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Indian Navy Deploys Oxygen Express to Island Territories

As part of the nation's fight against COVID 19, Indian Navy ships under Headquarters, Southern Naval Command at Kochi are progressing with the mission of OXYGEN EXPRESS in order to render support to the local administration of the Union Territory of Lakshadweep (UTL). On 25th April, INS Sharda, based at Kochi, undertook transfer of essential medical supplies to the capital of UTL, Kavaratti. The stores consisted of 35 Oxygen cylinders, Rapid Antigen Detection Test (RADT) kits, Personnel Protective Equipment (PPE), masks and other items to fight the COVID 19 pandemic. The disembarkation of stores was coordinated by personnel from INS Dweeprakshak at Kavaratti. The ship then continued with her mission to the island of Minicoy for disembarkation of Oxygen cylinders and medical supplies.

Additionally, 41 empty Oxygen cylinders from the islands have been embarked onboard Indian Navy hired vessel, Meghna. The vessel is now headed to Kochi for refilling of the empty cylinders and will head back to UTL with filled cylinders soon to ensure that the Oxygen Express continues unabated. The operations are being progressed under the supervision of the Naval Officer-in-Charge at Lakshadweep in coordination with the UTL Administration.

To assist the civil administration in fighting COVID 19 at the island of Kadmat, a Naval contingent comprising one doctor, two Medical Assistants and one additional sailor reached Kadmat on 25th morning. The personnel have been deputed from SNC, Kochi as well as from INS Dweeprakshak, Kavaratti.

HQSNC has also reserved ten beds including ICU facilities for patients from Lakshadweep at INHS Sanjivani, Kochi to cater for shortages in beds at the islands. Also, Naval Air Station INS Garuda has also been placed on alert to extend Naval airfield facilities for UTL helicopters ferrying patients.

Air Evacuation Pods developed indigenously by the Naval Aircraft Yard, Kochi to airlift COVID-19 patients from the Islands as well as from elsewhere are also being made ready for emergency requirements.

Russian Helicopters Extinguish Fires in Eleven Countries

Helicopters of the Mi and Ka brands, produced by the enterprises under the Russian Helicopters holding company, have since the beginning of 2021 taken part in firefighting operations in more than 10 countries of Asia, Europe and Latin America. In particular, Russian-made helicopters were used in India, South Korea, Thailand, Croatia, Argentina, Spain, China, Georgia, Indonesia, Mexico and Chile.

South Korea is the largest operator of Russian Ka-32 which is the main helicopter for fighting forest fires in the country. More than 50 helicopters of this type are operated by Korea Forest

Service, Air Force, Coast Guard and private companies. According to the Korea Forest Service, 13 of its 29 Ka-32 helicopters, were used in firefighting in North Gyeongsang Province this January. Helicopters were deployed after a series of forest fires occurred in the area of Ochon-ri, Changsu-myeon.

Since early February, Ka-32 helicopter has spearheaded aerial firefighting operations in Kor, Li, Hod and Lamphun in Thailand. Heavy fog, cold mornings and hot afternoons accumulate a large amount of dust and smog, which covered number of cities in the province of Chiang Mai. While operating in the area, Ka-32 helicopters have extinguished over 19 fires, using a total of 57,000 liters of water. In addition to water bombing from an external sling to extinguish fires, Ka and Mi helicopters are operated in Indonesia to carry out air patrols and water transport. In turn, Mi-17V-5 helicopter was deployed to extinguish a fires at the Shirui heights in Northeast India.

China is already actively fighting seasonal fires with a fleet consisting of Ka-32s, and also the heavy lifting Mi-26. Mi-26 allowed to quickly extinguish a forest fire on the outskirts of the city of Xichang in the Sichuan province, which could have engulfed nearby villages.

The Mexican Secretariat of the Navy has announced the completion of an exercise aimed at protecting the environment and natural resources. During the exercise, the naval forces practiced extinguishing fires using Mi-17 helicopters, which earlier this year already took part in similar operations in Sierra de Arteaga and continue to operate in the municipality of Santiago, Nuevo Leon. At the same time, Ka-32 helicopters did three days of firefighting operations in the Lago Penuelas in Chile and put out a fire in Ranedo de Curueño, Castile and León in Spain.

The BARAK ER 150 km range interceptor completes trials; IAI has begun the customer delivery process

Boaz Levy
President & CEO
IAI

Having completed a successful series of trials of the BARAK Air and Missile Defense System, Israel Aerospace Industries (IAI) unveiled documentation of the challenging trials, which tested the system's capabilities in a range of scenarios and threats, including the interception of an assaulting ballistic target by the BARAK ER (Extended Range) interceptor.

The BARAK ER Air Defense System, developed by IAI, combines the capability to intercept airborne threats at an extended range of 150 kilometers and ballistic targets. The ER interceptor is part of IAI's BARAK Air Defense System's family, capable of various ranges. The extended range capability is made possible in part by adjusting the interceptor and MMR radar capabilities to a 150 km range, and can be fitted for both naval and land platforms.

The BARAK ER interceptor tested in the trial series was taken directly from the company's production line. The BARAK ER revolutionizes air defense with unprecedented flexibility, both in real-time full net-centric combat management as well as with unique smart launchers. The launchers are capable of independently launching and managing any mix of interceptors without a dedicated command post on site. The sophisticated battle management system optimizes the interceptors to match threats in real time. Thanks to these features, an operator can create unique responses to a mix of interceptors across different threats, as well as phase their procurement gradually according to budget constraints.

Boaz Levy, IAI President and CEO, said, "The BARAK Air Defense System is a modern yet mature, operationally proven system that maximizes the capabilities required to meet threats today, in particular, against ballistic targets. The system has both naval and land versions. Both versions share building blocks, relying on the air defense know-how developed at IAI over the past decades. IAI produces all of the system's elements in-house, including: radars, launchers, missiles, and the command and control center. Only select companies in the

IAI to Provide the Z-MAG All-Terrain Vehicle to Israel's MOD for IDF Maneuvering Units

Israeli MOD Department of Production and Procurement and IAI Sign First Agreement to Manufacture Z-MAG For IDF and Global Customers.

Israel Aerospace Industries (IAI) and Israel's Ministry of Defense (MOD) Office of Production and Procurement have signed an agreement to manufacture the Z-MAG, a unique all-terrain vehicle for the Israel Defense Forces (IDF).

IAI has recently acquired the rights to the Israeli Z off-road vehicle family. Israel's MOD Sub Department for Land Production and Procurement and IAI's ELTA Group signed an agreement to manufacture and supply nine Z-MAG all-terrain vehicles to the IDF, with an option to order 21 additional units.

The Israeli developed Z-MAG vehicles have been a point of interest in the local and global off-road, all-terrain vehicle community. The Z-MAG has an exceptional ability to maneuver in the most extreme topographical conditions and terrain. The first Z-MAG vehicles purchased by MOD will feature unique capabilities designed especially for the needs of the IDF's Maneuvering Units. Following an assessment period, the IDF will consider buying more vehicles in the coming years. IAI is building an assembly line for the Z vehicles to be housed at ELTA's Land Division in Be'er Sheba and is investing ILS 100 million in the project.

Yoav Turgeman, IAI VP and CEO of ELTA, said, "IAI is proud to supply the world's most advanced all-terrain vehicles, developed in Israel, to Israel's defense community. ELTA develops and produces a broad range of products for land purposes, including: surveillance, autonomous robotics, remote sensing, and communication. By integrating these capabilities in the Z vehicle family our products provide added value to the forces' operational possibilites, be it in defense, assault or homeland security intelligence gathering."

world possess such comprehensive capabilities. The extensive firing trials to which the system was subjected under difficult land and sea conditions is the best proof of the system's capabilities. The modular approach, and the smart launchers, fit customer demand for utmost flexibility on the battlefield and in procurement given budget constraints. As such, BARAK provides an optimal solution for the present and future battlefield."

IAI's BARAK is one of the world's most advanced defense systems. Operationally proven, it is used by several armies worldwide, including the Israeli Navy, India's air-force, army and navy, and additional customers. BARAK provides wide-area protection against a range of air, sea and ground threats, including ballistic, ground-to-ground, and cruise missiles, UAVs, and helicopters. BARAK consists of several systems representing the forefront of technology, including: interceptors for a variety of ranges and advanced homing seekers, digital MMR radar or MFSTAR radar for naval platforms, command and control system, and unified launchers for different ranges. These systems are complemented by breakthrough communication and connectivity capabilities, providing the user with optimal force activation using several batteries or ships for the multidimensional battlefield.

Flydubai grows its network to more than 80 destinations

Dubai-based carrier to serve 11 destinations in Russia starting from May 2021
The airline also resumes flights to two more points in Iran and adds Tivat to its seasonal schedule

Flydubai, the Dubai-based airline, has announced the launch of additional routes bringing its network to more than 80 destinations. The carrier will grow its network in Russia to 11 points with of the introduction of new services to Moscow Zhukovski International Airport (ZIA) from 12 May, Novosibirsk Tolmachevo International Airport (OVB) from 28 May and Perm International Airport (PEE) from 02 June, while resuming operations to four more points in the market in May.

The carrier also announced the resumption of flights to Bandar Abbas International Airport (BND) from 12 May and Mashhad International Airport (MHD) from 13 May, growing its operations in Iran to five points including Larr (LRR), Shiraz (SYZ) and Tehran (IKA).

flydubai recently announced that it will be operating seasonal flights to Bodrum (BJV) and Trabzon(TZX) in Turkey as well as Batumi (BUS) in Georgia. The carrier is set to restart its seasonal operations to Tivat International Airport (TIV) in Montenegro from 25 June, offering passengers more choice to travel to popular destinations this summer.

Commenting on the announcement, Ghaith Al Ghaith, Chief Executive Officer at flydubai, said: "It is now 11 years since flydubai's first flight to Russia. During this period, we have grown our network in Russia providing direct air links from these key cities in Russia to the UAE; many of which are less than four hours flying time. We've made Dubai much more accessible and at the same time improved connectivity to more than 155 destinations from Dubai's international aviation hub. Today, we are pleased to see our operations take off once again as we continue to support trade and travel between the countries."

Jeyhun Efendi, Senior Vice President, Commercial Operations and E-commerce at flydubai, added: "flydubai offers convenient, comfortable and reliable services to its passengers whether they choose to travel in Business Class or Economy Class. We recognise that since the pandemic it has not been possible for our customers to travel as much as they would have liked. The launch of these new points in Russia along with the resumption of flights to a number of destinations on our network will hopefully enable more passengers to travel this summer, with the expectation of countries easing up travel restrictions in line with the growing vaccination efforts around the network."

flydubai's passenger experience has been redesigned to enable travel in a safe environment that minimises crew and passenger contact and offers passengers confidence to travel at every step of their journey. The airline has recently introduced an extended multi-risk travel insurance that includes COVID-19 cover to offer passengers greater peace of mind when travelling.

Passengers are required to make sure that they are up to date with the regulations from the IATA Travel Centre and the IATA destination tracker for their whole journey, and follow the guidance issued by the authorities and the airline. Passengers can also visit the COVID-19 information hub on flydubai.com for more information.

Name of Airport	Status	Frequency/ week
Kazan International Airport (KZN)	operating	1
Moscow Vnukovo International Airport (VKO)	operating	5
Samara Kurumoch International Airport (KUF)	operating	1
Yekaterinburg International Airport (SVX)	operating	1
Makhachkala Uytash International Airport (MCX)	starts on 06 May	1
Mineralnye Vody Airport (MRV)	starts on 06 May	1
Rostov-on-Don International Airport Platov (ROV)	starts on 06 May	1
Moscow Zhukovski International Airport (ZIA)	starts on 06 May	1
Ufa International Airport (UFA)	starts on 06 May	1
Novosibirsk Tolmachevo International Airport (OVB)	starts on 06 May	1
Perm International Airport (PEE)	starts on 06 May	1

WFEL & KMW agreement for UK BOXER MIV programme

WFEL and Krauss-Maffei Wegmann (KMW) announced their agreement with one of the world's leading power transmission companies, Huddersfield-based David Brown Santasalo (DBS), for the supply of Powerpack blocks for the UK BOXER Mechanised Infantry Vehicles. On behalf of WFEL and KMW, David Brown Santasalo will assemble around 250 Powerpack blocks (transmission, engine and cooling systems), beginning delivery in Autumn 2022 and covering a 10-year period of supply.

As part of KMW's extensive UK Boxer Technology Transfer Programme, this particular contract will sustain and create at least 20 jobs in the North of England at David Brown Santasalo and its wider supply chain, whilst further contributing to the UK's sovereign industrial defence capabilities. DBS is internationally recognised as one of the most innovative suppliers of bespoke land and marine power transmission systems. The £30 million order will ensure that the fully assembled and tested Powerpack units are delivered to WFEL's new, dedicated, state-of-the-art BOXER MIV production facility in Stockport, where they will be integrated into the BOXER vehicles.

Steve Watson, DBS Global Defence Director and Managing Director UK said, "Through the development of this key partnership with KMW and WFEL, we are delighted to continue to contribute to the UK economy and our local community through job retention and creation of new roles. We relish the opportunity to continue to strengthen our local team."

The Boxer vehicles are being provided to the UK MoD as part of the £2.3bn contract placed with the ARTEC consortium in November 2019.

Ian Anderton, WFEL Managing Director, commented, "As we head closer towards the first ever manufacture of BOXER vehicles here in the UK, we are delighted to welcome DBS to our UK supply chain, a company which has undergone rigorous supplier selection criteria, as part of our wider programme of manufacturing readiness for this vital new capability for the British Army's Strike Brigade."

The David Brown Santasalo contract is one of the first tranche of UK supply chain contracts to be awarded for the BOXER MIV programme and will help support economic growth and level-up regional economic opportunity.

The MIV programme aims to support and enhance the UK supply chain, including SMEs. It will also ensure that the UK retains the skills and expertise to support the BOXER vehicles throughout their operational life.

Embraer names its main factory as "Ozires Silva Unit"

Embraer announced that its main industrial complex in São José dos Campos, Brazil is now named "Ozires Silva Unit." The initiative is part of a series of tributes that have been carried out this year in celebration of the engineer and former Air Force officer's 90th birthday, who led the group of visionaries responsible for the creation of Embraer in 1969.

The announcement was made at a virtual event that also unveiled a 115 m² artistic mural painted outside of the company's delivery center hangars, close to the visitors' main entrance. The 3D artwork of 11.5 meters high and 10 meters long highlights Ozires Silva and the Bandeirante turboprop aircraft, Brazil's legendary aeronautical project that resulted in the creation of Embraer.

"It is an honor to announce the decision to name our historic industrial complex to 'Ozires Silva Unit' and transform the landscape of this site with an immense artistic mural that's proportionate to the achievement of a leader who dreamed and carried out one of Brazil's most ambitious technological projects," said Francisco Gomes Neto, Embraer's CEO. "The creativity, sensitivity, precision, boldness and perfection of the paint team reflects the company's DNA of innovation, with the collaborators finding inspiration from engineer Ozires Silva."

The tribute is an initiative of Embraer and the Embraer Institute, responsible for preserving and promoting the company's memory. The creation and execution of the art were conducted by the aircraft painting shop team, internationally recognized for the realistic figures and creative design on the exterior of the company's flight demonstrators and flight test aircraft, for customers on five continents. This initiative had the dedication of Embraer's employees Clodoaldo Quintana, Diego dos Santos Costa, Luiz Roberto Tenório de Almeida and Moises dos Santos Costa.

The now called "Ozires Silva Unit" started its operations on January 2, 1970, and was the production site for historic Embraer aircraft such as Bandeirante, Xavante, Ipanema, Xingu, Brasília, Tucano, AMX, the ERJ-145 family and executive jets. Currently, it mainly concentrates the development, manufacturing and support activities of commercial aircraft E-Jets E1 and E2 family.

With the expansion of Embraer in multiple units throughout Brazil and around the world over the last few decades, the company's first headquarters became known as the "Faria Lima Unit," in reference to the name of the main avenue that gives access to the factory and São José dos Campos city airport.

The artistic mural and the naming of the site are added to a sequence of tributes made this year to commemorate the birthday of engineer Ozires Silva, who was born on January 8, 1931, in the city of Bauru, interior of São Paulo.

A global aerospace company headquartered in Brazil, Embraer has businesses in Commercial and Executive aviation, Defense & Security and Agricultural Aviation. The company designs, develops, manufactures and markets aircraft and systems, providing Services & Support to customers after-sales.

Since it was founded in 1969, Embraer has delivered more than 8,000 aircraft. On average, about every 10 seconds an aircraft manufactured by Embraer takes off somewhere in the world, transporting over 145 million passengers a year.

Embraer is the leading manufacturer of commercial jets up to 150 seats and the main exporter of high value-added goods in Brazil. The company maintains industrial units, offices, service and parts distribution centers, among other activities, across the Americas, Africa, Asia and Europe.

Turkish Aerospace delivered, 300th unit Section 19 Barrels of A 320

Turkish Aerospace delivered, 300th unit within the Airbus Section Barrel Program, in which the company continuously provide superior quality performance and timely delivery since 2017.

