NAVY NEWS WEEK 18-6

4 May 2018

Naval chief meets with Iranian navy commanders

Our Staff Reporter

April 25, 2018

ISLAMABAD - Chief of the Naval Staff Admiral Zafar Mahmood Abbasi who is on an official visit to Iran to attend 6th three-day Indian Ocean Naval Symposium titled "Conclave of Chiefs 2018" held meetings with various commanders of Iran's Navy and other defence authorities. According to Pakistan Navy spokesperson, matters of mutual interest, including bilateral naval collaboration and security environment in Indian Ocean Region were discussed during the meeting. Admiral Zafar Mahmood Abbasi also thanked Rear Admiral Hossein Khanzadi for inviting him invitation to attend 6th Indian Ocean Naval Symposium, "Conclave of Chiefs 2018". Both dignitaries also discussed avenues to enhance bilateral cooperation between both navies in the field of training, provision of technical manpower and expertise. Commander of Iranian Navy acknowledged the need and significance of close and strong bilateral naval association in diverse realms between Pakistan Navy and Iranian Navy. During the meetings with Commander Islamic Revolutionary Guard Corps, Rear Admiral Ali Fidavi and Deputy Commander of Iran Army, Vice Admiral Habib Ullah Siyari, professional matters of mutual interest and bilateral defence ties were discussed. Iranian dignitaries acknowledged warm and brotherly relations between Pakistan and Iran, based on historical ties and highly appreciated the role and contribution of Pakistan for maintaining peace and stability in the maritime domain. The dignitaries agreed to enhance bilateral collaboration between Pakistan and Iran in general and defence related avenues in particular.

How AI Could Destabilize Nuclear Deterrence

A new Rand Corp. report finds artificial intelligence could increase the risk of nuclear war.

By Elias Groll

April 24, 2018, 4:16 PM



A visitor passes by a picture displaying the mushroom cloud when the atomic bomb was dropped in Hiroshima, Japan, on Aug. 5, 2004. (Junko Kimura/Getty Images)

When Russian President Vladimir Putin announced last month that his country was developing an autonomous nuclear-powered torpedo, it marked a milestone in the marriage of nuclear weapons and artificial intelligence —

that is, if the weapon does what he claims. The torpedo, armed with a nuclear warhead, would be launched from the Arctic Ocean and travel at high speeds for hundreds of miles until it reached its target — probably an American harbor — all the while maneuvering autonomously to evade underwater defenses and outrunning any adversaries. If operational, the torpedo would combine the proven destructiveness of a nuclear weapon with the burgeoning field of Al. With this and other developments in a mind, a provocative new report from Rand Corp., the Santa Monica-based think tank, asks; How might Al affect the risk of nuclear war? For now, the technology probably isn't improving the odds and may destabilize the fragile post-Cold War order that has kept nuclear missiles in their silos. All is far from being used in the doomsday nuclear weapons scenarios imagined by science fiction — a computer deciding to launch intercontinental ballistic missiles (ICBMs) for example. Instead, the ways in which AI is being integrated into nuclear weapons systems lie in the worlds of intelligence. Al-enabled reconnaissance systems, for example, could be used to analyze huge reams of data. Autonomous drones could scan vast swaths of terrain. And these technologies, the report finds, "could stoke tensions and increase the chances of inadvertent escalation." "When it comes to artificial intelligence and nuclear warfare, it's the mundane stuff that's likely to get us," says report author Edward Geist, a Rand researcher. "No one is out to build a Skynet," a reference to the nuclear command-and-control AI system from the Terminator movies that concludes it must kill humanity in order to ensure its own survival. For example, Al-enabled intelligence tools — such as autonomous drones or submarine-tracking technology threaten to upset the delicate strategic balance among the world's major nuclear powers. Such technology could be used to find and target retaliatory nuclear weapons, which are held in reserve to ensure that any nuclear strike on a country's territory will be met in kind. This capability could upend "mutually assured destruction," the idea that any use of nuclear

