

# WIZARD WISDOM NEWSLETTER

here to inform, entertain and have fun revolving around the Aviation World



## **NBAA NEW HOUR: HIGHLIGHTING INNOVATION IN SUSTAINABILITY ON EARTH DAY**

**SOURCE: NBAA**

NBAA News Hour discussed the benefits of sustainability initiatives and the best practices for operators considering their own programs on Earth Day, which examined efforts across the business aviation community to introduce environmentally sustainable practices to the industry.

Kerry Russi, cabin safety manager and aviation sustainability lead at Adobe, has stressed that making small changes to an aircraft can go a long way in sustainability. The challenges are that they need to be done without compromising customer experience.

Kathy Julien, a pilot for Starbucks, implemented sustainable aviation fuels (SAFs) into her flight department simply by asking around to find out about SAFs. She included her sustainability team in the effort and eventually SAF has become something their department actively seeks. Julien says there needs to be an effort to push “your representatives, your airports and your specific fuel providers, it also means looking to Congress, too, to make an impact.” Educational campaigns are also needed, as Julien adds that many people within the industry were unaware that SAF currently is mixed with Jet A and can replace traditional fuel without any changes to equipment, infrastructure or aircraft performance.

Earth Day also marked the launch of NBAA’s Sustainable Flight Department Accreditation Program, which will serve as an industry standard for validating leadership in sustainable flight operations across a host of key domains.

## **ONWARD AVIATION BRINGS PREMIUM FBO SERVICE TO YHM**

**SOURCE: SKIESMAG**

Situated at Hangar 4 of John C. Munro Hamilton International Airport (YHM), Onward Aviation is a privately-owned, full-service fixed-base operator (FBO) serving private aircraft operators in Hamilton, Ontario, and across the greater Toronto area. Previously named Glanford Aviation, the rebrand was an attempt to change the look and feel of the services the company was offering.

Reimagining the facility as a premium FBO, the revamping included a newly renovated hangar space and flight lounge, which now includes direct ramp views, large screen TVs, a wellness room, a private flight planning room, showers and an eat-in kitchen.

Onward founder David Ippolito’s vision for the new flight lounge is to turn a traditionally ““transactional operation into a set of meaningful human relationships.” The company wishes to secure more clients that are looking at parking their jets at the facility, as well as increasing daily in and out flights. According to Ippolito, Onward’s hangar space is equipped to service all sizes of aircraft, and can accommodate up to eight to 10 jets. Ippolito sees the pandemic as an opportunity for Onward to prove itself and provide premium aviation services out of Hamilton.

## **UNIVERSAL HYDROGEN RAISES \$20.5M TO ACCELERATE HYDROGEN AVIATION**

**SOURCE: INTRADO GLOBAL NEWSWIRE**

Universal Hydrogen is accelerating development of hydrogen propulsion for regional aircraft after securing \$20.5m in funding – and the US firm is targeting 2025 for the first commercial flights. This securement of funding was led by Playground Global with an investor syndicate comprising of nine other companies.

The funds will be used to build and test a full-scale hardware for hydrogen commercial aircraft fueled by both liquid and gaseous hydrogen. Multiple airlines have already shown interest in serving as early customers. The company is also developing conversion kits to retrofit existing 40-60 passenger regional airplanes with a hydrogen fuel cell powertrain.

Universal Hydrogen is building a fuel distribution network that connects hydrogen production directly to the airplane using modular capsules that are transported using the existing freight network, avoiding the need for costly new pipelines, storage facilities, and fuel trucks. Universal Hydrogen said it will make hydrogen economically and universally available at airports worldwide, work with regulators to develop appropriate certification and safety standards, and demonstrate passenger enthusiasm for carbon-free, hydrogen-powered flight



### **GLOBAL REPORTING FORMAT – BE PREPARED**

**Source:** ACI

Due to the fluctuation of worldwide standards for the reporting of runway conditions, there is a longstanding cause of confusion and misinterpretation by flight crews that has been identified as a leading factor in multiple aircraft accidents throughout the years. This confusion comes from variations in information sharing about runway conditions, different communication methods, lack of harmonization in reporting, differences in training, or even a lack of training.

