

MS DAILY BRIEF - 25 August 2022

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Operational situation in the Azov-Black Sea maritime area

The Russian Black Sea Fleet forces continue to partially project their force to the coast and mainland of Ukraine and control the northwestern part of the Black Sea. The ultimate goal is to deprive Ukraine of access to the sea and connect unrecognised Transnistria with the Russian Federation overland via the Black Sea and Azov coasts.

There are currently 8 Russian warships and boats in the Black Sea.

The frigate "Admiral Essen", a Buyan-M corvette and a Project 636.3 submarine are at sea. They carry up to 20 Kalibr missiles, ready for launch.

Most large amphibious ships are in the ports of Novorossiysk and Sevastopol for resupply and scheduled maintenance. There are no signs of preparation for an amphibious assault on Ukraine's southern coast.

A patrol ship of the Vasyl Bykov type on duty approaches Sevastopol.

Russian aircraft continue to fly from Crimean airfields (Belbek and Hvardiyske) over the north-western Black Sea. According to satellite surveillance data, about 50 aircraft fights

have been detected at Belbek (Sevastopol) airfield. According to available information, 31 aircraft capable of using Kh-47 "Kinzhal" missiles are located at this airfield.

The Odessa region continues to receive and send grain convoys. On the morning of 24 August, two ships left the port of Odessa - the Cook Islands-flagged GANOSAYA and the ZHE HAI 505 (China), loaded with Ukrainian agricultural products, bound for Istanbul. Another convoy left this morning from the Romanian coast to the ports of Odessa Mare. The vessels SEAJLOY (flag Malta) and ANASTASYA (flag Palau) are bound for Chornomorsk, while FPMC B 201 (flag Liberia) and PEACE M (flag Palau) have arrived in Odessa.

During the operation of the grain corridor, some 800,000 tonnes of agricultural products could be exported from the ports of Odessa Mari.

Source: CDS Daily Brief 24.08.2022

Sanctioned Russian oligarch's superyacht sold in Europe

The arrested 72-metre yacht of Russian billionaire Dmitriy Pumpyansky, who was sanctioned after Russia's attack on Ukraine, has been released. This is currently the first such case, Reuters reported with reference to its own sources. The five-deck yacht Axioma was seized in Gibraltar in March because businessman Dmytro Pumpiansky failed to pay JP Morgan a \$20 million debt. So it turns out that the bids are only indirectly related to sanctions - Pumpyansky simply owes money to one of the US banks, writes ZN.UA. A source in the Gibraltar government told Reuters that the money from the sale of the vessel will most likely not be transferred to anyone, but simply frozen. The co-owner of the Pipe Metallurgical Company, businessman Dmitriy Pumpyansky, bought the yacht in 2013 for nearly \$70 million. He borrowed \$20 million from US bank JP Morgan, but never paid it back. It is currently unknown who bought the luxury yacht and for how much. However, according to Bloomberg, 63 buyers competed for it.

Source: <https://www.blackseanews.net/read/193471>

Container turnover in Russian ports in July 2022 down 44%

The container turnover of Russian ports in July 2022 dropped by 44% compared to the same month last year from 480.79 thousand TEU to 269.39 thousand TEU. This was reported by the Association of Merchant Seaports of the Russian Federation, PortNews reports.

In January and February this year, there was a positive year-on-year transshipment dynamics of containers - 19% and 14% respectively. In March, Russian ports lost 22% of last year's turnover, in April the pace of decline accelerated to 27%, and in May to 37%. In June, the rate of decline fell to 31% year-on-year, and in July it accelerated to a peak of -44%. Monthly turnover (July/June) fell by 17%. Exports in July were down 48% y/y to 101.4 thousand TEU. Last year, according to July results, 196.18 thousand TEU were handled. Imports were down 56% y/y - 87.14 thousand TEU were handled compared to 198.9 thousand TEU last year. The decrease in transshipments was 57%, 7.2 thousand TEU were transhipped. Cabotage increased year-on-year by 6.6% to 73.68 thousand TEU. Ports in the Baltic Basin lost 76.2% of container turnover in July. They handled 51.85 thousand TEU compared to 218.07 thousand TEU last year. Export decreased by 71%, import - by 82%, transit - by 89%. According to the month's results, 1.2 thousand TEU of coastal containers were transhipped, last year transshipment was not carried out. The decrease in transshipment in the Grand Port of St. Petersburg was 73%, in Kaliningrad - 92%, in Ust-Luga - 49%. The rate of decline is at the level of June. Ports in the Azov-Black Sea basin reduced transshipment by 29% year-on-year to 43.36 thousand TEU, compared to 60.9 thousand TEU a year earlier. Exports were down 23%, imports down 37%. The port of Novorossiysk reduced container handling by

28%. Ports in the Far East Basin reduced transshipment in July by 16.8% compared to the same period last year, to 157.19 thousand TEU. The port of Vladivostok in July lost 1% of turnover, Vostochny - 59%. Container turnover in the Arctic Basin increased by 29.2% year-on-year to 16.37 thousand TEU. The port of Murmansk increased container handling by 63%, Arhangelsk - by 59%.

