



MAKING WAVES

A maritime news brief covering:

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

EDITED BY:

Captain Sarabjeet S Parmar

Mr. Oliver N Gonsalves

associatefellow1.nmf@gmail.com

CONTENTS

MARITIME SECURITY	3
UNUSUAL PIRACY ATTACK ON CONTAINER SHIP	3
HOW A MYANMAR COAST GUARD WILL CONTRIBUTE TO COASTAL STABILITY	3
OIL STORAGE AT SEA AND THE RISK OF MARITIME TERRORISM	ERROR!
BOOKMARK NOT DEFINED.	
‘SHIP-TO-SHIP’ TRADE AND OTHER SECRETS OF NORTH KOREA’S ILLICIT \$1.5B CRYPTO STASH.....	6
PIRATES ARE EXPANDING IN WEST AFRICA, THREATENING OFFSHORE OIL STORAGE.....	9
MARITIME FORCES.....	12
U.S. IMPOSES NEW RULES ON EXPORTS TO CHINA TO KEEP THEM FROM ITS MILITARY	12
SAILORS START TO RETURN TO THE USS THEODORE ROOSEVELT	13
NAVY RUSHES TO GET F-35s ON USS JFK; OTHER FORD CARRIERS WAIT THEIR TURN	14
RUSSIA TESTS DIRECT-ASCENT ANTI-SATELLITE MISSILE.....	16
THE U.S. NAVY’S RAILGUN IS NEARLY DEAD IN THE WATER	17
SHIPPING, PORTS AND OCEAN ECONOMY	19
MARITIME LOGISTICS PLAYERS OPENLY DEFY SHIPPING MINISTRY ORDER ON WAIVING CHARGES.....	19
SEA CREW CHANGE RESTRICTIONS ENDANGER WORKERS AND SUPPLY CHAINS.....	21
THE OIL INDUSTRY’S GLUT HAS A BRIGHT SPOT: TANKER STORAGE	23
TWO DEADLY BLOWS TO SHIPPING, THIRD COMING	26
MOON SAYS S. KOREA’S SHIPPING INDUSTRY REVIVING, VOWS CONTINUED SUPPORT	27
MARINE ENVIRONMENT	29
MELTING ICE HAS REVEALED ARTEFACTS FROM A LOST VIKING HIGHWAY IN NORWAY	29
SEA TURTLES EXPECTED TO THRIVE NOW THAT MANY PEOPLE ARE STAYING INDOORS	31
AI DETECTS PLASTICS IN THE OCEANS BY ANALYZING SATELLITE IMAGES..	32

OZONE LAYER HOLE OVER ARCTIC CLOSES, CONFIRM SCIENTISTS	33
HIGHEST EVER CONCENTRATION OF MICROPLASTICS FOUND ON SEA FLOOR	34
GEOPOLITICS	36
ROHINGYA STRANDED AT SEA, BANGLADESH SAYS NOT ITS RESPONSIBILITY	36
SAUDI TRIBE CHALLENGES CROWN PRINCE'S PLANS FOR TECH CITY	38
SOUTH CHINA SEA: PHILIPPINES REJECTS BEIJING'S 'ADMINISTRATIVE CENTRE' LABEL ON DISPUTED REEF	40
BEIJING NAMES ISLANDS IN DISPUTED SOUTH CHINA SEA.....	41
COVID-19: COULD FOOD SECURITY IN SOUTHEAST ASIA BE IN JEOPARDY?	42
ACKNOWLEDGEMENTS.....	45

MARITIME SECURITY

UNUSUAL PIRACY ATTACK ON CONTAINER SHIP

- Mikhail Voytenko

GISIS reported an unusual piracy attack on container ship FOUMA in Ecuador waters, which took place at 0330 UTC (2230 LT) Apr 9, when the ship was under way, en route from Manta Ecuador to Guayaquil.

Eight armed robbers in two speed boats approached a container ship underway. Master raised the alarm and activated the SSAS. The robbers fired warning shots, managed to board the ship, and opened 15 containers. When the search lights were directed towards the robbers, they opened fire towards the bridge. Port Control and Coast Guard notified. The robbers stole part of the cargo and escaped.

FOUMA arrived at Guayaquil on Apr 9, left on Apr 10. Crew are safe.

It is highly probably, that this attack wasn't just robbers attack on a random ship with an aim of stealing anything they could. It looks like plotted and planned attack with the aim of obtaining specific goods from specific containers (the ship sailed to Ecuador ports from Balboa Panama). If that is the case, criminals had to know insider information, such as containers numbers and locations, and ship's plotted movements.

At best, this attack is something of an exception, the result of some criminal operation. At worst, such attacks may become regular. Crime is rising throughout the world, many thanks to "fighting virus" insanity, and ships are no exception. On the contrary, ships are most vulnerable to crime subjects, be it stealing, or armed robbery, or hijack. Ships are defenceless, and the insiders know, why it is so. We're steaming full speed into an ideal mess.

Source: maritimebulletin.net; 16 April 2020

HOW A MYANMAR COAST GUARD WILL CONTRIBUTE TO COASTAL STABILITY

- Michael van Ginkel

Myanmar's enforcement agencies operate in a complex security environment. Several armed groups struggle for greater autonomy, ethnic violence has resulted in massive population displacement, and the synthetic drug trade has flourished. The destabilizing effects of Myanmar's land-based conflicts have begun to impact

waterways. On October 26, members of the Arakan Army (AA) insurgent group based in Rakhine state raided a ferry to take police officers and soldiers hostage. Although the attack occurred on a river, the incident demonstrates the AA's growing capacity and interest in water-based operations.

A dedicated coast guard will mitigate the maritime domain's vulnerability to exploitation by land-based illicit actors. By instituting a coast guard, Myanmar will increase coastal security without detracting from the conventional, blue-water warfighting capabilities of its newly modernized navy. In the works since March 2019, a coast guard in Myanmar will offer technical skill sets, closer relationships with civilian agencies, and enhanced interoperability with land-based forces.

The emphasis on technical skill sets and relationship-building improves the coast guard's efficiency and effectiveness in dealing with illicit actors. Detailed knowledge on crime scene investigation techniques, gathering evidence for fishing violations, and search patterns for lost vessels provides coast guard personnel with the training needed to contend with civilian perpetrators of maritime crime. The specialized training optimizes resource allocation as coast guard vessels can often more rapidly identify and apprehend illicit actors. This leaves the army free to concentrate on training manpower in areas like contending with peer adversaries in conventional warfighting scenarios.

The closer ties cultivated by coast guards with civilian agencies, like fisheries management, port authorities, and maritime police, provide opportunities for sharing information and building trust. The resulting increase in maritime domain awareness (MDA) hampers the ability of illicit coastal actors to exploit Myanmar's extensive coast, which includes 23,070 square kilometers of territorial waters. Working off information on trading routes and fishing zones gathered from civilian organizations, coast guard vessels can better identify and track the movements of artisanal fishing boats. Coast guard patrols, armed with this information, can help fill a gap in MDA, as Myanmar's coastal radar system has difficulty detecting smaller vessels and has limited range. The coast guard's closer relationship to civilian agencies helps agencies with overlapping jurisdictions work together.

The sustained nature of violence in Myanmar's coastal states has forced water- and land-based forces to collaborate, especially through joint counterinsurgency operations in Rakhine state, Tanintharyi region, and the Irrawaddy delta. The porous border between the land and the sea creates the opportunity for smugglers, traffickers, and insurgents to resupply and reinforce their land-based operations. Dialogue with army intelligence units on topics like inland drug-trade routes and insurgency areas of operation addresses this interconnected nature of maritime and coastal crime. Maritime enforcement efforts, however, have nominally been subordinate to land-based operations of the army, which number roughly 375,000 compared to the navy's 16,000. As highlighted in the *Stable Seas: Bay of Bengal maritime security* report, this asymmetrical approach to enforcement detracts from a country's ability to comprehensively address security challenges.

Myanmar plans to also create a unified command center alongside the coast guard, staffed by experts from the Maritime Police Force, Immigration Department, Customs Department, Marine Administration Department, and the Myanmar Port Authority.

Including land-based stakeholders and military officials in their meetings will facilitate understanding of how the maritime domain affects coastal security. By using the command center as a medium to convey information between land- and water-based agencies, a holistic strategy can be developed to contend with illicit coastal actors who move fluidly between domains.

As nonstate actors like the Arakan Army increasingly contest government control of coastal waters, it is imperative that Myanmar focus on coastal security. The specialized abilities of the coast guard build on the lessons learned from the Sri Lankan counterinsurgency operations against the Tamil Sea Tigers, where focusing on nontraditional maritime security threats helped turn the tide of war. By similarly acknowledging the important role played by the maritime domain in supporting coastal stability, Myanmar can counteract the emerging threat. The coast guard and its associated command center can address law enforcement shortcomings by capitalizing on their civilian ties and collaborating with land-based military units. Working alongside the navy, the coast guard can significantly improve overall maritime stability in territorial waters.

Source: thediplomat.com; 17 April 2020

PHILIPPINES PROTESTS CHINA'S CREATION OF NEW DISTRICTS IN SOUTH CHINA SEA

- Xave Gregorio

Metro Manila (CNN Philippines, April 22) — The Philippines has filed a diplomatic protest over China's creation of new districts in what it claims to be its territory, Foreign Affairs Teodoro "Teddyboy" Locsin Jr. said Wednesday.

Locsin said in a tweet that the Chinese Embassy in Manila has received at 5:17 p.m. a diplomatic protest for declaring parts of Philippine territory as part of Hainan province.

Aside from this, Locsin said that the Philippines also protested China's alleged pointing of a radar gun at a Philippine Navy ship in Philippine waters.

"[These] are both violations of international law and Philippine sovereignty," Locsin said.

China created two new districts of Sansha City, the southernmost city of Hainan province, which cover features in the disputed South China Sea, including the Philippine-claimed Spratly Islands, Scarborough Shoal and Fiery Cross Reef.

China, the Philippines, Malaysia, Vietnam and Taiwan have overlapping claims over Spratly Islands. Fiery Cross Reef, meanwhile, is claimed by China, the Philippines, Vietnam and Taiwan. Taiwan, China and the Philippines all claim Scarborough Shoal.

Former Foreign Affairs Secretary Albert del Rosario urged the Philippine government to protest China's creation of the new districts.

President Rodrigo Duterte has nurtured ties with China, despite its continued aggression in the West Philippine Sea — areas Manila claims and occupies in the South China Sea.

A 2016 ruling by a Hague-based arbitral tribunal backed by the Permanent Court of Arbitration voided China's sweeping claims over virtually the entire South China Sea based on so-called historical rights, but Beijing continues to reject this decision.

Chinese President Xi Jinping has convinced Duterte to "shelve differences" to make way for joint oil and gas exploration.

Source: cnnphilippines.com; 22 April 2020

‘SHIP-TO-SHIP’ TRADE AND OTHER SECRETS OF NORTH KOREA’S ILLICIT \$1.5B CRYPTO STASH

Experts looking at how North Korea continues to import and export goods despite numerous sanctions agree the country's \$1.5 billion cryptocurrency war chest is used to fund an illicit web of trade networks and supply chains.

