MS DAILY BRIEF - 22 September 2022

Contents

British unmanned submersibles for Ukraine

Britain is actively helping Ukraine and regularly transfers some weapons and equipment to it. It has recently become known that the British Navy will allocate several unmanned underwater vehicles with hydroacoustic equipment on board as assistance and will also train Ukrainian operators. It is assumed that with the help of such equipment, Ukraine will be able to search for and destroy sea mines in the Black Sea.

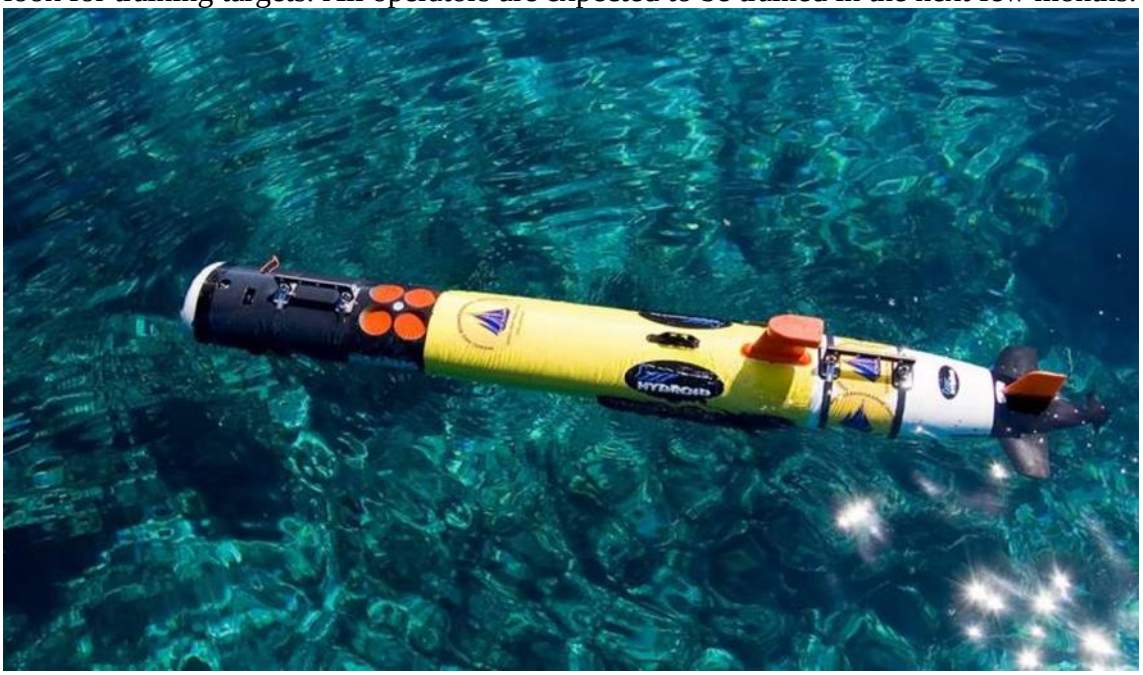
Another aid

The UK Ministry of Defence officially announced the planned transfer of the underwater vehicles on 27 August. In a press release, it routinely and predictably accused Russia of exploiting in the Black Sea, blocking ports, using grain as a weapon, obstructing a grain deal and so on. In this regard, the British Ministry of Defence is once again planning to help the Kiev regime by offering funds to correct the current situation.

It is reported that underwater anti-mine drones will be handed over to Ukraine. The type of this technique has not yet been specified. At the same time, it is mentioned that we are talking about light-class devices capable of operating at a depth of up to 100 m. They carry a set of surveillance and detection instruments with which they must detect and recognise mines.

Six submersibles will be assigned as assistance. Half will be taken in the relevant divisions of the CVMF and the rest will be ordered from the manufacturing company. The executing company, the cost of the future order and the timing of its execution are not mentioned.

The UK will train several dozen Ukrainian operators to operate the new equipment. Specialists from the US Navy's 6th Fleet will also participate in the training process. The training course lasts just three weeks. During this time, the future operator must master the material, learn how to work with hydroacoustic systems, etc. Sea trips are also planned to look for training targets. All operators are expected to be trained in the next few months.



