Helicopter
INTERNATIONAL
The Industry's Leading Commercial & Defence News Journal
July-August 2024

Bell Textron has **revealed** its Aircraft Laboratory for Future Autonomy (**ALFA**) which is **based on** the Bell **Model 429** commercial helicopter. Developed by the Bell Advanced Programmes team, ALFA is intended to carry out flight manoeuvres with an aircraft safety system and executing autonomous fly-by-wire flights.

The integration of fly-by-wire is seen as an important step in the development of autonomous controls for Bell's commercial helicopters, reducing pilot workload and enhancing safety. ALFA's system separates safety functions from flight control functions, allowing for the rapid development and evaluation of novel flight control technology without comprising overall safety. The trials aircraft, registered N34UE (cons. number 57081) was acquired by Bell in 2015 from its previous operator, United Therapeutics, and following modifications for its new role was first flown at the Bell Canada plant in Mirabel, Quebec in August last year. It has since been transferred to the manufacturer's Flight Research Centre in Arlington, Fort Worth, Texas.

Bell already has the Model 525 Super Medium commercial helicopter equipped with fly-by-wire controls and due to receive US Federal Aviation Administration certification this year.

Helicopter INTERNATIONAL
and
MILITARY HELICOPTER NEWS

Top Stories This Issue -

Editorial Offices:

75 Elm Tree Road, Locking,
Weston-super-Mare,
Somerset, BS24 8EL, England
Tel: +44 (0)1934 822524
office@aviapress.co.uk

Publisher/Editor
ELFAN ap REES
Finst SMM MBIM Associate RAeS

Managing Editor
Claire ap Rees

North American Editor
Kenneth Swartz

Contributing Editors
Oscar Bernardi
Philippe Boulay
Peter Foster
Emanuele Ghiroldi
Robert Heath
Alan Norris
Trevor Rees
Kiyoshi Sato

Research
John Phillips

Administration
Tracey Watkins
Lucia ap Rees

Advertising Department
E-Mail:office@helidata.info

HELiWEB
www.aviapress.co.uk

SUBSCRIPTIONS

Helicopter International is published and printed bi-monthly (six times per year)on 1st January, March, May, July, September and November by Avia Press Associates. Reproduction in any form of its contents is expressly forbidden.
Subscribers receive copies before general release.on the website.
The annual subscription rates are £36.00 worldwide for emailed version.
Printed copies are available at £40.00 UK, £45.00 Europe, Outside Europe £55.00 per year.
Payment by Visa/Mastercard/Bank Transfer is acceptable.
Subscriptions should be forwarded with Name/Address details to Helicopter International Subs) 75 Elm Tree Road, Locking, Weston-s-Mare, Somerset, England, BS24 8EL

ISSN 1740-7788

HAVE YOU GOT NEWS FOR US?

+44(0)1934 822524,
e-mail office@aviapress.co.uk

Panterra HeliSupport has **acquired** a repurposed Sikorsky **UH-60A Black Hawk** helicopter, registered N1144C (con. number 84-23977) and modified for fire fighting and utility work. The aircraft is now being offered for sale or possible lease, and comes with new avionics and communications packages, ordered from Dallas Avionics and installed by Ace Aeronautics at Guntersville, Alabama.

Ace Aeronautics also fitted the Black Hawk with new Aerometal exhaust assemblies, a Vertical Reference kit, new LED lighting, a Bambi Bucket Fill connection, a cargo hook with a weigh system, and provisions for Helitak fire fighting equipment.

The US Naval Air Systems Command (NAVAIR) has advised US Congress members on the House Oversight Committee that the Bell Boeing **V-22** fleet is **unlikely to return to** full **mission capability before mid-2025**, as the Command wrestles with strict flight restrictions imposed under a return-to-flight plan announced in early March. Under the plan the fleet is not permitted to fly more than 30 minutes from a diversion airfield, and NAVAIR is only just beginning tests of a new clutch, designed to replace the previous version after a history of hard engagements and thin dense chrome metal chips entering the oil system.

That issue has been linked to a crash in June 2022 of a US Marine Corps MV-22 that killed five Marines, since which the clutch input quill assembly on all V-22s has been replaced every 800 hours. The new design is intended to remove the chrome content, with the first 45 replacement kits due to be procured in 2026, and up to 328 kits due to be purchased, costing $138 million. Since the lifting of the Fleet grounding, V-22s have flown over 7,000 hours on essential missions, with the three services taking safety issues into account. This is despite the crash of a CV-22 off the coast of Japan last November during a training exercise at night, the official report for which has yet to be released. This accident took the total of V-22 crashes over the last 2½ years to four, with the loss of 20 service members.

Helicopter INTERNATIONAL
MILITARY HELICOPTER NEWS
office@aviapress.co.uk

German Advance Air Mobility (AAM) company **Lilium** is **talking** to officials **in** the **Nouvelle-Aquitaine** region of France **about** setting up a final **assembly line** there **for** the company's **Lilium Jet** eVTOL aircraft. This would be in addition to the first assembly centre in Oberpfaffenhofen, near Munich in Germany, which Lilium estimates could only produce 400 aircraft per year maximum. The company believes demand will require considerably higher numbers to be built in later years.

Lilium plans to fly the first crewed Lilium Jet, which will be close to the production standard by the end of this year and meanwhile is assembling the aircraft, (construction number 02). Already more advanced in construction is the first aircraft (cons. number 01), which will be used as an engineering groundrig and tied down during full engine runs. (Cons. No 03 and 04) will be built to the same standards as 02 but 05-07 will introduce structural modifications aimed at reducing weight.

Omni Air Taxi in Brazil has **selected** the **Honeywell IntuVue RDR-7000** Weather Radar **System** for its fleet of Leonardo AW139 helicopters and will gradually upgrade the 51 aircraft. The AW139s are utilised in the Brazilian offshore support market and also for cargo and medical transportation across the country.

In the offshore sector the company has logged some 700,000 passenger journeys and accumulated 650,000 flight hours with five million passengers transported. The RDR-7000 installation will improve safety and increase helicopter availability, reducing delays and downtime caused by weather incidents and windshear. Pilots will also no longer have to manually upload weather conditions or adjust the antenna tilt, leading to quicker decisions being made before flying in challenging environments.

The upgrade programme will begin with nine AW139s receiving the RDR-7000 installation this year, followed by an upgrade of the rest of the fleet.

Drone manufacturer **DJI** has **become** the **first company to carry out** a **5,300 metre** (17,388ft) **unmanned cargo delivery on Mount Everest**, carried out in partnership with a Nepalese drone service company, Airlift and using the DJI Fly Cart 30. The unmanned air vehicle carried three oxygen bottles and 1.5kg (3lb) of other supplies from the Everest base camp to Camp 1 on the mountain during tests in April, returning with trash on the flight back down.

The two camps are separated by the Khumbu Icefall, one of the most hazardous stages of the ascent and one which local Sherpa guides have to cross multiple times to transport supplies. Loss of life in attempting this crossing is a major issue, especially as the crossing is often carried out at night, when temperatures are lowest and the ice is most stable. Using drones is expected to considerably reduce the risk, as an unmodified drone can carry up to 15kg (33lb) between camps in 12 minutes for a round trip. DJI says its Fly Cart 30 underwent considerable specific testing at the end of April, including flights in -15 degrees C, wind speeds up to 15m/s (49ft/s) and high altitudes over 6,000m (19,685ft) ASL.

Commercial - INTERNATIONAL

A **Brazilian** helicopter **pilot**, Andre de Freitas, **and** his **British co-pilot** Peter Wilson left Jaguaruna in Brazil on 18 June, flying a R66 helicopter in an **attempt** to set up a **new** record under the Federation Aeronautique Internationale (FAI) Sporting Code for **Speed Around the World through Antipodes.** To set the record they had to travel north from Brazil along the Eastern coast of the Americas to Greenland, thence to Iceland and the UK before crossing Europe to Antipode 1 at Bichura in Russia. The flight then continued east to cross the Bering Sea before flying south from Alaska down the Americas West coast until they reach Antipode 2 at El Calafate in Argentina, near the tips of South America. The flight will be finally completed when the R66 arrives back at Jaguaruna.

Co-pilot Peter Wilson, who carried out a previous Antipode circumnavigation flight in 2017 on a slightly different route, is an experienced pilot with several helicopter records to his credit, including the first antipodal circumnavigation in 2017, with landings in Indonesia and Colombia. However Andre de Freitas has to be the pilot in command throughout the flight for it to qualify under the FAI rules. In addition all landing points have to be declared in advance and time on the ground is also included in the flight time. Crucially the route for the course must not be less than 40,075.16km (2,4901.5 miles), equal to the circumference of the equator. In fact the route has been calculated at 57,412km (3,5674 miles).

Commercial
- INTERNATIONAL

Saudi Arabia recently carried out a successful **trial** of an **air taxi in Mecca**, opening up the prospect of regular flights for Hajj pilgrims visiting the Holy City. Led by the General Authority of Civil Aviation (GACA) in collaboration with the Ministry of Transport and Logistics Services, the Ministry of Hajj, the Ministry of Interior and Front End Limited Company, the trial featured an EHang E-H216-S pilotless electric vertical takeoff/landing aircraft.

The trial was carried out in a low-risk area with protected airspace and was part of a larger Saudi initiative, aimed at the development of an Advanced Air Mobility (AAM) network in the country. This will include a robust regulatory framework, tailored to provide safe and sustainable air transport for Hajj pilgrims and other travel passengers, with the recent trial acting as a proof of concept for multiple use cases, and contributing to the advancement of mobility solutions across the Kingdom. Saudi Arabia has already invested heavily in AAM solutions to scale the sector, as the Saudi Aviation Strategy works to transform the country into the Middle East's leading aviation hub by 2030. The strategy is unlocking more than $100 billion of investment, with passenger numbers last year growing by 26 percent to 112 million.

Airbus Helicopters handed over the **first** of five **H160** helicopters ordered by Air Corporate at the manufacturer's Italian head office and new maintenance centre in Trento on 14 June. The aircraft is also the first H160 **to enter service in Italy** and will be operated by Air Corporate from their base in Verona in a six passenger configuration, with two individual seats and a bench seat for four additional passengers.

A second H160 for Air Corporate is due to be delivered before the end of 2024, with the remaining three aircraft following in subsequent years. To date more than 100 H160s have been ordered worldwide, with customers involved in a range of different missions. These include oil and gas, commercial air transport, private and business aviation, emergency medical services, and public services/search and rescue.

The Trento centre is also unique in Italy as it is one of the only three in Europe qualified to work on Safran engines, so the specification on maintaining the H160, which is powered by two 1,280shp Arrano 1A powerplants gives the facility a key overhaul benefit.

Skytech Helicopters in Northampton has been **appointed by MD Helicopters as** an Authorised Service Centre (**ASC**), the first company in the UK to join the ASC network and with more than 20 years of experience serving the MDH community. With over 697sq.m (7,500sq.ft) of maintenance space, and Part 145 maintenance accreditation, Skytech is the latest company to join the ASC expansion in Europe, as MD Helicopters makes renewed efforts to grow its service base around the world.

Universal Vulkaan Aviation, which was appointed by Leonardo as its distributor for the Indian civil helicopter market earlier this year, has **signed** preliminary sales **agreements for** five single engine **AW09** helicopters, alongside contracts for one **AW109** GrandNew, one **AW169** and one **AW139**. Deliveries are expected between 2025 and 2026.

This order is part of a framework agreement to purchase ten units from these three twin-engined types over a three year period and was announced at the recent EBACE European Business Aviation Exhibition at the end of May.

Airbus and European helicopter operator **Avincis** have signed a Memorandum of Understanding to **partner on** the development of Advanced Air Mobility (**AAM**). The two companies will cooperate to explore opportunities for operating electric vertical take-off and landing (eVTOL) aircraft throughout Europe, especially focusing on the concept of eVTOL operations across Europe and beyond.

The joint work will include defining mission profiles, with the partners seeing the agreement as another step towards the creation of an AAM eco system. Avincis is especially interested in the future use of eVTOL aircraft for emergency medical services and fire fighting, lead missions for the operator currently, which operates more than 200 conventional aircraft at the present time on these missions, including around 60 Airbus helicopters from bases in Europe, Africa and South America. Airbus meanwhile has been developing the fully electric CityAirbus NextGen, which is currently undergoing ground testing at the company's AAM test centre in Donauwórth, Germany prior to a first flight scheduled for later this year.

Commercial - INTERNATIONAL

Russian industry sources report that the **helicopter sector** is **facing** "the deepest **crisis** in its history" as the ongoing military conflict with Ukraine and sanctions result in the collapse of the industry. In addition Russia has seen a massive exodus of Western companies and their technologies, with this trend expected to worsen over the coming years, especially following the recent re-election of the hardline President Vladimir Putin.

People...People...

