NAVY NEWS WEEK 3-5

18 January 2018

Iran’s navy destroyer crashes at Caspian port due to sea storm

Source: Xinhua | 2018-01-16 17:11:41 | Editor: huaxia

Iran’s military destroyer Damavand crashed at Caspian Sea port due to strong winds and sea storm.

TEHRAN, Jan. 16 (Xinhua) -- Iran’s military destroyer Damavand crashed into wave breakers at a port in the Caspian Sea and two of its crew members are missing, Tasnim news agency reported on Monday. A search operation is underway to find the two servicemen missing in the accident that happened on January 10, the report quoted army spokesperson General Shahin Taqikhani as saying. Strong winds and a sea storm led to the crash, said Taqikhani. Contrary to the initial reports about minor damages to the destroyer, the assessment teams have found out that the vessel has suffered serious damages and needs a complete overhaul, he said. On Wednesday, Damavand destroyer crashed into wave breakers when it was docking at port in Iran’s northern province of Gilan in stormy weather. The 100-meter-long destroyer that weighs more than 1,300 tons officially joined the Navy’s northern fleet in the Caspian Sea in March 2015.

Source: http://www.xinhuanet.com

Destroyer of the Navy of Iran Flew Into a Breakwater in the Caspian Sea

In the harbor near the Iranian city of Bandar-Anzali in the Caspian Sea, the destroyer of the Iranian naval forces “Damavand” crashed into a concrete breakwater, Iranian media reported. According to media sources unconfirmed by the Navy, as a result of the collision, six members of the ship’s crew fell overboard, four managed to be rescued, and the search for the two continues. The incident occurred on Wednesday evening. There are no official data on the injured or damage to the ship. On the photos published by the media, it is clear that the ship, as a result of the accident, tipped heavily to starboard. According to preliminary information, the storm is considered the main cause of the destroyer’s crash: during the accident, the wave height reached four meters. The destroyer, originally named “Jamaran-2” was launched in March 2012 and became part of the northern flotilla in 2015, becoming the largest Iranian warship in the Caspian.

Source: Maritime News of Russia

The Type 23 Frigate HMS Sutherland – F 81 left Devonport Jan 9 on deployment to the Pacific, the first Royal Navy vessel to go there in several years. She will be joining training exercises with the US, J apanese, and South Korean navies off the Korean Peninsula. Her sister ship HMS Argyll will follow her to Japan at the end of the year.

Photo: Raymond Wergan, Newton Ferrers. (c)

This is what the Brazilians want to re-name HMS Ocean

The MoD says it is in advance talks with the Brazilian Government over the sale of the Royal Navy flagship

By Gayle McDonald

Defence reporter

17:17, 11 JAN 2018
The Royal Navy flagship **HMS Ocean** is to be given a new name by the Brazilian Navy, it has emerged. Earlier this month, the Ministry of Defence confirmed it was in advanced talks with the Brazilian Government over the sale of the Devonport-based aircraft carrier. According to The UK Defence Journal, a well-respected online publication covering military matters, the Brazilians have even thought of a new name for the ship. It reports that “**Minas Gerais**” – the name of a Brazilian battleship, since decommissioned and a state in the south east of the country – is the favourite. The Journal reported that the impressive vessel, due to be decommissioned early this year, had been sold for £84 million. It is understood the first group of four Brazilian officers will head to Plymouth, where the ship is berthed, within the next few weeks.

An MOD spokesperson said: “Discussions with Brazil over the long-planned sale of HMS Ocean are at an advanced stage, but no final decisions have been made. "HMS Ocean has served admirably with us since 1998 and the revenue she generates will be reinvested in defence as we bolster our Royal Navy with two types of brand new frigates and two huge aircraft carriers.” The UK Defence Journal broke the news in March 2017 that Brazil was interested in **Ocean** – a fact since confirmed by the Brazilian government. The Brazilian Navy reportedly proposed to pay for the vessel by instalments. **HMS Ocean** has been used to effectively transport Royal Marines to trouble spots around the world. She is designed to support amphibious landing operations and to support the staff of Commander UK Amphibious Force and Commander UK Landing Force. Brazilian journalist Roberto Lopes revealed news of the deal to buy the vessel in an e-mail to the UK Defence Journal. He said the Commander of the Brazilian Navy, Admiral Eduardo Leal Ferreira, claimed that the price of Ocean seemed “convenient”.

**HMS Ocean** has the distinction of having a new name, as well as a new flag. It was initially delayed by three days because of the extreme weather to batter the U.S. in recent weeks, according to local news outlet **The Buffalo News**. Photos posted on Little Rock’s Facebook page show the vessel swaying on ice-covered waters. It was able to make a little progress towards Lake Ontario, before reaching Montreal before the new year. But it has scarcely moved since. “Icy conditions delayed the ship’s departure due to a limited number of tugs,” Courtney Hillson, public affairs officer for Naval Surface Force Atlantic told the **Navy Times**. The vessel has undergone minor repairs but it requires a tug to help it along the way through the icy waters to Halifax, where it will begin to turn south and head for Florida. According to CBS-affiliated channel **WIVB**, by Monday **Little Rock** was still not on the move. “We continue working with Port Authority tugs, experts, and technological representatives to ensure the best path forward,” Hillson told the Buffalo-based channel. She also told public service radio **WBFO** that numerous “port stops” are like “rest stops” in a long car journey and it is not unusual for such stops to last for days sometimes. As of Wednesday, **Little Rock** had been sitting in Montreal for almost two weeks, however, and Hillson added that a time of departure was still to be determined. Five more ships of Little Rock’s size have been laid down for construction and, in some cases, are awaiting to be commissioned, while the U.S. Navy hopes to acquire around four more freedom-class littoral combat ships, work on which has not started.

