

# GBP SHOW DAILY

DAY

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## PERFECT PLACE FOR PARTNERSHIPS

As the second edition of the Egypt Defence Expo (EDEX 2021) opens, defence and military industries are eyeing a bigger slice of the military procurement pie from the MENA region and hoping to strengthen their relationships

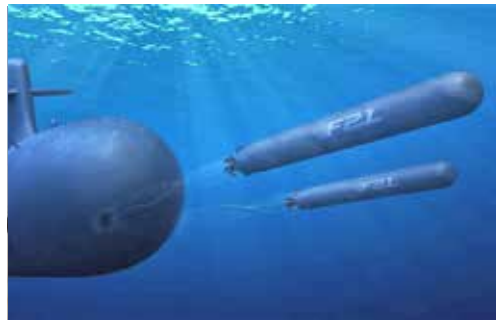
with existing customers. The Middle East and North Africa (MENA) region has on average increased its military spending during the past decade, slightly increasing its global share from about 7 per cent in 2010 to touch over 9 per cent in

2020. Egypt alone manages one of the largest militaries in the world in addition to a growing local defence industry. With 920,000 military personnel, Egypt's military budget currently stands at US\$4.4 billion per year. [...Cont'd to page 3](#)



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...Cont'd from page 1

## PERFECT PLACE FOR PARTNERSHIPS

General Mohamed Zaki, Commander-in-Chief of the Armed Forces, Egypt's Minister of Defence and Military Production said:

**"THE EXPO WOULD OPEN NEW HORIZONS OF COOPERATION BETWEEN EGYPT AND COUNTRIES FROM AROUND THE WORLD IN THE FIELD OF MILITARY INDUSTRIES."**

The combined military spending of the 11 Middle Eastern countries for which data is available was US\$143 billion in 2020. Of these countries such as Egypt hiked their defence budget by 7.3 per cent, while Israel and Jordan increased theirs by 2.7 per cent and 2.5 per cent respectively.

According to military observers while many MENA countries still spend massive amounts of money on modernising and expanding their military forces and their major weapons, they will also greatly expand their focus on counter-extremism, counterterrorism, and internal security. As a result, their dependence on the U.S., Russia, France, China, and other outside forces will steadily increase and continue to do so indefinitely into the future.

Several MENA states already have – or seek to acquire – fighter aircraft,

advanced ballistic and UCAV or cruise missiles. Others seek to acquire a wide-range of precision guided weapons, integrated mixes of land-based air and missile defences, and a wide-range of other developments in military technology and tactics. So EDEX2021, one of the largest defence expos in the Middle East region will be, as Commander-in-Chief of the Armed Forces Zaki said, "an influential international pivot to showcase the latest in military, defence and technological industries in the world." ■



## UAE'S EDGE GROUP TARGETS MENA MARKET

United Arab Emirates (UAE) based EDGE Group, which has rapidly emerged as one of the leading defence firms in the region, is now targeting market opportunities in the Middle East and North Africa (MENA) region. The UAE's participation at EDEX, is being led by the Emirates Defence Companies Council (EDCC). EDGE's participation in the ongoing show is targeted at providing it a foothold in the MENA market. 10 EDGE entities HALCON, AL TARIQ, CARACAL, ADASI, NIMR, ADSB, AL JASOOR, SIGN4L, BEACON RED, and AMMROC are displaying their growing portfolio of defence products at the



region's only tri-service defence and security.

EDGE already offers 20 new cutting-edge products and services introduced over the past two years and launched 13 new

products at the recently concluded Dubai Airshow and company officials say that a further 40 are under development. Faisal Al Bannai, CEO and Managing Director, EDGE Group, said "EDGE is proud to be represented at EDEX in Cairo, together with Emirates Defence Companies Council. We are spearheading the creation and manufacture of advanced technology solutions in defence and in the civilian spheres and playing a pivotal role in the drive for economic growth and greater international security. We continue to push forward with our industry 4.0 agenda to help establish the UAE as a world-leading centre for future industries, and promoting superior products and services for export globally. EDEX is an ideal platform from which to promote our portfolio across MENA and beyond."

ADSB is showcasing scale models of its 160 ITEP, Falaj 3-class, and 36 Flex naval patrol vessels, while small arms manufacturer CARACAL is displaying its growing range of small arms, such as the CAR 816 Assault rifle, and the CSR 338 Sniper rifle. The EDGE Group's Mission Support cluster entity, AMMROC is also highlighting its military MRO services and solutions.

The other EDGE entities are displaying their products, such as the Shadow 25 and Shadow 50 Unmanned Aerial Vehicles (UAV); Thunder series and Desert Sting family of precision guided missiles; SkyKnight and NASEF missiles; Garmoosha UAS; Rash 1M, Rash 2M, and Rash 2H guided munitions systems; QX series of UAVs; AJBAN 440 and JAIS 6x6 vehicles; and various Electronic Warfare and Intelligence Security solutions. ■

## INTERNATIONAL DEBUT FOR PAKISTAN'S SHAHPAR-II ARMED DRONE



The Shahpar-II armed Medium Altitude Long Endurance (MALE) Unmanned Aerial Vehicle (UAV) is making its international debut at the ongoing EDEX. The Shahpar-II is manufactured by GIDS, Pakistan's only state-owned manufacturer of UAVs. The Shahpar-II armed drone has a modular structural airframe design, that is made up of advanced composite and metallic hybrid structures. Company officials told Daily News, that the new UAV features an improved aerodynamic design, giving it an endurance of seven hours with a flight ceiling of 18,000 ft and

max speed of 120 knots.

The Shahpar II can be equipped with 2 x air to ground munitions (AGMs), weighing 60kg each. These weapons are mounted under each wing station. Company officials said that the armed drone features an autonomous take-off and landing system, a robust autopilot scheme, user friendly and a comprehensive mission planning and management software suite, reliable data links and the capability of integrating various types of Electro Optic (EO) payloads. "We are showcasing the armed variant of Shahpar II UAV at EDEX

2021, symbolizing Pakistan's stature in the pursuit of self-reliance and capabilities to counter all kinds of challenges. By means of effectively materializing the concept of national self-reliance, GIDS takes great pride in delivering quality products & services to the armed forces of Pakistan," the official said.

With the Shahpar II, Pakistan has shown its capability of attaining stronger & superior defence capability in multifaceted realms including high-end systems and UAVs. The advent of military Unmanned Aerial Vehicles (UAV) has transformed the entire concept of aerial operations across the globe. The concept has surpassed from airborne fighter jets, to small to medium smart/tactical UAVs, which can now engage in surveillance and reconnaissance missions in multiple domains. UAVs are also considered force-multipliers for militaries in the present arena since an effective employment of these unmanned systems in various war & peacetime situations is an overall value-addition.

GIDS is Pakistan's largest manufacturer of unmanned systems, ranging from medium endurance tactical UAVs, Vertical Take-Off and Landing (VTOL) Quad Copters and a variety of short range / hand launched systems. ■

## RUSSIAN HELICOPTERS HOPING FOR FURTHER INROADS INTO NORTH AFRICAN MARKET

With the Middle East and North Africa having one of the world's largest fleets of Russian and Soviet-made rotorcraft, Russian Helicopters is presenting a wide range of military and civil helicopters at EDEX 2021. Among the helicopters that the company is showcasing at the show are attack helicopters Ka-52 and Mi-35P and military transport Mi-17V-5. Company

officials will also highlight the capabilities of the Mi-28NE, and Ka-52 attack helicopters that were presented for the first time at the recent Dubai Airshow. The company is pinning hopes on the Ka-226T Climber and Ansat Aurus as well after their recent international premieres. In October 2018, Egyptian President Abdel Fattah al-Sisi assessed Ka-52

Alligator capabilities during a visit to an Egyptian air force base. The helicopter is equipped with devices to reduce visibility, has electronic protection and active anti-combat systems. Advanced flight characteristics – achieved in part thanks to its coaxial rotors – make the helicopter highly manoeuvrable in limited space and thus able to adopt an advantageous attack position.

