THE INTERNATIONAL HYDROFOIL SOCIETY

North American Association • Post Office Box 2100 • Gaithersburg, Maryland 20879

JANUARY

1984

A NOTE ABOUT THIS NEWSLETTER

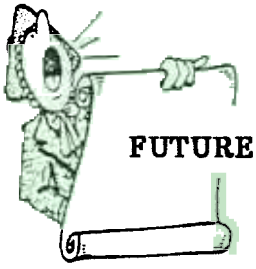
It has been just over a year since CDR Mark Thornton left us. As you all well know, Mark was the individual behind the IHS Newsletters. None has been published in over a year-and-a-half. With this newsletter, it is the intention of NAA-IHS to reinstitute the newsletter not only to NAA members but to all IHS members. It is only fitting that this newsletter be dedicated to Mark Thornton.

We are very fortunate in having Juanita Kalerghi carrying-on the interests of IHS. If you read carefully, you can find her hand in this newsletter. We of NAA are pleased to cooperate with Juanita and the council of our parent organization, IHS, in the future of our organization.

This newsletter has a very definite U.S. flavor. This is not by design but by necessity since most of the news we knew of interest was of U.S. origin. We do not want this flavor to continue and therefore solicit your help in sending us items of news or personal interest for future newsletters. It is our intention to publish a newsletter three or four times a year. Please help us make this effort of interest to everyone.

Deadline for articles to be submitted for next NEWSLETTER is:

15 February 1984



FUTURE MEETINGS

NAA-IHS Annual meeting will be held in conjunction with the Annual ASNE meeting on May 3, 1984.

A special spring meeting is under consideration during the last of March or the first of April. NAA-IHS has been invited to join with the Southwest section of SNAME for a visit to the PHM squadron at Key West, Florida. More information on this meeting will be issued when plans are more definitive.

SECOND INTERNATIONAL HYDROFOIL SOCIETY CONFERENCE

Several thoughts have been raised regarding a second IHS conference. Those who found the Nova Scotia experience worthwhile and enjoyable have expressed interest in a second conference. David Liang, our President, has suggested Hong Kong as a logical site. More high speed waterborne vessels are concentrated in Hong Kong than in any one other location. 1985 would be the right year for such a conference.

If you have any thoughts on the subject, drop Juanita Kalerghi a note . . . and start saving your coins.

NAA-IHS FALL DINNER MEETING

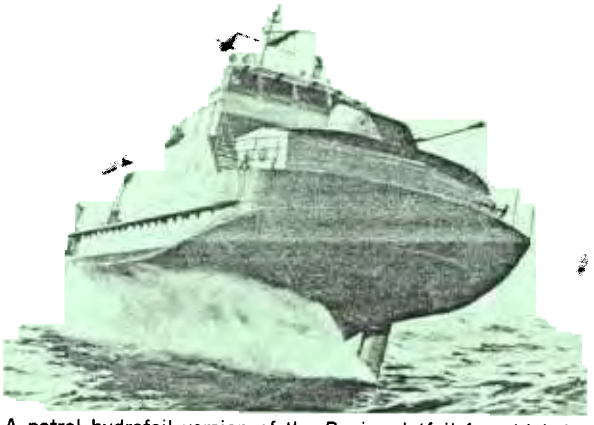
On 26 October 1983 the North American Association of the International Hydrofoil Society (NAA-IHS) held a special dinner meeting. This meeting was to honor The Boeing Company on the occasion of their 25th Anniversary of the start of their hydrofoil endeavors. Approximately 150 members and guests of (NAA-IHS) were present at the Sheraton National Hotel in Arlington, Virginia for the occasion.

A very enjoyable attitude adjustment assembly preceded the dinner where hydrofoilers old and new renewed acquaintances and met family members. Following the dinner, Bob Bateman, Vice President of Boeing and head of Boeing Marine Systems, hosted a historical presentation of Boeing's 25 years in hydrofoils. This presentation consisted of 720 slides and a movie shown from 16 projectors simultaneously and synchronously. This 20-minute show covered the period from Boeing's early experiments with their test craft such as "Little Squirt," and "FRESH-I," through the HIGHPOINT (PCH-1) and TUCUMCARI (PGH-1) phases, up to their present successful military PHM's and commercial "Jetfoils." Many familiar faces of Boeing employees who had contributed to this 25 years of achievement were seen.