Forgive the journalist’s terminology, they rarely have a solid understanding of nautical terminology.

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**The U.S. Navy's Brand-New Battleship Little Rock Is Stuck In Ice in Canada**

By **Damien Sharkov** On 1/11/18 at 4:30 AM

The crew of the U.S.S. **Little Rock** have an indefinite wait until they are back on track to sail for Florida, after the Navy’s newest combat ship got stuck fast in ice in Canada. **Little Rock** joined navy ranks last month at a commissioning ceremony at Canalside in Buffalo, New York, attended by over 8,000 people. The brand-new vessel planned to sail via Lake Erie—a body of water shared by the U.S. and Canada—to its permanent home in Mayport, Florida. But Mother Nature had other plans. **Little Rock** was initially delayed by three days because of the extreme weather to batter the U.S. in recent weeks, according to local news outlet **The Buffalo News**. Photos posted on Little Rock’s Facebook page show the vessel swaying on ice-covered waters. It was able to make a little progress towards Lake Ontario, before reaching Montreal before the new year. But it has scarcely moved since. “Icy conditions delayed the ship's departure due to a limited number of tugs,” Courtney Hillson, public affairs officer for Naval Surface Force Atlantic told the **Navy Times**. The vessel has undergone minor repairs but it requires a tug to help it along the way through the icy waters to Halifax, where it will begin to turn south and head for Florida. According to CBS-affiliated channel **WIVB**, by Monday **Little Rock** was still not on the move. “We continue working with Port Authority tugs, experts, and technological representatives to ensure the best path forward,” Hillson told the Buffalo-based channel. She also told public service radio **WBFO** that numerous "port stops" are like "rest stops" in a long car journey and it is not unusual for such stops to last for days sometimes. As of Wednesday, **Little Rock** had been sitting in Montreal for almost two weeks, however, and Hillson added that a time of departure was still to be determined. Five more ships of Little Rock's size have been laid down for construction and, in some cases, are awaiting to be commissioned, while the U.S. Navy hopes to acquire around four more freedom-class littoral combat ships, work on which has not started.

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**Kraken Real Time Sonar Deployed on US Navy AUV**

January 11, 2018 06:00 ET

![AquaPix® MINSAS Synthetic Aperture Sonar with Real-Time Processing on REMUS 600 AUV](http://www.plymouthherald.co.uk)

ST. JOHN'S, NEWFOUNDLAND--(Marketwired - Jan. 11, 2018) - Kraken Robotics Inc. (TSX VENTURE:PNG)(OTCQB:KRKNF) announced today that its wholly-owned subsidiary, Kraken Robotic Systems Inc., has completed development of a real-time Synthetic Aperture Sonar ("SAS") system that has been successfully integrated and tested onboard a US Navy REMUS 600 Autonomous Underwater Vehicle (AUV) operated by the Naval Undersea Warfare Center in Rhode Island. **Kraken is**
proud to have developed an AUV solution for real-time, ultra-high-resolution imaging and 3D mapping of the seafloor," said Karl Kenny, Kraken's President and CEO. "We expect this technology will revolutionize the way in which big data from Synthetic Aperture Sonar imagery and bathymetry is processed. We would like to extend our thanks and appreciation to our colleagues at the Naval Undersea Warfare Center for their support in deployment and testing of our solution on their REMUS 600 AUV."

ABOUT MINEHUNTING
Modern mines have become very stealthy. Naval operations designed to overcome this threat depend on a high probability to find the mines and the time required to cover the search area in high tempo. The best method to overcome this challenge is to obtain ultra-high-resolution target data at long ranges. High-resolution sonar data improves detection and classification capability by providing more details on the object. For several years, researchers have been developing machine intelligence that enables autonomous AUV minehunting and the development of automatic target recognition algorithms that increase confidence that a detected object is properly classified. Accurate classification is critical to efficient mine countermeasures. Migrating the algorithms and behaviours to operate onboard the AUV in real-time holds the potential to significantly increase the speed and accuracy for mine countermeasure missions. A major challenge is the acquisition and processing of raw data from sensors to derive actionable intelligence. The key to realize these objectives is the capability to process high resolution sonar data onboard the AUV in real-time to enable the creation of detailed acoustic images. These images can then be analysed on-the-fly by the vehicle's computers to enable the AUV to make enhanced decisions on the best way to continue the mission.