To solve this important problem, ICAO has adopted a new assessment method and reporting format for runway surface conditions. This “Global Reporting Format” (GRF) must be enforced for worldwide implementation from 4th of November 2021. GRF is a globally standardized language reporting format for runways surface conditions where users of the air-traffic network understand what the numbers mean and how they can interpret them. The report is developed based on a Runway Condition Assessment Matrix (RCAM).

The Runway Condition Report in the GRF format is characterized by two distinct features:

1. They are reported by using RCAM surface descriptions, and,
2. They are reported per runway third, not per runway

The implementation of the GRF heavily depends on trained runway inspectors who have a greater responsibility in application of the method. It is up to the runway inspector to decide whether the runway is available for use or not. Something that could ease this responsibility would be using a friction tester so that the inspector feels more comfortable choosing the runway condition code. Even in warmer or tropical conditions, the RCAM allows the inspectors in those areas to react quickly to changing conditions, such as heavy rainfall.

In order to implement the GRF, there will need to be precise runway inspections and the development of a standard condition reporting by airports globally. Runway conditions assessments and reporting will also need to be improved, as well as training, cooperation between airports, and software solutions.

### **THE PLANE PARADOX: MORE AUTOMATION SHOULD MEAN MORE TRAINING**

**Source:** Wired

Shortly after a Smartlynx Estonian Airbus 320 took off on February 28, 2018, all four of the aircraft’s flight control computers stopped working. Each performed precisely as designed, taking themselves offline after (incorrectly) sensing a fault. The problem, later discovered, was an actuator that had been serviced with oil that was too viscous. A design created to prevent a problem created a problem. Only the skill of the instructor pilot on board prevented a fatal crash.

As the Boeing 737 MAX returns to the skies worldwide following a 21-month grounding, flight training and design are on the horizon. The future of automation means that there must be adequate training for pilots on how to better respond to some of the issues associated with automated systems. WIRED spoke to hundreds of pilots and experts and the majority agree that the best way to prevent accidents in the short term is to teach pilots how to creatively handle more surprises.

Training for pilots for the installation of new automated systems has been delayed, and therefore hundreds of unforeseen automated-related issues could be out there that cannot be anticipated using traditional risk-analysis methods.

Captain Chesley Sullenberger noted in a recent interview with WIRED that, “it requires much more training and experience, not less, to fly highly automated planes.” Pilots must have a mental model of both the aircraft and its primary systems, as well as how the flight automation works. Unfortunately, in many recent crashes experienced pilots had zero system or simulator training for the unexpected challenges they encountered.

Pilots cannot wait for planes that are better-designed; they must be trained on how to understand the issues with the computers and automated systems and how to react properly to it.



### **EIA COMMITS TO CARBON-NEUTRAL INITIATIVE**

**Source:** *Edmonton International Airport (EIA)*

Edmonton International Airport (EIA) has joined The Climate Pledge and its commitment to be carbon neutral by 2040. By joining this commitment, EIA will be taking increased actions to address this global issue. The airport will be only the third Canadian-based organization to sign The Climate Pledge.

Approximately 70 per cent of EIA's CO<sub>2</sub>e emissions are related to electricity usage. Our long-term commitment to efficiency and innovation shows that in the past 20 years EIA has reduced its energy intensity usage by 50 per cent and further reductions are underway.

As part of The Climate Pledge, there are three principal areas of action:

1. Regular Reporting: measure and report greenhouse gas emissions on a regular basis;
2. Carbon Elimination: implement decarbonization strategies in line with the Paris Agreement through real business changes and innovations, including efficiency improvements, renewable energy, materials reductions, and other carbon emission elimination strategies;
3. Credible Offsets: neutralize any remaining emissions with additional, quantifiable, real, permanent, and socially-beneficial offsets to achieve net zero annual carbon emissions by 2040.

There will be no immediate changes for passengers at EIA related to this pledge. There are no mandatory fees or costs, but the airport will offer voluntary donations for passengers to offset their carbon footprint.