Source: <https://www.blackseanews.net/read/193470>

Russia's wheat exports plummeted by 27%

In July-August 2022, wheat exports from Russia amounted to 5.9 million tons. This is 27% less than in July-August 2021. This was reported by Russian TASS with reference to the online publication about Russian agricultural markets "SovEcon". The company noted that these are the minimum indicators of wheat exports in the 2017-2018 season, Kommersant writes. According to SovEcon, Russian farmers will harvest a record 94.7 million tons of wheat in 2022. SovEcon believes that exports remain at low levels because wheat prices in Russia are higher than from other suppliers, primarily the European Union. The company also believes Russian exporters could face difficulties in deliveries due to worsening weather conditions in the Black Sea and seasonal shutdowns of river shipping. "Russian wheat exports may accelerate in the short term due to lower domestic and/or higher world wheat prices. We believe that the Russian domestic market is far from the bottom, while there is a high probability that the global market has already overtaken it," Sovecon's Russian edition said in a statement. Due to Western sanctions, Russian wheat exporters have faced problems in supplying wheat to the world market. Some major freight forwarders and insurers have left the Russian market and there have also been difficulties in making payments to banks. You can read about crude oil exports from Russian Black Sea ports in April-July 2022 in the BlackSeaNews article "Crude oil exports from Russian Black Sea ports in April-July 2022" (<https://www.blackseanews.net/read/192224>).

Source: <https://www.blackseanews.net/read/193459>

Russia has found a "reason" for at least two months to limit Kazakh oil supplies from Novorossiysk

Repairs to each of the two decommissioned "due to damage to the remote mooring units" (TLUs) at the Caspian Pipeline Consortium (CPC) marine terminal will take one month from the date of contract". According to the Russian edition of Vedomosti, this was reported in the company's press service. "With a contract already concluded with the contractor, mobilization of forces and means, their delivery and arrival on site, appropriate weather conditions, carrying out the work itself and subsequent inspections - one month for a TLU," the report said. it said. The CPC noted that the timetable can be adjusted according to circumstances. TLU-3 that remains in operation can provide loading of up to 3.5 million tonnes of oil per month, the company added. CPC temporarily decommissioned two of its three TLUs at the marine terminal the day before. The company said that this month, during scheduled maintenance work at the VLU-1 and VPU-2 equipment complex, cracks were discovered by diving teams. The consortium approached the TLU manufacturer (Imodco) and the classification society that oversees the safe operation of the devices, ABS, which "strongly recommended that the operation of the TLU be suspended until the buoyancy tanks are replaced." As reported, Russia has again reduced the volume of Kazakh oil deliveries after recently, during "dive teams performing scheduled maintenance work on the VPU-1 and VPU-2 equipment complex, cracks were found in the attachment points of the underwater sleeves to the buoyancy. tanks."

Source: <https://www.blackseanews.net/read/193460>
<https://en.portnews.ru/news/334293/>

Russia, hit by sanctions, sends fuel oil to Asia, ship-to-ship terminals

Under pressure from Western sanctions, Russia is exporting more fuel oil to Asia and using ship-to-ship transfers to build bigger cargoes for distant markets, according to traders and Refinitiv data. The European Union has cut imports of Russian oil products since March and agreed to a complete ban from February 2023. In August, Russian fuel oil exports to the Netherlands and Estonia fell to zero from 365,000 tonnes and 170,000 tonnes, respectively, in July, Refinitiv data showed. Meanwhile, shipments of fuel oil from Russian ports to Singapore could exceed 350,000 tonnes this month, after no deliveries in June or July, the data showed, while ship-to-ship (STS) exports from the port of Kalamata in Greece rose by a quarter. month to almost 1 million tonnes. Last month, market sources told Reuters that the EU could ban the import and transit of some Russian fuel oil about six months ahead of schedule - from August 10 - because of its aromatic content, which could put the product under customs code 2707, under embargo. "The problem with code 2707 seems quite real," said one trader. In Singapore, peat can be used as bunker fuel or stored in VLCC-class supertankers. STS operations allow larger ships to be loaded, making transport to Asia cheaper, traders said. While the US and EU reject Russian fuel oil, its deliveries to Asia and the Middle East, as well as some African countries, are growing. Saudi Arabia, the world's biggest oil exporter, more than doubled the amount of Russian fuel oil it imported in the second quarter to fuel power plants for a summer air-conditioning surge and to free up its crude for export.

Source: <https://www.marinelink.com/news/sanctionshit-russia-sending-fuel-oil-asia-498986>

Russian USC unveils new amphibious assault ship at Army-2022

The Nevskoye Design Bureau (part of the United Shipbuilding Corporation (USC)) unveiled a model of a future versatile amphibious assault ship at the Army 2022 International Military-Technical Forum, held in Moscow from 15-21 August 2021.

