AviationDaily

AVIATION WEEK Intelligence NETWORK

The Business Daily of the Global Scheduled Airline Industry Since 1939

June 24, 2024

Inside:

AIRLINES

American Airlines Flight Attendants Await Release From Mediated Contract Talks

CHRISTINE BOYNTON, christine.boynton@aviationweek.com

Having requested a release from federally mediated contract negotiations in January, the union representing more than 27,000 flight attendants at American Airlines expects a National Mediation Board (NMB) decision by the end of June.

If granted by the NMB, a 30-day "cooling off" period would begin, preceding any strike action that was authorized by the labor group in a nearly unanimous vote in summer 2023.

It is the group's second request to be released from the talks.

Negotiations began at the start of 2020 and were paused that spring at the onset of the pandemic, resuming in June 2021. The Association of Professional Flight Attendants (APFA) filed for federal mediation in March 2023.

In a June 20 communication to its members, APFA said six weeks of intensive mediation had ended without agreement, stating, "We do not believe further negotiations will be scheduled prior to the National Mediation Board determining to release the parties into a thirty-day cooling-off period."

The union described talks as at an impasse over certain concerns.

"While we moved closer on some of the other components of the agreement, we

AMERICAN AIRLINES, P. 2

The Daily Memo

As Certification Nears, EVTOLs Face Credibility Crisis

BEN GOLDSTEIN, ben.goldstein@aviationweek.com

As the advanced air mobility industry makes continued strides toward type certification of the first electric vertical-takeoff-and-landing (eVTOL) aircraft, skepticism is growing about the near-term usefulness and commercial viability of the new vehicle class.

Many of the promises and projections made in the heady days of 2021—when money was plentiful, and startups were able to raise capital through SPAC mergers—have since proved to be wildly optimistic. Timelines have shifted right, vehicle and operating costs have been revised higher, and in some cases, performance specs have shifted lower. All this is reflected by an investment scene that has all but dried up, with even the leading eVTOL manufacturers struggling to raise the funds needed for certification and entry-into-service.

The decline in market sentiment is reflected in the share prices of those eVTOL makers who went public. Lilium and Vertical Aerospace, which face questions about their financial viability, have been stuck in sub-dollar territory for months, down more than 90% from their IPO prices. Archer, Joby and Eve have fared somewhat better, all trading in the $3-5 range, but in all cases, investors are sitting on large paper losses.

As a result, very few investors are willing to touch AAM these days. While startups who already went public have had some success raising money from existing shareholders, the bearish market environment poses a serious challenge for multitudes of other companies who missed the initial investment wave.

"The question in my mind is whether this market is going to overcorrect," says Kevin Noertker, founder and CEO of hybrid propulsion developer Ampaire. "It's disappointing. I've talked to many people who were excited about eVTOL, and now they won't touch aviation ... My fear is that this heyday of funding and innovation, which the industry has seen over the last half decade or so, could dry up if the industry plays its hand poorly."

With the rising skepticism surrounding eVTOLs, some industry

DAILY MEMO, P. 2

AMERICAN AIRLINES, From P. 1

remain apart on the key issues of the date of signing wage increase and retroactive pay," APFA wrote. "Management's proposals continue to be unacceptable."

In response, American Airlines has described an agreement as being "within reach" and sees no indication of a release or approval to strike.

"We made good progress in negotiations this week, adding even more to the industry leading proposal we've had on the table for months," an airline spokesperson said. "We look forward to continuing negotiations so our flight attendants can benefit from the contract they deserve."

APFA announced in early June it had opened a strike command center, to begin making internal preparations should a work stoppage occur, a process governed by the Railway Labor Act. In addition to a cooling-off period, additional delays can be imposed by a Presidential Emergency Board if a strike is deemed a threat to essential national transportation.

Spirit Airlines pilots were the last group of U.S. airline workers released to strike, in 2010.

Among the five largest U.S. airlines, four have union-represented flight attendant groups—Alaska Airlines, American, Southwest Airlines, and United Airlines—all but one of which remain in negotiations in the current contract cycle. Southwest

AMERICAN AIRLINES, P. 3

DAILY MEMO, From P. 1

players are hoping that attention could shift to technologies like hybrid propulsion and electric conventional-takeoff-and-landing (eCTOL) vehicles, which they argue offer a more realistic and viable near-term use case. Hybrid propulsion can achieve a much more useful range, capable of enabling regional air mobility services, while eCTOLs can offer the noise and emissions reductions of eVTOLs, but with a proven business case and much lower hurdles in terms of airspace, infrastructure and regulations.

A key theme of the skepticism involves concerns about the capabilities of existing battery technology, as well as their slow rate of improvement. "When you start to do something commercial, there's no way you can do it with electric [propulsion] only because the range will be too low," says Jean Botti, founder and chief technical officer of French hybrid eVTOL startup Volt Aero. "Are people really going to spend five or six million euros for an airplane that is going to carry them for 50 kilometers? I think this is a very bad business proposition."

Former Airbus engineer Jean-Christoph Lambert, who now heads Ascendance Flight Technologies, another French hybrid eVTOL startup, is similarly doubtful about the potential for battery-powered flight. Since crossing the English Channel in 2015 as part of the Airbus E-Fan project, Lambert observes that batteries have only improved 20%, a rate of growth he described as "not even close" to what is needed to enable commercial aviation.

"One kilogram of fuel is equivalent to 15 to 25 kilograms of batteries, so if you have 100 kilograms of fuel, you need five tons of batteries," Lambert says. "What is needed is a 2,500% increase in energy density, but we're improving just five percent or so every few years. So it's not just a matter of time–it will not happen any time soon. Batteries alone are not going to be a scalable way to decarbonize aviation."