Turkish Aerospace is delivering Section 19 Barrels to RUAG Oberpfaffenhofen facilities. Following the mating operation of these Barrels with Section 18 Panels, which are also manufactured by Turkish Aerospace, complete section 18+19 is being delivered to Airbus Hamburg FAL facilities.

Section 19 is located next to the rear galley and it is separating pressurized and unpressured sections of the Airbus A320 aircraft. Section 19 is combining major parts of the aircraft such as Vertical Stabilizer, Horizontal Stabilizer and main control surfaces like Rudder and Elevator.

Turkish Aerospace President and CEO Prof. Dr. Temel Kotil stated the importance partnership between Turkish Aerospace and Airbus. Kotil stated: "In the aerostructure cooperation, we are glad to keep our partnership with Airbus since 2017. We keep working on our delivery promises. It is important to deliver aerostructure materials on time. Acknowledging these responsibilities over international and national market, Turkish Aerospace is honored to keep promises and keep continue its deliveries on time."

Turkish Aerospace is the center of technology in design, development, manufacturing, integration of aerospace systems, modernization and after sales support in Turkey. Located in Ankara, Turkish Aerospace production plant covers an area of 5 million square meters with an industrial facility of 150,000 square meters under its roof. The company has a modern aircraft facility furnished with high technology machinery and equipment that provide extensive manufacturing capabilities ranging from parts manufacturing to aircraft assembly, flight tests and delivery. ■

Collins Aerospace delivers the 600th Thrust Vector Actuation System for critical missile system

The all electric, high-performance, Thrust Vector Actuation System (TVA) has a 100% success rate of live fire tests intercepts.

Foundation for next-generation missiles Collins Aerospace, a unit of Raytheon Technologies Corp. (NYSE: RTX), continued to set the foundation for the next-generation missile with the delivery of the 600th TVA for the Terminal High Altitude Area Defense (THAAD) missile system. The all electric TVA has successfully guided 100 percent of the live fire intercepts completed so far for THAAD and demonstrates the capabilities needed for future missile systems. For more than 40 years, Collins Aerospace has leveraged its experience in designing and manufacturing high-performing and precise missile actuation, a necessity in difficult environments.

"The TVA plays a substantial role in the flight power and steering direction of the missile – these are critical elements to current and future systems, especially as we see environments becoming more complex to navigate," states Kevin Raftery, vice president and general manager of ISR and Space Solutions for Collins Aerospace. "Our extensive experience in missile actuation is a key differentiator for current and future platforms."

Collins Aerospace, a unit of Raytheon Technologies Corporation is a leader in technologically advanced and intelligent solutions for the global aerospace and defense industry. Collins Aerospace has the extensive capabilities, comprehensive portfolio and broad expertise to solve customers' toughest challenges and to meet the demands of a rapidly evolving global market.

Raytheon Technologies Corporation is an aerospace and defense company that provides advanced systems and services for commercial, military and government customers worldwide. With 195,000 employees and four industry-leading businesses Collins Aerospace Systems, Pratt & Whitney, Raytheon Intelligence & Space and Raytheon Missiles & Defense the company delivers solutions that push the boundaries in avionics, cybersecurity, directed energy, electric propulsion, hypersonics, and quantum physics. The company, formed in 2020 through the combination of Raytheon Company and the United Technologies Corporation aerospace businesses, is headquartered in Waltham, Massachusetts.

Indian Navy send its deep Submergence Rescue Vessel to Search the missing Indonesian Submarine

Indian Navy dispatched its Deep Submergence Rescue Vessel (DSRV) to assist Tentara Nasional Indonesia-Angkatan Laut (TNI AL - Indonesian Navy) in search and rescue efforts for the Indonesian Submarine KRI Nanggala which was reported missing on Wednesday 21 Apr 21.

On 21 April, an alert was received by Indian Navy through International Submarine Escape and Rescue Liaison Office (ISMERLO), regarding the missing Indonesian submarine. The submarine was reportedly exercising in a location 25 miles North of Bali with a crew of 53 personnel.

Submarine rescue is required to be undertaken when a submarine is reported to be missing or sunk and specialised equipment is required for underwater search to locate the disabled submarine and rescue the personnel who are trapped inside the submarine.

India is amongst the few countries in the world capable of undertaking Search and Rescue of a disabled submarine through a DSRV. Indian Navy's DSRV system can locate a submarine upto 1000 m depth utilising its state of the art Side Scan Sonar (SSS) and Remotely Operated Vehicle (ROV). After the submarine is successfully located, another sub module of DSRV- the Submarine Rescue Vehicle (SRV) - mates with the submarine to rescue the trapped personnel. The SRV can also be used to provide emergency supplies to the submarine.

Under the framework of comprehensive strategic partnership between India and Indonesia, Indian Navy and Indonesian Navy share a strong partnership of operational cooperation. The two navies have been exercising regularly in the past and have developed synergy and interoperability which is considered important for the present mission.

BAE Systems chosen to provide Beowulf prototypes for U.S. Army's CATV program

The U.S. Army has selected BAE Systems to deliver two prototype vehicles for evaluation as a potential solution for the Cold Weather All-Terrain Vehicle (CATV) program. Whether operating in swamps or the frozen arctic, BAE Systems' Beowulf is based on proven, existing solutions and capable of moving personnel and cargo under the most remote and harshest conditions.

Beowulf is an unarmored, tracked, and highly versatile vehicle for carrying personnel and payloads in either of its two compartments across the most challenging terrains. Beowulf's articulated mobility system is key to its effectiveness, allowing for optimal maneuverability across varying surfaces. It also has a modular design and can be reconfigured for multiple missions, such as logistical support, disaster and humanitarian relief, search and rescue, and other missions as required.

"Beowulf is an optimal and mature solution for the CATV program and we look forward to submitting our prototypes with the goal of meeting the Army and Army National Guard's mission," said Mark Signorelli, vice president of business development at BAE Systems. "Beowulf, and its armored sister vehicle, the BvS10, represent the most advanced vehicles in the world when it comes to operating anywhere, whether it's snow, ice, rock, sand, mud, swamp, or steep mountainous environments. And its amphibious capability allows it to swim in flooded areas or coastal waters."

Beowulf is based on the BvS10, which has already been produced, to include recent on time deliveries to Austria. Multiple variants of the vehicle are already operating in five countries, first going into service with the U.K. Royal Marines in 2005. Leveraging the BvS10 means the Beowulf design is already established and ready for production. Beowulf also benefits from efficient lifecycle management and routine maintenance and sustainment costs by using common components in the BvS10.

The Beowulf and BvS10s are built by BAE Systems Hägglunds in Örnsköldsvik, Sweden, and include several key components from U.S. suppliers, such as its engine, transmission, and hydraulic system. The Army is procuring the CATV program through the National Advanced Mobility Consortium. BAE Systems submitted its proposal in July.

The CATV program is designed to replace the aging fleet of Small Unit Support Vehicles (SUSVs), also built by BAE Systems Hägglunds and known internationally as the BV206, that have been in service worldwide since the early 1980s.

Oberkochen-based sensor specialist supplies sight systems worth almost 75 million euros for Dutch armoured reconnaissance vehicles

Sensor solutions provider HENSOLDT has received an order from Krauss-Maffei Wegmann (KMW) worth nearly 75 million euros to equip the Royal Netherlands Army's "Fennek" armoured reconnaissance vehicles with visual systems. The scope of the order includes 188 BAA II NL observation and reconnaissance systems as well as a number of spare parts.

"Our optronic solutions combine sensors from different technologies to provide armoured vehicle crews with an excellent situational awareness," said Andreas Hülle, CEO of HENSOLDT Optronics. "In the field, this capability is essential to fulfil the mission and ensure the protection of the crews."

The BAA II NL is the logical further development of the BAA II JFST, which is already in use in the Joint Fire Support Team (JFST) of the German Armed Forces. The external dimensions have remained the same and the use and menu navigation have also been left unchanged in order to keep the training effort for the crew as low as possible.

The scope of the contract also includes adjustments to the YellowKite camera, which will be optimised to become a day-vision/near-infrared (NIR) camera with colour vision and will receive a near-infrared cut filter. In addition, HENSOLDT provides a digital outlet.

HENSOLDT will deliver the observation and reconnaissance systems to Krauss-Maffei Wegmann (KMW), which will handle the integration of the BAA II NL and its command and control system into the Fennek reconnaissance vehicles. Deliveries to KMW will begin in autumn 2022 with the qualification systems. Series delivery will start in 2023 and is scheduled to be completed by 2027.

Milrem Robotics delivered the first THeMIS to Australia

The European leading robotics and autonomous systems developer Milrem Robotics signed a distribution and maintenance agreement with XTEK Ltd. and delivered the first THeMIS Unmanned Ground Vehicle to the Australian homeland security specialist.

This first THeMIS will be used by XTEK Ltd., for trial, evaluation, and demonstration purposes. Including Australia, the THeMIS UGV has been acquired by eleven countries, of which seven are NATO members, including Estonia, France, Germany, the Netherlands, Norway, the UK, and the US.

Following the signing of an MoU in the end of last year, Milrem Robotics also signed an agreement with XTEK appointing the Australian homeland security specialist as the exclusive distributor of the THeMIS UGV, the Type-X Robotic Combat Vehicle, and Milrem's Intelligent Functions Integration Kit (MIFIK) in Australia and New Zealand.

"I am thrilled about the synergy created with XTEK and delivering the most advanced robotic capabilities to Australia," said Kuldar Väärsi, CEO of Milrem Robotics." In collaboration with XTEK, we can be close to our customer and secure continuous high-quality support."

Philippe Odouard, XTEK Ltd's Managing Director said: "The delivery of our first Milrem Robotics THeMIS is a major milestone for XTEK. The THeMIS platform is ideally suited for a broad range of applications within the Australian Defence Force, particularly the Australian Army. It is also the perfect platform for us to further showcase our 'AirWolf' sensor-to-shooter software, which distributes targeting information from UAVs (Unmanned Aerial Vehicle) to advanced combat configured UGVs such as THeMIS.

XTEK has extensive experience and expertise in unmanned vehicle distribution, maintenance, and value-added services.

The company's established maintenance facilities include a Logistics Engineering Business Unit based in Canberra, where a pool of technicians and trainers with extensive Explosive Ordnance Disposal (EOD) robot maintenance experience can provide maintenance for Milrem Robotics' UGVs and RCVs.

The company plans to leverage its Adelaide Manufacturing Centre and unique XTclave™ technology for novel ballistic protection design, and other engineering and manufacturing services for Milrem Robotics' UGV systems.

Milrem Robotics is the European leading robotics and autonomous systems developer. The company has two offices in Estonia, one in Sweden and Finland and shortly one in the Netherlands.

Milrem Robotics is the leader of a consortium that was awarded 30,6 MEUR from the European Commission's European Defence Industrial Development Programme (EDIDP) to develop a European standardized unmanned ground system (UGS).

During the project, titled iMUGS, a modular and scalable architecture for hybrid manned-unmanned systems will be developed to standardize a European wide ecosystem for aerial and ground platforms, command, control and communication equipment, sensors, payloads, and algorithms.

XTEK Limited provides high-quality products to deliver tailored solutions to the government, law enforcement, military, space and commercial sectors. XTEK is focused on developing and commercializing its proprietary technologies by leveraging its established distribution network. These technologies include XTclaveTM produced ballistic products and advanced composite solutions, and XTatlasTM real-time contextual video, which provide unique solutions for western military forces and other government agencies. In addition, the supply and maintenance of Small Unmanned Aerial Systems (SUAS) remains a focus for XTEK.

MBDA to supply new Teseo Mk2/E anti-ship system to Italian Navy

MBDA will provide the Italian Navy with the new Teseo Evolved Weapon System, namely Teseo Mk2/E. This new generation system builds on the legacy Teseo family, known worldwide as OTOMAT, and will bring a substantial improvement in anti-ship capabilities. Teseo Mk2/E will efficiently engage both sea and land targets at very long range, with full mission control throughout the missile flight. The system will have an innovative integrated mission planning and a new RF seeker, with options for additional features and capabilities in the future.

Teseo Mk2/E is the answer to evolving threats that generate the need to evolve operational requirements. This solution is the result of joint MBDA and Italian Navy technical and programme activities over the past three years that matured the concept of this advanced system.

The Teseo Mk2/E missile system will equip the next generation destroyer (DDX) and could replace the previous Mk2/A version onboard FREMM and Horizon class frigates. The new multi-purpose Offshore Patrol Vessels (PPA – Pattugliatori Polivalenti d'Altura), currently in production, are already fit for Teseo Mk2/E installation in future. In the anti-ship weapon market Teseo Mk2/E will represent a new standard with its very high performance, and will be ready to be tailored for international requirements.

Eric Béranger, CEO of MBDA, declared: "I want here to give a special thanks to Italian Navy, governmental and all MBDA teams who worked hard, also against all disruptions created by the pandemic, to bring this important contract to life. MBDA Group considers Teseo Mk2/E as a major programme and will be fully committed to the successful outcome of this new development. The new Teseo Mk2/E builds on a product line that is well recognised around the world and will support long into the future, the attractiveness of our naval products on export markets".

Lorenzo Mariani, Executive Group Director Sales and Business Development and Managing Director MBDA Italia, declared: "The Teseo Mk2/E has been defined and designed thanks to an intense collaboration between the Italian Navy and MBDA. This new anti-ship missile will mark a step change in the OTOMAT/Teseo family, keep up with ever evolving threats and feature advanced functions to support the Italian Navy operations that will significantly increase the flexibility and operational value of the Italian Navy surface ships that will be equipped with it. This contract will also help sustain high level skills in a domain of excellence of the Italian defence industry and will contribute to guarantee the sustainability of our company and its suppliers, as well as its Italian employment levels in the years to come". ■

Russian Helicopters are ready for repairing Mi-35M helicopters of Brazilian Air Force

Russian Helicopters holding company (part of Rostec State Corporation) signed similar contracts in November and December 2020 with Industria de Aviacao e Servisos (IAS), an authorized company of Brazilian Air Force. In accordance with contracts, Russian Helicopters will supply repair and maintenance complexes for parts which will be repaired in Brazil, and a range of new parts. The company will also repair some parts in Russia. Besides, specialists from National Helicopter Center Mil&Kamov will extend time between overhauls for Mi-35M helicopters on an individual basis.

Helicopters will be repaired in IAS service center established as part of Russia's offset obligations under the contract for supplying 12 Mi-35M helicopters to Brazil.

"This project is of special importance for us, and we are ready to implement it. I am convinced that our partners from Brazil will be able to tackle some technical issues quickly to start the work. For instance, we expect that IAS will sign five supplementary agreements and send to us the lists of parts for replacement or repair in Russia, approved by Brazilian Air Force. We cannot start production and assembly of property and parts necessary for overhaul without these documents," emphasized Director General of Russian Helicopters holding company Andrey Boginsky.

In 2018, Romulo Amaral, squadron leader, commander of the eighth squadron of the Second Air Army of Brazilian Air Force, gave an interview to Russian Helicopters' magazine and emphasized that Mi-35M helicopters are very reliable and capable of performing tasks even in the most difficult climatic conditions.

"Adaptation of Russian helicopters to the conditions of Amazonia was successful, and despite differences in climate of Brazil and Russia, there were minimal changes. The helicopter proved to be very reliable: this is the most important thing for aircraft created for military purposes. Amazonia provides opportunities for demonstrating a versatile nature of the rotorcraft to a maximum extent. This is due to the fact that it does not require a special runway: the rotorcraft is capable of landing on any solid ground, in remote regions, with a minimum number of infrastructure facilities on the ground, and in any weather conditions, constantly ensuring covering force," stated Romulo Amaral.

According to him, the helicopter took part in large-scale events and performed actions to ensure covering force for important facilities. The helicopter's capabilities were confirmed during Rio +20 Conference, the FIFA Confederations Cup Brazil 2013, 2014 FIFA World Cup, the Rio 2016 Summer Olympic Games, and Operation Ostium (2017).

Mi-35M is the world's only universal attack helicopter, which, in addition to effective performance of fire missions, is able to transport up to 8 soldiers with weapons, up to 1,500 kg of ammunition or other cargo inside the cabin, and up to 2,400 kg of cargo on external sling; evacuate those who are wounded; deliver technical staff to autonomous deploying sites. Due to the fact that the helicopter can be used for military purposes 24/7 in any weather conditions, it can perform combat tasks related to aviation support of ground forces accordingly.

The helicopter demonstrates impressive high-altitude performance and is able to take off and land on concrete and ground sites located at altitudes up to 4,000 m above sea level. In addition, effective design solutions in Mi-35 allow using this Russian helicopter in many physiographic regions and climates, including in the mountains, and at temperatures from -50°C to +50°C.

Investment Firm 777 Partners Orders 24 Boeing 737 MAX Airplanes

- **Agreement includes purchase rights for 60 additional airplanes**
- **777 Partners will lease the 737-8s to its affiliated operating ultra-low-cost carriers**

Boeing [NYSE:BA] and private investment firm 777 Partners announced an agreement to add 24 737-8s to the firm's diverse aviation portfolio, with purchase rights for an additional 60 airplanes. The Miami-based company will place the single-aisle airplanes with its growing portfolio of low-cost carrier investments around the world.

