



www.caribbean-maritime.com

Caribbean MARITIME

ISSUE No 39
JANUARY - APRIL 2020

SPECIAL REPORT ENVIRONMENT

- Ocean clean-up
- Sail-assisted cargo ship
- New technologies
- Recycling

ADVANTUM

FREIGHT MANAGER

- **ENABLES EFFICIENCIES**
- **STREAMLINES PROCESSES**
- **DELIVERS REAL-TIME INFORMATION**
- **INTEGRATES WITH OTHER SYSTEMS**



Manage vessel and cargo manifest



Billing and invoicing



Electronic data interchange management



Online booking request and quote generation



Container discharge tallying and load list





Online payment portal



Reporting and Analysis Tools

 www.advantumpcs.com  info@advantumpcs.com

 (876) 923 7022  @advantumpcs  (876) 550-6201

Caribbean MARITIME

www.caribbean-maritime.com



Issue No 39
JAN - APRIL 2020



The official journal of the:



caribbean shipping association

MISSION STATEMENT

To promote and foster the highest quality service to the maritime industry through training development; working with all agencies, groups and other associations for the benefit and development of its members and the peoples of the Caribbean region.

GENERAL COUNCIL 2019-2020

President: Juan Carlos Croston

Vice President: Marc Sampson

Immediate Past President: David Jean-Marie

Group A Chairman: Nathan Dundas

Group A Representative: Eduardo Pagán

Group A Representative: Yuri Jardine

Group A Representative: Sandra Casanova

Group B Chairman: Anibal Ochoa

Group B Representative: Milaika Capella Ras

Group C Chairman: Philip Gray

Group C Representative: Tim DiPietropolo

Group D Chairman: William Brown

Group D Representative: Juan Carlos (JC) Barona

CSA Secretary: Dionne Mason-Gordon

Caribbean Shipping Association

4 Fourth Avenue, Newport West,
PO Box 1050, Kingston CSO, Jamaica

Tel: +876 923-3491

Fax: +876 757-1592

Email: csa@cwjamaica.com

www.caribeanshiping.org



PUBLISHER:



Land & Marine Publications Ltd
1 Kings Court, Newcomen Way
Severalls Business Park, Colchester
Essex, CO4 9RA, United Kingdom
Tel: +44 (0)1206 752902
Fax: +44 (0)1206 842958
Email: publishing@landmarine.com
www.landmarine.com

Views and opinions expressed by writers in this publication are their own and published purely for information and discussion and in the context of freedom of speech. They do not necessarily represent the views and opinions of the Caribbean Shipping Association.
- The Publisher.

Caribbean Maritime is delivered to subscribers in biodegradable packaging to help preserve our environment

CONTENTS

2 FROM THE CSA PRESIDENT

Maintaining stability in times of uncertainty

6 HARBOR VIEW

Port of Mariel

8 PROFILE: DR. CLEOPATRA DOUMBIA-HENRY

15 SPECIAL REPORT ENVIRONMENT

15 Introduction

16 Ocean clean-up

21 Sail-assisted cargo ship

23 New technologies

27 Recycling

29 Cruise industry

32 PORT AWARDS

A Gala night of glittering prizes

34 CFL AGENCIES

Making waves

36 CSA AGM

Photographs from the 49th Annual General Meeting, Dominican Republic, October 2019

40 PORT BRIEFING

43 STARBOARD BRIEFING

44 RUSSBROKER CARIBBEAN MARKET REVIEW

A stable shipping market against an uncertain economic background

47 DATA ANALYTICS BY ADVANTUM

Advanced analytics in the shipping industry



Maintaining stability in times of uncertainty

As the world focuses its attention on the climate emergency emanating from the threat of global warming, efforts to reduce greenhouse gas emissions continue to have a significant impact on the shipping industry. Although shipping is currently the most efficient and emission-friendly mode of moving cargo, compared with other modes such as aviation, road trucks and railways, it still accounts for roughly 3 per cent of the world's carbon dioxide emissions. Estimates by the International Maritime

Organization (IMO) suggest that if this situation goes unchecked, carbon dioxide emissions from international shipping could increase by as much as 250 per cent over the next three decades.

With this pressing issue in mind, the start of the new year has greeted us with the global implementation of IMO 2020 – a regulation that prohibits ships from using fuels containing more than 0.5 per cent sulfur unless they are equipped with approved exhaust-cleaning “scrubbers”. The previous maximum fuel oil sulfur limit was

3.5 per cent, which makes this 80 per cent reduction the largest undertaken at any one time. While this rule has been in the making for many years, its implementation on 1 January still represents a seismic shift that comes with some degree of uncertainty as to how the change will play out in the short and long term.

BURNING CONCERNS

Among the burning concerns facing the industry at this juncture are bunker availability and supply, fuel quality, compatibility



Juan Carlos Croston
President
Caribbean Shipping Association

In order to stay afloat in this volatile environment, it is important that we find ways to quickly and effectively adapt to the events in the marketplace while still creating value for our customers and meeting their needs

by 2050, compared to level in 2008. The IMO will also require all new ships added to fleets after 2025 to be 30 per cent more efficient than those built under current designs. The journey ahead is complex and challenging, and the onus is on us to keep these climate change imperatives firmly in our sights and plan accordingly for their impact on our business.

DOWNGRADED OUTLOOK

The uncertainty stemming from the implementation of IMO 2020, among other factors, has resulted in maritime research firm Drewry Shipping Consultants downgrading its outlook for world container port throughput for 2019 as well as its five-year projections. Drewry suggested that the additional fuel bill related to the switchover to low-sulfur fuel warranted consideration based on potential disruption in supply. The research firm also added that drone attacks (in September 2019) on Saudi oil facilities muddied the waters when it caused oil prices to spike.

Global trade tensions and civil unrest in some territories have added more layers of uncertainty, which weakens the business climate and deters investment. The fallout from this is evident in the decline in cargo trade between the United States and the Caribbean and Central America during the first nine months of 2019. According to data from PIERS, the 0.4 per cent slip in container volume to 2.37 million TEU was the first decline since 2014.

In order to stay afloat in this volatile environment, it is important that we find ways to quickly and effectively adapt to the events in the marketplace while still creating value for our customers and meeting their needs. When facing uncertainty and risks, it is useful to employ strategies and tools that promote greater levels of flexibility,

and pricing, the readiness of vessels and enforcement and compliance. As a region, we have gone to great lengths to prepare ourselves for the repercussions of IMO 2020. Reports coming out of the International Bunker Industry Association (IBIA) Caribbean Bunker Conference held in Jamaica last September indicate that several territories are well-positioned to meet the new demands for compliant fuel.

Jamaica was highlighted in the north Caribbean, while Curaçao was featured in the outlook for the south Caribbean. Panama's state of readiness for IMO 2020 was also discussed, and it was revealed that the country is close to establishing a new offshore bunkering location.

SIGNIFICANT HURDLES

We realize, however, that there is still much more work to be done if we are to fully capitalize on the opportunities and overcome the challenges in this area. Enforcing this regulation under the provisions of

Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL) presents significant hurdles. Countries yet to incorporate the IMO 2020 rule into local legislation are rendered powerless, while those that already have the laws in place must contend with issues ranging from insufficient manpower for inspection to the lack of necessary testing tools to properly enforce port state control.

Navigating the early days of IMO 2020 requires commitment and collaboration from all the parties involved, which goes a long way towards assuaging the teething pains. At this time, it is also instructive to bear in mind that as shipping continues to chart a course towards carbon neutrality, we must continuously prepare for the future regulations and strategies that will fundamentally affect the industry. Ambitious targets set by the IMO include reducing carbon emissions by at least 40 per cent by 2030 and cutting down total annual greenhouse gas emissions by 50 per cent

dependability and resilience. By taking this approach, our businesses will have the opportunity to remain relevant and viable during difficult periods.

GOING DIGITAL

A key component of business survival and success is adopting the right technological solutions. When long-standing, traditional methods fail to keep pace with the complexities of the modern business environment, shipping executives have no recourse but to turn to technological solutions that deliver improved value along the supply chain.

The benefits of digitalization in the shipping industry are already clear, and many companies are enjoying increased efficiency and a distinct competitive advantage. Paperless bills of lading, blockchain-based bills of lading, real-time freight rates, automated container terminals and harnessing data to gain relevant business insights are

just a few of the available solutions. However, before embarking on this digital transformation, it is important to have a concrete understanding of the concepts and establish a clear link with the vision and purpose of the organization. There are instances where companies rush to digitalize their operations based on trends without fully evaluating the specific benefits to their business. It is important to recognize that digitalization is not the main objective - it is a means to an end and an enabler for the business.

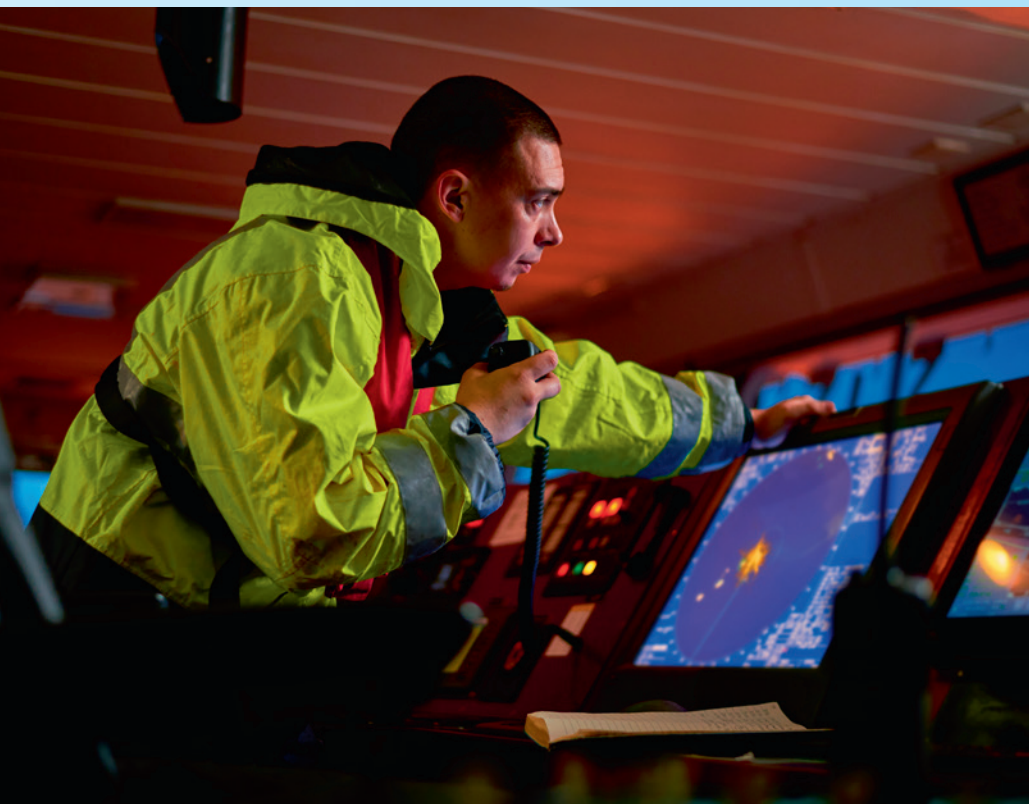
The adoption of new technology and automation tools is often linked with the elimination of jobs, and while this happens in some cases, the transformation also creates new employment opportunities. Increasingly, the perception is shifting away from job loss to job change, as people begin to acquire new skills and work closely with the technology. Organizations in the shipping industry must realize that it is in our best interest to retrain

employees for skilled roles as we adopt intelligent technologies.

COMMITMENT TO TRAINING

On the topic of training, the CSA remains committed to creating training programs that are relevant to national shipping associations and regional companies that comprise our membership. We will continue to work with key partners to provide the best trainers available and ensure that the participants in our programs are exposed to the most up-to-date equipment and technology.

We look forward to significantly increasing our interaction with our members and getting a better sense of their priority issues and concerns. There is so much that we can accomplish together, and as we strive to push the regional industry forward, let us not be defined by the many challenges that we face, but by the inventiveness, resoluteness and solidarity of our responses.



Increasingly, the perception is shifting away from job loss to job change, as people begin to acquire new skills and work closely with the technology



RELY ON THE BEST FOR YOUR CARGO HANDLING OPERATIONS

TRANSHIPMENT MIT
COLON, PANAMA.



CARGO SECURITY

Our accurate handling of any type of cargo is all your valuable cargo needs.



TRACKING

Our technology keeps a reliable 24/7 location of your cargo.



CONNECTIVITY

No other terminal offers as many options as MIT. We have direct access to the Panama Canal, Transisthmian Railroad, the Colon Free Zone and much more. As they say, location, location, location.