The newly named Vertical Aviation International (**VAI**) organisation, that is replacing the Helicopter Association International (HAI), has **approve**d two **new Regional Representatives** in the Northeast and Western United States. **Josh Rousseau** is based in New York and has more than 25 years of experience in the highest levels of the New York state government, including the state assembly assistant speaker's office. He has held executive posts at various state agencies, including the New York State Department of Transportation and served as the state's assistant secretary for legislative affairs. He has also developed relationships with public and private stakeholders, advocates and elected officials giving him across to a network of key individuals to help support BAI member concerns.

Chuck Street in California began his career as a helicopter pilot and broadcast traffic reporter in the Los Angeles area in the 1980s and has become a well known member of the industry, promoting the protection of helicopter operations in Southern California. He has reported the industry in community and municipal meetings, and worked with elected and appointed officials in various cities, counties and state

BLR Aerospace has appointed **Clay Bringhurst** to succeed **Mike Carpenter** as President of the company, although the latter will continue to act as a Senior Advisor until his anticipated retirement later this year. Bringhurst's previous roles include Vice President of Sales and Strategic Development and President of Nobles Worldwide.His previous career highlights include time at Northrop Grumman as Senior Director of Strategic and Business Development at the company's Armament Systems Divisions and service as a Captain in the US Marine Corps.

The funeral of **Brian Allison**, who enjoyed a second career as a Police Aviation Support adviser with Eurocopter Helicopters in the UK, following service in the Avon and Somerset Police Force before retiring as a Superintendent in 1988, was held in Bristol on 10 April. During his police career he led the establishment of the Filton based Air Support Unit and, after joining Eurocopter as a consultant, regularly visited other police aviation units at home and overseas to promote and secure feedback on law enforcement helicopter operations. He was forced to retire however in 2011 after a senior police officer, tasked with leading the new National Police Aviation Service (NPAS), took exception to a critical briefing note prepared for the local member of parliament and complained to the Eurocopter management.

GD Helicopter Finance (GDHF), which has set up as a helicopter leasing and finance company based in Dublin, has appointed **Michael York** as its founding Chief Executive Officer. York was previously the CEO for Milestone Helicopters and has over 30 years leadership experience in the aviation sector, including five years as the joint Head of Commercial for Milestone. In his new role he will inherit an existing order book for 50 Airbus H160 helicopters and an additional order, signed on 26 April, for 10 H175 Super Medium helicopters. This new contract also includes a further 10 options.

Vertical Aerospace, which is developing the eVTOL VX4 aircraft has appointed former Chief Financial Officer, **Stuart Simpson**, as its new Chief Executive Officer (CEO). Vertical Aerospace Founder and previous CEO, **Stephen Fitzpatrick**, will continue to play a prominent role as a board member of the company, focused on business strategy and working the with executive team.

Simpson joined Vertical Aerospace in 2023 after a 30 year career which includes leadership roles across the technology, automotive and logistics sectors, and will be responsible for the execution of the company's strategy as it progresses towards certifying the VX4, bringing it to market and launching further fundraising activity.

In addition Vertical has appointed **Ben Story**, a former director and executive team member for Rolls-Royce to its board. Story also has 30 years experience in industrial technology and will support the commercialisation process.

Vertical Aerospace, which is developing the VX4 air taxi eVTOL aircraft in Bristol is **seeking** a **new** company to provide the **electric propulsion units** (EPU) after their contract with Rolls-Royce to develop the powerplants was cancelled by mutual consent. Flight tests of the revised second prototype VX4 were due to begin this summer but must now be in doubt.

Rolls-Royce agreed to design and develop the EPU system in 2021, but Vertical Aerospace is now shortlisting a new set of suppliers to provide the eight powerplants needed to power the VX4. The aircraft, which has replaced the original prototype in the test programme after that aircraft was written off during unmanned tests last year at Cotswold Airport (*HeliData News passim*), was scheduled to fly at the Farnborough International Air Show in July. Initial certification is still planned for late 2026, beginning with the Civil Aviation Authority and the European Aviation Safety Agency, followed by the US Federal Aviation Administration, Japan and Brazil.

Airbus Helicopters **confirm**ed on 21 May an **order** for up to **21** of the latest generation **helicopters** from the Sumitomo Finance and Leasing Company (SMFL) in conjunction with Lease Corporation International (LCI). The agreement consists of 14 firm orders and seven options, made up of a mix of light twin H145s, medium twin H160s and super medium H175 helicopters.

The new aircraft are scheduled to be delivered through to 2028 and will be aimed at a variety of operating segments, such as emergency medical services, search and rescue, and offshore energy, including wind farm support. The initial phase will see the delivery of at least seven latest generation helicopters by 2025, with all the aircraft being equipped with the latest navigation and safety features, and also capable of using blended Sustainable Aviation Fuels.

Japanese general aviation provider **Aero Asahi** has **order**ed an Agusta branded **VIP AW169** helicopter, with delivery expected in spring 2025 from the Leonardo facilities in Italy. The aircraft will feature advanced sound proofing, dedicated VIP seating for up to eight passengers, a smart cabin management system with air conditioning control and an entertainment system.

Aero Asahi previously became familiar with the AW169 after supporting a demonstration tour held in Japan in 2023.

Airbus Helicopters **and Babcock** have been awarded a **contract** by the French government Direction de la Maintenance Aeronautique (DMAE), **to support 48 EC145 helicopters** operated by the French Ministry of the Interior. The 12 year agreement begins this year and covers 33 EC145s operated by the Sécuritié Civile and 15 EC145s operated by the Gendarmerie to help safeguard local communities.

The 48 helicopters are spread across 41 bases, including five in French overseas territories, and the contract covers technical support, with industry technical representatives working on site, the supply of spare parts, the logistical transport of spares and stock management, technical data management and software support. These activities by the two companies will ensure that all the EC145s are available for their critical missions. Sécurité Civile and Gendarmerie EC145s are used for search and rescue, emergency medical services and fire fighting missions, whilst the Gendarmerie aircraft are also engaged in law enforcement operations.

Airbus is also in the process of producing replacement H145s for the Ministry of Interior, following orders placed in 2021 and 2023. Four H145s ordered in 2021 are already in service and included in the new support contract, whilst in late 2023 an order was placed for 36 new H145s for the Sécurité Civile and six for the Gendarmerie. Deliveries of these 42 aircraft are scheduled to begin this year.

People…People…King Charles III has officially **handed over** the **role of Colonel-in-Chief of** the **Army Air Corps to** His Royal Highness **Prince William**, The Prince of Wales, confirming the appointment previously announced following His Majesty's Accession in August last year. The role was previously held by His Majesty The King, as Prince of Wales, for 31 years.

Prince William served as a search and rescue pilot with the Royal Air Force for three years and subsequently volunteered as an Air Ambulance pilot. He also served in the Army as a platoon commander before his Royal Air Force career.

The UK Air Accident Investigation Board (**AAIB**) released its **final report** on 1 May into the **accident** to the first prototype **Vertical Aerospace VX4**, which crashed during an unmanned test flight at Cotswold Airport. At the time the company was carrying out a second phase of unmanned testing of the electric vertical take off and landing (eVTOL) aircraft, evaluating the VX4s performance with one of the eight electric propulsion units (EPU) manufactured by Equipmake deliberately made inoperative.

The test began with the aircraft being held in a hover at 9m (30ft) above the runway for ten seconds, before being accelerated towards a target ground speed of 13km/h (8 mph). At approximately 4-7km/h (2-4mph) one propellor blade was seen to detach from EPU3, one of the four tiltable units mounted on the wing leading edge. The blade separated at about 1,200rpm, causing an out of balance load which led to the failure of the EPU3 pylon as its forward section rotated upwards under residual propellor thrust. This in turn damaged high voltage power cables and wiring harnesses, completely severing two of six CAN harnesses, with a third experiencing an intermittent connection. In turn this caused a loss of thrust from EPUs 4 and 7, leaving insufficient power for the remaining EPUs to allow the aircraft to continue to hover.

Thus, although the flight control system maintained the VX4 in an approximately level attitude, it descended at a rate of 593m (19,45ft) per second, twice the limit it was designed to withstand. The aircraft then struck the runway edge with the port main wheel and nose wheel on the grass, at which point the nose gear collapsed and the starboard wing broke at the inboard pylon, remaining partially attached to the aircraft by wiring harnesses. Two propellor blades had meanwhile separated from EPU3, with the failed blade coming to rest some 50m (164ft) from the main wreckage. A subsequent examination of this blade showed that its inner spar had become unbonded from the outer sheath, which had allowed the outer section to translate radially outward, increasing the bending load on the spar until its outer section fractured and separated.

Further examination of the blade sheath that released during flight showed evidence of poor bonding between the sheath and the blade spar, with most of the adhesive remaining attached to the internal sheath surface and very little present on the spar. Stress analysis carried out by Vertical Aerospace showed that only five percent of the spar-sheath bond area was required to retain the sheath in the conditions under which the failure occurred, suggesting a progressive degrading of the bond during operations prior to the separation. CT scans on two similar blades in the spares pool revealed widespread voids in the bond line in both components, alongside variations in the shape of the spar cross-section. As a result of this investigation, Vertical Aerospace has withdrawn from use all the original first generation blades, replacing them with a new design that eliminates the possibility of the bonding failure mode. These are being introduced on the next prototype VX4, due to fly in the near future.

In all 36 product and process improvements were identified during the investigation, with the blade structural design and the relevant manufacturing control, availability, quality assurance process and verification programme all having been contributing factors to the blade release.

Commercial - INTERNATIONAL

Engine manufacturer **Continental**, now a subsidiary of Continental Aerospace Technologies, has **introduced** a new **rotorcraft specific CD-170R variant** of its 170hp turbocharged CD-170 **piston engine**, which was launched in 2020 for fixed-wing single-engine aircraft and runs on Jet A fuel. Continental has already submitted the CD-170R certification package to the European Aviation Safety Agency and anticipates receiving approval later this year.

The new engine features a Full Authority Digital Engine Control (FADEC), providing lower fuel consumption and dual redundancy, with the 4 cylinder powerplant expected to conservatively burn approx 7.9 gallons (36 litres) of Jet A-1 per hour in the cruise. The engine will also begin life with a Time Between Replacement life of 1,200 hours, which it is expected will increase with time in service. As an engine designed for helicopters, CD-170R does not feature a gearbox, saving 17kg (37lb) and giving it a superior power-to-weight ratio, whilst the FADEC removes the need for the pilot to manage both the throttle and the collective simultaneously, allowing him to concentrate on the critical phases of the flight and his mission.

Continental says the CD-170R will benefit from the company's global service and support network, with 100 hour maintenance intervals and a line of engines that recently celebrated 10 million flight hours.

Commercial - INTERNATIONAL

Safran Helicopter Engines has signed a major Support-by-The-Hour (**SBH**) **contract with DRF Luftrettung** in Filderstadt, Germany for the more than 90 Arriel 2E engines powering the Airbus H145 helicopters in the company's fleet. The contract will be managed by Safran Helicopter Engines in Hamburg, which monitors and supports 300 helicopter operators in Germany, Northern and Eastern Europe, and Central Asia, for a total fleet of 2,000 engines.

DRF Luftrettung is one of the largest air rescue organisations in Europe with 32 bases at 30 locations in Europe. Missions include emergency rescue, intensive care patient transport between hospitals, as well as repatriation of patients from abroad. Last year the company carried out some 36,413 missions in total but relies on financial donations and grants from around 400,000 supporters.

Despite sanctions and other difficulties impacting on **Russian** helicopter sales and production, the State Transport Leasing **company** (STLC), which is using funds from the National Welfare Fund to **invest in updating** the country's **commercial helicopter fleet**, has signed agreements with two domestic airlines to supply three Mil Mi-8MTV-1 helicopters. The aircraft are manufactured at the Kazan Helicopter Plant and are expected to be delivered by the end of this year.

The STLC plans to lease the helicopters to two operators, with one going to Yeltsovka Airlines JSC located in Novosibirsk Oblast in south western Siberia and two allocated to KrasAvia JSC, based in Krasnoyarsk, also in Siberia. In total STLC is expected to supply 86 Mi-8 helicopters to Russian domestic carriers under the investment project over the three years from 2023to 2025, with the aircraft performing a wide range of roles, including cargo and passenger transportation, fire fighting, search and

eVTOL air taxi developer, **Joby** Aviation which is headquartered in Santa Cruz, California, is continuing to **progress** the **type certification** testing for its four-seat S4 air taxi, with a number of equipment test plans recently submitted to the Federal Aviation Administration (FAA). These cover a range of systems, including control surface actuators, pilot inceptors, and mission and vehicle navigation computers. In addition the company has submitted two qualification proposals for the S4's energy system, including the charge port and pump, as well as battery control and distribution.

To support the testing Joby has built new actuator load test stands, covering tilt, variable pitch and control surface actuators, a production system test stand to operate at higher speeds and test across a wider flight envelope than the original, and a new battery test facility for thermal runaway evaluations at the cell, module and pack levels. The company now estimates its testing and analysis work is 28 percent complete, in the fourth stage of what the company sees as a five step type certification process.

