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Anti-air frigate Chevalier Paul to be modernised by Naval Group

February News 2019 Navy Naval Maritime Defense Industry

Posted On Wednesday, 13 February 2019 16:33 The French large anti-air frigate, the "*Chevalier Paul*", has come into port (in Toulon, France) to be modernised by Naval Group. This docking takes place only a year after the large anti-air frigate "*Forbin*" received itself some major improvements. Both are parts of the Italo-French Horizon programme. This docking of



the "Chevalier Paul" (D621) has a scheduled duration of about 10 months and modifications/upgrades will be pretty similar as the ones operated on the "Forbin" (D620).

The "Chevalier Paul" frigate in port of Toulon (Picture source : Mer et Marine - Francis Jacquot)

Through this docking, Naval Group will make all the equipment (engines, combat systems and electronic systems) of the

frigate become up-to-date. As for the long range S-1850M radar, it will be unloaded from the frigate for maintenance work (performed by Thales in the Netherlands). Regarding its armament, the frigate will receive various upgrades including an enhancement of the capabilities of its short range self-defense and the installation of 3 Narwhal-made remotely-operated 20 mm cannons. After all this work has been completed, both D620 and D621 frigates will pursue their operations until their mid-life renovation in 2027. Among those operations, the frigates are responsible for the escort of the "Charles de Gaulle" aircraft carrier (which has also recently been under maintenance). Their complement of medium-range anti-air missiles allows them to support the defences of another ship under attack and avoid their saturation. They are also capable of monitoring and controlling operations carried out from the sea by friendly aircraft

Source: https://www.navyrecognition.com

Britain to send aircraft carrier to Pacific on first operational mission

HMS Queen Elizabeth to be operational in 2020

Britain's new aircraft carrier will go to the Pacific on its first operational mission, Defense Minister Gavin Williamson has revealed. In a speech to the Royal United Services Institute think tank in London on Monday, Williamson said the 65,000-ton carrier **Queen Elizabeth** -- which was commissioned in late 2017 -- would also make appearances in the Mediterranean and Middle East along the way as Britain flexed its military muscles post-Brexit. "The UK is a global power with truly global interest ... we must be prepared to compete for our interests and our values far, far from home," Williamson said. The carrier, Britain's largest and most powerful warship, will carry its contingent of state-of-the-art F-35 stealth fighter jets as well as US Marine Corps F-35s as it ventures into a region where "China is developing its modern military capability and its commercial power," Williamson added. The combined US-UK air wing aboard the carrier will improve "the reach and lethality of our forces" while "reinforcing the fact that the United States remains our very closest of partners," he said. The defense minister did not give a date for the deployment. However the **Queen Elizabeth** is scheduled to become operational in 2020.

Boosting Asia-Pacific presence

Williamson said Britain would consider permanent new bases in the Asia-Pacific and Caribbean to exert power globally -reiterating his stance from an interview with the Sunday Telegraph late last year. "For us global engagement is not a reflex
reaction to leaving the European Union. It is about a permanent presence," he said. Williamson did not specify what parts of
Asia-Pacific the carrier would transit, but last year the Royal Navy amphibious assault ship HMS Albion steamed closed to
the Chinese-claimed Paracel Islands in the South China Sea in what Beijing called a "provocative action." And last month
UK and US warships conducted six days of coordinated drills in the South China Sea. Williamson's speech came on the
same day that the US Navy sent two warships past other Chinese-claimed islands in the Spratly chain to challenge Beijing's

stance. The US has accused Beijing of installing missiles and other military hardware on the disputed islands in contradiction to promises made by President Xi Jinping and against international rulings on the status of the islands. Williamson said Monday that Britain must be prepared -- along with allies -- "to oppose those who flout international law" and "shore up the global system of rules and standards on which our security and our prosperity depends." He also touted Britain's military technology, saying new warships, aircraft, missiles and drones were being developed that would ensure it remained "a lethal fighting force fully adapted to the demands of 21st-century warfare." Among the innovations would be "swarm squadrons of network-enabled drones capable of confusing and overwhelming enemy air defenses" that could be deployed this year, Williamson added.

Source: https://www.localnews8.com

There are many that will differ from the defence secretary on many grounds, which will be exacerbated by Brexit in any form.

US fighter jets to join new British aircraft carrier's first operational mission

By CAITLIN DOORNBOS | STARS AND STRIPES

Published: February 12, 2019

A U.S. F-35 fighter hovers over the HMS **Queen Elizabeth** on Nov. 3, 2018, during integration trials aboard the carrier.

