WIZARD WISDOM NEWSLETTER

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BRITISH AIRWAYS TO CONTINUE WORK-FROM-HOME PLAN AFTER COVID

SOURCE: BBC NEWS

British Airways will let staff split their working lives between the head office and home in another example of big firms offering flexible employment.

The airline is also in the very early stages of exploring the sale of its huge Waterside HQ near Heathrow Airport, where 2,000 people worked before the coronavirus lockdown. The firm is exploring cutting costs by letting employees work from home, and aren't sure such a big office space is economically viable in this day and age.

Stuart Kennedy, the airline's director of people, said in his message to staff that one of the very few positives to come out of the pandemic was how well staff had coped with working from home. In a separate statement to the BBC, BA said on Thursday: "The global pandemic has shown us that many of our colleagues enjoy working remotely and want to continue, and this has accelerated our approach to offering more agile and flexible ways of working.

"Our aim is to find a hybrid working model that suits our business, blending the best of office and remote working for our people. We've also re-structured our business to emerge from the crisis and are considering whether we still have the need for such a large headquarters building."

The Nationwide building society has indicated that it does not intend to force people to return to the office if they have been successfully able to work from home during the pandemic. Oil giant BP has told office-based staff they can spend two days a week working from home after lockdown restrictions ease.

And banks HSBC and Lloyds are among many other companies looking into split working arrangements. Earlier this month the boss of IWG, which provides office space across the world, told the BBC he expected hybrid working "to become the norm" for many companies. Mark Dixon said: "It works for companies, because it's a lot cheaper and better for the environment."

UOFL RESEARCHERS TO USE LOUISVILLE AIRPORT AS 'INNOVATION LAB'

SOURCE: UOFL NEWS

The University of Louisville and Louisville Muhammad Ali International Airport (SDF) are collaborating on an agreement to allow the airport campus – including all facilities, terminal and airfield – to serve as an innovation lab for UofL-led research projects. University faculty, students and airport staff will work together to identify opportunities for both technological and process improvements, then tackle them with UofL's research capabilities.

UofL will conduct an evaluation this summer to identify possible projects. Researchers specializing in everything from engineering to business will tackle those projects, finding solutions that could be implemented industry-wide both in the terminal and on the airfield. Examples might include developing runway surfaces with extended lifecycles or improving the efficiency of airport terminal operations and passenger movement through technology. Not only will this be an opportunity for more detailed research, but it will create experiential learning opportunities for UofL students, giving them real-world experience and skills that they can apply when they enter the workforce.

"We love building strong, impactful relationships with our industry partners," said Will Metcalf, UofL's associate vice president for research development and partnerships. "This work has significant potential to energize our regional economy, from driving workforce development to generating new technologies. The possibilities are endless."

Darrell Watson, vice president of strategy and innovation for the Airport Authority, said this unique collaboration positions SDF as a leader in airport innovation. The ideas generated, he said, could revolutionize the way other airports operate.

INTEREST IN AVIATION INDUSTRY SOARING DESPITE PANDEMIC

SOURCE: KITCHENER TODAY

One of the hardest hit industries, since the COVID-19 pandemic started, has been the aviation industry. In September 2020, an International Air Transport Association report outlined that North American carriers' traffic saw a drop of 92.4 per cent as of last August.

Despite all of those measures and restrictions, interest in the aviation industry as a career remained high.

Dr. Suzanne Kearns is an associate professor of geography and aviation at the University of Waterloo and she said that five years ago, the first-year class intake was only about 30 students, and in September 2020, they took in about 120 students. They have seen applications increase each year, but due to pandemic restrictions, they could only accept 60 of the whopping 800 applicants this year. That's not unique to the University of Waterloo's program. Kearns said that is across the board in any post-secondary institutions that offer these programs.

Pilots join initiative to ramp up use of Sustainable Aviation Fuels

Source: Aviation24.be

Europe's pilot community is joining a coalition of aviation and environmental organizations, calling for a ramp-up of Sustainable Aviation Fuels (SAFs) as a scalable, long-term solution to decarbonize aviation. Europe's environmental ambitions have taken a concrete shape under the EU Green Deal but cutting greenhouse gas emissions remains a major challenger. Yet, pilots see an opportunity for the EU to be an early leader in producing truly sustainable SAFs and untapping their full potential.

