

VOICEPIPE

Issue 61

January 2014

The Newsletter of the BIO-Oceans Association

BIO-OA Members visit the 'Grand Old Lady'



BIO-OA members enjoyed a guided tour of the CSS *Acadia* by staff of the Maritime Museum of the Atlantic on 24 October 2013. Our guides regaled us with stories of the 50 years of the 'Grand Old Lady's' auspicious history, from its earliest voyage to Hudson Bay where it nearly ended her career on her maiden voyage stuck in the ice, to its role in the Royal Canadian Navy, her gun only fired once in practice and

to her final resting place as the Museum's largest artifact. There was a stark contrast of the living conditions aboard ship from the hydrographers' cabins and mess paneled in mahogany to the foc'sle accommodations for the crew. The *Acadia* is in need of repair work to her decks so she can continue to be an important exhibition of Canada's oceanographic research history.



Captions: top: CSS *Acadia* on the Halifax waterfront; bottom left, the top of the three pistons of the triple expansion steam engine; and bottom right, our guide beside the main mast.

**2014 Beluga Award
Nominations Close
1 March 2014**

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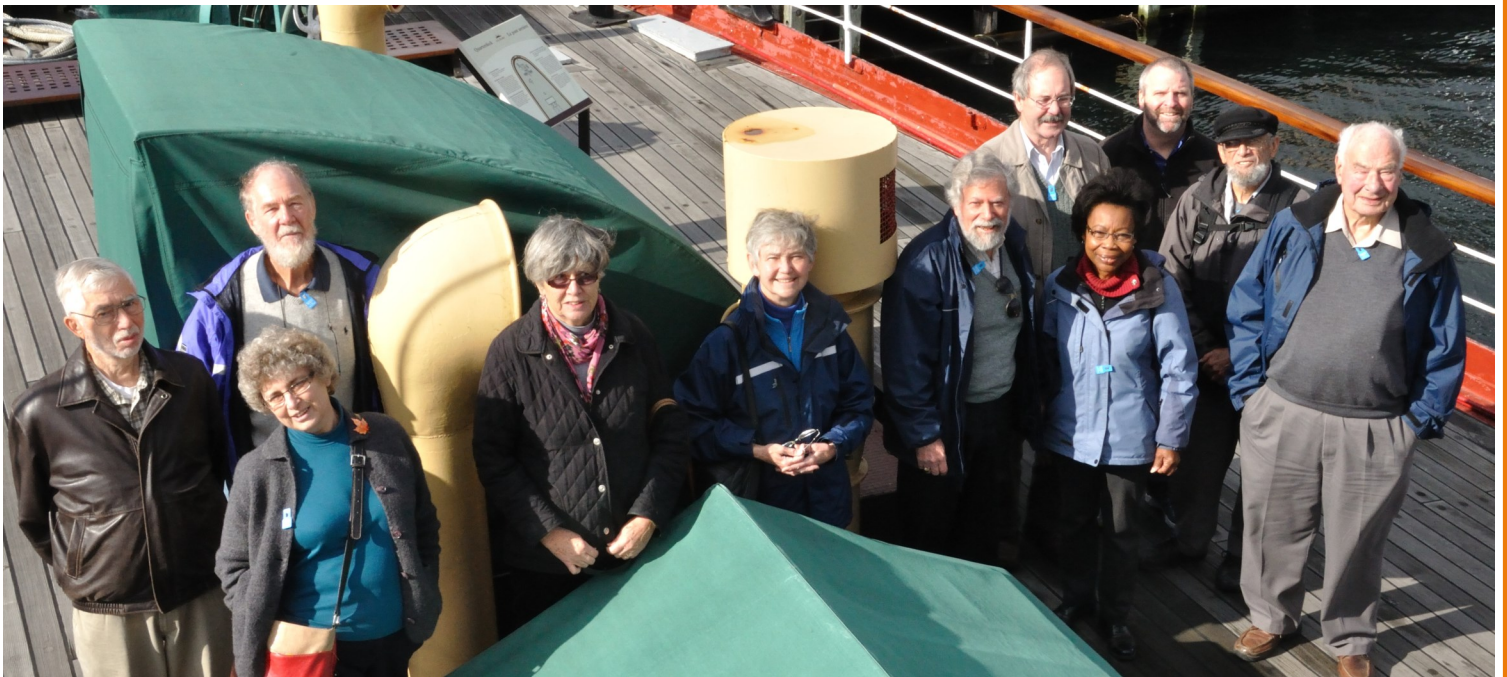




