

Weekly Aviation Headline News

WORLD NEWS

Virgin Atlantic Cargo partners with cargo.one

Virgin Atlantic Cargo and cargo.one have announced a global partnership to bring the carrier's popular capacity to the real-time digital booking platform. The partnership aims to deliver a proposition with instant bookings 24/7 for Virgin Atlantic Cargo's latest range of products. The airline says customers can customise the right handling, speed, priority, and price for their needs by choosing from Classic, Priority, and Express rates. cargo.one will offer freight forwarders the most user-friendly access to Virgin Atlantic Cargo capacity, along with many speed and efficiency benefits, enabling them to win more shipments.

Finnair to lease two A330s to Qantas

Finnair and Qantas have entered into a long-term agreement, in which Finnair first leases two A330 aircraft with crew (wet lease) to Qantas for a period of two years, and after the wet lease period, dry leases (aircraft lease with no crew) two of its A330s to Qantas for a period of 2.5 years, starting in 2025. The wet lease of the first aircraft will start in October 2023, and the wet lease of the second aircraft will start in early 2024. The agreement with Qantas is a part of Finnair's determined efforts to ensure the optimal use of its A330 fleet.

IAG Cargo expanding capacity on routes

IAG Cargo announced it is expanding capacity on routes between its European hubs, Latin America and the Caribbean for the summer season. The business will now offer over 400 wide-body weekly services between the regions. IAG is offering increased capacity on a range of routes, including an additional 4 weekly services between Madrid and Bogota, as well as a daily service between London and Bermuda. Such routes regularly facilitate the transport of perishable such as flowers and tropical fruit, as well as pharmaceuticals and automotive parts.



The UltraFan is 25% more efficient than the first-generation Trent.

© Rolls-Royce

Rolls-Royce begins testing brand new engine

Representing a step change in efficiency

Rolls-Royce achieved a major milestone last week when it launched the first series of tests of its UltraFan technology demonstrator at its facility in Derby, UK.

The engine OEM indicates that it's the first time in 54 years that it has tested a brand-new engine architecture and is proof of what can be achieved when industry and governments work together. According to Rolls-Royce, the UltraFan delivers a 10% efficiency improvement over the Trent XWB, which is already the world's most efficient large aero engine in service.

In the nearer term, there are options to transfer technologies from the UltraFan development programme to current Trent engines, providing operators with even greater availability, reliability and efficiency. In the longer term, says the engine maker, UltraFan's scalable technology from ~25,000-110,000lb thrust offers the potential to power new narrowbody and

widebody aircraft anticipated in the 2030s.

Tufan Erginbilgic, CEO, Rolls-Royce plc, said: "The UltraFan demonstrator is a game changer – the technologies we are testing as part of this programme have the capability to improve the engines of today as well as the engines of tomorrow. That is why this announcement is so important – we are witnessing his-

when government and industry come together with a common purpose."

The tests took place in the world's largest indoor aero-engine testing facility – Testbed 80. The 100% SAF, derived primarily from waste-based sustainable feedstocks such as used cooking oils, was provided by Air bp. UK Business and Trade Secretary, Kemi Badenoch added that this

cutting-edge technology would help the transition towards a greener future for aviation while attracting further investment into the UK's

“The UltraFan programme is a great example of what can be achieved when government and industry come together with a common purpose.”

Tufan Erginbilgic, CEO, Rolls-Royce plc

tory in the making; a step-change in engine efficiency improvement. When combined with sustainable aviation fuels, more efficient gas turbine engines will be key to hitting the industry's target of net zero flight by 2050. Today we are closer to achieving this ambition.

"Collaboration is key in driving the decarbonisation of air travel and the UltraFan programme is a great example of what can be achieved

aerospace industry, helping grow the economy.

UltraFan has been a decade in the making, with the concept unveiled publicly in 2014. It is a fundamentally different design architecture to that within the approximately 4,200 Rolls-Royce civil large engines currently in service, as it incorporates a geared design that no other industry player has produced at this size before.

AIRCRAFT & ENGINE NEWS

Eve Air Mobility completes wind tunnel testing of eVTOL vehicle



Wind tunnel testing of Eve's eVTOL vehicle

© Eve

Eve Air Mobility (Eve) has released that it has completed wind tunnel testing of its electric vertical take-off and landing (eVTOL) vehicle. The testing, which was conducted at a wind tunnel near Lucerne, Switzerland, utilised a scale model of Eve's eVTOL which is projected to enter service in 2026. Wind tunnel testing is an important engineering tool used in the development of an aircraft. The testing allows engineers to monitor the flow of air over and around the vehicle and each of its individual parts. It is also used to measure the aerodynamic forces and moments acting on the vehicle, allowing the team to evaluate the vehicle's lift, efficiency, flying qualities and performance. The main objective of the test was to investigate and validate how components including fuselage, rotors, wing, tail and other surfaces would perform in flight. Wind tunnel testing provides a unique view of aerodynamic behaviour of complex geometry and provides a higher level of validation of design characteristics. The tests are part of an effort to acquire experimental data to validate production solutions, development tools and models which also includes other test articles such as fixed and moving rigs, flying vehicles and other wind tunnel tests. "The completion of wind tunnel testing is an

important engineering milestone as we continue the development of our eVTOL," said Luiz Valentini, Chief Technology Officer at Eve Air Mobility. "The information we obtained during this phase of development has helped us further refine the technical solutions of our eVTOL before committing to production tooling and conforming prototypes. Our goal is to design, produce and certify an aerodynamic and efficient eVTOL that will be used for a variety of urban air mobility missions." Eve's engineering team will use the data gathered through wind tunnel testing to continue to develop the eVTOL's control laws leading to optimal performance and passenger comfort.

Airbus Helicopters tests VSR700 for first time in operational configuration at sea

Airbus Helicopters and the French Armament General Directorate (DGA) has tested the unmanned aerial system (UAS) VSR700 for the first time in an operational configuration from a ship at sea. At the beginning of May, the VSR700 performed 80 fully autonomous take-offs and landings from a civil vessel equipped with a helicopter deck, cruising off the coast of Brittany in the west of France. "This flight test campaign was an important step for the VSR700 programme as it allowed us to validate the excellent performance of the drone in operational conditions, which were representative of its future missions," said Nicolas Delmas, Head of the VSR700 programme at Airbus Helicopters. "The VSR700 prototype opened its flight envelope in winds above 40 knots, accumulated eight hours of testing in 14 flights and made successful landings in several different sea states," he added. In 2022, the autonomous take-off and landing capabilities of the VSR700 were tested from the same vessel using an optionally piloted vehicle (OPV) based on a modified Guimbal Cabri G2 equipped with the autonomous take-off and landing (ATOL) system developed for the VSR700. This time the test campaign took place with the SDAM demonstrator and fully validated the capabilities of the system as part of the SDAM (Système de Drone Aérien pour la Marine) study that was awarded to Airbus Helicopters and Naval Group in 2017. Autonomous take-off and landing capabilities are a key asset of the VSR700 and are made possible with the use of the Airbus DeckFinder system. This enables autonomous launch and recovery of unmanned air vehicles (UAVs) with an accuracy of 10-20cm during challenging operations in harsh environmental conditions, independent of GNSS/GPS and regardless of degraded visual conditions.



Testing of the VSR700 for the first time in an operational configuration from a ship at sea © Airbus Helicopters / Eric Raz

Star Air commences Embraer E175 flights in India



Star Air is offering business-class seats on regional routes

© Embraer

Star Air, an all-Embraer jet operator in India, has commenced revenue flights on its first Embraer E175 aircraft. The flight took place on May 13, with Star Air's dual-class E175 flying from Bangalore-Hyderabad-Jamnagar-Bangalore. The carrier has leased four E175s and these aircraft will boost the airline's existing fleet of five ERJ 145s, providing the airline greater flexibility and efficiency as it grows its network. The airline flies to multiple destinations across the country, most of which are part of the UDAN scheme. Star Air is the first airline to offer business-class seats on regional routes. The E175 is Embraer's best-selling aircraft and one of the most-sold aircraft worldwide. In the United States, the E175 is the market leader in the up- to-150-seat jet segment, and the aircraft serves a key role in stimulating the regional aviation sector with outstanding economics and performance capabilities. The E175s add to the airline's existing fleet of ERJ145s.

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AIRCRAFT & ENGINE NEWS

CDB Aviation delivers China's first A330 P2F aircraft on lease to Sichuan Airlines



Celebration of the first delivery of an A330-300 P2F aircraft to Sichuan Airlines
© CDB Aviation

CDB Aviation, a wholly owned Irish subsidiary of China Development Bank Financial Leasing (CDB Leasing), has re-delivered China's first-ever converted Airbus A330-300 Passenger-to-Freighter (A330 P2F) aircraft on lease to its customer, Sichuan Airlines. The A330 was converted by Elbe Flugzeugwerke GmbH (EFW) with Shanghai Technologies Aerospace Company (STARCO) at its facilities in Shanghai Pudong, concluding EFW's first-ever A330 P2F conversion to have taken place in China. The freighter, equipped with Rolls-Royce Trent 700 engines, was delivered to Sichuan Airlines on May 15, 2023, becoming the inaugural A330 P2F in the carrier's fleet. In addition to the A330 P2F, CDB Aviation has two A320 aircraft on lease to the airline. "We are very happy to build on our relationship with CDB Aviation and thank CEO Jie Chen and his team for their work and cooperation in bringing this

aircraft to market," said Zuyi Shi, Sichuan Airlines' Chief Executive Officer. "The introduction of this A330 P2F will provide us more freighter capacity to meet the market requirement and further strengthen our development strategy in cargo business." The A330 P2F is the in-demand, next-generation aircraft in the fast-growing medium wide-body space. CDB Aviation was one of the first lessors to secure conversion commitments for the A330 P2F. Since the company's entry into the air cargo space in 2022, CDB Aviation has contracted 14 A330 P2F conversions with EFW.