weapons will result in both sides' destruction. But if a country is able to use Al-enabled technology find and target missiles stored in silos, on trucks, and in submarines, that threat of retaliation could be taken off the table, inviting a first strike. And in the paranoid logic of nuclear deterrence, Al doesn't have to actually provide this breakthrough in order for it to be destabilizing — the enemy only has to think that it provides a putative edge that puts its nuclear force at risk. In the case of intelligent image processing, it's not just paranoia. The U.S. Defense Department's Project Mayen aims to take reams of drone video and pick out objects automatically from full-motion video, enabling the analysis of massive quantities of video surveillance. The Rand report makes clear that AI doesn't have to be a destabilizing technology. Improved intelligence collection could assure major nuclear powers that their opponents are not on the verge of launching a surprise first strike, but that assumes equal access to the cutting-edge technology. "The social and political institutions that would normally be trying to keep this manageable are dysfunctional or are breaking down," Geist says. And that leaves nuclear powers competing with one another to develop the best AI, with apparently huge stakes. "Artificial intelligence is the future, not only for Russia, but for all humankind," Putin famously said last year. "Whoever becomes the leader in this sphere will become the ruler of the world." Chinese authorities, meanwhile, have developed a detailed plan to become a world leader in the field. In February, the South China Morning Post reported that Chinese military officials are planning "to update the rugged old computer systems on nuclear submarines with artificial intelligence to enhance the potential thinking skills of commanding officers." In researching the report, Geist and his co-author, Andrew Lohn, a Rand engineer, convened a series of focus groups bringing together technologists, policymakers, and nuclear strategists. They observed an aversion to handing computers control of any aspect of the decision to use nuclear weapons. But that leaves machine intelligence playing a subtler role in a nuclear weapons system. "If you are making decisions as a human based on data that was collected, aggregated, and analyzed by a machine, then the machine may be influencing the decision in ways that you may not have been aware," Lohn says. And as Al improves its ability to recognize patterns and play games, it may be incorporated as an aid to decision-making, telling human operators how best to fight a war that may escalate to a nuclear exchange. In a hypothetical scenario in which Russia masses troops at a border position, an Al system could advise policymakers that the proper response would be to place troops in certain cities and place bombers on alert. The computer could then lay out that Russia would retaliate and how escalation would play out. That technology doesn't exist today, Lohn says, but "if AI is winning in simulations or war games, it will be hard to ignore it." Source: http://foreignpolicy.com

Stealth warship to pay four-day visit to central Vietnam

By Nguyen Dong

During the trip, the two navies would participate in search and rescue and signaling drills.

A Singaporean naval ship will be visiting Vietnam's central city of Da Nang from April 26-29, the city's information department said on Friday. The **RSS** *Intrepid* (69) stealth frigate with a crew of 150 officers and sailors led by **Captain Joseph Neo**, Commanding Officer at the Singapore Naval Academy, will be docking at the city's Tien Sa Port for the fourday visit. This visit will mark the third time a Singaporean warship has docked in Da Nang. Upon arrival, the frigate will be open for officers from Vietnam's 3rd Naval Region to visit, while the Singaporean sailors would get to explore a Vietnamese naval ship in exchange. During the four-day stay in Da Nang, the RSS Intrepid's crew would greet the city's leaders and heads of Vietnam's 5th Military Region and 3rd Naval Region, as well as take part in cultural exchanges and sports activities. On April 29, the crew and their Vietnamese counterparts would take part in a search and rescue drill and receive training on the use of flags, blinking light and radio in signaling prior to their departure. The **RSS** *Intrepid* is a Formidable-class stealth frigate commissioned in 2008. The ship has a length of nearly 115 meters (377 feet), width of over 16 meters and can reach a maximum speed of 27 knots (31.1 miles per hour). As a multi-role frigate, the ship carries a wide variety of armaments, including anti-ship and anti-air missiles as well as guns and torpedoes.



Royal Navy sailors and Royal Marines on board **HMS Albion** have sent their best wishes and congratulations to Kensington Royal with a special flight deck photograph from operations in the Asia Pacific region

