRAFT & HYDROFOIL EXTRACTS with acknowledgements

The June/July issue covered engines, both gas turbines and diesel. It is by Benjamin Smith and is something of a text book.

AUGUST

Creed invented the teleprinter and went on to press another new idea upwards and upwards 'till he came to Winston Churchill. It was in the war and he was trying to get his "seadrome" or aircraft carrier accepted. His timing was not good although looking back it seems as if he was right. The vessel had sidewalls down to torpedo shaped bases and looked as if it was the father of the SWATH ship. It may well be applicable today for the exclusive economic zones of some countries.

CROSS CHANNEL PRICE STAR

UK-Continent fares competition is hotting up so "Paris in Spring" may be a possibility for all.

P&O FERRIES

Seajet were offered "FLYING PRINCESS" ex Thames-Zeebrugge route as a stand-by vessel Brighton-Dieppe. She will return to P&O Ferries when they start the route British & Commonwealth Pier in the Thames to Ostend on February 29th 1980.

HIGH-SPEED SURFACE CRAFT

With the October issue the journal Hovering Craft & Hydrofoil, started in 1961, our "official organ" is re-named HIGH-SPEED SURFACE CRAFT. Every good wish is extended to Kalerghi Publications now operating in this wider field.

THE INTERNATIONAL HIGH-SPEED SURFACE CRAFT EXHIBITION AND CONFERENCE

Is to be at the Hotel Metropole, Brighton 24-27 June 1980. Over thirty abstracts were up for the first meeting of the Papers Committee. Those who are writing papers are requested to send the abstracts at once.

ROYAL NAVY'S HYDROFOIL

SPEEDY was due to leave for UK on 24 October 1979. She will be completed in UK. Diesel engines are installed for long endurance hullborne. She is due to be delivered to RN in April 1980. HMS Speedy will be evaluated in various roles including offshore fishery and oil/gas protection.

HYDROFOIL TAXI ON THE THAMES

Catamaran Cruisers has been operating a VOLGA 275 on the River Thames. As a result of interest two further craft were bought. They are said to be three times faster than a conventional taxi. The Volga has been found to be a strongly built craft. A piece of wood about the size a railway sleeper was hit hard enough to impale it on the bow foil but neither the foil nor the hull was damaged.

RED FUNNEL HYDROFOILS, TEN YEARS ON

For more than a decade Red Funnel Steamers has provided a hydrofoil service on Southampton-West Cowes route. The operation of the craft and service is reviewed and the opinion of Red Funnel Steamers is confirmed that the craft now in operation is an ideal size for the Solent route. RHS70 is the type.

USN PEGASUS

Established a new elapsed time record for a ship transiting the Panama Canal. Two hours and forty minutes. Pegasus has since met with a grounding accident when avoiding a fish vessel she got out of the channel. This is a normal navigational problem rather than a hydrofoil accident.

YOUR SOCIETY BOOTH

at the AIAA/SNAME Advanced Marine Vehicles Conference at Baltimore was well attended during the period 2-4 October 1979. Your chief executive was there as well as IHS-NA members. The Society was given an excellent set of hydrofoil photographs used on the booth.

IHS-NORTH AMERICAN CHAPTER

A dinner was held in the conference hotel. It was attended by over fifty people including our President. A token certificate of inauguration was presented awaiting the completion of certain legal requirements. Fourteen new members was the most encouraging result. The IHS-NA Chapter are certainly congratulated on running a particularly happy evening.

ANNUAL GENERAL MEETING

is to be held at the Royal Institution of Naval Architects 17.00 hrs, on 27 November 1979. Non-members are welcome.

Agenda

Report on the year by the Chairman

Accounts

KD Speyer - certified accountant

Any Other Business

It is planned to complete proceedings about 19.30 hrs.

HMS SPEEDY

Lieutenant Commander Peter Roach, Commanding Officer signed the official documents "flying" at fifty knots. Gene Myers, Director of Military Sales, Boeing Marine Systems and Lieutenant Richard Morgan RN Engineer Officer witnessed the signing. Captain Lawton Evans demonstrated the craft's capabilities.

IHS DINNER

A dinner is planned for 25 June 1980 for members and their ladies, the Hotel
Metropole, Brighton.

SUBSCRIPTIONS

There are a disappointing number of subscriptions still overdue from 15th July, which is the standing date for renewals. All members had summer newsletter marked in red ink as a reminder. The subscription is £7.50 or \$20.00. An extra £1 is necessary when sending money by overseas cheques as the bank charges this amount. Students' subscription is £1.00 pa or \$2.50. IHS-NA members pay via North American Chapter.

If you have forgotten whether you have sent your subscription or not please send it again and you will be credited for next year. If you do not want to continue, do please send a letter of resignation; the secretarial work is a voluntary contribution to the Society.

ITALY

Rupert Cornwell in Rome reports on moves to modernise the armed forces. Italy shakes off its defence lethargy. ... the navy, like the air force has been criticised as being under strength. Yet the modernisation programme now under way, helped by a special financing law of 1975, will produce a force conforming with the present ideal of a fleet of smaller very nimble ships, packing enormous fire power.