Along with underwater vehicles, they plan to transfer Sandown-type dredgers. Ukrainian crews of these vessels have already started training. In the future, they will have to move to the Black Sea.

So in a few months' time, the Kiev regime will have a whole range of countermeasures at its disposal. According to official data, ships and submersibles will be used to ensure navigation. How they will be applied in reality - will become clear later.

hypothesis

The UK Ministry of Defence has not said what kind of underwater vehicle will be transferred to Ukraine. However, some of its features are named, according to which a certain type can be determined. So, it is mentioned that this unmanned complex is in service with the CVMF and belongs to the light class. It carries sonar equipment, can search for mines and can operate at depths of up to 100m.

Apparently, we are talking about a REMUS 100 (Remote Environmental Measurement Unit 100m) unmanned underwater vehicle. The first version of this complex appeared in the early 2000s by the Norwegian company Hydroid, part of Kongsberg Maritime. The latter was responsible for the development of the underwater platform and the on-board equipment complex was created at the Woods Hole Oceanographic Institution.

REMUS 100 is part of the family of unmanned systems. Together with him they developed the larger and heavier REMUS 300, REMUS 600, etc. They are capable of carrying heavier equipment with improved performance and operating at increased depths. The first customer for the REMUS 100 was the US Navy. Already in 2003, such drones participated for the first time in a real operation. While preparing for the offensive against Iraq, they worked in the Persian Gulf and searched for sea mines. In the future, the REMUS 100 was acquired by other countries. In particular, since 2006, the UK CVMF has been using such equipment. At the beginning of the tenth year, these complexes were upgraded to improve performance.

"Remote measuring instrument"

The REMUS 100 is a miniature submarine with a cylindrical hull and protruding bows. The length of such a product is only 1.6 m, the diameter of the hull is 190 mm. Depending on the configuration, the weight can reach 37-38 kg. The device and the other components of the complex are transported in a pair of containers on any suitable transport. The underwater drone is fully electric. The operating electric motor, control systems and target equipment receive electrical power from a lithium-ion battery. Maximum speed reaches 5 knots; the REMUS 100 travels for at least 8 hours. The economical speed of 3 knots increases the output time to 10-12 hours.

The design of the device ensures operation at depths up to 100 m. A control system is used with the ability to work at the operator's command or to independently perform certain tasks. The main means of navigation is an inertial system with a set of sensors and a computer. In the surface position the GPS system can be used. In automatic mode, the device is able to pass on a certain route and use the target equipment.

Several means of communication are provided. On shore, in preparation for going to sea, it is possible to use cables or Wi-Fi. In the surface position, wireless channels are used, incl. satellite. Underwater, acoustic means of data transmission are switched on. The REMUS 100 can carry various target equipment. The main type of payload are side-scanning hydroacoustic stations. The collected data can be written to an internal storage device or, if possible, transmitted to the operator. The software of the complex makes it possible to compile three-dimensional maps of water areas and mark various objects on them, including sea mines. The REMUS 100 complex differs from other similar systems in its relative simplicity and low cost. This allows you to use multiple underwater vehicles simultaneously in the same area and collect more data faster, levelling out the limited features of each of the drones. Targets and objectives The REMUS 100 unmanned vehicle, equipped with sonar equipment, is capable of monitoring, surveillance and reconnaissance. These are the tasks to be tackled by the devices the UK is to transfer to Ukraine. At the same time, both the possible premises for such a step and its consequences are of interest. Apparently, the actual objectives of the transfer of mines and underwater vehicles are fully in line with those stated, and even have to search for and destroy mines in the Black Sea. Recall that in February-March, Ukrainian formations mined several coastal waters. Now these minefields threaten commercial transport, especially the export of Ukrainian grain to third countries. To avoid problems with food, Britain and other countries are ready to help clean up the Black Sea and clear trade routes as soon as possible. Even if this means transferring ships or complex unmanned equipment. It should be noted that underwater vehicles can not only search for mines but also carry out reconnaissance. However, the REMUS 100 cannot fully handle such tasks. First of all, it is hampered by limited steering characteristics. A cruising range of no more than 30-40 miles does not allow reconnaissance missions to be organised without the risk of premature detection of an aircraft or transport vessel. In theory, REMUS 100 or similar devices can be used for sabotage - in this case the target equipment is replaced by a warhead. But in this case, the problem of timeliness adds to the problem of range. An underwater drone

