It’s a bustling autumn at Green Marine with various events and presentations, several new members, the arrival of a new employee, the 10th edition of Green Marine Magazine, and active planning for next year’s conference, including a GreenTech 2015 call for papers that you’ll find in this newsletter.

Happy reading!

GREEN MARINE WELCOMES THREE NEW PARTICIPANTS

**Port of New Orleans**

The Port of New Orleans is a deep-draft multi-purpose port at the centre of the world’s busiest port system — Louisiana’s Lower Mississippi River. Connected to major U.S. inland markets and Canada via 14,500 miles (22,335 kilometres) of waterways, six Class I railroads and the Interstate Highway System, the port is the ideal gateway for steel, project cargo, containers, coffee, natural rubber, chemicals, agricultural products, manufactured goods, passenger cruises and more.
GCT Global Container Terminals

Headquartered in Vancouver, British Columbia, GCT Global Container Terminals Inc. operates four container terminals via three principal businesses in North America: GCT Canada (formerly TSI Terminal Systems Inc.) in Vancouver and Delta, B.C.; GCT New York (formerly New York Container Terminal, LLC) on Staten Island, NY; and, GCT Bayonne (formerly Global Terminal & Container Services, LLC) in Bayonne, New Jersey. A North American leader of terminal operations and Canada’s largest terminal operator, GCT is entering its four terminals into Green Marine’s environmental certification program.

Marine Atlantic

Marine Atlantic operates terminals in the Newfoundland ports of Port aux Basques (PaB) and Argentia, and the Nova Scotia port of North Sydney (NSY). Headquartered in St. John’s, Nfld., the corporation provides a year-round 96-nautical-mile daily ferry service between PaB and NSY, and a seasonal 280-nm tri-weekly ferry service between Argentia and NYS (from mid-June to late September). Marine Atlantic is entering its ships and terminals into the Green Marine environmental program.
WELCOME TO OUR NEW SUPPORTER!

The Seattle Aquarium is the ninth largest aquarium in the U.S. by attendance and among the top five paid visitor attractions in the Puget Sound region. The aquarium engages its mission of “inspiring conservation of our marine environment” in part through a commitment to operational sustainability. Recent accomplishments include the largest solar array on any West Coast aquarium and a 20% reduction in its carbon footprint when it completes eight energy-saving upgrades by early 2015.

NEW WEST COAST PROGRAM MANAGER IN SEATTLE, WA

We are pleased to announce that Eleanor Kirtley has joined Green Marine as our new program manager for the West Coast and will be based in Seattle, WA. Eleanor holds a PhD in Naval Architecture and Marine Engineering (University of Michigan) and is a professional engineer in Washington State. Prior to joining Green Marine, she had been with The Glosten Associates since 2008. Eleanor’s primary role will be to support Green Marine’s West Coast participants in implementing the Green Marine environmental program and coordinating Green Marine’s West Coast Advisory Committee and other working groups. Membership has steadily grown on the West Coast and now includes just over 20 ports, terminal operators, shipyards and ship operators. You can reach Eleanor by email at eleanor.kirtley@green-marine.org or by phone at 206-409-3943.

GREEN MARINE ON THE MOVE IN THE U.S.!

Green Marine now has additional support in the United States. Capt. Randolph (Randy) C. Helland, who is based in North Carolina, has been contracted to assist with membership recruitment. Randy held a number of senior executive positions during his 32-year career with the U.S. Coast Guard at the national, regional and local levels in the areas of marine/port safety, security, environmental protection and waterways management. Following his Coast Guard career, Randy was Director of Maritime Services for Layered Security Solutions, Virginia Beach, VA. In 2011, he formed R.C. Helland Consulting and is a Green Marine accredited verifier, having conducted environmental verifications at the ports of Duluth, MN, Cleveland, OH, Chicago IL, Gulfport, MS and Burns Harbor, IN. You can reach Randy Helland by email at randolph.helland@yahoo.com or by phone at 440-541-6463.