Blockchain analytics company Chainalysis said it is "comfortable" with the \$1.5 billion figure stated in a recent webinar (a significant increase on various estimates made last year, ranging from about \$200 million to \$500 million for the amount of crypto amassed by the Hermit Kingdom).

Jesse Spiro, global head of policy and regulatory affairs for Chainalysis, told CoinDesk it's logical to assume North Korea's ill-gotten crypto is being moved in trade-based money-laundering networks.

"When it comes to trade-based money laundering, the issue, especially for sanctioned actors, is cross-border money movements," said Spiro. "When you talk about how North Korea could actually execute this in relation to finances, I believe crypto is used to facilitate it."

Priscilla Moriuchi, head of nation-state research at Recorded Future and a non-resident fellow at Harvard's Kennedy School of Government, pointed to recent examples of the Democratic People's Republic of Korea (DPRK) moving crypto across borders in the latest U.S. Department of Justice indictment of two Chinese nationals involved in laundering over \$100 million of crypto.

The "logical conclusion" is North Korean is using cryptocurrencies to fund trade networks, said Moriuchi. Evidence documenting this cross-border movement is still in the early stages of being published, she said.

"I believe it is happening but that we have not been able to document the end-to-end lifecycle yet. We have many pieces of the puzzle we just do not have the complete picture," Moriuchi said.

Sleuthing by Chainalysis has mapped flows of crypto stolen by North Korean hackers moving to exchanges. As with Moriuchi, the analytics firm has yet to detect concrete links to global trade networks.

“There may be active law enforcement or government investigations into this,” said Spiro. “But even if we were privy to anything like that, it's not something we would be able to discuss.”

Neither the U.S. Treasury Department nor the Justice Department replied to requests for comment by press time.

Two if by sea

A reliable way for DPRK to circumvent sanctions involves ship-to-ship transfers, the process of moving cargo from one ship to another in the open sea rather than at a port. This can sometimes involve switching off a vessel's automatic identification system (AIS) or using flags of convenience, where a ship is registered in a country other than that of its owners.

In March 2019, a report by a United Nations Security Council panel of experts highlighted a massive increase in illegal ship-to-ship transfers of petroleum products and coal, in defiance of U.N. resolutions relating to North Korea's nuclear and ballistic missile programs.

Another key area is cyber activity, including a firm focus on cryptocurrency. The U.N. report points to at least five successful hacks of crypto exchanges in 2017-18. In addition to targeting exchanges, North Korean hacking groups collect cryptocurrency from ransomware attacks and some mining of coins also takes place.

“Given the increased anonymity of cryptocurrencies, newly mined cryptocurrency can be used to facilitate sanctions-evasion activity,” the report from the U.N. panel of experts states.

According to the Royal United Services Institute (RUSI), a U.K.-based security think tank, North Korea uses crypto to pay directly for goods and resources that are explicitly prohibited by international sanctions. Other crypto uses include fundraising with the aim of converting to fiat, or simply stockpiling coins in the hope that prices increase.

As well as directly purchasing sanctioned luxury goods, North Korean actors could use cryptocurrencies to pay for trading services, the RUSI report continues, such as making payments to shipping companies, brokers or other intermediaries who might be willing to accept payment in crypto coins.

“There are all these middlemen that North Korea absolutely needs in order to be able to export goods like seafood or to be able to place workers overseas,” said Kayla Izenman, research analyst at RUSI. “You have to pay these people somehow and a logical way would be to use crypto.”

Using peer-to-peer crypto transactions to lubricate DPRK's trade network also means less reliance on sifting funds through certain Chinese banks, which are seeing a clampdown from U.S. regulators.

It also reduces the need to carry undeclared bulk cash, which on occasion gets detected. In October of 2018, for example, the captain of a DPRK vessel was detained at customs in Vladivostok, Russia, carrying \$180,000 in black plastic bags.

‘Well-run apparatus’

Since 2016 there has been an attempt to clamp down on North Korea’s coal exports, which used to earn the regime about \$1 billion a year. But less attention has been paid to other sanctioned sectors including exports of textiles (earning \$760 million per year), seafood (\$300 million), iron and lead ore (\$360 million), according to RUSI.

This network of supply chains can be combined with North Korea’s technical advancements in areas like crypto, which far outweighs attempts made by other sanctioned countries like Iran or Venezuela, said RUSI’s Izenman.

“North Korea has been doing this for so long and has such a well-run apparatus both within hacking and sanctions evasion, it makes sense they would link those up,” she said.

This “well-run apparatus” comprises technical universities that essentially teach people how to become hackers for the North Korean government.

“That’s all they do, and there are hundreds of them,” said Izenman. “All these subgroups and different bureaus and they all do slightly different things. It’s very clear how much better they are at this than any other nation-state.”

DPRK even organized the Pyongyang Blockchain and Cryptocurrency Conference, an event which led last year to the controversial arrest and indictment of Ethereum developer Virgil Griffith for sanctions violations. The event was scheduled to take place again in late February but may have been postponed because of the coronavirus outbreak.

Curious case

Further insight as to how North Korea is thinking about combining blockchain with illicit trade can be found in the curious case of an Ethereum-based blockchain project called Marine Chain, which also gets a mention in last year’s U.N. Security Council report.

Back in October 2018, the U.N. panel was informed that Hong Kong-registered Marine Chain, which would tokenize ownership of vessels, was backed by at least one DPRK individual.

It’s unclear whether Marine Chain was expected to go into production, or if it was simply a means to raise funds via an initial coin offering (ICO). In any case, the project’s shady owners vanished soon after being contacted by security officials.

“The platform could be used to generate money for the regime and as a potential means of evading sanctions on shipping by creating a new method of obscuring the ownership of a vessel,” the U.N. report stated.

Source: coindesk.com; 07 April 2020

PIRATES ARE EXPANDING IN WEST AFRICA, THREATENING OFFSHORE OIL STORAGE

- Elliot Smith

As international oil companies (IOCs) grapple with a historic plunge in crude prices, a rise in piracy is also poised to threaten supply chains.

The first quarter of 2020 saw a spike in piracy around the world, with 47 attacks compared to 38 for the same period last year, according to the International Maritime Bureau (IMB).

The Gulf of Guinea, a key production hub surrounded by eight oil exporting countries in West Africa, has emerged as a global hot spot, accounting for 21 attacks so far this year and 90% of all kidnappings at sea in 2019.

Most attacks still occur in Nigerian waters, but piracy is expected to rise in 2020 and 2021 and expand further into neighboring states, posing serious concerns for shipping and international oil companies, according to research by political risk consultancy Verisk Maplecroft.

The number of crew kidnapped off the Gulf of Guinea climbed 50% to 121 in 2019, up from 78 in 2018, and the Gulf has now surpassed more well-known areas such as the Strait of Malacca – a waterway which separates Malaysia and Singapore from Indonesia – to become the global hotspot.

"This trend will continue into 2020 and into 2021 as regional security forces, hampered by security hot spots across the continent, and a lack of adequate equipment, continue to be unable to effectively tackle piracy," Alexandre Raymakers, senior Africa analyst at Verisk Maplecroft, said in a research note.

"The prospect of international assistance is equally remote as international shipping routes avoid the Gulf of Guinea. Both regional shipping and oil and gas operators should expect further disruptions to supply chains, export routes and increased costs as more ransom payments will be necessary to liberate crews."

Around 60% of incidents in 2019 occurred in Nigerian territorial waters, specifically in the areas surrounding the Niger Delta and, to a lesser extent, the shipping hub of the Port of Lagos. Raymakers highlighted that the socio-economic factors underpinning these incidents were unlikely to change.

"Driven by their experience fighting in the Delta's secessionist armed groups and embittered by their lack of access to the oil riches around them, the region will remain an abundant reservoir for budding pirates," he added.

"Although pirates have not noticeably changed their tactics, the regular payments of ransoms have likely emboldened them to seek more attractive targets further out at sea, expanding their net outwards."

On March 22, seven crew members of the MSC Talia F were abducted off the coast of Gabon, and while most of the spike in cases is expected in Nigerian waters, Verisk Maplecroft analysts also anticipate upticks in the waters around Togo, Benin, Cameroon, Gabon, Equatorial Guinea and to a lesser extent Ghana.

Risks to the oil industry

While pirates traditionally limited their operations to raiding oil tankers in order to sell their hold on the black market, the collapse of oil prices in 2015 forced them to alter their strategy, refocusing their efforts on abducting crews for ransom, Raymakers highlighted.

Unlike their Somali counterparts, pirates in the Delta do not have use of secured ports or beaching areas for captured ships, which limits their ability to hold a vessel or its contents for ransom and means operators in the region therefore rarely lose ships or cargo. However, they do face delays and increased costs due to the disappearance of the ship's crews and subsequent ransom payments.

"IOCs like Shell, ExxonMobil, Total, Chevron and Eni operating out of Gabon, Equatorial Guinea and Nigeria are particularly at risk of experiencing sporadic yet highly disruptive instances of piracy in their supply chains," Raymakers said.

"While many have learned lessons from developing comprehensive security structures in order to protect their assets and personnel in Nigeria, smaller supply and service companies will be highly exposed to expanding piracy risks."

Given the recent collapse in global oil prices due to falling demand, Verisk anticipates that pirates are likely to attempt to board static tankers used as offshore storage facilities for unsold production. The ships' crews and cargo represent "ideal and relatively simple targets for pirates," the report said.

The indiscriminate nature of abductions means pirates are likely to target IOCs' supply chains and oil shipments leaving export terminals in the Niger Delta, as evidenced by the abduction of seven crew members on the ExxonMobil-contracted supply vessel Zaro off the coast of Equatorial Guinea in December 2019.

IOCs will also have to contend with the risk that pirates will seek to abduct workers, particularly expatriates, directly from oil platforms in the Niger Delta.

"The kidnapping of three oil workers from a Niger Delta Petroleum Resources (NDPR) oil platform in Ogbele in April 2019 highlights the ease and speed with which such an operation can be conducted," Raymakers said.

Three employees of Acme Energy Integrated Services Limited, which owned and managed the rig and was working on NDPR's drilling campaign, were kidnapped and nine others injured when unknown gunmen attacked on April 26, 2019. The three kidnapped workers were released without harm on May 28, 2019, NDPR confirmed.

"Indeed, pirates have easy access to high speed crafts and a plethora of small arms giving them the firepower and agility to conduct such operations," Raymakers explained.

Correction: This story has been updated to reflect that the kidnapping in April 2019 took place on an oil platform owned and managed by Acme Energy Integrated Services Limited, which was working on behalf of Niger Delta Petroleum Resources.

Source: [cnbc.com](https://www.cnbc.com); 27 April 2020

MARITIME FORCES

U.S. IMPOSES NEW RULES ON EXPORTS TO CHINA TO KEEP THEM FROM ITS MILITARY

- Karen Freifeld

The United States said on Monday it will impose new restrictions on exports to China to keep semiconductor production equipment and other technology away from Beijing's military.

