National Maritime Foundation

MAKING WAVES

A maritime news brief covering:

- MARITIME SECURITY
- MARITIME FORCES
- SHIPPING, PORTS AND OCEAN ECONOMY
- MARINE ENVIRONMENT
- GEOPOLITICS

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CONTENTS

MARITIME SECURITY

THE MOZAMBIQUE CHANNEL IS THE NEXT SECURITY HOTSPOT

- David Brewster

The waters off Mozambique are becoming a major new security hotspot in the Indian Ocean. An Islamist insurrection in northern Mozambique that the government seems powerless to suppress has also increasingly led to disruption in the Mozambique Channel, a key global shipping route. The Quad countries and European partners must help contain the problem before other actors step into a regional vacuum.

The insurgency in Mozambique has the potential to destabilise Southern Africa and embolden Islamists throughout the region. It threatens security in the Mozambique Channel, the 1800 kilometre long waterway between Madagascar and East Africa that carries some 30% of global tanker traffic. It is also the location of some of the world's largest gas reserves. The insurgency was started in 2017 by groups drawn from Muslim communities on the so-called "Swahili coast". This has now included more than 800 separate attacks across northern Mozambique, resulting in at least 2600 deaths and more than 600,000 people displaced. A report from the UN Secretary-General to the Security Council also pointed to transnational links, with Somali-based Islamists in Puntland acting as a "command centre" for Mozambique insurgents. However, other analysts discount close operational links with Islamic State.

Armed clashes escalated sharply in 2020, with attacks spilling over the border into Tanzania, where the government faces local Islamist extremists. There are also growing attacks on maritime infrastructure. In August, insurgents seized a key port in northern Mozambique from government forces, raising concerns that this is a first step in insurgents venturing into piracy, as occurred in the Horn of Africa. Maritime drug smuggling is a key source of funds for insurgents. The so-called "Smack Track" has long brought heroin grown in Afghanistan down the East African coast, where a substantial portion is now landed in northern Mozambique before being transported to Europe and elsewhere. Heroin is also increasingly supplemented by crystal meth, produced in Afghanistan from local shrubs. Another big factor is the development of a major offshore gas industry in the Mozambique Channel off northern Mozambique. This involves planned investments of some US$50 billion to extract an estimated 100 trillion cubic feet of gas, including a major onshore gas liquification plant. France's Total and US-based ExxonMobil are major investors. In January 2021, following a series of escalating attacks, Total began to move part of its logistical operations from northern Mozambique to safety on the French-administered island of Mayotte in the Channel.

The Mozambique government, which is in severe debt distress, is unable to take effective action against the insurgency, and has increasingly relied on mercenaries. But

it has been somewhat reluctant to accept international assistance. Russia has tried to promote itself as a partner, eyeing a share of Mozambique's offshore gas reserves for Gazprom and Rosneft. Moscow uses private security contractors as its proxies in many countries in Africa. In September 2019, up to 200 mercenaries from the Russian Wagner group were deployed to Mozambique with equipment and logistical support from the Russian Air Force and, possibly, also the Russian Navy. But the contractors suffered heavy casualties and were withdrawn from operations within months. France and other European partners are now stepping up efforts to contain the problem. France is historically a leading maritime security provider in the southwest Indian Ocean, with two French frigates and patrol boats based in French Reunion. But France lacks maritime patrol aircraft based in the region. Portugal, the former colonial power in Mozambique, has agreed to send a training mission of more than 1400 troops. Lisbon is also using its current Presidency of the European Union to lobby for the deployment of an EU military mission. Spain has also offered military support.

The United States is also finalising an offer of counter-terrorism assistance.

The South African Navy has conducted intermittent anti-piracy patrols in the Mozambique Channel since 2011, and is now establishing a new forward operating base at Richards Bay in South Africa's north in response to the insurgency. South Africa and its Southern African Development Community (SADC) partners have offered naval and intelligence support. But Mozambique appears reluctant to involve African partners. India has also long positioned itself as a net security provider in the south-west Indian Ocean and as a security partner to Mozambique. Since 2020, Indian Navy P8I maritime patrol aircraft, staging through Réunion, have conducted joint patrols with the French Navy in the Mozambique Channel. India is also in the process of constructing an air and naval facility on Mauritius' remote Agalega island, near the north end of the Channel, improving its ability to cover the region.

Australia will be wary of any new defence commitments in the western Indian Ocean. The Royal Australian Navy has been deployed there for years, interdicting smugglers on the Smack Track. But that presence is being reduced, following an increased focus on areas closer to home, including the Pacific. Australia may need to consider what non-military assistance it can provide. The Quad and like-minded partners have important interests in stopping the insurgency spilling further across Mozambique's borders or into the maritime domain. A decade ago, Somali-based piracy was the trigger for the international militarisation of the waters off the Horn of Africa. There are good reasons to avoid a similar dynamic in southern Africa. The crisis should also be seen an opportunity for countries such as France and India to demonstrate their value as security partners in the region. It may also be an opportunity to build cooperation with South Africa, which is increasingly a "swing state" in geopolitical competition. Failure to contain the conflict will leave a vacuum for other actors to fill.

This article is part of a two-year project being undertaken by the ANU National Security College on the Indian Ocean, with the support of the Australian Department of Defence.

Source: lowyinstitute.org; 19 March 2021

INDIAN NAVY SHIP JALASHWA REACHES COMOROS TO DELIVER 1,000 TONNES OF RICE

- PTI

New Delhi: Indian Naval Ship (INS) Jalashwa reached Port Anjouan in Comoros on Sunday to deliver 1,000 tonnes of rice as part of the Mission Sagar-IV, according to an official statement on Monday. An official ceremony for handing over the food aid from the Indian government to the Comoros government was held on Monday, the Indian Navy's statement noted. This is the second visit of an Indian Navy ship to the island country within a span of one year.

"Earlier, as part of Mission Sagar-I, in May-June 2020, the Indian Navy had delivered essential medicines to the nation and had also deployed a specialist medical team to work alongside their counterparts and to render assistance for dengue fever related emergencies," the statement said. INS Jalashwa, the largest amphibious ship of Indian Navy, has been specially sent to Comoros due to its large carrying capacity, it mentioned. "Comoros and India have always enjoyed close and friendly relations and have similarities of view on regional and global issues," it noted. Monday's handover ceremony was attended by Dhoihir Dhoulkamal, Minister of Foreign Affairs and International Cooperation of Comoros, and Djae Ahamada Chanfi, Minister of Maritime and Air Transport of Comoros. The Indian side was represented at the ceremony by Captain Pankaj Chauhan, Commanding Officer of INS Jalashwa. Mission Sagar was started by India in May last year to assist maritime neighbours such as Comoros amid the coronavirus pandemic.

Source: NDTV; 15 March 2021

INDIAN SAILORS ARE BEING CAUGHT IN A PIRACY BOOM OFF WEST AFRICA. ONE CAPTAIN HELD HOSTAGE SHARES HIS STORY

- CNN News source

That morning, Capt. Ripusudan Prasad phoned his wife, Anita, as he did every day from the oil tanker he commanded, the MT Duke. The ship was about eight hours from port in Lomé, Togo, from where Prasad planned to fly home to Kolkata, India. But, at 7:45 a.m., he got a call that would dramatically change his course. Prasad's chief engineer had seen a speedboat emerging from a supply vessel that had suddenly appeared beside their ship. By the time Prasad reached his ship's bridge, or control room, the smaller boat was racing alongside them — and about half a dozen men on it were shouting for the MT Duke to slow down. As Prasad and the engineer scrambled to the ship's citadel, a reinforced room meant to protect the crew in case of an attack,

they could see pirates climbing on to their vessel. As the pirates banged on the citadel door, Prasad took a headcount. One sailor was missing. He knew the pirates were likely to break down the door before help arrived, so he made a decision. The crew surrendered.

The kidnapping of Prasad and his crew in December 2019 exposes the perils for sailors in the Gulf of Guinea, off West Africa, now one of the world's most-dangerous places for piracy. It borders Nigeria, Africa's largest oil-producing nation, and is a hub for tankers coming and going from the region with lucrative cargo. West Africa is strategically important for India — and vice versa. India is Nigeria's largest trading partner, buying the biggest share of the country's crude oil, which make up the bulk of its Nigerian imports. And Nigeria is India's largest trading partner in Africa. All of that trade requires a lot of shipping by vessels often primarily staffed by Indians. But in December, India's Maritime Union (MUI) expressed "major concern" about the safety of Indian sailors in the Gulf of Guinea. "Maritime piracy has become a political issue, unfortunately, as governments of certain countries are unable or not willing to extend their control over various groups of pirates who manage to procure arms and ammunition without much difficulty," said Amar Singh Thakur, MUI's general secretary. The problem had become even worse with a rise in piracy during the coronavirus pandemic, the union said. India's national security adviser raised the issue of piracy with his Nigerian counterpart in New Delhi earlier this month, however, few details were given in the official readout about what would be done. At a United Nations Security Council open briefing last month, India called for "an urgent need to increase surveillance to ensure maritime security in the area, through increased international collaboration." Security for sailors on ships off West Africa is becoming increasingly important for India as it ramps up its Nigerian crude oil imports. But the question remains how to deal with the pirates — and how to best protect Indian sailors.

Wading through swamps

Traditionally, Somali pirates have posed the biggest threat to cargo ships in waters off East Africa. However, the sea off West Africa now dominates international piracy reports. Last year, pirates and armed robbers kidnapped at least 130 seafarers in 22 incidents in the Gulf of Guinea — accounting for 95% of all global maritime incidents, according to the International Maritime Bureau's (IMB) Piracy Reporting Center. Cyrus Mody, deputy director of the International Chamber of Commerce's commercial crime services at IMB, said piracy has always existed in the Gulf of Guinea, but for a long time shipping companies didn't report cases for fear of triggering higher insurance premiums or getting caught up in lengthy, complex investigations. "The number of incidents reported from the Gulf of Guinea have never accurately identified the true picture or true levels of violence in this region," he said. The pirates that attacked the MT Duke were armed with automatic assault rifles and machetes. They assaulted the crew and ransacked the ship, inspecting cabins and grabbing whatever valuables they could find — wallets, watches, phones.

Prasad says he emptied the safe in his cabin and handed over $6,000. When they slapped him, Prasad told them that's all there was. "Even if you kill me, I will have no money," he said. The crew consisted of 20 Indians and one Nigerian, who the pirates left behind when they discovered he was a training cadet. "They were not interested in him. They said his life is immaterial," Prasad said. The Indians were made to climb

onto a speedboat that took them to the supply vessel which the pirates had hijacked the night before. About 30 hours later, the supply vessel with its Nigerian crew was released, Prasad said. He said his crew traveled for another three hours by speedboat to reach a swamp in the Niger Delta. Many of the Indian sailors were still dressed in their nightwear, and waded through a knee-deep swamp in their shorts, boxers and slippers for 20 minutes until they reached a jungle camp, Prasad said. Within a week, Brito D'Silva, an able seaman (a senior member of the deck on crew), died of an unspecified illness. But the sailors' ordeal had just begun.