Meanwhile Joby is continuing to ramp up manufacturing at its initial production line in Marina, California where the company has been expanding the plant with the aim of building up to 25 aircraft per year. Meanwhile Joby rolled out its second production prototype S4 in April. This aircraft is expected to join the first production prototype at Edwards Air Force Base in California later this year for evaluation under the US Air Force AFWERX Agility Prime programme. Two more conforming prototypes are also under final assembly for eventual certification flight testing with the FAA, although initially Joby plans to carry out dry runs of all the tests before beginning the real certification flight testing later this year.

Currently the company is targeting 2025 for entry into service, initially in Dubai where Joby has an exclusive agreement to operate air taxis for six years, but ultimately in 2025-2026 for a US entry into service following FAA certification.

Aldenham Aviation Ltd, which is based at Elstree airfield near London has **sign**ed a long term **partnership** agreement **with Leonardo** Helicopters to develop a new maintenance, repair and overhaul centre on the site. Initially using an existing building and infrastructure, the aim is to officially launch Part 145 maintenance capabilities this autumn.

Owned and operated by Aldenham, Elstree is well positioned to serve London and the South-East region, with a high density of helicopter operations in this part of the UK. Journey time to central London is only eight minutes by helicopter and the airfield already welcomes all general aviation and rotary-wing activity, with dedicated ground handlers and Flight Information Services, full refuelling facilities, aircraft maintenance, hanger space and several active flying schools and aviation businesses. Once the new MRO operation is established, Aldenham plans to expand the capability, designed to complement the existing service network and increase efficiency alongside Leonardo's regional partners.

This will include coordinating with the Leonardo Belgium S.A logistics Centre, supporting the growing demand for the manufacturer's commercial helicopters in the UK and Ireland. Particular attention will be paid to the VIP-Corporate market, where Leonardo is the leading Original Equipment Manufacturer (OEM). Thus the Elstree facility will provide OEM quality support services, including the latest technology developments. What is not clear at present is how the partnership might impact existing commercial maintenance work carried out by Leonardo dealer Sloane Helicopters in Northamptonshire and the company's own factory at Yeovil in Somerset.

Over 175 helicopters including AW109s, AW169s, AW139s and AW189s are in service in the region for passenger transport, offshore transport and public service missions, with the next generation single-engined AW09 due to follow in the next two years.

The **Robinson** Helicopter Company in Torrance, California has **acquired** **Ascent Aerosystems** and its tactical unmanned drone portfolio, which is now a wholly-owned subsidiary of the helicopter company. Ascent, which was established in Wilmington, Massachusetts in 2019 specialises in developing and manufacturing a range of unique cylindrical coaxial airframes, engineered to operate reliability in the most challenging environments, including high winds, heavy rain or sleet and blowing sand.

Following the take over of Ascent, Robinson now plans to produce the electric vertical take off drones at its main assembly plant in Torrance, where it believes it can grow and scale the unmanned air vehicle production. The flagship UAV is the Spirit, a compact, modular and rugged platform, with a top speed of over 96km/h (60 mph) and nearly 5kg (10lb) available for batteries and payloads, but Ascent has also developed the larger NX30, which offers more than twice the capacity in a heavy-lift variant, or configured with additional batteries for flights exceeding one hour. Robinson believes that drones based on consumer grade electronics will never be able to provide the safety and despatch reliability needed to support full scale operations, which will require a type certificate for the aircraft, a production certificate for the factory, and a maintenance certificate for the repair station, as has been required for civil aviation for the last eighty years. The company says it is a rigorous process with no short cuts and with Robinson's 50 years of experience, there is now no better domestic source for reliable, mission-critical UAV platforms.

To reinforce its position, the Ascent brand was exhibited at the AUVSI Show in San Diego on 23-25 April, where the company promoted its unique patented coaxial technology and product range.

Commercial - INTERNATIONAL

Bell Textron Inc confirmed **certification** by the Federal Aviation Administration (FAA) **of** a new **BasiX-Pro** glass cockpit **retrofit** kit **for** the **Bell 412EP** helicopter. The kit uses the current Bell production displays from Astronautics and Garmin avionics, by upgrading analogue instruments to a full glass cockpit that is common with the current Subaru Bell 412EPX and Bell 429 aircraft.

Astronautics has a proven record of dependability, with hundreds of displays in use and achieving high reliability with more than one million flight hours. Similarly Garmin has become the aviation standard for COM, NAV and GPS integrated solutions. With the BasiX Pro kit, Bell 412EPs have high resolution and integrated flight deck displays, as well as engine data and flight operation recording, whilst the aircraft can also be upgraded to a 4-axis autopilot, further reducing pilot workload, The retrofit BasiX-Pro kits will be offered by Bell through Aeronautical Accessories, with the work being carried out at Bell completion centres in Piney Flats, Tennessee, Miami in Florida, and overseas in Singapore, Australia and Prague in the Czech Republic.

Currently Bell is under contract to complete a fleet upgrade of several analogue Model 412EP helicopters.

Book Corner

The Workhorse of Helmand by Michael Fry. Published by Pen & Sword. Price: £22.00 (UK), $42.95 (USA). This 201 page illustrated hardback is the personal account of the author's experiences as a Chinook helicopter crewman in Afghanistan and Iraq. The result is a remarkable in depth piece of writing, warts and all, of these conflicts and the effects on both Michael and his comrades in arms. The Chinook scores highly too, demonstrating what a remarkable all-round performer it is in capable hands. Highly recommended.

Air Power in the Malayan Emergency 1948-1960. An Official History. Published by Air World. Price: £25.00 (UK), $42.95 (USA). The Malayan Campaign aimed to overcome Communist Soviet and Chinese efforts after the Second World War to infiltrate and eventually overcome the country's Federal Government, which called for support from the UK. Both ground and air support was sent in to tackle the problem which quickly escalated into violent guerrilla warfare, requiring the constant deployment of troops, aerial reconnaissance and air attacks, casualty evacuation and destroying the insurgents' food supply by crop spraying with chemicals or fire.

Unusually this 240 page history has no single author as much of the content is drawn from contemporary official reports. The focus however is on the aviation operations, which included the use of helicopters for troop transportation, liaison and other roles, despite them being still in an experimental stage when first introduced to the jungle warfare in 1950. Ten years later they were relatively much refined, and made a significant contribution to the successful defeat of the Communist threat, with more than 110,000 troops being carried by the end of the campaign in the Bristol Sycamores, Westland Dragonflys, and Whirlwinds of the Royal Air Force, plus the Sikorsky S-55s of the Royal Navy. Of great value to the historians among you and anyone interested in the early use of helicopters by the UK military.

German eVTOL air developer **Volocopter** is having to **consider** the **company's future** after failing to secure new financing **following** the **collapse of** a planned government-backed **loan guarantee** on 23 April. As a result the company is considering filing for insolvency in the near future if current financial problems cannot be resolved.

Volocopter was initially seeking a Euro 300 million guarantee from the Baden Wurttemburg state government, which rejected the request. The company next approached Bavaria, eventually reducing their request to Euro 100 billion, with a promise to relocate the company to the state as part of the deal. However this approach was also rejected. Equally reticent to rescue Volocoper to date have been the company's shareholders, which include Saudi Arabian investor. Neom Mercedes Benz, Black Rock Asset Management, Intel, Microsoft and Chinese car manufacturer Geely. In each case these companies have their own investment priorities.

Volocopter has been planning to introduce passenger carrying operations to support the Paris Olympic Games this July, with the French DGAC civil aviation authority issuing a restricted Permit to Fly to allow non-fare paying passengers, including celebrities and the media, to travel on pre-defined and controlled routes to the Olympic venues from outlying centres. However this plan now seems unlikely to be realised, with the European Aviation Safety Agency suggesting that approvals would in any case be unlikely before 2025.

The Airbus Helicopters **Racer demonstrator**, registered F-WRAC and developed under the European Research Clean Sky project, made its **first flight** at the company's Marignane centre in the south of France on 25 April, in a 30 minute sortie to allow the test flight team to check the overall behaviour of the aircraft. Optimised for a cruise speed of more than 400km/h (249mph) the Racer builds on the compound aerodynamic configuration validated by the Airbus X3 technology demonstrator 11 years ago, but aims to take it closer to an operational configuration.

The Racer features 90 patents, including a hybrid-electrical eco-mode system that should contribute to reducing fuel consumption by 20 percent by enabling one of the two Safran Aneto-1X engines to be paused in cruise flight. The architecture is also expected to lower the operational acoustic foot print. Airbus is planning a two year test campaign for the Racer, totalling about 200 flight hours, to demonstrate the high speed potential.

Savback Helicopters, which is **marketing** the **Konner K1-S19 ultra-light helicopter** across seven European countries, including the Nordic region and the UK and Ireland, **took** delivery of a **demonstrator** aircraft at the end of March, which made its public debut at Aero Friedrichshafen in mid-April. The company's appearance at the show coincided with the certification award by the Swedish Civil Aviation Authority for the helicopter, in the ultra-light category under 600kg (1,323lb) MTOW. Accreditation has already been received from Finland, Germany and Italy and work is meanwhile continuing in Norway and Denmark,

Konner was founded in 2002 by Sergio Bortuluz and is based in Amaro, in the Italian province of Udine and 40km (25 miles) north of the provincial capital. The company has sold some 40 K1-S19 helicopters to date, flying in Italy, Germany, Latvia, Poland, Chile, Australia and Russia. The company uses the proprietary TK-250 turboshaft engine, which features a full Authority Digital Engine Control (FADEC) to manage the engine, which runs on diesel, biodiesel, JP1 or JP4 fuel options. Developed in-house by Konner, the engine weighs only 50kg (110lb) and has an electric-powered back up system to aid autorotation in the event of a main engine failure in flight. The TK-250 power package also features in proposed variants of the Konner helicopter, which were also promoted at AERO Friedrichafen, notably the K2 four seat model, which is powered by an uprated 270shp TK-250 engine and features a four-blade semi-articulated main rotor system with composite blades and a bearingless head. Expected to cruise at 241km/h (150mph), the K2 is expected to offer a range of 602km (374 miles) and, like the K1-S19, also features a carbon fibre fuselage.

Finally Savback is helping Konner to survey customer interest in the Italian manufacturer's K3 Anfibio amphibious helicopter, designed to land and take off from water and using the same powerplant and a hybrid carbon fibre body. Likely to be practical only in sheltered water and lakes, this variant will none the less offer a rival to the Robinson Mariner and other two-seat helicopters.

Leonardo Helicopters **unveil**ed a full-scale **mock up of** the forward fuselage of the **AW09** single engine helicopter at the European Business Aviation Conference and Exhibition (EBACE) in late May. The mock up featured a new VIP corporate cabin installation and paint scheme, along with samples of interior panel options inspired by harmony in nature. These include Desert Dawn, Cedar Woods, Ocean Twilight and Dark Cosmos.

The company says the cabin layout is the largest in its single-engine class, with the most generous legroom and offering customers seating layouts ranging from 4+1 up to 3+3+2, with unobstructed side accessibility and unique rear access. Safety is enhanced by a shrouded tail rotor and a five-bladed main rotor, which contributes towards a smooth flight and adequate ground clearance. The mock up is now being taken on a demonstration tour across Europe this summer, including stops in Paris and London, as well as attendance at some key exhibitions through to the year end.

Originally developed by the Kopter Group in Switzerland before that company was taken over by Agusta/Leonardo in 2020, the aircraft has been much refined by the new owners, including a switch to the Safran Arriel 2 powerplant. Earlier this year the company carried out the fist flight of the fifth prototype, PS5, which is engaged in certification work to meet European Union Aviation Safety Agency (EASA), CS-27 Small Rotorcraft Standards. This is expected to be achieved in time for first deliveries to be made in 2025, with customers able to receive specialised technical service and maintenance support under the "Agusta for You" programme.

Meanwhile Leonardo says it has more than 100 preliminary sales orders for the AW09, awaiting the certification and firm contract signings.

● The Italian Air Force Flight Experimental Unit, based at Pratica di Mare has begun evaluation trials of the Leonardo AW609 tiltrotor, using the pre-production prototype N609PH (cons. number 63004) in a revised white and grey paint scheme. The trials began on 28 May with two 40 minute flights along the coast and back, reaching speeds up to 399km/h (248mph) and at heights below 457m (1,500ft).

Safran Helicopter Engines has secured a **type certification** from the Civil Aviation Administration of China (CAAC) **for** the **Anito 1K** turboshaft engine, paving he way for the Leonardo AW189K helicopter to enter the country's civil market. The validation follows earlier type certification issued by the European Aviation Safety Agency (EASA) in 2019 and subsequently by the Brazilian civil aviation authorities.

The 2,500shp Anito-1K has been designed for super medium and heavy helicopters, being 25 percent more powerful and more responsive than existing engines of the same size, according to Safran. This additional power margin contributes to increase helicopter capability during missions and translates in particular into more payload during flights in "hot and high" conditions.