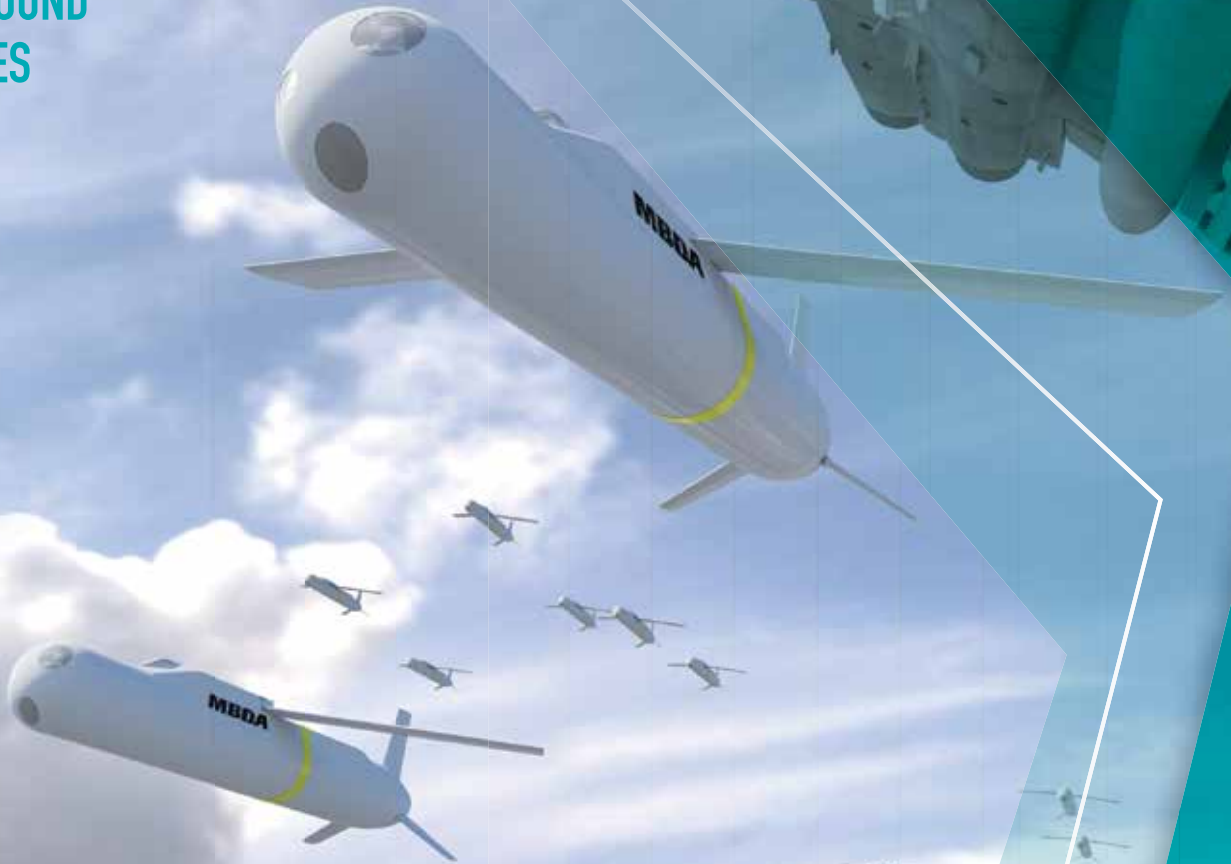
The Ka-52 Alligator offers a high degree of protection to its crew, has advanced automated systems for ease of piloting, and is easy to service and maintain on the ground. Mi-35P, which can be used in high temperature and altitude conditions, has a design that ensures low acoustic visibility and increased combat survivability, thus reducing maintenance complexity. The helicopter is equipped with an upgraded observation and sighting system with a 3rd generation matrix long-wave thermal imager, a high-resolution color TV camera and a laser rangefinder. Mi-35P also has state-of-the-art generation 3+ night vision goggles and a set of external and internal lighting equipment adapted to these goggles' applications. The Mi-17 is a medium multi-purpose helicopter, an export modification of the Mi-8. ■





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## NAVAL GROUP AND EGYPT, A LONG STANDING AND SUCCESSFUL PARTNERSHIP

Naval Group is proud of its long-term partnership with the Egyptian Navy and naval shipyards. With seven latest generation combat ships already ordered to date and five ships already in operation in the Egyptian Navy; Naval Group is proud to participate in the modernisation of the naval forces and defence infrastructure of Egypt, its self-reliance, and its sovereignty.

Naval Group is committed to a long-term partnership with the Egyptian naval shipyards for the Gowind programme. The group is transferring the necessary skills and know-how to Alexandria Shipyard for the corvettes' construction as well as for the equipment integration and in-service support. Three units out of four are built in Alexandria under a construction technology transfer agreement. The first corvette, El Fateh, the only one built in Lorient, was delivered in September 2017. Thanks to the high level of a fruitful cooperation and to the expertise and skills acquired by Alexandria Shipyard, the first Gowind built in Egypt and named Port Said was delivered in January 2021. The two corvettes are currently successfully in service with the Egyptian Navy. The third Gowind, El Moez, was launched in May 2019 and will be delivered in the coming weeks. Finally, Luxor, the last of the series, is already in production and set to be delivered in 2022.

Alexandria Shipyard can be proud of its achievement, the Gowind corvette is a

state-of-art ship, concentrating the latest technologies. Egypt has demonstrated a high-level expertise that allows the country to build complex military vessels locally. Naval Group is very proud to be part of this fruitful cooperation which contributes to the long-lasting partnership between Egypt and France.

### THREE OTHER VESSELS WERE DELIVERED TO EGYPT IN 2015 AND 2016: TAHYA MISR FREMM FRIGATE AND TWO MISTRAL-CLASS LHDS.

#### Naval Group at EDEX

Naval Group's stand at EDEX, reflects its comprehensive offer with a focus on surface ships and innovative solutions.

#### Belharra

Belharra is the new combat ship for

naval supremacy and crisis management designed for navies looking for a compact frigate able to perform the largest range of missions stand-alone or within a task force either for high sea duration missions. As the first digital frigate, Belharra features high level capabilities in anti-air, anti-surface, anti-submarine, and asymmetric warfare domains.

The FDI, the first Belharra frigate for the French Navy will be delivered in 2024 and a MoU was signed with Greece earlier this year to open discussions for 3 frigates and one in option.

#### Scorpene Submarine

This submarine is capable of carrying out all types of missions, such as surface warfare, anti-submarine warfare, special operations or intelligence gathering. It is extremely stealthy and fast, and can be fitted with various weapons (torpedoes, missiles, mines).


Over fourteen Scorpene submarines were sold by Naval Group to foreign customers and Indian and Brazilian submarines are being built locally thanks to a successful transfer of technology.

#### F21 heavyweight torpedo

Benefitting of a highly advanced mission-system and very long endurance, F21 is the first heavyweight torpedo able to perform complex mission autonomously. It has far superior characteristics to any other heavyweight torpedo currently in service and is offered for export, strengthening Naval Group's submarine offering. The F21 torpedo is equipped with a very high level of computing power, which gives it exceptional real-time processing capabilities, an advanced mission system and increased autonomy. These technical characteristics considerably broaden the possibilities of tactical use with an unparalleled capacity for target discrimination, even in very difficult environments. ■







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# EGYPT GIVING TEETH TO ITS HELICOPTER FLEET

Egypt is quietly building up its helicopter fleet by both upgrading the ageing units and purchasing new helos. The country's existing Boeing AH-64D Apache Longbow attack helicopters are being upgraded to the latest AH-64E Apache Guardian standard. Last year the U.S. State Department had made a determination approving a possible Foreign Military Sale to the Government of Egypt to refurbish 43 AH-64E Apache attack helicopters for an estimated cost of US\$2.3 billion.

The United States, after a Strategic Dialogue with Egypt on November 9 this year, noted the significance of Cairo's

nationally funded contract to refurbish the Egyptian Apache helicopters, supporting hundreds of U.S. jobs and increasing Egyptian readiness.