### **RIGHT PEOPLE ON THE WRONG BUS**

**Source:** *The Revenue Game*

Jim Collins, the author of *Good to Great* rallied us to get “the Right People on our Bus.” For the last 15 years CEOs and business leaders have tried almost everything to get the right players on the bus. “Revenue Science™” observes that setting out to get the “right person” on your business might not be the best use of resources or create the best outcomes for that “right person” or the team already on the bus.

When the focus is on searching the population of all persons to short-list possible “right persons”, followed by testing, interviewing, vetting, security checking, grading, selecting, offering, negotiating and often the process of getting that right person is expensive and time consuming. Usually the person with the best job-getting skills are the ones who move on fast to get the top paycheck. Isn't the paycheck not nearly as important as being part of the team and helping the team on the bus achieve their purpose? Can't that be achieved by setting a worthy intention to the right people on the bus already?

What may surprise many is the pursuit of the “worthy intention” makes everyone on the bus more money as well as more personal satisfaction. In the big picture, those who make more money doing what they love, stay on the bus longer and recruit others to the bus who add value and want to travel the same trip. Don't focus on the “right people” on your bus. Focus on the bus trip to achieve a worthy intention and watch “your right people” get in line to get on “your right bus.”

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### **DELTA PLANS TO BUY 25 AIRBUS PLANES AMID EXPECTED TRAVEL REBOUND**

**Source:** AFP News

Delta Air Lines has announced that it is looking into options to purchase 25 Airbus A321neo aircraft and quickening the deliveries of three other planes as they are hopeful on the increase in travel demand as Covid-19 fades.

"With our customers ready to reclaim the joy of travel, this agreement positions Delta for growth while accounting for the planned retirements of older narrowbody aircraft in our fleet," Delta Senior Vice President Mahendra Nair said in a statement. Nair added that the addition "addresses our carbon footprint, increases efficiency and elevates the customer experience."

This hope of return to normalcy from the pandemic state has been increased with a positive cash flow in March, for the first time since the pandemic hit a year earlier. This cash flow mostly comes from eager vaccinated Americans ready to set out and travel again.

The new aircraft would be delivered in the first half of 2022 and would take deliveries of two A350-900s and one A330-900neo by the second half of next year, earlier than initially planned.

### **BRITISH AIRWAYS-OWNER IAG TO CUT EMISSIONS WITH SUSTAINABLE AVIATION FUEL TARGET**

**Source:** Yahoo! Finance

British Airways-owner International Airlines Group committed to powering 10% of its flights with sustainable aviation fuel by 2030, seeking to make progress towards its longer term goal of achieving net zero carbon emissions by 2050.

IAG has said that it plans to purchase one million tonnes of sustainable jet fuel each year by 2030, which is the equivalent of removing one million cars from Europe's roads each year. The sustainable fuel generally produces up to 70% less carbon than fossil fuels, offering airlines a way to become greener while continuing to fly, before less carbon-intensive hybrid, electric or hydrogen aeroplane options become available from the late 2030s.

IAG, an Anglo-Spanish company, is headquartered in Britain, which has one of the world's most ambitious climate change targets, aiming to cut carbon emissions by 78% by 2035. IAG plans to invest \$400 million in developing sustainable aviation fuel over the next 20 years, including building a household waste to sustainable jet fuel plant in the UK.

### **ANALYSIS: HOW LONG IS THE RECOVERY RUNWAY FOR SMALL AIRPORTS LIKE LONDON'S?**

**Source:** The London Free Press

Few places in Canada face more uncertainty by the pandemic more than the nation's smaller airports. Job layoffs and grounded services have been bleeding profit from the small airports since the pandemic began.

Amidst the uncertainty, Nav Canada has released a statement saying that they will not close air traffic control towers at small airports, which is a relief for many of these business owners.

Some aviation observers say that the healing of smaller airports due to the pandemic will take as long as four to five years, although as the pandemic wanes, there is some hope for many more flights and passengers. One issue is the debt airports are taking on, and trying to find ways to pay off that debt without increasing flight fares to their customers. This means that federal relief – not grants or loans – is needed to keep airports with their heads above water.



