Shipyards
Ocean & Coastal Towing
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Next Month

The September issue of Pacific Maritime will have articles on marine propulsion and passenger-only ferries, plus we’ll look at a project in which ocean data collection company Saildrone is attempting to map the ocean floor.
Maritime Cybersecurity

By Mark Nero, Managing Editor

As the rest of the world becomes more and more dependent upon technology, so does the maritime industry. All kinds of gadgets, from smartphones to tablets to apps have enhanced the way the industry operates.

But there's also a dark side to this, as criminals have learned how to exploit technology to their benefit. Things such as ransomware, spyware, phishing and computer viruses are all issues that companies big and small that use various forms of technology occasionally have to deal with.

Realizing this, and in a continual effort to serve the needs of our readers, this issue of Pacific Maritime debuts a new maritime cybersecurity column. The column, which will run in every other issue, plans to tackle various issues. Upcoming columns are planned on the following topics:

- Ransomware - What is it and why is it an Issue for Maritime?
- What is the USCG Maritime Transportation Security Act (MTSA)?
- How to Perform a Cyber Risk Assessment.

Authoring the column will be Ernie Hayden, a longtime cybersecurity expert based in the Seattle, Washington area.

Ernie, who's an industrial control systems cyber and physical security subject matter expert, previously was a cybersecurity lead at Canada-based BBA Inc.; an executive consultant with Alexandria, Va.-based Securicon; before that, he was managing principal, critical infrastructure protection/cybersecurity with Verizon.

Prior to Verizon, Ernie was the information security strategic advisor in the compliance office at Seattle City Light. He was also the chief information security officer for the Port of Seattle.

He also previously held several significant management positions in both business management and the information security management arenas. He was president and CEO of Bellevue, Wash.-based MCM Enterprise, an advanced sensor technology company for the hydroelectric sector; he was IT security lead for the Seattle Justice Information System in the Seattle Municipal Court and Seattle Police Department; he was director of security services for Alstom Esca software; executive director for the Electric Power Research Institute covering western U.S. and Canadian operations; and a commissioned officer in the U.S. Navy qualified as a nuclear engineer and surface warfare officer.

Ernie has extensive experience in industrial controls security, the power utility industry, critical infrastructure protection/information security, cybersecurity and cyberwarfare. He's also a noted writer and speaker on the topic of industrial controls cyber and physical security, as well as the nuances of critical infrastructure protection.

And if all that wasn't enough, Ernie is also an accomplished photographer; one of the latest examples of his work can be found on the cover of the August issue of Pacific Maritime's sister publication, Fishermen's News.

So, with all that said, I'd like to officially welcome Mr. Hayden to the Maritime Publishing team, and I look forward to reading his expert insight on maritime cybersecurity every other month.

Considering all the cybersecurity threats now out there in the maritime industry as well as the world at large, the launch of his column is very timely.

Managing Editor Mark Nero can be reached at: mark@maritimepublishing.com
BAE Systems has received a $90.2 million contract from the U.S. Navy for the maintenance and modernization of the amphibious transport dock USS San Diego (LPD 22) at the company’s San Diego shipyard.

The value of the contract could reach $104.8 million if all options are exercised, according to the Navy.

Under the docking selected restricted availability (DSRA) contract, BAE Systems will drydock the 684-foot-long ship, perform work on the underwater hull, repair its system of ballast tanks, preserve its amphibious well deck area, and refurbish the living quarters for the as many as 800 sailors and Marines that can be carried aboard.

The work is expected to begin at the San Diego shipyard in September and take more than a year to complete.

“The upcoming USS San Diego project is a major event in the service life of the ship, expanding its capability to execute a wide range of naval missions for many years to come,” BAE Systems San Diego Ship Repair Vice President and General Manager David M. Thomas Jr. explained. “Our team of employees, subcontractors and Navy personnel look forward to ushering USS San Diego into its next phase of fleet readiness. We also recognize the unique and special opportunity to work aboard a ship named for our hometown.”

BAE Systems is a Virginia-based provider of ship repair, maintenance, modernization, conversion, and overhaul services for the Navy, other government agencies, and select commercial customers. The company’s San Diego shipyard has about 1,100 employees and works with the Navy and several subcontractor companies to accomplish its ship sustainment work.

The USS San Diego is the sixth ship of the San Antonio class and was commissioned in May 2012. It's the fourth U.S. Navy vessel named after the Southern California city.

Seaspan Shipyards Investing $1.35M in Indigenous Marine Skills Training

Seaspan Shipyards says it is committing a $1.35 million investment to increase training and apprenticeship opportunities for Indigenous students aged 19 through 30 interested in building a career in the trades, including in the growing shipbuilding and marine sector.

The three-year investment is being made in the Aboriginal Community Career Employment Services Society (ACCESS), a non-profit organization that has been providing education and employment training for the urban Indigenous community since 1999.

Seaspan’s investment, which was announced in June, supports skills upgrading and technical training in welding and metal fabrication through the British Columbia Institute of Technology (BCIT). Beginning in 2022, Seaspan’s investment will also help establish a Trades Sampler Program to introduce Indigenous high school students in five Lower Mainland districts to career opportunities in the trades. Seaspan’s investment will also support an annual $25,000 Seaspan Student Scholarship fund.

“Having a continuous pipeline of skilled trades is fundamental to shipbuilding, and programs like ACCESS play a critical role in developing that talent pool,” Seaspan Shipyards CEO Mark Lamarre said. “We hope this investment will enable young urban Indigenous students to pursue new and exciting career opportunities in the growing marine industry in British Columbia.”

This investment is part of Seaspan’s ongoing partnership with the ACCESS organization. Since 2016, Seaspan has invested more than $4.3M in ACCESS as a part of Seaspan’s value proposition commitment under Canada’s National Shipbuilding Strategy.

“Today’s investment in ACCESS will help ensure Indigenous youth in British Columbia are involved in Canada’s post-pandemic economic recovery,” Terry Beech, Parliamentary Secretary to the Minister of Fisheries, Oceans and the Canadian Coast Guard, said in a statement. “Through the creation of new training opportunities and apprenticeships in the growing shipbuilding and marine industry, this investment will provide long-term economic growth, jobs, and opportunities for Indigenous youth.”

“ACCESS takes pride in serving our urban Indigenous community. Training and employment lead to a brighter future and Seaspan is one of our most valued partners,” ACCESS President & CEO Lynn White said. “By providing real opportunity for meaningful and long-term employment, Seaspan expands the ability of ACCESS to support our community.”
Serenade of the Seas, which is homeported in Seattle, set sail on July 19 as the first cruise ship to head for Alaska since September 2019. Photo by Royal Caribbean.

Royal Caribbean Becomes 1st Cruise Line to Return to Alaska

On July 19, the Royal Caribbean cruise ship Serenade of the Seas kicked off the summer season when it departed for Alaska as part of the first of a series of seven-night cruises from its home port of Seattle.

The sailing marked a celebratory moment for the cruise industry, local workforce, regional suppliers and Alaska communities that were significantly impacted by the absence of all cruise tourism, which normally represents more than 60% of the state’s visitors and generates upwards of $3 billion for its economy each year.

“Cruising in Alaska is finally back, and we are excited to be the first to return,” Royal Caribbean International President and CEO Michael Bayley said. “Alaska is one of the most popular destinations among our guests, especially families with young kids – children who are ineligible for the vaccine today.”

Bayley thanked Senators Lisa Murkowski and Dan Sullivan (both R-Alaska) for helping make the return of Alaska cruises possible, as well as other government and health authorities.

“This is a return that is significantly felt by many, including those whose communities rely on cruise tourism,” he remarked.

During the seven-day voyage, Serenade set course for such Alaska cities and towns as Juneau, Sitka, Ketchikan and Icy Strait Point. The ship is expected to be joined by Ovation of the Seas in Seattle beginning Aug. 13.

Serenade was the cruise industry’s first ship to return to Alaska and the second in Royal Caribbean’s world-class fleet to welcome back guests in the U.S. after Freedom of the Seas set sail from Miami for the Fourth of July weekend.

Thirteen Royal Caribbean ships will be sailing around the world by the end of August, including the aforementioned Ovation of the Seas, which is set to sail on seven-night adventures to Skagway, Sitka and Juneau, Alaska and through the Inside Passage. The cruise line recently extended Ovation’s Alaska season into October with four additional sailings.

Ninety-seven percent of Serenade’s entire onboard community was fully vaccinated at the time of the July 19 voyage, according to Royal Caribbean. As of Aug. 1, the vaccine age requirement for travelers was lowered from age 16 to 12. Children younger than the eligible age must undergo testing and follow other health and safety protocols.

FMC to Audit Ocean Carriers’ Detention, Demurrage Practices

The Federal Maritime Commission has established a new audit program and dedicated audit team to assess carrier compliance with the agency’s rule on detention and demurrage as well as to provide additional information beneficial to the regular monitoring of the marketplace for ocean cargo services.

The “Vessel-Operating Common Carrier Audit Program” was established July 19 at the direction of FMC Chair Daniel B. Maffei and launched immediately.

The audit program will, according to the Commission, analyze the top nine carriers by market share for compliance with FMC rules relating to detention and demurrage practices in the United States. The Commission has said that it will work with companies to address their application of the rules and clarify any questions or ambiguities.

Information supplied by carriers may be used to establish industry best practices, according to the FMC, which added that other focus areas of the audit process could include practices of companies related to billing, appeals procedures, penalties assessed by the lines, and any other restrictive practices.

“The Federal Maritime Commission is committed to making certain the law is followed and that shippers do not suffer from unfair disadvantages,” Maffei explained. “The work of the audit team will enable the Commission to monitor trends in demurrage and detention practices and revenue, as well as to establish ongoing dialog between staff and carriers on challenges facing the supply chain.”

