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### **UKRAINE**

***How many tonnes of grain Ukraine managed to export after approval of corridors from Black Sea ports***

Ukraine has managed to transport 563,317 tonnes of agricultural products through "grain corridors" since the beginning of August, Ukrinform reports.

In particular, almost 451,500 tonnes of corn, 50,300 tonnes of sunflower meal, 41,600 tonnes of wheat, 11,000 tonnes of soybeans, 6,000 tonnes of sunflower oil, 2,900 tonnes of sunflower seeds were exported.

From 1 to 15 August, 36 vessels were authorised to pass through the "grain corridors".

In total, 21 vessels heading from Ukraine transported 563,317 tonnes of food products.

During this period, 21 ships were allowed to leave and 15 - to enter Ukrainian ports," the channel reports with reference to the Joint Coordination Centre report.

Eleven ships left Odessa port, six - Chornomorsk port, four - Pivdenny port.

In total, 451,481 tons of corn, 50,300 tons of sunflower meal, 41,622 tons of wheat, 11,000 tons of soybeans, 6,000 tons of sunflower oil and 2,914 tons of sunflower seeds were exported.

According to Ukrinform, 26% of deliveries went to Turkey, 22% to Iran, 22% to the Republic of Korea, 8% to China, 6% to Ireland, 5% to Italy, 4% to Djibouti and 2% to Romania. The route has not yet been determined for 5% of the cereals.

During the period specified, 27 vessel inspections were carried out.

On 16 August, five bulk carriers with Ukrainian maize and wheat left two ports in the Odessa region.

On 22 July in Istanbul, Ukraine, Turkey and UN Secretary General António Guterres signed the initiative on the safe transport of grain and food products from the ports of Odessa, Chornomorsk and Pivdenny.

Source: <https://ziare.com/coridor/tone-cereale-export-ucraina-coridoare-marea-neagra-1756655>

### **Russia hit port infrastructure in Mykolaiv**

On the evening of 16 August, the Russian aggressor hit the port infrastructure in Mykolaiv. This was reported by the operational command "South", Ukrinform reports.

"The port infrastructure in Mykolaiv was hit in the evening by missiles from the fire system save Smerch. There were no casualties," Pivdna reported.

Source: <https://www.blackseanews.net/read/193189>

The 8th convoy of ships with agricultural products left Odessa and Chornomorsk ports

On 17 August, four more ships carrying agricultural products left the ports of Odessa and Chornomorsk.

This was announced on Twitter by the Turkish Ministry of Defence, Ukrinform reports: "Grain shipments from Ukrainian ports continue as planned. On the morning of August 17, 4 more ships with sunflower meal, sunflower oil and corn left the Ukrainian ports of Odessa and Chornomorsk," the post reads.

As reported, the 7th convoy of five bulk carriers with Ukrainian corn and wheat left on August 16 from two ports in Odessa region. The Joint Coordination Center inspected four ships that went to Ukrainian ports.

In Istanbul on 22 July, Ukraine, Turkey and UN Secretary General António Guterres signed the Initiative on the Safe Transport of Grain and Food Products from the ports of Odessa, Chornomorsk and Pivdenny.

Source: <https://www.blackseanews.net/read/193198>

**Invaders postpone Mariupol port launch until end of year**

The Russian-appointed "leaders" of the occupied territories in the Donetsk region have once again postponed the launch of the Mariupol port due to the impossibility of fully ensuring its operation.

According to Party Ukrainy, this was reported by Mariupol mayoral advisor Petro Andryushchenko. The Pushilin leader has once again announced the resumption of full operation of the Mariupol port. True, this time already before the New Year. Last time, in May, he confidently said it would be fully loaded by mid-July, Andyushchenko wrote on Facebook.