MIT | **MANZANILLO
INTERNATIONAL
TERMINAL**

Serving Panama and the world.

HARBOR VIEW





PORT OF MARIEL

Situated 45 km west of Havana, the Mariel Special Economic Development Zone (ZEDM) is central to Cuba's current and future prosperity. In fact, President Raúl Castro called the Mariel industrial complex the most important project undertaken in Cuba since the 1959 revolution.

At its heart is the Mariel Container Terminal (TC). Managed under long-term contract since 2011 by Singapore's PSA International, Mariel TC has over 700 meters of quay and has been dredged to a depth of 17.9 meters. The terminal is equipped with four ship-to-shore gantries.

Total current annual capacity of Mariel is around 800,000 TEUs. Future expansion plans envisage a port able to handle up to 3 million TEUs a year, but Mariel TC's recent development has been hampered by the changing dynamics of US-Cuban relations which have seen a re-tightening of Washington's trade embargo. As such, provisional throughput figures for 2019 indicated that traffic was around 340,000 TEU; slightly down on 2018's 349,000 TEU.

Furthermore, the final development phase of the Mariel TC project – including the construction of an additional 1,700 meters of quay and supported by 24 ship-to-shore gantries and 72 RTGs – is on hold.

Nevertheless, the major dredging work that was undertaken in 2019 allows Neopanamax 14,500 TEU vessels to call at the port.

'There are no career limits for women now'



World Maritime University (WMTU)

Cleopatra Doumbia-Henry was born and raised in Dominica. Despite the sad and early passing of her mother that left her father to bring up nine children all alone, Cleopatra excelled at school and was soon winning a scholarship to the University of the West Indies Cave Hill Campus in Barbados.

And Cleopatra has not looked back, taking top positions with international bodies, moving to Geneva before finally being chosen to head up the IMO's World Maritime University in Malmö.

Here Cleopatra details her life and her important legal work before, it seems, moving effortlessly in to the maritime sector.

Q. Where were you born and where did you grow up?

A. I was born in the village of Mahaut on the island of The Commonwealth of Dominica and grew up there until I left for the University of the West Indies to do my first degree after my "A" level exams.

Q. As a child, did you speak English or Kwéyò at home?

A. At home, I spoke English, although outside of home I spoke "creole" with friends and the older people.

Q. What did your parents do for a living?

A. My father was an educator, farmer and politician. He was a teacher at the Saint Mary's Academy. He was a member of Parliament from 1957-1970. He served as Minister for Labour & Social Services and also as Minister of Education. My mother was a seamstress, shopkeeper and housewife. She unfortunately died at the very early age of 45, leaving nine children whom my father had to take care of.

Q. Where did you go to school and then to university?

A. I went to primary school in the village of Massacre, a four kilometre walk from my village of Mahaut. In those days, we walked to school. I went on to the Convent High School (a girls' school) in Roseau, at the same time as my older sister after successfully passing "The Common Entrance Exam". I went on to do A levels which I successfully passed, despite the sudden passing away of my mother just two weeks before taking the UK 'A' Level

Our members:

SHIP AGENTS:

- Blue Waters Shipping Ltd.
- Cargo Master (Barbados) Ltd.
- Cargo Solutions International (Barbados) Ltd.
- Caribbean International Freight & Logistics Ltd.
- Commerical Services Ltd.
- EHS Freightliner Ltd.
- Eric Hassell Shipping Limited
- Fast Transit Shipping Ltd.
- Goddards Shipping (Barbados) Limited
- Infinite Shipping Solutions Ltd.
- Marine Trading Ltd.
- Massy Shipping Services
- Massy Trading
- MC Yacht & Shipping Services Inc.
- Ocean Air Transport Services Ltd.
- Platinum Port Agency Inc.
- Renewals Inc.
- Robulk Agencies Inc.
- Seafreight Agencies & Stevedoring Ltd.
- TMG Shipping Specialist Inc.
- Windward Agencies Ltd.

STEVEDORING CONTRACTORS:

- Cargo Master (Barbados) Ltd.
- Eric Hassell Shipping Limited
- Goddards Shipping (Barbados) Limited
- Massy Logistics Barbados Ltd.
- Massy Shipping Services
- Seafreight Agencies & Stevedoring Ltd.

SPECIALIST ONSHORE SERVICES:

- Bico Ltd. - Warehousing and cold storage

**Our depth of experience
is our greatest strength**

THE SHIPPING ASSOCIATION OF BARBADOS

2nd Floor, Trident House, Broad Street, Bridgetown, Barbados

Tel: (246) 427-9860 • Fax: (246) 426-8392

Email: info@shippingbarbados.com

www.shippingbarbados.com



© JAMES MARINE Agency



**DEMERARA SHIPPING
COMPANY LIMITED**

LOCAL AGENTS FOR:
ECL/Vertraco-Liner Service
Mediterranean Shipping Company (MSC)

SERVICES

- Terminal warehousing
- Agency services
- Inland transportation
- Stevedoring
- De-stuffing & stuffing of containers
- Clearance & forwarding

Phone: +592 226 4455 / 227 3417 • Fax: +592 225 9512

E-mail: generalenquires@demship.com

www.demship.com

**NEVER MISS
ANOTHER ISSUE**
subscribe online:
caribbean-maritime.com/subscribe



PROFILE DR. CLEOPATRA DOUMBIA-HENRY

Exams. I had taken on a teaching position at the Convent High School in September 1973, before learning in the course of that month that I was awarded a Canadian Government Scholarship to go to the university at the Cave Hill Campus, University of the West Indies (UWI), Barbados, to which I had applied. This was the big game changer of my life. I successfully completed my first year of studies in the Faculty of Arts & General Studies. At the end of the first year, I decided to switch faculties and transferred to the Faculty of Law at the Cave Hill Campus, which I successfully completed in three years.

Q. In which subject(s) did you graduate? And where and when did you gain your PhD?

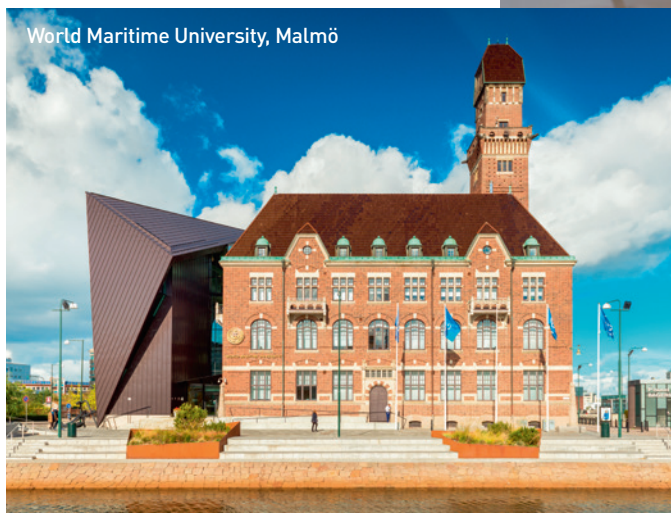
A. I graduated with an upper second class degree in law from UWI Indies (UWI). I immediately enrolled on graduation to pursue a master's degree in law at the Cave Hill Campus and was granted a scholarship to undertake my Master's studies. While at UWI, I was awarded a full scholarship by the Government of Switzerland to pursue my PhD in international law at the Graduate Institute of International Studies and the University of Geneva. I obtained my PhD in 1984. While pursuing my PhD, I prepared for the exams at the Inns of Court of the United Kingdom and was admitted to the Inner Temple Inns of Court and called to the Bar in Dominica, both in 1984.

Q. How did you come to join the International Labour Organization (ILO)? You were you were later appointed the first female director of the International Labour Standards Department. What are your recollections of your time as the department head and your many years at the ILO?

A. I won a competition for a legal position in the Office of the Legal Adviser at the ILO in 1985. I joined the ILO a year later. I worked for over 29 years for the ILO as a lawyer and manager. In my 14 years in the Office of the Legal Adviser, I worked on a wide range of legal issues.

In 2000, I was promoted and transferred as deputy director to the Sectorial Activities Department and in 2001 was made Director of that Department. In 2005, I was appointed to head one of the biggest portfolios in the ILO – The International Labour Standards Department. As of 1999, I led a major legislative reform of the body of 72 maritime labor instruments adopted by the ILO since 1920. This led to the negotiations, drafting and consolidation of 68 out of 72 international labour instruments into a single Convention, leading to the adoption of one of the most innovative and effective maritime labour instruments, the Maritime Labour Convention, 2006 (MLC, 2006). This instrument is today applicable to the most global of industries, the maritime industry, which seeks to establish a level playing field for shipowners and effective protection and rights at work for seafarers.

My career at the ILO will remain part of the best years of my life as I have been able to witness real impact on the ground of the effect of international standards and the creation of a level playing field. I can also remember the long days and nights spent during the annual ILO Conferences and the many late-night meetings during the development and negotiation of the MLC, 2006. I sometimes went home for just about three or four hours of sleep, change of clothes and return to the conference. I also worked with some remarkable director-generals.



Travellaggio / Shutterstock.com

World Maritime University (WMIU)





I remain close to my very big family most of whom live in Dominica. I make yearly visits home to get some rest and keep the family bond which is very close

Q. This role at the ILO eventually led to your involvement in the IMO Maritime Labour Convention. Is this correct and was this your first encounter with the maritime sector?

A. In fact, my doctoral thesis was on Law-Making by International Organizations. In this regard, I had examined a full panoply of international organizations with a view to understanding the impact of law-making by UN organizations. This led me to focus more specifically on the International Maritime Organization (IMO) as I was fascinated by the way in which the technical international instruments adopted by IMO had an incredible impact due to the global nature of shipping and the need for uniform standards required to enable shipping to be safe, secure and protect the marine environment.

Q. You became president of the World Maritime University (WMU) in 2015. What have been your most notable achievements since taking on this high-profile position?

A. I joined the WMU as its President in July 2015. I am the first woman president and the first from a developing country to head the University. I have now served the WMU for four and a half years and I have begun another four-year term.

Among the many important actions that I have taken, they relate to both academic and non-academic programs and include the following: a major reform of the WMU Charter to reflect current day realities and future developments; the launch of an Endowment Fund for the University to ensure its financial sustainability and the putting in place of mechanisms to support the Fund, including our flagship Stewards of the Sea Campaign; the expansion of our maritime research program and portfolio; an expansion of the University's mandate to

include ocean issues with the establishment of the WMU-Sasakawa Global Ocean Institute within the University to lead cutting-edge ocean research; the growth in the core funding of the university from a broader range of sources; an increase in the number of faculty members; an increase in the number of students and in particular women; an expanded and growing list of donors providing fellowships for students from developing countries and funding for cutting-edge research; the expansion of the number of programs and specializations taught at the University; an increase in student intake for both our Master's and our PhD programs; the broadening of our Distance-Learning programs and the provision of short tailor-made courses delivered either at the University or on site for the client; the full integration of the UN Sustainable Development Goals within the curriculum and research work of the university; a greater diverse body of faculty and staff, including the increase in the intake of women among the student body and the University's staff; alignment of WMU with the conditions of employment applicable in the United Nations System including the affiliation of all Faculty and Staff to the United Nations Joint Staff Pension Fund.

Q. As someone with strong Caribbean roots, how do you enjoy living in less-than-tropical Malmö?

A. Although I have now lived most of my life in Switzerland outside of my wonderful small island of Dominica and now in Sweden, I remain close to my very big family most of whom live in Dominica. I make yearly visits home to get some rest and keep the family bond which is very close. I have now lived in Malmö for over four years and I have begun another term as President for a

further four-year term. The Swedes are very hospitable and supportive. I was acclimatized to the winter in Switzerland and as Malmö is the most southern part of Sweden, I have found the winters quite bearable. The biggest challenge is the short daylight during the winter. But one gets used to this as well.

Q. Throughout your distinguished career you have often been the first woman appointed to a particular position, so do you consider yourself to be a pioneer and a role model for other women?

A. I consider myself to be a very fortunate person and one who has been provided with exceptional opportunities. I have never taken anything for granted. I always feel that I must deserve the trust that has been placed in me and must work hard to ensure that I meet expectations. I have been supported throughout my career by incredible bosses and mentors, most of whom were men. I have much to pay back for all these angels and those who have inspired and supported me along my route. My father was my inspiration. Two former ILO Legal Advisors, Francis Maupain and Dominick Devlin, not only mentored me, they gave me the opportunities to take the lead and to assume

responsibility. The ILO Director-General, Juan Somavia, appointed me to the senior management functions to head the most challenging departments of the organization. These were three incredible mentors who encouraged me, and being a woman and from a small island developing country were not factors that were considered. They did not see me with those lenses. They gave me confidence, encouraged me and conferred on me senior level responsibilities. They were there if I needed advice, but gave me the space to make mistakes. What was important was to learn from these mistakes. These men are now among my best friends and to whom I owe a depth of gratitude. This is the reason why, for me today, my role is to mentor, to enable young people to develop expertise and given an opportunity to grow, making mistakes along the way, but being stronger with lessons learnt.