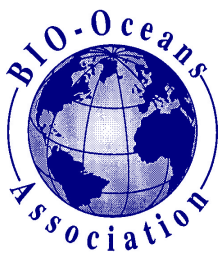
Captions: clockwise from top left; the crews' quarters in the foc'sle; a hydrographer's cabin; one of our guides explains the workings of the *Acadia's* steam engine (photo Kelly Bentham); conversation in the chart room over hydrographic 'boat boards' from CSS *Acadia's* expedition to Hamilton Inlet in Labrador (photo Kelly Bentham) and CSS *Acadia's* ship's bell showing the year of her launching.

The photograph of the CSS *Acadia* on page 1 was taken by Kelly Bentham.





Captions: top, one group of BIO-OA members on the tour are seated in the mahogany panelled hydrographer's mess; middle, BIO-OA members gather in the sun on the stern of the *Acadia* at the end of their tour; and another group of BIO-OA members on the tour examine *Acadia*'s small galley (Photo: Kelly Bentham). Some members availed themselves of the passes provided by the museum and toured other of the museum's exhibits;



FROM THE PRESIDENT

Happy New Year everyone. I trust everyone will be sticking to their New Year's resolutions. Fifty years have now passed since the birth of BIO. The icing on the birthday cake is going to be the

soon to be published hardcover book *Voyage of Discovery. Fifty Years of Marine Research at Canada's Bedford Institute of Oceanography*. This commemorative volume will comprise forty-eight reviews which highlight scientific research conducted at BIO over the past 50 years. The editorial team under the leadership of 'Editor-in-Chief' David Nettleship, has been working day and night to meet the publishing deadline. A copy of the order form has been e-mailed to the BIO-OA Membership and is included in the newsletter. I would encourage everyone to think about purchasing a copy.

The BIO Christmas party was well attended with the Jolly Old Guy and his elves making an appearance. As usual the chowder was a hit as was the spread of delectable delights. It was great to hear laughter in the building even though there are some who have a "may be affected" letter hanging over them.

In October thirty people attended a tour of the CSS *Acadia*. A highlight of this tour was being able to go "below" decks and see parts of the ship that the general public cannot access. If any BIO-OA member has a suggestion for a social event please contact Claudia Currie.

Our BIO-OA membership stands at 352. The 2014 renewal campaign has started. Belonging to the BIO-Oceans Association is a great way to keep in touch with past and present colleagues and friends through the interesting articles published in *VoicePipe* and the social gatherings held throughout the year. Many members receive the e-copy only. The advantage of the e-copy is that you receive coloured photographs instead of black and white photos that are in the hard copy version because of the higher printing costs to print colour. By receiving only an e-copy the BIO-OA also saves on printing costs. *Mike Hughes*

In Memoriam

Robert Allin Folinsbee, died 5 November 2013, geophysicist, GSC Atlantic.

If you flush your toilet you are connected to the ocean

by Andy Sherin

The Ecology Action Centre sponsored a meeting at the Museum of Natural History on Tuesday 21 January 2014 with Robert Chisholm, MP for Dartmouth-Cole Harbour and the Fisheries and Oceans critic for the Official Opposition in the House of Commons.

Mr. Chisholm described his role as holding the Minister of Fisheries and Oceans to account. He reflected that the lack of priority for oceans is not new and goes back many years despite the passing of the *Oceans Act* in 1997. He asked, why when Australia has protected 35 % of its ocean space is Canada protecting only 1 % in a patch work of marine protected areas.