Commercial - INTERNATIONAL

The World's largest rotary-wing collection at the **Helicopter Museum** in Weston-super-Mare in England has **taken** on charge a **James Bond themed gyrocopter**, armed with dummy missiles and a nose cannon, to honour "Little Nellie", the gyrocopter made famous in the 1967 movie "You Only Live Twice".

Built in 1970 by Campbell Aircraft at Membury, Wiltshire the aircraft was registered G-AXFM in March 1981 as a production Cricket gyrocopter, but was later modified by owner David Organ in 2015 to replicate the real Little Nellie at airshows and other events. For these shows the aircraft carried dummy guided missiles and twin nose-mounted cannon, but was eventually grounded in July 2023 and stored with just 610 hours on the clock.

Following discussions with Helicopter Museum President, Elfan Ap Rees, David Organ has donated 'XFM to the Helicopter Museum for permanent display, together with its log books, photographs, spares and other memorabilia. Following the hand over, Elfan said "This Gyrocopter has strong historical connections with the West Country. All the Crickets were assembled at Membury in Wiltshire, with the skeletal frames manufactured at Weston by Western Airways – literally a stones throw from the museum at Weston Airport. It also flew regularly at events in the West Country throughout its working life and has now earned it retirement".

This aircraft is now on display alongside other gyrocopters in the museum's collection, including two standard Crickets that have previously joined the Museum for display

Parapublic

Bristow Ireland is continuing to set up its search and rescue (**SAR**) **organisation** despite the CHC dispute with the Irish government regarding the legality of the contract award. On 15 April the company announced the appointment of Phillip Bartlett as Director Irish SAR, effective immediately.

Bartlett has over 33 years experience in the Irish and UK aviation arena, most recently as Chief Technical Officer for Shannon Technical Services. He also holds a bachelor's degree in aircraft engineering, aerodynamics, business and quality, is a fellow of the Royal Aeronautical Society and, among other attributes, holds an EASA Pt.66 and National Aircraft Maintenance Engineer's License from the Irish Aviation Authority.

His appointment follows the award earlier this year to Bristow Ireland of an Air Operators Certificate (AOC), which is a fundamental requirement for delivering SAR operations in the Irish Republic. The new SAR contract, if confirmed, will see Bristow Ireland operate six SAR configured Leonardo AW189 helicopters from dedicated bases in Shannon, Sligo, Waterford and Weston. In an expansion of the current service, the new contract will also include a day and night fixed-wing service operating out of Shannon.

The **Isle of Wight Air Ambulance** entered a planning **application** in mid April **to relocate** its **airbase** and charity operations from Thruxton airfield in Wiltshire **to** a new headquarters in **Eastleigh, Hampshire**. The charity says that moving to a more central site in its area of coverage will drastically reduce response times and minimise flight and travel times.

Currently about 70 percent of the service's missions are around the Southampton, Winchester and Portsmouth region and a public consultation process through February and March this year showed that 97.2 percent of comments made were supportative of the proposed move. Whilst there were some concerns around helicopter noise and potential conflict with commercial flights, the charity claims to have addressed these either directly or through the public sphere. In total the public consultation received 612 responses, made up of 561 forms and an additional 51 emails.

The population of Hampshire is around 1.40 million, whilst the Isle of Wight residents total about 141,000, indicating that the consultation was completed by a very small percentage of the area population.

The **Japan Coast Guard** placed an additional **order** for three **more Airbus H225** helicopters in mid-April, taking its total Super Puma H225 fleet up to 16 aircraft. The Coast Guard is the largest Super Puma operator in Japan and previously received three H225s in December 2023 and a fourth in February this year for its growing fleet. The Coast Guard has been an active operator of the Super Puma family for some 30 years and the new aircraft will support territorial coastal activities and maritime law enforcement, as well as disaster relief missions in the country.

The fleet also benefits from an Airbus HCare Smart Full-by-the-Hour material support agreement, ensuring the Coast Guard can focus on its flight operations whilst Airbus manages its assets. The H225 has also enjoyed a continuous improvement policy, with new aircraft featuring new avionics and an innovative interface, combined with an autopilot system that reduces pilot workload and allows then to focus on the mission at hand.

24 H225s are currently flown in Japan by the Ministry of Defence on parapublic operations for various search and rescue missions, fire fighting, passenger and cargo transportation, and VIP Flights, with Airbus boasting that the aircraft offers the industry's best range, speed, payload and reliability in the 11 ton twin-engine rotorcraft category, with outstanding endurance and fast cruising speed. The helicopter can also be fitted with various equipment to suit a variety of roles.

Delivered during Fidae 2024, the most important Air Show in Central and South America, was the **first Airbus H125**, serial C-28 (cons. number 9486), **for** the **Chilean Carabinieros**. The helicopter is the first of several H125s to be used by the police for territorial control, air ambulance and high altitude rescues, as well as for training new pilots joining the force.

Currently there are 55 H125/AS350 helicopters flying in Chile with 24 operators, including the Chilean Navy, Army and the Investigative Police Dept. The other helicopters used by the Carabinieros are four Airbus EC135s, five Leonardo A109Es (serials C-05, C-21, C-22, C-23 and C-24) and a single AW139 (serial C-27) delivered in 2015. Due to be delivered soon to the Carabinieros is their first five-bladed Airbus H145, which will provide a boost to the high altitude operations in Chile's mountainous regions.

The **German** Ministry of Interior confirmed an **order** in early June **for** 38 Airbus **H225 helicopters** for service with the Federal Police on law enforcement and homeland security missions, ranging from Special Forces transportation to fire fighting and disaster relief. Options for the purchase of a further six helicopters are also included in the order, with deliveries scheduled to start in 2029 and continue at least into the late 2030s.

The H225s will replace 19 H155 and 19 AS332 helicopters that have been in service with the Federal Police for more than 20 years. Ordering the H225, the latest version of the Super Puma, will provide an almost seamless transition for pilots and maintenance personnel, but the contract does include training support and spares packages. Upgrades in the H225 centre on a new and more powerful mission and communications system, which guarantees improved situational awareness and smooth data transmission between police forces, and a new main gearbox and health and usage monitoring system (HUMS) which increases safety and contributes towards reducing costs.

With a maximum take-off weight of 11,160kg (24,603lb) the H225 offers an increased range of more than 832km (517 miles), increasing to 1,107km (688 miles) with external fuel tanks, and an external payload capability of up to 4,750kg (10,472lb), seen by Airbus as essential for disaster relief and fire fighting missions. Furthermore the company expects to certify the H225 to fly on 100 percent sustainable aviation fuel (SAF) by 2030, just after the first deliveries take place. Production is expected to continue into at least the early 2040s, boosted by smaller sales recently signed with Hungary, Kuwait and Singapore. The tender process was launched three years ago and at the end Airbus was the only bidder, after competitors, including Bell, Leonardo and Sikorsky withdrew their bids earlier.

The eventual order is the largest placed for the H225 since Brazil ordered 50 Super Pumas in 2008 for all three military services, which led to a local assembly line being established in the country. Airbus is now boasting that the H225 is the only heavy commercial helicopter on the market, following Sikorsky's decision to defer production of an upgraded S-92.

● Safran Helicopter Engines has announced that the company will provide its Makila 2A engine to power the German Federal Police Fleet of new H225 helicopters. The 2,100shp powerplant order will comprise of 76 engines for installation over a ten year period plus spares. The engines will be monitored and supported by the company's facility in Hamburg, which already supports 300 operators in Germany, Northern and Eastern Europe, and Central Asia for a total fleet of 2,000 engines.

Parapublic

ADAC Luftrettung has secured a 10 year **extension to its contract** to provide the Christoph 32 rescue helicopter for the Ingolstadt region of Germany, following a European Union-wide tender process. The new agreement will run from 1 April 2025 to 31 March 2035.

Christoph 32 provides an Airbus H135 helicopter, equipped to provide emergency medical care and on standby from 07.00 to sunset every day of the year. On average the helicopter undertakes more than four missions daily and in 2023 the crews took off on 1,564 rescue flights. The top call-out emergency is for injuries following accidents, including leisure and traffic accidents. These are followed by cardiovascular diseases and neurological emergencies, such as strokes. To cover the need, 23 team members are on rotation at the Ingolstadt base to support the three pilots allocated to the EC135. This team includes 14 emergency doctors and six paramedics, plus a station manager.

Across Germany more than 1,350 people work for ADAC Luftrettung and its subsidiaries, including around 170 pilots, some 600 emergency doctors, 230 paramedics and about 200 technical and maintenance staff.

The **Greek Ministry** of Climate and Crisis and Civil Protection for health care, disaster relief missions and the transportation of crisis management teams is **to receive three Leonardo AW139** helicopters in 2026 under a recently signed contract. Two of the aircraft will be used for emergency medical service and disaster relief missions, whilst the third will be allocated for the transport of crisis management personnel.

All three AW139s will be operated by the Fire Brigade on behalf of the Ministry from a base in Attica and follow a rigorous tendering process. The programme has been funded through the European Union-NextGenerationEU under a national recovery and resilience plan, "Greece 20", a programme that will enable the country to enhance the level of effective disaster relief operations across the nation. The Greek territory spans the shores of the Mediterranean Sea and the peaks of Mount Olympus, with complex topography and environmental conditions. To ensure maximum operational flexibility, the AW139s will feature a modular cabin layout, able to hose a mix of up to five passengers and up to two stretchers, with a rapid conversion if needed to carry up to 14 passengers for the deployment of the incident management team.

On delivery the AW139s will join two AW109 Trekker light twins, which are already operating to support the Greek national healthcare service. Worldwide there are more than 1200 AW139s in service, with 1400 currently on order, and over four million flight hours logged with over 300 operators in some 90 countries. This includes almost 500 aircraft dedicated to overall rescue and EMS duties, including over 200 flying with more than 40 operators in the Mediterranean area.

Parapublic

ITC AeroLeasing, which is headquartered in Tokyo, Japan, has **signed** five new **leases** in the Emergency Medical Services sector with the US air medical operator, Med-Trans. The new leases are for five Bell 407 helicopters, bringing the Med-Trans total fleet on lease from AeroLeasing to seven aircraft.

The new additions will be deployed to Med-Trans bases in Texas, Iowa, Oklahoma and Kansas, serving local hospital systems, in the four states.

Clinica Las Condes in Chile has t**aken** delivery of an Airbus **EC-135** helicopter **from Ecocopter**, configured for Helicopter Emergency Medical Service (HEMS) and able to carry one stretcher patient, a medical crew and clinical support equipment for the stabilisation of the patient.

The aircraft, registered CC-CEX (cons. number 0136) will operate across Chile's Central Zone, which includes access to mountains and ski centres up to an altitude of over 3,000 meters (10,000ft), a range of upto 627km (390 miles) and the entire coast within the zone.

The **East Anglian Air Ambul**ance, which covers the Norfolk, Suffolk, Bedfordshire and Cambridgeshire areas in the UK, celebrated the **milestone of treating 25,000 patients** in mid-May since its inception in 2000. The organisation receives no regular government funding, relying almost entirely on public donations, but provides care to patients across the region 24 hours a day, 365 days a year by air and road.

The Air Ambulance operates two Airbus H145 helicopters alongside its rapid response ground vehicles, G-RESU (cons. number 20052) based at Norwich Airport and G-HEMC (cons. number 20012) located at Cambridge Airport. Both helicopters are chartered from Babcock Mission Critical Services Onshore Ltd, at Gloucestershire Airport, Staverton, Cheltenham.

Leonardo Helicopters are continuing to **roll out** new **parapublic helicopters** ordered by customers, with the second of 20 RH-119A Koalas for the Italian Carabinieri, coded CC-62, seen flight testing at Vergiate in mid June. Also flying was the first of two AW139s destined for the Queensland Emergency Medical Services, and operated by Babcock Australasia. Brightly coloured in blue/green and temporarily registered I-RAIR (cons. number 32070), it is being followed by I-EASM (cons. number 32062) in an inverted green/blue paint scheme.

The first of six AW189 helicopters, (temporarily registered I-RAIL (cons. number 89023) for the Irish Coast Guard was also airborne earlier in the month. The six aircraft will be operated by Bristow Ireland who won the 10 year contact late last year with a commitment to provide a 24/7 search and rescue service, operating from bases in Sligo, Shannon, Waterford and Dublin Weston.

The Chilean National Police (**Carabineros de Chile**) has gone out to **tender** to acquire three new twin-engined helicopters to replace surviving MBB Bo105 aircraft in its fleet. These are intended to provide enhanced coverage in the Tarapacà, La Serena and Metropolitan regions.

The force is already adding two new helicopters to its fleet, with an Airbus H145 due to be delivered this October to cover the Anca and Parinacuta region in northern Chile. The acquisition of an H135 to cover the South Central region of Maule is also currently under negotiation, whilst the recent delivery of a single-engined H125 has allowed the transfer of one of four Leonardo A109E Power helicopters in the fleet to Valpavaiso Province. Here a new base has been established at Rodelillo airport. The Carabineros also operates three BK117s and a single Leonardo AW139 on law enforcement and other duties.

