Optimizing shipping channel capacity

PMAC 20th AGM Grand Cayman

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- The Sea is Rising, Fast • How to handle more, larger ships • Seven Sins of Insecure Leaders
- Potential of New Technology to Revolutionize Port Efficiency

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To foster operational and financial efficiency, and to enhance the level of service to the mutual benefit of Caribbean Ports and their stakeholders, through the sharing of experience, training, information and ideas.

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Members and affiliates of the Port Management Association of the Caribbean (PMAC) go to Grand Cayman in June for that Association’s 20th Annual General Meeting. At the time of going to press, expectations were that this could be the largest meeting of the PMAC since its inception.

They will be joined by a number of entities that supply machines, equipment, goods and services to the maritime industry.

To place this event in perspective, it is important to acknowledge that the Caribbean Sea washes the shores of many sovereign states and overseas territories. This sea of nations includes four language groups — English, Spanish, French and Dutch. And, the economic survival of these countries rests heavily on maritime transportation, not just for the movement of domestic cargo and exports; but for Tourism as well as international cargo transshipment.

There are more than 50 active cargo ports in Caribbean and Caribbean-rim countries and even more cruise ship ports. The Port Management Association of the Caribbean, by bringing the operators and decision-makers of many of these ports together, has sustained a dialogue for development. And because the business of the PMAC is relevant and specific to effective port operations, its meetings have been attracting greater numbers over the years. Indeed, attendance at PMAC annual conferences has increased by almost 100% over the last five years.

One measure of the expanded interest in the PMAC, apart from attendance at annual conferences, is the growth in readership of PORTSIDE CARIBBEAN. Since its first edition in the autumn of 2014, this magazine has experienced an exponential growth in readership; a steady increase in subscription requests for the electronic and print versions; and, a broadening of interest to include countries beyond the Caribbean Sea.

“Since its first edition in the autumn of 2014, this magazine has experienced an exponential growth in readership; a steady increase in subscription requests for the electronic and print versions; and, a broadening of interest to include countries beyond the Caribbean Sea.”

— Mike Jarrett
Editor

Efficiency in moving, storing and delivering cargo rests heavily on marine ports and terminals. Inefficient or unreliable port operations will render any voyage a financial disaster and will eventually put shipping lines out of business.

Inefficiency of seaports can and often does impact the price of goods on the shelf. And in a world driven by price competitiveness, the need for port managers and port operators to sustain a forum for dialogue, sharing of best practices and building of networks was never more crucial. The dialogue and information flow among and between port owners; terminal and wharf managers and their suppliers must be on-going.

It is against that background and in the context of a global supply chain that demands comparative levels of efficiency and high quality standards that PORTSIDE CARIBBEAN presents this ninth edition, as a tool for regional development. •

Mike Jarrett
Editor
The 20th Annual General Meeting of the Port Management Association of the Caribbean (PMAC), scheduled for June 21, 22 and 23 in the Cayman Islands is anticipated to be the largest in the history of the Association.

The luxurious Marriott Resort on Grand Cayman is the venue for the 2017 gathering of Caribbean port managers; port and terminal operators; and port authorities. However, PMAC forums are not exclusive to port and terminal managers and operators. A number of Associate Members have already registered to attend, including a range of public and private corporate entities and educational institutions. In this regard, brands such as Alixum, Bridgetown Cruise Terminals, Caribbean Shipping Association, CBCL, CEI.BA, Lamar University, Novaport International/Eastern Designers, Caribbean Maritime University, Octopi, Saam Smit Towage, ADVANTUM, SOGET, and Stevedoring Services Ltd. will be represented in George Town.

Representatives of other brands (that are neither members nor affiliate members of the PMAC) have also registered for the event. In this regard, brands represented in Grand Cayman will include: Liebherr, Connor Industries, Konecranes, Taylor, Ocean Dredging, Transas, VeRope, Transportation Technology Associates, Certified Slings, Hybur and Hyde, among others.
A number of experts will make presentations over the 3-day event, including:

- **Hugo Van de Graaf**, Director at Dutch Dredging;
- **Krista Lucenti**, Trade and Integration Economist at the Inter-American Development Bank;
- **Bob Clarke**, Director of MetalCraft Marine;
- **Todd Mitchell**, President of NAVENCO, and
- **Jim Quinn**, President and CEO of Port Saint John. Topics to be addressed include:

  - Yacht Market Outlook
  - Correct planning, equipment and the practice of safety protocols for mitigating the risks of life in ports
  - Oil spills in ports: how to plan, prepare, mitigate, react
  - From Vessel Traffic Service to Ship Traffic Control. Natural evolution of modern solutions
  - Improving warehouse operations through automation
  - Business intelligence – the power of your data
  - Current trends in ferry service and blue sky vision for Caribbean routes
  - Dredging and Towing service at Degrad des Cannes
A new university rises in the Caribbean in September 2017. The Caribbean Maritime University (CMU) has completed the rigours required to gain accreditation and international recognition as a respected, degree-granting academic institution.

As of September 2017, the Caribbean Maritime University, main campus in Kingston, Jamaica, will take its place among the specialized maritime universities of the world. It will open its doors to accept students from anywhere on the planet into a world of mutual respect and academic discipline. It will be introducing new programmes and expanding courses previously delivered by its predecessor, the Caribbean Maritime Institute. This will require extensive internal reformation and rebranding, much of which are already planned or being implemented.
The establishment of the CMU had to be done by law. And the requirements under Jamaican law are complex and extensive. The CMU Bill completed its passage through the two houses of the Jamaican parliament, the House of Representatives and the Senate, on April 12, 2017. The process took five years and engaged two government administrations, parliamentary elections having taken place during the period.

Technically and academically equipped to nurture and qualify maritime professionals at all levels, the CMU is already planning developmental changes. It is anticipating a fairly rapid increase in student intake and, accordingly, of faculty and staff.

The base lines and projections that underlie CMU’s plans for development are the product of empirical data gleaned over 37 years (since 1980), from the operations of the Jamaica Maritime Training Institute (turned Jamaica Maritime Institute) which begat the Caribbean Maritime Institute, which begat the Caribbean Maritime University.

Deniece Aiken, CMU’s Director of Legal Affairs recently reviewed the process of change and how it will impact students and employees of the former Caribbean Maritime Institute.

Q: What is the major difference between a University and an Institute?
Aiken: An institute is an entity that holds a more focussed mandate, such as training in science and technology or agricultural studies. The level of prestige associated with the word institute however, varies according to jurisdiction. For example, in the United Kingdom (UK), the word institute is associated with organizations that perform very high levels of research. However, in the United States of America, it is associated with the least reputable schools. In Spain, secondary schools are called ‘institutes’ and in Korea the word is associated with private schools.

University, on the other hand, is a title conferred upon the largest and most established institutions, including multiple colleges, schools or faculties. The main focus is progressive research (academic and applied) in a variety of areas. The word carries the same level of importance and standing worldwide.