The new rules will require licenses for U.S. companies to sell certain items to companies in China that support the military, even if the products are for civilian use. They also do away with a civilian exception that allows certain U.S. technology to be exported without a license.

They come as relations between the United States and China have deteriorated amid the new coronavirus outbreak.

The rules, which were posted for public inspection and will be published in the Federal Register on Tuesday, could hurt the semiconductor industry and sales of civil aviation parts and components to China.

The changes, which also expand the universe of items requiring licenses, affect Russia and Venezuela, too, but the biggest impact will be on trade with China.

"It is important to consider the ramifications of doing business with countries that have histories of diverting goods purchased from U.S. companies for military applications," Commerce Secretary Wilbur Ross said in a statement.

Washington trade lawyer Kevin Wolf said the rule changes for China are in response to its policy of military-civil fusion: finding military applications for civilian items.

He said the regulatory definitions of military use and user are broad and go beyond purchases by entities such as the People's Liberation Army.

For example, Wolf said, if a car company in China repairs a military vehicle, that car company may now be a military end user, even if the item being exported is for another part of the business.

"A military end user is not limited to military organizations," Wolf said. "A military end user is also a civilian company whose actions are intended to support the operation of a military item."

The rule change also requires that U.S. companies file declarations for all exports to China, Russia and Venezuela regardless of value.

"Obviously this is intended to give the U.S. government more visibility into the types of goods U.S. exporters send to these countries and their customers," said Washington trade lawyer Doug Jacobson.

Another rule change involves eliminating civilian license exceptions for Chinese importers and Chinese nationals, as well as other countries, including Ukraine and Russia. The exceptions have applied to certain integrated circuits, telecommunications equipment, radar, high-end computers and other items.

The administration also posted a third proposed rule change that would force foreign companies shipping certain American goods to China to seek approval not only from their own governments but from the United States as well.

The Commerce Department does not know the economic impact of imposing the re-export license, and will allow a comment period to gather information on the proposed change, a representative said.

Republican Senator Ben Sasse supported the new rules, saying Chinese leader Xi Jinping "has erased any daylight between China's businesses and the Communist Party's military."

The tightened restrictions have been in the works since at least last year, but senior U.S. officials agreed to move ahead with them in late March, as Reuters reported earlier this month.

John Neuffer, president and chief executive of the Semiconductor Industry Association, said the industry was concerned the broad rules will "unnecessarily expand export controls for semiconductors and create further uncertainty for our industry during this time of unprecedented global economic turmoil."

Source: money.usnews.com; 27 April 2020

SAILORS START TO RETURN TO THE USS THEODORE ROOSEVELT

- Barbara Starr and Ryan Browne

Sailors from the coronavirus-stricken USS Theodore Roosevelt began returning to the aircraft carrier Wednesday for the first time since they were moved ashore because of Covid-19, the Navy announced in a statement.

According to the Navy, returning sailors can do so after completing a period of isolation or quarantine and testing negative for the virus twice. The first sailors to return to the ship will be those "responsible for critical services on board."

The sailors have been ashore in Guam as part of a massive effort to evacuate all of the ship's nearly 5,000 troops and ensure they are virus-free through testing. These initial returning sailors will replace several hundred who had been left aboard to operate essential functions to keep the ship running, including manning the nuclear plant and providing safety and security.

Those sailors who had remained on the ship as part of the "watch" team will now move ashore in Guam and wait at least 14 days to ensure they test negative for the coronavirus. Once all of that happens, the Navy hopes to send the aircraft carrier back out to sea.

Still unresolved is the fate of the ship's former commanding officer, Capt. Brett Crozier, who was relieved of duty for allegedly violating the chain of command in expressing concern about the crew's health.

Earlier this month, former acting Navy Secretary Thomas Modly flew to Guam to address troops in remarks, calling Crozier "too naive or too stupid" to be captain of the aircraft carrier following a leaked memo warning of a coronavirus outbreak on the ship.

Modly resigned a day after the trip, which cost the Defense Department almost a quarter of a million dollars. Defense Secretary Mark Esper so far has not acted on a Navy recommendation to restore Crozier to that position, saying previously that he has "an open mind" on whether the Navy should reinstate the fired commanding officer.

As of Tuesday, the ship has fewer positive cases than the day before for the first time. There were 940 cases, compared with 955 on Monday, reflecting an increase in the number of sailors who have recovered.

The USS Theodore Roosevelt is not the only ship facing an outbreak of the virus. A senior Navy official told CNN last week that there were currently coronavirus cases on 26 US Navy warships, and another 14 had been hit by the virus but the crew members impacted have recovered.

But the aircraft carrier was the site of a research study by the military and the Centers for Disease Control and Prevention on how the virus had spread through the ship. The study appears to have gotten a lukewarm response from the crew, who had been asked to volunteer to undergo nasal swabs and blood tests for antibodies.

The sailors were informed that while the results of the swab tests would be provided to each of them, individual results of the blood tests would not, because of the research nature of the work. Their hope had been that 1,000 sailors would volunteer to take part, according to the Navy, but only about 400 crew members participated.

Source: edition.cnn.com; 29 April 2020

NAVY RUSHES TO GET F-35S ON USS JFK; OTHER FORD CARRIERS WAIT THEIR TURN

- Paul Mcleary

WASHINGTON: The Navy's rushed effort to retrofit its newest aircraft carrier to operate the F-35 will create a testbed for the service's other Ford carriers — which have not been built to fly the fifth generation aircraft — as the Navy juggles work on the remaining three big decks.

The \$11 billion USS John F. Kennedy (CVN 79) was designed and christened without the capability to fly the 5th generation fighter because of cost caps and the aircraft's infamously delayed development. Those schedule slippages forced the Navy to design and build the ships while the messy F-35 was still undergoing development.

In the 2020 NDAA Congress indicated it had had it's fill of delays to the carrier and ordered the Navy to get to work refitting the Kennedy before it sets sail in 2024, forcing the Navy to improvise and refit the just-christened ship.

Speaking with reporters today, Rear Adm. James Downey, head of the Navy's carrier programs, said those changes are forcing him to hold off on some early work on the forthcoming USS Enterprise (CVN 80), the third Ford-class carrier, and the USS Doris Miller (CVN 81) to ensure the Kennedy retrofits are done correctly before incorporating them on the other ships which have just started their build cycles.

Downey said he's working to accelerate the integration of the F-35 on the JFK and prove out the upgrades in operational testing before doing similar work on the next Ford carrier to be built, the USS Enterprise. That way, all of the bugs will be ironed out on the JFK.

The original plan to incorporate the F-35 on the four Ford-class ships was to phase the capability in after the ships were declared operational, and then to refit them as they came into port for overhaul.

But Congress, frustrated that the nation's newest class of carrier couldn't operate the nation's newest fighter plane, told the Navy to speed things up. The namesake of the class, the \$13.2 billion USS Gerald R. Ford, is currently acting as a training asset off the East Coast, where air wings get carrier certified as the ship continues to iron out remaining issues with its weapons elevators. Simply put, the Ford won't fly the F-35 for years to come.

Those electromagnetic elevators have been one of the biggest issues plaguing the ship over the past two years, as the Navy installed them without first testing the new technology ashore, resulting in a ship that had no functioning weapons elevators. And what use is a warship without weapons?

It's been slow progress to get them up and running, but the Navy recently certified that just the fifth of eleven elevators is now up and running. The working lifts have logged more than 8,000 cycles over the past several months of operational testing as the Ford acts as the Navy's East Coast training platform to certify pilots.

The Ford has been operating one month at sea and one pierside for the last several months, and has launched 2,300 aircraft in that time.

Downey said the Ford is keeping to its schedule, and that impending supply-chain issues the services are dealing with as the COVID-19 crisis shutters the global economy shouldn't have any near-term impact on the program overall.

“We don’t have any real significant concerns right now; we know where the suppliers are,” he said. “Prior to this, we had increased some of our procurements for spares and various materials so we had a pretty steady demand signal.”

While the Ford class ships wait for the F-35 upgrades, the 36-year old USS Carl Vinson is undergoing a \$34 million refit in Bremerton, Wash. so it can begin flying F-35s by 2021, making the veteran ship the first carrier in the Navy to fly the 5th generation aircraft even before the JFK.

While both Nimitz and Ford-class aircraft carriers can operate with F-35Cs aboard, significant modifications are required for both classes to fly and sustain the aircraft for extended periods. Also, the ships will need the capability to push and fuse all the data the F-35s can generate, along with building additional classified spaces, new jet blast deflectors and other refits. Room also needs to be made for Osprey tiltrotor aircraft, which will replace the Navy’s C-2A Greyhound fleet that are unable to haul the F-35’s heavy engines out to the ship.

The USS Enterprise is slated to deploy in 2028 and the USS Doris Miller will be ready to sail in 2032. In January, the Navy awarded Huntington Ingalls Industries’ Newport News Shipbuilding a \$24 billion contract for the two ships, compared to a predicted cost of \$28 billion if the sea service had purchased them separately.

Source: breakingdefense.com; 23 April 2020

RUSSIA TESTS DIRECT-ASCENT ANTI-SATELLITE MISSILE

- US Space Command

U.S. Space Command is aware and tracking Russia’s direct-ascent anti-satellite (DA-ASAT) missile test April 15.

“Russia’s DA-ASAT test provides yet another example that the threats to U.S. and allied space systems are real, serious and growing,” said Gen. John W. “Jay” Raymond, USSPACECOM commander and U.S. Space Force Chief of Space Operations. “The United States is ready and committed to deterring aggression and defending the Nation, our allies and U.S. interests from hostile acts in space.”

Russia’s missile system is capable of destroying satellites in low Earth orbit (LEO) and comes on the heels of Russia’s on-orbit testing the U.S. highlighted in February, namely COSMOS 2542 and COSMOS 2543. These satellites, which behaved similar to previous Russian satellites that exhibited characteristics of a space weapon, conducted maneuvers near a U.S. Government satellite that would be interpreted as irresponsible and potentially threatening in any other domain.

“This test is further proof of Russia’s hypocritical advocacy of outer space arms control proposals designed to restrict the capabilities of the United States while clearly having

no intention of halting their counterspace weapons programs,” Raymond said. “Space is critical to all nations and our way of life. The demands on space systems continue in this time of crisis where global logistics, transportation and communication are key to defeating the COVID-19 pandemic.

“It is a shared interest and responsibility of all spacefaring nations to create safe, stable and operationally sustainable conditions for space activities, including commercial, civil and national security activities,” Raymond concluded.

Source: spacecom.mil; 15 April 2020

THE U.S. NAVY’S RAILGUN IS NEARLY DEAD IN THE WATER

- Kyle Mizokami

The U.S. Navy’s \$500 million electromagnetic railgun—capable of slinging projectiles at hypersonic speeds—lacks funding and has no coherent plan to deploy on warships. The Navy is instead pursuing an offshoot of the railgun, a hypervelocity projectile it can fire from existing gun systems.

The electromagnetic railgun (EMRG) is a weapon that uses electricity instead of gunpowder to send projectiles downrange. Railguns use magnetic fields created by high electrical currents to accelerate a projectile to Mach 6, or 5,400 miles an hour. The velocity is sufficient to give the EMRG an effective range of 110 nautical miles, or 126 miles on land.