By 1985 the navy will be built around vessels like destroyers, Lupo class guided missile frigates and hydrofoils providing the complement to US sixth Fleet's heavy battlegroups - deployed in the Mediterranean

FASTEST OFFICIALLY TIMED SPEEDS UNDER SAIL (1978)

Type	Name	Gross WT lbs	Sail Area ft ²	Wind Force Beaufort	Boat Speed Knots
	Crossbow II	4500	1200	Force 6	34.4
Biplane catamaran (displacement)					
Canard hydrofoil		920	298	4	24.4
Canard hydrofoil.		720	218	4	
Hydrofoiled Catamaran	MAYFLY	370	150	6	23.0
Sailing Surfboard	Windglider	240	70	6	19.1

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NEWSLETTER - WINTER 1979-80

ROSENBLATT RECEIVES GRUMMAN AWARD

Acknowledgements Maritime Reporter/Engineering News

Lester Rosenblatt, President of M Rosenblatt & Son, received a plaque from Martin Liebman, Grumman Aerospace Corporation, Marine Programs Procurement Manager, in recognition of M Rosenblatt & Son's performance in concluding the design engineering services for the Grumman FLAGSTAFF MARK II Hydrofoil.

M Rosenblatt & Son collaborated with Grumman Aerospace Corporation in the naval architecture and marine engineering and detail design of this second-generation hydrofoil. The FLAGSTAFF MARK II is a 100-ton high-performance patrol craft with automatically controlled submerged foils and a single supercavitating variable-pitch propeller powered by an Allison 501KF marine gas turbine.

BRAATHENS S.A.F.E. TO BUY JETFOILS FOR OFFSHORE USE

Braathens S. A. F. E., a Scandinavian domestic airline headquartered in Oslo, Norway, has reached agreement with Boeing Marine Systems of Seattle, toward the purchase of two Boeing Jetfoil Hydrofoils for use in offshore oil crew and supply transfer.

Bjorn G Braathen, Braathens's President, made the announcement from Seattle, where he and a group of Norwegian government, union, and company representatives were visiting the hydrofoil facility.

The purchase, which through the Department of Commerce, has Norwegian government approval, is a three-phase agreement culminating in delivery of the two Jetfoils in 1982. A joint Braathens-Boeing study will determine the best configuration of the Jetfoil 929-115 for safe and comfortable transportation of crews to offshore platforms in the North Sea. The Jetfoils will also be employed in the transfer of high-priority cargo to the rigs.

Past Presidents: Baron Hanns von Schertel

Peter Dorey

Braathens is presently working with Coast Center Base and West Engineering and Research Company of Norway to establish a transport company to offer a complete offshore transport service based on the Jetfoil. Braathens plans to form a separate company to purchase and operate the Jetfoils while Coast Center Base will operate the terminal facilities.

Jetfoils in commercial operation have now logged more than 300,000,000 passenger miles in over 60,000 hours of operation.

The Jetfoils will operate in conjunction with a new system to transfer crews to and from oil rigs, one of which is now under development by Kongsberg Engineering AS of Norway.

ANNUAL GENERAL MEETING 1979

Held at the Royal Institution of Naval Architects, London SW1.

Mark Thornton read the President's speech as the President had not been able to attend as he had hoped. The full speech is reported in January issue of HIGH-SPEED SURFACE CRAFT as is that of the Chairman, Theo Pellinkhof.

"Primarily, I consider the year 1979 to have been an historic landmark in the programme of this Society due to the formation of the American Chapter," wrote the President. He continued, "Early in October I attended the AIAA/SNAME Advanced Vehicles Conference in Baltimore. I considered the assistance given by our members in the United States was tremendous (IHS + HSSC ran a stand there). No doubt you will recollect that last year I attended the initial IHS-NA Chapter dinner. This year with your Vice-President and Chief Executive, Mark Thornton, we joined in a particularly happy evening with over fifty members and their guests present, when a token certificate of inauguration was presented to the IHS-NA Chapter. It is hoped that this will be the forerunner of other Chapters throughout the World.

"During 1979 we have seen the commencement of construction of the largest hydrofoil to be built in Italy by Cantiere Navaletecnica of Messina. It is type RHS 200, a 40km/hr craft, length 35.50 metres 120 tons, 310 passengers. She will also be provided with a helicopter platform.

"The service Southampton-Cowes has proved it's worth and reliability, and the Southampton Isle of Wight and South of England Royal Mail Steam Packet Ltd. intend to introduce a new RHS 60 into this service." (Boeing Jetfoil services mentioned have been covered elsewhere in newsletters).

"We are indebted," continued the President, "to the owner and editor of HIGH-SPEED SURFACE CRAFT, Countess Kalerghi, for her readiness to allot space in the journal for the reports and publication of papers. She has been a tower of strength to this organisation since its inception.

"It is gratifying that 44 new members have joined since the last AGM.

"Regarding the Exhibition and Conference next June in Brighton, I hope this will be well attended by as many members as possible, (the dinner for IHS members and guests will be 25 June 1980), to learn of the latest developments of hydrofoils and small fast craft in commercial and naval fields. This will accelerate and in particular modern navies will be built around high speed; destroyers, frigates, fast patrol boats, and hydrofoils, all of which possess speed and fire power."