**EGYPTIAN AIR FORCE IS ALSO LOOKING AT UPGRADING ITS FLEET OF KA-52 ATTACK HELICOPTERS NICKNAMED ALLIGATOR. THE UPGRADE COULD BE TO THE "SUPER ALLIGATOR" AS PLANNED BY THE RUSSIAN DEFENCE MINISTRY.**



In April 2019, the Russian Defence Ministry had signed a research and development contract with Russian Helicopters to upgrade the Ka-52 to Ka-52M or "Super Alligator", based on the previous version "Alligator". The prototype of the machine completed its maiden flight on August 10, 2020. The tests are expected to be completed in 2022.

The machines are used both on land and on Egyptian universal amphibious ships of the Mistral type. Egypt had acquired two helicopter assault ships from France and outfitted them with 46 Ka-52 attack helicopters from Russia. It is understood that Russia intends to further outfit Egypt's Mistral-class amphibious assault ships with armament and Ka-52 helicopters, and both sides are currently in talks. Russia's TASS news agency said that Cairo had declined the offer of European or American helicopters to equip the two helicopter carriers, and that Russia had offered modern armament, electronic warfare, and communications systems for the Mistrals, as well as the Ka-52K helicopter.

In late August 2018, Alexander Mikheyev, head of Russia's state arms seller Rosoboronexport, had said that the company would soon start talks on supplying Ka-52K helicopters to Egypt.

Interestingly, Italy has become one of the most important sources of armaments for the North African state, along with the United States, Russia, and France. Egypt has also become one of the key weapons importers in the Middle East. According to the Stockholm International Peace Research Institute's (SIPRI) 2021 report, Egypt's arms imports increased by 136 per cent between 2011–2015 and 2016–2020.

A fact sheet by SIPRI in 2020 notes that, **"EGYPT WAS THE THIRD-LARGEST ARMS IMPORTER IN THE WORLD IN 2015–19. ITS ARMS IMPORTS ACCOUNTED FOR 5.8 PER CENT OF THE GLOBAL TOTAL AND WERE 212 PER CENT HIGHER THAN IN 2010–14."**

In order to modernize and diversify its arms arsenal, Egypt widened and enhanced its military relationship with different partners over the past eight years. It signed several arms deals with Russia and France. ■



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# DIMDEX 2022 TO CONNECT GLOBAL MARITIME DEFENCE COMMUNITY

The Doha International Maritime Defence Exhibition & Conference (DIMDEX) will focus on connecting the global maritime defence and security community at the seventh edition of the show to be held from 21st to 23rd of March 2022 at the Qatar National Convention Centre (QNCC). The organising committee of DIMDEX 2022 has been encouraged

by the strong response for the show, which features record participation from local and international firms. Agreements worth over USD 32 billion were signed across the previous editions.

DIMDEX 2022 takes place the patronage of His Highness Sheikh Tamim Bin Hamad Al-Thani, Amir of the State of Qatar and will be proudly hosted and organised by Qatar Armed Forces. DIMDEX 2022 continues with its theme and vision of 'Connecting the World's Maritime Defence and Security Community', in keeping with its status as one of the premier events in the global maritime defence and security calendar.

DIMDEX 2022 also marks the return of live, non-virtual defence shows, highlighting the resilience of the global

defence industry that has not just braved the pandemic but emerged stronger from it. Among the other highlights of the three-day event will be the Middle East Naval Commanders Conference (MENC), in which thought leaders from around the globe will discuss the latest trends related to maritime defence and security, and the popular visiting warships display at Hamad Port.

DIMDEX 2022 is expected to play a key role not only in fostering the symbiotic relationship between the global defence industry and governments but also in facilitating knowledge exchange to complement the national defence system and Qatar's growing defence industry. The much-anticipated 2022 edition of DIMDEX is shaping up to be the biggest ever with the exhibition landscaped over 35,000 sqm. China, France, India, Italy, Turkey, and USA have already confirmed the presence of their national pavilions. ■





# شراكة طويلة الأمد بين مصر و"نافال جروب" الفرنسية



تفتخر "نافال جروب" الفرنسية بشراكتها طويلة الأمد مع البحرية وأحواض بناء السفن المصرية، حيث تسعى الشركة الفرنسية للمشاركة في تحديث القوات البحرية المصرية والبنية التحتية الدفاعية واعتمادها على الذات وسيادتها.

بصفتها أحد أبرز الشركات الفرنسية المتخصصة في مجال الدفاع البحري وتصنيع السفن تلتزم "نافال جروب" بشراكة طويلة الأمد مع أحواض بناء السفن البحرية المصرية لبرنامج "جوويند". تقوم المجموعة بنقل المهارات والمعرفة اللازمة إلى شركة ترسانة الإسكندرية لبناء السفن وتكامل المعدات والدعم أثناء الخدمة. تم بناء ثلاث وحدات من أصل أربعة في الإسكندرية بموجب اتفاقية نقل تكنولوجيا البناء. تجدر الإشارة إلى أول فرقاطة كان قد تم تسليمها في شهر سبتمبر 2017.

بفضل التعاون المثمر بين الشركة الفرنسية ونظيرتها شركة ترسانة الإسكندرية، استلمت مصر أول فرقاطة جوويند تم بناؤها في مصر وأطلق عليها اسم "بورسعيد" في يناير 2021. ولعل ما يميز هذه الفرقاطة أن تصنيعها أتت من شركة ترسانة الإسكندرية بسواعد مئة بالمئة مصرية. للتضم هي الأخرى لأسطول القوات البحرية المصرية الذي شهد خلال السنوات الأخيرة طفرة تكنولوجية هائلة في منظومات التسلح والكفاءة القتالية وفقاً لأحدث النظم العالمي.

مشاركة "نافال جروب" في إيديكس 2021:

تشارك "نافال جروب" مرة أخرى بمعرض إيديكس بصفتها الراعي الذهبي للإصدار الثاني للمعرض، والذي يقام في الفترة من 29 نوفمبر إلى 2 ديسمبر 2021 بمركز مصر للمعارض الدولية. وتسعى الشركة الفرنسية الرائدة في مجال الدفاع البحري إلى عرض أبرز منتجاتها:

## فرقاطة "بيلرا"

تعد "بيلرا" فرقاطة متوسطة الإزاحة ذات قدرة عالية على القيام لمهام متعددة؛ من الدفاع جوي إلى المواجهة البحرية، ضد السفن أو الغواصات على حد سواء. كما تمتلك الفرقاطة قدرات كبيرة في مجال جمع الاستخبارات والتجسس، كما أنها مزودة برادار "إيسا" الأحدث في الترسانة الفرنسية "سي فاير" والذي يبلغ مداه 500 كلم وذو قدرة على اكتشاف جميع الأهداف وتوفير مراقبة بزوايا 360 في الجو والبحر.

يذكر أن قصر الإليزيه كان قد أعلن أواخر سبتمبر عن صفقة عسكرية فرنسية- يونانية تقدر قيمتها 3 مليارات يورو، تستلزم بموجبها

متقدم للغاية وقدرة تحمل كبيرة جداً، وهو أول طوربيد ثقيل الوزن يقوم بمهام معقدة بشكل مستقل. وكونه الطوربيد الثقيل الوحيد في العالم، يتفوق "إف21-2" خصائصه بشكل كبير على جميع الطوربيدات الثقيلة الأخرى الموجودة حالياً في الخدمة. وقد تم تصميم الطوربيد الثقيل "إف21-2" لتحديد سفن العدو والغواصات. مع نطاق وسرعة استثنائيتين، من المخطط أن يتطور طوربيد "إف21-2" في قاع البحر ولكن أيضاً في المناطق الساحلية الصاخبة والكثيفة جداً في حركة النقل البحري.

بفضل قوة الحوسبة العالية جداً التي تمنحها إمكانات معالجة استثنائية في الوقت الفعلي، تستفيد طوربيدات "إف21-2" من نظام مهام متقدم وزيادة الاستقلالية. هذه الميزات التقنية توسع إلى حد كبير من إمكانات التوظيف التكتيكي مع قدرة التمييز المستهدفة البارزة وخاصة في البيئات الصعبة. ■

اليونان ثلاث فرقاطات جديدة، مع إمكانية شراء فرقاطة رابعة.