According to the Mariupol mayor's advisor, "for now, the port is not working de facto. Even the plundering of rolled metal has been stopped. Electricity supply is insufficient. Crane repairmen are missing. And they are still blocking the "Meotida". And this is good news. Because the resumption of the operation of the port will immediately simplify the military logistics of the occupiers," Andiuschenko stressed. He also informed that "the launch of the auto ferry service, which the occupiers announced for the beginning of August, has not yet taken place either. According to the occupiers' bravado, the first ferry was due to arrive in Mariupol on 1 August. In reality, it is still anchored in the port of Yeysk with no sign of movement. Doubly good news - another lie from the occupiers to the townspeople, which they see with their own eyes. The second is that the occupiers' logistics remain a problem for them," concluded Andiuschenko.

At the end of June, the occupying "administration" of Mariupol, appointed by the Russian invaders, intensified with the help of a floating crane the cleaning of the water area and the main seaway in the port of Mariupol in order to start the removal of stolen goods and the import of military equipment.

According to "Metinvest" Group, which is the owner of Mariupol MMK metallurgical plants named after Ilyich and Azovstal, on the first day of the war, more than 234 thousand tons of metal products produced at both enterprises worth about \$148 million remained in the port of Mariupol, the company managed to track at least 2.5 thousand tons transported from occupied Ukraine from Mariupol to the Russian port of Rostov-on-Don for resale.

In May, the Russian occupation "administration" in Mariupol appointed Hryhoriy Sobolevskyi, the former head of the State Inspectorate for Safety of Maritime and River Transport (Ukrmorrichinspektsii), as "captain" of the Mariupol seaport. In early May, the Ministry of Infrastructure

issued an order to close the seaports of Berdyansk, Mariupol, Skadovsk and Herson, which are located in the Russian-occupied territories of Zaporizhzhia, Donetsk and Herson, until control over them is restored.

Source: <https://www.blackseanews.net/read/193203>

### **Russian air strikes on Odessa raise concerns for grain shipments**

In apparent revenge for Ukraine's nasty strikes in Russian-held Crimea in recent days, the port city of Odessa has been hit with missiles overnight. The attacks have raised new concerns about the security of the grain shipping program and ships operating in the Port of Odessa, but officials have sought to reassure by saying the movement of ships is continuing.

Turkey's Defense Ministry issued a brief update this morning on social media saying:

"Grain shipments from Ukrainian ports continue as planned. On the morning of August 17, four more ships carrying sunflower meal, sunflower oil and corn left the Ukrainian ports of Odessa and Chornomorsk."

This came after a spokesman for the military command in Odessa sent messages about the latest round of Russian attacks on the city. Serhil Bratchuk reported that the Russians fired anti-ship missiles from aircraft, a tactic the Russians have used before in attacking Ukrainian cities. He seemed to be trying to say that the damage was limited and not near the port, citing damage to a recreation center and injuries to four people. However, he also said that there was a fire that engulfed a 600 square meter area of the city (about 6,500 square meters). CNN also showed photos of a building they identified as a hotel damaged in the overnight attacks.

Hours after the grain deal was signed in July, Russia also attacked Odessa. The attack hit areas of the port, however it was before grain operations resumed. Since then, Russia has promised to honour the grain deal that opened three ports and provided a humanitarian corridor across the Black Sea to Turkey.

The Ukrainian port authority issued a statement today saying five ships have left ports, including Odessa. They said it is the seventh and largest convoy formed so far in the third week of the corridor. They say the five ships were carrying more than 70,000 tonnes of grain and included the departure of the first ship chartered by the UN to carry wheat to Africa.

In the 16 days of operation, Ukrainian officials report that a total of 21 ships passed through the corridor. The Joint Coordination Centre said a total of 16 ships were allowed to leave the three ports carrying a total of more than 450,000 metric tons of food products. However, as pointed out earlier, most of it was maize which is used as animal feed, with the UN chartering one ship and advocating for more wheat shipments. The JCC says 12 ships have been cleared for the return trip, the first of which has now completed the round trip. Ukraine's Ministry of Infrastructure, which oversees agricultural programs, said earlier this week that they continued to gain momentum. They reported that 30 ships have applied to come to Ukraine in the next two

weeks. They forecast that Ukraine will export three million tons of grain from its ports in September. In the future, they said it might be possible to bring grain exports back to the four million tonne threshold.