The ship mock-up is on display in the United Shipbuilding Corporation's demonstration pavilion at the Patriot Congress and Exhibition Centre outside Moscow. The mock-up has a two-level hangar for helicopters and armored personnel carriers, as well as a flooded dock for transporting and launching up to three Zubr-class air-cushion landing craft. According to the mock-up, the helicopters will take off from the upper deck of the ship, which will be able to accommodate up to 15 aircraft. In 2021, TASS reported with reference to the Nevskoye Design Bureau that the future amphibious assault ship would have a displacement of about 30,000 tons, a length of about 220 m, a width of 42 m, a draught of 7 m and a speed of 24 knots. The Zaliv shipyard in the Crimean city of Kerch is currently building the versatile Project 23900 Ivan Rogov and Mitrofan Moskalenko helicopter carriers for the Russian Navy. The ships were laid down in 2020 and are designed to transport and land amphibious assault forces on equipped and unequipped shores. Project 23900 was developed by the Zelenodolsk Design Bureau in place of the French Mistral helicopter carriers. The Russian amphibious assault ships will be able to carry a group of heavy helicopters and will be able to transport from several hundred to more than 1,000 marines. They will get a dock for landing boats and carry armoured vehicles. The Army 2022 international military-technical forum was held from 15-21 August at the Patriot exhibition centre outside Moscow. The Ministry of Defence is the organiser of the forum.

Source: <https://www.navalnews.com/naval-news/2022/08/russian-usc-unveils-new-amphibious-assault-ship-at-army-2022/>

The Russians are conducting large-scale exercises in the Arctic. Northern Fleet missile launches

The press service of the Russian Northern Fleet announced on 24.08.2022 that the nuclear-powered cruiser Peter the Great launched a Granit-type cruise missile at a naval target during large-scale exercises in the Arctic.

"During planned exercises with the Northern Fleet's joint force grouping, which are being conducted in the Barents Sea aquarium, the fleet's flagship heavy missile cruiser Peter the Great executed the launch of a cruise missile of the Granit complex at a target position located in the Novaya Zemlia archipelago district," a press release of the Northern Fleet, taken over by Tass agency, said.

According to Russian military representatives, objective control data confirmed the destruction of the target, which was about 200 kilometers away.

Also, as part of the exercise to defend sea lanes of communication in the Arctic, the cruiser's crew simulated conducting artillery combat with a ship belonging to the conventional adversary. Training activities included firing with the AK-130 130 millimetre calibre artillery installation.

Earlier, the cruiser Peter the Great, together with the destroyer Admiral Ushakov, executed anti-aircraft missile launches and artillery fire on aerial targets.

The area of the Barents Sea where the combat firings were carried out was closed to civilian shipping and aviation flights.

Author's comment: A series of large-scale naval exercises are underway in the Russian Northern Fleet to secure control of the northern sea route.

With global warming and melting glaciers in the Arctic, the Northern Sea Route will be available for year-round navigation and the Russian Federation intends to take control of it.

The Russian authorities even intend to apply a regime similar to that of the Montreux Convention to the entry of ships into the Black Sea. That is, ships from other states will have to notify the Russian Federation of their intention to use the northern sea route several weeks in advance.

Source: https://www.defenseromania.ro/rusii-desfasoara-exercitii-de-amploare-in-arctica-lansari-de-rachete-ale-flotei-de-nord-video_617851.html

Russia keeps four ships with 28 Kalibr missiles in the Black Sea

Four Russian ships with 28 Kalibr cruise missiles on board are on combat duty in the Black Sea. As reported by Ukrinform, the Naval Forces of the Armed Forces of Ukraine reported this in Telegram.

In addition, it is noted that as of August 24, Russia continues to control maritime communications in the Sea of Azov, maintaining up to six ships and boats on combat duty. In the Mediterranean, the enemy has five Kalibr cruise missile carriers. At the same time, it is added that on the last day, in the interests of the Russian Federation, the passage through the Strait of Kerch-Yenikal was carried out: to the Sea of Azov - 20 ships, of which four ships moved from the Bosphorus Strait; to the Black Sea - 16 ships, of which two ships continued their movement in the direction of the Bosphorus Strait.

According to the Ukrainian Armed Forces Navy, Russia continues to violate the 1974 International Convention for the Safety of Life at Sea (SOLAS) by disabling Automatic Identification Systems (AIS) on civilian vessels in the waters of the Sea of Azov.

Source: <https://www.blackseanews.net/read/193486>

Russian government considers financing domestic production of marine components

Russian Federation government to discuss possibility of allocating federal subsidies for domestic production of marine components Measure offsets restriction on purchasing components abroad due to sanctions The Russian Federation government will consider at a meeting on 24 August the issue of allocating subsidies from the federal budget to Russian companies to ensure the financing of research and development, design and mass production costs at domestic marine component enterprises, the official government website says. The funding will be provided to Russia's Ministry of Industry and Trade in 2022 through the government's reserve fund. "The funding will enable the creation and introduction of ship components, which cannot be purchased abroad due to sanctions pressure from several foreign states," the document says. Earlier, the Russian government updated the state programme "Development of shipbuilding and equipment for the development of offshore fields", highlighting among the priorities for the development of the industry "ensuring unconditional content of local manufacturing in shipbuilding production". Russian President Vladimir Putin, at an 18 August 2022 meeting on the development of the shipbuilding industry, drew attention to the difficulties faced by Russian shipbuilders in supplying foreign equipment and components for civilian vessels. He urged to minimise the impact of current negative factors on the execution of civil shipbuilding projects.