## غواصة سكوريون:

يمكن لهذه الغواصة تنفيذ جميع أنواع المهام، مثل الحرب السطحية والحرب المضادة للغواصات والعمليات الخاصة أو جمع المعلومات الاستخبارية. إنه سريع التخفي وسريع للغاية ويمكن تزويده بأسلحة مختلفة (طوربيدات، صواريخ، ألغام). بفضل نظام دفع لاهوائي من الجيل الثالث، والذي يمنحها 18 يوماً من الاستقلالية في البحر.

وقد تمكنت "نافال جروب" من بيع أكثر من 14 غواصة سكوريون لحد الآن، حيث تمتلك الهند ستة غواصات، والبرازيل بأربع غواصات، في حين تمتلك كل من الشيلي وماليزيا غواصتين.

## طوربيد "إف21-2":

يستفيد طوربيد "إف21-2" من نظام مهام



# الظهور الدولي الأول للطائرة الباكستانية دون طيار "شاهبر-2"

سرعتها القصوى 120 عقدة.

وتعد شركة "جي آي دي أس" (الحلول الصناعية والدفاعية العالمية) الشركة الكبرى الوحيدة المملوكة للدولة في باكستان. وهي تضم مجموعة من المسوقين الوطنيين والدوليين الذين يشاركون في البحث والتطوير ودعم الأنظمة الصناعية والدفاعية الرائدة، حيث توفر الشركة مجموعة واسعة المنتجات والخدمات العسكرية، لعل أبرزها الطائرات دون طيار، والتي تشمل أنواع مختلفة من الطائرات المسيرة التي سيتم استعراضها خلال معرض "إيديكس 2021" بجمهورية مصر العربية. ■

الكهروضوئية. كما يمكن للطائرة أن تحمل أنواعًا مختلفة من الحمولات المتكاملة للاستطلاع والمراقبة النهارية والليلية. تشمل الميزات الأخرى التحكم الدقيق في المسار الجانبي والطولي وتخطيط المهمة والإدارة والتحكم والمراجع الجغرافية والتوجيه الجغرافي للأهداف الأرضية.

في شكلها المسلح، تم تجهيز شاهبر-2 بقطعتي ذخيرة جو-أرض، وزن كل قطعة 60 كغ، يتم تثبيت القطعتين بجناحي الطائرة. يتم تمتع الطائرة بقدرة تحفل تصل إلى 7 ساعات تحليق على ارتفاع أقصاه حوالي 5000 متر. في حين تبلغ

أدى ظهور الطائرات العسكرية دون طيار إلى تغيير مفهوم العمليات الجوية في جميع أنحاء العالم. فقد تجاوز المفهوم الطائرات المقاتلة المحمولة جواً إلى الطائرات المسيّرة الصغيرة والمتوسطة الذكية والتكتيكية التي تشارك في مهام المراقبة والاستطلاع في مجالات متعددة. وبالتالي، فإن الطائرات دون طيار تعتبر أحد عوامل قوة الجيوش في الوقت الحالي نظراً لفعاليتها الكبيرة في حالي الحرب أو السلم على حد سواء. في هذا السياق، استطاعت باكستان أن تقطع شوطاً كبيراً في سبيل اللحاق بركب الدول ذات القدرات الدفاعية المتقدمة، بما في ذلك الأنظمة المتطورة والطائرات دون طيار.

تعتبر "شاهبر-2" طائرة دون طيار متعددة المهام تعمل على ارتفاع متوسط وطويلة التحمل مع إمكانية تسليحها، فهي تمتلك تصميماً معيارياً هجيناً لهيكل الطائرة بشكل ديناميكي هوائي محسّن. تتضمن بعض الميزات البارزة لنظام شاهبر، نظام الإقلاع والهبوط المستقل، ونظام الطيار الآلي القوي، ومجموعة برامج إدارة وتخطيط المهام سهلة الاستخدام والشاملة، وروابط بيانات موثوقة والقدرة على دمج أنواع مختلفة من الحمولات



## ليوناردو يقدم حلول دفاعية متطورة تثير الاهتمام



كما طوّر "ليوناردو" نظام توجيه المدفعية "ليناباس" للإشارة هو نظام آخر لا يزال يحظى باهتمام السوق، وهي تعمل حالياً في المملكة المتحدة وكندا والإمارات العربية المتحدة وسلطنة عمان وجنوب إفريقيا وماليزيا وتايلاند. تم نشر نظام الملاحة والتوجيه وإدارة الأسلحة القائم بذاته المثبت على المدفع لجميع منصات المدفعية وقذائف الهاون بنجاح في العمليات في الخليج وأفغانستان مع الجيش البريطاني والجيش الكندي. ■

أوسطية وإفريقية قصد توفير النظام للعملاء الذين يتطلعون إلى تعديل وتجهيز طائراتهم بحماية ذهبية قياسية ضد الصواريخ الموجهة بالأشعة تحت الحمراء.

يذكر أن نظام "ميسيس" يستعمل طاقة كبيرة من شعاع الليزر لحماية الطائرة من الإصدام المباشر بالصواريخ المحمولة على الكتف والتي باتت مؤخراً تستعمل أحدث التكنولوجيا بإضافة الباحث عن الأهداف المتحركة بفضل الأشعة ما تحت الحمراء.

يملك "ليوناردو" أيضاً اهتماماً كبيراً بتصميم هدف الليزر من النوع 163 وحصل على عقد إضافي من الجيش البريطاني في يونيو لمزيد من الأنظمة لتلبية احتياجاته التدريبية الفورية. تمكن ليوناردو من إكمال عمليات التسليم المطلوبة بحلول نهاية يوليو. قام ليوناردو مؤخراً بترقية النوع 163 بواجهة محسنة.

تقدم مجموعة الدفاع الأوروبية حلولاً مبتكرة تساعد في الدفاع الوطني في معرض إيديكس الجاري. المنتج الذي يجذب اهتماماً كبيراً من العملاء المحتملين المهتمين بالحماية الذاتية للطائرات هو نظام التشويش الإلكتروني "ميسيس".

تم تصميم "ميسيس" ودمجها في مدينة إدنبرة بالمملكة المتحدة، وقد تم تسليمها بالفعل إلى القوات المسلحة البريطانية والعديد من الدول الأخرى التابعة لحلف شمال الأطلسي والدول غير الأعضاء في الناتو. خلال الشهر الجاري، وقع "ليوناردو" على مذكرة تفاهم مع "ساينا تيكنيكس"، مزود خدمات للطائرات الفرنسية للتعامل بشكل مشترك مع السوق الناشئة للطائرات الخاصة بالشخصيات المهمة "في في بي". ستركز "ساينا تيكنيكس" على الأسواق الأوروبية وكذلك الشرق



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# مطر تعزز قدرات أسطولها الجوي بمروحيات حديثة

الأمريكية الموافقة على صفقة عسكرية محتملة مع الحكومة المصرية تقضي بتجديد 43 مروحية هجومية من طراز "إيه إتش-64 إي أباتشي" بتكلفة تقديرية تبلغ نحو 2.3 مليار دولار. وقد أشارت الولايات المتحدة الأمريكية، بعد الحوار الاستراتيجي مع مصر في 9 نوفمبر من هذا العام، إلى أهمية عقد القاهرة العمول وطنيا لتجديد مروحيات "الأباتشي" المصرية بالشكل الذي يُبقي مصر على استعداد لأي تحديات مستقبلية.

كما تدرس القوات الجوية المصرية تحديث أسطولها من المروحيات الهجومية "كا-52" روسية الصنع. ففي أبريل 2019، وقعت وزارة الدفاع الروسية عقد بحث وتطوير مع شركة "مروحيات روسيا" لتحديث "كا-52" إلى "كا-52 أم". وقد تمكن النموذج الأولي للمروحية الجديدة من إكمال رحلتها التجريبية في العاشر من أغسطس 2020، على أن تكتمل التجارب بحلول عام 2022.

في ذات السياق، عملت القيادة المصرية على تطوير قدراتها البرمائية باقتناء سفن هجومية برمائية، وهو النوع من السفن الذي تستعمل لأغراض برمائية، مثل حالات إنزال الجنود والمعدات والذبابات مباشرة على شواطئ العدو خلال الهجمات البرمائية، كما يمكن الاعتماد على هذا النوع في توفير قوة دعم جوي للقوات المحاربة على الشواطئ القريبة. بالإضافة إلى قدراتها الهجومية وما تحمله من طائرات وعدد الجنود التي يمكنها نقلها إلى شواطئ العدو وحجم العتاد العسكري الذي تحمله.