All attendees joined in toasting Boeing for their perseverance and accomplishments and wished them continued success for their next 25 years.

TO: SID PETERS

During the proceedings of the Fall Dinner Meeting, The Boeing Company honored Sid Peters for his contributions to Boeing's hydrofoil achievements. Sid is a retired U.S. Navy civil servant who was responsible for many of the Navy's high speed boat programs including the PT boats of World War II and the early hydrofoil programs such as (PCH-1), (AGEH-1) and the PGH's. The honorarium to Sid by Boeing was a very special award that is normally only presented to Boeing employees. Sid's citation recognized his contribution to Boeing's knowledge of shipbuilding practices.



A patrol hydrofoil version of the Boeing Jetfoil for which Indonesia has signed a cooperative manufacturing agreement with Boeing Marine Systems.

BOEING ESTABLISHES FAR EASTERN DIVISION

Boeing has announced the formation of an agreement with the Government of Indonesia to cooperate in the production of hydrofoils. Based on the Jetfoil design, this cooperative will produce hydrofoils that can be used in both military and civil roles. In this country with its many miles of coastline and numerous islands, there are many applications and opportunities for hydrofoils.

The initial contract, valued at approximately $150 million, is for the purchase of four Jetfoils for use in coastal patrol and for Boeing to assist P. T. Pabrik Kapal (P. T. PAL), the Indonesian national shipbuilding facility, in developing the capability to manufacture the high technology hydrofoils. While P. T. PAL will obtain the ability to build the Jetfoils, Boeing will continue to manufacture the critical elements of the struts and foils and the automatic control system and supply those to Indonesia. If Indonesia opts for the additional six Jetfoils, the value to Boeing would total $330 million.

A Boeing Jetfoil, Bima Sumudera I, was purchased by Indonesia in 1981 and used to evaluate hydrofoil potential for coastal patrol and commercial applications in Indonesia. The Indonesian Navy has identified a long-term requirement for up to 47 Jetfoils. Commercial passenger carrying Jetfoils would be in addition to that requirement.

(continued, page 3)

ATLANTIC JETSTREAM, INC. FORMED

NAA-IHS has been informed that several former executives of ACWA, Inc. have established a new corporation -- Atlantic Jetstream. Atlantic Jetstream (or AJET) intends to inaugurate high speed waterborne transportation between New York Harbor and Atlantic City, New Jersey.

U.S. NAVY PHM SQUADRON

PHMRON TWO is now an active squadron located in Key West, Florida. This is the first hydrofoil squadron of the U.S. Navy and is comprised of six PHMs. This squadron adds a new dimension in naval warfare to the Caribbean and the Gulf of Mexico. The squadron commander is Captain Frank Horn.

The squadron is comprised of the following ships:

PHM	Commanding Officer
PHM-1 USS PEGASUS	CDR Drew W. Beasley
PHM-2 USS HERCULES	LCDR Thomas Coran
PHM-3 USS TAURUS	LCDR R. S. Moore, Jr.
PHM-4 USS AQUILA	CMDR David M. Lee
PHM-5 USS ARIES	LCDR Carl E.Weiscopf
PHM-6 USS GEMINI	LCDR David Carlson

ISRAELI NAVY HYDROFOILS

We are informed that the first Israel Navy hydrofoil, "SHIMRIT" designed and built by Grumman Aerospace Corporation is now fully active. The second hydrofoil which has been built and assembled in Israel "LIVNIT" is now under trials. Grumman has a team of technicians in Israel assisting in the cooperative venture.

HYDROFOIL TEXTBOOK

As most members are aware, the NAA-IHS is developing and editing a textbook of college-level interest on the subject of hydrofoils. Several universities and colleges have expressed interest in a teaching text on the subject. Using the "Principles of Naval Architecture" published by the Society of Naval Architects and Marine Engineers, as a model the NAA-IHS has accepted the challenge of preparing such a hydrofoil textbook.