The Office of Naval Research began development of the gun in 2005, and by 2012 a technology demonstrator was firing projectiles at Naval Surface Warfare Center Dahlgren Division in Virginia. In 2015, the program was apparently doing so well the Navy announced plans to test the weapon from the USNS Trenton, an Expeditionary Fast Transport. In 2017, the Navy released a video of the Dahlgren gun firing multi-shot salvos.

In the years since EMRG, rather than picking up even more steam (or megajoules), has seemingly slowed down to nothing. The service requested just \$9.5 million in the 2021 defense budget for railgun-based research and moved the gun to White Sands Missile Range in New Mexico, where it continues to undergo launch testing. Task and Purpose reports the railgun is technically complete, but the service is also developing a technological offshoot, the hypervelocity projectile (HVP). The HVP is the same projectile developed for the EMRG but modified to fire from traditional gunpowder-based guns.

The HVP is designed to fit in the U.S. Navy’s 127-millimeter deck guns. The projectile has a top speed of Mach 3 from a chemical energy gun—only half the speed as from an EMRG—but still an improvement over current 127-millimeter projectiles. The Navy believes the HVP could be used for long-range strike missions against land targets, against aircraft and missiles, and against enemy warships. The guided-missile

destroyer USS Dewey fired 20 HVP projectiles during the 2018 RIMPAC naval exercises, the first known use of the new weapons at sea.

One huge advantage HVP has over the railgun: there are already more than a hundred HVP launchers in service. The Navy has approximately 120 Mk. 45 guns in operation, two on each Ticonderoga-class guided missile cruiser and one each on the Arleigh Burke-class guided missile destroyers. Deploying HVP to the fleet will give these ships increased capabilities, which is a lot cheaper than building new ships with railguns. The technology is also available for larger 155-millimeter projectiles, potentially giving the two Advanced Gun Systems on the Zumwalt-class warships ammunition for engaging enemy targets.

A new warship, the large surface combatant, is scheduled to eventually replace the Ticonderoga-class cruisers. The Navy plans to buy the first of these ships in the late 2020s. The Navy is tight-lipped about what new technologies will be fitted to the large surface combatant. Members of Congress, Task & Purpose reports, are pushing the service to add the railgun to the list.

Integrating the new hypervelocity projectile with the fleet while equipping the next generation surface warship with the railgun is a best of both worlds solution. HVP, once fully developed, could become a key weapon system of the fleet today while the electromagnetic railgun could become a key weapon system of the fleet tomorrow.

The U.S. isn't the only country working on electromagnetic railguns. In 2018, a railgun prototype was sighted on the bow of the Chinese Navy landing craft Haiyangshan. Haiyangshan, aka the "Yangtze Sea Monster," is indeed sporting a railgun but we don't know how effective the weapon is, how close to operational status it is, and if the railgun has even been fired yet.

Source: popularmechanics.com; 27 April 2020

SHIPPING, PORTS AND OCEAN ECONOMY

MARITIME LOGISTICS PLAYERS OPENLY DEFY SHIPPING MINISTRY ORDER ON WAIVING CHARGES

- P Manoj

As the cash-flow crunch escalates, the maritime logistics industry has openly defied a Government diktat to waive of a slew of charges to help exporters and importers tide over a tough time as the country fights to slow the spread of the virus.

The container freight station (CFS) operators have told the statutory authorities that they operate as per as the guidelines issued by the Customs Department under the Handling of Cargo in Customs Area Regulation, 2009 (HCCAR).

“None of the circulars/guidelines/letters issued by the statutory bodies were issued under the HCCAR and none of the directions can be classified as ‘regulations’ issued by the Customs Department/other authorities under HCCAR,” Umesh Grover, Secretary General of the Container Freight Stations Association of India (CFSAI) wrote in a April 23 letter to Sanjay Sethi, Chairman of Jawaharlal Nehru Port Trust (JNPT).

“A CFS is regulated only by the HCCAR and not by the Tariff Authority for Major Ports (TAMP) and hence the circulars issued by the Director General of Shipping to major ports cannot be extended to a CFS,” Grover wrote in the letter.

“Hence, even if the DG Shipping directs major ports not to levy storage charges or directs liners not to levy detention charges, the same directions cannot be extended by JNPT or other authorities to direct our member CFSs not to levy ground rent/demurrage charges, even after services of storage of goods have been rendered. Our rates are published and we are charging only the said rates and are not charging any excessive rates. As a matter of fact, most of the importers enjoy concessions and work far below the tariff and in addition also enjoy free days to the tune of 10-15 days, Covid 19 or no Covid 19,” he added.

Resentment is building up against the Shipping Ministry's direction, asking private container terminals at major ports to waive storage charges/ground rent during the lockdown period (i.e till May 3).

“No country in the world, indeed no port has extended such waivers on storage charges during the lockdown,” an executive with a private box terminal said while questioning the logic behind the government’s decision.

Referring to the Government’s move to wield the stick during the pandemic, he said, “In all my years in the industry, I have never seen such cooperation between parties to try and overcome issues together such as clearance of containers. But, the importers lobby seems to hold sway over the government”.

“It’s not about money. It’s about the risk of inadvertently screwing up the supply chain,” he added.

“The trick is that the State-owned ports will force terminal operators, CFSs, ICDs and shipping lines to accept all the conditions prescribed by the Ministry to get deferments on their payments to the government in return,” he said adding that the statutory authorities have started “threatening them to comply with the Ministry order”.

CFS operators say that the “unlimited demurrage or ground rent waivers” sought by the importers were proving to be counterproductive in clearing containers from port terminals and CFSs.

“Importers are actually getting incentivised by the waivers as they feel why should they inherit risk and come out during the pandemic, though facilitated by the Ministry of Home Affairs and authorities. They have nothing to worry as they rightly believe their cargoes are lying safe with custodians such as CFSs “free of cost”, so why should they use their resources, cash, custom duty etc?” said CFSAI’s Grover.

With consistent evacuation from the terminals by the CFSs, and importers not taking deliveries, CFSs are almost packed.. “The authorities need to take cognizance of the fact that by encouraging the so called ‘unlimited waivers’, ports and CFSs will start choking faster,” he said.

This will impact empty containers needed for exports as these will be available only after the import containers are destuffed.

“The longer the waivers and freebies offered, more will be the shortage of empties for exports. Shipping lines will surely not import empties for catering to exports. They would rather have blank sailings and save thousands of dollars in vessel related charges for calling at a port. Going forward, this will impact the entire EXIM trade,” Grover said.

CFSs are facing severe cash flow crunch as they work on turn-around of containers per month. “With import deliveries down by 75-80 per cent, our members have expressed fear that they are staring at no income, but huge expenditure and they are all saddled with serious cash flow issues,” Grover added.

Source: thehindubusinessline.com; 24 April 2020

SEA CREW CHANGE RESTRICTIONS ENDANGER WORKERS AND SUPPLY CHAINS

- Madeleine Speed

Travel restrictions amid the coronavirus pandemic have left seafarers stranded at sea, at heightened risk of infection, or trapped onshore facing financial uncertainty.

Coronavirus-related travel restrictions are preventing people who work on ships from disembarking, and their replacements from boarding. The result is painful: Trapped on ships, seafarers are at heightened risk of infection and mental illness; those forced to stay onshore are unable to support their families, while consumers could face import shortages. To keep the world supplied with goods that are shipped by sea, industry bodies are calling for seafarers to be classified as essential workers.

Rajiv is chief engineer aboard a cargo ship making its way along the Suez Canal, heading for Dahej port in India. He agreed to talk to Al Jazeera if his last name was not published. The 45-year-old is part of a largely unseen 1.2 million-member workforce that works 12-hour shifts on ships to ensure the safe passage of 80 percent of global trade.

Contract extensions spell uncertainty

Rajiv's contract expired three weeks ago. He wants to go home to Noida in India, but his country has blocked all international crew changes for fear that infected seafarers will unwittingly spread the virus. Rajiv's experience reflects a new, coronavirus-laced reality for sea workers around the world. Travel restrictions imposed by governments trying to contain the pandemic's spread are preventing crew changes.

Every month, 100,000 seafarers need to rotate on and off ships to comply with the Maritime Labour Convention. To keep the fleet of 50,000 to 60,000 vessels moving, the industry has imposed a one-month extension on all seafarer contracts that expired in March. That extension, however, is almost up and it is still not clear when seafarers will be allowed to go home.

"We don't know how much more time we have to spend at sea before we meet our families," Rajiv told Al Jazeera via text message.

'Impending crisis' for global trade

"The problem is simplistic, but the solution is complex," said Guy Platten, Secretary-General of the International Chamber of Shipping (ICS). Last month the ICS issued a call to the Group of 20 coalition of nations to allow seafarers to freely move. The United Nations Conference on Trade and Development (UNCTAD) made a similar plea for restrictions to be lifted to maintain global cross-border trade.

Platten told Al Jazeera that he fears travel restrictions will persist even when countries start to relax domestic lockdowns. "This is an impending crisis. We've got to start getting governments to classify seafarers as essential workers. We need these people to keep the world supplied."

"For a lot of shipowners, crew tends to be the last thing on their minds," said Steve Trowsdale, the inspectorate coordinator for the International Transport Workers' Federation (ITF). "We think we've got problems with goods on shelves now. What do you think will happen if ships stop delivering goods?"

The industry is already feeling the squeeze. Europe's largest port, Rotterdam in the Netherlands, reported an "unprecedented" decline in first-quarter throughput figures, which measure the volume of goods passing through the port. In a statement, Rotterdam port chief executive Allard Castelein said he expected full-year throughput to fall by up to one fifth. The port of Los Angeles in the United States saw March throughput plunge 30 percent on the previous year, while Singapore and Hong Kong reported similar declines.

Mandarin Shipping Ltd's codirector Tim Huxley said crew change restrictions had led to sailing cancellations and employment delays. Dario Alampay, chairman of the Filipino Shipowners Association, expects fewer available ships and higher freight costs.

There is some hope on the horizon. Last week, an alliance of shipowners that includes Grieg Star, Wilhelmsen Ships Service, and Synergy Group came together to pressure governments. The alliance, which represents 1,500 vessels and 70,000 seafarers, is now identifying ports where crew changes could be safely carried out.

Health hazards from onshore

Some seafarers with expired contracts have had little choice but to accept the extension. Stanislaw, a 36-year-old officer from Poland who asked not to be identified by his real name, was ready to head home to his wife and young daughter this week, but he is now in Colombia, loading up a bulk carrier with coal, which will be unloaded in Guatemala.

Speaking to Al Jazeera over the phone from onboard, Stanislaw said he preferred to remain at sea rather than risk infection on the journey home. "I would have to cross through airports, where there is a lot of risk. I don't want to bring any hazard home."

While he and his crew are currently free of infection, Stanislaw fears transmission by dockworkers and port pilots who come aboard during loading and discharging.