Politicians push for all navy ships to be built by Australian companies

By: Amelia McMahon

Senate crossbenchers have proposed a new law that would ensure all Australian naval vessels be built in Australia by Australian companies. The Centre Alliance party, made up of South Australian senators Rex Patrick, Stirling Griff and Rebekha Sharkie, will introduce a bill into the Senate when parliament resumes next month. The Defence (Sovereign Naval Shipbuilding) Bill 2018 will seek to amend the Defence Act 1903 to require all new naval vessels, including Australia's Future Submarines and Future Frigates, to be built in Australia except in times of defence emergency or in war time. Responsibility for any vessels built in Australia would also need to be contracted to a "well-established, high performance Australian controlled shipbuilder". Currently, this would be ASC or Austal. If the bill passes, it would not prevent foreign shipbuilders tendering to be the prime contractors in any shipbuilding program, but would make it mandatory for the foreign designer to sub-contract the entire build to an Australian shipbuilder that meets the above requirements. Former submariner and Defence contractor Senator Rex Patrick said the bill would allow for Australia to obtain more naval sovereignty. "Australia's uncertain strategic future requires a much greater measure of self-sufficiency as a pacific maritime power," Senator Patrick said. "Australia needs to be able to exercise a much greater measure of independent maritime power in our region and to do that we need a sovereign naval shipbuilding and support sector." The origin of the bill has come out of what he described as a potentially "treacherous approach" by those within the Department of Defence that deliberately excluded sovereign shipbuilder ASC from the Future Frigates and Future Submarines project. "The bill is designed to counter what may in the future come to be seen as the treacherous approach taken by Russell Hill bureaucrats in the Future Frigate program whereby Australia's two established and highly capable shipbuilders. ASC and Austal, have been excluded in the tender documents from having responsibility for the build." the senator said. "Instead the government has invited three foreign ship designers to bid for the job, offering them a taxpayer-funded shipyard in Adelaide and a \$35-billion contract to establish themselves to compete with the long-standing Australian companies. This approach to the project makes ASC's future rather bleak." Senator Patrick argues there has been a gradual but shift away from the use of local shipbuilders in Navy programs. The supply ships set to replace the RAN's French designed Durance-class supply ship, built by an Australiancontrolled company, are now being built in Spain by Navan while the Aurora Australia, the Antarctic Division's Icebreaker, which was built in Newcastle by an Australian controlled company, will be replaced by RSV Nuyina which is being built by Damen in Romania. "It is hard to avoid the conclusion that the bureaucrats advising government are determined to see the quiet death of a sovereign shipbuilding capability in Australia and its replacement with foreign entities operating on Australian waterfront real estate," he said. "This has to stop. The new bill will contain a provision that will mean the law applies from the date it was announced - as has been done for other government bills. This will have effect on both the Future Submarine Program, for which no build contract has yet been signed, and the Future Frigate Program. "While the bill will allow overseas procurement of naval vessels in time of a defence emergency or war, it will provide an unambiguous legislative direction that Australian naval construction must take place in Australia by Australian companies with the consequent benefits for our defence industrial base and long-term strategic self-reliance. Senator Patrick said the use of Australian companies for the build will ensure the know-how of these programs is transferred to an Australian-controlled company, rather than a "daughter company" of a foreign entity and will ensure foreign companies will not have veto power over any export opportunities Australian shipbuilders wish to engage in. While the Centre Alliance Party is likely to garner support from other crossbenchers and members of the Labor Party, Minister for Defence Industry Christopher Pyne shot down the bill. "You ... need to keep competitive tension in the market otherwise the taxpayer of Australia loses in two ways — in value for money and in the quality of the productions of the products or the service." the minister said at the opening of the Australian Defence Export Office. "If the Australian government was to mandate only two shipbuilders in Australia, the ASC which was a very troubled institution until the last few years, and Austal, then the competitive tension would be removed from the market. The loser from that would be the taxpayer, the defence force of course would be the loser potentially in terms of the quality of the product provided because if a company knows that they cannot be defeated in a tender or a contract then of course what they offer doesn't have the competitive tension that's required to make sure that the quality of the service offered is the best it could possibly be." **Source : Defence Connect**

Iran first naval power in region

Iran's, adding the IRGC is enjoying the most advanced technology in the world.

Speaking on state TV program on the 40th anniversary of the formation of Islamic Revolutionary Guard Corps (IRGC), the chief commander of IRGC Navy Rear Admiral Ali Fadavi said through forty years of continuous efforts to confront with the super powers, the IRGC has become very powerful. Fadavi said that the IRGC forces did very well in fighting the 'Great Satan' or the United States as Imam Khomeini called it during the imposed Iraqi war on Iran, followed by continuous efforts in the reconstruction period after the war. The IRGC Navy commander added that the United States is now looking for an effective deterrent to contain the IRGC as the US defense secretary said last year. Later in his remarks, Fadavi said that Iran does not consider any one of the Islamic countries as its rival or enemy, while adding that the power of none of the countries in the region is comparable with Iran. Regarding naval power, the IRGC Navy commander said that Iran's naval power has scared the enemies, adding that all the anti-ship missiles are produced domestically. He later named the United States as the biggest threat for the regional security. Read Admiral Fadavi later pointed to the cooperation between IRGC and the private sector companies saying that in addition to the state companies under the leadership of the Iran's Defense Ministry, the knowledge-based companies are also playing an important role in developing IRGC power. Elsewhere in his remarks, the IRGC Navy commander referred to the strength of Iran's naval forces saying that the domain of Iran's naval

