





Daily News



KUS-FS MALE UAS ON DISPLAY

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EXPORT SURION BREAKS COVER

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The inaugural day saw the unveiling of a 1:1 scale mock-up of the Korean Aerospace Industries (KAI) Korean Fighter Experimental (KF-X). This follows the KF-X Detailed Design Review (CDR) held in late September. The 4.5 generation fighter aircraft programme is budgeted at 8.8 trillion won. Development of the KF-X commenced in January 2016 and the basic fighter design was finalised in June 2018.

"Now, Korean fighter development has successfully passed the detailed design review stage and faces new challenges in the construction and testing of prototypes," says Korean Fighter Project Division, Senior Defence Officer, Kwang Sun-sun. ...Contd to page 14



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A prototype of the high performance | KUS-FS Medium Altitude Long Endurance (MALE) Unmanned Aerial System (UAS) being developed by Korean Air and LIGNex1 is being showcased at the outdoor static display. The 3m tall KUS-FS made its first flight in 2012. This is the first show appearance for the MALE UAS type, which is 13m in length and has a 25m wingspan.

KUS-FS include communication relay duties, Intelligence, Surveillance and Reconnaissance (ISR) missions, Electronic Warfare (EW) and Signals Intelligence ((SIGINT). A civilian variant could be used for maritime and border surveillance in addition to undertaking environment and scientific surveillance and monitoring. Airframe design and development are undertaken by Korean Air, while the Ground Control System Military uses envisaged for the (GCS), datalinks and Synthetic Aperture have not been made public.■

Radar (SAR) is being supplied by LIGNex1. A typical user configuration for the MALE UAS would consist of 2-4 flying systems with Electro-Optical/Infra-Red (EO/IR) and SAR payloads operating with the help of a GCS. A data link system allows transmission of UAV control commands and status information and image data. High datalink reliability is provided through a triple link (2 Line of Sight (LOS) link and 1 satellite link). The GCS comprises of a Primary /Secondary Pilot Console with datalink. The sensor operator console is used to operate the EO/IR and SAR/ Ground Moving Target Indicator (GMTI) payloads.

The GCS can also undertake mission planning and analysis, Control of auto take-off and landing, acquisition and analysis of EO/IR, SAR images and interoperability for C4I (AFCCS, MIMS. The entire GCS is transportable on a container truck and weighs 24.6 tonne.

The KUS-FS features an X Band Synthetic Aperture Radar (SAR) which allows collection of high-resolution SAR/GMTI images during day and night regardless of weather conditions. The KUS-FS is powered by a 1200 hp engine, but performance figures such as flight endurance, max speed, cruising speed and range

EXPORT SURION BREAKS COVER

A new variant of the KUH Surion utility helicopter built by Korean Aerospace Industries (KAI) is on display for the first time at the show. The KUH 1E (Export) variant is likely to be available in several variants, to meet the needs of foreign buyers. On display, is a weaponised version with rockets, missiles and an optional gun pod. This new Surion export variant has been in development for some years now and will also feature upgraded avionics and sensors.

The KUH 1E has a Maximum Take-Off Weight (MTOW) of 8,709 kg. The helicopter type was designed and developed to replace the Republic of Korea Army's (ROKA) 500MD and UH-1 rotorcraft. While deliveries of Surion to the Korean armed forces and parapublic operators, have crossed more than 100 units, export orders have been much harder to come by and KAI remains in search of an export launch customer. The KUH Surion is available in a number of variants such as, the basic utility helicopter, police version, amphibious version and medevac version.



LEONARDO MAKES STRONG PITCH WITH AW159

Leonardo is showcasing its AW159 as the best solution for the ROK Navy at the ongoing ADEX. Company officials say that a strong offer has been made for the MOH Batch 2 programme managed by DAPA for the ROK Navy. The ROKN needs an additional 12 maritime helicopters with antisubmarine (ASW) and anti-surface (ASuW) capabilities.

"The AW159 – a leading naval helicopter – has been successfully operating by the ROKN since 2016 significantly improving ASW and ASuW capabilities. Leonardo is confident that procuring additional 12 units of the same type would bring major benefits: selection of the AW159 means that there is no requirement for infrastructure changes to the existing bases or structural changes to the naval vessels which operate MOH today," a company spokesperson tells Daily News.

"Similarly, the essential maintenance, airworthiness and training organisations and their associated facilities are already existing and operational today," the official says. A future requirement could also involve opportunities for systems upgrades which could be offered to the ROKN. "Of specific current interest



are the IFF Mode5 upgrade programme and the Lynx helicopter engine upgrade which has already been contracted with a number of other Lynx operators."