At Rio Haina in the Dominican Republic, although port officials requested his ship be thoroughly sanitised before docking, the pilots who boarded to inspect the ship were not sufficiently equipped with gloves and masks.

"They were touching everything. What's the point?" asked Stanislaw.

"They ask us to keep the ship to 'hospital standard,' but nobody protects us from their stupidity. We're not the hazard for them; they're the hazard for us."

Onboard a ship, the coronavirus travels fast. An outbreak on the American military vessel USS Theodore Roosevelt resulted in a death on April 14th. And before COVID-19 had even reached Europe, the spread of the virus on cruise ships was dominating headlines. More than 1,000 sailors assigned to a French aircraft carrier tested positive for the coronavirus in April. French military officials believe sailors contracted the

virus after they disembarked for shore leave at the port of Brest shortly before France's lockdown.

Financial insecurity

It is not only those at sea who are affected. Seafarers are employed on a "per voyage" basis, earning only as long as they are on board. Thousands are currently under lockdown in India, the Philippines and Eastern Europe, unsure when they will next join their ships and how they are going to make a living.

Roberto is one of 120 seafarers stranded at a hostel run by global maritime charity Stella Maris in the Philippines. He's in his 50s and has worked at sea for 14 years. One month ago, he was preparing to fly to Cyprus to join a ship. Now under lockdown and not earning money, he is worried about his family.

"I want to go back to my ship because my daughter has to get her education. I need money very bad," he said over video call. "I miss them, but for the sake of my family, I must wait here."

Mental health risk

"Seafarers describe being at sea as being in prison," says Professor Helen Sampson, director of the Seafarers International Research Centre at Cardiff University in Wales in the United Kingdom. She led a study into mental health at sea, published in November 2019. Most of the 1,500 participants cited the day they left a vessel as their happiest day on board.

According to the Maritime Labour Convention, the maximum time a seafarer can spend at sea is 12 months. Living on a boat for too long can negatively affect mental health. That is why, per a collective bargaining agreement by the ITF, seafarers can work nine months plus or minus one month at sea for unforeseen circumstances.

Sampson predicts indefinite contract extensions - caused by efforts to contain the pandemic - are likely to heighten short-term anxiety, incidences of depression, and compound "the stress and worry that all humans feel as a consequence of the pandemic".

Back aboard a coal ship at the port in Colombia, Stanislaw is trying to stay positive. "I tell myself that I'll go home [at the] beginning of May," he says. "Let's just keep fingers crossed that it will work out."

Source: [aljazeera.com](https://www.aljazeera.com); 25 April 2020

THE OIL INDUSTRY'S GLUT HAS A BRIGHT SPOT: TANKER STORAGE

- Stanley Reed

The price of oil has plunged, but the price of finding a place to put it has soared. And if you are in the business of providing a temporary home for the world's glut of crude, you've hit the jackpot.

More and more massive tankers at sea are being used simply to hold the oil — as much as two million barrels per vessel — until it is wanted. Other vessels are busy carrying it to buyers like China, which is taking advantage of prices not seen in two decades.

Tankers are in demand, and their rates, as low as \$25,000 a day in February, have ballooned to nearly \$200,000 a day, even hitting almost \$300,000 at one point.

“We are one of the few industries making money in this period,” said Hugo de Stoop, chief executive of Belgian-based Euronav, one of the world’s largest tanker companies. The current market for vessels, he added, “is totally and completely unusual.”

Shipping is a business of wild swings that tax a vessel operator’s patience and balance sheet, and right now tanker owners are profiting from the same forces that are causing layoffs and bankruptcies at oil companies elsewhere.

Demand for oil has plummeted by about one-third as airplanes are parked on runways and cars sit at home, stilled by lockdowns aimed at curbing the spread of the coronavirus. At the same time, Saudi Arabia and its allies have ramped up output, as part of a price war with Russia.

The flood is filling tank farms to the brim, so traders and producers are chartering ships like Mr. de Stoop’s 70 oil tankers to hold their crude, waiting for a more advantageous moment to unload it.

The tanker industry is having its best spell in at least a decade, analysts say.

Ships owned by companies like Euronav are like taxis, waiting for fares. Most of Euronav’s ships operate at so-called spot rates, essentially whatever they negotiate with customers, which vary from day to day.

Oil companies have been chartering Euronav’s very large crude carriers, or V.L.C.C.s — tankers longer than three football fields — for \$150,000 to \$200,000 a day, Mr. de Stoop said, depending on where they are going. As it costs about \$18,000 a day to run a ship — for expenses like paying and feeding a crew of 25 — profits at the moment are huge.

It’s not always this way. To give an idea of the ups and downs possible in the industry, a tanker now heading from the Middle East to China will earn on average about \$178,000 a day compared with \$15,000 a year ago, according to Clarksons, a ship brokerage.

Indeed, Mr. de Stoop has ridden through some spectacular swings in recent months. As the new year dawned, he said, charter rates were around \$120,000 a day, but they plunged to around \$25,000 in February when the economy in China, the world’s largest oil importer, essentially shut down to control the virus spread.

After Saudi Arabia and Russia kicked off their price war in early March, rates soared well over \$200,000 a day as the Saudis chartered as many as 18 tankers.

The tanker business is receiving an added boost from the futures market, where traders are betting that oil in the months ahead will sell for much higher prices than

the depressed \$20 a barrel that Brent crude, the international benchmark, fetches now. Traders figure they can make money by parking oil on ships and selling it later.

The volume of oil idling off places like Fujairah in the United Arab Emirates or near a Chevron refinery in Long Beach, Calif., has soared 40 percent since the beginning of April, to 158 million barrels, said Alexander Booth, head of market analysis at Kpler, which tracks petroleum shipments. That is more oil than the world would consume over a day and a half in normal times.

Mr. Booth also said that in the same period the total amount of crude being carried on ships — what the industry calls oil on water — increased by about 100 million barrels to 1.2 billion barrels. Tankers may have destinations booked but are encountering long delays unloading their cargoes as refineries and other customers have no use for them.

The huge increase is “a very strong signifier of how much excess oil is out there,” he said.

While Saudi Arabia and Russia agreed on April 12 to end their price war and cut 9.7 million barrels a day in production, or about 10 percent of world output, by May 1, the Saudis don’t yet seem to be backing off. Mr. Booth said Saudi Arabia had been loading an average of 10 million barrels a day onto tankers recently, about 2.5 million more than normal. He said the Saudis were maintaining these high levels despite already having sent several vessels to sea without clear destinations for their cargo.

The business of shipping oil from the Persian Gulf is still strong, and shipping is much more profitable than storage: Mr. de Stoop said storage rates of around \$80,000 a day were about half what he could charge for a voyage.

Analysts say that 10 to 15 percent of the world’s very large crude carriers are now being used for storage, and that the number is growing rapidly. In the short term, this form of demand is likely to support shipping rates, Mr. de Stoop said, because each tanker used to park crude is no longer available to transport it.

He said there were about 1,500 smaller vessels that could also be used for this purpose if the supply of large ones was exhausted. Rising charter rates may eventually make this form of storage prohibitively expensive.

“I think we will run out of economic sense before we run out of ships,” he said.

As shipowners relish the moment, some analysts warn that this corner of the oil industry is unlikely to thrive for long because of depressed demand for crude.

Jonathan Chappell, a shipping analyst at Evercore ISI, a securities broker, said the tanker operators were, in effect, seeing the activity of a couple of years crammed into six months. Once normality returns, he said, the futures market will shift, and traders and companies will liquidate the inventories of oil built up at sea and on land, slashing the need for ships.

“At some point,” he said, “you are going to have to work through the hangover.”

Mr. de Stoop said he was hopeful that with conditions in the oil markets having reached such extremes as the negative prices recorded on Monday, it would take a long time for the factors benefiting the tanker trade to correct.

“In the meantime, we will enjoy this extraordinary period of time from an earnings point of view,” he said.

Source: [nytimes.com](https://www.nytimes.com); 23 April 2020

TWO DEADLY BLOWS TO SHIPPING, THIRD COMING

- Mikhail Voytenko

I wrote recently, that cruise industry is in danger of extinction, to be banned from existence, because it is harming our dear planet and mother nature. I think I was wrong. This is not the way of globalism, it doesn't kill on the spot, shoot-at-sight style, it strangles all what it doomed to extinction, in accordance with UN Agenda 2030. “Social distancing” is one of the hot topics of the day, and elites already promised us, that this insane and inhuman “preventive measure” will last well into future. Cruise companies already responded by plans to cut passenger capacity in half or more. Cruise liners will take on board twice less tourists, at least, to keep this damned “social distancing”. One outcome is absolutely obvious – it will skyrocket cruises costs, making them unavailable for many people.

Now, what about aviation, commercial flights and air travels? Same story. They'll have to tear away at least half of seats in their planes, to fit in new rules, and be granted with permission to resume the flights. Again, the outcome is obvious – the cost of air travel will land many people, those who could afford flights recently, but not anymore.

The same can be said about trains, buses, ferries – their costs will also rise.

If all said come true, it will among other things, obliterate low-cost tourism and travel. Backpackers will be extinct, as species. Not that I feel sorry for them – the majority of backpackers are Western millennials or GZs, indoctrinated and poisoned by Western communist “education” and mainstream, always eager to support any insanity if it's in mainstream trend. Ok guys, here's your dream coming true – green sustainable planet, freed from dirty smelling commons, including backpackers. You may enjoy your new brave world, watching BBC-HBO-... documentaries and live shows with elites posing themselves in pristine environment. I know how does it feel, I'm from Soviet Union. Real soon, you'll join me in this very sad knowledge. Beauty and planet for elites only. If you want something colorful live, go watch multicultural diversity in your neighbourhood.

Vietnamese shipping is on the verge of collapse and mass bankruptcy. It's not my opinion or my words, it's how they themselves assess their present situation. They singled out two near-death blows the shipping suffered since the beginning of this cursed year. The first is IMO 2020 Cap Regulation, which battered shipping with the whole bunch of problems, low-sulphur fuel cost being only one of them. Operating costs also experienced dramatic rise, because new types of fuel require new spares and a lot of maintenance works, or else ships face regular breakdowns. The second is, of course, coronavirus paranoia or insanity or planned campaign, whatever. We can't yet estimate or fathom the depth of the economical and social abyss we're freefalling into.

There's the third blow to send shipping into knockout – it's a much touted Green Gas Emission cut, and even more touted goal of making shipping emission-free by year 2030 or 2050 or whatever, it doesn't really matter. By year 2030 we'll either defeat globalism and its' attempts to rule us all, or find ourselves living in one big worldwide concentration camp, one big GULAG, or fall into total chaos and social/economy collapse. Whatever outcome will be, Climate Change will not be on the agenda. Climate Change and "deadly disease" hoaxes are nothing more than useful tools or weapons, in globalists fight for total control and absolute power.

Let's assume I'm a true believer in Climate Change and covid-19 "deadly pandemic", but with that, I still care about humans and human life. What will be the logical way to somehow, mitigate unfolding ideal economical and social mess and chaos, thanks to "preventing virus" campaign? How should I, true believer in Climate Change and virus, respond to global disaster? There's only one way, be I in position of power to do so, the way of declaring moratorium on all and every present and soon-to-be implemented "environmental" regulations, or indeed, any regulations, which hamper shipping and threaten supply chains, until shipping and economy recover.