Brittany Machnicki/U.S. Navy



The **HMS** *Queen Elizabeth*, the United Kingdom's newest aircraft carrier. will make its debut

operational mission this year with a complement of U.S. fighter jets, British Defense Secretary Gavin Williamson announced this week. The Queen Elizabeth will carry both British and American F-35 Lightning II fighter jets on upcoming patrols, Williamson said during a speech Monday at the Royal United Services Institute for Defense and Security Studies. Williamson said the mission will include a patrol through the Pacific Ocean, where the U.S. has been conducting freedom-ofnavigation operations within 12 nautical miles of the Spratly and Paracel island groups in the South China Sea, both claimed by China. "The first operational mission of HMS Queen Elizabeth will include the Mediterranean, Middle East and the Pacific - making Global Britain a reality," Williamson said, according to the U.K. Ministry of Defense. In January, the U.S. and British navies conducted their first joint military exercise in the South China Sea since Beijing began militarizing islands and reefs there. The guided-missile destroyer USS McCampbell and the frigate HMS Argyll worked together Jan. 11-16, 7th Fleet officials said at the time. The navies "conducted communication drills, division tactics and a personnel exchange designed to address common maritime security priorities, enhance interoperability and develop relationships that will benefit both navies for many years to come," according to a 7th Fleet statement. Interoperability refers to a country's ability to use another military's equipment and training methods. The Navy, Royal Navy and Japan Maritime Self-Defense Force also worked together on an anti-submarine warfare exercise Dec. 21-22 in the Pacific. Britain has shown increased interest in the Pacific over the past year, conducting a freedom-of-navigation operation in the region in August when the amphibious assault ship HMS Albion sailed near the Paracel island chain, irking China. It was the first time for the U.K. to complete such a mission in the South China Sea in recent history. Williamson during his speech Monday also spoke about the importance of the U.K.'s alliance with the United States. "Our relationship with the United States will continue to be one of the closest." Williamson said, according to the institute, "There are also opportunities for Britain to lead and bring alliances together. We should look at doing that increasingly in the years ahead." After Williamson's speech, acting U.S. Secretary of Defense Pat Shanahan in a Twitter post said Williamson has "determined leadership and lucid vision." and his speech highlighted Britain's "global presence, more mass and increased lethality." "The UK's global leadership, underpinned by a capable military, makes the world safer for the US and our allies," Shanahan tweeted. "I look forward to discussing with Gavin Williamson this vision, our strong U.K.-U.S. relationship, and our firm commitment to NATO, this week at the NATO Defense Minister's meetings." Information about when the HMS Queen Elizabeth will deploy were not available Source: https://www.stripes.com

A global United Kingdom with only one overseas base, no accompanying force for the carrier, and not enough fighter aircraft of itself aboard? Is it not wonderful how politicians can polish each other?

This Russian Submarine Is the Size of a World War II Aircraft Carrier (Armed with 192 Nukes)

A history lesson.

by Kyle Mizokami February 13, 2019

The Rif missiles were built in two rows of ten missile silos each. Unlike other missile submarines, the silo field was in front of the sail, giving the Akula class its unconventional appearance. The giant submarines were capable of twenty-two knots on the surface and twenty-seven knots submerged thanks to two OKB-650 nuclear reactors—the same reactors that also



powered the Alfa- and Mike-class submarines—giving them a total of nearly one hundred thousand shaft horsepower.

The largest submarines ever built were not built in American shipyards, but Soviet ones. Named after sharks, these Cold War leviathans could devastate up to two hundred targets with warheads six times as powerful as those that exploded over Hiroshima. The Akula-class submarines, or called the Typhoon by NATO, were some of the most terrifying weapons ever created. (*This first appeared several years ago.*) The Akula ("Shark") class, or Project 941 as it was known during development, was designed to form the basis of the Soviet