Q: How will this new status affect current programme, projects and students?
Aiken: Operations will generally remain the same but there will be improvements. Current students, with success, will become graduates of the Caribbean Maritime University. All materials bearing the name Caribbean Maritime Institute will be replaced. Additionally, there will be upgrades in infrastructure, branding among other things. The approval to proceed to a legal name-change is just one part of the transition. Transition is a process and will take a number of years for us to fully complete it.

Q: What is the exact date of the name change?
Aiken: We will officially change the name on Charter Day, that is, the day the Governor General signed the Bill into Law. This is expected before the end of September 2017.

With its technology-driven tutelage, a robust international network and solid experience over almost four decades of honing and nurturing the careers of maritime professionals, the Caribbean Maritime University rises in 2017 to carry on seafaring traditions that have characterised the history of the Americas for more than 500 years.
Neptune series lubricants are the only fluid chemistry fully compliant with the 2013 VGP, U.S. EPA Clean Water Act and U.S. Coast Guard Surface Force Logistics Center EAL Standards. But why stop there? Neptune lubricants outperform fully-saturated synthetic esters, vegetable oils and bio-PAOs. And they last longer in your submerged equipment. That's a whole lot of upside. Let's talk today.

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In 2014 the government of the British Virgin Islands (BVI) adopted plans developed by its port authority to upgrade and expand the port at Road Town. One year later, Tortola Pier Park was meeting the demands of growing cruise ship business.

The vision for development was to facilitate Road Town hosting more cruise passengers and, by so increase revenue inflows and strengthen the economy of the British Overseas Territory. The territory comprises four main islands and a number of small ones. Tortola is the largest of them all and is the site of the capital, Road Town.

The new development included plans to host larger class cruise vessels and to provide a seamless transfer of passengers from ship to shore. The cruise pier was lengthened to 1,312 feet and widened to 60 feet so as to accommodate a multi-million dollar cruise, retail and event space built along the waterfront edge. This development, named Tortola Pier Park, is built on approximately five acres of land immediately adjacent to the cruise pier.

The development of Tortola Pier Park was timely. It was important to upgrade the infrastructure of the port to meet the demands of the cruise industry and to seize the opportunity for growth and development. The time was right to build a pier in order to accommodate larger cruise ships and to develop a facility that would create new opportunities for the population.

Operational for just over a year, Tortola Pier Park now has 16 kiosks, one cabana, and 11 buildings. Seven of the buildings are two-storey structures; one has a third floor and the remaining four are single storey buildings.

The new development provides cruise passengers an improved visitor experience, with more leisure and shopping within walking distance. The total Road Town experience is spread across 64 businesses offering food and beverage options, retail shops, banking services, medical services, car and bike rentals as well as other ‘island activities’. There is also a Tourist Information facility.

**TRAINING**

Tortola Pier Park Ltd. determined that it was imperative to ensure the highest level of customer service was always delivered and that an exceptional guest experience should be its main focus. To this end, the operating company has trained Customer Service Ambassadors and Multilingual greeters on duty during vessel calls.

“Customer service at Tortola Pier Park is our most valuable asset and, as such, we ensure that every member of the team is trained and equipped to provide exceptional customer service. Regular training is provided quarterly for all customer-facing personnel throughout Tortola Pier Park. Training courses are designed for management and staff of Tortola Pier Park Ltd, security personnel, cleaners, ground staff, vendors and sales staff,” said Dona Regis, CEO of Tortola Pier Park Ltd.

“Customer service plays a very important part in the effective management and operation of any customer facing facility. When guests come to Tortola Pier Park, we want them to not only enjoy our tranquil and captivating facility but we also want them feel welcome and appreciated at every point of contact while at the facility.”

Since its opening on February 16, 2016, the BVI’s new cruise and shopping facility has been receiving “positive feedback” from visitors and residents. Its beautiful architecture, ambience, cleanliness, customer service and shopping options have been the main points for comment.
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Email: PMAC groach@barbadosport.com; CMI-SAS oforrest@cmi.edu.jm
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The fear that sea levels will rise and wipe out whole communities and industries has become reality. Sea levels are rising rapidly and now there are numbers, measurable rates, to prove it. There may be differences as to the rate of the increase but there is global consensus: sea levels are rising and at an accelerated rate.

Scientific predictions range from conservative to aggressive. Some predictions estimate sea levels could increase by as much as one metre (three feet) above present levels before 2100. One recent study predicts that sea levels could be twice that, two metres (6ft.6in.) by the end of the current century. This latter prediction, scary to say the least, was published by the Climate Institute1.

Regardless, it is already 2017. There is not a lot of time to prepare and take action.

HERE IS WHAT WE KNOW

• With just a one meter increase in sea levels, 35 of 44 CARICOM seaports and their surrounding port lands would be under water.

• Sea levels have been increasing at twice the average speed as that recorded over the past 80 years. Scientists in the service of a broad range of regional and multi-lateral organizations and agencies agree on this fact. National Geographic summarised the data in a recent edition: “Core samples, tide gauge readings, and, most recently, satellite measurements tell us that over the past century, the Global Mean Sea Level (GMSL) has risen by 4 to 8 inches (10 to 20 centimetres). However, the annual rate of rise over the past 20 years has been 0.13 inches (3.2 millimetres) a year, roughly twice the average speed of the preceding 80 years.”

• The cause of sea level rise is anthropogenic climate change (i.e. global climate change caused by human interaction with the environment).

• The impact of sea level rise will not be felt in the same manner or degree in every country or locale. Areas with the same water level increase may experience totally different social and economic impacts. However, the highest increases will be close to the Equator, which puts the Caribbean and Latin America at great risk.

• Sea level rise will continue, although collective global action may slow the rate. Even with the most optimistic projections of global reduction in production of greenhouse gases, given current levels in the atmosphere ensure, the rise in sea levels will continue.

• Most major Caribbean cities are built on plains close to the major sea port and are therefore at great risk.

THREE CAUSES

There are basically three causes of sea level rise, according to National Geographic: (a) thermal expansion; (b) melting ice at the Earth’s polar caps and glaciers; and, (c) ice loss from Greenland and West Antarctica.

(a) When water heats up, it expands. This lesson is taught early in a child’s academic life with a beaker and Bunsen burner. It is estimated that as much as half of the increase in sea level rise recorded during the past century was due to the world’s oceans getting warmer.

(b) The increased warming of the Earth’s atmosphere, depicted in dramatic video documentaries, has caused the melting of some of the planet’s largest ice formations. Massive ice shelves collapsing into polar oceans; graphic images of shrinking polar ice caps all testify to a massive and continuing global ice melt. Normally, these huge ice caps and glaciers at the poles will melt during summer months but snow from evaporated sea water replenishes the ice mass during the winter. As National Geographic (Global Warming: Sea Level Rise) points out: “… persistently higher temperatures caused by global warming have led to greater-than-average summer melting as well as diminished snowfall due to later winters and earlier springs. This imbalance results in a significant net gain in the ratio of runoff to ocean evaporation, causing sea levels to rise.”