PortNews will host discussions on the challenges of ship repair and marine components at the Conference on Ship Repair, Upgrading and Components, which will be held ahead of the International Fisheries Forum and the Fisheries, Seafood and Technology Industry Exhibition (SEAFOOD EXPO RUSSIA), September 20, 2022 in St. Petersburg. The organizer of the event is PortNews Media Group.

Source: <https://en.portnews.ru/news/334354/>

Resignation at the top of the Joint Coordination Centre on Grain Exports through the Black Sea. Ship transit is not yet affected.

The head of the Joint Coordination Centre (JCC) on the export of Ukrainian grain and agricultural products through the Black Sea, Turkish Admiral Özcan Altunbulak, has resigned from his post and gone into reserve.

Although the resignation was motivated by family issues, the move is surprising given that Adm. Brig. Ö.Altunbulak, a close associate of Defence Minister Hulusi Akar, was appointed to the post only a few weeks ago with the operationalisation of the CCC and had at least one year left until he reached his term limit.

According to sources close to military circles in Ankara, the CCC's top job will be taken over by Am.bg. Yavuz Kiliç.

The JCC officially started its work on 27.07.2022 at the National Defence University in Istanbul's Levent district, with the participation of five specialists each from the UN, Turkey, the Russian Federation and Ukraine.

At present, grain shipping from Ukrainian ports continues as planned.

The Turkish Ministry of Defence reported that in the last three days seven ships loaded with grain have left the Ukrainian ports of Odessa, Chernomorsk and Yuzhny/Pivdennyi, and six other ships have received permission to sail to Ukraine via the Black Sea humanitarian sea corridor.

On the other hand, Defense Minister H.Akar said that during 01-20.08.2022, 51 ships received permission to sail through the humanitarian maritime corridor, 24 of them sailed to Ukraine, and 27 left Ukrainian ports loaded with a total of 656,349 tons of grain. According to the data submitted, all vessels subject to checks by the joint CCC teams in Istanbul have been given free passage.

Source: https://www.defenseromania.ro/demisie-la-varful-centrului-comun-de-coordonare-privind-exportul-cerealelor-prin-marea-neagra-tranzitul-navelor-nu-este-inca-afectat_617848.html

Former Military Maritime Command official convicted of bribery

The former director of operations for the US Navy's Military Sealift Command Office in Busan, South Korea, faces up to 25 years in prison after being convicted of taking bribes and lying to US federal investigators. The conviction by a federal jury in the District of Columbia on August 19 followed earlier guilty pleas by the civilian captain of a USMSC cargo ship and the owner of a South Korean company seeking contracts to service US naval vessels. According to documents and evidence presented at trial, Fernando Xavier Monroy, 64, engaged in a conspiracy to commit bribery with the owner of DK Marine, a South Korean company that provided services to the U.S. Navy, and former USNS Captain Charles Drew. Court documents showed that Monroy had been in contact with Sung-yol "David" Kim as early as 2011, although the specific incident did not occur until December 2013. The indictments were handed down in 2019. The case has often been compared to the larger "Fat Leonard" scandal in which another contractor sought to win business by offering lavish meals, entertainment, hotel stays, prostitutes and more to U.S. Navy officials. Leonard Francis, a Malaysian businessman also seeking work in the US Navy, is believed to have paid more than half a million dollars in cash to US Seventh Fleet officers. This case is still in court with numerous guilty pleas and convictions. Evidence at Monroy's trial alleged that he conspired with the Charles Drew's captain, James Driver, to pass confidential U.S. Navy emails and information to the owner of the South Korean company. Included in the emails were visit schedules for U.S. Navy ships and logistical details of planned service work. In return, the government accused Monroy of accepting \$30,000 in "loans" from Kim, as well as trips to the Philippines and Thailand, entertainment, meals and prostitutes, all paid for by Kim. The U.S. Navy contracted with another South Korean company to service Charles Drew during a port call in Chinhae, South Korea, that began on Dec. 21, 2013. However, the government argued the case that Monroy explained to the contractor and the captain. how the captain could circumvent the contract. When Drew arrived in South Korea, the captain ordered the work to be done by DK Marine. Captain Driver pleaded guilty in July 2019 to one count of conspiracy to commit bribery for providing confidential information to the South Korean ship-breeding company and influencing Navy to direct business to the firm. Between 2011 and 2014, the captain passed U.S. Navy information to Kim. In return, Driver allegedly received train tickets, hotel stays and an iPad at Kim's expense and discussed working for DK Marine when he retired from the ship. Kim cooperated with investigators and also pleaded guilty in 2020 to one count of conspiracy to commit bribery. He is awaiting sentencing for his role in the scheme. Monroy was also convicted of lying to federal investigators. The government charged that he repeatedly lied to Defense Criminal Investigative Service and Naval Criminal Service special agents during a voluntary interview in July 2019. Sentencing for Monroy is scheduled for Nov. 18. The maximum penalty is 25 years in prison.