USING KRAKEN SAS TECHNOLOGY FOR MINEHUNTING
At least 5cm of target pixel resolution is required for effective minehunting. This can be achieved with Synthetic Aperture Sonar (SAS) to ranges of over 250 metres. While conventional side scan sonars can also achieve this resolution, they can only do so at very short range, typically limited to less than 25 metres. This range limitation has a direct effect on search times and results in very inefficient area coverage rates. Synthetic Aperture Sonar can provide up to 10 times the range and area coverage rates of conventional side scan sonar. SAS is particularly well suited for AUVs and industry experts predict that SAS will replace conventional side scan sonars for many military applications. SAS technology also has significant potential in other underwater imaging applications including offshore energy, seabed surveying, marine archaeology, debris mapping and search and salvage operations.

Mr. Kenny went on to say, "The major concern of mine countermeasures is to keep sailors far away from the mine threat while having a high level of confidence in the detection and classification of possible threats. Real-time SAS signal processing onboard an AUV is a significant step forward from the current approach. Kraken's real-time SAS can increase safety, improve operational efficiency, reduce the mission risk of missing mines and significantly reduce and/or eliminate post mission analysis time." Source: http://www.marketwired.com

Cannibalising Parts From Britain's Aircraft Carriers "Perfectly Reasonable"
Thu, 11/01/2018 - 07:28
The most senior civil servant at the MoD has told MPs it would be "perfectly reasonable" to cannibalise parts from Britain's second aircraft carrier, HMS Prince of Wales. Mr Lovegrove was asked if he could guarantee that HMS Prince of Wales...
would not be cannibalised to support **HMS Queen Elizabeth**. He told the Public Accounts Committee that if it meant one aircraft carrier was able to stay at sea and the deployment pattern was not going to be affected, then "why wouldn't you?".

He said: "I wouldn't rule out the chances of that, there are certain bits of equipment on the **Prince of Wales** which may find themselves being repurposed for use on the **Queen Elizabeth**. **HMS Prince of Wales** was floated for the first time last month and is currently being fitted out, while **HMS Queen Elizabeth** is in Portsmouth undergoing repair work to a seal before continuing trials. Last year, an investigation by the National Audit Office (NAO) discovered that the Royal Navy is being forced to strip parts from its vessels in order to maintain its fleet of ships and submarines.

The practice has increased 49% from 2012 to 2017 and the spending watchdog said budget cuts in the last two years could be the cause. Rear Admiral Richard Stokes defended the procedure of moving parts across the Royal Navy's fleet, he described it as a "valid method for protecting the programme of the highest priority operating units". The NAO report also describes the practice as an effective way to keep vessels operational during high-intensity operations.

However, it can also cause increased costs - in 50% of cases involving Type-23 frigates the cost of moving the part between ships was equal to or greater than the value of the part in question. Mr Lovegrove told the committee that if spares were to be held in stock, it would require a further £920 million of "capital tied up" which "doesn't make sense".

**Astute-class Submarines and Type 45 Destroyers Most Affected**

Nuclear-powered Astute-class submarines experienced the most cannibalisation in the fleet with 59 instances per boat on average. Type-45 destroyers, which have been plagued by problems, were partly responsible for the increased level of cannibalisation. 44% of the cannibalisations reported involved either Astute-class submarines or Type-45 destroyers.

Mr Stokes told the committee that the reliability issues of the Type-45 was due to being built with "80% new equipment". He said that as the technology on the ships is more widely understood, there will be less need for parts to be cannibalised.

The "**Demotivating**" Impact Of Ship Cannibalisation

The report highlighted the "demotivating" impact cannibalisation could have on sailors who have to deal with the issues regularly. Mr Lovegrove said that there are times when that happens, particularly across the Astute-class and Type-45 platforms. He said he is "not uncomfortable" with the level of cannibalisation, and said the NAO's report was "extremely helpful". "It has shone a very helpful light on some of the ways in which we go around managing our maintenance schedules and our stores."

Source: [https://www.forces.net](https://www.forces.net)

I think that most Navies of the world use the process of cannibalisation. It is very akin to the **just in time** principle private companies use when ordering stores. Any delays will make sure stores are not available. Cannibalisation is a way round this problem. In all my time in the Navy I never experienced a demotivating effect on sailors. In any case, in a time of restrictions on budgets cannibalisation becomes a given.

**Nato spy planes plug gaps in UK defences amid HUGE Russian submarine activity**

17 NATO spy planes were sent to the UK last year to plug worrying gaps in British defences.

By **Rebecca Pinnington**

PUBLISHED: 17:09, Thu, Jan 11, 2018 | UPDATED: 18:17, Thu, Jan 11, 2018

Eight US aircraft, as well as planes from Germany, France, Norway and Canada, were deployed to RAF Lossiemouth in Scotland between January and November 2017. The Nato allies helped the UK monitor Russian submarine activity following a huge increase in Russian underwater manoeuvres in recent years. Now the Government has been accused of "hollowing out" the UK's defence capability after axing a spy plane fleet in 2010. SNP MP Martin Docherty-Hughes said: "These figures reaffirm how disastrous the decision to chop up - quite literally - the RAF's Nimrod fleet in 2010 was. "While we are always grateful for support from our allies, they must be acutely aware of the hollowing out of UK defence capability..."
that this maritime patrol deficit highlights. "Coming in the same week that we hear the MoD is delaying the security review yet again, we have to ask if the Tories are taking the decisions to address the real threats we face."