Piracy moves west

Piracy in the Gulf of Guinea is an extension of the organized oil crime on land that has long been a source of revenue for petty criminals, corrupt officials and militant groups. Initially, armed robbers would board vessels to smuggle oil to sell in local markets. But in recent years, law enforcement both at land and sea has targeted the illegal trade, so pirates have turned to ransoms as another way to make cash. Experts say stealing cargo is time consuming — it can take a couple of days — and extra policing means hijackers are more likely to be caught in the act. "The risk for this kind of operation has changed quite significantly," says Dirk Siebels, a senior analyst at Risk Intelligence, a Denmark-based security intelligence company. "But if you're kidnapping seafarers, you don't need much time — one to two hours maximum. So, navies have very little time to respond."

"The Duke incident," says Siebels, "is kind of unusual because there were so many people who were kidnapped." This is not completely unheard of. But it's usually three to five people, he says, "and it's usually the master, first officer, chief engineer — the sort of highest-ranking people — never mind the nationality, but those would be the people who would fetch the highest ransoms." For the Duke crew, pirates demanded 2 billion naira (about $5 million). The shipping company offered a fraction of that, about 2 million naira (about $5,000), according to Prasad, who accompanied the pirates while they negotiated for ransom via satellite phone. "Our company was playing a cat-and-mouse game," said Prasad. "They were just doing delay tactics, they were not interested in saving lives." MT Duke is owned by Union Maritime Ltd, a UK-based owner and operator of chemical tankers. The company is a significant player in the West African oil trade. Their shipping operations in India are managed by V. Ships, a prominent global ship management company. CNN contacted both companies for comment but hasn't received a response.

India imposes new rules

The world's maritime industry is predominantly steered by Asian crews from developing countries. After Filipinos and Indonesians, Indians form the largest group with more than 200,000 seafarers — nearly one in 10 of the world's total.

In recent years, dozens of Indians have been held for ransom. In 2018, 39 Indian seafarers were seized by pirates in the Gulf of Guinea, according to data provided by Stable Seas, the maritime program of One Earth Future foundation, a Colorado-based incubator of peacebuilding programs. Lydelle Joubert, an expert on maritime piracy at Stable Seas, says Indians weren't specifically targeted — there were just more Indians aboard ships in the Gulf that year. High numbers of Russians, Ukrainians and Filipinos have also been kidnapped in recent years, she added. In 2019, at least 47

Indians were kidnapped in four reported incidents. In the most dramatic of these cases in April, a small tanker — MT Apecus — was anchored off Nigeria's Bonny Island, just seven nautical miles from land, waiting to enter the Nigerian port, when pirates kidnapped five Indians and one Nigerian from the crew of 15 on board. "They took us in broad daylight," says Sudeep Choudhury, the ship's third officer. Choudhury spent 70 days in captivity in his boxer shorts — he had jumped out of bed when the pirates attacked and had no time to get dressed. During that time he said the pirates gave him very little food and water. Following that incident, India's maritime authority, Directorate General of Shipping, issued an advisory in May 2019, which read: "Foreign nationals, especially Indian seafarers, are being selectively targeted during such piracy/armed robbery incidents." It instructed recruiters to avoid engaging Indian seafarers on coastal vessels working solely within ports in the Gulf of Guinea. Joubert, from Stable Seas, said the directive led to fewer Indians being kidnapped, but it didn't solve the problem — five Indians were held for ransom in 2020. That was partly because the rules only related to ships operating solely within the Gulf of Guinea. They did not apply to vessels like the Duke, which sail international waters, said Prasad.

Nigeria's 'kidnapping industry'

In the jungle camp, the seafarers were oscillating between fear and boredom. Captain Prasad told his teammates that D'Silva, the deceased seaman, was recuperating in the hospital so they didn't panic. There was limited food and no sanitation. One day, the guards caught a king cobra that slithered dangerously close and cooked the snake for dinner. The Indians were terrified — they took turns to keep a watch at night for wild animals and safety in general. "I used to tell them, 'Just think about your families, don't think about yourself and that will propel you,'" Prasad says. At first, they slept on the ground in derelict huts. Then their kidnappers built newer huts using wood from the trees in the mangroves and tarpaulin. They were guarded by 15 armed men at all times, though the pirates who kidnapped them came and went," Prasad said.

Oil crime in West Africa can be traced back to disparities in how revenue from the region's natural resources is distributed. The wealthiest 1% of West Africans own more than everyone else combined in the region, according to Oxfam. Oil-rich Nigeria, among Africa's wealthiest countries, recently surpassed India for the highest number of people living in extreme poverty, around 89 million people, according to the world poverty clock. The guards at the camp were "educated, unemployed youth," Prasad said. They "were from the same communities which had been exploited for oil … they said they were fighting against the government and they had to survive so they needed the money," he added. "The communities from where the oil is being exploited are not benefiting as much as they would like to," said Mody, from the IMB. "The targeting of oil infrastructure and specifically vessels related to the oil industry were a means by which they were trying to express their dissatisfaction to their governments."

Since the last quarter of 2019, the attacks are not only on ships related to the oil industry but on all types of vessels, farther from the coast. "It is going up to 200 miles from the coastline, that is a huge distance," Mody said. "Nigeria has a problem with kidnappings in general," said Siebels. "The infrastructure is in place. You've got hostage camps, negotiators, foot soldiers … it's basically an industry."

Demand for ransoms

Nigerians are most vulnerable to kidnapping on land, but it's much more profitable to attack people at sea. "It's a very lucrative business to attack seafarers because usually that's covered by insurance and the ransoms that are paid up are usually quite significant in the context," Siebels said. There is limited data available on ransoms paid, but typically in the Gulf of Guinea it is about $50,000 to $60,000 per person, says Siebels. "If you have 20 people, you probably get — as bad as it sounds — you probably get a discount because you have such a number of hostages. But the overall ransom payment is obviously relatively high," he said. Paying higher ransoms only incentivize kidnapping, says Anja Shortland, a professor of political economy at King's College in London, an expert on piracy ransom money.

"People talk. Criminal communities gossip. If you can pay $100,000 per sailor, that's what people will come to expect. Then it's difficult to budge them," she said. The problem with diverging from that path, she said, results in more violent kidnappings. "You get people who don't know what they're doing coming into the piracy business and it's going to go wrong," she said. In 2013, 25 countries from West and Central Africa signed the Yaoundé Code of Conduct (YCOC), to strengthen cooperation against maritime crimes. But in a report last year Stable Seas said it hadn't reached its full potential, partly because of "corruption, poor judicial integrity, and political exclusion." In February, the International Maritime Organization called piracy in the Gulf of Guinea a "serious and immediate threat." It said a working group would be convened at its next Maritime Safety Committee meeting in May to examine issues in the Gulf of Guinea, and urged member states to have their say. India has reportedly drawn up its own Anti-Piracy Contingency Plan that would trigger a coordinated response from a number of parties acting under the guidance of the Ministry of Ports, Shipping and Waterways, in the event of a kidnapping.

But that plan is a reactive measure — it doesn't prevent kidnappings. Prasad says his experience has put him off working in the Gulf. After five weeks of negotiations, he says the pirates "got frustrated" and released them for $300,000, "comparatively a very small amount of money." Prasad said he and his teammates received $1,400 each as compensation from his employer, "not even three days' wage for a Master of the vessel." It's not just the financial impact that pains Prasad — last January, he was diagnosed with post-traumatic stress disorder (PTSD) caused by the kidnapping. Months later, he took an assignment on another ship. Now, Prasad calls his wife "every day, morning and evening. If I don't call her on time, she starts getting worried." And he vows he will never sail in the Gulf of Guinea again. "If a vessel is going to West Africa, I will disembark, whatever situation it is."

Source: abc17news.com; 20 March 2021

NEW ROYAL NAVY SHIP TO PROTECT 'CRITICAL' UNDERSEA CABLES

- Jonathan Beale

A new Royal Navy surveillance ship is to be built to protect "critical" undersea cables. Defence Secretary Ben Wallace warned "the lights could go out" if national infrastructure was lost, and the cables were "incredibly important". He also told the BBC's Andrew Marr that Russia had "taken a deep interest" in the cables and the UK would be "deeply exposed" without further measures.

It comes ahead of Monday's publication of the defence command paper. The document will give more detail for the armed forces on the conclusions of the integrated review of the UK's foreign and defence policies. But some parts were already announced this week, including the lifting of the cap on the number of nuclear warheads the UK holds in its stockpile. The government had previously committed to reducing the level to a maximum of 180 by the middle of the 2020s, but the move would allow the number to reach 260. Mr Wallace said it would ensure the country's nuclear deterrent was "credible", and would still be lower than other nations - pointing to France, which has 300. But Labour's shadow foreign secretary Lisa Nandy said the proposal had "baffled" opposition parties and they would not support it until the measure had been justified by the government.

'Risk of sabotage'

Hundreds of thousands of miles of undersea cables circle the globe, providing internet and communications links between nations and continents. The Ministry of Defence said they are "vital to the global economy and communications between governments" and are at "risk of sabotage" due to "submarine warfare". The new Multi Role Ocean Surveillance ship will be fitted "with advanced sensors and will carry a number of remotely operated and autonomous undersea drones which will collect data". The vessel, staffed by 15 people and due to come into service in 2024, will carry out operations in both UK and international waters. The MoD added it will also "be able to support with other defence tasks, including exercises and operations in the Arctic which will become an increasingly contested area". Undersea cables carry more than 90% of the world's communications - including trillions of dollars worth of financial transactions every day. There's growing concern these underwater arteries could be vulnerable to attack. British and US military and intelligence officers have recently warned of Russian submarines "aggressively operating" near Atlantic undersea cables. The Ministry of Defence says there's a risk of sabotage - which presents an existential threat to the UK. As part of a wider defence review - the MoD will order a new Royal Navy surveillance ship to monitor this critical infrastructure. Mr Wallace told the BBC: "The lights could go out if we lose our critical national infrastructure across the board. Cables are one part of that critical national infrastructure and incredibly important.

"Russia has certainly taken a deep interest in those cables, not only to the United Kingdom but obviously to the continent of Europe. "[The vessel's] job is going to be to protect not only critical national infrastructure, but other things. It will be able to do other surveillance functions around the sea and everything else and I think it is really important that we invest in t hat because otherwise we are deeply exposed." Prime Minister Boris Johnson has promised his plan for modernising the armed forces and foreign policy will help make the UK "match-fit". The Integrated Review, first announced in 2019, will set out the UK's defence and foreign affairs priorities for the next decade or so, during which cyber warfare in particular is expected to become a greater threat.