He lamented the cuts to the DFO budget of \$440 million over five years and the amendments to the Fisheries Act, the Navigable Waters Act and the Environmental Assessment Act.

"Why are oceans so far down on the priority list?" Mr. Chisholm asked rhetorically. He went on to suggest that part of the answer was related to the relative impact of fisheries on the economy. He stated that energy exports contribute \$94 billion to the national economy, fish exports only \$4.1 billion. The energy industry employs 550,000 persons, the fishing industry supports only 80,000 direct jobs.

A first year university student from Alberta studying in Halifax described how some Albertans think ocean scientists are only interested in pretty fish and they consider ocean science a silly field of endeavour. It was generally agreed that Canadians don't understand how the ocean impacts their lives.

Mr. Chisholm challenged the audience with the question "How do we generate more interest, awareness, more urgency about the health of our oceans?"

Suggestions from the audience included a better connection between science and policy, better communication, especially face to face, among industry, government and non-governmental sectors, and more citizen science i.e. science conducted by community members. Another suggestion was improving the communication skills of scientists so they can better communicate the ocean health issues to policy makers and politicians. The meeting ended with Mr. Chisholm asking participants to do something, however small, to raise awareness of our oceans, their health and their importance to everyday lives of Canadians.

Call for Nominations for the 2014 Beluga Award



Nominations for the 2014 Beluga Award will close March 1st, 2014, so please start thinking about deserving nominees and begin filling out your nomination forms.

The 2013 Beluga Recognition Award recipient, Robert J. Murphy, was an excellent example of an employee who continues to exhibit unselfish dedication to community spirit at BIO. The Award has a broad scope and recognizes individuals in any professional or technical field, craft or skill who have made exceptional contributions to the success of BIO projects, initiatives or programs. These contributions should exemplify unselfish effort that encourages cooperation and fosters the team-work approach of BIO. All present and past employees who work or have worked at BIO in any field or specialization are eligible. It is intended that this Award should recognize all professions including ship's crew, administrative personnel, technicians and scientists.

The Beluga Award nomination form asks the following

three questions:

- What are the main contributions of the nominee to the success of projects, initiatives or programs at BIO?
- How does the nominee encourage cooperation and foster team-work at BIO?
- What makes the nominee especially valuable to the BIO community?

The Beluga Award Committee looks forward to receiving your nominations over the coming months.

Andrew Cogswell

Beluga Award Committee Chair

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Caption from the original Chronicle Herald publication: The BIO got a yacht for Christmas. The sleek \$7,000,000 CSS *Hudson*, the most modern oceanographic and hydrographic research ship in the world, slipped to its moorings at north Dartmouth shortly before noon hour. Its belated arrival (it had been scheduled to arrive from the Saint John Shipbuilding and Dry Dock Limited last summer) was welcomed by a small but enthused group of scientists.

The BIO got a yacht for Christmas¹

Originally published on 24 December 1963 under the byline of Hugh Conrad

Probably the only \$7,000,000 ship ever built with a hole in its hull arrived at the BIO yesterday.

The CSS *Hudson*, slipped unheralded into port, while attention was focussed on an early morning collision between two Dartmouth ferry boats.

Its arrival was belated. The sleek CSS *Hudson*, probably the most modern oceanographic and hydrographic vessel ever built, had originally been expected for use by the BIO this summer, but construction delays at the Saint John Shipbuilding and Dry Dock Limited forced postponement of its delivery until yesterday.

The hole in the hull? Well that was planned. An opening from the bottom centre of the ship, about 42 inches in diameter, extends all the way through the *Hudson* to a laboratory on the top deck. From this well oceanographers will be able to lower underwater television and still cameras to the ocean bottom without concern about outside storms, rough water or cold temperatures. The ship is completely equipped with close circuit television for its research work.

After a shake-down cruise early in January when *Hudson's* scientists will do tests on various pieces of equip-



CSS *Hudson* arrives home after the Hudson 70 expedition.

ment, the big "floating laboratory" will embark on a round-the-world cruise, doing research work in a number of areas enroute.