The Midland Air Ambulance Charity (**MAAC**) has **renewed** its **contract with Babcock** Mission Critical Services Onshore (Babcock UK) for a further ten years, operating the MAAC fleet of helicopters as well as providing ground support, engineering and pilots. Babcock and its predecessor company, Bond Helicopters, have supported MAAC since the charity started operating over 33 years ago and together have responded to more than 75,000 life saving missions, flying 365 days a year, 12 hours a day from bases at Cosford, Strensham and Tatenhill, to cover Gloucestershire, Herefordshire, Shropshire, the West Midlands and Worcestershire.

As part of the new contract Babcock will provide helicopter upgrades and introduce increased capabilities, including enhanced night flying operations that will enable MAAC to support patients requiring the most critical care. Currently Babcock operates two Airbus EC135 helicopters on behalf of the charity and based at Strensham and RAF Cosford, and one EC145 based at Tatenhill, although these do swap bases on occasion. The EC145 is the latest acquisition by MAAC, having been purchased and delivered by Airbus Helicopters in February 2018, whist one of the EC135s is actually leased from Babcock.

Longstanding US energy support operator **PHI Inc** has **ordered** 12 **Leonardo AW189** Super Medium **helicopters**, including options, with deliveries starting in 2025. The agreement includes an extensive support partnership featuring a service centre, maintenance, repair and overhaul facilities at the PHI base in Lafayette, Louisiana and training solutions for both the AW139 and AW189 models. PHI Inc currently operates over 20 Leonardo aircraft, including the AW139 and AW189, as part of a worldwide fleet of more than 200 helicopters in service worldwide and serving a number of markets. These include air medical operations, and the energy sector, which the company has been involved in for the past 75 years.

The AW189 configuration will be fully compliant with the International Association of Oil and Gas Producers (IOGP) Report 690 guidelines, reinforcing the position of the aircraft in the global offshore market. Unique features of the helicopter include the capability of the main transmission to run without oil for 50 minutes and a built-in auxiliary power unit. The type is also certified for an automatic data transmit system, enabling the aircraft to send performance data to a ground station using satellite communication in flight, 4G cell connectivity or WiFi when on the ground. This offers a secure way to share an accurate picture of each flight so that Leonardo experts can assess data quickly, thus optimising maintenance and support.

The company says the AW189 is available with more than 200 certified kits to meet specific customer requirements for a wide range of missions, such as energy industry support, search and rescue, passenger transport, fire fighting and law enforcement, backed up by superior payload range with advanced technologies and training to maximise mission effectiveness and safety.

Nearly 150 AW189s have been ordered to date, with more than 90 delivered to operators worldwide, some 10 years since its certification. Leonardo says these numbers make it the world's most successful super medium category helicopter by market size, number of operators, countries and applications. Earlier this year Bell Helicopter confirmed that their Model 525 Super Medium helicopters, which PHI was originally the launch customer for until it pulled out of the agreement in 2016, still has no firm orders. Due for certification by the end of this year, meanwhile the company is assembling the first eight production aircraft as "white tails" in anticipation of future orders. Airbus Helicopters meanwhile has 55 H175 Super Mediums in service with a further 20 recently ordered, including ten options.

Regional News

- OFFSHORE WORLDWIDE

The British Air Line and Pilots Association (**BALPA**) succeeded in **securing a response from** the UK **Aviation Minister** to meet with Bristow Group management, following an oral question from a Scottish Member of Parliament to the Minister on 16 May. Bristow employees working on the UK search and rescue contract have been on strike, after accusing the company of reducing their terms and conditions and refusing to meet properly with BALPA to resolve the dispute.

The union says 95 percent of its members rejected the current offer on the table, which followed settlement talks with ACAS (Advisory, Conciliation and Arbitration Service) but resulted in the company tabling virtually the same offer again. BALPA argues that their members want a fair pay offer that is not reliant on reducing terms and conditions. The Aviation Minister, Anthony Brown, said in response to the question in the House of Commons, that he would be happy to meet with the company and the Maritime Search and Rescue Agency which oversees the government contract.

CHC Helikopter Service, which is the Norwegian division of CHC Helicopter, has recently signed a 12 month **contract with Shell** to provide crew changes and transportation between Sola and Bergen and the Deepsea Yantai Rig, located in the North Sea. The company will use a Sikorsky S-92 helicopter to support the rig.

CHC operates for a number of energy customers in the North Sea. Including Aker BP, Equinor and OKEA, who recently extended their contract with the company for a further four years. Alongside the support of the region's energy market, CHC Helikopter also plans to expand its search and rescue and emergency medical service missions in Norway, the Netherlands and the UK.

The **Milestone** Aviation Group has **signed** purchase assignment and leaseback agreements for three **new Leonardo AW139 helicopters with** the Norwegian operator, **Lufttransport** for offshore missions in the North Sea. All three aircraft are scheduled for delivery in 2025.

The helicopters will be equipped with the Full Ice Protection System (FIPS), developed by Leonardo, for operations on the Norwegian continental shelf. The new agreement follows leases signed last February for an initial two AW139s for Lufttransport, when Milestone welcomed the Norwegian operator as a new customer.

Regional News - NORTH AMERICA

The US General Services Administration (**GSA**) recently **listed** an historic **Sikorsky R-5 (S-51)** helicopter **on** its **auction website**, after the aircraft was declared surplus by the US Army Aviation Museum at Fort Rucker, Alabama. The helicopter, built in 1951 and serialled 51-24352, is incomplete, with the power plant, tail cone and rotor system among the missing components.

The **US Coast Guard** officially **retired** the Air Station Kodiak Airbus **MH-65** Dolphin **helicopters** on 30 April, after 36 years of service. The aircraft are being replaced by nine Sikorsky MH-60 Jayhawks, with six already in service and three more due to enter service in 2025. Kodiak is the fourth Coast Guard Air Station to transition to a single fleet of MH-60 Jayhawks, following the Air Stations at Borinquen in Puerto Rico, Traverse City in Michigan and New Orleans in Louisiana, which all recently completed similar transitions.

The US Federal Aviation Administration (**FAA**) **and** European Aviation Safety Agency (**EASA**) released **new guidance** for electric vertical take off and landing (**eVTOL**) **aircraft** on 10 June, closing the gap between their regulations. The FAA has published an advisory circular on type certification for the eVTOL category, whilst EASA has released an updated version of its special condition small category VTOL aircraft, modified as a result of harmonisation efforts between the two regulating authorities.

The new circulars will include the final certification rules agreed for the Joby Aviation S4 and the Archer Aviation Midnight eVTOL aircraft, including establishing performance levels that ensure safe continued flight for commercial services.

Kaman Corporation has delivered a **new K-Max** external load helicopter **to Black Tusk Helicopter Inc** in Squamish, British Columbia, Canada for aerial timber harvesting, ski tower setting, hydro-electric projects and fire fighting. The aircraft, which can lift up to 2,722kg (6,000lb) is the second K-Max to join the Black Tusk fleet. The aircraft design is optimised for repetitive external load operations, with an intermeshing counter-rotating main rotor system, which negates the need for a tail rotor and provides a superlative hot/high performance.

The Kaman Corporation also just announced the completion of its acquisition by Arcline Investment Management, confirming the transaction initiated last January. The all-cash sale, has a total enterprise value of approx $1.8 billion. Kaman shareholders will receive $46.00 per share in cash as a result of the sale, whilst Arcline will continue to reposition the company to provide innovative solutions and subsystems to critically important customer programmes.

Strong gales in Florida in mid-May, gusting up to 132km/hr (82mph) caused varying degrees of **damage** to 41 Leonardo **TH-73A helicopters** positioned on the flight line at the US Naval Air Station at Whiting Field. Most of the aircraft were expected to be repaired and back in operation by mid-late June.

In the meantime the older Bell TH-57B/C fleet, which the TH-73A is in the process of replacing, remain serviceable and available for training. 130 TH-73As are currently on order to replace all the TH-57 Sea Ranger helicopters by 2026 in the training role with the US Navy, Marine Corps and the Coast Guard.

A start up company in South Korea has launched a new helicopter service in Seoul, connecting the capital's Incheon International Airport, west of the city, to Jamsil in eastern Seoul. The two destinations are some 57km (35 miles) apart and the operator, VONAER, says the shuttle service offers a faster and safer alternative to traditional public transportation.

The company is using the Sikorsky S-76C++ on the shuttle, with the journey taking 20 minutes compared to the approximate one hour drive from the airport to Jamsil, with the helicopter cruising at a speed of 200km/h (124mph) but slowing down to 160km/h (99mph) when passing over the more densely populated urban areas in Seoul. Flights are available two weeks from the date of booking and will require a minimum of 8-10 passengers to confirm on the S-76C++, with a one-way fare of 440,000 won (US $320.00). Passengers can relax in a lounge located at the helipad and use the ground transport connection provided from the pad to the airport terminal.

VONAER plans to expand its air taxi routes to other downtown areas in Seoul, including Yeouido and sees the services as laying a foundation for the upcoming era of urban air mobility by building the relevant infrastructure and customer base through using the helicopter to open and popularise Korean urban aviation services.

Regional News
- ASIA PACIFIC REPORT

The Queensland government air ambulance operation (QGAir) has become the first emergency medical service (EMS) company in Australia to exceed 30,000 operational flight hours. QG Air uses a fleet of five Leonardo AW139 helicopters for aeromedical search and rescue, law enforcement and other public service missions, operating from bases at Archerfield, Cairns and Townsville, and flying more than 3,000 hours per annum with an average 2,000 patient rescues and transfers each year.

The 30,000 hour milestone was reached during the 2023 Cairns floods, when QG Air was responsible for carrying out aeromedical transfers in Cooktown in addition to search and rescue and welfare checks at several properties to ensure the safety of local residents affected by the floods. The organisation claims that as a result of this dedicated service, QG Air is now regarded as a global leader and with the highest time logged for EMS operations in the world.

The Australian Civil Aviation Safety Authority (CASA) issued a certificate for the Airbus twin-engined H160 in early June, opening the door for new generation helicopter operations in Australia. CASA is the seventh airworthiness authority to certificate the type.

One of the first civil operators in Australia to use the H160 may be PHI Aviation, which plans to fly the aircraft in Emergency Medical Service (EMS) missions in the country. The company already has a framework purchasing agreement in place with Airbus that includes the H160, and will initially be introducing the type in the Gulf of Mexico to support customers there. However the aircraft is seen by PHI as also suiting Australian conditions for offshore transport, EMS and Search and Rescue.

Kawasaki Heavy Industries has received an order from Shizuoka City in Shizuoka Prefecture for a single H145/BK117D-3 helicopter for a fire fighting and disaster relief role. The City is the second largest in the Prefecture, with a population of more than 677,500, and is situated on Japan's Pacific Coast halfway between Tokyo and Nagoya.

The new BK117D-3 is due to be delivered in March 2025 and will be the fourth D-3 to be used in Japan for fire fighting and disaster relief, and the 27th order Kawasaki has received overall. The aircraft is expected to be especially useful for rescue operations in the high mountain areas which characterise the Shizuoka region, with its 5-blade main rotor system and improved gross weight performance. Since Kawasaki and Airbus Helicopters predecessor MBB first collaborated on the development of the original BK117, delivering the first aircraft in 1983, the helicopter has been continually upgraded, with Kawasaki now having delivered 196 units by mid April this year, adding to the more than 1,700 delivered by Airbus Helicopters to date.

The partners plan to continue to improve the design, including the development of new optional mission kits, whilst pursuing further business opportunities around the world.

Accident Spot

April

2 Mil Mi-24 of Abkhazia Ministry of Defence, Georgia substantially damaged in hard emergency landing in the Gulrypshsky district of the Republic. 3 occupants survived with injuries and taken to hospital.

2 Eurocopter AS350B3 HB-ZCZ (cons. number 3414) of Air GlaciersSA crashed and destroyed during attempted landing on northern slope of Petit Combin mountain, Switzerland. Helicopter was on a heli-skiing flight with six occupants on board, three of whom died in the accident.

2 Helibras HB-350B PT-HNT (cons. number 2403) of the Civil Aviation School at Para de Minas airport, Brazil crashed at Arnaud Marinho Airport during a training flight to practice an engine failure in the hover out of ground effect. The helicopter struck the ground, suffering serious damage, with the tail section partially separated from the fuselage.

3 Kaman K-1200 K-Max HB-ZKY (cons. number A94-0060) of Rotex Helicopter written off near Judenbach, Switzerland, when it was caught by gust of wind during take off and crashed. Helicopter was carrying out external load timber work in the Föitz valley in southern Thuringia and came to rest on its starboard side on open ground. The pilot survived but was hospitalised with shock.

3 Boeing AH-64E ZV48xx of Indian Air Force damaged during emergency landing on rough terrain at high altitude in Ladakh during operational training sortie. Helicopter suffered from ventral chain gun installation striking the ground and another localised damage.

4 Mil Mi-35 of Togolese Air Force destroyed in crash near Dapong in northern Togo while fighting insurgents. The helicopter was carrying ammunition and weapons to supply forces in the Kpendjal region but attempted to land back at its base after 15 minutes and caught fire, followed by several explosions. Several soldiers were injured and hospitalised.