Under the EU Green Deal, Europe pledged to achieve a net-zero-carbon economy by 2050, which would require a 90% reduction of emissions for transport. SAFs have the potential to significantly contribute to this target, cutting airlines' carbon emissions by 80% compared with traditional jet fuel.

They are looking for an environmentally sustainable way to introduce more SAFs into aviation. "Nobody is questioning the potential of SAFs but there is a risk that decision-makers opt for a 'quick-win' approach by e.g. overfocussing on crop-based biofuels. This was the case in the road sector, which relied heavily on unsustainable, food-based biofuels. We need to do better. Aviation must commit to supporting advanced fuels made from wastes, residues and even more importantly – electrofuels," states ECA's Environment Taskforce Chair.

The European Commission is expected to adopt the so-called 'ReFuelEU Aviation' proposal, which aims at boosting the supply and demand for SAFs in the EU. This proposal is an important first step, along with the amendment of the Renewable Energy Directive (RED) in the same direction in 2021. The coalition urges that biofuels with high sustainability risks (e.g. biofuels from dedicated cropland) are excluded from the Directive.

ACI World updates guidance on restart and recovery for airports

Source: Passenger Terminal Today

Airports Council International (ACI) World has published new guidance for airports to help them prepare for restart and recovery from the Covid-19 pandemic and its impact on their operations.

As the trajectory of recovery has been affected by new variants of Covid-19 and the new restrictions introduced by governments in response, the second edition of ACI World's Aviation Operations during Covid-19 – Business Restart and Recovery, provides updated best practice examples and guidance for both initial restart and longer-term recovery.

ACI has not only updated its guidance on the practical and efficient health and operational measures that can be introduced to support safe travel, but also included new information on the provision of Covid-19 testing facilities at airports and supporting the distribution of vaccines.

According to ACI's World Airport Traffic Forecasts, recovery is likely to be uneven across the world – markets with significant domestic traffic are not expected to recover to pre-Covid-19 levels before 2023 and markets with a significant share of international traffic will recover much more slowly.

"Recovery will only be possible, however, if governments can get behind aviation with policy support and assistance to pursue a coordinated and risk-based approach to combining testing and vaccination to promote travel when the epidemiological situation allows," de Oliveira continued.

Air Canada Commits to Ambitious Net Zero Emissions Goal by 2050.

Source: Air Canada

Air Canada announced its long-term commitment to advancing climate change sustainability throughout its business. The airline has set ambitious climate targets to realize a goal of net-zero greenhouse gas emissions (GHG) throughout its global operations by 2050. To reach this, Air Canada has set absolute midterm GHG net reduction targets by 2030 in its air and ground operations compared to its 2019 baseline, and has committed to investing $50 Million in Sustainable Aviation Fuel (SAF), and carbon reductions and removals.
Air Canada has identified the following key carbon reduction pillars:

1. Fleet and operations
   Air Canada will continue deploying its newly modernized and energy efficient aircraft fleets that are more efficient and expected to average approximately 20 per cent less fuel consumption per seat and emit approximately 20 per cent less CO2 and 50 per cent less nitrogen oxides than aircraft they replace, continue to integrate climate factors in route and fleet planning, phase out carbon-intensive ground equipment, further advance electric vehicles and seek other electrification opportunities.

2. Innovation
   Further evaluate the viability, safety and performance of new electric, hydrogen or hybrid operational technologies, and other innovations such as short-haul transportation opportunities and electric drones to complement and support Air Canada's global business network.

3. Sustainable Aviation Fuels and clean energy
   Air Canada will invest $50 Million in SAF and other low carbon aviation fuel (LCAF) development, evaluate the practical applications of renewable energy sources such as biogas and renewable electricity, and energy transition measures.

4. Carbon Reductions and Removals
   Air Canada will explore carbon negative emission technologies and other direct emission reduction and removal strategies in addition to further developing its carbon offset strategy for CORSIA compliance, customer offerings and more.

