

# ARGONAUTA

The Newsletter of



**The Canadian Nautical  
Research Society**

Volume XXI Number Three  
July 2004

## ***ARGONAUTA***

Founded 1984 by Kenneth MacKenzie  
ISSN No. 0843-8544

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*ARGONAUTA* is published four times a year—January, April, July and October

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### In this Issue

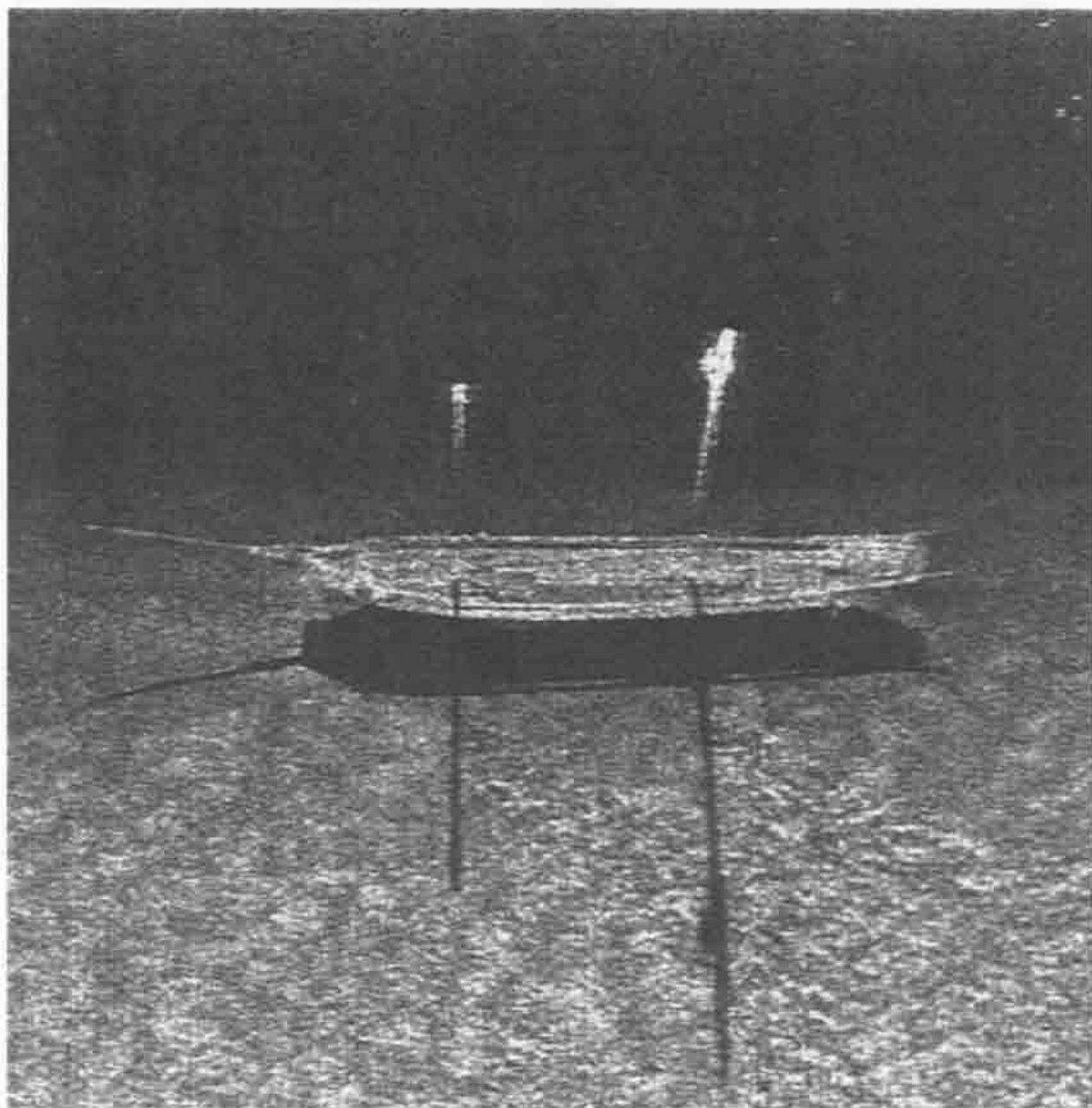
<i>Editorial</i>	1
<i>President's Corner</i>	3
<i>Matthew's Awards for 2003</i>	6
<i>Research Queries</i>	7
<i>News and Views</i>	8
<i>Original Document: "Proposed Transfer of Hydrographic Service"</i>	16
<i>Articles</i>	
- Robin H. Wyllie "Maritime Provinces Steam Passenger Vessels"	27
- John Crosse "West Coast Letter"	30
- XXX Ruffman "Shattered City - The TV Drama"	32
- Rick James "Royston Hulk Breakwater Project"	37
- SSS "WGS-84 - Horizontal Datum Adjustments"	39
<i>Members' News</i>	41
<i>Museums and Ships</i>	41
<i>Conferences and Symposia</i>	42
<i>Advertisements</i>	44

### Editorial

The Canadian Navy using HMCS *Gloucester* Bay and HMCS *Kingston* mounted an expedition to locate the 1/8th size models of the Avro Arrow that had been test fired into Lake Ontario. The Globe and Mail of July 8, 2004 described the event as, "one of the world's smallest and most devoted groups of True Believers engaged in the search whose significance might be compared to the hunt for the Ark of the Covenant - or at least one of Jimi Hendrix's lost guitar picks." It is cheap shot but a good enough quote and of course, there is something obsessional about these Avro questors attempting to validate one of the great and growing Canadian mythologies. But all of us, and rightly so, are familiar with these obsessions. Many a book, paper written or just the private comforting solution to a nagging conundrum would not be resolved without a dogged, punishing obsessional beat to windward. Sir E. Belcher's quote in an early edition of *The Mariner's Mirror* summed it up this way - "The turning up of one little thing may make another little thing into a great one."

The real story was a throwaway tossed to the local paper, *The Kingston Whig Standard*. It was treated almost as a sign of failure, a kind of consolation prize to compensate for the Avro models not found. There, appearing in almost pristine condition, sitting on the bottom like some prize on a mantelpiece was a very good looking two masted schooner. Thousands of these vessels were built to service the developing industrial heartland of Canada. They were the first commodity carriers that helped move us from mercantilism to, like it or not, to industrial capitalism. They provided transportation to settlers moving north and west where roads could not. The Great Lakes schooner played its role in the development of Canada with distinction. Every culture creates artefacts. With schooners there are bits and pieces that serve a purpose in museums but their interpretation is a little like the blindfolded men attempting to construct and understand the purpose of an elephant by feeling the trunk and tail. This schooner is almost intact. It can tell us something that bits and pieces cannot.

So who owns the schooner. In law the province of Ontario does. They claim all



Side-scan sonar image of schooner found by HMC Ships *Glouce Bay* and *Kingston*  
(courtesy of Department of National Defence)

wrecks on their bottomlands. But who will become the real owner? The answer - the first diver that gets there. Archaeologists and museum people will all sing the same tune. Document the wreck and do not bring anything to the surface unless the object can be conserved for long term preservation and most important, all of this must be done by professionals. The tune is right but unsustainable. Ongoing cutbacks have made

life more difficult for museums and there is precious little to money to mount archaeological expeditions. Organizations like POW based in Kingston and SOS perform good work at the grass roots level. Their emphasis is on "low impact diving" and the "dive to preserve" ethic, but without the understanding guidance of individuals like the now retired Ontario underwater archaeologist, Peter Englebert, these fine divers must necessarily

play a restricted role. The enforcement of the preservation ethic is mostly due to moral suasion and some very commendable peer group pressure from fellow divers but there are vandal divers who still gauge their success by the number of trophies they can pull off the bottom. There are others who take a nail or small pieces saying that what they are doing is inconsequential - death for the schooner by a thousand cuts. And then there is this from the *Halifax Herald* earlier this year. "We're literally going to find every shipwreck but we're also going to find all the secrets that the ocean holds," said Gordon Fader, regional geologist for the Geological Survey of Canada. Lessor forms of the technology used by the Geological Survey of Canada is available to the enthusiastic wreck diver. The sites are available to all.

I remember some years ago at a conference in Ottawa asking the leading light of underwater archaeology from the Smithsonian in Washington what it is he wanted. It was intended as a kind of set-up question to give him a platform and make a connection with the divers present. He rose, looked around the room and then said, "everything". And that was it. You could hear the groan through panted smiles. The diving world like society itself exists on many levels and one of those levels can and does do what it wants irrespective of the rules. Perhaps the real answer is along the lines suggested by Jim Delgado in his review (in a recent edition of *Naval History*) of *Shadow Divers: The True Adventure of Two Americans Who Risked Everything to Solve One of the Last Mysteries of World War II* by Robert Kurson. Wreck divers, preservationists and archaeologists have some goals in common he says and that more steps must be taken to "bridge the gap" between the two. My solution is a little closer to home. We must reach out to existing organizations like POW, SOS and the Marine Heritage Society of Southampton. They must be supported, strengthened and given every encouragement by policy makers, patrons and all of us.

MDS

PS: A note of appreciation to the Canadian Navy for so readily making available the digital image of the schooner.

SOS: [www.saveontarioshipwrecks.on.ca](http://www.saveontarioshipwrecks.on.ca)

POW: [www.gtcs.org/pow.html](http://www.gtcs.org/pow.html)

## President's Corner

This "Corner" contains the report I delivered to members of Society who attended the Annual General Meeting on Saturday, May 29 2004, at the Westin Hotel, Ottawa. This seems to be an appropriate place to deliver it to all the members.

In my report to the membership this morning, I would like to make three points: first, active members in the society are the key to its survival; second, most members are not activists and the challenge to activists is recognize this and to keep in touch with our members' interests; third, we need to ask continually what is the purpose of the CNRS. This year we have been working with these three points and queries in front of us.

Many thanks are due to the activists on and off the Executive Council who have been working on many fronts. I want to thank Barry Gough for heading up this year's Awards Committee. He was ably assisted by Faye Kert and Chris Madsen. I also want to thank Barry for his original proposal, that the society consider awarding an MA, prize to encourage the study of maritime history in Canadian universities.

Under the careful cultivation of Membership Secretary, Faye Kert, who also serves as our journal's Book Review Editor, the Society's membership is growing slowly and steadily. I think we may reach 300 by the end of 2004.

Our Treasurer, Gregg Hannah, has worked long and hard on the Society's behalf. I can tell you that for the first time in five years we can face the future without looking over our shoulders. Gregg did not despair. He soldiered on and with help of others has readied the Society's books for any successor.





Speakers at the CNRS May 2004 Conference (photo courtesy of Maurice D. Smith)

The Chair of the Editorial Board, Roger Sarty, and the editors of our publications continue to make great progress. Two new members, Andrew Cook of the British Library, and Cheryl Fury of the University of New Brunswick, have joined the Editorial Board. Yesterday, the Executive Council approved unforeseen expenditures of \$563 to upgrade the Journal Editor's computer. With each issue we see more advertising and therefore more revenue from one, and more reviews and continuing high quality scholarship in the other. *The Northern Mariner's* publication schedule may be back on track by the end of 2004. This year, I have become more aware than ever before of the sheer hard work that is involved in getting our publications out to our members. We owe a great debt to all those who work to do that.

Maurice Smith and Chris Madsen have been working on arrangements for our 2005 conference which will be held at Hamilton, Ontario, from June 16 to 18, 2005. The first call for papers has already appeared in the January issue of *The Northern Mariner*. I want to thank Vice-President, Rich Gimblett, for his splendid work on our behalf. He has laboured long on our behalf this year. He and Bill Glover, our

conference organizer, and Faye Kert, met many times with the representatives of the Canadian Hydrographic Service to realize this meeting and to make it the success that it has become.

Yet, all this activity can backfire. In the absence of a stream of correspondence from members objecting to our behaviour, I believe we are working with our members' interests in mind. Another way to keep in touch with those interests is to review continually the purposes of the society. This year we have done so.

Within the society's mandate, I shall be pleased to ask later during this meeting for a motion to approve the creation and funding of the "Jacques Cartier M.A. Prize" to be awarded annually by the CNRS for the best completed and examined MA thesis on a topic in keeping with the Society's mandate in a calendar year. Also, in keeping with our Society's aim to advance awareness of Canadian matters maritime, I am pleased to announce that yesterday the Executive Council authorized me and the editor of *The Northern Mariner/Le Marin du nord* to begin discussions with two electronic databases to make our journal available to a wider, international audience than

ever before. Chris Madsen who investigated this subject and delivered an excellent report and recommendations to the Executive Council deserves our thanks.

Finally, owing to the initiative of our Journal Editor, Bill Glover, for the first time the Society's name is associated with the publication of an outstanding collection of scholarly essays. This week saw the launch of *Charting Northern Waters: Essays for the Centenary of the Canadian Hydrographic Service*, by the well-known publisher McGill-Queen's University Press. Four years ago, Bill conceived idea of this conference and the book and sold both to CNRS and to the Canadian Hydrographic Service. In the case of the book, Bill recruited the authors; he negotiated a contract with the Press; and he obtained both co-operation and input from the Canadian Hydrographic Service. What is even more remarkable, he rode herd on his authors to deliver their manuscripts on time, had them peer-reviewed, edited them, and delivered them with tables and illustrations all in order to the

press. He then copy-edited the text and returned the final version to the press one year ago in time for publication this week. This is virtually unheard of in the Canadian publishing industry--ninety-five percent of similar proposals fail. But there is one more part of the story, and on this I wish to conclude.

At a crucial moment in the whole process, vital corporate assistance was needed. It was then that Dr. Sam Masry, President and CEO of CARIS appeared. Like a fairy godmother (godperson?), Dr. Masry waved his wand and the project overcame its final obstacle. Thank you Dr. Masry.

This year our Society has achieved many new things to advance the study of Canadian maritime affairs on several fronts, proposing to enter the world of electronic databases, adding an important new prize to its benefactions, supporting publication in a new way, and finding corporate support.



Is this a cocked hat, a three point fix or perhaps it is a rare conjunction of planets whose orbital paths have brought them to a CNRS Conference? Dr Art Collin (centre) former Dominion Hydrographer, Canada with Captain Mike Barritt, RN, (left) and Rear Admiral Stevie Ritchie (right) both former Hydrographers of the Navy in Britain. (MDS)



Barry Gough (L) and Jim Pritchard (R) congratulate the recipient of the Keith Mathews Award, Roger Sarty. (courtesy MDS)

As I said at the beginning, activists are the key to our Society's survival and we are blessed with many of them. The President's job is to give them their head and, according to Vice-President Rich, to be a scapegoat if anything goes wrong. Activists differ from members, however, and we must always remember to keep in touch with our members' interests.