My family – my husband and our two sons - have also been incredibly supportive even when I worked until 3 o'clock in the morning and weekends. Even today, while I should have retired, they have encouraged me to continue to pursue my dreams and give back to society. To them, I owe a depth of gratitude and have often felt guilty for short-changing them. My hope for them is that they seek their own paths with hard work, determination and passion.

For women, we have today a much broader spectrum than ever before. There are no limits with respect to the careers women choose. We have the same talent and expertise. We should and must have the same opportunities. We are seeing a sea change with more women now occupying senior positions in all sectors of economic activity. However, maritime remains one of the few industries where women still remain largely under-represented. We urgently need that sea change. The IMO dedicated the 2019

Maritime Day Theme "Empowering Women in the Maritime Community". This theme has been taken on by the entire maritime industry in 2019 and has been celebrated in countries around the world, with the official World Maritime Day celebrations having been taken place in Colombia this year. WMU hosted a major conference in April 2019 on "Empowering Women in the Maritime Community". The Conference agreed on 17 recommendations to be taken forward to enable positive change to be made.

Q. Are you a member of WISTA?

A. Yes, I am a member of two WISTA Associations – WISTA Italy and WISTA Sweden.

Q. As someone who has moved around the world throughout your career, where is home?

A. I try to make home wherever I am. The family home is in Switzerland where our two wonderful boys were born and I met my husband, Zandiougou Doumbia, who is from Mali. I however now live in Malmö and where I feel very comfortable and have a good support network.

Q. Finally, can we ask you something about your personal life? And of your main interests outside of work in terms of hobbies, sports and leisure activities?

A. Concerning my personal life, I am married to a wonderful man from Mali in West Africa for the past 33 years and we have two boys, both of whom studied in the US. Except for myself, they are all fluent in German, in addition to French and English.

I have had a fantastic and uninterrupted career for which I am most grateful. This was made possible by a fantastic husband.

Outside of work, I read a lot and like walking.



For women, we have today a much broader spectrum than ever before. There are no limits with respect to the careers women choose



SERVING THE CARIBBEAN FROM THE CARIBBEAN

At Svitzer Caribbean Dominicana, we are committed to providing safe and reliable towage at all ports across the Caribbean, contributing to the success of ship operators, terminals and port authorities. Our focus is to provide tailor-made towage services, based on win-win contacts. Talk to us and be convinced.

www.svitzer.com

A PART OF A.P. MOLLER-MAERSK GROUP



For further information please contact us at:
 SVITZER CARIBBEAN DOMINICANA S.A.S.
 Regional Office Caribbean
 Tel: +1 809 567 3611 – Email: GerenciaRD@svitzer.com

SVITZER



BOXLOADER

OUR CLIENTS ARE OUR BEST AMBASSADORS

➤ We designed a range of products that covers all the clients' needs. At the same time, we require always more from our sales and technical teams in terms of service and support in order to support you in designing the solutions you really need.

Choosing Boxloader does not make you another client : it is rather the beginning of a long term partnership.



MULTI LOADER ➤ **MULTI** LOADER ➤ **X TREM** LOADER ➤



BXL-La Roche Sur Yon (85)
 ➤ +33 (0) 251 21 21 21

MAKE YOURS CUSTOM



REEFER MANAGEMENT
EMERGENCY BUILDING POWER
MOBILE POWER SOLUTIONS



Purpose Built Power Generation Solutions

Matching needs to customized solutions since 1990



Get trained and certified in

Marine Engineering and Nautical Studies, Logistics, Customs Processes, Freight Forwarding and Immigration, Industrial Engineering and Security

at the Caribbean Maritime University: the centre of excellence in the region.

Choose an institution that is ISO certified, globally recognized and produces industry ready graduates!

Customized courses include:

- Port Operations
- General Ship Knowledge
- Advanced Industrial Fire fighting
- STCW Courses



Contact information: Palisadoes Park, P.O. Box 8081, Kingston, Jamaica, W.I.
Tel: (876) 924-8150, (876) 618-2047 • www.cmu.edu.jm



APPLY NOW!

INSPIRING CAPTIVATING INFORMATIVE

Multi-platform publishing and design services

Land & Marine specialises in innovative and creative contract publishing and design services. Whatever your promotional requirements are, we can offer a variety of distribution channels specific to your needs. Land & Marine helps clients worldwide reach potential customers in many appealing ways that get key messages to the correct audience.



For further information please contact Land & Marine Publications

Tel: +44 (0)1206 752902 Email: publishing@landmarine.com www.landmarine.com

Environment

SPECIAL REPORT

- 15 Introduction
- 16 Ocean clean-up
- 21 Sail-assisted cargo ship
- 23 New technologies
- 27 Recycling
- 29 Cruise industry

ENVIRONMENT INTRODUCTION

Cleaning up the marine environment

A 12-page special report

This issue of Caribbean Maritime magazine is highlighting a selection of disparate environmental issues and to coincide with January's coming into force of the International Maritime Organization's stringent new sulfur cap on the burning of heavy fuel oil.

Of course, concern for the environment and for our rivers, seas and oceans is much more than just reducing the sulfur content in HFO. Combatting marine pollution takes many forms: reducing solid and liquid waste entering river systems and subsequently the Caribbean Sea, protecting vulnerable coral reefs, improving air quality at ports and the safe disposal of used oil.

Caribbean Maritime has chosen more or less at random four key environmental topics that impact on the region or from which it might benefit from in the near future. The four comprise: growing moves towards battery-powered container handling equipment (of which PortMiami, with its main terminal operator, is leading the way), combating river and ocean pollution via an ingenious and cost-effective new method of collection, the less-than-glamorous recycling of ships' waste and the planned installation of sails to a cargo vessel dedicated to serving the Caribbean with the first such ship soon to be under construction.

STOP GARBAGE REACHING THE OCEANS



Every once in a while, a new product or an invention comes along that's so clever yet so obvious we all wonder why nobody had thought of it before.

And this is the first reaction of many when they initially set eyes on the Interceptor – an ingenious and comparatively simple concept that's specifically designed to keep rivers clean and, in turn, to ensure that seas and oceans are garbage free.

As a purely river-based system, the Interceptor does not solve all of the ocean's pollution problems. But it does prevent a large percentage of discarded plastics and other waste materials from reaching the sea and can be coupled with other non-fluvial clean-up systems to improve the wider marine environment.

The Interceptor is the brainchild of Dutch environmental charity The Ocean Cleanup and the device is now being installed in rivers (including in the Caribbean) that suffer from high levels of pollution.

WHAT'S THE COST?

The first question of any potential customer is how much does an Interceptor cost? So Caribbean Maritime spoke to The Ocean Cleanup's Eline Weltevreede: "Interceptors in our pilot program cost approximately EUR 700,000 for the construction and the assembly. However, costs from the pilot program are higher than what we would expect once we are in series production. Therefore, Interceptors produced in volume will be much more cost efficient".

Given the level of investment required, the installation of an Inceptor is likely to require more than one backer; maybe some sort of consortium or a private/public partnership. The Ocean Cleanup believes it can work like this: "Local partners operate the Interceptors to extract the waste from the river and bring it to the shore. They work



Each project is contingent upon many factors, such as signed contracts, operators in place, agreeable infrastructure for waste management, customs approval



together with responsible waste handlers to sort debris and recycle plastic where possible. Operators need support from (local) governments for permits to operate in their rivers. Collection fees from governments and cities help safeguard continuity in waste extraction by the operators". Eline emphasizes that: "Funders, sponsors, and investors make river clean-ups possible and accelerate the deployment of Interceptors."

PROJECTS

In any case and at the present time, The Ocean Cleanup is not actually selling the Interceptor but is instead creating

"projects". Says Eline: "Each project is contingent upon many factors, such as signed contracts, operators in place, agreeable infrastructure for waste management, Customs approval, etc. That said, we are currently ramping up to series production, so the first ones will take longer than those delivered once we're in full production mode."

Once agreed, then there is the physical installation of an Interceptor on site. Says Eline: "Working together with manufacturers, each interceptor will be assembled on location by a local team, with guidance and support of The Ocean Cleanup. The

Inceptor's components are containerized for shipping convenience and ease of transport to its designated location".

Interceptors are placed in the river only after consultation with relevant public bodies and stakeholders, while considering all applicable rules and regulations. The actual placement in the river is on a case-by-case basis, based on flow-velocity, the width of the river, presence of a plastic "hotline" or not, traffic, proximity to a delta, etc. With the use of our river plastic monitoring technology and field testing, we can provide guidance to determine the most effective location in rivers for the Interceptor".

The Ocean Cleanup is still a bit hazy, though, about the Interceptor's day-to-day operating costs. "It's contingent upon many things, such as the pollution levels, local infrastructure, etc, explains Eline. "We will train all

necessary parties on daily operations of the Interceptors. For example, the pontoon that holds the dumpsters requires offloading. If there is a location nearby that can accept this then it will take a short time and limited resources (personnel and fuel). If a longer boat ride is necessary, this will impact the operational costs. That said we are currently working on a model to estimate the operating costs per river".

ON STATION

Once on station in the river and when the Interceptor is almost full, it automatically sends a message to the local operator to come and collect the waste. Operators then remove the barge, bring it to the side of the river, empty the dumpsters, send off the

debris to local waste management facilities, and return the barge to the Interceptor.

What about dangers to navigation? Eline explains: "As mentioned, Interceptors are placed in the river only after consultation with relevant public bodies and stakeholders, while considering all applicable rules and regulations. That said, the barrier of the Interceptor does not have to span the entire width of the river – because we can identify the natural plastic accumulation paths in a river, or "hotlines", we can place the Interceptor in a location that prevents the majority of plastic flowing through the river while still allowing vessels to pass by. If this "hotline" is not present, we can create an artificial one using a second barrier upstream".



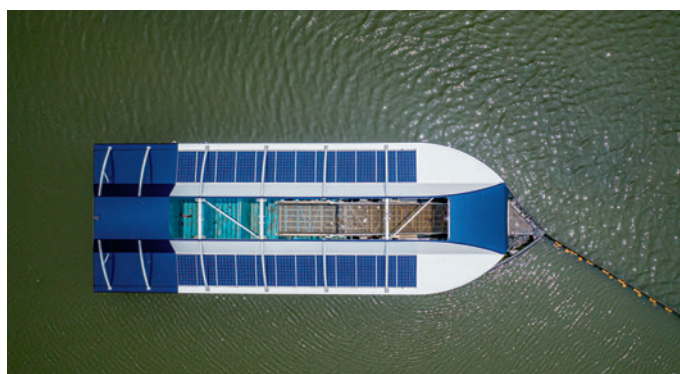
Once on station in the river and when the Interceptor is almost full, it automatically sends a text message to the local operator to come and collect the waste

And the first Inceptor will soon be fully operational in the Caribbean. Four Interceptors have been built to-date; two systems are already fully operational in Jakarta and Klang (Malaysia). A third system is in Vietnam and being installed in Can Tho in the Mekong Delta, while the fourth is actually destined to be deployed on Santo Domingo's Ozama River. And as many Santo Domingo residents will no doubt testify, the Interceptor's installation is long overdue.



ROTTERDAM

Founded in 2013, by Dutch inventor Boyan Slat, The Ocean Cleanup is a Rotterdam-based charity with a staff of over 80 comprising engineers, researchers, scientists, and computational modelers working daily to rid the world's oceans of plastic.



COST-EFFECTIVE

According to a study conducted in collaboration with Deloitte, yearly economic costs due to marine plastic are estimated to be between US\$ 6-19bn. The costs stem from its impact on tourism, fisheries, aquaculture, and (governmental) clean-ups. These costs do not include the impact on human health and the marine ecosystem. This means that intercepting plastic in rivers is much more cost-effective than dealing with the consequences downstream.