Broader foreign policy from the review was announced this week, with Foreign Secretary Dominic Raab pledging to boost alliances in the Indo-Pacific region, describing it as "increasingly the geopolitical centre of the world". But more on how the Armed Forces could be overhauled will be announced on Monday, following a boost in funding late last year. The defence secretary was pushed by Andrew Marr on what the new command paper would mean for the size of the forces, but Mr Wallace said that was a decision for Parliament. He added: "What I can give you is the assurance that we have had a record settlement, so I am making decisions, not in an environment of falling tide like in previous cuts, but in an environment where I am going to make the decision to have the right Armed Forces to match our ambition and meet the threat."

Source: bbc.com; 21 March 2021

KENYA LEAVES INT'L COURT CASE ON OCEAN DISPUTE WITH SOMALIA

- Associated Press Television News

Kenya has withdrawn from International Court of Justice hearings on its dispute with neighboring Somalia over territory in the Indian Ocean. A statement from Kenya's Foreign Ministry cited alleged “procedural unfairness” by the United Nations court and alleged bias by a Somali judge on its bench as among the reasons Kenya decided to no longer participate. Kenya said it informed the court's registrar that even though the case was merited, the government thinks continuing the legal proceedings denies the two countries an opportunity to resolve the matter bilaterally. “Kenya restated that it should not have been dragged to the court by Somalia merely because of the neighbor’s resurgent expansionist agenda,” the Ministry of Foreign Affairs said in a statement late Friday. The statement said the court also was informed that influential third parties with commercial interests were fueling a case " that threatens to destabilize the peace and security of an already fragile region.” Somalia filed the case with the International Court of Justice in 2014. The dispute centers around Indian Ocean maritime rights and boundaries. The area in dispute – about 100,000-square kilometers – is thought to be rich in oil, gas and fish.

In its withdrawal statement, Kenya cited concerns about the potential bias of International Court of Justice Judge Abdulqawi Yusuf, a Somali citizen who previously represented Somalia at the Third United Nations Conference on the law of the sea. Diplomatic ties between the two East African neighbors have become increasingly strained by the territorial dispute and recent accusations that Kenya was influencing Somalia's politics.

Somalia’s government severed ties with Kenya in December because of what it described as the imperative "to safeguard the unity, sovereignty, stability of the country.” The announcement came as the leader of the breakaway territory of Somaliland ended a three-day visit to Kenya, where he was given treatment similar to that accorded to a head of state in meetings with the Kenyan leadership. Somaliland

broke away from Somalia in 1991 as the country collapsed into warlord-led conflict and it has seen little of the violence and extremist attacks that plague Somalia to the south. Despite lacking international recognition, Somaliland has maintained its own independent government, currency and security system. Somalia, however, considers Somaliland as part of its territory. Several rounds of talks over possible unification have failed to reach an agreement.

Source: republicworld.com; 21 March 2021

MARITIME FORCES

TURKISH ANKA UCAV'S USEFUL LOAD CAPACITY INCREASED

The useful load capacity of Turkey's domestic medium-altitude, long-endurance (MALE) unmanned combat aerial vehicle (UCAV) Anka was upgraded by 50 kilograms, according to information obtained by a defense site. The payload capacity of Anka UCAV, produced by Turkish Aerospace Industries (TAI), has officially increased to 250 kilograms from 200 kilograms, as it was previously introduced, a report by the SavunmaSanayiST said Monday. The drone which is manufactured locally is currently in active use by the Turkish Armed Forces (TSK), Gendarmerie General Command and the National Intelligence Organization (MIT).

The Anka UCAV can stay in the air for more than 24 hours at an altitude of 30,000 feet (9,144 meters) with a 250-kilogram payload. According to open sources, the drone could previously be equipped with up to four Roketsan-developed smart mini ammunitions, MAM-L. However, the report highlighted that the 50-kilogram increase in Anka's payload capacity is "theoretically" equivalent to two more units of MAM-L ammunition. Meanwhile, a quadruple MAM-L deck is currently being developed for Turkey's domestic unmanned aerial vehicles (UAV). If this unit could be used on Anka UCAV, it could then carry up to eight MAM-L ammunitions. The UCAV has three configurations: Anka-S configuration has Beyond Line Of Sight (BLOS) capability through satellite links and is being used by the TSK and the Gendarmerie units; Anka-B configuration can use Link Relay capabilities and is also used by the TSK and the Gendarmerie, and the Anka-I, which is the configuration that performs signal intelligence and is used by the MIT.

Source: Daily Sabah; 15 March 2021

NAVY INDUCTS LANDING CRAFT UTILITY SHIP TO ENHANCE WARFARE CAPABILITIES

- PTI

New Delhi: Enhancing its amphibious warfare capabilities, the Indian Navy has inducted a landing craft utility ship which will be used for a variety of activities like transporting battle tanks and other heavy weapons systems. The eighth and last of the landing craft utility (LCU) mark-IV class ship was commissioned at an event in Port Blair, a spokesperson of the Indian Navy said. The ship was indigenously designed and built by state-run Garden Reach Shipbuilders and Engineers Ltd (GRSE), Kolkata. The

LCU Mk-IV ships are amphibious vessels with a designated primary role of transporting main battle tanks, armoured vehicles, troops and equipment from ship to shore. The ship is manned by a team of five officers and 50 sailors, and is capable of carrying 160 troops in addition, the officials said.

Based at Port Blair, these ships can be deployed for a variety of roles such as search and rescue, disaster relief operations, supply and replenishment and evacuation from distant islands, the official said. "The induction of these ships will contribute to the nation's maritime security needs and is in consonance with the prime minister's vision of 'Make in India' and Atmanirbhar Bharat," he said.

Source: NDTV; 18 March 2021

SAUDI NAVAL FORCES BEGIN EXERCISES TO PROTECT OIL INSTALLATIONS

RIYADH: The Royal Saudi Naval Forces (RSNF) began a joint exercise on Sunday to prepare for attacks against the Kingdom's oil installations. The five-day exercise is taking place at King Abdulaziz Naval Base in Jubail in the Kingdom's Eastern Province, the Ministry of Defense said. The "Confrontation 4" maneuvers include units from the Eastern Fleet, the Ministry of Interior represented by the Eastern Province Border Guards, the Presidency of State Security, and the Ministry of Energy represented by Saudi Aramco and Aramco Gulf Operations Company. The exercise along the Arabian Gulf coast, aims to raise the "readiness and preparedness of all participating units to confront terrorist operations against oil installations," the ministry said. It will also improve the level of coordination and information exchange, and unify leadership and communication between the participating units. Maj. Gen. Majid bin Hazza Al-Qahtani, commander of the Eastern Fleet, said the exercise would contribute to "achieving the security and safety of vital installations and oil fields." They would also help secure freedom of navigation in regional waters and shipping lanes in the Arabian Gulf. RSNF also began a mixed exercise with their Sudanese counterparts at the King Faisal Naval Base in the Western Fleet, the ministry said. The "Astronomy 4" exercises will continue until Thursday. The exercises aim to develop the command and control process during joint operations between the two naval forces to ensure freedom of navigation and maritime security in the Red Sea, Brig. Gen. Hazza Al-Mutairi, the commander of the exercise, said. Meanwhile, the Royal Saudi Air Force (RSAF) has concluded preparations to begin the ACES MEET 2021 exercise with their Pakistani counterpart. The Pakistan Air Force is hosting a multinational exercise on March 27 at the PAF Base Mushaf in Sargodha in Punjab province, The RSAF will participate with a number of modern Panavia Tornado combat aircraft and all its technical and support aircrews.

Source: Arab News; 21 March 2021

GENERAL DYNAMICS DELIVERS FIRST KNIFEFISH SURFACE MCM UUV TO U.S. NAVY

- Seapower Staff

QUINCY, Mass. – General Dynamics Mission Systems recently delivered the first Knifefish surface mine countermeasure unmanned underwater vehicle (UUV) system under a contract awarded by the U.S. Navy on Aug. 26, 2019, the company said in a March 18 release. The contract, awarded immediately after a successful Milestone C decision and approval to enter low-rate initial production, calls for the procurement of five Knifefish systems (10 total UUVs) and support equipment. Knifefish is a medium class mine countermeasure UUV intended for deployment from the Navy's littoral combat ship and other Navy vessels of opportunity. Knifefish will reduce risk to personnel by operating within minefields as an off-board sensor while the host ship stays outside the minefield boundaries.

"Together with the U.S. Navy's Program Executive Office for Unmanned and Small Combatants, our Knifefish team has worked to deliver critical mine countermeasure mission capabilities to protect our Sailors," said Carlo Zaffanella, vice president and general manager at General Dynamics Mission Systems. "We designed Knifefish using an open architecture concept that can be quickly and efficiently modified to accommodate a wide range of missions." General Dynamics Mission Systems is the prime contractor for the Knifefish program. The company designed the tactical UUV using an open architecture concept that can be quickly and efficiently modified to accommodate a wide range of missions. The Knifefish SMCM UUV is based on the General Dynamics Bluefin Robotics Bluefin-21 deep-water autonomous undersea vehicle.

Source: seapowermagazine.com; 19 March 2021

US NAVY, ARMAMENTS CONSORTIUM FORGE PARTNERSHIP TO SOLVE ENERGETICS TECH CHALLENGES

- Joe Gould

WASHINGTON – Amid fears about the strained industrial base for energetics, a key part of munitions and other conventional weapons, the Naval Surface Warfare Center Indian Head Division has forged an agreement with the National Armaments Consortium to accelerate tech breakthroughs over the next six to ten years. Energetics is a broad category of materials found in rocket and missile motors, ammunition, warheads and fuzing. Because of thin domestic availability of workers and certain chemicals used to make energetics, munition supplies are at risk, according to successive defense industrial base studies.

Under the agreement, the Navy's hub for developing energetics-related technologies will use a flexible, nontraditional "other transaction authority," to task consortium members in industry and academia with solving its toughest challenges. Advanced Technology International, which specializes in managing OTA-based collaborations, is also a party to the deal. The agreement to develop a new Naval Energetic Systems and Technologies Program covers 20 categories, like naval gun systems, warheads, propellants, propulsion systems, ordnance disposal and simulation in all the environments in which the Navy and Marine Corps operate. Beyond the theoretical, NAC members would do prototyping, engineering development, acquisition and low-rate production for NSWC Indian Head. The contract's first year is expected to yield 50 prototype projects totaling $50 million, with unspecified growth in the out-years. "You're trying to make power matches much quicker than a traditional [acquisition] process might get there," said NSWC Indian Head Deputy Technical Director Amy O'Donnell. "More so, you're trying to make the right matches … And what's really important is we've magnified our access to a community of performers out there in this category." NSWC Indian Head is a large, 130-year-old facility with a sweeping mission to research, develop, test, evaluate and produce energetics. At one point, 75% of all explosives deployed in U.S. weapons had been created there. The NAC is made up of 900 companies, academic institutions, engineers and technologists. Its energetics subsegment includes some small niche entities and some as recognizable as BAE, Northrop Grumman and Pennsylvania State University.