In addition to the focus on the AW159 at the show, Leonardo also believes that its long-range radars solutions (RAT-31 DL), both fixed and mobile, are ideal for the

requirements of the Republic of Korea Air Force. The RAT-31 DL is an advanced, L-band, solid state solution for 3D surveillance, with an effective range of over 470 Km. Leonardo proposed solutions are based on proven and state-of-theart "NATO Class 1" radars to answer the modernisation needs of Korean air surveillance capabilities.

BAE SYSTEMS TARGETS NEW OPPORTUNITIES



Stewart Penney, Business Development Manager at BAE Systems Electronic Systems tells Daily News that that LiteHUD is likely to attract a lot of attention in the region as it is well suited for installation on new aircraft types or for upgrade efforts.

The low-profile HUD is compatible even with next-generation cockpits that also feature a large area display; a combination that's not typically possible with a conventionally sized HUD.

This small and compact HUD is paired with the latest digital display technology, revolutionary waveguide optics and highly reliable electronics. LiteHUD has been selected for the Hurkus-B trainer, Scorpion jet, and the Advanced Hawk concept demonstrator; along with a selection of other undisclosed platforms.



한계를 확장하며 군내네트워크연결

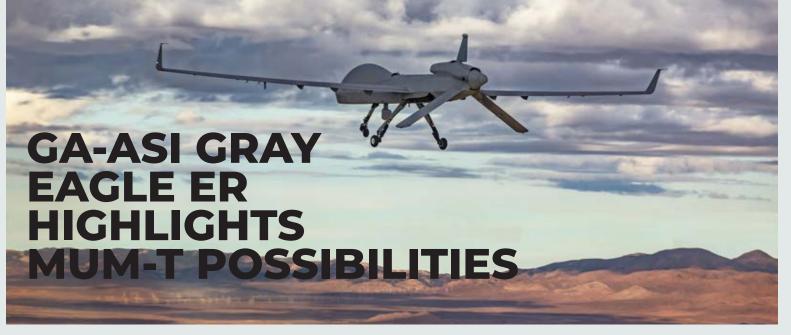
EXTENDING THE EDGE | NETWORKING THE FORCE

최대 42시간 체공

다중 인텔리전스 및 다중임무 수행을 위해 탑재 중량 증가 무장, LIDAR, SIGINT, 초분광 및 변화탐지 지원 안정성, 가용성 및 유지 보수성 향상

- Up to 42-hour endurance
- Increased payload capacity for multi-intelligence and multi-mission configurations
- Supports missionized payloads, LIDAR, SIGINT, hyperspectral and change detection
- Increased Reliability, Availability and Maintainability (RAM)





Ever since the U.S. Army highlighted Manned-Unmanned Teaming (MUM-T) in an operation involving GA-ASI's Gray Eagle UAS and the AH-64 Apache helicopter, global interest in the concept has grown significantly.

By teaming an Unmanned Aircraft System (UAS) with rotary and fixed-wing aircraft in dangerous Large-Scale Combat Operations (LSCO), ground forces and pilots in manned aircraft will be able to receive sensor data from the UAS. By using sophisticated data links, ground personnel and manned aircraft can take advantage of the UAS's Intelligence, Surveillance and Reconnaissance (ISR) payloads to enhance decision-making and mission effectiveness, thereby increasing safety of operations by providing situational awareness into the cockpit of manned aircraft.

GA-ASI PLAYED A KEY ROLE IN THE INTRODUCTION OF THE BASIC CONCEPT OF MUM-T, IN AFGHANISTAN IN THE EARLY 2000S. THE COMPANY, WHICH MANUFACTURES THE PREDATOR FAMILY OF UAS, HELPED THE U.S. AIR FORCE IN ITS MISSIONS BY INTEGRATING A DATA LINK INTO AC-130 **GUNSHIPS TO RECEIVE FULL** MOTION VIDEO (FMV). BY MUM-T, THE U.S. ARMY HARNESSES UAS CAPABILITIES TO EXTEND THE REACH, COVER ADDITIONAL GROUND, AND **COMMUNICATE TIME CRITICAL INFORMATION ACROSS THE BATTLEFIELD QUICKLY AND EFFICIENTLY. THE MUM-T**

CAPABILITY IS NOT LIMITED TO JUST THE AH-64 APACHE; GA-ASI UNMANNED AIRCRAFT CAN BE TEAMED UP WITH OTHER MANNED MILITARY AIRCRAFT TO DELIVER THE SAME RESULTS AS WELL.