The President concluded by thanking RINA for the use of their splendid Weir Lecture Hall. He added that the IHS is in a very healthy state and long may it continue.

The Chairman, Theo Pellinkhof asked the audience to stand to mark the tragic loss of both Lord Mountbatten and Peter Dorey, the IHS former President.

The Chairman (the report is not verbatim) spoke of the increase of "happy passengers" using hydrofoils; today more than twenty (worldwide) operators run more than 400 hydrofoils and by adding the river hydrofoils in USSR the figure rises to 3,000.

The Council at present consists of six members, including two Vice-Presidents, and much encouraged by the President's incentives and enthusiasm, has set itself three priorities:-

1. Firstly, to improve communications with/and between centres of hydrofoil technology, hydrofoil builders and related industries, operators and, certainly not least, with members of our Society.
2. To step up our efforts to assist and advise anybody who would require information on any aspect of hydrofoils.
3. To strengthen the basis of our Society to fulfill the above priorities.

The Council is satisfied with its achievements regarding these tasks (without complacency). It has decided to propose to members (and guests) a dinner meeting on the second day of the Conference in Brighton i.e. 25 June 1980. We already have news of a good attendance by overseas members and we hope many members will take this opportunity to meet each other.

[The Chairman stated,] "Knowledge of hydrofoil technology, whether historical, futuristic or present day should be made available to the Society by members to keep abreast of developments. Please contact the Council if you feel that you can dedicate some of your valuable time to the IHS.

"Finally, I would like to remind you to forward submissions for the Mark Thornton Gold Challenge Award which is to be presented next June to a person under thirty who has most significantly furthered the aims of the Society over a period of the last five years.

"There is a prize for a hydrofoil poem, offered by Allan Buckle. Please forward your entry to the Council."

ACCOUNTS

Mark Thornton in introducing the Society Accountant had good news to give to the membership. Life subscriptions were invested in Premium Bonds. A £50 win was registered a way back and recently a prize of £1,000 has been won. The use to which the income from the investment of this sum will be considered by the Council in their January 1980 meeting.

Martyn Reeves addressed the meeting on behalf of the North American Chapter.

PAPERS

Three papers were presented at the AGM (Annual General Meeting)

JETFOILING OVER THE CHANNEL

L R Colquhoun

Jetlink Ferries

RECENT HYDROFOIL STUDIES AT THE UNIVERSITY OF GLASGOW

R C McGregor Glasgow University

REPORT ON NOISE AND VIBRATION MEASUREMENT AND ANALYSIS

D G Mazzeo

Navaltecnica

The following covers some of the discussion on the papers:-

J H Cox to L Colquhoun

1. Have you satisfactory safety arrangements?
2. Will you remark on the intake of water and seaweed into the jet?
3. Will you remark on the limitations of conditions seawise. It is fundamental that the ship can operate on her foils in all conditions. You can get confused seas conditions in the area.

L Colquhoun to J H Cox

1. 25-man life rafts are at present in use. A 42-man life raft will be used.

2. Jetfoil are prone to this situation. Boeing has improved the grillage and it is a problem when hullborne rather than in the foil-borne mode. We pulse air pressure through pipes and blast from the other end. We can put a diver down to seal the intake and water exits.
4. Seakeeping. I can't see that an SR.N4 can provide the ride comfort that the Boeing craft can. There is a possibility that the intake taking in air can alarm the passengers. When we operate at night the Captain can't easily see the waves.

Rear Admiral Kirke (Thermo Skyships) to L Colquhoun

How many hours "flying" do you do a month?

L Colquhoun to Rear Admiral Kirke

8 hours per day. There are four Captains and they do one day on and two days off. The maintenance of the two ships requires 20 people at Dieppe.

Theo Pellinkhof to L Colquhoun

Do you expect surface piercing foil craft and fully submerged foil craft to be used as EEZ patrol craft? Also will BELL HALTER be a contender for cross-channel services?

L Colquhoun to Theo Pellinkhof

Manufacturers may price themselves out of business. You can't go on escalating prices of hovercraft and hydrofoils. Hydrofoils will take over as fishery protection vessels as they have a more stable platform. They do however need a great depth for operating i.e. over 20 feet. I see a very good future for 10-15 years.

Born Martinsen, Det Norske Veritas Oslo to L Colquhoun

What-are your views on the use of Boeing Jetfoils for Transport to and from oil fields in the North Sea?

L Colquhoun to Born Martinsen

It may be unwise to take them there in very bad weather, but sometimes this applies to helicopters.

R McGregor to L Colquhoun

Is it possible to give quantitative limitations on sea conditions for which scheduled operations need to be/are suspended?

L Colquhoun to R C McGregor

There are conditions under which we do not operate, but high waves are more tolerable if they are on the beam. Maybe 12 ft seas are an extreme limitation.

R F Burnett, RINA to L Colquhoun

What are your service experiences in thick fog? Do you continue at full speed or reduce speed till hullborne? Does this result in discomfort to passengers?

L Colquhoun to R Burnett

We have two radar sets, and the level of competence shows up on approaches to terminals.