"I can see all kinds of opportunities for prototypes, from ingredients to propellants, explosives – and including demonstrating them at system-level, so gun systems, missile systems, rocket systems and underwater systems," said NAC Executive Director Charlie Zisette. "This is really, I think, a groundbreaking move." Supply chain management will be another theme. "It isn't just about, 'can I get rounds to go further.' It's also about having reliable sources of supply," Zisette said. "If you look at the precursors we use to make energetic materials, in gun propellants, pyrotechnics, explosives, a lot of that chemical manufacturing has gone overseas. Part of this initiative is about 'are we going to get back in that game and make sure our sources of supply and stable and robust.'" The Navy and other services have reportedly seen a boom in the use of OTAs for cybersecurity and information technology, but this may not be the last one for energetics. In the 2020 defense policy bill, Congress directed the Pentagon create a long-term energetics plan to maintain U.S. technological superiority; research and use new technologies, and to maintain a robust industrial base and workforce. Zisette said the OTA's flexibility will allow collaboration both to define and answer new requirements. Those requirements will be presented and discussed at periodic Navy-hosted industry days. "The key is innovation through collaboration," he said. "It's going to be more effective and faster, with the best ideas right up front."

Source: defensenews.com; 19 March 2021

US NAVY INKS DEAL FOR A TENTH VIRGINIA-CLASS SUBMARINE

- David B. Larter

WASHINGTON — The U.S. Navy on Friday sealed the deal on a 10th ship in its latest iteration of the Virginia-class attack submarine, issuing a $2.4 billion adjustment on a contract initially awarded in December 2019. The original contract was for nine boats with an option for a 10th, which brings the total cost of the contract with prime contractor General Dynamics Electric Boat to $24.1 billion. The net increase for the contract is $1.89 billion, according to a General Dynamics release. Huntington Ingalls Industries' Newport News shipyard is the partner yard in the program. The president of General Dynamics Electric Boat, Kevin Graney, said in a statement that the shipyard is pleased to have the work and that his team is ready to take on the challenge of simultaneously building the Virginia class and the new — and much larger — Columbia-class next-generation ballistic missile submarine. "The 17,000 shipbuilders of Electric Boat are pleased to receive the award for the tenth Block V ship and are ready to meet the generational challenge of building the Virginia and Columbia classes concurrently," Graney said in a release. "We are grateful for the continued support of our federal delegation, who strongly advocated for this important funding.

"Today's announcement maintains the two-ship per year production cadence, provides continuity and development to our skilled workforce and promotes stability in our national supply base." The 10th Block V Virginia-class submarine will include the Virginia Payload Module, an 84-foot section of the boat that will serve as an undersea vertical launcher for missiles. The modern Virginia-class subs coming off the lines can hold 12 Tomahawk missiles in a launcher on the bow. With the payload module section added amidships, each of the Virginia Payload Modules on the Block Vs will have the capacity for 40 cruise missiles. In total, eight of the 10 boats in Block V will have the module. With advancements in hypersonic missile technology, Virginia's larger launcher will be well suited to host them once they are deployable. The Virginia subs will also host the new version of the anti-ship Maritime Strike Tomahawk, part of the Block V upgrade that will begin being delivered to the service next week.

Source: defensenews.com; 19 March 2021

SHIPPING, PORTS AND OCEAN ECONOMY

ADANI WELSPUN DISCOVERS GAS IN MUMBAI OFFSHORE'S TAPTI-DAMAN SECTOR

- ANI

Adani Welspun Exploration Ltd (AWEL) on Monday announced its first-ever gas discovery in the NELP-VII block. AWEL holds 100 per cent participative interest and is the operator of the block MB-OSN-2005/2. Spread across 714.6 square km, it is located in the prolific gas-prone Tapti-Daman sector of Mumbai offshore basin where production is already underway by other operators.

The company said that pay zones and flow rates encountered have exceeded its initial estimates. With the information received from adjoining fields, the discovery is of substantial significance. AWEL was awarded the block under the New Exploration Licensing Policy (NELP) VII bid round. Early indications pointed to the occurrence of gas-bearing reservoirs within sandstone reservoirs of the Mahuva and Daman formations. The drilling of current well in March confirmed the presence of substantial quantities of gas and condensate in the block. Out of the three potential zones identified during drilling, two objects tested by drill stem testing flowed substantial gas and condensate to the surface. "In addition to being value accretive for the company, this discovery could be a significant breakthrough for our nation, given India's focus to nearly triple the share of natural gas in its energy mix by the end of this decade," said AWEL Managing Director Sandeep Garg.

The company is also an operator with 100 per cent participative interest of an adjacent discovered small field B-9 cluster. "The proximity of these two prospective blocks will enable AWEL to synergise and optimise development of both the blocks," said Garg.

AWEL is a joint venture company between Adani Group and Welspun Group undertaking upstream oil and gas business. Adani Group holds 65 per cent through its flagship company Adani Enterprises while Welspun Group holds 35 per cent through its subsidiary Welspun Natural Resources.

Source: Business Standard; 15 March 2021

GOVT MULLS SOUTHERN BRIDGE SPOTS

The location of the government's land bridge project in the South -- touted as a more convenient way to transport goods from the Middle East to the Pacific region -- will be decided by June, Transport Minister Saksayam Chidchob said on Monday.

The government is surveying locations along the Gulf of Thailand and the Andaman Sea in Chumphon and Ranong for engineering, environmental and economic potential, the transport minister said after chairing a meeting of the government's committee on the southern land bridge project on Monday. The Chumphon-Ranong land bridge project will serve as a link for the transport of oil from the Strait of Hormuz, more than 4,000 kilometres away from the Andaman Sea, to a port in Ranong before it is transported by land to a port in Chumphon, where it will be shipped to other countries in the region, including China, Japan and South Korea, Mr Saksayam said. The future transport route could become a new option for cargo shipments between the Indian and Pacific Oceans, and it will boost economic development in areas in southern Thailand, he said. "This future transport and cargo exchange gateway will bring down transport costs by bypassing heavy traffic in the Malacca Strait," the transport minister said. "It will attract operators to use it."

In 2016, about 19 million barrels of crude oil were transported through the Malacca Strait daily, 16 million barrels of which were transported to Pacific countries, particularly China, Japan and South Korea, he said. About 24.7 million cargo containers were shipped through the Malacca Strait per year, accounting for 4.3% of the world's overall cargo transport, Mr Saksayam said, noting that that is why Singapore's port serves as Asia's largest petroleum terminal that handles the second-highest number of cargo containers in the world. "As such, southern Thailand has a good potential to become an intercontinental shipment and cargo exchange gateway, given its location being close to Singapore," he said.

Source: Bangkok Post; 16 March 2021

ADANI PORTS GETS INITIAL NOD TO DEVELOP CONTAINER TERMINAL IN COLOMBO

Adani Ports NSE 2.15 % and Special Economic Zones Monday said it has received initial approval from Sri Lankan govt bodies for the development and operations of West Container Terminal (WCT) in Colombo, Sri Lanka. APSEZ will partner with John Keells Holdings PLC, Sri Lanka's largest diversified conglomerate, and with the Sri Lanka Ports Authority (SLPA) as a part of the consortium awarded this mandate. The WCT will be developed on a build, operate and transfer basis for a period of 35 years as a public-private partnership. WCT will have a quay length of 1400 meters and alongside depth of 20 meters, thereby making it a prime transhipment cargo destination to handle ultra large container carriers.

The project is expected to boost WCT's container handling capacity and further consolidate Sri Lanka's locational advantage as one of the world's top strategic nodes

along the busiest global transhipment route. The Colombo Port is already the most preferred regional hub for transhipment of Indian containers and mainline ship operators with 45% of Colombo's transhipment volumes either originating from or destined to an Adani port terminal in India. The network impact of this partnership is significant and expected benefit from the string of 7 container terminals across its 12 ports that Adani operates along the Indian coastline handling an annual volume of over 6 million TEUs. This partnership will multiply and accelerate the transhipment options that will become available to serve various shipping lines and other potential port customers across the South Asian waters, benefiting both, India and Sri Lanka in multiple ways.

Source: The Economic Times; 15 March 2021

WHAT'S THE SHIPPING INDUSTRY DOING TO SLASH CARBON EMISSIONS?

- Andrew Wilner

In January 2010, an "unpowered" wooden sailing vessel more than 70 years old, the tres hombres, arrived in Port-au-Prince carrying desperately needed earthquake relief supplies from Dutch humanitarian organisations for the people of Haiti. Although not the first contemporary version of "green logistics," tres hombres — propelled by a trio of clean energy technologies: sails, wind turbines and recycled vegetable oil — epitomised the entrepreneurial spirit of today's retro-revolutionary sail freight movement. To many maritime experts, tres hombres' cross-ocean journey stands out as a symbol of the rebirth of cargo-carrying wind power — incorporating a marriage of old and new technologies becoming a viable alternative to fossil fuel-powered ships on the open sea. Today's gigantic diesel fuel-reliant container ships, decks overloaded with cargo, are still a common sight in harbours from New York to Hong Kong. But the days of these gargantuan vessels, driven by massive internal combustion engines, may be numbered.

Carbon emissions in shipping

Despite the present dominance of fossil-fuelled cargo ships, it's well understood by industry insiders that the current maritime logistics system is both ageing and fragile. Fossil fuel transport today is up against a grim carbon reality: if ocean shipping were a country, it would be the sixth-largest carbon emitter, releasing more CO2 annually than Germany. International shipping accounts for about 2.2% of all global greenhouse gas emissions, according to the U.N. international maritime organisation's most recent data. This annual surge of atmospheric carbon released by ocean going ships not only worsens climate change — one of nine scientifically defined planetary boundaries (PBs) we now risk overshooting — it also contributes to ocean acidification (a second planetary boundary) which is beginning to seriously impact biodiversity (a third PB). And add to that significant chemical pollution (a fourth planetary boundary) that is emitted from ship smokestacks. All of these planetary boundaries interrelate and influence one another (negatively and positively): for example, reducing black

carbon (or soot), the fine particulate matter emitted from fossil fuelled oceangoing vessels could slow global warming somewhat, buying time to implement further steps to reduce carbon emissions.

Another problem with today's vessels: when cargo ships dock, they use auxiliary engines that generate SOx, NOx, CO2 and particulate discharges, while also creating noxious noise and vibrations. (Innovators are already solving this problem with cold ironing, providing shoreside electrical power to ship berths, allowing main and auxiliary engines to be shut down.) Today's cargo industry is plagued not only by environmental issues, but by a difficult logistical and economic problem: its current fleet of fossil-fuelled container ships are mostly behemoths — with immense carrying capacities. However, the "overcapacity" of these giant ships leaves them without the nimbleness to adapt to unexpected shifts in global supply and demand; the world's ports and specialised markets could likely be better served, say experts, by smaller, far more fuel-efficient cargo ships.

