



MAKING WAVES

A maritime news brief covering:

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

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MARITIME SECURITY

THE EVOLVING RISK OF CHINA'S "GRAY ZONE" OPERATIONS

- Peter Layton

As competition with China deepens, the nation's use of gray zone techniques is becoming of increasing importance and interest. China has been using this approach for many years in the South China Sea, the East China Sea, and the India/China border, to name some prominent examples. Understanding the history behind these is important, but equally so is where China's gray zone stratagems may be heading. In this, we live in the future, not the past. Understanding the direction towards which Chinese gray zone activities may evolve could give early warning about China's likely next steps.

This article discusses three forward-leaning aspects: long-term trends, wild cards, and the shape of China's future gray zone actions. Considered together, these outline future Chinese gray zone possibilities at the strategic and tactical levels, helping avoid potentially nasty surprises.

Potential Evolutionary Paths

China has been using gray zone techniques for more than a decade, allowing some high-level trends to be discerned. The first trend is that the more China uses such techniques, the more others become involved in one way or another. China prefers to have bi-lateral relationships with other countries rather than work through multi-lateral channels, but gray zone activities tend to work against this. Others notice China's assertiveness, worry about being picked off individually, and if not join in, at least passively support the country being targeted by China.

The South China Sea dispute has been running the longest and is now noticeably dragging in more countries. Originally, China sought to negotiate bi-laterally and then only grudgingly agreed to accept multilateral discussions under the ASEAN institutional framework. This has further evolved with many countries now issuing diplomatic Notes Verbales so as to involve the United Nations. Moreover, the dispute has been part of the rationale for the formation of the Quad, comprising the United States, India, Japan, and Australia. The Quad is steadily becoming a more cohesive, pseudo-alliance grouping, as India's border troubles with China worsen and China steps up pressure on Japan in the East China Sea. More third parties are piling in with the European Union's (EU) views of China as a "systemic rival." The United Kingdom, France, and Germany are now sending naval patrols to the South China Sea.

A second trend is that China is making increasing use of non-military means of coercion, particularly coercive diplomacy and cyber. A recent study found that over the

past 10 years, there were 152 cases of such coercion affecting 27 countries and the EU, with a very sharp exponential increase in such tactics since 2018. In terms of cyber, China has long been noted for its cyber intrusions to steal intellectual property and industrial secrets. A recent shift though is towards using cyber means to inflict damage on others as part of a gray zone operation. In a notable recent example, China mounted a broad cyber-campaign against India's electrical power grid that coincided with the 2020 military border clash. Both coercive diplomacy and cyber have major advantages in terms of giving a global reach. China's gray zone activities can now impact very distant nations, not just those on its borders.

A third trend is a perceptible movement towards more violent actions, even if these do not involve armed attacks. In June 2020, People's Liberation Army (PLA) soldiers killed twenty Indian soldiers in a border clash. Previously, China's gray zone actions did not intentionally aim to kill others. The year also saw a PLA Navy warship aim its gun control director at the Philippine Navy's anti-submarine corvette BRP Conrado Yap in the Spratly Islands. In the naval domain, this can be considered as a hostile act and seems the first time that a Chinese warship has directly threatened a Philippine government vessel in the South China Sea. A second incident involving a PLA Navy warship pointing a laser at a US Navy P-8 maritime patrol aircraft drew criticism from the U.S. Navy as being "unsafe and unprofessional." This was a new step as such actions, while increasing in the last couple of years, have previously emanated from Chinese fishing vessels, not PLA Navy warships.

Wild Cards

Trends can only tell us so much. There is always a chance of a sharp deviation in the future onto a very different path. Four wild card possibilities are worth discussing.

Embracing Hybrid War. While China is destabilizing the existing international order through its gray zone activities, so also is Russia through hybrid warfare. China may be tempted at some stage to shift up the conflict continuum a notch, move beyond gray zone activities, and embrace Russia's hybrid model. Chinese gray zone activities aim to gain lasting strategic advantage over another. In contrast, the Russian armed forces define hybrid war as a war in which the means used, including military operations, support an information campaign. The aim of this campaign is to gain "control over the fundamental worldview and orientation of a state," shift its geostrategic alignment, and shape its governance. China's gray zone activities may irritate another, but the Russian hybrid warfare model tries for regime change.

Proxy Wars. China might not move as far as hybrid wars; however, its gray zone activities could be extended to include supporting proxy wars. In the Cold War, the Soviet Union and the United States fought each other vicariously through their various client states. Wars in countries as varied as Ethiopia, Angola, Nicaragua, and Afghanistan all engaged the superpowers of the day in providing overt and covert support for their chosen sides. If the U.S.-China relationship deteriorates into approximating a new Cold War, proxy wars may make a comeback.

Playing the Russia Card. There is a possibility that Russia and China may choose to actively work together. In this, there are uncertainties over the synergies their combined actions might generate, in particular how Russia might amplify Chinese

gray zone efforts. Today, China is mainly leveraging its Russian relationship to fill gaps in its military capabilities and to accelerate its technological innovation. In terms of gray zone activities, a new development has been the undertaking of joint China-Russian air patrols in the East China Sea. The first in July 2019 was heralded as taking the two nation's military-to-military cooperation to a new level appropriate to 'the new era,' but finished with South Korean fighters firing warning shots when one of the Russian aircraft intruded into Korean territorial airspace. Given this fiasco, a second try was not attempted until late December 2020.

Nevertheless, such patrols hint at the possibilities of Russia and China at least coordinating actions in their border zones. For example, Russia might conduct hybrid warfare operations in Europe while China ramps up concurrent gray zone activities in the South and East China Seas. Such an approach of working together but separately could tax any Western responses.

Mirror Image. If China is pleased with its gray zone activities, there is a possibility that others might not just take up the technique but use them against China. China has more borders than any other country, leaving considerable space for nefarious actions. Moreover, the Party faces many domestic problems and continually worries about internal stability. A gray zone activity over an extended period, using diverse means, that was ambiguous, stayed within red lines, and exploited the Party weaknesses could be a definite annoyance, shifting the strategic advantage away from China to others. China's gray zone sword might become two-edged, able to inflict damage on its originator.

The Shape of China's Future Gray Zone Activities

In general, gray zone activities involve purposefully pursuing political objectives through carefully designed operations; moving cautiously towards goals rather than seeking decisive results quickly; remaining below key escalatory thresholds so as to avoid war; and using all instruments of national power including non-military and non-kinetic tools. These characteristics suggest that in terms of its application in a specific circumstance, gray zone activities have two important variables. These are whether violent or non-violent actions are undertaken and whether non-military or military instruments are used. The drivers created by these variables implies four possible alternatives as illustrated in the Figure below. These are the manner in which future Chinese gray zone activities might be undertaken. None of these four alternatives are considered more probable than the others, but that which actually occurs is hopefully captured within the wide span of possibilities encompassed.

The 'playing by the rules China' is an optimistic future where a responsible stakeholder China abides by the rules to which it has agreed with others. The 'whatever it takes China' is a minor deterioration from now and is perhaps a near-term prospect. The 'pushing the envelope China' is an evolved future where much greater use is made of the PLA but in a non-violent way. The 'do as you are told China' is a near worse-case possibility that is arguably on the limits of gray zone activities; there would be a high risk of peace breaking down and serious armed conflict starting. An indicator and warning of this might be the shoot down of an uncrewed air vehicle, such as a Triton maritime surveillance drone.

Long-term trends, wild cards, and the shape of China's future actions combine to give an overview of the strategic- and tactical-level gray zone possibilities, but the future should not necessarily be thought of as simply getting worse. As gray zone activities are undertaken at the direction of the highest levels of the Chinese Communist Party's leadership, they could just as easily be wound back towards something approximating the positive 'playing by the rules China' future. However, the killing of the twenty Indian soldiers on the border with China is a most worrying development. Prudence would suggest paying close attention to China's near-to-medium term gray zone activities. This appears a "Danger, Will Robinson" moment where the omens look distinctly gloomy.

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Source: [The Maritime Executive](#); 20 October 2021

INDIA, US, ISRAEL & UAE COME TOGETHER FOR TRADE, TECHNOLOGY, BIG DATA AND MARITIME SECURITY: REPORT

India, Israel, the UAE and the US met for their first "quadrilateral" meeting on Monday night for closer cooperation on trade, technology, Big Data and maritime security. According to a report by Times of India, the new grouping is described as an international forum for economic cooperation. The focus areas, according to official readouts of the participating countries, will be trade, technology cooperation, Big Data and maritime security, with the objective to generate synergies that go beyond government-level cooperation.

Israel's foreign minister and Jaishankar joined the meeting from Jerusalem, while the others attended virtually from their countries. After the meeting, Union Minister S Jaishankar said, "Discussed working together more closely on economic growth and global issues. Agreed on expeditious follow-up." In his brief comment, he said, "The three of you are among the closest relationships we have, if not the closest." He added, "I think it is very clear that on the big issues of our times we all think very similarly and what would be helpful would be if we could agree on some practical things to work upon." The group discussed the possibility of working together on joint infrastructure projects. The meeting also deliberated on each country appointing a senior level bureaucrat to be part of a joint working group to materialise these decisions. All four ministers promised to meet in person during the Dubai Expo in the coming months.

US state department spokesperson in a statement said and his three counterparts discussed expanding economic and political cooperation in and Asia.

In his remarks, Blinken described Israel, the UAE and India as three of “our most strategic partners” and said that by “bringing friends together in new ways, we are making these partnerships even greater than the sum of their parts”. “I think that is what this gathering is about. Sitting here in Washington I can say very simply that with Israel, the UAE and India we have three of our most strategic partners. And given so many overlapping interests — energy, climate, trade, regional security — this seems like a really good idea to try and use this new format,” he added.

Source: [News18.com](https://www.news18.com); 20 October 2021

PENTAGON CHIEF URGES MORE BLACK SEA SECURITY TIES

- AFP

U.S. Defence Secretary Lloyd Austin urged more defence cooperation among Black Sea allies on Wednesday ahead of a NATO Ministers summit. Following talks in Bucharest with Romanian Defence Minister Nicolae Ciuca, Mr. Austin said action was needed by littoral states of the Black Sea amid Russia “militarisation” of the region. “The security and stability of the Black Sea are in the U.S.’s national interest and critical for the security of NATO’s eastern flank,” he said. “The region is vulnerable to Russian aggression and we’ve seen evidence of that by ongoing actions in eastern Ukraine (and) the occupations of parts of Georgia,” he told reporters.

Mr. Austin was in Bucharest on the third stop of a tour of the region to build confidence among allies including Georgia and Ukraine, both of which are hoping to join NATO, and to promote greater cooperation among military forces. He will then take part in an in-person defence Ministers summit at NATO headquarters in Brussels on Thursday and Friday. The U.S. has nearly 1,000 troops in Romania, a full member of NATO, which Mr. Austin says is good deterrence against potential Russian aggression. Most are stationed at the southeastern Mihail Kogalniceanu airbase but a number are also there to support an Aegis missile defence system, the first installed on NATO’s eastern flank. Talks with Mr. Ciuca focused in part on how to advance current basic defence cooperation by the countries on the Black Sea rim.

Source: [The Hindu](https://www.thehindu.com); 20 October 2021

UK FORGES CLOSER DEFENCE AND SECURITY PARTNERSHIP WITH INDIA, OCTOBER 2021

- Foreign, Commonwealth & Development Office and The Rt Hon Elizabeth Truss MP

Foreign Secretary Liz Truss is forging stronger UK security and defence links with India on her visit to the country, as she visits HMS Queen Elizabeth in Mumbai today. The ship is the spearhead of the Carrier Strike Group (CSG), a symbol of the UK's world-leading defence capability, whose visit to Mumbai is a clear sign of our growing defence and maritime co-operation with India. While in India the CSG is taking part in the most demanding exercise ever between undertaken between the UK and India, involving all three military services.