is too expensive to send "one way". Of course, if the operator considers their costs. Uncharacteristic episode As you can see, the UK is again preparing to help Ukraine with the supply of military equipment and training of operators for it. However, this time it is not weapons and combat vehicles, but the means to combat sea mines. And it looks like the unmanned complexes planned for transfer will handle just such tasks. Thanks to Ukrainian mines in the Black Sea, foreign countries, incl. Britain could face problems in the food supply line - and steps must be taken to eliminate them. Such measures will be British minesweepers, underwater vehicles, which will have to ensure grain exports. At the same time, all mine action will be carried out by Ukrainian sailors. They will have to work hard and take risks in order for foreign partners to get the grain they want.

Source: https://topwar.ru/202052-britanskie-bezjekipazhnye-podvodnye-apparaty-dlja-ukrainy.html

Russia's options. George Friedman: Romanian 'gambit' is very dubious. What would happen if Russian forces landed on Romania's coast?

US analyst George Friedman analyses on Geopolitical Futures the strategic options Vladimir Putin currently has after his defeats in the Kharkov region.

Last week, we discussed the nature of tactical nuclear weapons. They are built for tactical effect, not strategic effect. Strategic nuclear weapons, such as those dropped on Hiroshima and Nagasaki, can devastate a large area, both by explosion and by nuclear fallout. The blast area would be devastated and the fallout would increase the lethality and carry it a significant distance downstream. However, it should be remembered that, regardless of casualties, neither town was completely abandoned, and both were populated and functioning at a reasonable level about a year after the bombs detonated. The power of tactical nuclear weapons (depending on type) is less than 1% of the Hiroshima blast and, just as importantly, they produce few nuclear effects.

Tactical nuclear weapons can determine the outcome of a battle, but not of a war, and would not make the earth uninhabitable. Russia's other nuclear option is therefore strategic: destroying Ukrainian cities with a Hiroshima-type weapon. This option has two weaknesses. Winds in Ukraine are variable, and in eastern Ukraine, for example, they blow to the northeast. A strategic nuclear detonation would send radioactive fallout into Russia and, in this example, to Voronezh, a strategic Russian city. Any use of a strategic nuclear weapon would probably affect Russian territory.

A second risk, however unlikely, concerns the Western response. The United States, the United Kingdom and France all possess strategic nuclear weapons. Any of them could see a Russian strike on Ukraine as a potential threat to themselves, triggering a response. This may be exaggerated and none of the three could imagine it, but in a command centre, fears are magnified. Given the limited value of tactical nuclear weapons and the potential disaster caused by strategic nuclear weapons, Russian nuclear threats are excellent psychological warfare (unless a Russian enemy takes the threat seriously), but they cannot solve Russia's military problem.

Its problem consists of four parts. The first is that the Russians have been deployed in Ukraine since the war began at key points vulnerable to flank attacks, which have happened. A withdrawal into more defended formations would make sense, but it would also have serious political consequences, as it would signal another withdrawal after the one in the north at the start of the war. A second problem seems to be insufficient, poorly trained and unmotivated forces with which to mount a counterattack sufficient to force a major Ukrainian withdrawal. A third problem is the old Russian/Soviet problem: logistics. In order to mount a counterattack, the Russians must have not only initial supplies, but also massive additional

supplies that reliably get to where they are needed. This leads to their fourth problem. American satellites provide constant and accurate intelligence on all forces, including logistical movements. In addition, American artillery of various types is capable of cutting off the Russian supply line, leaving a crippling offensive. And finally, Ukrainian forces are sufficiently dispersed that a last-ditch tactical nuclear strike is likely to impact the Russian offensive.