Getty - Nato aircraft were sent to plug UK defence gaps at RAF Lossiemouth

"I would like to hear them restate their commitment to purchasing all nine of the promised Poseidon P-8 aircraft."

The Ministry of Defence said it had "robust" maritime surveillance in place and that a new fleet of P-8 Poseidon aircraft would patrol the seas from 2020. Nimrod plans had been used for the task for decades, but a project to replace them in 2010 fell by the wayside amid rising costs and delays. In October, the UK turned to American and Canadian patrols to track a suspected Russian submarine. Nato will also lend its weight to UK anti-submarine measures in 2018, expanding a British naval command post in North London by 100-200 staff amid the increased submarine activity. A Nato official told The Times: "You see Russia active across the entire Nato area of interest. It is significant, it is growing." The Royal Navy has struggled to match the pace of Russian technological developments as Moscow has developed faster, quieter and harder to detect submarines. Due to lack of investment in underwater military technologies, all of Nato has fallen behind Russia, losing its advantage in quieter boats. And the Royal Navy's four nuclear-armed submarines have struggled to avoid detection under the lens of the new technology. Source: https://www.express.co.uk

Japan Deploys New Missile Interception System on Aegis Destroyers - Reports

CC BY 2.0 / U.S. Missile Defense Agency / Aegis Ashore

TOKYO (Sputnik) - Japan will use a new missile interception system on its two destroyers, equipped with US Aegis missile defense systems, which will enter operational service in 2019-2020, Japanese newspaper Yomiuri Shimbun reported on Thursday, citing sources in the government. The new information exchange system, developed by the United States, will allow using radar data from a destroyer equipped with Aegis system in order to intercept missiles by another destroyer, the newspaper reported. The current information exchange system is imperfect and requires additional radar guidance at the ship, which will conduct interception. The Japanese government also considers a possibility to install this interception system on some other warships after carrying out a necessary technical upgrade, the news outlet added. Moreover, this new system can be also used at two US land-based Aegis Ashore missile defense systems, which are expected to be deployed to Japan by 2023. The decision to deploy US Aegis Ashore systems on the country's territory, aiming to protect the Japanese citizens from the threat posed by a potential missile attack by North Korea, was announced on December 19, 2017. Tokyo plans to install the missile defense units in the prefectures of Akita and Yamaguchi. The move prompted criticism of Russia, which stated that it would mean the undermining of the Nuclear Forces Treaty (INF) by the US. However, Japan responded that the country has no connection with the treaty, which had been signed by Moscow and Washington. Japan is currently protected by four destroyers equipped with US Aegis missile defense systems carrying SM-3 intercept missiles as well as surface-to-air modernized Patriot Advanced Capability-3 (PAC-3) ballistic missile interceptors. Sea-based Aegis systems are capable of intercepting a ballistic missile at altitudes of over 310 miles. Land-based Aegis systems have similar capabilities. Japan's missile defense is planned to be strengthened by equipping the Aegis systems with a new type of SM3 Block2A missile, the range of which is almost three times higher than those of the SM3. Source: https://sputniknews.com

Nigeria's Homeland receives fourth Damen patrol vessel

Written by defenceWeb, Friday, 12 January 2018
Nigeria’s Homeland Integrated Offshore Services Limited has received a fourth Damen 3307 patrol vessel for operations in the offshore oil fields in the Gulf of Guinea. Damen announced on 11 January that the Guardian 4 has joined its three sister ships in providing security services to the oil majors active in Nigeria’s territorial waters, together with additional support services including crew transfers and equipment deliveries. Homeland is one of the few Government-approved, private maritime security companies operating in Nigeria with a valid MOU with the Nigerian Navy, and the arrival of the fourth Guardian adds significantly to its ability to meet its goal of providing turnkey security services that include deterrence of and intervention in piracy attacks, so as to make the offshore environment safer for the benefit of all legitimate stakeholders, Damen said. The first Guardian was delivered in February 2014. The Guardian series of 3307 Patrol vessels are themselves unarmed, but in the course of their duties carry security personnel along with their firearms. Protection for those on board is provided by an armoured wheelhouse and internal safe haven (citadel), while accommodation for up to 16 people enables them to remain at sea for extended periods of time. Additional equipment specified by Homeland includes a Fast Rescue Craft, FuelTrax electronic fuel monitoring system and a self-cleaning fuel separator. 15 seats for crew transfers have also been fitted. The FCS 3307 class features the pioneering Sea Axe bow that gives the vessel improved seakeeping behaviour, even in challenging conditions, by cutting through waves rather than going over them. The FCS 3307 has a length of 33.57 metres and deck area of 70 square metres. The aluminium vessel is powered by three Caterpillar engines with a total of 2-3 500 kW. Top speed is around 30 knots. Homeland was founded in 2006 to support international oil companies working in Nigeria’s offshore oil and gas fields. It now operates a sizeable fleet that includes fast supply intervention vessels, platform support vessels, anchor handling tug supply ships, security and patrol vessels, and tugs. 