Union's nuclear deterrent forces at sea. The Soviet Union had gotten wind of the U.S. Navy's impending Ohio-class fleet ballistic-missile submarines, which would be 564 feet long and pack 192 nuclear warheads. The Soviet leadership decided it needed a submarine of its own to respond to the looming threat, and the Akula class was born. The Akulas were designed to launch their missiles from relatively close to the Soviet Union, allowing them to operate north of the Arctic Circle, where Soviet air and naval forces could protect them. As a result the submarines were designed with a reinforced hull that was capable of breaking through polar ice, a large reserve buoyancy to help it surface through ice and a pair of shielded propellers to protect them from collisions with ice. Another result was the development of a new nuclear-tipped missile with a long enough range to strike the United States from arctic bastions. The R-39 Rif (NATO code name: SS-NX-20 "Sturgeon") was a huge three stage ballistic missile fifty-three feet long and weighing eighty-four tons. With a range of 4,480 nautical miles, the R-39 could strike any point in the continental United States. The Cold War arms race was above all a competition, and warhead count was important. Because the Akulas carried only twenty missiles to the twenty-four missiles of the Ohio class, each Soviet missile had to carry more nuclear warheads than the American Trident C-4. A single R-39 packed ten one-hundred-kiloton warheads, each independently targetable so that a single missile could strike ten different targets within reasonably close range of one another. This drove up the size and weight of the missile, but it also meant that each Akula had a grand total of two hundred warheads—eight more than the Ohio class. The Akula class was 564 feet long, just four feet longer their American equivalents. While the Ohio boats had a beam of forty-two feet. the Akulas were a staggering seventy-four feet wide—necessary to pack both missiles and such a large reserve buoyancy into her bulk. The result was a submarine that, at forty-eight thousand tons, was more than twice the submerged displacement of the American submarine. The Rif missiles were built in two rows of ten missile silos each. Unlike other missile submarines, the silo field was in front of the sail, giving the Akula class its unconventional appearance. The giant submarines were capable of twenty-two knots on the surface and twenty-seven knots submerged thanks to two OKB-650 nuclear reactors—the same reactors that also powered the Alfa- and Mike-class submarines—giving them a total of nearly one hundred thousand shaft horsepower. Eight Akula subs were planned but only six were eventually built. Those six were inherited by the Russian Navy after the collapse of the Cold War, and today only one, Dmitriy Donskoy, is still in service, with two others in what seems like limbo . Donskoy has served as a trials submarine for the development of the new 3M14 Bulava missile. The development of the Bulava, lengthy and difficult as it was, appears complete and it is likely the sub will be decommissioned soon. The existence of the Akula-class was not widely known and probably would not ever have been but for the novel The Hunt for Red October . Published by Naval Institute Press in 1984, it was the debut novel of military enthusiast and insurance salesman Tom Clancy. Clancy envisioned a modified Akula-class submarine, Red October, whose disillusioned captain and crew were attempting to defect to the United States. Red October was larger than a standard Akula, with twenty-six missile launch tubes instead of twenty. Red October was also fitted with a quietrunning pumpjet drive that, according to the novel, would theoretically allow it to sneak up on the East Coast of the United States and launch a devastating "decapitation strike" that would destroy Washington, DC. In the novel, this made the Red October a first-strike weapon and a treasure trove of technology the U.S. Navy was eager to get its hands on. Thirty-two years after publication, pumpjet engines are now a mainstay on submarines across the world. The Royal Navy's Astuteclass and the U.S. Virginia-class attack submarines both use pumpjets. The Russian Borei-class subs, Moscow's first real

post–Cold War design and in many ways the successor to the Akula class, also uses pump-jet technology. Just another case of fiction becoming reality.

Kyle Mizokami is a defense and national-security writer based in San Francisco who has appeared in the Diplomat, Foreign Policy, War is Boring and the Daily Beast. In 2009 he cofounded the defense and security blog Japan Security Watch. You can follow him on Twitter: @KyleMizokami. Source: https://nationalinterest.org

US aircraft carrier anchors in Laem Chabang to kick off Cobra Gold

ASEAN+ February 14, 2019 01:00 By PHUWIT LIMVIPHUWAT THE NATION



A file picture of the *USS John C Stennis*, which has been docked at Laem Chabang port since Tuesday as part of the annual Cobra Gold military exercise held in Thailand.

The US aircraft carrier **USS** *John* **C Stennis** has been anchored at the Laem
Chabang deep sea port as a display of the

close military ties Thailand enjoys with the United States. The aircraft carrier arrived on Tuesday, when the **Cobra Gold** military exercises were launched, and will be leaving today. "*Our mission is to maintain a peaceful presence and support international law by sailing in international waters*," Captain J Patrick Thompson, carrier executive officer, told reporters during a tour of his vessel. Initiated in 1982, **Cobra Gold** is the largest Asia-Pacific military exercise held in Thailand every year. The training in recent years has mostly focused on humanitarian and disaster relief, but Thompson did not disclose what role his ship took in the drill. Participating countries include the US, Thailand, Singapore, Malaysia, Indonesia, Japan and South Korea. The drill was launched on Tuesday and will last until February 22. The carrier is capable of conducting sustained air operations, maritime interdiction, counter-piracy operations, humanitarian assistance and disaster relief. "*Our objective here in Thailand is to strengthen the long-standing ties as well as to give our crew members some rest*," Thompson said. Members of the Thai Royal Navy were also present during the press tour. The **USS John C Stennis** is capable of accommodating up to 6,200 sailors and marines. With a 330-metre-long flight deck and a height of nearly 75 metres, the carrier has four catapults and four lifts and can accommodate up to 70 tactical aircraft. It has two anchors, each weighing 30 tonnes.