All authors for this book have been selected by invitation and a number of the members of IHS are preparing sections of the book. Progress has been steady but slow. A number of chapters are complete. The rest are due by June 1984. This date is the target date for the first draft to be ready for editing. Mike Eames has agreed to be the editor of this rather large document.

Dennis Clark is chairing the committee responsible for the preparation of the text. He requests that those of you who receive this newsletter who still have chapters to complete to use your best efforts to submit your completed manuscripts by the June 1984 date.

The Directors of NAA-IHS have been evaluating ways and means to publish the completed book. No definite arrangement has been made for publishing. If any of you have any thoughts on publishing the book, the NAA-IHS Directors would appreciate your comments.

Also inquiries or comments regarding the contents of the book should be addressed to Dennis Clark in care of NAA-IHS. The address of NAA-IHS is at the end of this newsletter.

(continued from page 2)

Bill Schultz has been the named Vice President of Boeing in charge of this project. His office will be located in Hong Kong. Bill is a long time member of IHS and a charter member of NAA-IHS. He was very helpful in formulating NAA-IHS. His many friends and colleagues wish him well in this new undertaking.

MR. CHVOJKA RECEIVES A PATENT FOR "HYDROCAT"

Mr. George J. Chvojka, a consulting engineer of Reussbuel, Switzerland, has recently been awarded a patent for a "HYDROCAT," a hydrofoil catamaran. The object of "HYDROCAT" is to find a hydrofoil concept intermediate between surface piercing foils and fully submerged foils. This new foil system consists basically of two-by- two, swivel mounted, diamond shaped foils. The axes of the swivel are arranged in such a manner that the foils change their angle of attack each continuous, reciprocally independent when swinging transversal to the longitudinal center plane of the vessel. The advantages of this system are claimed to be:

- inherently stable
- retractable, permitting operation in shallow waters and the use of normal dock facilities for berthing and foil maintenance and
- low first and maintenance costs by avoiding the necessity of all underwater operating devices such as flaps or rudders.

Mr. Chvojka is looking for a sponsor company or institute to cooperate with him in realizing his idea. Mr. Chvojka can be contacted at:

Waldstrasse 3
6015 Reussbuehl
Switzerland

COAST GUARD GIVEN JOB OF PATROLLING GRENADA

Four Coast Guard ships have relieved the Navy guided missile vessels USS Aubrey Fitch (frigate), and USS Taurus and USS Aquilla (patrol hydrofoils) in patrol operations.

"The Coast Guard patrol boats will conduct surveillance and coastal patrol operations as required by the government of Grenada and commander U.S. forces Grenada," a Pentagon statement said.

UMTA REPORTS PROGRESS ON THE WORLD-WIDE SURVEY OF HIGH SPEED WATERBORNE VEHICLES

Congress mandated the United States Department of Transportation (DOT) to conduct a "Survey and Analysis of High-Speed Waterborne Transportation, Worldwide" with site specific analyses of potential applications in the United States. Patricia Cass of Urban Mass Transportation Administration (UMTA) of DOT, and a member of IHS, has been designated the project manager. UMTA contracted with the firm of Advanced Marine Systems Associates (AMSA) to conduct the study. AMSA has subcontracted for assistance in the commerical transportation field with Peat, Marwick, Mitchell (PMM). UMTA, AMSA and PMM, as a team, have conducted site visits to a number of high speed ferry operators and builders in England, France, Germany, Switzerland, Greece, Italy, Norway, Sweden, Denmark, Hong Kong, Japan, Brazil, Uruguay and Argentina. From these operators and builders, cost, revenue, performance and other data mandated by the relevant legislation have been collected. The team is using this data in conducting in-depth site analyses for potential application in the U.S. The sites being analyzed include the New York metropolitan area, the Boston metropolitan area, the Washington metropolitan area, Providence and the Cape Islands, Fort Lauderdale and the Bahamas, the Virgin Islands, Puerto Rico, Lake Michigan, Seattle, San Francisco and Hawaii.