To be an environmentalist means to be cursed with exceptionally low intellect, but even say, greta may add two and two and guess a right answer (or maybe I'm too naïve). World shipping is heavily wounded, it's in a drastic decline shift, with ever increasing number of idled ships. That is to say, that the emissions are on the decline also. There's absolutely NO NEED in any new emission cuts, now or in near future, simply because emissions already declined and continue to decline. Why all that rush, at the cost of disrupting supply chains and endangering lives of hundreds of millions of people? The way the things go, we'll get near zero-emission shipping much sooner than planned by the UN cannibals and their catastrophic green agenda.

Under present circumstances, pursuing "GHG cut" goals means something else, some other goals, not that nauseating "environment concern". Well, the goals didn't change, read UN Agenda, Rockefeller reports, WEF materials, listen to Gates and co., it's all in the open. IMO and all – all without exception – so-called maritime organizations, are just soldiers in this power war, carrying out masters' orders.

Read history, folks. Nothing is new under the moon. Lenin and his crazy mob of bolsheviks came to power in Russia on the wake of total economical and social collapse, seeds of which they themselves sowed, and did whatever they could to wreak havoc. They unleashed a civil war, to remain in power. That's the Way of leftism. Was, is and will be.

Source: maritimebulletin.net; 23 April 2020

MOON SAYS S. KOREA'S SHIPPING INDUSTRY REVIVING, VOWS CONTINUED SUPPORT

President Moon Jae-in said Thursday that South Korea's shipping sector has set sail toward a renaissance with the introduction of the world's largest container ship.

He was attending a ceremony to christen the 24,000-TEU vessel, the Algeciras, for use by the South Korean shipper HMM.

It ushers in the rebuilding of the country's shipping industry, Moon said during his speech at the shipyard of Daewoo Shipbuilding & Marine Engineering (DSME) on the southern island of Geoje.

"Our shipping industry suffered a big difficulty due to the 2017 collapse of Hanjin Shipping but we have eventually overcome it," Moon said. He was referring to what used to be the nation's leading container carrier.

At that time, the government launched a five-year project to revive the industry.

The birth of the Algeciras, named after a southern Spanish port city, is a fruit of the efforts, he added.

"Today's naming ceremony is just a beginning," the president said, pointing out that it's the first of a dozen same-class container ships to be launched this year by South Korean shipbuilders.

He emphasized the importance of the shipping industry for South Korea's economy and reaffirmed the government's firm support for it.

He said South Korea aims to reemerge as a top five shipping power in the globe.

Shipping is among the seven key industries to benefit from the government-sponsored 40 trillion-won (US\$32 billion) emergency relief package designed to cushion the impact of the coronavirus pandemic. The others are aviation, shipbuilding, automobile, machinery, electric power and communication.

Earlier in the day, the Ministry of Oceans and Fisheries announced an additional financing measure, worth 1.25 trillion won, for the shipping business alone.

"The government will be with companies till the end so that the shipping industry can ride out the coming wave," he said. "We will certainly prevent the collapse of the global supply chain."

Moon also presented a three-point longer-term vision — promoting a win-win business model for shippers and traders, adapting effectively to the fourth industrial revolution and nurturing the construction of environment-friendly ships.

The Algeciras, meanwhile, is scheduled to leave for Qingdao, China, on Friday.

Source: hellenicshippingnews.com; 24 April 2020

MARINE ENVIRONMENT

MELTING ICE HAS REVEALED ARTEFACTS FROM A LOST VIKING HIGHWAY IN NORWAY

- Michelle Starr

At an average altitude of around 1,800 metres (1.1 miles), high in the Jotunheim Mountains of Norway, a patch of ice is melting. It's called the Lendbreen ice patch, and for millennia, it has been frozen year-round, accumulating a new layer every year.

But in the past two decades, the ice has been slowly melting as the climate grows progressively hotter. This melting of permanent ice is occurring around the world - but in the case of Lendbreen, the melting ice is like Santa Claus for archaeology.

As the Lendbreen ice patch recedes, it's revealing an absolute treasure trove of artefacts, some of which have been buried under the ice for thousands of years.

After a careful study of these objects, archaeologists have now confirmed that the region was once a heavily trafficked mountain pass around a millennia ago - and not just a pass. The presence of horseshoes and other travel accoutrements indicates the region could have once been a bustling (for the time) Viking highway.

Not all the artefacts have been studied yet, but the radiocarbon dating conducted on around 60 objects so far shows that the region was well trafficked during the Middle Ages, before becoming forgotten following the Black Plague that wracked Europe in the 14th century.

"Artefacts exposed by the melting ice indicate usage from c. CE 300-1500, with a peak in activity c. CE 1000 during the Viking Age - a time of increased mobility, political centralisation and growing trade and urbanisation in Northern Europe," the team writes in their paper.

"Lendbreen provides new information concerning the socioeconomic factors that influenced high-elevation travel, and increases our understanding of the role of mountain passes in inter- and intra-regional communication and exchange."

Over the years, a few artefacts had been discovered in the region. In the 1970s and 1980s, some were reported and turned in to local archaeologists, including a spectacular Viking Age spear discovered in 1974.

The summer of 2011 was extremely warm, resulting in a huge melt that exposed a plethora of artefacts. Archaeologists returning to the region from the previous year were shocked at the melt - and scurried to collect and catalogue the history littering the newly exposed ground before snows returned to cover it all up again.

They returned every year until 2015, and again in 2018 and 2019, collecting hundreds of artefacts over a site that covered 250,000 square metres - the size of 35 football fields, of icy, rocky scree and punishing conditions.

"It has been a demanding fieldwork, in often appalling weather conditions," wrote archaeologist Lars Pilø of the Innlandet County Council in a blog post.

"However, the reward has made it all worthwhile. The results from the fieldwork have made it clear that we have indeed discovered a lost mountain pass - the dream site for glacial archaeologists."

The glacial ice preserves all kinds of organic materials that would otherwise be lost to weathering. Objects of leather, bone, wood, and wool have been uncovered in excellent condition, giving us a rare glimpse into the everyday lives of the people moving through the Jotunheim Mountains over the centuries.

Objects include shoes, mittens and clothing, even a complete wool tunic dating back to the third century CE; a wooden tinderbox; sleds and parts of sleds; a wooden whisk that could have doubled as a tent peg; a small knife; and a small bit, carved from juniper, likely used to keep young goats and lambs from suckling, thus ensuring a supply of milk for human consumption.

But it was the presence of horseshoes - including a snowshoe made to fit a horse's hoof - that provided clues that the region was a road. And then the team discovered cairns, distinctive piles of stacked rocks. These have been used repeatedly throughout history as waymarkers for travellers, to prevent people from losing their path.

"It is now clear that Lendbreen was a focal point for regional transhumance and probably also long-range travel starting during the Roman Iron Age (CE 1-400) through until the end of the Middle Ages (CE 1050-1537)," the researchers wrote in their paper.

"The site's exceptionally rich archaeological material illustrates a long-lived transhumance system in seasonally changing mountain terrain, and provides a model pertinent to the study of mountain passes globally. Such passes played key roles in past mobility, facilitating and channelling transhumance, intra-regional travel and long-distance journeys."

The ice that covered the Lendbreen pass is likely all melted by now; 2019 was the last archaeological season on the site. But there is still more work to be done. The new paper only covers artefacts discovered up to and including 2015. There's a great deal more to be tested and analysed.

And the ice patch has shown that these melting regions can be incredibly rich time capsules. The team is already casting their eyes to other sites.

"Just after finishing work at Lendbreen in 2019, finds started melting out in a mountain pass further west on the ridge," Pilø wrote.

"During a quick survey on the last day before winter snow arrived, we managed to recover an Iron Age shoe and a piece of leaf fodder here. There will be more to come."

The research has been published in *Antiquity*.

Source: [sciencealert.com](https://www.sciencealert.com); 20 April 2020

SEA TURTLES EXPECTED TO THRIVE NOW THAT MANY PEOPLE ARE STAYING INDOORS

Stay-at-home orders have forced millions of people to stay indoors to prevent the spread of coronavirus.

Now, as summer approaches and beaches remain void of people and pollution, sea turtles are finally able to nest peacefully — and they're expected to thrive.

Sarah Hirsch, senior manager of research and data at Loggerhead Marinelife Center, told CBS News affiliate WPEC that "it's going to be a very good year for our leatherbacks."

"We're excited to see our turtles thrive in this environment," Hirsch said. "Our world has changed, but these turtles have been doing this for millions of years and it's just reassuring and gives us hope that the world is still going on."

David Godfrey, executive director of the Sea Turtle Conservancy, told CBS News in an email that thousands of turtles are currently migrating to nesting beaches in Florida and other areas in the Southeastern United States, and that "all of the potential positive impacts relate to changes in human behavior."

All seven species of sea turtles are endangered. According to the National Oceanic and Atmospheric Association (NOAA), the largest threats sea turtles face in the U.S. are damages to nesting habitats, accidentally getting captured by fishermen, debris entanglement and getting hit by marine vessels.

Godfrey explained that since there are far fewer people boating and operating cruise and container ships now, "the chances that turtles are going to be inadvertently struck and killed will be lower."

"All of the reduced human presence on the beach also means that there will be less garbage and other plastics entering the marine environment," Godfrey added. "Ingestion and entanglement in plastic and marine debris also are leading causes of injury to sea turtles."

A study conducted at the University of Florida in 2016 found that removing debris from the beach can increase the number of nests by as much as 200%.

In Juno Beach, Florida, researchers from the Loggerhead Marinelife Center have found at least 69 nests, which is "significantly more than normal" for the 9.5 miles of

beach they include in their research, according to CBS Miami. According to the center, only 1 in 1,000 sea turtle hatchlings live to be adults, and all of the hatchlings the center takes in have ingested microplastics.

Florida reported more than 395,700 sea turtle nests in the 2019 nesting and hatching season, according to the Florida Fish and Wildlife Conservation Commission. Many nesting sites are along the beaches that double as popular tourist destinations, including in Fort Lauderdale, Miami, and the Florida Keys. But now that the beaches are seeing fewer tourists, closed businesses, and many are still closed to the public, Godfrey said the beaches are darker.

"We expect that thousands of hatchlings that ordinarily would be disoriented by lights this nesting season will not be – and are more likely to survive to reach the sea," he said.

Nesting and hatching season lasts from March 1 to October 31.

In Tortuguero, Costa Rica, the Sea Turtle Conservancy announced Friday that they counted 45 leatherback turtle nests, three green turtle nests, and one hawksbill nest.

The first Kemp's ridley sea turtle nest was discovered in Texas on April 11, which the Padre Island Division of Sea Turtle Science and Recovery says is about 10 days earlier than last year. They wrote on Facebook that they hope it's a sign of a "busy nesting year."

The Loggerhead Marinelife Center and other sea turtle researchers have said they are optimistic about how coronavirus will impact the rest of the nesting season.