“Of course, if the audit team uncovers prohibited activities, the Commission will take appropriate action. Furthermore, the information gathered by the audit process might lead to changes in FMC regulations and industry guidance if warranted,” he added.

The audit program is beginning with an information request establishing a database of quarterly reports, thereby allowing the Commission to assess how detention and demurrage is administered. Responses will be followed by individual interviews with the carriers. Each of the nine largest carriers by market share will be audited irrespective of whether a formal or informal complaint has been filed at the Commission, according to the FMC.

The audit team will initially be comprised of existing Commission employees. Leading both the team and the audit program will be Lucille Marvin, the Commission’s managing director.
Nichols Brothers Delivers 4th Foss Tug

Freeland, Wash.-based Nichols Brothers Boat Builders has delivered the fourth ASD-90 tractor tug in a four-vessel series to Seattle-headquartered Foss Maritime, NBBB has revealed.

NBBB completed and delivered the four-vessel build series—the m/v Jamie Ann, m/v Sarah Avrick, m/v Leisa Florence, and lastly, the m/v Rachael Allen—during the period between April 2020 and June 2021. Two vessels are to be stationed in Los Angeles/Long Beach, while the other two will be in the San Francisco Bay providing escort and assist services to large tankers and containerships calling on the California ports.

The ASD-90 Class tugs were designed by Seattle-based Jensen Maritime Consultants. The 100-foot x 40-foot Z-Drive tractor tugs are built to United States Coast Guard Subchapter “M” regulatory standards, with ABS loadline certification, and UWILD notation, according to Nichols Bros.

The vessels were built to the most stringent emission requirements according to NBBB, with two MTU Series 16v4000M65L main engines rated at 3433 HP each that meet U.S. EPA Tier 4 standards, reducing particulate emissions through in cylinder combustion technologies and nitrogen oxide emissions to near zero through a Selective Catalytic Reduction system.

The SCR system provides optimization of the engine delivering improved efficiencies, and fuel consumption is reduced by 8% at full power and 14-22% over a wider operating range compared to previous MTU engines in the power range. The MTU engine and SCR are designed with a focus on noise reduction, plus features such as resilient mounting, turbocharger air intake silencers and the SCR insulation and noise abatement, all combined to produce noise levels throughout the vessel without traditional exhaust silencers.

The MTU engines are also equipped with MTU Go, a MTU digital monitoring system and service that allows continuous monitoring of the engines including all engine parameters and alarms, with trending and broadcast of engine alarms through the MTU Go app.

The MTU Series 4000 engines are paired with Kongsberg US255 azimuth thrusters. The azimuth thrusters are equipped with Health Monitoring features allowing local as well as remote monitoring of the thrusters bearings and oil condition. The propulsion package produces over 90 tons of bollard pull, according to NBBB.

The vessels are outfitted with two different Mackay Marine Electronics and Markey winch packages. All four vessels are equipped with a Markey DEPGF-52R-75HP forward winch for ship assist. Two of the vessels are equipped with TESS-34AS-75HP Rescue winch on the stern and two are equipped with DEPC-32 barge handling winch on the stern.

The m/v Rachael Allen will be the first tugboat in the US delivered with the Sea Machines SM300 Autonomous system, including transit autonomy as well as remote access of the tug’s on-board machinery, allowing personnel to manage and support operations from anywhere on board the vessel or from shore, according to Nichols Bros.

“The ASD-90 newbuild program produced three vessels for Foss and one vessel for our sister company, AmNav,” Foss Maritime President Will Roberts remarked. “They will meet the current and future needs of the largest vessels of our customers calling on California ports.”

“The tugs were built to satisfy the requirements we believe will soon be required of the rest of the country and the world,” Roberts added.

NBBB managed to deliver all four vessels during the global pandemic. In fact, the m/v Jamie Ann’s first job was to assist in moving the massive Naval Hospital Ship USNS Mercy as it departed the Port of Los Angeles for her homeport in San Diego in April 2020, followed by firefighting on the USS Bonhomme Richard.

“At the onset of the COVID pandemic, NBBB had to significantly re-arrange production to allow for safety protocols required to protect our workforce,” Nichols Bros. CEO Gavin Higgins explained. “NBBB reacted rapidly and while it certainly had a significant impact on production, we were able to keep working and never had a cross infection at any of the facilities.”

“Foss keeps setting new standards for the industry and we are proud to have delivered four of the most powerful tugs in its class packed with the latest in technology and environmental features,” NBBB Vice President of Sales & Customer Relations Tor Hovig said. “This program has supported many highly skilled jobs in this region, and it’s been particularly rewarding to build for Foss as a local company, showing the strength of the maritime industry in our region.” PACM
News Briefs

Port operators in the Pacific Northwest have set a goal to eliminate shipping-related emissions throughout the Georgia Basin-Puget Sound waterway by 2050.

The effort involves the Port of Seattle, Port of Tacoma, Northwest Seaport Alliance container terminals, and the Port of Vancouver. The governing bodies of these four organizations in April formally approved the Northwest Ports Clean Air Strategy 2020, which builds on an earlier clean air plan enacted in 2008.

The updated document calls on the ports to voluntarily reduce air and greenhouse gas emissions in support of the 2050 emissions goal. More detailed port-specific plans to meet that goal will be released in the future, and progress will be charted along the way.

“Ports are a place where a lot of these emissions happen,” said Steve Nicholas, the senior project manager of air quality and sustainable practices for the Port of Tacoma and the Northwest Seaport Alliance. “A lot of big ships are coming into these ports, and we’re using heavy equipment that has been historically diesel-operated.”

“We happen to be an epicenter of emissions,” he said.

Fallout from these emissions most severely affect people who live close to ports facilities. These residents “can be exposed to air pollution from diesel engines at ports and be at risk of developing asthma, heart disease, and other health problems.”

Ports, not unlike the ships that call on them, can be a major source of toxic releases. Areas targeted for emissions reductions include ocean-going ships, drayage trucks, cargo-handling equipment, railroad connections, harbor support vessels and port facilities themselves.

According to a 2016 report from the Environmental Protection Agency’s (EPA) Office of Transportation Air Quality, “port-related diesel-powered vehicles, equipment, and ships produce significant [greenhouse gas] emissions that contribute to climate change.”

Fallout from these emissions most severely affect people who live close to ports facilities. These residents “can be exposed to air pollution from diesel engines at ports and be at risk of developing asthma, heart disease, and other health problems.”
Data shows these impacts disproportionately affect poor and minority communities, which are more likely to live in areas of high pollution, according to the Northwest Ports Clean Air Strategy 2020 plan.

“We recognize that there are certain populations that have borne disproportionate impacts from air pollution, and we recognize that it is very important to eliminate port sources of emissions,” said Alex Adams, interim director of maritime environment & sustainability at the Port of Seattle.

All told, emissions figures from the shipping industry are trending in the wrong direction. According to the International Maritime Organization, greenhouse gas emissions from shipping increased 10% between 2012 and 2018. They are projected to increase by another 50% by 2050 if no additional actions are taken.

“We need to be moving towards zero climate pollution and yet international shipping is projected to actually increase its emissions unless we do something really different,” Nicholas said.

Efforts to cut port-related emissions in these four ports began with adoption of the first clean air strategy in 2008. At the Port of Seattle, one of the first steps toward implementing this plan was introducing two shore-power connections at their cruise terminal in 2009. Cruise ships can connect into the electrical grid rather than run generators.

The electric supply around Seattle incorporates renewable energy, helping to reduce the cruise ships’ emissions to close to zero while docked in the harbor. The port is in the process of installing shore power at their third cruise terminal.

“We see the provision of shore power as the biggest opportunity within our control at our port to reduce emissions from ocean-going vessels,” Nicholas said.

The port also provided an incentive program for cruise ships to use cleaner-burning low-sulfur fuels. Through these programs, the port was able to achieve the previous strategy's emission-reduction targets about four years early.

Tacoma’s port has instituted adjustments to the cargo-handling equipment, transitioning diesel-powered equipment to cleaner energy sources. They are currently working with one tenant to transition six yard tractors from diesel to fully electric propulsion.

Additionally, they have targeted diesel emissions in their truck fleet, instituting a rule that disallows older, less environmentally friendly trucks from operating in its port. This regulation has seen impacts already, reducing the pollution from their diesel truck fleet by about 9%.

“Obviously, there’s still lots to be done,” Adams said. “But the strategy has really demonstrated that, by working together, we can both stay competitive and get more done.”

While their strategy is based on voluntary participation, representatives of the Pacific Northwest ports agreed that it would be difficult, if not impossible, to reduce shipping emissions without industrywide, mandatory government regulations.

For now, the EPA has taken steps to encourage voluntary portside emissions cuts. The agency’s website, for instance, shows what steps ports have taken to address emissions, such as taking an emissions inventory, setting up targets for emission reductions and initiating government-funded clean air programs.

In California, which has more stringent emissions regulations, major ports in Oakland, Los Angeles, and Long Beach have taken many of these recommended steps. Elsewhere in the country, where regulations are less strict, many ports have been slow to adopt these strategies.

“I’m going to come out and flatly say there’s no way these goals can be reached if it is strictly voluntary,” Nicholas said. “We need more from the federal government. We have to remember — this is a competitive industry, and we need to have a level playing field. We’re competing with ports that are doing next to nothing and that gives them an unfair competitive advantage.”

Until these regulations come down, the Pacific Northwest ports can only hope that other shipping hubs will follow their lead.
An important case study published by the U.S. Environmental Protection Agency is focused on the ports of Los Angeles and Long Beach. The research aimed to assess their community engagement on reducing emissions and setting a goal of zero-emissions for trucks and cargo equipment at the ports. It also examined what impact their activities could have with regard to encouraging other ports to follow suit.

