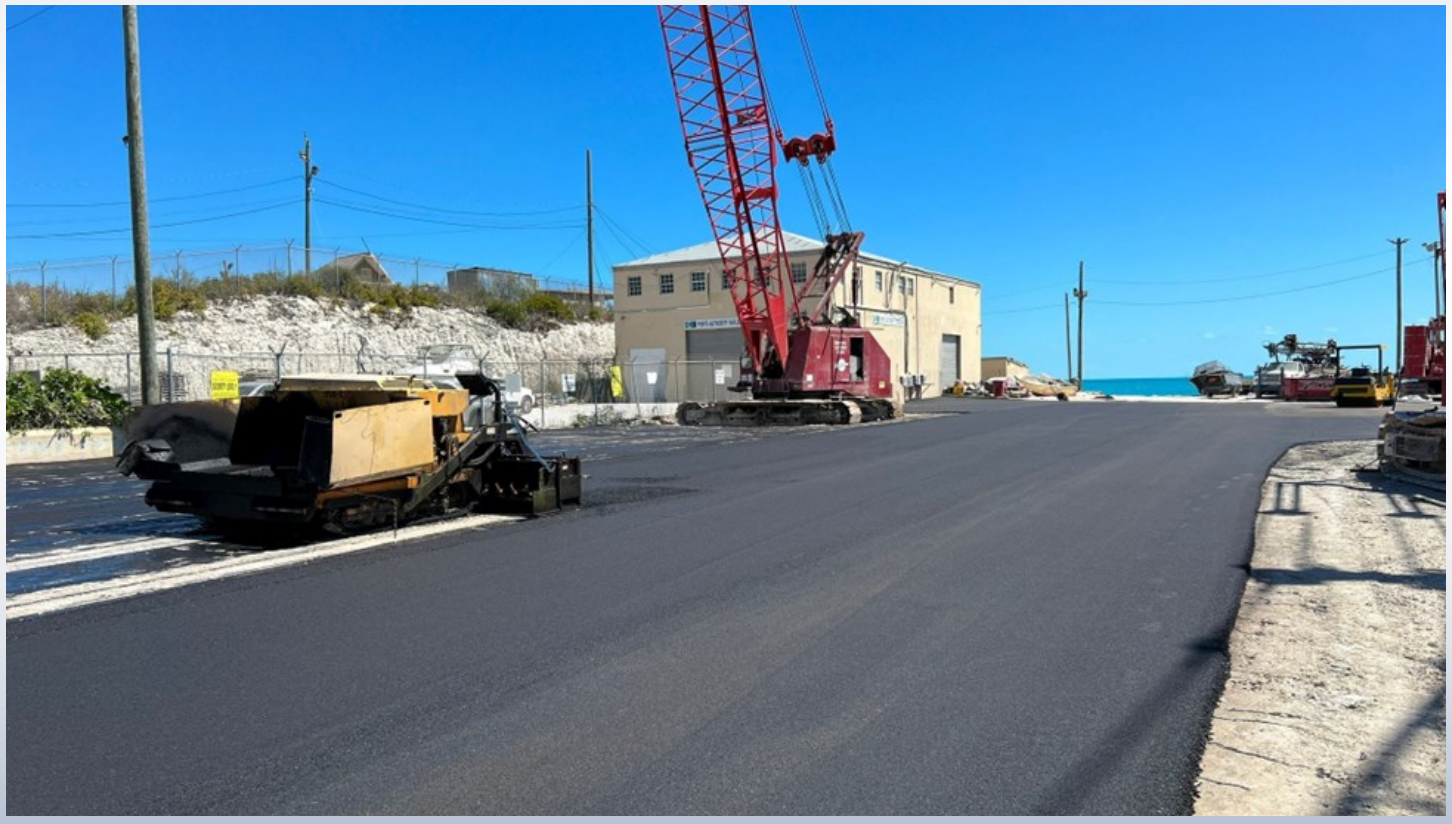
The

Navigator

Ports Authority of the Turks and Caicos Islands Newsletter

March 2023



EDITORIAL by Paula Stewart

From all indications, the Ports Authority is full-speed ahead in implementing their development plan in rehabilitating port infrastructure throughout the Turks and Caicos Islands. In the previous year we recognized improved port conditions in Grand Turk, South Caicos and the ground-breaking and completion of the Welcome Center in North Caicos at Bellefield Landing. In this issue of the Navigator, we take to highlight some projects the Port has undertaken in this period.