**Source:** [www.defenceweb.com](http://www.defenceweb.com)

### CG-47 Ticonderoga

Modern US Navy guided missile cruisers perform primarily in a Battle Force role. Due to their extensive combat capability, these ships have been designated as Battle Force Capable (BFC) units. They are designed to operate in a high-density multi-threat environment well into the 21st century. Equipped to operate as an integral member of a aircraft carrier battle group or as part of surface action group (SAG), the ships are able to control engagements of friendly US interceptors against enemy aircraft to ranges in excess of 500 miles. Built to be employed in support of Carrier Battle Groups, Amphibious Assault Groups, as well as interdiction and escort missions, their mission is two-fold. First, to prevent the employment of weapons against friendly forces by destroying enemy missiles, aircraft, submarines and surface ships. Second, to conduct offensive actions against the enemy through the employment of long range anti-ship and land attack missiles, and through naval gunfire support. The Navy commissioned the first Aegis cruiser, **USS Ticonderoga** (CG 47), Jan. 22, 1983, and changed the shape of naval warfare. The introduction of Aegis marked a major expansion in naval surface force capabilities, and indeed the service as a whole. The Aegis system was developed to counter the serious air and missile threat that Soviet air and naval forces posed to U.S. carrier battle groups and other task forces. With Ticonderoga-class cruisers in company, battle group commanders had weapons that could deal comprehensively with massed missile attacks, and ships could act as effective anti-air warfare command-and-control platforms during an engagement at sea. The foundation of Ticonderoga’s capabilities - and the surface warships that followed - is the Aegis combat system, which coordinates the operation of all sensors and weapons. The heart of Aegis is the Aegis Weapon System (AWS), which is centered on the AN/SPY-1 radar, the planar phased-array radar mounted in the ship’s superstructure. This system is inherently capable of directing nearly 20 missiles at one time. Moreover, Aegis integrates the system with a crew of highly trained operators to perform a variety of different functions. Aegis had its genesis in the air defense challenges of World War II and the changing post-war operational environment. The Navy had relied on layered air defenses that combined Combat Air Patrols (CAP) by carrier-based fighters, air-search radars providing input to shipboard Combat Information Centers (CIC), and ship-mounted anti-aircraft guns. But as the conflict neared its end, Japanese kamikaze attacks in the Pacific along with German guided-missile technology made it clear to Navy leadership the days of this type of defense were numbered - a fact that became even clearer when the Soviet Union introduced long-range anti-ship missiles. In the ’50s, the Navy attempted to counter these and other Soviet air threats by developing the “3-T” series of missiles - Talos, Terrier, and Tartar. In the ’60s, the Navy improved air defense coordination by developing the Naval Tactical Data System (NTDS) - which replaced manpower-intensive plotting methods used in CIC - and the associated Link 11 data link. NTDS ships shared radar contact information and created a common situational plot.
Combined with NTDS, the resulting system worked well against a small number of manned aircraft or missiles, the major threat of the era, but could not effectively deal with the rapidly growing Soviet anti-ship missile threat, which continued to expand through the '60s. To keep pace with this threat, the Navy began work on the Typhon air defense system, built around long-range radar and medium- and long-range missiles. However, Typhon was soon canceled due to weight, cost, and operational considerations. This led the Navy to establish the Advanced Surface Missile System (ASMS) in 1964. By the end of 1969, the ASMS program was renamed the Aegis program, and the radar developed as part of ASMS would evolve into the prototype AN/SPY-1. On a parallel track, the Navy built an improved Standard Missile-1 (SM-1) to replace the 3-Ts. SM-2 had improved flight performance and a new guidance system needed to complement the Aegis Weapon System. During the next decade and half, the Aegis Program Office would develop and deploy the integrated shipboard combat system that would change the face of U.S. Navy warfighting. **Ticonderoga** made the first deployment of an Aegis warship in October 1983, a tense period at the height of the Cold War. In the Mediterranean, a United States peacekeeping mission in Lebanon suffered a severe blow when the Marine barracks in Beirut was destroyed in a terrorist bombing. **Ticonderoga** steamed into harm's way and provided U.S. commanders with capabilities not found on any other single ship in the nation's arsenal. **CG-47** was put through qualifications trials in April 1983. That summer, Representative Denny Smith (R-Oregon), a frequent critic of high-cost military procurement programs, alleged that **CG-47's** Aegis combat system had failed operational evaluation. His criticisms were echoed in the Senate by Gary Hart of Colorado, a candidate for the Democratic Party's nomination for President. The CNO acknowledged that there had indeed been software system failures in the April trials. In February 1984 the Under Secretary of Defense for Research and Engineering informed the Secretary of Defense that Aegis had serious design problems, and the Secretary of the Navy admitted to reporters that "actual missile kills ... have not been that impressive." The May 1985 Naval Institute Proceedings carried a glowing description of the Aegis system and praised the performance of **CG-47** during the ship's tour of duty off the Lebanese coast in the Fall of 1984, but the question of Aegis' operational performance was left unresolved. Ultimately Aegis so revolutionized the way in which warfare at sea could be conducted, that it permitted the Navy to alter its Maritime Strategy to meet the new challenges of littoral warfare. About eight years after **Ticonderoga** entered service, the Soviet Union dissolved, and the U.S. Navy had a new enemy to fight, and a new way to conduct new types of operations. Iraq's invasion of Kuwait in 1990 highlighted the danger posed by rogue regional powers bent on conquest and war. To combat this threat, the Navy emphasized littoral offensive and defensive operations, as part of a larger joint, multservice, multinational effort. Aegis cruisers protected U.S. and coalition ships operating within the tight confines of the Arabian Gulf and acted as a linchpin in coalition maritime air defense operations. **Operation Desert Storm** brought Ticonderoga-class cruisers armed with SM-2 surface-to-air missiles and Tomahawk Land Attack Missiles (TLAM). The addition of Tomahawk was particularly significant. For the first time, warships could deliver a precise offensive punch against enemy targets deep inland; a capability exercised vigorously against Iraq and later in southwest Asia and the Balkans. Today, the Navy is engaged in another type of conflict, a global war on terrorism. Aegis warships - cruisers and destroyers - played important roles in Operation Enduring Freedom, and launched the first Tomahawk strikes of Operation Iraqi Freedom. One key to the success of Ticonderoga-class cruisers has been the continual upgrade process and enhancements carried out since 1983. Each new group of ships in the class is more capable than its predecessors, incorporating technologies and systems previously unavailable. Then, as technical, engineering, and fiscal constraints permitted; they were "back-fitted" into earlier cruisers. This upgrade process allows the Navy to incorporate new systems and capabilities into existing cruisers during the course of their service lives, thereby keeping the entire class current. Source: [https://www.globalsecurity.org](https://www.globalsecurity.org) In this specific case the US Navy was right to stick with the Aegis-system in spite of the initial mishaps. Since that time the system has been through numerous upgrades, each one making the system even better than the one before. Each development used the basic building blocs. The result is that the system can now be regarded as the best of its kind in the maritime world.