"The Ports of Los Angeles and Long Beach have taken important steps to work with local stakeholders in the community to reduce diesel emissions. They should be applauded for those efforts," Congresswoman Nanette Diaz Barragán (D-CA) said. “Still, the extremely high rates of cancer, asthma and other respiratory illnesses in the communities around the ports shows we have a long way to go.”

Barragán represents California’s 44th Congressional District, which includes the communities of Carson, Compton, Florence-Firestone, Lynwood, North Long Beach, Rancho Dominguez, San Pedro, South Gate, Walnut Park, Watts, Willowbrook and Wilmington.

Community-based critics of both ports, and of the EPA, say that there’s a great deal of work still to do to meet the goals laid out in the “Clean Air Action Plan” published in 2017 by the Los Angeles and Long Beach ports. One important necessity to reach these goals – in Southern California and across the country – is federal support for ports to quickly deploy new zero-emissions technology. This is why Barragán introduced the “Climate Smart Ports Act” to provide federal investment in zero-emissions equipment and technology at America’s ports. The goal is to improve air quality and create good jobs in port communities across the U.S.

Barragán says that “there are billions of dollars in investment for greening ports in President Biden’s American Jobs Plan. It’s a great start. The need is even greater. I’ll be pushing for as much investment as possible to clean up our ports and reduce the burden of pollution on frontline communities in my district and across the country.”

Nearly 40% of Americans live within three miles of a port. Advocates for change say that reducing toxic emissions in their air is not a ‘nice to have,’ but a ‘must have.’

“In many ways, the Port of Los Angeles is the heartbeat of my district,” said Barragán. “Ports are job creators, but also major sources of air pollution with serious public health consequences, particularly for the communities of color that tend to live nearby. The people in these neighborhoods live close to working diesel trucks, ships, trains, and cargo-handling equipment spewing poisons into our air and water. And we’ve paid the price. By greening our ports, we can tackle this environmental injustice.”

If passed in its current form, the Climate Smart Ports Act would create a $1 billion-a-year zero-emissions ports infrastructure program to assist ports and port users. It would also create the first federal program dedicated to greening our nation’s ports and reducing the toxic pollution that severely harms the health of people in port communities.

Additionally, the Climate Smart Ports Act would invest in zero-emissions technology and infrastructure, protect dockworkers, fight climate change, address a source of environmental injustice, and create good-paying green jobs, according to its proponents.

The bill would authorize and fund new initiatives in each of the following areas:

- Replacing diesel-burning cargo handling equipment, port harbor craft, drayage trucks, and other equipment with zero emissions equipment and technology;
- Installing shore power for docked ships, and electric charging stations for vehicles and cargo equipment;
- Developing clean energy microgrids onsite at the ports to power their facilities;
- Authorizing an additional $50 million a year for the Diesel Emissions Reduction Act, specifically for reducing emissions at ports.
- Implementing strong labor provisions to protect dockworkers from automation, require a prevailing wage for installation work generated through grants, and encourage the use of union labor and local hiring.

When Barragán reintroduced the bill in January, 2021 she stated that people are often given a false choice between a clean environment and a strong economy, but with the Climate Smart Ports Act, no choice is necessary.

In February, a companion bill was introduced in the U.S. Senate by Sen. Jeff Merkley (D-Ore.). As of mid-July, it is still pending at the committee level. PoM
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Terminal Operations

LA Port, Wabtec Team Up to Launch Cargo Volume Forecaster

The Port of Los Angeles in July announced that it has launched “Horizon,” a long-term cargo volume predictive feature that offers cargo owners, terminal operators, truckers and other supply chain stakeholders the capability to gauge movement of containers at the port up to six months in advance.

Horizon is an added feature of the port’s “Control Tower” service, a cargo flow planning and prediction tool that launched earlier this year.

“We’re proud to break ground with this new forecasting tool, which is the first of its kind,” said port of LA Executive Director Gene Seroka. “The Horizon predictive technology is yet another service that we can offer port stakeholders to better plan and allocate resources, especially amid this historic cargo surge.”

Developed in partnership with Wabtec, Horizon uses an algorithm based on historical and trending volume data collected by the Port Optimizer, a cloud-based secure digital portal of maritime shipping data.

The Port Optimizer was created by the port in 2017 to facilitate more efficient cargo flow through its terminals. Continually taking into account changing conditions at the port, the algorithm constantly updates cargo volumes, thereby allowing the horizon to improve forecasting over time and issue six-month-ahead volume updates every month.

“Data is a critical resource in moving goods across the supply chain and into the hands of consumers,” Wabtec’s President of Digital Electronics, Nalin Jain, said. “This is one more step in our journey to connect railroads, chassis providers, truckers, warehouse operators, and others across the supply chain with the insights they need to seamlessly move cargo in and out of ports.”

The port’s “Control Tower” data tool, which was also developed with Wabtec, was launched in February to help port stakeholders better predict and plan cargo flows. Currently, it serves as a one-stop virtual dashboard with multiple data points, including real-time views of truck turn times and other truck capacity management information.

Other features include the “Signal,” which gives a daily, three-week look at incoming cargo; and the “Return Signal,” which lets the trucking community know when and where to return empty containers to port cargo terminals. Also featured are recent and future trending volume data, as well as historical volumes and trends dating back to 2017, segmented by mode and specificity.

BNSF Temporarily Restricts Flow of Intermodal Containers out of LA, Long Beach Ports

For two weeks beginning July 18, BNSF Railway limited the flow of international containers from the Los Angeles-Long Beach seaport complex to the railroad’s Logistics Park Chicago intermodal terminal in order to deal with a backlog of intermodal cargo traffic at the terminal.

“The rate of containers tendered to us on the West Coast continues to exceed the rate of out-gates from Logistics Park Chicago,” railway spokeswoman Amy Casas is quoted as saying in a July 19 trains.com report. “We are confident in our ability to process and unload volume at the rate that we are seeing demand on the West Coast, provided that there is adequate capacity to receive and out-gate that volume at destination.”

BNSF has expanded off-terminal parking and boosted lift capacity by 20% in an effort to keep its terminals fluid amid a spike in intermodal volume, according to the same trains.com report.

“We continue to engage on a number of targeted efforts with our core ocean carriers, beneficial cargo owners, and the local dray community to work together on this challenging supply chain issue,” Casas was quoted as saying.

The shortage has been an ongoing issue. In June, BNSF CEO Katie Farmer told the federal Surface Transportation Board that customers were taking as much as two days longer than usual to unload containers and return them to intermodal terminals, which has created a shortage of chassis.

Chicago is the largest single destination for cargo that arrives at the ports of Los Angeles and Long Beach. From there, the cargo is sent via truck and rail to various points in the United States and Canada, particularly the Midwest and East Coast.

A move to suspend inbound moves from Southern California is far from unprecedented. Just days prior to BNSF’s action, a competing Class I railroad, Union Pacific temporarily suspend all inbound moves of international containers from West Coast ports to its Global IV terminal in Chicago for seven days due to congestion and slow turnaround times.
The Port of Oakland and its logistics partners have launched a battery electric truck demonstration project on its path to zero emissions at the Oakland Seaport.

In mid-July, the port debuted 10 new battery electric trucks at Shippers Transport Express (STE), a port-based trucking operation. The Peterbilt trucks cost a total of $5.1 million and are used to haul cargo within the port's maritime area. Funding for the trucks comes from a ZANZEFF grant (Zero and Near-Zero-Emission Freight Facility) program.

The battery electric truck demonstration project is expected to reduce greenhouse gas emissions. It expands options for another clean, cargo-handling technology at California ports.

The vehicles’ trips will be within the Port of Oakland. The data collected will include emissions reductions measurements. The trucks will also be monitored for how effectively they operate when hauling fully loaded containers.

Currently, 17 battery electric trucks are in operation at the port. Use of the drayage trucks is presently limited to short distances and lighter cargo loads due to range and highway weight limitations.

“Getting these cleaner-running and quieter trucks into service is a major step in testing the feasibility of battery electric trucks moving containers,” Port of Oakland Maritime Director Bryan Brandes said.

The demonstration project is expected to last about three months. Funding for the project comes from the California Air Resources Board, which invests in new zero- and near-zero emission technology.

Oakland spent $1.7 million to build 10 electric charging stations at STE, plus built a new electrical substation and power line extension to connect to the charging stations. The construction projects, which took about two years to complete, advance the port’s plan for reducing emissions from Port of Oakland sources.

The port’s monetary and construction commitments served as a grant funding match for the electric truck demonstration project. Additionally, the project is listed as a “Near Term Action” in the port’s Seaport Air Quality 2020 & Beyond Plan.

“We’re grateful to the California Air Resources Board for funding electric drayage trucks at the Oakland Seaport,” Port of Oakland Director of Environmental Programs and Planning Richard Sinkoff said. “Demonstration projects help us toward our goal of a zero-emissions seaport.”
Construction workers helping build the new Ketchikan cruise dock. Photo courtesy of John Binkley.
Cruise ship industry traffic is getting a new boost into Southeast Alaska in August with the arrival of the Norwegian Encore at the site of what was once a thriving pulp mill, now transformed in a multi-million-dollar dock facility to accommodate neopanamax sized vessels.

It’s one of the latest steps in the long-term transformation of Alaska’s southeasternmost major community, which lies on Revillagigedo Island, a summer fish camp for Tlingit Natives on the southern tip of the Inside Passage, which connects the Gulf of Alaska to Puget Sound.

“We’re excited the ships are coming back to Alaska,” said John Binkley, president of the Ward Cove Dock Group in Ketchikan. “I feel great, excited, over the moon. The island is all excited. Tour operators and developers of the Ward Cove Dock Group had been ready to welcome the big cruise vessels during the 2020 cruise season, but with the novel coronavirus pandemic sweeping globally no cruise ships showed up.”