During her visit the Foreign Secretary will progress talks to ramp up defence and security ties and boost strategic cooperation in the Indo-Pacific region. It will take forward joint work agreed by the Prime Minister and Indian Prime Minister Modi in the landmark 2030 Roadmap on maritime security, cyber security and counter terrorism signed earlier this year. She will also discuss developing innovative security and defence tech with the Indian government to tackle common threats and will talk through strengthening defence-related trade between the 2 countries. The Foreign Secretary sees developing this security and defence relationship with India, the world's largest democracy, as a key part of the UK's Indo-Pacific tilt. She wants to strengthen such links with fast-growing economies and like-minded partners in the region and build "a network of liberty" around the globe. The Foreign Secretary sees India as essential in ensuring a free, open, inclusive and prosperous Indo-Pacific.

Foreign Secretary Liz Truss said:

"Closer defence and security partnerships between the UK and India underpin deeper economic ties and make both countries, as well as the wider region, safer. We need to protect our sea and trade routes and, operating from a position of strength, be hard-headed in defending our interests and challenging unfair practices."

"The arrival of the Carrier Strike Group in India this weekend represents the UK's Indo-Pacific tilt in action. This is a true symbol of Global Britain, working closely with like-minded partners like India."

The Foreign Secretary will join the Queen Elizabeth Carrier at sea to tour the vessel and observe live exercises involving UK and US F35B fighter jets. Chief of Defence Staff Sir Nick Carter is also visiting Mumbai to see the Carrier Strike Group in action. He joined his Indian counterpart General Bipin Rawat in Delhi to discuss regional security and laid a commemorative wreath at the National War Museum.

Defence Secretary Ben Wallace said:

"A strengthened partnership with India is a key pillar of the UK's tilt to the Indo-Pacific. Our Carrier Strike group visit represents an important step towards our goal

of establishing a maritime partnership with India in support of mutual security objectives in the Indian Ocean.”

The Foreign Secretary will also visit the Taj Mahal Palace Hotel in Mumbai today to lay a wreath at the memorial for those killed in the 2008 terrorist attacks. This evening, she will welcome senior business leaders and guests from the world of education, film, sport and politics onto HMS Defender, a Type 45 Destroyer, where the UK will showcase its world-leading tech and innovation in defence, healthcare, science and climate.

Source: [UK government](#); 23 October 2021

INDO-PACIFIC WITNESSING DAY-TO-DAY COMPETITION FOR INFLUENCE: NAVY CHIEF

- Press Trust of India

New Delhi: The Indian Navy is working on "tailor-made" solutions to help friendly countries confront pressing challenges in the maritime domain with a broader aim to emerge as a preferred security partner and make a real contribution for an open and inclusive Indo-Pacific, Navy Chief Admiral Karambir Singh said on Wednesday.

Without naming China, he also talked about some states applying "land-centric" territorial mindsets in the basic idea of global commerce in the Indo-Pacific with an attempt to seek greater domination and control that has created challenges to global rules.

In an address at a seminar, Admiral Singh said there has been a "day-to-day" competition for influence in the Indo-Pacific that brings with it attendant and evolving challenges, noting that the rules of game are "constantly changing". He said the Indian Navy has prioritised certain elements in its efforts to play a more constructive and stabilising role in the Indo-Pacific that including working towards developing collective maritime competence in the region. "Our Navy's endeavour is to help harness competencies collectively to tackle the common challenges being faced. In this, creation of a participative inclusive ecosystem rather than a prohibitive elitist one has been our priority," he said.

He said the second element is to look outward and be ambitious in its engagement while the third one is to engage with partner nations to develop interoperability and trust with an aim to come together in a "plug and play" fashion when needed. Admiral Singh said the final element is to focus on the real problems being faced by regional nations on a day-to-day basis and help them with tailor-made solutions.

"For example, the island nations in the Indian Ocean Region, their economy is tourism-oriented. Their problems are of drug smuggling, human smuggling," he said. "Therefore, as the Indian Navy, we are working to develop tailor-made solutions to

these problems. Only when we address the challenges that the nations in the region face, we can hope to emerge as a preferred security partner in the region and make a real contribution towards a free, more open and increasingly inclusive region," Singh said.

The top Navy commander cautioned that any contest in the region will impact all other countries and not just the contenders as he called for a comprehensive approach by like-minded countries to deal with the emerging challenges. "There is a danger of global commons turning into contested seas. Competition in the Indo-Pacific is becoming more diverse, involving levers of diplomacy, commerce, ideologies, values, science and technology apart from the military," he said. "If we are to ensure the security and safety of global commons, like-minded navies must come together to manage and maintain the global commons for prosperity," the Navy chief added.

He said the future of the Indo-Pacific hinges on cooperative efforts of like-minded nations, asserting that prosperity, security and growth for all in the region can only be accomplished under a collaborative approach. "We have to be aware of the evolving nature of the competition and the contestation in this region." "What we are seeing today is some states applying land-centric territorial mindsets in the basic idea of global commerce, attempting to seek greater domination and control and therefore it creates challenges to international rules, regulations and reinterpretation of such conventions," he added. There has been growing global concern over China's increasing expansionist behaviour in the Indo-Pacific that has forced many countries to come out with strategies to deal with the challenge.

(This story has not been edited by NDTV staff and is auto-generated from a syndicated feed.)

Source: [NDTV](#); 27 October 2021

NAVAL FORCES REPEL PIRATE ATTACK ON IRANIAN TANKER NEAR GULF OF ADEN

TEHRAN (Tasnim) – Iran's naval troops repulsed an attack by pirates on one of the country's oil tankers en route to the Gulf of Aden on Monday. An escort squad of the Iranian Navy aboard an oil tanker had an armed encounter with the pirates on Monday morning as the ship, sailing for the Gulf of Aden, was going to pass through the Bab al-Mandab Strait. Four boats, each carrying some 6 armed pirates, had plans to attack and hijack the Iranian oil tanker, but were forced to flee after the naval forces fired warning shots. In recent years, Iran's Navy has increased its presence in high seas to secure naval routes and protect merchant vessels and oil tankers against pirates. In line with international efforts to combat piracy, the Iranian Navy has also been conducting anti-piracy patrols in the Gulf of Aden since November 2008 to safeguard the vessels involved in maritime trade, especially the ships and oil tankers owned or leased by Iran.

Source: [Tasnim News](#); 01 November 2021

MARITIME FORCES

PENTAGON'S TRANSCOM IS "LASER-FOCUSED" ON BUYING FOREIGN SHIPS

The U.S. Department of Defense's strategic sealift plans have relied heavily on foreign-built, U.S.-flagged tonnage for decades, and that is not going to change anytime soon, according to U.S. Transcom commander Gen. Jacqueline D. Van Ovost (USAF). Her number one priority is strengthening defense logistics capability in an era of growing competition, and "buy-used" is the fastest, least-cost way to acquire more capacity. Gen. Van Ovost took the helm at U.S. Transportation Command on October 15, and in her first major speech, she pointed to the growing threat posed by America's potential peer competitors. Transcom is orienting its exercises and preparations for distributed maritime operations in the Indo-Pacific, preparing to counter one increasingly-capable "pacing threat" nation.

"Since World War II, we have enjoyed strategic dominance in [global posture, mobility capacity, and global command and control]," she said. "We now face direct challenges across all domains, threatening our ability to deliver an immediate force tonight, and a decisive force when needed." The Air Force's air-cargo capacity can deliver an immediate force, but a sustained conflict or a large-scale buildup will require strategic sealift. The Maritime Administration's Ready Reserve Force (RRF) and the Navy's Military Sealift Command surge fleet are designed to deliver relatively rapid mobilization, with about five days of notice - but the Pentagon is all too aware of the limited technical readiness of this fleet. The mass "turbo activation" exercise for RRF and MSC sealift vessels in 2019 revealed serious weaknesses: six out of 33 ships could not activate in time, and six more experienced "mission impacting discrepancies that would delay an immediate mission tasking." Notably, none of the four Large, Medium-Speed Roll-on/Roll-off ships (LMSRs) in the test completed their operational speed runs at the target speed of 24 knots. Facing escalating operating costs and declining capabilities, Transcom and the U.S. Navy have a plan in place to recapitalize the fleet and accommodate the mass retirement of some 34-50 of these aging hulls. "We have too many ro/ros that are getting old, and they're too costly to maintain. Our readiness numbers are a lot lower than I would like," Van Ovost said. "[We're] laser-focused on emphasizing a responsible 'buy used' strategy with the U.S. Navy . . . We have limited resources, and we have to get the best capability we can for the nation."

This strategy is well under way. Working with the Navy, the Maritime Administration has already contracted for a third-party "buy-used" program that will acquire foreign-built ro/ros, reflag them into the U.S. and refit them to meet U.S. standards - all at a set package price. That agreement was briefly delayed due to a procurement dispute, but it is now going forward. In her speech, Van Ovost also highlighted a recent Transcom study of sealift fuel tanker capacity. The study provides new support for a

plan to subsidize the U.S.-flag product tanker fleet, in the same manner as the Maritime Security Program (MSP) for foreign-built, U.S.-flagged, U.S.-crewed cargo ships. At present, only two tankers are enrolled in the 60-vessel MSP fleet. The study "clearly demonstrates the need for a Tanker Security Program as a strategy to increase U.S.-flag tanker capacity and ensure that the Department of Defense has sufficient tanker capabilities to meet our national security objectives," Van Ovost said.

The FY2021 Defense Authorization Act incorporated language to create a Tanker Security Program, and the FY2022 MARAD budget request includes \$60 million to launch and fund it.

Source: [The Maritime Executive](#); 20 October 2021

PM MODI-US PRESIDENT BIDEN MEETING IMPACT: INDIA TO JOIN US-LED COMBINED MARITIME FORCE IN BAHRAIN

- Srinjoy Chowdhury

New Delhi: Exactly a month after the meeting between Prime Minister Narendra Modi and US President Joe Biden, India and the United States have decided to have closer naval ties. India has decided to join the 34-member Combined Maritime Force based in Bahrain, headed by an American Navy vice-admiral, also commander of the US Navy 5th Fleet. The CMF's deputy is a British commodore. After considerable internal discussion, India has agreed to become an associate partner of the CMF and send a middle-level liaison officer (either a Captain or Commander) to Bahrain. No decision to allot a warship to the CMF has been taken as yet. India's decision comes in the wake of China's growing presence in the Indian Ocean

The CMF, which aims for maritime security, is also involved in counter-piracy and anti-narcotics operations in the Persian Gulf, the western Arabian Sea and much of the Indian Ocean. It has three Combined Task Forces: CTF 150, CTF 151 and CTF 152. The CMF comprises 34 countries comprising the USA and its allies in Europe and Asia as well as countries like Brazil, Egypt, Pakistan and Yemen. As part of the CMF, India will have real-time access to important naval information.

Defence Secretary Ajay Kumar in Israel

Defence secretary Ajay Kumar is in Israel on a three-day visit. There are going to be discussions on the possibility of joint research and development of high-tech defence systems. This is particularly an area after the success of the MR-SAM, jointly

developed by both countries. Israel is also strong in areas like sensors and electronic warfare. India and Israel are also negotiating the possible purchase of artillery.