### **ENSURING A SUSTAINABLE FOR AVIATION FROM GLOBAL AEROSPACE**

**Source:** *Global Newswire*

The annual contribution of aviation to global, human-made carbon emissions typically run at just over 2%, while the actual effect air transport has on the environment is understood to be closer to double that, largely due to the impact emissions have at a higher altitude. While airliners became 70% more fuel-efficient during the last half of the 20<sup>th</sup> century, overall emissions rose as air travel became more popular.

How is the industry reducing emissions today and what are the more carbon-neutral technologies and innovations that are starting to appear over the horizon?

#### Reducing emissions within the existing infrastructure

Aircraft are being retrofitted with more fuel efficient engines, aerodynamic design changes, use of lighter materials, the use of alternative fuels, such as biofuels, and other alterations in order to reduce carbon emissions. Artificial intelligence systems have also been developed to reduce emissions in an aircraft, such as navigation systems whereby aircraft are spending shorter periods taxiing, being routed more effectively in the air, and spending less time waiting to line up to land.

#### Use of small, unmanned aircraft

Lightweight, battery-powered drones now perform a multitude of tasks that would have been traditionally flown by helicopters and other aircraft. Drones have not only saved energy in traditional aviation applications, they have also helped make construction sites more efficient, aided precision agriculture (meaning fewer harmful chemicals being used) and started to take vehicles off the road by delivering packages, to name but a few applications.

#### The future

Future developments regarding sustainability in the aviation industry are going to be reliant upon three groups having the foresight and determination to drive change:

1. Existing aviation players who are revolutionizing practices
2. Start-up manufacturers, infrastructure developers and software companies who are producing entirely new operating platforms, and
3. Policymakers, regulators and governments who set bold targets and create the framework for innovation and certification that allows targets to be met.

#### Carbon offsetting

Many companies are using carbon offsets to mitigate their impact on the planet. One method for the aviation industry is via the ICAO-backed Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). While still voluntary, the CORSIA scheme is aimed at stabilizing net CO<sub>2</sub> emissions from international flights from 2021 onwards. While beneficial, carbon offsets are broadly seen only as short-term relief from a much larger predicament.

### **COLLAPSED AIRLINE FLYBE TO RETURN TO THE SKIES – 'FIRST-EVER RESCUE OF AN INSOLVENT BRITISH AIRLINE'**

**Source:** *Independent.ie*

The collapsed airline 'Flybe' will return to the skies this summer after administrators said they have sold it to Thyme Opco.

Flybe was an Exeter-based carrier which had a major presence in UK airports, and flew the most UK domestic routes between airports outside of London. The purchase of the company is in hopes of enhancing regional connectivity and creating job opportunities within the airline industry.

The company will be smaller than before but will be flying on many of the former routes. Subject to more relaxed travel restrictions due to the covid-19 vaccine, the company is excited to launch a new and improved airline that is strong, reliable and customer-focused. Thyme Opco will be renamed Flybe Limited.

### **WESTJET-YVR COVID-19 TESTING STUDY DEMONSTRATES RAPID ANTIGEN TESTING IS EFFECTIVE IN SCREENING TRAVELLERS AND CONTRIBUTING TO HEALTHY AIR TRAVEL**

**Source:** *Vancouver Airport Authority*

Research conducted by UBC and Providence Health Care at YVR shows extremely low risk of transmission of COVID-19 in airline passengers on domestic flights and that rapid antigen testing is an effective, acceptable and cost-efficient method for screening travellers and contributes to safer and healthier air travel.

Over a four-month period, nearly 600 departing passengers at YVR were tested for COVID-19 using rapid antigen testing. All tests administered during this period were negative, leading researchers to conclude that transmissible infection in airline passengers departing from YVR is likely to be less than one per cent.

Participant feedback was resoundingly positive, with many saying the procedure was efficient, more comfortable than expected and instilled confidence about the safety of their travels. The research team found the test itself took approximately 15 to 20 minutes, resulting in minimal disruption to the overall travel experience.

**CERTIFIED FACTS THAT DRIVE GROWTH IN SALES AND PROFITABLE REVENUE**

**Source:** The Revenue Game

Sales or profitable Revenue Growth will be impacted without certified Revenue Science staff or partners. Employees who have the certification speak the same language, measure the same thing and work toward a common True North. Without it, there is a very complex problem being addressed by people who have to make it up in real time. While a doctor, software specialists, and other workers need training in order to achieve operational excellence, employees in any company need education in Revenue Science and Revenue Generation.