(c) Similarly, increased heat on the planet is causing the ice that covers Greenland and Antarctica to melt rapidly. Scientists are of the opinion that water from melted snow above and sea water from below is seeping below the ice sheets of both Greenland and Antarctica creating a lubricating effect that makes them move more quickly into polar oceans.

IMPACT ON THE CARIBBEAN

With relatively few exceptions, most major cities of the Caribbean are built at or just above sea level. The highest population densities are in the major cities and towns close to the shore. Rising sea levels will therefore have far-reaching social implications. The Caribbean region depends heavily on tourism, this industry representing a significant percentage of each country’s national economy. The World Travel and Tourism Council (WTTC) estimated that tourism represents just under 15% of Gross Domestic Product (GDP) and 13% of employment in the Caribbean. But the regional figures tend to hide the reality. Tourism accounts for than 25% of GDP in most countries and more than 50% in many.
The Caribbean’s main tourist attractions are the breath-taking vistas of the Caribbean Sea; magnificent coral beaches and some of the most fascinating submarine reefs on Earth. Most of the infrastructure and superstructure for tourism, including airports are at, or about, sea level and by the coast.

In 2010 more than 670 major resorts in the CARICOM group of countries were listed for an analysis by Caribsave and the United Nations Development Programme (UNDP). Of that number, resort infrastructure of 149 were at risk to a one metre increase in sea levels. However, the study noted that, when the beaches were taken into account, “… a much greater proportion of damage would be lost to inundation and accelerated erosion well before resort infrastructure was damaged.” Major resort properties at significant risk to a one metre increase in sea levels were 73% in Belize; 64% in St. Kitts and Nevis; 46% in the Bahamas and 33% in Trinidad and Tobago.

Tourism however would not be the only economic sector to be devastated. Transportation would be severely affected by a one metre increase in sea levels. With a one metre increase in sea levels, one of every three airports within the CARICOM group of countries would be inundated; more than 550 kilometres of roads would be under water, with entire communities marooned.

“Ports of the Caribbean need to turn talk into action. Now is the time to identify and protect natural barriers; measure and document vulnerabilities; and, study alternatives.”

Agriculture was considered less vulnerable. Sandy shorelines are not choice land for agriculture and so farming is usually done in the hinterlands. Notwithstanding, although loss of crops and farm lands would be relatively minimal, indirect impacts relative to irrigation and food supply would affect the agricultural sector.

As sea levels rise and salt water reaches farther inland destruction and devastation will multiply. Destructive erosion of infrastructure and machinery will slow production. Flooding of wetlands and spawning habitats will destroy tens of thousands of species — flora and fauna. As sea levels rise, there will be flooding of aquifers, reducing availability of drinking water. Agricultural soil will become increasingly contaminated and food production will decline.

Tropical storms and hurricanes will generate devastating storm surges, ravaging what remaining infrastructure is left in already drowning cities. Social unrest and human tragedy will mount as hundreds of thousands of people are forced to abandon coastal areas they have occupied for generations but which are now vulnerable to flooding. Low-lying islands which now enhance a tourist destination’s product will be largely under water while some will completely disappear.

PREPARATION AND STRATEGY

Most predictions say the warming of the planet will continue and is likely to accelerate. “Climate change and sea level rise are already threatening our viability and even our existence as sovereign nations,” said Baron Waqa, chair of the Alliance of Small Island States (AOSIS), at the 2014 United Nations Climate Summit in New York City. And even sceptics who had previously denied the reality of climate change have taken a different attitude in recent years. Cities along California’s coast line, many of which had dismissed reports of climate change or had lagged in preparing for rising sea levels, are making plans to fortify their beaches, harbours and water fronts.

“Communities up and down the coast have begun drafting plans to build up wetlands as buffers against rising tides, to construct levees and seawalls to keep the waters at bay or to retreat from the shoreline by moving structures inland.” [Los Angeles Times, March 6, 2011.]

Ports of the Caribbean need to turn talk into action. Now is the time to identify and protect natural barriers; measure and document vulnerabilities; and, study alternatives. Artificial barriers must be carefully inspected and assessed for upgrading and strengthening.

Reviews of current zoning laws in the context of climate change and rising sea levels must be initiated. Similarly, a complete review of architectural and engineering design and construction standards must be undertaken. And above all, governments need to initiate and sensitize populations to the risks and threat of rising sea levels.

Planning for this reality will take a long time. And it will take even longer to implement those plans. Even the most optimistic predictions suggest that major, capital intensive solutions will be required.

It is already 2017. There is not a lot of time.

1. Founded in 1986, the Climate Institute was the world’s first organization focused solely on climate change. Since its founding, the Institute has been instrumental in moving climate change onto the international agenda, fostering collaboration between developing countries and richer nations, and in launching and implementing pioneering studies and initiatives on subjects.

**AAPA ELECTS NEW BOARD CHAIRMAN**

The American Association of Port Authorities (AAPA) elected Steve Cernak, to serve as the association’s chairman of the board for the 2017-18 activity year that begins in October. He was elected at the AAPA 2017 Spring Conference. Cernak, chief executive and port director at Port Everglades, is slated to be installed as chairman for a one-year term at AAPA’s 106th Annual Convention, October 1 to 4, in Long Beach, California. He will replace Mark McAndrews, Port of Pascagoula’s port director, who began his one-year term on October 26, last.

Steve Cernak has led Port Everglades as port director since March 2012. His seaport career covers more than 30 years of public and private sector experience. He was port director and chief executive at the Port of Galveston; president of the Galveston Port Facilities Corporation; and, he served as manager of the Port Development Department for The Port Authority of New York and New Jersey.

“Seaports in the Western Hemisphere are facing global challenges that affect the way we trade and support the communities where we live and work,” said Cernak. “I’m looking forward to supporting AAPA’s commitment to advancing security, trade, transportation, infrastructure and environmental initiatives that create economic and social value for all of our member public ports and the communities they serve.”

Since 1999, Mr. Cernak has served the AAPA in different capacities and on various committees, including: Cruise Committee, Curriculum Committee, Maritime Economic Development Committee, Harbors and Navigation Committee; as a member of the association’s Board of Directors; and, chair of the AAPA’s U.S. Legislative Policy Council.

**BELIZE NAMED IN TOP 5 CRUISE DESTINATIONS; HAVANA ON TOP**

Belize, the former British Honduras, was named in the “Top 5 Summer Cruise Destinations” by Cruise Lines International Association (CLIA). The world’s largest cruise industry trade association (with more than 60 member cruise lines, representing around 90 percent of global cruise capacity) announced in April its top five “must visit” destinations for 2017.

Havana topped the list, for its “historic beauty, culture and music. The Galapagos Islands were rated in second spot, touted for its diverse wildlife and lush greenery. The Northwest Passage was ranked third, for its polar adventure during warm summer months and the range of activities – bird watching, kayaking, polar bear sightings. Fourth was ‘Exotic Africa’ and its offerings of urban beauty and shopping (in Cape Town); “stunning safaris”; and Africa’s “famously varied cuisine.”

Describing Belize as ‘a Diver’s Dream’ the CLIA said cruise travellers will be surrounded by beach beauty and ancient culture, as well as some of the most famous diving spots in the world.