In addition to aircraft leasing, 777 Partners strategically invests in a host of aviation businesses, from operating carriers to technology-driven solutions. The firm's travel sector strategy is largely focused on innovative solutions for interlining, passenger connectivity, and creating new commerce channels for its airline investments and customers.

"We could not be more excited to partner with Boeing on this transformative order for our growing aviation business. The 737-8 aircraft are a fantastic addition to our aviation portfolio and will enable our partners to leverage the jets' superior economic performance to deliver low fares for their passengers while reducing their carbon footprint," said Joshua Wander, founder and managing partner of 777 Partners. "The retrenchment of traditional carriers globally has created an unprecedented market opportunity for more agile and cost-efficient operators. These aircraft will enable our operators to accelerate the recovery in the destinations they serve. We are humbled to call one of America's greatest manufacturers our partner in this endeavor."

The 737-8 can fly 3,550 nautical miles, about 600 miles farther than its predecessor. This additional capability allows airlines to offer new and more direct routes for passengers. The 737-8 reduces fuel use and CO2 emissions by 16% compared to the airplanes it replaces, and that superior fuel efficiency means lower operating costs and a smaller environmental footprint. Every airplane features the new Boeing Sky Interior, highlighted by modern sculpted sidewalls and window reveals, LED lighting that enhances the sense of spaciousness and larger pivoting overhead storage bins.

"777 Partners has gained a reputation for investing in high-growth markets and we are delighted to welcome them to the Boeing 737 family. This is a significant order that speaks to 777 Partners' belief in the 737-8 and the market recovery ahead. We look forward to delivering these jets and supporting a safe and successful entry into service with 777 Partners' affiliates," said Ihssane Mounir, Boeing senior vice president of Commercial Sales and Marketing.

Boeing is the world's largest aerospace company and leading provider of commercial airplanes, defense, space and security systems, and global services. As a top U.S. exporter, the company supports commercial and government customers in more than 150 countries, leveraging the talents of a global supplier base. Building on a legacy of aerospace leadership, Boeing continues to lead in technology and innovation, deliver for its customers and invest in its people and future growth.

777 Partners is a Miami-based private alternative investment firm that invests across a number of high growth attractive verticals. Founded in 2015, 777 Partners initially applied its expertise in underwriting and financing of esoteric assets to diversify across a broad spectrum of financial services businesses, asset originators and financial technology/service providers. In recent years, the firm has broadened its mandate and now invests across six different industries: insurance, consumer and commercial finance, litigation finance, direct lending, media and entertainment, and aviation.

Big Twin Making Progress and Now Midway Through Development

GE Capital Aviation Services (GECAS) and Israel Aerospace Industries (IAI) have now passed the planned halfway phase of the Supplemental Type Certificate (STC) Development Program for the 777-300ERSF. This a key milestone for "the Big Twin," the GECAS-IAI Co investment for the passenger-to-freighter conversion program of the GE-90 powered 777-300ER, as it now moves beyond planning into the phase of physically modifying the aircraft.

Rich Greener, SVP and Manager of GECAS Cargo, explains "We've begun executing on the dedicated freighter design developed by the IAI and GECAS Cargo team towards manufacturing the kits, and the actual conversion phase under a licensing from Boeing."

"The Big Twin is scheduled to be officially inducted into the IAI 777-300ER P2F Line 1 in Tel Aviv to commence the Prototype Conversion towards end of June 2021," says Yosef Melamed, IAI EVP and General Manager of Aviation Group."This is an exciting milestone for the Big Twin freighter program."

After extensive planning and preparation, the STC Development Program has already completed the Critical Design Review (CDR) and subsequent Design Freeze of the 777-300ERSF. The prototype 777-300ER (MSN 32789) was delivered to IAI's facility in Tel Aviv by GECAS in June of last year — a full six months ahead of the initial timeline. Since delivery, ground and flight tests have been completed as the prototype aircraft travelled between Tel Aviv and the United States. The aircraft has now returned to Tel Aviv to enter its pre-conversion preparation phase.

A new passenger to freighter conversion program requires significant planning and preparation before modifications — such as the addition of the Main Deck Cargo Door, freighter lining, window plugs, a modified crew compartment, a reinforced fuselage, an all-new floor structure to support the 222,000 Lbs. MSP, a 9G rigid cargo barrier, and a powered cargo loading system — can get underway. Moreover, obtaining the STC requires satisfying stringent requirements of civil aviation authorities.

As announced in October 2020, Kalitta Air, which has provided scheduled and on-demand freighter charter service for twenty years, is the launch operator for the Big Twin.

"By leveraging our fleet of passenger aircraft to provide freighter conversion feedstock, we're delivering on our strategy to meet the need for replacement of retiring freighters and increased demand for dedicated cargo capacity," Greener adds, noting "We see the Big Twin meeting requirements of the air cargo industry for the next 20 years, so entering this next phase is thrilling."

IndiGo reconfirms trust in AFI KLM E&M for its Airbus A320 Fleet

The Airline-MRO AFI KLM E&M and India's leading airline operator IndiGo have signed an agreement to extend their component support contract covering over 350 aircraft. The range of services to be delivered by AFI KLM E&M includes component repairs, dedicated pool access, provision of a Main Base Kit (MBK) at the hub of IndiGo's airline operations in Delhi, as well as logistics support.

Extending a long-standing partnership

By signing this long-term contract, the two companies are extending and strengthening a business relationship that began with the creation of IndiGo in 2006 and has been growing significantly over the past years, driven by the strong fleet growth; and network expansion of IndiGo. While initially AFI KLM E&M provided component support for IndiGo's A320 fleet, the partners also added the ATR fleet to the partnership in 2017. In 2019, the Indian carrier, holding over 50% of India's domestic market, placed an order for 300 A320neo, A321neo and A321XLR aircraft to support its ambitious growth plans. Based on this strong foundation, AFI KLM E&M has continued to develop and optimise its support organisation in order to provide the most efficient and adaptive MRO solutions, including the development of local repair capabilities through its local MRO joint venture Max MRO Services (MMS) as well as the establishment of a local support organisation dedicated to support IndiGo's fleet operations.

"We are delighted to continue our cooperation with a world leader in aircraft maintenance services. The high standard of support already provided by AFI KLM E&M over many years, together with their unique expertise on the A320 product both as an airline and MRO, convinced us to continue placing our trust in them" says Wolfgang Prock-Schauer, President and Chief Operating Officer of IndiGo.

Géry Mortreux, EVP Air France Industries, highlighted "the excellent quality of our relations with IndiGo. We are proud to continue to support the development of this hugely successful airline in one of the fastest growing aviation markets in the world. Together with my team, we will always strive to provide the best support possible and to keep exploring ways to further optimize our services."

A major player on the Indian MRO market and in the Asia Pacific region

With more of 60,000 components repaired per year and 2800 aircraft maintained, AFI KLM E&M is a leading player on the aircraft component market and has established a strong presence in Asia Pacific, and in particular for the support of new generation aircraft including the A320neo. To support airline customers throughout the region, AFI KLM E&M has built a comprehensive MRO support infrastructure consisting of repair shops, logistic centers, and customer support teams. Located in Mumbai, Max MRO Services is a leader in the component MRO business for customers operating commercial aircraft fleets in India and the neighboring regions.

"We are very pleased with IndiGo's decision to extend our long-term partnership. The extension marks another milestone in our strategy to strengthen our leadership position in the A320neo market segment and to further develop our regional MRO foot-print in the Asia Pacific region", adds Dominik Wiener-Silva, AFI KLM E&M VP Sales Asia Pacific.

SITA and Sydney airport sign five-year technology deal to support COVID-19 recovery

Sydney Airport to gain 600 common-use touchpoints over two terminals with SITA Flex and SITA Bag Message set to enable a smarter passenger experience

SITA, the technology provider for the air transport industry, announced a five-year contract with Sydney Airport for the provision of common-use services at both Terminal 1 (international) and Terminal 2 (domestic).

The project went live on March 1, 2021, featuring SITA Flex, an advanced cloud-based common-use platform, and SITA Bag Message, which eliminates the need for multiple baggage system interfaces between airlines and airports.

The solutions will enable the implementation of a low-touch, airline-ready mobile passenger journey, an improved baggage experience, and significant operational efficiency benefits for Sydney Airport.

Sumesh Patel, SITA's President of APAC, said: "We understand the harsh impact of COVID-19 on airports globally and we've adapted our solutions to deliver airport operations that are resilient, agile, and highly cost-efficient. SITA's goal is to provide best-in-class technology solutions and to help Sydney Airport reshape its value proposition to all its stakeholders. A key element is to ensure maximum use of existing assets and technology infrastructure."

Sydney Airport's vision for development had been laid out in its 2039 Master Plan, and the core tenets of this plan mirrored SITA's mission and technology roadmap. Enhancing the passenger experience, increasing efficiency, focusing on safety and security, and driving productivity were shared focal points.

John Raso, Head of Aeronautical Technology and Infrastructure at Sydney Airport, said: "SITA was able to quickly understand and adapt their offering to the new world of passenger travel and the related commercial impact on airports. Their solutions align with our vision, help minimize our risk exposure, and improve the passenger experience. We're excited to be investing in future-proofing Sydney Airport with a strategic partner and market leader in the region."

Sidone Thomas, General Manager Technology, Data, and Digital, Sydney Airport, added: "In SITA we have found a partner that shares our strong focus on improving the passenger experience, and we're looking forward to working with them as the aviation industry recovers."

At the core of SITA's solution is the cloud-based SITA Flex platform. This platform introduces a common-use environment that enables easy replacement of current traditional common-use touchpoints such as check-in, gate boarding, and service desks. It also builds on existing infrastructures – such as on-site and off-site bag drops and kiosks – which can be re-used and repurposed as required, offering efficiency benefits in a time of economic uncertainty.

As the region's market leader, SITA provides similar services to five of the largest seven airports in the Australia Pacific region.

For many countries, economic recovery from the pandemic relies heavily on travel and tourism, sectors that are suffering due to COVID-19. SITA has been working closely with the Australian Government, airlines, and airports to support the Government's implementation of strong international border controls that have helped minimize and manage the pandemic's impacts nationally. This approach has positioned Australia well for the safe reopening of borders in the future.

SITA is the air transport industry's IT provider, delivering solutions for airlines, airports, aircraft, and governments. Our technology powers more seamless, safe, and sustainable air travel.

With around 2,500 customers, SITA's solutions drive operational efficiencies at more than 1,000 airports while delivering the promise of the connected aircraft to customers of 18,000 aircraft globally. SITA also provides technology solutions that help more than 60 governments strike the balance of secure borders and seamless travel. Our communications network connects every corner of the globe and bridges 60% of the air transport community's data exchange.

Thales 2.75-inch Rockets certified for firing from Arnold Defense Air and Land Launchers

Arnold Defense, the St. Louis based manufacturer of 2.75-inch rocket launchers, together with Thales, has achieved formal certification to fire the Thales FZ90 2.75-inch rocket from the complete range of Arnold Defense rocket launchers. Working in partnership with Thales, Arnold Defense successfully certified their long-standing LAU and M-Series (lightweight) air-to-ground range of launchers and their more recently released MLHS and FLETCHER ground-to-ground launchers.

The certification was achieved following a live firing program that took place at Dillon Aero's desert range facility near Phoenix, AZ, USA, 18-21 January 2021. Dillon Aero's 950-acre test range can accommodate live firing of up to 30mm machine guns, 2.75-inch rockets as well as landing most aircraft on their 4500ft runway.

During the tests, a significant number of rockets were fired from the entire range of Arnold Defense land, aerial and maritime launchers mounted on a helicopter for air-to-ground tests and on a vehicle integrated system for ground-to-ground tests. All of the launchers tested passed the certification process to allow Thales rockets to be fired by current and future users of Arnold Defense launchers.

Arnold Defense has always positioned itself as 'rocket agnostic' allowing the user to select from a range of certified rocket systems to suit their specific needs or their in-service inventory. Adding Thales 2.75-inch rockets to the Arnold Defense certified rocket portfolio significantly extends the capability offering, globally.

Thanks to features like its State of Art propellant grain and reduced FOD, the Thales 2.75-ich rocket is widely used worldwide by more than 75 armed forces across more than 50 countries. The rockets have also been officially adopted by many major platform OEMs where Its performance and reliability are clearly recognized.

Stéphane Bianchi, Director of the Airborne Armament business segment at Thales said:

"This strengthening of the collaboration between Thales and Arnold Defence is good news for both entities. We will provide our expertise with the 70mm (2.75") rocket systems, which already equip many platforms in the world and Arnold Defence will contribute their large expertise of rocket launchers and systems. This is a true win-win, at a time when our Customers are looking for operational efficiency and flexibility thanks to an extended and combined range of products".

Doug Wallace, President at Arnold Defense said, "Arnold Defense is delighted to have achieved this certification following a highly successful series of live firing tests. We can now add the Thales 2.75-inch rockets to the range of rockets that can be fired from Arnold Defense launchers, increasing the flexibility on offer to the global user." He added, "working with Thales on this certification program has solidified an existing partnership between the two companies and at the same time, significantly broadened the capability offering for anyone interested in 2.75-ich rocket systems launched from both air and ground, now and in the future."

Elbit Systems to Equip Multinational MRTT Fleet with J-MUSIC DIRCM System

Elbit Systems will supply an additional J- MUSIC™ DIRCM (Direct Infrared Countermeasures) self-protection system to the Multinational Multi-Role Tanker Transport Fleet (MMF). This time for the ninth Airbus A330 MRTT aircraft, the last addition of the fleet, to be equipped with Elbit Systems' J-MUSIC DIRCM system.

Integrating the Company's Infra-Red-based Passive Airborne Warning Systems (PAWS IR), the J-MUSIC DIRCM systems that are being delivered to the NATO Support and Procurement Agency (NSPA) are designed in open architecture, integrating the latest laser technology together with a high frame-rate thermal camera and a small, dynamic high-speed sealed-mirror turret thus delivering high performance defense against Infra-Red missile threats.

The MMF program is a multinational pooling and sharing initiative. The fleet will consist of nine Multi-role tanker transport aircraft able to provide strategic transport, air-to-air refueling and medical evacuation capabilities to its six participating nations (Belgium, the Czech Republic, Germany, Luxembourg, The Netherlands and Norway). The aircraft are owned by NATO and managed by the NATO Support and Procurement Agency (NSPA) with the support of the Organization for Joint Armament Cooperation (OCCAR) on the acquisition phase until the end of 2022. The Multinational Multirole Tanker Transport Unit operates the fleet.

Having accumulated more than 300,000 operational flight hours and tested in live fire, Elbit Systems' family of DIRCM systems are in use by a range of customers onboard more than 25 aircraft types, among them Boeings B747, B737, B757, B767, B777; Airbus A320, A330, A340, A400; Lockheed Martin C130J; Alenia C27J; Leonardo CSAR AW101; EMBRAER KC-390, Gulfstream 650 and more.

Boeing's 1st Core Stage for NASA's Space Launch System is Ready for Journey to Launch Site

Boeing begins delivery of the Space Launch System (SLS) rocket cryogenic core stage to NASA in preparation for launch of the Artemis I mission, the first moon mission in nearly 50 years.

Boeing refurbished the stage after it successfully completed hot fire testing last month at NASA's Stennis Space Center, closing out the Green Run campaign on the B-2 test stand. The flight hardware will now go to Kennedy Space Center in Florida for integration with the Orion crew spacecraft, Interim Cryogenic Propulsion Stage upper stage and solid rocket boosters in preparation for launch.

SLS will launch NASA's Artemis I mission that will send an uncrewed Orion crew vehicle around the moon and back. That test flight will be followed by Artemis II, the first crewed lunar fly-by for the Artemis program.

"We thank NASA for their partnership as we deliver the first of the Artemis core stages that will launch a new era of human deep space exploration," said John Shannon, SLS vice president and program manager for Boeing. "Boeing shares this achievement with the hundreds of companies and thousands of highly skilled workers who contribute to this program and form the backbone of this industry."