We can best do that by listening when they make their voices heard, and, in lieu of silence signifying approval, continue reviewing the aims and purpose of the CNRS in order to move forward.

*James Pritchard*  
President, CNRS

## Matthews Awards 2003

### Best Book

*No Higher Purpose. The Official Operational History of the Royal Canadian Navy in the Second World War, 1939-1943, Volume II, Part I.* By W.A.B. Douglas, Roger Sarty and Michael Whitby, et al.

Published by : Vanwell Publishing Limited.

### Honourable Mention

1. *The Rule of the Admirals. Law, Custom, and Naval Government in Newfoundland, 1699-1832* by Jerry Bannister. Published by: University of Toronto Press.
2. *Frigates and Foremasts. The North American Squadron in Nova Scotia Waters, 1745-1815* by Julian Gwyn. Published by UBC Press for the Canadian War Museum.



### Best Article

"La peur du rouge." Communist Action Committees in the Port of Antwerp during the 1930s and 1940s," by Stephan Vanfraechem, in *The Northern Mariner/ Le marin du nord* Vol. XIII, No. 2 (April/avril 2003) pp. 25 - 42.

### **Research Queries**

[from Tim Altmann, timaltmann@lineone.net]

I am an assistant producer at Crossing the Line Films, an independent television production company specialising in exploration and historical documentaries. Past productions include: "Shackleton & Scott - Rivals for the Pole;" "Escape from Antarctica;" "Everest, the Northern Edge" and "Tom Crean, Antarctic Hero."

We have recently embarked on a new documentary examining Sir John Franklin's ill-fated 1845 arctic expedition to the Northwest Passage and the subsequent search. A significant proportion of the programme will be a forensic investigation into the factors which contributed to the failure of the expedition, we hope to go somewhat towards explaining how and why all 129 men died, and the two ships disappeared without trace.

The project is an international co production between several broadcasters and the film has exclusive access to a three year scientific search for Franklin's ship HMS *Terror*.

We intend to be filming in Canada in the not too distant future and we are seeking a number of different elements to include in the film.

We are looking to film a sailing ship which could be representative of one of Franklin's ships. Ideally this would be in Canada or in North America. We would like to film the ship sailing at sea although it would not have to be too far from the coast. We'd like to get shots of the ship and from the deck. As I am sure you know, Franklin's ships HMS *Erebus*, 370 tons, and HMS *Terror* 340 tons

were barque-rigged sailing ships – they had been built as bomb-vessels in the early 1800s and had already seen Antarctic service. Obviously there are no bomb vessels remaining today. But we would like to give the impression of a sailing ship that equates to some extent with the *Erebus* or the *Terror*. It may simply be a 3-masted wooden ship. If you have any ideas or know of any ships that might stand in, or could suggest someone who might help, I'd be very grateful if you could let me know.

On a related matter I would be very interested to learn if a model that could represent either the *Erebus* or the *Terror* exists? There is a model of the *Erebus* at the National Maritime Museum in London but I am looking for a rigged model, possibly one that could be put on water. It's quite possible that no such exact model exists, if that's the case perhaps there is a model that is representative of a bomb vessel of this date? Are you by any chance in touch with model builders who might be able to help me with this?

I am also conducting some research into the uniforms that the crew would have been wearing on that voyage. I don't need to tell you that there was the usual array of Captain, Commander, Lieutenants, mates, Warrant Officers, petty officers, able seamen and Royal Marines aboard. Naturally there are people in the UK that can assist me with this question but I would like to widen the scope of my search since any additional input is always welcome.

I'd also be interested to know if there are any Naval enactment/reconstruction groups in Canada that touch on this period. I would certainly like to talk to anyone who could help in this regard.

Finally if there are any experts, academic or other, who have examined the Northwest Passage or John Franklin's final expedition I would be very keen to be put in touch with them.

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## News and Views

### Briton Cooper Busch

The editors of *Argonauta* sadly note the passing of Briton (Tony) Cooper Busch, William R. Kenan Jr. Professor of History, died at home on Monday, May 10, 2004.

Born in Los Angeles September 5, 1936, Tony Busch first came to Colgate in 1963 following degrees from the Stanford University (AB) and the University of California at Berkeley (MA and PhD).

Professor Busch was a significant figure at Colgate and in his profession. He taught modern European history, maritime and military history, and the history of the Middle East, India and the Indian Ocean. A truly distinguished scholar, he was recipient of several fellowships including Woodrow Wilson Foundation Traveling Fellow, NEH Junior Fellow, Social Science Research Council Fellow, Fellow of the Middle East Studies Association and the Royal Society of Asian Affairs. He was book review editor of *The American Neptune* from 1941-2003. He was past president of the North American Society for Oceanic History, and had numerous books and other publications to his credit.

### Oldest Great Lakes Shipwreck to be Completely Excavated

About 6 years ago Gil Carter was digging a trench from his backyard on the beach in Southampton between Morpeth and Palmerston. He was trying to get some water for his lawn. Down about five feet, he came across what looked like the deck of a very large ship. He covered it up. Since then there has been considerable activity around the remains. Marine archaeologist Ken Cassavoy says the shipwreck, believed to be the oldest ever discovered on the Great Lakes dated to the late 1700's, is probably is the merchant schooner *Weazell* built in 1786 at Detroit and lost at Southampton in 1798.

Low Lake Huron water levels and a spring ice scour in April of 2001 uncovered about a dozen ship frames pushing up through the sand of Southampton Beach. Since then, two short periods of test archaeological excavations on the site have revealed the presence of substantial remains of this earliest wreck, buried under the sand. During the 2002 work, excavators found a small-bore swivel cannon lying in the hold of the wreck, a unique find on a Great Lakes merchant ship.

On May 17<sup>th</sup>, the excavation team began opening up the entire interior of the vessel as well as the full exterior on the starboard side of the schooner. Cassavoy says the excavation, carried out under his Archaeological License from the Ontario Ministry of Culture, will provide full details on how this historic merchant vessel was constructed. It also will provide details necessary for the possible lifting, conservation and museum display of the wreck. At the same time, the work may provide artifacts which could help confirm the date and identity of the vessel. The research and excavation of the shipwreck is supported by a number of businesses and institutions.

With no funding available for project crew, all the work was be done by volunteer excavators working under the direction of volunteer professional archaeologists. Cassavoy, a Research Associate at Trent University in Peterborough, says, "I doubt this kind of major archaeological excavation could be done anywhere except in a community such as Southampton and Saugeen Shores. The volunteer support of the general public, as well as area businesses and agencies is absolutely unbelievable. Without that kind of help we simply couldn't do the work on this extremely important shipwreck."

For more project information contact: Ken Cassavoy, Marine Archaeologist/Project Director, Southampton Beach Shipwreck Project, 519/797-2944. E-mail [cassavoy@bmts.com](mailto:cassavoy@bmts.com).

**Discovering ocean secrets -  
New mapping technology helped searchers  
find sunken U-boat off Nova Scotia coast**

[from the *Halifax Herald*]

The world is in for a treat thanks to a new sea-floor mapping technology developed by Canadians, says a geologist who helped a documentary film team locate a sunken German U-boat off Nova Scotia. "We're literally going to find every shipwreck but we're also going to find all the secrets that the ocean holds," said Gordon Fader, regional geologist for the Geological Survey of Canada. "We have this new mapping called multi-beam bathymetry," he said Thursday from his office at the Bedford Institute of Oceanography. "We're going to find where there's new volcanoes, where there's undersea features that have never been seen before," said Mr. Fader.

It's the digital technology that enabled searchers to zero in on *U-215* earlier this year. Using acoustics in systems that are mounted under or towed by ships, scientists can digitally map 100 per cent of the sea floor, and the imagery is very precise. The system puts out 100 to 1,000 pulses per second. "What we end up with is an image of the sea floor that's a lot like as if you drained the water and are flying over in an airplane . . . You see the true seabed.

"It makes it very easy for the average citizen to . . . make sense of it," said Mr. Fader. "I would say it's the biggest revolution in marine geology in the past 50 years," he said. A documentary of the expedition to locate *U-215* is being produced by Halifax-based Eco-Nova Productions.

But the sub hunters would have been hard-pressed to find their target without the Geological Survey of Canada. The mapping of Georges Bank, where the sub was found about 200 kilometres off southwestern Nova Scotia, was actually done three or four years ago using the new multi-beam technology. Scientists didn't see any shipwrecks then because they were not looking for them. "You have to process it at very high resolution and shade it and play with the imagery. If you look at the area, all you see are huge fields of sand dunes

. . . shipwrecks all have different characteristics," said Mr. Fader.

They had to zoom in and view the same data at a much higher resolution. "Eco-Nova, who we've worked with on several issues in the past, came to us several months ago and they had this concept that they'd like to go looking for this submarine and other shipwrecks," said Mr. Fader. "We happened to have some multi-beam data on Georges Bank. They came and visited us . . . we pulled the data up on the screen. We looked in the area and we found nine targets," he said.

"The prime target was No. 5. I said to them, 'That's a shipwreck, definitely.' . . . we could see the whole setting. "So they went to sea with that data and went directly out to that No. 5 target, and that turned out to be the submarine," said Mr. Fader. "It's a big ocean out there, and even though they had data from the fishermen, the co-ordinates that the fishermen had given them were off. The position of where this sub went down was 16 kilometres from where they found it," said Mr. Fader. The boat is resting in about 92 metres of water. "The images brought back from the divers clearly show that this was a special submarine that had five big tubes on it," said Mr. Fader. Each tube, or silo, was loaded with three mines and, apparently, they were en route to Boston to mine the harbour. "Four (silo) have a hatch. On one, the hatch is off and they put the cameras down in the hatch and there you can see an old-fashioned circular mine," said Mr. Fader. Meanwhile, the German and Canadian governments have been notified. Such wrecks are generally regarded as military gravesites and are not to be disturbed.

"It's two things. It's a war grave and it's a hazard on the sea floor. The U-boat is an obstruction to fishing and a danger because of unexploded ordnance," said Mr. Fader. "I'd suspect there are probably relatives alive in Germany, and as the German government becomes aware and the public becomes aware in Germany, it will become some sort of issue to discuss," he said.



*U-215* was one of only six, VII-D class submarines built by the Germans. It was commissioned on Nov. 22, 1941, says the website uboat.net. The special subs were basically a longer version of the more common U-boats and could carry mines as well as torpedoes. These boats did not fare very well, with only one of six surviving the war. The other five all went down with the loss of 241 men. *U-215* was sunk July 3, 1942 - 41 degrees 48 minutes north, 66 degrees 38 minutes west - by depth charges from HMS *Le Tigre*. All 49 hands were lost. *U-215* was responsible for the sinking of the American merchantman *Alexander Macomb*.

### **The Canadian Military History Gateway**

On 30 June 2004, the Department of National Defence (DND) launched the Canadian Military History Gateway (CMHG), an online service that provides access to websites and digitized resources about Canada's military history. The goal of the CMHG is to provide the public with free access to the collective military history resources of Canadian museums, libraries, archives and other heritage organizations through a single gateway.

The Gateway provides Canada's military history dating back to 1000 AD. It offers access to over 4000 online links to military history, with resources such as digitized books, music, art, photos and video, narratives, interactive games and scholarly research. The target audience - youth, educators and life long learners - can use online tools to access the military history resources of all the partners. These tools include a graphical timeline to navigate quickly through centuries, decades and years, to a specific time in Canada's military history and will also include in the near future an array of learning resources and lesson plans.

The Gateway was developed by DND as a National Defence Online (NDOL) initiative supported by the Department of Canadian Heritage's Canadian Culture Online Programme. It was done in partnership with Veterans Affairs Canada, Canadian War Museum, Canadian Broadcasting Corporation (CBC),

National Film Board, Library and Archives Canada and Parks Canada. This website was developed in response to an educational need among Canadians. It is delivered in a format that is comprehensive, user-friendly, and modern, with robust, industry leading technology solutions. It is fully bilingual, and it has been designed to accommodate equitable access to the widest possible audience, including people with disabilities.

In drawing the sources of Canada's military heritage together, the Gateway provides an opportunity for all Canadians to learn about their heritage and the people who have shaped their country. It will be constantly updated and more links to sources of military history will be added.

For more information, visit the CMHG Web site at: [www.cmhg.gc.ca](http://www.cmhg.gc.ca).

### **200<sup>th</sup> Anniversary of Trafalgar**

The Royal Navy announced on the 12<sup>th</sup> of May plans to commemorate the 200<sup>th</sup> anniversary of the Battle of Trafalgar.

The Minister for the Armed Forces, Adam Ingram, and the First Sea Lord, Admiral Sir Alan West, formally launched the commemorations, which are being planned in Portsmouth for the summer of 2005 and London in October 2005.

The Royal Navy intends to open the programme of events with a Fleet Review at Spithead in the Solent on Tuesday 28<sup>th</sup> June as a start to six days of events by the sea. The Royal Navy will give the Review an international flavour with a range of naval and merchant ships, and some of the world's finest tall ships. The intention is to develop the 600-year-old tradition of the Fleet Review into a modern symbol of international maritime friendship.

Following this, the Royal Navy plans to play host to an evening *Son et Lumiere*, themed on a Napoleonic sea battle, featuring a firework display. The following day attention will move ashore and in a more solemn mood, a

Drumhead Ceremony is planned. This is a battlefield service in which drums in the shape of a pyramid form an altar and are draped in colours. This will draw together maritime veterans of many nations, to deepen the bonds of international friendship and to reflect on the sacrifice of fallen comrades.

Between 30th June and 3rd July an International Festival of the Sea will be held in Portsmouth Naval Base. Visitors will have the opportunity to go aboard many of the tall ships, warships, yachts and other vessels featured at the Fleet Review, talk to the crews and find out about life onboard. Dynamic displays will offer a sample of the Armed Forces' combination of land, air and sea capabilities.

In the autumn the Royal Navy intends to focus more specifically on Nelson, commemorating his qualities and historical contribution to the nation. Other events are likely to include a special dinner on board HMS *Victory*, a service in St Paul's Cathedral and an event in Trafalgar Square.

The Royal Navy is proud to be launching Trafalgar 200 and, working very closely alongside the Sea Britain 2005 initiative, the Royal Navy will be helping to raise awareness in young people about the sea and wider maritime community.

### **Legion d'Honneur for Admiral Piers**

In June, Rear-Admiral Desmond ("Debby") Piers, RCN ret'd, was inducted into the Legion d'Honneur, for his contribution to the D-Day invasion and also for his subsequent missions between England and Normandy. During the Normandy Invasion, Admiral Piers commanded HMCS *Algonquin*.