forces are active "thousands of kilometers away from the region." Pointing out that Real Admiral Ali Shamkhani headed both IRGC and Army naval forces for eight years, Fadavi further added that there is close cooperation between the IRGC and the Iranian Army naval forces and they both are acting alongside each other. He concluded by saying that the US lacks enough information about Iran's naval power, adding "they (Americans) will notice Iran's power when their warships are drowned."

Source: Mehrnews



The brand new patrol vessel *Medway* which is fitting out at Scotstoun Glasgow Photo : Jim Prentice ©



The Dutch OPV **Zr Ms. Holland** (P840) departing Curacao 21st April. **Photo: Shaun Beal**

Damen lays keel for first of two Pakistan Navy OPVs



Photo: Pakistan Navy

Dutch shipbuilder Damen recently hosted a keel-laying ceremony for the first of two Pakistan Navy offshore patrol vessels at its shipyard in Galati, Romania. The ceremony was attended by Pakistan Navy Rear Admiral Farrokh Ahmad, Deputy Chief of the Naval Staff (Projects), other navy officials and Damen representatives. Pakistan and Damen signed a contract for the construction of two OPVs in June 2017. Contrary to earlier announcements which said Pakistani shipbuilder Karachi Shipyard & Engineering Works Ltd. would be involved in OPV construction, both vessels will be built in Romania. The OPVs built for Pakistan will have a displacement of around 1900 tons and an overall length of 90 meters. Pakistan Navy OPV specifications do not precisely match those found on OPV models offered by Damen. The Dutch company's official offering includes the larger OPV 2400 and a slightly smaller OPV 1800. According to photos shared by the Pakistan Navy, offshore patrol vessels built for Pakistan are designated as OPV 1900. The vessels will be suited for anti-surface, anti-air operations, maritime security operations (MSO), day & night helicopter operations, combat search and rescue (CSAR) and surveillance and intelligence gathering.

Saab sensor system for OPVs

Saab Australia has been chosen by Luerssen to provide the Situational Awareness System for the RAN's 12 new Offshore Patrol Vessels (OPVs). "The System provides the Navy with complete, consistent and up to date situational awareness and mission management using on-board, off-board, and remote data sources," Minister for Defence Industry, Christopher Pyne, said. "Saab Australia advises it will carry out the work at its Adelaide facilities, which will create up to 50 direct jobs." "In more good news, Saab will also contract other Australian companies to fabricate selected components of the system providing a high level of Australian industry participation." "The OPVs will also be fitted with Saab's EOS 500, a lightweight



electro-optical fire control director used for observation, target identification and fire control."

Luerssen's OPV80 design for Sea 1180. **Photo:** Luerssen

"Saab Australia is pleased to receive this order from Luerssen Australia. This is also an important step towards system commonality for the Navy, with 9LV

installed, or contracted for delivery, across four classes of ship," Andy Keough, managing director for Saab Australia, said. This is also an important step towards system commonality for the Navy, with 9LV installed, or contracted for delivery, across four classes of ship. "The development work being undertaken by Saab in Australia will also support export opportunities and position us well for future maritime projects." Luerssen Australia is under contract to lead the design and build of 12 OPVs. The project, which in total is worth around \$3.6 billion, will create approximately 1000 jobs through the build itself and the supply chain. Construction will commence on the first ship at Osborne Naval Shipyard in SA before the end of the year. The first two OPVs will be built in SA before the project transitions to WA, where the remaining 10 will be constructed from 2020.

Italian Navy takes delivery of 7th FREMM frigate



Launching of *Federico Martinengo*. Photo: Fincantieri

The Italian Navy has taken delivery of its newest frigate, *Federico Martinengo*. The delivery ceremony took place at Fincantieri's Muggiano shipyard, La Spezia, on April 24.