At the control panel (the captain doesn't handle the tiller any more), when the *Hudson* slipped up Halifax Harbour yesterday, was Captain John Vieau, with the Canadian Scientific Service since 1954. He said the trip from the Saint John port to Halifax went like clockwork. The ship's quiet engines and tremendous stability makes it slip along like a Cadillac, he reported.

Besides operating like a charm, the white-painted ship looks like a real lady. Her officer's lounge is beautifully panelled and individual cabins for oceanographers and hydrographers are comfortably outfitted for long cruises.

Laboratories abound (there are five aboard) for the complement of 30 oceanographers. Even the crew of 65 are pleased as punch with the modern facilities provided for them.

Another unique feature of the *Hudson* is its bow-jet system, a particularly advantageous piece of equipment for manoeuvring the ship in tight quarters. A compact electronic control table, no larger than a normal kitchen table, is housed in the wheel-house and from this the captain can manipulate the vessel at will.

Accepted by the Department of Mines and Technical Surveys at an official take-over at Saint John at noon on Sunday, the CSS *Hudson* slipped its moorings for Dartmouth at 3 pm the same day.

¹Published with permission of the Chronicle Herald

BIO-Oceans Association announces
the forthcoming publication of

Voyage of Discovery

Fifty Years of Marine Research at Canada's
Bedford Institute of Oceanography

Edited by

D.N. Nettleship
D.C. Gordon, C.F.M. Lewis
and M.P. Latremouille

Voyage of Discovery summarizes BIO research results on the oceanography of Arctic and Eastern Canada. In a series of 49 papers by past and present research staff from all oceanographic disciplines at BIO, the history of Canadian oceanography before BIO and a broad section cross section of the Institute's work spanning five decades is featured with particular emphasis on contributions to Canadian and global understanding and management of the marine environment and resources. Divided into 12 sections with a Preface and Epilogue, *Voyage of Discovery* is the most extensive overview of

the history and scientific accomplishments of the Bedford Institute of Oceanography under one cover: Historical Roots, Arctic Studies, Ocean Life, Ocean Circulation and Chemistry, Hydrography and Seabed Mapping, Geological Oceanography, Fisheries-Ecosystems-Aquaculture, Marine Contamination, Technology and Instrument Development, Energy Developments, BIO and the Law of the Sea, and The BIO Experience. This book's well-written and illustrated accounts will appeal to a broad readership from professional oceanographers and environmental managers and decision makers to marine science students and lay persons interested in the Arctic and Atlantic oceans, and their present status and future welfare.

Hardcover, text on premium 8.5 x 11 inch
glossy 100 wt Sterling paper with sewn binding.

ca. 432 pages.

Price: \$35.00 Cdn plus shipping

ISBN 978-0-993644-0-6

Forthcoming BIO-OA Publication: mid-April 2014

To reserve one or more copies, complete order form given below with details and mail to:

VOD PR-Director, BIO-Oceans Association, c/o Bedford Institute of Oceanography, P.O. Box 1006, Dartmouth, Nova Scotia, Canada B2Y 4A2 (invoice will be sent when book is published).

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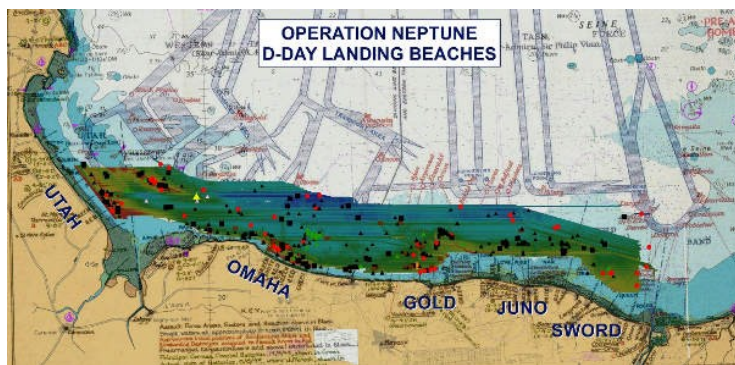
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Largest Ever Historical D-Day Mapping Expedition Completed