Source : <https://www.maritime-executive.com/article/former-usmsc-official-guilty-of-bribery-steering-work-to-korean-firm>

Overall average declared for Zim Charleston ship damaged by fire

The overall average has been declared for the ZIM Charleston after stacks of containers caught fire aboard the vessel earlier this month. The fire broke out in a cargo hold while the Seaspan-owned container ship was sailing off Colombo, Sri Lanka, on 8 August. It was reported that about 300 containers may have been affected by the fire, heat and smoke as well as water damage. firefighting operations. Investigators are working to determine the cause of the fire and to measure the full extent of the damage. In the meantime, the ZIM charterer said the overall average, according to a Monday update from damage consulting firm WK Webster. General average is the principle of maritime law that requires cargo owners to share with the shipowner or charterer the costs associated with salvaging a vessel in the event of an accident. WK Webster said it is in contact with average adjusters to establish the GA safety conditions required of cargo interests prior to delivery. The Hong Kong-flagged vessel reportedly docked at a container terminal in Colombo, where the damaged containers were unloaded on August 12, WK Webster said.

Source: <https://www.marinelink.com/news/general-average-declared-firestricken-zim-498951>

Schottel launches DP-optimised rudder propeller for vessels serving offshore wind farms

German propulsion specialist Schottel has launched a DP-optimised rudder propeller for the offshore wind market. The company said the rudder propeller has been developed to meet the increasing requirements for W2W vessels to operate efficiently and reliably. "The SRP-D ('Dynamic') is an additionally enhanced variant for highly demanding DP operations in service vessels. When developing SRP-D, extensive CFD simulations and calculations were taken into account," said Schottel. Manfred Heer, VP Technology at SCHOTTEL: "With the SRP-D, we have significantly increased the DP performance of our rudder propellers, resulting in a product that even better meets the requirements of today's offshore wind industry. Based on the proven SCHOTTEL RudderPropeller principle, an efficient yet powerful solution has been developed that greatly improves the vessel's position accuracy for the special DP requirements of these applications. For customers, this means a significant increase in safety and possible operating times on offshore structures, especially in difficult weather conditions." According to Schottel, the new SRP-D variants are characterised by reduced propeller acceleration/deceleration times. "In combination with a high-speed azimuth steering system with reinforced transmission components, the SRP-D allows faster force allocation than conventional rudder propellers. Due to shorter response times, it is possible to react faster and in a more targeted manner to outside forces from wind, weather and currents, thus achieving greater positional accuracy of the vessel. At the same time, fuel consumption is reduced," said Schottel. "In addition, the SRP-D is marked by its extremely low-profile, vertically integrated LE-Drive, as well as an additional eight-degree tilt of the lower gearbox," the company added. Also, according to Schottel, despite its integrated design, the LE-Drive allows for a free choice of motor for electric-powered vessels, ideally supported by batteries. Thanks to its compact design, LE-Drive offers more freedom in vessel design. The SRP-D is also available with optional Z-configuration drive train. In addition, thanks to the additional lower gearbox, which has an eight-degree downward tilt, interaction between the propulsion unit and the hull, as well as interaction with the propeller flow, is reduced. This results in increased traction efficiency in DP operation and minimises 'no-go zones'.

Source: <https://www.marinelink.com/news/schottel-launches-dpoptimized-rudder-498963>

Relief as Rhine water rises in Germany, but expected to fall again

Water levels on Germany's Rhine River have risen after recent rains, but are expected to fall again with largely dry weather in the coming days, ship operators said Wednesday. Weeks of high temperatures and low rainfall have drained water levels in the river, a major German trade artery, causing shipping delays and increasing transport costs. The disruption could cut Germany's economic growth by half a percentage point this year. Shallow waters caused some cargo ships to sail at only about 25% of full capacity in August, increasing costs for cargo owners who needed more ships to receive supplies.

The reference water level at the choke point at Kaub, near Koblenz, was at 1.20 metres on Wednesday compared with just 32 centimetres on Friday. Ships need about 1.5 metres of the Kaub reference waterline to sail fully loaded. But given the largely dry weather for next week, the water level is expected to drop sharply again, said Roberto Spranzi, director of shipping cooperative DTG, which operates about 100 cargo ships on the Rhine.

"We ship operators are breathing a sigh of relief, but only temporarily," Spranzi said. "If you load a ship in Rotterdam with coal now, you have to calculate what the Kaub level will be in three to four days when it arrives there and we expect a sharp drop in the Kaub again next week." "We need sustainable water level rises to operate normally."

The Rhine is a major shipping route for goods including grain, minerals, coal and petroleum products including heating oil. Oil major Shell said on Thursday it had to cut production at its refinery in Germany's Rhineland, which produces fuels, heating oil and petrochemicals, following the disruption to transport from the low Rhine.

