



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

FRANCE ESCALATES CHINA PUSH, APPOINTS AMBASSADOR FOR INDO-PACIFIC

- Eryk Bagshaw

France's top envoy to Australia will become its first ambassador for the Indo-Pacific amid rising concerns about the Chinese Communist Party's growing influence in the region. The move to shift ambassador Christophe Penot from Canberra to the broader economic zone is the sharpest escalation of France's strategy in the contested area to date, as Germany and France push the European Union to become more assertive in its China strategy. Penot is due to leave next Tuesday and will be replaced in Australia by Jean-Pierre Thebault. Thebault organised the G7 in Biarritz in 2019 and is a former ambassador for the environment. Penot will be based in Paris but will travel throughout the Indo-Pacific and be responsible for co-ordinating diplomacy across the region.

France's Minister for the Armed Forces, Florence Parly, has pushed for an Indo-Pacific "axis, with France, India and Australia as its backbone" to develop foreign policy as global tensions increase. The trilateral dialogue would work separately from "the Quad", which includes Japan, the United States, Australia and India and has a security focus. Australia, due to its proximity and economic links to China, has been seen as the vanguard of Chinese relations with the west, but is now regarded as a key regional ally for international partners in their attempts to preserve the rules-based order. The US has also significantly escalated its embassy presence in Australia after adding more than a dozen positions in order to use Canberra as a base for its Indo-Pacific operations.

The coronavirus has catalysed European anxiety over the Chinese government's actions in Hong Kong, treatment of Uighur's in Xinjiang, military incursions in the South China Sea and political interference. Penot warned in June that international norms were being increasingly challenged, and this deconstruction "will probably accelerate with the current COVID crisis". "France and Australia have a special responsibility there to ensure that the world post COVID does not become worse and, if possible, that it becomes better than the world before," he said. France has more than \$176 billion in foreign direct investment across the Indo-Pacific, which stretches from the coast of Africa to the Coral Sea and includes French territories home to 1.6 million people. The area accounts for 17 per cent of France's exports and 14 per cent of its imports. Paris' Indo-Pacific strategy notes "the global economy's centre of gravity has shifted from the Atlantic to the Pacific".

Parly told the Shangri-La Dialogue in Singapore last year that trade wars, tech wars and wars of words were "only the beginning" of a sharp decline in international relations. "It takes no Kissinger to see the building blocks of a global confrontation

taking shape here in Asia," she said. "History is replete with big power competition. The slowly assembling parts of a tragedy do not mean that the tragedy is inevitable, but pretending to ignore what looms does not help." France is the latest European power to change its outlook on China and the region. In September, Europe's largest economy, Germany, which has long had a strong relationship with Beijing, published its first Indo-Pacific strategy with a focus on increasing diplomatic pressure on China. "We want to help shape [the global order] so that it is based on rules and international cooperation, not on the law of the strong," German Foreign Minister Heiko Maas said.

Source: smh.com.au; 12 October 2020

INDIA'S NAVAL DIPLOMACY: MYANMAR GETS KILO CLASS SUBMARINE INS SINDHUVIR FROM INDIA

- Huma Siddiqui

India will soon be delivering a kilo class submarine INS Sindhuvir to the Myanmar Navy, thus managing to checkmate CCP by not only giving a submarine but also training their sailors. "This will be the first submarines of the Myanmar Navy and is in accordance with India's vision of SAGAR – Security and Growth for All in the Region," says the official spokesperson of Ministry of External Affairs (MEA), Anurag Srivastava,

India-Myanmar

Both India and Myanmar (which is one of the strategic neighbours) share a 1,640-km border with the north-eastern states, including Manipur, Nagaland, and Mizoram, and also share 725 km India-Myanmar maritime boundary. As was reported earlier by Financial Express Online, this submarine which has the capability of staying underwater for almost 45 days will be used for training purposes by the Myanmar Navy. This diesel-electric Kilo Class submarine is being given through the Line of Credit (LOC), India has extended to help in enhancing the military capability of Myanmar. The sailors of the Myanmar Navy have been trained in underwater combat operations onboard on INS Sindhuvir with the help of Indian Navy.

More about the INS Sindhuvir

This is a Russian refitted submarine and is known for its noiseless operational capability. It had joined the Indian Navy in the 1980s and has been modernized since then by the Hindustan Shipyard Limited (HSL) in Vizag. Capable of carrying various types of weapons it has a displacement of 3,000 tonnes and has the capacity to carry 52 personnel. And can go to a depth of around 300 meters. Most importantly, permission has been taken from Russia before delivering the sub and an end-user agreement is in place.

Growing Military Relations

The military cooperation between the two countries has been growing. As part of an export deal worth USD 37.9 million between the countries which was inked in 2017, India last year delivered the first batch of Advanced Light Torpedo (TAL) 'Shyena' to Yangon. These torpedoes have been manufactured here in India by the state-owned Bharat Dynamics Limited (BDL). Also, the integrator of the Launcher Systems is Larsen & Toubro. It is a lightweight anti-submarine torpedo and has been developed and designed Naval Science and Technological Laboratory of DRDO. India has also supplied the Myanmar Navy with naval sonars and acoustic drones.

Neighbours Watching

Since Myanmar also shares maritime borders with Bangladesh and Thailand, those two countries are watching too. India has regular maritime engagements with the navies in the region. Bangladesh has been taking help from China in building their first submarine, it has also bought four Corvettes and two Ming-class subs. And Thai Navy for their underwater fleet is getting three Chinese-made submarines. To further enhance their maritime security cooperation, both India and Myanmar inked an agreement in 2017. India has also been working on the development of the Sittwe port in that country and also work is going on \$484m Kaladan transport project.

Naval Diplomacy

In 2013, Indian Navy had started CORPAT with Myanmar and also carries out with four other regional navies including Thailand, Indonesia and Bangladesh. Why? Because it fits into SAGAR and fits well into 'Act East Policy' of India.

Expert view

According to the former spokesperson of the Indian Navy Capt DK Sharma, "The decision to lease a Kilo-class to Myanmar would not have come at a more appropriate time when we have the CCP spreading its wings in IOR. It is also in consonance with our Look East & Act East policy wherein we are supporting our littorals in enhancing their capabilities and building their capabilities in the backdrop of an expansionist neighbour who is aiming to be a global power." "All the littorals of IOR are now strengthening their Navies (Bangladesh, Vietnam, Singapore to name a few) and it was only a matter of time that Myanmar would have sought for options to acquire this capability. Keeping our robust relationship with our Eastern neighbour and the spirit of SAGAR, it seems to be a great decision by the government of India to lease one EKM submarine to Myanmar," Capt DK Sharma explains.

Source: financialexpress.com; 15 October 2020

U.S. SAYS NAVY SAILS 'WITHIN INTERNATIONAL LAW' NEAR TAIWAN IN FACE OF CHINA'S WARNINGS

- Tom O'connor

The Pentagon is defending its recent operation near Taiwan as compliant with international law in the face of Chinese protests that the U.S. deliberately was aggravating the geopolitically sensitive situation in the disputed waterway. Senior Colonel Zhang Chunhui, spokesperson for China's People's Liberation Army Eastern Theater Command, said Thursday that warships and warplanes were dispatched Thursday to monitor U.S. Arleigh Burke-class guided missile destroyer USS Barry as it sailed near the Taiwan Strait, where Zhang accused the Navy of "seriously undermining the peace and stability of the Taiwan Strait." Zhang said his forces were "always on high alert" and accused the U.S. of "sending the wrong messages" to those in Taiwan who would seek to officially separate the self-ruling island from the mainland that claims it. But despite soaring tensions between Washington and Beijing in the region, a Pentagon spokesperson downplayed the incident and others like it. "You see the rhetoric, but in reality, all of our interactions have been within international norms," the spokesperson told Newsweek, "and we've continued on." Challenging Chinese claims to the Taiwan Strait, the spokesperson said all U.S. operations "were within international waters, within international law." The encounter was just the latest involving the island at the center of the festering feud between the U.S. and China, who have traded barbs over trade, human rights and territorial disputes in the greater Asia-Pacific region. Among these spats, the Pentagon noted last month in its annual Chinese military power report that "China continues to view the Taiwan issue as the most important and sensitive issue between the United States and China." As China staged military exercises and sent Y-8 anti-submarine warfare aircraft to repeatedly buzz Taiwan's claimed air defense identification zone, President Tsai Ing-wen and other officials of the breakaway province called for the development and acquisition of greater defenses. "Taiwan will continue to increase investments in its defense commensurate with the security challenges it faces," Andrew Yang, spokesperson of the Taipei Economic and Cultural Office in New York, told Newsweek earlier this week. He mentioned the U.S. specifically as a partner to ward off a potential Chinese incursion.

"Taiwan will also seek security cooperation with the United States to build its defense systems that are cost-effective but lethal enough to make any invasions painful." Newsweek then confirmed through a U.S. House Foreign Affairs Committee aide, a congressional aide and a source familiar with the situation that Washington lawmakers received information notifications of the sale of three U.S. weapons systems to Taiwan. The equipment in question was said to include a Lockheed Martin-developed multiple launch weapon called the M142 High Mobility Artillery Rocket System, Boeing-made long-range air-to-surface cruise missiles called SLAM-ER and external sensor pods for F-16 fighter jets. Responding to the news, Chinese Foreign Ministry spokesperson Zhao Lijian lashed out Wednesday at growing U.S. ties to Taiwan, with which Washington broke off official relations in favor of Beijing more than four decades ago. "The United States has seriously violated the one-China principle, and the provisions of the three China-U.S. joint communiqués, especially the August 17 communique," Zhao said, "by selling arms to Taiwan, seriously interfered in China's internal affairs and seriously harmed China's sovereignty and security interests." He urged the U.S. to halt such sales immediately and warned China had in store a "legitimate and necessary reaction in the light of the development of the situation."

Zhao reiterated his point on Wednesday, telling reporters, "China consistently opposes U.S. arms sales to Taiwan." And the U.S. has challenged Chinese regional claims elsewhere as well, especially across the South China Sea, where Chinese forces have built island bases and reclaiming land at sea to enforce claims to the region. The Beijing-based South China Sea Probing Initiative recently told Newsweek that "the situation is escalating, mostly because of power competition and maritime disputes." The monitor, which regularly tracks U.S. military movements in the region, warned "the risk of China-U.S. conflict is rising." But the U.S. has remained resolute in projecting its power here. On Thursday, Nimitz-class aircraft carrier USS Ronald Reagan entered the South China Sea for the third time this year. "Throughout our deployment, we continue our long tradition demonstrating the United States' commitment to the lawful use of the seas and maintaining open access to the international commons," Navy Rear Admiral George Wikoff, commander Ronald Reagan Carrier Strike Group, said in a statement. "The focus of our operations has always been, and will continue to be, cooperation alongside our Indo-Pacific allies and partners in promoting regional stability," he added.