Green Marine Secretariat:
Email : info@green-marine.org
Tel. : 418-649-6000
NEW WORKING GROUP ADDRESSES UNDERWATER NOISE

Green Marine consistently adapts its environmental program to remain current with new government regulations, technological advances, as well as new priorities deemed essential by its three advisory committees representing members in the Great Lakes, St. Lawrence and West Coast regions. After a strong recommendation by the West Coast Advisory Committee earlier this year, the Green Marine secretariat has established a new working group to focus on a new challenge: underwater noise. Canadian and U.S. experts have been invited to become a part of this working group. The purpose is to develop a new Green Marine performance indicator that works to minimize the cumulative impacts of underwater noise generated by commercial shipping and port activities on marine species, including marine mammals. The working group includes renowned scientists and the representatives of vessel owners, port authorities, research organizations, NGOs and government. Two meetings have been held since the group’s creation in August 2014.

GREENTECH 2015 : SAVE THE DATES!

Green Marine’s next expedition – GreenTech 2015 – is set for Seattle, WA, from May 27th to 29th. Save the dates for Green Marine’s first conference on the U.S. West Coast. The conference will be held at the Renaissance Seattle Hotel. With the sixth largest port in the U.S. and the nickname Emerald City because of all of its greenery, Seattle is an ideal GreenTech destination. Green Marine’s Certification Ceremony will take place at the Seattle Aquarium which is renowned for its marine conservation.

The call for papers is now on line! Deadline to submit a paper is December 5th, 2014

Book your room  Renaissance Seattle Hotel

Sponsor the event

Click here to watch a short video showcasing what the city of Seattle has to offer!

www.green-marine.org/greentech
Jastram Technologies Ltd. appointed for Hydrex and Ecospeed in Canada

A Canadian coast-to-coast distributor of high-quality marine equipment, Jastram Technologies Ltd. (JTL), has been appointed the agent for Canada for the underwater hull-coating Ecospeed and cavitation/corrosion barrier Ecoshield, as well as for Hydrex underwater repair and maintenance services. JTL will deliver wide coverage and a high level of service and support to Hydrex and Ecospeed users and potential users throughout Canada. Both JTL and Hydrex are Green Marine partners.

Thordon Bearings, a Green Marine partner, on board with new cruise ships

New-builds at Viking Cruises will use seawater-lubricated propeller shaft bearings instead of oil-lubricated bearings. The Viking Star, a 47,800 GT cruise ship, is one of three new vessels to be equipped with Thordon COMPAC seawater-lubricated propeller shaft bearings instead of oil-based lubrication bearings. Thordon COMPAC propeller shaft bearings eliminate the risk of oil discharges by using seawater as lubrication instead of expensive biodegradable oils and removing the need for an aft seal (and, thereby, avoiding the risk of it being damaged by a fishing net or rope). Seawater is taken from the ocean, pumped through the bearings, and returned back to the sea. The lack of aft seal and use of seawater results in lower in-service maintenance costs, eliminates the need to store, sample and dispose of oils, and meets all U.S. EPA Vessel General Permit requirements. Many of Green Marine participants, including Canada Steamship Lines, Algoma Central Corporation, CSL Americas, Groupe Desgagnés, Lower Lakes Towing, and the Société des Traversiers du Québec (Quebec's ferry service), already use Thordon seawater-lubricated propeller shaft bearings.

SPOTLIGHT ON PARTNERS

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The new edition of Green Marine Magazine is now available online. The stories include:

- GreenTech 2014 makes an East Coast splash!
- Approaching 0.1% sulphur content law fuels new options
- Industry and science collaboration benefits marine mammals

Know someone else who is interested in Green Marine? Please send us their email at info@green-marine.org
CSL SUPPORTS BELUGA RESEARCH THROUGH WWF-CANADA