Details and updates to Air Canada's ambitious climate plan will be posted on aircanada.com in the coming weeks.
Since 1990, Air Canada has improved fuel efficiency by 43 per cent. From 2016 to 2019, the airline reduced more than 135,000 tonnes of GHG from its air operations through fuel efficiency initiatives, and its work in fuel sustainability includes:
In 2018, Air Canada was named Eco-Airline of the Year by Air Transport World for Air Canada's leadership in fuel efficiency and innovative sustainability, initiatives through a $10 Billion fleet modernization, sustainable aviation fuel development and support in Canada, and fuel efficiency program and route improvements. Since 2007, a long-standing program offering customer carbon neutral purchase options has resulted in more than 60,000 tC02e of emissions offset.

New Vancouver airport CEO charts course for community recovery

Source: Vancouver International Airport

When Tamara Vrooman took over the reins of President and CEO of Vancouver Airport Authority in July 2020, she faced one of the biggest challenges of her career facing the global pandemic. Under the direction of Vrooman, YVR spearheaded an ambitious one-year strategic plan for 2021 that outlines its role in the economic recovery of the region. It outlines six key areas of focus for how the airport will respond to those changes.

1. Staying Ahead of COVID

COVID-testing, data-sharing, and contactless processing have already shown progress, according to the strategy. Timely and targeted data investments will ensure YVR will have the right information to stay ahead of and adapt to the challenges of navigating the pandemic.

2. Climate: Net Zero by 2030

YVR is aiming to be net-zero in 2030 versus 2050. The airport continues to reduce its waste and increase efforts on diverting waste from landfills and will focus on reducing direct emissions from its operations by reducing energy use and focusing on renewable fuels.

3. Gateway to the New Economy

YVR credits its success in part to its role as the "Gateway to Asia Pacific," building stronger investment, economic, education, family and social ties with Asia. As the airport moves forward into a post-pandemic world, its renewed focus will be to become the region's "Gateway to the New Economy," strengthening the core of its operations, organization and finances.

4. Strengthening the Core

YVR is taking advantage of the drop in traffic to optimize organization efficiency in terms of passenger experience, departure punctuality, baggage connections and cargo. In addition, YVR is focusing on improving the airport and its infrastructure for safety, efficiency, and sustainability by examining every aspect of its operations, including its asset management program.

5. Purpose Through People

YVR is developing its workforce to ensure the right team with the right skills and attributes is in place to serve its purpose. This includes moving quickly to provide value to customers and community by redesigning YVR's organizational structure, providing a framework to support, develop, and reward talented employees, and fostering a culture where people thrive from hiring to retirement.

6. Financial Sustainability

With reductions and limitations on travel, YVR has started 2021 with the single largest operating deficit and debt burden in its history. As the airport works to meet its other strategic objectives, it is also focusing on doing so in a way that improves its profitability and financial resiliency.

YVR is also working to identify opportunities to diversify into industries and sections that are outside of aviation and less reliant on passenger traffic. The airport says it will also monitor its corporate performance against key indicators to help ensure it is improving financial efficiency over time.

Senate Resolution Would Promote Aviation Gender Parity

Source: AVWeb

The week that includes International Women's Day (March 8) has become an international effort focused on getting more women involved in aviation and now a couple of senators are trying to make it official in the U.S. Sen. Jerry Moran, R-Kan., and Sen. Jacky Rosen, D-Nev., have introduced a bipartisan resolution to designate March 8-14 every year as Women of the Aviation Workforce Week. The Institute for Women of Aviation Worldwide has celebrated the same week with hundreds of sponsored events all over world during its Women of Aviation Worldwide Week. Founder Mireille Goyer said the Senate action would be a big help. "If the resolution passes, it will make a world of a difference in motivating stakeholders in the U.S. and elsewhere to advance gender balance in all facets of the aviation and space industries," Goyer said. Other groups, like Women in Aviation and The Ninety-Nines, also promote female inclusion in aviation as do airlines and other businesses.

The bill is intended to build on the work so far by raising awareness and committing the Senate "to take action to address the gender gap in air and space jobs and in STEM fields more broadly," according to a press release from Moran's office. "Women make up half of the workforce in America, yet still only hold a small fraction of the jobs in aviation industries," said Sen. Rosen. "I'm proud to introduce this bipartisan resolution during Women's History Month to encourage more women to enter the aviation workforce to meet the needs of this growing sector, while also working to increase diversity in these high-demand fields."