Source: [newsweek.com](https://www.newsweek.com); 15 October 2020

EUROPEAN UNION AGREES TO HELP MOZAMBIQUE TACKLE INSURGENCY

The European Union has granted Mozambique's request for assistance in tackling a wave of attacks in the country's north by rebels with links to Islamic State, the EU delegation in the southern African country said. Militant attacks in Cabo Delgado province date to 2017 but the violence has gathered pace this year, with insurgents seizing important towns for brief periods and hitting military and other key targets. Mozambique wrote to the EU in September to ask for help in training its armed forces to battle the insurgency. The EU delegation statement said the bloc would grant Mozambique's request for help with "logistics for training and technical training in several and specific areas, as well as assistance in addressing humanitarian challenges, including medical services" dealing with the coronavirus outbreak. The UN World Food Programme says more than 300,000 people have fled the violence in Cabo Delgado.

Zenaida Machado, a researcher at global rights group Human Rights Watch, said in a note that the EU ambassador to Mozambique, Antonio Sanchez-Benedito Gaspar, had ruled out sending in European troops. Machado said the EU would require "verifiable commitments from the Mozambican security forces to respect human rights in its operations and hold violators accountable" before providing military support. Mozambique last month denied accusations by rights group Amnesty International that soldiers had committed atrocities, saying the acts were carried out by Islamist insurgents impersonating troops. If it happens, the EU security assistance would be the first official international intervention specifically aimed at assisting Maputo fight insurgents in Cabo Delgado, according to the Armed Conflict Location & Event Data Project (ACLED). ACLED, which uses various data sources to map and quantify

political violence across Africa, said it had identified scores of incidents of fighting in the first week of October in the Palma, Muidumbe and Macomia districts.

Source: euractiv.com; 15 October 2020

TURKEY MAKES NEW ADVANCES IN LAND AND NAVAL WARFARE WITH INTRODUCTION OF AKSUNGUR ASW DRONE

- Can Kasapoglu

Turkish drone warfare capabilities have made a significant impression in operations against Russian-supported Syrian forces in Idlib, Syria in February and March, 2020, and more recently through the ongoing Azerbaijan-Armenia conflict in Karabakh. Recently, Turkey has unveiled a new unmanned aerial vehicle (UAV) system that could play a critical role in anti-submarine warfare, potentially bolstering Ankara's influence in a volatile region.

Meet Turkey's Aksungur

The Aksungur unmanned aerial vehicle (UAV), from TUSAS—the makers of the ANKA drone—will carry a 750-kilogram combat payload in the maritime patrol and strike package configuration, and 150-kilogram in signals intelligence (SIGINT) and electronic intelligence (ELINT) equipment (TUSAS, October 9). The drone will have satellite communications (SATCOM) features, which will make it more resilient in jammed environments, as well as advanced sensors such as synthetic aperture radar/ground-moving target indicator (SAR/GMTI), which enables it to strike mobile surface targets—like convoys and road-mobile launchers—in large spaces and under any weather condition (TUSAS, October 9). TUSAS' Aksungur has showcased promising signs in recent tests. In September 2020, the UAV flew continuously for more than a day—28 hours to be precise—with a payload of 12 Roketsan-manufactured MAM-L smart munitions loaded (Anadolu Ajansı, September 17). Prior to the armed test-flight, the platform even scored an impressive 49-hour non-stop flying capability (Anadolu Ajansı, September 2). The 750-kilogram combat payload will enable Aksungur to carry a broad-array of missiles. These include TEBER-82 bombs, which are modernized MK-82-class bombs with joint direct attack munitions standards by GPS/INS additions, and Roketsan's UMTAS anti-tank missiles with tandem warhead against reactive explosive armor (Roketsan, October 9). Nevertheless, the real 'beauty' of Turkey's new UAV is something different. Of the Aksungur UAV's payload configuration, sonobuoy pod and magnetic anomaly detector (MAD) boom features are critical (TUSAS, October 9). Equipped with these systems, Aksungur would make an important anti-submarine warfare asset. The Turkish press already nicknamed the drone as 'the submarine hunter' (TRT Haber, September 4). With the anti-submarine warfare characteristics, it is likely that the Turkish Navy will be the Aksungur's first customer.

Dronization of the Turkish Navy

The Turkish Navy is also a part of the Turkish military's 'dronization' trend. As of August 2020, the navy operates at least four ANKA-variant UAVs with synthetic aperture radar (SAR)/inverse synthetic aperture radar (ISAR) sensors and electro-optical/infra-red cameras. The Turkish Navy primarily uses its TUSAS-made ANKA drones for intelligence, surveillance, target acquisition, and reconnaissance (ISTAR) missions. In this respect, the latest Otomatik Tanımlama Sistemi (Automatic Identification System, or AIS) upgrade enables the UAVs to identify surface vessels within hundreds of miles and share the findings with command and control hubs. Aksungur can be networked with the ANKA baseline through data-links and can use the same control stations (Anadolu Agency, August 24; TUSAŞ, October 9). The Turkish Navy also operates Baykar's combat-proven Bayraktar TB-2 drones, which were delivered last year (Milliyet, April 16, 2019). The navy's drone warfare identity brings about new horizons to Turkey's unmanned military systems capabilities and concepts of operations. Back in April 2018, for example, the Turkish Navy's ANKA flights, close to the island of Rhodes, alarmed Greece and led to the scramble of F-16s by Athens (Milliyet, April 6, 2018). With Aksungur, Turkey's under-sea warfare capabilities will have an additional robotic angle. From a military planning standpoint, delegating some anti-submarine warfare tasks to unmanned systems will bring defense economics benefits due to lower operational costs. Unmanned systems will be able to relieve surface combatants and maritime patrol aircraft of added burdens, especially in high-risk areas (Defense News, April 13).

Aksungur Deployment Options

The new Aksungur line will be a force-multiplier to the Turkish naval deterrent in Ankara's chosen frontier. Turkey, a critical NATO nation, can employ its ASW drones to track Russian submarine activity in the Black Sea or the Mediterranean. Alternatively, they can take part in the recent Turkish-Greek confrontation in the Aegean and track Greece's 11-piece submarine fleet (The Greek Navy, October 12). A geopolitical game-changer, and a political-military signal that would deeply undermine Turkey's already troubled relations with the European Union, would be forward-deploying a few Aksungur UAVs to the Gecitkale military airport in Cyprus. Turkey already deployed unarmed variants of Baykar's famous Bayraktar TB-2 drones to Gecitkale, back in late 2019 (Baykar, December 16, 2019). Another critical deployment alternative would be Libya. Open-source intelligence assessments suggest heated submarine activity in the Mediterranean, with approximately 20 to 30 pieces operating in the area at the time of writing (Defense News, June 22). Furthermore, Aksungur's potential deployment in Libya would not only change the naval calculus, but also the land warfare parameters of that conflict. Compared to Turkey's current combat drones, Aksungur will have a much larger payload that would allow for greater robust fire-power at a time and a higher operational tempo.

In any case, the Turkish Navy's dronization trend will gain a new edge with Aksungur, and wherever it is deployed, the new UAV will pose some trouble to a potential adversary's under-sea platforms. Finally, one should note that Aksungur can make a lucrative export asset. For a long time, Turkey has eyed the Asian weapons market (Nikkei, October 7). Notably, drone warfare, submarine activity, and unmanned capabilities in sea warfare settings remain of high interest in that part of the world. All in all, Turkey's drone proliferation has entered a new stage involving more advanced

systems with higher payloads. The progress strategically translates into concepts of operations. While Baykar's Akinci is set to make a deep-strike asset, by carrying indigenous SOM air-launched cruise missiles with an approximately 250-kilometer range, Aksungur is readying to 'dronize' Turkey's anti-submarine warfare capabilities (Baykar, October 9). Turkey's la belle époque in unmanned systems is yet to come.

Source: [Jamestown.org](https://www.jamestown.org); 14 October 2020

MARITIME FORCES

JAPAN UNVEILS NEW SUBMARINE IN FACE OF CHINA'S GROWING ASSERTIVENESS

KOBE – Japan's newest submarine was unveiled Wednesday at a shipyard in Kobe as part of efforts to boost the country's maritime security amid China's growing assertiveness in the region. The 3,000-ton warship, named the Taigei, was built by Mitsubishi Heavy Industries Ltd. and is scheduled to go into service in March 2022, becoming the 22nd vessel in the Maritime Self-Defense Force's submarine fleet. Under its 2010 National Defense Program Guidelines, Tokyo set a goal of increasing the number of its submarines from 16 to 22 in light of increasing activities by Beijing in waters near Japan, especially around a group of Japan-administered islands claimed by China in the East China Sea. The Taigei, whose name means big whale, measures 84 meters in length and 9.1 meters in width and cost around ¥76 billion (\$720 million) to build, according to the MSDF.

The submarine, which can accommodate a crew of 70, has a stealth-like design and is equipped with lithium-ion batteries so that it can remain underwater longer than previous models, it also said. About 150 people, including Defense Minister Nobuo Kishi and MSDF Chief of Staff Hiroshi Yamamura, attended a ceremony held at Mitsubishi Heavy's Kobe Shipyard in Hyogo Prefecture. Japan currently operates nine 2,750-ton Oyashio-class submarines and 11 2,950-ton Soryu-class warships, and is planning to introduce a 12th Soryu-class sub next year. The Taigei will be the first in the new Taigei-class category, following the Oyashio and Soryu classes.

Source: japantimes.co.jp; 14 October 2020

NAVY'S TROUBLED STEALTH DESTROYERS MAY HAVE RADARS REPLACED BEFORE EVER SAILING ON A MISSION

- J Trevithick and T Rogoway

The U.S. Navy is in the process of exploring options to replace Raytheon's AN/SPY-3 radar on its three still not yet operational Zumwalt class destroyers. The only option we know definitively to be under consideration is a variant of the Enterprise Air Surveillance Radar, or EASR, but the Navy has indicated that there are others. EASR is another Raytheon product that is already slated to go onto a number of the service's new ships, including all future Ford class aircraft carriers from CVN-79 on and the forthcoming Constellation class frigates, previously known as FFG(X). Combined with

the stealthy destroyers' other advanced and largely unique combat systems, a new, more powerful radar could significantly expand their capabilities, which were grossly watered-down years ago as part of cost-cutting efforts.