6 Robinson R44 Cadet N234ZT (cons. number 30027) of Drax Enterprise substantially damaged in a ditching offshore Key Biscane, Florida following a loss of power and eventual engine failure. Pilot attempted autorotation but entered the water about 2km (1 mile) short of land, resulting in tail rotor separation and fractured windscreen. The lone pilot was rescued with serious injuries.

6 Eurocopter AS355NP EC-LCD (cons. number 5758) of Sky Helicopteros substantially damaged during rescue mission on La Maliciosa mountain when it struck rough terrain and rolled over, wrecking rotor system and causing other damage. The occupants survived the accident. The aircraft was being operated by the Madrid Community Fire Authority on a fire fighting mission.

8 Airbus EC145 N523ME (cons. number 9522) of STAT Medevac involved in bird strike near Fort Medoc Air Base, Maryland, but was able to land safely with only minor damage.

9 MD Helicopters MD530F N5841Z (cons. number 0135FF) of Puerto Rico Electric Power Authority substantially damaged when tail rotor struck ground whilst manoeuvring at Ceiba – José Airport during training practice.

9 Robinson R44 Clipper N331EL (cons. number 14567) of Nantucket Helicopters substantially damaged when it impacted the surface of the Worden Pond in South Kingstown, Rhode Island whilst occupants were testing experimental downward facing sensors on the water.

10 Mil Mi-24 of Russian Air Force lost in Black Sea to the west of occupied Crimea, during a combat air patrol mission. The aircraft was destroyed and both occupants died in the incident.

10 Bell 407 CC-ATV (cons. number 53521) of Aeromax XXI suffered damage to tail rotor area during an autorotation landing at Brisas de Chieureo Golf Club when main rotor flexed and struck the transmission cover and starboard end plate fin.

11 Robinson R22BII 421 (cons number 4177) of Philippine Navy destroyed in emergency landing near Cavite City Public Market Place during training flight. Helicopter struck wooden building and caught fire in the incident and came to rest on its port side.

11 Mil Mi-17 115 of Cuban Air Force written off in crash at Santiago de Cuba. 5 occupants died in the incident.

12 Robinson R44 RA04372 (cons. number 2160) substantially damaged near Mogocha in the Trans-Baikal territory when the tail rotor touched the ground during take off resulting in a loss of control and damage to the hull and tail boom.

14 Bell 206BII XB-PIP (cons. number 1961) of Helidown destroyed in post-impact fire after loss of power and consequent crash in Coyoacàn, Mexico City. 3 occupants all died in the incident.

14 Bell 206B III VH-VHC (cons. number 3099) of Remote Technical Services written off in autorotation landing into sea offshore Thursday Island, Queensland, Australia when it sank after three occupants successfully escaped with no reported injuries.

17 Mil Mi-8 of Russian Air Force damaged in apparent night time arson attack at Kryazh air base, Samora. Reportedly the offenders were two 16 year old high school students from Tolyatti. The level of damage was unconfirmed, with some sources claiming it was minor but others saying the helicopter was destroyed. The aircraft was parked and unmanned at the time.

18 Bell UH-1H Huey II of 53 Tactical Helicopter Squadron, Kenya Air Force written off in crash in Elgeso Marakwet in the Sindar area of western Kenya following take off from a local school. The helicopter burst into flames on impact with the terrain with 10 occupants lost in the accident and only two survivors.

18 Bell 206II PT-HBM (cons. number 4175) of Atual Ltda and operated by the Mato Grosso do Sul Military Police substantially damaged at Santa Maria airport when it suffered in flight engine problems during a local refresh flight and crashed near runway during attempted autorotation. Helicopter came to rest on starboard side with consequent damage to fuselage, rotor system and separated tail rotor and tail cone. One of four occupants suffered minor injuries.

20 2 x Mitsubishi Sikorsky SH-60K, serialled 8416 (cons. number 5016) and 8443 (cons. number 5043) of Fleet Airwing 22, Japan Maritime Self Defence Force, written off in night-time mid-air collision east of Torishima island in the Pacific Ocean. Each helicopter carried a crew of four and there were no survivors.

21 Eurocopter AS350BA C-GWMO (cons. number 1879) of Heli Explore Inc. substantially damaged on Akimiski Island, Nunavut when passenger deplaned whilst engine left running and walked into tail rotor. Tail rotor and gearbox separated from the helicopter whilst the passenger was fatally injured.

23 Leonardo AW139 M53-3 (cons. number 31965) of Royal Malaysian Navy No 503 Sqdn destroyed in mid-air collision with Eurocopter AS555N over Lumut Naval Air Station, Perak during rehearsal for Navy Day celebrations. 7 fatal.

23 Eurocopter AS555N M502-6 (cons. number 5719) of Royal Malaysian Navy No. 502 Sqdn destroyed in mid-air collision with AW139 (above) over Lumut NAS. 3 fatal.

23 Bell 206L-3 N17592 (cons. number 51535) of Premier Rotors Inc substantially damaged in accident near Jerusalem Airport, California when it crashed into trees during calibration/inspection flight.

23 Robinson R44 RA-04310 of Helicopter.ru substantially damaged near Surmino, Moscow during emergency landing.

24 Guimbal Cabri G2 F-HDFV (cons. number 1316) of Defence Conseil International substantially damaged during training flight at Herm, near Dax airfield, France when instructor was unable to regain control during autorotation exercise and helicopter landed hard on the ground.

25 Robinson R66 FAB767 of Bolivian Air Force substantially damaged during training flight from El Trompillo airport when it was forced to make an emergency landing. The aircraft touched down hard, with tail boom severed during the manoeuvre.

26 Bell 206L-4 N988B (cons. number 52304) of Heliworks Flight Service written off near Anaconda, Montana, USA when it crashed whilst dropping seed for revegetation project. The pilot died in the crash.

26 Mil Mi-171 AEE485 (cons. number 59489614989) of Ecuador Air Force destroyed in crash during humanitarian relief flight near Tiwino, Pastaza in bad weather. 8 fatal.

26 Kamov Ka-32A11BC RA31111 (cons. number 5233243110021) of Russian Ministry of Emergency Situations destroyed whilst parked at Ostafyevo Airport, Moscow in an arson attack by five criminals who were later arrested. The fire covered an area of approx 30 sq. metres (323sq.ft) but was extinguished by airport fire fighters.

29 Mil Mi-171V-5 EJC-3395 (cons. number 170M21) of Colombian Army destroyed in crash in forest near Arenal, Bolivar under unknown circumstances but with bad weather likely a contributing factor. All 9 occupants died in the incident.

29 Vertical Aviation Technologies Hummingbird 260L N829SH (cons. number 1146) of K. Berry destroyed in post impact fire after impacting a grass field near Spring Branch, Texas whilst en route to carry out a charity gold ball drop at nearby private golf club. 2 fatal.

May

1 Airbus H125 N413JM (cons. number 8646) of Hillsborough County Sheriff's office substantially damaged in emergency landing in field near Plant City, Florida after en route mechanical failure during routine patrol. Tail rotor detached upon landing.

2 Aerospatiale SA315B N42PL (cons. number 2438) of Essential Flight Operations written off near Lewiston, Idaho when it impacted terrain following a power line strike during a fertilising sortie.

May

3 Bell 407 VT-MPU (cons. number 53540) of Mahalaxmi Aviation substantially damaged whilst landing in the Raigad district of Maharashtra, India when it encountered brown out conditions and rolled onto starboard side. Main and tail rotor blades both broken into pieces and tail cone detached in the incident. A

3 Robinson R22B N4082J (cons. number 1794) of Emerald City Aircraft Leasing substantially damaged whilst hover taxiing at Olympia Airport, Washington State, when skid hit the ground and helicopter flipped onto side.

3 Bell 206BII F-BXPF (cons. number 306) of EID Méditerranée substantially damaged when it ditched into Sigeon Lake, Peyriac-de Mere, Aude, France while enroute to refuel. The helicopter had been on a mosquito spraying mission.

6 Mil Mi-17 66xx of Myanmar Air Force shot down by Karenni resistance fighters in Bawlakhe township, after it attempted to land to evacuate injured

soldiers from Hypasawing Camp. The helicopter eventually crashed near the Pun River, some 6kmkm (4 miles) from Bawlakhe and was subsequently burned by Myanmar soldiers after valuable components had been removed for spares. There were eight fatalities, including the pilot.

6 Bell 430 HN407 (cons. number 49022) of Ecuadorian Navy destroyed during surveillance operation over Santa Elena province when it crashed near La Fruitilla precinct in dense forest. The helicopter was found still in flames by a search and rescue team with the two crew members both dead in the wreckage.

7 Mil Mi-17-IV PNP501 (cons. number 96019) of Peru National Police damaged in forced landing into shrubs following mechanical problems during take off from José Olaya airport, Peru.

9 Robinson R44II HB-ZII (cons. number 10429) of private owner written off in crash into field at Lleida, Catalonia, Spain. Helicopter came to rest on starboard side.

10 Hughes 369D N969VS (cons. number 1100833D) of Vertol Systems Inc. substantially damaged in hard landing at Bob Sikes Airport, Florida when main blades struck tail, separating tail rotor.

11 5 x Mil Mi-24 of Ukrainian Army destroyed in a Russian 9K720 Iskander strike at Manvelifka, Ukraine whilst helicopters were parked.

11 Mil Mi-8 of Ukrainian Army destroyed in Russian 9K720 Iskander strike at Manvelifka, Ukraine.

11 Helibras HB-350B PP-EHO (cons. number HB-109-1406) of Goias Military Police damaged when rotor blades struck a traffic sign whilst landing in Avenida Furnas in the city.

13 Robinson R44II JA718W (cons. number 14001) of Takumi Enterprise substantially damaged in forced landing in field near Kurokawa, Cuddly Dominion heliport, following loss of engine power during final approach. Helicopter was substantially damaged, with tail boom struck by main rotor and landing gear collapsed.

Military Helicopter News

July-August 2024

Bell Textron **Canada** recently carried out the **first flight of** a modernised **CH-146 Mk.II** Griffon helicopter at its Mirabel plant in Quebec, some five months after the company was awarded an In-Service Support (ISS) contract to sustain the fleet through 2039. The new Griffon Limited Life Extension (GLLE) project will see Bell provide aircraft modifications to a number of the aircraft's components, including avionics systems, cockpit displays, engines and sensors.

The Royal Canadian Air Force operates the largest and best equipped fleet of militarised Bell 412s, with the CH-146 extensively employed for search and rescue services and worldwide humanitarian relief to the United Nations and support to NATO. Last year the Griffon Fleet logged over 500,000 flight hours. The Griffon Mk.II is expected to enter service in 2026 pending military certification.

Defence - INTERNATIONAL

The US State Department Defence Security Corporation Agency recommended to Congress at the end of May the Foreign Military Sale of 12 Sikorsky UH-60M Black Hawk helicopters to Brazil together with spares, avionics and logistical support totalling an estimated $950 million in value. The proposed sale is expected to increase Brazil's capability to provide troop transport, border security, medical evacuation, disaster relief, search and rescue and peacekeeping support.

In addition to the 12 helicopters, the sale would include 34 General Electric T700-GE701D engines (24 installed and 10 spares), 28 EAGLEX-M embedded GPS with inertial navigation (24 installed and 4 spares) and a range of other avionics, plus M134-H weapons systems, with mounts and ammunition handling systems, aircrew combat equipment, external rescue hoists and internal auxiliary fuel tanks.

Bell Textron recently selected Safran Electrical & Power to provide the electrical power generation for the Bell entry in the US Army's new Future Long Range Assault Aircraft (FLRAA) programme. The Bell V-280 Valor tiltrotor forms the basis of the aircraft, which is expected to be ready for fielding by around 2030.

In the meantime, the programme is working through the critical design review and Safran will now be the sole source supplier for a high voltage starter generation system for the V-280, to be developed and qualified at the Safran Electrical & Power facilities in Twinsburg, Ohio and Sarasota, Florida. The system will feature a high-speed rotor and advanced power electronics providing excellent control and reliability, introducing an innovative solution that Safran expects to become an industry standard for future military programmes.

Following the recommendation to the US Congress by the State Department in late May to supply 12 more Sikorsky UH-60M Black Hawks to Sweden under a Foreign Military Sales (FMS) contract, bringing their UH-60M fleet up to 27 aircraft, the Department has now recommended a similar FMS contract for 12 UH-60M to Austria. These would increase the current Austrian Black Hawk fleet, officially designated the S-70A-42, to 21 aircraft.

Including spare engines, avionics and weapon systems the estimated total value of the Austrian order is estimated at $1.05 billion.

Lawyers and family members of Royal Air Force helicopter crewmen who have been diagnosed with various forms of cancer, including non-Hodgkin Lymphoma, multiple myeloma, lung and throat cancers and testicular cancer, are suing the UK Ministry of Defence (MoD) with one law firm currently representing more than 150 claimants. At least five former service personnel have received out-of-court settlements to date following appeal tribunals and evidence that they had been exposed to engine exhaust fumes whilst crewing aboard Westland Wessex and Sea King helicopters, with documents revealing that defence ministry officials knew of the danger of the Sea King exhaust as far back as 1999 but took no safety action.