Founding Green Marine member and participant Canada Steamship Lines (CSL) has ‘adopted’ a beluga whale to support long-term research towards solving problems affecting this endangered specie. The Group for Research and Education on Marine Mammals (GREMM) has renewed the adoption program initiated in 1988 by putting belugas – or rather their individual photos and stories – up for adoption. CSL is among the supporters that have pledged to be a whale’s benefactor for at least three years – the length of time a young beluga needs to be with his or her mother. “CSL has been active on the St. Lawrence River for over 100 years and is committed to maintaining the health of this incredible national treasure,” says Kirk Jones, CSL’s Vice President, Sustainability, Government and Industry Affairs. The adoption coincides with CSL’s new $100,000 commitment to WWF-Canada over the next two years towards research that strives to help the threatened species. The long-term partnership established in 2006 between CSL and WWF-Canada is already yielding results, notably in the right whale population. “About 60 whales were born between 2010 and 2011,” says David Miller, WWF-Canada’s president and CEO. “We are pleased to see CSL stand out as a leader in the shipping industry when it comes to the protection of this endangered species.” Several Green Marine supporters have also adopted belugas, including the Great Lakes and St. Lawrence Cities Initiative, the Vancouver Aquarium, as well as the City of Montreal and Quebec City.

Equinox Class Scrubber Systems Receive Certification

Algoma Central Corporation has received all requisite approvals of its exhaust gas scrubbing systems installed aboard its Equinox Class of vessels. The scrubber units manufactured by Wärtsilä are designed to remove 97% of sulphur oxide emissions generated by vessel engines. The scrubber works with fresh water recirculating in a closed-loop system. Sulphur oxides are washed out of the exhaust and then neutralized. Contaminants are disposed of at reception facilities in port. All vessel emissions meet exacting International Maritime Organization (IMO), US Environmental Protection Agency, and Canadian regulatory standards. The scrubber unit on the Algoma Equinox (the first built of the eight-vessel series) was installed by a team from Wärtsilä together with Algoma technical and shipboard personnel during the past summer, and the system underwent rigorous testing in early September 2014. Testing confirmed the scrubber’s effectiveness at removing 97% of the sulphur oxide emissions from all engine exhaust streams aboard the Algoma Equinox and the approvals apply to each of the seven other Equinox Class ships.

Share your green initiatives with us and we will spread the news on our website and in The Green Wave. Simply forward information and picture to Green Marine’s communications manager: manon.lanthier@green-marine.org
Logistec celebrated the completion of a vast modernization of its Contrecoeur terminal in October. The company inaugurated new equipment that includes an integral section of a conveyor system, a new hopper installed on rails, and an impressive new crane.

The Liebherr LPS 420 Crane stands 70 metres (almost 230 feet) high with a 120 metric ton (mt) lifting capacity and 75 mt in dump mode. It boasts the largest safe working load (SWL) for a crane on rails in North America and comes equipped with various buckets for handling all types of bulk cargo. Logistec has reduced the number of conveyors and transfer points at its Contrecoeur terminal and has covered and installed additional dust collectors at the remaining ones. Along with making the loading and unloading processes more efficient, the improvements will reduce the loss of bulk product and minimize dust emissions.

The company has also installed new rail tracks and a new electrical distribution network that meets a modern crane and hopper’s power requirements with better energy efficiency and, therefore, less greenhouse gas emissions.

The Port of Valleyfield now has plug-in power for the Nunavut Eastern Arctic Shipping (NEAS) fleet. The new infrastructure enables the vessels to connect to a local electricity circuit rather than operate their diesel engines while in port.

The electrical facility can simultaneously power two ships. NEAS vessels typically stop over for about a week and need power to generate hot water, heating and lighting and to operate or maintain temperature-controlled containers, ballast pumps, boilers and mooring winches. NEAS is now able to connect its four ships during each of five stopovers between July and October to load goods for shipment to Northern Quebec and other Canadian Arctic regions. Each vessel is connected to the electrical grid for approximately eight hours daily, primarily when the vessel has suspended the day’s loading operations.