It would appear that Russia has been forced into a permanent defensive posture. If this were World War II, Russia could come back. But Russia hasn't fought a multi-divisional war in 77 years. We saw the Russians open the war with three armoured strikes, largely unable to cope with logistical problems and anti-tank weapons. In fact, they were forced to withdraw from offensive missions, regroup and end up in the position they are in now. They are fighting an enemy in the same position, but one that doesn't have a logistical problem thanks to the US which has also experienced failure, but whose most robust capability is logistics.

Clearly the Russians need to change the dynamic of the war if they are not to be forced into a political settlement. The key is to pose threats to the Ukrainians from several directions, both tactically and strategically. Indeed, their primary need is to spread US logistics by creating a serious military threat to another US ally or attacking one directly. It is not clear that the US would be unable to secure two fronts, but it could unbalance them and force them to reduce support for Ukraine, opening up possible opportunities for Russia.

Geography offers few options here, but the most likely are Moldova and Romania, two countries linked together. It might not be a land offensive, but it should take advantage of the Black Sea, landing significant forces in Romania, a NATO member and host to a US naval force. To achieve this, the Russians would first have to use missiles to take out Ukrainian anti-ship missiles like the ones that sank Moskva. In doing so, they would have to gain and maintain air or missile superiority over the Black Sea and then land and acquire enough force to force Romanian forces into combat with substantial American forces. Given that there are US naval forces outside the Bosphorus and given that NATO mandate or absolute necessity would force the Bosphorus to close, this would pose a serious threat to the Russians. Add to that an air strike on Russian forces and this operation would probably fail.

There are probably other viable diversionary actions of sufficient significance to force the United States to divert its forces, but all would be built on ground movements at a time when Russia is hard pressed. An attack on the Baltics would trigger a significant Polish attack on Russia's flank, and launching an attack on Finland, for example, would be detected and anticipated. The same is true of Romania, but with somewhat less opportunity.

Of course, the Romanian "gambit" itself is very dubious, but we assume here that Russia has been forced to defend itself and is not willing to abandon the war. Few options are attractive at this point, but the political cost of abandoning the war is enormous. If it has to continue and the Russians cannot regain the initiative, then "Hail Mary" is the only option.

The final option is one I have written about before, which involves combining forces in the east and then attacking Ukraine with new forces. This remains the most likely solution for Russia, assuming it can coalesce, train and motivate a large force. If not, Russia might get a weak draw, but it cannot impose its will on Ukraine.

Source: http://stiri.tvr.ro/op-iunile-rusiei-george-friedman-gambitul-romanesc-este-foarte-dubios-ce-s-ar-intampla-daca-for-ele-ruse-ar-debarca-pe-litoralul-romaniei_914544.html#view

Russian Navy safely moves attack submarines to Kilo. Strike risk.

UK Ministry of Defence Russia has "almost certainly" moved its Kilo-class Black Sea Fleet submarines from Sevastopol, Crimea, to the port of Novorossiysk in Krasnodar Krai, the UK Ministry of Defence said in a briefing on Tuesday. Russia could have up to four of its diesel-electric attack submarines in the Black Sea. All of the Kilo class are capable of launching Kalibr NK cruise missiles. Kalibr sea-launched missiles have been used in attacks on Ukraine, a senior military official told a conference on Monday. While the United States has seen reports, Pentagon press secretary Gen. Pat Ryder during his Tuesday press briefing could not confirm that Russia is moving its submarines. The submarine move is likely due to an increase in Ukrainian long-range strike capabilities, which would put attack submarines at the Black Sea Fleet base in Sevastopol at risk, according to the British intelligence assessment. The Russian Navy's fleet headquarters and the main naval aviation airfield at Sevastapol have been attacked in the past two months, the assessment said.