Source: <https://www.marinelink.com/news/relief-rhine-water-rises-germany-expected-498973>

A US analyst has named a more dangerous enemy for the US Navy than the fleets of Russia and China

Today, the US Navy faces a more treacherous and unpredictable adversary than the Chinese or Russian navies. Publicist Mike Glenn, writing in *The Washington Times*, is convinced of this. According to the analyst, such an enemy is rust. Rust makes US Navy ships very angry. Although the Navy command is spending millions of dollars to fight corrosion, it is not possible to fundamentally solve the problem. Rust damages both the combat capability and aesthetics of warships, says Mike Glenn. Chief of Naval Staff Admiral Mike Gilday stresses that ships should look aesthetically pleasing. After all, this is required by the US Navy's status as the best fleet in the world. A rusty ship is a pitiful sight. But even more dangerous is the hull damage that follows rust. As retired Captain 1st Rank Karl Schuster, who teaches history at the University of the Pacific, points out, if corrosion is left untreated, it leads to the ship's hull falling apart faster than can be predicted. After all, rusted metal is much more brittle and fragile than ordinary metal. Some analysts believe that the US Navy needs more ships to handle the tasks set by the country's leadership and the Pentagon. However, increasing the number of ships does not mean they will be protected from wear and tear, including rust. Although the US Navy denies neglecting work to prevent hull corrosion, it clearly seems insufficient. The author of the article also sees another very high risk of warship hull corrosion for the United States. Most of the fleets of the world's countries are in relatively close proximity to their ports. This allows them to respond quickly to any adverse changes and carry out repair and restoration work, including fighting ship hull corrosion. But

the US Navy operates all over the world. So US ships are in the Asia-Pacific region, the Persian Gulf, the Red Sea and the Mediterranean, the North Sea. There are vast distances to "native" American ports, which means that botched repairs are fraught with catastrophic consequences for ships and their crews. In the last decade, at least 18 cases of so-called "unchecked corrosion effects" have been counted in the United States.

Journalist Chris Kavas believes a lack of long-term competition has led to this state of affairs in the US Navy. When there are no worthy rivals, the fleet starts to relax, and when those rivals appear, it can't quickly reorganize its work to distinguish itself from them for the better. The journalist suggests looking at Chinese warships: the PLA Navy monitors their appearance carefully, because they understand that the appearance of the ship gives a general idea of the country that the ship represents. However, the US naval command for some reason neglects this circumstance.

Source: <https://topwar.ru/200710-amerikanskij-analitik-nazval-korroziju-bolee-opasnym-vragom-vms-ssha-chem-floty-rossii-i-kitaja.html>

Strategic submarine concept - missile cruiser "Arktur"

The Navy and shipbuilders are working on ways to further develop submarine forces, and the following such ideas were presented at the recent Army-2022 forum.

The MT Rubin Central Design Office first showed the concept of a promising strategic missile submarine code-named "Arktur". Such a submarine is designed for construction and operation in the far future and therefore the most interesting and bold ideas are used in it.

This year, MT's Rubin Central Design Office presented several promising developments of different classes simultaneously. One of them was the SSBN concept of the future Arcturus. A model of such a ship was demonstrated at the stand of the Russian Navy High Command. For comparison, next to it was a model of a modern nuclear submarine, pr. 955A "Borey-A". They also showed a model of the uninhabited autonomous underwater vehicle Surrogat-V, suitable for use with Arcturus. It is reported that the submarine concept was developed with the second half of the 21st century in mind. In doing so, the design uses promising solutions and components. Several new features are also included. In particular, in addition to the usual SSBN weapons, it is proposed to use a set of AUVs of different types.

It is assumed that all such tools will improve the situational awareness of the submarine. It will be able to detect the enemy earlier and better avoid possible attacks. In addition, the introduction of certain underwater vehicles will allow changing the submarine's purpose and the range of tasks to be solved. The layout shown and the released images of the Arcturus allow us to understand the overall architecture of the vessel and some of its design features. In addition, the developers have revealed some information about the internal equipment, key parameters etc.

"Arktur" is only a conceptual design and therefore its prospects are quite understandable and predictable. Of course, they will not build such a submarine. However, the current project solves other problems. It shows current views and opinions in a promising field and also helps to find the necessary technologies and solutions. Some of them will be able to enter the real next generation SSBN project, which will be developed in the indefinite future. Future face The Arktur project proposes to design an unusual-looking nuclear submarine with missile and torpedo weapons, as well as various systems for situational awareness, reconnaissance, etc. Thanks to improved strategic missile weapons, they intend to reduce displacement by 20% compared to current SSBNs and without loss in the number of missiles and combat characteristics. In addition, measures are proposed to further improve stealth. The architecture of the submarine has not been specified. Presumably, a one-and-a-half or two-hull design is used - antenna devices and hangars for AUVs are placed outside the

strong hull. At the same time, the hull is distinguished by an unusual shape combining curved and straight surfaces. A pronounced line runs along the sides of the hull, where the sloping elements of the sides converge. The retractable devices are made as efficient as possible. It is claimed that such shapes are a way to improve stealth. Arcturus will get a nuclear power plant. To reduce noise, a shaftless power version is proposed. Two aft water cannons built into the hull have been used as engines. Water intake is through windows on the sides of the hull, ejection - through rectangular nozzles. Vertical trapezoidal planes are provided on the channels of water cannons. In the nose of the hull, on the sides of the main antenna of the hydroacoustic complex, four torpedo tubes are placed. Behind the hull cabin are 12 silo launchers of the main missile system. These will be loaded with state-of-the-art ballistic missiles, characterised by reduced size and improved combat characteristics.