Source: [10tv.com](https://www.10tv.com); 18 April 2020

AI DETECTS PLASTICS IN THE OCEANS BY ANALYZING SATELLITE IMAGES

- Thomas Macaulay

An AI system has spotted plastic pollution in the sea by analyzing images from satellites orbiting the earth.

The scientists behind the technique claim that it's the first time patches of plastics in coastal waters have been detected via satellites.

The system studies images collected by the European Space Agency's Sentinel-2 satellites to spot debris floating in the world's oceans. These objects absorb and reflect light to produce a "spectral signature" in the data that contain clues about what they are.

Researchers from Plymouth Marine Laboratory in the UK then trained an algorithm to classify the different objects by spotting differences in their spectral signatures.

They then ran the algorithm over images of seas surrounding Canada, Scotland, Ghana, and Vietnam. On average, the system differentiated between plastics and natural materials such as seaweed with 86% accuracy.

The team now plans to refine the technique to accurately detect floating patches in turbid coastal waters and large river waters.

Eventually, they hope the method will be combined with drones to monitor plastic littering and support clean-up operations. But they add that the only way to clean up our polluted oceans is to dramatically reduce the amount of plastic we produce.

Source: thenextweb.com; 23 April 2020

OZONE LAYER HOLE OVER ARCTIC CLOSES, CONFIRM SCIENTISTS

The largest hole in the Ozone layer above the Arctic caused due to the unusual atmospheric conditions has closed, as per reports. The hole was first identified by scientists in March this year.

The Copernicus Climate Change Service (C3S) and Copernicus Atmosphere Monitoring Service (CAMS) by the European Centre for Medium-Range Weather Forecasts (ECMWF) confirmed the development.

“The unprecedented 2020 northern hemisphere #OzoneHole has come to an end. The #PolarVortex split, allowing #ozone-rich air into the Arctic, closely matching last week's forecast from the #CopernicusAtmosphere Monitoring Service,” the official Twitter handle of Copernicus ECMWF tweeted.

The Ozone layer is a region in the Earth's stratosphere that absorbs the sun's ultraviolet rays, shielding the planet from the harmful radiation which can cause skin cancer. In the 1970s, scientists discovered that the ozone layer was being depleted due to man-made activities, thereby leading to a threat to life on Earth.

In March, scientists had noticed signs of a hole forming in the Ozone layer above the north pole and thought it was the result of low temperatures. It is believed to be the largest hole in the Ozone layer, and would have led to a bigger threat had it moved toward the south.

However, scientists have confirmed that the 1 million square kilometre-wide hole in the ozone layer has healed. They added that the closing of the hole was not due to the reduced levels of pollution during the coronavirus lockdown. It is believed that the polar vortex, the high-altitude currents that are responsible for bringing cold air to the polar regions, is responsible for the healing of the layer.

Source: theweek.com; 26 April 2020

HIGHEST EVER CONCENTRATION OF MICROPLASTICS FOUND ON SEA FLOOR

- Lianne Kolirin

The level of microplastics on the seafloor is at its highest ever level, with up to 1.9 million pieces covering just one square meter.

Researchers said they were "shocked" by the volume of microplastics found on the seafloor bed.

The accumulation of floating plastic accounts for less than 1% of the 10 million tons of plastic that enter the world's oceans each year, according to research spearheaded by the University of Manchester in the UK.

The missing 99% is thought to accumulate in the deep ocean, but until now it has not been clear just where it has ended up.

A study published Thursday in the journal *Science* reveals that deep sea currents act as conveyor belts, transporting tiny plastic fragments and fibers across the seafloor.

Thanks to these currents, microplastics gather within huge sediment accumulations, which the researchers from the UK, Germany and France dubbed "microplastic hotspots."

Dr. Ian Kane, from the University of Manchester and the lead author, said the team was "shocked" by the discovery.

He told CNN the "garbage patches" of bottles, bags and straws often seen floating on the surface of the water is "the tip of iceberg."

"We were really shocked by the volume of microplastics we found deposited on the deep seafloor bed," he said. "It was much higher than anything we have seen before."

These microplastics are mainly comprised of fibers from textiles and clothing not filtered out in waste water treatment plants.

Being so tiny means they are not easily captured by the conventional water treatment system and so are easily flushed through to rivers and the sea.

Samples of sediment were collected by the Tyrrhenian Sea, part of the Mediterranean located off the west coast of Italy.

Scientists separated the microplastics from the sediment and determined how ocean currents controlled the distribution of microplastics on the seafloor.

Once they drift into the ocean, the microplastics are rapidly transported by episodic turbidity currents, which are effectively powerful underwater avalanches. These carry the microplastics down underwater canyons to the deep seafloor.

"By themselves the microplastics are relatively inert, but through time they act as a nucleus for contaminants and toxins," said Kane.

Microplastics can be ingested by micro-organisms and pass up the food chain.

The study, the authors say, shows the first direct link between the concentrations of the seafloor microplastics and currents, which scientists hope will allow them to predict hotspots and research the impact on marine life.

Chris Thorne, oceans campaigner at Greenpeace UK, called for a rethink of "throwaway plastic."

"Microplastics can be ingested by many forms of marine life," he said, "and the chemical contaminants they carry may even end up being passed along the food chain all the way to our plates."

Source: edition.cnn.com; 30 April 2020

GEOPOLITICS

ROHINGYA STRANDED AT SEA, BANGLADESH SAYS NOT ITS RESPONSIBILITY

- Faisal Mahmud

The Bangladesh government has refused to allow some 500 Rohingya refugees stranded on board two fishing trawlers in the Bay of Bengal to come ashore, drawing criticism from rights groups.

Foreign Minister AK Abdul Momen told Al Jazeera on Saturday that the Rohingya refugees, who are believed to have been at sea for weeks, are "not Bangladesh's responsibility."

"Why you are asking Bangladesh to take those Rohingyas? They are in the deep sea, not even in Bangladesh's territorial water," Momen said, adding that there are at least eight coastal countries surrounding the Bay of Bengal.

"It's your duty to ask Myanmar government first because those are their citizens," Momen told Al Jazeera.

The two trawlers - carrying an estimated 500 Rohingya women, men and children - are in the Bay of Bengal after being rejected by Malaysia, which has imposed restrictions on all boats in light of the coronavirus pandemic.

According to the United Nations refugee agency, UNHCR, the stranded Rohingya might "have been at sea for weeks without adequate food and water."

Momen said that just weeks ago, Bangladesh rescued a total of 396 Rohingya people from a vessel that had been adrift for about two months after also failing to reach Malaysia.

"Why should Bangladesh take the responsibility every time? Momen asked. "Bangladesh has already taken more than a million of Rohingya. We are running out of our generosity now."

On Saturday, Human Rights Watch (HRW) said the government of Bangladesh should immediately allow stranded refugees ashore and provide them with the necessary food, water, and healthcare.

"Bangladesh has shouldered a heavy burden as the result of the Myanmar military's atrocity crimes, but this is no excuse to push boatloads of refugees out to sea to die," said Brad Adams, Asia director at HRW.

"Bangladesh should continue to help those at grave risk and preserve the international goodwill it has gained in recent years for helping the Rohingya."

'No such boats'

Bangladesh's coastal authorities meanwhile, denied the presence of any trawlers carrying Rohingya refugees in its territorial waters.

Speaking to Al Jazeera, Lieutenant Commander Sohail Rana, Teknaf station head of Bangladesh coastguard said they had not seen any "boats carrying Rohingya refugees in Bangladesh's territorial water in the past few days".

"The areas that we patrol have no such boats," Rana said.

A Bangladeshi fisherman, however, told HRW that on April 20 he saw "two trawlers full of Rohingya coming toward the shore while I was at sea in my fishing trawler with others".

The same day, a local resident posted on Facebook: "Again, trawlers full of Rohingya are heading to Baharchara Union [in Cox's Bazar]. They are waiting at sea to enter into Bangladesh."

It is believed that most of the Rohingya refugees on board the trawlers had left refugee camps in Bangladesh in an attempt to reach Malaysia, according to HRW.

The organisation reported that it had spoken to 10 families who said their family members had left the camps and they had not heard from them since.

A mother from Kutupalong extension camp told HRW: "One of my sons left the camp some two months ago. Around 20 days back, I got a phone call from my son to pay money to smugglers. We paid. But we have not heard anything since."

'Bangladesh alone can't take responsibility'

In a statement, HRW said, "Bangladesh should continue to uphold its international obligations not to return refugees to places where they face persecution, and not to return anyone to where they would face a risk of torture or other ill-treatment."

HRW also said that "all countries, including Malaysia and Thailand, have the responsibility under international law to respond to boats in distress, enact or coordinate rescue operations within their search and rescue operations, and not to push back asylum seekers risking their lives at sea."

Amnesty International last week called on Southeast Asian governments to launch immediate search and rescue operations for potentially hundreds more Rohingya refugees languishing at sea.

The COVID-19 pandemic, Amnesty International said, cannot be a pretext for governments to abandon their responsibilities towards refugees.

"All countries in the region have a responsibility to ensure the seas do not become graveyards for people seeking safety. Bangladesh cannot be left to address this situation alone. The fact that it is upholding its own obligations is not an excuse for others to abandon theirs," said Biraj Patnaik, South Asia director at Amnesty International.

The Bangladeshi foreign minister, however, pointed out that other countries need to come forward to help the Rohingya.

"Please ask UN and other countries like USA, UK and Canada to shoulder some responsibility. We are ready to send Rohingya people to their country if they are willing to take them," Momen told Al Jazeera.

Source: [aljazeera.com](https://www.aljazeera.com); 25 April 2020

SAUDI TRIBE CHALLENGES CROWN PRINCE'S PLANS FOR TECH CITY

- Frank Garnder

A Saudi human rights activist living in London alleges that she has received death threats from people she believes are supporters of Crown Prince Mohammed bin Salman.

Alya Abutayah Alhwaiti told the BBC the threats were made in a phone call and on Twitter after she raised international awareness about a Saudi government plan to evict members of her tribe to make way for a 21st Century high-tech city on the shores of the Red Sea.

"We can get you in London," Ms Alhwaiti said she was warned in the call. "You think you are safe there, but you are not."

Ms Alhwaiti added that she was also threatened with "the same fate that happened to Jamal Khashoggi". She has reported the threats to the British police.

Khashoggi, a Saudi journalist and prominent critic of the crown prince, was murdered and dismembered by government agents inside the Saudi consulate in Istanbul in 2018. Western intelligence agencies believe his murder was carried out on the prince's orders, which the Saudi government denies.

On 13 April, a man named Abdul Rahim al-Huwaiti posted videos online alerting the world that Saudi security forces were trying to evict him and other members of the Huwaitat tribe from their historic homeland in the far north-west of the country to clear the way for a new development called Neom.

Alya Alhwaiti, who is from the same tribe, circulated the videos.

In the videos, Abdul Rahim al-Huwaiti vowed to defy the government's eviction order. In one, he said he expected the authorities to plant weapons in his house to incriminate him.

He was later killed by Saudi security forces.