19TH ANNUAL CARIBBEAN SHIPPING EXECUTIVES' CONFERENCE

ST LUCIA 25-26 MAY 2020

- The CSA's 19th Annual Caribbean Shipping Executives' Conference is to be held at the Royalton Saint Lucia Resort & Spa.
- Two-day conference (25-26th May).
- Please contact the CSA Secretariat in Kingston [details below] or visit the CSA website www.caribbeanshipping.org for further details about speakers and to register for this key networking event.
- CSA members enjoy preferential rates. There are also early-bird registration discounts and concessionary hotel rates.



caribbean shipping association

CSA SECRETARIAT:

4 FOURTH AVENUE, NEWPORT WEST, PO BOX 1050, KINGSTON CSO, JAMAICA
TEL: +876 923 34981 · E-MAIL: CSA@CWJAMAICA.COM

www.caribbeanshipping.org

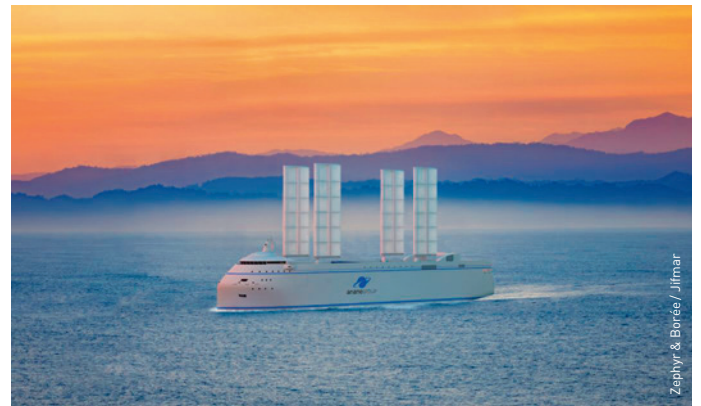


Find us on Facebook - search: 'Caribbean Shipping Association'



SAIL POWER GETS A ROCKET

Sail technology has had many hesitant starts over the years with its many proponents never quite transferring design ideas to the every-day practical.



Who remembers the sail-assisted 1980-built Japanese tanker Shin Aitoku Maru with its 200 square meters of canvas and which was once heralded as the future in terms of harnessing the wind and reducing fuel costs? Very few and this seemingly bold experiment in vessel propulsion apparently came to nothing.

Then there was Jacques Cousteau’s backing for the moulin à vent, turbosail, concept. A kind of cylinder-shaped sail developed in the 1980s that was sure to bring the technology into the 21st century. Sadly, over 30 years later it remains little more than a concept.

By contrast, we have since had various successful sail-assisted cruise vessels such as those operated by Windstar, Star Clippers, Club Med and others. Each one elegant in its own way. But it’s fair to say that while the sails fitted to these vessels may indeed cut fuel consumption, they are far more

Sergey Kohl / Shutterstock.com

Zephyr S. Borsoe / Jitmar



Canopée

Zephyr & Borée / Jifmar

The vessel will be equipped with four wing-sails which cut, it's claimed, fuel consumption by around 30 per cent. The wing-sails, measuring in total 1,450 m², will mean a reduction of up to 7,200 tons of CO₂ a year...

aesthetic than practical. And there is, of course, no cargo handling to worry about.

So even if sail technology is considered the masts create a major and largely insurmountable problem for many types of vessels and are probably better suited for liquid bulk carriers as the Shin Aitoku Maru was designed to demonstrate.

PROSPECT

Recent projects such as the windsail technology of Spanish company Bound For Blue (see issue 35 of CM) show sailing towards a sustainable future is possible and the Caribbean will soon be served on a regular basis by a sail-assisted vessel.

Behind the unique concept is maritime company Alizés, a joint venture between French firm Jifmar Offshore Services and Nantes-based Zéphyr & Borée. Alizé has just won a tender from aerospace giants ArianeGroup to provide maritime transport services between Europe and Kourou in French Guiana (Guyane). Kourou, 60km from Cayenne, is the location of the European Space Agency's (ESA).

Alizés secured the tender by submitting

its design for a sail-assisted vessel. Developed in partnership with naval architects VPLP Design, this hybrid ship measures 121 meters in length and will be named Canopée.

Following the contract signing, Alizés is soon to commence construction of the vessel which is specially designed to transport the Ariane 6 – the latest launcher from ArianeGroup and which is being built in Europe for the ESA. The first test flight of

Ariane 6 is set for some time later this year.

The vessel will be equipped with four wing-sails which cut, it's claimed, fuel consumption by around 30 per cent. The wing-sails, measuring in total 1,450 m², will mean a reduction of up to 7,200 tons of CO₂ a year and compared to a ship of the same size fitted with standard propulsion. Additionally, there will be a reduction of other emissions (fine particles, sulfur oxide etc.) and thanks to the ship's diesel/LNG engine.

CONCERNS

Jifmar says that in view of current environmental concerns, it is urgent to push forward this future model of the maritime transport. "We are proud to be part of this first sail cargo ship", says Jean-Michel Berud, President of Jifmar Offshore Services.

"For five years we have worked on the development of sea transport with modern sails, it has become clear that wind energy constitutes the future of shipping. We are looking forward to this engagement from ArianeGroup and developing this first sail cargo ship, adds Nils Joyeux, resident of Zéphyr & Borée.

A contract with a shipyard is expected to be placed sometime in early 2020. And the first voyage between several European ports: Bremen, Rotterdam, Le Havre, and Bordeaux and the port of Pariacabo, located close to Kourou, is scheduled for 2022.

Let's hope that maritime history will be kinder to the Canopée than it seems to have been to the Shin Aitoku Maru.



Shin Aitoku Maru

Mkmllemium | Wikimedia Commons | CC-BY-SA-3.0

The Impact of new technologies on Caribbean Ports



By **Stephen Metzger** PhD
Principal, International Competitive Assessments; Adjunct Professor of Economics, Fordham University

The cluster of islands to the east and south of the United States mainland, known generically as the West Indies, lie in the path of maritime transport between the Panama Canal and the eastern and Gulf ports of the United States, and the virtually countless destinations of transatlantic trade. While this geographic position would appear to present a significant opportunity, much is required to bring regional ports to the level of becoming a major maritime center.

Edmund Bartlett, Jamaica's Minister of Tourism put his finger on a key factor in the future development of not only tourism but commercial port build-outs, as well. "The key," he said in a recent statement, "is

infrastructure." Port Authority of Jamaica is on the same track specifically for the commercial maritime segment.

PAJ's President and CEO, Professor Gordon Shirley, stated in 2018 at a conference of stakeholders, "In recent times, the Jamaican port community has been undergoing numerous changes focused on processes and ICT with Asycuda World, as well as the PCS. In addition, there have been infrastructural upgrades, such as the recent completion of the dredging of the Kingston harbor and the massive capital investments being undertaken by Kingston Freeport Terminal (KFTL) and Kingston Wharves (KWL). *These projects are complementary and are geared towards*

positioning Jamaica to compete globally among the leading logistics countries.”

While the above statements essentially refer to Jamaica, these types of infrastructural projects, plans, and aspirations apply to the Caribbean community of nations as a whole. So, the question is, what sort of infrastructure is strategically and competitively important?

The need for masterplanning: The key to meeting all requirements

The answer to this latter question is complex, indeed. Forward thinking on many fronts – a real interdisciplinary effort, involving both public and private entities – is clearly required. A recently published white paper by the British Ports Association, addressing the long-term needs for port development in the UK, points out the three advantages of a master plan; i.e., masterplanning:

- Promotes longer-term strategic thinking, identifying opportunities and threats;
- Can help determine optimal use and configuration of available land;
- Has the potential to help align the ports interests with those of stakeholders.

With regard to the last consideration, the list of stakeholders is quite lengthy, ranging from international organizations, such as the IMO, to shipping and port associations, to national interests, burrowing down to local neighborhood organizations and local political constituencies.

The convergence of Infrastructure needs and technology

Kitack Lim, Secretary General of the International Maritime Organization, in an article published May 2018 in Maritime Reporter stated, “Advancements in

technologies such as robotics, automation and big data will usher structural changes and fully autonomous ports and unmanned are already a reality...” These types of changes are on top of, and in the context of, the IMO’s 2020 0.5% sulfur regulations.

While there is continuing concern about the supplies and cost of low sulphur fuels, as it impacts shipping, the drive to limit, or completely do away with hydrocarbon-based pollutants will certainly affect maritime ports and their infrastructure, as well. Thus, the option of electrification with regard to ports and their equipment is now being widely considered and acted upon, both from the standpoint of regulation and commercial viability. As the Caribbean region builds out its TEU capacity, as much attention needs to be given going forward to the technology involved in the build-out as to the extent of the build-out itself.

Lithium power: the game-changer

The game-changer has been large-format lithium batteries, and their declining costs. Adam Smith over 240 years ago, in his magisterial work, An Inquiry into the



Nature and Causes of the Wealth of Nations, enunciated the fundamental principal of gains in productivity: “The division of labor is limited by the extent of the market.” In other words, the greater the market, the more room for specialization (division) of labor and the development of otherwise costly new technology.

Lithium battery costs, which had been prohibitive in small volumes, are now substantially less, largely the result of growth and promise of future growth in the automotive field. As the extent of this market grew, and will grow exponentially, the basis for on-going research in lithium power us now put in place. And, as a result, many other industries, fundamentally different from the market segments which initially instigated technological and financial feasibility, have benefitted – and maritime is certainly one of those beneficiaries.

Breakthroughs in lithium power applications are in evidence in port technology adaptations

Based on lithium power, systems port applications involving electrification are finding an expanding market. The table below cites just some of the projects and key players that are participating around the world. One of the key factors emphasized in the various project descriptions and solutions is the scalability of the new equipment, much of which, if not most, is custom-made to specific terminal requirements.

In addition, it is important to note that older equipment can be upgraded to greater capacities, converted to electric power, and automated for greater efficiencies. Several maritime equipment

Aside from the benefits of lithium-based batteries with regard to weight, power density, and run time, they can also be charged rapidly, thus minimizing equipment down time

companies, such as Liebherr, have developed significant market segments in this area.

Modern port facility with automated, electric-powered stacking cranes. Kalmar, headquartered in Helsinki, put together a compelling white paper on the benefits of electrification, entitled, *Considerations of electric powered horizontal transportation at container terminals*, which analyzes the impact of lithium power as it affects a wide range of zero-emissions terminal equipment. Aside from the benefits of lithium-based batteries with regard to weight, power density, and run time, they can also be charged rapidly, thus minimizing equipment down time. Kalmar offers its 600 kW DC FastCharge™ solution, which according to Kalmar, delivers a typical charging time in operation of 30 to 180 seconds.

In upgrading their port operations, Caribbean-based terminal operators have numerous examples of electrification and automation options which can be studied in actual operation, thereby affording exact measurement of potential efficiency gains. A few of the significant projects are cited below.

EXAMPLES OF ELECTRIC-POWERED PORT EQUIPMENT, COMPANIES, AND SITES

Source: Compilation by the Stephen Metzger

LOCATION / PROJECT	KEY PORT EQUIPMENT INDUSTRY PLAYERS	TYPES OF EQUIPMENT
Lindø Port of Odense	Liebherr	LHM 800 mobile harbor cranes
Port of Vladivostok	Liebherr	Rail-mounted gantry cranes
Port of Felixstowe	Bromma	13 electric-powered spreaders
APMT-Tangier-Med (Morocco)	Bromma	36 YSX40/46E electric spreaders
Terminal Maasvlakte, Port of Rotterdam	Kuenz	54 fully automated cranes
Port of Los Angeles	Cavotec	Crane electrification
TraPac, Port of Los Angeles, CA	Kalmar	Multiple automated straddle cranes and ASCs
DP World, London Gateway	Kalmar	40 ASCs and 28 shuttle carriers
Port of Long Beach, CA	Kalmar	Nine diesel-electric RTGs converted to fully electric; 12 battery electric tractors and other equipment



Avoiding the barriers to progress and adaptation

We celebrate diversity today as a positive cultural attribute, and if there is any place on the globe where this characteristic is more apparent, it is in the Caribbean. The Caribbean has been the crossroads of racial, ethnic, political, and historical diversity. At the same time, this diversity can be a hindrance with entrenched interests and attitudes, sometimes resulting in barriers to progress.



While there is CARICOM, the formal institution in which the various Caribbean nations are members, some would say that in realm of economic development, particularly the tourist trade and commercial port services the countries have been less than collaborative. You do not have in the Caribbean the guiding vision of a Lee Kuan Yew and his successors that were able to bring Singapore out of the colonial shadows and civil disorder to the economic giant the island is today, boasting the world's second largest container port in terms of TEU throughput.

It is likely that joint planning, port development, and possibly revenue-sharing among the island nations will be required to achieve the stature of a world class, regional logistical hub. Such a concept would assure more efficient interconnectivity among the islands, optimizing capacity utilization, and introducing the latest technology.



A clear message for Caribbean countries

The two important takeaways emerge for CARICOM countries from the preceding data and research:

- Port modernization and upgrade, especially through zero-emission technology, is critical, both for maintaining competitive efficiency and to meet increasing regulatory restrictions;
- Investment in port automation and electrification is a necessary adjunct to general economic development.