Mission Enhancement

MUM-T concepts can be utilized across the manned aviation fleet, both rotary and fixed wing, creating greater synergies with a system-of-systems approach to conducting combat operations. MUM-T enables a GA-ASI unmanned aircraft - a long endurance, persistent UAS – to provide data from its multiple payload options to manned platforms to enhance missions. The capability provides manned aircrew real time FMV from the UAS to determine all pre-landing and landing zone (LZ) selection requirements well in advance of arrival. It reduces time aircrew requires to validate LZ, increasing the speed of an insertion. MUM-T also reduces costs significantly, allowing manned assets to operate only when needed. UAS from GA-ASI are far less expensive to operate on a cost-per-flight-hour basis, while providing longer dwell times, and less visible and acoustic signatures.

Gray Eagle ER

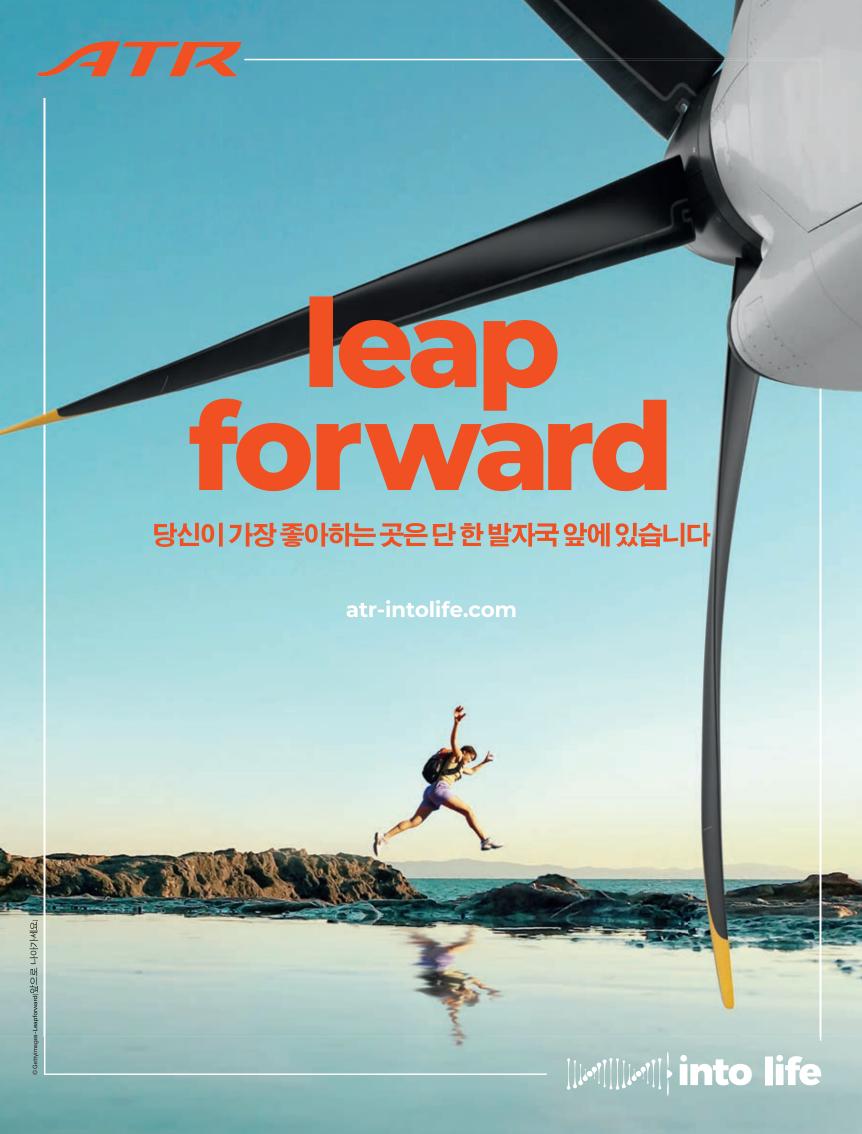
The MQ-1C ER Gray Eagle Extended Range (GE-ER) UAS can conduct reconnaissance of named areas of interest or predetermined engagement areas while keeping the rotary wing aircraft on a quick response posture. GE-ER also provides economy of force and long endurance ISR in a maritime environment. The use of available sensors allows the commander to surveil maritime areas of interest while focusing combat power on the main battle area.

UVISION STRENGTHENS KOREAN PRESENCE

UVision Air Ltd., is expanding its cooperation with South Korean firm Firstec Co. Ltd., to provide logistic services to the armed forces of The Republic of Korea (ROK) and localization of Loitering Munition. As UVision's Korean business partner, Firstec Co. Ltd., has been marketing the HERO Series in South Korea for several years, enabling the introduction of UVision's Loitering Munition Systems into South Korea.