Most notable, the Ministry of Immigration and Border Services and the Ports Authority signed off on contract for the construction of Phase 1 and 2 of the South Dock port redevelopment in Providenciales with local company, Island Site Development LTD. The redevelopment would eradicate the inadequacies that the port is now experiencing to reveal efficiency gains in reduced port operating costs which should be passed down ultimately to the community. Post contract signing, a number of meetings were convened in observance of the project. Facets of Phases 1 and 2 are detailed inside.

Also newsworthy is the Change Program Initiative. The Ports Authority is cognizant that with the redevelopment of the port system, the current organizational culture must change. In February, the Ports Authority engaged a local consultancy company, DAT, to facilitate an organizational change management initiative to mobilize training and coaching programs supporting steps already undertaken by the Port.

It is with pride and admiration looking at all the changes the Ports Authority has and is continuing to undertake in its efforts to modernize port infrastructure. In light of the rehabilitation of the ports, we also see the modernization of trade vessels which now come to our shores. It begs to wonder the kinds of vessels that once conducted trade here in the Turks and Caicos Islands. For this, we feature an article by Mr Derek Been, former Deputy Director of the Ports Authority, to impart some insight on the various types of vessels that once visited and conducted business in these islands.

Lastly, we share with you one of the struggles that the global shipping industry is contending with and measures shipowners are taking to resolve the issue.

As always, we hope you find this issue an interesting read. Stay safe until next time!~

March 2023

Inside this issue:

Ministry of Immigration and Border Services and Ports Authority Sign Contract for South Dock Port Redevelopment

By Delton Jones, Director of Ports

The Ministry of Immigration and Border Services and the Turks and Caicos Islands Ports Authority are pleased to announce the signing of the contract for the construction of Phases 1 and 2 of the capital project, South Dock Port Redevelopment **(PN 005561, TR 21/24, Contract Number: TCIG 22/2020)** in Providenciales with a local company—Island Site Development Ltd. This is one of several sub-projects of the South Dock Port Redevelopment project, which will take place over the nest three to four (3-4) years.

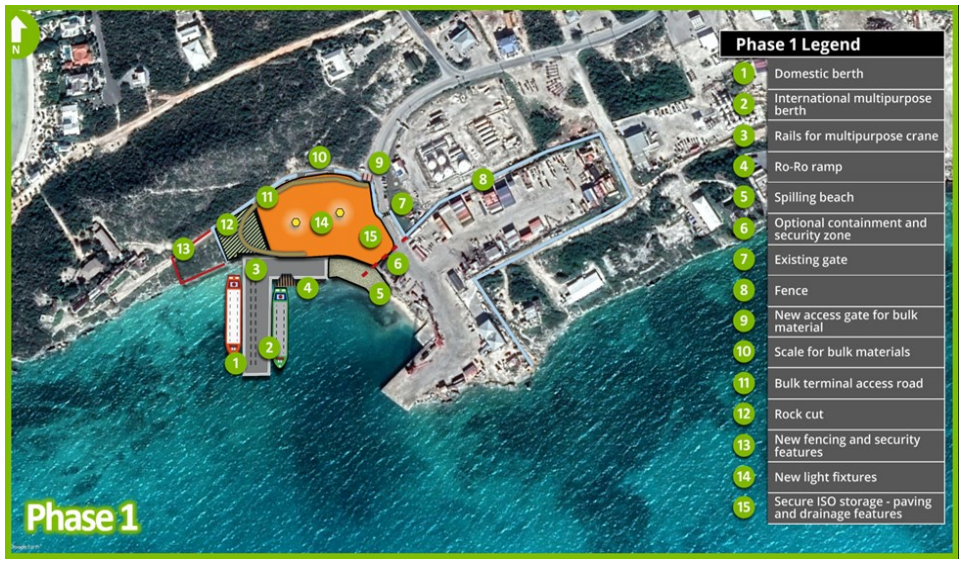
The Chairman of the Board of Directors, Mr Tueton Williams, indicated that it is envisaged that the redevelopment of South Dock should result in economic benefits to the Turks and Caicos Islands. Mr Williams went on further to say that this would, on completion of the project, enable larger vessels to berth, thereby reducing shipping costs and also reduce the cost of living and doing business. Efficiency gains will reduce port operating costs, which should be passed on to the community. The introduction of new port systems and procedures should again enhance efficiency and reduce costs.