Three preliminary reports have come out of the project so far. The first is a bibliography of all related documents and articles. The second is an internal working document describing U.S. sites where high-speed ferries might operate. This document was used to pick the final sites for in-depth analyses. The third document is a history of the attempts to date to introduce high-speed ferry service into the U.S.

Various other reports are in the process of being produced. The required report to Congress will be delivered in January 1984. A report is being prepared for use by potential operators of high-speed ferry services to assist them in implementing such services. Another report is being prepared which will assist potential builders of high-speed ferries. And, finally a report is being prepared regarding implications of the Jones Act and U.S. Coast Guard Regulations on introduction of foreign technology into the U.S. market.

CHINA INTERESTED IN NEW HYDROFOILS

A recent visit of a group from the United States Society of Naval Architects and Marine Engineers to China, sponsored by the People to People Program, found rather intense interest in hydrofoils. The most cordial hosts of this group was the Chinese Society of Naval Architects and Marine Engineers. Several different high speed waterborne craft concepts were discussed between the two groups. Interest was expressed in proceeding with the design concept presented at the 1983 High Speed Surface Craft Conference in London by engineers of the China Ship Scientific Research Center, WVXI, China, entitled, "A Study of Naval Hydrofoil Craft for the Yangtze".

Tourism is a major income for China. The hydrofoil affords the opportunity for day trips on the Yangtze between Nanking and Wuhan rather than overnight by conventional steamer.

WHAT IS A U.S. HULL? ??

Strong objection to the definition of a U.S.-built vessel published by the Coast Guard in June 1982 has resulted in a proposal to change the definition. The law now requires "at least 50% of the cost of all machinery (including propulsion) and components which are not an integral part of the hull or superstructure, to relate to items procured in the United States." The Coast Guard wants to delete this definition so as to allow the use of equipment bought or manufactured in foreign countries without endangering the U.S.-built status of the vessel as long as all major hull and superstructure components are U.S.-built and the vessel is assembled here.

RODRIQUEZ CANTIERE NAVALE RHS-200 HYDROFOIL EVALUATED BY THE UNITED STATES

Under the sponsorship of the Urban Mass Transportation Authority (UMTA) and the United States Coast Guard (USCG), the U.S. Navy is conducting an evaluation of the Rodriquez RHS-200 design. In 1982, sea trials were conducted by the U.S. Navy on "Super Jumbo" the first RHS-200 built by Rodriquez. This 125-ton, 117 feet long hydrofoil is offered in various seating arrangements up to 300 passengers. Design studies have also been made of patrol boat configurations. Reports on this evaluation are nearing completion.

I.H.S.

For your information, the parent organization is managed by a council.

Council Members:
Juanita Kalerghi
Allen Cochran
William Witt

President:
David Liang (Hong Kong)

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NAA/IHS

NAA-IHS is managed by a board of directors. The names of the board of directors and the year their tenure ends are listed below.