"The Russian Black Sea Fleet Command has almost certainly moved its Kilo-class submarines from their home port of Sevastopol in Crimea to Novorossiysk in Krasnodar Krai, southern Russia," the assessment said. "Securing the Black Sea Fleet's base in Crimea was likely one of Russian President Vladimir Putin's motivations for annexing the peninsula in 2014. The security of the base has now been directly undermined by Russia's continued aggression in Ukraine." Before the move, it was not uncommon for Russia to have three of its Kilo-class submarines at the Sevastapol base and one at sea, according to a report in Naval News. The submarines are still capable of launching Kalibr cruise missiles into Ukraine from the vicinity of Novorossiysk, according to Naval News. The Kalibirs, which mimic the capabilities of US Tomahawk land-attack missiles, have an estimated range of 1,000 nautical miles. The Russian navy has played a background role in the Ukrainian invasion since Ukraine sank the RTS Moskva (121), the flagship of the Black Sea Fleet. The Ukrainians used Neptune missiles to hit the Moskva, causing it to catch fire in April. It sank while the Russian Navy was towing it, USNI News previously reported.

Source: https://news.usni.org/2022/09/20/russian-navy-moving-kilo-attack-boats-to-safety-from-ukraine-strike-risk-says-u-k-mod?utm_source=sailthru&utm_medium=email&utm_campaign=dfn-ebb&STOverlay=2002c2d9-c344-4bbb-8610-e5794efcfa7d

Partnership signed between French Navy and Italian Navy for FREMM frigates

Marine Nationale and the Italian Navy (Marina Militare) yesterday concluded two partnerships related to their in-service FREMM frigates. The two partnership agreements were signed in Naples by General (DGA) Guillaume de Garidel-Thoro, head of the French Navy's "Fleet Support Service" and Admiral Giuseppe Abbamonte, head of the Italian Navy's Logistics Command. The first partnership agreement allows the two navies to have mutual access to the FREMM spare parts inventory. A similar agreement for the Horizon destroyer was already in place between the two navies. The second partnership concerns the exchange of information on the maintenance of FREMM frigates.

The French Navy has 8 Aquitaine class FREMM frigates on order (with one ship still to be delivered by Naval Group). The last two ships of the class, Alsace and Lorraine, have enhanced air defence capabilities and are known as "FREMM DA". The Italian Navy has 10 FREMM Bergamini class frigates on order (with two ships still to be delivered by Fincantieri). They come in two variants: General Purpose and Anti-Submarine Warfare.

Source: https://www.navalnews.com/naval-news/2022/09/french-navy-and-italian-navy-ink-partnership-for-fremm-frigates/

GDMS has awarded a contract for a container-related elevated mast (C-TEM).

General Dynamics Mission Systems (GDMS) has announced that it has been awarded an indefinite-delivery/indefinite-quantity contract to design, manufacture, test and deliver prototype containerized elevated mast (C-TEM) to the U.S. Navy. C-TEM was competitively procured through the Unmanned Surface Vehicle Systems family of multiple-award contract

and provides a line-of-sight communication extension for surface ships. A delivery order for the first C-TEM mast was exercised with $10.1 million in funding obligated at the time of award. Work will be performed in Essington, Pennsylvania (48%); Pittsfield, Massachusetts (35%); Taunton, Massachusetts (14%); and Fair Lakes, Virginia (3%) and is expected to be completed by December 2023. This contract includes options that, if exercised, would bring the aggregate value of this delivery order to $39.4 million. If all options are exercised, work will continue until June 2027.

Source: https://www.navalnews.com/naval-news/2022/09/gdms-awarded-containerized-tethered-elevated-mast-c-tem-contract/