A statement issued by State Security confirmed his death, alleging that he had opened fire on security forces and that they had been forced to retaliate.

This version of events was vigorously denied by Ms Alhwaiti, who insisted that Abdul Rahim al-Huwaiti did not have any firearms.

On Wednesday, she posted photographs and video footage from his funeral near the village of al-Khoraibah, which was apparently well-attended despite the presence of Saudi security personnel.

The Huwaitat are a proud, ancient and traditionally nomadic Bedouin tribe that have lived on both sides of the Saudi-Jordanian border for hundreds of years.

Revered in history as fearless warriors, they fought alongside T E Lawrence in the Arab Revolt of 1917 and he mentioned them in his epic memoir, *Seven Pillars of Wisdom*.

I spent several weeks living with them in my 20s in the desert dunes east of Jordan's Wadi Rum, catching a glimpse of a traditional way of life that was fast disappearing.

Today, much of the tribe has forsaken the nomadic desert life for a settled existence in houses and villages.

"They are not against the building of Neom," said Ms Alhwaiti. "They just don't want to be forcibly evicted from a land their families have lived in for generations."

She said eight of Abdul Rahim al-Huwaiti's cousins had been arrested for protesting against the eviction order, but that together with human rights activists in the West they were hoping to mount a legal challenge.

The violent death of the protester is not the first problem to beset Crown Prince Mohammed's ambitious plans to build this futuristic city intended to wean Saudi Arabia off its dependence on oil revenue.

The murder of Jamal Khashoggi shook international investor confidence in the kingdom and cast a pall of suspicion over the prince, its de facto ruler.

More recently, the coronavirus pandemic has wreaked havoc on the global economy and the oil price has plummeted to historic lows.

If it does not recover dramatically over time then it is hard to see how Riyadh is going to finance this project, which was originally budgeted at around \$500bn (£407bn).

Neom is part of the crown prince's far-reaching Vision 2030 project to provide meaningful jobs for Saudis beyond the oil sector.

Officially, it is still on track. "Work continues," said a press release on Sunday, "the project remains on schedule and we continue to make progress as we plan to build Neom's first new cities by 2023."

Contracts were being awarded, it added, including for three residential areas that are intended to house up to 30,000 people.

"This project is our moon shot," confided a senior Saudi minister. "We have to make it work."

But forced evictions, a dead protester and sinister threats will do little to improve the international standing of a project some believe may now be in serious doubt.

Source: [bbc.com](https://www.bbc.com); 23 April 2020

SOUTH CHINA SEA: PHILIPPINES REJECTS BEIJING'S 'ADMINISTRATIVE CENTRE' LABEL ON DISPUTED REEF

- Kylie Atwood

The Philippines protested on Thursday China's designation of a disputed South China Sea reef, which it has turned into a heavily fortified island base, as a Chinese "administrative centre".

The Department of Foreign Affairs issued a statement objecting to what it called China's "illegal designation" of Fiery Cross Reef as a regional administrative centre in the hotly contested Spratly archipelago.

It's the latest in a series of disagreements in the sea as Asian nations grapple with the coronavirus pandemic. US Secretary of State Mike Pompeo accused China last week of taking advantage of widespread distraction over the pandemic to advance its territorial claims.

"The Philippines calls on China to adhere to international law," the department said, reminding Beijing of a 2002 agreement that urged governments with rival claims in the sea to exercise self-restraint and avoid actions that would escalate the disputes and undermine regional stability.

The Philippine government has protested China's self-declared territorial zones in the waters starting in 2012, with what it said was Beijing's "unlawful establishment" of a Sansha City covering much of the South China Sea. It said it "does not recognise Sansha nor its constituent units nor any subsequent acts emanating from them".

The Department of Foreign Affairs cited a July 2016 international arbitration ruling that invalidated China's sweeping territorial claims in the South China Sea on historical grounds. China refused to participate in the arbitration case, which was initiated by the Philippines, and refused to recognise the ruling.

Last week, the Philippines protested China's establishment of two districts to administer two disputed groups of islands and reefs in the South China Sea.

One district reportedly covers the Paracel Islands and the other has jurisdiction over the Spratlys, where China has turned seven reefs, including Fiery Cross, into missile-protected island bases, including three with runways.

The Philippines has a presence on at least nine islands and islets in an area it claims in the Spratlys.

The US-based Asia Maritime Transparency Initiative, which monitors the territorial conflicts, said Fiery Cross has been developed into one of China's most advanced island

bases in the waters with missile shelters, structures with retractable roofs, radars and a runway.

The Philippines also lodged a protest last week over a Chinese navy ship's aiming of its weapons control radar at a Philippine navy ship in mid-February. The radar locks weapons on a target prior to an actual attack, although the Chinese navy ship did not fire.

China and the Philippines, along with Vietnam, Malaysia, Brunei and Taiwan, have been locked for decades in an increasingly tense conflict over mostly barren islands, reefs and atolls and rich fishing waters in the South China Sea.

Source: [scmp.com](https://www.scmp.com); 30 April 2020

BEIJING NAMES ISLANDS IN DISPUTED SOUTH CHINA SEA

- Nick Cunningham

China on Tuesday defended its naming of 80 islands and other geographical features in the South China Sea in a move likely to anger neighbours as the country asserts its territorial claims.

A joint announcement of the names on Sunday from the Ministry of Natural Resources and the Ministry of Civil Affairs came a day after China established new administrative districts for the contested Spratly and Paracel island chains.

The notice listed the Chinese names and coordinates of 80 islands, reefs, seamounts, shoals and ridges, 55 of them submerged in water.

China last released such a list in 1983 when it named 287 geographical features across the disputed waterway.

Beijing has repeatedly asserted its sovereignty in the sea despite rival claims by Vietnam, Taiwan, Malaysia and other nations.

"No state can claim sovereignty over underwater features unless they are within 12 nautical miles of land. So is China ignorant of this or deliberately trying to overturn international law?" said Bill Hayton, associate fellow at British think tank Chatham House.

"China has ratified the UN Convention on the Law of the Sea (UNCLOS) which is very clear on what states can and cannot claim as territory. Yet China seems to be going against UNCLOS by asserting sovereignty in very far away places."

In recent years, Beijing has stepped up its territorial claims in the South China Sea by building artificial islands and a heavy military presence, making it a flashpoint for geopolitical tensions.

China angered Vietnam after announcing at the weekend that the Paracel and Spratly islands, the Macclesfield Bank and their surrounding waters would be administered under two new districts of Sansha city, which China created on nearby Woody Island in 2012.

Vietnam claimed the move "seriously violated" its territorial sovereignty in the area.

In response, China's foreign ministry said Tuesday the Spratly and Paracel islands are its "innate territories" and that Vietnam's claims are "illegal".

Earlier this month Vietnam lodged an official complaint with China and the UN saying Beijing illegally sank a fishing trawler near the Paracel Islands, killing eight people on board.

As a result, the United States warned China not to take advantage of the coronavirus pandemic to assert itself in the South China Sea.

Source: [msn.com](https://www.msn.com); 21 April 2020

COVID-19: COULD FOOD SECURITY IN SOUTHEAST ASIA BE IN JEOPARDY?

- Miro Lu

Countries and cities across Southeast Asia have been on different versions of lockdown for over a month, with heightened border restrictions and controls on the movement of labor.

Last month, the Global Food Security Index (GFSI) 2019 Asia Pacific regional report was released. It revealed the state of food security systems in the region by measuring the three core pillars of food security: affordability, availability, and quality and safety. The GFSI was developed by The Economist Intelligence Unit providing a common framework for understanding the root causes of food insecurity.

For the second consecutive year, Singapore maintained its position as the most food secure country in Asia Pacific, and globally. However, the report showed significant disparity in food security across the region, with some Southeast Asian emerging economies scoring below average in the index.

With the COVID-19 crisis, food security this year could be even more of an issue for the most vulnerable in the ASEAN region. Lockdowns could also cause supply chain issues and prevent people from working in the agriculture industry. In this case, production and supply of staple food crops, such as rice and vegetables, might be affected, if the outbreak continues for a prolonged period of time.

Pandemics like Ebola, Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) all had negative impacts on food and nutrition security, particularly for the most vulnerable, including children, women, the elderly and the poor.

"There are two main ways in which the food supply chain can be challenged in Southeast Asia. One is the labor effect. So, people are restricted from getting to their jobs at farms or food processing plants, which will have an impact on the food supply, not only in terms of food being able to be sent to markets and harvested, but also in terms of the type of foods, or grains, or fruits, or vegetables, that farmers might grow. The other big impact will be on logistics. Not only has demand fallen and labor been restricted, but it's harder for trucks and planes and ships to get to their destinations. And that could also have an effect on the supply chain," said Sumana Rajarethnam, Director of Partnerships in Asia at the Economist Intelligence Unit.

COVID-19 is already impacting the distribution of food in the region. Lower-income members of the community, such as domestic or day laborers, who are not able to do their jobs during this period, will be especially hard hit, with them not being able to buy as much food as they previously would have. Children that rely on going to school to receive daily, nourishing meals are also impacted in areas where there are lockdowns or tighter border controls.

"Two of the countries that are least food secure in Southeast Asia are Cambodia and Laos. Today, they are food insecure for several reasons. One is that they don't spend as much of their GDP on agricultural research and development. There's not as much as a food safety net for their public. And also, the quality of their food; not as much diversity in the type of food that is consumed and also not as much protein. So, that could be affected in a time like this," said Rajarethnam.

Experts say that compared to the last global food crisis, in 2007 to 2008, the mitigating factors are a bit more beneficial. The price of staple foods that are consumed in Southeast Asia, such as rice and wheat, haven't spiked. Although, there have been some examples of countries holding or imposing export limits, they haven't been as restrictive as before. Vietnam, recently restricted the export of rice, but have now loosened that policy. The price of oil is also very low this time around, meaning that for economies that import a lot of oil, there is more of a currency buffer to spend on other things, including support and subsidies for the most vulnerable, as well as the ability to purchase more food.

Domestic and international trade disruptions in ASEAN countries may trigger food market panic, which could exacerbate temporary, artificial food shortages, leading to price spikes and disruption of the markets. Experts recommend a multilateral approach to the crisis.

"We have started to see the execution amongst policymakers, like within the ASEAN and the ASEAN+3 forum, to try to address this and to make sure that countries who have food, countries that can export food, will do it in order not to create an artificial shortage and contribute to the panic. What we really need now is smart policies in order to make sure that we don't create this artificial shortage", said David Laborde, Senior Research Fellow at the International Food Policy Research Institute.

The short-term implications of the COVID-19 pandemic on government policies, such as lockdowns and the restriction of movement, could lead to longer-lasting consequences, if not managed sensibly, believes Laborde.

"One of the challenges for the next few months will be to make sure that farmers and workers in farms and plantations can access the fields in order to prepare the next harvest. It is about policy management, making sure we can have farmers in the field, making sure that we have the health package, the test, in order to make sure that the crew that are working can really do their job. Because if people cannot work, we will have a problem on primary food supply that is not yet the issue," he said.

Source: news.cgtn.com; 24 April 2020

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