In addition to a focus on hybrid propulsion, some startups are wondering whether many eVTOL aircraft concepts—such as tiltrotor, tiltwing and lift-plus-cruise designs—are too complex and costly to certify and maintain relative to more traditional aircraft. Companies developing electric and hybrid eCTOLs, such as Eviation, Heart Aerospace and Electra.aero, among others, take the view that tube-and-wing aircraft using airport runways will be easier to certify with less infrastructure burden.

Other startups, including Ampaire, Dovetail Electric Aviation and Universal Hydrogen, go a step further, focusing instead on developing propulsion systems to be retrofitted into existing small airplanes, a strategy they argue is more pragmatic than developing a clean-sheet eCTOL.

"The industry made big commitments and, to make a bit of a generalization, those ambitions have not been delivered on," Noertker says. "That's why we're focused on developing something non-speculative. We're not building a new airplane–we're building a propulsion system. And rather than go fully electric or hydrogen, which has phenomenal infrastructure challenges and questionable economics, we're going hybrid-electric."

But even with a more pragmatic approach, Noertker says that general disillusionment among investors has made it so even startups that are setting achievable goals cannot raise the cash needed to fund their programs, a development that could threaten the future of decarbonization in aviation.

"Billions of dollars were raised on the backs of either explicit or implicit commitments around the size of the market, the timeline and the economics," Noertker says. "Now we're seeing the repercussions, and unfortunately it's affecting the entire industry."

SUSTAINABILITY

EASA Forms Expert Group To Tackle Non-CO2 Emissions

VICTORIA MOORES, victoria.moores@informa.com

EASA has hosted the first meeting of the Aviation Non-CO_2 Experts Network (ANCEN), an expert group that has been formed at the request of the European Commission (EC).

ANCEN has been created to share "objective, timely, consensual, and credible technical advice" on the non-CO_2 effects of aviation, EASA said, noting, "This will inform policy discussions."

EASA will use the expert group to "get clarity" on aviation's non-CO_2 effects, supporting future commercial aircraft certifications, EASA high representative Luc Tytgat said.

ANCEN will look at the scientific basis for non-CO_2 emissions, along with best practices for monitoring, reporting, climate impact assessments and mitigation. It will keep track of EU and international non-CO_2 developments and identify knowledge gaps, coordinating with other transport modes (e.g. maritime, road) and other non-CO_2 projects. ANCEN will be funded through the European Union Horizon Europe research and innovation program.

The first ANCEN meeting took place on June 11-13 at EASA's headquarters in Cologne. ANCEN's steering committee is made up of representatives from EASA and the European Commission, and it is chaired by DG MOVE. ANCEN's members will meet once a year in-person to agree their work program, with additional in-person and hybrid/virtual meetings as needed.

The group includes scientists, community, academia, aircraft manufacturers, aircraft operators, fuel producers, air navigation service providers (ANSPs), NGOs, regulators, analysts, and policymakers. Air France, Lufthansa and International Airlines Group (IAG) are airline members, alongside big aerospace names like Airbus, Rolls-Royce and SAFRAN.

Air traffic management specialist Eurocontrol, NATS and the SESAR Joint Undertaking are also included in the group, alongside representatives from Borealis, Concawe, the Clean Aviation Joint Undertaking, EASA, the EC, the Dutch infrastructure ministry, the French DGAC, the German Ministry for Digital and Transport and the Swedish Transport Agency.

Research bodies and weather specialists complete the membership, including the Center for International Climate Research (CICERO), The International Council on Clean Transportation (ICCT), the European Centre for Medium-Range Weather Forecasts, French Aerospace Lab ONERA, German Aerospace Center (DLR), the German National Weather Service (DWD), Imperial College London, Institut Pierre-Simon Laplace (IPSL), Jülich Research Centre, the University of Oxford, University of Reading and Manchester Metropolitan University.

"The impressive level of expertise in this network provides a solid foundation to offer advice on future political decision-making," Tytgat said.

From Jan. 1, 2025, airlines operating within the EU will be required to monitor, report and verify (MRV) their non-CO_2 effects under the revised EU emissions trading scheme (EU ETS). That date is just a year away, yet uncertainty still remains over how to measure non-CO_2 effects.

The EC has brought in consultancy firm To70 and the German Aerospace Center (DLR) to answer this question. The project involves looking at potential ways to quantify and report aviation's non-CO_2 effects, and then translating these measurements into CO_2 equivalents (CO_2e), so they can ultimately be traded in the EU ETS.

The EC is aiming to implement the monitoring, verifying and reporting (MRV) legislation by the end of August 2024, with reporting beginning in 2025. The EC is planning to release non-CO_2 data annually from 2026. By the end of 2027, it is aiming to form a legislative proposal for non-CO_2 mitigation, enabling these effects to be included in the EU ETS.

AMERICAN AIRLINES, From P. 2

flight attendants in April ratified a deal valued at $6.3 billion over its four-year term.

Ahead of federal mediation, APFA-represented American flight attendants were seeking a 35% raise at the date of signing and yearly increases of 6% thereafter, countering an economic proposal from the airline that offered an 11% wage increase on date of signing, plus two 2% increases and boarding pay at half the hourly rate. More recent figures have not been released at the request of NMB, but the union rejected an airline proposal in early June that would have immediately increased pay rates by 17%, calling it a "PR move in the face of a strike deadline."

APFA has pointed to low starting pay and "astronomical" housing and living costs in many of the airline's hub cities and at crew bases such as Boston, Miami and New York.

"Flight Attendants have watched American Airlines CEO Robert Isom's pay package balloon to a staggering $31.4 million," wrote APFA in a June statement. "New-hire Flight Attendants at American Airlines start at just $27,000/year. Robert Isom's compensation package is now 1,162 times that of a new-hire flight attendant."