### **Royal Navy Calls in "Ghostbusters"**

In May of this year, the Royal Navy brought in a 10-strong team of "ghostbusters," examining activity in Devonport Dockyard's Hangman's Cell, the scene of numerous executions during the Napoleonic Wars. They also investigated sightings of a girl's ghost seen playing in the Master Ropemaker's House.

The Navy invited the team in after decades of reports of strange sightings around the dockyard.

### ***Thermopylae* Found**

As reported in John Crosse's **West Coast Letter** later in this issue, the remains of the clipper ship *Thermopylae*, *Cutty Sark's* great rival, have been found at the mouth of the Tagus in Portugal. After her service with the Aberdeen Line, she was brought out to the west coast and registered in Victoria, before being sold a few years later to the Royal Portuguese Navy for use as a sail training ship. An exhibition is planned for 2007.

### **A&M Oceanographers Help Locate Sunken Japanese Submarines**

William Bryant and Brett Phaneuf hope someday to locate Japan's submarine *I-402*.

Nestled on the floor of the Pacific Ocean 50 miles off the coast of Nagasaki are the remains of a Japanese submarine fleet, scuttled by the US Navy in April 1946. The wreckage now lies 650 feet below the ocean's surface. The location remained classified for nearly six decades to keep the Soviet Union from benefiting from their technology during the Cold War. But with the use of underwater technology and declassified naval documents, two Texas A&M University researchers recently located the wreckage.

A&M oceanography professor William Bryant and graduate student Brett Phaneuf traveled with a Canadian film company to the spot in the Pacific where USN records said the subs were destroyed. The location was too deep for human divers. But, through the use of sonar equipment and an underwater robot, Bryant and Phaneuf were able to locate 12 of the scuttled subs during a six-day expedition.

The Parallax film company, which funded the trip, sent cameras to record the finding for a documentary that will air next year on The Discovery Channel.



"This is the largest collection of World War II submarines in the world," Phaneuf said. "It's sort of an underwater museum of Japanese submarines." Among the subs discovered was the infamous *I-58*, which sank the USS *Indianapolis*.

Although *I-58* was an important find, the researchers have reason to return to the waters off the Japanese coast and find the remaining 12 scuttled subs. Still buried beneath the Pacific undisturbed is *I-402*, one of the largest submarines ever built, with a capacity to transport more than 300 men.

### **Arctic Yields Fresh Evidence For Elizabethan Gold Swindle**

[*ScienceDaily* 17 July 2004]

Canadian scientists say they've found conclusive proof that a tiny, barren Arctic island was the site of Canada's first, and perhaps greatest, mining fraud.

In 1577 and 1578, Kodlunarn Island, in what is now Frobisher Bay, was the site of British mariner Martin Frobisher's infamous Arctic Eldorado turned New World financial nightmare. Now two Laval University scientists say there's solid evidence that Frobisher and his chemists were in on a massive fraud that was an Elizabethan-era "prelude to Bre-X."

Since the scandal broke more than 400 years ago that the tons of black rock Frobisher brought back to London from the Canadian Arctic near present-day Iqaluit were worthless, there's been speculation about what happened. Was this a massive con job on Elizabeth I and her court, or did Frobisher's assayers mistakenly dupe themselves into believing they'd found gold?

One intriguing hypothesis, put forward by now retired University of Ottawa mineralogist Dr. Donald Hogarth, argued that Frobisher's assayers inadvertently contaminated their samples with gold from the lead used in the assay process. Now, for the first time, lead samples from the assay workshops on Kodlunarn Island have been analyzed using a

combination of age-old and high-tech methods in order to test the contamination hypothesis.

"We find there's not a trace of gold contamination in the lead used by Frobisher's assayers at the Kodlunarn Island site," says Dr. Georges Beaudoin, a geologist at Laval University. The results of his NSERC-funded research appear in the current issue of the *Canadian Journal of Earth Sciences*.

The five, tarnished, grey beads of lead, the largest about the diameter of a two-dollar coin, were discovered and collected on Kodlunarn Island during an archaeological excavation of the site in 1993-4 led by Laval University archaeologist Dr. Réginald Auger.

"With these results we've now discarded the possibility that the lead was contaminated with precious metals," says Dr. Auger, co-author of the article. "So how is it that in 1578 Frobisher went so far as to load 12 ships with tons of black ore and sail it back to London? The chemists at the site must have known the ore was worthless. We have to conclude that there was a fraud."

Sixteenth century assayers knew that it was possible to contaminate their ore samples with gold and silver. The assay process, still used today, involves melting a small sample of ore in a ceramic bowl. Powdered lead is then sprinkled onto the molten rock. As the lead mixes and sinks to the bottom of the bowl it binds with other metals by a geochemical affinity. The lead bead, or button, that forms at the bottom of the ceramic bowl is then collected and any precious metals chemically separated from the lead.

However, the same geochemical affinity that causes the precious metals to bind with the lead in the assay process means that the lead being used can already be naturally contaminated with these metals. "European lead was notorious for containing silver," says Dr. Auger, whose research was funded by the Social Sciences and Humanities Research Council and Quebec's Fond de recherche sur la société et la culture.

Using lead isotope analysis, Dr. Beaudoin determined that there were two sources of the lead used at the Kodlunarn Island site. Through electron probe and mass spectrometry analysis, Dr. Beaudoin determined that neither of the lead types had detectable levels of gold.

Frobisher's Kodlunarn Island site was re-discovered in 1860 by the American journalist and Arctic explorer Charles Francis Hall, who was searching for the missing Franklin expedition. In the early 1990s, the University of Ottawa's Dr. Hogarth used modern analytical techniques to determine that there were only minute traces of gold in the black rocks that so many in the court of Elizabeth I believed were a New World treasure trove.

At least six assays performed on the rocks in London in 1577 and 1578 reported levels of gold concentration more than 100,000 times that actually in the rock. "We can only conclude that the gold was added by the assayers in London," write Drs. Beaudoin and Auger.

This is the first time Beaudoin has applied his geochemical savvy to an archaeological mystery. He says there are remarkable similarities between this 426-year-old mining swindle and the Bre-X scandal of the 1990s. In that case a junior Canadian mining company claimed to have found a gigantic gold deposit in an Indonesian jungle. The news sent the company's penny stock skyrocketing, only to collapse when it was revealed that the ore samples had been tampered with.

Beaudoin estimates that it took only about two ounces of gold, to "salt" the Frobisher samples and launch an investment frenzy. Says Beaudoin, "In Bre-X they were probably using the same low-level of sophistication in the salting of the ore. It was fascinating to see how the story repeated itself."

## Freshwater Eels Are Slip-Sliding Away

[extracted from *Science*, Vol 302, Issue 5643, 10 October 2003]

Eel populations worldwide are crashing. Scientists don't know why precisely, and they can only guess at what it will take to save this beguiling fish.

Eels are renowned for their endurance. Atlantic fry drift thousands of kilometres across open ocean, a months-long journey, to estuaries and rivers, where they can live to the ripe old age of 50 or more. But one of nature's premier survivors is facing its sternest test yet: Hammered by an array of threats that include overfishing, pollution, and climate change, populations of freshwater eels, also known as river eels, have fallen to catastrophic lows.

The latest data suggest that European fry have plummeted as much as 99% since 1980, and their Asian cousins have declined around 90%. North American eels are suffering steep drop-offs as well. The alarming trend shocked researchers at a meeting last month in Tallinn, Estonia, of the International Council for the Exploration of the Sea (ICES), a Copenhagen-based body that advises the European Union on fish stocks in the North Atlantic. Many experts were unaware that freshwater eels are in such dire straits.

## Divers Search for Midget Submarine

[from *Navy News*, 18 May 2004]

Historians and television crews have returned to the Arctic Circle in the latest attempt to find a British midget submarine lost in an attack on the *Tirpitz* 60 years ago. HMS *X5* was sunk in September 1943 during a daring raid on the pride of the German Fleet at anchor in Kaafjord, near Tromsø, in northern Norway. *Tirpitz* was badly damaged, but not mortally wounded, by the raid, but the fate of *X5* has always been somewhat unclear. It is thought most likely she was destroyed after breaking the surface of the sea about 650 yards from the battleship. Intensive fire from flak guns was directed against the midget submarine, before

destroyers pounded the spot with depth charges. What has never been established is whether X5 had accomplished her mission and fixed limpet mines to *Tirpitz's* hull. Other craft in the raiding force certainly succeeded; the battleship was knocked out of action by the attack for more than six months.

A BBC documentary team is producing a programme to mark the 60<sup>th</sup> anniversary of *Tirpitz's* destruction – the RAF finally succeeded in sending her to the bottom in November 1944. You will have to wait until the documentary is broadcast in the UK November to learn whether the divers found the wreck.

### **Gulf of Mexico WWII Deep Wrecks Project**

In July, the US Minerals Management Service announced an expedition that will study seven World War II-era wrecks in the northern Gulf of Mexico. The wrecks range in depth from 280 feet to approximately 6,500 feet. This multidisciplinary study will look at the impact of these wrecks on their nearby surroundings, as well as the way the vessels themselves deteriorate over time. Additional background information is available on the project website: [www.pastfoundation.org/DeepWrecks/](http://www.pastfoundation.org/DeepWrecks/)

### **Icebergs Hidden Under Cook Painting**

X-rays of a tropical picture by a forgotten 18<sup>th</sup> Century British landscape painter have revealed the first painting of Antarctica, the National Maritime Museum.

Hidden for more than two centuries under "A View of Pickersgill Harbour, Dusky Bay" (in New Zealand), the oil painting was the work of William Hodges, who joined Captain James Cook as the official landscape artist on his second voyage aboard the *Resolution* in 1772.

The ghost image, showing Antarctic icebergs in a rough sea, is the first eyewitness view of the southern continent ever captured, according to a statement by the museum. It also proves that the over-painted depiction of the

New Zealand harbour was realized during the voyage and not from memory.

Canvases were often re-used on long voyages. Hodges had painted the Antarctic and then decided to paint over it with the Pickersgill Harbour work, probably because the untouched paradise of Dusky Bay appealed more to the artist's aesthetic temperament.

The first professional painter to see both the Antarctic and Pacific Oceans, Hodges was forgotten soon after 1797, when he died in a reputed suicide following a bank crash. His third and last wife died soon after his own death, leaving behind five destitute children.

### **Haiti Shipwrecks of Ile a Vache**

[posted on MARHST-L by Bruce Leeming 4 May 2004]

Over the last 5 years more than 15 expeditions have been completed to the south coast of Haiti surveying many miles of coastline looking for shipwrecks from all nations and time periods. To date more than 40 wrecks have been logged into an extensive data base. These coral locked time capsules date from the 1500s. Many other debris fields have been located but only scattered artifacts remain which does not allow us to consider it a complete wreck site.

This research is being completed by a group of people from around the globe. Our goal is to establish a Marine Park to help stimulate economic growth in the area. We are looking for more people to get involved who have the expertise in identifying artifacts or can help with the hours of research.

In 1999 and 2000 Canada's *Bluenose* which was lost on a reef in 1946 was our main focus. While surveying for this Canadian Icon we found many cannon-bearing wrecks. Over the last 2 years we have been working a site which has 3 frigate class warships of English origin dated from 1650 - 1720. We believe these are part of Sir Henry Morgan's fleet but at this time we are still conducting research.

We are not treasure hunters. All shipwrecks belong to the people of Haiti and all discoveries belong to this nation. We donate our time, vessels and all expenses to this cause. We do invite filmmakers to get involved and reserve publishing rights to cover our costs. Sponsors have helped out with equipment and costs also.

The coastlines of Haiti have hundreds of shipwrecks. We wish to expand our survey and our efforts in establishing the Marine Park. All findings are reported to the Haitian government and we work with UNESCO. Several other international agencies are involved.

We would be interested in talking with anyone who has interest in this area. One of our current projects involves the loss of a 5th rate British warship built in 1650 which blew up and sunk in 1669. It was HMS *Oxford* which served in the 1665 Battle of Lowestoft and won battle honours there. In 1669 she was decommissioned from the Royal Navy operating under the Governor of Jamaica. The governor put her under the command of Admiral Henry Morgan later known as Sir Henry Morgan.

While working in this field in Haiti we also are involved with a variety of humanitarian goals. At present we are organizing to build a school for 200 primary children which will also have a cistern to supply the local village some safe drinking water.

### **Major shipwreck discovery in South Atlantic**

It was reported in June that a group of Argentine archaeologists have discovered the remains of a sunken vessel dating back to 1615, offshore the province of Santa Cruz in the Southern Atlantic.

Apparently the Dutch vessel *Hoorn* belonged to an expedition that managed to discover the route joining the Atlantic and Pacific oceans. The artefacts found close to Puerto Deseado belong to the oldest shipwreck ever found along the Argentine coastline.

It is thought that in 1615 the *Hoorn*, the smallest of the vessels of the expedition that found the Cape Horn route, caught fire and sunk.

### **MoD to Dredge the Solent for *Mary Rose's* Bow**

[from *The Times Online*]

On the 27<sup>th</sup> of July, it was announced that marine archaeologists have begun the search for a vital missing section of the *Mary Rose*, the Tudor warship that sank in the Solent more than 450 years ago. A large section of the hull of Henry VIII's flagship, along with thousands of preserved artifacts, was raised in 1982 and is on display at the Portsmouth historic dockyard in a specially designed building near HMS *Victory*.

But the front section of the ship was never found and even today naval historians are unsure exactly what the bows of the 36m (104ft) vessel looked like. Because the original operation failed to locate the missing section, a shortage of funds meant that it was decided to leave parts of the site for future generations of archaeologists to explore.

But less than 20 years later the search is on again because the Ministry of Defence is planning to dredge a deepwater channel which will obliterate the wreck site. The channel will allow access to Portsmouth naval base for a new generation of giant aircraft carriers, twice the size of anything currently in service, which are due to be launched in eight years' time.

The MoD decision has given the *Mary Rose* Trust, which was responsible for the original operation, a second chance to find the missing section. A preliminary dive last summer found a solid 5m-long bow stem timber, which is the best evidence yet that the bow and its contents are still buried in the Solent silt.

John Lippiett, the trust's chief executive, said: "The dive last year left us tantalisingly close to uncovering what could be an essential part of the *Mary Rose*. This year we intend to return to the bow area and excavate to



find the extent of the timbers that may still lie under the mud. Archaeologists and the MoD are anxious to know the results."