Investment in new port processing systems and technologies throughout the Caribbean, hopefully based on a region-wide masterplan, is not only profitable from the private sector point of view, but is a critical underpinning to a nation's economic welfare.

Port development means economic development

Beyond port modernization and the upgrade of throughput efficiencies is the impact of port development on economic development of a country. Where maritime ports thrive, economies, as a whole, thrive. In other words, port development and economic development go hand-in-hand.

In a simple test of this hypothesis, the following scatter diagram aligns TEU throughput with gross domestic product (GDP) for 19 selected countries, most of which are island nations. The measurements are put on a per worker basis, to accommodate differences in sheer TEU volume and country size. TEUs, of course, measure port size, while GDP is a measure of economic development. (GDP is measured in real,

purchasing power parity terms – data from the Penn World Tables.)

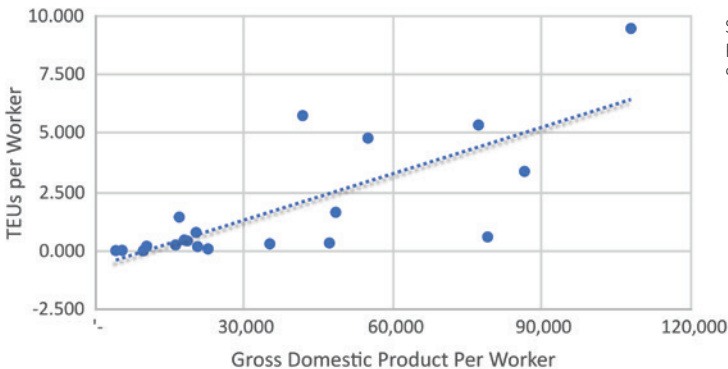
The correlation coefficient, reflecting the level of connection between the variables, is 0.76, a clear sign that port development and economic development are significantly linked. The trend line indicates an average of port development compared to economic development. Above the trend line, from left to right is Jamaica (lower left part of the graph), The Bahamas, Curaçao, Hong Kong, and Singapore. Below trend but with significant economic development in terms of GDP/worker are Trinidad & Tobago (79,100, 0.621) and Panama (47,253, 0.363). Elimination of these two "outliers" from the sample would make the correlation even stronger. The cluster of countries in the lower left of the chart are small Caribbean islands.

PORTMIAMI

PortMiami has taken the lead and has welcomed the arrival of new electric equipment replacing diesel units. The equipment comprises six Kalmar Zero Emission Rubber-tired Gantry cranes (RTGs) to South Florida Container Terminal, LLC (SFCT). SFCT is a joint venture between APM Terminals (49%) and Terminal Link (51%).



COMPARISON OF TEUs / WORKER vs. GDP/WORKER



Source: World Bank; Penn World Tables, ver. 9.1; author's analysis



Safe disposal and recycling

As focus shifts toward reductions in greenhouse gas emissions, the clean-up and safe disposal and recycling of the residual source of these emissions is ongoing.

So Caribbean Maritime has asked one of the region's largest recyclers, RYCO-Jamaica to highlight some of the often-unsung work the company undertakes in maintaining a less-polluted environment.

RYCO-Jamaica (RYCO-JA), the island's largest recycler, has been at the forefront of many of the island's environmental initiatives. A fourth-generation, family-owned, business founded in 1936, The Recycling Corporation of Jamaica services the maritime, hospitality and industrial sectors

with the collection and processing of waste by-products. Operating in Jamaica since 1996, the company has played a pivotal role in creating an environmental standard for liquid waste management on the island.

COLLECTION

With long-standing roots in the North American Rendering Association (NARA), the collection of used cooking oil from hotels and by-products from local broiler companies complement the company's current port services. With over 2,000 satisfied disposals,

RYCO-JA is a reception facility for all ports in Jamaica with the collection of ship-generated MARPOL Annex 1.

Regulations developed by the International Maritime Organization (IMO) have created a guideline to a global standard of disposal by vessels; the most important is the International Convention for the Prevention of Pollution from Ships, also known as MARPOL 73/78. Enacted in 1983, the objective of this convention is to preserve the marine environment by eliminating pollution by oil and other harmful substances.

With the expansion of Jamaica as a Caribbean logistics hub, MARPOL disposal services have contributed to vessels utilizing the Port of Kingston as a resource for managing ship-generated waste. Accredited with an established service rapport among customers, RYCO-JA looks to expanding awareness of its service in the Caribbean region.

As 90% of the world's trade is transported on 70% of its surface by the international shipping community, RYCO-JA has provided a sustainable outlet for these renewable resources. As a result, the recycling of these products creates sustainable energy commodities that support local economies and lessen local imported demand; handling otherwise would be a detriment to marine and onshore environments.

IDENTIFIED

Since 2013, regional deficiencies identified by MARPOL have decreased by over 75% as noted by the Caribbean MOU on Port State Control. With the availability of current services, vessels can coordinate disposals without creating any undue delays or incurring cost-prohibitive fees. Unfortunately, the illegal overboard dumping of contaminated oil waste still occurs around the world.

Ultimately the cooperation of major shipping lines, maritime regulators, and end-users have created a service supply chain that has led to higher-level protection of the Caribbean Sea.

From across the Atlantic, companies such as Top Glory Marine Services have created a much-needed connection between shipowners, charters and service providers. They are the first platform provider for ship's waste management worldwide. "We are acting as a broker for waste management services worldwide and pay attention to the sustainability of the companies with which we cooperate," states Catherine Prikker, head of business development/operations. By employing the service needs of the vessels, coordinating MARPOL waste disposal on a global scale is currently underway.

To handle the continuous demand of the

Industry-wide, 2020 fuel compliance has created the need for innovation as lowering greenhouse gas emissions is the top agenda. With proven removal of Primary Air Pollutants by exhaust scrubbers using HFO, an estimated 3,500 units are expected to be installed worldwide by December 2020



maritime and hospitality sectors, RYCO-JA uses techniques and processes that have been proven over the past 80 years. By utilizing recycled products for its energy production, the company remains competitive through fluctuating markets. This allows for daily quality control measures to ensure the consistency of products from various sources.

REMOVAL

Industry-wide, 2020 fuel compliance has created the need for innovation as lowering greenhouse gas emissions is the top agenda. With proven removal of Primary Air Pollutants by exhaust scrubbers using HFO, an estimated 3,500 units are expected to be installed worldwide by December 2020 according to SP Global Platts. Benefits include the removal of particulate matter



and sulfur oxides while producing lower CO2 emissions than vessels using LNG as fuel.

With Jamaica and the Caribbean's commitment to meeting international environmental targets, it will take effort by all to create the real changes necessary for improvement. If renewable forms of waste resources continue to be produced, then RYCO-JA will be playing a crucial role in taking recycled products to their final form.

Grand Cayman: BATTLE LINES HARDEN

Much has already been written (both for and against) about the proposed building of Grand Cayman's new US\$ 240 million cruise terminal and associated cargo handling facilities.

In fact, the project must be one of the mostly hotly debated and most contentious cruise terminals anywhere in the Caribbean – maybe the world. The cases for and against are compelling and, perhaps, show that in the Caribbean – as increasingly elsewhere – the cruise industry is finally encountering a backlash to its previously unchallenged position as an ever-growing bringer of tourists and their tourist dollars.

It seems that Grand Cayman has proved a tough battleground with entrenched positions on both sides of the argument as commerce meets environmentalism head on in what could prove to be a blueprint for other Caribbean islands facing a similar choice between development and conservation.

SHOWDOWN

There was a time when the construction of new terminals and even entire tropical islands for the cruise shipping industry was only opposed by the wilder extremes of the environmental lobby. But with environmentalism growing globally, the atmosphere is changing and tiny Grand Cayman has somehow proved the Caribbean focal point for such a showdown.

Those in favour of the four-berth Georgetown terminal (and that includes the government) argue that without the building of the terminal Grand Cayman will slowly lose much of its cruise business.

Operators of the biggest classes of cruise ships (and we are mostly talking about Royal Caribbean and Carnival here) have already declined to call at Georgetown with these larger vessels because there are

no walk-ashore facilities and each vessel requires the tendering of passengers.

Georgetown has been welcoming around 1.8 million passengers each year and the new terminal would allow this figure to increase by around 0.7 million and, so the government insists, create more jobs on Grand Cayman.

Other supporters of the new terminal include, hardly surprisingly, many small businesses such as those involved in water sports, boat owners, tour operators, restaurants and marine-related attractions. Many of these are members of lobby group the Association for the Advancement of Cruise Tourism in the Cayman Islands (ACT). But some tour operators also oppose the project.

On the other side of the argument are those who see no need for the any cruise terminal and consider its construction to be

environmentally damaging. There are also those who feel that Grand Cayman already has enough cruise tourists and that 2.5 million passengers a year is just too many for an island of just 196 sq km. It's fair to say that not all of these opponents are locally based and there is a broad international environmental coalition lined up against the project including those in the dive sector, coral reef experts and marine biologists.

ECOSYSTEM

The environmental case is largely one of concern for the marine ecosystem in general and about the coral degradation in particular. About 15 acres of reef will be impacted as will some of Grand Cayman's most popular dive sites. The island's famed Seven Mile Beach could also be affected as natural sand replenishment would be impacted.

The impact on Grand Cayman's largely irreplaceable coral reef would be dramatic, they say. And even taking into account the severe restrictions being placed on the project by the government.

There appear to be fewer worries about the actual number of arriving passengers. In fact, if 2.5 million passengers could be tendered ashore in much the same way as now then this would not necessarily be an issue for some.

To resolve matters, Cayman Islands will now hold a referendum sometime this year (it was to be held on 19 December, 2019) on whether the scheme should go ahead or not. It could be a case of Caymanians joining destinations such as Venice in being less than enthusiastic about the cruise shipping sector. Let's wait and see.



Yingna Cai / Shutterstock.com

About 15 acres of reef will be impacted as will some of Grand Cayman's most popular dive sites. There appear to be fewer worries about the number of arriving passengers





INTRODUCING CENTER PCS
CENTER PCS is a secure, cloud-based software solution that connects and integrates governmental and private sectors into a Single Window system

POWERED BY ITPARTNER

Introducing low-code software development with CENTER SUITE for increased efficiency at terminals and ports around the globe



CENTER SUITE



GET ON BOARD

START PROMOTING YOUR BRAND ACROSS THE CARIBBEAN



For further information on advertising in Caribbean Maritime contact Land & Marine Publications

Tel: +44 (0)1206 752902

Email: advertising@landmarine.org

www.landmarine.com



SWINGLIFT, INNOVATING SINCE THE 1960'S

Swinglift sideloaders provide fast, safe, profitable and productive solutions with superior stability and high payload.

Large organization or an owner-operator, Swinglift is unquestionably the ideal sideloader to improve the productivity of any business.



www.swinglift.co.nz

Head Office FR : +33 251 21 21 21

New-Zealand Office : +64 7 348 7746 Australian Office : +61 7 3271 5888 Caribbean/South America : +55 11 99424 5655



caribbean shipping association

A GALA NIGHT OF GLITTERING PRIZES

The Caribbean Shipping Association's Port Awards are always the most eagerly anticipated event at its AGM – held in October 2019 at the Barceló Bávaro Palace hotel in Punta Cana.

The recent event was no exception, with ports and terminals across the Caribbean vying for a variety of awards including the two most highly coveted titles of Container Terminal of the Year and Multipurpose Terminal of the Year at

the glittering Gala Dinner, which traditionally closes each AGM.

This year's worthy winner of the Container Terminal of the Year was Sociedad Portuaria Regional de Cartagena (SPRC) – an award the port has picked up several times previously.

While the Ludlow Stewart Multipurpose Terminal of the Year went to Trinidad's Point Lisas Industrial Port Development Corporation (PLIPDECO).

Other awards were presented to:

- The Dominican Republic's Haina International Terminals (Port Dependability and Flexibility)
- Manzanillo International Terminal (Port Efficiency and Productivity)
- DP World Caucedo (Growth, Development and Improvement)
- Guadeloupe Port Caraïbes (Port Security)
- Puerto Rico-based shipping agent Luis Ayala Colón (Port Environment and Safety)



CONTAINER TERMINAL OF THE YEAR
Sociedad Portuaria Regional de Cartagena (SPRC)



LUDLOW STEWART MULTIPURPOSE TERMINAL OF THE YEAR
Trinidad's Point Lisas Industrial Port Development Corporation (PLIPDECO)





MAKING WAVES

CFL AGENCIES HAS BEEN MAKING WAVES FOR A YEAR OR SO NOW. OF COURSE, THERE ARE PLENTY OF FLORIDA-BASED NVOCCS BUT THIS ONE REALLY DOES SEEM TO HAVE STIRRED UP THINGS SINCE ITS MARKET ENTRY IN JANUARY 2019



Caribbean Maritime speaks to CFL Agencies' chief executive David Ross and formerly of SeaFreight Agencies:

Q. When was CFL Agencies set up and why?

A. CFL was formed in early 2019 in response to ongoing requests from the trade for responsive and personalized customer service in the region. It has been heartwarming to see the way clients continued to reach out to us and encourage us to enter the trade. We have had a lot of fun in doing so and made a lot more fans of CFL as we build the business.