AerCap completes delivery of four Airbus A321neo aircraft to Air India

AerCap Holdings (AerCap) has completed a mandate for the lease of four new Airbus A321neo aircraft with Air India, the flag carrier of India, following the delivery of the fourth aircraft. The aircraft, powered by CFM LEAP-1A engines, are the first A321neo aircraft to be inducted into the Air India fleet. "It is a very exciting time for Air India as it returns to Tata Group ownership and transitions its fleet to meet the rapidly growing Indian aviation market. AerCap is delighted to play a role in Air India's fleet transformation by providing its first tranche of NEO aircraft on operating lease," said Peter Anderson, the Chief Commercial Officer of AerCap. "We wish Air India and the Tata Group every success as they restore Air India to one of the world's leading airlines." Nipun Aggarwal, Chief Commercial & Transformation Officer, Air India, said: "These four new, leased Airbus A321neo aircraft join our fast-growing fleet as part of the sweeping transformation in progress at Air India. We look forward to continuing our very successful partnership with AerCap as we go along in our continuing effort to build Air India as one of the world's finest airlines."



The fourth Airbus A321neo has been delivered to Air India by

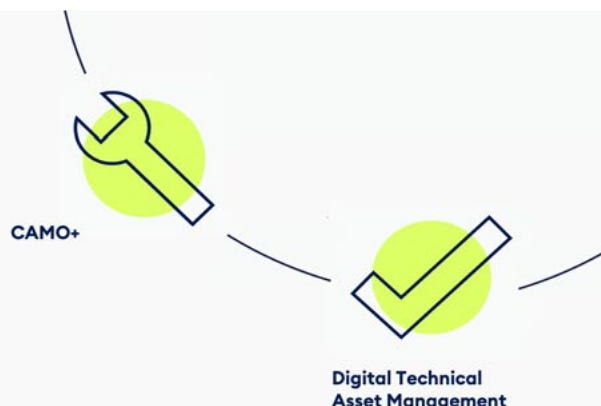
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AIRCRAFT & ENGINE NEWS

Embraer and lessor Azorra sign deal with Royal Jordanian Airlines for eight E2 jets

Embraer and commercial aviation lessor Azorra have signed a new eight-aircraft deal with Royal Jordanian Airlines, Jordan's flag carrier. The agreement will see the introduction of both the E190-E2 and E195-E2 to the airline's fleet. Aircraft deliveries are expected to begin in Q4 2023. The agreement covers eight commercial aircraft, four E190-E2 and four E195-E2, with a list price value of \$635 million (£508 million). Six aircraft, four E190-E2s and two E195-E2s come from Azorra's existing backlog with Embraer. Two further E195-E2s are firm orders with Embraer directly from the airline, which were added to Embraer's Q4 2022 backlog as 'undisclosed'. Building on the announcement made by Royal Jordanian Airlines (RJ) in October last year, in which the airline revealed its plans to expand its fleet with new-generation aircraft, E2 was specifically chosen for its superior performance and operational efficiency. The aircraft is aligned with RJ's strategic goals to renew and grow the fleet that is deployed to destinations within the Levant. The airline's strategic plan is to further boost RJ's position as the preferred airline in the region by offering improved connectivity to a wider network, positioning Amman as the leading gateway to the Levant. The E195-E2 will seat 12 passengers in Crown Class and 108 in Economy. The smaller E190-E2 will have the same number of Crown Class seats and 80 in Economy. All aircraft feature Embraer's signature 'no middle seat' 2x2 seating, and business-class seats with a 53-inch legroom. The economy cabin will feature new slimline seats, also in a four-abreast configuration with no middle seat. The aircraft also features extra-large overhead bins, mood lighting, leather seats and wireless connectivity for entertainment in addition to full internet browsing, and communication capability with ground networks during flight.



Royal Jordanian Airlines has signed a deal with Embraer and Azorra for eight new E2 jets
© Embraer

Helvetic Airways leases two Embraer E190s from TrueNoord



Helvetic Airways has leased two Embraer jets from

© TrueNoord

Amsterdam-headquartered regional aircraft lessor TrueNoord has successfully leased two Embraer E190 jets to Swiss carrier Helvetic Airways AG (Helvetic). The aircraft (MSNs 19000603, 19000607) will be based in Zurich and will operate on flights to Europe-wide destinations. They will be available for ACMI to airlines and tour operators as well as Helvetic's own scheduled operations. The two aircraft will soon be deployed on Helvetic's existing network and therefore no additional crews will be recruited. These aircraft bring the carrier's fleet to 18 aircraft: four Embraer E195-E2s, eight E190-E2s and six E190s.

MRO & PRODUCTION NEWS

Rolls-Royce and Philippine Airlines sign TotalCare agreement for Trent XWB-97 engines



Rolls-Royce and Philippine Airlines have signed a TotalCare agreement for Trent XWB-97 engines
© Rolls-Royce

Rolls-Royce has signed a TotalCare service agreement with Philippine Airlines for Rolls-Royce Trent XWB-97 engines that will power nine Airbus A350-1000 aircraft. The agreement will provide the airline with predictability as well as a known cost for the services and maintenance of the new fleet. TotalCare is designed to provide operational certainty for customers by transferring time on wing and maintenance cost risk back to Rolls-Royce. This industry-leading premium service offering is supported by data delivered through the Rolls-Royce advanced engine health monitoring system, which helps provide customers with increased operational availability, reliability and efficiency. Alvin Kendrick O. Limquenco, PAL Chief Financial Officer and Senior Vice President, commented: "We value the strong relationship we have built over the years with Rolls-Royce, whose engines power our existing fleet of Airbus A350-900 and A330-300 aircraft. When our brand-new Airbus A350-1000 aircraft enter service in the future, we expect the Rolls-Royce Trent XWB-97 engines to give us the power, performance and all-around efficiency to operate our transpacific

and transpolar flights that provide vital connections to North America from the Philippines and the rest of Southeast Asia." As versatile as it is reliable, the Trent XWB has already shown it is equally efficient at powering short-haul or long-haul flights, which makes it the ideal solution for passenger and freighter operators with a varied network. As the world's most efficient large aero engine in service, the Trent XWB will also help fast track Philippine Airlines' sustainability journey. With a 15 per cent fuel consumption advantage over the first generation of Trent engine, the Trent XWB goes further on less fuel, and offers leading performance and noise levels. It is also ready to operate on a 50% Sustainable Aviation Fuel blend.

MRO & PRODUCTION NEWS

P&WC to invest US\$10 million in technology upgrades at Wichita Falls facility

Pratt & Whitney Canada (P&WC), a business unit of Pratt & Whitney, has announced a US\$10 million investment to expand the capabilities of its Wichita Falls, Texas, engine component repair facility, which is expected to create 30 new jobs. As part of the investment, the company will modify its existing coatings line using an innovative application process. "The Wichita Falls component repair facility joined the Pratt & Whitney Canada family in 1997 and since then we have strengthened our ties with the local community," said Irene Makris, Vice President, Customer Service, Pratt & Whitney Canada. "We continue to invest and grow in Wichita Falls because of the strength of the local workforce, the support of the community, and the enthusiastic 'can do' attitude of our Wichita Falls team and leadership. Our Wichita Falls facility will be the first of our plants to pioneer a new coating process which will significantly improve the durability and performance of our engines." The facility repairs the "hot" (combustion) sections of a variety of Pratt & Whitney Canada engines. As part of the repair process, certain engine parts, such as turbine blades, are given a special coating that protects against the high temperatures needed for these high-performance engines. The investment is to create a line that uses a newly developed coating technique. Pratt & Whitney Canada designs, builds and maintains engines for a variety of missions and purposes, from general aviation enthusiasts to life-saving air medical and rescue operations. This year, Pratt & Whitney Canada is celebrating achieving 1 billion operating hours since it was founded in 1928. Pratt & Whitney Canada has produced more than 110,000 engines, and 66,000 engines are currently in operation throughout the world. Construction will begin before mid-2023 and is expected to be completed by early 2025.