Although the Wessex and Sea King are now out of RAF service, lawyers and families are concerned that crew and winchmen serving in the Boeing Chinook fleet are also at risk, particularly those who have more than 1,000 flying hours in the tandem-rotor aircraft. The response from the MoD has been to remind service personnel and veterans, who believe they have suffered ill health due to service since 6 April 2005, have an existing and longstanding right to apply for no-fault compensation under the Armed Forces Compensation Scheme, adding that they continually review the policies to ensure they align with good practice and protect service people from harm.

Despite the seriousness of the claims however, the Chief of the Air Staff, when questioned, denied knowing any of the details of the allegations, suggesting it would be wrong of him to comment under the circumstances. The head of the armed forces commented at the same meeting that the MoD would continue to look at any of the cases that came forward but that the evidence presented so far had not drawn connections between helicopter service and cancer.

One publicised case revealed by a family covers the death of a crewman who was exposed to more than 2,000 hours of toxic fumes, survived eight three month tours in Afghanistan but died of lung cancer aged just 38.

Defence - INTERNATIONAL

The **Belgian government** has **ordered** 15 multi-role **H145M** helicopters **from Airbus** for its Army, together with two plus three options for the Federal Police. The contract was signed in mid-June between the NATO Support and Procurement Agency (NSPA) on behalf of Belgium, and Airbus Helicopters.

The purchasing procedure to acquire the aircraft was begun in March 2023 but was only officially approved by Belgium's Council of Ministers on 31 May this year. Deliveries of the H145Ms will begin in 2025 to replace the current fleet of 10 Agusta A109BA helicopters and should be completed by 2027. The aircraft will be used primarily in a light utility role, with a focus too on transport for Belgium's Special Operations Forces and medevacs. The contract includes also technical support, initially with a five year duration and the purchase of an initial stock of spare parts and equipment.

Belgium's Minister of Defence previously highlighted the advantage of operating the same type of helicopter as neighbours Germany and Luxembourg, as well as having fleet commonality with the Federal Police for training, maintenance and technical support. The collaboration between the military and the police should also allow operational interoperability between the Army and the Police and their shared responsibilities for the country's security. The military H145s operated by the Air Component of the Belgian Army will be based in Beauvechain in Walloon Brabant with No.1 Wing.

The Leonardo **AW159/Wildcat** multi-mission helicopter fleet has now **logged over 100,000** flight **hours** since it first flew in November 2009. 72 aircraft are currently in service, including 34 AH.1 with the UK Army Air Corps and 28 HMA.2 with the Royal Navy. A further eight are operated by the Republic of Korea Navy and two AW159s serve with the Philippines Navy.

Derived from the smaller Westland Lynx helicopter, the AW159 shares the ability to operate in extreme weather conditions from small ship platforms, with missions including maritime enforcement, humanitarian aid, disaster relief and search and rescue, as well as high end war fighting operations. For the latter it has the capability to automously find, fix and strike adversaries in both the surface and underwater domains. In addition the Armed Reconnaisance land-based variant operates from deployed land locations with minimal maintenance, to provide a force projection role for the Land Commander.

Recent demonstrations included teaming a Wildcat with a semi-autonomous Unmanned Air Vehicle (UAV), with the crew controlling the drone as part of the helicopter's sensor suite. This provided a fully integrated solution without the need for additional crew, with the UAV flight path and electro-optical sensor payload controlled through the cockpit human-machine interface. Leonardo says that through the onboard network systems the AW159 is able to deliver exceptional situational awareness and tactical advantages to the crew, backed up by the comprehensive suite of surface and sub-surface weapons, making it a true force multiplier.

As a result, the company is confidently predicting further orders for the aircraft, with active marketing campaigns taking place in Europe, the Middle East, Africa and the Asia Pacific region.

The **US Air Force** 920th Rescue Wing successfully **completed** the medical **airlift** of a critically ill **patient from** a cruise ship located **more than 648km** (403 miles) **off** the **eastern coast of** the **U**nited **S**tates on 4 May. The rescue force included two Sikorsky HH-60G Pave Hawk helicopters and two Lockheed HC130J Combat King II aircraft, together with two teams of combat rescue officers and para rescue men, to fly to the ship's position and extract the patient for the transport by one of the Pave Hawks to the nearest capable hospital in the United States.

Reaching the ship required three helicopter air-to-air refuellings, involving connecting the probe on the helicopter to a receptor in a basket trailing from the HC-130J to transfer the fuel mid-flight. The HC-1309Js then assumed on-scene command of the situation, whilst remaining available for further fuel transfers until the end of the mission. That was completed after eight hours and more than 1,609km (1,000 miles) flown when all the aircraft returned to their base at Patrick Space Force Base in Florida.

During the mission fight doctors at the base were able to find the right treatment facility for the patient and relayed this information to the rescue force via horizon communications and data links. This allowed the patient to receive medical attention from the para rescue men on board the HH-60G whilst en route to the hospital.

PZL-Swidnik has **begun production** of the Leonardo **AW149** military helicopter **for** the **Polish Armed Forces,** following a contract signed in 2022 for 32 aircraft to be produced locally, along with the integration of the helicopter's systems, dedicated armament, future upgrades and technical support through the entire life cycle of the Polish fleet. To mark the occasion the company and its Leonardo parent held a ceremony on 4 June at the factory, in the presence of representatives and dignitaries from both national and local institutions, and partner companies.

The very first AW149s were actually assembled and initially flown at the Leonardo facilities in Vergiate, Italy where Polish workers received on-the-job training, meeting a tight time schedule that called for delivering helicopters within 15 months from the contract signing. The ceremony at Swidnik included a dynamic flight demonstration by Polish test pilots who form part of the PZL-Swidnik workforce. In total the company employs 3,240 staff, 20 percent of whom are engineers, who have been producing helicopter aerostructures for the Leonardo Group, including contributing to the launch of the AW139 programme several years ago. According to Jacek Libucha, the PZL-Swidnik President,since then the factory has seen considerable investment and now boasts modern production facilities and new contracts to become a solid player in the competition market. Revenues have more than quadrupled, generating greater export sales and an expanding technological and product base.

Sikorsky Aircraft is carrying out **flight tests of** a battery powered proof-of-concept twin proprotor **blown wing** configuration, that sits on its tail **for vertical take-offs** and landings, but transitions to horizontal forward flight for long range endurance missions, including surveillance, reconnaissance and targeting. The tests are supporting a Defence Advanced Research Project Agency (DARPA) initiative to develop a Class 3 Unmanned VTOL X-Plane, to operate from ship decks and unprepared surfaces without the need for supporting infrastructure.

The team "blown wing" refers to the constant airflow from the proprotor wash across the wing, which results in reducing the drag on the wing in the hover, whilst increasing cruise efficiencies and endurance in forward flight. The VTOL X-Plane would also benefit from using the Sikorsky Matrix autonomy flight control system and an articulated rotor system, similar to those used in traditional helicopters. If the proof-of-concept trials prove successful, Sikorsky hopes to build a 136kg (300lb) hybrid-electric version which would feature a 27kg (60lb) Intelligence, Surveillance and Reconnaissance (ISR) payload.

However the company is only one of the six competitors down-selected to take their UAS concepts to the next development phase under the DARPA ANCILLARY (Advanced Aircraft Infrastructure Less Launch and RecoverY) programme. Formal testing of the selected winner is aimed to begin in early 2026.

Defence - INTERNATIONAL

The US Defence Advanced Research Projects Agency (**DARPA**) recently **selected** six companies to take **concepts** for a **ship based** vertical take off-and-landing (**VTOL**) unmanned aircraft through a preliminary design review, aimed at finalising a planned **X-plane** demonstrator for a first flight in 2026. The eventual aim is to develop a successor for the US Marine Corps RQ-21 Blackjack tactical aircraft system, that can operate from warship flight decks without the need for launch and recovery equipment.

The new VTOL aircraft is planned to have a maximum take off weight of not more than 150kg (330lb), with a target weight of 113kg (250lb) and a 27kg (60lb) payload, with a 16 hour endurance at 185km (115 miles) from the parent ship, which is likely to require a high aspect ratio sail-plane type wing. The aircraft will also need to be operable in seastate three waves with headwinds gusting at upto 84km (52mph). In several of the concepts being put forward the sail wing is folded when the aircraft is on the deck, unfurling as it hovers at around 15m (50ft) after take off, before transitioning to wing-borne flight in the cruise and reversing the action when returning to land.

The six selected concepts include a tail sitter from AeroVironment with a single airscrew and H configuration tail, a tail-mounted tilting airscrews and wing-mounted tilt/fold airscrews design from Griffon Aerospace, and a tail sitter from Karem Aircraft with large diameter contra-rotating two bladed proprotors.

Defence - INTERNATIONAL

Boeing subsidiary **Aurora Flight Sciences** has received **funding from** the US Defence Advanced Research Projects Agency (**DARPA**) to proceed to a preliminary design review under a project to fly its high speed fan-in-wing vertical take off and landing demonstrator. The company has become the first to be awarded a contract for Phase 1B of DARPA's "Speed and Runway Independent Technologies (SPRINT) project to fly a demonstrator that combines a VTOL aircraft capability with a 834km/h (518mph) cruise speed.

One of four companies, including Bell, Piasecki Aircraft and Northrop Grumman, to receive Phase 1A contracts, the Aurora design has been modified for the Phase 1B development programme, as an uncrewed aircraft with only three lift fans and large angled inlets under the nose, with a conventional jet exhaust between the vee tails. The wing fans are covered by upper doors hinged along their centre line for forward flight, whilst the fuselage fan is covered by a sliding door and longitudinal louvres that vector fan thrust for control in vertical flight. The design suggests that the lift fans may have their own propulsion but Aurora has not commented on this possibility. The company notes that the SPRINT design can be scaled up for future derivatives, with more lift fans and uprated powerplants as necessary.

Aurora has now received an almost $25 million contract modification for Phase 1B, with the work expected to be completed by June 2025 and with a DARPA target of a first flight within 36 months.

The **Austrian Air Force** ceremoniously **retire**d its long serving Aerospatiale (Sud) **SA316B/SE3160** Alouette III helicopter fleet on 24 May, with a fly over at its Aigen im Ennstal base. The event was attended by the Austrian defence minister and the head of the Armed Forces, together with numerous guests including representatives from the US military and Leonardo Helicopters, who are providing the replacement AW169MA and AW169B helicopters.

Several Alouette IIIs took part in the fly past, trailing flags and including serial 3E-KC (cons. number 1387), wearing a special paint scheme to mark the 198,000 flight hours logged by the type since it entered Austrian service 57 years ago in 1967. 24 aircraft were purchased by Austria from Sud Aviation, to carry out multiple search and rescue missions, often in the high Alpine terrain but also responding to severe weather disasters such as forest fires and floods, and dedicated military and security operations at home and in Bosnia and Herzegovina.

12 AW169MA multi role helicopters and six ASW169B training variants were ordered in December 2021, with options for a further 12 AW169MA and another six AW169s. The agreement includes the provision of role and ground equipment, spares and technical support, plus training in cooperation with the Italian Army. The first six Austrian AW169MA will be based at Aigen im Ennstal and the second group will operate from Tullin-Langenlebaun, alongside the six AW169B.

US autonomous aircraft systems company, **Elroy Air** has been approved by the US Navy PMA-263 programme office **to demonstrate** its Medium Aerial Resupply Vehicle – Expeditionary Logistics (**MARV-EL**), designed to supply forward deployed ground forces for the Marine Corps. Flight trials are scheduled to begin this July at the US Army Proving Grounds in Yuma, Arizona.

The Elroy Air contender for MARV-EL is the Chaparral system, a lift plus cruise hybrid-electrical VTOL cargo aircraft, with the benefits of wing borne flight for longer range missions and efficient autonomous operations.

The **Army Flying Museum** at Middle Wallop in Hampshire received a **visit from King Charles III** on 13 May for a tour of the collection and the unveiling of a plaque to commemorate the arrival of the first Apache AH Mk.1 to be installed in a UK museum. The aircraft was one of two that carried four marines during the Battle of Jugroom Fort in Afghanistan in 2007, in an attempt to rescue a fallen comrade who was seen lying on the ground inside the fort.

To reach the severely injured soldier the four volunteer marines were strapped to the stub wings of the two Apaches which flew them to the fort compound for the rescue attempt. Despite continued heavy fire from the Taliban occupants of the fort, the volunteers successfully completed the rescue within just five minutes before withdrawing. Unfortunately the injured soldier had died before he could be rescued, but his body was recovered and later returned home to his family.

The Kaman Corporation recently confirmed the maiden flight last December of its medium-lift Kargo unmanned air vehicle (UAV), which the company designed as an autonomous expeditionary supply vehicle in 2021 to address logistic needs for the US Marine Corps.