The new build is the seventh of a series of ten vessels of the FREMM program – Multi Mission European Frigates – commissioned to Fincantieri as part of the international Italian-French program, coordinated by the Organisation for Joint

Armament Cooperation. Orizzonte Sistemi Navali — 51% Fincantieri and 49% Leonardo — is the prime contractor for Italy's FREMM program, which envisions the construction of ten units, all already ordered. Launched in March 2017, *Federico Martinengo* is the third multipurpose variant following the deliveries of *Carlo Bergamini* and *Luigi Rizzo* in 2013 and 2017, respectively. Other units in the class delivered so far are ASW-oriented. Italy will eventually operate six general purpose variants and four anti-submarine variants. With a length of 144 meters and a displacement of 6,700 tons, the FREMM frigates are designed to reach a maximum speed of 27 knots and provide accommodation for 200 people. The FREMM program ships are to replace Italian Navy Lupo- and Maestrale class frigates built by Fincantieri in the 1970s.

Source: Naval Today

EU Command and Control after Brexit

Brexit offers opportunities for the 27 countries that remain in the European Union (EU). In Spain, the example is Rota. The base from Cadiz aims to replace Northwood as the fifth strategic level headquarters of the EU after the United Kingdom leaves the EU block in March of next year. The Spanish Armed Forces will present on Monday an exhibition of their capabilities to demonstrate that the base should host the command center of Operation Atalanta that fights against piracy in

the Indian Ocean and that is led from the British centre.



Rota naval base. Photo: Garcia Cordero

The first step to achieve this will be to obtain from Brussels the certification of the Cadiz base as Operational General Headquarters

(OHQ) of the EU, something that is expected to be certified with an ambitious exercise that will be carried out throughout the week and whose result will be known in May. At its start this Monday will be attended by many Spanish and European authorities such as the Minister of Defense, María Dolores de Cospedal, or the Chief of Defense Staff (JEMAD), General Fernando Aleiandre. The EU currently has four headquarters in addition to Northwood, located in Potsdam (Germany), Larissa (Greece), Rome and Paris. The proposal offers the EU to maintain five headquarters by adding Rota and the Spanish political and military authorities assume that it will succeed due to the European commitment of Spain. Among its arguments, the authorities argue that Spain is one of the driving forces of the common defense policy (known as PESCO) and is the country with the greatest contribution to international missions of the EU. Currently, 30 percent of military deployed in European operations are Spanish. In particular, the Armed Forces are deployed in all EU military missions, in Mali, the Central African Republic, and Somalia, Operation Sophia in the Mediterranean, Atalanta and Bosnia. Spain goes a step further and has formulated a proposal with France to take on the rest of the tasks that were developed in Northwood. With it, Spain aspires to assume the Rota leadership of Operation Atalanta and that the French base of Brest will host the Maritime Security Center for the Horn of Africa. To meet this objective, the Ministry of Defense announced at the beginning of the month that it plans to invest 1.5 million euros. This offer is facing the candidacy presented by Italy, which also aims to lead the operation of the Indian Ocean in coordination with the command that already exercises the Operation Sophia. dedicated to the fight against the illegal trafficking of people in Mediterranean waters.

Source: Redaccion y Agencias, Madrid

Nigerian patrol boats have arrived

Written by defenceWeb, Tuesday, 24 April 2018



The Nigerian Navy's two new FPB 110 patrol boats, manufactured by Ocea in France, have arrived home. The cargo vessel carrying the two boats, *Mercs Kelani*, left Saint-Nazaire, France, on 5 April and, according to ship tracking data, arrived in Lagos, Nigeria, around 20-21 April. Nigeria's two FPB 110s, the *Nguru* (P187) and *Ekulu* (P188), completed sea trials last month. In February 2017 it emerged that Nigeria had ordered two FPB 110 Mk II coastal patrol vessels. They are 35 metres long and have a maximum speed of 30 knots. They will be fitted with two 12.7 mm machineguns and a 20 mm cannon and a 4.7 metre long Zodiac rigid-hulled inflatable boat (RHIB). The weapons will be added in Nigeria. Other equipment includes two Furuno radars and a Vigy Observer electro-optical system. Nigeria's FPB 110s are based on the models