Ro-Ro electric and autonomous freight ferries start operating in Norway

The first electric, autonomously operated "sea drones" were christened in Norway last week and were due to start operating this week for Norway's largest food retailer. It is the start of a two-year trial period for the vessels to achieve full certification for unmanned operations. The two vessels, which are each about 220 feet long and weigh 60 tons, were built in India for ASKO Maritime, a new division of the grocery products operator. They are designed to operate fully autonomous cargo trailers across Norway's Oslo Fjord. Once fully certified, they will operate controlled from an onshore centre using technology from Massterly, a joint venture between Wilhelmsen and Kongsberg. The vessels were named Marit and Therese during a naming ceremony in Moss Havn, Norway, on 15 September, in honour of two of the country's cross-country skiers and Olympic champions. Operations began this week with the first cast-adapted trips for ASKO Oslofjord in Østfold, Norway. During the two-year certification period, the vessels will sail with a limited crew of four, including the captain. Once certified, the plan is for the vessels to operate unmanned and as part of a larger emission-free transport system. Each ship will carry trailers that will be moved between the distribution centre in Moss and Horten, Norway, using electric trucks. At the ports, autonomous electric trucks will load the trailers on board the barges. Each vessel has the capacity to carry 16 trailers, each with a maximum capacity of 29 tonnes. The ships are powered by batteries with a capacity of 1846 kWh and will recharge automatically when docked in port. ASKO expects to reach a level of transporting 150 trailers per day within a few years on the route, saving almost one million miles of road transport annually and eliminating 5,000 tonnes of CO2 emissions annually. The ships arrived in Norway on 9

August after a heavy lift delivery voyage that began in India on 29 June. Initial tests have been carried out over the past weeks at the port in Horten Industrial Park. Norway is a leader in the maritime industry with several autonomous ship projects. In the spring, Yara christened their first autonomous electric container ship Yara Birkeland. Like ASKO's cargo ferries, Yara Birkeland is starting a two-year certification process. Furniture manufacturer Ekornes announced in May 2022 that it is collaborating with German logistics company DB Schenker together with design firm Naval Dynamics to develop an autonomous, electric container ship to transport containers on a 23 nautical mile route between the Ekornes facility and the port of Ålesund. These programmes are part of an effort to shift more cargo movement to coastal vessels to reduce the use of road transport.

Source: https://www.maritime-executive.com/article/electric-autonomous-ro-ro-freight-ferries-begin-service-in-norway

Investment in LNG bunkering could lead to $850 billion in savings

The debate on the long-term viability and role LNG will play in the shipping industry is renewed, with two new reports being released as part of ongoing Climate Week meetings. One report warns that regulatory efforts could leave the shipping industry with up to $850 billion in stranded assets, depending on the actions of policymakers driving shipping towards decarbonisation, while the other questions assumptions about the transition to bioLNG. Industry trade group SEA-LNG has responded to the International Council on Clean Transportation (ICCT) report, saying its data is outdated and underestimates the future availability of bioLNG for shipping. The reason for the renewed debate is the shipping industry's continued rapid adoption of LNG as the preferred fuel source for new ships. Two-thirds of current newbuildings to be delivered in the next three years will be capable of running on LNG, up from just 10% a few years ago. Earlier this year, DNV Maritime's senior consultant Martin Christian Wold pointed out that orders for LNG-powered ships were at a record pace. Data from DNV's Alternative Fuel Insights shows that there are over 500 LNG-fuelled ships on order for delivery by 2028, which would bring the global fleet to over 800 ships with a further 229 LNG-ready ships also on order for delivery by 2028. "If policies incentivising shipping to decarbonise under the Paris Agreement were implemented by the end of the decade, the LNG-capable fleet would compete with zero-emission shipping while being incentivised to move away from fossil fuel use. " writes a new study by researchers at University College London's Energy Institute. The analysis suggests that more expensive LNG-capable ships would see reductions in their value to match the value of similar older, but lower-cost, conventional ships designed to use fuel oil. "The longer we leave the LNG transition in place and then switch, the more painful it will be," says Marie Fricaudet, lead author and PhD. student at the UCL Energy Institute. In the report, they attempt to quantify the potential and cost of stranded assets in the shipping industry as the energy transition progresses. The report concludes that the shipping industry based on current LNG newbuilding orders could be forced to cut $850 billion in investment in a worst-case scenario as regulators take steps to incentivise ship decarbonisation. Even if LNG-capable ships are retrofitted to run on scalable zero-emission fuels (hydrogen and hydrogen-derived fuels such as ammonia), they estimate the potential loss at around 15-25% of their value, anywhere between $128 billion and $210 billion, depending on how the LNG fleet grows. "The cheapest way for shipping to cope with the necessary shift away from fossil fuels is a combination of electrification in short sea shipping and the use of scalable hydrogen and hydrogen-derived fuels such as ammonia and methanol for deep sea shipping," according to Energy Institute researchers. The report says there is still time to anticipate regulatory and technological developments and manage exposure to potential stranded value risk with ships that could have