"This expansion is part of UVision's growing commitment to the Korean market which we see as strategic market. We have identified a need for systems such as our Hero-30 and Hero-120, which can deliver a more effective response to the operational challenges facing the Republic of Korea (ROK). In addition, we see South Korea as a technology leader, and therefore, an ideal starting point for the entire Asian market," says Major General (Ret.) Avi Mizrachi, CEO of UVision.

The new agreement increases the opportunities for the two companies to cooperate in providing support and logistics services to the ROK's Armed Forces. It will also enable the implementation of localization processes for UVision products for the Korean Military. UVision is showcasing its Hero-30 and Hero-120 Lethal Loitering Munitions Systems at the Firstec booth at the ongoing show.



GA-ASI, MQ-9B 스카이가디언 및 시가디언 선보여



GA-ASI 사가 비분리 공역에서 비행이 가능한 MQ-9B 원격 조종 항공기(RPA)의 탁월한 역량을 ADEX 에어쇼에서 홍보하고 있다. 이 항공기는 2020년대 초까지 '프로텍터 RG Mk1'라는 이름으로 영국 공군에 인도될 예정이다.

최근 몇 개월 동안, RPA의 해상 버전인 MQ-9B 스카이가디언과 시가디언의 수요가 증가했다. 벨

기에 정부는 벨기에 RPA 요건 충족을 위한 국방 부의 스카이가디언 구매 협상 개시를 승인했고, 호 주 정부도 MQ-98을 고려 중이다. 또, 인도도 시 가디언 구매를 논의 중이다. GA-ASI는 호주 정 부의 '프로젝트 에어 7003'에 RPA 시스템 공급사 로 선정된 바 있다.

영국 공군이 스카이가디언에 거는 기대감도 크

다. 린든 존스 대령은 "프로텍터가 우리의 역량을 한 단계 높여줄 것"이라면서 "신형 프로텍터는 항 속 거리와 항속 시간을 더욱 개선했기 때문에 영 국 항공에서 운항 승인을 받을 것"이라고 자신감 을 표명했다.

GA-ASI는 민간 영공에서 원격 조종 항공기를 운항하기 위한 국제 파트너십의 일환으로, 민간무인안전운항연구단(CR2CENT)을 운영하는 한국과학기술원과 업무 협약을 체결했다. 원격 조종 항공기의 독특한 역량을 고려할 때, 회사 관계자들은 아시아 태평양 지역에도 수요가 있을 것으로 예상한다.

철저한 재설계

GA-ASI는 2020년대 초 나토의 STANAG-4671 감항 인증 기준, 그리고 미국 연방항공청과 의 협력 하에 상업 감항 인증 기준을 통과하기 위해 이전 버전을 철저히 재설계했다.

스카이가디언은 보증 가능한 지상 통제소 (CGCS), 위성통신을 활용한 자동 이착륙 및 지상 활주, 휴대용 비행전후 장비(P3E)와 미션정보센터 등 다양한 역량을 갖추고 있다. 최근에는 성공적인 라이트닝 테스트, 원정 명령제어(XC2)를 활용한 위성통신 출격 및 회수 등의 역량도 추가했다.

해상 항공기

시가디언은 고화질 전자 광학/적외선(EO/IR)과 360° 고성능 다중 모드 해상 레이다를 기본 구성으로 갖추고 있어 해상 정찰과 감시 임무에 적합하다.

시가디언은 탁월한 항속 시간과 더불어 ISR 역량을 갖추고 있어 다양한 운항 및 위협 환경은 물론이고, 4,000피트 이상 고도의 비 가시 거리와 혹독한 날씨에도 운항이 가능하다. 또, EO/IR 풀 모션 비디오(FMV), 합성 개구 레이다(SAR) 이미지 촬영, 지상 이동 표적 탐지(GMTI) 데이터를 통해 원거리에서 실시간으로 군사 사령부에 대한 잠재적위협 요소를 파악해 승무원을 보호한다. 다중 모드해상 탐색 레이다, 역합성 개구면 레이다(ISAR), 자동 식별 시스템(AIS) 탐지 기능을 갖추고 있다.■









사브, 한국군에 전환 임무

사브 사의 글로벌아이 다목적 항공 감시 시스템이 아랍에미레이트 첫 인도를 위해 현재 생산 중이다. 첫 번째 테스트 프로그램이 '곧' 완료를 앞두고 있 어, 조만간 아랍에미레이트에 무사히 인도될 것 으로 보인다. 아랍에미레이트는 이 항공기의 독특 한 다영역 역량에 주목하여 '전환 임무 감시 시스 템'으로 부르고 있다.