**French naval contract award could be game-changer for firm**

By: Pierre Tran

Navigation, positioning and imaging firm iXBlue has won a contract from Naval Group to supply navigation systems for five French intermediate frigates, its first deal to equip a new warship for the country's Navy, iXBlue said. "**Responsible for the development of these vessels, Naval Group has signed a contract with iXBlue for the acquisition of Marins inertial navigation systems and Netans data distribution and processing units to equip these new generation frigates,**" iXBlue said in a statement. Naval Group and iXBlue declined to give a value for the deal. Naval Group held a competition, which attracted three bidders, a Naval Group spokesman said. Naval Group and iXBlue have collaborated on export contracts, but this is the first domestic deal with the naval systems company. "**This contract is the outcome of a longstanding collaboration with Naval Group, with whom we are working on several export programs,**" said Thomas Buret, head of iXBlue's inertial systems and applications division. "**However, this is the first time that iXBlue systems have been chosen by Naval Group to equip a new-built (sic) major combat vessel for the French Navy.**" The contract was signed in early November. iXBlue won deals in 2016 to equip the British and German navies with its Marins inertial navigation system, based on fiber-optic gyroscope technology. The Netans system, while seeking to address cybersecurity threats, will plug into the ship's sensors to acquire, analyze, correlate and distribute data to all onboard systems. Naval Group is due to deliver the first of the five 4,200-ton warships in 2023 under the €3.8 billion (U.S. $4.5 billion) FTI intermediate frigate program. The warship will equip the
French Navy, while Naval Group will pitch its export version under the Bélharra brand name. That name refers to Bélharra, a giant wave on the coast of the Basque region, southwest France, and the unconventional typography in the product name indicates the digital technology designed into the warship. Source: defense news

Russian Navy landing ship Yamal collided with container ship in Aegean sea
Container ship Orca 2 collided with Russian Navy Landing ship Yamal at around 1300 UTC Dec 30 in Aegean sea some 8 nm northwest of Rhodes port, Rhodes island. Container ship was en route from Alexandria to Gemlik Turkey Marmara sea, and according to Russian Navy official statement, was overtaking Yamal, when suddenly veered starboard and collided with Yamal. Orca 2 is to be blamed for collision, said Russian Navy. Both ships sustained undisclosed damages. Yamal was en route from Syria to Sevastopol, Crimea, understood she resumed sailing, while Orca 2 was taken to Rhodos anchored and remained at anchor until Jan 4. On Jan 4 she resumed voyage, and on Jan 6 arrived at Gemlik. On Jan 10 she was still at Gemlik. There were no news on this accident until Jan 10, when suddenly, Russian Navy made an official statement, published by Russian News Agency TASS. Mystery of sudden Russian Navy recognition of an accident, which happened almost 2 weeks ago and remained unknown, is solved – Ukrainian media published photos of damaged Yamal on Jan 9, musing on damages origin. So it was the question of hours or days, before the accident news leak out to the world. Navy Command decided to strike first, and at least partially, save its’ face. Source: Maritime Bulletin