Source: <https://www.maritime-executive.com/article/russian-air-strikes-on-odesa-raise-concerns-for-grain-shipments>

## **INTERNATIONAL**

### **DOE and ABS launch new nuclear power studies for commercial ships**

The US Department of Energy has awarded ABS a contract to research barriers to the adoption of advanced nuclear propulsion on commercial ships. The \$800,000 research project, which was awarded by DOE's Office of Nuclear Energy last year, is now formally contracted through the US Industry Opportunities for Advanced Nuclear Technology Development funding opportunity.

According to ABS, the scope of the research project will address the challenges of adopting new reactor technology in commercial maritime applications. ABS will develop models of various advanced reactor technologies for maritime applications and develop advice to industry on the commercial use of modern nuclear power.

While nuclear power was considered to have great potential for the maritime industry in the 1950s, it has failed to develop due to global safety concerns and the challenges of operating shipboard systems. Navies around the world have successfully adopted nuclear propulsion, but despite numerous studies and a project backed by US President Dwight Eisenhower, the US built only one commercial demonstration ship, the NS Savannah.

Russia is believed to be the only country that has continued to operate a nuclear-powered merchant ship. Support for the new project will be provided by the Department of Energy's National Reactor Innovation Center (NRIC), based at the Idaho National Laboratory. NRIC will provide the advanced reactor framework to help propose how a maritime nuclear demonstration could take place.

"The national laboratory system has powerful capabilities - when we collaborate with industry, we can apply them together to our energy challenges, and NRIC was created to make that happen faster," said NRIC Director Ashley Finan.

"There is a tremendous opportunity to reduce emissions from shipping, as well as growing interest from the advanced maritime and nuclear sector, and we are excited to be part of this important work."

One of the technologies that has attracted a lot of attention are molten salt reactor concepts. In a separate, smaller award, DOE also contracted ABS to support molten salt reactor research conducted by the University of Texas.

"Modern nuclear technologies are increasingly being suggested as a potential solution to the challenge of decarbonizing shipping," said Patrick Ryan, ABS senior vice president, Global Engineering and Technology. "The technology certainly has potential both in terms of in terms of its contribution to reducing emissions, and for U.S. shipyards and their supply chains to leverage national investment in onshore nuclear energy development. However, many questions need to be answered and it is essential that the industry is able to evaluate these technologies with a laser focus on safety."

The ABS did not announce the duration of the project. However, they noted that their work with maritime nuclear power sources dates back to 1959 with the NS Savannah, which was the first commercial ship powered by a nuclear reactor and approved under ABS rules.

Source: <https://www.maritime-executive.com/article/doe-and-abs-launch-new-studies-on-nuclear-energy-for-commercial-ships>

CANADA - Irving Shipbuilding has started construction of the 6th and final AOPS (Arctic and Offshore Patrol Ship)

Irving Shipbuilding Inc. has cut the first piece of steel for the future HMCS Robert Hampton Gray to officially begin production of the sixth and final Arctic and Offshore Patrol Ship (AOPS) for the Royal Canadian Navy. The vessel is being built in accordance with Canada's National Shipbuilding Strategy and is being built to the design of the Norwegian Coast Guard vessel NoCGV Svalbard, on which the Harry DeWolf class is modelled.

Construction of Canada's future battle fleet begins at Irving Shipbuilding's Marine Fabricators facility in Dartmouth, where 32 people are involved in computer plasma cutting and delivering 4,000 tons of steel each year in support of the AOPS program.

The resulting 70,000 parts are manufactured in a strategic sequence to meet the production schedule at Irving Shipbuilding's Halifax shipyard, the most modern and largest inland shipbuilding facility in North America.