사브는 한국 공군의 차세대 감시 시스템 구매가 확 정된 만큼, 글로벌아이를 한국에 제안하겠다는 의 사를 밝히면서 구매를 타진하고 있는 기타 고객사 를 언급했다. 회사 관계자들의 말에 따르면, 글로 벌아이는 가동 중인 모든 기타 AEW&C 플랫폼

의 역량을 뛰어넘는 고도의 기술이지만 관리와 운 용이 간단한 솔루션이다. 한국은 거의 15년 전에 미국에서 구매한 기존 '피스 아이' 항공기를 대체 할 후속 기종을 곧 구매할 잠재 고객으로 분류되 어 있다. "글로벌아이는 기존 한국군의 구조에 완 벽하게 통합되어 기존 장비와 잘 연동되고, 차세 대 역량을 크게 개선시킬 수 있다."고 회사 관계 자는 내다보았다.

글로벌아이 디자인의 핵심은 완전히 새로워진 에 리아이 ER S밴드 AESA 레이다(질화 칼륨 기술 사용), 그리고 이에 못지 않게 고도의 기술을 사용 하는 신형 명령 제어 시스템이다. 각 항공기에는 레오나르도의 시 스프레이 7500E 해상 감시 레이 다, 전기 광학, 전자정보/감청정보 및 통신, 데이터 링크, 방어 장비 등 다수의 센서가 장착되어 있다. 그 결과 공중, 지상, 해상의 장거리 동시 감시가 가능한 다목적 항공기가 탄생했다. 글로벌아이 한 기만으로도 공중조기경보통제기(AEW&C), 해상감시항공기(MPA), JSTARS가 단일 플랫 폼에 통합된 것과 같은 기능을 한다. 고도의 센서 시스템이 장착되어 있어 고속 '스텔스' 목표물에 매우 효과적이며, 무인항공기(UAVs), 미사일, 공 중 헬리콥터 등 천천히 움직이는 작은 목표물을 포착할 수도 있다.

아랍에미레이트 공군은 2015년 두바이 에어쇼에 서 글로벌아이 두 기와 기타 프로그램 구성 요소(약 12억 7,000만 달러 규모)를 처음으로 주문했 고, 2017년 IDEX 쇼에서 글로벌아이 한 기를 추 가 주문했다.■



TERMA SEEKS TO GROW KOREAN PRESENCE

Terma is presenting a wide range of defence equipment at the ongoing ADEX, even as company officials remain bullish on business prospects within the country. "Our products are already installed on South Korean platforms via Foreign Military Sales (FMS) procurements as well via Direct Commercial Sales (DCS) procurements. We see a large potential for our business in the future as a number of South Korean platforms will undergo Mid Life Upgrades (MLU), other will be decommissioned and replaced with newer aircraft, which will need state-of-the-art Electronic Warfare (EW) solutions," a company spokesperson tells Daily News.

Terma is presenting its unique 3D-Audio and Active Noise Reduction technologies at the airshow, which are now fielded and under installation on several platforms which are also part of the South Korean inventory. Terma's 3D-Audio and Active Noise Reduction technologies are now fielded or under installation on more than 400 aircraft around the world.

The company is also showcasing its podded and pylon-based Self Protection Solutions for, helicopters such as CH-47 and UH-60 aircraft in addition to EW enhancement for Light Combat Aircraft, such as the KAI T-50 family. The 5th generation EW solutions on these platforms, require close to no need for modification of the original aircraft. "The Terma EW backbone is currently installed on several South Korean platforms, both via FMS or direct commercial sales," the spokesperson says.

Terma's proven experience in bridging end-user capability requirements and US government technology requirements also puts it in a unique position to play a role in future FMS as well as direct commercial procurement of International Traffic in Arms Regulations (ITAR) controlled solutions for South Korea's fleet of aircraft, which is predominantly made up by American platforms.



Korea Aerospace Industries, Ltd. (KAI) is conducting a flying display of its new light armed helicopter (LAH) at the ongoing Seoul ADEX 2019, just months after it successfully completed the first flight of the initial LAH prototype.

The LAH is based on the Airbus Helicopters H155. The LAH will replace types such as the MD Helicopters MD500 and Bell AH-1J/S Cobra in service with the South Korean army. The LAH is equipped with the state-of-the-art avionics suite

and the 1,032 horse power-class new engines. The new Safran engine, designated the Arriel 2L2, which is the most powerful variant in the Arriel family. The LAH's Light Civilian Helicopter (LCH) variant will be powered by the Arriel 2C2. KAI envisions developing the LAH as a far more upgraded copter than the currently operating armed one, which will contribute to reinforcing the air power of the Korean military in the years to come. The first operational LAH is set to be delivered to units toward the end of 2022.