حيث تمتلك مصر حاملتي طائرات من طراز "ميسترال" الفرنسية تحملان إسمي "جمال عبد الناصر" و"أنور السادات"، وقد تم تزويدهما بـ 46 مروحية هجومية روسية من طراز "كا-52". وحسب أخبار تداولتها وكالة الأنباء الروسية "تاس"، فإن القاهرة قد رفضت عروضاً أوروبية وأمريكية لتجهيز حاملتي الطائرات "ميسترال"، في حين لا تزال المحادثات قائمة بين الطرفين المصري والروسي تستهدف تجهيز السفن الهجومية البرمائية المصرية بأسلحة وأنظمة اتصالات ومروحيات مسلحة جديدة طراز "كا-52". وهو ما أكدته "ألكسندر ميخيف"، رئيس شركة روسوبورون إكسبورت في أواخر أغسطس 2018

في المقابل، دخلت إيطاليا الخط بقوة، حيث باتت واحدة من أهم موردي الأسلحة لدول شمال إفريقيا، والولايات المتحدة وروسيا وفرنسا. ففي وقت مبكر من هذا العام، تسلمت مصر خمس طائرات من أصل 24 طائرة من شركة "ليوناردو" طراز "أغستاوستلاند إيه دبليو 149" في صفقة بلغت قيمتها مليار دولار أمريكي في عام 2019. ووفقاً لمصادر من الحكومة الإيطالية، تعتزم روما كذلك بيع ثمانين مروحية "أغستاوستلاند إيه دبليو 189" للقاهرة. لتصبح بذلك مصر واحدة من أهم مستوردي الأسلحة في الشرق الأوسط. ■

الحالية من طراز "بوينغ" "إيه إتش-64 دي أباتشي" (لونغ بو) إلى الطراز الأحدث "إيه إتش-64 إي أباتشي" (جاردان). في السنة الماضية، قررت وزارة الخارجية

تسير مصر بخطى ثابتة نحو تطوير أسطولها الجوي من المروحيات، وذلك من خلال ترقية الوحدات القديمة وشراء مروحيات جديدة. حيث تجري عملية ترقية المروحيات الهجومية





# تفاهيل التعاون العسكري بين مصر وفرنسا: رؤية السياسة الاستراتيجية



## مصر تأمل في الحصول على صواريخ أمرام "جو-جو" متوسطة المدى

أثار قرار إدارة "بايدن" بيع 280 صواريخ "أمرام إيه آي إم 120-سي" جو-جو للمملكة العربية السعودية ردود فعل مستبشرة من الطرف المصري، فبعد أن كان محضراً على مصر امتلاك هذا النوع من الصواريخ من قبل الإدارات الأمريكية المتعاقبة منذ بداية تسعينات القرن الماضي، استعادت القاهرة جزءاً من آمالها وتطلعاتها إلى شراء صواريخ جو-جو متوسطة المدى (أمرام) لتطوير أسطولها من طراز "إف 16-فايتينغ فالكون"، وهو ما تدعمه بعض التقارير الحديثة التي تشير إلى أن الولايات المتحدة الأمريكية تدرس إمكانية بيع صواريخ "إيه آي إم 120-أمرام" المُعدّة للقتال خلف مدى الرؤية إلى مصر وفق شروط معينة لم يتم الكشف عنها.

يعتبر الأسطول المصري من مقاتلات "إف-16" العمود الفقري لسلاحها الجوي، فعلى الرغم من ترقية الأسطول إلى معايير "بلوك 40"، و"بلوك 52"، يبقى الرفض الأمريكي لامتلاك مصر أي نوع من الصواريخ جو-جو التي يزيد مداها عن 85 كم يؤثر كثيراً في رغبات القيادة المصرية في تطوير سلاحها الجوي بأحدث المنتجات.

غير أن التحولات الجيوستراتيجية الجديدة التي تشهدها منطقة الشرق الأوسط بعد "بيان الاتفاقيات ابراهيمية" بين إسرائيل والإمارات العربية المتحدة، والبحرين والولايات المتحدة الأمريكية، وكذلك تحسّن العلاقات الإسرائيلية- المصرية بشكل كبير بعد الزيارة الرسمية الأولى لرئيس الوزراء الإسرائيلي "نفتالي بينيت" إلى القاهرة منذ عام 2010، حيث التقى بالرئيس المصري عبد الفتاح السيسي في شرم الشيخ، بإمكانها أن جعل صفقة الصواريخ ممكنة مستقبلاً. ■

في 15 أبريل من هذا العام، وقعت القوات الجوية المصرية، أكبر مشغل لأسطول "سي 295" في جميع أنحاء العالم، العقد يوفر دعم وخدمات متكاملة قائمة على الأداء مدته خمس سنوات مع شركة إيرباص لطائراتها البالغ عددها 24 طائرة، بهدف زيادة توافر الأسطول، وضمان الاستعداد للمهمة، مع توفير تكاليف الصيانة. وتشمل الاتفاقية أيضاً توفير خدمات المواد والدعم التقني إلى جانب خدمات الصيانة الميكانيكية المتكاملة.

يبدو واضحاً أن رغبة القيادة المصرية في تطوير قدرات مصر الدفاعية في جميع المجالات، فقد تعززت قدرات القوات البحرية المصرية من خلال الحصول على غواصات في أعالي البحار. تشير التقارير إلى أن فرنسا تعرض على مصر غواصات من إنتاج شركة بناء السفن الفرنسية "نافال جروب". ■



من المتوقع أن ترتفع الصادرات العسكرية الفرنسية إلى مصر اعتباراً من عام 2022، فبعد أن أكدت مصر في الرابع من مايو 2021 إبرام عقد توريد 30 مقاتلة من طراز رافال مع فرنسا في 4 مايو 2021، في صفقة تبلغ قيمتها 3.75 مليار يورو، لتكمل بذلك عملية الاستحواذ الأولى على 24 "رافال"، الموقعة في عام 2015، ليرتفع بذلك عدد مقاتلات "الرافال" المصرية إلى 54 مقاتلة، لتصبح بذلك ثاني أكثر دولة امتلاكاً لمقاتلات الرافال بعد القوات الجوية الفرنسية.

وتعليقاً على الحدث، قال "إريك ترايبير"، رئيس مجلس الإدارة والرئيس التنفيذي لشركة "داسو للطيران": "في سياق جيوسياسي متطلب، اختارت مصر مقاتلات "رافال" لضمان دورها كلاعب رئيسي على الساحة الإقليمية والدولية، بسيادة كاملة. وهذا شرف لشركة داسو للطيران وشركائها، الذين يلتزمون التزاماً تاماً بتلبية التوقعات".

شكلت الطلبات الإضافية، التي تبلغ قيمتها 5.4 مليار يورو، علامة فارقة جديدة في الشراكة الاستراتيجية بين مصر وفرنسا. ومع وجود فرنسا كشريك جديد للمشتريات الدفاعية، ستحصل مصر على معدات عسكرية إضافية، بما في ذلك قمر المراقبة "عين الصقر-فالكون آي" وطائرة النقل متعددة الأدوار "إيه 330 إم آر تي تي" التي تصنعها شركة "إيرباص".

# EGYPT AND INDIA STRENGTHEN DEFENCE COOPERATION



of joint training exercises and exchange visits of senior armed forces officers of both nations.

In recent months, the Indian Air Force (IAF) and Indian Navy have both concluded exercises with the Egyptian armed forces.

Both air forces recently trained together during Exercise Desert Warrior in Egypt with air combat sorties focussed on joint operations, mid-air refuelling and joint combat tasking. The IAF operates a number of platforms also in service with the Egyptian Air Force such as the Rafale, Mirage 2000, MiG-29 and AH-64 Apache attack helicopters.