A dozen divers will be working continuously for three weeks, searching for evidence and researching the logistics of raising anything that is left. A live television link to the *Mary Rose* Museum will allow visitors to watch the work in progress. Because the wreck site is a protected historic monument the MoD is required by law to fund any archaeological excavation.

### **The Early Scottish Maritime Exchange (ESME)**

#### *Making waves in Scottish History*

*ESME* evolved from an informal circle of like-minded historical researchers - many well-respected authors - who are, by choice or circumstance, on the periphery of academia. From the outset it was conceived as an information 'exchange' - not a 'society' with meetings, publications and annual fees.

*ESME* was formed to provide a forum and platform for researchers from all walks of life, many with in-depth local knowledge of a locality or specialism, who are linked by a love of the - *People, Vessels, Places & Events* - that constitute Scottish seafaring. Its three guiding principles are - **Trust, Acknowledgement & Reciprocation**. It follows that our membership is solely by introduction leading to invitation. Thereafter, communication lines and the current research activities of existing members become available. The exchange of information is wholly at the discretion of the individual members in communication but are bound to observe the guiding **TAR** principles. No member can assume 'ownership' of a topic or study area.

*ESME* aims to:

- ! To promote the exchange of information between members.
- ! To bring 'to market' the work of *ESME* members; by assisting in publication, advising on intellectual property issues,

approaching funding agencies and generally 'knocking on doors'.

- ! To act as central depository for visuals relating to - *People, Vessels, Places & Events*
- ! To collate the wealth of information relating to Scottish maritime activity prior to 1850 that abounds at home and abroad under the umbrella *Early Scottish Maritime History Project*. (The first product of which is a Guide and detailed Catalogue of the thousands of cases heard before the *High Court of Admiralty of Scotland 1640-1750*)
- ! To identify and package all data and visuals by chronological 'benchmark studies' and 'special topics' suitable for cascading down to universities, colleges and schools.

Local history data is packaged by the thirty-two customs precincts that made up the coastline of Scotland prior to 1850 and supported by a local *ESME* member.

Initial contact with *ESME* can be made via the e-mail post box on our website: [www.maritime-scotland.org.uk](http://www.maritime-scotland.org.uk)

### **Original Document: "Proposed Transfer of Hydrographic Service From Dept Mines and Resources"**

[Richard Goette has kindly provided this transcript of the National Archive's RG 24 Vol 8163, File 1700-20 - *Argonauta* is a good place to consider when you have primary source material deserving of wider circulation.]

NAC RG 24, Vol. 8163, File 1700-20

File title:

"Proposed Transfer of Hydrographic service From Dept Mines and Resources and of Publication of Canadian Notices to Mariners from Dept of Transport to Dept National Defence Naval Services"



Memorandum to the Assistant Secretary of the Naval Service from Commander H.N. Lay, RCN, D.O.D.

1 November 1941

It is requested that the following may be issued as a Naval Monthly Order:

"Organization for the Control of Hydrographic Matters in the Royal Canadian Navy."

The Staff Officer (Navigation), under the supervision of the Director of Operations Division, will in future administer the following:

- (1) Organization for the supply of Hydrographic Publications to HMC Ships and establishments and all relating matters.
- (2) Collection and promulgation of all information relating to dangers to Navigation;
- (3) Collection and promulgation of all information relating to aids to Navigation and recommendation for improvements thereto.
- (4) War Emergency Control Scheme for navigational warnings to Lightkeepers, and Operators of Radio Beacons and Fog Alarms.
- (5) Promulgation of Public Traffic Regulations for Defended Canadian Harbours.

For approval of DCNS.

Memorandum to D.O.D. from S.O. (N), Lieutenant R.S. Simpson, RCN  
28 January 1942

Prior to the establishment of the Naval Service Department, the Hydrographic Survey was part of the Department of Marine and Fisheries.

When the Naval Service was organized in 1910, the Hydrographic Survey was transferred to the Naval Service where it functioned as an essential service in close co-

operation with the Royal Canadian Navy and with the Department of Marine and Fisheries. This co-operation was facilitated as the Marine and Fisheries and Naval Service, though separate departments, were under one Minister who held both portfolios.

During the War 1914-1918 the Hydrographic Survey rendered valuable service to the Royal Canadian Navy, through the expeditious conduct of surveys required for Naval purposes, through the transfer to and from the Royal Canadian Navy of Hydrographic Ships and Personnel according to the most urgent needs; and through the close liaison maintained with the Hydrographic Department of the Admiralty with whom information was readily exchangeable, thereby avoiding duplication of effort in the matter of chart publication and other Hydrographic activities.

In 1922 the Hydrographic Survey was transferred back to the Department of Marine and Fisheries under a separate Minister, thence to the Department of Marine, the Departments of Transport and Interior, and later to the Department of Mines and Resources, where it is now established.

The activities of the Hydrographic Survey, Mines and Resources, Department; the Aids to Navigation Service, Transport Department; the Royal Canadian Navy and the British Admiralty are all closely related in peace time; and in War it is an unavoidable necessity that all services work in unison for the protection of our coasts and trade. With each service under a separate administrative head, this co-operation is less readily operative due to the decentralization of control. For instance, Hydrographic activities affecting Navigation must be published through "Notice to Mariners: published by the Department of Transport. There is a possible source of error and omission, due to the dual responsibility. Alterations in Aids to Navigation must be noted on Charts; likewise liable to cause delays and omissions for the same reason. Naval requirements for control of shipping during War, - involving both charts and Notices to Mariners and the basic principle of aids to

Navigation, - are tied up with the two other Departments whose responsibility it is to see that proper publication is effected. Again, the decentralization of authority is a fruitful source of error and limits the scope of fixing responsibility.

Superimposed upon the above difficulties is the necessity for keeping the Admiralty informed through exchange of information, so as to avoid duplication of effort.

The Royal Canadian Navy has established close liaison with the Admiralty on Naval matters over many years and already has in operation the other departments concerned from the point of view of efficiency. Therefore, the centralization of the Hydrographic Survey and Aids to Navigation under the Naval Service is logical.

It is submitted, moreover, that such centralization would be economical. At present each of the above services have separate organization requiring the manning of ships and services with separate staffs. The Naval Service has continuously under training sufficient personnel to man these services and ships to carry out many of the functions thereof. The work involved in carrying out surveys and installation of Navigational aids would provide excellent practical training for Naval Personnel in peace time and would ensure the operation of these services under a central control to meet emergency needs. Both in peace and war, therefore, the operation of these services under the direct control of the Naval Service would provide increased economy and efficiency. A detailed resume of the difficulties of Hydrographic Survey Administration and other data is appended.



CNRS President, Jim Pritchard congratulates (and hands over the cheque) to Richard Goette, winner of the Young Scholars Award. (Photo courtesy Maurice D Smith)

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graph TD
    Minister --> DeputyMinister[Deputy Minister]
    DeputyMinister --> Director[Director of Surveys and Engineering Branch]
    Director --> CHMS[Chief Hydrographic and Map Service]
    CHMS --> HS[HYDROGRAPHIC SERVICE]
    CHMS --> MS[MAP SERVICE]
    
    HS --> HQ[Headquarters Ottawa]
    HS --> WCD[West Coast Division]
    
    MS --> MPS[Mechanical & Photographic Sections (Labelle Building)]
    
    HQ --> HQDuties[Duties: Supervision of  
1. Hydrographic Surveys  
East Coast, Great Lakes,  
and West Coast]
    
    WCD --> WCDDuties[Duties:  
1. Supply of Tidal &  
Current Information to  
Headquarters.  
2. Hydrographic Surveys  
Pacific Coast]
    WCDDuties --> Surveyors[Surveyors]
    
    MPS --> MPSDuties[Duties:  
1. Reproduction of Canadian  
Charts for all Canada.  
2. Supply of Magnetic Data  
for Charts]
    
    HQDuties --- HR[ ]
    WCDDuties --- HR
    MPSDuties --- HR
    
    HR --- SD[Sailing Directions]
    HR --- RDP[Records Division  
& Personnel]
    HR --- CD[Chart Construction  
Division]
    HR --- TCS[Chart Distribution  
Tidal & Current  
Surveys E. & W.  
Coasts]
    HR --- SWLD[Surveyors  
Precise Water  
Levels Division]
    HR --- 18D[18 Division]
  
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Aids to Marine Navigation Performed by the Department of Transport



## Appendix 1 Section I – HISTORY

As early as 1653, hydrographic surveys were made of Canadian waters under the French Regime, which continued until 1740. Little is known of this type of work between 1740 and 1882, except that Admiralty made many surveys of Canadian waters; charts having been produced bearing dates from 1822 to 1887.

The History of the Canadian Hydrographic Survey is closely associated with that of the British Admiralty Hydrographic Office, which made various surveys of the Eastern and Western Coasts of Canada, as well as the Great Lakes. Various R.N. officers who surveyed Canadian waters are Captains Owen, Musgrave, Boldon; Staff Cdr. Maxwell, Cdr. Miles and Lieut. Gordon.

The Canadian Hydrographic Survey was originally commenced by the appointment of Mr. Wm. J. Stewart as assistant to Captain J.G. Boulton, R.N., to undertake a re-survey of Georgian Bay and Lake Huron in the year 1884.

This service gradually expanded and in 1893 assumed a national character when Captain Boulton resigned as officer-in-charge of the Hydrographic Survey being conducted in Georgian Bay, although various R.N. officers have been connected with the Canadian Hydrographic Survey since.

From 1893 to 1905 other Hydrographic Surveys being conducted by various Governmental Departments were amalgamated under Mr. Stewart, and this unit became known as the Canadian Hydrographic Survey.

On May 4, 1910, the Canadian Hydrographic Survey was incorporated as a part of the RCN upon its formation at this time, by the enactment of the Naval Service Act. Reference R.S. 1927 Vol. 111, Chapter 139, Para. 1.

1914-1918 Upon the outbreak of War, the RCN appropriated the larger ships of the Hydrographic Survey and survey work was curtailed for the duration. Many members of the Hydrographic Survey enlisted, several joining the RNVF the remainder joining various units of the Canadian armed forces, and several losing their lives.

1922 The Hydrographic Survey was transferred to the Department of Marine and Fisheries, upon the enactment of Order-in-Council, PC 1246. The authority for this transfer was given by an act of Parliament, called "An act to Authorize Re-Arrangements and Transfer of Duties in the Public Service." This act was passed in 1918, Capt. 6, Sect. 1.

1930 On May 30, the Hydrographic Survey was transferred to the Department of the Marine, upon formation of this department.

1931-1935 During these years, several reports were made by various senior officers of the Department of Naval Service with regard to regaining control of the Hydrographic Survey, as well as the Fisheries Protection Service, Radio Telegraph Service, and life-saving service. No other action was taken by the Departments concerned.

1936 On the Second to November the Hydrographic Survey was transferred by Order-in-Council to the Department of Transport.

On November 23<sup>rd</sup>, the Hydrographic Survey was transferred to the Department of the Interior.

About a month later, the Hydrographic Survey was transferred to the Department of Mines and Resources, where it now functions as part of the Surveys and Engineering Branch, under the direction of Mr. F.H. Peters, Surveyor-General and Chief, Hydrographic and Map Service.

## Section II NECESSITY FOR AMALGAMATION



1. It is submitted that the Hydrographic Survey has been made a departmental football, having formed a part of five departments over a period of 20 years.

2. There is frequent duplication and overlap of services pertaining to Aids to Navigation, performed by various branches of governmental agencies.

CHARTS (a) Since the outbreak of war, very little information has been passed by the RCN to the Department of Transport regarding Aids and Dangers to Navigation for promulgation in Canadian Notices to Mariners, due to lack of trained personnel as well as liaison.

Admiralty depends on Canadian Notices to Mariners for the correction of Admiralty charts. Therefore, Admiralty Charts have not been kept up to date in this regard.

b) Admiralty also depend on the Canadian Hydrographic Service to forward the latest results of their surveys and new editions of charts immediately. There is very little co-operation in this regard. In May 1941, Admiralty's new edition of Halifax Harbour Chart No. 311 was so incorrect it was withdrawn after issue and shipment to Canada, and a new edition prepared.

This was caused by the publication of a new edition of Canadian Chart No. 416 of Halifax Harbour in March 1941, containing up to date information which the Admiralty did not possess.

c) This needless waste and duplication could be avoided by:

1. Either Admiralty OR [original capitals] the Canadian Government publish a chart of this area but not both.

2. That the Canadian Hydrographic Service pass their latest information immediately upon receipt to Admiralty.

d) It is the standard practise of the chart depot at Halifax to check over the Canadian Charts upon receipt, to ensure that these are

fully corrected, prior to their issue to the Fleet. This procedure is necessary owing to the large number of uncorrected charts received. At the present time there is no control over the correction of these charts.

e) Baryta proofs of Admiralty charts, which were sent to the Surveyor-General and Chief of the Hydrographic Service for safe custody only, have been reproduced in large quantities in an uncorrected state for supply to merchant ships, HMC ships, private institutions, and the RCAF. There is little control of this situation except to attempt to control the source of demand.

f) Chart 405 of the Hudson Bay and the coast of Labrador has been in the process of construction for 10 years, and has not yet been completed. A request to have this chart completed was not answered.

The following changes are recommended:

- a) That Mercator's Projection should be used for all navigational charges, excepting those used for special purposes, i.e. Direction finding, Great Circle plotting, etc.
- b) That the great verity in sizes of Canadian Charges should be reduced to a minimum.
- c) That Admiralty's standards for symbols on the charts should be accepted for Canadian charts.
- d) That charts for the RCN should be reproduced showing secret and confidential information for the duration. This would conform to Admiralty's folio R of secret charts for the use of the Fleet only.
- e) That it would be much easier to ensure that Canadian charts show the correct and latest information of a secret or confidential nature, as well as information for the general public, if these charts were reproduced under the direct control of the Navy.
- f) In many cases, Canadian charts have duplicated areas already charted by Admiralty. It is submitted that these areas should not be completely re-

surveyed, excepting where uncharted dangers are reported.

SURVEYING: Establishment of controlled mine-fields, searched channels, degaussing ranges, cables, indicator and guard loops, fixed harbour asdics, and land marks for swinging ship and compass adjusting is at present made partly by the loan of personnel of the Hydrographic Survey or by Naval personnel inexperienced in this type of precise work.

Owing to the extremely precise and secret nature of this work, it is submitted that this work should be undertaken only by hydrographers employed as officers of the RCN.

### Section III

#### PERSONNEL [not included]

-some points:

-20% of the entire staff of the Hydrographic Survey enlisted by this date in the armed forces

-"The Hydrographic Service at present have only six launches in poor condition, to carry out important requests from the Naval service; in addition to other work. Thus their field operations have been limited to minor surveys of protected harbours or inland waters."