Now the Norwegian Encore, voted Porthole Cruise Magazine’s best new ship of 2020, is set for a first call, non-revenue arrival with company guests on Aug. 4, followed by a
second stop with some 4,000 passengers on the 169,000 gross ton vessel on Aug. 12. All passengers and crew are required to be fully vaccinated against the COVID-19 virus. Other cruise vessels began arriving several weeks earlier at the city-owned Port of Ketchikan.

Binkley partnered in the dock investment with Ketchikan businessman Dave and Andrew Spokely, and then in partnership with Norwegian Cruise Lines, proceeded with the project, which is designed to moor two neopanamax ships at once. Neopanamax vessels are about 1,400 feet in length, 180 feet in width and 60 feet in draft, compared with 1,155 feet in length, 141 feet in beam and 47.5 feet in draft for panamax vessels.

Turnagain Marine Construction of Anchorage, the firm that built the dock, will be honored this fall with the receipt of Associated General Contractors of America’s National Environmental Enhancement Award, honoring members that “build the nation’s most impressive construction projects ranging across the building, highway and transportation, utility infrastructure and federal heavy divisions.”

Development of the new cruise dock itself had indeed presented a challenge.

“Permitting is always a big challenge,” Binkley said. “This was particularly challenging because it was a superfund site.”

When the old Ketchikan Pulp Company, the mainstay of the city’s economy, closed its doors in 1997, environmental regulators found extensive pollution at the mill site and at the bottom of Ward Cove, where the company had dumped waste into the water for years. Decomposing logs had
produced toxins that made the seafloor uninhabitable for many critters that dwell there. Ultimately, that seafloor area was capped with a thick layer of sand and subsequently former bottom dwellers returned.

To ensure the environmental safety of that sand cap, “we needed to reduce our footprint, so there was a unique design that reduced the number of pilings we had to use,” Binkley explained. “It was all a challenge also because of the global pandemic, but Turnagain Marine was just very organized an efficient,” Binkley said. “They have a great workforce, and they were careful in terms of the process.”

Jason Davis, president of Turnagain Marine Construction, was in fact quoted in a letter announcing the dock project, saying that “we anticipated the environmental challenges from the initial concept and designed the project to protect past environmental cleanup actions and the abundant marine life in the cove.”

Dock Design & Construction

The dock design was modified to use fewer pilings, and thus fewer penetrations of the sea floor, creating a more robust, unified structure, Binkley said. Silt curtains were used too, to contain sediment as the pilings were being installed.

Another design decision critical to the project was to have the dock not run parallel to the beach but perpendicular, so that the stern of the vessels remains in water over 130 feet in depth, Binkley said. That decision will avoid scouring of the bottom of the cove by the vessels’ propulsion systems, protecting the habitat for critters inhabiting the sea floor, he said.

During construction, Turnagain also had five marine mammal observers in the area on the lookout for whales and other sea mammals, he said.

Sound is critical to the survival of orca and bowhead whales, who rely on their keen hearing abilities to detect, recognize and locate important sounds to navigate, avoid predators, forage and communicate in the marine environment. For that reason, marine construction projects at ports and elsewhere are required under their permits to cease operations when these whales are detected within a certain distance of the construction work.

Work continues meanwhile on the uplands, which include some 57,000 square feet of old brick buildings from the old Ward Cove plant. Upland
Shipyards

facilities will include a welcome center for visitors coming off of the cruise ships into the Southeast Alaska rainforest. "People won't go into a parking lot, but a welcome center, to get oriented," Binkley said. “Then they will be taken to motor coaches” for onshore side trips, for cultural activities, visits to totem parks, kayaking and even ziplining.

“We have a lot of plans for the whole area,” he said. “We will develop that over time as finances allow.”

Officials in the city of Ketchikan, one of the communities most severely economically impacted by the pandemic, are ready, said Michelle O’Brien, executive director of the Ketchikan Chamber of Commerce. Independent travelers have been showing up, along with several smaller cruise ships, she said. Tourism season business is not back to normal, but it’s getting better, she said. PMP
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PACIFIC MARITIME MAGAZINE
FISHERMEN’S NEWS
The ocean and coastal towing industry is evolving, and one of the companies being aggressive in its efforts to keep up with the times is Crowley Maritime.

Crowley, which is based in Jacksonville, Florida, has a significant presence on the West Coast, including locations in Alaska, California and Washington state. The company and its various business arms and subsidiaries, including Crowley Fuels, Crowley Shipping, Jensen Maritime, Crowley Logistics and others – have been engaged in many moves — both literally and figuratively — over the past year-plus.

Crowley’s marine services group operates one of the more established fleets of ship assist and tanker escort tugs in North America. The company also operates and manages the largest U.S.-flag petroleum and chemical tank vessel fleet in the U.S., including 42 Jones Act qualified large petroleum transportation vessels that carried nearly 570 million barrels of product with more than 5,700 transfers in 2020.

Among the latest news within the company is that Crowley Maritime Corp. will build and operate eWolf, the first all-electric powered harbor tugboat that can complete a job without expending a drop of fuel, the company announced July 12.

The electric tug will replace one that consumes more than 30,000 gallons of diesel per year. The eTug, which will operate at the Port of San Diego’s Tenth Avenue Marine Terminal, is expected to be operational by mid-2023.

The 82-foot vessel with 70 tons of bollard pull advances Crowley and the maritime industry’s efforts toward sustainability and decarbonization. Over the first 10 years of its use, the operation of the eTug is expected to reduce 178 tons of nitrogen oxide (NOx), 2.5 tons of diesel particulate matter, and 3,100 metric tons of carbon dioxide (CO2) versus a conventional tug.
The eTug will be built by Master Boat Builders in Coden, Alabama, utilizing the design and on-site construction management by Crowley Engineering Services and its recently integrated Jensen Maritime naval architecture and marine engineering group. The vessel’s battery system will be charged at a specially designed, shoreside station developed with Cochran Marine.

It will also feature a design that allows the vessel to operate fully electric with full performance capabilities – and zero carbon emissions, according to Crowley Maritime. The eTug will feature a fully integrated electrical package.

“Our dedicated shipbuilding employees are proud to be working with Crowley to lead innovation with the construction of this first-of-its-kind tugboat,” Master Boat Builders President Garrett Rice said. “This vessel will set a standard in the U.S. maritime industry for sustainability and performance, and its zero-emissions capability and autonomous technology will benefit the environment and the safety of mariners and vessels.”

The eTug is being built as a result of a partnership between Crowley, the San Diego County Air Pollution Control District, the California Air Resources Board, the Port of San Diego, the U.S. Environmental Protection Agency and the U.S. Maritime Administration, all of which provided financial support and other resources.

“Unlike other designs, it’s totally electric,” Crowley spokesman David DeCamp told Pacific Maritime. “It does have some contingency measure in it, but unlike others, it doesn’t serve as a hybrid design, it has its own shoreside energy charging station, and we can customize that to a variety of locations.”

“What we’re doing is adapting renewable equipment to all of our vessel designs — not just the ocean towing — where it makes sense,” Crowley Business Development Director Bryan Nichols added.

New ATB
The eTug news came just a little over two weeks after the late June revelation that Crowley had taken delivery of its new 55,000-barrel, articulated tug-barge (ATB), the Aurora/Qamun.

The 410-foot vessel is the second ATB in Crowley’s fleet, after the Aveogan/
Oliver Leavitt, to be dedicated to the Alaska market. The company says it’s specially designed to add efficiency and range to transport clean petroleum products for Crowley Fuels, the company’s Alaska-based business unit.

“This purpose-built vessel was specifically designed by our in-house naval architects to safely and effectively operate in the Last Frontier, and especially in the remote regions of Western Alaska year-round,” explained Crowley Engineering Services Vice President Ray Martus, who oversaw the design and construction.

The ATB, outfitted with EPA Tier IV engines for reduced emissions, has a range of 4,300 miles, making it able to access most locations across Alaska. The vessel also features Z-drive propulsion and 400 hp bow thrusters, allowing it to move smoothly in tight areas, Crowley says.

Also, according to the company, the Aurora/Qamun meets Ice Class and Polar Code requirements, which include increased structural framing, shell plating and extended zero-discharge endurance with shallow water capability.

The tug was constructed by Master Boat Builders of Coden, Alabama, and the barge was constructed by Portland, Ore.-based Gunderson Marine, a subsidiary of the Greenbrier Companies.

“We are excited that the Aurora is headed to Alaska to do the important job it was designed and built to do and are grateful to have had the opportunity to be a part of this project,” Master Boat Builders President Garrett Rice said.

“As far as new products, the trend in the industry is when you have a routing operation, point A to point B or — A, B, C, D, however it might be — people are looking for more efficient methods of operation, more consistent, so that’s why we see more going to the ATBs,” Nichols said.

Crowley traditionally on the towing business has transitioned to pushing an ATB, Crowley Commercial Operations Director Coulston Van Gundy explained in an interview with Pacific Maritime. “We’ve found that pushing a vessel with fixed pins to be a safe, reliable method of moving oil.”

Earlier in June, Crowley announced that its ship assist and harbor escort services group had taken delivery of a new powerful and maneuverable, yet compact tugboat, the Apollo.

After completing its final outfitting at shipbuilder Diversified Marine Inc. in Portland, Ore., it was deployed for service performing harbor escort and ship assist in the San Francisco Bay. Like its sister tug operated by Crowley, Hercules, the Apollo was designed by Robert Allan Ltd., and is said by Crowley to be the nation’s most powerful tug under 80 feet at 78 feet long with an estimated 94 tons of bollard pull.

“As sustainability requirements become more important in California and other ports while container ships become larger, Apollo will be well-suited for the Bay Area market,” Crowley Maritime said in a statement. “Operating on biofuel, the vessel’s fuel-efficient and lower carbon footprint results from a pair of Caterpillar Marine 3516 Tier IV-compliant engines that meet federal mandates and the State of California’s environmental regulations.”