From left: Irene Makris, VP Customer Service, P&WC, Stephen Santellana, Mayor of Wichita Falls and Leo Lane, President of the Wichita Falls Economic Development Corporation
© P&WC



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MRO & PRODUCTION NEWS

Thales to move Gol maintenance services to Brazil

A deal has been signed between Brazilian carrier Gol Linhas Aeras Inteligentes SA (Gol) and France's Thales SA (Thales) for maintenance services for Gol to be carried out in Brazil. Currently Thales has facilities in both the United States and France for repairs and maintenance of Gol's fleet of approximately 120 all-Boeing jets. According to Reuters news agency, all such work will now be carried out at the Thales plant near Sao Paulo. While no financial details of the agreement have been disclosed, it is clear that local operators will be provided with an opportunity to cut costs. Thales, which had grown its plant in Sao Bernardo do Campo in 2021 in order to provide such services, said the deal would allow Gol to reduce turnaround time, pay in local currency and receive support in its own time zone. It is anticipated that turnaround time should be cut to two days from 30 previously, the French company said, estimating Gol will be able to save around 60% in logistics and taxes. The plant could also serve other Latin American airlines in the future, it added. The contract is initially set to last for three years but has the potential to be extended.

SEA awarded STC to upgrade Hawker 800-series aircraft with insight integrated flight deck

Southeast Aerospace (SEA) has been awarded the FAA Supplemental Type Certificate (STC) number ST04570CH for the installation of the Universal Insight Electronic Flight Instrument System (EFIS), Datacom for CPDLC and FANS 1/A and a standby instrument in the Hawker 800(A) (B)(XP)-series aircraft. SEA partnered with Universal Avionics to offer the latest EFIS technology, the Insight Integrated Flight Deck, to Hawker owners and operators, providing a much-needed avionics upgrade path. Universal Avionics designed the InSight Display System as an integrated flight deck solution, featuring embedded synthetic vision with advanced mapping capability, electronic charts, and radio control. There have been little to no significant and reasonable upgrade paths for modernising avionics on Hawker 800 aircraft since production began in the 1980s. SEA's STC brings new cockpit avionics technology to the Hawker 800 series aircraft offering a much-needed solution for the aging and near or entirely obsolete original production avionics, in addition to providing new capabilities for pilots while improving safety and efficiency to guarantee operation for years to come. The STC provides a modernisation option for Hawker 800A, 800B and 800XP aircraft with existing Collins EFIS 85/86, FCS-80 and APS-85 autopilots by upgrading to the new Universal InSight Integrated Flight Deck, the only viable EFIS upgrade to the Hawker 800 series in the market today. FANS 1/A, CPDLC, and ATN B1 datalink capability is accomplished using the Universal Avionics UniLink UL-801 and Latitude DL150 Data Link unit.



Hawker 800 flight deck

© Southeast Aerospace

FINANCIAL NEWS

Air Canada reports revenues of CA\$4.887 billion for first quarter 2023

Air Canada has reported first-quarter 2023 operating revenues of CA\$4.887 billion, an increase of CA\$2.314 billion from the same quarter in 2022, primarily from higher passenger revenues due to increased travel demand. Compared to the first quarter of 2019, operating revenues increased about 10%. Operated capacity increased about 53% from the first quarter of 2022 (about 84% of first quarter 2019 ASMs), in line with the projection provided in Air Canada's February 17, 2023, news release. Air Canada reported operating expenses of CA\$4.904 billion which increased CA\$1.781 billion or 57% from the first quarter of 2022. The increase included the impact of the year-over-year capacity increase, an increase of about 83% in passengers carried and an approximate 30% increase in jet fuel prices. Operating loss of CA\$17 million, improved from an operating loss of CA\$550 million in the first quarter of 2022. Net income of US\$4 million, increased US\$978 million from the first quarter of 2022. Adjusted net loss of CA\$188 million improved CA\$559 million from the first quarter of 2022. Air Canada reported adjusted CASM (adjusted cost per available seat mile) of 14.52 cents improved 6.9 per cent from the first quarter of

FL TECHNICS grants new scholarships for VILNIUS TECH students



FL TECHNICS and representatives from VILNIUS TECH have signed a contract to grant scholarships for top students © FL TECHNICS

FL TECHNICS, a global independent aircraft maintenance, repair, and overhaul (MRO) solutions provider, and VILNIUS TECH, one of the leading universities in Lithuania, have signed a contract granting scholarships for top students, including exclusive opportunities to get practical experience and mentorship from the company's leading experts. "With

an ever-developing network of clients and partners, we are committed to maintaining sustainable solutions by industry-leading teams of engineers and experts. Thus, this scholarship initiative is a decisive and strategic step to ensure the development of our base maintenance and engineering departments. With many of the alumni from VILNIUS TECH already working in FL TECHNICS, I am confident that together we will shape the generations of aviation engineers for years to come," Zilvinas Lapinskas, CEO of FL TECHNICS, emphasized the importance of the initiative. VILNIUS TECH has a dedicated institute of aviation engineering and has been partnering with FL TECHNICS for more than 18 years, including various educational integration, scientific projects, expertise exchange programs, and more. "FL TECHNICS demonstrates an exceptional effort to build relationships with our students, who are future aviation engineers and specialists. We are glad to further develop our partnership, as we are now able to grant deeper integration within the industry and business, providing new opportunities for the top students to start their aviation career not only in FL TECHNICS but also as a part of the global Avia Solutions Group aviation family to which the company belongs," — stated VILNIUS TECH dean, associate Prof. Dr Linas Jukevicius. The new scholarship program is one of the many partnership initiatives discussed by the management of both organizations, including international student exchange opportunities or internship opportunities, leveraging global MRO infrastructure and the network of FL TECHNICS.

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2022. The unit cost improvement resulting from higher operated capacity was partially offset by a favourable maintenance cost adjustment of CA\$159 million recorded in the first quarter of 2022. First quarter 2023 CASM of 20.38 cents increased 2.5% from the first quarter of 2022 due to significantly higher fuel prices, higher ground package costs and higher passenger service costs due to higher traffic and higher selling costs, which are largely driven by revenues. Adjusted EBITDA of CA\$411 million, with an adjusted EBITDA margin of 8.4%, improved from a negative adjusted EBITDA of CA\$143 million in the first quarter of 2022. Net cash flows from operating activities of CA\$1.437 billion increased CA\$1.070 billion from the first quarter of 2022. (£1.00 = CA\$1.69 at time of publication).

IAI reports first-quarter revenues of US\$1,279 million

Israel Aerospace Industries (IAI), Israel's largest national military and civilian security defence company, has reported that the company's revenues in the first quarter of 2023 (Q1 2023) totalled US\$1,279 million compared with US\$1,200 million in Q1 2022, an increase of US\$79 million arising mainly from the increase in revenues of the Systems Missiles & Space Group and the Aviation Group. The revenues of the Military Groups in Q1 2023 increased by 3% to US\$1,057 million compared with US\$1,030 million in Q1 2022, an increase of US\$27 million. The revenues of the Aviation Group in Q1 2023 increased by 10% to US\$356 million compared with US\$325 million in Q1 2022 – an increase of US\$31 million owing to the increased revenues in the Aircraft MRO and Business Jet divisions. Revenues for export in Q1 2023 accounted for 72% of revenues at US\$927 million (US\$352 million to Israel, representing 28% of revenues) compared with US\$836 million, accounting for 70% of revenues in Q1 2022 (US\$364 million to Israel, representing 30% of revenues). Net income in Q1 2023 grew by 17% to US\$91 million (7.1% of revenues), compared with net income of US\$78 million (6.5% of revenues) in Q1 2022. The net income of the Military Groups in Q1 2023 increased by 13% to US\$99 million compared with US\$88 million in Q1 2022, an increase of US\$11 million. The net income of the Aviation Group in Q1 2023 amounted to US\$10 million compared with a net income of US\$7 million in Q1 2022. EBITDA in Q1 2023 grew by 14% to US\$183 million (14.3% of revenues), compared with US\$161 million (13.4% of revenues) in Q1 2022. Gross profit in Q1 2023 amounted to US\$241 million (19% of revenues) compared with US\$213 million (18% of revenues) in Q1 2022. The gross profit

MRO & PRODUCTION NEWS

Deutsche Aircraft breaks ground for final assembly line of new D328eco™



Ground-breaking ceremony of the new assembly line for the new D328eco aircraft

© Deutsche Aircraft

The management team of Deutsche Aircraft and stakeholders and representatives from Leipzig/Halle Airport, the German government and the Free State of Saxony met for the ground-breaking ceremony of the aircraft assembly line for the new 40-seat turboprop aircraft, the D328eco. The assembly line will be built and operated in compliance with the best industry practices and sustainability principles. The German government has acknowledged the significant role of Deutsche Aircraft in the aviation industry. "For the German government, Deutsche Aircraft is a strategic partner for the sustainable development of the aviation industry. The D328eco is an important industrial policy project for the German government," says Dr. Anna Christmann (Federal Government Coordinator of German Aerospace). "The planned use of 100% SAF in the D328eco as a market-ready option is a key milestone for the aviation industry worldwide. In the coalition agreement, we set ourselves the goal of making Germany a pioneer in climate-neutral aviation." The strategic orientation of Deutsche Aircraft and Leipzig/Halle Airport with the support of the Free State of Saxony makes Leipzig an attractive location for the assembly line. The region has an excellent infrastructure, sufficient space and a qualified workforce. In addition, Saxony has a long tradition of aircraft construction, which Deutsche Aircraft can now build on. The assembly line will be built on approximately 62,000 m² and will have a production capacity for forty-eight D328eco aircraft per year. In addition to the production hall, a hangar will be built for aircraft delivery, along with a logistics centre and an administration building with parking spaces. According to Götz Ahmelmann (CEO of Mitteldeutsche Flughafen AG) "Deutsche Aircraft's new assembly line at Leipzig/Halle Airport will make our airport one of the beacons of sustainable aviation. The D328eco sets the standard in terms of climate-friendly production and environmentally friendly flying."