The steel weighs 3734 kilograms (3.7 tonnes) and will be used in a combination of locations on the ship, including the initial pieces that will begin keel development.

Upon completion, the future HMCS Robert Hampton Gray will be 103.6 metres long, 19 metres wide, have a displacement of 6,615 tonnes and consist of 440,000 parts. Each AOPS vessel has over 300 km of cables and more than 36 km of pipelines.

To date, two AOPS have been delivered to the Royal Canadian Navy - HMCS Harry DeWolf and HMCS Margaret Brooke. The next HMCS Max Bernays (AOPS 3) is due to be delivered next month. The future HMCS William Hall (AOPS 4) has recently moved all block-sections ashore and is undergoing final assembly in preparation for launch later this year. Future

HMCS Frédérick Rolette (AOPS 5) had her keel officially laid in June this year and construction of the bow, midship and stern blocks are underway.

"The National Shipbuilding Strategy is creating jobs and economic activity across Canada, including locally in Halifax, where the number of companies and workers benefiting from the program has increased substantially since 2015. As the sixth Arctic and offshore patrol vessel to be added to the Royal Canadian Navy fleet under Strategy, cutting first steel for future HMCS Robert Hampton Gray is a milestone important in our work to equip our navy with the ships they need to protect Canadian interests."

Andy Fillmore,

Member of Parliament for Halifax and

Parliamentary Secretary to the Minister of Innovation, Science and Industry

The Halifax shipyard will also build two AOPS variants for the Canadian Coast Guard, followed by 15 vessels for the Canadian Navy to begin construction in 2024. The Royal Canadian Navy's (RCN) sixth Arctic and Offshore Patrol Ship (AOPS) is named in honour of Lieutenant (Lt) Robert Hampton Gray, a Canadian naval hero of World War II. Lt. Gray joined the Royal Canadian Naval Volunteer Reserve in 1940 and served as a pilot in the Royal Navy Fleet Air Arm. He embarked on Her Majesty's Ship (HMS) Formidable with 1841 Squadron, joining the war in the Pacific as part of Operation Iceberg, the invasion of Okinawa, Japan, in April 1945.

Lt. Gray was posthumously awarded the Victoria Cross for bravery and determination in conducting a daring air strike on the Japanese destroyer HIJMS Amakusa. Lt Gray was known to his military colleagues as a courageous leader with a brilliant flying spirit who continued to inspire and motivate his crew after his unfortunate death. Lt Gray was the only member of the RCN to receive the Canadian Naval Victoria Cross in World War II.

"Today marks a significant event in the life of a ship. We have reached a very significant milestone with the start of production on Canada's sixth and final Arctic and offshore patrol vessel, the future HMCS Robert Hampton Gray. Robert "Hammy" Gray was awarded the only Canadian naval Victoria Cross since World War II. His courage and determination will live on in the steel used to create the newest and final addition to the Harry DeWolf class. Arctic and offshore patrol vessels are a critical platform for our navy, they will ensure we can patrol, secure and protect Arctic waters for decades to come."

Vice-Admiral Angus Topshee, Commander Royal Canadian Navy

Source: <https://www.navalnews.com/naval-news/2022/08/irving-shipbuilding-cuts-steel-for-the-6th-and-final-aops/>

The keel of the fourth DDG 51 Flight III destroyer USS Jeremiah Denton (DDG 129), a Flight III Arleigh-Burke-class destroyer, was laid at Huntington Ingalls Industries (HII) Ingalls Shipbuilding Division on August 16.

The ship is named for former Senator Jeremiah Denton, Jr. a Vietnam War veteran who was awarded the Navy Cross for his heroism as a prisoner of war. After his career in the Navy, he was elected to the U.S. Senate representing his home state of Alabama in 1980. The contemporary keel-laying ceremony represents the joining ashore of the modular components of a ship. The keel is authenticated with the initials of the ship's sponsors engraved on a ceremonial keel plate as part of the ceremony. Co-sponsors of DDG 129 are the namesake's daughters, Madeline Denton Doak and Mary Denton Lewis.