A spokesperson for Naval Sea Systems Command confirmed to The War Zone that "the Navy is exploring several alternatives to sustain air and surface search capability aboard the Zumwalt class ships" on Oct. 15, 2020. That same statement said that "no decision has been made at this time" as to how the service will necessarily proceed. The first-in-class USS Zumwalt has already received its combat systems, but the second and third ships in the class, the USS Michael Monsoor and the future USS Lyndon B. Johnson are in the process of being fitted out. As such, all three could need to have their existing removed in order to receive new ones. As originally designed, the Zumwalt class destroyers, also often referred to by the hull number of the first-in-class USS Zumwalt, DDG-1000, were to have a Dual Band Radar (DBR) installation. This would have combined two separate radar systems, the AN/SPY-3, an X-band active electronically scanned array (AESA) type, with the Lockheed Martin AN/SPY-4, an S-band volume search radar. In an air and missile defense scenario, the idea was that the AN/SPY-3 would be used for horizon search, to provide high-fidelity target tracks and otherwise help direct those weapons to impact, while the AN/SPY-4 would offer long-range search, tracking, ballistic missile discrimination, and some additional abilities to communicate with intercepting missiles. The two radars would perform these functions simultaneously, with their information fused together, offering an impressive combined capability. The Zumwalts also feature a unique advanced command and control software and computing architecture, which you can read about more here. It was designed to make great use of the DBR configuration.

However, in 2010, the Pentagon made the decision to eliminate the AN/SPY-4, the larger of the two radar arrays, from the Zumwalt design, one of many cost-cutting measures that degraded the ship's overall capabilities. Instead, software was added to work with the AN/SPY-3 to allow it to perform the volume search function, as well. While the latter radar can now be used to cover some of the AN/SPY-4's tasks, it has nowhere near the performance that was supposed to come from the two radars operating in tandem. It is worth noting that whether or not the DBR would have ultimately met the Navy's expectations is unclear. This paired radar system was also slated to go onto the Ford class aircraft carriers, but has suffered from repeated technical issues and other delays, which you can read more about in this past War Zone piece. As it stands now, only the first-in-class USS Gerald R. Ford will have the DBR, while all the subsequent ships in the class will feature Raytheon's AN/SPY-6(V)3, the fixed-face version of the company's modular Enterprise Air Surveillance Radar (EASR), instead.

The AN/SPY-6(V)3, or another variant of the EASR, is certainly one of the most obvious choices as a replacement for the AN/SPY-3 on the Zumwalts. Rich Calabrese, Lockheed Martin's Director of Surface Navy Mission Systems, recently told The War Zone that the Navy was considering doing just that as part of a larger interview that we will be publishing in the near term on that company's Aegis Combat System and what the future holds for it.

"They're looking at a back fit of an EASR radar, back to a DDG-1000 replacing the current radar," Calabrese said. "That would be a pretty straightforward approach."

Derived from the AN/SPY-6(V)1 Air and Missile Defense Radar (AMDR) developed for the Flight III Arleigh Burke class destroyers, EASR, though smaller, is made up of the same modular Radar Modular Assemblies (RMA). The AMDR has four arrays, each with 37 RMAs, with the AN/SPY-6(V)3 has three nine-RMA arrays. Each two-foot-by-two-foot-by-two-foot cube-shaped RMA is essentially its own AESA radar. This allows them to perform individual functions independently or work together to focus on a single task, providing immense flexibility and high-fidelity over a great range.

In addition, the modularity that the RMAs offer means that EASR arrays are inherently scalable, as shown in the Raytheon product video below, and more easily configured to fit different physical space and power requirements. The DDG-1000s were built with huge spaces, that now sit vacant, for the AN/SPY-4 radars, and have immense power generating capabilities.

The RMAs can be removed or installed individually, as well, reducing the time and costs associated with carrying out certain preventive maintenance tasks and other repairs. This means more reliability, upgradability, and up-time for the radar system as a whole. EASR, which you can read more about in this past War Zone piece, is already becoming extremely popular within the Navy. In addition to the rest of the Ford class, the AN/SPY-6(V)3 will also be a key sensor on the future Constellation class frigates, previously known as FFG(X). A version of the radar with a single nine-RMA array on a rotating mount, designated the AN/SPY-6(V)2, will also go onto the future USS Bougainville, the first ship in a new subclass of the America class amphibious assault ship, as well as the forthcoming Richard M. McCool Jr., a San Antonio class landing platform dock amphibious ship. The upcoming Flight II San Antonio class ships will also have this radar.

Versions of this radar are slated to be back-fitted onto other members of the America and San Antonio classes, as well as other existing ships as time goes on. In July, the Navy announced that it was buying an AN/SPY-6(V)2 for installation on the Nimitz class aircraft carrier USS John C. Stennis. Another option for the Zumwalts might be the AN/SPY-6(V)4, another fixed-face member of this family that occupies a space between the AMDR and the existing EASR variants in terms of overall capability. This version has four arrays, just like the (V)1, but each with 24 RMAs, instead of 37. Raytheon developed this radar for the Navy to refit Flight IIA Arleigh Burke class destroyers.

The Navy has said that that is looking at multiple alternatives and Raytheon's competitors, chiefly Lockheed Martin, could very well be offering their own radars for the Zumwalts, as well. Lockheed Martin has already proposed using a version of its AN/SPY-7(V)1 Long Range Discrimination Radar (LRDR) as a replacement for the aging variants of the AN/SPY-1 on the Navy's Ticonderoga class cruisers.

The LRDR is presently slated to be the primary radar used at the future Aegis Ashore ballistic missile defense site in Hawaii. This radar was also set to be a component of

Japan's Aegis Ashore systems, before that country canceled work on those sites entirely earlier this year. Lockheed Martin also says that variants of this radar will go onto future Royal Canadian Navy frigates, which will be based on the BAE Systems Type 26 design, as well as Navantia's future F110 class frigates for the Spanish Navy. Whatever new radar the Navy picks could re-open a world of possibilities for the Zumwalts and could come along with other updates. As it stands now, among their many one-off design elements, these ships do not have the Aegis Combat System that is common across the Navy's surface combatant fleet. The ship's combat system is unique and runs on its own proprietary Linux-based software and advanced computing environment, known as the Total Shipboard Computing Environment (TSCE). Supporting an entirely separate combat system—adapting it for new weapons, hardware, and capabilities over time—is an incredibly complex and costly proposition. Switching over to Aegis for the ship's tactical applications, along with the new radar, could be part of an initiative to solve that glaring problem and it would make the DDG-1000s far more supportable over time.

Lockheed Martin's Calabrese specifically said his company has explored potential ways to give the Zumwalts at least an Aegis-like capability if the Navy were interested, especially as part of the decision to add new radars to the ships. "The DDG-1000 is the oddball out. We have ideas on how, again, leveraging the virtual Aegis Weapon System, you could bring Aegis capability to a DDG-1000," he explained. "We've developed some concepts for [that approach] and that would be ready to introduce should the Navy have interest in doing that. But yeah, currently that's the sort of the odd duck out," he continued. "I look at DDG-1000 as an opportunity for further commonality because it is currently the 'one-off' of the combat systems in terms of being able to take advantage of synergies across the programs." Exactly what the Navy expects its three Zumwalts to do will likely be an important factor in whatever course of action the service eventually decides to pursue. The ships are presently assigned to Surface Development Squadron One, a unit focused on exploring future surface warfare concepts of operation, and their actual operational role may be limited in the end. The extremely small size of the class makes it a very low-density, high-end asset to begin with. The Navy has already publicly gone back and forth over the years about the exact missions it wants these advanced warships to be able to carry out. While a replacement radar could give the ships a boost in capability, other limitations remain. For one, the Navy still has no formal plans to acquire any ammunition for the two 155mm Advanced Gun Systems (AGS) on the Zumwalts, after deciding not to buy stocks of the exorbitantly priced Long Range Land Attack Projectile (LRLAP) in 2016. There are indications that the service may now be looking to modify these guns to fire new Hyper Velocity Projectiles, but whether or not that will actually happen, remains unclear. The first-in-class USS Zumwalt only fired its 30mm automatic cannons, meant for close-in defense and which were controversially installed in place of more powerful 57mm cannons—another cost-saving measure—for the first time in May.

These issues, along with the fact that Navy has resorted to bolting many types of antennas to its stealthy deckhouse—yet another cost-saving move—that diminishes the whole reason behind its elaborate design, underscores how big of a boondoggle the program has become. Now the ship's radars may get ripped out and replaced, and its combat system possibly as well, all before the ships ever set sail on an operational

mission. All this has already come at a cost of over \$26 billion for just three vessels. While lessons need to be learned from this fiscal disaster, the fact that the Navy is getting serious about actually squeezing the most that it can out of these ships it has already invested so heavily in is encouraging, even if it means spending a bit more money to see that it happens.

Source: thedrive.com; 15 October 2020

BRAHMOS SUPERSONIC MISSILE SUCCESSFULLY TEST FIRED FROM NAVY'S STEALTH DESTROYER

- ANI

New Delhi: BrahMos supersonic cruise missile was successfully test fired on Sunday from the Indian Navy's indigenously-built stealth destroyer INS Chennai, hitting a target in the Arabian Sea, the Defence Research and Development Organisation (DRDO) said on Sunday.

The missile hit the target successfully with pin-point accuracy after performing high-level and extremely complex manoeuvres. BrahMos as "prime strike weapon" will ensure the warship's invincibility by engaging naval surface targets at long ranges, thus making the destroyer another lethal platform of Indian Navy. "BRAHMOS, the supersonic cruise missile was successfully test fired today on 18th October 2020 from Indian Navy's indigenously-built stealth destroyer INS Chennai, hitting a target in the Arabian Sea. The missile hit the target successfully with pin-point accuracy," the DRDO said in a tweet.

Source: ndtv.com; 18 October 2020

FRANCE'S SUBMARINE GAME CHANGER: THE NEW SUFFREN-CLASS

- H I Sutton

Six new attack submarines will form the vanguard of the French Navy (Marine Nationale) for the coming decades. Developed as the Barracuda program, the lead boat of the new class, Suffren, is expected to formally join the fleet next year. The new submarines will offer a massive capability leap over the current Rubis-class boats. Among the improvements, the Suffren-class will be armed with a wider spectrum of weapons. The latest F-21 heavyweight torpedoes will provide the core anti-submarine and anti-ship punch. These electric-powered weapon can use rechargeable lithium-ion batteries for training shots, and one-time aluminum silver oxide batteries for war

shots. With a speed of over 50 knots it can reach targets over 27 nautical miles (50 km) away. The other new weapon carried will be the Naval Cruise Missile (NCM). This is generally equivalent of the Tomahawk land attack cruise missile (LACM). Cruise missiles will provide the Suffren-class with a first-night strategic strike capability. This will reach deep inside enemy territory, a capability few other navies will have.