Frequent visitor

First commissioned in 1995, the **USS** *John C Stennis* has been to Thailand several times, the most recent being in 2012, and has completed eight full deployments on international waters. The carrier is named after late senator John C Stennis, who served in the US senate for up to 41 years. Stennis stood firm by his belief in maintaining US military superiority, with a strong navy at the top of his agenda. The **USS** *John C Stennis* carrier also features a museum dedicated to the senator. When asked if the carrier has sailed through the contentious South China Sea, Captain Thompson said yes, adding that the sea was a very busy area. The captain, however, did not disclose where his vessel will be heading next, adding that the **USS** *John C Stennis* can remain offshore for as long as needed as they can have supplies dropped off to maintain operations. He explained that supplies can be replenished in two ways: by air via helicopters and aircraft, and by sea where ships can be connected with fuel hoses and cables. "The most difficult part of the job is not knowing how long a deployment will last," a crew member said. "I've been on missions that have lasted from two to six months."

Source: http://www.nationmultimedia.com

China rubbishes reports of aircraft carrier sale to Pak

Updated: February 13th, 2019, 08:15 IST

Beijing: China Tuesday rubbished media reports claiming Beijing plans to sell its first aircraft carrier '*Liaoning*' to Pakistan, saying it follows certain principles while exporting its naval ships to other countries. A Pakistani newspaper February 10 cited the Chinese and Russian media reports as stating that "the Chinese government has decided to sell its first and only aircraft carrier to Pakistan for a yet-undetermined price in order to upgrade the Pakistan Navy's capabilities." Such a move will make the Pakistan Navy more competitive against India, which has an operational aircraft carrier, the report said, adding that '*Liaoning*' will be resold to Pakistan after a "large-scale upgrade."

 The *Liaoning* is the only Chinese aircraft carrier in active service, and the country's first domestically developed carrier, known as the Type-001 A Liaoning is still undergoing sea trials



- Reports suggest that the aircraft carrier will be sold to Pakistan after a large-scale upgrade
- Such a move will make the Pakistan Navy more competitive against India, which already has an operational aircraft carrier

When asked for her comment on the report, Chinese Foreign Ministry spokesperson Hua Chunying said, "I have not seen the report you mentioned." "But China has always followed principles regarding exports of its naval ships to other countries," she said, without elaborating. Earlier report said China, which shares close linkages with the Pakistan military, is currently

building four modern naval ships for the Pakistan Navy. Chinese military experts, however, termed the media report of the sale of the Liaoning to Pakistan as false. The Chinese government has never disclosed any plan regarding such a deal, state-run Global Times here reported. It also said that its reporter could not find the Chinese media report regarding the sale cited by the Pakistani newspaper. It is a groundless allegation and complete falsehood, Song Zhongping, a Chinese military expert and commentator, told the Global Times. As China's first-ever aircraft carrier, the *Liaoning* acts as both training vessel and combat warship, that there is a zero possibility of reselling it, and China does not have spare carriers to sell to Pakistan, Song noted.

Source: http://www.orissapost.com

The repeated denials confirm that this will happen in the future, although the timescale will be much longer than the Pakistani's would like. Strategically it would be a Chinese move to minimise to a certain extent the "threat" posed by India, as some of India's attention would be taken up by the "new threat" posed by Pakistan.



Russian Admiral Grigorovich Class Frigate Admiral Makarov approaching Limassol harbor.

Photo: Jan van der Veer | ENSCO DS-7 - Master ©

Why the US Navy sails past disputed artificial islands claimed by China Two U.S. Navy destroyers sailed within 12 miles of Chinese-claimed artificial islands in the South China Sea on Monday.

and, as expected, the operation drew swift condemnation from China, A defense official said Monday's transit did not involve any unprofessional or unsafe actions on the part of Chinese military ships in the area. But that was not the case last October, when the destroyer USS Decatur had to take evasive maneuvers to avoid colliding with a Chinese warship that came within 45 yards of its bow. Why does the U.S. Navy carry out these missions in the South China Sea? And why has China built artificial islands in the South China Sea? What's going on in the South China Sea? The South China Sea makes up the body of water that lies east of Vietnam, west of the Philippines and west of the island of Borneo. It's a vital waterway with a third of the world's global shipping passing through it every year, much of it going through the strategic Strait of Malacca. Since China is one of the world's great economies, it sees stability in the South China Sea as key to maintaining economic security. China is one of five countries in the region staking claim to some of the more than 70 reefs and islets in the South China Sea. In recent years, China has projected itself militarily into the South China Sea by building up facilities on the Paracel and Spratly island chains. The Paracels are a group of islands east of Vietnam administered by China that are also claimed by Taiwan and Vietnam. The Spratty Islands are a collection of several dozen low-lying islands and reefs close to Borneo. In 2014 China began massive dredging operations to build artificial islands around seven reefs that they claimed as their territory. The artificial islands have been transformed into significant military facilities including three runways that have been used for the deployment of Chinese fighter jets. China's new military presence and territorial claims are an attempt to project its power into the region and provide stability to the waterway. But the United States and other countries in the region view things differently, seeing China's territorial claims and military projection as destabilizing and attempts at intimidation. Despite a 2016 ruling by an international body that China

was violating the Law of the Sea Convention with some of its maritime claims, China has continued building up its infrastructure in the South China Sea.