Staff

EDITORIAL
2121 K Street, NW, Suite 210, Washington, DC 20037
+1-202-517-1100 awin.aviationweek.com

EDITORIAL STAFF
Managing Editor Mark Nensel
Executive Editor Jens Flottau
Contributing Editors Christine Boynton, Sean Broderick, Michael Bruno, Bill Carey, Chen Chuanren, Alan Dron, Thierry Dubois, Matthew Fulco, Ben Goldstein, Kurt Hofmann, Helen Massy-Beresford, Victoria Moores, Guy Norris, Tony Osborne, Maxim Pyadushkin, Lori Ranson, Garrett Reim, Adrian Schofield, Graham Warwick
AWIN Managing Editor Guy Ferneyhough
Air Transport Group Editor-In-Chief Karen Walker
Group Editorial Director Joseph C. Anselmo
Associate Producers Heidi Carcella, Donna Thomas-High
Copy Editors Cory Hitt, Natalia Pelayo

DATA & ANALYTICS
Senior Director, Forecasts & Aerospace Insights Brian Kough
Senior Industry Analyst Craig Caffrey
Director, Data Operations & Solutions Terra Deskins
Manager, Civil Fleet, Flight & Forecast Data Dan Williams
Commercial Aviation Analyst Antoine Fafard
Senior Fleet/Forecast Engineers/Analysts Brian Bostick, Nigel Harod, Nigel Howarth, Bo-Göran Lundkvist

SUBSCRIBER SERVICES
Customer Service, New/Renewal Sales
Aviation Daily, 22701 W 68th, Ste 100, Shawnee, KS 66226-9806
Tel: +1-877-369-3706 (within the U.S.)
Tel: +1-913-850-6930 (outside the U.S.)
Fax: +1-800-455-3145
Email: tech_assistance@aviationweek.com

INTELLIGENCE AND DATA SERVICES
Senior VP, Intelligence, Data and Media Anne McMahon
Tel: +1-646-469-1564, anne.mcmahon@aviationweek.com
Senior Director, Intelligence and Data Matt Holdreith
Tel: +1-917-703-0920, matt.holdreith@aviationweek.com

Discounted rates for multiple users and enterprise access available. Custom packages and additional services available including Intelligence/Research, Fleet Data, Forecasts.

User Engagement Melissa Crum, Tel: +1-913-284-2951 melissa.crum@aviationweek.com

Online access to Aviation Daily is available at awin.aviationweek.com

ADVERTISING
Sales Director Tom Davis
Tel: +1-469-854-6717, tom.davis@aviationweek.com

REPRINTS
Wright's Media
Tel: 1-877-652-5295 (within U.S.)
Tel: 1-281-419-5725 (outside U.S.),
informa@wrightsmedia.com

Published daily except Saturdays, Sundays and holidays by Aviation Week, 2121 K Street, NW, Suite 210, Washington, DC 20037. (ISSN No. 0193-4597).
Gregory Hamilton, President, Aviation Week.

COPYRIGHT © 2024 by Informa Markets, a trading division of Informa, PLC. All rights reserved. None of the content of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without the prior written permission of the publisher. Available in online and email editions.

Vol. 436 • No. 59

AVIATION WEEK NETWORK
an informa business

SUPPLIERS

GE Small Hybrid Core Test Paves Way For CFM RISE

GUY NORRIS, guy.norris@aviationweek.com

CINCINNATI—GE Aerospace is poised to test new hybrid-electric core technology in a Passport 20 business jet engine as part of the company's broad-ranging development effort toward an open-fan, future single-aisle propulsion system under CFM's RISE (Revolutionary Innovation for Sustainable Engines) initiative.

The test, which will be conducted under Phase 2 of NASA's Hybrid Thermally Efficient Core (HyTEC) program, follows recent runs of the unmodified engine at GE's Peebles, Ohio, test site to verify baseline performance. For the upcoming Turbofan Engine Power Extraction (PEX) segment of the test, the engine is being fitted with multiple motor generators.

The overarching aim of HyTEC and the related PEX programs is to develop technology for small, high-power density cores for integration with larger, lower-pressure fans—ducted or open—thereby enabling higher bypass ratios. One of the key objectives of the HyTEC effort, through PEX, is to achieve up to 20% power extraction, or roughly four times the current state of the art, at altitude to optimize propulsion system performance and enable hybridization. The PEX engine test is scheduled to take place in fiscal 2025.

The program is targeted at maturing a megawatt-class hybrid engine for single-aisle aircraft and involves the development and test of low-pressure spool generators, motor controllers and cooling systems. The challenge is to see if power extraction for more electric aircraft systems is feasible from such compact cores. The program's key performance parameter is to achieve a minimum of 5% hybridization—with a goal of 10%—as measured by the level of power extraction from the core.

Initial component-level testing of electric motor/generators and power electronics has already been completed for the HyTEC PEX demonstration. Systems testing took place at GE Aerospace's EPISCenter in Dayton, Ohio. Motor generator, controller and cooling technology for PEX also builds off GE's ongoing work with NASA and Boeing on the megawatt-class Electrified Powertrain Flight Demonstration (EPFD) program, under which a modified Saab 340B is being converted to fly with a hybrid-electric propulsion system.

"We're in an unprecedented time for GE Aerospace with a number of demonstrators that we're doing to mature the technology," says Arjan Hegeman, general manager of future of flight technologies. "We consumed all the technologies that we basically have ready to go on the current engine programs. So the mountain of work that we're in today is for these demonstrators to mature [technology for] that next generation."

The follow-on series of demonstrators will include a flight-test version of the 130-in.-dia. open fan system currently under study for RISE, with a Passport 20 gas generator. In parallel, the high-power density core targeted at the eventual production engine to emerge from the RISE program will be tested out in the ground demonstration of the full-up HyTEC core, elements of which are likely to include the hybrid-electric technology from the PEX program.