How does Hydrogen compare to Biomass-Based Diesel on GHG, PM, and petroleum reduction?

Source: Gary Yowell

Gary Yowell's article discusses how hydrogen used in FCVs compares to one of the fastest-growing low carbon intensity (low-CI) fuels in California today – biomass-based diesel, more specifically renewable diesel (RD) and biomass-to-liquid (BTL) fuels. Below is the conclusion of his article.

Hydrogen has the lowest energy per volume of any gas used for vehicle fuel. Hydrogen's physical properties require significant energy and cost to compress it to the high vehicle tank pressures necessitated to enable FCVs to have an acceptable driving range. As such, hydrogen is economically and physically defeated by more complex, high-energy liquid fuels such as gasoline and diesel. Furthermore, hydrogen's physical properties make it unsustainable without significant, perpetual subsidies or significantly higher consumer cost.

Meanwhile, diesel vehicles fueled with biomass-based diesel displace at least as much petroleum and offer comparable GHG-reduction and environmental benefits when compared to FCVs. Future BTL diesel with a negative CI will make obsolete FCV GHG investments because FCVs cost at least twice as much to buy, maintain, and fuel as conventional diesel vehicles fueled with biomass-based diesel. When comparing H2 cost, informed consumers will choose the near-zero incremental cost biomass-based diesel option. Today biomass-based diesel is already a less costly, greater public benefit provider that has overtaken FCVs anticipated public benefits resulting in a win-win for consumers and public benefits alike. Today's hydrogen investments are already stranded GHG investments because of biomass-based diesel. As far as diesel consumers are concerned, California's hydrogen pursuit is at a dead end. Governmental policy would better serve the people of California by supporting investment in biomass-based diesel rather than pushing for hydrogen – the vastly more expensive, economically unsustainable transportation fuel which provides fewer public benefits than biomass-based diesel.

Advisory Circular (AC) No. 302-033

Source: Transport Canada

Transport Canada has released a document discussing intensity settings associated with brightness steps for aerodrome lighting systems. The document applies to all airport operators. This information is also available to aerodrome operators and the aviation industry for information purposes. This document was released due to TCCA receiving reports of issues raised with the brightness step settings at aerodromes where the traditional incandescent lighting has been replaced with solid-state technology (LED lighting). The issue stems from perceived brightness of LED installations caused by the difference in color saturation between the two technologies.
They discuss brightness steps, intensity settings and incandescent vs. solid-state lighting systems. The conclusion to the document is stated below.

Conclusion
Aerodrome operators need to be aware of the difference in "perceived" brightness between incandescent and solid-state systems and adjust their default settings for given visibilities to suit their operational needs or in responding to pilot requests. For example, setting step 3 for a five-step incandescent system may work in a given visibility but on a LED system, that same step 3 in that same visibility may prove to give a brightness level to annoy the pilot enough that a further reduction to step 2 may be more suitable.

TSA explores use of ultraviolet light to disinfect checkpoint bins

Source: *Passenger Terminal Today*

The Transportation Security Administration (TSA) is trialling the use of new technology that uses ultraviolet-C (UV-C) light to disinfect airport checkpoint bins in a bid to provide safer checkpoint experiences and prevent the spread of Covid-19 and other viruses and bacteria.

The trial is being carried out at two checkpoints at Ronald Reagan Washington National Airport by the TSA's Innovation Task Force to determine the equipment's ability to reach the required UV-C dosage and reduce the number of pathogens on the checkpoint bins. The assessment seeks to determine efficacy in creating a more hygienic security checkpoint, while maintaining operational efficiency and balancing space and staff requirements.

"TSA continuously tests and deploys innovative technologies into operational checkpoint environments that seek to improve the checkpoint experience for airline passengers," said Scott T Johnson, TSA federal security director for the airport. "We are excited to test technologies that might prove effective in disinfecting checkpoint bins and eventually provide another layer of protection against viral and bacterial spread."

The standalone conveyer belt systems expose bins directly to UV-C light as the rollers advance them through the system. In the lab environment, TSA conducted efficacy testing using digital and sticker dosimeters placed on the bins to evaluate UV-C dosage, safety and processing times. TSA anticipates the equipment will have no impact on passenger screening times or the efficiency of the checkpoint screening process.