Q. Would it be unfair to say that CFL has some similarities to SeaFreight Agencies, but without the hardware?

A. CFL is a customer service driven organization and many on our team do come from the SeaFreight days, which was known for high-performance, high-quality customer service culture. That's the real similarity. CFL's focus every day is on service, service, service. Although hardware is important, the level of customer service and where every detail counts is our primary approach.

Q. When did CFL move into the headquarters office at Riviera Point and what was the strategy here?

A. CFL moved into its current location in October 2019. We had temporary offices in Miami as we waited for the building at Miramar to be completed. It's newly built, energy efficient and well equipped with communication redundancies and work-flow efficiencies. The team loves the office space and it was important to have a certain work flow in the space. Since we work from the office as well as remotely due to regular travel etc, the space is designed to be comfortable with ease of communication within the office. There is an excitement with the CFL team for what we do and how the trade is responding. It does not feel like "work". We were fortunate getting into the building in the earlier phase which has allowed us to secure additional adjoining space to support 2020 expansion.

Q. During recent months CFL has opened new offices in Suriname, Jamaica and Guyana. Do you have any plans to open further offices throughout the region?

A. The response from the trade has been so positive that we go where the trade directs us. Expansion is always our goal but it has to be done where we bring value to the clients and to our stakeholders.

There does not seem to be a limit to where that takes us, so we go step by step, market by market. Opportunities lead to opportunities. Our product is what opens the doors.

Q. Which carriers out of South Florida are you using?

A. We are pleased to have a number of carriers to work with that allow us to offer

multiple service opportunities to the trade or even multiple sailings on one trade lane. We respect the carriers and the truckers and other service providers that we work with and believe in being good corporate partners in any relationship. It has to be a fair and mutually beneficial relationship.

Q. Do you ever see CFL moving from NVOCC to full vessel operating regional container line?

A. Anything is possible as opportunities arise, however our current model and business plan is for an asset-light model which has proven to be a reliable and cost-effective way to provide quality service to the clients.

We have a service profile that when mixed with the right combination of sailing schedules, trucking/inland services, quick turnaround of documentation, allows us to be nimble and responsive to the trade.

Q. Is CFL Agencies purely concentrating on FCL cargoes? If so, why?

A. We are an FCL-neutral NVO which allows the real LCL experts to do their thing and maximize their service level to the clients in combination with our handling of their containers.

Strength and strength has to be a win/win for the trade and the end-users. There is no reason in our opinion to get out of our lane at this time.

Q. What is CFL's frequency of service to its various destinations?

A. Weekly or multiple sailings per week depending on the trade. We are very excited about the business we're developing from Asia and Europe to the Caribbean/LATAM and this takes on a whole different dynamic to what we do in terms of frequency of sailings, service offerings etc. North America/Caribbean/LATAM is our bread and butter, but the opportunities that the trade is presenting to us for global growth is very encouraging.



Q. Does CFL own/lease any of its own containers? If so, how many and of what type?

A. We do not own/lease containers at this time as this would add an element of costs and duplication of assets already in the trade. The combination of what we offer together with our partner carriers is really where we get the most competitive and efficient service to the end-users.

Q. How pleased were you when CFL Shipping Montego Bay was appointed agents by CMA-CGM? And is CFL looking to act as a shipping agent in other locations where it has a physical presence? Or was this a one-off?

A. We are very pleased to have been chosen for this opportunity by one of the world's largest carriers as it signified that our service level was to the point where we have been recognized – not only for what we're doing on our own behalf as CFL, but what we can do together with a carrier to bring that true end-to-end service to the trade. CMA-CGM has been a great partner to work with in the region as a whole and we are excited about the relationship and what further opportunities are open to us in the future. The future is bright and we are grateful to our clients and partners for the opportunities.



Caribbean Shipping Association's 49th Annual General Meeting

BARCELÓ BÁVARO PALACE DOMINICAN REPUBLIC 7-9 OCTOBER 2019

2019
October 07 - 09

Dominican Republic

2019
October 07 - 09



OPENING RECEPTION >>



COCKTAILS >>



AGM DAY ONE >>



AGM DAY TWO >>



AGM DAY THREE >>



DAY THREE CONTINUED...



DINNER >>



FOR MORE ON THE PORT AWARDS SEE PAGE 32 >>



CSA Training Programs

Training programs are being offered to members of the Caribbean Shipping Association (CSA) at a cost of US\$ 150 per attendee per training seminar. Course material for each training seminar will be made available on the CSA's website and Social Pages by 31 January. Accommodation is available at each hotel at a specially negotiated rate for attendees. Please follow the CSA Social pages to keep informed. www.caribbeanshipping.org

Interested persons can contact the CSA at:
4 Fourth Avenue, Newport West. Kingston 13.
Jamaica, West Indies.

Email: csa@cwjamaica.com.

Phone: +1876 923-3491

MARITIME CYBERSECURITY TRAINING WORKSHOP

LOCATION: The Intercontinental Hotel, Panama City, Panama

DATES: March 16-18, 2020

REGISTRATION DEADLINE: February 28, 2020

NEGOTIATION SKILLS TRAINING AND MANAGING CONFLICT

LOCATION: The Savannah Hotel, Bridgetown, Barbados

DATES: April 20-22, 2020

REGISTRATION DEADLINE: April 03, 2020

MARITIME CYBERSECURITY TRAINING WORKSHOP CONTINUATION

LOCATION: The Hilton Hotel, Montego Bay, Jamaica

DATES: May 4-6, 2020

REGISTRATION DEADLINE: April 17, 2020

MARITIME CYBERSECURITY TRAINING WORKSHOP

LOCATION: Miami Courtyard Airport Marriott, Florida, USA

DATES: October 12-13, 2020

REGISTRATION DEADLINE: October 14, 2020

PORT BRIEFING

1 CURAÇAO ST ANNA BAY

CPA has implemented the first phase of its St Anna Bay master plan as it redevelops some of its waterfront for non-commercial use.

Late last year, the CPA signed a contract with JCC Development which in 2020 will commence the first phase of this master plan.

The project known as The Wharf will be built on an area of 4,000 m² on "Kleine Wherf" (also known as Kop of Scharloo). The project comprises a complex of 35 luxury apartments with an investment of approximately ANG 20 million. CPA will act as 'landlord' and maintain ownership of the waterfront area.

2 JACKSONVILLE BLOUNT ISLAND

The US Department of Transportation has awarded JAXPORT a US\$ 20 million grant for terminal improvements at Blount Island. The funds will be used for the reconstruction of more than 100 acres of existing terminal pavement at the SSA Marine Jacksonville Container Terminal. These enhancements will increase efficiency and allow the terminal to accommodate more containers on an expanded footprint.



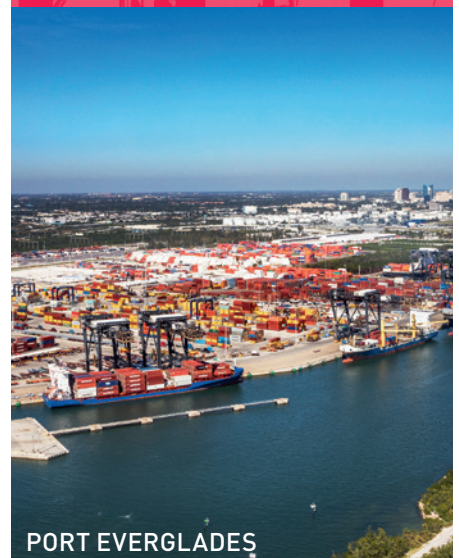
BLOUNT ISLAND

4 PORT EVERGLADES NEW, SUPER POST- PANAMAX CONTAINER GANTRY CRANES

Production is well underway on three custom-designed Super Post-Panamax container gantry cranes destined for Port Everglades. The cranes, being manufactured by Shanghai's Zhenhua Heavy Industries Co (ZPMC), are reportedly the largest low-profile container gantry cranes ever designed and built.

Each crane is valued at US\$ 13.8 million, and all three are expected to arrive in Florida for commissioning in late September 2020. Port Everglades also has an option to purchase up to three additional cranes.

At the same time, Port Everglades is also working with the US Army Corps of Engineers to deepen its navigation channels from 42 feet to 48-50 feet and to widen narrower sections of the channel for safe vessel passage. Currently in the pre-construction engineering and design phase and after receiving federal authorization at the end of 2016, the project is not anticipated to be completed until 2025.



PORT EVERGLADES

3 CURAÇAO COOPERATION AGREEMENT

The Curaçao Ports Authority (CPA) has signed a Cooperation Agreement with Haina International Terminals (HIT). The agreement was signed by CPA chief executive Humberto de Castro and HIT director Luis de León.

The agreement starts a cooperation that facilitates the exchange of information pertaining to the regional cargo industry. The exchange of information also includes statistical data, port traffic control systems and cargo project developments. In addition, both parties will study the possibility of increasing maritime traffic in both operating ports, work towards educational exchange visits and promote the advantages of doing business at both ports. The signing of the agreement fits in with the strategy of CPA to forge alliances with international industry stakeholders of strategic value.

5

PORT EVERGLADES

COLOMBIA TIES

Port Everglades and Sociedad Portuaria Regional de Barranquilla (SPRB) have signed a memorandum of understanding as part of a joint sister seaports agreement.

As Port Everglades' fifth largest trading partner and as Colombia's largest Caribbean Sea port, SPRB has agreed to enter into an MOU to promote bilateral trade. Port Everglades' trade with Colombia has increased by around 30 per cent over the last four years.

The two ports want to establish an alliance of cooperation aimed at facilitating international trade and generating new business by promoting the sea trade routes between the two countries. The MOU outlines joint initiatives, including marketing activities and market studies, training, and sharing of information on technology, modernization and improvements.

6

PORT MANATEE

CARGO RECORDS

Port Manatee has again broken multiple fiscal year cargo records, including topping 10 million tons of total annual throughput for the first time in its 50-year history and enjoying a year-over-year increase of nearly 50 percent in containerized cargoes.

In its fiscal year (ended 30 September), the Florida Gulf Coast port established new highs in total tonnage, containerized cargo units and tons as well as liquid and dry bulk tonnage. The 12-month period is the sixth consecutive fiscal year in which the port has set a new total cargo tonnage record.

CRUISE NEWS

1



PORT ZANTE

ST KITTS

With the completion of its new US\$ 48 million cruise pier, Port Zante will now be able to accommodate three Oasis class ships.

The project was financed locally, with US\$ 5 million coming from the country's Citizenship by Investment Program, which has proven highly successful in raising foreign direct investment. Through legislation established back in 1984, the program enables folks from around the world to essentially buy citizenship in St. Kitts & Nevis without the need to prove any previous connection to the islands, or pass any linguistic or cultural examinations. Applicants must, however, pass all due diligence checks prior to consideration for the program.

2



PORT CASTRIES

ST LUCIA

Carnival Corporation and Royal Caribbean Cruises have agreed to form a joint venture in order to manage the existing cruise pier and terminal facilities in St Lucia, and to design, construct and operate a new cruise port on the island.

Under a memorandum of understanding (MOU), signed with the government of St Lucia, the parties would establish a long-term concession agreement to formalize the terms and responsibilities for the joint venture to manage and operate the current cruise pier and terminal facilities at Port Castries.

In addition, the joint venture would design, finance, construct and operate a new cruise port in Vieux Fort on the southern part of the island that will be able to accommodate the latest and largest cruise ships. Vieux Fort is located close to Hewanorra International Airport, which itself is undergoing a major transformation.

Together, the two cruise operators currently account for around 75 per cent of all cruise ship deployment to St Lucia

CRUISE NEWS

BARBADOS

Cruise passenger numbers in Barbados hit a record high in 2019.

Barbados Port Inc. says cruise passenger arrivals totaled 853,200 during the year and there were 422 cruiseship calls – the highest on record.

This is a 3 per cent increase in arrivals over 2018 at the Port of Bridgetown and beat the previous high set in 2017.

Barbados has also recorded significant growth in its homeporting operations. There were some 227,192 homeporting arrivals at the Port of Bridgetown in 2019, a 15.6% increase over 2018. Homeporting calls declined slightly from 157 in 2018 to 153, but number were up thanks to deployment to the island of larger capacity ships.