A two-seat quad-copter with two-bladed rotors on each of the four foldable arms, the UAV can be transported in a custom-fitted standard container, which makes it easily transportable. It can also self deploy beyond 926km (575 miles) and can carry up to 363kg (800lbs) of payload. Cargo is normally transported in a conformal-shaped ventral pod, but if necessary it can use standard sling load methods, with the aircraft automatically compensating for the load it is carrying while avoiding obstacles. The high rotor clearance and absence of a tail rotor also improves safety, especially in the field where supplies are being removed or loaded by combat troops unfamiliar with rotary-wing operations.

Kaman partnered with Near Earth Autonomy for the autonomous systems used in the Kargo. The two companies previously collaborated on the K-Max unmanned system which the Marine Corps trialled in 2021 in Afghanistan for resupply missions. The Alaska Centre for UAS integration have also been key in facilitating unmanned Kargo flight test operations.

The Kargo UAV is currently competing under the Marines Medium Autonomous Resupply Vehicle – Expeditionary Logistics (MARV-EL) programme, which is being managed by NAVAIR PMA-263 and should culminate in a fly-off this coming July.

The US Defence Advanced Research Projects Agency (DARPA) recently selected six companies to take concepts for a ship based vertical take off-and-landing (VTOL) unmanned aircraft through a preliminary design review, aimed at finalising a planned X-plane demonstrator for a first flight in 2026. The eventual aim is to develop a successor for the US Marine Corps RQ-21 Blackjack tactical aircraft system, that can operate from warship flight decks without the need for launch and recovery equipment.

The new VTOL aircraft is planned to have a maximum take off weight of not more than 150kg (330lb), with a target weight of 113kg (250lb) and a 27kg (60lb) payload, with a 16 hour endurance at 185km (115 miles) from the parent ship, which is likely to require a high aspect ratio sail-plane type wing. The aircraft will also need to be operable in seastate three waves with headwinds gusting at upto 84km (52mph). In several of the concepts being put forward the sail wing is folded when the aircraft is on the deck, unfurling as it hovers at around 15m (50ft) after take off, before transitioning to wing-borne flight in the cruise and reversing the action when returning to land.

The six selected concepts include a tail sitter from AeroVironment with a single airscrew and H configuration tail, a tail-mounted tilting airscrews and wing-mounted tilt/fold airscrews design from Griffon Aerospace, a tail sitter from Karem Aircraft with large diameter contra-rotating two bladed proprotors, and a Rotor Blown Wing design from Sikorsky, with two semi-articulated rotors for lift vertically and thrust in wing-borne flight.

Defence - INTERNATIONAL

The Ministry of Defence of Brunei is to replace its already retired fleet of MBB Bo105 helicopters with six Airbus H145Ms to support the Royal Brunei Air Force's expanded missions. A contract for the aircraft was signed on 30 April, with deliveries starting in 2026.

The multi-role H145Ms will carry out close air support and aerial observation missions among other roles, with the Air Force benefiting from the advanced features introduced on the new generation helicopter. These include full authority digital engine control on the two Turbomeca Arriel 2E powerplants, and the Helionix digital avionics suite with its 4 axis autopilot, which reduces pilot workload during missions. A low acoustic footprint is also claimed to make the H145M the quietest helicopter in its class.

The global H145 fleet has logged more than 7 million flight hours to date and is operated by armed and law enforcement forces around the world. Recent buyers of the H145M have included Germany, Hungary, Luxembourg, Serbia and Thailand, and now Brunei has become the latest nation to order the aircraft. The order also follows an H145 order placed by the UK to fulfil missions supporting its detached rescue and training forces operating in Cyprus and Brunei, replacing the interim Puma HC.2 helicopters.

Defence - INTERNATIONAL

Despite only recently completing a Block 2.2 upgrade for its Boeing **A/MH-6 Little Bird** helicopter fleet, the US Army Special Operations Command (SOCOM) is now developing a **Block 3 upgrade** to plug the gap **caused by** the **cancellation of** the Future Attack Reconnaissance Aircraft (**FARA**), with further long term proposals being drafted under the designation currently known as H-6-X. Whilst the Block 2.2 improvements integrated a next generation FLIR and new tactical radios, the Block 3 A/MH-6R upgrade will introduce new mission systems and a more compact mission computer.

Fundamental to the upgrade however will be a redesigned fuselage to specifically meet SOCOM's requirements and which would increase the design limit to 2,268kg (5,000lb). In conjunction with this officials would like to upgrade the drive system and introduce an advanced blade to improve performance, although the latter could be constrained by the helicopter's small rotor disc. These options could be based on current commercial developments, which could be more easily funded. In the meantime three Block 3 A/MH-6R aircraft, which include the new fuselage, have been delivered to SOCOM, with a fleet-wide upgrade planned for 2031-32. This will extend the aircraft's life through to the mid 2040s, giving time for the Army to work out what it will do to meet the future scout requirements.

This could include new unmanned aircraft or teaming with drones, with current lessons being learned from the conflict between Russia and Ukraine providing useful feedback.

NH Industries (NHI) and the NATO Helicopter Management Agency (NAHEMA) signed a Euro 600 million first phase contract in mid-June to launch the development and qualification of the **NH90 helicopter Block 1 upgrade**, also known as Software Release 3. The programme is part of an NH90 evolution roadmap for both the Tactical Transport Helicopter (TTH) variant and the Naval Frigate Helicopter (NFH) version.

NAHEMA acted on behalf of the Belgian, German, Dutch and Italian defence ministries who see the Block 1 programme covering the next 10-15 years. It will include an upgrade of the NH90 communications suite and the integration of Data Link 22, allowing beyond line-of-sight interoperability without going through satellite communications. The latest version of Identification Friend or Foe (IFFMod5 Level 2) will also be integrated, whilst other upgrades available to the operators include the integration of the latest electro-optical system, a new dipping sonar and the integration of the Mk.54 torpedo and the MarteER anti-ship missile. The NH90 Block 1 will be able to navigate with a civil grade global navigation satellite system (GNSS) and Flight Management System.

The second phase of the programme, currently being finalised, consists of the deployment of the Block 1 configuration improvements on some 200 NH90 TTH and NFH helicopters. NHI, which is owned by Airbus Helicopters (62.5%), Leonardo (32%) and GKN Fokker (5.5 percent), is meanwhile planning a Block 2 upgrade to ensure the NH90 meets the need of the future battlefield. The company sees the life span of the helicopter eventually extending up to 50 years as future upgrade phases came forward.

Airbus Helicopters has also begun flight testing the prototype for the NH90 Standard 2 helicopter, which is being developed specifically for the French Army Aviation (ALAT) component to support Special Forces operations. The French Ministry for the Armed Forces has ordered a total of 18 aircraft in the Standard 2 configuration for the role, including ten upgraded NH90 TTH (Tactical Transport Helicopters) ordered after the programme launch in 2020, and an additional eight contracted last December via the NATO Helicopter Management Agency.

63 NH90TTH have been delivered to date, with 81 expected to be in service by the end of this decade. First deliveries took place to the ALAT in 2011 and in 2014 it was deployed for the first time in Mali. Since then total flight times have topped 50,000 hours. The Standard 2 configuration includes the integration of the Safran Autoflir 410 electro-optical system, new digital map generator, provision for a third crew member and new enlarged rear sliding windows in the cabin, able to accommodate self-protection guns. The prototype of the NH90 Standard 2 has also been equipped with mechanical and electrical provisions dedicated to the Distributed Aperture System (DAS) and a new generation Helmet Mounted Sight Digital Display (HMSD-DD) for a planned future integration stage. These systems are expected to improve the Special Forces capabilities to operate in highly demanding conditions in the future.

The ALAT NH90 fleet is supported by NH Industries (NHI) under the NH90 Operational Support Contract, common with Germany. This is a performance-based agreement, delegating a major part of the NH90 maintenance and logistics activities to NHI, enabling the customers to focus of their critical operations. NHI is 62.5 percent owned by Airbus Helicopters, with Leonardo holding 32 percent and GKN Fokker owning the remaining 5.5 percent.

Sikorsky Aircraft has been criticised by local Congresswoman Rosa de Lauro after the company announced it would be **laying off up to 400 workers** at its facilities in Connecticut as a result of the cancellation of the Future Attack Reconnaissance Aircraft (FARA) programme by the US Army. Senator Chris Murphy has also said that the decision is with the Congressmen arguing that the cancellation is short sighted and could have implications for the country's long term military capabilities and the workforce at the Stratford plant.

FARA was launched in 2018 to develop a helicopter that could carry out armed reconnaissance and scouting missions for other aviation units with better performance, agility and range, replacing the already retired Bell OH-58 Kiowa and, by 2028, the Boeing AH-64 Apache, $428.9 million was requested in FY2024 to continue development, with a further $3.5 billion to set aside for FY2025-2028. However a review of the battlefield, especially in Ukraine caused Army leaders to rethink their battle tactics, with sensors and unmanned systems seen as a less expensive and further reaching options.

Despite the cancellation blow, Sikorsky "hopes to retain as many roles as possible to meet national security commitments, to ensure the nation has what it needs for military readiness", according to a company spokesman. Other options for workers include transferring to other military contracts held by Sikorsky or its parent company, Lockheed Martin, and the possibility of design upgrades to existing aircraft. Sikorsky previously laid off 179 employees at its Connecticut plant in October last year, but currently employs around 8,000 people in the state, so this latest layoff only accounts for perhaps one percent of the work force.

Safran Helicopter Engines has **renewed** its **contract with** the **US Coast Guard** to support the Arriel turboshaft engines powering its Airbus MH-65 search and rescue helicopters. The new five year contract will provide in-service support and maintenance, repairs and overhaul for more than 240 Arriel 2C2-CG engines under a Support-By-the-Hour (SBH) contract.

The US Coast Guard's MH-65 helicopters have been powered by the Arriel engines since 2003 and are used daily for short range recovery missions. To date the fleet has logged over 1.7 million flight hours. The in-service support will continue to be provided by Safran Helicopter Engines USA which supports more than 400 customers in the USA and a total fleet of 3,200 engines.

TP Aero in Spain has signed a **contract with** the **Colombian Ministry of Defence** for the Maintenance, Repair and Overhaul (MRO) of the General Electric T700 engines that power its armed forces fleet of Sikorsky Black Hawk helicopters. The Spanish company, based in Albacete, has been providing MRO services for the Black Hawks operated by the Colombian Air Force and Army since 2012. The work will continue to be carried out at Albacete and the new contract will run until June 2026.

New **Budget documentation** covering development **of** the GE Aviation **T901** turboshaft engine **for** the **US Army** attack and utility helicopter **upgrade programme** has effectively **disappeared** from current schedules, with Department of Defence sources suggesting it will be at least another two years before the engine achieves a preliminary flight rating. Previously scheduled low rate production dates and initial operational capability (IOC) milestones have also been dropped from the latest programme documents.

The T901 engine is planned to be installed in the UH-60M Black Hawk and Boeing AH-64E Apache upgrade programmes, offering 50 percent more power and a 25 percent in fuel efficiency and was originally intended for the new cancelled Future Attack Reconnaissance Aircraft (FARA) programme It is intended to be a drop-in replacement for the 1970s era General Electric T700 engine in both helicopters. The last published schedule envisaged the new engine entering low rate production in the third quarter of FY2026, followed by full rate production beginning in the two years later in FY2028.

Defence - INTERNATIONAL

The **UK** Ministry of Defence has confirmed an **order** for **six more** Airbus **H145 helicopters** for delivery in 2025, to replace Eurocopter Puma HC.2s currently carrying out temporary emergency response missions with the Royal Air Force in Cyprus and jungle warfare training in Brunei.

The 5-bladed H145s will help rationalise the number of helicopter types in UK military service, and join the 29 Airbus H135s and seven H145s used by the Defence Helicopter Flying School under the Military Flying Training System at RAF Shawbury. The enlarged H145 fleet will bring savings in support costs and substantially reduce pilot conversion training time.

The **first** US East Coast assigned Bell Boeing **CMV-22B Osprey** tiltrotor **arrived at** Naval Air Station (**NAS**) **Norfolk** on 5 April for VRM 40 Fleet Logistics Multi-Mission Squadron. The remaining aircraft will begin to follow on this summer, when the CMV-22B will replace the Grumman C-2A Greyhound fixed-wing aircraft to support the US Navy Atlantic Fleet, transporting personnel, cargo and mail from shore logistics sites to ships at sea.

VRM-40 was established alongside the sister squadron, VRM-30 and VRM-50, the training squadron, at Naval Air Station North Island in California in March 2022, but all the squadron personnel have been officially stationed at NAS Norfolk since 1 February this year. The Atlantic Fleet is responsible for seven nuclear-powered aircraft carriers, 55 aircraft squadrons, 1,200 aircraft and 52,000 personnel focused on operational readiness, interoperability and safety.

leonardocompany.com

Helicopters | Aeronautics | Electronics, Defence & Security Systems | Space

LEONARDO
HELICOPTERS