The current sea cargo system — reliant upon high-priced carbon-based fuels and unstable energy markets; interwoven inextricably into long-distance, globalised world trade; and designed for just-in-time delivery that requires precisely scheduled shipments — is increasingly vulnerable to the vagaries of fossil fuel shortages, price shocks and surges, as well as geopolitical conflict and volatility in the Middle East, Venezuela and elsewhere. Equally problematic, today's fossil-fuelled ships depend upon an ability to avoid paying for negative externalities such as carbon emissions and environmental pollution, while also being governed by lax international labour, environmental, health, and other agreements. Winds of change, especially triggered by new international commerce and climate pacts and policies, could soon push us rapidly beyond carbon into a new age of sail, with the need for a planet-wide cargo fleet rebuilt from the keel up.

Efficiency measures

As far back as the 1970s, the global shipping industry began struggling with both its business models and environmental issues. Oil embargoes in 1973-74, the failure of US lines in 1986, and surging fuel prices in the 1970s and '80s led some transport companies to start experimenting with sail-assisted technology on tankers and container ships to save costs and reduce emissions. By the 1980s, Japanese shippers had designed new and retrofitted sail-assisted merchant ships. In 2018, in response to environmental concerns, the International Maritime Organisation (IMO) adopted mandatory measures under an umbrella of policies to reduce greenhouse gas emissions produced by international shipping: under the IMO's pollution prevention treaty (MARPOL); the energy efficiency design index (EEDI), which is mandatory for new ships; and the ship energy efficiency management plan (SEEMP). Many of these mandated changes go into effect by 2030, less than 10 years from now.

Old technologies made new

Facing these many challenges, the big question for the cargo industry is: how does it get to a new age of post-carbon shipping and sailing, with the least amount of economic pain?

In fact, change is happening now — fast — as sailing vessels get put on the water by startup companies, like fair transport, with its retrofit wooden vessels; by modest sized proof-of-concept companies like the schooner apollonia; and by firms with newly built ocean-crossing sailing ships like grain de sail; and lastly by large cargo ship companies launching innovative retrofits and purpose-built vessels like neoline's new large cargo vessels. All of these innovators embrace different technological approaches to address the same problems of CO2 emissions, the high cost of fossil fuels, and new global economic and regulatory realities. Wind propulsion systems cover a wide spectrum in modern commercial shipping. These range from wind-assisted fossil-fuelled vessels (where wind provides auxiliary power), to purely wind-driven ships without auxiliary power, to sailing-hybrid ships where the primary propulsion come from the wind but is augmented by engines to ensure schedules are maintained. Internationally, the growth in small- to medium-sized sail freight companies has been exponential, with old sailing vessels brought up to modern standards and new ones built. The new dawn traders website, for example, includes links to several start-up sail cargo ventures: Fair Transport's 32-meter (105-foot) schooner tres hombres has been sailing emissions-free since December 2009. She maintains a sustainable oceangoing general cargo route between Europe, Atlantic and Caribbean islands, and the Americas. Her cargo capacity tops 35 tons, and she can accommodate a crew of seven professionals and eight trainees. (Training is vital, as today's sailors need to be taught a combo of yesteryear and cutting-edge sailing skills). Fair Transport has added to its sailing fleet: Nordlys is a 25-meter (82-foot) ketch, built in the Isle of Wight in 1873 as a fishing trawler; she now carries up to 30 tons of cargo between European ports. Avontuur-Timbercoast is a two-masted gaff-rigged schooner built in 1920 in the Netherlands, and regarded as one of the last true cargo sailing ships of the 20th century. It's goal today: "Mission Zero — to eliminate pollution caused by shipping cargo." Sailing vessel kwai was built in 1950 as a herring fishing vessel in Bremen, Germany. Refitted, she is 43 meters (140 feet) long and can carry 250 tons. She presently serves as a packet vessel in the tropics, sailing between Hawai'i and the Cook Islands. Ceiba-sail cargo Inc. transports freight using a sustainable carbon-neutral sailing system. Its first ship, CEIBA, will offer something special to exporters and importers: an eco-friendly means of moving their most important organic, sustainable products.

Hawila project also offers an environmentally friendly way of shipping organic goods between small coastal communities, especially European producers. The vessel can transport 55 tons of cargo using only wind power. Grain de sail combines the best of old and new. It is a freshly built 24-meter (80-foot), 35-ton-capacity schooner with a state-of-the-art climate- and stability-controlled hull for maintaining fragile goods. Sail powered, it is equipped with cutting-edge navigation technologies and made out of aluminium for a better weight/performance ratio and greater durability. In December 2020, grain de sail unloaded a shipment of wine and cognac at the Brooklyn navy yard, becoming the first ocean-crossing sail cargo ship to unload cargo in New York since the schooner black seal delivered cocoa beans by sail to mast brothers chocolate makers in 2011. Of these start-ups and proof-of-concept vessels, Jorne Langelaan, a veteran of fair transport's sail cargo venture, may possess the boldest old-new sailing concept. Ecoclipper, when built, will be a big new "square rigger" and full-sized replica of the Dutch cargo ship Noach, built in 1857 — with an equally big mission. "She is to be operated in the deep-sea trade: trans-Atlantic, trans-Pacific and

around the world," says her promoter. She'll be rigged with three square-rigged masts, boasting 930 square meters (10,000 square feet) of sail, "traveling without mechanical propulsion," and able to transport up to 4,000 gross register tonnage (GRT) of cargo.

High tech innovations

Maybe among the most unique innovations in the cargo shipping sector today are sails that look less and less like traditional sails. Known as sail-assisted or wind-assisted propulsion devices, the concept often is to fit existing fossil-fuelled vessels with a variety of new sail technologies that offer a boost in power while cutting carbon emissions.

These cutting-edge approaches include wing sails, which are inflatable; "hard sails" which look like an airplane wing set up vertically; "flettner" vertical rotor sails that resemble smokestacks (but which use the magnus effect, a force acting on a spinning body in a moving airstream); the dynarig, "a state-of-the-art, modern, high-tech rig, relying on the use of cutting edge, high-strength materials currently used on high-performance racing yachts"; and sail-assist kites or sky sails that look and act like hang gliders, launched from a ship's bow with a cable to help pull the vessel downwind. Neoline is a company capitalising on new sail technology it says is "immediately available and [a] powerful enough solution to propel cargo ships." The firm is already finding its eco-niche, establishing shipping contracts with tiremaker michelin and automaker renault, along with other companies looking to reduce their carbon footprint. The viking grace ferry, which sails the Baltic Sea, is equipped with norse power's flettner rotor sail, which provides clean, auxiliary power. Wallenius marine is developing the oceanbird, able to ship 7,000 cars and trucks across the Atlantic propelled only by high-tech wing sails. These and other innovators have joined together in the international wind ship alliance, a gathering of new technology companies, ship builders, and shippers of all sizes who are changing the face of ocean shipping, replacing smoky fossil-fuelled "dinosaurs" with nimble, "back to the future" sailing, sail assist, solar, electric and alternative fuel vessels. To learn more about the new age of sail, look into Jan Lundberg's sail transport network, Dmitry Orlov's insightful writings, Gavin Allright and the international windship association, Madadh MacLAine and the zero emissions ship technology association, and Di Gilpin's smart green shipping. The new age of sail isn't only evolving on the high seas: Lane Briggs' tugantine, Erik Andrus and Vermont sail freight, and Maine sail freight, are all forerunners of an epochal change underway in the way goods and people are moved along inland rivers and in coastal waters in a post-carbon era.

As fossil fuels grow scarce and expensive, sailing ships and alternatively powered vessels will replace fossil-fueled shipping, and the new ideas are seemingly endless: hemp and other cellulose-based plastics can replace fiberglass and other synthetic hull and sail materials; ships will ride above the waves on hydrofoils, maybe replacing airline high-speed passenger service; and many more small river, estuary and ocean ports will be renovated and updated to create an "internet" of coastal and island-linked small- to mid-sized shipping lanes. New vessels will also require a different type of port: electric and people-powered first- and last-mile logistics, with old skills of seafaring, ship-keeping, and shipbuilding preserved, renewed and intermixed with 21st century know-how. We are fast entering a world of sail, battery, and hydrogen; cargo shipping beyond carbon. Before he died in 1947, Gustaf Erikson, who ran a fleet

of Baltic Sea windjammers in the Åland Islands, "was fond of telling anyone who would listen that a new golden age for sailing ships was on the horizon: sooner or later, he insisted, the world's supply of coal and oil would run out, steam and diesel engines would become so many lumps of metal fit only for salvage, and those who still knew how to haul freight across the ocean with only the wind for power would have the seas, and the world's cargoes, all to themselves."

That imagined day has nearly arrived.

Andrew Willner is executive director of the Centre for Post Carbon Logistics. This article was first published on Mongabay. Read the original article.

Source: The Wire; 19 March 2021

IRAN RECEIVES 2ND INDIAN CONSIGNMENT TO EQUIP CHABAHAR PORT

The Director-General of Ports and Maritime Department General in Sistan and Baluchestan province Behrouz Aghaei said the equipment includes two 100-ton coast cranes worth $7.5 million, which arrived in the port of Shahid Beheshti in Chabahar in the early hours of this morning. As he explained, this equipment is imported in line with the obligations of an $85-million contract with an Indian investment company in Chabahar. He added that the third consignment will arrive in six months. The 1st consignment of Indian strategic equipment for the development of port activities at Chabahar port in Iran arrived in the port on January 17. India delivered the batch of its heavy cranes to bolster operations at Chabahar port. The strategic loading and unloading equipment cargo was worth $8.5 million and arrived at the southeastern port to mark the activation of the contract between the Ports and Maritime Organization (PMO) and the Indian side.

Source: Meher News Agency; 21 March 2021

MARINE ENVIRONMENT

EXPLAINED: WHAT NIO SCIENTISTS MAPPING GENOMES IN THE INDIAN OCEAN HOPE TO LEARN

- Mayura Janwalkar

A 30-member team of scientists and researchers from the National Institute of Oceanography (NIO) in Panaji and another 30 crew members onboard its research vessel Sindhu Sadhana will spend the next three months traversing the course of over 10,000 nautical miles in the Indian Ocean on a research project to reveal the internal working of the body of the ocean at a cellular level. The first-of-its-kind research project in the country is aimed at understanding the biochemistry and the response of the ocean to climate change, nutrient stress and increasing pollution. Conceptualised over the last two to three years, the research project has been undertaken at a cost of Rs 25 crore and will take three years to complete, NIO Director Sunil Kumar Singh said.

What is the NIO's research project about?