MRRV 4403 Malapascua visited Palawan
The Philippine coast guard cutter MRRV 4403 Malapascua leaving the port of Puerto Princesa City with in the background seen the famous Cathedral of the capital of the beautiful island Palawan

Mystery of sudden Russian Navy recognition of an accident, which happened almost 2 weeks ago and remained unknown, is solved – Ukrainian media published photos of damaged Yamal on Jan 9, musing on damages origin. So it was the question of hours or days, before the accident news leak out to the world. Navy Command decided to strike first, and at least partially, save its’ face. Source: Maritime Bulletin

The Philippine coast guard cutter MRRV 4403 Malapascua leaving the port of Puerto Princesa City with in the background seen the famous Cathedral of the capital of the beautiful island Palawan

The RP MRRV 4403 Malapascua is named after the Lighthouse Malapascua located in Malapascua Island, Cebu and was built at Japan Marine United, Yokohama, Japan and commissioned into the coast guard fleet March 7th 2017 as the third unit of the Parola-class patrol vessels which class is having a length of 44.5 m (146 ft) and beam of 7.5 m (25 ft) and draft of 4 m (4.0 m) the units are powered by 2 × MTU 12V4000M93L 12-cylinder diesel engines, with a total diesel engine output: 3,460 shp (3,460 shp) for a maximum speed of 25 knots (46 km/h), and cruising speed of 15 knots (28 km/h) The operational range of the Parola class vessels is 1,500 nautical miles (2,800 km) The Philippine Coast Guard clarified that the ship is a law enforcement vessel and is designed to conduct environmental and humanitarian missions, as well as maritime security operations and patrol missions The ship was designed with a bulletproof navigation bridge, and is equipped with fire monitors, night vision capability, a work boat, and radio direction finder capability. The ship is equipped with communications and radio monitoring equipment from Rohde & Schwarz, specifically the M3SR Series 4400 and Series 4100 software-defined communication radios, and DDF205 radio monitoring equipment. These equipment enhances the ship's reconnaissance, pursuit and communications capabilities The ship left Yokohama, Japan on February 27, 2017, and arrived in the Port of Manila on March 3, 2017. with LCDR Garydale Gimotea being her first commanding officer BRP Malapascua was commissioned during a commissioning ceremony held at Philippine Coast Guard headquarters in Manila on March 7, 2017.

Source: Maasmond Maritime

Navy’s cruiser replacement won’t be a cruiser, says surface warfare chief
By: David B. Larter
The Navy’s director of surface warfare, Rear Adm. Ronald Boxall, says rapid innovation is needed to keep pace with technology.
ARLINGTON, Va. — The U.S. Navy’s surface fleet is developing a new class of ship that will replace the cruisers — but it’s not another cruiser. The Navy’s director of surface warfare, Rear Adm. Ronald Boxall, told a crowd at the Surface NAVY
Association’s annual symposium that his team is building over the next year a capabilities document that will sketch out the next surface combatant, one that integrates new sensors and technologies that will make it relevant into the future. “People are always asking: ‘What’s the next cruiser?’” Boxall said. “What I’m telling you is that it might not be a cruiser. What we are looking for is what do we need our surface ships to do at the big level, what do we need to do at the small level and what do we need to do with unmanned because it is a different Navy out there. ‘And so we have to look at how we optimize our force inside surface warfare and then merge that outside of surface warfare with the other platforms and across all domains.” The hull Boxall described incorporates the surface force’s emphasis on off-board sensors that radiate and target with active sensors, while using passive sensors on the ship to avoid detection. The discussion of the next surface combatant was notable because discussion about the cruiser replacement has been conspicuously absent since the Obama administration canceled the Navy’s CG(X) program early in its tenure. Analysts and observers have criticized the Navy’s seeming lack of a clear plan for the cruisers, some of which have been extended out to 40-year service lives to keep the robust missile defense and anti-warfare capabilities in the fleet. The need for a future surface combatant has become even more urgent, as it has become clear that the Flight III Arleigh Burke-class destroyer has maxed out that hull form, said Thomas Callender, a retired submariner and analyst with The Heritage Foundation, in a recent interview: “They are way behind the eight ball on this one,” he said. “We’ve done some great things in the Flight III Arleigh Burke [about to enter production], but we’ve kind of reached the technical limits of that design. We can’t continue to pack more power and capability into that design, so we definitely need to move forward with the future surface combatant.”

**MP’s call for new HMS York**

A CAMPAIGN to name a new Royal Navy ship after the city has been set up by York MP, Rachael Maskell, MP for York Central, has written to the Secretary of State for Defence, calling on him to name one of eight new Type 26 Frigates HMS York. Two of the eight City-class ships have already been named HMS Glasgow and HMS Belfast and will be involved in combat, counter piracy and humanitarian and disaster relief operations. Ms Maskell said: “York is steeped in military history and has a strong connection with the Armed Forces, being home to Impall Barracks in Fulford and the Queen Elizabeth II Barracks in Strensall. It makes sense for one of the new City-class ships to be named after York.” Ten Royal Navy ships have previously been named HMS York. The last one was a Type 42 decommissioned in 2012.