The Indian Navy also recently sent its warship INS Tabar for maritime partnership exercises with the Egyptian Navy's frontline frigate ENS Alexandria in the Mediterranean Sea. The highlight of the exercise were cross-deck helo operations involving helo recovery procedures and airborne light replenishment drills between the two warships. The other aspects of the training drills included, transit through asymmetric threat environment, operations for interdicting suspect vessels at sea, communication procedures, joint development of maritime domain picture and replenishment at sea drills. ■

The Egyptian and Indian armed forces are witnessing closer cooperation than ever before, even as both nations continue to work to further solidify defence ties. Both nations undertake regular Joint Defence

Cooperation (JDC) meets and the Indo-Egypt JDC was first set up in Aug 2006. Officers from the militaries of both nations attend courses at their military training institutes, in addition to regular conduct

# SAUDI ARABIA TO ACQUIRE 280 AIM-120C AMRAAMS

The Kingdom of Saudi Arabia will acquire 280 additional Raytheon AIM-120C Advanced Medium Range Air-to-Air Missiles (AMRAAM). The sale of the advanced air-to-air missiles (AAM) was cleared by the U.S State Department this month.



The new AIM-120C-7/C-8 AMRAAMs will arm the Royal Saudi Air Force's (RSAF) Eurofighter Typhoon and Boeing F-15C/D, F-15S, and F-15SA aircraft and further strengthen the interoperability between the USA and Saudi Arabia. The

deal when formally concluded will be worth an US\$650 million for the missiles and related equipment. Saudi Arabia is slated to receive 280 AIM-120C-7/C-8 AMRAAMs and 596 LAU-128 missile rail launchers.

The RSAF will increase its stocks of medium-range missiles for its fighter aircraft fleet, with these new missiles allowing it to cater for current and future threats for its national defense. ■





## SCHIEBEL EYES MARITIME SURVEILLANCE MARKET

Austrian unmanned systems manufacturer Schiebel is participating at the ongoing EDEX, seeking market opportunities for its Camcopter S-100 in the maritime surveillance domain. The Camcopter S-100 Vertical Takeoff and Landing UAS, is in widespread use for military and civilian applications.

Many countries in the region have growing requirements to secure their maritime borders and the S-100, has a beyond line-of-sight capability out to 200 km over land and sea. The S-100 is the only UAV of its class with extensive flight experience and is operated by 14 navies worldwide.



In August, the S-100 also showcased its range, endurance and speed, as well as its maritime surveillance and detection capabilities, to the Hellenic Navy, over the course of a one week trial. For the demon-

stration flights, the Camcopter S-100 was equipped with a Trakka TC-300 EO/IR sensor and a Shine Micro Automatic Identification System (AIS) receiver.

The Camcopter S-100 is being operated for maritime surveillance and training by the Spanish maritime safety and rescue body SASEMAR, carrying out different operational tasks, including maritime, traffic control, pollution prevention and fisheries control. This was also the first time; the Spanish authorities were using a UAV under the Light Unmanned Operator Certificate (LUC).

The Camcopter S-100 is also providing simultaneous maritime surveillance services to several EU Member States and some of the most recent additions. The S-100 executes these various tasks equipped with an Electro-Optical / Infra-Red (EO/IR) camera gimbal, a Becker Avionics BD406 Emergency Beacon Locator and a Shine Micro Automatic Identification System (AIS) receiver. ■



## EGYPT STRENGTHENING REGIONAL DEFENCE COOPERATION

The Egyptian armed forces are increasing joint training exercises with partner forces to further exchange expertise and enhance military cooperation with militaries of friendly nations. The important joint naval and air training, Exercise Medusa 11 now underway between the Egyptian armed forces and elements from the Hellenic, Cypriot, and UAE armed forces, also features participation from Jordanian armed forces observers.

The large scale exercises feature participation from the Egyptian Navy's Mistral Class Carrier 'Gamal Abd El-Naser'

along with multi-role fighter jets, maritime assets, Navy Special Forces and cadets from the Egyptian Naval Academy.

**"THE PARTICIPATING FORCES WOULD RECEIVE TRAINING ON PLANNING AND OBSERVING JOINT AIR AND NAVAL OPERATIONS, IN ADDITION TO CONDUCTING LANDING AND AMPHIBIOUS LANDING BY THE SPECIAL FORCES,"** an Egyptian Ministry of Defence release stated.

The Egyptian and Hellenic navys also conducted a PASSEX near the the south-east part of Crete Island as part of Ex Medusa 11. Both sides also held theoretical classes to enhance the combat understanding between their air force elements. The Medusa series of training exercises are part of the joint training plans of the Egyptian Armed Forces to exchange expertise and enhance military cooperation with other militaries of friendly nations. ■





# EGYPT GIVES A FRENCH TOAST

French military exports to Egypt are expected to surge from 2022, with the contract for the acquisition of 30 additional Rafales to equip the Egyptian Air Force coming into force. Announced on 4 May, this contract completes the first acquisition of 24 Rafales, signed in 2015, and will bring to 54 the number of Rafales operated by the Egyptian Air Force, the second in the world, after the French Air Force, to operate such a fleet of Rafales. The additional orders, worth €5.4 billion, set a new milestone in the strategic partnership between Egypt and France, and demonstrates the satisfaction of the Egyptian authorities with the smooth execution of the first contract.

## Key Defence Partner

“In a demanding geopolitical context, Egypt has chosen the Rafale to ensure its role as a key player in the regional and

international arena, in full sovereignty. This is an honour for Dassault Aviation and its partners, who are fully committed to meeting the expectations of the Egyptian authorities,” said Eric Trappier, Chairman and CEO of Dassault Aviation. The follow-on order is also a confirmation by the EAF of the technological and operational excellence of the Rafale. With France as its new defence procurement partner, Egypt will acquire additional military equipment including FalconEye observation satellite and A330 multi-role tanker transport (MRTT) aircraft manufactured by Airbus. Egypt has reportedly signed a contract with France to buy the observation satellite and two MRTT aircraft.

In April this year, the EAF, the largest C295 fleet operator worldwide, signed a five-year services contract with Airbus for the performance-based support of its fleet,

composed of a total of 24 aircraft. The EAF now joins the community of C295 operators that benefit from the provision of integrated and performance-based services which ensure that all elements of support are in place where and when required, to optimize fleet availability and mission readiness. The contract includes the provision of material services, on-site technical support as well as on-wing maintenance.

Since the delivery of the first aircraft in 2011, Airbus has been providing support through a wide service portfolio with the highest quality standards including both technical and personnel resources. In signing this contract, Egypt goes further by reaffirming and extending their trust in Airbus by implementing the first integrated support contract. Stephan Miegel, Head of Military Aircraft Services at Airbus Defence and Space, said: “This agreement is a significant step forward in the integrated service support that we offer our customers in the region. Our goal and commitment to our customers is to maximize their fleet availability, ensure their mission readiness, all while saving maintenance costs.” Egypt recently received four units of a French-made long-range, mobile, 3D air defence radar system called Thales Ground Master 400 (GM400) AESA, that has a maximum range of up to 515 km.

## Boosting the Navy

Egyptian President Abdel Fattah El-Sisi is also looking at strengthening the capabilities of the Egyptian Naval Force (ENF), by acquiring high-sea submarines. Reports indicate that France is offering Egypt submarines produced by French shipbuilder Naval Group. In 2018, Naval Group had signed an agreement with the Egyptian Navy for the in-service support of the vessels provided by the group over the next five years.

Egypt had inked a contract with the company in 2014 for the construction of four Gowind corvettes. The first-of-class was built in Lorient and delivered to Egypt in September 2017. The second of the series built through technology transfer in Alexandria Shipyard and was launched in September 2018, and the country’s first-Egyptian manufactured Gowind-class design frigate was handed over to the navy in January 2021.

Naval Group delivered the FREMM multi mission frigate Tahya Misr in August 2015. In June 2016, Naval Group delivered two Mistral-class Landing Helicopter Dock vessels to the Egyptian Navy. ■





# U.S. FIRMS HOPE TO REVERSE EGYPT'S RECENT ARMS PURCHASE TRENDS



With Egypt diversifying its base of arms suppliers, U.S. defence contractors will be hoping to make a major splash at EDEX 2021 as part of their attempts to recover some of the ground they have ceded to companies from other countries in recent years. U.S. arms sales to Egypt, which constituted 47 percent of the country's total weapon imports in the 2009-2014 period, plummeted to just 14 percent from 2015-2020. Making the most of the substantial dip in the market share of U.S. contractors is Russia and France, countries that have the most success selling arms to Egypt in the last five years.