What are Freedom of Navigation Operations? Every year, the U.S. Navy carries out Freedom of Navigation Operations worldwide to challenge excessive maritime claims. But the FONOPs of China's claims in the South China Sea always draw the most attention. U.S. officials have said that the FONOPs directed at China are intended to reinforce international frameworks that China has sought to erode by pushing into the South China Sea. According to International Law, a country's territorial water limits extend 12 nautical miles from its coastline. The same standard applies to territorial airspace. Both U.S. Navy and Air Force aircraft will sometimes fly above the disputed island groups in the South China Sea to make the point that they are flying through international airspace. Any country that makes a new claim of air or water sovereignty over internationally recognized waters can experience a FONOP. The Pentagon's annual FONOP report for 2017 includes challenges of maritime claims made by countries as far ranging as Albania and Sri Lanka. The United States is not the only country carrying out FONOPs in the South China Sea. Last August, the Royal Navy's HMS Albion sailed past the Paracel Islands. While conducting FONOPs, U.S. Navy ships sail within the 12-mile limit to make the point that the waters are international. To stress the point even further, some of the operations include "man overboard" drills to demonstrate the Navy's ability to operate in international waters. China routinely condemns U.S. FONOP operations as violations of its sovereignty, U.S. Navy ships carrying out FONOPs in the Paracel or Spratty Islands are usually shadowed by Chinese ships. During those operations, they receive constant radio messages from Chinese authorities that they are violating Chinese territory, and, in return, the American ships send back messages, read from a prepared script, that they are transiting through international waters. Most transits have been uneventful, but last October's FONOP by the USS Decatur off of Gaven Reef in the Spratlys drew international attention. As with previous transits, the Navy destroyer was shadowed by a Chinese Navy ship that sailed at a good distance on its port side. But then the Decatur's crew had to take evasive maneuvers to avoid a collision when the Chinese vessel came within 45 yards of the ship's bow. That incident remains the closest call yet between American and Chinese vessels in the South China Sea — a reminder that normal operations can Source : ABC Radio. quickly become international incidents.

Defence Secretary reveals future assault ship plan



Future Littoral Strike Ship (FLSS) concept imagery posted by the First Sea Lord Looks like merchant conversion, similar to the **MV** *Ocean Trader* used by US special forces Photo:
Navylookout via Twitter

Commandos of the future could be sent into battle from a new class of assault ships under plans being considered by the Naval Service. Defence Secretary Gavin Williamson announced investment in a concept and development phase for the vessels – called littoral strike ships. It represents part of the Royal Navy's vision for the future of amphibious warfare, alongside plans for the future of the Royal Marines. These ships would form the backbone of a littoral strike group, a scalable force made up of different elements of the fleet and the future commando force This announcement to accelerate the concept and assessment stages of future littoral strike ships brings us one step closer to realising our ambitions for the future commando force. They would each be forward deployed, permanently away from UK shores, to exert global influence on behalf of the UK government. Major General Charlie Stickland, Commandant General Royal Marines, said: "This announcement to accelerate the concept and assessment stages of future littoral strike ships brings us one step closer to realising our ambitions for the future commando force." The work announced by the Secretary of State will now look at how and when the Ministry of Defence could deliver the ships into future service.

What are littoral strike ships? Littoral strike ships are vessels which can command an assault force from anywhere in the world – carrying everything from helicopters and fast boats to underwater automated vehicles and huge numbers of troops. They are designed to be able to get in close to land – with 'littoral' literally meaning the part of the sea which is closest to the shore. Under plans being looked at by the Royal Navy and Royal Marines, these assault ships would be forward deployed permanently away from the UK. They would therefore give the UK government greater options in terms of working with our allies around the world but also allow the flexibility to deal with a crisis anywhere in the world. The ships would need to be versatile enough to handle a range of different missions in all types of environments, and they would also be able to work as part of a larger strike group. Key to their success are the Royal Marines, remade as the future commando force and enhanced with their own cutting-edge technology – and the ability to be more lethal, agile and far-reaching than ever before.

Source: Royal Navy

I am not sure that the Defence Secretary's grandiose ideas will entice the necessary funds, as the requirement does not appear in the Defence Paper.