"What we learn with PEX is how do you add hybrid electric to a Passport-size engine

GE, P. 5

AIRPORTS

U.S. TSA Reports Busiest Passenger Screening Days In Its History

AARON KARP, aakarp2004@yahoo.com

The three busiest passenger screening days in the 22-year history of the U.S. Transportation Security Administration (TSA) have occurred in the last 30 days, with the agency predicting continuing high volumes at checkpoints this summer and encouraging passengers to arrive at airports early.

The three busiest-ever days at TSA checkpoints since the agency's establishment in 2001 were May 24, on which 2.95 million passengers were screened nationally; June 14, which saw 2.93 million passengers screened; and June 19, when 2.91 million passengers were screened.

The passenger numbers recorded by the TSA indicate persistently strong air travel demand in the U.S. in the aftermath of the pandemic.

"TSA has seen multiple days break into the top 10 busiest days in the agency's 22-year history," the TSA said in a statement. "Typically, TSA had been screening approximately 2.5 million people per day nationwide. However, since last month, the number of people screened has increased by several hundred thousand per day."

Seven of the 10 busiest days at passenger checkpoints in the TSA's history have occurred since May 17.

Bart Johnson, the TSA's federal security director for 13 airports in New York state, advised travelers to "do their part in efficient checkpoint screening by arriving to the airport at least two hours prior to their scheduled flight departure."

"Many more record-breaking days are expected," the TSA said, urging passengers to "please continue to arrive early, be patient and follow officer instructions."

GE, From P. 4

and be able to run it though takeoff, climb and cruise—all the mission points—and demonstrate that improved efficiency from the electric insertion motor generator," Hegeman says.

Part of the HyTEC technology suite that will feed into RISE includes next-generation compact turbine blades and nozzles that were evaluated in 2023 on an F110 donor engine in Evendale, Ohio. The tests, first disclosed in June 2023, "represented a step-change in how we do the cooling of those blades. That test has been completed and was extremely successful," Hegeman says.

"Everything that we're applying to RISE with this demonstrator comes out of these programs. This is how these things build up. We do component tests, we do module tests, we do engine tests, all of it runs in parallel and then starts to merge and combine and it all leads to the next-generation narrowbody 30,000-lb.-plus-thrust-class engine," he adds.

The selection of the 19,000-lb.-thrust Passport 20 is also highly appropriate, Hegeman says. "For us this core size is about right for what we're envisioning for the next-gen narrowbody open fan. The value proposition is we've got a very small core and high temperatures and high pressure for thermal efficiency. Now we're combining a tiny core with a giant open fan, and that gives you your bigger bypass."

GE, meanwhile, says its unprecedented use of large-scale supercomputing to design, test and analyze aspects of the RISE design continues to build confidence in the program's ability to deliver an engine with 20% better fuel efficiency than today's Leap 1. GE has been using Frontier, a recently commissioned supercomputer at the U.S. Energy Department's (DOE) Oak Ridge National Laboratory, Tennessee, to model elements such as the open fan and high-pressure turbine.

Mohamed Ali, vice president and general manager of engineering for GE Aerospace, says the results of the supercomputing tests on the turbine blades in the F110 donor engine were "incredible, [and] not just in its ability to improve the fuel burn, but also the durability." He adds that open fan installation performance and noise predictions from supercomputer runs and wind tunnel data were also perfectly matched.

This advanced computing capability "is shortening the cycle and enabling us to get accurate results faster," Ali says. "We have been doing joint testing with Airbus at the noise-testing facility in Hamburg, and we validated that we can achieve lower noise with an open fan than today's engines, and it will meet the noise requirements."

Ali also adds that GE is undertaking "a lot of ongoing testing as we speak right now, to validate the durability [of the open fan]."

"For certification, we are working with the airframers on that together, and also with the regulatory agencies and the testing results so far—whether it's ingestion testing or vibration testing—is quite encouraging about the durability and the capability of the open fan," Ali says. "So we are increasingly confident about our ability to achieve 20% fuel burn improvement and really set the standards for what the future will be."

AIRLINES

Aer Lingus Pilots Plan Industrial Action Over Pandemic-Era Pay Cuts

ALAN DRON, alandron@adepteditorial.com

Aer Lingus plans to cancel up to 20% of its scheduled flights starting June 26 as the airline faces industrial action from its pilots.

The Irish Airline Pilots' Association (IALPA) has announced it will begin a work-to-rule at the Irish flag-carrier starting at 12:01 a.m. on June 26. The industrial action will be indefinite in length.

Like many pilots' unions, IALPA is calling for restitution of salary cuts that it accepted during the pandemic in order to help Aer Lingus stay afloat financially. "Our pay claim is for 24%, which equates to inflation since our last pay rise in 2019," IALPA President Mark Tighe said. "Aer Lingus has increased their profits by 400% to €255 million [$273 million] last year."

"Management keeps insisting that pilots must sell their working conditions in exchange for any increase in pay," Tighe added. "We are absolutely not prepared to do that, especially when Aer Lingus is making enormous profits."

Aer Lingus said June 21 that, having assessed the impact of IALPA's industrial action, the company had decided to cancel between 10% and 20% of its flights on the first five days of the industrial action, June 26 to June 30.

"Implementing these cancellations will enable us to protect as many services as possible for as many of our customers as possible. The details of those cancellations will be communicated to impacted customers over the next couple of days," the airline said.

Customers scheduled to travel between June 26 to July 2 will be given the option to change their flights at no cost. They will also be able to cancel their flight and claim a refund or voucher.