of the Military Group in Q1 2023 increased by 25% to US\$212 million compared with US\$170 million in Q1 2022. The gross profit of the Aviation Group in Q1 2023 amounted to US\$31 million compared with US\$24 million in Q1 2022. (£1.00 = US\$1.25 at time of publication).

elfc completes 100% acquisition of INAV

Shannon, Ireland-based engine lessor, elfc, has completed the purchase of the remaining shares of INAV LLC., the Chicago-based engine parts and components company. "We are delighted to complete the final stage of this key acquisition"

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said Tom Barrett, President & CEO of elfc. "Since our initial investment in 2017, we have worked closely with INAV to develop the efficiency of our engine life cycle management and enhance the product offering to our combined customer bases. This acquisition is an important milestone for the growth and development of elfc and together with our colleagues at INAV we aim to support our customers with more choice for more products at the times they need it." INAV LLC's President & CEO, Craig Hackendahl commented, "We are thrilled to combine our ability to manage end-of-life engines with the financial strength and global reach of elfc. The additional capital and access to the product provides us with growth opportunities on both the sourcing and delivery sides. The combination of elfc and INAV expands our ability and role in supporting the circular economy while reducing maintenance costs through an increased supply of high-demand serviceable material." elfc is one of the world's largest spare engine leasing and financing companies, specialising in flexible short-to-long-term engine support packages for the commercial aviation industry, with a portfolio of over 350 engines worth in excess of US\$3billion (£2.4 billion). INAV LLC, headquartered in Crystal Lake, Illinois, is a specialist in the buying and selling of commercial aircraft engine parts and components, in support of MRO's, airlines and leasing companies.

GE Aerospace to invest up to US\$20 million in EPISCenter

GE Aerospace plans to invest up to US\$20 million (£16 million) to add a new test cell and equipment at the Electrical Power Integrated Systems Center (EPISCenter) in Dayton, Ohio, to meet increased demand for hybrid-electric aircraft engine component testing in coming years. NASA recently selected GE Aerospace to develop an integrated, megawatt (MW)-class hybrid electric propulsion system as part of the Electrified Powertrain Flight Demonstration (EPFD) programme. Plans for EPFD call for ground and flight tests of the hybrid electric system this decade, in collaboration with Boeing, using a modified Saab 340B aircraft and GE's CT7 engines. NASA also previously awarded GE Aerospace a contract for the Turbofan Engine Power Extraction Demonstration under the Hybrid Thermally Efficient Core (HyTEC) project. The EPISCenter facility improvements will support testing for GE Aerospace's expansive development of next-generation propulsion technologies in which electrification is key. "The future of flight is more electric. GE Aerospace has been developing the building blocks for hybrid electric engine technologies for years, combining our world-class propulsion

MRO & PRODUCTION NEWS

EFW receives Chinese validation of its STC for A330P2F



EFW has received V-STC from China for the A330P2F conversion programme

© EFW

Elbe Flugzeugwerke GmbH (EFW), the centre of excellence for Airbus Passenger-to-Freighter (P2F) conversions and joint venture between ST Engineering and Airbus, has received the validation of its Supplement Type Certification (V-STC) by the Civil Aviation Administration of China (CAAC) for its A330P2F aircraft conversion programme comprising two variants - the A330-200 and the A330-300. This major milestone was achieved alongside with the first-ever A330 freighter converted in China which has been re-delivered by EFW to its customer CDB Aviation for leasing to Sichuan Airlines. With this conversion programme milestone, EFW will be able to work even more closely with Chinese partners. The validation by the Chinese authorities enables customers with Airbus A330 aircraft registered in China to easily undergo conversions under the EFW programme, whether in MRO sites in China or in other countries. "Offering conversions in China to serve the high demand in this growing market was an important strategic decision for EFW," commented Jordi Boto, CEO of Elbe Flugzeugwerke GmbH. "We are very pleased to have successfully started this journey together with CDB Aviation, our first customer with A330P2F conversions on three continents, and we are very grateful for the trust they have placed in us." The A330P2F aircraft for CDB Aviation was converted at ST Engineering's airframe facility in Shanghai, Shanghai Technologies Aerospace Company, concluding EFW's first-ever A330P2F conversion in China. There is a strong market demand for Airbus freighter conversions, with the A330P2F programme being increasingly considered as the preferred next-generation platform in the medium-to-wide-body category. To meet the demand for Airbus freighter conversions, EFW and ST Engineering have, in total, set up nine conversion sites worldwide over recent years to ramp-up total conversion capacity for all their Airbus P2F programmes comprising the A330P2F, A320P2F and A321P2F. In China, besides Shanghai, there are also conversion sites, namely for the A330P2F in Chengdu as well as for A321P2F in Guangzhou and Tianjin, which is a third-party conversion site for Haite. EFW's A330P2F programme has been developed in collaboration with ST Engineering and Airbus, with EFW holding the Supplemental Type Certificate and leading in the overall programme as well as marketing and sales efforts. The A330P2F programme (A330-200P2F and A330-300P2F) are both equipped with advanced technology that offers airlines additional operational and economic benefits. The A330-200P2F can carry a gross payload of up to 60 tonnes in weight to over 7,700 km, while the larger A330-300P2F can carry a gross payload of up to 62 tonnes and a containerised volume of up to ~18.581ft³ (~526m³).

engineering, electrical power generation and electrical power system management experience. Our new investment in EPISCenter to support hybrid-electric engine testing affirms our commitment to the development of game-changing technologies for the aviation industry,"

said Mohamed Ali, Vice President of Engineering for GE Aerospace. GE Aerospace has collaborated with NASA for decades on development of new aviation technologies.

FINANCIAL NEWS

Munich Airport significantly improves financial results in fiscal year 2022

A dynamic traffic development brought Munich Airport significantly improved financial results in fiscal year 2022. With a passenger volume of 31.6 million passengers – 19 million more than in the previous year – the airport already reached around 70% of its pre-crisis level. Revenue was almost doubled year-on-year to around €1.2 billion. Earnings before interest and taxes (EBIT) amounted to –€28 million, an improvement of €258 million on the previous year. Munich Airport posted earnings after taxes (EAT) of –€59 million, thus reducing the previous year's loss by around €200 million. As the CEO of FMG, Jost Lammers, emphasised at the company's annual press conference, Munich Airport has also achieved an economic turnaround thanks to the positive traffic development in 2022. Lammers commented: "We expect this encouraging trend to continue in the current year, too. In 2023 we anticipate another significant increase in our revenue, opening up the prospect for us to return to the black already in the fourth year after the start of the worst crisis in the history of aviation." The positive traffic development was particularly attributable to connections to North America: Since July 2022, traffic between Munich and destinations in the US has even been higher than the pre-pandemic level. With the start of last winter's flight schedule, traffic on routes between the Bavarian capital and Asian destinations also increased again. This growth in travel to Asia will continue in 2023 as Chinese destinations are added. Lammers sums up: "We have regained our position as a premium international hub. One clear indication of this is that we increased the number of our intercontinental passengers almost fivefold compared to the previous year. This year, our passenger numbers will reach around 80% of their pre-crisis level again." Munich Airport continued its recovery in the first quarter of 2023, with around seven million passengers counted between January and March. This was 70% more than in the same period of the previous year. Due to the restrictions on international travel as a result of the pandemic, only a little over four million passengers had used Munich Airport for a flight in the first quarter of 2021. With its current passenger volume, Munich Airport has reached around 70% of the record level from the pre-crisis year 2019.