The DDG 51 Flight III upgrade is centered on the AN/SPY-6(V)1 air and missile defense radar and incorporates improvements in electrical power and cooling capability plus additional associated modifications to provide the fleet with greatly improved combat capability. Flight III is the latest flight upgrade in the class' 30+ year history, building on the proud legacy of Flight I, II and IIA ships before it.

Also in production at Ingalls Shipbuilding at HII is the future USS Lenah Sutcliffe Higbee (DDG 123), the future USS Jack H. Lucas (DDG 125), the future USS Ted Stevens (DDG 128) and the future USS George M. Neal (DDG 131).

Flight III destroyers will have an enhanced capability and capacity to conduct anti-air warfare and ballistic missile defense in support of the integrated air and missile defense mission. This system offers fast reaction time, high firepower and enhanced electronic countermeasures capability for anti-air warfare. The Flight III design contains modifications from the previous DDG 51 class to activate the SPY-6 radar in conjunction with the Aegis Baseline 10, which includes larger electronically scanned arrays and the power generation and cooling equipment required to operate the powerful new radar.

Source: <https://www.navalnews.com/naval-news/2022/08/keel-authenticated-for-4th-flight-iii-destroyer-ddg-129/>

### **Babcock begins first LIFEX maintenance on Type 23 frigates**

Defence company Babcock International, has begun a post-lifetime extension (LIFEX) on the Royal Navy's Type 23 frigate HMS Argyll at Devonport. It is the first Type 23 frigate to undergo post-LIFEX maintenance, taking an innovative new approach to recertification at the Frigate Support Centre (FSC).

Babcock will overhaul equipment and make design changes for new capabilities such as communications improvements and mixed crew.

The Duke Class frigate will undergo full hull and superstructure maintenance. Sarah Hilder, HMS Argyll Maintenance Project Manager, said, "HMS Argyll presents a huge opportunity to demonstrate Babcock working collaboratively with our customers throughout the planning period and by implementing new efficient and innovative processes, we are striving to complete the project in a reduced timeframe compared to standard maintenance."

Work began immediately, with the vessel being prepared for a Lloyds structural survey to complete a full assessment of the vessel in just 9 weeks.

Commissioned in 1991, HMS Argyll is the longest serving Type 23 frigate and was the first to undergo maintenance under the LIFEX programme in 2015. After returning to the Royal Navy in 2017, Babcock went on to deliver the Type 23 life extension programme around the world.

Babcock's recent milestones in the programme include HMS Somerset, preparing for her big date and starting sea trials earlier this year, HMS Iron Duke was recently returned to the water, and HMS St. Albans is preparing to be dropped off later this month.

Source: <https://www.navalnews.com/naval-news/2022/08/babcock-begins-first-type-23-post-lifex-upkeep/>

### **Beijing announces more exercises in the South China Sea**

The latest exercises could be in response to a two-day visit to Taiwan earlier this week by US lawmakers.

China's armed forces will conduct new exercises in the South China Sea on Friday, the Hainan Maritime Safety Administration announced Wednesday. The exercises will be conducted in two sea areas between 10:00 a.m. and 1:00 p.m. local time (5:00 a.m. and 8:00 a.m. Moscow time) on Aug. 19, the administration said in a statement.

Civilian vessels should stay away from the exercise area, it added.

The Chinese People's Liberation Army (PLA) conducted similar maneuvers in the South China Sea on Tuesday, and on Wednesday, the country's armed forces launched an exercise that will last until Friday in the Yellow Sea.

Since early August, the PLA has conducted a series of exercises along China's coast amid tensions in the Taiwan Strait, following a 2-3 August visit to Taipei by US House Speaker Nancy Pelosi.