“This coastal spot offers nearly unbroken lines of reefs and cays that make for excellent diving views, as well as a high concentration of ancient Mayan ruins to explore. Cruisers can take part in excursions both onshore and off with hikes through lowland jungles full of impressive wildlife and crystalline rivers; snorkelling off silk-sand beaches and mountain biking through vast rainforests.”

**MSC CRUISES TO INCREASE MARKET SHARE**

MSC Cruises is expected to increase its market share by the end of this year, from 7% to 11.6%, to become the third largest cruise company in the world, according to the 2017-2018 Cruise Industry News Annual Report. According to the report, the privately-owned MCS will increase passenger capacity at an average annual rate of just under 10% over the next 10-years, from about 1.8 million passengers in 2017 to 4.4 million by 2027. In this scenario, Norwegian Cruise Line Holdings, whose brands are expected to carry 2.2 million passengers this year, would drop to fourth place with 3.6 million passengers and a market share of 9.5 percent in 2027. Carnival Corporation, although expected to remain the largest cruise company, is expected to experience a decline in market share over the period, from an estimated 44.1% to 40.7 percent in 2027. Carnival’s brands, presently with a total annual passenger capacity of more than 11 million, will be able to carry 15.5 million by 2027.

According to the Cruise Industry News Annual Report (which claims to be “the only book of its kind, presenting the worldwide cruise industry through 400 pages”), Royal Caribbean will also see its market share slip a bit from 23.9 percent this year to 21.6 percent by 2027. Its estimated annual capacity now is about 6 million passengers and will be 8.3 million in 10 years. [Source: 2017-2018 Cruise Industry News Annual Report.]
DUNN’S RIVER UPGRADE TO BENEFIT JAMAICA’S CRUISE INDUSTRY

Recent upgrading of Jamaica’s Dunn’s River Falls attraction is expected to enhance the country’s tourism product. The new $122-million Central Gardens theme park at Dunn’s River is expected to attract increased numbers of cruise passengers to Jamaica’s north coast. The country’s Urban Development Corporation officially opened the Central Gardens on March 23, with its state-of-the-art theme park, complete with a water slide and splash pad. Dunn’s River Falls currently attracts about 800,000 visitors annually but this is expected to increase with the added attraction of the Central Gardens.

Meanwhile, the country’s Minister of Tourism, Edmund Bartlett declared Jamaica intention to increase annual cruise passenger arrivals to 2.5 million over the next four years. The country received 1.66 million cruise passengers in 2016. In this regard, he said Jamaica was “committed to ensuring the guest experience is not just good; is not just excellent; but, exceptional.” The Minister said steps had already been taken toward this end. He outlined the change from Resort Boards to Destination Assurance Councils and the appointment of Destination Managers (starting with the Falmouth cruise port) and the allocation of JAD$1 billion to provide a safe and enjoyable environment. This initiative will include a public education programme. The Minister made his comments during a meeting with a visiting delegation from the Florida-Caribbean Cruise Association (FCCA) in April.

GUYANA DEPLOYS NEW PATROL BOATS

Two new high-speed patrol vessels were commissioned by the Guyana Defence Force Coast Guard on March 29. The two (Metal Shark 38 Defiant) were named GDFS1033 and GDFS1034. The Metal Shark 38 Defiant is a 38-foot, rigid hull, aluminium craft. The vessels is offered with different motorisation fits and reports are that the boats acquired by the GDF are fitted with three 300HP four-stroke Yamaha V6 4.2L gasoline outboard engines for a maximum speed of 50 kt.

SAN JUAN PIER SLATED FOR $2.8 M. UPGRADE

Royal Caribbean Cruises and the Puerto Rico Ports Authority will collaborate in a development project to upgrade the Pan American II Pier in San Juan. This initiative is to support the deployment of the Freedom of the Seas to San Juan for the 2018 cruise season. The upgrading project is estimated to have a value of $2.8 million. Freedom of the Seas will home port in San Juan as of next year and will be offering seven-day cruises to the Eastern Caribbean Cruises, casting off from the Pan American Pier Terminal II. Work projects include: dredging; upgraded bollards; restrooms remodelling; improvement to baggage inspection areas; improvement of the boarding bridge; addition of more check-in counters; and improvement to safety checkpoints.

ST. LUCIA PLANS $15 M. UPGRADE AT POINTE SERAPHINE

The Breasting Dolphin Berth at Pointe Seraphine is to be extended to facilitate at a cost of US$15 million. The announcement was made in April by the country’s Minister for Ports, Stephenson King. He cited a need to place emphasis on the improvement, development and the enhancement of the cruise facilities and infrastructure of the country.

Quoted by local media, the Minister said: “This Government has made a firm commitment not only to improve Port Castries and to consider a new location for the establishment of a new commercial port but also to continue to improve on the cruise ship facilities and by extension to look to the south of the country to establish a major cruise port in the south in Vieux Fort that will compliment a number of the economic initiatives that the Government has committed itself to.”

Once the berth is completed, St Lucia expects an increase of 20% in vessel calls to Port Castries and an increase of 19% in passenger arrivals.
ROAD TOWN LOOKING GOOD WITH TORTOLA PIER PARK

Road Town, one of the most gorgeous cruise destinations in the Caribbean that the crowd doesn’t know about yet, is looking even better these days, thanks to the development of Tortola Pier Park. Road Town is the capital of Tortola, the largest of the island-group that is The British Virgin Islands (BVI). One year after the start of implementation, the project to upgrade and expand the offerings of this ancient harbour town, was operational. The objective was to create a facility, which would attract more cruise business; increase revenue inflows and thereby strengthen the local economy of the BVI. The cruise pier was lengthened to 1,312 feet and widened to 60 feet so as to accommodate a multi-million dollar cruise, retail and event space built along the waterfront edge. This development, named Tortola Pier Park, is located on approximately five acres of land immediately adjacent to the cruise pier.

GUYANA HAS OIL, LOTS

ExxonMobil (NYSE:XOM) has been mining oil off Guyana's coast and on March 30 formally announced that the company found 25 meters of “high-quality oil-bearing sandstone reservoirs” at its Snoek well in the Stabroek block. The company had previously found oil in the Stabroek’s Payara and Liza fields. This latest find is estimated at 1.4 billion barrels of light oil. Exxon’s announcement was built around three points:

- Snoek well encounters more than 82 feet (25 metres) of high-quality, oil-bearing sandstone reservoirs
- Well is located about 5 miles southeast of Liza-1 discovery
- ExxonMobil continues to evaluate full resource potential of broader Stabroek area

“The latest discovery at Snoek demonstrates the continued success we have achieved in this technically complex play, which is just part of the significant exploration province offshore Guyana,” Steve Greenlee, president of ExxonMobil, said in a March 30 statement. As was stated, Exxon is continuing to evaluate the potential of the broader Stabroek area.