The weapons load-out can be rounded out with the FG-29 mine and Exocet SM39 anti-ship missile. Both of these are already carried by Marine Nationale submarines. In the future, torpedo-sized UUVs (uncrewed underwater vehicles) may also be carried. Naval Group's new D-19 type might be ideally suited. These can carry out a wide range of missions including Intelligence, Surveillance & Reconnaissance (ISR), electronic warfare (EW), anti-submarine warfare (ASW), mine counter-measures (MCM) and mine warfare. It's not only the broad array of weapons that will set these boats apart. The ultra-modern sensor masts by Safran Electronics & Defence are another key modernization. They are all non-penetrating, which means that they do not go inside the pressure hull. This will make the submarine safer if there is a periscope collision. It also means that the control room does not have to be in its traditional location directly under the sail. In Suffren's case it is further aft behind the sail. The Control Room is much larger than on older submarines. The captain is seated against the back wall, affording him or her an excellent view of the ten multi-function consoles. The center of the room, where the periscope wells used to be, is now dominated by a touch-screen tactical table. And the Operations Room is there, integral to the command center.

Among the missions which can be run from the Operations Room are the landing of Special Forces. The Marine Nationale has a strong tradition of naval special forces and pioneered many aspects of these operations. For example, detachable hangars for Swimmer Delivery Vehicles (SDVs). The Marine Nationale stepped away from this capability with the retirement of the Agosta-class submarines twenty years ago. But the Suffren-class are part of a new generation of western submarines with special operations capabilities designed-in from the start. They have a large lock-out chamber for combat swimmers and the hangar can be fitted directly over it. Inside can be the latest PSM3G swimmer delivery vehicle. The Suffren-class is more than an iterative improvement on the Rubis-class. It will provide a broader capability and is able to take on a wider range of missions.

Source: navalnews.com; 18 October 2020

IN INDO-PACIFIC PUSH, JAPAN TO EXPORT ARMS TO VIETNAM

- Junnosuke Kobara

TOKYO -- Japan plans to sign an agreement allowing it to export defense equipment and technology to Vietnam, part of its push to bolster the defense capabilities of Indo-Pacific nations to counter Chinese maritime advances.

Prime Minister Yoshihide Suga announced Tuesday that he will make his first foreign trip in his new job next week, visiting Vietnam and Indonesia. He is expected to sign the Vietnam deal as part of this. Security cooperation is expected to emerge as a key topic in Suga's meetings with the countries' leaders. Vietnam in particular faces competing claims with China in the South China Sea, where Beijing continues to build up islands and its military presence. A China Coast Guard vessel also collided with a Vietnamese fishing vessel in the waters this April. The South China Sea, a key sea lane that connects Asia and the Middle East, has a direct impact on Japan's national security. Japan aims to strengthen its cooperation in Vietnam to encourage restraint by the Chinese side in the waters.

Japan lifted its ban on weapons exports in 2014 under the Three Principles on Transfer of Defense Equipment and Technology, which state that it may not transfer arms to a party to a conflict, that any transfers must contribute to Japan's security, and that Japan must give advance consent before the recipient transfers the arms to a third party. In practice, this means that Japan essentially will not export defense equipment to countries unless they acknowledge these principles in an official agreement. Japan has signed such agreements with nine countries so far, including the U.S., the U.K., Philippines and Malaysia. The specifics of Japan's exports will depend on what Vietnam wants. Japan has been promoting its P-1 patrol plane and C-2 transport plane abroad, and also signed a deal with the Philippines in August to export a warning and control radar system developed by Mitsubishi Electric. Many domestic companies are involved in the production of such equipment as patrol planes. But some have begun exiting the defense business, which demands much time and money to develop products. Japan's Ministry of Defense hopes to shore up the industry by boosting exports and joint arms development with other countries. Since lifting the ban in 2014, Japan's only export deal for a finished product has been its radar contract with the Philippines. The Japanese government is also in negotiations with Indonesia and Thailand to sign an agreement regarding defense equipment transfers, hoping to tap Southeast Asian demand. Roughly 80% of Vietnam's arms purchases in the last decade came from Russia, according to the Stockholm International Peace Research Institute. Still, the country has been cooperating more closely on security issues with Japan and the U.S. in response to China, and Tokyo hopes to persuade Hanoi to branch out.

Japan is also working to boost economic security ties with Southeast Asia as a whole, which it sees as key in its push for a "free and open Indo-Pacific." While some countries in the region are alarmed by Chinese actions in the South China Sea, others have grown closer to the superpower after receiving economic assistance from it. Japan stations two defense attaches at each of its embassies in the Philippines, Vietnam and Malaysia to gather information and build rapport with local actors. Its Maritime Self-Defense Force conducted four joint drills with the Philippine Navy in 2019. The Japanese government plans to hold a second defense and foreign ministers' meeting with Indonesia and has signed a memorandum of understanding with Thailand for greater exchanges between their defense authorities. Arms exports are a way to further deepen communications with foreign defense authorities. Japan has donated five TC-90 aircraft used to train pilots, as well multipurpose helicopter parts, to the Philippines. It has also given patrol boats from the Japan Coast Guard to Malaysia.

Source: asianikkei.com; 14 October 2020

SHIPPING, PORTS AND OCEAN ECONOMY

ADANI'S VIZHINJAM SEAPORT IS EATING UP THIRUVANANTHAPURAM'S BEACHES AND FISHING VILLAGES

- K A Shaji

Shanghumukham Beach, just outside the domestic terminal of Trivandrum International Airport in Kerala, no longer exists. Once among the most popular landmarks in the city, it now lies completely submerged in the Arabian Sea. Large, angry waves have also eaten away at the coastal stretch of the only road that connects the domestic terminal to the rest of the city. Vehicles bound for the airport now struggle to pass through the narrow stretch that remains of the once well-laid road. Still unsatiated, the sea has now started advancing towards the airport itself.

According to Vijayan Joseph, a former researcher with the International Ocean Institute, coastal erosion started in the region in the 1970s when a minor breakwater was constructed for the Vizhinjam fishing harbour. However, the advancement of the sea has accelerated alarmingly after construction began in 2015 on Thiruvananthapuram's much-touted Vizhinjam International Deepwater Multipurpose Seaport. The Rs 7,525-crore seaport is being built in a Public Private Partnership (PPP) between the Kerala government and the Adani Vizhinjam Port Private Ltd (AVPPL), a subsidiary of the Ahmedabad-based Adani Group's Adani Ports and SEZ Ltd (APSEZ), which won a bid for the project five years ago. Initially slated for completion in 2018, the project has been plagued by delays, but promises to be India's deepest port, capable of handling 80% of the country's cargo trans-shipments. The state government has contributed 360 acres of land to the project and permitted AVPPL to reclaim 130 acres from the sea. But some environmentalists, activists, and fish workers blame the upcoming seaport and the construction of its breakwater for large-scale coastal erosion that is wiping out more than three dozen fishing villages, threatening the very existence of areas such as Kovalam, Valiyathura, Beemapally, Vizhinjam, Veli, Kallumoodu and Muttathara. Dr K.V. Thomas, a scientist with the National Centre for Earth Science Studies, told HuffPost India that the coastal erosion in the Vizhinjam-Shanghumukham Region will become worse in the coming years, even posing challenges to the airport and several establishments of Indian Space Research Organisation (ISRO) in Veli and adjacent Thumba. "Unfortunately, neither the environmental nor livelihood impacts of the project have been assessed sufficiently or accurately. The port is irresponsibly sited in the erosion-prone coast of

Thiruvananthapuram. Studies indicate that the coastline is not braced to subsume the potential impacts from construction and operation of the Vizhinjam port,” he said. Pointing to the Coastal Regulation Zone (CRZ) Notification of 2011, according to which the construction of ports is not permissible in coastal areas prone to high erosion, Joseph expressed concern about further deterioration. “Only 600 metres of the 3.1 kilometre breakwater has been completed so far. You can imagine the horrific situation once the work gets completed.” he said. One of the earliest opponents of the project, Thomas now heads the People’s Vigilance Forum, a civil society group that consolidates protests against the construction of the seaport.

According to T. Peter, general secretary of the National Fishworkers Forum and a resident of the coastal village of Veli, the project has started affecting the livelihood of fish workers in the entire area. He told HuffPost India that sea erosion has already left 172 families homeless and that fishing would be reduced due to the maritime traffic and associated risks of coastal pollution once the project is operational. Peter died of pneumonia and multiple organ failure induced by Covid-19 on October 8, a week after speaking to HuffPost India. Environmental activist Thomas Lawrence also expressed concern about the rapidly deteriorating situation. “Thiruvananthapuram is famous for its beautiful beaches like Shankhumukham, Kovalam, Valiyathura, Beemapally, Vizhinjam, and Veli. They all are eroding because of coastal erosion. Last year alone, 603 people from 143 families in the coastal fishing villages were shifted to relief camps due to incursion of the sea,” he told HuffPost India. Both AVPPL and the Kerala government vehemently deny charges of coastal erosion and ecological destruction. The compliance report of the seaport project for October 2019-March 2020, issued by AVPPL in consultation with the Kerala government, states that there is no shoreline degradation in the area as projected by those who oppose the project.

This denial comes a year after Kerala Fisheries Minister J. Mercykutty Amma had acknowledged that construction of the breakwater for the port had led to high tides and erosion of the Thiruvananthapuram coast. The minister declined to comment when asked about the issue and her earlier statement by HuffPost India. While awarding the work to AVPPL five years ago, the state government had fixed September 2018 as the deadline for the completion of Phase I of the project. It has progressed at a slow pace however, which Adani blamed on a severe shortage of granite needed for the construction of the breakwater, and setbacks due to Cyclone Ockhi. The deadline was later shifted to December 3, 2019, which was also not met. With the Covid-19 lockdown putting a halt to construction work in 2020, the government has now extended the project deadline to October 2021. Apart from environmental concerns, the project has been assailed with questions about its economic viability since inception. A report submitted in 2013 by consulting firm Deloitte, which had put the total expenditure of all three phases of the project at Rs 14, 283 crore, concluded that the port was not “financially very attractive”. Rubin D’Cruz, an activist from the region, says that the economic viability of the project has to be viewed in conjunction with environmental and livelihood issues. “Earlier, Kerala government authorities said Vizhinjam can send and receive huge amounts of cargo to different parts of the world without routing them through neighbouring hub ports such as Colombo, Singapore and Dubai. However, now experts in the cargo handling sector say Sri Lanka’s Colombo port will pose a tough challenge to Vizhinjam. At present, Colombo is handling around 35% of the cargo movement in the region, and is more easily

accessible even from India's eastern coast. Kerala's own Vallarpadam container terminal, commissioned a decade ago, is accumulating losses due to lack of business and underutilisation of its capacities,' he told HuffPost India.