The research project that will be flagged off at Visakhapatnam on Thursday will see the team of 30 scientists and researchers — including six women — course the Indian Ocean from India's east coast, all the way to Australia, then onward towards Port Louis in Mauritius and up to the border of Pakistan, off India's west coast, gathering samples for genome mapping of microorganisms in the Indian Ocean. The researchers will collect samples from various stretches of the ocean at an average depth of about 5 km. Just like gene mapping is carried out on blood samples collected from humans, the scientists will map these in the bacteria, microbes found in the ocean. The mapping of the Deoxyribonucleic acid (DNA) and Ribonucleic acid (RNA) will show the nutrients present in them, and also those lacking in different parts of the ocean.

What will the scientists learn from this genome mapping in the ocean?

NIO Director Sunil Kumar Singh explained that this will help scientists understand the internal working of the ecosystem of the Indian Ocean. The research will enable scientists to identify the factors controlling the changes in RNA, DNA in the oceans, and various stressors impacting them. The ocean has several micronutrients like nitrates, sulphates and silicates, minerals like iron ore and zinc, and trace metals like cadmium or copper. The genome mapping will show the presence of which these microbes have adapted to, in addition to their reaction to atmospheric carbon dioxide. This will help in identifying which part of the ocean has a greater concentration of which mineral or element. Scientists will then use these as tracers to tackle the causative factors for excess or lack of a certain mineral or element and suggest possible

solutions for their mitigation. In addition, the large pool of RNA, DNA library of the oceans will be utilised for using the Indian Ocean to human benefit in the future. According to the NIO, rapid advances in sequencing technologies and bioinformatics have enabled exploration of the ocean genome. "Exploring the ocean genome will enable an increase in the growing number of commercial biotechnology applications, extending from multiple anticancer treatments to cosmetics and industrial enzymes, to antiviral molecules… Exploration of the ocean at a genetic level will result in new insights into taxonomy and adaptive capacity that can help optimize conservation efforts," the NIO stated in its project abstract.

What is the objective of studying the interactions of trace metals and marine plant and animal life?

Trace metals like cadmium or copper are supplied to oceans via continental run-offs, atmospheric deposition, hydrothermal activities and continental shelf interaction. They are essential for ocean productivity. Scientists say that it is important to understand the interactions of trace metals with marine biota "for having a holistic understanding about nutrient cycling and productivity of the oceans". Apart from their reactions on marine life, isotopic forms of trace metals can be utilised to track the movement of water masses responsible for ocean circulation and as tools to study the biological, geochemical and ecosystem processes and food web analyses. The NIO's project is expected to generate new information about trace metals from underexplored regions of the Indian Ocean, the third largest water body in the world, covering about 20 per cent of the Earth's water surface.

How will the scientists collect the samples?

The team of scientists will stay aboard their research vessel for about 90 days with refueling scheduled at Mauritius. The route is from Visakhapatnam to the mouth of the Ganga then down the ocean to Australia, then westward to Mauritius and up to the Pakistan border. At various stages and stretches, samples will be collected by lowering a Kevlar cable of up to 8 km with a set of 24 teflon coated bottles to collect samples. They have a capacity of 12 litres. The Kevler cable and the Teflon coating are to ensure that metals are not inadvertently introduced into the water by the vessel itself. The samples will be collected and the bacteria will be stored at -60 degrees Celsius with the help of liquid nitrogen. While some samples will be tested at six laboratories on board the vessel, several samples will be brought back to NIO for study and analysis over the next three years.

Source: The Indian Express; 16 March 2021

U.S. Continues to Ship Illegal Plastic Waste to Developing Countries

- Tiffany Duong

Editor's note: This article has been updated with correspondence from the Basel Action Network and the Center for International Environmental Law

The majority of the world is working together to reverse the massive plastic pollution problem. But, the world's leading producer of plastic waste, the U.S., isn't on board and isn't following the rules. In 2019, 187 countries voted to amend the 1989 Basel Convention to include plastic waste in the definition of hazardous materials and to strictly limit how that trash is traded internationally. The binding framework aims to make global trade in plastic waste cleaner, more transparent and better regulated. It went into effect on Jan. 1, 2021. According to Jim Puckett, executive director of the Basel Action Network (BAN), a nonprofit organization that lobbies against the plastic waste trade, the motivation was to use the existing tool of the Basel Convention to "grapple with the lifecycle plastics crisis we are in." UN officials hoped the agreement would curb ocean plastic within five years. The only free trade that is allowed under the amended convention is the legitimate recycling of plastics that are high-quality, clean and sorted. Anything else would be banned from trade, a move hoping to prevent the incineration, dumping and dirty or incomplete recycling that currently is used to process lower quality plastics, Puckett told EcoWatch.

Supporters expected the implementation of the new regulations to curb the "uncontrolled trade" in low-quality and hard-to-recycle plastic waste, the majority of which currently results from trash collected in the global North being exported and then "recycled" in a "substandard, incomplete and polluting" manner in the global South, Puckett said. They also believed the convention would level the industry's global playing field by allowing developing nations such as Vietnam and Malaysia to refuse such plastics before they were shipped from developed nations, a UN transboundary waste chief told The Guardian. At the start of the year, when the new rules were just being implemented, the fact remained that the U.S. had not ratified the amendment to become a Party to the Basel Convention despite producing most of the world's plastic waste. Proponents held that the amendment would still apply to the U.S. anytime it tried to trade plastic waste with any of the participating 187 countries, many of which are poor and developing nations, CNN reported. According to David Azoulay, senior attorney with the Center for International Environmental Law, participating nations are prohibited from trading waste with countries that have not ratified the Basel Convention, including the U.S. This creates an effective ban on plastic waste trade between the U.S. and most of the world. "Legally, there's nowhere waste from the U.S. can go, so right when it gets on the high seas, it becomes illegal," Azoulay told EcoWatch. Despite these new rules, U.S. Customs data from January shows that optimism about the convention's effectiveness may have been premature. According to The New York Times, American exporters continue to ship plastic waste overseas, despite the fact that receiving countries have agreed, per the Basel Convention, not to accept it. In fact, the new report showed that American exports of plastic scrap to poorer countries have barely changed and that overall exports of scrap plastics even rose.

The Times reported that environmental watchdog groups viewed this as evidence that exporters are either ignoring the new rules or following their own interpretations. American companies are justifying waste shipments as being legal even though recipient countries legally can't accept them. The former is using the logic that because the U.S. never ratified the global ban, the rules don't apply to originating shipments. "The U.S. is walking a very fine line here," Azoulay explained. "Even though it is not technically illegal to send the plastic waste, allowing its traders to send waste knowing

there is nowhere for it to be accepted is a form of defeating the object and purpose of the convention. The U.S. has an obligation under international law not to do this because it is a signatory to the convention, even if it has not yet ratified. Doing so is a lack of respect of international law by the U.S. and a misinterpretation or evasion of the rules." The Maritime Executive also noted that America's plastic waste shipments continue to be associated with "uncontrolled dumping" in developing countries and that much of the plastic waste collected in the U.S. under the guise of recycling actually ends up in overseas landfills and the oceans. In fact, a new Woods Hole study found that the U.S. is likely the world's third-largest source of ocean plastic, not just because it is the world's largest producer of plastic waste, but also because recyclables being sent to the developing world are often mishandled and discarded into the ocean.

"This is our first hard evidence that nobody seems to be paying attention to the international law," Puckett told The Times regarding the new trade data. "As soon as the shipments get on the high seas, it's considered illegal trafficking. And the rest of the world has to deal with it." Azoulay offered up some stopgap solutions. Because waste is hard to send back once accepted, recipient countries need to be "more forceful" in border control and enforcement of what comes in, he said. The illegal traffic in low-quality plastics must be prosecuted as criminal. On the U.S. side, the easy solution would be to prevent the shipments from going out in the first place, Azoulay added, and for the U.S. to respect international law.

He and Puckett both have called upon the Biden Administration to ratify the Basel Convention now, which would create the obligation for the U.S. to criminalize illegal trading. This also, ironically, would facilitate the trade of legitimate U.S. waste, Azoulay said. It would just need prior informed consent before sending and could only send high-quality, recyclable plastics. As a more permanent solution, Azoulay and Puckett both also advocated for a mindset shift by consumers and manufacturers. Puckett said, "We will never recycle our way out of the plastic lifecycle crisis. We need to all stop using single-use plastic in our lives and demand that our markets also reduce the consumption and use of single-use plastics (such as packaging) as soon as possible." Azoulay agreed, saying, "We're talking about waste trade because we're producing waste….The less plastic you use, the less ends up as waste, the less has to be sent or managed, and the less you have to dump. This works for everyone."

Source: ecowatch.com; 18 March 2021

'CLIMATE-PROOFING OUR SECURITY' CRITICAL AT SEA AND AT BASES, CONGRESS HEARS

- Bridget Johnson

The Coast Guard and other services need to act now in concert with Congress and private industry to mitigate the effects climate change will have not only on the health of installations but how it will encourage rivals to take advantage of shifting conditions and assert greater power in vulnerable regions, experts told lawmakers Wednesday.

"In some cases, the U.S. will need to compete for influence where China is taking advantage of climate change to improve its military posture in the South China Sea or become the relief provider of first resort to vulnerable Pacific Island Nations," Sherri Goodman, senior fellow at the Wilson Center, said at a hearing of the House Appropriations Defense Subcommittee to examine climate change, national security, and the Arctic.

"In the Arctic, China and Russia are exerting greater influence in an opening Arctic due to climate change, which is emboldening their actions. China has declared itself to be a near Arctic state with ambitions to build a Polar Silk Road across the region. Russia envisions a toll road for shipping and transit across its Northern Sea Route and seeks to enforce this maritime route as an internal waterway," Goodman said. "As risks increase from commercial activity, the U.S. must increase its preparedness and its search and rescue capability." "Congress has strengthened and should continue to strengthen authorities, programs, and funding available to the department to address these threats," she added. "Climate-proofing our security is essential to protect America's 21st century near and long-term national security interest." Retired Vice Admiral Dennis V. McGinn, who served as Assistant Secretary of the Navy for Energy, Installations and Environment from September 2013 until January 2017 and now serves as an advisory board member at the Center for Climate and Security, cited Defense Secretary Lloyd Austin: "There is little about what the department does to defend the American people that is not affected by climate change." McGinn said it's critical that the services "promote regular military-to-military, and civil-military, international engagement in order to enhance the operational resilience of U.S. allies and partners and to enhance United States influence vis-a-vis its primary competitors."

"Importantly, combatant commanders around the globe should engage allied and partner nations' militaries in adapting to climate change and working to mitigate the adverse effects to military operations, energy resilience, infrastructure, and readiness through a variety of pathways," he said. "Everything from formal intergovernmental negotiations under NATO or regionally focused military and civil security planning forums." Goodman stressed that "almost all of our bases really need to be climate-proofed and made resilient," noting billions being spent to rebuild facilities hit by recent hurricanes and other extreme weather. "We need to flood-proof, hurricane-proof, we need to address permafrost at bases in the Arctic where it's collapsing," she said. "If we do it smartly, we will invest for the future. We will also be working with our communities in a way that makes them more resilient too. And in programs that Congress has authorized and appropriated to there is increasing collaboration among communities. And I would say that is very important to continue because bases are part of their communities, whether it's in Norfolk or Annapolis or all around the country. And there are opportunities to do this in a way that helps lift up and make our communities and our bases and their military families stronger."