The 70th anniversary of the World War II D-Day invasion will be on 6 June 2014. To commemorate this historic event an expedition took on the monumental task of creating the largest and most accurate continuous archeological map offshore of the five D-Day invasion beaches. In just 27 days 511 km² was initially surveyed with over 300 wrecks and obstructions identified. The seven-week operation culminated with two

Nuytco manned submersibles, *Aquarius* and *Deep Worker*, that were used to film and bring veterans down to the shipwrecks they once sailed on, a truly moving experience for everyone involved. The survey will also help the Normandy region with its goal of designating the area as an UNESCO World Heritage Site. The Public Broadcasting System's science program *Nova* will broadcast a documentary in North America, to be aired to commemorate the 70th anniversary. The operation was performed aboard two French vessels, the *Andre Malraux*, operated by France's Department of Underwater and Undersea Archeological Research (DRASSM) and the Étoile Marine's *Magic Star*.



Maquette de l'Andre Malraux.

Réalisation: A. Méroz Photo Drassm, S. Cavillon

A model of the *Andre Malraux*, one of the survey vessels participating in the Normandy Beaches expedition.

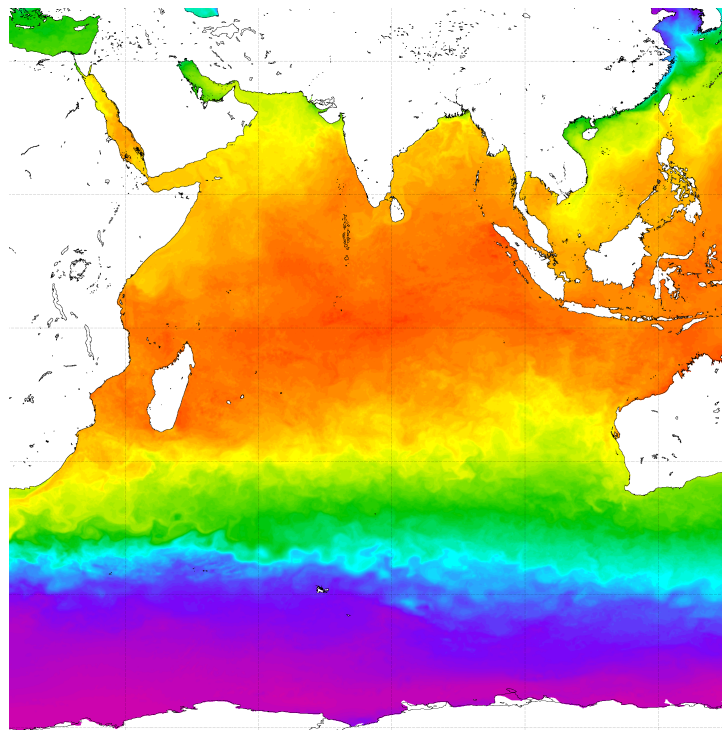
Celebration planned for the 50th anniversary of the International Indian Ocean Expedition

A celebration of the 50th Anniversary of the International Indian Ocean Expedition (IIOE) is being organised by the Chairs of the Global Ocean Observing System (GOOS)/CLIVAR (Variability and predictability of the ocean-atmosphere system, World Climate Programme World Meteorological Organization) Indian Ocean Panel (IOP), the Sustained Indian Ocean Biogeochemistry and Ecosystem Research (SIBER) and the Indian Ocean Global Ocean Observing System (IOGOOS) programmes, and key representatives from the Indian Ocean rim countries and other international programmes.