"IALPA's industrial action will have a wholly unnecessary impact on customers who are traveling in the coming weeks, at what is peak holiday season for families. The nature of this industrial action will cause a significant impact on our flight schedules," the airline said. "We will do everything we can to minimize the impact for customers. However, it is inevitable that there will be disruption as a result of this industrial action. Where there are cancellations, we will look to reaccommodate customers as quickly as possible and will work with other airlines, with partner airlines and seek to hire-in aircraft for this purpose."

IALPA's work-to-rule will encompass several measures, including a ban on working overtime, or any other out-of-hours duties requested by management; only working published duty rosters and not accepting any amendments to these; and not answering phone calls or logging into the company's portal or "e-crew" site outside working hours.

AIRPORTS

United: Controlling Houston IAH Expansion Advantageous To Airline

AARON KARP, aakarp2004@yahoo.com

MIAMI—By significantly investing in the expansion and modernization of Terminal B at its Houston Bush Intercontinental Airport (IAH) hub, United Airlines has "control over the scope" of the $2.5 billion project and will play a primary role in determining how the upgraded terminal operates, according to a senior United executive.

Controlling the IAH terminal expansion ensures the project is completed on time, said Michael Yost, United managing director for airport affairs at Aviation Week Network's GAD Americas conference in Miami. Yost added that airlines need to pay more attention to airport infrastructure.

"I think, historically, if you look at the airlines, where do we invest our money? It's not necessarily in maintaining some airport infrastructure," Yost explained. "You know, we like buying planes and building clubs. And we might ignore restrooms for a little too long until you get pressured into making some of those investments."

United has said it expects to invest around $1.9 billion in the Terminal B project by backing bonds issued by the city. The city of Houston, which owns the airport, will fund $624 million in "enabling projects" needed for the expansion, and in late 2023 approved the first tranche of city money.

United says the expansion will increase its capacity at the airport by 40% on peak travel days by 2026, when the revamped Terminal B is set to partially open. The full project is scheduled to be finished in 2028.

Expansion will include a three-level, 765,000-ft.² Terminal B North Concourse with 22 new narrowbody gates, according to United. The airline says it will convert 30 existing small regional jet gates on Terminal B's South Concourse to 18 gates able to accommodate larger, two-class regional jets. All flights will be boarded via jet bridge once the expansion is complete, the airline said.

The Terminal B upgrade will also include more than 115,000 ft.² of food and retail space and the construction of the largest premium lounge in United's system.

UNITED, P. 7

AIRFRAMERS

Embraer Focuses Energia Concepts On 50-Seat Market

JENS FLOTTAU, jens.flottau@aviationweek.com

SAO JOSE DOS CAMPOS, Brazil—Embraer has decided to focus the concept studies for its Energia family of regional aircraft on aircraft sized at around 50 seats, a move that will require more time for development than expected for the smaller versions.

Embraer's vice president of marketing and strategy, Rodrigo Silva e Souza, said June 19 that customer feedback has been positive in general, but airlines have said they need larger aircraft than the company originally envisioned. The Energia concepts were focused earlier on 19-30 seat aircraft. Now, Embraer has decided to target higher-capacity versions.

A hybrid-electric version of the Energia series could be available after 2030, whereas the smaller aircraft was targeted for entry into service by 2030. A dual-fuel variant that can use sustainable aviation fuels or hydrogen could be available by 2038. A fuel-cell-powered version is expected to be ready by 2035, around the same time that Airbus is targeting for its first hydrogen-powered aircraft.

Energia aircraft are picking up the rear-mounted engine placement from earlier studies for a more conventional turboprop the OEM had shelved after it could not secure an engine partner for the project.

The hybrid version would fly ranges of up to 600 nm (690 mi.). The dual-fuel-powered aircraft could go up to 900 nm, whereas the fuel-cell version could be designed for ranges of up to 600 nm, according to Silva e Souza.

Embraer has also signed a memorandum of understanding with Finnair for deeper studies of the Energia aircraft requirements and performance parameters.

AIRLINES

Georgian Airways Adds Country's First Passenger Widebody

MAXIM PYADUSHKIN, maximp@ato.ru

Georgian Airways will become the country's first airline to operate a widebody passenger aircraft.

The airline's first Boeing 767-300ER was welcomed at Tbilisi airport on June 14. The aircraft can carry 250 passengers in a three-class configuration.

Georgian Airways said the aircraft was leased from the "largest U.S. company," but did not name the lessor. The 767 with serial number 29390 was rolled out in 2002 for then-existing U.S.-based lessor ILFC (subsequently sold to AerCap in 2013) and previously operated by Japan's Skymark Airlines, Russia's Rossiya, and U.S. Omni Air International.

According to the president of Georgian Airways Group Tamaz Gaiashvili, the widebody will allow the carrier to launch flights to China, India and Thailand. However, the 767-300ER made its first flight under the new colors from Tbilisi to Dusseldorf on June 17.

Georgian Airways has earlier operated only narrowbody airliners—a 737-700, a 737-800 and a single CRJ200—on routes to the Middle East, Russia and Western Europe.

With 326,000 passengers carried in 2023, Georgian Airways held only 5% of the local air transport market, according to the Georgian Civil Aviation Authorities. The carrier was dominated by foreign airlines such as Wizz Air (21%), Turkish Airlines (11%) and Pegasus Airlines (7%).

Other Georgian carriers also operate widebody aircraft, but only in freighter configurations. Easy Charter has two Airbus A300s in cargo variant, while Geo Sky flies a pair of 747-200Fs.

UNITED, From P. 6

"The big advantage for us is we will have control over the scope and the timing of this development," Yost said. "That can be hugely advantageous to us because we know our planes are coming. We have a massive order book for planes and hopefully Boeing can deliver those, and we want to make sure [IAH is ready for the new aircraft]. I think we've all seen it, in other airports, sometimes when the city [has primary responsibility over] projects, they miss the mark a little bit on the timing, and we don't want to take the risk when all of these aircraft are coming."