Northrop Grumman is presenting an array of next-generation global security capabilities at the ongoing ADEX. Featured at the company stand are next-generation autonomous systems to include Global Hawk, Fire Scout and the optionally piloted Firebird. "Northrop Grumman has been delivering innovative products and services to support the security needs of South Korea for decades," said Dong Ha, chief executive, Northrop Grumman South Korea. "We remain committed to our long-standing partnership with the Republic of Korea and are excited to demonstrate our capabilities to attendees at Seoul ADEX this year."

Northrop Grumman's autonomous systems provide advanced C4ISR capability, battlefield awareness and situational Republic of Korea.

understanding, which can help to advance South Korea's intelligence, surveillance and reconnaissance (ISR) capabilities while protecting regional interests and national security.

The Global Hawk is an autonomous high-altitude long endurance system, while the MQ-8C Fire Scout is the U.S. Navy's next generation autonomous helicopter and the optionally piloted Firebird product line delivers unprecedented multi-mission flexibility to meet critical ISR mission needs. Northrop Grumman is also offering logistics sustainment and modernization solutions to improve lifecycle affordability and potentially increase mission readiness of platforms for the Republic of Korea.

commence in 2020 and 2021, respectively. Further expansion on Chinese routes will take place in 2022. Hi Air plans to operate flights to island airports, such as Heuksan Island, Ulleungdo, etc after 2023. South Korea has plans to construct new island airports such as that on the island of Illeungdo and another on the island of Baekryeongdo. The runways on these island airports will be only be 1200m in length and hence be accessible

The 50-seat ATR 42-600 and 70-seat ATR 72-600 are now joined by the new ATR 42-600S, which is optimised for take-off and landing on runways as short as 800 meters. This new Short Take Off and Landing (STOL) variant of the ATR 42, offers 50 seats at the same operating

costs as 30-seat aircraft and customer

only to turboprop aircraft.



ATR READY TO FLY IN KOREAN SKIES

The first ATR operator in South Korea, Hi Air, will soon commence operations with two ATR 72-500 aircraft. The new Korean carrier is backed by the nation's leading transportation company, High Global Group. Hi Air plans to grow its ATR fleet to 10 aircraft by 2023, at the rate of two new aircraft each year. The Hi Air aircraft sale was performed by Skyworld Aviation and Papa Golf Aviation, which saw the sale to the new carrier of two aircraft previously operated by Air Tahiti. The aircraft with SI Nos (862 and 806) were delivered on 5th April and 8th July 2019 respectively. Scheduled services will commence from

deliveries begin in 2022. ATR views South Korea to be well suited for commercial turboprops, which are ideal for connect-

Ulsan, Gimpo, and Yeosu once domestic / international service certificates are in place. Hi Air, has ambitious plans to cover 76 domestic and international routes by 2023. Flights to Japan and China, will

ing second and third-tier cities. ATR's turboprops will also help operators in launching new air services connecting Korean cities to points in southern Japan and to cities in northeast China.

TAI DISPLAYS MODEL OF AKSUNGUR



Turkish Aerospace is showcasing a model of its new Anka-Aksungur medium-altitude, long-endurance unmanned air vehicle (UAV) at the ongoing Seoul ADEX 2019. The MALE class UAV system can perform day and night intelligence surveillance and reconnaissance (ISR) and strike missions with EO/IR. SAR

and SIGINT payloads, and a variety of air to ground weapons. According to a TAI official, the UAV, which is powered by two PD-170 twin-turbocharged Diesel engines, can carry out long endurance operations up to 40,000 feet.

and strike missions with EO/IR, SAR | It boasts a 750kg (1,700lb) payload, and at |

its maximum payload capacity, including weapon systems on its underwing hardpoints, the UAV can fly at 25,000 feet for 12 hours. The UAV has the weapons options with three hard points on each wing with 500 kg, 300 kg and 150 kg capacity. The weapons include Roketsanmade laser guided TEBER-81 and TEBER 82. TEBER is a laser guidance kit that is attached to MK-81(250lb) and MK-82 (500lb) general purpose bombs. TEBER converts the bombs into precision smart weapons using Inertial Navigation System, Global Positioning System and Laser Seeker.

The UAV also has the option of integrating LUMTAS, the laser-guided long-range anti-tank missile system, again developed by Roketsan. The ammunitions are likely to be integrated onto the platform by the end of this year. The company is now expecting to continue flight trials throughout the year, ahead of integrating and certifying the TEI PD170 engine into the twin-boom aircraft by the year-end.