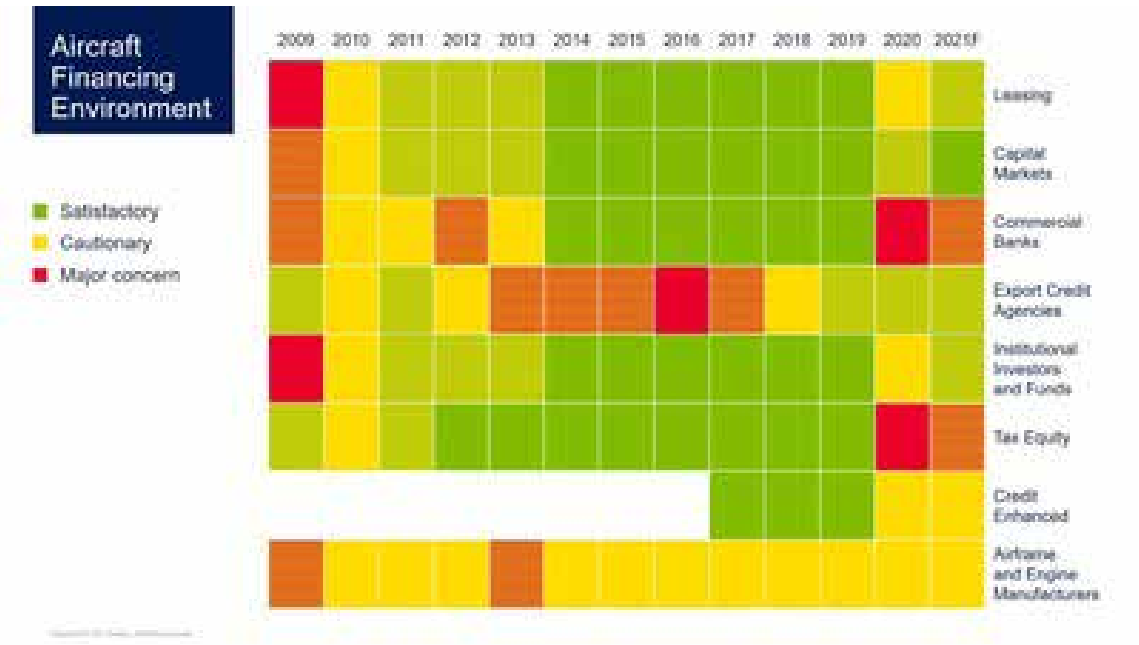
Boeing is the prime contractor to NASA for the SLS core and upper stages and avionics. The company is joining major elements for the Artemis II core stage now at NASA's Michoud Assembly Facility in New Orleans.

"Data from Green Run testing validated the core stage's successful operation and will be used to help certify the stage for flight, as well as to inform our production system for future stages," said Shannon.

Boeing also is working on evolvable capabilities for the rocket system such as the Exploration Upper Stage (EUS), which is entering production at Michoud. The more powerful SLS with EUS will be able to lift three times as much mass to deep space as any other rocket, enabling sustainable, crewed and uncrewed exploration, science and security missions. SLS' evolved capability to transport massive payloads in a single launch reduces mission complexity and risk while increasing safety, reliability and probability of success.

Boeing is the world's largest aerospace company and leading provider of commercial airplanes, defense, space and security systems, and global services. As a top U.S. exporter, the company supports commercial and government customers in more than 150 countries. Building on a legacy of aerospace leadership, Boeing continues to lead in technology and innovation, deliver for its customers and invest in its people and future growth.

Boeing Forecasts Sufficient Capital for Aviation Finance



Boeing's analysis of the current aircraft financing environment.

Boeing [NYSE: BA] projects global and diversified funding will continue to flow into the aircraft financing sector as the aviation sector navigates the global pandemic and vaccine deployment continues to accelerate.

"Financiers and investors understand the industry's resilience and the long-term fundamentals that make aircraft a valuable asset class," said Tim Myers, president of Boeing Capital Corporation. "Despite the unprecedented impacts of COVID-19 on the global aerospace industry, there generally continues to be liquidity in the market for our customers, and we expect it to further improve as travel begins to rebound."

The 2021 Current Aircraft Finance Market Outlook (CAFMO), the first published since 2019, reflects Boeing's near-term view of market dynamics and assesses financing sources for new commercial airplane deliveries. Due to the ongoing impacts of the pandemic, the 2021 CAFMO excludes its customary one- and five-year industry financing projections.

"Industry fundamentals continue to show varying degrees of strength in different markets depending on the regional trends of the global pandemic," Myers said. "We expect that capital will continue to be routed into the sector by established players and as new entrants seek opportunities during the industry's recovery."

The 2021 CAFMO reports the aircraft financing environment ended 2020 with enough liquidity to finance deliveries, but with stresses particularly in the bank debt and tax equity markets. The 2021 CAFMO, an introductory video and regional financing data is available at www.boeing.com/CAFMO. Select highlights include the following:

- At the industry level, commercial aircraft delivery funding volume totaled $59 billion, a 40% decrease from 2019 levels.
- The top sources of Boeing delivery financing were cash, bank debt and capital markets, and 100% of Boeing deliveries were financed by third parties.
- Aircraft lessors executed a significant volume of sale-leaseback transactions, and the industry-wide leased fleet climbed to 46%.
- Capital markets for aviation volumes were 70% higher than 2019.
- Commercial banks shored up the aviation industry's need for liquidity early in the pandemic, but long-term bank debt became one of the less utilized forms of financing.
- Institutional investors and funds continued to seek aviation exposure, stepping up as some financiers paused and sector credit spreads widened.
- Export credit agencies remain a small but important funding source during the pandemic.
- Credit-enhanced financing saw further progress as a complementary funding source, totaling to 4% of the financing mix for Boeing deliveries.

The Boeing 2020 Commercial Market Outlook, a separate annual 20-year forecast addressing the market for commercial airplanes and services, projects passenger traffic growth at an average rate of 4% per year. The global commercial fleet is expected to reach 48,400 by 2039, up from 25,900 airplanes today.

Caution Concerning Forward-looking Statements

Certain statements in this document may be "forward-

looking" within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "may," "should," "expects," "intends," "projects," "plans," "believes," "estimates," "targets," "anticipates" and similar expressions generally identify these forward-looking statements. Examples of forward-looking statements include statements relating to our future plans, business prospects, financial condition and operating results, as well as any other statement that does not directly relate to any historical or current fact. Forward-looking statements are based on expectations and assumptions that we believe to be reasonable when made, but that may not prove to be accurate. These statements are not guarantees and are subject to risks, uncertainties and changes in circumstances that are difficult to predict.

Many factors could cause actual results to differ materially and adversely from these forward-looking statements, including the COVID-19 pandemic and related industry impacts; the 737 MAX, including the timing and conditions of 737 MAX regulatory approvals, lower-than-planned production rates and/or delivery rates, and increased considerations to customers and suppliers; economic conditions in the United States and globally; general market and industry conditions as they may impact us or our customers; reliance on our commercial customers, our U.S. government customers and our suppliers; the overall health of our aircraft production system, as well as the other important factors disclosed previously and from time to time in The Boeing Company's filings with the Securities and Exchange Commission. Any forward-looking statement speaks only as of the date on which it is made, and we assume no obligation to update or revise any such statement, whether as a result of new information, future events or otherwise, except as required by law.

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Boeing Capital Corporation is a global provider of financing solutions. A wholly-owned subsidiary of The Boeing Company, Boeing Capital offers asset-backed lending and leasing, concentrating on assets that are critical to the core operations of Boeing customers. Boeing Capital's primary mission is to support the other Boeing business units by ensuring customers have the financing they need to buy and take delivery of their Boeing products.

Evonik launches new PEEK filament for industrial 3D applications

Evonik has developed a new 3D printable filament based on PEEK (polyether ether ketone). The high-temperature and chemical-resistant ready-to-use material are particularly suitable for the additive manufacturing of demanding industrial plastic parts. The high-performance polymer can be processed in common extrusion-based 3D printing technologies such as fused filament fabrication (FFF) or fused deposition modeling (FDM). Evonik is launching the new filament under the brand name INFINAM® PEEK 9359 F.

INFINAM® PEEK as a metal replacement for industrial 3D applications

With INFINAM® PEEK 9359 F, Evonik now offers a new filament for industrial 3D applications. The natural-colored PEEK filament, which has a diameter of 1.75 mm, is wound on 500 g spools suitable for direct use in standard FFF/FDM 3D printers for PEEK materials. Thanks to its unique properties, such as high mechanical strength, hydrolysis resistance, or inherent flame retardancy, it is particularly suitable for the production of lightweight and high-performance 3D parts for the aerospace, automotive, and oil & gas industries.

Compared to stainless steel, 3D parts made of INFINAM® PEEK 9359 F are approximately 80 percent lighter and 30 percent tougher with excellent fatigue resistance. This combination of properties makes Evonik's new filament the preferred high-performance material as a metal replacement in demanding lightweight applications. INFINAM® PEEK 9359 F also boasts outstanding wear resistance and low sliding friction, making it ideal for manufacturing lightweight structural parts.

The 3D components printed from INFINAM® PEEK 9359 F can withstand long-lasting temperature effects of 250 or short-lasting temperature effects of over 300.

Filaments for industrial and medical 3D applications

"Following the commercial success of the PEEK filament for medical technology, we are now expanding the product range to include an industrial material grade," says Sylvia Monsheimer, who heads Additive Manufacturing & New 3D Technologies at Evonik. "We use our innovative strength in polymer chemistry to constantly develop and bring to the market new filaments, powders, or photopolymers to diversify the material landscape and thereby enable new infinite 3D applications."

Evonik is bundling its 3D printing expertise in its Additive Manufacturing Innovation Growth Field. The strategic focus here is on developing and manufacturing new high-performance materials for key 3D printing technologies. In this context, Evonik has organized its product range of ready-to-use materials under the new INFINAM® brand.

Strata Boosts PPE Supply Chain between UAE & Japan

Ismail Ali Abdulla
CEO, Strata

Strata Manufacturing (Strata), the advanced manufacturing company wholly-owned by Mubadala Investment Company PJSC, has strengthened global distribution of its 'Made with Pride in the UAE' line of personal protective equipment (PPE) products after agreeing a landmark MoU with the Japanese administrative jurisdiction of Tokushima Prefecture.

Signed during a virtual ceremony between Ismail Ali Abdulla, Strata CEO, and Kamon Iizumi, Governor of Japan's Tokushima Prefecture, the MoU will see Strata establish a stable supply chain of PPE products and supplies between the UAE and Tokushima Prefecture on the island of Shikoku, which is home to more than half a million people.

In addition to the distribution of essential PPE – including the supply of N95 masks produced by Strata's Al Ain facility in partnership with Honeywell – the two parties will also explore potential opportunities within the technological innovation and R&D fields. The MOU will also explore the opportunity to supply medical equipment and PPE to municipalities and government-related organisations within other Japanese prefectures.

"Since the establishment of our N95 production line, Strata, in-line with the UAE's international humanitarian efforts, has endeavoured to support the global fight against the pandemic by providing personal protective equipment where it is needed most," explained Abdulla. "In addition to furthering this patriotic and humanitarian commitment to export PPE products that are 'Made with Pride in the UAE' around the world, this landmark MOU also facilitates wider collaborations in mutual interests including technology innovation across numerous industry verticals.

Governor Iizumi said: "Strata Manufacturing has established a successful N95 production line in its Al Ain facility, providing N95 masks and other medical supplies to the Middle East, USA, UK and more. Our cooperative agreement with Strata Manufacturing will help build a stable supply chain of PPE products and essential medical supplies for our medical system within Tokushima Prefecture.

"The cooperation will also extend its efforts to ensure that other municipalities, government and other related organizations are supplied with medical supplies. The agreement will give hope and peace of mind to medical professionals."

In September 2020, Strata and Honeywell celebrated the production of the millionth N95 mask from Strata's Al Ain facility. The collaboration between the two entities has continued to provide critical PPE for the UAE's frontline health workers, while transforming the country into an international exporter of respirator masks to help limit the global spread of COVID-19.

Operated by a combined Honeywell and Strata workforce of 70 highly skilled production experts, the dedicated PPE manufacturing line is now operating at full capacity and is on track to reach an annual production target of more than 30 million masks.

MBDA's Sea Ceptor ordered for Canadian Surface Combatant

CSC image courtesy of Lockheed Martin

MBDA has been awarded a contract by Lockheed Martin Canada to equip the Royal Canadian Navy's new Canadian Surface Combatant (CSC) with the Sea Ceptor air defence weapon system.

Utilising the Common Anti-air Modular Missile (CAMM) as its effector, Sea Ceptor will undertake the Close-In Air Defence System (CIADS) role on-board the new CSC frigates.

Sea Ceptor provides exceptional self-defence performance, with a rapid response time and a high rate of fire to defeat multiple threats simultaneously. Its state-of-the-art Soft Vertical Launch (SVL) technology enables full 360° coverage with close range performance normally only associated with trainable launcher systems. Sea Ceptor will be integrated with Lockheed Martin Canada's Combat Management System 330 (CMS 330) as part of a multi-tier air defence capability. The CAMM missiles will be quad packed in Lockheed Martin's Extensible Launcher System (ExLS), which is part of the Mk41 family of vertical launcher systems.

MBDA's role on CSC will create a positive impact on the Canadian defence industry and its supply chain through Canada's Industrial and Technological Benefits (ITB) policy. This contract will bring significant investment by MBDA in research and development to Canada across a wide range of technologies, such as artificial intelligence, cyber security and advanced materials. This investment will be made across small and medium-sized enterprises (SMEs), academia and other key industries across Canada, supporting high technology jobs. In addition, the CSC program will further strengthen the partnership between MBDA and Lockheed Martin Canada, which has already seen Sea Ceptor and CMS330 providing world-class air defence capabilities to the Royal New Zealand Navy and the Chilean Navy.

Éric Béranger, CEO of MBDA, said: "We are delighted to be awarded this contract, and to play a part in contributing to such an important programme to Canada. Sea Ceptor delivers next generation technology that will help protect the men and women of the Royal Canadian Navy as they carry out their missions around the world on-board the advanced new CSC frigates."

Munich Airport and partners commence operations of Sofia Airport

Munich Airport and the consortium "SOF Connect" - consisting of the French investor Meridiam, the Austrian developer Strabag - has taken over the full responsibilities and business activities related to the operation of Bulgaria's capital airport.

SOF Connect is committed to investing at least 624 million euros over the life of the concession and build a brand new Terminal 3 for the airport within the first 10 years of the concession.

"Our mission is to transform Sofia Airport into a top modern and competitive European airport and to make Sofia Airport an engine and impetus for social, economic, environmental and inclusive growth for Sofia, its region and Bulgaria", resumes Dr. Ralf Gaffal, Managing Director Munich Airport International.

"We have a clear vision for the commercial development of Sofia Airport. Our team will be introducing best-in-class shopping and dining concepts and is excited to work with local partners to bring the best of Bulgaria and downtown Sofia to the airport", added Marcus Spahn, Chief Commercial Officer SOF Connect, who joins the SOF Connect management team on behalf of Munich Airport.

Orolia Selected by European Commission for the SERENITY Project

Orolia, the world leader in Resilient Positioning, Navigation and Timing (PNT) solutions that improve the reliability, performance and safety of critical, remote or high-risk operations, has been selected to be part of the European Commission's SERENITY project. This project vwill define the Galileo Search and Rescue (SAR) Two-Way Communication (TWC) service, including a service demonstration in mid-2022 with a new Orolia SAR beacon and the Cospas-Sarsat operational chain. The SERENITY consortium is led by Telespazio France and includes the French Space Agency CNES, Thales Alenia Space France, Orolia and Pildo Labs.

The TWC service will bring the SAR/Galileo service to a new level by enabling a two-way communication between compatible distress beacons and the Rescue Coordination Center (RCC).

The RCC will be able to provide rescue teams with key information regarding the nature and conditions of the distress situation. This new service will improve the efficiency of rescue team actions by enabling them to deploy adequate resources and assets faster, based on the information received from the distress location.

This new functionality will complement the latest Galileo Return Link Service (RLS), which allows users in distress to receive automatic acknowledgement that their signal has been received, thus reducing panic and reassuring users.

With its second-generation portable aircraft beacon, the Ultima-S, Orolia is one of the world's first manufacturers to offer SAR beacons equipped with Galileo RLS. As part of the SERENITY project, Orolia will design and develop the new SAR beacon demonstrator to provide the TWC service, in coordination with the Search and Rescue community.

The SERENITY consortium has prepared an online User Consultation Questionnaire for all military and civilian beacon users, as well as members of Search and Rescue Units.

"Orolia has a long history of developing Search and Rescue solutions, including the development of Galileo services," said Alain Bouhet, Product Manager at Orolia. "We are honoured to be selected by the European Commission for this new SAR/Galileo project to improve global search and rescue missions."

Saab Makes First T-7A Delivery

Saab has shipped its first aft airframe section for the T-7A Red Hawk program. This is a key delivery in the Engineering and Manufacturing Development (EMD) program to its T-7A Red Hawk advanced trainer aircraft partner, Boeing.

The production and shipment of this aft airframe section is the latest milestone in Saab's contribution to the design and development of the T-7A Red Hawk trainer for the United States Air Force. This 15 April 2021 shipment is from Saab's Linköping site in Sweden to Boeing in St. Louis, Missouri, USA. On completion of the EMD production phase, Saab's brand new facility in West Lafayette, Indiana, USA will undertake Saab's production of the aft sections for the T-7A program.

"The T-7A Red Hawk represents a remarkable engineering feat of aircraft development; all achieved through excellent collaboration with Boeing and the use of digital engineering and advanced manufacturing. It has been extremely rewarding to pioneer this accelerated development timeline and to deliver the resulting accuracy, visibility, and communication into production," said Jonas Hjelm, Senior Vice President and head of Saab business area, Aeronautics.