“Maneuverability improves safety and allows for more efficient service,” Crowley Vice President Paul Manzi said. “With Apollo, we have a rare mix of high performance with an efficient design with lower carbon footprint. It’s leading the way in California and showing the industry what’s possible in light of the sustainability push that’s taking place.”
Ocean & Coastal Towing

The new Crowley ATB Aurora/Qamun in Seward, Alaska during summer 2021. Photo courtesy of Crowley Maritime.

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As bigger ships dominate goods movement, ports along the West Coast know that they must adapt to remain competitive.

For years, port officials have been working on various projects to make their ports more attractive to customers, whether it’s improving rail capabilities or building the infrastructure to make shore power possible.

But the COVID-19 pandemic hasn’t always made that easy. At the Port of San Diego, for example, funding had to be reduced for nine maritime infrastructure projects, pushing completion to a future fiscal year when the port’s revenues recover.

Still, ports continue to execute their big picture vision of future growth, knowing that they must be ready when the world fully emerges from the pandemic. Here’s a look at major infrastructure projects at some of the West Coast’s smaller and medium-sized ports.

### Infrastructure Upgrades: Big Projects at Smaller Ports

By Karen Robes Meeks

An aerial view of the Port of Longview. Photo courtesy of the Port of Longview.

#### Port of Coos Bay

The Oregon International Port of Coos Bay has wrapped up its Tunnel Rehabilitation Project, part of a years-long effort to rehabilitate the nine tunnels dotted along the 132-mile Coos Bay Rail Line.

With help from an $11 million federal grant and $8 million in state bonds, the port launched the project in August 2019 — which involved structural repairs and addressing drainage issues — and...
finished it that November. The port has been making ongoing improvements to the line to keep cargo flowing through the region and maintain a maritime shipping connection in the Coos Bay Harbor.

Meanwhile, the port also worked on a project to rebuild the Charleston Ice Plant after it was damaged in a major fire in December 2019. Over seven months, the port teamed up with contractors and community members to create a facility shaped by the local commercial fishing industry. That resulted in having flake ice available in the Charleston Marina and bolstering the ice making capacity from two to five tons per hour and storage capacity from 115 to 158 tons to help fishermen and women during the high seasons. Since opening, the added production has helped improve delivery times in the high seasons, the port said.

In February 2020, the port partnered with Lost Creek Rock Products to create a transload facility on the North Spit of the Coos Bay Harbor. The site allows customers seamless end-to-end solutions for multimodal and multi-commodity situations, according to the port.

“This facility has been a key connection which has supported job growth, enhanced economic vitality and reduced truck traffic on the coastal highways,” said port spokeswoman Margaret Barber. “One ton of freight can move more than 450 miles on a single gallon of diesel fuel by rail.”

Meanwhile, there are plans to repair and replace 15 steel bridges along the rail line, thanks to an award notice in December 2018 for a $20 million BUILD grant from the U.S. Department of Transportation. The work, which will be matched with a $5 million state grant, calls for rehabilitating all three swing span bridges along the line.

And in October, the port received a $10 million federal Port Infrastructure and Development Program grant to complete a comprehensive tie replacement and resurfacing program, work that will be critical in maximizing the rail line’s overall speed, safety and reliability.

As for other upcoming projects, the port has several on its docket, including an effort to partner with the U.S. Army Corps of Engineers to widen and deepen the navigational channel to accommodate larger cargo ships, a move to enhance the area’s global competitiveness. The project will expand the existing channel from minus-37 feet and 300 feet wide to minus-45 feet and 450 feet wide.

There’s also an effort to repair the North Jetty, work that’s vital in keeping mariners safe as they move in and out of Coos Bay Harbor. In January, the port was told that the Army Corps of Engineers is including $34.65 million toward repairing the North Jetty in its 2021 work plan.

**Port of Longview**

This Southwest Washington seaport, which boasts 1,200 feet of on dock rail and three rail lines adjacent to the bulk rail, is building upon those features with two major projects.

One project seeks to expand on the two-track Industrial Rail Corridor. Built by the port in 2004, the corridor created a direct connection between the marine terminals and BNSF Railway/Union Pacific Class I mainline rail. A vehicular overpass and 3.2 miles of rail track were put in and three at grade crossings were
removed to improve efficiency and safety.

Since then, the port has attracted multiple tenants, including EGT Grain Terminal, and cargo volumes at the port have soared nearly 600%, from 1.4 to 9.5 million metric tons, according to port spokeswoman Ashley Helenberg.

The expansion project, which is currently in the permit/engineering and property acquisition phase, calls for building a six-track rail bed adjacent to the existing corridor, adding two more 8,500-foot rail tracks and lengthening the current tracks from 7,500 feet to 8,500 feet to make room for growing unit train lengths. The port expects construction to begin in 2024.

“Building out the full rail bed at once prepares the port for future, long term growth and allows for expedited future expansion as cargo volumes and rail demand rises,” Helenberg said.

The second project currently underway involves the North Rail Connection, a critical link in the port’s internal rail system serving marine terminals and industrial tenants.

The $4.4 million project - anticipated to be finished later this year - will add 4,960 feet of new track and realign an existing 1,540 feet of track over to complete the link between the two more efficient areas in the system. This work will do away with congestion along the rail and boost overall rail capacity, including creating better cargo flow and railcar storage necessary for staging inbound/outbound rail traffic, according to the port.

**Port of Port Angeles**

More than a decade ago this Washington state port, known for its longtime timber business, knew that it needed to diversify its portfolio to stay competitive and that the 18-acre former PenPly Mill property would be key to that effort.

“As anyone who is familiar with the economic history of the Olympic Peninsula can attest, the last 50 years has seen significant impacts to the timber industry that have had profound implications for the local economy,” according to a May 15 blog post by Chris Hartman, director of Engineering at the Port of Port Angeles and Wendell Johnson, principal planner at Reid Middleton, Inc.

That led to a years-long journey that involved the port partnering with the State Department of Ecology to clean up the property to prepare it for development and then choosing consultant Reid Middleton to create a master plan for a Marine Trades Center.

The result is a prime location on the Strait of Juan de Fuca that would be attractive to a spectrum of businesses that deal in marine trades.

The port, which touts itself as “a home to full-service boatyards with a complete range of repair services,” runs a pair of deep-water berths to accommodate repairs on large vessels and has 300-ton and a 500-ton heavy haul-out marine travel lifts.

The center features a boat wash facility with a 175-foot-long by 75-foot-wide wash pad and an 80-foot-long approach apron that was completed in 2018.

Meanwhile, the port is continuing to develop other parts of the master plan and seeking out matching funds to help pay for the infrastructure projects in the plan.

The port recently received a tentative award commitment from the regional...
Economic Development Authority with the condition that the port secure permits for a new stormwater outfall where much of the runoff created from the project would go into the bay. The port and its consultants are working on that effort.

“The port continues to move forward on a resilience path for the site, creating economic opportunities and environmental improvements, while incorporating the flexibility to adjust to future shocks,” said Hartman and Johnson.

Port of Redwood City

The Port of Redwood City says it has been able to remain resilient during the pandemic, and continues to move forward on several infrastructure projects.

This Northern California port has been working to bolster security measures for the new $17 million wharf it built in 2017. The new wharf, which can withstand an 8.9 magnitude earthquake and accommodate three-to-five feet of sea level rise, got the attention of the federal government, which designated the port as a federal staging area in the event of an emergency.

Since then, the port has been successful in winning funds through the Port Security Grant program from the Department of Homeland Security, netting about $1.5 million in 2019 and about $1.2 million in 2020.

“What that’s allowing us to do is now add more infrastructure on top of what we’ve already done for security measures in the wharf,” port Executive Director Kristine Zortman said.

Enhancements, which are in the design and engineering phase, include installing a new facility for police and fire boats, a new pier facility and other landside services.

The port is also in the process of building an inter-agency operation center with state-of-the-art equipment. In conjunction with that, the grants are also supporting upgrades to the port’s overall cybersecurity, as well as strengthening some of the existing landside security, including upgrades to fencing, guard shacks, cameras and surveillance equipment. The money will also pay for new training to regional first responders.

The port is also planning to build a new public fishing pier this summer. The $2 million project would be able to accommodate sea level rise, be ADA compliant and stand as a new modern structure that will open up the waterfront, according to the port.

“We issued our request for interest, and that’s really for us to be able to see who wants to partner with us to do major infrastructure as it relates to activating the waterfront with destination type users, whether it’s a restaurant or a hotel or visitor serving, the types of uses that would really have a nice nexus along the water,” Zortman explained.

Meanwhile, the port is moving forward on a future ferry service that would link Redwood City to San Francisco and/or Oakland and offer Silicon Valley residents more mobility in the Bay Area. Earlier this year, the respective agencies approved and accepted the findings in a feasibility study, and say they hope to have a business plan completed by the end of this year.
Port of San Diego

Despite the pandemic, the Port of San Diego has been able to complete several major infrastructure projects, including two on the Chula Vista Bayfront: the $5.4 million Sweetwater Bicycle Path and Promenade, and Sun Outdoors San Diego Bay, a new RV resort that opened in early May that features 197 RV sites, 49 vacation cottage rentals and amenities such as a café and bar, indoor/outdoor gym, arcade and pool with panoramic views.

In July 2020, the port and restaurant operator The Brigantine, Inc. finished the Portside Pier project on North Harbor Drive. The work involved building a new over-the-water platform, supporting piles, a new, two-story restaurant structure, a public dock and dine facility, a second level perimeter walkway, and a viewing deck with tables and seating for up to 108 visitors.

Last summer, the port finished the first phase of its Tenth Avenue Marine Terminal modernization project, which involved removing two obsolete warehouses, making laydown space for project cargo like windmill components and making improvements on its on-dock rail, utilities and a stormwater treatment system that was developed to maximize stormwater capture at the terminal.