PORT OF BRIDGETOWN

EB Adventure Photography / Shutterstock.com

BARBADOS

Barbados Port Inc (BPI) has invited Expressions of Interest from potential joint venture partners for the design, construction, operation and management of a cruiseship pier and ancillary facilities at Speightstown on the northwest of the island.

Barbados hopes such a facility would super yachts and small luxury class cruise vessels segments of the cruise industry.

The proposal to develop cruise facilities in Speightstown is expected to create growth opportunities for residents and existing businesses in the area. BPI has also invited Expressions of Interest from potential joint venture partners for the design and construction of additional berths and ancillary facilities in the Shallow Draught at the Port of Bridgetown.

6

DAMEN AND MARIS TO TACKLE SEAWEED

Damen Shipyards Group and Maris Projects have joined forces to tackle the issue of invasive Sargassum seaweed in the Caribbean region. The work of the two companies is expected to greatly increase knowledge of bioprocessing, leading to the design of efficient and scalable technologies with the capability to deliver both environmental and socio-economic benefits.

A significant – and to date, inexplicable – rise in the quantity of sargassum in Caribbean waters and along its shores, has been recorded in recent years. The weed is causing considerable problems in the region. Aside from the stench it gives off when decomposing, which has led to beach closures, the seaweed also clogs the engines and nets of fishing vessels. Additionally, it is also smothering sea grasses and coral reefs as well as releasing greenhouse gases as it decomposes.

To attempt to find a solution, Damen Green Solutions has partnered with Maris. Damen's role in the partnership is to use a specially developed MultiCat for harvesting, preprocessing and transportation sargassum. Maris brings experience in scalable preprocessing and anaerobic conversion technology. With this, the consortium is assessing the viability of turning the sargassum into methane for energy purposes.

The two partners have identified a local operating partner – CMC – that can harvest the seaweed in Martinique and Guadeloupe. Currently, the partners are discussing a contract that will create the consortium to be known as Blue Caribbean Energy Solutions. The consortium aims to collect and purify sargassum, then turn it into biogas via a two-step process.

7

SAJ

In December, Charles Johnston was voted in for another year as Shipping Association of Jamaica president.

Mr Johnston is the executive chairman of Jamaica Fruit & Shipping Company and also chairman of the Jamaica Producers Group as well as being a member of the board of Kingston Wharves Ltd. The election also returned Grantley Stephenson to the post of vice-president.

4

ANCHOR AWARDS 2019

The 2019 Anchor Awards, held in New York in October, saw the American Caribbean Maritime Foundation honor three distinguished industry veterans: Greg Purdy, senior vice president of Marine Operations for Royal Caribbean International, Captain Remy Vyzelman, President/CEO of Integra Marine & Freight Services and David Harding MBE, past president of the Caribbean Shipping Association, and Barbados Port Inc.

Honorary Gala Chair, Roland Malins-Smith, former Anchor Awards honoree and ACMF donor, spoke to a room full of maritime sector executives and professionals, underscoring his unwavering commitment to the students of the Caribbean with maritime industry ambitions, saying, "I remain steadfast in my support for students who deserve every opportunity to improve their lives."



DAVID HARDING MBE, CAPTAIN REMY VYZELMAN, GREG PURDY

STARBOARD BRIEFING

3

ALL CHANGE AT KWL

Grantley Stephenson, chief executive of Kingston Wharves (KWL) and a past president of the Caribbean Shipping Association (CSA), has announced he is stepping down after 47 years working in the shipping and shipping-related sectors. Nevertheless, Mr Stephenson will continue as non-executive deputy chairman.

Since his appointment to the position of KWL chief executive in 2003, Mr Stephenson has overseen a near seven-fold increase in revenues and a very significant improvement in profitability. He also steered KWL into new value added and complementary areas such as free zone management and logistics.

Mark Williams, the former chief operating officer, has been appointed KWL's chief executive.

1

DAMEN SIGNS COLOMBIA DEAL

Damen Shipyards Group signed a technical cooperation contract with Colombia shipyard Cotecmar. The contract will see Damen provide design, engineering and technical assistance for the construction of a scientific marine research vessel.

Cotecmar, which operates two shipyards in Cartagena, will build the hydrographic and oceanographic research vessel for the Dirección Marítima Colombiana (DIMAR) at its Mamonal facility. The 83-meter vessel will be the largest and most complex vessel ever to be built in Colombia.

DIMAR will operate the vessel in Colombian waters, both Pacific and Caribbean, and will also sail it to the Antarctic.

5

PRSA NEW PRESIDENT

Mr Eduardo Pagán has been appointed president of the Puerto Rico Shipping Association (PRSA).

Mr Pagán replaces Hernán Ayala who had served for more than 10 years as the president of the Association and who has been an active member of the Caribbean Shipping Association (CSA).

2

CUBA - NEW FLOATING DOCK

Cuba has increased its shiprepair capacity following the arrival from China of a new 65,000-ton capacity, 240-meter length, floating dock.

The US\$ 34 million dock, which is located in Havana and built by the Huarun Dadong Dockyard, has been mostly financed by the Chinese government and as part of a 15-year loan to the local Ministry of Finance & Prices.

The new dock allows Cuba to repair Panamax size vessels for the first time since 2012.

The dry dock will be managed by the state-owned Caribbean Drydock Company, and is the largest and most modern floating dry dock in the Caribbean.

A STABLE SHIPPING MARKET AGAINST AN UNCERTAIN ECONOMIC BACKGROUND

CONTAINER MARKET

Globally charter rates for all container ship sizes up to 2,500 TEU peaked in late September/early October and have since follow a sideways path. This positive development had to a very large degree been driven by the installation of scrubbers which takes a substantial number of ships out of the market for about one to two months at a time. By the middle of December for example a total capacity of over one million TEU was temporarily not available due to yard stays.

The segment of 2,500 TEU constitutes, with over 100 ships, the largest category of ships trading in Caribbean/Americas related trades. For Europe to Americas trades, charterers employ almost exclusively high reefer ships of at least 500 plugs. For intra Caribbean/US Gulf, ECSA or WCSA trade about two thirds of the ships are of high reefer specification.

The surplus tonnage which had built up in the Atlantic during the summer due to several Transatlantic service up-sizings had largely been absorbed by the end of the year – either in new European services or by ballasting to the Asian trading area. As a consequence, charter rates for 2,500 TEU ships in the Caribbean recovered a bit and reached USD 10,000 levels again after several ships had to fix low USD 9,000 rates during

September and October.

Despite the improving tonnage supply and demand situation, high reefer ships were still barely able to achieve a premium rate compared to standard 2,500 TEU ships and not all ships were able to secure new business with one ship for example having been idle for eight weeks and counting.

About 45 vessels in the 1,700 TEU size range are currently trading in the Americas, mainly in intra Caribbean/US Gulf and WCSA services. This size category proved to be the top performer during the last couple of months. Relatively scarce supply kept charter rates at levels around USD 10,000 with only a slight discount for one fixture with a period of up to two years. One factor in favor of the 1,700 TEU ships were two service upgrades from the 1,300 TEU scale. The upsizing to 2,500 TEU of a WCSA service, currently run with 1,800 TEU ships appears to have only a small effect on the Caribbean market as several of the soon-to-be-displaced ships are scheduled to leave the area towards Asia and a further one has been taken in by a US reefer operator.

The niche market of 1,300 TEU high reefer ships, about 20 are at the moment trading in the Caribbean area, stayed strong up until November with rates coming very close to USD 9,000. Although not yet seen, some

pressure on rates could arise as two such ships fell into Caribbean spot positions in December and the sisters trading short term at much lower rates in the Mediterranean are always looking at the better paying opportunities in the Americas.

For intra-Caribbean trade the 1,100 TEU segment remains the most crucial one with over 50 ships currently plying this market. Parallel to the other size segments the 1,100 TEU market did present an unspectacular picture during the last couple of months with stable charter rates around USD 7,000. Eco-ships also continued to achieve a sizeable bonus with around USD 2,000 more than the standard ships.

The 1,100 TEU segment also nicely illustrated owners' different mindsets. One owner positioned his ship towards Europe right after the Caribbean charter ended in order to minimize the idle days, while another owner speculatively positioned his ship from the Mediterranean, albeit with paying cargo, to the Americas without any consecutive business. The second owner was probably betting on the rate difference of close to USD 1000 for Americas' trade compared to the Mediterranean.

The market for sub 1,000 TEU was rather uneventful during the last couple of months. Charter rates varied little amongst the 700 to 950 TEU ships, all ranging between mid/high USD 6,000 levels. Some ships, especially in the 700 TEU size, however, had to deal with idle days between employments.

Overall, scrubber-fitted ships are still a rare occurrence in the Caribbean area, but

For intra-Caribbean trade the 1,100 TEU segment remains the most crucial one with over 50 ships currently plying this trade.



about a handful of 1,700 TEU and 2,500 TEU ships have been fixed for multi-year periods in the recent past. Most of them are however still being fitted and are scheduled to start sailing in the first quarter of 2,020. For ships under 10,000 TEU, scrubbers have so far not been very popular and on average less than 5% of the fleet has so been retrofitted up to today. In the Americas, scrubbers are most likely to be even less popular as the charters are commonly fixed with a base rate and a percentage split of the actual bunker cost savings, for example 80 to 20 percent in owner's favor. The price difference between traditional 3.5% sulfur content heavy fuel oil and the new 0.5% sulphur content alternative fuel though is lower in the Americas than on the other side of the Atlantic: US West Coast 160\$, US East Coast 230\$ and US Gulf 240\$ compared to northern Europe 300\$ or Mediterranean 350\$.

On the infrastructure side, the port of Freeport (Texas) has recently announced a planned expansion of its existing container terminal until 2022. The terminal already offers 15 meters water depths but only a berth length of 240 meters. With the projected additional 320 meters berth lengths the port would open up the possibility to accommodate very large container carriers whereas today the largest ships calling the port have a nominal intake of 3,500 TEU. Upgrades of existing services are only possible for one service presently run with 3,500 TEU ships. The other two services are reefer focused and unlikely to change but whole new route options could open up after the upgrade.

CONTEX

	CONTEX	12 MONTHS, 1100	12 MONTHS, 1700	12 MONTHS, 2500
Sep 19	442	6,441	8,704	9,540
Oct 19	444	6,334	8,653	9,760
Nov 19	440	6,262	8,703	9,798
Dec 19	438	6,227	8,612	9,891

MACROECONOMICS

The global economic outlook for 2019 has continuously been lowered throughout the year. The International Monetary Fund (IMF) predicted 3.5% global growth in January this year but revised this down to 3.0% for 2019 in October. The expectation for 2020 now stands at 3.4% with trade growth of 3.2%.

For the Caribbean, the outlook however is well below the global average, the IMF predicts 0.2% in 2019 and 1.8% in 2020 for the Caribbean and Latin America. The United Nations Economic Commission for Latin America and the Caribbean (ECLAC) estimates economic growth for the Caribbean to reach 1.4% in 2019 and 1.5% in 2020. A positive development with respect to trade is that goods production increased faster than services.

Growth projections from the neighboring regions are subdued as well. The South American countries are expected to post the lowest growth in seven years for 2019 and to the North it also looks like a slowdown as the US GDP growth figures have come down from 2.9% in 2018, 2.4% in 2019 and 2.1% in 2020. The newly agreed trade agreement between the US, Mexico and Canada could

however bring back more security for investors and boost trade in the region.

In Venezuela, the political change, many had hoped to see from "parallel" president Juan Guaidó has so far not materialized and looks far more unlikely than at the beginning of the year. Meanwhile the economic downturn is hard to measure as official figures are lacking. Fresh US sanctions have forced crude oil production and exports further down and Venezuelan bonds also reached new record lows towards the end of the year. So far about 4.7 million people have fled the country and forecasts expect this number to increase to 6.5 million by the end of 2020. Container shipping lines continue to rely on ad hoc calls as only six ships are still employed in regular services to Venezuela.

As the traditional partner Cuba also suffers but still hopes to post 0.5% positive growth in 2019. The population however is to some degree also experiencing fuel, water and food shortages. In order to deviate from the Venezuelan connection, the country is looking towards Europe and Asia where it agreed on a cooperation with France and China to promote foreign trade. Similar to Venezuela the number of ships calling Cuba

has also decreased throughout the year and now stands at only five regular container vessels.

Clouds are now even forming over the region's powerhouse Colombia. Growth is still forecasted to exceed 3% in 2019 and 2020 but recent social unrest, refugees from Venezuela, higher unemployment rates, lower exports and manufacturing growth of only 1.5% all point to slower trade expansion in the future.