## New Deal

Two recent deals signed by Egypt provide hope to U.S. defence firms that are taking part in EDEX 2021, including Boeing, Raytheon Technologies, Northrop Grumman, Kratos Defence and Security Solutions, Bell and AeroVironment. In May last year, the US State Department approved the foreign military sale related to the upgrade and refurbishment of 43 of Egypt's AH-64D Apache attack helicopters to AH-64E standard. The deal, which involves Boeing and Lockheed Martin, is worth \$2.3 billion. In February this year, the Biden administration approved Egypt's request to purchase

up to 168 Raytheon-built RIM-116C RAM Block 2 Tactical Missiles and associated equipment. Egypt is also eager to acquire Advanced Medium Range Air-to-Air Missiles (AMRAAM), also built by Raytheon Missile Systems, to equip its fleet of F-16s.

Boeing, which is the silver sponsor for EDEX 2021, will showcase advanced platforms and capabilities that include the AH-64 Apache, CH-47F Chinook, F-15EX and the Wave Glider, the long-duration autonomous surface vehicle (ASV) built by designed and manufactured by Liquid Robotics. Egypt is reportedly in discussions with the U.S. to acquire Northrop Grumman's E-2D Advanced Hawkeye airborne early warning (AEW) aircraft, which is said to be two generations ahead of previous models, thus allowing it to work with sea, air and land-based combat systems.

Kratos will present the latest in unmanned systems, satellite communications, C5ISR, warfighter training and combat systems while AeroVironment, maker of multi-domain robotic systems, will highlight the recent successful demonstration of integrating Switchblade 300 loitering missiles and JUMP 20 medium unmanned aircraft systems (UAS). In October this

year, the company had announced the successful maritime demonstration of a Puma 3 AE small, unmanned aircraft system and Switchblade 300 tactical missile system sensor-to-shooter (S2S) capability as part of NATO REP(MUS) 21, Europe's maritime unmanned systems operational experimentation exercise.

Egypt's calculated risk in going ahead with the purchase of Su-35 fighter jets from Russia, after the U.S. refused to sell it Lockheed-Martin-made F-35 fighter jets, is proof of the fact that the country will not be cowed down by threats of sanctions by the U.S. While the US\$2 billion purchase of Su-35 fighters - 24 Su-35s are expected to be delivered by 2023 - is Egypt's biggest weapons purchase involving Russia, the country has in recent years signed other deals with Russian companies, including for the upgrade of its fleet of legacy Soviet MiG-21 aircraft to a fourth generation MiG-29M variant, standard Ka-52 Russian attack helicopters for its air force, the naval version of the Ka52 for use on Egypt's two French-procured Mistral-class helicopter dock vessels, and the S300VM surface-to-air missile defense system. The Egyptian Army is also eyeing the purchase of 500 Russian T-90 main battle tanks. ■



## LEONARDO BRINGS CUTTING-EDGE DEFENCE SOLUTIONS TO THE FORE

European defence conglomerate is presenting innovative solutions that aid in national defence at the ongoing EDEX. A product that has been attracting significant interest from potential customers interested in aircraft self-protection, is

the Miysis Directed Infra-Red Counter Measure (DIRCM) system. Designed and built in Edinburgh, UK, Miysis has already been delivered to the UK Armed Forces and several other NATO and non-NATO nations. Leonardo inked a Memorandum

of Understanding (MoU) with French aircraft MRO services provider Sabena Technics this month, to jointly address the emerging market for protected VVIP and military aircraft. Sabena Technics will place a particular emphasis on European, Middle Eastern and African markets for the Miysis DIRCM and look to aid customers looking to modify and equip their aircraft with gold standard protection against infrared-guided missiles.

Leonardo and Sabena technics have been working closely together to deliver Miysis DIRCM protection to an undisclosed customer and this MoU builds on their great working relationship to facilitate collaborative approaches to international customers. Miysis DIRCM works by shining a high-powered laser onto a missile's targeting system, 'dazzling' it and forcing the missile away from its intended target. Leonardo's decades of experience in laser and precision targeting enables this to happen at lightning-fast speed, allowing Miysis to defend against multiple, simultaneous incoming missiles. Meanwhile, its integrated multiple-head installation ensures complete spherical protection around the aircraft, even during manoeuvres, in contrast to more basic single-head systems on the market that suffer from blind spots when the aircraft is not flying straight and level. Leonardo is also seeing significant interest for its Type 163 laser target designator and received an additional contract award from the British Army in June for more systems to meet its immediate training needs. Leonardo was able to complete the deliveries requested by end of July. No other LTD equals the Type 163 for energy output per kilogram: The designator offers an unparalleled combination of high-power, reliability and high portability. This market-leading capability draws on Leonardo's experience of building targeting lasers for combat air applications where size, weight, and power (SWAP) are critical. More than 750 Type 163s are in use in 26 countries. Leonardo recently upgraded the Type 163 with an improved human-machine interface and is adding an integrated digital magnetic compass. Leonardo's LINAPS Artillery Pointing System is another system, which continues to receive market interest. It is currently in service in the UK, Canada, UAE, Oman, South Africa, Malaysia, and Thailand. The self-contained gun mounted navigation, pointing and weapon management system for all artillery and mortar platforms, has been successfully deployed on operations in the Gulf and Afghanistan with the British Army and Canadian Army. ■







## DEMAND FOR ATGM ON THE RISE

The Middle East and North Africa (MENA) region is undergoing rapid militarisation with a number of intra- and interstate conflicts and terrorist threats and, anti-tank guided missile systems have turned out to be in great demand. The demand for anti-tank missile system is increasing as nations seek extended-range missiles. Analysts feel that the growing focus on enhancing weapon inventory is likely to boost the growth of the anti-tank missile system market in the region.

Taking this into account, Russia's Rosoboronexport and the Jordanian company Jadara Equipment and Defence Systems agreed to start licensed production of Kornet-E anti-tank guided missiles (ATGM) in Jordan. This has helped Russia to further expand its arms transfers to MENA and reestablish its influence in the region. For MENA countries, acquiring arms from Russia is advantageous. It allows them to diversify their sources of arms supply and thereby become less dependent on Western suppliers. Consequently, this will also enable Russia to compete with other established arms suppliers such as the U.S. and France.

### Tank Killer

Kornet-E is designed to destroy tanks, armoured combat vehicles with reactive armour and various fortifications, with a maximum firing range of 5.5 km. Since Kornet-E can fire both missiles with a cumulative tandem-charge warheads designed primarily to destroy heavily armoured objects, but also a missile with

a high-explosive thermobaric warhead, it is a highly effective defensive assault weapon for eliminating wide range of battlefield targets.

The Kornet-E vehicle-mounted/portable ATGM system is designed to engage current and future tanks fitted with explosive reactive armour, lightly armoured vehicles, fortifications, hovering helicopters, pinpoint surface targets in any weather, day or night, and in electronic and optical countermeasures environments. The system consists of combat assets, maintenance facilities and training aids.

The system enables one person to detect a target, aim, fire a missile, track and defeat the target. Owing to its modular design, the launcher can be placed on a wide range of wheeled and tracked vehicles using a bracket.

Jadara will assemble the 9M133-1 and 9M133F-1 missiles for the Kornet-E ATGM



system. "Kornet-E is one of the most effective and highly sought anti-tank systems in the global arms market, which has prompted our colleagues from Jordan to establish joint production on their territory," said Viktor Klavov, Director for International Cooperation and Regional Policy Department of Rostec State Corporation. Kornet-E is an export version of the famous ATGM family. The system has been already exported to several MENA nations being combat tested through the local conflicts. ■





# NEXTER GROUP OPENS NEW AUTOMATED LINE FOR NBC FILTER CARTRIDGES

Nexter Group subsidiary NBC-Sys recently inaugurated a new fully automated line dedicated to the production of its entire range of NBC (nuclear, bacteriological and chemical) filter cartridges. This production line will be compatible with the new cartridges of the French EPIA programme (individual protection kit for the armed forces) by 2025. NBC-Sys is designing (as part of the EPIA programme), the future gas mask for the French armed forces, which will remain in service for the next thirty years.