### AIDS AND DANGERS TO NAVIGATION

-various complaints

### SECTION IV

#### DETAILED DESCRIPTION OF THE ORGANIZATION OF THE HYDROGRAPHIC SURVEY

[not included]

### SUMMARY

Every country in the world excepting Canada have their Hydrographic Department as a part of the Navy. When the USA declared war, the United States Coast Guard Service automatically became a part of the US Navy for the duration; so that a closer liaison

and centralized control might be attained. It is submitted that the formation of a Hydrographic Department of the RCN to include the Hydrographic Survey as well as those services directly related to Aids and Dangers to Navigation now administered by the Department of Transport would accomplish the following:

- 1) Enable the RCN to function more effectively.
- 2) Ensure a closer and more effective liaison within Canada as well as between Canada and the Admiralty, other Commonwealths and our Allies.
- 3) Effect an increased efficiency of these various services with a considerable saving in administrative and operative costs to the Canadian Government in time of peace as well as in Wartime.

The Canadian Hydrographic Survey could have completed the charting of the coasts of Canada from where Admiralty left off, during the past 48 years, had the following been avoided:

- 4) Surveys of remote areas such as the Arctic Ocean, Great Bear, and Great Slave Lakes, Lake Nipigon and the Mackenzie River. These surveys were made at the request of individuals or privately owned companies who helped defray the expenses entailed. These surveys have not benefited the country at large or more particularly the RCN.
- 5) The re-survey of many areas already satisfactorily surveyed by Admiralty.

Had Canada's coasts been completely surveyed OR [original capitals] Admiralty's charts been reproduced as Canadian editions (to which there is no objection) the RCN would now be dependent on Admiralty charts of Canadian waters. This

would have relieved Admiralty of a burden, - and at this time particularly when there is a shortage of materials and labour in England. Consequently, Canada need not have been dependent on Admiralty for Hydrographic publications as she is today.

While this cannot be remedied immediately, it can be made a future policy. Thus the RCN with Canadian charts of Canadian waters will be independent; without the confusion and duplication of tide tables, light lists, notices to mariners, sailing directions, charts, and radio aids to navigation which presently exists.

Extract from the Naval Board Minutes Meeting of Monday, 20 April 1942

## 2. Hydrographic Service

At its Forty-Second Meeting held on the 15<sup>th</sup> December, 1941, the Naval Council appointed a Sub Committee to investigate a proposal that the Naval Services take over the Canadian Hydrographic Organization which, at present, is part of the Department of Mines and Resources.

Canadian charts and other hydrographic publications are at present published by the Department of Mines and Resources, whilst Notices to Mariners are published by the Department of Transport. Neither of these systems of publications are under the control of the Naval Service.

The Sub Committee recommended that a Hydrographic Branch of the RCN be established with an Hydrographer as head of the branch. The Sub Committee expressed the opinion that lack of control of these publications is dangerous in war time and most undesirable in peace time.

D.N.I. stated that there is at present little, if any, co-operation with the Admiralty in the issuance of charts, inevitably resulting in lack of standardization and duplication of effort.

The Naval Board agreed as to the desirability of the naval Service taking over the Hydrographic functions and recommended to the Minister the approval in principle of the Sub Committee's proposal.

The Secretary was directed to prepare a letter for signature for the Minister, addressed to both the Minister of Mines and Resources, and the Minister of Transport, to open negotiations with a view to the eventual transfer to this Department of the following main responsibilities:

- a) All work in connection with Hydrographic Surveys.
- b) Production and distribution of all charts and other hydrographic publications affecting Canadian Waters.
- c) The publication of all Canadian Notices to Mariners, both public and confidential.

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Memorandum to D.T.D., D.O.D., D. of P. by  
Lieutenant-Commander D.A. Grant,  
RCNVR, S.O. (N)  
6 October 1942

Subject: Proposed Transfer of Hydrographic Service from Department of Mines and Resources and of Publication of Canadian Notices to Mariners from Department of Transport to Department of National Defence (Naval Service).

A brief outline of what has been done to date is given below, together with a summary of the main reasons pro and con.

The following appears in the 42<sup>nd</sup> meeting of the Naval Council held 15<sup>th</sup> December, 1942 (flag # 1).

## Canadian Hydrographic Organization.

The present Canadian Hydrographic Organization is in the hands of the Department of Mines and Resources. The Naval Staff is of the opinion that hydrographic matters should in due course be

transferred to the control of the Naval Service as is the practice both in the United Kingdom and the United States. The advantages and disadvantages of such a course were discussed briefly and the Minister instructed that a Committee consisting of D.N.I., D.P.S.D., and D.O.D. should investigate the proposal and prepare a report."

A Meeting of such sub-Committee was held on 18<sup>th</sup> February, 1942. The Committee submitted a report (flag 2) recommending transfer of Hydrographic Service, Department of Mines and Resources and publication of Canadian Notices to Mariners under the Department of Transport to the Department of National Defence (Naval Service.)

The Naval Board dealt with this report at it's [sic] meeting on 20<sup>th</sup> April, 1942 [see above]

Letters were addressed respectively to the Minister of Mines and Resources and the Minister of Transport (flags 4 & 5).

Replies were received from both Ministers – Minister of Transport (flag 6) and Minister of Mines and Resources (flag 7).

In each case the answer was "no." The reply by the Minister of Transport leaves one unimpressed. The proposition that the publication of Canadian Notices to Mariners would logically follow the transfer of the Hydrographic Service is not dealt with. What is more reasonable than that the people who produce the charts should promulgate the changes which affect them?  
(See Captain Brand's memorandum flag # 8.)

The Minister of Mines and Resources' reply encloses a somewhat lengthy memorandum from the Director of Surveys and Engineering dealing with considerable extraneous matter. The points raised would appear to go to detail rather than principle and the point is entirely overlooked that the Hydrographic Service was under Naval supervision for 12 years with, as far as appears, satisfactory results.

A letter has been received from the Commanding Officer Pacific Coast (flag #9) enclosing a request from the local representative of the Hydrographic Service at Victoria asking for Naval assistance. It may be that this should have been dealt with through his own headquarters in Ottawa but it is at least indicative of their present situation. It might well be that, as the manpower situation becomes more acute, the Hydrographic Service might be thrown into our arms. We have the men, perhaps category men not fit for full combatant sea duty but still able to go to sea, and we have the ships.

It, perhaps, resolves itself into the one practical problem – can we, knowing the advantages accruing, in spite of the opposition above referred to, bring the transfer about as a war measure for the duration?

The following is a summary of the main pros and cons relating to the transfer of the above functions to the Department of National Defence (Naval Service.)

#### HYDROGRAPHIC UNDER RCN

Pro	Con
1. Control of programme of charting new areas, revising old charts, etc. to give proper priority to war requirements.	1. R.C.N. would be saddled with unwanted duties. a) Surveying and Charting Inland waters. b) Precise Water levels, lakes and rivers. (Suggest these be left with Mines and Resources under Topographical Surveys.[])
2. Closer co-operation with Admiralty in co-ordinating Canadian and Admiralty Charts of Canadian Coasts.	2. Liaison between land surveyors and hydrographic not close. (not considered serious drawback.)
3. Better co-ordination with RCAF re Aerial Surveys (Note RCAF assisting in Annapolis Basin.[])	3. Printing presses of Mines and Resources would still have to be used.



4. Control of information shown on charts to eliminate information of value to the enemy.

5. Control of distribution of Confidential Charts, which are likely to grow in number.

6. Standardization of symbols, projections, etc. with Admiralty.

7. Less difficulty in obtaining ships and personnel, arranging transportation and passage in time of war for survey parties.

8. As Navy routes Merchant Ships in War, their interests are also Navy's.

4. Canadian Naval Notices to Mariners (Confidential) could be printed by same organization, perhaps eliminating the preliminary stage now necessary, if facilities for rapid printing were set up.

Extract from the Naval Board Minutes Meeting of 14 June 1943

#### 121-1 HYDROGRAPHIC SERVICE

21-2 As a result of the Naval Board Minute 21-2 the question of transfer of the Hydrographic Services to the Naval Service was taken up with the Department of Transport and the Department of Mines and Resources. In both cases the replies were unfavourable to any transfer.

In view of the attitude of the two Departments concerned and as it appears undesirable for the RCN to accept any unnecessary additional commitments at this time the Naval Board directed that:

- a) The RCN should make no further effort at present to take over the Hydrographic Service.
- b) The RCN should loan ratings upon request, and if available, to the Hydrographic Service.
- c) If and when ratings are loaned for this purpose, the RCN should pay them and the Department of Mines and Resources should victual and quarter them.

-tried again in 1947

-see Staff Officer, Navigation, HMC Dockyard, Esquimalt B.C to Commanding Officer Pacific Coast, Pacific Coast Naval Headquarters, HMC Dockyard, Esquimalt, BC.

#### NOTICE TO MARINERS PUBLISHED BY RCN

Pro	Con
1. Direct control of issue (RCN has been embarrassed on several occasions by notices of Confidential charts, restricted, areas, etc. appearing without Navy's approval.)	1. RCN not interested in inland which have formed subject of one third of Notices to Mariners this year to date.
2. Logical that authority issuing charts should say how they are to be corrected.	2. Close liaison would have to [be] maintained with Department of Transport who maintain aids. (Would not be as easy as at present.)
3. RCN Ships are in a position to check aids to navigation and have facilities for reporting promptly any which are off station, etc.	3. Facilities for printing Notices to Mariners rapidly would have to be provided.



## Maritime Provinces Steam Passenger Vessels

by Robin H. Wyllie

### S. S. Yarmouth (1)

#### Specifications:

Official Number:	93373
Builder:	A. McMillan & Son, Dumbarton, Scotland
Date Built:	1887
Gross Tonnage:	1,452
Overall Length:	220.3 feet
Breadth:	35.2 feet
Draught:	21 feet
Engines:	260 h.p.
Propulsion:	single screw

#### History:

Yarmouth was settled in June 1761 by dissenting Puritans from Sandwich Massachusetts. Shortly thereafter, in 1767, a large number of French and Acadians who had been forced to leave the country during the Expulsions, returned and were granted lands in Yarmouth and neighbouring Digby Counties.

Although well forested, the arable land was of poor quality and, quite naturally, the settlers turned to the sea for their livelihood. Wooden shipbuilding flourished and a lucrative shore-based fishery was established.

In 1855, a group of Yarmouth merchants formed the Yarmouth Steam Navigation Company and established regular steamship service between Yarmouth and Boston with the steamer *Eastern State*. Nine years later, Captain Nehemiah K. Clements purchased the 500 ton wooden steamer *Linda*, a former blockage-runner, and organized the Yarmouth and Boston Steamship Company. In 1871, this vessel ran aground, was salvaged, repaired and reappeared under the name *Dominion*.

By the 1800s, trade with Boston was booming in the years following the Civil War and, perhaps aware what plans were afoot,

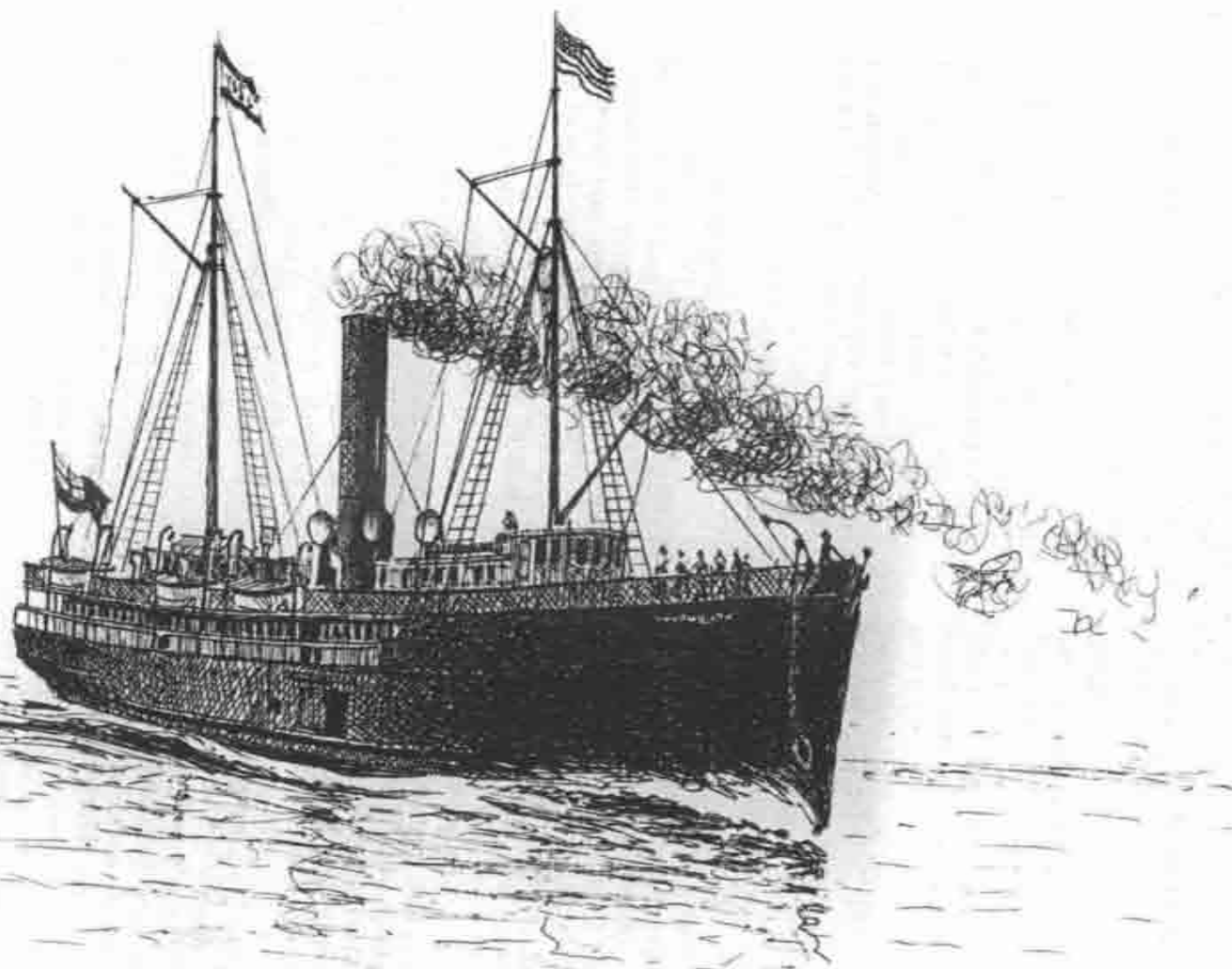
Samuel Killam placed his little 211 ton *Alpha* on the run just prior to the Hon. L. E. Baker's formation of the Yarmouth Steamship Company in 1885. Having already planned to buy out their competition and run the *Linda* until such time as their own vessels were delivered, the new company found itself forced to buy out Killam as well.