Norwegian limits winter losses and eyes very strong summer ahead

Having exited bankruptcy protection in May 2021, the newly restructured Scandinavian low-cost carrier Norwegian Air Shuttle ASA (Norwegian) abandoned its long-haul operations and focused primarily on high-frequency domestic flights, as well as business flights to London and holiday

MRO & PRODUCTION NEWS

ST Engineering and SF Airlines to establish Airframe MRO in Hubei, China



ST Engineering and SF Airlines to combine resources under the umbrella of a joint venture company (JVCo) in Ezhou, Hubei, China © SF Airlines

The Commercial Aviation arm of Singapore Technologies Engineering (ST Engineering) and SF Airlines Co., Ltd. (SF Airlines), are to combine resources under the umbrella of a joint venture company (JVCo) in Ezhou, Hubei, China. The JVCo will operate a greenfield airframe Maintenance, Repair & Overhaul (MRO) facility at Ezhou Huahu Airport to provide airframe MRO services to cargo and passenger airlines operating in the Asia region, including SF Airlines. The JVCo was set up with a registered capital of approximately S\$19 million (£11.4 million). ST Engineering will hold a 60% stake in the JVCo, with the remaining 40% stake held by SF Airlines. It is anticipated the newly built hangar will be operational by 2025. Jeffrey Lam, President of Commercial Aerospace at ST Engineering, said, "China will be a strong growth driver for Asia's commercial aerospace sector over the next decade. A presence in Hubei, China, will enhance our MRO network in Asia to better meet and capture the rising regional demand, while our strategic collaboration with an airline partner will enable us to start up a greenfield operation quickly." It is not anticipated that the setup of the JVCo will have any material impact on the consolidated net tangible assets per share and earnings per share of ST Engineering for the current financial year. ST Engineering is a Singapore-based multinational technology and engineering group in the aerospace, smart city as well as defence and public security sectors. SF Airlines is a Chinese cargo airline owned by SF Express (Group) Co. The company is headquartered in the No.1 Freight Depot of the International Shipping Center of Shenzhen Bao'an International Airport in Bao'an District, Shenzhen, Guangdong province.

destinations such as the Mediterranean. The carrier has just released its financial results for the first quarter of 2023 and Norwegian has successfully limited its operating losses (EBIT) to NOK 916 million. Profit before tax (EBT) amounted to a loss of NOK 992 million. The liquidity position improved through the quarter with cash and cash equivalents at quarter-end increasing to NOK 8.6 billion. In the first quarter of 2023, Norwegian had 3.8 million passengers, up from 2.2 million in the first quarter of 2022. Production (ASK) was 6.0 billion seat kilometres, while passenger traffic was 4.9 billion seat kilometres. Production was down 13% from the previous quarter as Norwegian utilised its fleet flexibility to match capacity to seasonally lower demand. The quarterly load factor was 80.9% which shows that capacity was well adjusted to lower demand. "This quarter is a strong demonstration of our ability to adjust capacity to seasonal fluctuations in demand

and to prepare well for the busy summer travel season ahead. Ahead of the summer season, we have phased in eleven latest generation aircraft and welcomed many new colleagues. I am very glad that we will not depend on wet-lease capacity this summer. Instead, we will be able to serve our customers entirely with our own aircraft and crew," said Geir Karlsen, CEO of Norwegian. In April, the company announced a landmark strategic partnership with Norsk e-Fuel to build the world's first full-scale e-fuel plant in Mosjøen, Norway, including an investment of over NOK 50 million. The plant will produce sustainable aviation fuels (SAF), marking an important milestone towards Norwegian's target of 45 percent emissions reduction by 2030. At quarter-end, Norwegian and its subsidiaries' operational fleet comprised 72 primarily Boeing 737 aircraft. (£1.00 = NOK 13.28 at time of publication).

MILITARY AND DEFENCE

Aerial refuelling without human intervention

Aerial refuelling is an increasingly vital capability for military force projection. Airbus-developed technology to automate the in-flight “topping off” of aircraft will revolutionise this process with wider applications for both the defence and civil aviation sectors. Disruptive technology for fully autonomous in-flight refuelling – designated Auto'Mate – is being developed by the Airbus Defence and Space business unit in collaboration with Airbus UpNext, the company's wholly-owned innovation subsidiary. Airbus UpNext is also pursuing such cross-division projects as pilot assistance technologies to further enhance flight safety and aircraft operational efficiency, along with new propulsion systems and aircraft design to face sustainability challenges. Last March, a successful Auto'Mate demonstration using an Airbus testbed tanker aircraft and four unmanned drones marked a major milestone for the autonomous in-flight refuelling capability, which will be followed later this year by an even more ambitious flight campaign.

MRO & PRODUCTION NEWS

Construction bids now sought for building of VoltAero industrial facility

Construction bids are now being sought for a 7,400-square metre facility where assembly and deliveries of VoltAero's Cassio electric-hybrid family of aircraft will take place. The premises will include three Cassio aircraft final assembly lines, along with a workshop, logistics area and offices. June 2024 is the target date for VoltAero to take full occupation of the premises. The project's cost of €4.4 million (excluding tax) includes road access



Construction work is launched for the industrial facility where VoltAero will build its Cassio electric-hybrid aircraft family
© VoltAero

to the site, as well as a tarmac area for the assembled Cassio aircraft, and a taxiway that connects to the Rochefort - Charente-Maritime Airport's runway. The French government will contribute €665,000 as part of the National Fund for Territorial Planning and Development (FNADT). Discussions are underway with the Nouvelle-Aquitaine Region and the Agglomeration Community of Rochefort-Océan for their financial support of the project. VoltAero is continuing the development of its Cassio electric-hybrid aircraft family, benefiting from the validation of the company's proprietary electric-hybrid powertrain with flight tests of its Cassio 1 demonstrator – which has logged 135 flight hours while flying more than 10,000 km. Cassio aircraft will be offered in three versions. The initial configuration to be produced is the five-seat Cassio 330, powered by a 330-kilowatt electric-hybrid propulsion system. VoltAero's follow-on six-seat Cassio 480 will have an electric-hybrid propulsion power of 480 kilowatts, while the Cassio 600 is sized at a 12-seat capacity with electric-hybrid propulsion power of 600 kilowatts. Certification of Cassio is expected at the end of 2024, with the first aircraft expected to be delivered from VoltAero's Rochefort - Charente-Maritime Airport facility in early 2025. (£1.00 = €1.15 at time of publication).



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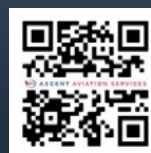
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MILITARY AND DEFENCE

By automating in-flight refuelling without the need for human intervention, an aerial tanker can take control of a “receiver” aircraft from several kilometres away and autonomously guide and control it into the proper position to receive fuel, followed by the actual fuel transfer via the tanker’s refuelling probe, completed by a safe separation manoeuvre at the operation’s completion. The in-flight refuelling procedures utilised in March, required demanding and precise coordination between an aerial tanker’s crew and the pilot of the “receiver” aircraft. By applying autonomous technologies, the process will benefit from enhanced safety, reliability and efficiency. Other advantages are the ability to conduct more effective operations – including the transfer of fuel in very-low-visibility conditions, and the reduction of training costs for flight crews. As importantly, the Auto’Mate technology opens the way for aerial refuelling of non-piloted combat air vehicles such as drones, apart from the technologies reused in remote carriers and “loyal wingman” operations – which are key unmanned elements of Europe’s Future Combat Air System (FCAS). Additionally, Auto’Mate could eventually lead to autonomous aerial tankers without a crew aboard.

OTHER NEWS

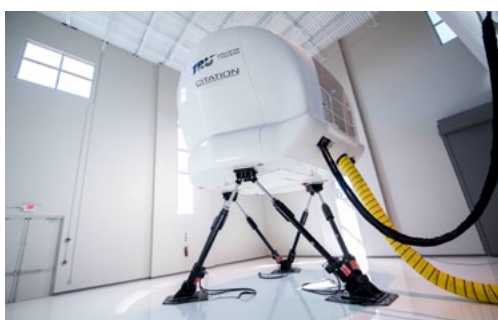
Leonardo Helicopters has obtained the certification for military aircraft basic / type maintenance training, including the relevant components, issued by the **Italian Secretariat General of Defence/National Armaments Directorate** through the Directorate for Air Armaments and Airworthiness. The company is the first industrial player in Italy able to deliver the entire range of maintenance training services for military aircraft in accordance with the new European rules. Leonardo is further extending its solid maintenance training services, combining capabilities from the helicopters, aircraft and electronics divisions. Leonardo’s basic training is part of a broader training capability for technicians and, more collaboratively, for customers too. In addition to military and civil aviation maintenance training, Leonardo looks after technician training also in line with the new standard set by the Aerospace, Security and Defence Industries Association of Europe (S-Series). Among the first Leonardo programmes benefitting from the training services, in accordance with the new certification standard are the AW139 and AW169 helicopters for military and government users (type rating), the International Flight Training School (IFTS) established through the collaboration with

OTHER NEWS

Lilium, developer of the all-electric vertical take-off and landing (eVTOL) jet, has agreed to partner with premier professional aviation training company, **FlightSafety International** (FSI). The agreement establishes FlightSafety as the exclusive developer and provider for flight training devices for the Lilium Jet. This will include industry-leading, immersive, and mixed-reality simulators for training, as well as an early flight simulator representative of the Lilium Jet cockpit, to be used by Lilium engineers. The simulator, known as the e-Sim (“e” for engineering), will be integrated into Lilium’s ground-based aircraft systems integration laboratory (SiLab), and used by Lilium teams as part of the testing and certification of the revolutionary Lilium Jet. The e-Sim will be an important asset in the Lilium Jet development programme, enabling pilot familiarisation before the start of flight testing and an appropriate environment for the verification of aircraft requirements. The e-Sim will also support type-certification of the Lilium Jet by providing means of compliance for demonstrating that the aircraft conforms to certification requirements. Additionally, FSI will develop and deliver training programmes, including online training programme modules, for the qualification of future Lilium pilots and mechanics worldwide. FSI continues to support the emerging Advance Air Mobility (AAM) market with the latest innovative and cutting-edge technology to support distance learning training curriculums and the latest advances in training device manufacturing. FSI operates the world’s largest fleet of advanced full-flight simulators at learning centres and training locations in the United States, Canada, France and the United Kingdom. FSI has manufactured simulators for Airbus, Boeing, Bombardier, Embraer, and many other commercial aircraft manufacturers. FSI’s training devices are approved by the FAA, EASA and other aviation regulatory authorities worldwide. Qualification of the first training devices and development of training programmes will be supported by the expertise of Lufthansa Aviation Training (LAT).