[See Political Perspective with Canute James]
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The continuing surge in commercial vessel sizes is putting pressure on port authorities to ensure that their ports have the capacity to meet growing demands. Ports must ensure that they can offer safe access to the facility. Shipping lines need to know that it is safe to access the ports. For small ports, those with one or two ships per week, this may not be a big concern. However, ports with several ships per day, including cruise ships, find it important to safeguard access and protect vessels using their facility.

Traditionally, channel capacity expansion projects are usually associated with large investments; damage to the environment; and, perhaps, perpetual maintenance of the channels because of sand incursion. Less intrusion on the environment reduces the probability of damage. And this is particularly important to a marine environment which is already under severe stress from climate change and rising sea temperature, among other issues. Given this situation, it has become necessary to adopt a new approach.

An integrated approach for optimizing shipping channel capacity and port operability is now possible; is available; and, indeed, advisable. This new approach combines the information about the bathymetry of the access channel and approach areas, integrating information about i.e. wind, waves, water level and currents and knowledge about each ship, its physical outlines and its navigation capacity. All this information is combined in computer models, which provide prognoses and guidance to both ship and the port management. A port manager will know all about current depths in the access channels and the ship captain will get information about “under keel clearance.” This method enables port authorities to operate their ports and access channels in the most optimal way and, potentially, reduces and minimizes the costs for traditional access channel maintenance and deepening. Several port authorities have already taken advantage of this new approach, including the Port of Brisbane, Australia, and have been able to accommodate more ships with less waiting time for approaching ships.

Nonlinear Channel Optimisation Simulator (NCOS) – a new approach

DHI and a partner have collaborated to develop this new technology for quantifying and optimizing ship channel operability. For the port manager it gives access to day-to-day information about the navigational conditions in the access channel and the information can be provided to all approaching vessels, which can then utilise the information to calculate the under-keel-clearance (UKC).

The Nonlinear Channel Optimisation Simulator (NCOS) has two core applications:
1. Integrated full 3D channel capacity optimisation assessments, which incorporate vessel response dynamics and long-term dynamic time series of vessel traffic and accurate environmental conditions (wind, waves, tide, currents); and,

2. Operational forecasting (online) and scheduling of safe UKC windows for depth constrained vessels, incorporating 5-day to 10-day forecasts of all governing environmental conditions. With the knowledge gained from NCOS, ports and waterway operators can now operate their port facilities and capacity in a much smarter way than relying on traditional methods. This is likely to lead to significant reduction of dredging costs, as compared to the use of conventional methods.

For strategic planning and design purposes, NCOS provides a clear identification of all constricted parts of the approach channel with respect to grounding risk; and, estimates the associated dredge volumes required to meet operational criteria. It also utilises High-Performance Computing (HPC) to maximise the accuracy of vessel UKC response. The advantage is that it can incorporate long-term variations in environmental conditions along the shipping channel, like the spatial and temporal changes in waves and the currents.

**Reduced environmental impact**

The environmental impacts of establishing new (or deepening) existing access channels can be substantial. In the Caribbean Sea, the impacts may hit some of the most precious and vulnerable biological societies on Earth. The typical damage caused by dredging is the direct loss of habitats. But the damages can easily spread due to, for example, sediment spills (in which fine sediments are spread by the currents and settle on the seabed). This impacts seagrass beds, coral reefs and other important habitats.

Some dredging operations may also require the use of explosives to remove bedrock. The shockwaves from blasting can spread wide and can do serious damage fish and shellfish cultures. The noise from blasting can also cause wide-scale injury to marine mammals. Many of the marine features mentioned above are the very ones that attract tourists to the Caribbean and sustain national economies.

If the dredged material cannot be utilized for land reclamation or other land based activities, the strategy has often been to dump the material offshore in deeper waters. However, even in deeper waters, the biology can be very important to protect. And covering important seabed habitats with sediments is not exactly environmentally friendly.

Changing from the traditional approach in access channel management towards modern IT-based systems may increase port capacity, lower costs for dredging and reduce the typical environmental impacts, increasing the green image of the port.

**Case study**

The Port of Brisbane is one of Australia’s fastest growing container ports and is Queensland’s premier multi-cargo port, handling almost AUD 50 billion in trade annually. Among a large suite of commitments, the Port of Brisbane Pty Ltd (PBPL) is responsible for the maintenance and development of the port facilities, as well as for ensuring navigable access for commercial shipping.

As vessel sizes increased and demand for Australian ports to accommodate these larger vessels grew, the port considered options to deepen its navigational channel. Initial estimates of capital dredging costs were very high. PBPL therefore required a comprehensive channel capacity assessment so as to avoid being too conservative in making decisions about deepening the channel. In other words, PBPL needed to find the safest, most accurate and flexible solutions to guide their capacity expansion plans.

In order to accommodate stringent demands for a more accurate and cost-effective channel optimisation solution, it was essential to develop an integrated hydrodynamic model of the entire port and navigational channel, covering both aspects of channel capacity and general vessel operability within the port.

The new integrated model enabled PBPL to study several different variables related to the port’s ongoing capacity planning and management. It provided a clear identification of grounding risks in all constricted parts of the approach channel and estimated the dredge volumes required to meet target operability and other criteria.

With PBPL now having a thorough understanding of the capacity and operational capability of the channel and associated berths, they were able to make accurate, cost-efficient decisions and safely handle the larger vessels of the future. And the savings of reduced dredging costs easily paid-off using the advanced and modern NCOS modelling system.

The NCOS approach will be presented in detail during the workshop PMAC — Portside Port Managers Workshop, planned for Panama in January 2018.

**Simon B. Mortensen, Jesper Goodley Dannisoe, Henrik Kofoed-Hansen**, DHI are associates of the Port Management Association of the Caribbean.
The quest for sustainability of Caribbean ports over the last three decades has rested heavily on expansion of infrastructure; investment in port equipment; and, environmental issues. Global forces of scale and technology and limited capital to invest have impacted these ports over this 30-year period. The need for efficiency and effectiveness to meet new industry demands has however led many Caribbean countries to heavy borrowing or into joint-ventures and partnerships with port developers and other players in the industry. Nevertheless, many Caribbean ports have been slow in adopting and conforming to major impacts including technology and equipment upgrade.

**Sustainability**
In addressing issues of sustainability, questions arise, including:
- Does port productivity justify investment in new technology and infrastructure, if examined in isolation?
- Is port performance in the Caribbean hampered by a lack of competition because many ports have full monopoly power over cargo movement?
- Does the reluctance of many Caribbean governments to privatize their ports have significant impacts on sustainability?

In the quest for sustainability, these and many other questions should be addressed.

Annual investments by Caribbean ports amount to approximately US$300 million. Financing this level of investment on an on-going basis presents a regional challenge.

The overall strategy for improving Caribbean port operations should include legal reforms that encourage competition and regional cooperation. It should also address the need for technical assistance to improve labour and infrastructure efficiency.

The majority of Caribbean ports face significant obstacles. They must overcome the unfavourable economies of scale that are characteristic of the industry because the present volume of cargo does not, in the short term, appear to justify the large fixed capital cost needed to secure more efficient port operations. One cargo container-handling crane, for example, has a price tag of about US$8 million. Costs of administration and support services are also greatly influenced by economy of large scale.