For future phases of the Tenth Avenue Redevelopment Plan, the port plans to make a number of improvements, which include bolstering its consolidated dry bulk storage and heavy lift capacity, enhancing the existing conveyor system, refurbishing the existing molasses tanks, demolishing a warehouse and adding more storage space.

The port is also looking to install a microgrid, battery storage system, and electrical infrastructure at the Tenth Avenue Marine Terminal, officials say.

Construction is expected to start this year on the microgrid, which will be able to give backup power to port facilities, including security infrastructure, lights, offices, and the existing jet fuel storage system. The project is expected to help lower carbon dioxide by about 360 metric tons from the port’s baseline for electric energy consumption.

The port also plans to double shore power capability at its B Street and Broadway Pier cruise ship terminals in an effort to lower greenhouse gas emissions on and around San Diego Bay. In April, port commissioners approved $4.6 million for the project, which involves buying, building and putting in additional shore power equipment so two cruise ships coming to San Diego can plug in simultaneously.

The port has said that it hopes to finish the project by September 2022, before new California Air Resources Board rules mandates cruise ships to use shore power starting Jan. 1.
American Marine Corp: Hawaii Infrastructure Projects

Not all planned or maritime-related infrastructure improvement projects are being undertaken by port districts. In Hawai‘i, a number of improvements have been embarked on by state and local governments, as well as other entities. One company that’s helping develop a number of them is American Marine Corp., which is headquartered in the Aloha State and also has a large presence California and Alaska. Some of the various projects that AMC has been participating in include:

**REPAIR SEAL TEAM DELIVERY VEHICLE BOAT RAMP AND FINGER PIER**

AMC has been working as a sub-contractor to International Construction, Inc. on a Naval Facilities Engineering Command (NAVFAC) project in Pearl Harbor, Oahu, Hawaii. The project involves the construction of a new boat ramp and finger pier to help meet the expanding needs of the U.S. Navy Seal teams stationed on Joint Base Pearl Harbor Hickam.

AMC says that it plans to utilize a Watson EDT-7 hydraulic drill rig, its derrick barge AMC 160, and Delmag D36 diesel hammer to pre-drill and drive new concrete piles to support a new boat ramp and finger pier. After pile driving, the derrick barge AMC 160 in conjunction with AMC’s ADCI certified divers, will install underwater precast concrete pile caps, suspended slab, and boat ramp panels.

**PEARL HARBOR SEDIMENT REMEDIATION**

AMC is working as a sub-contractor to Cape Environmental Management Inc. to place activated carbon (AC) on the sea floor under numerous piers and in open water areas of Pearl Harbor in an effort to encapsulate contaminate. Before any work was completed AMC needed to create a layout specific for each under pier and open water area. This was done in order to ensure project requirements of two-inch and one-inch application thicknesses.

AMC’s approach to disburse AC utilizes a blower machine placed on the barge and loaded via telehandler forklift into the blower’s hopper (2,500 pounds of AC). Deck crew then distributes AC under the pier into the desired square footage. In open water application, AMC devised a floating target box using HDPE piping and attached turbidity curtains to create a movable containment area while crew is applying product. To date, the project had applied roughly 3.9 million pounds of AC onto the ocean floor.

**PORT ALLEN MAINTENANCE DREDGING**

AMC was contracted by the U.S. Army Corps of Engineers to conduct maintenance dredging in Port Allen, Kauai, Hawaii. The company used the derrick barge DB Seattle and the scows Pt. Vashon and Pt. Basalt to conduct the dredging. AMC dredged about 482,000 cubic yards over a 90-day period. The crews were working in two 12-hour shifts, seven days a week.

**WAIIKIKI SAND REPLENISHMENT**

American Marine has been working as a sub-contractor to Kiewit Infrastructure West Co. to pump in excess of 20,000 CY of sand from offshore of Waikiki Beach to a dewatering basin where Kiewit then distributed the sand on Waikiki Beach. AMC has utilized a newly purchased Damen DOP150 hydraulically driven dredge pump connected to an excavator with an AMC-designed jib.
Western States’ Transportation Leaders Call for Clean Ports Funding in Federal Infrastructure Package

Transportation and clean air officials in California, Oregon, Washington and other states have sent a letter to U.S. Senate and House leaders urging support of federal funding for clean ports.

In the letter, the signatories express support for President Joe Biden’s American Jobs Plan proposal to invest an additional $17 billion in coastal ports, inland waterways, land ports of entry, and ferries. They also call out the need to invest in zero-emission infrastructure and equipment at the nation’s seaports in order to build “a cleaner, better future” and transform the system that moves the nation’s freight, especially as the economy recovers from the COVID-19 pandemic.

“Communities surrounding ports and freight corridors have long suffered from increased pollution and harmful emissions,” California State Transportation Agency Secretary David Kim said in a prepared statement. “Working together, we can quickly develop a clean and modern port and freight system that strengthens our economy and communities.”

“Communities adjacent to our ports and beside truck-laden highways are among the hardest hit by toxic diesel pollution,” California Air Resources Board Chair Liane Randolph added. “California is investing billions of dollars to accelerate the necessary shift to zero-emission short-haul trucks and cargo-handling equipment, and much cleaner harbor craft. We call on the federal government to join us in this environmental justice challenge with infrastructure investments at our ports and along our trade corridors to support our efforts, and finally clean the air these communities breathe.”

The letter, which is dated July 14 and was addressed to House Speaker Nancy Pelosi and Senate Majority Leader Chuck Schumer, notes that many states are making major investments in zero-emission freight equipment and infrastructure, and that sustained federal funding will increase the number of states committed to zero-emission transportation.

An example used is Gov. Newsom’s California Comeback Plan, which supports California’s efforts to tackle climate change with a $3.9 billion package to accelerate zero-emission vehicle (ZEV) goals, leading to cleaner air for future generations. This includes more than $1 billion to put 1,000 zero-emission drayage trucks, 1,000 zero-emission school buses and 1,000 transit buses, as well as the necessary infrastructure, on California roads.

“Working together, we can quickly develop a clean and modern port and freight system that strengthens our economy and communities.”

California State Transportation Agency Secretary David Kim

An additional $925 million is intended to help drive consumer adoption of ZEVs, including funding to expand the state’s “Clean Cars 4 All” incentive program for lower-income Californians.

“In California, about 30,000 heavy-duty trucks operate at the state’s seaports. Communities near the seaports have higher cancer risk and high rates of asthma compared to the rest of California. Across the nation, other communities near major ports face similar challenges,” the letter reads in part. “We know we can do better. Modern and clean ports and freight systems are key to American competitiveness and investing in that future will create good jobs.”

“Federal funding to convert existing polluting vehicles and equipment to zero-emission and provide associated charging infrastructure would accelerate progress already underway,” the letter continues. “For example, converting drayage fleets and similar equipment at freight hubs, as well as making corridor investments of zero-emission charging infrastructure, can accelerate the turnover of heavy-duty vehicles, lead to greenhouse gas reductions, and provide especially important air quality benefits for nearby communities.”

The letter goes on to state that currently 19 zero-emission truck manufacturers are producing dozens of truck models that are now in use.

“These zero-emission vehicles are providing benefits to nearby communities in the form of reduced emissions and jobs that support a 21st century economy,” the letter asserts. “Seaports and freight hubs are also developing greener infrastructure and can do even more with federal support.”

“Sustained federal funding would greatly accelerate the roll-out (of zero-emission freight equipment and infrastructure) and with Congress’ help, we can build on our successes and increase the number of states making commitments to zero-emission transportation,” the letter continues. “We ask that federal funding recognize these efforts and structure support programs to focus on states making such commitments.”

In addition to Kim and Randolph, signatories to the document include Hawaii Department of Transportation Director Jade T. Butay; the Oregon Department of Environmental Quality’s Air Quality Division Administrator, Ali Mirzakhalili; Washington State Department of Ecology Director Laura Watson; and Washington State Secretary of Transportation Roger Millar.

Officials from Colorado, Delaware, the District of Columbia, Louisiana, New Jersey, New York and Vermont are also listed as co-signers.

The $2.2 trillion American Jobs Plan, which was unveiled by the Biden Administration in March, could be voted on by Congress later this summer.
Time Slot Management: A Solution for Port Congestion?

By Gordon Feller

Severe congestion problems in global maritime supply chains affect everyone connected in any ways to the flow of containers. In response to the crisis, several institutional and academic experts have published a paper introducing the concept of ‘dynamic time slot management.’ They propose the use of time slots and data sharing to empower different parties to make more informed and flexible plans.

The goal is to overcome the disruptions and congestion in the supply chain system – with the understanding that improving supply chain visibility is a key element of the effort.

The authors call for an expansion of the so-called Just-in-Time arrival approach. They want to incorporate a slot management concept that includes a dynamic view and management of J-I-T arrivals and departures to better manage uncertainties.

Disruption and congestion are occurring across the global maritime supply chains. Since the summer of 2020, rising capacity shortages in terms of boxes, ships and port infrastructure have driven maritime and port actors to find alternative options and to optimize infrastructure usage. The debate about resolving the situation centers around just-in-time vessel arrival at ports. However, that only addresses part of the problem. The many operators and clients of maritime supply chains need to overcome these times of continuous shocks, disruptions and high uncertainty. This works best with a high level of visibility.

A new research paper by 11 notable authors is making the case for a fresh approach to the problem. Entitled “Improving a congested maritime supply chain with time slot management for port calls,” it proposes the use of time slots and data sharing. The authors argue that this strategy empowers the different parties to make more informed and flexible plans to overcome the disruptions and congestion in the supply chain system and improve supply chain visibility.