Source: [Times Now](#); 27 October 2021

US AND INDONESIAN FORCES BEGIN CARAT 2021 EXERCISE

The US and Indonesian military workforce have virtually commenced Cooperation Afloat Readiness and Training (CARAT) 2021 Indonesia. The exercise began in the Indonesian city of Surabaya and in the waters and airspace of the Java Sea on 1 November.

In the 11-day drill, the US and Indonesian forces will work together towards achieving a free and open Indo-Pacific maritime security environment. Participants of the exercise include US personnel from the 7th Fleet, Marine Forces Pacific, CTF 72, CTF 76, DESRON 7, CTF 73, CTF 75, US 7th Fleet Band and US Embassy Jakarta. The US naval assets and aircraft taking part in the drill include Independence-variant littoral combat ship USS Jackson, embarked MH-60S Seahawk helicopter of HSC Squadron 23, Spearhead-class expeditionary fast transport ship USNS Millinocket, and a P-8A Poseidon aircraft. Destroyer Squadron (DESRON) 7 commodore captain Tom Ogden said: “Strong relationships are built on trust and developed through demonstrated actions and consistent and thoughtful discourse. “These strong relationships are the foundation on which security, stability, and prosperity flourish. “CARAT Indonesia is a perfect venue for the US and Indonesia to address mutual maritime security concerns, and to expand our cooperation in South-East Asia.” The at-sea phase of the exercise will be held in the Java Sea, where US Navy’s assets will join the Indonesian Navy’s vessels and aircraft.

The exercise was cancelled last year due to the Covid-19 pandemic. However, this year’s CARAT Indonesia is being held by following safety mitigation measures to contain the spread of the virus. During the opening ceremony, Second Fleet Command Chief of Staff TNI-AL first admiral Rachmad Jayadi said: “CARAT 2021 is a forum for military-to-military cooperation between Indonesia and US, especially the Indonesian navy and US seventh fleet bilateral programme. “This joint exercise aims to improve the capabilities of the navy personnel in the field of warfare capability and become a place for sharing our knowledge and enhancing the skills of naval warfare, as well as interoperability in facing maritime security challenges in the two countries.”

In 2018, the US Navy and the Timor-Leste Defense Force conducted the 24th iteration of the CARAT exercise at Port Hera Navy Base in Timor-Leste.

Source: [Naval Technology](#); 02 November 2021

JAPAN, U.S. FORM SURFACE ACTION GROUP IN SOUTH CHINA SEA

- Seapower Staff

SOUTH CHINA SEA — Japan Maritime Self-Defense Force (JMSDF) Murasame-class destroyer JS Yudachi (DD 103) and Independence-variant littoral combat ship USS Jackson (LCS 6) operated bilaterally in the South China Sea, said Lt. Cmdr. Lauren Chatmas, U.S. Navy, Destroyer Squadron Seven Public Affairs.

Joining to form a Surface Action Group (SAG) while transiting, the ships practiced a range of surface warfare tactics to include flight operations, communications drills and coordinated tactical maneuvering, all designed to enhance interoperability and enabling the ships to practice bilateral tactics in close proximity to one another. “Meeting our JMSDF allies in the South China Sea allowed both of our teams to build readiness as we sail in the Indo-Pacific,” said Cmdr. Michael Root, Jackson Gold Crew commanding officer. “The complex maneuvering and operations we accomplished without meeting face-to-face reflects the strong friendship and maritime professionalism that our nations and navies share.” Coming together with partners and allies at sea allows the U.S. Navy to operate closely with other navies and in ways shore exercises do not allow. It further provides the crews with real-life situations to practice their everyday watchstanding and communication skills with foreign vessels. “On our way to the Gulf of Aden and Somali waters to engage counter piracy mission, we met with USS Jackson, and conducted various tactical training,” said Cmdr. Wakushima Hidetaka, JMSDF JS Yudachi commanding officer. “Despite COVID-19, Japan and U.S. naval forces are working closely in any sea area, making full use of the characteristics of the naval force.”

Attached to Destroyer Squadron (DESRON) 7, Jackson is on a rotational deployment to the U.S. 7th Fleet area of operations in support of security and stability in the region, and to work alongside allied and partner navies to provide maritime security and stability, key pillars of a free and open Indo-Pacific.

As the U.S. Navy’s forward-deployed destroyer squadron in Southeast Asia, DESRON 7 serves as the primary tactical and operational commander of littoral combat ships rotationally deployed to Singapore, functions as Expeditionary Strike Group 7’s Sea Combat Commander, and builds partnerships through training exercises and military-to-military engagements. Under commander, U.S. Pacific Fleet, 7th Fleet is the U.S. Navy’s largest forward-deployed numbered fleet, and routinely interacts and operates with 35 maritime nations in preserving a free and open Indo-Pacific region.

Source: [Seapower Magazine](#); 29 October 2021

1TS ENTERS SRI LANKA

Ships of 1st Training Squadron are on a visit to Sri Lanka from 24 to 28 October 2021, as part of Overseas Deployment for the 100th and 101st Integrated Officers Training

Course. The deployment is aimed to broaden the horizons of young officers and officer-trainees by exposing them to the socio-political and #maritime facets of different countries in the IOR. The deployment will also expose the trainees onboard towards the conduct of Indian Navy warships in various evolutions at sea, port familiarisation and above all, foster the bridges of friendship with foreign nations. INS Magar and Shardul along with Senior Officer, 1st Training Squadron arrived Colombo while INS Sujata, Tarangini and Sudarshini along with CGS Vikram, entered Trincomalee harbour on 24 October 2021. During the visit, the ships will undertake bilateral training familiarisation and Sail Training capsules for Sri Lanka Navy personnel. The ships will also participate in a Joint Exercise with the ships of Sri Lanka Navy.

Source: [Indian Navy](#); 24 October 2021

SHIPPING, PORTS AND OCEAN ECONOMY

ECONOMISTS EXPECT SHIPPING PROBLEMS TO LINGER WELL INTO 2022

- Jeff Cox

Shipping backups at big U.S. ports, and the resulting goods shortages and price surges, are not likely to resolve themselves until well into 2022, according to economists and some business leaders who have spoken recently. Some 77 ships are waiting outside docks in Los Angeles and Long Beach, California, carrying \$24 billion worth of goods looking to find their way into the American ecosystem, according to Goldman Sachs. The pressures are feeding into the economy, putting constraints on everything from grocery stores to big manufacturers. Prices for consumer and wholesale goods are soaring. The trends are expected to create an inflationary holiday season with the potential for fewer goods under Christmas trees. Those looking for good shipping news anytime soon aren't likely to receive it. "Backlogs and elevated shipping costs are likely to persist at least through the middle of next year because no immediate solution for the underlying supply-demand imbalance at US ports is available," Goldman economist Ronnie Walker said in a note to clients.

Relief could arrive eventually. The pressures "should soon begin to ease" but only "slightly as we pass the ongoing seasonal peak in shipping demand ahead of the holiday season," Walker added. The problems should lessen after the holidays and Lunar New Year as container traffic wanes.

In the meantime, consumers will pay more and have access to less.

Shipping a container through major U.S. ports now takes triple the time it normally does. In September, about one-third of containers at the L.A. and Long Beach ports sat longer than five days before being shipped out, according to Goldman Sachs. Offloaded containers dropped by 9.1% at Long Beach and 3.6% at Los Angeles. President Joe Biden tried to fix the problem by ordering ports to stay open 24 hours, but it has only helped at the margins. Ongoing labor shortages and a lack of coordination among the multiple players in the U.S. supply chain blunted the effect of the move. "The upshot is that the outlook offers no immediate fixes for the underlying supply-demand imbalance at US ports," Walker wrote. Though he sees some easing ahead, he added that "congestion will likely persist to some extent through at least the

middle of next year, and our analysts expect that freight rates will likely remain meaningfully above pre-pandemic levels for at least the next year.”

Issues for big companies

Companies have had to find ways to keep their products moving amid the supply chain disruptions. The issue has been mentioned repeatedly during the third-quarter earnings season. Many officials have said they have taken a hit from shipping delays but have deployed various strategies to mitigate the damage.

Conagra CEO Sean Connolly said his company has struggled to keep up with surging consumer demand. “This is a great problem to have, but it increases the demands on our supply chain at a time when the industry is navigating labor shortages, material supply issues and transportation cost and congestion challenges,” the head of the packaged food company said on its earnings call a few weeks ago. “If we had the capacity to meet all of the demand, our numbers would likely have been even more impressive.” Connolly added he expects the “supply chain challenges will ultimately abate.” Consumer products giant Procter & Gamble has also seen pressure from “tight labor markets, tight transportation markets and overall capacity constraints. Inflationary pressures are broad-based and sustained,” chief financial officer Andre Schulten said on the Oct. 12 earnings call.

Schulten noted that “we feel good” at P&G about the ability to manage the issues. Ultimately, the problems companies and consumers face come from issues largely related to the Covid-19 pandemic. Consumers have shifted their spending from services like restaurants and travel to goods, such as household items and technology. The U.S. has depended on a “just-in-time” supply chain that is not built to react to massive demand jolts. “If an input — in this case, global demand for goods — to certain kinds of systems changes, the resulting change in the outputs can be massively outsized. A system with underlying chaotic characteristics can swing from calm to chaos very quickly, with few warning signs,” Pantheon Macroeconomics Ian Shepherdson wrote. Still, Shepherdson expects the pendulum to swing back to more of a services-based economy, allowing supply to catch up to demand. Federal Reserve officials are betting on that outcome as well. They have decided against raising interest rates to stave off inflation, hoping that the economy returns soon to equilibrium.

Fed Chairman Jerome Powell said Friday that inflation has lasted longer than he expected and likely will persist into next year. But he added that it has not risen to a level that warrants substantial policy tightening. Shepherdson said a drop in demand could lead to “a period of rapid declines in goods prices,” though he added that he would “be surprised to see that before the middle of next year.”

Source: [CNBC](#); 25 October 2021

GLOBAL ECONOMY STUCK IN "HISTORY'S BIGGEST TRAFFIC JAM"

- Bjorn Van Roye, Brendan Murray and Tom Orlik, Bloomberg

New Delhi: Last year the global economy came juddering to a halt. This year it got moving again, only to become stuck in one of history's biggest traffic jams. New indicators developed by Bloomberg Economics underscore the extremity of the problem, the world's failure to find a quick fix, and how in some regions the Big Crunch of 2021 is still getting worse. The research quantifies what's apparent to the naked eye across much of the planet — in supermarkets with empty shelves, ports where ships are backed up far offshore, or car plants where output is held back by a lack of microchips. Looming over all of these: rising price tags on almost everything. Central banks, already retreating from their view that inflation is “transitory,” may be forced to counter rising prices with earlier-than-expected interest-rate hikes. That poses new threats to an already stumbling recovery, and could take the air out of bubbly equity and property prices. Behind the logjams lies a mix of overloaded transportation networks, shortages of labor at key chokepoints, and demand in the U.S. that's been bolstered by pandemic stimulus and focused more on goods than services.