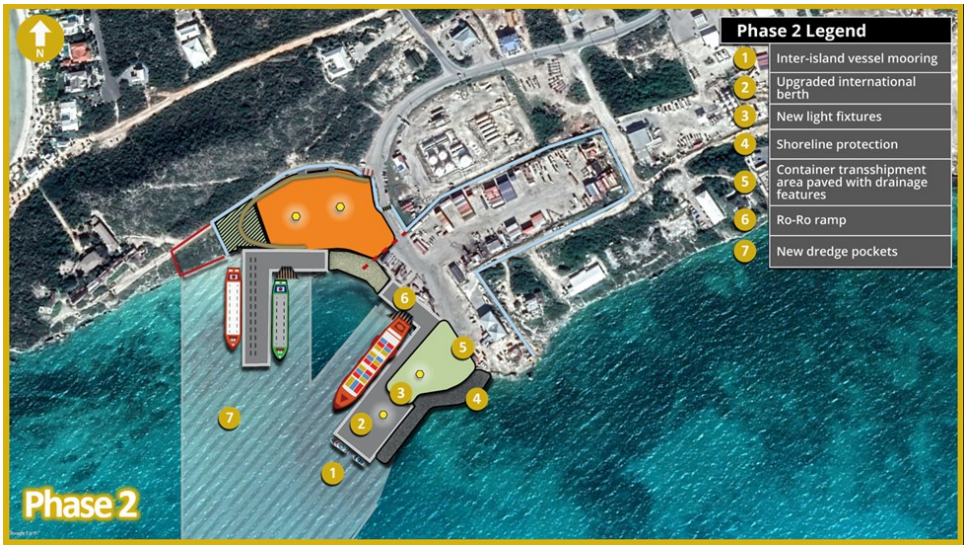
A number of kick-off meetings were held in observation of the project. The duration of the construction is anticipated to be approximately nine hundred and ten (910) calendar days.

Phase 1 and 2 of the redevelopment project involves:

- Construction of a new general cargo terminal with 2 berths (for operation of two (2) at the same time) and a ro ro ramp;
- Construction of 1.1 acres container yard for general cargo and bulk materials;
- Construction of internal roads and installation of a new scale;
- Construction of a safe-water drainage system;
- Construction of a second 410feet long by 131feet wide berth, encapsulating the existing berths; and including a second ro ro ramp;
- Installation of new mast lighting;
- Dredging a larger turning basin to a depth of 18feet;
- Shoreline project and raising the

Proposed Plan for Phase 1 and 2 of South Dock Port Redevelopment Project in Providenciales





Cont'd from page 3

port to improve climate resilience.

The Redevelopment of the South Dock Port Facility is consistent with the **Turk and Caicos Islands Vision 2040 Document** specifically, *Necessary Condition 1.6: Adequate infrastructure (Transportation, Roads, Ports, Electricity, Water, and Telecommunications)* which states, ***"Our infrastructure must be world-class by 2040"*** (page 25). The project is also consistent with several goals of ***The People's Plan for Progress:-*** *Transforming TCI through Inclusive Growth, particularly* **Goal 9:** Resilient Infrastructure, Innovation and Industry and **Goal 11:** Sustainable, Inclusive safe and Resilient Communities.

Moreover, the project is also consistent with **Goal 3:** Resilient Ports of the Ports Authority Strategic Plan FY 2018/19—FY 2021/2022 and it supports **Goal 1:** Secure Ports and **Goal 2:** Safe Ports.

Other components of the South Dock Port Redevelopment project include:

1. Construction of a new Port Office (which is under implementation);
2. Construction of second container yard with internal roadways and mast lighting;
3. Installation of Refrigerated container racks;
4. Construction of additional port buildings;
5. New port fire service and electricity system;
6. Construction of a modern fuel mooring system.~

Ports Authority Kick-starts its Change Program Iniative

By Shawna Lewis , Deputy Director of Ports

The Ports Authority of the Turks and Caicos Islands (PATCI) has engaged DAT (Desiree Adams Training), a local professional and consultancy company to facilitate a change management consultancy, commencing February 2023. The consultancy will conclude in December. The consultancy will provide an assessment of PATCI's capacity and readiness for change; prepare an organizational change management plan, including training and coaching programs that support the change program; and develop a communication plan that retains transparency with staff. DAT will engage extensively with PATCI's management and staff during the year to ensure owner and buying to the change initiative; and will be responsible for executing, monitoring and adjusting the change management plan, training program and communication plan.