Image of the flight simulator from FlightSafety
© Lilium



Cessna Citation CJ3+/Cessna Citation M2 Gen2 convertible full-flight simulator
© Textron

Beginning in January 2025, pilots in Europe will be able to receive training in a new **Cessna** Citation CJ3+/M2 Gen2 convertible full-flight simulator at **FlightSafety** International’s Farnborough, UK learning centre. The simulator is being manufactured by **Textron’s** TRU Simulation + Training division. Equipped with a third-generation control loading system, the simulator features real aircraft parts and Garmin’s G3000 avionics, providing a more realistic experience for trainees. FlightSafety’s Vital 1150 image-generation system provides the simulator’s visuals, including high-resolution airfield models and imagery projected onto a 200- by 40-degree display. The electric motion base uses TRU’s RealCue system with 42-inch-stroke actuators. TRU’s latest simulator frame design accommodates configurable seating and arrangement of the instructor station and ease of access to internal equipment to maintain the device. Equipped with the latest Garmin G3000 avionics, the simulator features real aircraft parts throughout the cockpit, ensuring an accurate representation of the aircraft. TRU’s design incorporates its third-generation control loading system that produces a highly realistic flight experience. The full-flight motion of the simulator integrates TRU’s REALCue system that uses an electric motion base with 42-inch-stroke actuators. The visual system is equipped with FlightSafety’s VITAL 1150 Image Generation system, a large array of high-resolution airfield models and high-definition projectors on a 200x40-degree display, creating an immersive training environment. TRU built the simulator using its latest frame design, which supports configurable seating and IOS arrangement and improved quick, easy access to internal equipment for device maintenance.

OTHER NEWS

the Italian Air Force to train latest-generation aircraft's pilots using the M-346, the Falco Xplorer remotely piloted system, and the military platforms' components for basic maintenance training. The new certification provides further evidence of Leonardo's commitment to deliver an ever-increasing level of comprehensive and modern support and training services, providing greater and greater safety, quality, mission-effectiveness, affordability and sustainability, all key factors for Leonardo's Be Tomorrow 2030 Strategic Plan.

In an update on the African aviation market, **IBA** a leading aviation market intelligence and consultancy company, predicts that despite significant headwinds, the African market will continue to see some growth with airline capacity thought to trend at 110% of 2019 available seat kilometres (ASKs) by Q3 2023. Capacity recovery within Africa reached 103% of 2019 ASK levels in April 2023, compared to the global average of 95%. This makes the region the third to surpass pre-pandemic capacity levels this year behind Latin America and North America. Airlines are continuing to increase capacity to Africa with Q2 ASKs up 23% on last year according to data from IBA Insight, the leading aviation intelligence platform. The African airlines with the highest seat capacity in Q2 2023 are led by **Ethiopian Airlines** with 12,664m ASKs - an increase of 61% on the previous year, followed by **Egyptair** with 4,749m ASKs - an increase of 23%, and then **Royal Air Maroc** with 3,513m ASKs - up 28% compared to 2022. Looking at inter-regional travel in Q2

National Jet Express (NJE), a subsidiary of the **Rex Group**, has made its highly anticipated entry into the Queensland market by securing a long-term contract. NJE recently announced that it had been chosen to provide services to **BHP Mitsubishi Alliance** (BMA), a renowned global mining operator. Chris Hine, Chief Executive Officer and Managing Director of NJE, expressed



National Jet Express plans to procure two Dash 8-Q400NGs for its operations in Queensland starting July 1
© Rex

gratitude for being selected by BMA, emphasizing their esteemed reputation in the mining sector. Hine saw this contract as an endorsement of NJE's status as a premium regional air service provider for the mining and resources industry. In addition, he highlighted the company's commitment to reducing environmental impact by operating a fleet of modern Dash 8-Q400NG aircraft. These aircraft offer higher speeds, consume 50% less fuel, and have lower levels of carbon emissions. To support the expansion of its services, NJE plans to procure two Dash 8-Q400NGs for its operations in Queensland. Furthermore, the company will establish a significant operational base in Brisbane. Hine has acknowledged the interest from various mining operators in Queensland who have been eager for the Rex Group to bring its renowned standards of reliability, professionalism, and safety to the mining markets. He has recognized the pent-up demand for a premium mining and resources air service provider in Queensland and expressed the Rex Group's readiness to meet this need by procuring additional Dash 8-Q400NGs and potentially introducing Embraer E190 jets. Highlighting the Rex Group's ability to swiftly respond to the urgent demands of the resources sector, Hine has emphasized NJE's readiness to commence operations on July 1, 2023, which is less than six weeks away. He has reassured stakeholders that safety and on-time performance would remain paramount.

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2023, seat capacity to Africa from Europe was up 19% to 32bn year-on-year and up 17% from the Middle East to 14bn. Both Asia Pacific and North America were at 4bn, representing year-on-year increases of 180% and 25% respectively, while Latin America increased to 0.3bn - a 38% year-on-year growth. Within Africa, seat capacity in Q2 2023 was at 24bn – an increase of 19% since 2022. IBA predicts that African airline traffic will recover to pre-COVID levels by 2024, and that it will surpass 140m passengers carried by 2030. A positive improvement in airline economics is also forecast. African airlines were on-average unprofitable before the pandemic and posted an estimated cumulative loss of US\$638million (£510 million) in 2022. However, year-on-year, revenue passenger kilometres (RPKs) and ASKs grew by 82% and 53% respectively in 2022, with further improvement expected in 2023 that will have a positive impact on airline revenues. However, some of the cost headwinds are likely to persist, suppressing profitability for a while yet. Looking at aircraft orders by African airlines, the Boeing 737 MAX has significantly outperformed the Airbus A320neo in the narrow-body segment, with the 737 MAX taking a 93% order share. The picture is slightly more balanced in the wide-body segment with the Airbus A350 accounting for 22 orders and the Boeing 787 for 12. The largest overall orderbooks are held by Ethiopian (30), **Air Peace** (18) and **Arik Air** (16). Strong growth in narrow-body aircraft is expected to drive the overall size of the fleet of all African airlines to 1,750 in 2030, an increase from 1,423 in 2023, representing a 3.2% CAGR.

INDUSTRY PEOPLE



Nina Öwerdieck

• The SN Airholding Board of Brussels Airlines has extended **Nina Öwerdieck's** mandate as the airline's Chief Financial Officer for five years. Öwerdieck has been part of the Brussels Airlines' Management Board since 2020. She has, among others, guided the company through the corona pandemic and secured an early reimbursement of the government loan. Öwerdieck holds the position of CFO at Brussels Airlines since June 1, 2020. Together with **Dorothea von Boxberg**, Chief Executive Officer and **Tilman Reinshagen**, Chief Operations Officer, she is leading the Brussels based airline, one of the four Lufthansa Group network



© SITA

Airlines and airports are grappling with a significant surge in baggage mishandling rates as the number of passengers continues to grow. According to **SITA's** 2023 Baggage IT Insights report, the number of mishandled bags almost doubled from 2021 to 2022, reaching a rate of 7.6 bags per thousand passengers. Several factors contribute to this increase in mishandling rates. The shortage of skilled staff, coupled with the resumption of international travel and congestion at airports, has made it increasingly challenging to manage and ensure the smooth handling of bags, particularly during peak travel periods. As a result, the industry is now focusing on digitalisation and automation as a means to address these issues, with investments in technology that offers greater automation and self-service taking top priority. The report reveals that delayed bags accounted for 80% of all mishandled bags in 2022, while lost and stolen bags increased to 7%, and damaged and pilfered bags decreased to 13%. This surge in mishandling rates follows over a decade of consistent reduction in mishandled baggage. Between 2007 and 2021, process improvements led to a 59.7% decrease in the mishandling rate per thousand passengers. However, due to the operational pressures caused by staff shortages following the COVID-19 pandemic, the 2022 mishandling rate of 7.6 bags per thousand passengers represents a 75% increase from 2021. Historically, transfer bags have accounted for the majority of mishandled bags, and this trend continued in 2022 with a one-percentage point increase from the previous year. Transfer mishandling now stands at 42%, attributed to the resurgence of international and long-haul travel, which has led to loading errors and increased transfer mishandling rates. The failure to load bags accounted for 18% of all mishandled bags in 2022, representing a 3% decrease from the previous year. Loading errors more than doubled compared to the previous year, accounting for 9% of all delayed bags in 2022, due to the operational strains on baggage systems. David Lavorel, CEO of SITA, expressed his concern over the climbing mishandling rate and emphasized the need for the industry to work diligently to restore passenger confidence in checking their bags. SITA is actively collaborating with airlines and airports to address key pain points in the baggage journey through smart automation, tracking, and digital platforms. Airlines have identified investing in real-time baggage status information as a crucial priority. Currently, 57% of airlines provide their staff with mobile access to real-time baggage status, but this figure is expected to rise significantly to 84% by 2025. Moreover, 67% of airlines plan to offer real-time baggage status information directly to passengers, a substantial improvement from the current 25%. To tackle the high mishandling rates observed during transfers, SITA has developed the WorldTracer Auto Re-flight system. This innovative solution automatically identifies bags that are unlikely to make their connecting flights and rebooks them on the next available flight using the existing bag tag, while also keeping the passenger informed throughout the process. SITA estimates that automating reflight operations could save the industry up to \$30 million (£24 million) per year. In a recent partnership between **Lufthansa** and SITA, the technology was employed to digitalise the manual reflight process, and the Proof of Concept demonstrated the potential to automatically reflight as much as 70% of Lufthansa's mishandled bags at Munich Airport. In conclusion, the surge in baggage mishandling rates presents a significant challenge to airlines and airports. However, the industry is responding by prioritising digitalisation and automation to enhance baggage handling processes and mitigate.