Professor Douglas Faulkner, Dept NA & Ocean Eng. Glasgow University
to L Colquhoun

How is steering controlled foilborne?

L Colquhoun to Professor Faulkner

Flaps operate as ailerons behave. The front foil acts as a rudder.

Neil MacDonald to L Colquhoun

1. Does the draught requirement of the Jetfoil in any way inhibit the operation of the vessel in Dieppe in view of the wide tidal range which that port experiences?
2. Boeing has published outline details of a passenger and car carrying larger Jetfoil design, for the mid or late 1980s. Would introduction of this craft onto the Brighton/Dieppe route require major modifications to the Brighton and Dieppe terminals to accommodate them?

L Colquhoun in reply to this and other questions gave a talk on the terminals.

Mark Thornton to L Colquhoun

Why are the craft berthed beam on and not bows out, being "wound" when doing the "hotelkeeping"?

L Colquhoun to Mark Thornton

Much depended on the Marina requirements and the art of the possible.

Professor Faulkner's written Contribution

"As Dr. McGregor stated in his introduction, the effort devoted to hydrofoil research at the University is relatively low. But I think you can make your own deductions from the slides he presented about the enthusiasm of the research students. I think they are to be complimented, not only on this, but on the way they have progressed from theoretical predictions of foil and other forces to tank testing to confirm these forces, and full scale trials on the first pro-

tototype in Loch Lomond and, more recently, a later prototype in Weymouth. This progression has all the ingredients of a sensible research programme and I know that the students have learned much from this experience and from the mistakes they have made.

"I wish to comment on the structural failure of the foils. The strain gauge work referred to by Dr. McGregor was to establish the prime loading to determine the overall response of the hydrofoil. The actual detailed loading on either the struts or the foils in random sea conditions is extremely difficult to predict. Indeed, during the US Navy's development programme for hydrofoils, strain gauges were placed on the struts and foils to determine these transient loads and to establish whether any limiting conditions approaching failure might arise. I was privileged to take part in some of these trials about 10 years ago on HIGHPOINT, and on one occasion the trailing flaps of the forward TEE foil jammed with one up and one down. This put a large twisting moment on the strut but fortunately it was strain gauged and we were able to demonstrate that the vehicle could still operate foil-borne in spite of this severe fault. In the case of the Glasgow University foil failure it is likely that hydroelastic effects arising from such a low modulus material as wood augmented the stresses in the foil structure. It is, therefore, perhaps not too surprising that the failure occurred. No doubt in a final design the struts and foils would be of metal construction.

"Dr. McGregor and the students, I feel, should be complimented on their contribution to the subject. They have learned much and also derived enjoyment. What more could a researcher ask for?"

Questions to D G Mazzeo

J H Cox to D G Mazzeo

What sort of resilient mounts are used for engines? Rubber is too stiff.

D G Mazzeo to J H Cox

It must be changed to something softer but with no fire risk.

R C McGregor to D G Mazzeo

The author is to be thanked for presenting this interesting and useful data. I take it that the curves in Fig. 6 are in fact spectra and would enquire whether the correlation spectra have also been calculated to confirm cause and effect?

D G Mazzeo to R C McGregor

The correlation has not been easy. Copenhagen University has done the measurements.

Chairman to D G Mazzeo

The real problem is structural noise. Have you tried to capture noise by using an acoustic hood? This can reduce the level by 20 decibels.

D G Mazzeo to Chairman

There are very low noise levels in the wheelhouse.

Chairman to D G Mazzeo

Is the gearbox firmly fixed?

D G Mazzeo to Chairman

The gearbox is, fixed i.e. not resilient. This is the way that they have been mounted for 25 years. The engine room is protected inside and out by sound absorbing material.

Countess Kalerghi was in the Chair
for the Three Papers

HIGH-SPEED SURFACE CRAFT - Hydrofoil items

October 1979 issue

Hydrofoils and hovercraft in the offshore patrol role by Anthony Randolph (Do these craft fill the OPV bill?).

Open Sea Patrol by Mark Thornton (The case for high speed craft beyond the narrow seas).

November/December issue

Speed Sailing by R C McGregor (A report on last month's World Speed Sailing Trials at Portland).

The Dangerous 80's - A Maritime View by Vice Admiral Sir David Loram (The threat against the West).

The Atlantic Community - a new renaissance? by Commander Hugh Mullineux (Greater need for co-operation by the Alliance's members).

Lifesaving Systems Designed for Dynamically-supported Craft by S G Williams (A picture of life rafts and storage available to-day).

Members can ask for the journal at half price US \$50 or £20. Again, .this reduction is not available to institutions or companies.

The Council send their best wishes to all members wishing them health, happiness and success.

THE INTERNATIONAL HYDROFOIL SOCIETY

REPORT ON THE ACCOUNTS

YEAR ENDED 30TH SEPTEMBER, 1979

There was a Net Income of £316 for the year which is added to the Surplus brought forward from the previous year of £1,030 to give a Surplus of £1,346 to be carried forward.