their economic returns shortened by new regulations. They recommend ship owners not to order LNG-capable vessels and to invest in conventionally-fuelled vessels that are designed to upgrade to zero-emission fuels, or to consider the cost of future refurbishments for LNG vessels to ensure their long-term financial viability. While the Energy Institute's research points to the need for a transition path for LNG-fuelled ships, the ICCT questions the assumption that LNG ships can switch to bio and e-LNG in the future. Their research cites a potential shortage of renewable LNG supply to meet future demand and anticipates that fuel costs will be substantially higher. They cite forecasts for a tripling of demand between 2019 and 2030, along with an estimate that the cost of renewable LNG will be more than seven times higher than fossil LNG in 2030. SEA-LNG responds by saying that ICCT overestimates costs and underestimates the supply of bioNG. They cite higher current production levels, according to the European Biogas Association, without mentioning the investments planned by many companies to expand future production. Addressing cost, SEA-LNG points out that most of the cost is production for the common renewable hydrogen feedstock needed for all e-fuels, suggesting that all e-fuels will have similar costs. The ICCT report moves on to the old argument about methane leakage both from ships and along the production and supply chain. They argue that even using 100% LNG from renewables doubles methane emissions compared to 2019, primarily due to marine methane slip.

Source: https://www.maritime-executive.com/article/lng-debate-with-report-warning-of-850b-potential-for-stranded-assets

Report to Congress on US Navy Structure

The following is the September 19, 2022 Congressional Research Service report, Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress. From the report The size and current and planned composition of the Navy, the annual rate of Navy ship procurement, the prospective affordability of Navy shipbuilding plans, and the ability of the U.S. shipbuilding industry to execute Navy shipbuilding plans have been matters of oversight for congressional defense. committees for many years. In December 2016, the Navy released a force structure goal that calls for building and maintaining a fleet of 355 ships of certain types and numbers. The 355-ship goal was established in U.S. policy by Section 1025 of the FY2018 National Defense Authorization Act (H.R. 2810/P.L. 115-91 of December 12, 2017). The 355-ship goal predates the Trump and Biden administrations' national defense strategies and does not reflect the new fleet architecture (i.e., new ship mix) that the Navy wants to move toward in the coming years. This new fleet architecture will feature a smaller proportion of larger ships, a larger proportion of smaller ships, and a new third element of large unmanned vehicles (UVs). The Navy and Department of Defense (DOD) have been working since 2019 to develop a successor to the 355-ship force-level goal that reflects the current national defense strategy and new fleet architecture. The Navy's FY2023 30-Year Shipbuilding Plan (FY2023-FY2052), released on April 20, 2022, presents the results of three studies on options for the Navy's force-level successor goal. These studies call for a future Navy with 321 to 404 manned ships and 45 to 204 large UVs. A long-range Navy shipbuilding document, which the Navy released on June 17, 2021 and which reflects some of these studies, outlined a future Navy that would include 321 to 372 crewed ships and 77 to 140 large UVs. A congressionally mandated Battle Force Requirements and Assessment Report (BFSAR), reportedly provided to Congress in July 2022, would have called for a Navy with 373 battle force ships. The Navy's proposed FY2023 budget calls for $27.9 billion in shipbuilding funding for, among other things, the procurement of eight new ships, including two Virginia-class attack submarines (SSN-774), two Arleigh Burke-class destroyers (DDG-