MBDA EYES KOREAN AIRBORNE PROGRAMMES

MBDA continues to work towards a greater slice of South Korean defence spending, even as the missile manufacturer is currently working closely with Korean Aerospace Industries (KAI) to integrate the Meteor Beyond-Visual Range Air-to-Air Missile (BVRAAM) on KF-X. "We are working closely with both KAI and other Korean industry partners to achieve this, and have a number

of offset projects in place with Korean industry for Meteor integration on KF-X. Meteor clearly will significantly enhance the combat lethality of KF-X compared to other aircraft in the region armed with only conventional rocket-powered missiles. We are also interested in future options to enhance the combat effectiveness of KF-X, including with ASRAAM or our strike weapons offerings includ-

ing SPEAR, SPEAR-EW or SmartGlider," company officials tell Daily News. Meteor is also being integrated onto F-35, and MBDA's high-performance ASRAAM within-visual range air-to-air missile is already in operational service on F-35.

"We are also looking to co-operate on F/A-50 where our Brimstone precision strike missile and ASRAAM close combat missile are very relevant, while there are also opportunities for joint development of further air weapon solutions," the official informs. MBDA's Brimstone is also suitable also for integration onto the MAH and LAH helicopters. The Brimstone precision strike missile is well-proven for use from helicopters and known for being the most operational effective missile of its class, with an unrivalled ability to defeat both the heaviest of armour and the most challenging, fast, and mobile targets.

"FOR BOTH MAH AND LAH WE ARE ALSO LOOKING TO INTEGRATE OUR MISTRAL ATAM SYSTEM, WHICH TAKES THE HIGH-PERFORMANCE CAPABILITIES OF THE MISTRAL MISSILE ALREADY IN SERVICE WITH THE ROK ARMED FORCES AND ADDS THEM TO HELICOPTERS TO PROVIDE A HIGHLY POTENT AND COMBAT-PROVEN AIR-TO-AIR CAPABILITY," company officials tell Daily News.

RTAF TO GET UPGRADED T-50S BY 2021

Korea Aerospace Industries (KAI) is currently upgrading the T-50 Golden Eagle Lead-In Fighter Trainers of the Royal Thai Air Force (RTAF) with radars, Radar Warning Receiver (RWR) and Counter Measures Dispenser System (CMDS). The final delivery of the upgraded aircraft to the RTAF is scheduled for October 2021. A KAI official says the US\$52 million deal could raise the performance of the T-50TH and further, will keep a high operation rate via the smooth operation of the aircraft.

Thailand had purchased four of T-50 in 2015 and made second deal to purchase eight more in 2017. The four aircraft under



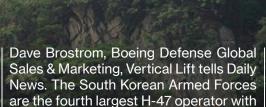
the first order have been inducted for training since March 2018, while the eight additional units will be delivered by 2020, starting later this year. The T-50 family is equipped with the Elta EL/M-2032 pulse

Doppler radar. The aircraft variants are currently under operation in Thailand, the Philippines, and Indonesia. KAI is eyeing to export the aircraft to Malaysia and Argentina.

BOEING WAITS ON CHINOOK UPGRADES

Discussions are currently underway between the Republic of Korea Government (ROKG) and Boeing for an upgrade of the South Korean Chinook helicopter fleet. South Korea is looking at a two-pronged approach to modernize its Chinook fleet, which includes renewal of older helicopters and new buys.

"Both Renew and New Buy will give Korea the CH-47F providing increased capability and sustainability. In particular, a Renew aircraft configuration matching the U.S. Army fleet - maintaining commonality with the U.S. Army F model – increases the opportunity to continue sourcing replacement parts, and lowers operational cost. The Renew configuration allows for update to future Block-II configuration, thus providing the battlefield interoperability required for current joint operations,"



42 aircraft (after the U.S., Japan, and the

UK), all of them CH-47Ds or D-model variants. These Chinooks includes both standard-range and long-range variants and are operated by the army and air force.



LOCKHEED MARTIN LOOKS TO GROW **PARTNERSHIPS**

U.S. airframer Lockheed Martin is par- | the hope that emerging opportunities

ticipating at the ongoing ADEX, with in South Korea, will materialise into real produced.

deals. Having delivered on a wide array of programs such as F-35 Lightning II, F-16 Fighting Falcon, T-50 Golden Eagle and FPS 117, the company says that it looks forward to supporting the U.S. Navy's Foreign Military Sale proposal of 12 MH-60R's to the Republic of Korea Navy. "The FMS procurement of the MH-60R "Romeo" would expeditiously provide the Republic of Korea Navy with the world's most advanced anti-submarine and anti-surface warfare rotary-winged aircraft in the world, while also enhancing its capability in performing vital search search-and-rescue missions," a company spokesperson tells Daily News, while declining to provide specifics on the status of the Maritime Operational Helicopter procurement by the South Korean Navy.