Of the total project cost of Rs 7,525 crore, Adani's investment is Rs 2,454 crore, with the Union Government giving Rs 1,635 crore as a viability gap fund, and the state government's share being Rs 3,436 crore. As per the agreement, AVPPL will operate the port for 40 years, extendable by 20 more years, while the state government will get a portion of the revenue from the port after 15 years. When the project was launched by the then Congress government in Kerala led by Oommen Chandy, in alliance with Adani Group in 2015, the CPI(M) had alleged that the project involved corruption worth Rs 6,000 crore. However, the party changed its stand after coming to power in 2016. Meanwhile, a Controller and Auditor General (CAG) report of 2017 found several inaccuracies in the project and observed that at the end of the concession period of 40 years, the project would cause a substantial loss of Rs 5,608 crore. The CAG had also found that the total project cost compared to similar ports in other states was highly unreasonable.

"The project has already deposited 6 lakh tonnes of granite into the sea to construct the port, and most of it came from sensitive portions of Western Ghats. It will require one crore tonnes of granite to complete the rest of the work. A lot of public money is getting wasted," Joseph said. Even as the sea port's financial viability remains in question, Peter warned that this is only the beginning of the project's impact on the environment and the livelihood of locals. "The port is coming up just 250 metres south of the ever-busy Vizhinjam fishing harbour. Both the fishing industry and the marine biodiversity of the region have been affected. Tourism in Kovalam and Shanghumukham beaches has already been affected. The situation will turn murkier by the time construction of the breakwater and quay walls for the port is completed," he said. He added that the construction is posing a threat to the rich marine biodiversity of the Wadge bank off the coast of Thiruvananthapuram, which is a breeding ground for over 200 varieties of fish and is the largest coral reef of the Indian Ocean. "It is home to more than 60 species of ornamental fish and other oceanic animals. Commercially important fish such as squids, cuttlefish, carangids, tuna, anchovies and lobsters are available in abundance there. Despite the bank's status as a Marine Protected Area, the state government decided to go ahead with the project," he explained.

Dr Thomas said that over 50,000 fish workers are being affected by the project as it has resulted in the destruction of breeding grounds, reduction in fish catch, loss of beaches, loss of access to fishing grounds and increased conflict with shipping vessels. "The increased turbidity of water as a result of reclamation and dredging has started reducing the fish catch as it destroys fish spawning and habitat site," he said. Fish workers say the dredging work has caused habitat loss for several aquatic organisms, especially mussels and lobsters. According to Thiruvananthapuram-based geologist V. Nandakumar, 15 of the 33 reefs located close to Vizhinjam have been utterly destroyed, and 17 of them heavily damaged as a result of sand deposition from dredging. And yet, even amid the controversy, the seaport is not the only big infrastructure project in the area that has fallen into the lap of the Adani Group. In August this year, Adani Enterprises secured a 50-year lease to operate, manage and

develop the 88-year-old Thiruvananthapuram International Airport following a Union Cabinet decision that was strongly opposed by the Kerala government. “If the coastal erosion continues unabated, the sea will reach the airport and Adani can integrate both the seaport and airport here, perhaps the first time in the world,” Richens Morais, a fisherman in Vizhinjam, said sardonically.

Source: [huffingtonpost.in](https://www.huffingtonpost.in); 12 October 2020

ADNOC ENTERS VLCC SECTOR WITH ACQUISITION OF HUNTER PAIR

- Jason Jiang

UAE-based Adnoc Logistics and Services, the shipping unit of Abu Dhabi National Oil Company, has acquired two VLCCs from Norwegian owner Hunter Group, marking its entry into the VLCC tanker segment. Multiple shipbroking houses including Seasure Shipbroking, Intermodal, Lorentzen & Stemoco all reported that Adnoc acquired the 2019-built VLCC pair Hunter Laga and Hunter Saga for \$84m each.

Following the sale, VLCC pureplay owner Hunter Group will be left with five vessels. VesselsValue data shows Adnoc Logistics and Services owns six bulkers, three containerships, nine tankers, eight LNG carriers and one LPG carrier.

Source: [splash247.com](https://www.splash247.com); 15 October 2020

TIME TO SAY GOODBYE TO SHIPS

- Mikhail Voytenko

There are several reasons to reconsider signing on the ship, presently, with each of these reasons being substantial enough in itself, to quit the seas, either for good, or just to wait out until the ongoing madness will end, one way or another.

Reason 1: All seamen are lab rats.

All seamen are lab rats, when it comes to new health requirements, regulations, vaccines, checks, etc. They're most vulnerable to anything healthcare related, not in terms of real health care, but in terms of implemented mandatory rules or medicines. They can't refuse inoculation, under the threat of becoming an illegal person with invalid papers, incapable of leaving or boarding the ship

A new study related to the effectiveness of vaccines tells us what we have already known for decades: exposure to the virus contained in vaccines, which belong to prior strains of the flu enable our bodies to react against those old strains, but not to the current version of the flu, which is why it does not really protect us from the desired strains. Once our body has had contact with a pathogen, it saves the memory of it to respond more quickly in subsequent contacts. This is what is called natural

immunity, which is real, effective immunity. It is different from vaccine-induced immunity, which is not real and that suppresses the body's natural and effective immune response to pathogens.

The point is, this vaccine jab isn't the only one, the magic inoculation which will make us all free, and return our lives to some kind of a normal life as we understand it. Not at all. Mankind will be vaccinated at least twice a year, for many years to come (till the end of time) with absolutely unknown to us, untested and very poorly presented, substance. Each time it will be a new one. Ships crews are perfect lab rats, encapsulated into ideal environment for monitoring the results of the vaccination. I believe, WHO and the rest of the cabal, were greatly disappointed by the effectiveness of "deadly virus" affecting shipping industry. "Deadly virus" was a total failure – from their perspective, of course. Be it anywhere close to promised, computer-modeled "deadly" status, half of global merchant fleet would be, by now, immobilized.

People living and working on land will have kind of a safety time-airbag, to dodge immediate vaccination and watch those who'll be first in line for vaccine, and there will be plenty of such, just look at idiots wearing masks whether demanded or not – they're eager to get the jab, so they will be the test rats, both for globalists, and for normal people. In shipping, everybody will be vaccinated as soon, as it will be technically possible.

Reason 2. Profession of a seaman is becoming increasingly risky one.

The routes for on- and off- signers are a risk in itself, and there's no visible end or solution, to worldwide lockdowns and insane restrictions, vaccine or not.

There's a growing risk of piracy and robbery – seaborne crime is on the rise, and if/when anti human agenda of UN/WEF (Great Reset) comes into force, crime wave will – not may, will – rise to a tsunami. It won't be just your ordinary robbery and piracy, new-wave "pirates" will be attacking ships to get food and basic essentials, like soap or any clothes, or towels. The EU won't stay immune to it, EU already has more than enough potential (including former) pirates – I refer to, of course, illegal migrants. UN/WEF are sowing chaos, and if they're not stopped anytime soon, chaos it will be, read the history, folks. Ships and crews are defenceless and will remain defenceless, at least legally (if existing legislation can be considered as lawful), not by some mistake or oversight, but intentionally. Globalists did and do everything they can to disarm peoples, it's one of their main goals. Self-defence is a crime, according to New World Order and any of their Agendas – Green, or UN-2021, or WEF's Great Reset.

Reason 3. Increasing criminalization of the shipping and seamen.

Everything is a crime. Nations throughout the world, especially developing (island nations, specifically) ones, made a sport of hunting seamen and indicting them for crimes they didn't commit, be it drug trafficking or "environmental" crimes, like this recent shameful case of prosecuting the Master of VLCC NEW DIAMOND.

Being a normal man is indeed, a crime in itself, if you watch mainstream trends. People who work, who raise children, who keep the mankind alive, are under constant attacks. They "destroy the environment", they're "racist" and misogynistic, they're everything bad, as long as they keep doing their job and keep families. All the human scum and

filth, on the contrary, is hailed as heroes or victims, as an example to follow – be they BLM, socialists, Antifa, politicians, investigative f...g journalists, human traffickers, greens, poor innocent migrants or NGO staffers. Those who take not give, who destroy, who kill, loot and rape, who deceive others with their fakes and shams, are the heroes. Those who're honest and hard-working professionals, are criminals. Criminalization of the shipping and seamen will continue, this policy is an important ingredient of NWO implementation plan.

Reason 4. What about your families?

The threat of chaos, economical and political crisis, is very real – it's in fact, the main goal of UN/WEF – to throw mankind into chaos, and on the wake of it, to grab the power. Read the history, folks. Russian Revolution and Bolsheviks, or Chinese CCP victory, it's all the same, nothing is new under the sun. Will you be more needed by your family, your children, at home, if/when chaos befalls upon your country, or somewhere in far-off seas, earning money, which for all we know, will become worthless? It's all personal, depending on each person's individual circumstances and situation. Some seamen just can't feed and keep their families at their homeland, due to mass unemployment and prevailing poverty. They have to go to sea. But some – the majority – can keep their families, staying home, though probably, not as well as with seaman salary. You have to decide for yourself, and weigh all pros and cons. But you better do it, at least give it a thought, or you may, in very near future, greatly regret your nonchalance.

Source: maritimebulletin.net; 15 October 2020

LIBERIAN REGISTRY OPPOSES THE EU EMISSIONS REGULATIONS FOR INTERNATIONAL SHIPPING

- Michele Labrut

The Liberian Registry has announced its objection to the European Union (EU) Parliament proposal on the implementation of a separate, unilateral set of regulations, in the instance of the Emissions Trading System (ETS) scheme for international shipping. “We understand the need for efforts to lower greenhouse gas emissions, and continue to push for a cleaner environment, as well as a more efficient maritime industry. However, at least for international shipping, it is vital we work toward one set of requirements established by the International Maritime Organisation (IMO), avoiding the creation of a fractured system of regional requirements that reach beyond their own waters, and assuring a unified global effort to confront this important issue,” said Alfonso Castellero, Chief Operating Officer of the Liberian International Ship and Corporate Registry (LISCR).