**REVENUE STRATEGY**

**Source:** Rick McPartlin – [YouTube Video](#)

After you find a business purpose that you are really passionate about, how do you make your goals real? The ability to answer just five questions will help you understand your revenue strategy.



**SWOOP RETURNS TO WINNIPEG AIRPORT**

**Source:** CTV News

Swoop Airlines has announced that they are restoring service to the Winnipeg James Armstrong Richardson International Airport. Starting Sunday, the low-cost carrier will offer flights to and from Abbotsford, BC, and Hamilton, ON.

“Our affordable fares are now available to those travelling for essential reasons,” Shane Workman, Swoop’s head of flight operations said in Friday’s release. “Swoop will be here to support the economic recovery of the region and connect Manitobans to their family and friends when the time comes.”

Flights to Kelowna, BC will commence in late June.



**ATC AVIATION AND LAS CARGO LINK-UP FORCES IN ECUADOR**

**Source:** American Journal of Transportation

Lineas Aereas Suramericanas (LAS Cargo) continues expanding its cooperation with ATC Aviation Services AG in South America, this time in Guayaquil, Ecuador where the airline has designated ATC Aviation as their General Sales & Services Agent.

Mark Thiermann, Regional Director South America of ATC Aviation explained: “We are very excited to continue growing our cooperation with LAS Cargo in South America with the addition of the Guayaquil representation. We are confident that our local cargo Sales and Operations teams will be able to grow LAS Cargo’s business in Ecuador, continuing the excellent work we have done already in Lima, Peru”.

**BUREAU, KRUSCHELL AND MORE JOIN JETLINES**

**Source:** Pax News

GlobalX and Jetlines have announced that they have entered into an Arrangement Agreement to which the ownership interest of Jetlines will be distributed to the shareholders of GlobalX.

Subsequent to the completion of the transaction, the company intends to complete a private placement financing of Jetlines and seek a listing of the Jetlines shares on the TSX Venture Exchange. Global Crossing Airlines Group Inc. provided an update on the spin-out of Canada Jetlines Operations Ltd. on Tuesday (April 20).

On the closing of the Transaction, Jetlines and GlobalX will be operated as separate companies with separate management teams and Boards of Directors.

**UNITED AIRLINES PLANS TO BEGIN TRAINING PILOTS AT NEW ACADEMY THIS YEAR**

**Source:** The Wall Street Journal

United Airlines Holdings Inc. is planning on enrolling 100 students of the United Aviate Academy in Pheonix in their pilot training academy this year. Their training academy was part of United’s plan, before the pandemic, to try to gain more control over hiring earlier in the process. Students who go through United’s training pipeline will eventually be guaranteed jobs at the airline, which plans to train 5,000 pilots through 2030, about half the number it says it will need over the period.

This plan comes after United decided to buy the school just before the outbreak of the covid-19 pandemic. With the rolling out of the vaccine and more relaxed travel restrictions, United plans on resuming the pilot hiring process, starting with 300 pilots who had job offers.

**HARBOUR AIR, MAGNiX AND H55 PARTNER FOR THE WORLD’S FIRST CERTIFIED ALL ELECTRIC COMMERCIAL AIRPLANE**

**Source:** Canaian Aviation News

The companies Harbour Air, magniX and H55 are producing highly efficient certified battery packs, and have announced a partnership to certify the world’s first electric Beaver (eBeaver) commuter airplane through a supplemental type certificate (STC) program.

They will work with Transport Canada to certify the installation of the magniX electric propulsion unit and the H55 enhanced battery system, transforming Harbour Air’s seaplanes into an all-electric commercial fleet. By teaming up, they plan to bring clean, efficient and quiet commercial aviation to life by 2022.

H55 is providing more advanced batteries which will improve electric technologies and magniX will be improving and installing electric propulsion units. H55 Executive Chairman, André Borschberg, says that they are offering, “a fast and safe way to reach the market and popularize electric aviation.”

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