PATCI has made great strides in enhancing and rebuilding of the infrastructure of the main sea ports. PATCI commenced the rehabilitation, modernization and expansion of ports on all islands. The rebuilding of the port system started with Grand Turk and is ongoing. Projects are under contract in North Caicos and south Caicos. The Bellefield Landing masterplan was finalized and would guide the development of the port in North Caicos. The groundbreaking of the Providenciales office block marked the beginning of the redevelopment of South Dock, Providenciales. Phases 1 and 2 of this project should commence in the up-

coming months.

In March 2022, the PATCI Board of Directors approved the three-year Strategic Plan (2022-2025). The Strategic Plan commits PATCI to several activities and initiatives, each of which implies significant change within the organization such as an organizational restructuring, rebuilding of the port infrastructure and port digitalization and information technology.

With the redevelopment of the port system, the organizational culture must be adjusted to accept the changes being made within the entire port system. Accordingly, PATCI has taken initial steps towards change through in-house training programs to build staff capacity in financial management and project preparation, ad hoc team-building training seminars and staff exchanges. A culture Card which includes the goals and values of the organization has been introduced so staff can gear their work plans to achieving organizational goals. The Culture Card initiative was followed by an "IAM PATCI" poster which reinforces the organization's values.

The Ports Authority of the Turks and Caicos Islands, recognized the need to consolidate recent efforts through a change management program that supports the development of a new organizational culture. Ports Authority looks forward to developing a professional and meaningful relation with DAT over the next year during the consultancy that would ensure the successful implementation of PATCI's initiatives and strategic plans.~

Famous Ships that Visited and Conducted Trade in the Turks and Caicos Islands

By Derek R Been

Royal visits remain in most countries some of the most memorable moments. For centuries, vessels have been the main means of transport for the British Royal Family.

In the Turks and Caicos Islands context, these visits, albeit few, brought the members of the British royal Family into immediate contact with Turks and Caicos Islanders and the Islands.

HI Royal Highness Princess George (later the Duke of Kent), visited Grand Turk in 1928 in HMS Durban, where he served as a lieutenant. This was the first visit of a member of the Royal Family to the Turks and Caicos Islands and was immediately after the great hurricane of 1928. He came ashore along with a party of officers of the vessel and stayed at Waterloo.

On august 31, 1947, the Right Honourable Arthur Creech Jones, M.P., His Majesty's Secretary of State for the Colonies and Mrs Creech Jones briefly visited Grand Turk. This was the first ever made to this dependence by one of His Majesty's Ministers, though the Dependency had been previously honoured by a visit by a member of the royal family.

One of the first recorded helmet divers, Irish-American Jeremiah Murphy arrived on Grand Turk with some friends. The others left but he remained and undertook substantial business in the Salt and Fiber industries in the Islands. While diving, he discovered a bell in 1852 from a wrecked HMS Wolfe on the French and Silver Shoals Bank nine years earlier. That bell was later used by the Grand Turk Methodist Church.

During the war years, the M.V. Kirkson a vessel of 300-ton capacity sailed monthly between Grand Turk and Jamaica to bring general cargo, mail and passengers and carry out salt. Mail was also dispatched through Haiti fortnightly. The vessel was originally under contract with the Turks and Caicos Islands government. The frequency of voyages decreased from fortnightly to an interval of approximately three-weekly intervals. In 1960, she was stranded off Jamaica, with no cargo or passengers aboard. The vessel was never salvaged. It was replaced with the vessel was replaced by the MV Carib Queen of similar size.

Stamps were often used to memorialize the significance of a situation and in this and many instances, images of vessels were placed on Turks and Caicos Islands stamps.

The Mv Kirkland operated between Jamaica and the Turks and Caicos Islands until September 10, 1957, when the vessel developed a leak off the coast of Haiti. The eleven passengers, including five government officers, were rowed to safety in Haiti and eventually flown from Port au Prince to Grand Turk. No lives were lost.

In 1955, the Caicos Pioneer, a moto vessel of 150 tons capacity conducted commercial trade between Miami and South Caicos. It brought supplies to the Islands and returned with conch shells.