He noted that United, while funding the project, is working with the city of Houston on financing. "We obviously have access to capital," Yost said. "To be clear, we're working with the city of Houston for that capital. So, the city of Houston will issue special facility bonds, but they're going to be 100% backed by United's special facility lease."

United bases around 14,000 employees at IAH, from which it operates about 400 daily departures. It hired 2,100 new IAH-based employees in 2023 and plans to hire another 1,500 in 2024. In addition, the Terminal B expansion is expected to create around 3,000-4,000 construction jobs.

SUPPLIERS

Suppliers Think Pope Will Be Next Boeing CEO: Survey

MICHAEL BRUNO, michael.bruno@aviationweek.com

The latest results from a longtime supply chain survey run by a well-known financial analyst show about 30% of aerospace and defense suppliers surveyed predict Boeing Chief Operating Officer Stephanie Pope will be the next Boeing CEO.

Expectations of Pope being appointed are followed by 20% who see Spirit AeroSystems CEO Pat Shanahan becoming Boeing's chief, according to RBC Capital Markets analyst Ken Herbert's latest regular "Voice of the Supplier" survey.

The survey polled around 40 major aerospace and defense suppliers, who together generate $14 billion of industry revenue. A fifth of companies record $200-400 million in revenue, while another fifth see $25 million or below. The majority identify as commercial aero suppliers, with another 25% as defense and 11% as business jet suppliers.

In his summary of the first-half 2024 survey results, Herbert also noted that the supplier base's outlook for Boeing 737 MAX production volumes has dropped by about six aircraft a month from his last survey in the second half of 2023. On average, suppliers report they are now producing MAX shipsets at a rate of 26 a month, and currently plan to exit 2024 at 33 per month and 2025 at 36 per month.

Supplier confidence on Airbus A320 and 787 production levels has remained steady from the second-half 2023 survey, according to the latest survey.

AIRPORTS

Pittsburgh Airport Aims To Be A 'Trailblazer' In SAF Production

DAVID CASEY, david.casey@informa.com

Pittsburgh International Airport's (PIT) efforts to become the first major U.S. airport to produce sustainable aviation fuel (SAF) on-site will help the Pennsylvania airport "earn the right to grow," according to Allegheny County Airport Authority CEO Christina Cassotis.

The airport in May announced plans for two facilities to be built on its 8,800-acre property. One is being advanced by KeyState Energy and natural gas producer CNX Resources, while a second is being undertaken by Scandinavian company SkyClean.

Cassotis said the projects are crucial to accelerating the adoption of cleaner and greener fuels at the airport, helping the industry to meet its net zero targets by 2050. PIT will also be able to export SAF thanks to its proximity to the Ohio River, allowing for transportation to other highly populated airport communities that lack space for their own production facilities.

"We want to be part of the solution," Cassotis said. "These projects will generate economic development opportunities and job creation for the region, while also supporting the industry through the provision of SAF. Additionally, we aim to demonstrate various technologies that could be utilized in different markets worldwide."

KeyState and CNX hope to construct a $1.5 billion facility capable of producing up to 68,000 metric tons of hydrogen annually or up to 70 million gal. of SAF, or a combination of the two. The companies have signed a memorandum of understanding with PIT—although the project will only proceed if the Biden administration enables the use of fugitive methane from coal mines to qualify for a hydrogen production tax credit.

KeyState will serve as the developer and aims to secure project financing, while CNX will provide feedstock services and other technical engineering support. The airport will offer strategic advisory planning and industry expertise.

Meanwhile, SkyClean is in the process of signing a land lease agreement to build an SAF production facility, capable of producing 25 million gal. of unblended SAF annually with future production expansion up to 75 million gal. The company is working on the project with Swedish Biofuels and its technology alliance partner KBR, which have developed a process that produces a fully fungible jet fuel from a variety of feedstocks.

"If you consider the jobs created, not only during the construction phase but also through ongoing maintenance, the spinoff induced economic benefits—both direct and indirect—are significant," Cassotis said. "We hope this will attract more investment into the region for clean energy pathways, which is our primary goal."

PIT became the first airport in the world to be completely powered by natural gas and solar energy in summer 2021 as part of its microgrid. The power generated at PIT is the primary supply for the entire airport, including the terminals and airfield. Power is generated in part through natural gas wells and 9,360 solar panels.

"With its storied history of innovation, reinvention and creativity, particularly for the environment and energy, the world can once again look to Pittsburgh as a trailblazer as we develop this vital resource for our industry," Cassotis said.

Industry Data

Flight Friday: Eastern European Carriers Amidst Recovery And War

DANIEL WILLIAMS, daniel.williams@aviationweek.com

This week's Flight Friday focuses on Eastern European (excluding Russian) operators, corresponding with the upcoming Aviation Week MRO BEER event June 26-27 in Vilnius, Lithuania.

Not only were Eastern European operators hit by the COVID outbreak in 2020, but then they were further impacted with the Russian invasion of Ukraine back in February 2022.

Looking at utilization when compared to the equivalent month in 2019, utilization dropped to 10% of 2019 levels during the onset of the global pandemic. 2021 saw some utilization recovery, and by the end of 2021, utilization was a touch under 90% of the 2019 equivalent.

However, in early 2022 Russia made its move across the border into Ukraine, which delt a blow to traffic in and around the region. Growth plateaued during the summer months in 2022, followed by some modest growth during the whole of 2023, to take utilization into the mid 90's.

2024 has begun with a more positive start, with both hours and cycles returning to 100% equivalent 2019 levels. As flight hours are growing, marginally, quicker than flight cycles, this suggests that the average stage length of the flights is also increasing.