In 1887, the company took delivery of their first new vessel, the steel single screw steamer *Yarmouth*. Built by McMillan and Son of Dumbarton, who had built a number of sea-going passenger vessels for companies operating overnight Irish Sea routes, she was a first class product. At just under 1,500 tons, a passenger capacity of 450 and what was then a very respectable speed of 14 knots, she became an instant success and made her first trip to Boston on May 8<sup>th</sup>, 1887.

With the completion of the section of railway between Digby and Annapolis in 1891, the Windsor and Annapolis Railway Co put on a fast train, the "Bluenose," linking Yarmouth to Halifax and joined with the YS.SCo to advertise the "land of Evangeline Route" as a major tourist destination. the promotion was a tremendous success and, in 1890, the YS.SCo took delivery of the 17.65 knot, twin-funnelled *Boston*.

In 1895, the Windsor and Annapolis Railway was taken over by a newly-formed English company, the Dominion Atlantic Railway, many of whose shares were held by directors of Canadian Pacific. It was, in fact, a poorly concealed attempt by the company to obtain access to Halifax. This became obvious when the ordered the powerful paddle steamer *Prince Rupert* to establish a regular connection between Saint John, CPR's Atlantic railhead, and the DAR railhead in Digby.

It was not long before their greedy eyes turned to the Yarmouth-Boston run. Others had already done all promotional and public relations work, the infrastructure was in place and there was money to be made.



S.S. YARMOUTH

A composite drawing from photographs in the author's collection.

ROBIN H. WYLLIE 2004

The first step was to have vessels built for the run and their *Prince Edward* was delivered in 1897. The height of Victorian luxury, she was a typical cross-channel steamer and, unfortunately, not well-suited for the Yarmouth-Boston run during the off-season.

A price war ensued accompanied by nasty, but actually quite accurate, insinuations to the effect that the new vessel was not up to scratch. Letters to the newspapers became quite virulent as evidenced by the following quotation from a letter written by DAR Superintendent Mr. P Gifkins:

*...So far as Prince Edward is concerned she is up to our highest expectations in every respect and there is no question as to her guaranteed speed of 19 knots being maintained whenever required, except in the diseased mind of the hireling who wrote the cowardly slander.*

To cut a long story short, the competition increased with the delivery of two additional new DAR steamers the *Prince George* and the *Prince Arthur*. *Prince Edward* was relegated to a Yarmouth-Halifax South Shore run and the companies went at it head to head. Through railway-steamship tickets could no longer be sold by YSSCo agents and price cutting reached ridiculous levels.

It came to an end in 1901, when the near desperate DAR bought out the Yarmouth Company for \$250,000. The YSSCo was then dissolved and the DAR found itself the proud owner of the *Boston* and *Yarmouth*, plus the old *Alpha* and *City of Saint John*, both condemned, in addition to various marine equipment and office fixtures.

*Prince Edward* had been placed on a Yarmouth-Halifax run, but with the opening of the Halifax-Southwestern Railway, steamer service was no longer needed along the South Shore and she went to the Bay of Fundy. She was still not satisfactory and, in 1905, the vessel was sold to a Swedish company.

She was replaced by *Yarmouth*, whose ownership, along with that of *Prince Rupert*, had been transferred to the CPR in 1912, when the DAR sold its Boston vessels to the Eastern Steamship Corporation. The following year she was replaced by the *St George*, but was kept on as "spare boat."

The following year, *St George* and all the old British-flagged ships, with the exception of *Yarmouth*, went off to war. By this time, the vessel was in rather poor condition and the CPR sold her to a New York group, known as The North American Steamship Company, for \$55,000. This company was linked to Marcus Garvey's Universal Negro Improvement Association and his "Back to Africa" movement. Garvey was a Jamaican and his idea was to use the ship to finance this grand scheme. *Yarmouth* made several trips to the West Indies with an all-black crew, but was eventually attached for liabilities, condemned and sold to ship breakers. In 1922, she was broken up in Philadelphia.

In 1925, Garvey was convicted of mail fraud in connection with a similar scheme to establish a Negro steamship company called the Black Star Line.

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Mills, John M. *Canadian Inland and Coastal Steam Vessels 1809-1930*. The Steamship Historical Society of America, Providence, RI, 1979.

Woodworth, Marguerite. *History of the Dominion Atlantic Railway*. Dominion Atlantic Railway, Kentville, NS, 1936.

Records in the collection of the Public

Archives of Nova Scotia.

Shipping registers in the collection of the Maritime Museum of the Atlantic.

Contemporary timetables, newspapers and almanacs in the possession of the author.

## West Coast Letter

by John Crosse

The Vancouver Naval Vets, a branch of the Royal Canadian Naval Association, despite our rapidly dwindling numbers, recently had a day-visit aboard HMCS *Ottawa*, newest of the *Halifax* class frigates. It was a wet and windy morning when we embarked at Esquimalt and headed out into the Juan de Fuca Strait. Our group was one of several making up a total of 200 guests. We certainly got our money's worth. Mother Nature put on a Force 8 gale for us, but the motion of the ship was virtually imperceptible. These 5,000 ton little warships are impressive. Larger than a World War I light cruiser and infinitely more powerful, their *piece-de-resistance*, according to the captain, is their ability to switch from 26 knots full ahead, to 15 knots full astern at the mere press of a button. This manoeuvre, when demonstrated, nearly had the more elderly visitors thrown off our feet. *Ottawa* could have gone faster, but she was missing one of her two gas-turbine engines, still ashore after a fire off Panama last year. For normal cruising they rely on a more conventional diesel. It was interesting to see the role that women play in the Navy today, when I was a middy in World War II they were considered jonaahs aboard ships.

Since our last issue we have celebrated the 60th anniversary of the Normandy landings. The youngest person in the invasion, only a few days past his 15th birthday, but now a Victoria citizen, had just signed up as a boy seaman aboard an RN tug. Present at this year's celebrations, he tells me 330 busloads of old veterans still showed up, and added one bit of west coast history that is not generally

known. In future letters I hope to write more about the important role that tugs play up and down our coast, but back in 1944, it seems that two west coast liners had a monopoly of tending to their needs. Headquarter's ship in the Solent for all tugs was the *Aorangi*, formerly of the Canadian Australasian Line. Originally she had been assigned 80 tugs, but ended up with 140. After two months she was replaced by another west coast vessel, Canadian Pacific's *Empress of Russia*. The latter never made it home, being burnt out at Barrow-in-Furness while being converted to a troopship. But more about Canadian Pacific later.

First fresh news of subsurface activities. That 18th century Tofino anchor, found last year in the Templar Channel, still baffles the experts. A National Geographic Magazine underwater archaeology expedition in May drew a blank. They found no evidence of the 1811 wreck of the *Tonquin*, but locally based Tonquin Foundation are not about to give up that easily and are talking of drilling boreholes.

Another dive, involving at least two west coast divers, this time in the Arctic, failed to locate either the *Erebus* or *Terror* in the McClintock Channel.

But a third, at the mouth of the Tagus, in Portugal, yielded up the bones of the great *Thermopylae*, perennial rival of the *Cutty Sark*. She was registered in Victoria between 1891 and '97, having had been purchased Robert Reford's, a shipping agent's of Montreal still in existence, and came out here to carry rice to the Chinese working on the CPR. However there was little market for her goods, and cut down to a barque, she shipped coal at Nanaimo for Hong Kong, thereafter she was used in the lumber trade loading at some of the major mills on the west coast, Sapperton at New Westminster, the Hastings Mill in Vancouver, and Astoria on the Columbia River, but then she loaded from the big mill at Port Blakely in Puget Sound opposite Seattle. However the bulk of her time was spent at anchor, waiting for a cargo. Built in 1868 she was already an old ship by the



time she out here, and steam was replacing sail, thus she was hardly a profitable investment for her owners.

Overall she made only about one round trip a year, and in 1896 was sold to the Royal Portuguese Navy, who were looking for a sail training ship. However on arrival in the Tagus she was found unseaworthy and condemned for use as a coal hulk. But the Portuguese knew her history and when her time had come, she was given a viking funeral before the Queen

of Portugal. *Thermopylae's* lantern still graces the main cabin of *Cutty Sark* today, and her brass coal scuttle is in Aberdeen.

Mention of the *Thermopylae* reminds me that she once ran level with the *Empress of India*, one of CPR's crack steamships while crossing the Pacific. The *Emperesses* played such an important part in the history of west coast development that it is time they were mentioned.

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Paramount to British Columbia entering Confederation in 1871 was our insistence that the Canadian government would build a rail line to the west coast, no easy undertaking for a nation as young as ours, but 15 years later the first train pulled in to Port Moody, at the head of Burrard Inlet. The company had already chartered a number



CPR's *Emperor of India* arriving at the Vancouver terminal, 28 April 1891 to inaugurate the Imperial Route to China.

of ships in Japan and China to bring over tea, and in the summer of '86 the first barque, the *W.B. Flint* arrived at their railhead. But Vice-President William Van Horne had already determined that this location was unsuitable for ocean shipping, and was extending the line 12 miles down the inlet to the little hamlet of Granville, which he re-christened Vancouver. It was clear that sailing vessels were never going to be able to handle the volume of trade needed to make

the line profitable, so they chartered three old transatlantic liners, the first of which, the *SS Abyssinia* docking at the new facility a year later.

Meanwhile plans for a fleet of three modern liners was hanging fire in England due to delays in negotiating a transpacific mail contract, so it was not until the end of '89 that the first keel was laid. Their *Empress of India* reached Victoria in the Spring of '91 and docked in Vancouver later the same day. Her sisters, the *Empress of China* and *Empress of Japan* arrived later the same year. All three were of 6,000 tons, tiny by today's standards, but by no means small when compared with Atlantic liners of the day. Strikingly handsome, with their white hulls and clipper bows they looked more like large yachts, and boasted luxurious furnishings. Accommodation was for 132 First and 32 Second Class passengers, with Steerage

provided for several hundred Chinese. Cargo carriers as well, they shipped 3,250 tons of freight. With triple-expansion engines and twin screws they could steam at 18 knots, but generally cruised at 14 or 15.

For twenty years the three plied the Pacific to the Far East, until the *Empress of China* was wrecked at the entrance to Tokyo Bay in 1911. By then the service had become so popular that a new generation of larger *Emperesses* was on order, and the CPR had extended their service to include the Atlantic crossing as well.

World War I saw the *Empress of India* converted to a hospital ship, and afterwards she was sold to Indian owners, but broken up in 1923. All three ships had been built to Admiralty specification for armed merchant cruisers, but only the *Empress of Japan* was so converted. In this role she served for 15 months before being returned to the CPR. Her last run was in 1923 and in all she made no less than 158 round trips under their checkered flag, being scrapped in North Vancouver in 1928. Fortunately before she was broken up, what artifacts as could be were saved, and her figurehead is now on the Seawall in Stanley Park, the Vancouver Maritime Museum holds many of pieces of memorabilia.

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I cannot end this letter without mention of developments at Nootka Sound, where the Mowachaht/Muchalaht are proposing to build a cultural centre at the site where Capt James Cook landed in 1778. The Land of Maquinna Cultural Society has now been incorporated to act as a conduit for fund raising. But another event has recently intervened, rather distracting them from their purpose.

For the past two or three years Luna, an orphan killer whale, has been disporting herself around passing vessels, more recently allowing herself to be patted and petted by humans at the dockside at Gold River. The federal Department of Fisheries & Oceans

wishes to reunite her with her pod in the Strait of Juan de Fuca, but the Mowachaht have other ideas. Hereditary Chief Mike Maquinna considers Luna a likely reincarnation of his father, Chief Ambrose, who died about the time Luna first appeared. Thus a ding-dong battle has developed between the Mowachaht and DFO. The Indians, in one of their traditional canoes, arrived beating drums and chanting, and proceed to pet and stroke Luna while the feds were trying to lure her into a pen, thus to begin their process of transferring her to Victoria. But the Mowachaht, like the Lorelei, lured her away, 20 miles down the inlet. At the time of going to press, DFO have called a break, first round to Maquinna. But that does not mean to say the Mowachaht have won, there is a real danger of Luna being injured by a propeller, or surfacing in front of a landing floatplane, but certainly the band has other things on their mind than their cultural centre. More news about developments there next time.

### ***Shattered City - The TV drama: Other Serious Shadings of the Truth and Some Well-deserved Kudos for CBC-TV***

*by Alan Ruffman, P.Geo.*

I was in St. John's, Newfoundland and Labrador, when the two-part national CBC-TV drama first aired on Sunday and Monday, October 26 and 27, 2003. I took notes, then I have since re-viewed the four hours of the drama on my own VCR.

#### **1. Mis-orientation of the Piers of North End Halifax**

In the first two hours of *Shattered City*, Part 1, both in aerial views, and in ground level views as seen by the crowd onshore, as the burning *Mont-Blanc* is drifting towards the Halifax shore and Pier 6, the filmmakers have quite mis-oriented Pier 6. In real life it protruded at about a 45° angle to the Halifax shore, and protruded to the eastward, i.e. in a direction of 090°. The filmmakers ignored the modified Halifax

Insurance Map (Public Archives of Nova Scotia Vertical Map Case No. V6/240-1917), and they ignored the published British Admiralty Chart BA 311 available at the Maritime Museum of the Atlantic. They have Pier 6 rotated anti-clockwise about 90° to point almost due north! They use the aerial view at least four times, and they surely could have gotten this rather simple matter correct! Reproductions of Chart BA 311 are in two of the papers in the 1994 publication *Ground Zero* (Ruffman and Simpson, 1994; Fader, 1994), and the modified version of the Halifax Insurance Map is reproduced by the Maritime Museum of the Atlantic for its permanent display *A Moment In Time*.

In addition to having the angle of Pier 6 out by 90°, the *Shattered City* overhead views do not have the piers to the south and to the north of Pier 6 correct. I don't believe the drydock is shown, and certainly Piers 7, 8, and 9 to the north are not shown. Again, these were easy to get from Chart BA 311 or from the modified Halifax Insurance Map of 1917.