The total Surplus is represented by the following:-

Cash at Bank - Current Account	726
Deposit Account	239
Premium Bonds	915

	1,880
Deduct Creditors and Accrued Expenses	534

Net Assets	£1,346

The Income and Expenditure Account is summarised as follows:-.

Income -	Subscriptions	1,005
	Deposit Interest Received	20

		1,025
<u>Expenses</u>		709

Net Income for the Year		£316

THE INTERNATIONAL HYDROFOIL SOCIETY

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President: Dott. Ing. Leopoldo Hodriquez

NEWSLETTER. SPRING 1980

TORONTO-YORKTOWN HYDROFOIL ROUTE

A new hydrofoil route is established from Toronto to Youngtown, NY. President Joel Rahn, Royal Hydrofoil Cruises will run four round trips daily. The three PT 150 craft were originally in Scandinavian waters and later in Florida/Bahamas.

SNAME

The Undergraduate Paper Award for 1979 was given to Bruce Venezani and Richard Kelly for their paper Subcavitating Hydrofoil Lift and Drag Prediction. It was delivered to the Chesapeake Section

Le 70^e Anniversaire de L'HYDRAVION

Le soixante-dixieme anniversaire du premier, vol d'un hydravion sera célèbre le 28 Mars à Marseille en présence de l'auteur de cet exploit, Henri Fabré, aujourd'hui agé de quatre-vingt dix, sept ans. Ce jour-là, le pionier avait décollé et améri sur l'étang de Berre, où se déroulement, dans une semaine, les ceremonies destinées a commémorer cet événement.

MINESWEEPING

Extract from Military Electronics, November 1979 with acknowledgements.

The United States has only three active MSO's and therefore relied on the IWO JIMA and helicopters towing Mark 105 hydrofoil sleds to clear minefields.

The Soviet ASW and mine warfare capability is awesome with hundreds of submarines, aircraft, and surface ships equipped and constantly drilled and graded in this task.

Note :- It is understood that the number of mines ready is reaching towards a million.

FOILS BLAMED FOR CATAMARAN CAPSIZE

Kawasaki is a British design by Derek Kelsall. Despite her length, she displaces less than four tons, which makes her a 'flying machine' in a medium breeze.

If she can be repaired and sailed to Plymouth in time for the Observer Race, she would be one of the favourites.

The capsize was caused, Riguidel thinks, by the foils mounted under the trimaran's main hull (that are designed to lift the boat, reduce drag through the water and so increase her speed. It seems the lifting hull made the yacht unstable and she was flipped over by a squall.

The three crew found themselves clinging to the upturned hull in an icy wind. Chances of survival seemed slim, but they were picked up by a Japanese cargo boat after only an hour and taken to Norfolk, Virginia.

POLAND LAUNCHES ITS FIRST PASSENGER CATAMARAN

Investigations conducted by the Polish shipping industry have revealed that under certain conditions the constructional layout of a catamaran has more favourable operating features than single-hulled vessels.

The main advantages include: extremely large deck space; good resistance properties; lower draught; better stability and minimum heelings; and excellent manoeuvrability.

Taking these advantages into consideration the Gdansk Shipping Co. has placed an order with the "Wisla" shipyard to build five catamaran-type passenger craft during 1980-1984. The first vessel, *Szmaragd*, was launched from the shipyard in January.

Extract from Seaways, The Journal of the Nautical Institute (with acknowledgements)

Enforcement of International law and municipal legislation derived from international law by Commodore J. R. Hill, Royal Navy. Defence Policy Staff, MoD (Navy).

"Surface ships become even more necessary if boarding is required, for though more and more merchant ships are becoming accustomed to being boarded by helicopters they have to be not merely acquiescent but co-operative and boarding from boats or small craft is still a more certain method. Moreover ships can stay on station for days, which aircraft cannot. On the other hand ships are intrinsically slow, and control of a large sea area by ships either by means of a lot of them or some kind of dash capability; there may be a place for the hydrofoil here. Finally if coercion is required the surface ship is probably the best instrument, since it can command a greater variety of weapons than an aircraft and with greater discrimination."

New Canadian Connection JETFOIL SET FOR MAY START ON SEATTLE-VICTORIA ROUTE

Boeing Marine Systems, March 26, 1980-Operation JETFOIL of Victoria, B.C., announced today agreement with Boeing Marine Systems to provide a JETFOIL to be put into service on May 15, 1980, between Seattle and Victoria. Cedric Steele, Chairman of the Operation JETFOIL group, said that they see this as the beginning of a new era in high-speed passenger service between the two cities.

Agreement in principle has been reached to lease the JETFOIL Flying Princess II for a six-month period starting May 15, 1980. Initially the service will consist of two runs to and from Seattle per day to increase to three runs by May 29, 1980.

Boeing has agreed to grant the Operation JETFOIL group an option to purchase the Flying Princess for \$8.5 million plus an additional sum for spare parts. A deposit has been given to Boeing in order that the Flying Princess II may be prepared for the anticipated start-up date.

The Canadian connection by JETFOIL will carry 250 passengers on each trip and the trip will take less than two hours from port to port. Fares have not yet been set but it is anticipated that they will be in the range of \$20 to \$25 for adults per one-way trip.