The new automated line located at NBC-Sys' Saint-Chamond site, guarantees the supply of current filter cartridges for the French armed forces and will be an important strategic industrial asset. Jean-Marie Mathelin, Deputy CEO of NBC-Sys, said "the position of NBC-Sys as the strategic supplier of CBRN individual protection solutions for the French armed forces for the next decades."

NBC-Sys has also completed the deliv-

ery of the one million masks of the ARFA (appareil respiratoire filtrant des armées) range. The ARFA gas mask entered service in 1992 and has remained in production with several tens of thousands of masks produced annually. The ARFA mask can be worn in a CBRN environment

by soldiers for 24 hours and is equipped with an acoustic membrane to facilitate communication and a device that allows the soldier to feed and hydrate while remaining under protection. NBC-Sys also provides a range of filter cartridges for all types of NBC threats. ■



# MBDA'S VL MICA TO EQUIP EGYPTIAN CORVETTES

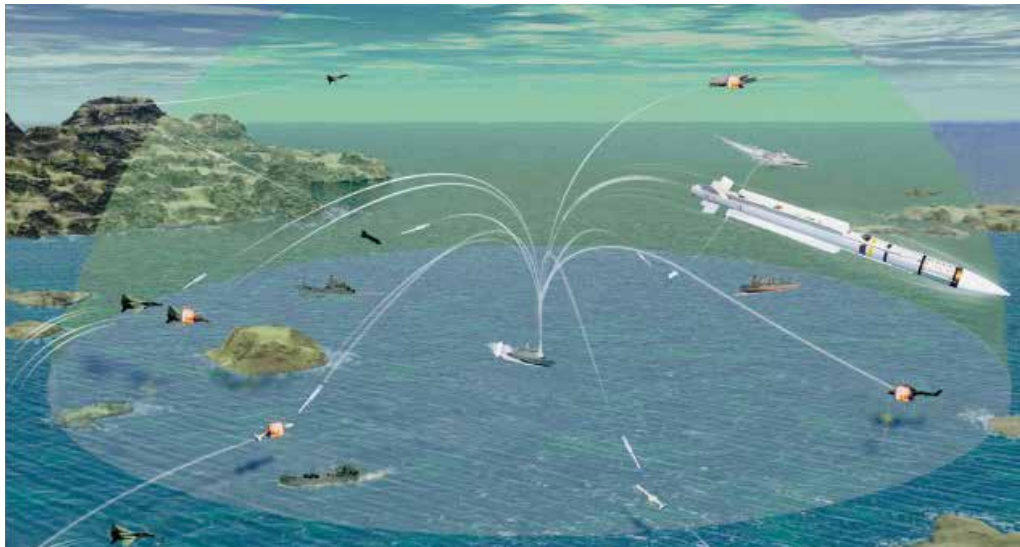
The Egyptian Navy is looking forward to receive the first VL MICA NG (New Generation) air defence system from MBDA to equip its corvettes. The VL MICA NG system is based on the integration into the existing VL MICA system of the MICA NG (New Generation) anti-air missile, which began development in 2018 primarily to equip France's Rafale combat aircraft. Early this year, Egypt awarded MBDA a contract for an unspecified number of the VL MICA NG (New

Generation) air defence system, becoming the first international customer for this new generation missile system. Officially launched in October 2020, VL MICA NG system is based on the integration of the MICA NG (New Generation) missile into the existing VL MICA point and close area air defence system.

The VL MICA NG system offers improved capabilities to handle atypical targets (UAVs, small aircraft), as well as future threats characterised by increasingly low

observable infrared and radio frequency signatures. Additionally, VL MICA NG will be able to intercept 'conventional targets (aircraft, helicopters, cruise missiles and anti-ship missiles) at longer distances. Eric Béranger, MBDA CEO, said: "This agreement proves the confidence of our Egyptian customer in our VL MICA family, which 15 armed forces around the world already use for the protection of their naval and land forces."

The Egyptian Navy already equips its four Gowind class corvettes, recently procured from the French Naval Group shipyards, with systems from the VL MICA family. The first-of-class was built in Lorient and delivered to Egypt in September 2017. The second of the series built through technology transfer in Alexandria Shipyard and was launched in September 2018, and the country's first-Egyptian manufactured Gowind-class design frigate was handed over to the navy in January 2021. The warship is one of the four in a 2014 contract worth €1 billion. The dimensions of the MICA NG munition remain unchanged, allowing it to be integrated into existing VL MICA launchers. The existing missile data link mechanisms are compatible with the increased kinematic performance of the missiles, enabling current VL MICA systems to be upgraded to VL MICA NG standard by simple software updates. ■







# EGYPT HOPES TO GET RAYTHEON- BUILT AMRAAM

The Biden administration's decision to sell 280 AIM-120C air-to-air missiles to Saudi Arabia has kindled hopes in Egypt, which has been eyeing this Advanced Medium Range Air-to-Air Missiles (AMRAAM) to equip its fleet of F-16s. Fresh reports indicate that Washington is considering the sale of the AIM-120 AMRAAMs to Cairo, with certain "conditions". Egypt's F-16 fleet – the backbone of the country's air force – is perhaps the most ineffective F-16 force worldwide. Despite upgrading the fleet to Block 40 and 52 standards, the United States has long denied Egypt air-to-air missiles with a range greater than 85 km, restricting Egypt's long/medium air-to-air missile arsenal to the AIM-7 Sparrow and 35 km shorter ranged AIM-9 Sidewinders.

## Shift in Thinking

The United States was said to have agreed to an Israeli request to restrict the capability and use of advanced air-to-air missiles to Jordan and ban their sale to the rest of the Arab world. But, now with the Abraham Accords, Israel's existing relationship with Egypt has improved and the Israeli Prime Minister Naftali Bennett made the first official prime ministerial visit this September to Cairo since 2010, meeting Egyptian President Abdel Fattah el-Sisi in Sharm el-Sheikh. The U.S. is also

working to deepen Israel's longstanding relationships with Egypt and Jordan – partners critical to the United States, Israel, and Palestinians alike. Defence observers opine that this new bonhomie could potentially expand the U.S. role as the dominant weapons supplier to the Middle East and North Africa (MENA) region.

Several countries in the region such as Qatar, Bahrain, Saudi Arabia, Israel, Jordan, Oman, and Turkey – operate the superior active radar AIM-120 AMRAAM. This system's fire-and-forget capability allows the operator to maneuver freely after launch and possesses a publicized range that exceeds that of the AIM-7 Sparrow by an additional 20 km. Recently as on November 4, 2021, the State Department approved a sale to Saudi Arabia of up to 280 AIM-120C-7/C-8 AMRAAM and related equipment for an estimated cost of up to US\$650 million.

## High Hopes

Hopes have been high since the U.S. State Department early this year approved a potential foreign military sale (FMS) of rolling airframe missile (RAM) Block 2 tactical missiles to Egypt, and the latest green signal to sell AMRAAM to

Riyadh. In addition to the 280 AIM-120C Advanced Medium-Range Air-to-Air Missiles (AMRAAM), the Saudi Arabia deal would include the sale of 596 missile launchers, as well as equipment for support and repairs. The Pentagon said the missiles would support Saudi Arabia's Eurofighter Typhoon fighter jets. If approved by Congress, it would be the first major foreign military sale to Riyadh since US President Joe Biden took office. Raytheon Missile Systems, which makes the AMRAAM, is meanwhile preparing to deliver the RAM missiles for Egypt's navy. In February this year, the U.S. administration gave the go ahead to Egypt's request to purchase up to 168 RIM-116C RAM Block 2 Tactical Missiles, and associated equipment at an estimated cost of US\$197 million. Egypt will also get RAM Guided Missile Round Pack Tri-Pack shipping and storage containers, operator manuals as well as technical documentation. The proposed sale will support the Egyptian Navy's Fast Missile Craft ships and provide significantly enhanced area defence capabilities over Egypt's coastal areas and approaches to the Suez Canal," a State Department spokesperson said. Egypt will have no difficulty absorbing this equipment into its armed forces since Egypt already operates previously procured RAM Block 1A missiles. ■

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