51), a Constellation (FFG-62-class frigate), an LPD-17 Flight II-class amphibious ship, a John Lewis-class oiler (TAO-205), and a Navajo-class towing, salvage, and rescue ship (TATS-6). The Navy's FY2023 budget submission shows that a ninth ship - the LHA-9 amphibious assault ship - has also been requested for procurement in FY2023. Consistent with prior year congressional authorization and framing actions, as well as Section 126 of the FY2021 National Defense Authorization Act (NDAA) (H.R. 6395/P.L. 116-283 of January 1, 2021), CRS reports on the Navy's shipbuilding programs, including this report, treat the LHA-9 as a ship that Congress procured (i.e., authorized and provided procurement - not advance procurement [AP] - funding) in FY2021. Navy officials described the listing of LHA-9 in the Navy's FY2023 budget submission as a ship requested for procurement in FY2023 as an oversight. The Navy's proposed FY2023 budget also proposes retiring 24 ships, including 9 relatively young Littoral Combat Ships (LCS). The 30-year shipbuilding plan for FY2023 (FY2023-FY2052) released April 20, 2022, includes three potential 30-year shipbuilding profiles and resulting 30-year force-level forecasts, referred to as Alternatives 1, 2, and 3. Alternatives 1. and 2 assume no real (i.e., above inflation) increase in shipbuilding funding beyond the level to be achieved in the five-year period FY2023-FY2027, while Alternative 3 assumes some real increase in shipbuilding funding beyond FY2027. Under Alternative 1, the Navy would reach 300 manned ships in FY2035 and increase to 316 manned ships by FY2052. Under Alternative 2, the Navy would reach 300 manned vessels in FY2035 and increase to 327 manned vessels by FY2052. Under Alternative 3, the Navy would reach 300 manned vessels in FY2033 and increase to 367 manned vessels by FY2052.

Source and full document:

https://news.usni.org/2022/09/21/report-to-congress-on-navy-force-structure-35

New details on the U.S. Air Force's next stealth bomber: The first B-21 Raider will be unveiled to the public in December

One of the most expensive U.S. military programs is making significant progress. Several U.S. military media publications have reported, citing a U.S. Air Force official, that the unveiling of the latest U.S. B-21 Raider strategic bomber will take place in the first week of December this year in a ceremony organised by Northrop Grumman. The U.S. Air Force (USAF) has confirmed that the unveiling of America's newest strategic bomber, the B-21

Raider, will take place in a ceremony the first week of December this year. "The unveiling of the B-21 Raider will be a historic moment for the Air Force and for the US," said Air Force Chief of Staff General CQ Brown, Jr, according to Breaking Defense. The B-21 Raider, the US Air Force's next stealth bomber, will be unveiled to the public for the first time in early December, Andrew Hunter, chief acquisition officer of the US Air Force, said Tuesday. It will be the first time the Air Force has unveiled a new bomber since the B-2 Spirit debuted in November 1988 at Air Force Plant 42 in Palmdale, Calif. The first flight of the B-2 took place in July 1989. The new bomber, manufactured by Northrop Grumman, has so far only been shown in graphic images. Its first flight is expected to take place in 2023, a few months after its launch. Following the announcement by Andrew Hunter, Northrop Grumman said in a statement that the first flight date will be determined based on the results of ground tests. Currently, there are six B-21 bombers in various stages of assembly at Northrop Grumman's Palmdale plant, the company said in the release. Northrop Grumman said in May that the first B-21 has completed a first round of ground tests. This phase included load calibration tests designed to verify the structural integrity of the bomber. Prior to the B-21's first flight, Northrop Grumman will conduct engine tests and runway tests at low and high speeds. The US Air Force had originally hoped as early as 2019 that the first flight of the first B-21 would take place in December 2021, but that timeline has since been changed. The B-21 is a long-range bomber with advanced stealth features that will be designed to destroy important long-range targets. It will gradually replace the B-1 and B-2 bombers, becoming the backbone of the US Air Force's bomber fleet. For now, however, it will not be a successor to the B-52 bombers, which, though much older than the B-1 and B-2, will remain in USAF service alongside the B-21 for several more decades. The US Congressional Budget Office estimated in 2018 that the value of developing and buying the first 100 aircraft would be $80 billion. The US Air Force plans to receive at least 100 B-21 Raider bombers.

https://www.defenseromania.ro/noi-detalii-despre-viitorul-bombardier-stealth-al-u-s-air-force-primul-b-21-raider-va-fi-prezentat-publicului-in-luna-decembrie_618285.html.