“The EU ETS scheme, if implemented, should be applicable only to those waters of EU members, and not become a global scheme. The EU ETS scheme, if applied extraterritorially beyond intra-EU voyages, will distort the global market situation because it will cover voyages not only within the EU, but also voyages to and from the EU as agreed by the EU Parliament. Like many other IMO member states, we remain committed to working with the EU on a collaborative effort to address the environmental challenges posed by greenhouse gas emissions,” Castillero added. Liberia agrees with the recent World Shipping Council (WSC) position that a unilateral EU ETS scheme would undermine efforts to reduce global greenhouse gas emissions currently underway, including the proposal made by a broad coalition of industry associations to the IMO, for the establishment of an International Maritime Research and Development Board, funded by the industry, to accelerate the introduction of low-carbon and zero-carbon technologies and fuels for shipping. The WSC expressed, in its document, the serious concerns around maritime emissions reduction if the EU expands its ETS to include international shipping.

“The most-discussed geographic application of the EU ETS - now approved by the EU Parliament - is to mirror the scope of existing EU legislation on Monitoring, Reporting and Verification (MRV) of carbon emissions. While the EU ETS has been described as a ‘regional’ system, bringing international shipping into that system using the MRV scope, it would, in effect, regulate the operation of ships on several of the world’s seas and oceans, including on the high seas and in waters adjacent to non-EU nations,” explained Castillero. The 2019 EU Annual Report on CO₂ Emissions found that, within Europe, shipping transported 75% of EU’s external trade but accounted only for 3.7% of emissions. Maritime transport should continue to play a key role in a European climate neutral economy. In the EU report’s own words: “Waterborne transport is already one of the most energy-efficient modes of transport available.”

The Liberian Registry emphasises the needs to fully understand that taxation costs incurred from an ETS, will be distributed to the supply chains and will have a genuine impact on the costs of ocean transport. If the EU were to apply its ETS to shipping using the same geographic scope as the EU’s existing MRV regulation, the effect would be to apply a financial charge on voyages that in some cases stretch halfway around the world.

Over half of the covered emissions would result from voyages outside of EU waters. They would also apply to emissions associated with cargoes that are transhipped through the EU, but that are not EU imports or exports. This would have a particularly disproportionate effect on developing countries, an issue which is a key concern to Liberia. This opens up the very real prospect of trade and tax retaliation on a global scale. In addition to adding cost and complexity to international shipping, the application of one or more national or regional carbon pricing mechanisms, as already mentioned, would entrench such unilateral measures, making it more difficult to reach a uniform, effective, and global solution through the IMO. Liberia echoes its support for the IMO to continue to push forward its decarbonisation goals, and safely navigate the regulations resulting from them.

Source: seatrade-maritime.com; 16 October 2020

IS THIS EUROPE'S NEWEST OIL & GAS HOTSPOT?

- Viktor Katona

When Michelangelo Merisi (also known as Caravaggio) left continental Italy for Malta in 1607 to escape the ramifications of a lethal sword fight, little did he know what a profound impact he would leave on the little Mediterranean island. For Michelangelo himself the impact was questionable at best - apart from painting some of his most profound works there (such as the Beheading of Saint John the Baptist), he became a Maltese Knight only to be banished from Malta a year later for being a “foul and rotten member”. In brief, Caravaggio’s one-year sojourn has only perpetuated all the problems the artist had been suffering from. Yet for the island nation of Malta, Caravaggio has become a showcase to spearhead all its remarkable achievements. No wonder one of the Mediterranean’s most ambitious oil-drilling projects assumed Caravaggio’s name. Caravaggio is a heretofore undrilled prospect offshore Malta, lying in water depths of 350 metres within Area 07. According to preliminary assessments based on seismic surveys the main target for Caravaggio is a Lower Eocene carbonate reef and a secondary reef below that, the aggregate reserves of which might be 1 Bboe. The operator of Area 07, Heritage Oil, was awarded the rights to it in December 2007 along with Area 02 and was supposed to conduct at least 1000km seismic surveying (the blocks cover 8778km² and 9190km² respectively) and drill one exploration well. The latter objective could not be met, however now Heritage has some solid 5000km of seismic surveying data, reportedly attesting to the presence of several prospects to be drilled.

The reason why Caravaggio was still not drilled is fairly straightforward – absent any demarcation within the Malta-Italy-Libya maritime triangle, it simply cannot be if the area’s operator is to stick to the international norms of maritime law. The lack of political settlement also seems to be the underlying reason why Heritage Oil is reportedly looking to farm out some of its Area 02 and 07 stakes. Cognizant of the international ramifications, the Maltese government seems to be unwilling to issue the required exploration well permit, meaning that even if tomorrow brought about a swift resolution of the maritime border dispute (the GNA Foreign Minister Mohamed Taha Siala has visited Malta with the issue on his agenda), the project would still need to go through the full approval procedure.

Seemingly the easiest element of the problem would be to find common ground with Italy, a nation historically knit to Malta by ties of friendship. This has already been suggested by the Maltese government, among others in 2012 yet seemingly triggered no noteworthy reaction from the Italian side. Thus, the stale state of the Central Mediterranean is in stark contrast to the Eastern Mediterranean where large gas discoveries offshore Egypt, Israel and Cyprus have started off a large-scale kerfuffle over delimitation rights. The task is somewhat aggravated by the fact that both Malta and Italy depend on tourism for a sizeable share of their income and have been

working to nudge offshore exploration farther offshore (according to a 2012 Italian E&P decree all drilling within the 12-nautical mile territorial sea is banned).

Yet even if Italy and Malta were to settle all past grievances and delimit their maritime zones, this would not be enough for Caravaggio drilling to happen – the prospect is located in the immediate vicinity of the assumed Maltese-Libyan maritime border, hence might be claimed by both sides. Malta and Libya (back in the Jamahiriya days of Colonel Gaddafi) took the maritime dispute to the International Court of Justice in 1984-1985, not asking for a suggested line of demarcation but rather to decide on what principles could the two sides base the potential prospective agreement. The ICJ did in fact provide a suggested delimitation line, smiting Libya's demands that the Maltese exclusive economic zone be curbed by the geological limits of its rift zone, i.e. the discontinuity of the troughs to the south of Malta. For reasons beyond obvious, the 1985 ICJ decision was never followed upon.

Although the Caravaggio prospect is located to the east of Libya's two currently producing offshore fields, Bouri and Al Jurf, Libya's offshore Pelagian Basin might provide the most suitable reference frame for Malta's offshore potential. According to a recent USGS assessment, the Pelagian Basin has a total undiscovered resource tally of some 2 Bbbls crude and 37.55 TCf of natural gas, confirming a past assumption that gas occurrence in the offshore area would be higher than onshore – set against the total undiscovered resources of the Sirte-Pelagian Basin, offshore crude makes up a mere 12% of the aggregate, whilst offshore natural gas amounts to more than a third.

Considering that Malta produces no oil and gas at all, a future gas discovery would be very convenient for the small island nation. Currently, Malta is utilizing predominantly natural gas to generate electricity (70% of its energy consumption), its basis being a 10-year LNG supply contract with SOCAR. According to Maltese media reports, for the 5 years the purchase price was fixed at \$11.50 per MMbtu, making Malta one of the most profitable Mediterranean LNG outlets ever. Producing some gas of its own could alleviate Malta's necessity to buy overpriced imports. Malta never had an oil refinery and has historically depended on Italy to provide its products and its name reverberated quite frequently in stories relating to oil smuggling activities out of Libya.

Source: oilprice.com; 18 October 2020

MARINE ENVIRONMENT

ARCTIC OCEAN IS DYING: SCIENTISTS FROM LARGEST MISSION TO NORTH POLE RETURN WITH 150 TB DATA AND A CLEAR WARNING

- TWC India Edit Team

Scientists who set out for the North pole last year on the largest research mission till date are finally home. Along with them, are evidence that proves that the arctic ocean is 'dying' due to the wrath of global warming. The proof says that we are going to witness ice-free summers in just a few more decades if the climate crisis is not actively dealt with right now.

Year-long observations and data collection

The German Alfred Wegener Institute's Polarstern ship returned to the port of Bremerhaven after 389 days—nearly 13 months. The Polarstern mission, also known as MOSAIC, gathered data about several important parameters of the atmosphere, ecosystems, ocean and the ice in the north polar region to understand the effects of climate change, all the while floating through the Arctic ice. The team consisted of hundreds of scientists from 20 nations. All these scientists, along with most leading scientists in the world, agree that the Arctic is indeed the epicentre of the impact of climate change. And after observing the immense effect of global warming on the Arctic ice the scientists are set to publish several alarming findings. Four locations on the sea ice in a radius of up to 40 kilometres around the ship were used for observations. Water samples from beneath the ice sheet during the polar night were collected to study bacteria and plant plankton and understand the working mechanism of the marine ecosystem under these extreme conditions. Scientists measured more than 100 different factors throughout the year. They hope that the information collected will act as a breakthrough which in enhancing our understanding of the climatic conditions of the Arctic.

Arctic is dying due to climate change

Mission leader Markus Rex said to the media that the Arctic ocean is dying and they were the first-hand witness to this. He pointed out that a large amount of ice has already melted and they could see large chunks of open water, which sometimes went as far as one could see. The North pole now has melted, thin, frail and eroded ice. He warned that if the things don't change, then the Arctic will witness summers with zero ice in the coming decades.

The trend so far also resonates a similar warning. As per the European Union's Copernicus Climate Change Service (C3S), earth in 2020 witnessed the warmest of September to be ever recorded. C3S, which also monitors Arctic sea ice every month,

said that in September 2020, Arctic sea ice extent was the second-lowest since the beginning of the satellite recording in 1979. The first lowest ice sheet extent was seen in September 2012. Since the early spring of 2020, warm temperatures have been affecting various regions in the Siberian Arctic. Regions in the Arctic, as well as Siberia, generally sees significant temperature variations every year, one of the major reasons for this being global warming. However, the temperatures of this year have been exceptional both in magnitude and persistence. Scientists say that the Arctic region is warming 2-3 times faster than the rest of the world.