Princess Royal. Princess Mary visited Grand Turk in 1960. The Royal Yacht Britannia anchored offshore and the party was transported to the

M. V *"Kirkland"*

In April 1955, the MV Kirkson was replaced by the MV. Kirkland. It was a faster vessel and more comfortable for passengers.

This vessel was of tremendous important to the Islands as at that time most trade was done via Jamaica.

Islands on the royal barge. The vessel passed the Caicos sloops and salt Company Lighters which were all decorated with buntings and flags.

The Princess was welcomed by the Governor of Jamaica, Sir Kenneth

Cont'd from page 6

Blackburne and Administrator Guy and Mrs Guy and Members of the Executive Council and their wives. The Activities of the visit included tours of USA military facilities, displays by Girl Guides and Boy Scouts, exhibitions from all islands and settlements and participation from civil society.

The Royal yacht Britannia made a second call to the Islands on February 25, 1966, this time was a one-day tour by the later Queen Elizabeth and Prince Phillip. The vessel and naval escort arrived from the British Virgin Islands shortly after 8:00 a.m.

The Royal couple arrived on Grand Turk at 9:30 a.m. at the pier and was greeted by the Governor of the Bahamas/Turks and Caicos Islands, Sir Ralph Grey, Administrator J. A. Golding and other prominent persons within the Turks and Caicos Islands. Many formal duties were performed along with tours of the military facilities on Grand Turk. Later that day, the royal Yacht Britannia sailed to South Caicos where it was met with a flotilla of boats and sloops. Another welcome ceremony took place along with a visit to the Caicos Fisheries Inc. and viewed local Caicos crafts.

The Royal Yacht Britannia served the royal family for over 40 years and made her maiden voyage in 1954. their vessel sailed more that one million nautical miles to 135 countries. The yacht was decommissioned in 1997 and is now moored in Edinburgh, Scotland as a tourist attraction. It is the last of 84 royal yachts, from a tradition that first began in 1660.

As part of naval stopover by a HMs Minerva in 1973, Prince Charles who was a member of the crew visited the Turks and Caicos Islands. The vessel and crew visited both Grand Turk and South Caicos.

HMS Minerva (F45) was a Leader -class frigate of the Royal Navy. Minerva was 372 feet long overall with a maximum draught of 18 feet.

The ship was commissioned in 1966 and took part in several wars during the 1970s and the Falklands war in 1982. during these wars, the frigate patrolled British territorial waters and took part in NATO and British.

The cricket team of the HMS Minerva unsuccessfully engaged in matches on South Caicos and Grand Turk. On Grand Turk, the Prince was out after the first ball and scored 12 runs on South Caicos.


Royal Yacht Britannia—The Times

Since the 1970s the Turks and Caicos Islands has grown into a highly sought after tourism destination, this growth has also included vast expansion in the maritime and yachting sectors. The Island welcome some of the world's most affluent personalities on vessels and the commercial trade has expanded in correlation to the economic growth of the islands.~

Why the Global Shipping Industry is Struggling to Clean Up its Act

By William Ralston (Bloomberg)
March 14, 2023

https://gcaptain.com/

Singapore-based BW LPG goes about its business differently than many shipowners. If during a vessel's passage it becomes clear that a berth won't be free upon arrival at port, the ship will simply slow down so it shows up when there's room.

By not being forced to wait for days or weeks at a time, fuel is saved and emissions avoided– since these massive ships can't just power down at anchor. Last year, the strategy equated to more than 500 metric tons of unburned fuel, according to BW Vice President and Head of Operations Prodyut Banerjee.

Known as "virtual arrivals," this method of smarter shipping has been around for a while. Bus as the climate crisis accelerates and fossil-fuel dependent sectors like airlines and shipping struggle to shrink their carbon footprint, its popularity—as well as that of other greener strategies– is rising.

International cargo and container shipping is responsible for 3% of global greenhouse gas emissions– roughly one billion metric tons of carbon dioxide annually, equal to all of Japan's emissions. Despite this, the industry has made few inroads toward decarbonization, a fact regularly attributed to the difficulty of finding alternative ways to power big ships.

The International Maritime Organization (IMO), the agency responsible for regulating shipping, has set ambitious goals, aiming to cut emissions by at least half before 2050 (using 2008 as a baseline). But with trade swelling, maritime volumes are projected to triple by then. Indeed, the IMO concedes emissions could be 30% higher by 2050 if nothing is done. "To reduce emissions," said Grant Hunter of the Baltic and International Maritime Council, the world's largest international shipping association, "we've

Cont'd from page 8

got to rethink the way we do our business."