Operation JETFOIL has approached B.C. Steamship Company to be their handling agent in matters concerning ticketing, marketing, port facilities, and immigration and customs.

Operation JETFOIL has applied for the name Flying Princess Transportation Corporation. This group will operate with a Chairman and a Board of Directors and will be responsible for all operational matters not covered in the proposed agreement with B.C. Steamship Company.

With acknowledgements JETFERRIED FREIGHT

P & O Ferries have been operating "Jetfoil One" from the beginning of last month between Tower Bridge on the River Thames and Ostend. Three sailings (or are they flights?) a day, each way, carry 250 passengers between the two purpose-built P & O terminals at a speed of up to 50 knots. There must be some potential for freight forwarding on this convenient and fast form of transport.

"Yes, there are possibilities for freight packages being carried," said Nick Varian, the London terminal manager, "and we have been approached by a number of people interested in using the Jetfoil for this. We have not been selling the service but each case is being considered on its merits." One inquirer believed to be interested would use it for newspaper distribution.

The present service offers businessmen a three and a half hour crossings with the speed and price to cut across the alternative flight or boat opportunities.

BARON HANNS von SCHERTEL

When it was heard that our first President was ill, the Council on behalf of all members sent their best wishes for a quick recovery. The Chief Executive has just had a letter from him saying he is recuperating in a Swiss Sanitorium. We hope that when he reads this he will be home yet realizing that we are all continuing to send our thoughts and good wishes for health and happiness.

HIGH-SPEED SURFACE CRAFT JOURNAL extracts

The JANUARY issue carried a paper by Brigadier John Constant on More Speed on The London River
The Society Annual General Meeting reports.

Noise and Vibration Measurement and Analysis Details of Navaltecnica's work in the hydrofoil sector.

JETFOILING OVER THE CHANNEL by L.R. Colquhoun Jetlink Ferries' cross channel service reviewed.

Recent Hydrofoil Studies at the University of Glasgow

H-SSC FEBRUARY

Internavia SEA SULKY a dynamically semi-submerged Craft Detail of a new ship design with negatively lifting hydrofoils.

DENNISON for Sale.

The pioneer US Hydrofoil 80 ton DENNISON is reported for sale at General Metals of Tacoma without engines and controls. She was launched in June 1962.

Who is to start the HYDROFOIL MUSEUM?

LIVERPOOL DUBLIN B + I route opened 25 April 1980. £43 return

H-SSC APRIL 1980

Two views of Jetting across the Channel.

(1) The Jetfoil returns to the Thames by Alan Blunden. A factual account of P & O's second Jetfoil operation.

(2) Happy Hydronaut by Mark Thornton. An individual impression of a Jetfoil flight from London to Ostend.

Heat transfer coefficient for the enclosing structures of passenger spaces in high-speed surface craft by F. M. Chistakov and S. N. Yefremov.

Russian investigations into hydrofoil air-conditioning.

JETFOIL DRIVE DEAL

Avis have an office at the Terminal in Ostend. There is an offer of £1 for a day's driving in a VW Polo of Renault 5TL 900 cc during the peak summer months when the normal jetfoil fare is £72 (High season £73)

IHS - NORTH AMERICAN Association second annual meeting was at the Shoreham Hotel, Washington DC on May.

JETFERRY ONE

RFD's 84 person inflatable dual liferafts were demonstrated at Ostend. 140 people were evacuated in 3½ minutes using half the ship's liferafts. The set is four liferafts.

BELGIUM FERRY SYSTEM BUYS TWO JETFOILS

Boeing Marine Systems, Seattle, Washington, March 20, 1980 – Regie Voor Maritiem Transport (RMT) the state-owned ferry company of Belgium, has purchased two Boeing JETFOILS for passenger service between Ostend, Belgium, and Dover, England.

The JETFOIL Model 929-115s will be delivered in time to begin operation for the 1981 tourist season. The purchase is valued at approximately \$27.5 million including spares, operational and maintenance training, and shipment of the JETFOILS to Belgium.

The crossing between Ostend and Dover will take about one hour and forty minutes. Each JETFOIL will carry 316 passengers and hand luggage.

RMT plans to make six round trips a day in the summer season and three round trips the remainder of the year. Fare for the crossings is likely to be about \$31.

The decision to purchase two JETFOILS reflects the view of RMT management that speedy and comfortable transportation, such as the JETFOIL, is the answer to tomorrow's passenger needs for tourists and business travelers alike.

Intercity-type trains will insure direct connections to the JETFOIL services at both ends—at Dover towards London and in Ostend towards Brussels, Belgium, and Cologne, Germany. The total time required to cover the distance between London and Ostend, including customs and security formalities in the English port of Dover, will be approximately 3½ hours. RMT will build a special JETFOIL terminal alongside the railway stations in Ostend and in Dover.

USSR. NEW HYDROFOIL TESTED (Navy International May 1980)

The Soviet Union is understood to have tested a new hydrofoil in the Baltic. The new craft is reported to have a maximum speed in excess of 100 km/hr and is fitted with four surface to surface missile launchers and heavy guns, possibly 57mm or 76mm calibre. The new unit apparently outclasses any similar vessels in Western navies.