It's not just a problem of moving stuff around. The world is still struggling to make enough stuff too. Producers have been caught off-guard by this year's rebound after they slashed orders of materials last year, when consumers stopped spending. In Vietnam, plants that make Nike shoes had to scale back output because migrant workers had decamped to their home provinces out of fear of Covid-19. China, the world's manufacturing powerhouse, is confronting new virus outbreaks and responding with targeted lockdowns. Its factory prices are rising at a 10% annual rate, the fastest since the 1990s. Pulling all these pieces together, the Bloomberg Economics supply indexes show shortages just off a 20-year high in the U.S. Gauges for the U.K. and euro area are at a similarly elevated level. The measures are based on a range of data, from factory gate prices to the ratio of inventory-to-sales for retailers, and the backlog of orders for service-sector firms. Readings of zero indicate normal conditions, negative ones mean goods are abundant, and positive points to constraints. The gauges show an abrupt shift from excess supply before the Covid crisis to today's significant shortages. For global manufacturers like Toyota — which slashed September production by more than a third from 2020 levels as shortages stalled its famed just-in-time production process — as well as the firms that move their products around the globe, and the shoppers waiting for deliveries, the big question now is: when will the disruptions end?

Even giants like Amazon and Apple — used to bending supply chains to their will — don't see the situation improving fast. Amazon said its entire fourth-quarter profit could be wiped out by a surge in the cost of labor and fulfillment. Apple said it lost \$6 billion in sales because of inability to meet demand, and could lose more next quarter.

Shipping conditions should start to ease after the Chinese New Year in early February, “although disruptions could last at least till the middle of next year,” said Shanella Rajanayagam, a trade economist at HSBC. Even then, with pent-up demand and

inventory restocking keeping the pressure on, Rajanayagam says it could still take some time for supply chains to fully disentangle. What comes next is uncharted territory partly because of the sheer number of bottlenecks along the route from assembly lines to shopping baskets. As one supplier waits for another to deliver, the delays are feeding on each other. Logistics systems usually ride the ups and downs of the global economy in a predictable pattern: Rising demand boosts trade, pushing shipping rates up and heralding good times for cargo carriers, until they over-build capacity and a bust follows. But the pandemic has thrown that cycle out of whack. Even amid signs of slowing growth, the pipeline of international commerce has never been so clogged.

The more than 70 ships anchored off Los Angeles, for example, are loaded with enough 20-foot containers full of goods to stretch from Southern California to Chicago if laid end to end. And even when those vessels get to dock, their payloads will only slam into the thousands already stuck in the ports waiting for a ride inland. That will require more truckers and trailers in the short run. A longer-term fix means getting Covid-19 under control, building new infrastructure such as more efficient ports, and improving technology for digital transactions and faster communication. Elsewhere in the world, shipping bottlenecks have often followed severe weather and virus outbreaks, like the recent Covid-19 flareup in Singapore. An analysis of port congestion showed the backlog Monday in that city-state center of finance and logistics was elevated, with 53 container ships at anchor, the highest count since Bloomberg started tracking the data in April.

That's a problem for the U.S., where the clothes and home electronics that fill up shoppers' carts rely on foreign inputs and assembly. And with vaccination rates in many Asian countries still low, it's a problem that won't disappear anytime soon. "For the supply chain to recover, it is going to require a certain amount of luck" — avoiding weather disasters or new Covid hotspots — "plus time and investment to add more logistics capacity," said Simon Heaney, senior manager for container research at Drewry in London.

For a global economy exiting the deepest recession in recent history, supply shortages caused in part by strong demand are a good problem to have. Clearly worse would be the opposite one: abundant supply because economies remained depressed, with millions more unemployed.

But this least-bad option is still creating plenty of problems of its own. Inflation is already running high enough to be outside the comfort zone for monetary policy makers. In the U.S., it's at 5.4% now and could stay lodged in the 4% to 5% range next year if supply constraints don't ease, according to Bloomberg Economics models. That doesn't mean the world is in for a re-run of 1970s-style stagflation. It took a decade of overheating and policy missteps to drive U.S. inflation above 10% back then. The Fed and its peers are unlikely to make the same mistakes again. And unemployment is far below its 1970s peaks, and falling.

Still, the current environment — call it stagflation-lite — is a challenging one for central bankers. Keeping rates at their current lows would allow the recovery to continue, but risk prices spiraling higher if households and businesses come to expect more of the

same. Tightening would quell inflation not by addressing inadequate supply, but rather by stifling demand. It could turn into the monetary policy equivalent of the surgeon who declares: “Operation successful, patient dead.” Traders are currently pricing in two Fed rate hikes in 2022, two more than the median member of the Federal Open Market Committee. A Bloomberg Economics model of the Fed's reaction function — its policy response to changes in the economy — suggests that if inflation runs strong and unemployment falls, even two hikes next year might not be enough.

Of course, predictions of rapid monetary tightening have been consistently wrong in the past, and they could be again. Demand for goods might cool as pandemic stimulus fades or fears of tighter financial conditions erode confidence. A rotation of spending from goods back to services, already under way in the U.S., will lessen the imbalance between constrained supply and booming demand. A sustained slowdown in China might hit commodity prices. And supply chains could unsnarl quicker than expected, too. The Bloomberg gauge of shortages in the U.S. has edged down in the latest readings — while staying at historically elevated levels. It's just that there's no precedent that sheds much light on when, or how, conditions will normalize. “The current situation is unique and quite different from the more isolated disruptions the world has experienced,” said John Butler, president of the World Shipping Council, which represents the biggest ocean freight carriers. “The way in which the current congestion ultimately unwinds will also be different.”

Source: [NDTV Profit](#); (updated) 03 November 2021

UZBEKISTAN TO USE CHABAHAR PORT

- MEHR News

He made the remarks in a meeting with his Iranian counterpart Hossein Amir-Abdollahian in Tehran on Wed. and said that Uzbekistan wants to use transit capacities of Iran's Chabahar Port. During the meeting, the two sides discussed latest developments in Afghanistan, bilateral economic cooperation in the fields of transit and energy as well as interactions of Iran with Shanghai Cooperation Organization (SCO). Turning to the importance of restoration of peace and stability in Afghanistan, Uzbek foreign minister emphasized the need for exchanging views between Tashkent and Tehran on issues of mutual interests. He expressed readiness of his country for developing and broadening bilateral cooperation in various fields including energy and called for acceleration of holding Iran-Uzbekistan Joint Economic Commission.

Strengthening cooperation of Islamic Republic of Iran with Shanghai Cooperation Organization (SCO) and holding Summit of Shanghai Cooperation Organization next year in Uzbekistan as current periodical chairman of the Organization were among other topics discussed by the two sides. It should be noted that Uzbekistan Foreign Minister Abdulaziz Kamilov arrived in Tehran on Tue. in order to take part in Afghanistan Neighbors' Meeting.

Source: [Maritime Gateway](#); 28 October 2021

THE THIRD PILLAR: A CONTRACTUAL ARCHITECTURE FOR MARITIME DECARBONISATION

In the run up to the UN climate conference – “COP26” in Glasgow, we are pleased to share guest author – Haris Zografakis’ thoughts on the need for a new contractual structure in shipping to immediately reduce GHG emissions rather than simply waiting for regulation. Our guest author explains why climate activist Greta Thunberg would hate demurrage and would not be too keen on privity of contract either when the climate crisis is here, and solutions are needed now.

It is short-sighted to approach maritime decarbonisation as a mere regulatory compliance exercise. It is a revolution that will herald a new era. The real challenge is not only technological. We need to rethink the contractual architecture of the entire edifice of international maritime trade. Here’s why we need a change and how to do it.

The environmental paradox

Sea transport is the most environmentally friendly way of carrying goods; and yet, cargo ship operations are often grossly inefficient, for example the practice of “Steam Fast, Then Wait” (SFTW): ships sail to their port of destination at their service speed, without regard for the conditions at that port. Largely as a result of this, dry bulk carriers and tankers spend about 8-10% of their entire life at anchorage. Academic research suggests that eradicating SFTW and introducing Just-in-Time (JiT) practices, which are widely adopted in supply chains, would result in emissions’ savings in the order of 20-25%. This is equivalent to about 200 million tons of CO₂ per year. Of course, it is simplistic to treat all ships in the same way. If we only take bulkers and tankers, the figure is roughly halved to 100 million. Or if we only take containerships, we come to savings of about 80 million tons of CO₂ per year. To put this in context, the annual CO₂ emissions of Norway in 2019 were about 45 million tons.

The contractual foundations of the environmental paradox

Maritime contracts have developed sophisticated (the uninitiated would say arcane) mechanisms for allocating the financial cost of operational inefficiencies to shipowners or charterers (or buyers or sellers of cargo): demurrage, laycan, “utmost dispatch”, speed warranties, ballast voyages, off-hire. A cost for one party – a profit opportunity for the other. The entire edifice of international maritime trade (including the sale contract and the letter of credit) is made up of building blocks that allocate the financial cost of inefficiencies.

Demurrage as part of the environmental paradox

Laytime & Demurrage are words that only shipping people understand. An elegant construct, according to shipping lawyers. 150 years of jurisprudence, hundreds of court judgments and arbitration awards, thousands of pages of commentary and jurisprudence. Demurrage is all about compensating the shipowner for the

consequences of delay. “Liquidated damages for the vessel’s detention beyond the laytime” is the legal definition). Some of this delay is at port, the result of delays in the cargo operations, but most of it is at the anchorage, caused by the inefficiency of SFTW. Quite simply, voyage charters incentivise vessels to steam fast, tender NOR as soon as possible, and then wait, earning demurrage.

As a consequence, the environmental cost of demurrage across the shipping industry is comparable to the annual emissions of an entire country. Put differently, at the level of the fleet owned by one single large shipowning group, or chartered by one single large trader, the savings of eradicating SFTW would be comparable to the savings of 3.5 million tons estimated for the entire Tesla fleet of cars worldwide.

The Era of Sail, the Era of Steam, the Era of Oil, the Era of Decarbonisation

Turn the clock back one hundred years. The Era of Sail was drawing to a close.

“Gard’s core business – the sailing ship fleet – had collapsed more rapidly than anyone had expected by 1919 ... The result was that Gard’s fleet was severely reduced ... Gard’s managing director Gjerulf Fløystad ... had taken a decision in 1915 that was to have far-reaching consequences: amending the statutes so that Gard could also accept owners and managers of steamships. With the sailing fleet continuing to shrink, the issue was one of life or death for Gard”. At the same time, as the market was evolving in response to the transition from sail to steam, so did the contractual framework of shipping: charterparties. As stated by a pre-eminent treatise on laytime and demurrage “The development of the law of laytime and demurrage has been closely allied to the historical and social changes that took place as sail gave way to steam”.

Are SFTW and demurrage, products of the transition from the Era of Sail to the Era of Steam, compatible with the Era of Decarbonisation? It has been estimated that investment of USD3 trillion is required for the shipping industry to decarbonise. Will all those innovative new ships burning super-expensive fuels (and subject to carbon taxes) sail fast, then wait, spending 8% of their life waiting at anchorage? “If something cannot go on forever, it will stop”, to quote the Stein law from economics. The only questions are when and how.

“Right here, right now” or “Da mihi castitatem et continentiam, sed noli modo”

To address “when and how”, choose your preferred perspective: market or environment.

Shipping is a pragmatic, traditional, down-to-earth industry. Let’s start with the market. In August 2021, the Baltic Exchange started publishing EEOI metrics alongside freight rates for main cargo routes: “this benchmark will provide the shipping industry with a valuable point of reference as the market seeks to factor in carbon emissions alongside charter rates”. Reality check: the venerable Baltic Exchange uses carbon emissions in the same sentence as charter rates. Today, in 2021. Not in 2050. The introduction of Carbon Intensity Indicators from 2023 will make efficiency savings an imperative for every ship. Lloyds Register estimate that the majority of the world’s dry bulker and tanker fleet will not comply. All Classification societies offer tools for measurement and improvement of vessels’ carbon efficiency. Several companies have developed ways to measure and predict any vessel’s future CII

rating and others compare the carbon efficiency of different ships to inform chartering decisions. The existing fleet will either adapt in the 2020s, or will become a graveyard of stranded assets, as ships that score low in CII become less attractive to their charterers and to their financiers. The Sea Cargo Charter and the Poseidon Principles are the first stepping stones along that path. This is not speculation about the uncertain details of the implementation of the EU ETS, or about the level and structure of fuel taxes or carbon pricing, or other developments that are still in gestation. Those are all hard-nosed, market considerations borne out of the existing regulatory framework. To paraphrase activist Greta Thunberg – the climate crisis is right here, and changes need to be made right now.