The plug-in infrastructure is part of the ongoing efforts by the Port of Valleyfield to limit the environmental impact of port activities by reducing fuel-causing pollutants and, thereby, reducing greenhouse gases and improving air quality.
Port of Quebec opens its doors to the public

The public was invited to enjoy a bus or boat tour of the Port of Quebec as one of various options available during the port’s open house Oct. 19. Green Marine was among the port partners that had booths inside the cruise terminal. Here are some of the statistics reflecting the notable participation by many Quebec city residents:

- Almost 2,000 people visited the port aboard the AML Louis Jolliet
- Nearly 1,000 people visited the Beauport and Anse au Foulon sectors by bus
- Approximately 4,000 drinks were distributed without charge within the exhibitors’ lounge at the Ross Gaudreault Cruise Terminal – including 3,000 cups of coffee!
- More than 7,000 program flyers were distributed to visitors

The Quebec Port Authority hopes the open house resulted in several thousand Quebec City residents learning about the importance of the Port of Quebec as a regional asset, and that the companies engaged in port activities are responsible enterprises.

Great Canadian Shoreline Cleanup: Many Green Marine Participants Rolling up their Sleeves!

Canada Steamship Lines
When? September 26, 2014
Since when? 21st edition
Where? 3 km of shoreline on Ile Charron near Montreal
Who? 17 CSL employees joined by 7 V.Ships representatives and Green Marine’s intern
Quantity? 14 trash bags and 18 recycle bags that totalled some 289 lbs of trash
Unusual item? A kid’s message in a bottle.
Port of Prince Rupert
When? September 11, 2014
Since when? Participated in other shoreline cleanups in the past. First year organizing an event for staff
Where? 1.9 km of waterfront covered in Prince Rupert, BC
Who? 19 PRPA employees
Quantity? 74 kg (163 lbs) of total garbage: 0.885 kg (1.95 lbs) of cigarette waste, 10 bags of garbage, large items, 3 bags of recycling
Unusual items? Back scratcher, bucket of wax.

Pacific Northwest LNG
When? August 26, 2014
Where? Galloway Rapids Shoreline
Who? Prince Rupert Friendship House
Quantity? 1850 lbs of litter in one hour!
Unusual items? Most notable items removed included a microwave, scrap construction materials, a deep freezer and containers of used oils.
**INDUSTRY SUCCESS STORIES**

**Squamish Terminals**
When? September 24, 2014  
Since when? 4th year  
Where? Squamish Spit, Cattermole Slough, Nexen Beach and the Mamquam Blind channel  
Who? 150 volunteers  
Quantity? Total Weight = Estimated 3,600 lbs. (1,633 kgs)!  
Unusual items? Top 5 most unusual items collected: basketball net, BBQ grill, car parts - tires & hubcap, arrow, toaster

**Port of Windsor**
When? For the past five years as a semi annual event  
Where? Windsor surroundings such as the shores of Detroit River  
Who? Many projects with various community organizations  
Quantity? Over the five past years, the port has taken over 50 tonnes of garbage out of the river, shore line and surrounding natural areas  
Unusual items? Households of furniture, shingles, bicycles and even several boats abandoned on the shoreline!
UPCOMING EVENTS

10th Annual Highway H2O Conference
Hwy H2O celebrates a decade of bringing together the collective interests and needs of marine transportation stakeholders and partners of the Great Lakes-St. Lawrence Seaway corridor at this year's annual conference. The gathering takes place Nov. 19-20 at the Toronto Airport Marriott Hotel. Conference modules will focus on economic and trend-based activities, policy and regulatory issues, the spectrum of infrastructure change and investment, as well as cargo diversification and market opportunities. The conference underscores the importance of paying attention to changing commodity markets and leveraged innovation to ensure that marine transportation remains a globally valued service. The two-day event facilitates learning the insights of the industry's leaders and insiders through presentations and networking opportunities.