But in many ways, the industry is looking to rethink everything but its biggest, dirtiest problem of all.

Traditionally, when a shipowner is chartered to transport cargo, the contract requires the vessel to arrive at its destination as quickly as possible, regardless of traffic at the port. The customer will even agree to compensate the shipowner for waiting at anchorage, something known as demurrage.

Given the incentive, shipowners have traditionally hurried across oceans, burning more fuel at higher speeds only to wait upon reaching their destination. According to a 2020 report, tankers and bulk carriers spend as much as 10% of their time waiting to get into a port. As they wait, they burn more fuel-but make more money.

Though this practice of "sail fast, then wait" is inherently wasteful, attempts to kill it have failed in part because of the complexities of reaching contract terms that satisfy all parties (and of course the profit incentive).

A seemingly similar strategy is the "just-in-time" or JIT arrival. Rather than a contract between one shipowner and a charterer, ports coordinate their resources with all incoming vessels to ensure they optimize speed to arrive when there's an available berth.

High fuel costs have been making virtual and JIT arrivals more palatable to the shipping industry. But what's really driving their appeal is a regulation the IMO has been enforcing since January, the Carbon Intensity Indicator, which requires shipowners to improve their vessels' carbon emissions.

"These operational measures are relatively straightforward and can be implemented today without huge investments into technology and infrastructure," said Minglee Hoe, a technical analyst with the IMO. "Even just small optimization on a large scale can result in big savings in emissions."

A 2022 report concluded container ships can reduce fuel consumption and CO2 emissions by 14% per voyage if they optimize speed this way. Studies suggest that removing wait times at anchorage can cut global shipping emissions by around 20%.

But it's doubtful virtual and JIT arrivals can be implemented at scale. With virtual arrials, the problem is the number of parties involved with each vessel, where everyone has to agree to a contract that allows the ship to slow down said BW's Banerjee. In 2022, the company implemented a virtual arrival on only seven voyages out of hundreds completed.

"It is not a systemic solution; it's a one-off-solution for a one-off voyage," Haris Zografakis, a lawyer in London at Stephenson Harwood LLP who specializes in maritime law, said of virtual arrivals.

Which leaves JIT arrivals, where the problem is the ports. Coordinating customs, tugs, pilots, trains and stevedores– all of whom work independently from one another—is difficult. For this reason, JIT has only been implemented in a few places.

One is Newcastle, Australia, where a bespoke vessel arrival system is said to require incoming vessels to contact the port 14 days ahead of expected arrival. Port authorities, in consultation with terminal operators, then advise them to change speed to arrive when a berth is available. Two-thirds of vessels arriving in Newcastle no longer need to drop anchor at all. And for those that do, the average anchorage time has dropped from 11 days to three.

At its Porvoo refinery in southern Finland, Neste, a producer of sustainable aviation fuel, is also using JIT. It helps that Neste controls the ships, cargo and terminal—but it also works because berthing information is shared between all stakeholders.

"There is a big savings potential," said Rene Taudal Poulsen, a professor of international shipping and trade at the Copenhagen Business School in Denmark. "But it's much more complex than the airline industry, where you have a control tower that basically orchestrates the whole operation."

Since 2014, the International Taskforce Port Call Optimization, a coalition of shipping companies, has been working to standardize the exchange of nautical, administrative and operational data between ships and shore. In September, the Maritime and Port Authority of Singapore signed a memorandum with Voyager Worldwide, a leading provider of maritime navigation and shipping management tech-

Cont'd from page 9

nologies, to design its own system.

"We are just working on the exchange of information between the port operator and the vessels to more accurately predict their arrival times. That is the very first step," said Voyager Chief Executive Officer Ken Lee. "Then it's about having the entire support infrastructure and supply chain ecosystem behind them when vessels do arrive at the port."

Some industry observers aren't optimistic any of this will make a dent in emissions. "Just in time berthing would be fantastic," said maritime lawyer Zografakis. "But it hasn't happened for decades, and it will not happen at scale for more decades."