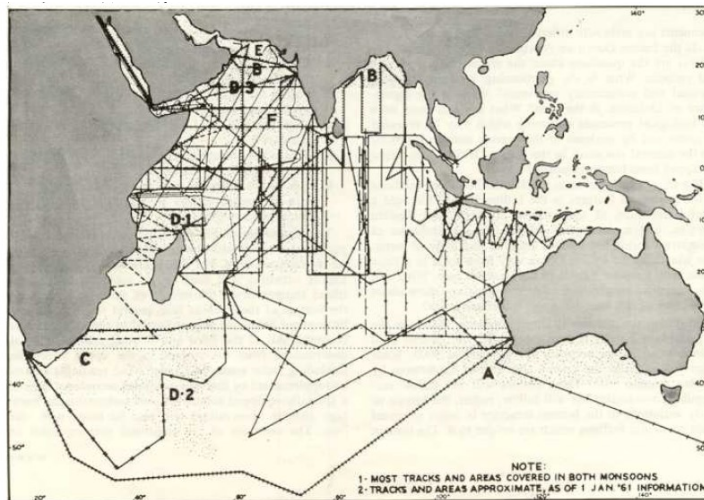
The IIOE resulted from a cascade of effects. The International Geophysical Year of 1957-1958 had shown the value of coordinated multinational efforts in ocean science. This realization resulted in the International Council of Scientific Unions (now the International Council for Science) creating the Scientific Committee on Oceanic Research (SCOR) to continue to stimulate international cooperation in ocean sciences. From its first annual meeting at Woods Hole Oceanographic Institution in 1957, SCOR identified the Indian Ocean as the greatest unknown in the global ocean and an area that could benefit from an intensive campaign of ocean observations. SCOR envisioned exploration of the Indian Ocean as its first task. The first four SCOR working groups were established to work on methodological issues to prepare for the IIOE, and then were combined into SCOR Working Group 5. SCOR hired a Coordinator for the IIOE, Robert G. Snider, in 1959, and he continued in this post until the end of 1962, when management of the expedition was transferred to the Intergovernmental Oceanographic Commission.

From 1960-1965 46 research vessels (under 14 different flags) carried out an unprecedented number of hydrographic surveys (and repeat surveys) of the entire Indian Ocean basin. IIOE was an interdisciplinary endeavor that embraced physical oceanography, chemical oceanography, meteorology, marine biology, and marine geology and geophysics. The reader is directed to www.scor-int.org/IIOE_National_Newsletters.htm to access a series of newsletters with the results of the IIOE documented in the abstracts of papers presented at symposia. It appears that 50 years later a cascade and alignment of events are once again conspiring to motivate multidisciplinary exploration of the Indian Ocean.

In the 50 years since the IIOE, there have been two fundamental developments in ocean science. The first is the



Sea surface temperature for the Indian Ocean from NOAA



Cruises completed and planned for the International Indian Ocean Expedition from Robert G. Snider (1961), the International Indian Ocean Expedition 1959-1964, *Discovery*, March 1961 p. 114-117.

emergence of new components of the ocean observing system - most notably remote sensing and Argo floats. The second is the emergence of ocean modelling in all its facets - including short-term forecasting, seasonal predictions and climate projections. These developments have revolutionised our understanding of the global oceans. Compared to the IIOE, we now have the capacity to provide a more integrated picture of the Indian

Ocean, particularly if these technologies are combined with targeted and well-coordinated in situ measurements.

A series of workshops is proposed to undertake the task of energizing and harnessing a collaborative community to motivate and organize meetings and scientific research in celebration of the 50th Anniversary of the IIOE in other words IIOE-2. The third workshop tentatively planned for late February or early March, 2014 will be focused on synthesis and writing a science plan and implementation strategy for an IIOE-2.

IIOE-2 will be a 5-year expedition beginning in approximately 2015 with an Open Science Conference and continuing through to 2020, culminating with a second Open Science Conference. This second conference would be convened in the same spirit as the conference that was convened at the end of the IIOE, which was aimed at building research capacity in India and led to the establishment of the National Institute of Oceanography in India. It is planned to request the IOC Executive Council to adopt IIOE-2 as an IOC program at their meeting in June 2014.