The submarine can carry an advanced hydro-acoustic complex. The main antenna is located in the nose. Side-view antenna compartments are provided on the sides. Apparently, the vessel can be equipped with radar and other means. Uninhabited autonomous underwater vehicles of various types will become an additional means of situational awareness. For the transport of large AUVs, such as Surrogate-V, it is proposed to use a separate compartment in the stern of the submarine. Products with smaller displacement can be launched from vertical shafts. The number and types of AUVs should be determined taking into account the load. AUVs can become a key component of the whole underwater complex, including defining its tasks. Representatives of the development organisation said that the emergence of new types of underwater vehicles in the future will make it possible to transform Arktur SSBN into a vessel with a different purpose. Looking for Solutions The Arctur concept, like other similar projects, is not intended for full implementation and construction of a submarine series. However, it solves an equally important problem. As part of such projects, designers are looking for and working on new ideas, which can then be used to create real nuclear submarine designs for the fleet. The current concept contains several similar solutions at the same time, which may be of interest to the customer and can be developed further. And you can expect them not to go unnoticed. The proposed hull design and its specific contours naturally attract attention. In recent decades, the global subsea industry has shown great interest in new shapes that improve hydrodynamic performance as well as reduce noise and optimise the location of internal units. The Arcturus project shows once again clearly that Russian specialists are addressing these issues too - and they have succeeded in doing so.

The proposed energy is also interesting. While maintaining the traditional nuclear power plant for domestic SSBNs, it is proposed to abandon the noisiest units. In addition, a new water jet design has been developed. Presumably, it has advantages over existing designs, and the customer will have to evaluate them. No fundamental innovations in rocket weapons are envisaged. At the same time, the Arcturus authors are counting on the emergence of a new generation of SLBM, which will be smaller in size. In addition, the proposal to use launchers to launch smaller AUVs is interesting. In this case, the SSBN without restructuring and refitting will be able to gain new functions and capabilities. It is easy to see that the main innovations of the Arcturus concept are in the area of unmanned systems. The nuclear submarine will be able to carry AUVs of different types, sizes and displacements. With their help, it will be possible to solve various tasks of an auxiliary or combat nature. AUVs will take over reconnaissance, including, at a considerable distance from the carrier submarine, they will be able to perform the functions of dummy targets to deceive the enemy and even carry one weapon or another to attack underwater or surface targets. In fact, with the help of a set of multiple AUVs, the submarine will improve its situational awareness and increase safety. In addition, with such equipment, the SSBN will be able to participate not only in strategic deterrence processes, but also perform other work and tasks. Perhaps it will even lead to the emergence of an entirely new class of submarines with improved capabilities.

Possibility of choice Thus, the Central Design Office MT "Rubin" continues its scientific work and looks for ways to further develop the submarine fleet. Various solutions and technologies are being proposed, studied and developed for use in promising projects, including those that will only appear in the distant future. The next result of this work was the concept of "Arktur". Apparently, the documentation for this project has already been transferred to the relevant organisations of the Ministry of Defence. They should review this development and evaluate it. It is likely that some of the proposed ideas will be approved and fit into the next domestic nuclear submarine projects. Others, characterised by increased complexity or redundancy, will be deferred until better times. But even in this case, the Arcturus concept will make some contribution to the development of our submarine fleet.

Source: <https://topwar.ru/200672-koncept-strategicheskogo-podvodnogo-raketnogo-krejsera-arktur.html>

Performance Shipping buys used Aframax tanker

Greek tanker owner Performance Shipping announced Wednesday that it has reached a deal to purchase a second-hand Aframax tanker for \$36.5 million.

The vessel, a 105,304 dwt LR2 Aframax tanker for petroleum products built by Hyundai Heavy Industries of South Korea in 2010, will be renamed P. Alik from Alpine Amalia. The vessel is equipped with a ballast water treatment system (BWTS) and an exhaust gas cleaning system (EGCS), and its next scheduled special survey and dry dock is in 2025. Performance Shipping said it expects to take delivery in November 2022. The tanker will be the seventh in the company's fleet.

The company said it plans to finance the acquisition with available cash raised from its recent equity offerings and debt drawdown through a new senior secured facility that it anticipates entering into prior to delivery of the vessel. Andreas Michalopoulos, CEO Performance Shipping, said, "[The acquisition] marks our entry into the refined product tanker sector, which we believe enjoys strong fundamentals and prospects. Spot charter rates for LR2 tankers currently exceed USD 40,000 per day and we expect to exchange the vessel, after delivery to us, on the spot market." Michalopoulos added that he expects BWTS and the tanker's scrubbing to "enable it to achieve premium charter rates and high utilisation".

Source : <https://www.marinelink.com/news/performance-shipping-buys-secondhand-498978>

The US Navy has welcomed the third "Overlord" robot ship in its fleet

The US Navy has welcomed the third large unmanned surface vessel Overlord to its fleet as the service prepares for USV experimentation ashore and at sea.