INDUSTRY PEOPLE

carriers. "Under Nina's leadership, Brussels Airlines has been able to exit the worst crisis ever in its history by achieving a very strong financial third quarter result in 2022. Furthermore, Nina has successfully led the turnaround plan Reboot Plus and secured an early repayment of the Belgian government loan. I am very happy that Nina will remain member of the Brussels Airlines Management Board for five more years. Together with her peers, she will continue building on the assets of the airline and guide the company on its path to sustainable profitability." **Christina Foerster**, member of the Lufthansa Group Executive Board and Chairwoman of the SN Airholding Board.

- Mesa Airlines has announced the appointment of **Lorraine DiMarco** as its new Vice President of Maintenance. DiMarco will be responsible for overseeing all aspects of Mesa Airlines' maintenance operations and replaces **Christian Daoud** who has resigned from the company. With over 33 years of experience in the aviation industry, DiMarco brings a wealth of knowledge and expertise to Mesa Airlines. She began her maintenance career as a hangar and line mechanic at JFK airport in New York for Trans World Airlines, working on the Boeing 747 aircraft. Most recently, she served as Vice President, Technical Operations of Eastern Airlines, where she successfully led the maintenance and engineering team. She has also held senior maintenance positions at Air Canada and Jet Blue. As the Vice President of Maintenance, DiMarco will be responsible for ensuring that Mesa Airlines' aircraft are maintained to the highest standards of safety and reliability. She will oversee a team of skilled technicians and engineers and will work closely with the airline's leadership to develop and implement maintenance strategies that support the company's goals and objectives.



Jérôme Morhet

- CFM International has appointed **Jérôme Morhet** as Executive Vice President (EVP), replacing **Florence Minisclou**, who was recently named executive vice president, Commercial Engines Division, Safran Aircraft Engines. As part of the CFM executive team, Morhet is responsible for over-

seeing the CFM56 and LEAP programmes, working closely with his counterparts at GE Aerospace, **Karl Sheldon** for the LEAP engine and **Jacey Welsh** for the CFM56 product line, to monitor engineering, development, production and services activities for these programmes. Morhet also serves as Vice President of CFM programmes for Safran Aircraft Engines. He brings strong international and customer-focused experience, as well as a comprehensive strategic vision to his role at CFM. A graduate of the Ecole Polytechnique de Louvain (Belgium), Morhet began his career in 1997 as a design engineer at Safran Aero Boosters before joining the MRO sales team of Safran Aircraft Engines. In 2002, he moved to the Safran Aero Boosters Commercial and Programmes Department and became GE Programme Director in 2007. In 2011, he became COO of Safran Oil Systems in Fort Myers, Florida. Morhet joined Safran Test Cells in 2012 as head of sales, then head of operations. In 2015, he was appointed CEO of the US subsidiary of Safran Test Cells in Minneapolis, Minnesota. At the end of 2017, he took over the management of strategic development projects for Safran Aero Boosters and initiated the "Safran Blades" compressor blade factory project. He was then appointed Senior Vice President in charge of the Safran Test Cells business unit in 2020, where he was given responsibility for developing the activities in Europe, the United States and China.



Hassan Chamas

- ACC Aviation has appointed **Hassan Chamas** to head the company's charter offering throughout the Middle East region. He previously held senior positions at prominent operators and aviation companies across the US, Europe and the Middle East and brings a wealth of experience to the business. Joining ACC's consulting and leasing departments already established in the region, Chamas will be working closely with ACC's charter departments in Europe and United States to grow the company's client and supplier footprint across the Middle East. Based in ACC's Dubai office located in the Dubai Airport Freezone (DAFZA), Chamas' immediate focus will be on bolstering the company's offering for existing clients before laying plans for regional development and future growth.

- GA Telesis (GAT) has promoted **Jay Meshay** to the position of Vice President of the Power Solutions Team within the Flight Solutions Group (FSG). Meshay has an extensive career within the aviation sector going back nearly 30 years, encompassing all sales and technical supply chain management areas. He comes from a career path leading him through companies such as Honeywell, Chromalloy and Salt River, covering a breadth of roles and occupation advances leading up to this new role within FSG. Meshay joined GA Telesis' Flight Solutions Group in 2021 to specifically lead the new APU product line for FSG's Power Solutions Team. He has been an integral part of the rapid success and growth of this new team nearly overnight. Meshay's customer relationships and aviation acumen have driven the heavy sales growth the Power Solutions Team has experienced since inception.

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THE AIRCRAFT AND ENGINE MARKETPLACE

Commercial Jet Aircraft

Aircraft Type	Company	Engine	MSN	Year	Available	Sale / Lease	Contact	Email	Phone
A319-100	FPG Amentum	V2527M-A5	3705	2008	Now	Sale / Lease	Eoin Kirby	eoin.kirby@fpg-amentum.aero	+353 86 027 3163
A319-100	BBAM	CFM56-5B5/P	2119	2004	Now	Sale / Lease	Steve Zissis	info@bbam.com	+1 787 665 7039
A320-233ceo	FPG Amentum	V2527E-A5	4457	2010	Now	Sale / Lease	Lei Ma	ma.lei@fpg-amentum.aero	+852 9199 1875
A330-200	GA Telesis	PW4168A	322	2000	Now	Sale / Lease	David Byrne	aircraft@gatelesis.com	+353 86 780 8974
A330-200	Doric	Trent 772B-60	1310	2012	Q2/2024	Sale / Lease	Maurick Groeneveld	maurick.groeneveld@doric.com	+49 69 247559-931
B737-900	BBAM	CFM56-7B26/3	34953	2007	Now	Sale / Lease	Steve Zissis	info@bbam.com	+1 787 665 7039
B737 MAX 8	ALTAVAIR	Leap	43564	2022	Now	Lease	Clive Bowen	clive.bowen@altavair.com	+44 7899 892493
B737 MAX 8	ALTAVAIR	Leap	60135	2022	Now	Lease	Clive Bowen	clive.bowen@altavair.com	+44 7899 892493
B777-300ER	BBAM	GE90-115BL	38986	2011	Nov 2023	Sale / Lease	Steve Zissis	info@bbam.com	+1 787 665 7039

Regional Jet / Turboprop Aircraft

Aircraft Type	Company	Engine	MSN	Year	Available	Sale / Lease	Contact	Email	Phone
SAAB 2000	Jetstream Aviation Capital	AE2100A	031	1996	Now	Sale / Lease	Donald Kamenz	dkamenz@jetstreamavcap.com	+1 (305) 447-1920 x 115
SAAB 340B CRG	Jetstream Aviation Capital	CT7-9B	224	1990	Now	Lease	Bill Jones	bjones@jetstreamavcap.com	+1 (305) 447-1920 x 102
SAAB 340B Plus	Jetstream Aviation Capital	CT7-9B	450	1998	Now	Lease	Bill Jones	bjones@jetstreamavcap.com	+1 (305) 447-1920 x 102

Commercial Engines

CF34 Engines	Sale / Lease	Company	Contact	Email	Phone
CF34-8E5	Now - Lease	Lufthansa Technik AERO Alzey	Kai Ebach	k.ebach@lhaero.com	+49-6731-497-368
CF34-10E5	Now - Lease				
CF34-8C5	Now - Lease				
(2) CF34-3A	Now - Sale	GNS	Shlomi Levi	shlomi@g-n-solutions.com	+972-52 850 8511
(2) CF34-10E5	Now - Sale / Lease	DASI	Joe Hutchings	joe.hutchings@dasi.com	+1 954-478-7195
(3) CF34-10E6	Now - Lease	Willis Lease	Jennifer Merriam	leasing@willislease.com	+1 (561) 349-8950
(1) CF34-10E7	Now - Lease				
(1) CF34-8C5A1	Now - Sale/Lease/Exch.	Magellan Aviation Group	Bradley Hogan	bradley.hogan@magellangroup.net	+1 980.256.7120
(2) CF34-8C5B1	Now - Sale/Lease/Exch.				
(3) CF34-8E5A1	Now - Sale/Lease/Exch.				
(1) CF34-10E6	Now - Lease	Engine Lease Finance	Declan Madigan	declan.madigan@elfc.com	+353 61 291717