If we change perspective and look at the science around emissions, a ton of CO₂ saved today achieves greater environmental benefit than a ton saved in 2030 or in 2040. GHG emissions accumulate and impact upon our available carbon budget. Scientific research on “committed emissions” is clear: the rate of renewal of the world’s fleet is slow, and millions of tons of CO₂ are already “committed” by the ships that exist today and those that will be built in coming years that will be powered by fossil fuels. Put simply, the less the shipping industry does to optimise the existing fleet during this decade, the deeper and more painful the actions will need to be in the 2030s and 2040s. The science is clear; the economics are clear; the market signals are clear: inefficiencies in maritime operations – and, above all, SFTW – will be eradicated. Not in 2050, but during this decade. If this is a temporal contest between Saint Augustine and Greta Thunberg, Greta wins: “Right here, right now”, is not merely a slogan. It is a factual description of the present maritime decarbonisation framework.

The regulation paradox

Martin Stopford explains that the shipping industry “... operates within a strict economic regime, which would be immediately recognizable by 19th century classical economists. It is, more or less, the “perfect” market place at work, an economic Jurassic Park where the dinosaurs or classical economics roam free ...”. Faced with the decarbonisation challenge, this liberal, lightly regulated, free market, suddenly assumes an almost Soviet posture: regulation is the word on everyone’s lips. IMO should do this. The EU should do that. Or not, depending on which side of the argument you may be on. It is a paradox that history’s most successful free market laments the absence of regulation. Will centuries of freedom be replaced by a perfect regulatory environment? Will international maritime trade become as tightly regulated as passenger air transport?

The decarbonisation future is not yet known, but let’s regulate it: is regulation a panacea or a chimaera?

Freedom of contract: a necessary but not sufficient condition

As the foundations of SFTW and the other operational inefficiencies are contractual, then we can look to contract for a cure. Freedom of contract under English law makes this perfectly possible. Regulations identify the problem and provide a framework, but the solutions are contractual. The environmental paradox can be addressed through a new contractual architecture, without falling victim to the regulation paradox. But here’s the rub: contracts under English law are bilateral and cannot be enforced

against third parties. The industry is fragmented. The environmental paradox is systemic; resolving it requires industry-wide co-ordination at scale, not bilateral action. The virtual arrival solution failed to eradicate SFTW in the 2010s because it was hopelessly bilateral. Freedom of contract will not resolve the problem by itself; it is a necessary, but not a sufficient, condition.

Privity of contract: sacrosanct or an obstacle to decarbonisation?

International maritime trade is a web of contracts, a web of bilateral agreements. The reflection of fragmentation on the legal plane is the English law principle of privity of contract, which has served maritime trade well for 200 years. It's the closest to a shared deity we have in shipping – let's call him God Chitty, just for the amusement of lawyers. Sadly, if decarbonisation requires collaboration, then privity of contract is an obstacle. It encourages individualism and discourages multi-party solutions.

In a contest between the environmental imperative and privity of contract – in a battle between Chitty and Greta, will Greta lose?

An International Convention on Maritime Decarbonisation?

If fragmentation and the bilateral structure of maritime trade are impediments to decarbonisation, and if regulation is an improbable or too partial solution, how do we create a new multilateral legal architecture, that can truly support collaborative solutions?

Do we need an International Convention on Maritime Decarbonisation? How about the Hague-Visby Rules for the Era of Decarbonisation?

An international convention is the perfect multilateral instrument. Indeed, when incorporated into contracts, the best of both worlds is possible: The Clause Paramount surely counts as one of the most effective tools in any area of law.

A convention requires a decade to draft and a decade, or longer, to be ratified and come into force. Some never are: the Hamburg Rules, or the International Convention on the Sale of Goods or the Rotterdam Rules have yet to be ratified by a sufficient number of states to come into force.

Is there hope for a Decarbonisation Convention at a time when the traditional international institutions are currently under fire? Political scientists call that “institutional erosion”. For the latest example, see the UK government's announcement of its support for a net zero target for shipping by 2050, in direct contravention to IMO's 50% target.

An International Convention is perfectly possible, but unachievable within the available time-scale, especially in view of institutional erosion. The solutions must be found elsewhere.

As Bill Gates commented – “It's a mistake to think of innovation only in the strict, technological sense. Innovation is not just a matter of inventing a new machine or a new process; it's also coming up with new approaches to business models, supply chains, markets and policies... Innovation is both new devices and new ways of doing things”. Shipping can save emissions equivalent to those of an entire country, with the

existing ships, the existing fuels, in the present critical decade, without regulatory intervention. It is achievable through a “new way of doing things”: we need a new contractual architecture.

The Third Pillar

Let’s draw the threads together.

The contractual architecture of international maritime trade encourages inefficiencies, such as SFTW, which have a huge carbon footprint. The existing regulatory framework highlights the problem. Market pressure will become unbearable. Technology will not in itself provide solutions, and the investment required to decarbonise will simply accentuate the need for operational efficiency. A different type of innovation is indispensable, a new way of doing things. A new contractual architecture is perfectly possible without any regulatory or statutory intervention. However, the fragmented nature of the industry and the bilateral nature of contractual relations is an obstacle to collaboration. Multilateral solutions could be found through a Decarbonisation Convention, but the process would be slow and the outcome uncertain, especially at the present time of institutional erosion. Meanwhile, the GHG emissions from inefficiencies such as SFTW accumulate by amounts as great as the emissions of an entire country. Maritime decarbonisation requires what I call the Third Pillar in the architecture of contracts. International maritime trade currently rests on two contractual pillars: safety and commercial orders. Decarbonisation is the Third Pillar, i.e. a contractual framework for decarbonisation actions and measures that will trump commercial orders, but will yield to safety.

The Third Pillar will require two elements:

Firstly, provisions that can be enforced bilaterally and will discourage operational inefficiencies, while promoting decarbonisation at every stage: optimized voyages, wind propulsion, electricity supplies at port, freight rates dependent on CO₂ efficiency, sharing of carbon credits, insets or offsets, emission warranties that will replace speed and consumption warranties.

Secondly, structures to support those solutions that require multilateral collaboration, ranging from new fuels to voluntary carbon markets and multilateral voyage optimization. None of these can effectively be pursued bilaterally but – equally – cannot wait for the years or decades required for regulation or international conventions. These multilateral structures will be incorporated in, and enforced through, contracts. The maritime industry has a history of collaboration in the face of common risks or to achieve collective benefits: the Inter-Club Agreement for sharing liabilities for cargo claims, or the pooling of P&I risks through the International Group or, indeed, the very concept of General Average. We are seeing several collaborative initiatives focused on the adoption of new fuels and new technologies. But collaborative initiatives in relation to the contractual architecture have attracted less attention, perhaps because of a mistaken expectation that regulation will solve everything. As a result, there is less discussion around innovation through a “new way of doing things”. I am aware of only one such initiative, in which I’m involved, the BV Solution. A project that seeks to eradicate SFTW through multilateral voyage optimization within a new contractual framework. According to optimization

specialists Napa, the BV Solution achieves GHG reductions comparable to those of Just-in-Time, but without the drawbacks.

Maritime decarbonisation will prompt a large number of innovations across many areas, both technological and in “new ways of doing things”. We can – and should – be agnostic about the ultimate mix of solutions, but we need to recognise that we need a new contractual architecture to make them happen. Our present contractual structures are simply unfit for the new Era. Greta hates demurrage, and she is not that keen on privity of contract either.

Source: [GARD in Hellenic Shipping News](#); 02 November 2021

MARINE ENVIRONMENT

COP26: DENMARK, U.S. AND 12 OTHER NATIONS BACKS TOUGHER CLIMATE GOAL FOR SHIPPING

- Marinemonks News Network

Denmark, along with the United States and 12 other countries have backed a goal of reducing emissions by the maritime sector globally to zero, by 2050, on the sidelines of the United Nations COP26 Climate Change Conference in Glasgow, Scotland, United Kingdom. The initiative was initiated by Denmark and is aimed at building support among nations for the goal at the International Maritime Organization (IMO), which has set a deadline of 2023 for bringing out new emissions-cutting measures. “We urge the IMO to take action to set ambitious targets to achieve zero emission shipping by 2050. Carbon-neutral shipping is vital to reaching our climate goals.” said Mette Frederiksen, the Prime Minister of Denmark. Along with Denmark and the United States, other signatories of the maritime sector declaration include Belgium, Britain, Finland, France, Germany, Honduras, Hungary, Iceland, the Marshall Islands, Norway, Panama and Sweden. It commits nations around the world to work at IMO to “adopt such a goal, to adopt goals for 2030 and 2040 that place the sector on a pathway to full decarbonization by 2050, and to adopt the measures to help achieve these goals.”

To be noted, that some countries with big maritime sectors like Greece and Japan did not sign declaration. The International Maritime Organization sets out maritime regulations through its 175 member nations aiming to reach decisions through consensus. A tougher target in the shipping sector will need for approval from a majority, which poses political challenges. Discussions on proposals from countries will be held by the IMO, for broader climate measures to be adopted in 2023, said an IMO spokesperson. “IMO is providing the global forum where member states can begin forward their proposals for discussion.”

The aim to cut global shipping emissions in half from 2008 levels by 2050 was adopted by the IMO back in 2018. This falls far short of the current requirement of net zero carbon emissions by 2050, that scientists say the world must achieve to avoid the disastrous impacts of climate change. Shipping accounts for approximately 3% of the global CO₂ emissions, while it transports around 90% of the world trade. Huge investments are required to scale up the production of green fuels and deploy carbon-neutral vessels to the seas by this decade. Carriers around the world are bidding extensively to decarbonize their fleet, by adopting to alternate marine fuels like green methanol, ammonia and LNG. Innovative technologies like Carbon Capture are also

on the verge of being implemented at the high seas. Further, CEOs from the leading shipping companies and government representatives from around the world are set to get together in Glasgow at a cross-industry zero-carbon emission conference on the sidelines of the U.N. COP26 on 6th November.

Source: marinemonks.com; 02 November 2021

ONE SEA: AUTONOMOUS SHIPPING HAS CLEAR ENVIRONMENTAL BENEFITS

- One Sea

With the need for action on climate change becoming increasingly urgent, the maritime industry could make good use of autonomous technology to support its decarbonization efforts, advises One Sea, the open alliance leading the way towards autonomous shipping. The recent United Nations report in which scientists issued a stark warning on climate change comes a year after the Fourth IMO Greenhouse Gas Study 2020 projected a 90–130 percent increase in GHG emissions from shipping by 2050. Based on a “business-as-usual” scenario, this prediction contrasts sharply with the IMO’s target to halve maritime emissions by the same year. Against this background, the industry must act swiftly and decisively to mitigate its environmental impact – and autonomous technology can make a significant contribution to these efforts, says One Sea, the consortium aiming to establish the first autonomous maritime ecosystem by 2025.