The aft fuselage was designed and built by Saab, under the T-7A partnership with Boeing. Upon arrival in St Louis, the Saab aft section will be spliced to the forward fuselage, prior to installation of the wings, fins and tail assembly to become a complete static test airframe. This airframe will be used for structural testing on the ground during the EMD phase of the program.

The T-7A Red Hawk is an all-new advanced pilot training system designed for the U.S. Air Force to train the next generation of combat pilots for decades to come. The aircraft has benefited from Saab and Boeing's "breaking the norm" approach to military aircraft design, engineering and production, which saw the preceding T-X aircraft go from concept to first flight in just 36 months.

Gulf Air Operated its First Ever Transcontinental Lower Emission Flight from Finland to Bahrain

Gulf Air, the national carrier of the Kingdom of Bahrain, recently operated its first ever transcontinental lower emission flight which took off from Helsinki in Finland to Bahrain International Airport. Operated by the airline's flagship Boeing 787-9 Dreamliner, the lower emission flight used operated Sustainable Aviation Fuel provided by Neste to perform the airline's iconic flypast at the 2021 Formula 1 Gulf Air Bahrain Grand Prix last month. The Civil Aviation Affairs at the Ministry of Transportation and Telecommunications (MTT) and Bahrain Petroleum Company (Bapco) supported this historic flight and provided consultation to Gulf Air to successfully conduct the operation.

During the stop in Helsinki, Gulf Air underwent a random SAFA inspection which consisted of a safety check at the ramp of airports at European Union member states and successfully completed with no findings.

Gulf Air's fleet of Boeing 787-9 Dreamliner is scheduled on its long-haul routes and are equipped with Rolls-Royce Trent 1000 engines which boast superior fuel efficiency and reduced emissions, consuming 20% less fuel and producing around 20% fewer emissions than the aircraft they replaced in Gulf Air's previous fleet. Neste MY Sustainable Aviation Fuel™ provides an immediate solution for reducing the carbon emissions of flying. In neat form and over the life cycle, its use results in up to 80%*lower greenhouse gas emissions compared to fossil jet fuel*.

Commenting on behalf of Gulf Air, Captain Waleed AlAlawi, Acting Chief Executive Officer, said: "This is a major milestone for Gulf Air and an important chapter of our history. This lower emission flight marks the beginning of our journey into our future strategy to explore the use of Sustainable Aviation Fuel in our aircraft and standing by our commitment to lower our carbon emissions." He added: "We worked closely with Neste, as well as the Civil Aviation Affairs and Bapco in consultation capacity, to operate this special flight from Helsinki to Bahrain. We are exploring potentials and possibilities of the use of sustainable aviation fuel for a better tomorrow for the generations to come and for our planet"

Commending Gulf Air's initiative and success in operating its first international lower emission flight, His Excellency the Undersecretary for Civil Aviation Affairs Mr. Mohamed Thamir AlKaabi stated "As the regulator of the aviation industry, and as Member State of the International Civil Aviation Organization - which is working on a Civil Action Plan to reduce CO2 emissions from international aviation - we are committed to adopting measures and setting policies to encourage the use of sustainable aviation fuel. We are pleased to see Gulf Air embarking on this journey and for contributing to the industry's efforts in improving fuel efficiency and reducing emissions."

"We, in Bapco, continue to maintain our promise to stay ahead of our customers' energy needs. The use of Sustainable Aviation Fuel by Gulf Air and the aviation industry will provide a solution for reducing the carbon emissions of flying and can lower greenhouse gas emissions by up to 80% compared to fossil jet fuel", said Khalid Buhazza, General Manager Marketing in Bapco.

Leonardo expands naval electronics business with the acquisition of 30% of GEM elettronica

Leonardo has acquired a 30% stake of share capital in GEM elettronica, an Italian company specialising in the production of small and medium-sized 3D radars, electro-optical sensors and inertial systems for the maritime, air and land sectors. The move will strengthen Leonardo's market position in the naval electronics field, particularly in short and medium-range sensors. Leonardo will be able to expand and diversify its offer and improve the engineering, production and marketing of products in different bands to those in Leonardo's existing portfolio.

GEM operates in complementary market niches to those of Leonardo, offering competitive systems such as navigation radar and coastal monitoring, electro-optical equipment and fiber-optic gyroscopes. GEM is also active in the maritime and border surveillance market. The company has the capacity to produce critical components for Leonardo products as well as specialised radar and electronics capabilities.

As well as acquiring 30% of GEM, Leonardo has signed a commercial and industrial agreement with the company. This will see Leonardo and GEM developing synergies where GEM's specific expertise aligns with Leonardo's business, including joint marketing activities and joint research and development projects. Areas of collaboration will include the naval/maritime domain, critical infrastructure and applications for land platforms.

GEM elettronica has around 130 employees and produces products almost entirely in-house. Active in civil and military markets, the company has a presence in Italy and internationally and has established collaborations with major market players inside and outside of Italy. GEM has acted as a supplier to Leonardo for many years on numerous projects, including collaborations on the FREMM programme and the Italian Navy's fleet modernisation programme known as the "Naval Law".

Under the agreement, Leonardo will be able to increase its stake in GEM's share capital and acquire control of the company via a purchase option which can be exercised in 2024. The partnership is aimed at strengthening capabilities to increase competitiveness in the long term, in line with Leonardo's strategic plan "Be Tomorrow – Leonardo 2030"

Intech Additive Solutions bags orders worth USD 2M

Intech Additive Solutions Pvt Ltd.(Intech), the Indian OEM successful in developing and supplying 3D metal printers based on laser powder bed fusion technology (LPBF) for industrial manufacturing, has announced that it has bagged multiple orders in the last quarter of the FY ending 31st March,21 worth USD 2M for its 'Made in India' Metal AM systems. Intech's multiple orders worth USD 2M includes the sale of a combined total of six Metal AM Systems, iFusion SF1, and iFusion LF1, configured with Pre-build software AMBuilder to five organisations, viz. Indo-MIM, a leading global supplier of Metal Injection Molding components catering to Aerospace, Medical, and Oil & Gas industries, Pandit Deendayal Energy University (PDEU) - for applications in Energy and Energy infrastructure, Poeir Jets- an Indian OEM for Heavy-lift Drones and two more renowned organisations in India whose names will be announced soon. We have focused on a steady and sustainable growth path despite the challenges of COVID and enforced lockdowns. It is exciting to see that our home grown iFusion series Metal AM systems, AM software suite AMBuilder and AMOptoMet has been well accepted and garnering increasing acclaim day by day as a better alternative to extremely expensive imported AM systems "said Sridhar Balaram, CEO of Intech.

"Intech aspires to stay true to the principles of 'Make in India' and the 'Atmanirbhar Bharat Abhiyan,' advocating self-reliance through India's additive manufacturing industry's technological transformation. It also aims to be a global solution provider for Metal AM Systems and AM Software, contributing to the growth of a sustainable ecosystem for AM systems in India to compete globally and ensure AM manufactured end-user functional components for domestic and export markets." added Sridhar Balaram.

Intech is amongst a few manufacturers globally to integrate its metal printers with its build processing software - AMBuilder and an additional software tool AMOptoMet for parameter optimization addressing the needs of industries such as Aerospace, Automotive, General Engineering, Tool & Die and Medical Market segments in India and abroad. Combining the two software packages with Intech's printers provides users with an end-to-end metal AM solution along with local after-sales services.

Ansat Helicopter from Rostec can lift up to 1,000 Kg on an External Sling

Russian Helicopters holding company of Rostec State Corporation equips Ansat helicopter with an external sling to lift oversized cargo weighing up to 1,000 kg or carry a helicopter bucket for firefighting operations. This is already the fifth option available for configuring the helicopter for specific tasks.

During tests at the Kazan Helicopters facility, the helicopter climbed to an altitude of 3.7 km with 600 kg of external cargo. It reached a speed of 180 km/h with this setup. The maximum takeoff weight of Ansat using an external sling has been increased from 3,600 to 3,800 kg.

"Ansat is a versatile helicopter with diverse customization options. The helicopter provides five transformation options depending on the task at hand. In addition to the passenger modification, it can also be equipped with a medical module. There are also modifications equipped with special hoisting mechanisms with a winch for rescue operations, lifting cargo on board. The use of external sling will expand the range of helicopter applications, including the possibility to use Ansat for firefighting operations. In the near future, we also expect to increase the helicopter's flight range by 160 km, up to 565 km," said the Rostec spokesman.

Kazan Helicopters has earlier received approval from the Federal Air Transport Agency (Rosaviatsiya) to install an onboard winch on Ansat. The new option significantly expands the helicopter's functionality, allowing it to safely lift and lower people and cargo weighing up to 272 kg. The winch increases the efficiency of the helicopter in search and rescue operations and allows to carry out loading and unloading operations while hovering.

Ansat is a light multipurpose twin-engine helicopter. Its serial production is deployed at Kazan Helicopters. According to the helicopter certificate, its design allows quickly converting it into a cargo version or into a passenger configuration that can transport up to seven people. In May 2015, the modification of the helicopter with a medical module was certified. Ansat is certified for use in the temperatures ranging between -45°C and +50°C, and in high mountains.

Boeing Delivers Next F-15EX Ahead of Schedule

The Boeing-led industry team officially delivered a second F-15EX fighter aircraft to the U.S. Air Force earlier than the contract requirement. The result of a collaboration across industry, the U.S. Air Force and the Air National Guard, the F-15EX is a ready-now replacement for the F-15C that includes best-in-class payload, range and speed and an all-new digital infrastructure.

"Moving from contract award to delivery in a matter of months enables the U.S. Air Force to get a head start on flight testing and demonstrates our commitment to exceeding expectations," said Prat Kumar, Boeing vice president and F-15 program manager. "Along with state-of-the-art avionics and survivability suite, the new F-15EX includes almost 3 miles of high-speed digital data bus to enable open architecture, which will keep it evolving ahead of threats for decades."

The second F-15EX arrived at Eglin Air Force Base to begin testing with the first EX that was delivered last month.

In July 2020, the U.S. Air Force awarded Boeing an Indefinite Delivery/Indefinite Quantity contract for up to 200 F-15EXs to replace the undefeated but aging F-15C. The Air Force has announced initial basing locations in Florida and Oregon.

"Delivering the F-15EX to defend our freedom is a source of intense pride for the Boeing and industry team," said Kumar.

Etihad airways starts IATA pass trial on flights from abu dhabi to north america

Guests travelling with Etihad Airways, the national carrier of the United Arab Emirates, from now until 31 May from Abu Dhabi to Chicago, New York, Washington and Toronto, will be the first to trial the IATA Travel Pass app to easily manage their travel health credentials.

Mohammad Al Bulooki, Chief Operating Officer, Etihad Aviation Group, said: "With the dynamically changing health requirements for travel, Etihad believes that a digital health passport solution will provide additional clarity and ease for travellers. Etihad has partnered with IATA so that together, a globally unified approach to a travel pass can be simplified to make travel easier once governments decide what regulations are required to cross borders in either direction."

To participate in the trial, guests simply download the IATA Travel Pass app from the Apple App Store and book an appointment with Life Diagnostics at Sultan Bin Zayed the First Street or BioGenix Labs at Masdar City. At the clinic, guests inform reception they are participating in the IATA Travel Pass trial and should be ready to show their passport and mobile device with the IATA Travel Pass app downloaded. Once the test result is ready, travellers will be able to view it on both the IATA Travel Pass app and through the testing clinic's own digital platform.

"Etihad Airways trial of IATA Travel Pass will help build confidence among governments and travellers that digital health apps can safely, securely and conveniently help restart aviation. The app gives travellers a one-stop-shop to help them comply with the new rules for travel, and for governments complete assurance in the identity of the passenger and the authenticity of the travel credentials being presented," said Nick Careen, IATA Senior Vice President for Airport, Passenger, Cargo and Security.

The IATA Travel Pass will enable Etihad's guests to create a 'digital passport' to receive Covid test results and verify they are eligible to undertake their journey. Importantly, IATA Travel Pass will keep passengers in control of their data and facilitate the sharing of their test with airlines and authorities for travel. It will also make it convenient for passengers to manage travel documentation throughout their journey.

Guests participating in the IATA Travel Pass pilot will benefit from priority queue access at Life Diagnostics and Biogenix Labs for their PCR test, faster check-in at the airport and a free 90mb Wi-Fi voucher to use in-flight. Guest who do not wish to participate in the trial can continue to follow the existing method of sharing PCR test results with Etihad by presenting a printed copy of their results at check in.

DHL Express MENA enhances last mile delivery solutions in the region

- **DHL partners with FODEL, the GCC's first Pick-up, and Drop-off (PUDO) parcel network**
- **The partnership will provide DHL's online customers with added convenience and control over their eCommerce shipments**
- **DHL will capitalize on an extensive PUDO network with currently more than 200 active locations across UAE, Saudi Arabia, Kuwait, and Bahrain**

The region's leading international express and logistics service provider, DHL Express MENA, has taken further steps to enhance its last-mile delivery solutions by enabling customers with more ease, convenience, and control over pick-up and drop-off of their eCommerce parcels.

The company has signed a partnership with FODEL, the first Pick-up and Drop-off (PUDO) network provider in the GCC that, through an advanced PUDO technology platform, signs up and manages local merchants from across the region as alternative pick-up locations to home delivery. FODEL connects eCommerce and logistics companies with local merchants, allowing for online customers to pick up their parcels from their preferred local stores, ranging from coffee shops to supermarkets and retail stores, at their convenience.

DHL's customers will benefit from these delivery points by choosing them as pick-up options for their shipments. The partnership with FODEL consolidates last-mile logistics and provides a more convenient delivery solution for DHL MENA's customers that is faster and more cost-effective.

Commenting on this partnership, Nour Suliman, CEO of DHL Express MENA, stated: "eCommerce in the MENA is on an upward trend and we anticipate that it will continue on its double-digit trajectory in the foreseeable future. As such, enhancing our B2C solutions, and especially our last-mile delivery service, is of strategic business importance to DHL Express as we seek to continuously improve the customer experience and boost efficiencies through seamless delivery. Our partnership with FODEL will enable us to overcome any delivery challenges, particularly last mile, by building on its extensive network of PUDO locations for both collections and eventually returns."

The partnership will drive operational and cost efficiencies for DHL, as well as consumer convenience and choice, while also tackling a range of environmental and operational challenges associated with online shopping and failed deliveries.

Commenting on this partnership, SOUMIA BENTURQUIA, CEO & Founder of Fodel, stated:

"With booming e-commerce demand, it's becoming critical to offer more convenience, choice, and control to customers, while managing the logistics challenges of volume variance and returns. Thanks to the partnership between DHL and FODEL, we are improving the service level for customers across the GCC, offering them more options and better control of their deliveries. We are proud to partner with the leading logistics service provider of the region and looking forward to expanding to the rest of the MENA region"

There are currently more than 200 active locations across the UAE, Saudi Arabia, Kuwait, and Bahrain while Oman will follow by the end of March 2021, alongside Qatar and Egypt later on in May. DHL will also capitalize on Fodel extensive PUDO network of +2,500 locations to further expand the reach to every residential area in MENA.

Bell Boeing V-22 Osprey Soars Past 600,000 Fleet Flight-hours

The Bell Boeing V-22 Osprey has logged more than 600,000 flight-hours, providing continuous customer support to maintain mission readiness and transport critical cargo and personnel.

Built by Bell Textron Inc., a Textron Inc. (NYSE: TXT) company, and Boeing [NYSE: BA], the V-22 fleet has grown to more than 400 aircraft and is operated by the United States Marine Corps, U.S. Air Force, U.S. Navy, and the Japan Ground Self-Defense Force.

The V-22 is the only military production tiltrotor aircraft in the world. Its speed, range, maneuverability, and logistical capability make it one of the most versatile and cost-effective solutions for its customers.

"There is no other aircraft in the world capable of matching the unique capabilities of the Osprey," said Kurt Fuller, Bell V-22 vice president, and Bell Boeing program director. "The 600,000 flight-hours represent countless tactical, logistical and humanitarian assistance missions, and the dedication of the men and women who maintain and operate the aircraft every day to keep it an advanced aircraft."

Bell Boeing directly supports V-22 readiness by providing comprehensive global services to V-22 squadrons, including maintenance support, training, on-site field representatives, data analytics, and new and repaired parts. For example, the Naval Air Systems Command recently awarded Bell Boeing a contract to deliver and install kits for nacelle improvements and the conversion area harness onto the CV-22 aircraft for the Air Force. The program refines the design of the nacelles and wiring harnesses for better reliability and maintainability, ultimately reducing repair time and improving readiness.

"Each V-22 flight hour is the product of a team effort," said Col. Matthew Kelly, V-22 Joint Program Office program manager. "Enabled by pilots, maintainers, testers, engineers, the program workforce, and our industry partners who, together, ensure safe and effective V-22 operation."