## 2. Mont-Blanc's Approach to The Narrows

In Part 1 of *Shattered City* there is a view down the harbour showing the *Mont-Blanc* as it began to move up the harbour (inbound). It shows the vessel proceeding up the Halifax side of the Harbour between Georges Island and what is now Pier 21 on the Halifax side. *Mont-Blanc* could not have come that way since there was no opening in the anti-submarine barrier that stretched across this narrow opening. The 'gate' in the innermost anti-submarine barrier was between Georges Island and Fort Clarence on the Dartmouth side, well out in the middle of the Harbour.

By December of 1917 in WW I the outer anti-submarine net (with a single gate and gate vessel) ran from the east end of the long breakwater at Black Rock Beach in Point Pleasant Park over to Ives Point at the northwest corner of McNabs Island, with an original inner anti-submarine net that ran both

from the north end of Georges Island over to the present location of Pier 21 (which had no gate), and from the south end of Georges Island east to the Dartmouth side of the Harbour, landing in the area between Fort Clarence and the Halifax Sugar Refinery on the north side of the site of the newly-built Imperoyl Refinery (with a single gate and gate vessel) (1924 tracing of a chart entitled 'Part of Halifax Harbour Showing Submarine Net Defenses', Maritime Museum of the Atlantic, Accession No. M78.17.1).

## 3. Size of Mont-Blanc's Cargo

Right from almost the first scenes *Shattered City*, the drama, consistently used "2,400 tons" of munitions as *Mont-Blanc's* cargo, and given that it was 1917, I presume that it was short tons. The correct figure calculated from the manifest and presented at the 1992 conference on the Explosion was 2,925 short tons (Simpson and Ruffman, 1994), and even a modicum of research or consultation would have found this figure for the drama's writers or fact checkers.

## 4. Port vs Starboard

All of us can get our lefts and rights and ports and starboards confused, and so could Mr. C.J. Burchell, the lawyer in *Shattered City*. Indeed he did! During the trial when Burchell is cross-examining Le Médec, he uses models of the *Imo* and *Mont-Blanc*. He says to Le Médec, "So you say the *Imo* was forcing you over to the Dartmouth side like this," yet in manipulating the models he shows *Imo* forcing *Mont-Blanc* to port, i.e. towards the Halifax side.

## 5. Le Médec's First Command?

At the start of Part 1 of the drama *Shattered City* the American informing Le Médec of his cargo appears to refer to the *Mont-Blanc* as Le Médec's "first command." Le Médec had been a Captain First Class for about 2 years, had sailed on many, many ships, and had worked for La Compagnie Générale Transatlantique, or the French Line,

for just over eleven years. He was by no means and inexperienced mariner!

#### 6. Death and Career of Le Médec; Text at the End of the Drama

The text on the screen at the end of Part II of *Shattered City* said that Le Médec died "after the war" – implying that he died fairly soon after the end of World War I. In fact, he went back to work in mid-1918, taking a ship out of New York, and he worked until his retirement in the Spring of 1932; as yet we do not know exactly when he died – and nor did the makers of *Shattered City*. Though if he is not still alive, I guess that Le Médec did in fact die 'after the war'!

The text at the end of the drama also said that Le Médec was immediately given another ship after the 1917 disaster. That is not quite so. He clearly languished in Halifax until Justice Benjamin Russell decided to not send him to trial on March 15, 1918 (Kerr, 1994; endnote No. 12). Le Médec was not completely free to depart until April 2, 1918 when the four-member Supreme Court of Nova Scotia found that they had no jurisdiction in the Attorney General's attempt to reopen the matter (Russell, 1932). Le Médec's personnel record shows him then in New York City for a period of time until he was assigned to a vessel called the *Garonne* on June 30, 1918 (Ruffman, 2003; endnote No. 9).

The same text on the screen at the end said that "... the *Mont-Blanc* does not appear in his [Le Médec's] records." That also is not so, at least the *Mont-Blanc* does appear in his personnel records which do survive. These clearly show him on the *Mont-Blanc* from August 7 to December 6, 1917.

#### 7. Borrowing from the *Titanic* in 1912

I agree with Dan Conlin that no unknown child was, or as it seemed to be during the burial of the unclaimed, no two unknown children were, ever singled out to be a symbolic burial in December of 1917. Not

only was the writer unduly influenced by the burial of Body No. 4 as 'An Unknown Child' in Fairview Lawn Cemetery after the *Titanic* sinking in 1912, so was the set designer unduly influenced by the *Titanic* Halifax images – or at least by one such image.

There are no known photographs of the cemetery burials of the unclaimed, or unidentified, bodies of the 1917 Explosion. There is one such image from Friday, May 3, 1912 showing the burial of a number of the unidentified from the *Titanic* disaster in the Fairview Lawn Cemetery in Halifax. I think that this is the only graveyard burial image known of either the *Titanic* burials or of the 1917 Explosion burials. The *Shattered City* set designer's trench with at least 20 coffins laying in it, side-by-side, with the dignitaries and chaplain gathered at the head of the long trench, bears a very striking resemblance to the single *Titanic* image of May 3, 1912 seen in Ruffman (1999) on p. 47. This 'photograph' of Reverend Samuel Henry Prince is actually a collage of two photos which makes the scene's appearance in *Shattered City* even more obvious as to its *Titanic* source.

There is no evidence that such a long trench with coffins side-by-side was used in December 1917. The plot, that surrounds the marked boulder for the majority of the unidentified 1917 bodies on the southwest edge of Fairview Lawn Cemetery, is rather small and could not have accommodated a long trench. The burial of the unclaimed bodies in 1917 in Fairview Lawn Cemetery would appear to have been in a rather small square plot, and would have almost certainly involved several layers of bodies, or of the charred remains of bodies.

#### 8. *Niobe* in Bedford Basin

The four-stacker shown by the filmmakers in *Shattered City* is presumably HMCS *Niobe*. They show it anchored in Bedford Basin in their aerial views. *Niobe* was always on the Halifax waterfront anchored directly in front of the Naval



Dockyard in 1917 – i.e. to the south of the Explosion site, not to the north in Bedford Basin.

#### 9. An Egregious Continuity Error

There was a major and a quite surprising technical error in Part I of the drama – a ‘continuity error’ – that is absolutely inexplicable, and must surely incite a red blush of mortification on the face of the Director of *Shattered City*, which should match the bright red colour of the cover of *Ground Zero*! Near the end of Part I there are two or three ground level views of the *Mont-Blanc* drifting slowly closer and closer to Pier 6 (while Ernest, the mythical spy, now turned honourable, is trying to undo a large fitting on board the doomed *Mont-Blanc*). Then suddenly while viewed from the same spot on shore, the *Mont-Blanc* appears quite a bit further away from Pier 6, but still drifting slowly closer and closer to Pier 6. Oops!! Ah well, you can't expect perfection from a continuity editor if the writers and directors can't get the basic historical facts correct to begin with!

#### Comment on Dan Conlin's January 2004 Argonauta article “Historical Errors and Falsehoods in *Shattered City*”

There are three errors that perhaps should be noted.

a) The author notes (p. 6), “Fact: *Mont-Blanc* was 18 years old but that is not an excessive age for a steel vessel. *Imo* was also 18 years old ...”. The author makes the same error that John Griffith Armstrong makes in his 2002 book *The Halifax Explosion and the Royal Canadian Navy: Inquiry and Intrigue* (p. 30), and the same error as Michael J. Bird made in *The Town That Died* in 1962, on his third page of photographs following p. 112 (top photograph). The *Imo* was originally the ‘livestock carrier’ *Runic* (I), built in 1889; it was not the ‘liner’ *Runic* (II) built in 1899. Hence the *Imo* was actually 28 years old, not 18 years old, in 1917, as cited – 28.8 years old to be precise.

b) Commander Wyatt on his arrest is quoted by the author as saying in *Shattered City*, “I am a serving British officer” (p. 18). He actually said in the TV drama, “I am a serving naval officer in the British Empire” which he was. This corrected quote from the film perhaps slightly mollifies the author's criticism that follows the quote on p. 19.

c) In the ‘Fact’ cited on p. 20 (col. 2) following ‘Titles at end,’ the author says that “Le Médec was disciplined by the French government and was demoted from 1<sup>st</sup> Class Captain to 3rd Class Captain, a demotion that lasted for almost the entire length of his career.” I've not yet established who demoted Capitaine Le Médec, his company or some French government body. I do know that the demotion did not last “almost the entire length of his career.” It lasted only three years until 1921 when he was returned to Captain 2nd Class, then on January 1, 1929 he returned to Captain 1st Class, and indeed he captained the passenger liner (not a livestock carrier!!) *Flandre* for about seven years at the end of his career, beginning on February 22, 1925 (Ruffman, 2003, Endnote No. 9).

#### Reflection on the Work of the CBC on the 1917 Explosion

Dan Conlin, Janet Kitz, John Armstrong, and I are not the only persons to decry the lack of historical accuracy in the Salter Street Films and Tapestry Films co-production *Shattered City*. Steve Garrity wrote an Op Ed piece in the Halifax *Chronicle-Herald/Mail-Star* newspaper entitled “Shattered City missed the mark,” and the newspaper's regular columnist Dean Jobb also savaged the documentary for its blatant errors with respect to the legal case in his long article “Setting the record straight” of November 2003. The point that the litany of *Shattered City* errors illustrated to this author is that almost all of them could have been avoided. And if this had been done, the TV drama, as a drama, would not have been compromised or in any way diminished. No ethnic stereotypes had to be resurrected, and no mythical trials or flights of fancy had to be

resorted to. By doing so, the writers of *Shattered City* needlessly diminished the actual historical events, and diminished themselves as writers. *Hélas!*

Lest I be interpreted as having tarred all CBC with my critical brush, let me say that the two CBC TV documentary productions that bracketed the two-part *Shattered City* drama were of a much higher standard when it comes to historical accuracy. The Halifax regional office produced a two-hour local special *Legacy, The Halifax Explosion* that first aired on Thursday, October 23, 2003, with a condensed one-hour version broadcast nationwide on *NewsWorld* on three occasions on November 15 and 16, 2003. *Legacy* was a collage of local historical material, and included for the first time the Arthur Lismer images of the disaster made while he was in Halifax as the head of the Victoria School of Art and Design (now the Nova Scotia College of Art and Design University).

Sally Reardon's one-hour TV documentary *City of Ruins* was broadcast nationwide as a *Canadian Experience* offshoot of CBC's earlier *Canada's History* series on the Tuesday, October 28th immediately following the two-part drama series. This was assembled by a very experienced producer who had the budget and time to do a careful job. This production drew close to a million viewers when it was first shown, and as such has outperformed any other CBC TV documentary to date.

The [cbc.ca/halifaxexplosion/](http://cbc.ca/halifaxexplosion/) website, which John Armstrong has alerted *Argonauta* readers to in the January issue, was a first-time venture for CBC. The website was produced to launch just prior to the October 23-28, 2003 four-event concentrated TV exposure of the 1917 Explosion in Halifax Harbour. The website was a significant undertaking by CBC, and care was taken to maintain historical accuracy. A 'Content Committee' was struck that drew upon Public Archives of Nova Scotia and Maritime Museum of the Atlantic personnel, as well as at least two other members of the Canadian Nautical Research Society.

While the website, perforce, also promotes the drama series *Shattered City*, there is more than enough good solid content in the website to let us all recommend it as worth viewing to colleagues. It will serve teachers and students very well, with links to other relevant material at the Maritime Museum of the Atlantic's and the Public Archives of Nova Scotia's websites, and beyond. While we may be very critical of the drama series *Shattered City* on account of its lack of historical accuracy, because 'that is our job,' we should not forget that there were significant side benefits to the production of the CBC drama.

The drama series is what sold the advertising, and it is that revenue that let CBC produce the *Legacy* and *City of Ruins* documentaries, with the [cbc.ca/halifaxexplosion/](http://cbc.ca/halifaxexplosion/) website as an extra and most welcome public benefit. CBC could well protect itself from future criticism when commissioning the next proposed historical drama by building-in a critical oversight process to ensure that the drama writers do not stray needlessly from the desired level of historical accuracy.

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## The Royston Hulk Breakwater Project

by Rick James

About two years ago, the Underwater Archaeological Society of British Columbia (UASBC) agreed that a publication detailing the history and current status of a historic logging company breakwater on Vancouver



USABC member John Pollack on the Royston breakwater beneath the bow of the iron three-masted ship *Melanope* (launched in Liverpool, 1876). The remains of the CPR steam tug *Qualicum* (launched New York, 1904) lie off to the side. Her triple expansion engine is barely visible. (Courtesy Rick James)

Island was a worthy project. While the UASBC's ultimate goal has been to complete a province-wide inventory of shipwrecks and other submerged cultural sites, they decided that a maritime heritage site that was readily accessible to non-divers was important to document as well.

The collection of 15 historic hulks is located just off the beach of Royston, British Columbia, a small community not quite half way up the east coast of Vancouver Island. The hulk breakwater was the brainchild of a local railroad logging company, Comox Logging and Railway Company, who first decided to try using old ships for a breakwater in 1936.



Looking across the remains of the frigate HMCS *Eastview* towards the Royston beach. From left to right in background: last of four-masted barque *Comet* (launched Port Glasgow, 1902), bow of frigate HMCS *Dunver*, with the CPR steam tug *Qualicum* (note boiler) lying below the bow of the iron ship *Melanope*. (courtesy Rick James)

The company soon discovered that a booming ground located on the Courtenay River tidal flats was a poor choice to dump and sort logs since the site was exposed to wind and weather blowing in off the Strait of Georgia. After a number of futile efforts to knock the swells down with a string of boomsticks and old donkey sleds hauled out of the woods the company decided to try using an old ship's hull instead.

As it happened, the former auxiliary schooner, *Laurel Whalen*, was for sale in Vancouver. Retired in 1920 after only two voyages as a deep-water lumber freighter, the cut down wooden five-master operated as a floating fish cannery during the 1920s. In the summer of 1936, after the installation of hardwood floors 'tween decks, some local entrepreneurs attempted to run her as a floating cabaret anchored in Vancouver's English Bay. Unfortunately after only two nights of raucous drinking and dancing, the opposition of local authorities put a stop to the venture.

Once the old wood ship was bought and scuttled off Royston, she quickly proved a success as a weather break for Comox Logging's booming grounds. As a result, the company purchased another 14 hulks over a period of 35 years, linking them together into a kilometre long breakwater. While the decaying and broken ships might be an unsightly mess to some, the opportunity to see the remains of World War II frigates, old steam tugs and Cape Horn windjammers sitting off an easily accessible beach still proves a popular attraction to the curious.