French naval ship visits Durban

13 February 2019, 10:30pm Terry Hutson



The French ship **Le Malin** is set to dock at Durban Harbour today. Shipspotting

DURBAN -

The French naval patrol ship *Le Malin* was scheduled to arrive in Durban today and berth at O-berth on the T-jetty. *Le Malin* is a converted trawler that was confiscated by French authorities because of fishing

irregularities and is stationed at the French naval base on Reunion. The vessel also undertakes fishery research work. Most recently *Le Malin* took part in *Exercise Cutlass Express*, a joint naval exercise with ships of the US Navy, Indian Navy and the Mauritian Coast Guard, as well as personnel from Mozambique, Comoros, Canada, Djibouti, Kenya, Madagascar, Portugal, Seychelles, Somalia, Tanzania and The Netherlands. The purpose is to improve regional cooperation, maritime domain awareness and information sharing practices and to increase capabilities between the US, East African and Western India Ocean nations to counter piracy, human trafficking and drug and other contraband smuggling. *Le Malin* sails from Durban on Monday.

Keel Authenticated for Twelfth Expeditionary Fast Transport

Release Date: 1/30/2019 12:48:00 PM From Team Ships Public Affairs

MOBILE, Ala. (NNS) -

The U.S. Navy held a keel laying and authentication ceremony for its 12th Expeditionary Fast Transport (EPF) vessel,



Newport (EPF 12), at Austal USA's shipyard., Jan. 29. The keel was said to be "truly and fairly laid" as it was authenticated by Charlotte Dorrance Marshall, signing her initials into the keel plate.

MOBILE, Ala. (Jan. 29, 2019) Charlotte Dorrance Marshall, left, ship sponsor for the future **USNS** *Newport* (EPF 12), authenticates the keel plate of the ship with the assistance of Austal USA welder Cristian Manzano at Austal USA in Mobile, Alabama, Jan. 29, 2019. Marshall welded her first initial into an aluminum plate that will be fastened within the hull of the ship. (U.S. Navy photo by Sam Crane/Released)

"We are excited to celebrate a major milestone in the construction of the 12th EPF

of the class," said Capt. Scot Searles, Strategic and Theater Sealift program manager, Program Executive Office Ships. "These ships have proven versatility and capability, allowing them to be strategic assets to our fleet and partners abroad. The milestone we celebrate today is the first of many as we work to deliver another highly capable platform." EPFs are non-combatant vessels designed to operate in shallow-draft ports and waterways, increasing operational flexibility for a wide range of activities including maneuver and sustainment, relief operations in small or damaged ports, flexible logistics support, or as the key enabler for rapid transport. The ships are capable of interfacing with roll-on/roll-off discharge facilities, as well as on/off-loading vehicles such as a fully combat-loaded Abrams Main Battle Tank. EPFs support a variety of missions including the overseas contingency operations, conducting humanitarian assistance and disaster relief, supporting special operations forces, and supporting emerging joint sea-basing concepts. EPFs are capable of transporting 600 short

tons 1,200 nautical miles at an average speed of 35 knots. Each vessel includes a flight deck to support day and night aircraft launch and recovery operations. Burlington will have airline-style seating for 312 embarked forces with fixed berthing for 104. **USNS** *Burlington* (EPF 10) was delivered in November2018, and Austal USA is currently in production on *Puerto Rico* (EPF 11), which was christened in Nov. 2018. The Navy issued Austal long-lead-time material contracts in late 2018 for EPF 13 and EPF 14. As one of the Defense Department's largest acquisition organizations, PEO Ships is responsible for executing the development and procurement of all destroyers, amphibious ships, special mission and support ships, and special warfare craft.

Source: https://www.navy.mil

This All-Electric Submarine Lets You Explore The Sea Like A Boss ForRs 10.6 Crore. Interested? Sarthak Dogra

Updated: Jan 30, 2019, 20:42 PM IST

Despite looking more like a race car or quadcopter drone, the DeepFlight Dragon is actually a fully capable underwater electric submersible. And if you've been looking for the perfect addition to your super-yacht, then look no further. Over time, we have seen that electric drivetrains are not just limited to road vehicles anymore. All-electric VTOLs, airplanes and even



boats have come up, as the industry tries to electrify each and every possible way of commute for the humans. But an electric submarine, well, that is a first!

DeepFlight Dragon

But is is not untrue. DeepFlight Inc has come up with Dragon, an electric submarine that is basically designed for everyone. Apart from its futuristic looks, the company claims that it uses automatic

stability software and multi-axis thrusters that perform most of the tasks on their own. And that makes maneuvering the submarine an easy deal. While one lever controls the height of the submarine underwater, another is used for moving forward, backwards and side to side.

Source: bhttps://www.indiatimes.com

US Begins Production of Low-Yield Submarine-Launched Ballistic Missile Warhead

The new warhead was identified as a requirement by the Trump administration in 2018.