Another challenge is: smaller vessels moving less than container load (LCL) cargo generally serve many of the smaller ports and this directly affects per-unit shipping costs.

**Cooperation and coordination**
In the quest for sustainability, Caribbean ports need to improve cooperation between port authorities and the shipping companies serving the region. The establishment of major hubs and spokes could provide benefits for the entire region. In this regard, coordination and cooperation among these ports to facilitate growth in transshipment, where cargo is moved to and from intermediate hub ports on the way to its final destination, should be encouraged.

Transshipment allows the use of larger and more specialized vessels and takes advantage of economies of scale at the major hub ports. Transshipment is extremely attractive to ports because it adds cargo volume to the local trade, making operations that are otherwise uneconomical profitable; and, investment in expensive infrastructure viable. This in turn, leads to direct benefits for local traders and consumers. It increases the number of services that call at the port, while lowering unit costs of merchandise.

**Antigua takes a bold step**
The government of Antigua recently received kudos in the media for its “... forward thinking in a transformational rebuilding and redevelopment of the deep water harbour at the Port in St. John’s.” This port upgrade, according to Insight Magazine, will further
strengthen Antigua’s claim to be a regional commercial and tourism hub and ties in with the investment and growth strategy of the country, enhancing existing strategic positioning. According to the article, this will have significant positive knock-on effects by attracting major developers and investors looking for the best opportunities and return on investment in the Caribbean. Insight states that new innovations and technology have been embraced in the port upgrade that will improve efficiency, safety, the user experience and environmental protection.

The magazine pointed out that the vision was to leverage the Port’s potential so that it moves beyond simply receiving, storing and distributing cargo but more directly to contribute to social improvement and economic growth. This will also help to improve efficiency and engagement with the private sector to engender increased trust from the shipping lines and to increase economies of scale that will benefit importers in Antigua. This will position the Antigua port as a Specialized Economic Zone (SEZ), serving the entire Eastern Caribbean countries.

**Sustainability and port development**

With the opening of the new locks at the Panama Canal, many ports in the Caribbean, including cruise terminals, are further expanding their facilities to accommodate larger ships and increased maritime traffic. And, experts have pointed out that the Caribbean is home to 47% of global cruise tonnage. Because of this reality, Caribbean ports have found themselves in a never-ending cycle of port expansion to accommodate the latest generation of cruise ships. While governments never recover the capital cost of massive expenditure on cruise terminals, those countries that fail to expand do so at their peril. Unfortunately, many ports have not included sustainability concerns in their expansion and development plans, for example, garbage reception.

Another reality for many countries in the Caribbean is high population density, exacerbated by the large numbers of visitors every year. In some destinations, on a cruise day, the local population may be exceeded by the volume of visitors arriving.

In those countries, domestic waste management has been a significant national issue. And the addition of ship waste only serves to place an onerous burden on local waste-management infrastructure, which is already inadequate.

While this has been the case in the Caribbean, environmental sustainability has been a growing concern for port authorities, policy makers, port users and local communities. As a remedy, innovation can provide a solution to the main environmental issues but such initiatives are sometimes met with resistance by some interest groups. While certain types of technological or organisational innovations can be satisfactorily analysed, in the case of seaports and in particular in the area of environmental sustainability, more advanced conceptual frameworks have to be considered. These frameworks must be able to account for the multiple-stakeholder nature of the port industry and for the network and vertical interactions that environmental sustainability calls for.

Caribbean ports must plan and manage their operations and future expansion in a sustainable way in order to cope with the limited or decreased environmental space and intensified interactions with their hinterlands. The recognition and accommodation of port development in harmony with the surrounding areas are critical for sustaining the economic value and social benefits provided by the pristine waters of the Caribbean Sea.

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FORGET DRIVERLESS VEHICLES! WE COULD BE A MERE THREE YEARS AWAY FROM SEEING ROBOTIC CARGO SHIPS TAKE TO THE SEAS!

In today’s digital world, technology has brought forth monumental advances that have improved the efficiency of countless industrial and societal processes. For the maritime sector in particular, the promise of new technologies is already transforming how more than 90% of the world’s seaborne trade is managed.

Just a few decades ago, terminal operations revolved around the resource-intensive task of manually monitoring activities and container movements. Today, we are beginning to see a new reality that relies on technology to optimize operations and increase the rate and accountability of work at ports. As the shipping industry continues to embrace the opportunities that technology presents, terminal automation, digitization and the use of real-time data are quickly becoming the norm.

While there’s no way to accurately predict the magnitude of impact, there are areas in which technology has the potential to revolutionize port efficiency.

REAL-TIME DATA

Data collection is key for increasing efficiency. Not only is it fundamental for efficient operations, it facilitates smarter decision-making. A study by the Massachusetts Institute of Technology (MIT)1 shows that data-driven organizations perform up to 6% better each year. The collection and analysis of big data has the ability to drive transparency across the industry and provide new means of monetization for various service providers.

Cloud-based software such as the Octopi2 Terminal Operating System (TOS) have the ability to revolutionize how shipping companies incorporate data to improve marine terminal productivity. TOS platforms help executive teams visualize and interpret the large amounts of operational data that are collected on a daily basis, all in real-time.

With a reliable TOS, the terminal’s productivity increases; stevedores begin communicating and operating as more of a unit; and, ultimately, ships move faster.

“A study by MIT shows that data-driven organizations perform up to 6% better each year.”

CARGO TRACKING

Each year approximately 1,679 shipping containers are lost at sea due to various factors. However, the power of real-time data has proven especially beneficial for cargo tracking.

The advantages of being able to track exactly where cargo is at all times can have a significant impact on security and delivery estimates. Collecting detailed information about the movements of a container can help to predict if a container will make it in time, or possibly predict if it will get lost at sea.

A container can also be identified with anomalies, alerting customs to look into that container for a possible security breach. Moreover, with high level security controls, marine port operators can easily manage and track cargo in order to report real-time data to customers. This feature not only improves overall customer service by minimizing complaints, it also frees up time for operators to focus on other matters.

PREDICTIVE ANALYTICS

In addition to increased efficiency, the collection of big data can also lead to operational cost-savings. Capturing data from...
equipment sensors makes it possible to design a predictive model for each machine type. For example, the addition of sensors alongside predictive analytics software could identify areas that may require maintenance in advance to prevent delays and increase overall efficiency. These insights not only result in maintenance savings but could also avoid potentially catastrophic machinery failures.

Another example: instead of running out of reefer plugs and having to run around looking for options to add capacity at the last minute, technologies can be utilized to know when the availability of reefer plugs is getting low. Being able to react before a problem occurs in your terminal saves time and resources and, of course, improves dependability.