produced for Kuwait, but are driven by propellers and not water jets. They are apparently also more comfortable for the crew, with improved accommodation. The two vessels can accommodate 17 people, including a dozen crew members. The boats are powered by two MTU 16V2000 diesel engines giving a top speed of 30 knots and a range of 900 miles with 3-5 day endurance. Once delivered, they will be used to improve maritime security off Nigeria, with an emphasis on piracy and maritime crime. Ocea has delivered a number of other vessels to Nigeria, including three 24 metre long FPB 72s in 2012 and a 32 metre FPB 98 Mk II in 2013. Five FPB 72s have been ordered, with two, the Gongola and Calabar, delivered to Nigeria in January this year after the Shiroro and Ose arrived in 2017. Another FPB 72 is expected to be delivered to Nigeria in mid-2018.

Indian Official: 'If Push Comes to Shove, We Are Prepared' to Fight China

by Edwin Mora24 Apr 2018193



AFP Tolga AKMEN

India is "prepared" to force a military stalemate against its rival China if necessary, the Times of India (TOI) quoted an unnamed official as stating this week.

A senior Indian official told TOI on condition of anonymity: India does not want war. But if the push comes to shove, we are prepared. China has been forced to grudgingly accept that India is no pushover after repeatedly testing our resolve over the last few years, especially during the Doklam troop face-off last year. Referring to a potential conflict between India and China, a senior Indian Air Force reportedly added: They will try to use forces to disrupt our airbases. ... That's why during the just-concluded GaganShakti exercise, we war-gamed hitting China from widely dispersed locations. We also conducted maritime interdiction sorties in the Bay of Bengal. "We have the capability to counter-attack," an unnamed Indian army officer said. According to the latest annual Global Firepower (GFP) index, which ranks the armed forces of 133 countries, India trails right behind China. The countries with the strongest militaries in the world are respectively identified as the United States, Russia, China, India, and France. Echoing the GFP assessment, the most recent annual Jane's Defence Budgets Report authored by prominent research firm IHS Markit, determined that the top five military budgets in the globe include that of the U.S., China, India, Russia, and the United Kingdom, from highest to lowest spender. Although the assessments place China ahead of India, TOI noted that the assessment from "top Indian military commanders" determined that "the swift dragon [China] can be held to a stalemate, even though it may be able to inflict some damage by breathing fire." "India is militarily no longer the pushover it was during the 1962 war despite persisting critical operational and infrastructure gaps as well as the ever-expanding military asymmetry with China," TOI added. The People's Liberation Navy "may be much larger but in terms of operational expertise and experience in the Indian Ocean Region, they are far behind. The Chinese Navy is still learning to operate far away from its shores," an unnamed senior Indian naval officer acknowledged. Indian commanders provided the assessment of India's military capabilities soon after Beijing taunted New Delhi over the 2017 stand-off along the border the two countries share in the Doklam region. In March, China declared the Doklam border region an undisputed "Chinese territory," once again provoking tensions with New Delhi. Asserting that Doklam, known as Donglang in China, ultimately belongs to China, Hua Chunying, a spokesperson for the Chinese Foreign Ministry, urged India to "learn some lessons" from the incident. Hua credited China with having the "wisdom" and leading the "efforts" responsible for resolving China's face-off with India, noting: Last year, thanks to our concerted efforts, our diplomatic efforts, and wisdom that we properly resolved this issue. We hope the Indian side could learn some lessons from this, stick to historical conventions and work with China to ensure the peace and stability in the border area as well as a good atmosphere for the development of bilateral ties. In 1962, China and India went to war over territorial disputes in Kashmir, a Muslim-majority Himalayan region claimed by Beijing, its ally Islamabad, and their rival New Delhi. Last year, China's decision to deploy troops to accompany workers seeking to extend a road into India's side of the Doklam region triggered a nearly 70-day stand-off (June 16 thru August 28) between the two rivals.

Source: http://www.breitbart.com

If these two nations go to war, it must be the World War 3, as one-third of the world population will be at war.