The summer of 2003 the UASBC discussed the challenges of carrying out an overview survey of the Royston breakwater. The site posed a number of problems: the steep, rocky ballast which had been dumped around, as well as on top of, some of the hulks was of questionable stability. The prospect of packing a laser transit and its reflectors over 4 to 6-foot boulders wasn't inspiring. Also, there was the question of whether the incredible mass of broken iron and steel



would skew the magnetic compass. Lastly, the crew had to make the best of a single summer weekend of exceptional low tides to document the remains of 15 ships. In the end, the strategy laid out by UASBC member John Pollack, operating the Criterion C-400 Laser transit, proved highly successful and the survey was accomplished all in one day.

Eventually all of Royston's hulks will succumb to the elements. Even so, the ships have served useful roles far beyond what their original builders could ever have expected. With their histories reaching back into the 19<sup>th</sup> century, they've provided over fifty years of useful service as a hulk breakwater and are now a popular maritime heritage site.

After the completion of the historic documentation, mapping and surveying was completed, the UASBC published the *Ghost Ships of Royston*, by Rick James (ISBN 0-9695010-9-9) in March 2004. The official launching was done at the UASBC's annual Shipwreck Conference, held this year at the MMBC in Victoria.

The 60 page publication can be ordered from: through David Johnstone, UASBC product manager, by contacting him at 604- 521-0029 or e-mail davidjuopmba@shaw.ca. Otherwise try our website: [www.uasbc.com](http://www.uasbc.com) . Price: \$13.00 plus \$3.50 shipping and handling (includes tax).

### **WGS-84 Horizontal Datum Adjustments For Early CHS Charts** *by Nick Stuijbergen*

The Canadian Hydrographic Service (CHS) has a large inventory of charts, surveyed a century ago by the Royal Navy, now a heritage acquired from the British Admiralty. Coverage is mainly around Newfoundland and along the Labrador coast, a frontier region, with little traffic and low demand for nautical charts. Significant emphasis then was on charting sheltered anchorages, as safe havens for vessels of the

naval fleet, shallow-draft ships. Access to sheltered waters for small craft is now again of interest to recreational sailors and adventure tourism. At the time of the original surveys, about a hundred years ago, astronomic observations for latitude, longitude & orientation were the only available means of determining the geographic reference (known as "Astro datum"). Some charts have no graticule for geographic reference at all, not needed in earlier times, because coastal navigation was by recognition of landmarks. These are so-called "non-datum" charts.

These older charts are made usable to navigators equipped with GPS when a new WGS-84 horizontal datum reference is overprinted. It can then upgrade these charts with safety corridors, cleared by new multi-beam surveys that yield 100 percent coverage for safety-critical passage. CHS can also provide these charts in electronic form as raster images. With GPS, the Global Positioning System based on NavStar satellites, now in common use, the previously charted meridians and parallels, and the coastline features, are seen to be displaced by up to 2 kilometres from their true location.

The enhanced charts could result in reduced marine insurance premiums, to benefit the cruise line industry, and provide assured access to natural resources for freighters. The rich pictorial near-shore detail of the old BA charts would not likely be accomplished by more recent shoreline mapping methods.

To resolve the problem of providing a geographic reference, for older charts without survey control markers, a "map-matching" method was devised, and software prepared, to provide a fair estimate of a new WGS-84 datum reference for these early charts, to make these re-usable to GPS navigators.

By comparing landforms on the original charts with landmarks seen on more recent mapping of known datum, mostly topographic maps on NAD-27 and knowing the inter-relationship between NAD-27 and

NAD-83 (WGS-84), we can find recognizable common features that are used to link the old chart to a new WGS-84 datum. To do this, each recognizable feature tie is interpreted and measured on both the original source map and the on-datum reference map. Since the original control monuments have disappeared long ago, and natural features for reliable pairs of point matches are scarce or absent, we make use of more plentiful alignment features: e.g. a medial axis of a distinctive headland or a tangent taken on a blunt headland.

By selecting features with adequate resemblance between source and reference map since there has been minimal erosion, the limitation of differing generalizations is overcome also. Picking the alignment of a feature improves the accuracy of linking charted features. That is because the difference in generalisation is the result of mapping by different methods, with varying interpretations of the source data, e.g. plane-table sketches vs. aerial photography.

The data pairs of measured feature ties, lineal matches, are pooled in a least-squares algorithm to find the best fit, and solve for the mean shift to modern datum, together with the scale and orientation adjustment. The algorithm somewhat resembles bundle adjustment used in photogrammetry. Normally about 30 to 50 measurements are taken, a number sufficient to yield some statistical indicators of fit quality.

Our measurements reveal a consistent geometric coherence with more recent mapping, indicating a high standard of quality in the work of the early Royal Navy surveyors. The differences we see show mainly as consistent displacements, shifts with respect to the WGS-84 datum now used by GPS navigators. The result is delivered to the cartographer in the form of a table of projected latitudes & longitudes on NAD-83 (= WGS-84) determined for a set of distinct points seen on the original, the four inner neat-line corners, the old lat & long graticule

intersections, and any landmark point features. These serve as computed fiducial reference marks, treated as if they were NAD-83 control markers pinpointed on the original source chart

This horizontal datum determination amounts to a semi-graphical method. At the level of accuracy of this work, well below geodetic precision, and better than graphical accuracy due to data averaging, the datum designation WGS-84 is an approximation. A projective transformation, available in the CHS Microstation mapping system, is applied to the original raster source image, to map it, pixel by pixel, into a new "rectified raster image". The transformation is based on the control markers provided. The projective transformation can accommodate the shift in latitude & longitude, the scale & rotation adjustment, and compensates as well for any residual uniform distortion in shear (skewness), that may exist in the rasterized image of the original paper chart

On the rectified chart, with a new grid of meridians & parallels on WGS-84 in place, the navigator will be able to plot a position fix by GPS, and find that it will agree with a visual or radar fix taken on coastal features, to well within 0.1 nautical mile, the resolution of radar. A few available ground-truth verification points taken by GPS have indicated validations within 1 or 2 millimetres at the scale of the original chart.

By publishing the renewed charts in raster image form, the presentation of the original legacy chart is preserved, so that the mariner will still be aware that the chart is based on older sextant and lead line surveys taken more than a century ago. Thus the old original appearance of the renewed chart conveys a message that it is to be used with caution, and with an awareness of the limitations of the surveying methods in earlier times.

At that time the surveying methods consisted of:

- A control network accomplished by a local triangulation survey.
- Astronomic observations to find latitude

and longitude, for a central point in the control network, hence the designation "Astro Datum" for these charts.

- Astronomical observations for azimuth determination for an orientation of the network.
- Baseline tape measurement to set the scale dimension of the network
- Plane tabling for sketch surveys of coastal topography, important then, because coastal navigation was by landform recognition.
- Position fixes by sextant used to locate the depth soundings.
- Lead line used for the depth measurement.
- Local knowledge of fishermen utilized to help locate hidden hazards, rocks, shoals and shipwrecks.

At this time about 50 charts have been completed, yielding cost savings estimated at approximately \$25 million. This figure is a vague estimate of future expenditures on resurvey for new nautical charting to modern standards, not now needed in our low-traffic frontier coastline regions, where the demand for charts is low. Similar savings may be realized on CHS charts surveyed in the 1950's farther north, and for older charts in the Arctic and along the Pacific coast. It is important to note that we acknowledge and appreciate the numerous contributions of CHS co-workers towards this project.

[Nick Stuitbergen works for the Canadian Hydrographic Service in Dartmouth, Nova Scotia. David H. Gray M.A.Sc., P.Eng., CLS assisted with this paper.]

## Members' News

John Harland's capstan monograph has just been published. *Capstans and Windlasses: An Illustrated History of their use at Sea*, Pier Books, Piermont, NY and Dupont Communications, Florence, OR (pier.bks@icu.com and bobcat@presys.com). Pages vii +130. Heavily illustrated. Cardback. ISBN 0-9657205-4-3. US\$20. Chapters are devoted to the following topics: the difference between Reel- and Traction-winch; the early Steering Wheel;

Cunningham and Jarvis Brace-Winches; the anatomy of capstans and windlasses, and the underlying mathematical underpinnings of their working; weighing anchor; geared and non-surgeing capstans; the Norwegian whaling winch; the origin and development of the modern self-tailing sheet-winch.



President Jim Pritchard congratulating Treasurer Gregg Hannah on his promotion to Commander. (courtesy Jim Pritchard)

## Museums and Ships

### In Honour of Niels Windekilde Jannasch - The Replica Sloop *Windekilde*

The Marine Museum of the Atlantic's latest boat building project is *Windekilde*, a replica of *Marila*, a 24' 0" gaff rigged sloop. One of the oldest vessels in the Museum's collection, *Marila* was a fishing sloop converted to a pleasure craft in 1928 and sailed until the 1940s.

*Windekilde* is planked in pine over steam bent oak frames. The keel is oak, as is the stem and transom. The carvel planking is 3/4" thick as are the frames and decking - the spars of Douglas Fir.

*Windekilde* is named for Niels Windekilde Jannasch (1924-2001). Niels grew up in Hamburg, Germany and in the service of the German Merchant Navy, sailed aboard many ships, including *Passat*, on which he rounded Cape Horn. He began his association with the Maritime Museum of Canada in 1959 and was the first Director of the Maritime

Museum of the Atlantic.

The *Windekilde* was launched on July 3, 2004.

### **Bruce County Museum & Archives**

The museum is located at Southampton, Ontario near the top end of the Bruce Peninsula. The peninsula is the northerly extension of the Niagara Peninsula. On one side is Georgian Bay, at times referred to as the "6<sup>th</sup> Great Lake" while on the west side is Lake Huron. The museum has become a centre of preservationist and educational activity. The fall courses are:

***Shipwrecks and What They Can Tell Us***  
presented by Ken Cassavoy, Marine Archaeologist  
September 18, 2004: 9 a.m. to 4 p.m.

***Dig into the Past: Archeology in Bruce County***  
presented by William Fitzgerald,  
Archaeologist/Ethno Historian  
September 25, 2004: 9 a.m. to 4 p.m.

***To the Lighthouse: Journey into the Mind and Methods of the Era***  
presented by Robert Greenberg, Historian/Architect  
October 2, 2004: 9 a.m. to 4 p.m.

More Information and registration contact the:  
**Bruce County Museum & Archives**  
33 Victoria St. N., P.O. Box 180,  
Southampton, ON, N0H 2L0,  
1-519-797-2080 or 1-866-318-8889

There is a charge and some of the lectures last two days.

## **Conferences and Symposia**

### **Seventh Maritime Heritage Conference** October 2004

The leading maritime heritage organizations in the Hampton Roads, Virginia region are pleased to host the Seventh Maritime Heritage Conference. The Fifth International Ship Preservation Conference will be included within the meeting programme. It will take place in the historic southern seaport of Norfolk. Conference headquarters and most of the activities will be at the Sheraton Norfolk Waterside Hotel overlooking the harbor.

#### **Events**

October 27. Welcoming reception at Nauticus, The National Maritime Center and Battleship *Wisconsin* berthed alongside.

October 28. National Maritime Historical Society reception with cash bar at our Conference hotel, the Sheraton Norfolk Waterside. Come one, come all.

October 29. Narrated cruise of Hampton Roads aboard the harbour cruise ship *Spirit of Norfolk*. The ship will pass by various naval installations and commercial port operation facilities and then proceed to the site of the battle between USS *Monitor* and CSS *Virginia*. Historic Newport News Middle Ground Light will also be viewed close aboard. Disembarking at Newport News Marine Terminal, conferees will be bussed to The Mariners' Museum where they will tour the galleries, be briefed on the *Monitor* artifacts preservation project and partake of a heavy hors d'oeuvres reception.

October 30. Conference banquet with noted maritime author Nathaniel Philbrick as our speaker.

October 31. "Search for the Civil War Union Submarine USS *Alligator*" Symposium at Nauticus.

October 27-31. Participating organizations



will be afforded time and provided meeting space prior to, during, and following the conference to hold their own general and executive committee meetings and to conduct other activities they may desire. A number of organizations have already opted for their own gatherings on October 27 and 31.

#### Tours

Optional tours of local historic sites will be available prior to, during, and following the conference. Information on other cultural events in the area taking place during the week of the conference will also be provided.

#### Organization Meetings

The following organizations will be holding their own membership meetings at the conference:

Council of American Maritime Museums  
8:30 a.m. to Noon Sunday, October 31

Historic Naval Ships Association  
8:30 a.m. to Noon Sunday, October 31

American Lighthouse Coordinating Committee  
2:00 p.m. to 3:00 p.m. Wednesday, October 27

Museum Small Craft Association  
8:30 a.m. to noon Sunday, October 31

National Park Service Maritime Cultural Resource Managers  
9:00 a.m. to noon Wednesday, October 27

For more information contact:  
[www.nauticus.org/MHConference.html](http://www.nauticus.org/MHConference.html)

#### ICOMAM CANADA 2005 Call for Papers // Appel De Communications

We invite 20-minute paper proposals related to the conference theme: **The Storyline in Arms and Military Museums**. Please send a 150-word proposal and a one page résumé, before 1 January 2005 to the address below.

Nous faisons appels aux propositions de communications au tour du thème : **Les scénarios et les musées d'armes et militaires**. SVP, faire parvenir une proposition de 150 mots et un curriculum vitae d'une page, avant le 1er janvier 2005, à l'adresse que suivre.

ICOMAM seeks to establish and maintain contact between museums and institutions concerned with the conservation of artifacts in the fields of arms and armour, artillery, fortifications, uniforms and flags and to foster the study of such artifacts.

Its 17th triennial conference will be held in Ottawa from the 12th to the 14th of June 2005, before moving to Québec City to continue its work on the 15th, 16th and 17th. The detailed program, list of pre and post conference excursions, and registration prices will be available in October, 2004. Information will also be updated on the Directorate of History and Heritage website: [www.Forces.gc.ca/dhh](http://www.Forces.gc.ca/dhh).

L'ICOMAM cherche à établir et à maintenir le contact entre les musées et les institutions intéressées principalement à la conservation d'artefacts dans les domaines des armes et armures, de l'artillerie, des fortifications, des costumes et des drapeaux, ainsi qu'à favoriser l'étude de ces artefacts.

La 17e réunion triennale de l'ICOMAM se tiendra à Ottawa du 12 au 14 juin 2005, avant de se déplacer vers Québec pour y poursuivre son travail les 15, 16 et 17. Le programme détaillé, liste des tours pré et post-conférence, et les prix d'inscription seront disponibles en octobre 2004. Des renseignements seront également disponible et mis à jour sur le site

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(follow the research links)

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e-mail: [secretary@hmcassackville-cnmt.ns.ca](mailto:secretary@hmcassackville-cnmt.ns.ca)  
<http://www.hmcassackville-cnmt.ns.ca>

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