Recent program accomplishments include the V-22's latest variant, the CMV-22B, assigned to the "Titans" of Fleet Logistics Multi-Mission Squadron 30, completing the first delivery of an F-35 engine to the USS Carl Vinson, along with successful paradrops with the U.S. Navy's parachuting team, "The Leap Frogs," earlier in the year.

"From its first flight over 30 years ago to achieving this significant flight-hour milestone, the V-22 has a demonstrated legacy of mission success," said Shane Openshaw, Boeing V-22 vice president, and Bell Boeing V-22 deputy program director. "As we look at optimizing future sustainment and support, our customer partnerships and commitment to innovation, flexibility, and agility will ensure we build on the aircraft's ability to support whatever the mission demands."

Boeing is the world's largest aerospace company and leading provider of commercial airplanes, defense, space and security systems, and global services. As a top U.S. exporter, the company supports commercial and government customers in more than 150 countries. Building on a legacy of aerospace leadership, Boeing continues to lead in technology and innovation, deliver for its customers and invest in its people and future growth. ■

ALH Dhruv Demonstrates Deck Operations Capabilities in Ship-borne Trials

HAL's Advanced Light Helicopter Dhruv Mk III MR has successfully demonstrated its deck-operations capabilities that include landing on deck, folding of blades and storing the helicopter inside the onboard hangar. The recently concluded ship-borne trials off Chennai coast in collaboration with the Indian Coast Guard also covered maintenance activities inside the hangar and on the deck, hot refueling with engines running on the deck. The helicopter is equipped with the most modern and reliable Shakti engines and an advanced glass cockpit. HAL had recently delivered ALH Dhruv Mk III MR to Indian Coast Guard as part of its 16 ALH Contract.

"These trials have proven the capability of ALH Dhruv to carry out extended operations from ships. Some of the missions that were successfully executed were surveillance, search and rescue, antipollution to address oil spillage, etc. With the successful demonstration of these capabilities like blade folding, stowage, the helicopter is now ready to be fielded for operations," said R. Madhavan, CMD, HAL.

Dhruv Mk III MR is equipped with the most modern surveillance radar that can detect and identify ships and boats up to a range of 120 nautical miles to enable the Indian Coast Guard in its duty to secure the nation from threats. Coupled with an electro-optical sensor that can closely monitor even the smallest of the vessels at distances as far as 30 nautical miles, ALH Dhruv will boost the capabilities of the Indian Coast Guard.

General Atomics Completes Initial Design Review for the US Electro-Optical Infrared Weather System Program

General Atomics Electromagnetic Systems (GA-EMS) announced that it has completed the Initial Design Review (IDR) of the space vehicle and ground segment for the United States Space Force (USSF) Space and Missile Systems Center (SMC) Electro-Optical Infrared (EO/IR) Weather System (EWS) satellite program. This is the first major milestone in the EWS program that aims to deploy a space vehicle that can meet all of the military's cloud characterization and theater imagery product requirements in time to replace the current, aging Defense Meteorological Satellite Program (DMSP).

"GA-EMS is on track to deliver a prototype EWS system by 2022 capable of filling gaps in critical weather data for the U.S. military as the DSMP approaches the end of its lifecycle," stated Scott Forney, president of GA-EMS. "Our low SWaP-C prototype is on the path to be the first satellite in a future constellation architecture that will provide better performance, resiliency, and mission assurance, as well as less than a 1-hour revisit time—ensuring timely and accurate weather forecast data for the warfighter and national security missions." For EWS, GA-EMS has an experienced team including EOVista, LLC, Atmospheric and Environmental Research Inc. (AER), and Parsons Corporation (NYSE: PSN). EOVista provides the EO/IR sensor payload, AER Inc. performs weather product generation, and Parsons provides the mission's Enterprise Ground Station (EGS) command and control, and operations support.

"The GA-EMS prototype employs an advanced small satellite design and an enhanced sensor with significant weather imaging upgrades that meet all current and future weather needs," stated Nick Bucci, vice president of Missile Defense and Space Systems at GA-EMS. "The elegance of this satellite design leads to reduced system cost while significantly improving performance over the system lifecycle, leading the way for other USSF missions to reduce cost while improving capabilities and resilience. The combination of low cost sensor and satellite bus enables procurement of a disaggregated, global constellation that provides an organic, resilient and timely global cloud characterization capability and other weather products to U.S. warfighters."

General Atomics Electromagnetic Systems (GA-EMS) Group is a global leader in the research, design, and manufacture of first-of-a-kind electromagnetic and electric power generation systems. GA-EMS' history of research, development, and technology innovation has led to an expanding portfolio of specialized products and integrated system solutions supporting aviation, space systems and satellites, missile defense, power and energy, and processing and monitoring applications for critical defense, industrial, and commercial customers worldwide.

Lufthansa Board extends Executive Board mandate of Soeren Stark

At its meeting on April 22nd, the Supervisory Board of Lufthansa Technik AG early appointed Soeren Stark as Chief Operations Officer (COO) and Accountable Manager of Lufthansa Technik for further five years until 31 December, 2026. Soeren Stark has been a member of the Executive Board since January 2019. He is responsible for Technical Operations, Logistics and IT.

As the "accountable manager" within the meaning of EASA Part 145,Soeren Stark is the point of contact for the aviation authorities on all matters relating to the maintenance and manufacturing operations of Lufthansa Technik AG.

Soeren Stark has held various positions within Lufthansa Group since 2001. From 2016 until 2018, he was responsible for Operations at Lufthansa Cargo as a member of the Executive Board. With some 35 subsidiaries and affiliates, the Lufthansa Technik Group is one of the leading providers of technical aircraft services in the world. Certified internationally as a maintenance, production and design organization, the company has a workforce of more than 22,000 employees. Lufthansa Technik's portfolio covers the entire range of services for commercial and VIP/special mission aircraft, engines, components and landing gear in the areas of digital fleet support, maintenance, repair, overhaul, modification, completion and conversion as well as the manufacture of innovative cabin products.

Boeing Launches $10 Million Emergency Package to Support India's COVID-19 Response

Boeing announced a $10 million emergency assistance package for India to support the country's response to the current surge in COVID-19 cases. The assistance from Boeing will be directed to organizations providing relief, including medical supplies and emergency healthcare for communities and families battling COVID-19. The Boeing team in India totals 3,000 employees, in addition to valued local customers, suppliers, and business partners.

"The COVID-19 pandemic has devastated communities across the globe, and our hearts go out to our friends in India who are going through a very difficult time. Boeing is a global citizen, and in India we are directing our pandemic response to the communities most impacted by this recent surge of cases," said Dave Calhoun, president and chief executive officer of The Boeing Company.

Boeing will partner with local and international relief organizations to deploy the $10 million to the areas of greatest need in consultation with medical, government and public health experts.

Boeing employees also have an opportunity to donate personally to charitable organizations supporting COVID-19 relief in India. As part of the Boeing Gift Match program, the company will match monetary donations dollar for dollar, extending the reach of assistance being provided to the Indian people.

"Boeing not only stands in solidarity with the Indian people in their effort to confront this pandemic, we will be a part of the solution," added Calhoun. "We will continue to monitor the pandemic response in India and work to support our employees, customers, and partners through this crisis."

Boeing's presence in India stretches more than seven decades and encompasses the Tata-Boeing joint venture, which manufactures parts and major components for products across the enterprise portfolio. Boeing's local community engagement in India positively impacts more than 300,000 lives in-country through investments in education, health and sanitation, skills development, and outreach programs.

Boeing's 1st Core Stage for NASA's Space Launch System Arrives at Kennedy Space Center

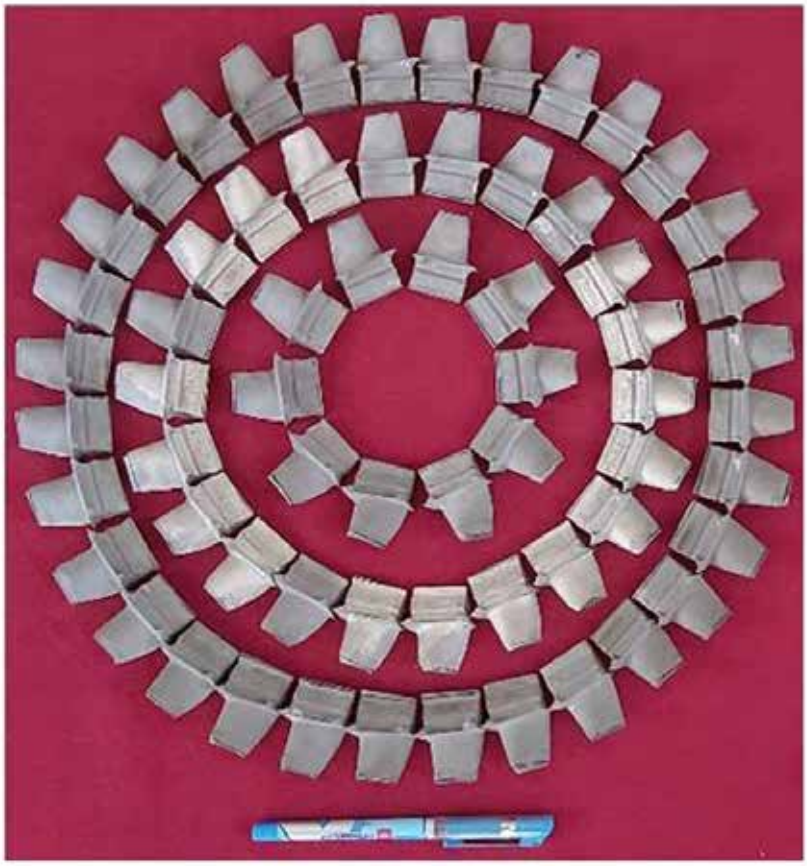
A Boeing-built rocket core stage for NASA's Space Launch System was unloaded from a barge on 29th April at the agency's Kennedy Space Center and moved to the Vehicle Assembly Building.

The 212-foot (65-meter) core stage will be stacked with a Boeing/United Launch Alliance Interim Cryogenic Upper Stage, two solid rocket boosters, a Launch Vehicle Stage Adapter and the Orion spacecraft. Teams will prepare the SLS to launch Orion on an uncrewed mission around the moon and back called Artemis I.

The first in a series of increasingly complex missions, Artemis I will test the Orion spacecraft and SLS rocket as an integrated system ahead of crewed flights to the moon for sustained exploration. SLS is the only rocket that can send Orion, astronauts and cargo to the moon in a single mission.

Boeing is the prime contractor to NASA for the SLS core and upper stages and avionics. The company is joining major elements for the Artemis II core stage now at NASA's Michoud Assembly Facility in New Orleans, while manufacturing core stage elements for Artemis III. The company also is working on evolvable capabilities for the rocket system such as the Exploration Upper Stage, which is entering production at Michoud.

DRDO develops Single Crystal Blades for Helicopter Engine Application



Single Crystal Blades for Helicopter Engine Application

DRDO has developed single crystal blades technology and has supplied 60 number of these blades to HAL as part of their indigenous helicopter development program for helicopter engine application. This is part of a program taken up by Defence Metallurgical Research Laboratory (DMRL) a premium laboratory of DRDO to develop 5 sets (300 Numbers) of single crystal high pressure turbine (HPT) blades using a nickel-based super alloy. The supply of remaining 4 sets will be completed in due course.

Helicopters used in strategic and defence applications need compact and powerful aero-engines for their reliable operation at extreme conditions. To achieve this, state-of-the-art Single Crystal Blades having complex shape and geometry, manufactured out of Nickel based superalloys capable of withstanding high temperatures of operation are used. Very few countries in the world such as USA, UK, France, Russia, have the capability to design and manufacture such Single Crystal (SX) components.

DMRL undertook this task based on its expertise gained during the development of such a technology for a aero-engine project earlier. Complete vacuum investment casting process to realize the blades, including die design, wax pattering, ceramic moulding, actual casting of components non-destructive evaluation (NDE), heat treatment and dimensional measurement, has been established at DMRL.

Special ceramic composition had to be formulated for making strong ceramic moulds which can withstand metallostatic pressure of liquid CMSX-4 alloy at 1500°C and above during casting operation. The challenge of maintaining the required temperature gradient has also been overcome by optimizing the casting parameters. A multi-step vacuum solutionising heat treatment schedule for complex CMSX-4 superalloy to achieve the required microstructure and mechanical properties has also been established. Further, a stringent non-destructive evaluation (NDE) methodology for the blades along with the technique for determining their crystallographic orientations has been developed.

Hon'ble Raksha Mantri Shri Rajnath Singh congratulated DRDO, HAL and industry involved in the development of critical technology.

Secretary DD R&D and chairman DRDO, Dr G Satheesh Reddy congratulated and appreciated the efforts involved in indigenous development of this vital technology.

Dubai Aerospace Enterprise Orders 15 Boeing 737 MAX Jets

- Lessor's 737-8 portfolio grows to 37 airplanes
- New order follows DAE's successful 737-8 agreement with American Airlines

Boeing and Dubai Aerospace Enterprise (DAE) announced the aircraft lessor is growing its 737 MAX portfolio with an order for 15 737-8 jets. DAE had been investing in the 737 MAX by buying jets from existing customers and leasing them back to the carriers. The new order is DAE's first direct 737 MAX purchase from Boeing as it modernizes its portfolio for better economic and environmental performance.

The order will appear on Boeing's Orders and Deliveries website once finalized.

Firoz Tarapore, Chief Executive Officer of DAE, said: "We are delighted to deepen our already strong relationship with Boeing. Including this order, we own and manage 162 Boeing aircraft. An increasing number of global aviation regulators are returning the MAX to the skies. We are confident in the success of these aircraft as domestic and regional air travel are seeing strong signs of recovery."

The new purchase is DAE's second investment in the 737 MAX in the past year. In the third quarter of 2020, the lessor signed an agreement with American Airlines to purchase and lease back 18 new 737-8 airplanes. Since the agreement, the lessor has delivered 17 of the jets to the U.S. carrier. DAE previously completed a similar purchase-leaseback deal with Brazilian carrier GOL for five 737-8s.

"DAE has been instrumental in helping its customers realize the operating economics and environmental performance of the 737-8. We are delighted that they have come back to add more 737 aircraft to its growth plan as it positions itself for the recovery in commercial passenger traffic," said Ihssane Mounir, Boeing senior vice president of Commercial Sales and Marketing. "We are honored by DAE's trust in the 737 family and we look forward to partnering with them to serve the fleet requirements of airlines around the world."

The 737-8 is a member of the 737 MAX family which is designed to offer more fuel efficiency, reliability and flexibility in the single-aisle market. The airplane can fly 3,550 nautical miles – about 600 miles farther than its predecessor – allowing airlines to offer new and more direct routes for passengers. Compared to the airplanes it replaces, the 737-8 also delivers superior efficiency, using 16% less fuel and significantly reducing CO2 emissions and operating costs.

Boeing is the world's largest aerospace company and leading provider of commercial airplanes, defense, space and security systems, and global services. As a top U.S. exporter, the company supports commercial and government customers in more than 150 countries, leveraging the talents of a global supplier base. Building on a legacy of aerospace leadership, Boeing continues to lead in technology and innovation, deliver for its customers and invest in its people and future growth.

Dubai Aerospace Enterprise (DAE) Ltd. is a global aviation services company headquartered in Dubai. DAE serves over 170 airline customers in over 65 countries from its seven office locations in Dubai, Dublin, Amman, Singapore, Miami, New York and Seattle. DAE's award-winning Aircraft Leasing division has an owned, managed, committed and mandated to manage fleet of approximately 425 Airbus, ATR and Boeing aircraft with a fleet value exceeding US$16 billion. DAE's Engineering division serves customers in Europe, Middle East, Africa and South Asia from its state-of-the-art facility accommodating up to 15 wide and narrow body aircraft. It is authorized to work on 13 aircraft types and has regulatory approval from over 25 regulators globally.

Boeing extends mandatory retirement age for CEO Dave Calhoun

The Boeing Company [NYSE: BA] announced that its Board of Directors has extended the company's age-65 standard retirement to age 70 for President and Chief Executive Officer (CEO) David L. Calhoun. Mr. Calhoun, 64, has served as Boeing's President and CEO since Jan. 13, 2020.

"Under Dave's strong leadership, Boeing has effectively navigated one of the most challenging and complex periods in its long history," said Boeing Chairman Larry Kellner. "His dedication to renewing the company's commitment to safety, quality and transparency has been critical in building regulator and customer confidence as Boeing returns the 737 MAX to service. And, in the face of unprecedented challenges brought on by the global pandemic, he has taken proactive actions to ensure Boeing remains strongly positioned for the recovery in the aviation industry. Given the substantial progress Boeing has made under Dave's leadership, as well as the continuity necessary to thrive in our long-cycle industry, the Board has determined that it is in the best interests of the company and its stakeholders to allow the Board and Dave the flexibility for him to continue in his role beyond the company's standard retirement age."

While the Board's action extends the mandatory retirement age for Mr. Calhoun to April 1, 2028, there is no fixed term associated with his employment.

Boeing also announced that Executive Vice President, Enterprise Operations and Chief Financial Officer Gregory D. Smith has decided to retire from the company, effective July 9, 2021. Boeing is conducting a search for Mr. Smith's successor.