Iran proposes military alliance of Indian Ocean littoral states

April 24, 2018

TEHRAN - Navy Commander Rear Admiral Hossein Khanzadi said on Tuesday that Iran has proposed formation of a military coalition by the Indian Ocean littoral states. "Security in the Indian Ocean is a priority based on which we proposed formation of a joint military coalition and group. Most of the officials with whom I met on the sidelines of the Indian Ocean

Naval Symposium agreed with this proposition and the issue is supposed to be discussed in the commanders' summit and



to be implemented if all member states agree," ISNA quoted him as saying. He said that the Indian Ocean Naval Symposium (IONS) has many capacities for expansion of cooperation. The general also said Iran welcomes other countries joining the IONS but it does not favor a U.S. inclusion. "Many other countries have the same opinion," Khanzadi added. Elsewhere, he said that the Iranian and Omani navies are scheduled to hold joint exercises on May 7, 8. The sixth Indian Ocean Naval Symposium opened in Tehran on Monday. Senior military delegations from 35 countries were participating in the conference which ended on Tuesday. It was the greatest military conference hosted by the Iranian Navy. During

the conference, Iran officially assumed presidency of the IONS for two years. General Mohammad Hossein Baqeri, chief of Iran's armed forces, was the first lecturer of the conference.

Source: http://www.tehrantimes.com

I trust that the SA Navy is representing the RSA at this simposium.

Contract worth Euro 124M for NSM missiles to the Royal Malaysian Navy 18.04.2018



Kongsberg Defence & Aerospace AS (KONGSBERG) has entered into contract worth Euro 124M with the Royal Malaysian Navy for delivery of the Naval Strike Missile (NSM) to their six new Littoral Combat Ships.

Boustead Naval Shipyard Sdn Bhd is building the ships based on Naval Group's Gowind Class design. This contract is a follow-on to the

agreement announced 9 April 2015 for NSM shipboard equipment. The NSM will be deck mounted and integrated to the SETIS combat management system provided by Naval Group. "This contract provides the Royal Malaysian Navy with an important surface-to-surface-missile capability and confirms NSM's very strong position in the international market. NSM is currently chosen by Norway, Poland, Germany and Malaysia", says Eirik Lie, President of Kongsberg Defence & Aerospace AS.

Source: https://kongsberg.com

Kongsberg's NSM/JSM Anti-Ship & Strike Missile Attempts to Fit in Small F-35 Stealth Bay Apr 25, 2018 04:57 UTC by Defense Industry Daily staff

April 25/18: NSM for Malaysian LCS Kongsberg has secured a \$153 million export order for its Naval Strike Missile (NSM). The missiles will arm the six new Littoral Combat Ships being built for the Malaysian government, with contracts signed for the NSM at the recent Defence Services Asia 2018 (DSA 2018) in Kuala Lumpur. Based on Naval Group's Gowind Class design April 47, the vessel will have the NSM deck mounted and integrated to the SETIS combat management system provided by the Naval Group. Designed for use by the Norwegian Navy in the anti-ship and land-attack role, a Joint Strike Missile

(JSM) is currently in development that will be integrated with the F-35 Joint Strike Fighter.



NSM test launch

Kongsberg's stealthy new Naval Strike Missile (Nytt SjomalsMissil), which continues its development and testing program, has already shown potential in the crowded market for long-range ship attack and shore

defense weapons. NSM's Joint Strike Missile counterpart may have even more potential, as a longer-range air-launched naval and land strike complement to Kongsberg's popular Penguin short-range anti-ship missile. The market for anti-ship

missiles is a crowded one, and the distinction between anti-ship and precision land strike weapons is blurring fast. Aside from a bevy of Russian subsonic and supersonic offerings, naval buyers can choose Boeing's GM-84 Harpoon, China's YJ-82/C-802 Saccade, MBDA's Exocet, Otomat, or Marte; IAI of Israel's Gabriel/ANAM, Saab's RBS15, and more. Despite an ongoing shift toward supersonic missiles, Kongsberg chose not to go that route. So, how do they expect to be competitive in a crowded market? The F-35 Lightning II may hold the key. The F-35 is a fairly stealthy plane, so long as it is mostly unarmed. About five sixths of its armament capacity must be carried externally, effectively rendering it visible to radars. That has been one of the several good arguments as to why stealth development may have been a low bang-for-buck result. Australia announced that it was going in with Kongsberg to adapt the Joint Strike Missile to fit inside the F-35's armament bay. We helpfully suggest that the new variant be named the JSM-III Sardine.