Eero Lehtovaara, One Sea chair, master mariner and head of regulatory and public affairs at ABB Marine & Ports, suggests that an important environmental dividend from autonomous technology will be a result of improved safety. “Maritime incidents like groundings and collisions, which can have a serious impact on the environment, are often attributed to insufficient situational awareness,” he explains. “By constantly monitoring a vessel’s position in relation to hazards including other ships – and ensuring it maintains a safe distance from these threats – autonomous technologies can help to prevent accidents and thereby protect the environment. The way forward is to ensure that we combine the best of human capabilities with technologies that support them, like a ‘cobot’ working alongside the crew.” As well as keeping vessels clear of physical hazards, autonomous technology can prevent ships from performing prohibited and potentially harmful actions, continues Lehtovaara. “Solutions deploying geofencing can ensure a vessel takes appropriate measures to minimize its ecological impact, such as adhering to discharge and emissions restrictions in certain locations and avoiding particularly sensitive areas altogether.”

However, autonomous and automated navigation also benefit the environment by increasing voyage efficiency, he says, in turn contributing to decarbonization. “The technology improves productivity and fuel efficiency by continuously reacting to small changes with small actions rather than intermittently responding to larger changes with more significant actions.” This results in reduced emissions for the same cargo volume transported, he adds. Lehtovaara’s observations are consistent with the

findings of One Sea member Wärtsilä. In a recently published white paper, *The future of Smart Autonomy is here*, the marine technology provider reveals that autonomy solutions can yield fuel savings of 10 percent or more on longer voyages by optimizing vessel routing and speed. Meanwhile, on a two-hour voyage, a mere 60-second reduction in docking time can cut fuel consumption by two to three per cent per minute, the paper reports.

Autonomy solutions may also maximize fuel efficiency by enabling just-in-time (JIT) ship operations, says smart maritime logistics expert and One Sea member Awake.AI. “The JIT method allows vessels running ahead of schedule to decrease their speed on their approach to port and minimize queuing time,” says the company’s co-founder and CEO, Karno Tenovuo. “This saves fuel and reduces emissions, which is particularly crucial in busy port areas.” JIT arrival has received further endorsement from the Global Industry Alliance to Support Low Carbon Shipping, whose investigations show that a reduction in speed of as little as 10 percent can lead to a 30 percent decrease in carbon dioxide emissions. As a provider of cargo-handling solutions and services, One Sea member Cargotec has a strong drive towards decarbonizing the maritime industry. Cargotec operates through MacGregor and Kalmar business areas. MacGregor is a strong proponent for technology-enhanced port operations as a means of maritime decarbonization. The company developed the world’s first autonomous bulk cranes in collaboration with ESL Shipping, installing three of the machines on two ESL liquefied natural gas-powered Handysize bulk carriers. By providing extended service life and reducing vessel turnaround time through optimized load handling, the cranes contribute to sustainable port operations. More recently, MacGregor collaborated with Kalmar and fellow One Sea member Kongsberg Maritime on the world’s first autonomous and zero-emissions container ship, *Yara Birkeland*. The innovative vessel, which transports fertilizer from the Norwegian city of Porsgrunn to deep-sea ports in the towns of Larvik and Brevik, features automated mooring from MacGregor, autonomous loading and unloading from Kalmar, and sensor and integration technology from Kongsberg. Together, these systems support the ship’s efficient operations, which dramatically lower emissions by eliminating up to 40,000 lorry journeys annually in a densely populated part of Norway.

Society’s overreliance on road transport is something Kongsberg is aiming to address through a joint venture with global shipping company Wilhelmsen, dubbed *Massterly*. Established in 2018, *Massterly* aims to “enable a shift in transport from road to sea” by offering support with vessel design and approval, control systems, logistics, operations, insurance, and financing. *Massterly* and Kongsberg are currently involved in a project to equip two new fully electric autonomous cargo ships for Norwegian grocery distributor ASKO. Due for delivery in early 2022, the vessels will replace 1.2 million miles worth of truck transport to eliminate 5,000 tonnes of CO₂ emissions per year.

The anticipated environmental benefits of the Kongsberg and Cargotec projects align with the assertions and findings of other One Sea members including ABB, Awake.AI and Wärtsilä. Based on this evidence, autonomous technology could help to ensure that by 2050, the shipping industry has avoided the IMO’s bleak emissions forecast – and instead realized its ambitious reduction target.

Source: [The Maritime Executive](#); 28 October 2021

COP26: IMO EXPECTS CLIMATE EVENT TO EXPEDITE MARITIME DECARBONISATION

- Nick Savvides in Glasgow

International Maritime Organization (IMO) secretary general Kitack Lim believes a successful COP26 in Glasgow this week will help drive the maritime decarbonisation process. Speaking to The Loadstar at COP26, Mr Lim said shipping had made great progress, but the transition to alternative fuels must happen more rapidly, and the national leaders meeting in Glasgow could be key to making that happen. “We’re looking for a very positive outcome, because COP26 is very much related to what we are doing for maritime decarbonisation.”

According to Mr Lim, the UNFCCC climate change mechanisms are very similar to the IMO mechanisms. Mr Lim would not be drawn on the possibility of agreeing market-based measures at the Marine Environment Protection Committee meeting later this month, but he emphasised that the process would be given a significant boost by positive COP26 developments.

Mr Lim did say that the IMO was looking to speed up the decarbonisation process, and a definite plan from the leaders agreed this week would give the IMO the impetus to make more rapid changes. As if to echo Mr Lim’s comments, UN secretary general António Guterres told delegates and world leaders there was no more time to lose, that lives and livelihoods were at stake – as is the world’s infrastructure. He said it was no good for countries to propose nationally determined contributions (NDCs) that fall short of the Paris Agreement targets and, if countries did, “they will have to revisit their NDCs, not every five years, but every year and at every moment”.

Mr Guterres added: “The \$100bn a year climate finance commitment in support of developing countries must become a \$100bn climate finance reality. This is critical to restoring trust and credibility. “I welcome efforts led by Canada and Germany to help get us there. It is a first step – but it delays the largest support for years, with no clear guarantees. But beyond the \$100bn, developing countries need far greater resources to fight Covid-19, build resilience and pursue sustainable development. “Those suffering the most – namely, least-developed countries and small island developing states – need urgent funding. More public climate finance, more overseas development aid, more grants and easier access to funding.”

Source: [theloadstar.com](#); 01 November 2021

FINLAND, JAPAN, SOUTH KOREA, AND SWEDEN: A MIDDLE POWER PARTNERSHIP FOR ENHANCED MARITIME CAPACITY IN THE ARCTIC

- Nima Khorrami

Although no stranger to great power competition, the Arctic has been commonly described as a zone of peace and cooperation since the end of the Cold War. Such characterisation, in turn, has allowed for a broader conceptualisation of security when discussing regional affairs; that is, more attention has been paid to human security and the effects of climate change on the region. However, as climate change makes Arctic waterways navigable for longer periods of time, and as great power competition becomes the dominant strategic narrative of this decade, states seem to have begun to adopt zero sum views on each other's activities in the Arctic.

To this end, both Russia and the US have started to increase their military presence in the region, and NATO is being encouraged to follow suit. Meanwhile, regional and non-Arctic nations have begun to take measures and initiatives with the simple goal of extending their commercial presence in the Arctic. Yet, the Arctic's non-binding and/or soft regulatory framework has remained unchanged, and disagreement on the rules of the road and responsible behaviour have been, and will continue to be, on the rise. This will be most prominent in the maritime areas where opening of the sea routes and the region's vast resources have incentivised states to both develop their so-called ice-compatible maritime assets and also try to play a direct role in the formation of a framework for regulating maritime activities.

With these developments in mind, this article makes the case for increased maritime cooperation between the four middle powers of Finland, Japan, South Korea, and Sweden all of which have, according to their official Arctic strategy documents, critical national interests in the region's maritime affairs in spite of their common lack of Arctic coastline. Thanks to the importance of the maritime sector in their respective economies, put differently, it is argued that these trade-dependent democracies can immensely benefit from developing a coordinated maritime cooperation framework underlined by a logic of capacity building via capacity sharing. They can utilize their formidable expertise and knowhow in shipbuilding, sustainability, and the development of AI powered autonomous and smart systems in order to contribute to the emergence of a safer and expanded maritime and navigational zones in a cost-effective way. In this way, maritime cooperation can go a long way in enabling them to maintain a rule-based order in the region's maritime domain while further safeguard their own commercial and strategic interests in the Arctic.

The Bonding Factors

Calling for a maritime-focused partnership between Helsinki, Seoul, Stockholm, and Tokyo can be justified on three separate yet intertwined grounds. First, they all display

the key characteristics which are commonly associated with middle powers including their reliance on, and vulnerability to, external trade and developments in the global market, their active participation in regional and global forums as a substitute for their limited resources, and their tendency to develop niche capabilities that are complementary to those of their main allies.

Added to these are their strong bilateral relations as well as their similar domestic politics and foreign policy orientations all of which are underpinned by their adherence to democratic norms and values, an unequivocal preference for open and rule-based global trading arrangements, and a firmly consolidated strategic anchoring with the United States. Put together, their partnership in the Arctic could be both an extension of Joe Biden's proposal for the formation of a democratic alliance and, perhaps even more importantly, the cornerstone of a future cooperative framework amongst middle power democracies⁹) for upholding a rule-based system both in the Arctic and beyond.

Owing to their middle power status, secondly, there is an interesting convergence of their commercial priorities in the Arctic. According to their most recently released Arctic strategy documents, they all attach importance to environmental protection, scientific cooperation, science-based collective decision making, and the applicability of international law to the region's maritime domain. Hence, while they all recognise the sovereign jurisdiction of the five coastal states over their territorial water and exclusive economic zones (EEZ), they nonetheless call for the strict application of international law and law of the sea to the waters outside EEZs.

Moreover, Seoul and Tokyo justify their demand for greater say in Arctic governance by highlighting the transnational nature of climate change thereby refuting the notion of exclusivity based on geography and/or geographical proximity that the eight Arctic states, albeit to varying extent, insist on. For their parts, and in spite of their desire for preserving the Arctic states privileged role in managing regional affairs, Finland and Sweden's call for expanded cooperation with non-Arctic states has its root in their realisation that environmentally-induced threats and/or challenges in the Arctic are global in nature, and that addressing them requires international collaboration with like-minded nations.

Since shipping is likely to be a major contributor to increased levels of environmental distress and pollution, second only to the extractive industry, it would only be natural for the quartet to collaborate on the development of green and smart shipping solutions as part of their wider environmental and scientific agendas. Finland and Sweden have committed themselves to reducing and/or minimising pollution caused by increased maritime activity while Japan and South Korea attach significant importance to environmental protection and development of clean fuels and technologies as part of their anticipated increased presence in the Arctic. In this context, it is interesting to note that South Korea has in fact sought to shore up its cooperation with Nordic states in implementing its Green New Deal.

Finally, these four democracies are commonly described as leading innovation countries with a traditionally strong maritime sector. Given the high cost of building icebreakers, the Arctic's challenging and/or hard-to-navigate maritime environment

and the dire lack of adequate maritime infrastructure in the region, they can utilize their knowhow and pull their resources together in order to expand the region's overall maritime capacity for safer passage of vessels and personnel as well as faster response rates to incidents. By enhancing the region's maritime capacity, in other words, the quartet can gain a commanding foothold in the Arctic's maritime affairs and play an active role in establishing both legal and technical frameworks for acceptable and/or responsible conduct in Arctic waterways.