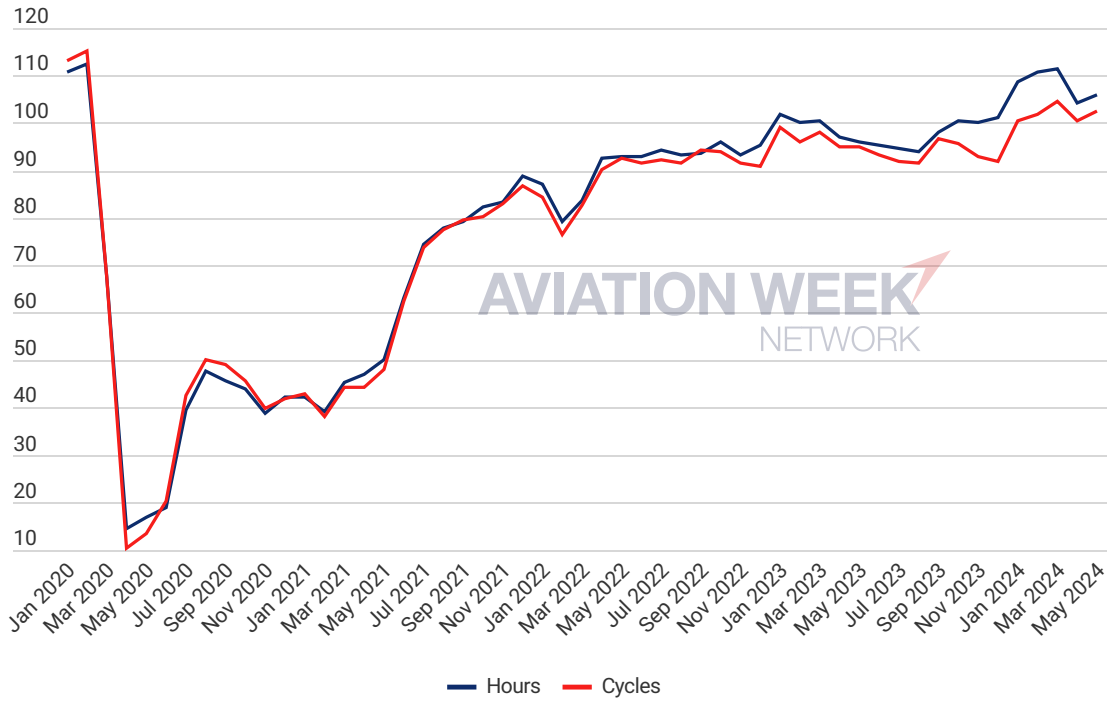
Russian operators, on the other hand, are operating at a third less utilization than 2019 levels, as they are predominantly restricted to domestic flying, or to neighboring "friendly" countries, with a fleet that is slowly running out of official spare parts due to sanctions.

This data was put together using Aviation Week's Tracked Aircraft Utilization tool.

FleetDiscovery

Utilization: Eastern European Operators

Indexed flight hours and cycles against equivalent month 2019 - excludes Russian operators



Source: AWIN Tracked Aircraft Utilization. © Informa Markets 2024

AVIATION WEEK NETWORK

Industry Data

SpeedNews Commercial Aircraft & Engines Marketplace

COMPANY	COMMERCIAL AIRCRAFT FOR SALE OR LEASE	PHONE	E-MAIL	CONTACT
AERSALE, INC.	3- 757-200PCF (RB211), DOM 1993-2001, FOR SALE OR LEASE, AVAILABLE NOW	(1)786-826-6941	garrett.moffett@aersale.com	GARRETT MOFFETT
ALTAVAIR LTD	2- 767-300ERBCF (PW4060-3), MSN 28141/30563, YOM 2000, FOR SALE/LEASE, AVAILABLE NOW	(353)1-267-8814	gareth.henry@altavair.com	GARETH HENRY
AMTRA AERO	1- 757-200PCF (RB211), MSN 28311, DOM 2000, FRESH FULL BSI, FOR SALE, AVAILABLE NOW	(1)818-346-4241	pablo@amtra.aero	PABLO AGUIRRE
BCA CUSTOMER FINANCE	2- 777-200ER (TRENT 884/892B), MSN 32320/28524, DOM 2003/2001, FOR SALE, AVAILABLE NOW & SEPT 2024	(1)425-241-2852	scott.nicholson@boeing.com	SCOTT NICHOLSON
BRISTOL ASSOCIATES	4- ERJ 145XR, DOM 2002, MSN 649/684/688/782, DOM 2002-2004, 50-SEATERS, TR'S, WINGLETS, 2,000 NM RANGE	(1)202-682-4000	bristol@bristolassociates.com	PETE SEIDLITZ
JET MIDWEST	1- 777-200ER (TRENT 895), DOM 2007, MSN 34379, FOR SALE/LEASE; ADDITIONAL AIRCRAFT AVAILABLE	(1)913-706-2517	aircraft@jetmidwest.com	MARIZA BROWNING
COMPANY	**ENGINES FOR SALE OR LEASE**	**PHONE**	**E-MAIL**	**CONTACT**
AERSALE, INC.	2- RB211-535, FOR SALE OR LEASE, AVAILABLE NOW 1- CF6-80C2B8, FOR SALE OR LEASE, AVAILABLE NOW 4- CFM56: THREE -5B / ONE EA -5C4, FOR SALE OR LEASE, AVAILABLE NOW 2- V2500: ONE EA V2533-A5 & V2530-A5, FOR SALE OR LEASE, AVAILABLE IN LATE 2024	(1)786-826-6941	garrett.moffett@aersale.com	GARRETT MOFFETT
AVIAN INVENTORY MANAGEMENT	4- CF34-10E, SERVICEABLE, FULL QEC, FOR SALE, AVAILABLE NOW	(1)407-787-9100	engines@avianparts.com	IAN GUREKIAN
SOUTHERN CROSS AIRCRAFT, LLC	2- CFM56-7B27/B3, ESN 874967/874698, 9432 TT/2910 TC, ORIGINAL LLC, FRESH BSI, AVAILABLE NOW	(1)954-591-4480	patr@scross.com	PATRICK HOSMANN, JR.
WILLIS LEASE	GEnx / LEAP / CFM56 / IAE / GE / P&W ENGINES AND APUS FOR LEASE, PLUS ENGINE STANDS	(1)415-408-4742	leasing@willislease.com	JENNIFER MERRIAM
COMPANY	**ENGINE STANDS AVAILABLE**	**PHONE**	**E-MAIL/WEB ADDRESS**	**CONTACT**
AEROFIELD SERVICES	STANDS FOR SALE/LEASE: PW1100, LEAP-1A/-1B, CFM56, V2500, PW4000, CF6; AIRCRAFT/ENGINE TOOLING RENTALS	(1)720-542-3173	info@aerofieldservices.com	PHIL WILSON
GLOBAL ENGINE STANDS, INC.	GE90-94/115B, PW1100/1500/2000/4000, CFM56, CF34, CF6, V2500, RB211, AE3007, TRENT 700; APUs & REFURBS	(1)305-978-0898	yperez@globalenginestands.com	YEXCELD PEREZ
NATIONAL AERO STANDS	ALL PURPOSE STANDS FOR LEASE: AE3007; CFM56; CF34; CF6; GE90; GEnx; LEAP-1A/B; PW1100/2000/4000; RB211-535; TRENT 500/700/800/1000/7000; V2500. BOOTSTRAP KITS: CFM56-3/-7; CF6; RB211-535; TRENT 1000.	(1)612-296-9502	support@stands.aero www.stands.aero	GAIL HOLGUIN