**Fincantieri to Adapt FREMM Frigate for U.S. Navy**

Fincantieri Marine Group announced further details on its plans to adapt its “Best-in-Class” FREMM frigate, already in service for the Italian Navy since 2012, to design the U.S. Navy’s new guided-missile frigate, FFG(X). Fincantieri will lead an experienced industry team, including Gibbs & Cox and Trident Maritime Systems, to design and build these multi-mission ships capable of conducting anti-surface, anti-submarine, and electronic warfare and air defense operations. As design partners, Gibbs & Cox, will leverage their experience modifying proven hull, mechanical and electrical systems to U.S. Navy standards. Trident Maritime Systems will serve as the Electric and Propulsion System Integrator with responsibility to design, specify and integrate these ship systems and components. “We’ve assembled a world-class team of partners to customize to American design standards and deliver an advanced, flexible and highly reliable ship to the U.S. Navy for their current and future needs,” said Francesco Valente, president and CEO of Fincantieri Marine Group. “Our American shipyards are tailor-made for building small surface combatants and we have a strong, established and reliable U.S. supply chain.” The Fincantieri FFG(X) design is based on FREMM, the most capable and modern off-the-shelf frigate available in the world for the range of capabilities required by the U.S. Navy. Fincantieri is building 10 FREMMs for the Italian Navy, six of which have been delivered and have already accumulated 30,000 hours and 200,000 nautical miles in real-world operations. The Fincantieri-led team would construct the FFG(X) ships at its American shipyards, including Fincantieri Marinette Marine in Marinette, Wisconsin, which was modernized for serial production in order to build the U.S. Navy’s Littoral Combat Ship. The products and services herein described in this press release are not endorsed by The Maritime Executive.

**Cybersecurity of Nuclear Weapons Systems**

**Threats, Vulnerabilities and Consequences**

A research paper by Beyza Unal and Patricia Lewis of the International Security Department – Jan 2018

**Russia Has Underwater Nuclear Drones, Leaked Pentagon Documents Reveal**

By Carlos Ballesteros On 1/14/18 at 1:27 PM

Russia possesses an underwater nuclear drone capable of carrying a 100-megaton nuclear warhead, a recently leaked draft of the Pentagon’s Nuclear Posture Review confirmed. The weapon, referred to in the document as an “AUV,” or autonomous underwater vehicle, is featured in a chart that lays out Russia’s multiple nuclear delivery vehicles. Pentagon officials warn in the Posture Review that Russia has actively diversified its nuclear capabilities, a strategic advantage it has over the United States: “In addition to modernizing “legacy” Soviet nuclear systems, Russia is developing and deploying new nuclear warheads and launchers. These efforts include multiple upgrades for every leg of the Russian nuclear triad of strategic bombers, sea-based missiles and land-based missiles. Russia is also developing at least two new intercontinental range systems, a hypersonic glide vehicle and a new intercontinental, nuclear-armed undersea autonomous torpedo.”
The draft of the Posture Review was obtained and published by The Huffington Post. In a statement, the Pentagon did not deny that the draft is authentic: Our discussion has been robust and several drafts have been written. However, the Nuclear Posture Review has not been completed and will ultimately be reviewed and approved by the President and the Secretary of Defense. As a general practice, we do not discuss pre-decisional, draft copies of strategies and reviews. As outlined by Valerie Insinna of Defense News, the Russian undersea drone, officially known as Ocean Multipurpose System Status-6 and nicknamed "Kanyon" by the Pentagon, was reportedly tested in November 2016. It was launched from a Sarov-class submarine used to test and validate new tech, The Washington Free Beacon website reported in December 2016, citing unnamed Pentagon sources. The Pentagon had not publicly confirmed the existence of Status-6 before The Huffington Post's report on this year's Posture Review. According to the Washington Free Beacon, Status-6 has a range of 6,200 miles, a top speed in excess of 56 knots and can descend to depths of 3,280 feet below sea level. It was built by Rubin Design Bureau, the largest submarine manufacturer in Russia. It was designed to be launched from at least two different classes of nuclear submarines, including the Oscar-class, which can carry four Status-6 drones at a time. The Posture Review reaffirms the need for a full nuclear triad, or a full range of air, sea and ground-based nuclear missiles. But, as noted by Defense News, the Posture Review offers "no sign that the Pentagon is interested in developing unmanned undersea vehicles capable of delivering a nuclear weapon." The leaked Posture Review draft made headlines for confirming what many in the nuclear industry suspected for months: The Trump administration is vying to substantially increase the U.S.'s nuclear stockpile. The Posture Review also illustrates how the Pentagon plans to match some of Russia's new nuclear capabilities. Fears of nuclear war have risen to historic levels, in large part due to the verbal sparring between President Donald Trump and North Korean leader Kim Jong Un. Those fears surfaced on January 13 after an emergency alert was mistakenly sent in Hawaii, warning residents to "seek immediate shelter" from a ballistic missile threat. Source: http://www.newsweek.com