Is it time for an expansion of the J-I-T arrival approach? It is possible to incorporate a slot management concept that includes a dynamic view and management of J-I-T arrivals and departures to better manage uncertainties?
Insufficient Synchronization

Port congestion, poor schedule integrity and container imbalances are making headlines. The recent *Ever Given* incident inside the Suez Canal brought shipping to a halt, and it made the delayed arrival of cargo into a global news event. But the problems go much further and deeper. Many now see maritime supply chains as disjointed. They think that ports are insufficiently synchronized with ship journeys and with multimodal transport capacity in the hinterland. Record high freight rates reflect the current situation in the maritime sector. With the supply chain under such intense pressure, the resulting imbalances between demand and supply have led to a surge in the prices to move containers.

Over the last several months, growing West Coast congestion, in Long Beach and Los Angeles and Oakland, has worried customers, shipping lines, government executives, and others. These West Coast ports together handle about 40% of U.S. imports from Asia. Recently, delays at these ports have reached extraordinary levels, with some of the largest ships waiting nearly three weeks to get to berth, with obvious impacts on both import and export cargo flows.

The congestion has been blamed on shortcomings in infrastructural and resource capabilities. But the situation is more complex than that, as the reasons for constrained port infrastructure are many. For example, in the case of Oakland, it is understood that a ship (the *NYK Delphinus*) caught fire (in May) and was occupying a berth much longer than planned. Manning availability at the ports has also been questioned.

The main concern for supply chains is to reach higher levels of certainty throughout the chain while also capturing possibilities to reduce costs and emissions. Shipping companies as well as the clients of the maritime supply chains try to develop mitigating strategies to reduce vessel waiting times and uncertainty about when a vessel will be served by the port, such as by getting to the port area as quickly as possible or by overbooking facilities. This can be wasteful, costly and inefficient.

The fundamental underlying cause for the current delays and high freight rates is a shortage of capacity, including ships, containers, trailers, and vehicles needed for the intermodal transport operation.

Globally, congestion arising in capacity-constrained areas will continue to occur. The disruption in the container port system in southern China, like in the West Coast ports, is another recent example. Such disruptions often impact each other. Congestion tends to move from location to location along capacity-constrained supply chains. For example, congestion at West Coast ports may be temporarily relieved with less ships traveling from Asia to the U.S. But, as the constraints ease in Asia, congestion on the West Coast could re-emerge.

It is commonly assumed that ships drop anchor outside a port and sit and wait when confronted with port congestion. However, a significant number of ships waiting for a berth opt to drift or loiter outside the port instead.

For example, the port rotation from Long Beach to Oakland with a usual travelling distance of around 385 nautical miles peaked at an average travelling distance of more than 1,600 nautical miles for the larger container vessels. For rotations from Los Angeles/Long Beach to the congested zone of Oakland/San Francisco, port congestion increased the usual steaming distance by a factor of at least four.

The same trend of expanding travelling distance can also be observed for the 145 ships that conducted 322 port calls in Oakland over a 15-month period originating from Long Beach (see accompanying graphic). For ships travelling in the opposite direction (Oakland to Long Beach) in the same 15-month period the distance travelled ranged from 389 nautical miles to 425 nautical miles, inferring that Long Beach was less congested, resulting in reduced waiting times and therefore less need for anchoring outside the port and fewer ships loitering and adding unnecessary miles to the distance travelled between the two ports.

Digitization Opportunities

Long Beach and Oakland aren’t the only ports facing such a situation. The maritime sector is putting increasing focus on seeking opportunities from digitization that can enhance coordination and synchronization in the self-organized ecosystem of the maritime supply chain network.

One promising initiative is the introduction of virtual vessel arrival and standardized data exchange for just-in-time arrival promoted by numerous stakeholders associated with the maritime industry. The proposed J-I-T arrival approach makes the case that a port provides a recommended time of arrival. This approach could also help, in part, to address what is needed for the reduction of greenhouse gas emissions in the recent International Maritime Organization Global Industry Alliance’s guide on J-I-T. However, J-I-T limits itself to a port to ship interface and could result in a one-sided port view which may cause concern for shipping lines particularly during times of port congestion.
One way of avoiding this is the introduction of slot times, that could be used in an elastic way, and under conditions that all the involved parties collectively govern. When implemented in a transparent fashion, this would also give beneficial cargo owners increased visibility and greater confidence, which would lead to less uncertainties, a reduced requirement for contingency buffering and less money wasted.

Accordingly, the authors propose an expansion of the J-I-T arrival approach to incorporate a slot management concept that includes a dynamic view and management of JIT arrivals and departures. This would be informed by shared data providing up-to-date progress and planning information on queues and waiting times associated with ports as maritime chokepoints.

It would allow all participants to operate more effectively in the extensive maritime chain.

The research paper’s 11 authors include: Mikael Lind, a professor of Maritime Informatics at Chalmers, Sweden, and Senior Strategic Research Advisor at Research Institutes of Sweden (RISE); Wolfgang Lehmann, an operating partner at service provider Anchor Group; Jan Hoffmann, head of the Trade Logistics Branch of the United Nations Conference on Trade and Development; Lars Jensen, an independent advisor and consultant at Vespucci Maritime (formerly known as SeaIntelligence Consulting); and Thea Noteboom, chair professor at the Maritime Institute of Ghent University and Professor at Antwerp Maritime Academy and University of Antwerp.

The other authors are: Torbjörn Rydbergh, founder and Managing Director of information services company Marine Benchmark; Peter Sand, Chief Shipping Analyst with the Baltic and International Maritime Council (BIMCO); Sandra Haraldson, senior researcher at RISE; Rachael White, managing director of Cool Logistics Resources and CEO of Next Level Information; Dr. Hanane Becha, the lead of the United Nations Centre for Trade Facilitation Cross Industry Supply Chain Track and Trace Project; and Patrik Berglund, CEO of shipping industry services provider Xeneta.

A KEY ORGANIZATION PUSHING THE USE OF TIME SLOTS AND DATA SHARING

The goal of the Smart Maritime Network (SMN) is to provide a platform to promote the benefits of enhanced integration and data sharing among stakeholders within the maritime and transport logistics sectors, informing and educating the industry on technological developments and innovations while providing wider opportunities for relationship building and knowledge sharing.

According to the SMN, achievement of this is planned through the creation of a website offering free access to relevant industry news, interviews with thought leaders, white papers and presentations outlining new technologies and processes, as well as a range of podcasts and video content, to provide a comprehensive knowledge bank on maritime innovation in the sector.

To widen the reach of the knowledge network, SMN holds a series of regional events targeted at local maritime industry stakeholders to present new ideas to key companies while addressing issues of specific local importance, communicating the overarching goal of a connected and integrated industry to a global audience.

Activities also include the creation of a Smart Maritime Council, a series of private meetings for maritime technology developers and systems integrators providing a platform for discussions on the development of a wider range of mutually beneficial partnerships, on issues relating to compatibility, standardization and harmonization.

Council meetings are planned to take place alongside SMN conferences in various locations, to provide an opportunity for a wide range of companies and their representatives to become involved.

Ultimately, according to the SMN, it’s expected that the Council would be able to drive improved collaboration in a number of areas where competition is not conducive to the best interests of the industry, and work towards the agreement of guidance notes on future regulation of maritime technologies for proposal to relevant authorities.

SHORESIDE APPOINTMENT & RESERVATION SYSTEMS

Although the concept of ‘dynamic time slot management’ isn’t commonplace for ocean carriers, appointment systems are something that other portions of the maritime supply chain have relied on for years.

For example, many terminals at major U.S. West Coast ports, including LA/Long Beach, Seattle, Tacoma and Vancouver, BC, rely on appointment systems for drayage trucks shuttling cargo containers to and from the port.

The big issue at some ports is that there isn’t an umbrella appointment system covering all terminals. For example, at the ports of LA and Long Beach, there are 12 different container terminals. The area’s drayage trucking community has expressed a desire for a single access point to make reservations or appointments, rather than having to visit 12 different companies’ websites.

Port of LA spokesman Phillip Sanfield has previously said the port’s position is that there is a single, front-end system, like Open Table or Expedia would allow each terminal to maintain its current reservation system and just have a single portal communicating with its system.

Regarding the trucking/distribution industry, it has used appointment systems for decades in order to alleviate congestion at warehouses. Under its system, trucks are typically given a window of about an hour or two to arrive at a warehouse. If they miss that window, they are turned away upon arrival the facility, and the shipper is subject to being fined for missing the appointment.

So if ocean carriers and their intermediaries are looking at the possibility of implementing appointment/reservation systems, they have plenty of supply chain partners that they can look to for helpful advice.
Maritime Cyber Security — A Time to Raise Awareness

By Ernie Hayden

Besides the impact of COVID19, the news of 2021 has been full of headlines regarding cyber attacks on critical infrastructure. For instance, you’ve probably heard about the Colonial Pipeline ransomware attack or the attack on the JBS meat processing plant; however, are you aware that the maritime sector is also under cyber-attack? For instance, as of July 2020, cyber-attacks on the maritime industry have increased by 900% in three years according to cyber defense solutions provider Naval Dome.

Basically, threats to maritime computer systems are on the rise, and are here to stay. As such, this magazine has asked me to provide a bi-monthly column regarding maritime cyber security issues thus helping you be more aware of the risks and offer ideas on ways to mitigate your vulnerabilities.