THE INDIAN OCEAN BUBBLE

Many many years ago there was a grand enterprise that came to be known as the South Sea Bubble. A vast speculative venture, its Directors outbid the Bank of England for exclusive monopolies in trade with the Pacific Islands and South America, in return for which their company assumed the whole of the National Debt. In the ruin which eventually overtook this preposterous scheme, many thousands of small investors lost their savings; not even all of the big fish were able to evade responsibility and prosecution.

The Special Committee on Oceanographic Research (SCOR) has endorsed an international cooperative program of oceanographic research and survey work in the Indian Ocean for the near future. 1961 is the year most often referred to. Although a number of features of the plans must necessarily be made on a high international executive level, it also seems desirable that oceanographers on a working level - who actually think they might be interested or involved in the work at sea - should exchange ideas and suggestions, and make tentative plans of just what they would like to try to do in the Indian Ocean. For this purpose, THE INDIAN OCEAN BUBBLE has been established, as an informal journal for exchanging views and ideas. Brief communications are herewith invited.

“How individual scientists and institutions are going to participate in this expedition without being swindled is difficult for me to see. The publicly avowed policy of private U.S. institutions is that the individual scientist has ‘academic’ freedom. But an individual who participates in this Expedition is going to be responsible for a great deal of routine (albeit important) work that is bound to conflict with his (sic) freedom...Some way must be found to perform these necessarily routine and regimented tasks without involving individual oceanographic scientists too much...Otherwise our research institutions are going to be pressed into service.” Excerpt from a letter from Dr. R.B. Montgomery (Issue No. 2, Feb 1959): “My chief comment is to express the hope that this program can be so designed as aid directly the development of one or more oceanographic centers in the countries bordering the Indian Ocean. The present oceanographic activity bordering the Indian Ocean is undeveloped in comparison with that bordering the Pacific and Atlantic Oceans. Active oceanographic centers on the Indian Ocean are essential for continuing intensive studies.”

In 1959 and 1960 an anonymous editor published five issues of a curious newsletter called *The Indian Ocean Bubble*. The newsletter contained letters and commentary on the movement to establish an International Indian Ocean Expedition. The last issue of the newsletter was published on 1 March 1960 with the following provocative statement from the editor “Since your editor has essentially a sunny disposition, he has elected to retire from the field—secure in his cloak of anonymity—some day, perhaps, to appear again in a dramatic way (as a Black Knight ?) to do battle with Sin.” Excerpts from two letters follow: From a Letter to the Editor published in Issue No. 5 (March 1960) of the *Indian Ocean Bubble* authored by Henry Stommel:

The R/V *Anton Bruun*

One of the research vessels that participated in the IIOE

The R/V *Anton Bruun* under-took biological oceanographic studies in the Indian Ocean during the IIOE. The ship was named in honor of the noted Danish marine biologist, Anton Bruun.

The ship made ten scientific cruises in the Indian Ocean, conducting broad sample studies of bottom, mid-water, and surface life. She caught specimens of plankton; did long line fishing and trolling in deep water; conducted meteorological observations; and periodically obtained water samples. A multinational assemblage of scientists from the United States, India, Thailand, Brazil, and Pa-

kistan worked on board the ship during these cruises.

The ship, originally the steel-hulled, diesel-powered yacht *Aras* laid down on 19 March 1930 by the Bath Iron Works, was launched on 8 December 1930; and delivered to wood-pulp magnate Hugh J. Chisholm on 15 January 1931.

The *Aras* was converted to a US Navy gunboat. The USS *Williamsburg* was commissioned at the New York Navy Yard on 7 October 1941, with Lt. Commander Frederick S. Hall as her commanding officer. *Williamsburg* was ordered to the Norfolk Navy Yard to complete fitting-out, arriving on 5 November. As a gunboat, *Williamsburg* was armed with two 3-inch gun mounts, six .50 caliber machine guns, two .30 cali-



The R/V *Anton Bruun* anchored off of Thailand.

ber Lewis machine guns, one "Y" gun, 16 rifles, and 10 pistols. Her crew complement was 81.