Kongsberg's Naval Strike Missile/ Joint Strike Missile

NSM: Ship-Launched



NSM test flight

The 3.96m/ 13', 407 kg/ 900 pound, stealth-enhanced Naval Strike Missile aim to be a generation beyond the USA's GM-84 Harpoon. A rocket booster and Microturbo TRI-40 turbojet power it to a 185+ km/ 100+ nautical mile operational range, which is at the low end of the standards for its class. Global Positioning System/Inertial Navigation

System (GPS/INS) guidance flies these missiles toward their target, aided by terrain profile matching (TERPROM). Internal programming is designed to create an unpredictable, maneuvering flight path that makes targeting difficult. During the final attack phase, an imaging infrared (IIR) seeker with automatic target recognizer (ATR) is used to refine final approach targeting, which can reportedly include specific features on a ship. Once NSM locks on, it strikes ships or land targets with a 120 kg/ 265 pound titanium warhead and programmable fuze. Note the lack of a traditional radar seeker head, which is part of the missile's signature reduction. IIR makes the NSM completely passive, offering no warning from shipboard ESM systems that detect radar emissions. At the same time, its stealthy shape offers little warning from its target's active radar sweeps. This is a missile optimized at all levels for stealth, making supersonic speed less necessary. An in-flight data link makes the missile reprogrammable in flight, if its target disappears or a higher priority threat appears. In order to speed deployment, Kongsberg and the Norwegian government overlapped the NSM's development phase and its production phase, referred to as the transition phase. That phase was tied to Norway's commitments to Navantia, with a view to scheduling the NSM's phase-in on the 4th vessel of Norway's new Nansen Class AEGIS frigates. That integration is now complete. To date, NSM has also been chosen for Norway's Skjold Class air cushion catamaran FACs, and Poland's land-based coastal defense batteries will use it to defend the country's narrow Baltic Sea approaches.

JSM: Air-Launched

The air-launched "Joint Strike Missile (JSM)" variant is designed to be carried and launched internally from the F-35 Lightning II fighter's 2 internal bays (1 missile per bay), or carried on external hardpoints by any aircraft type that has integrated the weapon with its systems. This isn't quite the same missile, though it shares many characteristics. Kongsberg changed the wings, moved the intake to the missile's sides, and added other modifications as the missile progresses through the development phase. Size shrinks slightly to 3.7m/ 12'2", and weight drops to 307 kg/ 677 pounds. Because it's air launched at speed, range expands to over 280 km/ 175 miles/ 150 nautical miles, with greater range enhancements if launched from higher altitudes. Development has completed Phase 2, including detail design and integration/ fit checks for the F-18, F/A-18 Super Hornet, and F-35A. Phase 3 will complete development and leave Kongsberg ready for production. The JSM's tighter profile has also made it the base for 2 future designs: a submarine-launched variant that can fit inside a 533mm torpedo tube capsule, and a vertically-launched variant that adds a booster for use from strike-length naval vertical



RNoAF F-16

Norway is aiming for a 2020 JSM in-service date, but that may have to involve its F-16s, which have lost their Penguin missiles. F-35A

Integration will begin with the fighter's Block 4 software fit, in 2022 – 2024. That lateness and forced switch might be a blessing in disguise. JSM would be very appealing to many F-16 customers, and Kongsberg is also hedging its bets by testing JSM on the F/A-18E/F Super Hornet. Forced inclusion of other platforms from the outset could create early customer pickup beyond home sales, including existing F-35 prospects like Australia. Later, the prospect of stealth-enhancing internal carriage, plus out of the gate integration with the F-35 Lightning II, give the JSM a strong entry hook for committed F-35 customers like Norway, Australia, The Netherlands, et. al. Confirmed current export targets include Australia (NSM & JSM), Canada (NSM & JSM), Italy (JSM), and the USA (NSM). A live-fire showcase at the RIMPAC 2014 exercise has the potential to add more Pacific prospects. Kongsberg's JSM development partner Lockheed Martin has a similar air-launched land-attack product in its AGM-158 JASSM, which has been developed into the air or sea-launched LRASM. Other competitors exist, from MBDA's Storm Shadow/Scalp, to Taurus' KEPD, to Boeing's anti-ship and land attack SLAM-ER. The JSM's biggest differentiator would be internal F-35 carriage, which is unique. The other differentiator is its F-35 integration schedule. At present, JSM's only ranged strike competitor in F-35 Block 4 will be Raytheon's unpowered AGM-154C-1 JSOW glide bomb.

Workhorses of the sea



The Gulliver inbound for Vlissingen Oost Photo: Wim Kosten ©