Terms of Art
- **Cyber Security**: Cyber security is defined as the collection of tools, policies, security concepts and safeguards, risk management, training, best practices, and technologies used to protect the cyber environment, organization, and user's assets.
- **Information Technology (IT)**: Think of IT as the equipment and systems used in processing, handling, and storing digital information used for the administrative and commercial operation of an enterprise. This would include email systems, databases, communication systems, and enterprise resource planning (ERP) systems.
- **Operational Technology (OT)**: OT are those digital or analog systems used to operate or guide the ship or seaport to perform its intended function. For instance, maritime OT systems include Vessel Integrated Navigation Systems (VINS), Global Positioning Systems (GPS), Automatic Identification Systems (AIS), radar systems, electronic charts, crane operations, traffic control, cargo handling, and vessel berthing systems.
- **Hacker**: A hacker is an unauthorized user who attempts to or gains access into an IT or OT system/component. The hack can be of malicious intent to damage the systems and steal data, or, the hack can be a political protest (e.g., “hacktivist”).
- **Malware**: Malware can be a digital virus, worm, Trojan Horse, or other code-based malicious entity that successfully infects an IT or OT system or components. This malware can hijack, alter, steal, encrypt, and/or delete sensitive data in an IT or OT system without the knowledge or permission of the user.
- **Phishing Emails**: These are the most used techniques to either place ransomware on a system or illegally steal data from users. The phishing email is disguised to look like it came from a legitimate and reputable company or person; however, the message contains malicious attachments or links that can lead to theft or unauthorized encryption of sensitive data.
- **Social Engineering**: This is an approach where people are manipulated to violate security procedures, thus allowing the attacker to gain access to a facility, system, or network.
- **Back Door**: This is a secret method of bypassing normal authentication and verification when accessing a system. Sometimes vendors insert “back doors” into digital systems to allow for remote troubleshooting.

Essentially, when you look at a ship or seaport, you can divide the digital assets and systems into IT and OT. According to Naval Dome (www.navaldome.com), several recent attacks have raised concern in the maritime community. For instance, the US-based gas pipeline operator and shipping company MSC was hit by malware which shut down the shipowner's Geneva headquarters for five days. Also, Iran's Shahid Rajee port was hacked thus restricting all infrastructure movements and creating a massive backlog.

Key Governing Organizations
The predominant international organization guiding maritime cyber security is the IMO; however, each country's coast guard or maritime security agency may also have some requirements.

- **International Maritime Organization (IMO)**: Since shipping and port management are related to international trade, a key agency governing maritime cyber security is the IMO. According to the IMO website (www.imo.org), the IMO is the United Nations' specialized agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships. International maritime security became an integral part of IMO's responsibilities on July 1, 2004.

IMO has recognized that a ship's onboard IT and OT systems can be hacked just as easily as shore-based systems. Such security breaches have the potential to do considerable harm to the safety and security of ships, ports, marine
facilities, and other elements of maritime transportation systems. Hence, IMO has taken initiative to raise awareness across the industry on ways to tackle the cyber threat by promoting a maritime cyber risk management approach. In fact, IMO has issued Guidelines on Maritime Cyber Risk Management (MSC-FA.1/Circ.3) tasking shipping industry owners and key stakeholders to read, understand, and follow as much as practical.

- The Guidelines on Cyber Security Onboard Ships has been produced and supported by such organizations as the Chamber of Shipping of America, Digital Containerization Association, International Association of Dry Cargo Shipowners (INTERCARGO), International Union of Marine Insurance (IUMI), and the World Shipping Council (WSC). These guidelines are referred to by the IMO and aim to help in developing proper cyber risk management strategies in accordance with relevant regulations and best practices on board a ship. The document focuses on work processes, equipment, training, incident response, and recovery management.

United States Coast Guard certainly has jurisdiction for any ships and port activities in the United States. The USCG has published Guidelines for Addressing Cyber Risks at Maritime Transportation Security Act (MTSA) Regulated Facilities. This document provides clarity around existing MTSA regulations in 33 CFR parts 105 and 106.

Overall, for general knowledge and training, I would suggest beginning with the second document – The Guidelines on Cyber Security Onboard Ships.

A Call to Action
The intent of this column is to raise awareness on maritime cyber security events and issues. But it certainly is an occasion for all maritime stakeholders to better understand the cyber threat environment. There’s a large opportunity to train your crews on cyber-safe policies and guidelines. Also, training staff on critical thinking to help improve threat awareness and threat detection can minimize inadvertent human errors and exposures.

In parallel with the training and orientation you provide on maritime cyber security, begin to perform risk assessments of your ship or seaport. Take a hard look
Cybersecurity

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at the vulnerabilities you have and look for ways for hackers to break in and attack your systems. Use trained professionals to aid in ship/facility and seaport walkthroughs to identify areas needing corrective action and improvement.

Lastly, for an interesting read, take a few minutes to scan An Overview of Maritime Cyber Security Challenges, by Androjna, et al.

Thanks for reading this first article on maritime cyber security. If you have any questions or have suggestions for future column content, please send your thoughts to enhayden1321@gmail.com.

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Piracy and Armed Robbery Incidents at Lowest Level in 27 Years, IMB Reports

The latest global piracy report from the International Chamber of Commerce’s International Maritime Bureau (IMB) details 68 incidents of piracy and armed robbery against ships during the first half of 2021, down from 98 incidents during the same period last year, and the lowest total since 1994.

During the first six months of this year, IMB’s Piracy Reporting Centre (PRC) reported 61 vessels boarded, four attempted attacks, two vessels fired upon, and one vessel hijacked.

Despite the overall decline in reported incidents, violence against crews has continued with 50 crew kidnapped, three each threatened and taken hostage, two assaulted, one injured and one killed throughout the first half of 2021, according to data. Vessels were boarded in 91% of the reported incidents.

The Gulf of Guinea continues to be particularly dangerous for seafarers with 32% of all reported incidents taking place in the region, according to IMB. The region accounted for all 50 kidnapped crew and the single crew fatality recorded by IMB during the first half of 2021.

The number of kidnappings recorded in the Gulf of Guinea in the last quarter is the lowest since Q2 2019, but pirates continue to target all vessel types throughout the region. IMB warns that fishing vessels have been hijacked in the Gulf of Guinea and later used as mother ships to target other merchant vessels.

Whilst IMB welcomes reduced piracy and armed robbery activity in the Gulf of Guinea, the risk to seafarers still remains,” IMB Director Michael Howlett said in a statement. “By reporting all incidents to the Regional Authorities and IMB PRC, seafarers can maintain pressure against pirates. Bringing together maritime response authorities through initiatives – like Nigeria’s Deep Blue Project and Gulf of Guinea Maritime Collaboration Forum – will continue and strengthen knowledge sharing channels and reduce risk to seafarers in the region.”

In early June, a bulk carrier was approached by a skiff with six pirates while transitioning through the region at around 210 nautical miles off the coast of Lagos. The carrier – equipped with appropriate vessel hardening – was able to prevent the armed pirates from coming onboard, but the incident demonstrates the continued capacity of pirates in the region to carry out attacks at further distances from the coast.

The Singapore Straits recorded 16 incidents in the first six months of 2021, in comparison to 11 during the same period in 2020. These attacks are considered opportunistic in nature, but IMB warns that in seven incidents the perpetrators were armed with knives. In three separate incidents, seafarers were reported to have been either threatened, assaulted or injured.

In comparison to the first half of 2019 and 2020, Callao Anchorage, Peru has experienced a two-fold increase in the number of incidents with nine incidents reported in total for 2021. There were four incidents in Q2 2021, and knives reported in three of these, according to the latest figures from IMB. Perpetrators in the region possess the capacity to carry out violent attacks with two separate incidents of crew being taken hostage and assaulted occurring in the first six months of 2021.

Vessels are also being advised to take precautionary measures while anchored in Manila Bay, Philippines, as four incidents were reported to IMB in the second quarter of 2021.

“Reporting piracy and armed robbery incidents is the first line of defense against future attacks,” said ICC Secretary General John W.H. Denton AO. “Sustained reporting to IMB will enable governments, maritime response agencies and other stakeholders to establish safer waters for our seafarers and smooth flow of goods throughout global supply chains.”

9 Hijackers Convicted in Togo’s 1st-Ever Piracy Trial

Nine pirates who attempted to hijack a ship in Togolese waters in May 2019 were sentenced in early July to prison terms ranging from 12 to 20 years during a trial in Togo, according to Paris-based news agencies Agence France-Presse and Africanews.

It was the first time that pirates have been tried in Togo, a small West African country that shares a coastline with several other nations on the Gulf of Guinea, which is a major trading route that now accounts for most of the world’s abductions of commercial crew by pirates.

A total of 10 pirates, including seven Nigerians, two Togolese and one Ghanaian, went on trial for “maritime piracy, willful violence and groups of criminals.” The Ghanian, who is on the run and facing an international arrest warrant, was on July 5 sentenced in absentia to 20 years in prison, according to the news agencies.

One Togolese national was acquitted while the other eight pirates were handed sentences ranging from 12 to 15 years.

The group had been accused of attacking the tanker G-DONA 1 on May 11, 2019.

“People should understand that piracy and armed robbery at sea will be punished,” prosecutor Kodjo Gnambi Garba told reporters. “And for these sea offenses, we will be uncompromising.”

According to the two French news agencies, pirate attacks in the Gulf of Guinea are mainly carried out by gangs from southeastern Nigeria who use speedboats to raid offshore commercial vessels and kidnap their crews for ransom.

In 2019, about 100 attacks occurred on the coast of West Africa, according to data from piracy research group Stable Seas. In April, the International Maritime Bureau reported that all 40 kidnapped crew incidents reported in the first quarter of 2021 took place in the Gulf of Guinea, a 3,500 mile stretch of coastline that partially winds around the continent.
PASSENGER ONLY FERRIES
With increasing congestion and regulatory burdens making overland transit expansion unattractive, passenger-only ferries are becoming increasingly popular transit options up and down the Pacific Coast.

In September, we’ll look at existing and planned passenger only ferry routes along the Pacific Coast, with an eye toward new technologies and administrative partnerships that are giving marine transit a ‘leg-up’ on other alternatives.

HIGH-SPEED CRAFT
From security applications to pilot boats to passenger transportation, high-speed vessels are benefitting from new technologies and designs. We’ll look at some of these diverse applications and the boats that have been launched to fill the needs of these operators along the Pacific Coast.

If you are involved in high-speed vessel purchase, construction or management, the September issue of Pacific Maritime Magazine can help you to reach clients all along the West Coast.

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