Large Amount of data collected

On their way home, researchers on board the Polarstern ship have brought 150 terabytes of data and more than 1,000 ice samples. The mammoth data is likely to take up to two years to be analysed in depth. The researchers aim to develop models that will be able to anticipate the characteristics of heavy rains, heat waves and storms in the future years. Numerous important findings are expected to come out based on this data and research. The ship left from Tromso, Norway, on 20 September 2019. The crew has witnessed long months with no light and extremely low temperatures. They also saw around 20 polar bears during their mission. The mission also faced many difficulties and due to the pandemic, they were stranded at the North Pole for two months. Another team of scientists were supposed to fly in to relieve the ones who were already tirelessly working on the Arctic ice. The plan had to be later withdrawn as all the flights were cancelled due to the pandemic. Scientists would hope that with such extensive fieldwork and exhaustive research, the world will start to heed the warning of deteriorating north pole's ecosystems.

Source: [weather.com](https://www.weather.com); 13 October 2020

THE ANTARCTIC OCEAN IS IN CLIMATE CRISIS. THIS WEEK, THE WORLD COULD TAKE A BIG STEP TOWARDS PROTECTING ITS FUTURE

- Aryn Baker

Sixty years ago a dozen nations, including arch-rivals the United States and the Soviet Union, agreed to preserve the Antarctic continent as a place of peace, research and conservation. Commercial exploitation of its resources and its animals was forbidden. Yet much of the ocean that surrounds the territory does not have the same protections.

This will be up for discussion during a virtual meeting of the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) from 22-30 October. The Convention is meeting to discuss the region's future and will decide whether or not it's time to give some of the most biodiverse seas around Antarctica the same defenses as the land itself.

The timing couldn't be more vital. The combined threats of global climate change and industrial fishing are weakening the crucial ecosystems that lie within its waters. Record high temperatures are breaking up ice sheets that have lasted millennia. On Feb. 6, a weather station on the Antarctic Peninsula—the 1,500 km long finger of land that reaches towards South America—reported a record temperature high of 18.3°C. While members of a nearby scientific expedition researching penguin populations relished in the balmy weather, stripping down to t-shirts and bare chests, it was an ominous sign for a species better adapted to ice. Just a few days earlier the penguin researchers were reporting a 77% decline in some colonies. The peninsula isn't just one of the fastest warming places on earth. It's also home to some of the most exquisitely specialized species on the planet. Among them is Antarctic krill—the tiny, shrimp-like crustaceans that collectively form the largest biomass on the planet and are the cornerstone of the global ocean food chain. Yet the encroachment of industrial fisheries into these waters is threatening their health, as well as the penguins, seals and whales that are sustained by them. CCAMLR was established in 1982 with a mandate to protect Antarctic marine life through sustainable fisheries. It governs by consensus, and regulates fishing through quotas. The current quota for krill across the entire fishing fleet is limited to less than .5% of the known biomass. That may not sound like much, but it can still have an outsize impact depending on where the krill is harvested, says Rodolfo Werner, an Argentina-based marine biologist who is currently advising the Pew Charitable Trust's Antarctic Krill Conservation Project

“The question is not how much krill you catch, but when you catch it and where,” Werner says. Over the past decade, he says, the fishing fleets have been moving closer to areas around the Antarctic Peninsula that are used by penguins to forage during the breeding season. Seals and whales also compete for krill along those coasts, leading to even greater uncertainty about how much, exactly, is there. “It's hard enough trying to determine how much krill we can allow the fisheries to take,” he says by phone. “When you throw in climate change and sea ice reduction, it gets even more complicated.” Rather than work by quotas, he says, a better solution would be to limit fishing access entirely in vital areas. And he is not the only one. The European Union, along with most other CCAMLR members, is calling for the entire Antarctic Peninsula —the northernmost tip of the sprawling continent— to be set aside as a Marine Protected Area (MPA), meaning that the area will be off limits for all kinds of commercial exploitation. The call is part of a global drive to set aside a full 30% of the oceans as conservation areas, where fish stocks and marine animals can recover from decades of overfishing, and go on to repopulate the rest of the ocean. Marine conservationist Cristina Mittermeier calls them “fish banks,” that grow with compound interest over time.

In 2011 CCAMLR committed to establish a network of nine large-scale marine protected areas around Antarctica. A decade later, only two have been implemented, including one at the Ross Sea that is twice the area of Texas and the largest such region in the world. This year the organization will consider a proposal by Argentina and Chile to create an MPA to protect a large section of the Antarctic Peninsula region, along with one for East Antarctica and another for the Weddell Sea.

The problem is that up until now, CCAMLR members Russia and China have blocked the proposals. Both countries are intent on expanding their regional fishing

operations, and while MPAs won't affect their quota, "China doesn't want any restriction on access to resources anywhere," says Werner, who has served on CCAMLR's scientific committee for the past 17 years. "Setting up an MPA in Antarctica sets a precedent that could be replicated elsewhere on the high seas, and they see that as a threat to their sovereignty." What happens on this remote continent will reverberate around the world, says Andrea Kavanagh, project director for the Pew Charitable Trust's Protecting Antarctica's Southern Ocean campaign. An MPA on its own can't stop the impact of warming seas or plastic pollution, but by offering marine life respite from fishing pressures, it helps build resilience. "Designating the Antarctic Peninsula MPA would create a climate refuge for krill and penguins and could permanently protect the region's unique marine ecosystem," says Kavanagh. Not only that, it can help mitigate the effects of climate change. When krill feed on phytoplankton, their carbon-rich waste sinks to the bottom of the ocean, where it stays for thousands of years. Scientists estimate that they sequester some 23 million tons of carbon emissions each year, equivalent to the output of six coal-fired power plants. Together, the East Antarctica, Antarctic Peninsula, and Weddell Sea MPAs would protect close to 1% of the ocean globally by covering approximately four million square kilometers. "Establishing this network of MPAs could be the single greatest act of ocean conservation in humankind, making this the greatest sanctuary on earth," says Mittermeier, whose organization SeaLegacy.Org is leading a petition campaign in support of the MPAs. "If we can't protect the most wild place on the planet, how can we protect ourselves?"

Source: [time.com](https://www.time.com); 20 October 2020

RESEARCHERS TO TRACK HOW COASTAL STORMS IMPACT GROUNDWATER QUALITY

- University Of Massachusetts Lowell

LOWELL, Mass. - UMass Lowell researchers are working to determine how severe coastal storms contribute to water pollution in an effort funded by a \$784,000 grant from the National Science Foundation. Led by UMass Lowell's James Heiss, assistant professor in the Department of Environmental, Earth and Atmospheric Sciences, the team will use computerized sensors installed at sites along the shoreline to measure groundwater flow to track how such storms may affect the amount of saltwater in beach aquifers. The team is collaborating with UMass Lowell Computer Science Prof. Fred Martin to develop the sensor network. Important to maintaining a balanced ecosystem, beach aquifers are underground layers of rocks, sand and gravel that conduct saltwater and freshwater, and are important in filtering groundwater contaminants before they can discharge to the ocean.

While scientists understand how tides and seasonal changes in rainfall influence groundwater flow, far less is known about the effects of coastal storms, which bring pounding waves, heavy rains and beach erosion. "The response of beach aquifers to those interacting factors is not clear. This is what our research aims to find out," said

Heiss, a Lowell resident. "Large-scale intrusion of saltwater is a major problem in many coastal communities and large cities that rely on groundwater as a source of drinking water. In beach aquifers, the increasing salinity will also likely influence the aquifers' ability to remove pollutants before flowing into the ocean." As sea level rises and coastal storms become more frequent and intense due to climate change, more seawater gets introduced into coastal aquifers, which may affect those ecosystem services, according to Heiss. Researchers from the Woods Hole Oceanographic Institution are working with UMass Lowell on the study. The team will analyze the effects of coastal storms on groundwater flow and the mixing patterns between seawater and fresh groundwater in beach aquifers. Nitrate, along with phosphorus, mercury and other harmful chemical contaminants from human activities, are transported in groundwater to the sea, so it is important to understand the physical movement of that groundwater in these environments, according to Heiss. "Excess nitrogen in coastal waters can cause algal blooms, mass die-offs of fish and loss of biodiversity, which can impact the environment and coastal economies. Red tides, blue-green algae and cyanobacteria release toxins that can be harmful to humans, pets, fish, shellfish, marine mammals and birds," Heiss said.

The experiments will be conducted at the U.S. Army Corps of Engineers Field Research Facility in Duck, N.C., which has specialized equipment and dedicated beach access that features a long research pier that extends from the dune line into the Atlantic, according to Heiss. The researchers will install their network of sensors in monitoring wells on the beach next summer ahead of hurricane season. The wells and sensors will stay in place for a few months to record groundwater parameters at various depths as storms pass over the study site. The sensors will send the readings to an electronic data recorder positioned on the beach, which will transmit the information to a base station behind the dune line.

Source: eurekaalert.org; 20 October 2020

GEOPOLITICS

STIR IN PAKISTAN POLITICS; IMRAN KHAN TO SELL 'TWIN ISLAND' TO CHINA

- Yogita S

New Delhi: China had shown Pakistan the dream of development in the name of economic corridor, but now it has started slowly occupying the land of Pakistan. But Pakistan is so involved in doing enmity with India and don't want to see anything.

China occupied Pakistan's land:

The issue of handing over two islands to China in Pakistan has heated up. Imran government is the target of opposition parties and people. The people of the neighboring country are strongly opposing this move of the government. Opposition parties and several organizations have announced that they will not let the two islands sell at any cost.

Pakistan opposition parties in anger:

Pakistan's Imran government has decided to give the Twin Islands of Sindh province to China. These islands belong to Dingi and Bhundar. Imran Khan's government has brought a Presidential Ordinance to control the Sindh islands. Now after this, the Imran government strongly opposed in Sindh. On 11 October, there was a tremendous protest against Imran's government in Sindh.

Imran Khan selling islands to China:

For the China-Pakistan Economic Corridor, the government of Imran has decided to give these two islands in South Karachi to China. These islands are very important from the strategic point of view and are spread over the long coastline of Sindh province. The President of Pakistan Arif Alvi has also signed the bill given through the Pakistan Island Development Authority. A political storm struck Sindh and Baluchistan after the passage of the bill. Sindh province ruled by the ruling Pakistan Peoples Party. Party chairman Bilawal Bhutto Zardari targeted the Imran government. They described it as illegal capture. The Jio Sindhi Thinkers Forum says that they will not let their land sell at any cost.