The Chinese military has also conducted missile firing maneuvers in six areas around Taiwan. The latest exercises could be in response to a two-day visit to Taiwan earlier this week by US lawmakers. The five-member delegation included Democratic and Republican representatives. Their visit to the island also drew sharp criticism in Beijing.

Source: <https://tass.com/world/1494711>

### **The Virginia Port Authority has awarded a \$223 million contract to rebuild the Portsmouth Marine Terminal for use as an offshore wind port.**

The contract was awarded to Skanska USA, the US-based unit of the Swedish multinational that specialises in construction and development. The project involves the redevelopment of approximately 72 acres of the 287-acre Portsmouth Marine Terminal located in Portsmouth, Virginia, which will improve 1,500 feet of an existing 3,540-foot pier.

The terminal is slated to serve as an offshore wind port for Dominion Energy's Coastal Virginia Offshore Wind (CVOW) project, which is the largest offshore wind project currently planned in the U.S. Construction of the terminal is scheduled to begin in July 2022, with completion scheduled for 2025.

Dominion Energy is in the process of building the first U.S.-built, Jones Act-compliant wind turbine installation vessel at the Keppel AmFELS shipyard in Brownsville, Texas, which will be used in the construction of the CVOW.

The contract award comes about a week after the state of Virginia approved the 2.6 gigawatt CVOW farm, consisting of 176 wind turbines to be built 27 miles off the coast of Virginia Beach. The farm will be capable of generating enough energy to power up to 660,000 homes starting in 2026. At the federal level, the project is undergoing environmental review by the Department of the Interior's Bureau of Ocean Energy Management (BOEM). Similar harbor redevelopment projects to support the offshore wind project are also planned in New York at the historic South Brooklyn Marine Terminal, as well as in Salem and New Bedford in Massachusetts.

As for the Portsmouth Marine Terminal project, Skanska's work will include: Construction of three heavy haul berths, wind turbine generator delivery berth, wind turbine generator loading berth, and steel pipe monopile berth Dredging of a channel and access area to support a Mediterranean berthing configuration Consolidation of soils and surfacing in the upland areas

to accommodate the handling of heavy surface loads from crane, self-propelled modular conveyors, wind turbine generators and monopile components and transition pieces. Installation of high mast lighting, rainwater collection systems, perimeter fencing and other ancillary structures and systems.

Source: <https://gcaptain.com/virginia-awards-223-million-contract-for-offshore-wind-port-project/>

### GoodFuels kicks off biofuel bunkering in Singapore

Leading biofuels supplier GoodFuels has delivered fuel to a NYK bulk carrier at the Port of Singapore, the world's largest bunkering hub.

NYK's vessel, the M/V Frontier Explorer, was bunkered with biofuel in a blend with VLSFO during a port call to Singapore in early July on a voyage from Australia to India. GoodFuels worked with an authorized supplier to perform the bunkering.

The operation marked GoodFuels debut in Asia Pacific and the first delivery of its kind to a major marine customer since GoodFuels opened its Singapore office. It was also the first to be handled under GoodFuels' partnership with ITOCHU of Japan, which was announced in May. Under the partnership, GoodFuels and ITOCHU have agreed to work together to provide access to sustainable marine biofuels throughout Singapore's territorial waters, waterways and ports. Both organisations will also work together to expand the supply of sustainable marine biofuel in the Asia-Pacific region by identifying potential feedstocks.

GoodFuels said the bunkering comes as a significant milestone for the company in response to the growing demand for low-carbon marine fuels.

"It is important to emphasise how important this first bunkering with NYK is to GoodFuels' presence in Asia," said Jing Xieng JX Han, general manager, GoodFuels Asia Pacific. "Just months after starting operations in Singapore and following our recent agreement with ITOCHU, we are proving to the market that we are ready to provide our sustainable biofuel solutions to meet the growing demand in the region."

Source: <https://gcaptain.com/goodfuels-kicks-off-biofuel-bunkering-in-singapore/>