By Ankit Panda January 30, 2019



The United States has started production of a new lowyield nuclear warhead for its Trident D5 submarinelaunched ballistic missiles. The new warhead was identified by the Trump administration as a key new nuclear capability in its 2018 Nuclear Posture Review (NPR). Assembly of the new warhead, which is based on the existing W76 warhead, has started at the Pantex Plant in Tennessee, according to reports citing a U.S. National Nuclear Security Administration (NNSA) statement. NNSA, under the U.S. Department of Energy, is charged with the manufacture and maintenance of U.S. nuclear weapons. The new weapon is known as the second modification of the W76, or the W76-2. Though NNSA has not specified the changes that have been made from the initial thermonuclear version of the warhead, which has a yield of around 100 kilotons of TNT equivalent explosive power, the W76-2 is thought to be a primary-only version of the original W76, reducing its yield to the single-digit kiloton range. The NNSA's Stockpile Stewardship and Management Plan

for the 2019 fiscal year noted that work on the new warhead would begin this year and run through the 2024 fiscal year. The strategic need for the weapon was outlined by the Trump administration in the 2018 NPR, but several arms control advocates and experts have underlined the likelihood of the new weapon increasing ambiguity and reducing the nuclear-use

threshold for the United States. "Expanding flexible U.S. nuclear options now, to include low-yield options, is important for the preservation of credible deterrence against regional aggression," the 2018 document noted. The justification for the low-yield D5 in the NPR is specifically to "ensure a prompt response option that is able to penetrate adversary defenses." Low-yield warheads will "help ensure that potential adversaries perceive no possible advantage in limited nuclear escalation, making nuclear employment less likely" the NPR notes. The measure is described as a "low-cost and near term modification." The production of the first W76-2 warheads in 2019 comes just under one year after the release of the NPR. While the Trump administration has argued that this new warhead will lessen the likelihood of nuclear war by giving the United States a less escalatory weapon to deter regional aggression by Russia, opponents of the low-yield weapon argue otherwise. Specifically, one of the main concerns among critics is that the new warhead will be impossible for adversaries to discriminate once launched, leading them to conclude that a regular D5 SLBM carrying multiple full-yield W76 warheads may have been launched. The new warhead will deploy on some Trident D5 SLBMs on board existing U.S. Ohioclass ballistic missile submarines, alongside the high-yield W76-1 and W88 thermonuclear warheads.

Source: https://thediplomat.com

Australia signs \$50 bln submarine contract with France after two-year squabble

Australia signed a production contract with French shipbuilder Naval Group on Monday for a fleet of 12 new submarines, worth A\$50 billion (\$35.5 billion), ending a two-year wrangle that cast doubt over one of the world's most lucrative defense deals Australia selected the French builder as its preferred bidder for the fleet of submarines in 2016 ahead of other offers from Japan and Germany However, final contracts were delayed amid domestic media reports of cost blowouts and production delays Australia and Naval Group signed a Strategic Partnering Agreement, the overall contract to guide the construction, to end the impasse "This means we are ensuring we are at the front of the pack when it comes to the latest naval vessels and firepower," Prime Minister Scott Morrison told reporters in Canberra Australia's 12 new submarines are at the center of its plan to significantly expand its military to protect strategic and trade interests in the Asia-Pacific region The first of the new submarines is scheduled to be delivered in the early 2030s and the final vessel during the 2050sAustralia rejected offers from Japan's Mitsubishi Heavy Industries and Kawasaki Heavy Industries, as well as Germany's ThyssenKrupp AG, when it accepted the French bid.

Source: Arabnews

The US shouldn't go to war with China over Taiwan—and nor should Australia 13 Feb 2019

Hugh White



Image courtesy of the US Air Force.

Paul Dibb, in his <u>recent Strategist post</u>, writes that America's strategic position in Asia would be fatally undermined if it didn't go to war with China if China attacked Taiwan, and that Australia's alliance with America would be fatally undermined if we didn't then go to war with China too. The conclusion he draws is that, in the event of an unprovoked Chinese attack on

Taiwan, America should go to war with China, and so should Australia. I think Dibb's premises are correct, but his conclusion is wrong. Failing to come to Taiwan's aid would seriously weaken and perhaps destroy America's position in Asia, and our alliance with America would be seriously weakened if not destroyed if we failed to support the US. But it doesn't follow that either America or Australia should therefore go to war with China to defend Taiwan. That depends on who would win the war. Such a war, like any war, would be a calculus of uncertainties, but at the very least one could say that a swift, cheap and decisive US victory over China would be very unlikely. America's military power is very great, but China's military power, and especially its capacity to deny its air and sea approaches to US forces, has grown sharply, and is now formidable. China also has big advantages of location and resolve: Taiwan is closer to China than to America, and it matters more to the Chinese. And any hopes that US nuclear forces would swing the balance back America's way run up against China's capacity to retaliate in kind, and the risk of a nuclear exchange targeting US cities would at least have to be considered by US leaders in deciding to go to war. These sombre facts would have to be taken into account in Washington and Canberra in any deliberations about war. They imply that the choice in both capitals would not be the simple one that Dibb suggests—a choice between going to war and preserving the US-led order in Asia or stepping back and destroving it. A long, costly and indecisive US-China war would destroy the regional order anyway, because America's leadership in Asia wouldn't survive a war with China. Most probably it would lead to America's withdrawal from Asia—just as its long, indecisive but far less costly wars in the Middle East have led it to withdraw from that region. If so, Australia's alliance with America