The Port of Cartagena, Colombia, one of Latin America’s busiest ports, handling 40 million tons of cargo per year, recently teamed up with IBM and Cisco to put these claims to the test. The Port is leveraging the IBM Watson IoT Platform and Cisco’s analytics so as to optimise its 24/7 operations. Eduardo Bustamente, Director of Operations at the Port of Cartagena, said: “With these new capabilities, we gain immediate insight into the health and operations of our more than 47 rubber tire gantries and 180 trucks. As a result, we expect to be more productive in our maintenance processes to help ensure our fleet runs even more efficiently and vessels and cargo are moving smoothly in and out of our port.”

AUTOMATION
Beyond real-time data and analytics, there is an increasing number of ports moving towards automated operations in order to boost productivity in ways that were not achievable until now. Among its benefits, automation helps to improve the efficiency of cargo transport by reducing errors and speeding up movement both on the front-end and back-end of port operations.

When it comes to improved processes, we have seen data entry time go from 24 hours to one minute. And the risk of error is close to zero because the process is automated. From a sustainability standpoint, automation can also support efforts to reduce fuel costs and emissions, while improving overall safety. Whether robotic cargo handlers unloading containers; or, automated billing systems streamlining office operations, the scope of technological tools available to operators continues to expand.

According to a recent study by the technology advisory firm, Technavio, the global automated container terminal market is expected to grow at an impressive 25% (compound annual growth rate) during 2017 to 2021 and ports are reaping the benefits.

Since transitioning to fully automated processes, the Port of Rotterdam in the Netherlands has significantly improved efficiency with reported production increases of 80%. Over the next decade, the ports of Los Angeles and Long Beach are expected to lead the way in automation in the USA, primarily in response to arrival of more megaships. As ships continue to get bigger, questions arise as to whether operators are maximizing the financial benefit from this trend, particularly if a terminal’s productivity does not increase accordingly.

THE NEXT STEP
Technology does not progress on a linear scale. It happens exponentially. And the shipping industry is moving along with it.

From big data to automation, the quantity and quality of new technologies will continue to evolve. For port operators to remain competitive in the digital age, investing in smart technology should be a top priority in order to boost productivity. In terms of future adoption, it appears to be more a question of when, not if, they will jump on board.

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1 Strength in Numbers: How does data-driven decision-making affect firm performance?
2 Octopi is a Miami-based tech company and innovator in port terminal operations.

* Miles J. Varghese is a Sales Executive at Octopi.
Training & Workshops
Our concern for the environment is more than just talk

As we continue to deliver valuable information through the pages of this magazine, in a printed format that is appealing, reader-friendly and not lost in the proliferation of electronic messages that are bombarding our senses, we are also well aware of the need to be respectful of our environment. That is why we are committed to publishing the magazine in the most environmentally-friendly process possible. Here is what we mean:

- We use lighter publication stock that consists of recycled paper. This paper has been certified to meet the environmental and social standards of the Forest Stewardship Council® (FSC®) and comes from responsibly managed forests, and verified recycled sources making this a RENEWABLE and SUSTAINABLE resource.
- Our computer-to-plate technology reduces the amount of chemistry required to create plates for the printing process. The resulting chemistry is neutralized to the extent that it can be safely discharged to the drain.
- We use vegetable oil-based inks to print the magazine. This means that we are not using resource-depleting petroleum-based ink products and that the subsequent recycling of the paper in this magazine is much more environment friendly.
- During the printing process, we use a solvent recycling system that separates the water from the recovered solvents and leaves only about 5% residue. This results in reduced solvent usage, handling and hazardous hauling.
- We ensure that an efficient recycling program is used for all printing plates and all waste paper.
- Within the pages of each issue, we actively encourage our readers to REUSE and RECYCLE.
- In order to reduce our carbon footprint on the planet, we utilize a carbon offset program in conjunction with any air travel we undertake related to our publishing responsibilities for the magazine.

So enjoy this magazine...and KEEP THINKING GREEN.
Seven sins of insecure leaders

BY FRITZ PINNOCK*

Effective strategies for corporate growth, efficiency and sustainability require organizations to provide employees leaders and supervisors that have the confidence to lead and empower their teams. Unfortunately, many organizations are afflicted with insecure leaders at various levels.

An insecure leader is like a cancer within an organization. Such leaders should therefore be improved or removed.

All insecure leaders have the ability to grow and develop but some simply do not have the desire to change. They first make their choices. Then their choices make them.

According to John Maxwell insecure leaders never develop people; they replace them. He argues that insecure leaders are insecure because they have not developed themselves. Leaders that won’t develop themselves cannot develop others. Leaders that do not value self-development will not see the value of developing others.

All of the various insecurities a person, with or without a position of authority, has can be traced back to a lack of character development. Many leaders have never read a book on leadership or benefited from formal leadership development training. They believe, erroneously, that it is their position in the organization’s hierarchy that makes them a leader. They tend to blame the company for not developing them, instead of accepting responsibility for developing themselves.

For various reasons, insecure leaders feel threatened by others, especially those that are pursuing self-development strategies. They are also easily threatened by anyone that seems to know anything they do not. So, if you, as a conscientious employee, choose to begin developing yourself, be prepared because you are likely to make a lot of insecure leaders nervous.

The root cause of insecurity is weakness and low ‘self-confidence consequences of character underdevelopment.

Insecure leaders are weak. They feel threatened from all sides: from above by the boss, from the sides, by their peers; and, from below, by those they fear will rise to take their highly-coveted position of leadership.

Insecure leaders are a ‘sad bunch’. In an organization, they wittingly or unwittingly, can cause tremendous damage. Unfortunately, many organizations are filled with them.

EFFECTIVE, SECURE LEADERSHIP

Character development is the foundation of effective, secure leadership. Some observers may argue that leaders are insecure because of a lack of technical competence. That may be the case in some circumstances. However, if there is a competence issue, this can usually be traced to a character fault that prevented the particular leader from developing the necessary competencies.

Maxwell, in making the point that insecure leaders never develop people but, rather, replace them, says they are replaced by either of two methods: they are either fired, or they quit (i.e. leave the team or the company). Insecure leaders will, if possible, terminate the employment of those bright and ambitious employees by whom they feel threatened. The employee being dismissed may be totally surprised and may not understand why it is that they are being let go. Very rarely, if at all, can the truth be told by the insecure leader. More often, the strategy is to make the team member appear to be the problem.

These traumatic situations usually cause not just uncertainty and confusion but frustration among the entire team.

An insecure leader would have had to have a desired level of technical competence to get appointed to the position of leadership. However, they may not have the character to effectively lead others. For an insecure leader, getting the position was the goal. And having been appointed, the objective was achieved. They had arrived. Leading and developing others was the goal.

If the leader above is insecure, there may be competency issues with the sub-leaders they select to fill positions below them. In such circumstances, insecure leaders are the only ones that knowingly appoint or promote other insecure leaders. And other insecure leaders will leave them in place. Why? It should be obvious that insecure leaders want weaker leaders below them.

In every organization insecure leaders are the primary cause of reduced employee engagement because their insecurities create distrust. Employees will not engage with leaders they do not trust, no matter how many opinion surveys they are asked to take. Lack of employee engagement is a direct consequence of a trust issue with the leaders.