Mariner is managed by prime contractor Leidos and built by Gulf Craft in Louisiana. It was successfully delivered in March. It was reportedly christened on August 23 at the US Naval Academy.

It is equipped with next-generation capabilities, including a command and control system, a unique Aegis virtualised combat system and an autonomous navigation system. After further upgrades and testing, it will depart for California to begin operations in FY23, Navy program executive officer in charge of small unmanned combat ships Rear Admiral Casey Moton told reporters.

Mariner's sister ships, named Ranger and Nomad, recently participated in the Rim of the Pacific naval exercise in Hawaii. Moton said adding Mariner to the USV fleet would add volume and new functions as the Navy learns more about operating an unmanned craft and decides what the next-generation hybrid manned and unmanned fleet should look like.

The Navy's test plan includes sea and land trials. During land-based testing, the Navy can easily install new equipment, conduct tests for longer phases and under more controlled conditions, and upgrade systems more easily as test results reveal much-needed fixes.

The Navy ultimately has seven USVs to experiment at sea. These include the Mariner, Overlord USV Vanguard, Nomad and Ranger. The Overlord USV Vanguard is being built in Austal, USA, by L3Harris; along with Medium USV prototypes - Sea Hunter and Sea Hawk, which participated in RIMPAC, and a third medium sized vessel that has a contract with L3Harris. Moton argued that it is essential to have multiple platforms at sea for testing because of the breadth of testing, working with different vendors' systems for better perception, machine control, autonomy and more, and testing potential payloads.

A new feature built into Mariner is expected to allow testing of unique operations at sea; the Aegis Virtualized Combat System will likely allow Mariner to control yet another USV fully.

A program official noted that USV Division 1 personnel in California, who may soon be using USVs from an unmanned operations center ashore or a Navy ship as a destroyer, may use Mariner as a training ship. They would embark it as they would for a destroyer and control another USV manually from Mariner's combat system. A Division 1 USV officer was able to work with the destroyers during RIMPAC. However, due to busy deployment and training schedules, accessing warships for experiments is far from the usual norm. That's why officials hope Mariner can serve as a training ship for division personnel, as they understand how to engage a USV from a ship at sea.

When it comes to dockside testing, Moton noted that the Navy is continuing with its industry-led review of engines for unmanned ships, even though its authorized USV engineering site is now under construction at the Naval Surface Warfare Center Philadelphia.

L3Harris boasts a MUSV factory located in Camden. It will be relocated to the Navy's location across the river, providing that service moving forward with those USVs. The Navy is engaged in a huge robotic ship program (known as LUSV). It is weighing the value of medium-sized ships against the skills that small drones, in significant numbers, can bring.

On the LUSV, various potential engines are being examined ashore by vendors - which for Moton is a good thing for technology development - and that work will be moved to Philly when the new test center is installed.

Despite the testing, Navy officials noted that commercial industry personnel have already done a lot of work to help mature autonomy systems on ships. In Mariner's original, authentic design, autonomy features have been enhanced for the fast supply ship to bring materials and people to any oil rig with a crew of six on the 194-foot boat.

Due to the pre-existing emphasis on autonomy and redundancy to support a small crew, the vessel was designed incorporating five new water jets, each with their own trains and engines and the ability to switch between them if a problem arose. The Cummins engines were built in a way that could avoid oil changes - something that would otherwise prevent USVs from running for months without crew members - using a system that automatically burns off old lube oil and pours new lube oil back in. The Navy has added a network of cables that link sensors to the ship's systems and allow the machinery control system to monitor hull, electrical and mechanical systems and switch between redundant systems whenever necessary.

Brian Fitzpatrick is USV's principal assistant program manager in the unmanned marine systems program office. He noted that the Navy has collected about 400 terabytes of data from the Nomad, Ranger, Sea Hawk and Sea Hunter at RIMPAC and that his office will spend the next few months analyzing the data to get a sense of the system's performance at sea and refine what kind of data they wanted to collect soon. Fitzpatrick said the Navy was looking forward to delivering the final OUSV prototype called the Vanguard, which takes the

original Mariner design and then expands it to one that extends to 205 feet because the larger vessel can store more fuel and get a longer range. It can also carry heavier payloads.

The Vanguard, according to Fitzpatrick, would push the limits of what a ship of that size class could do for the Navy. The LUSV's program-record design has not yet been finalized, but it is expected to be larger than the Mariner and Vanguard. Moton and Fitzpatrick noted that shore and sea testing will apply equally to a future LUSV and a likely MUSV from an engineering perspective.

From an employment standpoint, the Navy knows what it wants from the LUSV - to serve as a deputy missile launcher - but the review will inform whether carrying electronic warfare packages and sensors on a ship of that size is worth the high at all.

Moton said he thinks it's healthy for the upper levels of the U.S. Navy to have this question about what a hybrid fleet, both manned and unmanned, looks like. And essentially provides feedback and data on operational concepts that support the discussion.

Source: <https://www.marineinsight.com/shipping-news/us-navy-christened-the-third-overlord-robot-vessel/>