would wither too. So the real choice Washington would face would be to abandon its position in Asia by fighting China, or by not fighting China. Given the cost and risks of war with a nuclear power, it is easy to see which America should choose, and I think probably would choose. Dibb's counterargument is that America was willing to fight a nuclear war to save West Germany from the Soviets in the Cold War. That's a compelling argument to the extent that China's ambitions today pose as big a threat to America as the Soviets' did in the Cold War. It was the fear that the expansion of Soviet power would threaten the survival of America itself which drove US leaders and voters to accept the risk of nuclear war to make containment work. I don't think that China poses a similar threat today, which is why I don't think America should fight China over Taiwan. But do Americans believe that China poses a similar threat today? That's actually the big question that underlies the entire future of America's position in Asia in the face of China's ambitions, and it deserves closer scrutiny. So far it seems not, because for all the tough talk from Vice President Mike Pence and others in recent months, no US political leader has tried to convince Americans that they should be willing to fight a nuclear war with China. Indeed, US policy as set out in the 2018 nuclear posture review doesn't even acknowledge America's vulnerability to Chinese nuclear forces. We'd be wise not to assume that the Americans would risk a nuclear war with China until they say they are willing to do so. If this is wrong and America chose war, I think it's clear that Australia would be better off staying out of it. Iraq should have taught us that it makes no sense to support an ally in a war it can't win, and the stakes are much higher this time. Finally, a minor point. Whether our commitments under the ANZUS treaty cover Taiwan is not quite as clear as Dibb suggests. No doubt Washington believes that it does, and clearly expects us to support the US in a conflict. To the contemporary policymaker this is what matters, which is why I agree with Dibb that failing to support America would be fatal to the alliance. But that requirement is not evident in the text of the treaty itself, at least as interpreted by the foremost legal authority on the matter, J.G. Starke, in his book The ANZUS Treaty Alliance. He says it's clear from the context that 'Pacific Area' in Article 4 doesn't include Taiwan, because Australia didn't want it to.

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Source: https://www.aspistrategist.org.au
The learned author's argument about the uncertainty of war is true. However, he foresees no uncertainties if the US withdraws from Asia, thereby undermining his argument. An Asia without the US would give China all it needs to export its form of power, not only in Asia, but also in the rest of the world.

Naval Group and Centrale Nantes print the world's first hollow propeller blade

Naval Group and Centrale Nantes have printed the first demonstrator of hollow propeller blades by metal additive manufacturing as part of the European H2020 project, RAMSSES, Funded by the European Commission, this collaborative programme aims to reduce the environmental impact of ships. Naval Group and Centrale Nantes are taking the lead within this project on the production of innovative propeller demonstrators to improve the operational capabilities of ships. In order to improve vessel propulsion, Naval Group and Centrale Nantes are using additive manufacturing to design large parts (propellers of 6 metres in diameter), which could not be produced thus far using traditional manufacturing technologies. Implementing the WAAM (Wire Arc for Additive Manufacturing) process, allows for printing of large parts and paves the way for the production of propellers with more complex geometry. The one-third scale hollow blade demonstrator, representative of a container ship propeller, was printed in stainless steel in less than one hundred hours, weighing in at about 300 kg. The teams' sheer technical prowess means that weight gains of over 40% will be achievable compared to conventional processes. Sirehna, a Centrale Nantes spin-off and subsidiary of Naval Group, is piloting the blade design in order to improve propeller energy efficiency and reduce their environmental impact. Sirehna's work has led to an overall optimization of blades in terms of efficiency and endurance, but also a significant reduction in radiated noise and vibrations. Founded in 1919, Centrale Nantes is a French engineering school and member of the Ecoles Centrale Group. Its undergraduate, Master and PhD programmes are based on the latest scientific and technological developments and the best management practices. At Centrale Nantes, research and training are organised into three key areas for growth and innovation: manufacturing, energy transition and healthcare. Cenrale Nantes promotes its teaching and research capabilities at international level through around 100 partnership with prestigious universities and schools worldwide. Naval Group is a European leader in naval defence and an international high-tech company. The Group offers a wide range of marine renewable energy solutions. The Group has 13,429 employees and its revenue was EUR 3.7 billion (as of 2017).

Source : Portnews