Employees that don’t trust the leaders will not say what needs to be said on a survey because they do not trust that it is truly anonymous. They fear that there might be a price to pay for honesty.

Insecure leaders are also the primary cause of employee high turnover rates because they push their team members away. People generally do
not quit companies. People quit people. The worst team members, particularly those without other options, will stay. But those with alternatives will leave.

Leadership development must start at the top. Issues within the company are a direct result of the leadership at the top. If the top leaders do not have the courage to accept that they are the genesis of problem; and, the humility to develop self, first; but, instead, choose to start the development programme at a lower level where the problem is manifested, all they will be doing is training and developing leaders for other companies. Why? Because those employees that benefit from the development programme will soon see clearly the deficiencies above. The best of them will leave and the company will remain threatened with the same problem: ineffective leadership at the top.

THE SEVEN SINS MOST COMMITTED BY INSECURE LEADERS:

Maxwell put forward some seven sins that are most committed by an insecure leader. They are:

1. Employee Turnover - Insecure leaders are a major reason for high rates of employee turnover. Numerous research studies have revealed that the number one reason people leave an organization is the relationship with their direct boss. There is nothing worse than reporting to an insecure leader. They tend to get rid of good, strong team members or cause them to resign. Either way, those that can truly help to lift the organization and the team are prevented from doing so by the insecure leader.

2. Employee Disengagement - Insecure leaders create distrust with their team members, their peers, their boss, and everyone else with whom they interact. It does not take people a long time to realize that an insecure leader takes credit for anything the team does well. They are also the first to blame the team when things do not go well. As a result, the team learns to withhold information and ideas. The team members only follow because they have to; and, they do no more than they have to.

3. Lack of Communication - Insecure leaders do not openly and freely share information. Doing so would only exacerbate their insecurity. They do not want to help their boss, peers, or team members look good in any way. They want those on their team to know only what they need to know to do the job and, unfortunately, sometimes even less. Insecure leaders are afraid their team will learn more and become an even bigger personal threat.

4. Finger Pointing - Insecure leaders are quick to point the finger of blame. They do not only point fingers at those reporting to them. They point fingers at those that report to other leaders; at their own peers; at their boss; and, at their boss’s boss (of course, behind their back, where insecure leaders do most of their talking). The insecure leader’s tactics causes others to waste time and energy in their own defence.

5. Lack of Teamwork - Insecure leaders do not value team work because the thought of having others share their ideas openly may reveal the leader’s lack of knowledge. Insecure leaders think they are supposed to have all the answers. The insecure leader also does not want his/her thinking to be challenged in front of others.

6. Lack of Succession Planning - Insecure leaders do not have a succession plan. The thought of training and developing someone to take their position goes against every fibre of their being. When asked about succession, they simply name the person on the team they think can do the best job but they are not intentionally engaged in a process of developing anyone to move up the ladder. They want to keep their team members right where they are, doing exactly what they are currently doing.

7. Low Morale - Actions of insecure leaders’ create an atmosphere of low morale. The six areas mentioned above are revealed throughout an organization as low morale. Even if team members want to work at the organization, the insecure leader has taken away their hope for the future and replaced it with anxiety about the present. Team members come to the company hoping to be respected; to matter; to advance; and, to grow. However, insecure leaders value creation of anxiety among their team members. They leverage their position in threatening ways so as to create and maintain anxiety and tension. It is this state of affairs that gives them security in their role as leader.

* Fritz Pinnock, Ph.D. is Executive Director of the Caribbean Maritime University, Kingston, Jamaica.
Guyana is about to undergo a dramatic and radical economic transformation. It was long-known that the country had significant oil and gas potential. It lies in the Guianas Shield that runs from Venezuela to French Guiana, which the United States Geological Survey (USGS) says is highly prospective and could contain technically recoverable resources of more than 13.6 billion barrels of oil; and, 21.2 trillion cubic feet of natural gas reserves.

While the dramatic fall in oil processing two years ago has made many major oil companies tentative in their exploration efforts, the US firm, ExxonMobil, has been aggressively pursuing its licence for prospecting the deepwater Stabroek block, about 160 km off the Guyanese coast.

The potential that has been identified could make Guyana a major producer of oil and gas, superseded in the neighbourhood only by Venezuela and Colombia and ahead of others such as Trinidad and Tobago and Cuba.

Under the production-sharing agreement between the government and ExxonMobil and its partners, Guyana will be entitled to 50% of oil and gas resources extracted by the company from the Stabroek block. The remainder will be shared among ExxonMobil and its minority partners in the Stabroek block: the US firm Hess and Nexen of China.

ExxonMobil has reported several successful strikes on Stabroek. The first reported was its Liza-1 well, in May 2015. The company said it contained more than one billion barrels of oil and gas equivalent. The company reported in March this year (2017) that the Snoek well – its sixth on Stabroek had substantial high-quality, oil-bearing sandstone reservoirs.

ExxonMobil has projected the start of oil and gas production from Stabroek in 2020, projecting output of 100,000 barrels per day. It has contracted the construction of an offshore production and storage unit to handle up to 120,000 barrels per day. However, such is the company’s confidence in the Stabroek block that it has ordered the construction of a second production and storage unit with capacity of 150,000 barrels per day.

Another benefit for Guyana will be access to about 50 million cubic feet of natural gas per day from the Stabroek block, which the government says will be used for power generation. The gas would replace some of the fuel oil and diesel used for electrical power generation. The government says natural gas from Stabroek could make a bauxite refinery feasible. This would revive the country’s once-thriving bauxite mining and refining operations.

Guyana is studying the possibility of building a refinery to process the oil from the Stabroek. The government commissioned the United Kingdom’s Chatham House to conduct a study on such a project. However, some experts have suggested that a refinery in Guyana might not be economically viable. They have proposed that the country sells its share of the oil possibly back to ExxonMobil to be processed in that company’s refineries.

The potential of the Stabroek block has drawn the attention of another neighbour. Trinidad and Tobago’s state-run oil company, Petrotin, has shown interest in refining Guyana’s oil. Trinidad’s domestic oil production has been falling steadily in recent years and Petrotin has been importing increasing quantities of oil – mainly from Russia and Gabon to feed its refinery. However, the processing of oil from the Stabroek block in Trinidad’s refinery would depend on what Guyana’s government and ExxonMobil consider to be their best options.

Guyana is preparing for economic transformation.

POLITICAL PERSPECTIVE

The Stabroek block discoveries will significantly change Guyana’s national economy. The country produces no oil or gas. Up to September 2015, it imported about a half its oil products from neighbouring Venezuela, under Caracas’s preferential PetroCaribe facility. Then Venezuela suspended shipments under that agreement when a protracted territorial claim flared after ExxonMobil announced its successful exploratory strike.

Venezuela has long claimed sovereignty over the resource-rich Essequibo province. Essequibo covers the western two thirds of Guyana’s mainland. The dispute prevented the countries from agreement in demarcating their maritime boundary. Venezuela claimed the Stabroek block is part of its maritime area. The claim was dismissed by Guyana with the argument that that matter was already resolved, decades ago.

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