Calendar

To list an event, send information in calendar format to aero.calendar@aviationweek.com. For a complete list of Aviation Week Network's upcoming events, and to register, visit www.aviationweek.com/events **(Bold type indicates new calendar listing.)**

June 26-27—MRO BEER, Radisson Blu Hotel Lietuva, Vilnius, Lithuania. https://mrobeer.aviationweek.com/en/home.html

June 26-27—AAPA Asia and Pacific Turboprop Safety Conference, Pavilion Hotel, Kuala Lumpur, Malaysia. https://events.eventzilla.net/e/aptsc-asia-and-pacific-turboprop-safety-conference-2024-2138609261

July 2-3—IATA Wings of Change Focus Africa, Marriott Hotel Melrose Arch, Johannesburg, South Africa. https://www.wocfa.com/

July 2-4—ACI EUROPE Annual Congress & General Assembly, Swissotel The Bosphorus, Istanbul, Turkey. https://www.aci-europe-events.org/

July 10-12—Smart Airports & Regions Conference and Exhibition, Colorado Convention Center, Denver, Colorado. https://smart-airports.com/sar/

July 22-26—Farnborough International Airshow, Hampshire, United Kingdom. https://www.farnboroughairshow.com/

July 28-30—RAA 2024 Summer Seminars, Jacquard Hotel & Rooftop, Denver, Colorado. https://www.raa.org/events/2024-summer-seminars

July 30-Aug. 1—FAA Drone and Advanced Air Mobility (AAM) Symposium, Baltimore Convention Center, Baltimore, Maryland. https://www.faadroneaamsymposium.org

Aug. 22-23—CAPA Airline Leader Summit Latin America & Caribbean, Port of Spain, Trinidad and Tobago. https://laas24.capaevents.com/home

Sept. 2-5—Egypt International Airshow, El Alamein International Airport, Ghazal, El Dabaa, Egypt. https://www.egypt-air-show.com

Sept. 10-11—U.S. Chamber of Commerce Global Aerospace Summit, Ronald Reagan Building and International Trade Center, Washington, DC. https://events.uschamber.com/globalaerospacesummit24

Sept. 10-11—Aero-Engine Europe, Beurs van Berlage, Amsterdam, The Netherlands. https://www.aeroengineconference.com/en/home.html

Sept. 12-13—CAPA Airline Leader Summit Australia-Pacific, The Star, Brisbane, Australia. https://apas24.capaevents.com/

Sept. 18-21—Bali International Airshow, Ngurah Rai International Airport, Bali, Indonesia. https://www.baliairshow.com/

Sept. 18-22—Africa Aerospace and Defence, Air Force Base Waterkloof, Tshwane, South Africa. https://www.aadexpo.co.za/

Sept. 24-25—RAA Leaders Conference – Regional Airline Association, Washington, DC. https://www.raa.org/events/2024-raa-leaders-conference

Sept. 24-25—IATA World Sustainability Symposium, Loews Coral Gables Hotel, Miami, Florida. https://www.iata.org/en/events/all/world-sustainability-symposium

Sept. 24-26—MRO Asia-Pacific, Singapore Expo Convention and Exhibition Centre, Singapore. https://mroasia.aviationweek.com/en/home.html

Sept. 30-Oct. 3—International Society of Air Safety Investigators (ISASI) Annual Seminar, Marriott Lisbon Hotel, Lisbon, Portugal. https://web.cvent.com/event/2ab37792-b117-4ba1-b814-bee92c109348/summary

Oct. 6-8—Routes World 2024, Exhibition World Bahrain, Bahrain International Airport. https://www.routesonline.com/events/250/routes-world-2024

Oct. 8-9—Aviation Week Network Digital Transformation Summit, Delta by Marriott Hotels Dallas Southlake, Southlake, Texas. https://digital-transformation.aviationweek.com

Oct. 22-24—MRO Europe, Fira Barcelona, Barcelona, Spain. https://mroeurope.aviationweek.com/en/home.html