Zografakis is working with NAPA, a Helsinki-based maritime digital technology provider, to develop something called Blue Visby Solution. Blue Visby sets aside the complicated ballet of getting ships from anchorage to berth. Instead, it focuses on the voyage itself, predicting how quickly ships get turned around at a particular port, and therefore when berths tend to be available. Based on that information, it optimizes ship arrival schedules accordingly.

Looking at 150,000 voyages for bulk carriers in 2019 (the last "normal' year before the pandemic), Blue Visby concluded that speed could have been reduced on around 87% of them. If all of those voyages had used Blue Visby's technology, thee would have been a 16% reduction in carbon emissions—slightly less than if they had achieved perfect JIT arrivals. Blue Visby's makers contend it has the potential to reduce the carbon footprint of the global bulk shipping by more than 60 million metric tons of CO2 per year, which is larger than the total emissions of Norway.

But it's still a drop in the bucket when it comes to the industry's total emissions. Which is why some companies are trying to make oceangoing vessels themselves more fuel efficient.

Some install energy-saving devices such as hull coatings that reduce drag. Others are building rotor sails—tall cylinders that harness the power of the wind to propel ships. Denmark-based Norsepower claims its rotor sails can reduce ship emissions by as much as 20% over their lifetime.

"With our technology alone, it's possible to reduce emissions of global shipping by about 80 megatonnes on an annual basis,' said CEO Tuomas Riski,"which is around 8% of the total emissions of global shipping." meanwhile, with its air lubrication system, Silverstream Technologies claims it can save 7% of a vessel's fuel consumption. The technology, installed on 28 vessels globally, coasts the bottom of a vessel in tiny air bubbles to reduce friction.

While all of these ideas could bring emissions reductions, the inescapable truth—as is the case with air travel—is that nothing big will happen until fossil fuels are replaced as a means of propulsion.

The industry is beginning to explore various green alternatives, including methanol, hydrogen and ammonia, but they're difficult to scale. Ships that operate on these fuels are more expensive because they require advanced engines and huge fuel tanks. Green fuels have a lower energy density than heavy fuel oil, and consequently more volume is needed to generate the same power.

As part of a broader plan to have net-zero greenhouse gas emissions by 2040, shipping giant Denmark's A.P. Moller-Maersk has ordered 19 ships it says will run on carbon-neutral methanol. CMA CGM, a French operator, has ordered 12, has COSCO Shipping, the Chinese container ship company. But again, less than 50 ships out of almost 55,000 container ships worldwide is a very small beginning.

"We burn a lot of fuel in our fleet, but the volumes of these green fuels are very small," said Morten Bo Christiansen, Maersk's Head of Energy Transition. "We need to build infrastructure and then we need to drive costs down."

Tristan Smith, as associate professor in energy and transport at University College London, said to decarbonize shipping," "we need to be working on fuel substitutions in parallel with the operational efficiencies." For that to happen, he said, tougher legislative intention is needed.

"If the industry is properly regulated, "Smith said, "that will really push the value chain to talk to each other in a more serious way."~

Contact Details

Director of Ports
Delton Jones
djones@ports.tc
(649)941-3662

Deputy Director of Ports
Shawna Lewis
slewis@ports.tc
(649)338-3902

Human Resource Manager
Dorothy Malcolm
pmalcolm@ports.tc
(649)941-3662

Business and Communications Manager
Paula Stewart
pstewart@ports.tc
(649)338-3460

South Caicos
Lorraine Clare
lclare@ports.tc
(649)946-3735

Financial Controller
Sarhea Rigby
srigby@ports.tc
(649)338-3904

Safety Officer
Pierre Clerveaux
pclerveaux@ports.tc
(649)331-8727

Project Engineer
Dwayne Simons
dsimons@ports.tc
(649)338-3461

Port Facility Security Officer
Sharrona Walkin
swalkin@ports.tc
(649)338-3906

Security and Risk Manager
Dudley Been
ddbeen@ports.tc
(649)331-6215

Port Facility Security Officer
Keith Simons
ksimons@ports.tc
(649)332-0214

Board of Directors

Tueton Williams, Chairman
Kesha Gardiner, Deputy Chair
Crosly Bain, Member
Tracey Parker, Member
Dennis Swann, Member
Garvin Thomas, Ex Officio
James Astwood, Ex Officio
Chawa Williams, Ex Officio
Athenee Harvey, Ex Officio

Visit our website: *portstci.com*, Facebook page or send us your comments/ queries to

pstewart@portstci.com