MARK THORNTON GOLD CHALLENGE AWARD

Unless there are a number of late entries in the next weeks the first presentation of the Award will be delayed until 1982. The Award will be on display in Brighton 24-27 June. It has been represented that the age of thirty is too low so it is increased to under forty for 1982. It is for the young person who has most advanced hydrofoiling i.e. the Aims of the Society.

BRIGHTON HIGH-SPEED SURFACE CRAFT, Exhibition & Conference.

It is hoped that all members who can, will attend. Please pass information on to anyone likely to be a delegate. A map of hydrofoil routes will be displayed on stand 6 deliberately it will be incomplete. Will all members ensure that all known routes are added so we have the BEST map of routes.

REPORTING NEWS.

The news sent in by members (except Boeing PR) for this edition of your newsletter is zero. Not a newspaper cutting, not a word! Please help.

STOP PRESS

HMS SPEEDY due Brighton Marina 1200 24 June 1980 and leave
am 26 June

THE INTERNATIONAL HYDROFOIL SOCIETY

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adent Dott Ing Leopoldo Rodriguez

H S NEWSLETTER SUMMER 1980

SUPRAMAR HYDROFOILS

Baron Hanns von Schertel on July 15 responded to the note in the Spring Newsletter "I am back in my house since Whitsuntide and happy to be there".

From 1 April 1980 the name of his company is SUPRAMAR HYDROFOILS

An enlarged team includes a new general manager Harry Trevisany and new designers who are working on improving existing hydrofoils and developing new catamaran type hydrofoils.

GRUMMAN Mark II HYDROFOIL

100 ton with single engine propeller drive. Foilborne 45 knots. The propeller is controllable pitch. It has an Allison 501 KF Gas Turbine with two drive transmission. 10-12 knots hullborne with ample power for heavy towing missions. 34 tons of fuel and payload. "Enough to carry most of the world's all-up patrol boat weapon systems over 700 nm faster and using less fuel than two conventional boats.

BOEING MARINE SYSTEMS 1980

17 craft will be operating :-

Japan 2	Seattle-Victoria BC 1
Hong Kong 7	Argentina-Uruguay 1
English Channel 4	Royal Naval Fishery Patrol 1
Irish Sea 1	

In summer 1981 one will be added to the English Channel and two to the Ostend-Dover run by RTM.

SUPRAMAR PT150's

Royal Hydrofoil Cruises have named their three PT150's QUEEN OF TORONTO, PRINCESS OF THE LAKES, and PRINCE OF NIAGARA. These craft are the world's largest hydrofoils. The route is Toronto - Yorktown (for Niagara)

It must often be most pleasant to be allowed on the upper deck on passage.

WILLIWAW

Extract from AYRS April 1980 edition SHALLOW DRAFT CRAFT with acknowledgements.

Richard Boehmer, 34 Beechwood Road, Braintree, MA 02184 reports "I wrote to David Keiper for details concerning his hydrofoil trimaran, WILLIWAW. The following is extracted from his generous reply :-

"WILLIWAW only had working sails (240 sq. ft. on the main, 140 sq. ft. on the jib) in the data below, and anytime I was sailing for more than short while, there was a tied tiller and readjusted sails (not maximally efficient) to make the boat self-steer. All the data is with hydrofoils in operating position, except for part of the 10 day run, when in lighter downwind sailing, the bow and lateral hydrofoils were retracted and the stern foil set for zero lift. One thing limiting speed on the longer runs is the power "threshold" problem with hydrofoil sailboats: anytime I was averaging less than about 8 knots speed, the foils were losing speed for me (but what an increase in comfort, control and self-steering by having the foils set!). Thus slight improvements in foils and sail rig can lead to substantially increased speed averages.

I had a one day's run that appeared to be 216 miles, coming back from New Zealand, but there may be a navigational error, so I'll drop it.

Extract from Navy International

"PICCHIOTTI..... With a history dating back to 1854, this yard built one of the first hydrofoil boats in the world in 1906. Which was it? Will any member add to the history?

SUNDAY TIMES ATLANTIC RIBAND. Won £10,000 in Hydrofoil Trimaran

Eric Tabarly in 'PAUL RICARD' broke the record set in 1905 for the fastest Atlantic crossing. He took 10 days 5 hours and 13 minutes 50 seconds beating the record by one day 23 hours 47 minutes and 27 seconds (nearly 12 knots average). The original record was set by the three masted schooner ATLANTIC, master, Charlie Barr. Paul Ricard is a 52ft foil-assisted trimaran. The foils fitted at the end of her outrigger floats.

Extracts from the Sea Power of the state by S. G. GORSHKOV, Admiral of the Fleet of the Soviet Union, Commander in Chief of the Soviet Navy.

"The use of the hydrofoil principle which ensures a speed of 40-50 knots will be limited to passenger ships with a displacement of not more than 1000 tons since further increase in the displacement of such ships is economically disadvantageous and technically complicated".

The first ships with dynamic principles of support were ships on hydrofoil, best developed abroad in the USA, Italy and Japan.