McGinn emphasized that "climate-driven severe weather is coming to an installation near you." "It can be any form. It can be wildfires out West. It can be flooding. It can be severe weather, hurricanes, etc. So, the idea is to look at those installations that are most vulnerable to the various types of threats and to try to invest in resilience. In many cases, it's not a lot of money. It's mostly being thoughtful about how you design

a base, where you put things," he said. "For example, if I have a building on an installation, it's in a 100-year floodplain, probably be a good idea not to put the computers in the basement of that building," McGinn continued. "Just locate critical functions in areas that are going to be less vulnerable to the flooding or other effects of wind or heat or whatever. I think also, thinking about how we actually use construction materials, cross-laminated timber is really, really seeing a resurgence." Goodman predicted that "the private sector will be doing most of this work because that's how DoD will seek technologies, whether it's climate predictive capabilities or new resilience infrastructure." "And there are going to be great opportunities for Americans, at all levels across the country, through the private sector from firms big and small, to do the work of making more resilient our military infrastructure," she said.

Goodman said it's critical to "up our game in the Arctic," including the Coast Guard's plan to build six new icebreakers. "We need to move forward expeditiously with that. Our Department of Defense also needs to increase its Arctic capabilities," she said. "And, in the last year all the services the Air Force, the Navy, and just yesterday the Army, have issued new Arctic strategies. These are important to tie together now at the overall Department of Defense level, to have an integrated approach to the set of Arctic capabilities that we need. And so, I'm hopeful that we will take a whole of government approach because deterrence really is the best defense." "By increasing our ability to meet our potential adversaries in the Arctic, that way we can hopefully continue to keep the peace," Goodman continued. "But at the same time reduce risk of miscalculation of an accident that could require a search and rescue or misunderstanding. What sometimes keeps me up at night is increased ship traffic through the region… Communication among vessels and increasing exercises have already led to tensions when U.S. fishermen were found in areas where the Russians were exercising in the Bering Strait last summer. And, the U.S. and Russia are only 30 miles apart at their narrowest point. So, it's important for us to increase our presence in the region in order to keep the peace and keep stability." Recognizing that "we're in the climate era," combatant commanders can use "environmental security engagements" in addressing climate security threats, Goodman told lawmakers. "For example, Pacific Island nations, many of them who depend very much on American security, seeing increased approaches from China to be the provider of first resort when they have an extreme weather event or facing food and water insecurity," she said. "The U.S. should be right there working with them and in other regions of the world and can do so, can integrate climate security into its theater engagement plans and there are new and improved earth system observation capabilities that can be utilized to enable better planning and to be shared in some cases with our allies and partners as well."

McGinn said he believes the "culture" of the Defense Department is changing when it comes to integrating climate threats into strategy and strengthening mitigation efforts. "I would point to the Marine Corps Air Station Miramar out in San Diego as an example of an installation that has worked very, very hard to try to get to net zero," he said. "The Marine Corp Logistics Base Albany, Georgia, has done a tremendous amount of work in terms of sustainability and energy independence from the grid, if it is needed." "…I think this culture of really highlighting how important and essential sustainability and fighting climate change and turning the challenges into

opportunities will bring out, if you will, the bragging rights of many of the services and many of the installations that are doing some really, really good stuff."

Source: hstoday.us; 19 March 2021

GEOPOLITICS

XI JINPING'S DREAM MISSION 'BRI' IN BOTHER AMID CHINA'S SHRINKING FINANCIAL SYSTEM

KABUL: Chinese language President Xi Jinping's dream of setting a brand new world order has come crashing down after the COVID-19 slowed down the Belt Highway Initiative (BRI), pushing it in direction of turning into monetary inviable, reported the Kabul Occasions. China has been pressured to chop again on new loans and investments below the BRI because of the nation's shrinking economic system, which is aggravated by Covid-19. Chinese language funding has decreased to USD 47 billion in 2020–a whopping stoop of 54 per cent in only one 12 months, noticed the Inexperienced Belt and Highway Initiative Centre, a analysis organisation. Wang Xiaolong, director-general of the Chinese language International Ministry's Worldwide Financial Affairs Division, stated 20 per cent of the BRI tasks had been critically affected whereas different 30-40 per cent witnessed opposed impression, reported The Kabul Occasions. China's economic system has slumped drastically throughout the pandemic. There are studies that the lending below the BRI has come down from USD 75 billion in 2016 to only USD three billion in 2020. In addition to, the BRI tasks are embroiled below totally different issues equivalent to corruption, lack of economic transparency, unfair mortgage situations, fears of debt-traps, and adverse social and environmental impacts. Even in China's all-weather ally Pakistan, simply 32 of the entire 122 tasks introduced below the BRI may very well be accomplished up to now, reported The Kabul Occasions.

The decreased development fee has pressured the Beijing authorities to tighten fiscal self-discipline and work on monetary threat, which might translate into decrease prospects of China pumping cash into the BRI tasks now. In keeping with an unbiased analysis organisation Rhodium Group, the progress or development of BRI tasks had begun decelerating even earlier than the COVID-19 outbreak. It asserted that Chinese language funding grew to become stagnant and even decelerated in many of the creating world up to now three years, reported The Kabul Occasions. China had been wooing creating or poor African and Asian nations because the inception of BRI tasks via loans and investments. The COVID-19 outbreak nevertheless has triggered tens of millions of Chinese language companies to go bankrupt and money movement to be disrupted, thus making a big impact on the nation's economic system.

Now the contraction in Chinese language lending goes to widen the abroad lending hole as properly. Because the BRI stumbles, China's diplomatic picture as a reliable growth associate can be dented, reported The Kabul Occasions. Impartial analysis teams aren't a lot hopeful in regards to the BRI getting again on observe. James Crabtree, affiliate professor at Lee Kuan Yew College of Public Coverage in Singapore

stated China has to stroll on the tight rope since BRI loaned nations need their loans to be cancelled whereas Chinese language individuals are in opposition to abroad spending in such tough occasions. Bradley Parks, government director of analysis lab AidData cited difficulties in development actions, which might result in "a major slowdown" within the implementation of the BRI. "With the sustainability of financing for the BRI tasks already posing a problem and Chinese language capital anticipated to be mobilised to first meet its home wants, the pandemic in addition to its induced financial slowdown might be an additional setback and should even sound the loss of life knell for some BRI tasks," stated world legislation agency Norton Rose Fulbright.

Source: indiandefensenews.in; 15 March 2021

US BECOMES INDIA'S SECOND BIGGEST OIL SUPPLIER, SAUDI PLUNGES TO NO. 4

- Reuters

The United States overtook Saudi Arabia as India's second biggest oil supplier after Iraq last month, as refiners boosted cheaper U.S. crude purchases to record levels to offset OPEC+ supply cuts, data from trade sources showed. The switch in supplies, triggered by lower U.S. crude demand, coincided with Saudi Arabia's voluntary extra 1 million barrel per day (bpd) output cut, on top of an agreement by the Organization of the Petroleum Exporting Countries and its allies (OPEC+) to maintain lower production. India's imports from the United States - the world's top producer - rose 48% to a record 545,300 bpd in February from the prior month, accounting for 14 per cent of India's overall imports last month, the data obtained by Reuters showed. In contrast, February imports from Saudi Arabia fell by 42 per cent from January to a decade low of 445,200 bpd, the data showed. Saudi Arabia, which has consistently been one of India's top two suppliers, slipped to No. 4 for the first time since at least January 2006. India's oil import data by country from before 2006 is not available to Reuters.

"U.S. demand was weak and refineries were running at low rates so the U.S. crude had to go somewhere, and Asia is the region which has seen rapid demand recovery," said Refinitiv analyst Ehsan Ul Haq. "China has not been taking U.S. oil because of (the) trade problem, so India is the obvious choice," he said. Iraq continued to be the top oil seller to India despite a 23 per cent drop in purchases to a five-month low of 867,500 bpd, the data showed. The UAE slipped to fifth position from third in January, while Nigeria rose to third from fifth, exporting 472,300 bpd, the most since Oct 2019. India shipped in 3.92 million bpd of oil in February, a decline of 18% from January, the data showed. Haq said India may have taken smaller volumes in February because, similarly to others in the market, it assumed that OPEC+ might ease production cuts, potentially leading to lower prices. India has repeatedly called on OPEC+ to ease supply curbs and has blamed Saudi's voluntary cuts for contributing to a spike in

global oil prices. The country is the world's third biggest oil importer and consumer, shipping in about 84% of its crude needs, and relies heavily on the Middle East.

Its government has asked refiners to speed up diversification of crude sources after Saudi Arabia's oil minister, in response to India's calls for producers to ease output cuts, told the country to dip into reserves filled with cheaper oil bought last year. The Middle East's share of India's overall imports plunged to a 22-month low of about 52.7 per cent, while Africa's rose to 15 per cent, the highest since September. "[The] widening differential between WTI and Brent during December and January, and relatively subdued freight rates, offered India an opportunity to buy U.S. oil to make up for lower Middle Eastern suppliers," Haq said. Low supplies from the Middle East dragged OPEC nations' share of India's oil imports to a record low in the April to February period.

Source: India Today; 16 March 2021

EXCLUSIVE: REVIVAL OF HAMBANTOTA PORT IN SRI LANKA MAY STRENGTHEN CHINA'S POSITION IN INDIAN OCEAN

- Saikiran Kannan

China's Belt and Road Initiative (BRI) has been highly criticised for its implementation and rate of returns on numerous occasions, and one could never de-link the strategically located Hambantota International Port from the BRI. This port was handed over to China Merchants Port Holdings (CMPort) on a 99-year lease by the Sri Lankan government with a payment of US$1.12 billion as the island nation couldn't pay back the funding capital debt to China. Political activists and commentators often viewed this agreement between the China Merchant Port Holdings Company (CMPort) and Sri Lanka Ports Authority (SLPA) as an unfair deal. It is noteworthy that the Chinese state-owned company CMPort currently has an overall stake of 80 per cent, and the SLPA has 20 per cent. This is one of the main reasons why Sri Lanka is quoted as a victim of the debt-trap diplomacy of China's BRI. But now, while the world continues to battle the pandemic, the fortunes of the Hambantota port seem to be changing. Hambantota is close to the Asian and European international shipping routes the Suez Canal and the Strait of Malacca. These routes through Hambantota are used by about 36,000 ships, including 4,500 oil tankers. The port saves about three days of sailing time and fuel. China will certainly put in all its might to make up for the lost time in developing the Hambantota International Port as one of the most important ports in the region, and keep countries like India on its toes.