Mr. Calhoun said, "Greg is a remarkable business leader and we will always be thankful for his many contributions to Boeing. His stewardship of the company's financial position for nearly a decade, and his leadership during the severe challenge our industry has faced as a result of the global pandemic, have been essential to positioning Boeing for a bright future. As part of these efforts, he led the largest bond offering in the company's history and launched a comprehensive transformation program that will leave our business stronger and more resilient. Greg has also driven Boeing to be a better and more competitive company through his oversight of enterprise operations, sustainability, performance and strategy. He leaves a legacy of leadership and lasting impacts over his 30-years with Boeing. I'm also grateful for Greg's commitment to support the upcoming transition, and for his counsel as we select his successor."

Mr. Smith said, "Boeing is one of the world's greatest companies. I could not be prouder of the 140,000 people who work hard every day to deliver on our promises to all stakeholders and live our foundational values. With the company well positioned going forward, the timing is right for me personally to begin a new chapter outside of Boeing. I will always cherish and be grateful for the experiences I have had, and the relationships I have made, in my thirty years at Boeing."

Smith was appointed chief financial officer in 2011 and later served in expanded roles as the executive vice president of Finance, Enterprise Performance and Strategy, and more recently executive vice president of Enterprise Operations, Finance and Sustainability. He served as the company's interim CEO, immediately preceding Mr. Calhoun. Prior to his appointment as CFO, he was corporate controller and vice president of Finance, serving as the company's principal interface with the board of directors' audit committee to ensure regulatory compliance.

Smith currently serves on the board of directors of Intel Corporation, Lurie Children's Hospital and Northwestern Medicine Community Physicians Group. He plans to remain active in business and philanthropic roles.

AirAsia India extends free cancellation & rescheduling on all Delhi flights

AirAsia India continued to extend their free cancellation and rescheduling offer for flights to and from Delhi. AirAsia introduced this additional flexibility for guests in light of the extension on lockdown and curfew on the movement of individuals announced by the State Government to curb the spread of the pandemic. While the lockdown in Delhi continues till 10th May 2021, passengers travelling from and to airports are exempt on production of a valid itinerary. All AirAsia India guests flying to and from Delhi can now opt to cancel or reschedule to another flight without any change fees or cancellation charges.

To maximise convenience and flexibility for guests across the country, AirAsia's #FlexIt campaign also offers free rescheduling on all flights across India for bookings made till 15th May 2021. With increased uncertainty and travel restrictions, the airline extended this offer for bookings made on its website www.airasia.co.in as well as other major booking channels. AirAsia India also revamped its popular 'Premium Flex' fares for all future dates, which in addition to unlimited changes, also offers a choice of seats, and only 500 charges for cancellations made beyond 72 hours before the scheduled flight departure.

Flights can be changed or cancelled seamlessly in less than a minute by AirAsia India's new chatbot, Tia, available on airasia.co.in or on WhatsApp Chat at +91 63600 12345 as well as by entering flight details on 'Manage' on airasia.co.in. In addition to modifying bookings, the AI-powered chatbot Tia can also assist guests with travel advisories, policies and FAQs, terminal info, process instant refunds, advise flight status, get a copy of the itinerary and take feedback.

Sweden adding to BvS10 fleet, ordering 127 more of the all-terrain vehicles

BAE Systems has signed a contract worth around $200 million to produce and deliver 127 BvS10 all-terrain vehicles to the Swedish Army, adding to its existing fleet of BvS10s.

The contract signed with the Swedish military procurement agency, FMV, is for both command and control and logistics vehicles. Deliveries of the 127 vehicles are planned to begin in 2022 and complete in 2024.

The vehicle can traverse rocks, mountains, snow, swamps, and Arctic environments, and its amphibious capability allows it to seamlessly transition to swimming. The BvS10's flexible and modular design accommodates changing mission requirements, including advanced battle management.

Sweden already operates the BvS10 as well as its predecessor Bv206 and adding more BvS10s to the fleet will increase the Army's ability to carry out its mission.

"The investment from Sweden provides the Swedish Army with more of these extremely mobile, capable and robust vehicles. This continued investment in the BvS10 is an important step toward further opportunities in Sweden and internationally for the BvS10 and its Beowulf unarmored variant," said Tommy Gustafsson-Rask, managing director of BAE Systems Hägglunds. "This also demonstrates the strong and trusted relationship between BAE Systems and the Swedish customer to deliver the capabilities the Swedish military needs."

The Swedish BvS10s feature enhanced crew ergonomics, greater internal volume, and advanced protection, building on BAE Systems' legacy Bv206 vehicles, of which more than 10,000 have been sold to more than 40 countries. The BvS10 has been deployed for missions to Afghanistan, Central Africa, the Balkans, and the Middle East.

"We see an increased interest from many countries for extreme mobility capabilities, such as those seen on our BvS10 and Beowulf platforms. We are especially looking forward to the joint four-nations collaborative all-terrain procurement involving Germany, the Netherlands, Sweden, and the United Kingdom," added Gustafsson-Rask.

Today Austria, France, the Netherlands, Sweden, and the United Kingdom are operators of the BvS10.

Mary Lou Maher (CNW Group/CAE INC.)

Mary Lou Maher appointed to CAE Board of Directors

CAE announced the appointment of Mary Lou Maher, FCPA, FCA, as a new member of CAE's Board of Directors.

"We are very pleased to welcome Mary Lou Maher to CAE's Board of Directors, she brings with her over 35 years of experience in finance, risk management, risk governance, diversity and inclusion, and human resources management," said John Manley, Chair of CAE's Board of Directors.

Mary Lou Maher was Canadian Managing Partner, Quality and Risk for KPMG Canada and Global Head of Inclusion and Diversity for KPMG International from 2017 to February 2021. Over her 38 years at KPMG she has held various executive and governance roles including Chief Financial Officer and Chief Human Resources Officer.

Maher created KPMG Canada's first ever National Diversity Council and was the 2019 recipient of the Wayne C. Fox Award for Distinguished Alumni from McMaster University in recognition of her work on diversity and inclusion. She was inducted into the WXN Top 100 Most Powerful Women in Canada, received a Lifetime Achievement Award from Out on Bay Street (Proud Strong), and the Senior Leadership Award for Diversity from the Canadian Centre for Diversity and Inclusion.

She is a member of the World Economic Forum focused on Human Rights - the business perspective, the Alzheimer's Society of Toronto, and has served on other not-for-profit boards including as Chair of Women's College Hospital and member of the CPA Ontario Council.

Turkish Aerospace has renewed its Website

Turkish Aerospace, the pioneer of the Turkish aviation and space ecosystem, has renewed its website to better introduce the air platforms to the world public audience. On the new website where technological innovations are integrated for the first time in the aviation industry of Turkey, 3D views of the air platforms developed by Turkish Aerospace will meet with the visitors. Beside important features of the platforms, news from Turkish Aerospace, photo and video galleries and career opportunities are presented on a large scale on the new web site as well.

Turkish Aerospace is Turkey's leading company in the field of aviation and space industry, continues its digital investments. Developing an application that will appeal to aviation enthusiasts with the TUSAS APP last year, Turkish Aerospace has also renewed its website with newest features that can respond to developing technology. In addition to the data on the current website, the new website, which includes the latest conditions and features as well as 3D views of the air platforms, will provide an enjoyable experience to the visitors. The new website, that will provide a pleasant experience with its user-friendly structure, will be able to examine in detail of the air platforms and space projects developed, integrated and tested by Turkish Aerospace, as well as aerostructure projects by Turkish Aerospace for international aviation companies.

Satcom Direct completes global network infrastructure and service upgrades

Satcom Direct (SD) has completed the next phase of terrestrial expansion to its global private network. To strengthen its ground infrastructure and augment redundancy the global satellite solutions provider has enhanced individual Points of Presence (PoPs) and upgraded its global network to support the increasing connectivity needs of its customers. The update includes expansion into the Asia Pacific region to provide additional connectivity options for customers and complements existing PoPs in North America and Europe.

The enhanced terrestrial network enables SD to deliver greater flexibility as an Internet Service Provider (ISP) for its business aviation, military and government customers operating around the world. This effort further strengthens its global infrastructure which incorporates the award-winning COMSAT Tier 4 certified east and west coast U.S.-located teleports. As part of the Satcom Direct family of companies, COMSAT collaborates with the Melbourne, Florida-located Tier III rated, ISO 27001 certified SD Data Center to support delivery of a suite of cybersecurity solutions which maintain customer data integrity. Customers can also access cloud services and cloud service providers via the terrestrial network and SD Data Center customers can use the teleports as a bridge for both legacy and new network technologies.

With the sophisticated network upgrades complete, SD is effectively adapting its services, infrastructure, and support to better facilitate individual customer IT compliance standards. This includes creating tailored network solutions that meet the requirements of SDs unique customer base and supports working with global carriers to optimize network routes and increase redundancy.

"For our customers, who are often operating in mission-critical environments, resilient high-speed connectivity is essential, which is why we've made these investments. With the latest upgrades we are delivering enhanced services, applying value-added functionality through accelerated data transmission, enriching our network management, and most importantly keeping our customer data secure," says Founder and CEO of SD, Jim Jensen.

This latest infrastructure upgrade follows recent physical antenna upgrades at the COMSAT teleports which bolstered capacity across its entire network. "SD delivers a progressive, advanced and interconnected global terrestrial network that supports more satellite constellation providers, and customers, than any other independently owned network. Our strategy is focused on our customers ensuring our satellite partners in orbit and our connectivity customers on the ground remain seamlessly and safely connected at all times," concludes Jensen.

Aeronautics introduces Orbiter 4 UAS, for maritime patrol missions

Aeronautics Group - a leading provider of integrated turnkey solutions based on unmanned system platforms, payloads and communications for defense and HLS applications – introduces its Orbiter 4 small tactical UAS, capable of performing long-range, long-endurance maritime patrol missions.

The Orbiter 4's high-performance EO/IR and MPR payloads are ideal for maritime monitoring, gas and oil rigs protection, illegal activity tracking, and search & rescue. It has already been fully integrated into the operational environment of navy vessels, and meets the requirements of navy operations.

With the Orbiter 4, Aeronautics continues the evolution of its Orbiter product line of small tactical UAS, delivering top mission performance with the lightest, most versatile, and most advanced covert platform available today. Based on the successful aerodynamic structure and properties of the Orbiter 3 STUAS, the Orbiter 4's exclusive abilities include endurance of over 24 hours, and the ability to carry and operate multi payloads simultaneously.

"There is a growing need today for tactical drones capable of carrying out ISTAR missions in challenging marine environments," says Matan Perry, Vice President of Marketing & Sales at Aeronautics. "As pioneers in the field of small tactical UAS, we are proud to be able to provide a solution that has been adapted to meet these needs. Having been specifically tailored in this way, we believe it to be the best possible solution to meet all the requirements of the navy."

With advanced image processing capabilities, automatic takeoff and recovery system, and the ability to navigate with or without GPS/ datalink, Orbiter 4 delivers superior performance capabilities, operational flexibility, and cost-effectiveness in a small tactical UAS that is unique in its category. Airstrip independent, it can take-off and land on any type of vessel. Operated by only three personnel, it is easy to use, maintain, and carries a low logistical footprint.

Aeronautics Group offers techno-operational superiority through its integrated turnkey solutions, which are based on unmanned solutions, payloads and communications for defense, and HLS applications. ■

Gulf Air Delivers 400,000 Vaccines from China and Russia

Gulf Air, the national carrier of the Kingdom of Bahrain, has operated two cargo-only flights, delivering 300,000 doses of Sinopharm COVID-19 vaccine from the People's Republic of China and 100,000 doses of Sputnik V COVID-19 vaccine from the Russian Federation.

Gulf Air continues to support vaccine shipments to Bahrain, alongside supporting wider viral mitigation efforts, and delivering vital food and medical supplies.

Gulf Air continues to works closely with government authorities across its network to resume operations as demand for travel grows, adapting to evolving precautionary guidelines, which are made available at gulfair.com/covid19com/transparency/privacy-policy

Lufthansa Group to Purchase Five Additional 787 Dreamliners

Europe's largest airline group increases its order book to 25 787-9s

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HENSOLDT delivers core components to Eurofighter self-protection system

In the frame of the German 'Quadriga' fighter replacement programme sensor solution specialist HENSOLDT will deliver core components of the Eurofighter Typhoon's self-protection system 'PRAETORIAN'.

As part of the EuroDASS consortium comprising Leonardo UK, Elettronica and Indra, HENSOLDT has received a contract valued at circa 90 Million Euros for the delivery of essential parts of the aircraft's defensive aids sub system (DASS). Deliveries are planned from 2023 until end of 2027.

"The German Quadriga order is not only an important sign to current export campaigns, but also to core nations considering long term service options", said Celia Pelaz, Head of Spectrum Dominance/Airborne Solutions at HENSOLDT.

In the frame of the 'Quadriga' programme 38 of the latest - build standard will replace the Tranche1 Eurofighters. Further production improvements will accompany the Quadriga production also allowing for long lasting maintainability of previous Tranche2/Tranche3 build standards.

The existing Praetorian DASS equips the Eurofighter with protection from radar-guided and Infra-Red guided weapons. The integrated sensors and jamming equipment provide situational awareness as well as advanced electronic deception techniques. HENSOLDT has been a member of the EuroDASS consortium for decades contributing detailed knowledge of the aircraft and the programme management as well as a broad range of DASS skills such as dedicated electronics component production, specialized test benches and in-service support.

The company also contributes to the Praetorian evolution concept ('Praetorian eVo') which will completely renew the Eurofighter's DASS system to keep pace with future requirements.

HENSOLDT is a German champion in the defence industry with a leading market position in Europe and global reach. The company, headquartered in Taufkirchen near Munich, develops sensor solutions for defence and security applications.

Gulf Air to Transform Falcon flyer Programme with IBS Software's iFly Loyalty

Gulf Air, the national carrier of the Kingdom of Bahrain, has selected IBS Software as a partner to enhance its Falconflyer loyalty programme (FFP) and provide Gulf Air with the flexibility to dynamically adapt its Falconflyer programme to meet the needs of travellers and enhance its members experience.

Gulf Air has entered this partnership as part of its ongoing digital transformation to deliver the best possible experience to its Falconflyer members. IBS Software's iFly Loyalty platform will transform the Falconflyer programme for both consumers and partners. Members will benefit from a revamped mobile app and a new customer experience designed to deliver personalised offers and rewards. Programme partners will benefit from an accelerated onboarding process and a new B2B engagement channel that will provide new insights and data to support effective partner management. iFly Loyalty has been developed to help anticipate traveller behaviour, giving airlines the ability to turn data into actionable insights, enabling loyalty programmes to adapt to changing patterns of behaviour and quickly reconfigure their offerings to members. In addition, iFly Loyalty will provide Gulf Air with the capability to run multiple loyalty programmes from a single platform.

"As we strongly move forward with our digital transformation

strategy, we remain completely committed to providing our loyal Falconflyer members with a compelling experience that delivers bespoke offers and redemption options that they value. We have partnered with IBS Software because we firmly believe they will assist us in significantly enhancing the way we reward our members, as well as providing a more robust platform to our loyalty partners," said Captain Waleed AlAlawi, Gulf Air's Acting Chief Executive Officer. "IBS Software has impressed us from the outset with their industry knowledge and commitment to supporting our Falconflyer Programme. We look forward to a long and fruitful partnership as we continue with our digital transformation journey."

"Gulf Air shares our passion for customer engagement, and we're thrilled to be working with a business that implicitly understands the transformative impact customer loyalty will play in the recovery from Covid-19," said Anand Krishnan, Chief Executive Officer, IBS Software. "We are working closely with Gulf Air to ensure our system has the flexibility required to change with the times and meet the needs of Gulf Air's Falconflyers. We're extremely excited to play our role in helping Falconflyer go from strength to strength at a pivotal time in our industry."

Airborne Technologies is fully EASA Certified

Airborne Technologies announces that the final step to a fully EASA certified Design, Production and Maintenance Organisation has been made.

After being approved as a Design and Production Organisation, Airborne Technologies now holds the EASA Maintenance Organisation (MO) approval in hands. This important and recognized certification authorizes the company to maintain and repair aviation components which are already in service.

Airborne Technologies unites all necessary skills of a modern and top-performing Special Mission Integrator under one single roof – both the necessary EASA approvals and the required production technology for:

- Carbon Fibre Composite parts
- Wiring looms
- Electronic Assemblies
- Electromechanical Components and
- Metal Works and Assemblies

The in-house flight-testing department with EASA licenced test pilots completes the performance spectrum of Airborne Technologies.

Being more self-sufficient and independent of subcontractors means more flexibility for the customers allowing a faster implementation of their requirements.

Airborne Technologies would also like to take this opportunity to thank the Austro Control MO team around Mr. Georg Klose for the support during this comprehensive process.

GMR announces launch of Hyderabad AeroCity

Infrastructure major, GMR Group announced the launch of GMR AeroCity in Hyderabad as part of its vision to provide world-class infrastructure in India.