The Quartet's Maritime Capabilities

Both Finland and Sweden are eyeing to become key players in the Arctic maritime sector by banking on their navigation expertise in icy conditions as well as investing in, and promoting, their world class icebreaker and shipbuilding capabilities. By being the main supplier of icebreakers to, among others, both China and Russia, one could argue, Finland is in fact already a key player in the Arctic maritime affairs. Moreover, Finnish icebreakers cost considerably less than the US built ones even though they are technologically in par with, if not superior to, their American counterparts. Sweden too can be a key contributor to search and rescue missions in the Arctic since its current fleet of icebreakers can be re-equipped and/or modified for rescue, firefighting, and oil spill cleanup operations albeit only in summer months when they are off duty.

However, neither countries have the resources to be able to unilaterally satisfy increased demands for icebreakers as either a service or product, and thus it ought not to be surprising that Helsinki and Stockholm have already formed a partnership to "design and develop the next generation icebreakers". Capitalizing on their expertise in sustainability, communication, and ice navigation, the new fleets are set to be equipped with state-of-the-art communication technology, AI powered navigational systems capable of monitoring and predicting ice sheet movements, and autonomous movement.

As a leader in shipbuilding, smart city technologies, and AI, South Korean government, similar to its Finnish and Swedish counterparts, has made it a national priority to maintain and strengthen the country's position in these sectors by helping local private entities to develop autonomous, smart, eco-friendly maritime ecosystem. As part of its national strategy to create economic growth via the development of technologies commonly associated with the fourth industrial revolution, "Korea is focusing on technologies such as autonomous ships, smart ports and improved navigation systems that raise efficiency and productivity through higher speed, quality of service and a reduction in accidents caused by human error". To this end, Seoul has plans to complete the construction of 12 smart ports by 2040 while work on autonomous ships and navigation systems has been underway since 2009 involving the country's major shipbuilders including Hyundai Heavy Industries, Daewoo Shipbuilding & Marine Engineering, and Samsung Heavy Industries.

Aware of the strategic importance of the sector as both a driver of economic growth and technological innovation, Japanese government too has been consistent in increasing its support for the industry. Tokyo has already put in place a well thought out plan for its shipbuilding industry with the goal of ensuring its competitiveness both

regionally and globally. Developed by the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), which is in charge of the sector, Japan's vision is to "maintain a domestic building capacity equivalent to one third of world market demand and establish technical capabilities to lead the world shipping and shipbuilding industries". In so doing, Japanese government has committed itself to providing generous grants for R&D, especially with regard to autonomous shipping and AI powered navigational systems, as well as assistance in terms of international marketing and provision of export credits and export credit insurance.

Concluding Remarks

It appears that beside important policy and/or doctrinal compatibilities between Finland, Japan, South Korea, and Sweden, there also exist critical sectoral and technical synergies which could be tapped into in order to boost and/or accelerate the emergence of a cooperative maritime framework. Should they seek to do so, their efforts would benefit from their widely acknowledged characterisation as middle powers which in turn make their initiatives and/or partnership less susceptible to other states geopolitical scrutiny; that is, their status as middle powers would allow them to 'operate under the radar' and build on their already strong bilateral commercial and scientific ties to establish a quadrilateral framework for maritime cooperation in the Arctic.

Given their respective expertise in AI research and smart city technologies, icebreaker building, and sustainable development, as well as a common track record of scientific research and monitoring in the region, these states are best advised to concentrate the bulk of their efforts on the development of smart ports, autonomous ships, AI powered navigational systems capable of mapping ice sheet movement, and autonomous maritime ecosystems. Their underlying goal ought to be safer, faster, and cleaner Arctic shipping. Doing so would go a long way in both strengthening their footprint in Arctic maritime affairs and fending off any potential efforts by the Arctic littoral states to limit the participation of non-coastal and non-Arctic nations in Arctic maritime security discussions.

In the context of the unique Arctic environment as well as these countries' own stated concerns with environmental degradation, moreover, the two Nordic and Asian neighbours will be serving their own respective Arctic agendas if they collaborate in decarbonising Arctic shipping. And the good news here is that the foundations for such undertaking are already in place as evident in the case of MIRAI 2.0 between Japan and Sweden as well as the newly signed agreement on Green Economy cooperation between Finland and South Korea.

Notwithstanding the diminishing ice, furthermore, navigation in the Arctic still remains a challenging endeavor thanks to the unpredictability of ice sheet movements. One way of overcoming this challenge is to develop AI powered navigational systems capable of both mapping and predicting ice sheet movements with greater accuracy. Not only do these countries have the expertise, the political will, and commercial incentives for such undertaking but doing so would also enable them to collectively make a positive contribution to improvement of the regional system of meteorological observations which suffers from numerous gaps and deficiencies.

Last but certainly not least, they can cooperate in both building modern icebreakers and development of smart maritime ecosystems similar to the One Sea Project thereby contributing to not just safer passage but also round the clock incident response capabilities. While having access to modern icebreakers is a prerequisite to any state's ability to benefit from the opening of Arctic's maritime passages, developing autonomous maritime ecosystems could increase surveillance, reduce operational costs, and therefore expand region-wide search and rescue capacity.

Source: [The Arctic Institute](#); 26 October 2021

GLOBAL MARITIME ISSUES MONITOR 2021: THE INDUSTRY SHIFTS BACK TO A PRE- PANDEMIC FOCUS WITH ENVIRONMENTAL AND CLIMATE CHANGE ISSUES TOPPING THE LIST OF CONCERNS

- Global Maritime Issues Monitor 2021

Senior leaders foresee environmental issues to have the most impact in the coming decade for the global maritime industry, particularly as related to decarbonization and new regulations. This is a key finding of the Global Maritime Issues Monitor 2021, published today by the Global Maritime Forum; Marsh Specialty, part of global insurance broker and risk advisor Marsh; and the International Union of Marine Insurance. Survey respondents from six continents highlight 'decarbonization of shipping', 'new environmental regulation', 'societal demands for sustainability', and 'failure of climate-change mitigation and adoption' as four of the top 10 issues in terms of potential impact on the maritime industry.

Top issues: Decarbonization and other environmental issues come to the fore

For the first time in the four-year history of the Global Maritime Issues Monitor, decarbonization of shipping is seen by respondents as the most impactful issue, followed by new environmental legislation. Issues linked to decarbonization and climate change score high on impact and likelihood this year when top issues regarding likelihood, impact and preparedness are compared. The focus in 2021 is a shift back to the pre-pandemic world of 2019, where environmental issues led much of the discussion of the survey. Conversely, respondents show more confidence in 2021 in some financial areas, and it is noticeable that economic and geopolitical issues this year were overshadowed for the first time.

"This year, environmental issues are clearly top of mind for the marine industry, with decarbonization of shipping and new environmental regulation listed as the main concerns. Worryingly, they still perceive the maritime industry as relatively

unprepared to handle these issues, underlining that when it comes to decarbonization, government action and collaboration with the private sector is needed to deliver the right enabling environment for shipping decarbonization,” says Kasper Søgaaard, Managing Director, Head of Institutional Strategy and Development at the Global Maritime Forum.

Low preparedness on environmental, digital and talent issues

Where sustainability and environmental issues score high on impact and likelihood, they score low on preparedness. In addition, survey respondents cited issues relating to cyberattacks, geopolitics, global economic crisis, and digitalization as being of particular concern. The issues of cyberattacks and data theft are for example seen as both more impactful and more likely this year than last. At the same time respondents feel the industry is not fully prepared to tackle them, while the likelihood is that cyberattacks in the marine industry will continue to increase. “There is a clear shift in perception among respondents of their organisations’ preparedness to handle cyberattacks, which correlates with ransomware incidents increasing both in intensity and frequency over the last 12 months. With a growing reliance on technology and ever-greater digitalization in the shipping sector, the industry needs to take a more comprehensive approach to address the cyber threats it faces, otherwise it is increasingly exposed to risks that could cause great harm to their operations,” says Marcus Baker, Global Head of Marine and Cargo at Marsh Specialty. Another issue area that appears higher on the respondents’ list of concerns this year concerns talent shortages. The impact and likelihood of workforce and skill shortages rank higher in the survey this year, while respondents feel the industry is less prepared to manage these issues. This is likely connected to the impact of the pandemic on seafarers, who in many instances have been unable to return home due to covid restrictions.

Deep dive on climate policy and maritime transport: Pricing of GHG emissions viewed as first step The Issues Monitor’s deep dive on climate policy and maritime transport – which looks at different policy options available to regulators and the industry’s perception of them – reveals that the respondents see a price on greenhouse gas (GHG) emissions as the most effective climate policy, and the most likely to be implemented. A global price on GHG emissions took the first spot in terms of impact, but a regional or domestic price is seen as more likely to be adopted. “Our survey respondents clearly prefer global to regional regulation. Now is an important time in the shipping industry’s effort to better prepare for decarbonization and new environmental regulation, and regulation at a global level will help create a more level playing field between the actors of the industry. However, our qualitative research also suggests that a regional approach could be made complementary to a global one and spur the investments and innovations necessary to reach net-zero,” says Richard Turner, President of the International Union of Marine Insurance.

Across all policies, regulatory measures, such as a price on GHG emissions and fuel mandate, are seen as more likely to be implemented than incentives such as vessel and fuel subsidies. A global and/or regional fuel mandate is seen as the second most impactful climate policy, behind a price on emissions. Zero emission vessel and fuel subsidies are viewed as less effective than both. When asked about the impact and likelihood of IMO adopting a target to reduce total GHG emissions from international

shipping by 100% by 2050, 86% of respondents say such a target would have an important impact, but only 23% believe it is very likely to be adopted.

Source: [Hellenic Shipping News](#); 29 October 2021

GEOPOLITICS

ITALY HOSTS A CLIMATE-FOCUSED G20 AS GEOPOLITICS SHIFT

- Nicole Winfield

ROME (AP) — The leaders of Russia and China aren't coming. Turkey nearly set off a diplomatic incident on the eve of the meeting. And the United States, Australia and France will be at the same table for the first time since Washington pulled the rug out from under Paris' \$66 billion submarine deal *Down Under*. A Group of 20 summit scheduled for this weekend in Rome - the first in-person gathering of leaders of the world's biggest economies since the COVID-19 pandemic started - is not business as usual. That's especially true since as soon as the event ends, a bigger United Nations summit devoted to climate change begins in Glasgow, Scotland.

In many ways, the two-day G-20 meeting is serving as a Roman holiday preamble to the 12-day Glasgow summit, with the climate dossier taking center stage at the new Nuvola (Cloud) convention center in the Italian capital's Fascist-era EUR neighborhood. Some of the participating presidents and prime ministers met at a COVID-focused Group of Seven summit in July, and some passed one another in the U.N. hallways during the General Assembly in New York last month. But this is the first time the leaders of countries that account for 75% of global trade and 60% of the world's population will be meeting as a group after nearly two years of virus-induced lockdowns. While economic recovery is a top agenda item, host Italy hopes the leaders will set a shared, mid-century deadline to reach net-zero greenhouse gas emissions and explore a commitment to reduce methane emissions as well. The United Nations and climate activists also want the G-20 countries to fulfill their longtime pledges of providing \$100 billion a year in climate aid to help poor nations cope with the impacts of global warming. "G-20 members are responsible for over 80% of global emissions. So there is a responsibility when they come together as a group to think about the promise of \$100 billion in annual climate financing that is not being met," said Renata Dwan, deputy director of the international affairs think tank Chatham House.

But what can be achieved if the leader of China, the world's No. 1 carbon polluter and No. 2 economy, doesn't show up in Rome? President Xi Jinping, who hasn't left China since early 2020, is expected to participate remotely, as is Russian President Vladimir Putin. Mexican President Andrés Manuel López Obrador also isn't coming and Japanese Prime Minister Fumio Kishida hasn't confirmed his presence due to a weekend national election.