Source: newstrack.com; 15 October 2020

INDIA SET TO LOSE FARZAD-B GAS FIELD AFTER IRAN OPTS FOR DOMESTIC FIRMS

- PTI

India has all but lost the ONGC Videsh Ltd-discovered Farzad-B gas field in the Persian Gulf after Iran decided to prefer domestic companies over foreign firms for development of the field, sources said. ONGC Videsh Ltd (OVL), the overseas investment arm of state-owned Oil and Natural Gas Corp (ONGC), had in 2008 discovered a giant gas field in the Farsi offshore exploration block. OVL and its partners had offered to invest up to USD 11 billion for development of the discovery, which was later named Farzad-B. After sitting over OVL's proposal for years, the National Iranian Oil Co (NIOC) informed the firm in February this year about its intention to conclude the contract for Farzad-B development with an Iranian company, sources with direct knowledge of the development said. OVL, however, continued its engagements with NIOC over the development of the field and sought terms and conditions of the proposed contract for its evaluation, they said, adding that Iran has so far not responded to the Indian firm's request.

Farzad-B holds total reserves of around 21.7 trillion cubic feet of which around 60 per cent is recoverable, and production is slated to be around 1.1 billion cubic feet per day. Sources said unconfirmed information suggests that Iran has identified a local firm for the development of the field, but OVL has not yet given up hopes and continues to chase Iranian authorities for the contract. The 3,500 square kilometre Farsi block sits in water depth of 20-90 metres on the Iranian side of the Persian Gulf. OVL, with 40 per cent operatorship interest, signed the Exploration Service Contract (ESC) for the block on December 25, 2002. Other partners included Indian Oil Corp (IOC) with 40 per cent stake and Oil India Ltd (OIL) holding the remaining 20 per cent stake. OVL discovered gas in the block, which was declared commercially viable by NIOC, on August 18, 2008. The exploration phase of the ESC expired on June 24, 2009.

The firm submitted a Master Development Plan (MDP) of Farzad-B gas field in April 2011 to Iranian Offshore Oil Company (IOOC), the then designated authority by NIOC for development of Farzad-B gas field. A Development Service Contract (DSC) of Farzad-B gas field was negotiated till November 2012, but could not be finalized due to difficult terms and international sanctions on Iran. In April 2015, negotiations restarted with Iranian authorities to develop Farzad-B gas field under a new Iran Petroleum Contract (IPC). This time, NIOC introduced Pars Oil and Gas Company (POGC) as its representative for negotiations. From April 2016, both sides negotiated to develop Farzad-B gas field under an integrated contract covering upstream and downstream, including monetization/marketing of the processed gas. However, negotiations remained inconclusive. Meanwhile, on the basis of a new studies, a revised Provisional Master Development Plan (PMDP) was submitted to POGC in March 2017, sources said, adding that in April 2019, NIOC proposed development of the gas field under the DSC and offtake of raw gas by NIOC at landfall point. However, due to imposition of US sanctions on Iran in November 2018, technical studies could not be concluded which is a precursor for commercial negotiations. The Indian consortium has so far invested around USD 400 million in the block.

Source: theweek.in; 15 October 2020

AUSTRALIA SEEKS CONFIRMATION OF REPORTED CHINA COAL IMPORT BAN

- Bloomberg

The Australian government is seeking clarification from Beijing on reports that China has suspended purchases of Australian coal amid heightened diplomatic tensions between the two countries. Chinese power stations and steel mills have been verbally told to immediately stop using Australian coal, people familiar with the order said Monday, asking not to be identified as the matter is private. Ports have also been told not to offload Australian coal, one of the people said. It isn't clear when the latest import ban might end or how it might affect long-term contracts that are already in place. "We are making approaches to Chinese authorities in relation to that speculation," Trade Minister Simon Birmingham told Sky News on Tuesday. "We take the reports seriously enough certainly to try to seek assurances from Chinese authorities that they are honoring the terms of the China-Australia Free Trade Agreement and their WTO obligations." The ban would mark an escalation in tensions that have already jolted agricultural exports from China's biggest supplier of commodities. Beijing has objected to a series of diplomatic moves by Canberra that it viewed as supporting the U.S. in its trade and security dispute with China. Among other things, Prime Minister Scott Morrison in April called for independent investigators to be allowed into the Chinese city of Wuhan to probe the origins of the coronavirus. China is the top consumer of Australia's metallurgical coal, accounting for almost a quarter of exports, according to the country's industry department. Export earnings from the steel-making material were already forecast to fall to A\$23 billion (\$16.6 billion) in the 12 months to June 30 from A\$35 billion in the previous year on lower prices and weaker demand, according to a report last month. The Asian nation is also the No. 2 destination for Australia's thermal coal exports, behind Japan. Annual exports earnings in that market are projected to slide to A\$15 billion from A\$20 billion in fiscal 2019.

The fossil fuel has been a previous target for China's ire with what it regards as an increasingly hostile government in Canberra, most recently in 2019 when shipments became subject to port delays. Thermal coal is one of the few resources in which China is largely self-sufficient. Higher-quality coking coal is a different story. China produces less of it and the country's steel-making giants are still dependent on overseas suppliers such as Australia, which typically accounts for over half of imports.

"China increasingly relies upon high-quality coking coal for its steel industry, in order to maximize efficiencies and also reduce emissions," said Gavin Wendt, senior resources analyst at consultancy MineLife. "Australia supplies the highest quality coking coal available and is a reliable, low-cost supplier. Both parties rely on each other in a major way, so I think there is more bark than bite in this situation." Newcastle benchmark thermal coal prices fell by the most in almost four years on Monday as reports of the ban filtered through the market. Australian coking coal prices also fell

by more than 5% — the most since May. Some of Australia’s top coal producers also took a hit: shares in both Whitehaven Coal Ltd. and New Hope Corp. fell by more than 6% Tuesday. “Trade with China changes through the year based on a range of factors, including quotas,” said Tania Constable, chief executive officer of industry group the Minerals Council of Australia. “Australia will continue to see demand for its high quality of coal and the medium-term outlook remains positive.” China keeps a tight grip on coal imports as it seeks to balance the needs of its miners and industrial users and the Australian government had anticipated a slowdown in shipments, given strong import volumes taken by China in the first half of the year.

“China’s metallurgical coal import volumes in the second half of 2020 could be constrained by slower customs clearance processes,” the Department of Industry, Science, Energy and Resources, said in the quarterly report in September. China is also the key buyer of Australia’s most lucrative export, iron ore, although curbs on that product would be a heavy blow to a steel industry that relies on vast — and cheap — supplies from mining heavyweights like Rio Tinto Group and BHP Group.

Source: [Aljazeera.com](https://www.aljazeera.com); 13 October 2020

HOW DJIBOUTI IS MAXIMIZING ITS STRATEGIC POSITION IN MARITIME TRADE

- Brian Gicheru Kinyua

One of the stark distinctions between Djibouti and other African nations is its characteristic barrenness. Its natural resources are limited, and a tiny proportion of its land is arable. Coupled with a harsh climate, agriculture is almost inconceivable, and Djibouti has to import most of its food from foreign markets. These realities mean that the services sector commands Djibouti’s economy - especially services in shipping and logistics – and this limits production diversification, leading to over-dependence on foreign markets. Despite these challenges, Djibouti’s strategic position at the connection of the Red Sea and the Gulf of Aden has given it an immense advantage in international maritime trade. Djibouti Port remains the most important asset that this small nation of about one million people has, and it powers Djibouti’s \$4 billion city-state economy. Thus, Djibouti pegs its economic transformation on improving the competitiveness of its ports. This is evident in its ongoing \$14 billion infrastructure expansion, whose large component is going into establishment of new ports and terminals across the country’s coastline. The high headline growth rate of Djibouti’s major trading partner, Ethiopia, will see the country reap a relatively higher return on investment on port expansion as demand for export and import soars. According to estimates by World Bank, 85 percent of Djibouti port throughput is either going to or coming from Ethiopia. From 2010 to 2019, Ethiopia’s real GDP growth has averaged 9.5 percent - one of the highest rates in the world - and it’s expected to have a knock-on effect to Djibouti’s economy.

To this effect, Djibouti has crafted an ambitious national strategy towards its socio-economic transformation, dubbed Vision Djibouti 2035, which aims to position the country as a global trade, logistics and industrial hub. This centers on ports and intermodal infrastructure development to increase the size of the hinterland served in East Africa and the Horn of Africa. The key component of this strategy includes development of a network of specialized ports: one for containers, one for dry-bulk cargo and another for liquid bulk. This specialization of ports is especially important given Africa's reliance on commodity exports. Inadequate purpose-built bulk ports in Africa makes it difficult to compete in the world of bulk exports with the likes of Brazil and Australia, despite the mineral abundance in the continent. Djibouti so far has two operational bulk ports, Tadjourah and Ghoubet, specialized in potash and salt respectively. Tadjourah Port can handle 2000 tons of potash per hour while Ghoubet port can handle 5 million tons of salt annually, sourced from the world's largest salt deposit at Lake Assal in Djibouti.

In addition, Djibouti's capacity to handle liquid bulk destined for Ethiopia is severely constrained by the limitations of Horizon Djibouti Terminals, where oil storage facilities are concentrated. The port's current storage capacity stands at 379,000 cubic meters, not enough to handle a throughput of refined products hitting more than 3.5 million cubic meters in recent years. In response to this operational deficit, Djibouti last month launched the construction of Damerjog Liquid Bulk port, which will have an annual throughput capacity of over 13 million tons. The construction is being undertaken by a Moroccan company, SOMAGEC, that specializes in port infrastructure. This is one of the phases of Djibouti Damerjog Industrial Park (DDIP) intended to ensure Djibouti's industrial development. The rest include the ongoing construction of Djibouti Liquefied Natural Gas port, a \$4 billion project consisting of an 800-km pipeline that will connect the gas extraction areas in Ethiopia's Ogaden basin to the coast of Djibouti, as well as a gas liquefaction plant and export terminal. The plant is expected to be operational by the end of this year and have a capacity to export three million tonnes of natural gas per year. The export terminal will be able to handle LNG carriers with a capacity of up to 267,000 cubic metres.

Djibouti's geographical position near world's busiest shipping routes creates a strong imperative for China's Belt and Road Economic Initiative, which explains colossal investments by China in Djibouti's port facilities. This China-Djibouti nexus has created Africa's largest free zone, the Djibouti International Free Trade zone (DIFTZ) and the world-class Port of Dolareh. So far, 90 local and multinational corporations have been registered by DIFTZ and an online B2B (business to business) transaction platform, Djimart.com, launched recently to support business operations in the Covid-19 context. However, there are a few bottlenecks that could hinder Djibouti ports transformation into a hub - key among them its smaller hinterland access due to an over-reliance on serving Ethiopia, and (as a result) its lower liner connectivity.

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Source: seatrade-maritime.com; 15 October 2020

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