The history

In 2015 and 2016, the Central Bank of Sri Lanka commented that Hambantota was the only port with a negative growth rate, and that it had a declining number of vessel arrivals. The Asia Maritime Transparency Initiative noted that "the economic rationale for Hambantota is weak, given existing capacity and expansion plans at Colombo Port,

fueling concerns that it could become a Chinese naval facility," a realisation that at the time prevented other lenders such as India from getting involved. The promises of increased trade and economic wealth were quashed almost immediately as the port opened its doors in a shambolic inauguration ceremony, but the project plunged Sri Lanka into spiraling debt to China. As a result, in 2017, the Sri Lankan government had little choice but to hand over 80 per cent of the port's ownership to CMPort on a 99 year-long lease, along with 1,235 acres of land. In 2018, critics pointed out to the complete abandonment of the port with wildlife roaming free on its mainly deserted premises. When the port was under the Sri Lankan government, it was barely operational due to the lack of operational investments and incapable knowledge to start up and run a port of that scale. Sooner or later, the port needed an operational partner with a comprehensive investment to meet its demands. The CMPort invested in approx. $1.12bn to revive the port under a public-private partnership. The CMPort had to further spend at least $700800m or more to bring the port to the operational level at its full capacity.

One year after Hambantota International Port (HIP) came under its new management, the port focused on roll-on/roll-off (ro-ro) operations and doubled its business, with a 136 per cent increase in the volume of ro-ro vessels handled by the operational staff. The HIP has since diversified its services to include other port-related activities such as container Handling, General Cargo, Passenger, Bunkering, Bulk Terminal, and Gas at initial stages.

What has changed

- The geographic positioning

The geographic positioning of HIP provides advantages not just for the shipping industry but also for import/export business in general, coupled with experienced handling to ship or transship finished goods to almost any destination in the region, as the port can offer comparatively shorter timelines with just six to 10 nautical miles (19km) to the world's busiest maritime route between the Malacca Straits and the Suez Canal linking Asia and Europe. Rapid growth in economic development in emerging markets surrounding the Indian Ocean, such as the Bay of Bengal and East Africa, has created growth opportunities for Sri Lanka's port industry, in addition to more established maritime business with India. The deep-water terminal facility of Hambantota has the capacity to berth the largest of ships with ease and efficiency. Advantages in Hambantota include competitive labour costs, freeport facilities, ample space for storage, dry weather throughout the year. This gives HIP its competitive edge to develop as a competitive regional maritime and logistics hub. Given the shift of the maritime industry in the coming decades regarding 2020 low sulphur cap regulations, Hambantota is an ideal location to invest in storage tanks, refineries, and liquified natural gas (LNG) bunkering facilities with higher capacity to support the global ship fleet.

Bunkering is the supplying of fuel for use by ships, and includes the shipboard logistics of loading fuel and distributing it among available bunker tanks. Another key to their resurgence is their intent to tap into the market of fuel depots in both Singapore and Fujairah, two of the largest fuel depots in the world that supply over 60 million tonnes of fuel per year.

- Becoming a RO-RO transshipment hub

The port is emerging as a RO-RO transshipment hub. RoRo describes how products are loaded and discharged from a vessel. RoRo allows your products to roll on and off the vessel, as opposed to being lifted onboard using cranes. Self-propelled products such as cars and tractors roll on and off the vessel on their own wheels. The port reached its 1 million metric tonne yearly benchmark in 2019 with volumes from three sectors i.e. RO-RO, Bulk and Liquid cargo. In the pandemic year of 2020, the RO-RO transshipment hub has seen rapid growth in vehicle volumes while bulk cargo volumes have also grown by 44 per cent. Total RO-RO units handled during 2020 fell to 388,031 from 411,027 as coronavirus hit global shipping and Sri Lanka banned vehicle imports but transshipment have started to grow rapidly in recent months. By December 2020, volumes had pickup up to 58,996 units which is a rise of 25.9 per cent compared to the corresponding period in 2019, driven almost entirely by international volumes as imports dwindled to 215 units in 2020 from 4,214 a year earlier. In January 2021 the port had handled 55,068 units, up 29 per cent from a year earlier. Vehicles coming from India, Korea, Japan, and China are discharged at Hambantota for transshipment to the Middle East, South Africa, and South America.

HIP said it had engaged in aggressive marketing campaign and changed the RO-RO business model, which had brought results.

- New deals that have increased the significance of HIP

The Sri Lankan Cabinet of Ministers has approved the proposal presented by Minister of Industries to set up a 'Smart One Stop Shop' comprising the representatives of all relevant institutions to enable local and foreign investors interested in investing in industrial zones associated with Hambantota Port and Industries in the Southern Province. Measures have been taken to establish several industrial zones in the Southern Province in connection with the recent infrastructure development. The Board of Investment (BOI) of Sri Lanka has signed the agreement with Pearl Energy (Pvt) Ltd to launch 'Hambantota LNG Hub' a floating storage LNG trading facility at the port of Hambantota, bringing LNG to the doorstep of Sri Lanka, with a primary aim of trading LNG in the region utilising the strategic location of Hambantota. The agreement was signed by Susantha Ratnayake, chairman of BOI, and Tania Siegertsz, director, Pearl Energy. The total investment of the project is US$97.2 million. The LNG hub will become a landmark infrastructure development for the region, paving the way to broader access to natural gas as a primary fuel in South Asia.

Next in the line is China, which will build a US $300 million dollars' worth tyre plant in Sri Lanka's Hambantota port that will export nine million tyres in its first phase. Shandong Haohua Tire Co. Ltd will be given tax benefits under a Strategic Development Act, the Board of Investment of Sri Lanka said. The factory will start operations in three years and in the first phase nine million tyres, enough to fill 45,000 containers will be exported. The HIP has formed a strategic partnership with Sinopec Fuels of Lanka (SOFL) which intends to expand Sri Lanka's share of the regional bunker market and has invested over $5m in a tanker which flies the Sri Lankan flag. Operations have now started with local bunker supplier Lanka Marine Services (LMS) as SOFL's first buyer supplying very low sulphur fuel oil (VLSFO) to the tanker Suez

Hans enroute from Chennai to Suez. The tanker refueled at the Hambantota Port anchorage via oil barge Kumana, chartered to LMS by HIP.

The way forward

Not to forget, the issues surrounding the East Container Terminal (ECT) involving India, Japan and Sri Lanka have disturbed the balance of the Indian Ocean further. The project, worth an estimated $500-$700 million, was a key marker for infrastructure investment in the island nation where Chinese projects are most prominent. More than two-thirds of transshipment at this port is tied to India, making it an important trade and connectivity link. As a joint venture for India and Japan to invest in, the East Container Terminal (ECT) project was also expected to showcase how the two Indo-Pacific partners, and also Quad members, could provide South Asia with viable, transparent and sustainable alternatives for financing and development. The sharp statements from New Delhi and Tokyo now reflect their deep disappointment and their suspicions about the motivations. The ostensible reason for the Rajapaksa government's decision is growing pressure from port union groups which have opposed any foreign participation. New Delhi has said it continues to engage Sri Lanka on the ECT issue, although it remains cold to Colombo's alternative offer of developing the West Container Terminal. Now, the present government has decided to develop the ECT as an investment project by refraining from obtaining loans.

Secondly, the possible resurgence of the HIP may also give the much-needed impetus and belief to China and its partners when it comes the Belt and Road Initiative. Ports in Gwadar (Pakistan) and Kyaukpyu (Myanmar) may derive encouragement from this resurgence in achieving greater heights. Finally, it is also a timely reminder for the Quad (a grouping of India, US, Australia and Japan) and other countries that China must not be written off yet. The HIP has been reinvigorated within two years. In addition to this, Sri Lanka has also cleared an energy project involving China across three islands off the coast of Jaffna peninsula mere 50km from the Tamil Nadu coast. The project is to install "hybrid renewable energy systems" in the three islands of Nainativu, Neduntheevu, and Analaitivu. With Hambantota International Port facing better prospects, one can only imagine the rising potential of the same. India and Quad will now have to reset its outlook on the HIP, an asset that was considered dead weight only a couple of years ago.

(The writer is a Singapore-based Open-Source Intelligence analyst)

Source: India Today; 19 March 2021

WANG YI PUTS FORTH CHINA'S STANDS AT THE START OF CHINA-U.S. HIGH-LEVEL STRATEGIC DIALOGUE

- Saikiran Kannan

On March 18, 2021 local time, Member of the Political Bureau of the CPC Central Committee and Director of the Office of the Central Commission for Foreign Affairs Yang Jiechi and State Councilor and Foreign Minister Wang Yi held a China-U.S. high-level strategic dialogue with U.S. Secretary of State Antony Blinken and U.S. National Security Advisor Jake Sullivan in Anchorage.

Following the opening remarks of the U.S. side, Wang Yi said, at the invitation of the U.S. side, the Chinese delegation came to Anchorage, which is located at the middle of the flights between capital cities of China and the United States. It is the "gas station" of China-U.S. relations, and the "intersection" where the two countries meet each other halfway. In the past few years, China's legitimate rights were wantonly oppressed, which caused unprecedented serious difficulties in bilateral relations. It has harmed the interests of the two peoples and undermined world stability and development. Things should not continue like that. China did not, does not and will not accept baseless accusations made by the United States. We request the U.S. side to completely refrain from arbitrary interference in China's internal affairs. It's time to change its old pattern! Wang Yi said that it needs to be noted in particular, on March 17, 2021, the United States once again upgraded its so-called sanctions against China on Hong Kong-related issues. The blatant interference in China's internal affairs has provoked strong outrage among the Chinese people. Of course we are firmly against it. The measure undertaken by the U.S. side when the Chinese delegation was about to attend the China-U.S. high-level strategic dialogue is not a proper way of hosting guests. If the U.S. side intends to enhance its so-called advantages against China, it's absolutely barking up the wrong tree. On the contrary, it exposed its internal weakness and vulnerability. This act will not affect China's legitimate position, nor the determination of the Chinese people to safeguard national sovereignty and dignity.

Wang Yi pointed out, just now the U.S. side claimed in the opening remarks that some countries believe they are coerced by China. The U.S. side needs to make it clear if that's their statements or its own subjective assumption. If the U.S. side is biased in favor of some countries because of their alliance, or even protects their wrong words and deeds, it would be difficult to develop normal international relations. The people in the world have their own judgement as to which side is coercing the other side. And the history will draw a fair conclusion. Wang Yi stressed that the telephone conversation between President Xi Jinping and President Joe Biden on the eve of the Chinese New Year is very important. The consensus made by the two sides have charted the course for getting China-U.S. relations back on track. The international community is watching closely at our dialogue here to see if we can really show sincerity and goodwill, and if we can send active and positive signals to the world. If the United States is ready, we can work with the U.S. side to exchange our opinions on the basis of mutual respect, take the responsibility together, and do a good job which we are supposed to do.

Source: Embassy of the People's Republic of China; 19 March 2021

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