After service with the US Navy during World War II *Williamsburg* sailed for the Washington Navy Yard where, on 5 November 1945, she relieved *Potomac* as the presidential yacht. In the ensuing years, *Williamsburg* served two presidents, Harry S. Truman and Dwight D. Eisenhower.

The *Williamsburg* was transferred to the National Science Foundation on 9 August 1962, renamed R/V *Anton Bruun*, and underwent a change from presidential yacht to oceanographic research vessel at the Woods Hole Oceanographic Institute. During the overhaul, the presidential staterooms and other yacht-like trappings were removed, and special facilities installed.

Among the modifications was a seawater aquarium for preservation of live specimens and a lab equipped with microscopes and other instruments for examining and classifying samples of marine life. Two winches and a small crane were fitted for dredging and deep sea work, while a small side deck platform was added to permit long line fishing. The ship's engines, too, were reconditioned, and her bilge keels were modified to make the ship more stable.

Offered for sale by the Maritime Administration, the former gunboat, presidential yacht, and oceanographic ves-

sel was acquired by a commercial concern whose intention was to use the ship as a combination floating hotel-restaurant-museum to be permanently berthed in Pennsville Township on Salem River, in New Jersey.

The *Williamsburg* was towed up the Salem River where she was placed in a berth originally meant to accommodate a dredge at the former Bright's Marina, renamed the Marlboro Marina. The shallow water depth resulted in the ship being firmly grounded in the mud. There the yacht remained in the southern end of Pennsville Township, in Salem County, NJ, and for several years thereafter served as a restaurant before being sold to new owners.

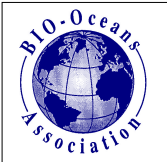
In 1993, the former *Williamsburg* was transferred to Genoa, Italy for conversion into a luxury cruise ship. These plans were never realized, and the former yacht was faced with imminent scrapping at La Spezia, Italy. An urgent appeal to the Italian government saved her. The "USS *Williamsburg* Preservation Society" was formed with the goal of returning *Williamsburg* to the United States for restoration and preservation. *Williamsburg* is currently laid up at the Navy wharf in La Spezia, Italy, and is offered for sale by Lloyd's Yacht & Ship Brokers LLC of Lake Park, Florida. Her Italian owners would like to return her to the USA and restore her to her presidential yacht glory for an estimated cost of \$70 million.



The former USS *Williamsburg* rusting away in La Spezia, Italy

Editor's Keyboard: A new year and another newsletter. Happy New Year *VoicePipe* readers! For this issue David Nettleship has asked for a break from writing *Noteworthy Reads* because editing the *Voyage of Discovery* is taking so much of his time. He promises to return to his book review column in a future issue in 2014. Hopefully readers are not tiring of anniversary celebrations. I couldn't resist reprinting the Chronicle Herald's article on CSS *Hudson's* arrival on Christmas Eve in 1963. I want to thank Keith Manchester for bringing the anniversary to my attention. I strongly en-

courage readers to send me articles and ideas for future articles. Two other anniversaries caught my attention, the D-Day 70th Anniversary (pg. 7) and the 50th Anniversary of the International Indian Ocean Expedition (pg. 8). In my report on the Ecology Action Centre's meeting with MP Robert Chisholm, I return to the subject of the low priority oceans have in minds of most Canadians even though the ocean impacts everyone's life. I think this deserves serious consideration for action by BIO-OA members individually and collectively.
Andy Sherin



ABOUT THE BIO-OCEANS ASSOCIATION

The Bedford Institute of Oceanography Oceans Association (BIO-OA) was established in 1998 to foster the continued fellowship of its members; to help preserve, in cooperation with the Institute's managers and staff, BIO's history and spirit; and to support

efforts to increase public understanding of the oceans and ocean science. Membership is open to all those who share our objectives. Most current members are present or past employees of BIO or of the federal departments of Environment, Fisheries and Oceans,

and Natural Resources (or their predecessors) located in the Halifax Regional Municipality. Membership is \$10.00 per year, \$40.00 for five years, or \$150.00 for a lifetime membership.

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