Information and registration Highway H2O

ON THE ROAD!
Green Marine took part in numerous events this fall:

• AAPA Energy & Environment Seminar, Chicago, Sept. 16-18
• CFOA Annual Conference, Hilton Quebec, Quebec City, Sept. 29-30
• 2014 Transportation Association of Canada Conference, Montreal, Sept. 28-Oct.1
• Quebec Port Authority Port Days, Oct. 19
• Quebec Marine Day, Quebec National Assembly, Oct. 28
• North American Marine Environment Protection Agency (NAMEPA) annual Conference, New York, Oct. 29-30
• AAPA Annual Convention, Hyatt Regency, Houston, Nov. 9-13

BEAR WITH US!

Workers from Logistec had a surprise visit while loading ships at the Port of Churchill on Sept. 28, as evidenced by the photo taken by Éric Benjamin, Logistec Stevedoring’s superintendent of operations. “The photo clearly shows the proximity of the environment and wildlife with our operations,” he said.
GREEN MARINE | PARTICIPANTS

SHIPOWNERS
- Algoma Central Corporation
- Atlantic Towing Limited
- Canada Steamship Lines
- Canfornav
- Cogema
- Croisières AML
- CSL International
- CTMA Group
- Fednav Limited
- Groupe Desgagnés
- Island Tug and Barge
- Lower Lakes Towing Limited
- Marine Atlantic Inc.
- McAsphalt Marine Transportation Ltd.
- McKeil Marine
- North Arm Transportation
- Ocean Group
- Oceanex
- Reformar
- Seaspan ULC
- SMIT
- Société des Traversiers du Québec
- SVITZER Canada
- TBS Shipping Services Inc./Roymar Ship Management

PORTS & SEAWAY
- Cleveland-Cuyahoga County Port Authority
- Duluth Seaway Port Authority
- Greater Victoria Harbour Authority
- Halifax Port Authority
- Hamilton Port Authority
- Illinois International Port District
- Montréal Port Authority
- Nanaimo Port Authority
- Port Metro Vancouver
- Port of Gulfport (Mississippi State Port Authority)
- Port of Indiana - Burns Harbor
- Port of Milwaukee
- Port of New Orleans
- Port of Seattle
- Port of Valleyfield
- Prince Rupert Port Authority
- Québec Port Authority
- Saint John Port authority, NB

GREEN MARINE | ASSOCIATIONS
- American Association of Port Authorities
- American Great Lakes Ports Association
- Association of Canadian Port Authorities
- BC Wharf Operators’ Association
- Canadian Ferry Operators Association
- Canadian Marine Pilots Association
- Canadian Shipowners Association
- Chamber of Marine Commerce
- Chamber of Shipping of British Columbia
- Council of Marine Carriers
- International Ship-Owners Alliance of Canada
- Ontario Marine Transportation Forum
- Shipping Federation of Canada
- St. Lawrence Economic Development Council
- St. Lawrence Shipoperators
- U.S. Great Lakes Shipping Association

GREEN MARINE | TERMS & SHIPYARDS
- Bunge of Canada
- Ceres Terminals Inc.
- Cliffs Natural Resources Inc.
- Empire Stevedoring Company Limited
- Federal Marine Terminals
- Fraser Surrey Docks
- GCT Global Container Terminals Inc.
- Groupe Desgagnés (Relais Nordik Sept-Îles)
- Imperial Oil (Esso)
- IOC (Iron Ore Company, Sept-Îles)
- Logistec Corporation
- Marine Atlantic Inc.
- Maher Terminals Holding Corp.
- Marine Recycling Holding Corp.
- McAsphalt Industries Limited
- Montreal Gateway Terminals Partnership
- Neptune Terminals
- Norcan Petroleum Group
- Northern Stevedoring
- Ocean Industries (shipyard)
- Pacific Coast Terminals
- Pinnacle Renewable Energy (Westview Terminal)
- Porlier Express
- Ridley Terminals Inc.
- Rio Tinto Alcan (Port-Alfred)
- Seaspan ULC (shipyards)
- Squamish Terminals
- Sterling Marine Fuels (Windsor Terminal)
- Suncor (Montreal Refinery)
- Témont Montreal
- Valerga (Jean-Gauvin Refinery)
- Valport
- Westridge Terminal (Kinder Morgan Canada)
- Westshore Terminals
- St. Lawrence Seaway Development Corp.
- St. Lawrence Seaway Management Corp.
GREEN MARINE PARTNERS