The building of ships on hydrofoil was a notable achievement during development of a surface fleet. However, the basic defects peculiar to displacement ships could not be avoided since ships on hydrofoil are not capable of being completely severed from the water medium. Moreover, they are ill-suited for solving certain combat tasks, for example, the speedy disembarking of seaborne invasion forces, especially in shallow areas because of the high risk of damage from the ground to the hydrofoil.

Thus, ships on hydrofoil may be regarded as a transitional step to the creation of modern surface ships differing in principle from displacement ships. Such are ships on an air cushion and ram-wing vehicles, to the design of which much attention is being paid abroad. The principle of an air cushion is applicable to vessels of different displacements, up to ocean-going. Possessing a speed of travel of over 100 knots such an ocean vessel is capable of crossing the Atlantic Ocean in 30-40 hours, while an ordinary cargo vessel takes eight days and even longer.

After a discussion on air cushion vehicles we conclude the building of ships with dynamic principles of support has already become a reality. There is no doubt that the appearance in large numbers of such ships as part of the fleets will increase their combat possibilities and that the surface forces will be able to solve more successfully combat tasks and acquire quite new qualities.

The further development of surface ships of different classes will be an important stage in the creation of a modern balanced fleet.

HMS SPEEDY

The way is hard for a gifted only child though basically all should go well for her!

SPEEDY is a miracle. Great decisions, timing, luck, commercial competence and courage have brought her into the Royal Navy against all odds. Now she must be made into a success for all to see even though she is the one and only! She is to be employed in Fishery Protection to start with, where she will be amongst professionals looking critically at her ability to go fast over seas that slow other craft on the beat. There will have to be decisions about what spares are to be carried on board and, which have to be traded against range, as she is fully up to her weight limit.

We had an impressive and happy half day in the Solent. An Egyptian FPB was ranging here and there on trials. HMS GURKHA left harbour flying the Paying Off Pennant. However SPEEDY will in future be spending days hullborne on station, often in bad weather with foils down to act as stabilisers. Her Detroit diesels permit long-ranging slow speed periods followed by use of her dash capability on operational demand.

The bridge has adequate space. The OOW has to watch instruments together with the engineer and keep the vital lookout ahead for baulks of wood. (Curse the cowboys who throw them into river or sea). Fishermen's nets will be a hazard providing anxious times and damage claims are filed. Not only good seamanship but luck also is an essential ingredient of success. The supports for the bridge windows have to be very strong for waves scooped up when hullborne. They have a covering so wide as to make blind spots. Not being able to see aft without going outside the bridge is hard, but wing gyros are fitted. Two AVON SEARIDERS are under rather outdated looking davit ready for boarding duty. The navigation area inside the aluminium deck house is fitted with largely UK equipment added by Vosper Thornycroft.

A Royal Navy crew will soon be able to demonstrate the full virtues of the craft which the civil craft have not been able to do. The seakeeping capabilities may be more than many expect.

On return to harbour the ability to move crabwise up wind was demonstrated by splaying the rudders while on diesels. This will be an asset in small harbours.

SPEEDY will have all eyes on her. There is a need for a sister craft.

HIGH-SPEED SURFACE CRAFT EXHIBITION & CONFERENCE, Brighton 1980

IHS STAND.

Your society had a stand which received many visitors, who were asked to note on a world map the civil hydrofoil routes that they knew about. The result revealed more than expected. Gone are the days when one could carry them in one's head!

Is there a member who would volunteer to take up the task of registering them all on a large scale map and then photographing it for display in terminals. It is certain that passengers who have enjoyed hydrofoil travel will want to find other routes. There are many in the Press who need to be educated, as well as many naval officers worldwide.

IHS DINNER

Our President acted as host. About fifty members and their ladies had a very happy evening. Seating was so arranged that people were able to sit next to people they had not met before. Three of the Chinese delegation attended.

BRIGHTON 1980.

The event was a great success. The papers are bound and cover many subjects including airships. The DOREY SILVER CHALLENGE AWARD was presented by Mrs Dorey for the paper voted as best, prepared by D. R. Pattison, Royal Corps of Naval Constructors J.B. Wynne, University of Newcastle-upon-Tyne on Surface piercing vs fully submerged foils for sailing hydrofoils.

LOOKING AHEAD

IHS/AIAA meeting in Seattle 1981

IHS Annual General Meeting 1982 to be held at the Alexander Graham Bell Institute, Nova Scotia. Both events will be organised by the IHS-NAA.

MODEL HYDROFOILS

Has any member news of the building of model craft of recent design.

PORTLAND SPEED SAIL WEEK

October 4-11 1980. Information RYA, Victoria Way, Woking, Surrey, England.

*ALIMAR of Buenos Aires has bought a Boeing Jetfoil for the Rio de la Plata area. It will run on the 32 mile route Buenos Aires-Colonia, Uruguay which has for the last 18 years been running PT50 craft.

Admiral Victor Malatesta, President of Alimar (Member IHS) made the announcement in Seattle when Mrs Malatesta christened the craft, which will be delivered in time for the 1980-1981 tourist season. The sale is valued at approximately 13 million US dollars.

HOLIDAYS

All wishes for a safe and happy holiday to those who go off and away