THE AIRCRAFT AND ENGINE MARKETPLACE

Commercial Engines

CFM Engines	Sale / Lease	Company	Contact	Email	Phone
(1) CFM56-5B3/3	Now - Lease	FTAI Aviation LLC	Mark Napoles	mnapoles@ftaaviation.com	+1 786-785-0777
(1) CFM56-5B4/P	Now - Lease				
(1) CFM56-5B3/P	Now - Lease				
(1) CFM56-5B1/P	Now - Lease				
(1) CFM56-7B26	Now - Lease				
(1) CFM56-5B4/P	Now - Lease	Willis Lease	Jennifer Merriam	leasing@willislease.com	+1 (561) 349-8950
(1) CFM56-7B24/E	Now - Lease				
(1) CFM56-7B26	Now - Lease				
(1) CFM56-7B24/3	Now - Lease				
(2) CFM56-5C4/P	Now - Lease				
(2) CFM56-5C4	Now - Lease	AeroDirect	Sean Miller	SMiller@aerodirect.com	+1.404.229.3723
(2) CFM56-7B26E	Now - Lease				
(1) CFM56-5B4/P	Now - Sale/Lease/Exch.				
(1) CFM56-5B2/P	Now - Sale/Lease/Exch.				
(2) CFM56-5B5/P	Now - Sale / Lease	BBAM	Steve Zissis	info@bbam.com	+1 787 665 7040
(1) CFM56-5B4/P	Now - Sale / Lease				
(2) CFM56-5B6	Now - Sale / Lease				
(1) CFM56-5A3	Now - Sale	Royal Aero	Gary MacLeod	gary@royalaero.com	+44 (0)1357 521144
(1) CFM56-7B24/3	Now - Lease				
(1) CFM56-7B26/3	Now - Lease				
(1) CFM56-7B26	Now - Lease				
(1) CFM56-7B27/B	Now - Lease				
(2) CFM56-5B3/3	Now - Lease	Engine Lease Finance	Declan Madigan	declan.madigan@elfc.com	+353 61 291717
(1) CFM56-5B4/3	Now - Lease				
(1) CFM56-5C4/P (u/s)	Now - Sale				
(1) CFM56-7B22/3	Now - Lease				
(1) CFM56-5B4/3	Now - Sale / Lease				
(1) CFM56-5B3/P	Now - Sale/Lease/Exch.	Magellan Aviation Group	Bradley Hogan	bradley.hogan@magellangroup.net	+1 980.256.7120
(2) CFM56-5B6/P	Now - Sale/Lease/Exch.				
(1) CFM56-7B27	Now - Sale/Lease/Exch.				
(1) GE90-94B	Now - Lease				
(1) GE90-115BL (SP)	Now - Lease	BBAM	Steve Zissis	info@bbam.com	+1 787 665 7039
(2) GE90-90B	Now - Sale/Lease/Exch.				
(4) LEAP-1B28	Now - Lease	Willis Lease	Jennifer Merriam	leasing@willislease.com	+1 (561) 349-8950
(1) PW1100G-JM	Now - Lease	Engine Lease Finance	Declan Madigan	declan.madigan@elfc.com	+353 61 291717
(1) PW1521G-3	Now - Lease				
(1) PW4168	Now - Sale / Lease	Castlake	Graeme Dodd	Graeme.dodd@castlake.com	+44 207 190 6138
(2) PW4168A	Now - Sale / Lease				
(1) PW4168A	Q4/2022 - Sale	ALTAVAIR	Clive Bowen	clive.bowen@altavair.com	+44 7899 892493
(1) PW121	Now - Sale/Lease/Exch.	Magellan Aviation Group	Bradley Hogan	bradley.hogan@magellangroup.net	+1 980.256.7120
(1) PW123	Now - Sale/Lease/Exch.				
(1) PW127F	Now - Sale/Lease/Exch.				
(1) PW127M	Now - Sale/Lease/Exch.				
(1) PW150A	Now - Sale/Lease/Exch.				

THE AIRCRAFT AND ENGINE MARKETPLACE

Commercial Engines

PW Small Engines	Sale / Lease	Company	Contact	Email	Phone
PW121	Now - Sale	Lufthansa Technik AERO Alzey	Kai Ebach	k.ebach@lhaero.com	+49-6731-497-368
PW127F	Now - Sale				
PW150A	Now - Sale / Lease				
PW127M	Now - Lease				
(3) PW127M	Now - Sale/Lease/Exch.	Willis Lease	David Desaulniers	leasing@willislease.com	+1 (561) 349-8950
(1) PW150A	Now - Sale/Lease/Exch.				
Trent Engines	Sale / Lease	Company	Contact	Email	Phone
(2) Trent 772B-60	Now - Sale/Lease/Exch.	Rolls-Royce & Partners Finance	RRPF Marketing	RRPFMarketing@rolls-royce.com	+44 7528975877
(1) Trent XWB-84	Now - Sale/Lease/Exch.				
(1) Trent 556-61	Now - Sale/Lease/Exch.				
(1) Trent 772B-60	Now - Lease	Engine Lease Finance	Declan Madigan	declan.madigan@elfc.com	+353 61 291717
V2500 Engines	Sale / Lease	Company	Contact	Email	Phone
(1) V2527-A5	Q3/2022 - Sale/Lease/Exch.	Rolls-Royce & Partners Finance	RRPF Marketing	RRPFMarketing@rolls-royce.com	+44 7528975877
(1) V2533-A5	Now - Sale/Lease/Exch.				
(1) V2527-A5	Now - Sale/Lease/Exch.	AeroDirect	Sean Miller	SMiller@aerodirect.com	+1.404.229.3723
(3) V2533-A5	Now - Lease	Willis Lease	Jennifer Merriam	leasing@willislease.com	+1 (561) 349-8950
(1) V2527-A5	Now - Lease				
(2) V2527-S2	Now - Sale	Pratt & Whitney CSA	Jim Obrzut	james.obrzut@prattwhitney.com	+1 (860) 280-7665
(2) V2527-A5	Now - Sale / Lease	Castlelake	Graeme Dodd	Graeme.dodd@castlelake.com	+44 207 190 6138
(1) V2533-A5	Now - Lease	FTAI Aviation LLC	Mark Napoles	mnapoles@ftaiaaviation.com	+1 786-785-0777
(2) V2527-A5	Now - Sale/Lease/Exch.	Magellan Aviation Group	Bradley Hogan	bradley.hogan@magellangroup.net	+1 980.256.7120
(1) V2533-A5	Now - Lease	Engine Lease Finance	Declan Madigan	declan.madigan@elfc.com	+353 61 291717
(1) V2527E-A5	Now - Lease				
(1) V2527-A5	Now - Sale / Lease	GA Telesis		engines@gatelesis.com	

Aircraft and Engine Parts, Components and Misc. Equipment

Description		Company	Contact	Email	Phone
(2) GTCP331-200ER, (2) GTCP131-9A, (1) GTCP131-9B (1) A321 Enhanced Landing Gear 2020 OH	Now - Sale	Setna IO	David Chaimovitz	david@setnaio.com	+1-312-549-4459
(1) GTCP36-150	Now - Sale	GNS	Shlomi Levi	shlomi@g-n-solutions.com	+972-52 850 8511
(2) A320 LG Shipsets, (1) A320 NLG, (1) A340 LG Shipset (1) 777-200 LG Shipset, (1) A330 LG Shipset		GA Telesis		landinggearsales@gatelesis.com	
GTCP131-9A (2), GTCP131-9B(2)	Now - Lease	REVIMA APU	Olivier Hy	olivier.hy@revima-apu.com	+33(0)235563515
GTCP331-200, GTCP331-250	Now - Lease				
APS500C14(3), APS1000C12(2), APS2000	Now - Lease				
APS2300, APS3200(2), APS5000(2)	Now - Lease				
PW901A(4), PW901C(2)	Now - Sale / Lease				
TSCP700-4E	Now - Sale				
(1) RE220, (1) APS3200, (1) GTCP131-9A	Now - Sale / Lease	Magellan Aviation Group	Drew Megorden	drew.megorden@magellangroup.net	+1 704-340-0273
(1) GTCP131-9B, (1) GTCP331-500B	Now - Sale / Lease				
(1) GTCP331-500B	Now - Sale/Lease/Exch.	BBAM	Steve Zissis	info@bbam.com	+1 787 665 7039
(2) APS2300, (1) APS3200	Now - Sale / Lease	DASI	Chris Glascock	chris.glascock@dasi.com	+1 954-801-3592
(2) GTCP131-9A, (2) GTCP131-9B, (1) GTCP331-350		GA Telesis	Jay Meshay	apu@gatelesis.com	+1-954-849-3509
(2) APS3200B, (4) APS3200C					
Engine stands: CF6-80C2, CFM56-3, CFM56-5A/B/C, PW4000			Ricky Torres	stands@gatelesis.com	+1-954-676-3111
(3) APU GTC131-9B, (1) GTCP331-500B	Now - Sale / Lease	Willis Lease	Gavin Connolly	gconnolly@willislease.com	+44 1656 765 256
(1) APU GTCP131-9A	Now - Sale / Lease				
Engine stands now available	Now - Lease				
(2) PW901A, (1) PW901C(1), PW125B RGB	Now - Lease	Lufthansa Technik AERO Alzey	Kai Ebach	k.ebach@lhaero.com	+49-6731-497-368



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