INDUSTRY SUPPLIERS
• ABB Turbocharging
• American Bureau of Shipping
• American Chemical Technologies
• Bell Marine & Mill Supply
• BG Group
• Canadian International Bureau of Shipping
• Concept Naval
• Conflow Technologies
• DNV GL
• Drew Marine
• Envirochem
• Envirolin Canada
• Environmental Analytical Systems
• Environmental Solutions Inc.
• Filtramax
• FRS Instrumentation & Controls Inc.
• Gaz Metro
• Hemmera
• Hermont Marine
• Hydrex LLC
• International Paint
• Ionada
• Jastram Technologies Ltd
• KRAL
• Lloyd’s Register North America
• Marine and Offshore Canada
• Marine Clean Ltd.
• MSi3D
• OpDAQ Systems
• PESCA Environnement
• Progress Energy Canada Ltd, Pacific Northwest LNG
• Pronova Systems Inc.
• Quickload CEF
• RBM HoldSolutions
• Schneider Electric
• Scott’s Marine Interiors
• Seagulf Marine Industries Inc.
• S.I.G.E.I.M Inc.
• SNC-Lavalin Environment
• Techsol Marine
• The Glosten Associates
• Thordon Bearings Inc.
• Tidal Transport & Trading
• Total Marine Solutions Inc.
• Urgence Marine Inc.
• V.Ships Canada Inc.
• VapCor Inc.
• Ventus Development Services Inc.
• Vickers Oil
• Wärtsilä Canada
• WSP Canada

SHIPPERS
• Aluminerie Alouette
• Canadian Salt Company Limited
• Tata Steel

OTHER ORGANIZATIONS
• Atlantic Pilotage Authority
• CSMOIM
• Corp. des pilotes du St-Laurent Central
• Corp. of Lower St. Lawrence Pilots
• Georgian College’s Great Lakes Int. Marine Training Centre
• Great Lakes Pilotage Authority
• Laurentian Pilotage Authority
• Maritime Innovation
• Pacific Pilotage Authority
• Rightship Americas
• Western Canada Marine Response Corporation

GREEN MARINE SUPPORTERS

GOVERNMENTS
• Environment Canada
• Fisheries and Oceans Canada
• Ministère de l’Énergie et des Ressources naturelles du Québec
• Ministère des Transports du Québec
• Ministère du Développement durable, de l’Environnement et de la Lutte aux Changements Climatiques du Québec
• Ministry of Transportation of Ontario
• Transport Canada

MUNICIPALITIES
• Board of Harbor Commissioners of the City of Milwaukee
• City of Bécancour
• City of Calixa-Lavallée
• City of Contrecoeur
• City of Longueuil
• City of Matane
• City of Montréal
• City of Montréal-Est
• City of Port-Cartier
• City of Québec
• City of Saint-Amable
• City of Sept-îles
• City of Varennes
• Communauté métropolitaine de Québec
• Great Lakes and St. Lawrence Cities Initiative
• Marguerite-D’Youville MRC

ENVIRONMENTAL GROUPS AND NGO’S
• Carbon War Room
• Ducks Unlimited Canada
• Georgia Strait Alliance
• Georgian Bay Forever
• International Secretariat for Water
• Les Amis de la vallée du Saint-Laurent
• Nature Québec
• One Drop
• Réseau d’observation de mammifères marins (ROMM)
• Sedna Foundation
• Stratégies Saint-Laurent (6 ZIP Committees)
• World Wildlife Fund Canada

OTHERS
• CPEQ
• EcoMaris
• Northwest Community College
• Promotion Saguenay
• Seattle Aquarium
• Société de promotion économique de Rimouski
• St. Lawrence River Institute of Environmental Sciences
• Technopole Maritime du Québec
• Vancouver Aquarium