GMR AeroCity Hyderabad is unfolding a landmark urban form that is competitive, attractive, and sustainable. Developed as an urban landscape with an International airport at its core, it brings speed, agility and connectivity as unique business propositions.

GMR AeroCity Hyderabad offers a gateway airport with growing air connectivity, passenger traffic and best in class logistics hub with smart technologies in place.

Spread across 1500 acres, GMR AeroCity Hyderabad is envisaged to be an integrated mixed-use development, which includes key ports and establishments, viz. Business Park, Retail Park, Aerospace and Industrial Park, Logistics Park, Hospitality etc. It also provides complete living and working experience, with support infrastructure including schools, healthcare, rental accommodation, leisure & entertainment.

Identifying the gap in quality leisure, retail, fun and entertainment avenues, GMR Group is conceptualising a Lifestyle destination retail project "GMR Interchange" to enable LIVE/WORK/PLAY at the campus. Various entertainment avenues under proposal include a Cinema and a Family Entertainment Centre to be part of the Interchange project. A Hospitality district is also being planned to cater to the multitude of demands coming from various users of AeroCity.

GMR Business Park housed in the AeroCity offers varied office real-estate solutions like ready to move-in Grade-A offices and Built-to-Suit Campuses. It offers best in class infrastructural support for the prospective and existing businesses viz. redundancies built in Telecom, Power & IT infrastructure for 24/7 operations; dedicated power link-up with the state grid for reliable power supply, round the clock three-tier security system comprising RAXA, State police and CISF, express connectivity with the city; pollution free and well-planned ecosystem.

A Notified Area Committee (NAC) - which is a one-stop clearance window for all building plan approvals – also contributes towards ease of doing business. It focuses on sustainable development using Green Technologies and new generation Smart digital infrastructure along with quality physical infrastructure.

Spanning around 1 Million sq.ft of leasable area, spread over four Towers (being developed in phases, with Tower 1 fully occupied and Tower 2 ready for occupancy), GMR AeroCity Hyderabad has been seamlessly designed for the future business corridor. The Business Park is an ideal choice for DR, BCP sites, Grade A offices, Network Planning offices, Sales Office, R&D etc.

The facilities such as food court/gymnasium/ retail bank branch/ proposed health centre and an airport public plaza will ensure that employees have all social amenities within their office campus making it a highly enriching work environment for the employees.

Well connected with an eight-lane expressway and an elevated corridor with the primary and secondary business districts of Hyderabad, GMR Business Park is strategically located with unparalleled local and global connectivity. In addition, the Airport is currently connected by more than 150 buses round the clock, and soon will be connected via an express Metro system to the city.

"Hyderabad AeroCity is creating a paradigm shift in the way of doing business in India. It offers connected, smart and sustainable workspaces with optimum leasing depths to maximize workspace design efficiency. Being part of Airport ecosystem, which has won many accolades over the years from national & international bodies for its service and infrastructure superiority and consistency, Hyderabad AeroCity also provides unparalleled ease of doing business to its trusted partners, who love to focus on their core business, leaving behind issues of infra, facilities, security etc. Decentralized developments like the Hyderabad AeroCity is a perfect example of a thoroughly master planned development to efficiently handle the teething issues and enable the city users to experience a safe & rewarding Work & Living environment," said Aman Kapoor, CEO, GMR Airport Land Development (ALD).

HAL and Rolls-Royce Sign MoU for MT30 Marine Engine Business

Hindustan Aeronautics Limited (HAL) and Rolls-Royce have signed an MoU to establish packaging, installation, marketing and services support for Rolls-Royce MT30 marine engines in India. Through this MoU, Rolls-Royce and HAL will expand their long-standing partnership in India and work together in the area of marine applications for the first time.

R Madhavan, CMD, HAL said, "Rolls-Royce has been our valued partner for several decades. We now look forward to working together to explore business opportunities in marine applications. This partnership will leverage the rich experience of HAL's IMGT Division that works on marine gas turbines with Indian shipyards. Further, we are also exploring the option of using MT7 marine engine on the hovercraft being planned by the shipyards in India."

Kishore Jayaraman, President, Rolls-Royce India and South Asia said, "We are excited to bring together Rolls-Royce's experience of over five decades in developing naval propulsion solutions and HAL's in-market expertise in working with marine gas turbines to support our MT30 engines. We look forward to building on this partnership to provide solutions in the area of naval defence."

Speaking about the partnership, Tom Bell, President, Rolls-Royce Defence said, "Rolls-Royce has a shared history of successful collaboration with HAL in defence aerospace, and we are proud to strengthen our valued partnership to work together for the MT30 naval gas turbine. As India focuses on its vision of modernisation and self-reliance in defence, we look forward to introducing the MT30 to customers in India in collaboration with HAL. Designed for naval platforms of the future, the MT30 is perfectly equipped to meet the Indian Navy's present and future needs."

MT30 is the world's most power-dense, best-in-class naval gas turbine currently in-service with naval programs worldwide in various propulsion arrangements across seven ship types. Derived from the Trent aero engine family, the MT30 has the potential to provide next-generation capabilities to the Indian Navy's future fleet. The MT30 can deliver its full power of up to 40 MW in ambient temperatures up to 38 degree celsius, without any power degradation throughout the life of the ship.

During Aero India 2021, the two companies also announced new partnerships in the aerospace sector, including an MoU to establish an Authorized Maintenance Centre at HAL for Adour Mk871 engines to support international military customers and operators. They also announced their intent to expand their supply chain partnerships for Civil and Defence Aerospace, by working towards making Adour Mk871 engine parts in India, as well as supplying forgings such as shrouds, cases and seals for Rolls-Royce's Pearl 15 and Trent family of engines.

M. Velpari, Director (Operations), Amitabh Bhat, CEO (Bangalore Complex) and B Krishna Kumar, General Manager, Engine Division from HAL and Louise Donaghey, Sr. Vice President (Defence), Rolls-Royce (joining virtually), Abhishek Singh, Vice President (Defence), Rolls-Royce also attended the event.

IAI to Establish Boeing 777 Conversion Facility in South Korea

Israel Aerospace Industries' (IAI) Aviation Group signed a Memorandum of Agreement (MoA), with the Incheon International Airport and Sharp Technics, to establish a Passenger 2 Cargo (P2F) conversion site in South Korea. The facility will specialize in converting Boeing 777-ERSF ("Big Twin") from passenger to freighter. Within the framework of the agreement, IAI will convert six B777-300ER and B777-200LR per year, starting in 2024. Establishing more P2F aircraft conversion facilities around the world is necessary in order to meet the expected rise in demand for wide-body freighter aircraft with capacity for long flights.

IAI's Aviation Group is working around the clock during this time to prototype the B777 P2F conversion and is expected to conclude the licensing process during 2023. The B777 model represents the next generation of freighter aircraft, and will join the family of IAI's conversions, including: B747, B767, B737NG, and the B737 classic.

Yossi Melamed, EVP and GM of the Aviation Group, IAI, said, "IAI's Aviation Group is a world class leader in converting wide-body passenger aircraft to freighter, and manages conversion lines in Israel and around the world. Signing today with Incheon International Airport and Sharp is directly connected to IAI's close cooperation with the South Korean aviation industry, and highlights IAI's trust and respect in South Korea's ability to establish a conversion line to meet demand, along with the necessary trained manpower. Over the past few years IAI has transferred production of business jet wings, main frame, and parts of the tail to Korean companies. I look forward to expanding our strategic cooperation activities with South Korean companies and government authorities."

President Kim Kyung-wook of Incheon International Airport Corporation said, "By attracting the first overseas production base of IAI's large-sized cargo aircraft to the Incheon Airport MRO cluster, which exclusively possesses the technology for retrofitting Boeing's large passenger aircraft, we will grow together and contribute greatly to the development of the national and regional economy. Based on the world-class air transportation infrastructure of Incheon International Airport,

Gulf Air Rewards 56 Employees

At its meeting on April 22nd, the Supervisory Board of Lufthansa Technik AG early appointed Soeren Stark as Chief Operations Officer (COO) and Accountable Manager of Lufthansa Technik for further five years until 31 December, 2026. Soeren Stark has been a member of the Executive Board since January 2019. He is responsible for Technical Operations, Logistics and IT.

As the "accountable manager" within the meaning of EASA Part 145,Soeren Stark is the point of contact for the aviation authorities on all matters relating to the maintenance and manufacturing operations of Lufthansa Technik AG.

Soeren Stark has held various positions within Lufthansa Group since 2001. From 2016 until 2018, he was responsible for Operations at Lufthansa Cargo as a member of the Executive Board. With some 35 subsidiaries and affiliates, the Lufthansa Technik Group is one of the leading providers of technical aircraft services in the world. Certified internationally as a maintenance, production and design organization, the company has a workforce of more than 22,000 employees. Lufthansa Technik's portfolio covers the entire range of services for commercial and VIP/special mission aircraft, engines, components and landing gear in the areas of digital fleet support, maintenance, repair, overhaul, modification, completion and conversion as well as the manufacture of innovative cabin products.

we will continue to attract world-class aviation MRO companies to Incheon Airport. We plan to contribute to strengthening the competitiveness of the Korean aviation industry."

CEO & President Soon-Suk Paik of Sharp Technics K said, "The conversion of cargo aircraft requires tremendous investment costs, advanced technology, international certifications, and skilled aviation maintenance personnel, which reflect the high barriers to entry in the MRO industry. Although STK is a private company, as a member of the aviation industry, we will do our best in the private sector with the vision of contributing to the development and national interests of the Korean aviation industry."

IAI is a national and global technology hub in the areas of assault missiles, air defense, radars, satellites, remotely manned aircraft, aviation and cyber. The company has extensive operations in South Korea focused on aircraft and helicopter maintenance, airborne and ground-based radar systems, navigation and optronics systems and UAVs. Over the next few years, collaborations will also be expanded to mission aircraft, strategic UAVs and VTOL UAVs and roving and accurate armament systems.

IAI's Aviation Group is a world-class freighter conversion facility and is responsible for: maintenance (MRO), jet airplanes, passenger into cargo conversions, avionic assemblies and aero-structures, avionics upgrades, and more. The Aviation Group's customers include: Amazon, DHL, FedEx, and more.

ABB launches world's first Power over Ethernet flowmeters

ABB has incorporated power supply through Ethernet connectivity on board the latest edition of their electromagnetic flowmeter ProcessMaster* and mass flowmeter CoriolisMaster, opening a new chapter in instrumentation and industrial communication.

Power over Ethernet (PoE) offers several benefits for process engineers, as it omits the need for a separate DC power infrastructure, providing power and communications via the same cable. This brings new agility as flowmeters can be installed wherever needed. In addition, ABB 4-wire Ethernet combines classic outputs with future communication protocols. Offering a modular design allows the combination of both worlds and ensures that devices are future-proof, increasing the longevity of the flowmeters.

Furthermore, flowmeters with Ethernet connectivity increase simplicity, flexibility and reliability to operations in process automation, while enhancing real-time visibility of data. Previously hidden data in field devices, such as measurement values on density, conductivity or concentration of the medium, can be unlocked. This in turn will help customers across all industries identify redundant measurement points in their plants to achieve savings along the way.

"ProcessMaster and CoriolisMaster with Ethernet will support our customers' digital journey towards smart cities and Industry 4.0. Ethernet is the leading communications technology. By incorporating it into the ABB flowmeters, we can help even more customers reduce complexity of operations and lower costs of infrastructure in more plants around the world – safely and remotely." said Frank Frenzel, Global Product Line Manager Process Flowmeters.

An integrated secure webserver based on the ABB Ability™ Cyber Security framework ensures robust and secure operations that offer instrumentation engineers support during commissioning and troubleshooting. It also provides access to configuration, diagnostics and measurement data through a built-in QR code. This allows verification of all parts of the flowmeter and provides insights into its operating condition with automatically generated reports.

Combining 4..20 mA or digital outputs with new 1- or 2-port Ethernet makes classic instrumentation truly future-proof, with speeds of up to 100Mbit/s. The flowmeters use various Ethernet

based communication protocols, such as simple Modbus TCP or high performance EtherNet/IP. This prepares them for IT/OT convergence, cloud connectivity and the requirements needed for secure and encrypted communication both today and tomorrow.

*Ethernet connectivity for the electromagnetic flowmeter ProcessMaster is currently available in North America only. It will be released globally later in 2021.

ABB (ABBN: SIX Swiss Ex) is a leading global technology company that energizes the transformation of society and industry to achieve a more productive, sustainable future. By connecting software to its electrification, robotics, automation and motion portfolio, ABB pushes the boundaries of technology to drive performance to new levels. With a history of excellence stretching back more than 130 years, ABB's success is driven by about 105,000 talented employees in over 100 countries.

IMCO Industries held Demonstration of its Solutions and Capabilities

Distinguished customers, Military attachés, ambassadors, and representatives from various countries across Southeast Asia, Latin America, Europe and Africa visited the showroom witnessed the capabilities of IMCO, its subsidiaries, and partners.

IMCO Group, a leading provider of complex solutions for air, land, and maritime defense applications, held a special two-day demonstration of its solutions and capabilities at its showroom in Rosh Ha'Ayn, Israel.

Together with its subsidiaries and partners, IMCO Group offers One-Stop-Shopping for end-to-end Terrain Dominance Solutions which includes a range of hardware and software solutions offering scalable tactical superiority capability using UAVs, hovering platforms, UGVs and manned vehicles equipped with sensors, modular multi-axial positioners, communications, proprietary command and control systems, and independent computing power on the battlefield. IMCO Group and partners' complete value chain now also includes, among other things, in-house PCB design and assembly capabilities.

Military attachés, ambassadors, and representatives from various countries across the globe visited the showroom during the two-day demonstration, and witnessed the capabilities of IMCO, its subsidiaries, and partners:

Nir-Or, which designs, develops, manufactures, and integrates innovative video systems and electronic solutions for various military platforms that maximize survivability and lethality at land, air, and sea, demonstrated its Situation Awareness Video System (SAVS).

Nir Or's SAVS offers continuous 360° terrain and situational awareness for land and marine vehicles together with embedded Artificial Intelligence (AI) that supports decision-making solutions on the battlefield. It reduces the cognitive load while maximizing the lethality and survivability of the crew.

Innocon Ltd., an innovative Israeli developer and manufacturer of Tactical UAVs ranging from micro-UAVs to full-size light airplanes, presented its MicroFalcon: a lightweight UAV for over-the-hill ISR missions. Its high survivability, fast redeployment time cycle, and cost-effective price tag make it an ideal UAV for the military, civilian, and HLS markets. Innocon's MicroFalcon is already operationally deployed by many customers worldwide, including NATO member countries, and has a NATO Stock Number.

Ex-Sight, which specializes in research & development and provision of full turnkey solutions of robotic technologies for the public sector and security markets, presented its Ground and maritime Vehicles for border defense, 3DV Stereoscopic Day & Night Driver Vision Enhancement systems for Armored vehicles, and Mid-range Electro-optic payloads. Turning product ideas into reality, Ex-Sight has been selected by Israeli forces to develop cutting-edge tactical robotics and video systems that are integrated into several leading projects.

Capture systems, a leading manufacturer of Pan & Tilt positioners, presented its ATID Anti-Threat Intelligent Detector, Caracal pan & tilt unit based on a gunnery station, and Jaguar: a heavy-duty unit designed to be a true REAL-TIME long-range observation system, capable of supporting payloads up to 60 Kg without losing precision. Capture's advanced modular multi-axial positioners are ideal for air, land, and sea military uses, HLS, commercial/industrial, Satcom, communication antennas, measurement systems, vision and pointing systems.

Sky Sapience, a leading provider of tethered hovering platforms enabling 24/7 real-time ISR, demonstrated its HoverMast: a mobile, operationally proven tethered hovering platform that provides top-level observation and surveillance capabilities at altitudes up to 150 meters. The HoverMast can host any payload, up to 11 kg., and operates autonomously, on the move, in harsh weather. Intuitive and easy to operate, the HoverMast enables immediate and continuous data transmission through a wideband link, setting up valuable communication between different teams.

IMCO Industries CEO, Eitan Zait said ; "We were honored and excited to hold this special demonstration, and present the complete capabilities of IMCO Group and partners to customers, Military attachés, ambassadors, and representatives from various countries. Turning ideas into reality, IMCO Group is a one-stop-shop for complete tailor-made turn-key terrain dominance solutions that enhances user's situational awareness and ensures high lethality and survivability."

IMCO Industries Ltd. (Tel Aviv Stock Exchange TASE: IMCO) is a leading defense provider of complex solutions for air, ground, and naval applications. With proven manufacturing capabilities in Israel, the USA, and India, IMCO combines state-of-the-art design, global production and project management capabilities to provide what the customer needs where it needs it. Together with its subsidiaries, affiliates and partners, IMCO Group offers design, development and production of unique Terrain Dominance range of solutions, that offer scalable tactical superiority capability using drones and UAVs equipped with sensors, communications, multi-axial positioners and independent computing power for the defense, HLS, and security markets.

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