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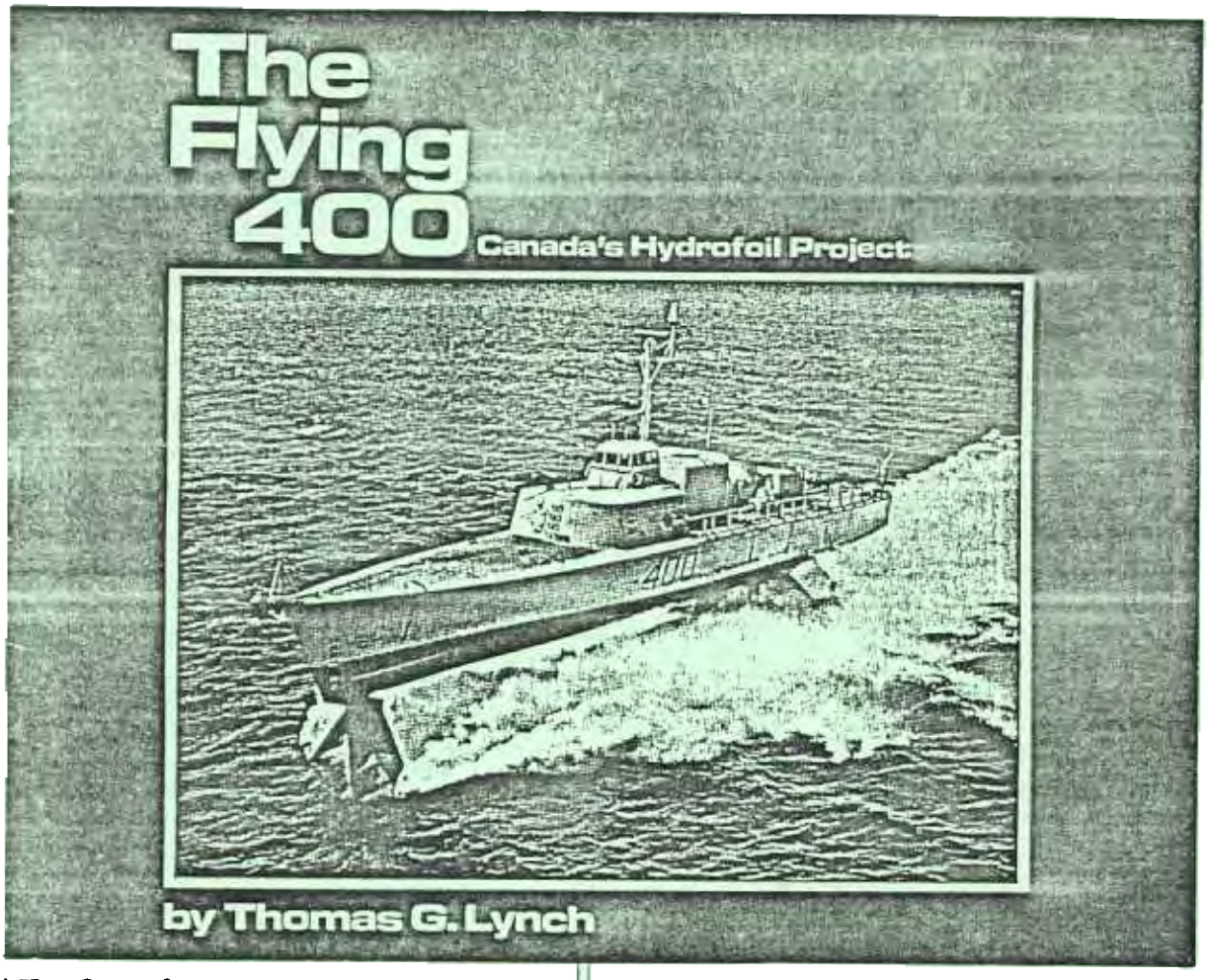

HALIFAX - One of the major issues raised at the Senate Subcommittee on National Defense in 1983 was the future role of the naval forces on both east and west coasts. Although financial restraint is the order of the day, some new ships are required for Canada to fulfill its role in defense into the next century. While the planners are turning towards larger ships, with sophisticated weapons' systems, one man on the east coast is pointing his finger to one of Canada's finest technological achievements of this century which was aborted in mid-flight.

Thomas G. Lynch, author of a new book called The Flying 400, Canada's Hydrofoil Project, has spent several years piecing together the research and experiments that resulted in a "jet-age" ship, FHE-400, later named HMCS Bras d'Or, starting with the pioneer work of Alexander Graham Bell and Casey Baldwin. Lynch's premise is that in the role of anti-submarine warfare no vessel is more effective than the hydrofoil, not only because of its versatility of speeds but also because of its cost. HMCS Bras d'Or was decommissioned in the middle of her trial period and Lynch approaches the question of why a decade of technological achievement was dropped like a hot brick.

The Flying 400 is a paperback book with numerous illustrations -- photographs and technical drawings, outlining the development of hydrofoil technology and a detailed description of the construction of the remarkable Bras d'Or.

The Flying 400 can be ordered from:

Nimbus Publishing, Ltd.
P.O. Box 9301, Station A
Halifax, Nova Scotia B3K-5N5
Canada
Phone: 902/454-8381

$12.95 (Canadian) plus $1.00 postage and handling