The absence of Xi and Putin sends a signal that Europe should note in particular, said Massimo Franco, international affairs columnist for Italian daily newspaper *Corriere*

della Sera. “If China doesn’t come to Rome, if Russia -- which has a lot of energy to sell to Europe -- doesn’t join the G-20, I think that this G-20 will be a confirmation of European fragility from the energetic point of view,” Franco said. Last month’s announcement of a U.S.-British deal to sell nuclear-power submarines to Australia illustrated Europe’s geopolitical vulnerability. The deal scuttled France’s \$66 billion deal to sell French-made diesel-powered submarines to Australia, and led an French government to take the unprecedented action of recalling its ambassadors to the U.S. and Australia. U.S. President Joe Biden and French President Emmanuel Macron have spoken twice by telephone since the tiff and are expected to meet privately in Rome. Macron is aiming to secure U.S. backing for “the establishment of a stronger European defense, complementary to NATO and contributing to global security,” the presidential Elysee Palace said. Macron has not spoken with Australian Prime Minister Scott Morrison since France’s submarine sale went south, however, and it’s not clear if the two will meet in Rome.

Carlo Altomonte, a professor of European economics at Milan’s Bocconi University, said the U.S.-British-Australian deal was clear evidence of shifting strategic priorities and attention to the Indo-Pacific region to counter China’s increased assertiveness, in this case at the expense of Washington’s traditional European allies. “This in a way obliges the European Union to decide, autonomously, a series of local geopolitical questions” at the G-20 level and beyond that until now had long included Washington as the heavyweight partner, Altomonte said. Turkey, one of the G-20 members, was in a position to cast a pall over the upcoming meeting when it threatened last week to expel the ambassadors of 10 Western nations over their support for a jailed activist. Four of the threatened envoys hailed from G-20 nations Germany, France, Canada and the U.S.

The G-20 also include Argentina, Australia, Brazil, China, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, South Africa, the United Kingdom and the European Union. Spain holds a permanent guest seat. Italian Premier Mario Draghi, who helped save the euro with his now-famous promise to do “whatever it takes,” will have his hands full trying to steer the meeting to nudge some solid climate commitments ahead of Glasgow while negotiating a new era for European multilateralism. “Not ‘whatever it takes,’ but I think he’ll try to point to the strategic points for Europe, and how Europe can play a role in this mess,” newspaper columnist Franco said.

Sylvie Corbet in Paris, and AP correspondents around the world contributed.

Source: [Associated Press](#); 27 October 2021

UN CONVENTION ON THE LAW OF THE SEA INQUIRY LAUNCHED

- Rezaul H Laskar

The first meeting of the foreign ministers of India, Israel, the US and the United Arab Emirates (UAE) decided to establish an international forum for economic cooperation and discussed joint infrastructure projects in transportation and technology. The meeting, described in some quarters as a “new Quad”, also focused on ways to expand economic and political cooperation in the Middle East and Asia and to enhance maritime security.

The meeting was joined by external affairs minister S Jaishankar and Israeli foreign minister Yair Lapid from Jerusalem, US secretary of state Antony Blinken from Washington and UAE foreign minister Sheikh Abdullah bin Zayed Al Nahyan from Abu Dhabi. Jaishankar is currently on a bilateral visit to Israel. In a tweet, Jaishankar described the discussions as “fruitful” and said the foreign ministers agreed on a speedy follow-up. The Israeli foreign ministry said the four ministers intended hold an in-person meeting at Expo 2020 in Dubai in the coming months. “Discussed working together more closely on economic growth and global issues. Agreed on expeditious follow-up,” Jaishankar said. Blinken tweeted that the meeting had focused on “shared issues of concern in the region and globally, and the importance of expanding our economic and political collaboration”. Lapid, who initiated the process for the meeting during a recent visit to Washington, said at the start of the meeting: “Around this virtual table, there is a unique set of capabilities, knowledge, and experience that can be used to create the network that we all want to see created.”

The synergy between the four countries will help them work together on infrastructure, transport, maritime security and other issues, he said. The key to success is moving from a “government-to-government” approach to a “business-to-business” approach and turning the initiative into a “working process that will put boots on the ground, changing infrastructure around the world”, Lapid added. The ministers decided to establish an international forum for economic cooperation, the Israeli foreign ministry said. The ministers also discussed joint infrastructure projects in transportation, technology, maritime security, and economics and trade, as well as additional joint projects, the ministry added. Each country will appoint senior professionals to a joint working group that will formulate options for cooperation. US State Department spokesperson Ned Price said in a statement that the foreign ministers “discussed expanding economic and political cooperation in the Middle East and Asia, including through trade, combating climate change, energy cooperation, and increasing maritime security”.

They also discussed people-to-people ties in technology and science, and ways to support global public health in the context of the Covid-19 pandemic. Blinken reiterated the Biden administration’s “support for the Abraham Accords and normalisation agreements and discussed future opportunities for collaboration in the region and globally”, Price said. Price also told a news briefing that the US, the UAE, Israel and India share many interests and the meeting was an opportunity for the

ministers to discuss a range of topics, including expanding economic and political cooperation in their respective regions, climate change, energy cooperation, and maritime security. The meeting built on the momentum created by the Abraham Accords of last year, and it was held less than a week after Blinken met Lapid and Sheikh Abdullah in-person in Washington on October 13 to review progress in the normalisation of Israel's relations with Arab states.

This normalisation can be a force for progress between Israel and Arab states and also between Israelis and Palestinians, Blinken said at the time. The three countries also launched two working groups on religious coexistence and building tolerance, and on water and energy. The trilateral partnership made it possible for the countries to discuss urgent regional security issues such as Iran and Syria, Blinken said then. India, Israel and the UAE have already stepped up trilateral cooperation, especially in trade and investment, since the US brokered the Abraham Accords in August 2020. The meeting also dovetailed with India's efforts to build new plurilateral and multilateral partnerships focused on cooperation in areas ranging from security to connectivity and energy. India has robust defence, security and trade cooperation with Israel and the US, while the UAE is a key energy partner. The UAE is home to more than three million Indians, and security cooperation has been growing rapidly, with the first ever visit by an Indian Army chief taking place last year. India has backed the Abraham Accords process, following which Israel also normalised relations with Bahrain, Sudan and Morocco. The external affairs ministry has said these efforts are in line with India's support for "peace and stability in West Asia which is our extended neighbourhood".

In May this year, India, Israel and the UAE concluded the first trilateral partnership whereby an Israel-based company will produce a robotic solar cleaning technology in India for a project in the emirates. A statement issued at the time by the Israeli embassy in New Delhi said the Abraham Accords agreement between Israel and the UAE had "paved the way for friendships and business partnerships across the region". The statement added: "India being a friend of both the UAE and Israel is clearly the preferred partner to leverage the global potential of the UAE, Israel and India trilateral." Former ambassador Vivek Katju, who closely tracks developments in the region, said it remained to be seen how the initiative by the four countries would be perceived across West Asia. "The real issue is not the agenda of economic cooperation of the four countries but how the purposes of these countries getting together are perceived by the major powers and important regional players. Will they see it as a beginning of India departing radically from its traditional approaches towards West Asia?" he said.

Source: [Hindustan Times](#); 19 October 2021

NO AUKUS ARMS RACE IN SOUTHEAST ASIA

- Collin Koh, NTU

Regional states have much to say about the potential risks of AUKUS and Australia's nuclear-powered submarine program. China and Russia both warn about the danger

of an arms race, while some Southeast Asian governments — especially Malaysia and Indonesia — have raised similar concerns. These concerns are understandable but far from novel. The region has witnessed many arms race warnings over the decades, including when Australia's acquisition of the nuclear weapons-capable F-111 was deemed a 'breakthrough capability' that incensed Indonesia.

But in the case of AUKUS, nuclear-powered submarines are not a 'breakthrough capability' for the Indo-Pacific. Beijing operates a fleet of nuclear-powered submarines and is expanding it. India is also well in the game with its first indigenously-developed nuclear submarine up and running, with more on the way. The arms race warning is often a kneejerk reaction whenever a new arms acquisition development surfaces, whether it is horizontal proliferation (new actors entering the fray) or vertical (existing operators of a certain armament expand their arsenals). The problem is that 'race' implies an all-out contest in which at least one party seeks to win at all costs. There is no such uniform phenomenon across the Indo-Pacific region, which is made up of diverse sub-regions, each with unique economic, sociocultural and political contexts.

Any true race is likely to take place among actors with not only the political imperatives to engage in one, but also the necessary technology and resources. Such a race may only be possible for those Indo-Pacific powers with significant naval capabilities and, crucially, the necessary funding to support such acquisitions. Northeast Asia would lead such a race. China looks set to expand its nuclear submarine fleet regardless of AUKUS — the pact merely gives it more reason to pursue this. South Korea recently announced its entry into the elite submarine-launched ballistic missile club in response to North Korea's development of such a capability, and there are domestic debates on whether the country needs nuclear-powered submarines for more credible deterrence. Japan has not foreclosed the option of acquiring such assets. And India also looks set to expand its nuclear fleet — a decision that was long in the pipeline even before AUKUS.

Southeast Asia is likely to find itself in a peculiar position — surrounded by adjacent Indo-Pacific sub-regions engaged in their respective build-ups. Given the current focus on mitigating the spread of COVID-19 and economic recovery, Southeast Asia is at best obliged to render a predictable, standard response to AUKUS. A nuclear submarine race is out of the question for Southeast Asia. For some countries, even acquiring, operating and maintaining conventional armaments is no mean feat. Funding for these programs is a perennial challenge, and the imperative for long-term post-pandemic recovery only makes it worse. A nuclear submarine program, which would consume the lion's share of already constrained funding — and which entails additional costs associated with the nuclear fuel cycle — is a no-go in Southeast Asia.

But what else can Southeast Asia do in response to the increased military spending that is already occurring across the Indo-Pacific? The usual response would be two-pronged: embarking on national self-help (greater self-reliance) and engaging external partners. The latter aspect is prominent, even more so in the present context of geopolitical tussles for influence in Southeast Asia. It is national self-help that will be more interesting to watch. The 'arms race' envisaged by critics of AUKUS would not be confined to nuclear submarines or nuclear weapons. This dynamic would be more wide-ranging, extending into other fields of conventional armaments. For example,

countries seeking a national self-help response to AUKUS might not acquire symmetrical capabilities in the form of nuclear submarines. They would have to rely on asymmetrical means, such as other types of anti-submarine systems — surface ships optimised for such missions, maritime patrol and reconnaissance aircraft, and seabed hydrophone sensors. These would be fiscally and technically more attainable for Southeast Asian states. But even in these areas, Southeast Asia is likely to fall short. Only a handful of states might attempt to keep up with the latest technologies. The difficulties posed by COVID-19 indicate how such programs are struggling.

The Philippines has deferred its submarine acquisition program and Thailand has settled with just the first submarine and deferred payment for two more boats ordered from China. Indonesia plans to take massive foreign loans to finance its ambitious US\$125 billion military modernisation programs — raising questions about the accumulation of debt that generations of Indonesians will have to pay off. The Indo-Pacific powers are more likely to get involved in these arms dynamics spurred by AUKUS. Southeast Asian countries look set to remain interested bystanders seeking to grapple with the socioeconomic fallout of COVID-19 and sustaining the modest upgrading of their naval capabilities. When it comes to an arms race, it should be recognised that this is a non-starter for Southeast Asia. This partially explains the rumblings heard in some of the Southeast Asian capitals.

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