SALE & PURCHASE OF CONTAINER TONNAGE IN THE CARIBBEAN

The most prominent development on the sales front has been the, mainly bank-driven sell-off, of container tonnage from one German owner who had previously sold his Caribbean liner business in late 2018. Several 700 and 1,100 TEU ships are currently for sale or have recently been sold, some being idle for longer periods before the sale.

In addition to those sales, one Caribbean-trading 2,500 TEU ship changed hands from one German owner to another and a Greek owner snapped up another CV 1,100 type ship, thereby expanding his count of this type of vessel to 17.

One 700 TEU geared ship was sold to European end users but was replaced by another 700 TEU geared charter ship coming from Europe. The trend of a shrinking 700 TEU geared fleet is not only a Caribbean phenomenon but also a global one as some ships that are being sold, are afterwards used for general cargo rather than for container trade.

In general, ship prices have come under pressure towards the end of the year as the banks were pushing lots of tonnage into the market while purchase interests and charter rates did not increase/improve.

When looking at newbuildings, almost all orders for smaller container ships in recent years have been for Eco-Bangkok-Max types (1,700 to 1,900 TEU). Currently the orderbook for 2020 holds about 40 such ships, all of those however are projected to be delivered as gearless ships. Those new Eco-ships are much more fuel economic than the 1,700 TEU vessels currently plying Caribbean- and Americas-related trades. Fleet numbers however indicate that those ships will not

SELECTED CONTAINER FIXTURES

SUB 1,000 TEU - CELLED

Sep 19	Falmouth 862 TEU / 585@14 / 19on38 / 204rp	11-13 months	US\$	7000	p/d
Oct 19	Runa 647 TEU / 390@14 / 18on27 / 116rp	6 months	US\$	6800	p/d
Nov 19	Sunway X 698 TEU / 436@14 / 17on27 / 120rp	1 month gearless	US\$	6400	p/d

1,100 TEU - GEARED, CELLED

Oct 19	Asian Trader 1118 TEU / 700@14 / 20on42 / 220rp	3-6 months	US\$	7200	p/d
Nov-19	Bc Singapore 1118 TEU / 700@14 / 17on39 / 220rp	6 months	US\$	7100	p/d
Nov 19	Toronto Trader 1103 TEU / 706@14 / 18 / 220rp	6-8 months eco ship	US\$	9000	p/d

1,300 TEU - GEARED, CELLED

Sep 19	As Felicia 1296 TEU / 957@14 / 20on45 / 390rp	11-13 months	US\$	8700	p/d
Oct 19	As Floretta 1296 TEU / 957@14 / 20on47 / 390rp	4-7 months	US\$	8750	p/d
Oct 19	Arsos 1296 TEU / 957@14 / 20on45 / 390rp	3-7 months ECSA trade	US\$	8900	p/d
Oct 19	As Fabiana 1296 TEU / 958@14 / 19on45 / 390rp	5-6 months high reefer trade	US\$	10000	p/d

1,700 TEU - GEARED, CELLED

Sep 19	San Portland 1841 TEU / 1293@14 / 22 / 462rp	5-7 months high reefer trade	US\$	10950	p/d
Oct 19	Hansa Meersburg 1732 TEU / 1275@14 / 21on64 / 300rp	5-8 months	US\$	10000	p/d
Nov 19	Cerinthus 1728 TEU / 1275@14 / 19on48 / 345rp	1-2 months	US\$	10000	p/d

2,500 TEU - GEARED, CELLED

Sep 19	Calais Trader 2526 TEU / 1828@14 / 21on72 / 394rp	11-13 months	US\$	9500	p/d
Oct 19	Mariner 2339 TEU / 1780@14 / 19on48 / 500rp	3-5 months eco ship	US\$	13500	p/d
Oct 19	Antwerp Trader 2490 TEU / 1868@14 / 19on74 / 566rp	2-4 months	US\$	9000	p/d
Nov 19	Buxlink 2478 TEU / 1914@14 / 22on84 / 410rp	7-9 months	US\$	10300	p/d

cross the Pacific to in the Americas in the near future. At the moment there are about 260 1,700 TEU ships trading in Asia and the majority, 140 of those, are still of older designs. Of the 120 new Eco-ships only 20 are geared.

As the replacement potential of older types in Asia is still substantial and the more

than three weeks positioning voyage from Asia to the Caribbean will become even more expensive under IMO 2020 regulations, it is highly unlikely to see those ships any time soon in the Americas. Before facing unemployed waiting times in Asia, though, the standard types might make the "investment" to cross the Pacific if the demand is there.

Advanced analytics

in the shipping industry



Data is an invaluable commodity. As such, there is an ever-increasing focus on harnessing this raw material to gain valuable insights in order to make sound business decisions.

Technology can consume data and derive meaningful intelligence in the form of data-driven forecasts and recommendations. It is quite impossible to obtain viable, cost-saving results without the right data. This is accomplished using advanced analytics such as:

- **Big Data** (organization of and access to large amounts of data from a range of sources) and
- **Data Science** disciplines such as *Predictive Analysis* (predicting future events) and *Artificial Intelligence* (simulating human thought processes and decision-making)

Data is becoming the focal point of discussions within industries, where strides have been made to automatically capture traditional structured data such as text and share it between systems. Based



on the increased availability of information of all kinds via the internet, the discussion has now expanded to include Big Data, which is the new terminology on everyone's lips. Big Data deals with the analysis of data from both structured and unstructured forms. The broad nature of these datasets requires a non-traditional approach to analysis and control.

LIFECYCLE

The shipping industry handles large volumes of data on an ongoing basis. Details of the shipping lifecycle are generated, tracked and updated real-time at various points before being archived: arrival/departure times, cargo manifests, barcode scans, photographs of cargo items and much more. There is an increased interest in taking advantage of these pieces of data to grow and manage stakeholders' wants in the industry. Therefore, Big Data provides access to a vast array of possibilities. Predictive Analysis enables a scientific approach to achieving operational efficiency, such as intelligent tracking of incoming vessels versus available port facilities, leading to timely and optimal berth and terminal allocation decisions; similarly, Artificial Intelligence can assist in identifying cargo damage from video footage at check-points or provide better visibility to support yard management operations.

Real-time analysis of data can provide shipping stakeholders with valuable insights into multiple stages of the shipping process, facilitating critical checks and balances automatically

Keeping an active eye on a vessel and its contents is a complex, error-prone undertaking. Challenges such as delayed transit and misplacement of containers in and outside of warehouses or terminals are a constant threat to cargo safety and security. Real-time analysis of data can provide shipping stakeholders with valuable insights into multiple stages of the shipping process, facilitating critical checks and balances automatically with minimal human intervention (except where issues are detected). Specially designed systems can quickly obtain and integrate important information using electronic data interchange (EDI) processes, barcode and radio frequency identification (RFID) technology and optical character recognition (OCR) processing and use it to generate useful key performance indicators (KPIs), insights and alerts that can be accessed by management teams via real-time dashboards.

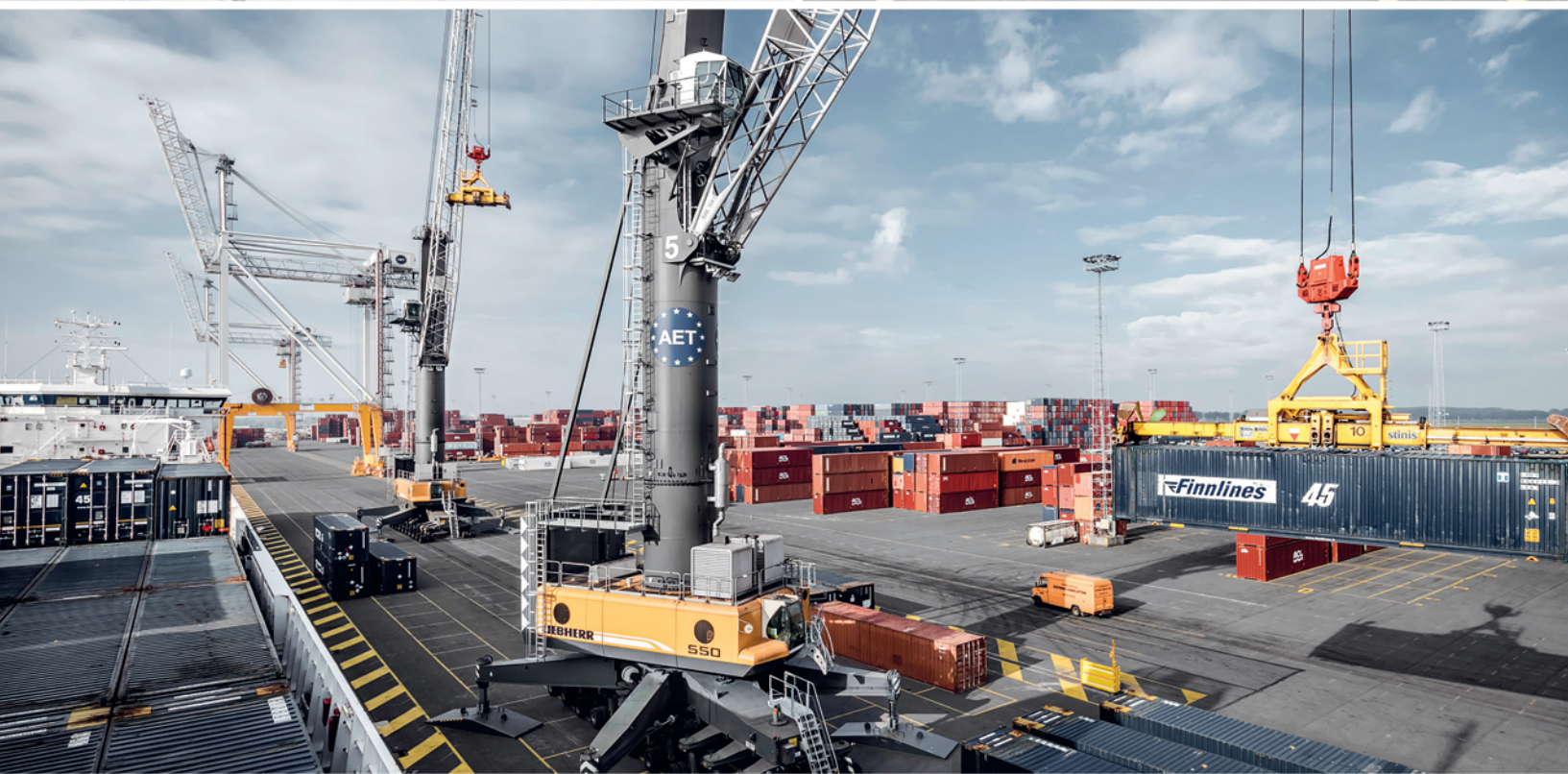
A port management system that harnesses Big Data Analytics will enable

enhanced vessel and container tracking, helping to mitigate the inherent risk associated with the complexities of vessel, yard and gate management. Operational efficiency will be supported by dynamic demand forecasting, placement decisions that minimize unnecessary moves and robust cargo monitoring and delivery systems that ensure that correct cargo location and status can easily be ascertained.

UNPRECEDENTED

This era of globalization and unprecedented technological advancement is revolutionizing the way we do business. Adopting a well-tuned, data-driven approach to port and freight management will greatly enhance competitive advantage by providing the necessary transparency as well as monitoring and measurement tools to effectively manage risks while maximizing throughput and operational efficiency.

Experience the progress.



Liebherr Port Equipment

- Ship to Shore Gantry Cranes: Future ready design solutions for operational excellence
- Reachstacker: 25-30% less fuel consumption than conventional Reachstackers with torque converter drive system
- Mobile Harbour Cranes: Strong @ far out: 150t at an outreach of 32m
- Mobile Harbour Cranes: LiUP crane driver elevator saves the drivers energy and time
- Proven Liebherr quality and full support for our products and service through our maritime hub in Miami

CMA CGM CAGEMA

Weekly, direct and fast dedicated service
from USEC & Canada to Caribbean



St John's

New York

Savannah

Miami

Kingston | Rio Haina | Philipsburg | Pointe a Pitre | Port of Spain | San Juan
Barcadera | Georgetown | Paramaribo | Montego Bay | Roseau | Basseterre
Bridgetown | Campden Park | Castries | Fort de France | Point Lisas
Road Town | St George's

CMA CGM Strengths :

- Vessels %100 operated by CMA CGM
- More direct destinations from Canada, USEC and Florida to Jamaica, Dominican Republic, St Marteen, Guadeloupe, Trinidad, Grenada, St Vincent, St Lucia and Barbados
- Fast connections in Kingston providing optimum coverage of the Caribbean, Guyana, Suriname
- Break Bulk and OOG handled by dedicated project team



Please contact your CMA CGM Sales Representatives: www.cma-cgm.com