A few examples of partnership with Korea include: Lockheed Martin and Korean Aerospace Industries (KAI) co-production of F-16 and the T-50 Golden Eagle; partnership with Samsung Data Systems to modernize Korea's air traffic management system with the Korean Area Control Center (kAA) and a partnership with Korea Telecom, where several communication satellites have been successfully

..Contd from page 1

FULL SCALE KF-X MOCK-UP UNVEILED



"WE WILL MAKE EVERY **EFFORT, IN COOPERATION** WITH RELATED ORGANIZA-TIONS, TO ENSURE THAT KO-**REAN FIGHTERS BRING OUT** PERFORMANCES THAT MATCH OR EXCEED THE EXPECTATIONS OF THE MILITARY." Korean Fighter Project Division, Senior Defence Officer, Kwang Sun-sun.

The KF-X programme has also kicked off a large indigenous design effort for aircraft components and parts, which will hold South Korean industry in good stead for the future.

The roll-out of the first KF-X prototype is slated for the first half of 2021 and the maiden flight is planned in the first half of 2022. The KF-X design and development effort is expected to conclude and lead to production by 2026.

The KF-X will be powered by two GE-F414-400K engines and MTOW of 25.6 tonne. The maximum weapons payload for the KF-X is 7.7 tonne.■

SAAB BULLISH ON SOUTH **KOREAN MARKET**

Saab is placing a special emphasis on l multi-domain solutions, at the ongoing ADEX with its next-generation GlobalEye Airborne Early Warning and Control (AEW&C) and other products and solutions, across the air, land and maritime domains. "Korea's need for superior defence technology has never been higher," says Håkan Borin, Head of Saab South Korea.

"SAAB IS A PROVIDER OF WORLD-CLASS TECHNOLOGY **BUT ALSO A PARTNER FOR THE** JOINT DEVELOPMENT OF NEW. ADVANCED SYSTEMS THAT CAN MEET THIS COUNTRY'S SPECIFIC **NEEDS. OUR REVOLUTIONARY GLOBALEYE AEW&C SOLUTION** IS JUST ONE EXAMPLE OF HOW SAAB LEADS THE WORLD IN OPERATIONAL CAPABILITY AND SMART THINKING. IT SHOWS HOW INNOVATIVE

NATIONS LIKE SWEDEN, AND KOREA, CAN DEVELOP AND DELIVER THE VERY BEST **DEFENCE SYSTEMS IN THE** WORLD. WITH GLOBALEYE AND THE OTHER PRODUCTS WE SHOWCASE AT ADEX, SAAB IS **READY TO BE A TRUE PARTNER** IN ENSURING THE SAFETY AND SECURITY OF THE REPUBLIC OF KOREA." Håkan Borin, Head of Saab South Korea.

Saab is also showcasing its prowess in

radar systems, where it has more than 30 years of active electronically scanned antenna (AESA) radar design experience. Saab's Arthur mobile weapons-location radar system has been in service with the Republic of Korea Army since 2009. The company is also presenting other products at the show, such as the Ground Launched Small Diameter Bomb (GLSDB), which has been developed in partnership with Boeing. This long-range precision incendiary solution which decisively expands the capabilities of the armed forces. It can conduct reverse slope engagements and defeating a range of targets, from hardened facilities to soft-skinned assets. The Carl Gustaf M4, AT4 and NLAW are also on display. Saab's lightweight Carl Gustaf M4 has all the flexibility and lethality of previous Carl Gustaf variants but now weighs less than 7 kg, thus providing a significant improvement in soldier mobility. The M4 is also compatible with intelligent sighting systems for programmable ammunition.





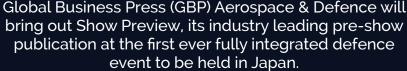
DSEI Japan, marks the first time that a "DSEI"-branded event has been held outside of London.

GBP Aerospace & Defence is a media partner at DSEI Japan, which will be held from 18-20 November 2019 at Makuhari Messe, Chiba Prefecture, Japan.

SHOW PREVIEW will be a bilingual print edition (English & Japanese) and contain pre-show news and announcements and feature stories.

Each bilingual print edition of SHOW PREVIEW will be distributed on-site at DSEI Japan 2019.

Our newly revamped website and online newsletters also provide an unmatched opportunity for those seeking to reach out to a global audience through our defence and industry professional database.



HIGHLIGHTS

- 2,000 printed copies of SHOW PREVIEW will distributed at the show site to conferences attendees, visitors and at exhibitor stalls and chalets
- SHOW PREVIEW is a popular offering at defence shows and trade exhibitions worldwide, due to its
- Daily News (e-newsletter) editions, which will report latest events from DSEI Japan, will be emailed on November 18, 19 and 20) for unmatched local and
- 10,000 copies will be emailed every morning of the show to industry professionals and military officers worldwide, with a special focus on APAC, SE Asia and
- Daily News (e-edition) also available to a global audience on our all new website www.gbp.com.sg



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