World's first airport for flying cars and delivery drones to launch in 2021

Source: *Passenger Terminal Today*

Urban-Air Port has announced that it will open the world's first airport for electric flying cars and autonomous delivery drones in Coventry, UK, later this year. The announcement comes after the company was selected as a winner of the UK government's Future Flight Challenge to develop aviation infrastructure and systems that enable the next generation of electric and autonomous air vehicles.

Air-One transport hub is the world's first fully operational 'pop-up' urban airport and charging hub for future electric vertical take-off and landing (eVTOL) aircraft, such as cargo drones and air taxis, according to the company. This transport hub will showcase air taxi and delivery drone technology that will ultimately transport people and cargo across cities.

The project is being backed by the Urban Air Mobility division of Hyundai Motor Group, which has chosen Urban-Air Port as its priority infrastructure partner to support the global growth of this new sector, which could be worth up to US$500bn in the near term according to NASA predictions.

According to Urban-Air Port, the physical footprint of the Air-One transport hub is 60% smaller than a traditional heliport (the most comparable existing infrastructure) and sites can be installed in a matter of days using innovative modular construction methods. The ports emit net zero carbon emissions and can be operated completely off-grid, meaning they do not always have to rely on a suitable grid connection. The company plans to develop more than 200 sites in the next five years to meet global demand.

US and Canadian Airports could lose $44 Billion in 2021 From COVID-19

Source: FlyerTalk

On March 22, 2020, the United States of America and Canada mutually closed their borders to non-essential travel with the hopes of curbing the spread of the COVID-19 pandemic. One year later, the border remains closed, while airports and related businesses continue to lose revenue. A new estimate from Airports Council International-North America suggests up to $44 billion in revenue is at stake unless borders reopen to all air travel this year.

The group notes that although airports are public facilities, their revenue comes solely from usage fees. A combination of airlines paying landing fees, airport facility fees charged to flyers and rent from retail stores all contribute to an airline's bottom line. Furthermore, 21 privately-operated airports pay rent to Canada's federal government, contributing $5.2 billion back to Ottawa since 1992. Without international airlines and passengers arriving and departing airports, the entire industry could lose out on over $44 billion in revenue.

"The financial and societal impacts from such a prolonged closure will only grow deeper the longer the border remains without a plan to ensure a healthy, safe, and secure reopening," the group said. "It is incumbent upon these impacted businesses to join our call for urging the U.S. and Canadian governments, along with their stakeholders, to prepare a reopening roadmap."

ACI-North America's call to reopen the U.S.-Canadian border for airline flyers is the latest move by the travel industry to put more pressure on the government. In early March 2021, several stakeholders sent a letter to the Biden administration to ask the White House to take a lead in developing a digital health passport standard.

The Hydrogen House of Cards Promoted by Government

Source: Gary Yowell

Hydrogen is naively promoted as a direct use transportation fuel. I have spent over 15 years evaluating the environmental and economics of hydrogen used as a transportation fuel. I consistently find, Hydrogen is not economically and environmentally viable in a world with liquid fuels, especially when we review the simple economic and environmental facts.

Hydrogen retails in California at $20/kg with 100% governmental retail station support. Based on 27 years of utilities CNG compression tariffs expenses suggest, hydrogen retail prices will continue to go upward while liquid fuels will remain $2-$6 per gallon for the foreseeable future. GHG and smoke i.e., particulate matter (PM) emission benefits for hydrogen are evaluated in the below attachment article. Later I will release the NOx assessment (spoiler alert hydrogen has a 2-11% lower NOx to diesels - but lower NOx increases ozone pollution).

Bottom Line: Environmental policy would better serve the people by supporting investment in biomass-based diesel rather than pushing for hydrogen - the vastly more expensive, economically unsustainable transportation fuel which provides fewer public benefits than biomass-based diesel.

This $30 Billion Deal Could Reshape the Aviation Industry

Source: The Motley Fool

Recently, AerCap Holdings announced a $30 billion deal to acquire the GECAS unit of General Electric. The deal would create a powerhouse financier, but it also adds billions in new debt to AerCap's balance sheet and dilutes shareholders by giving General Electric a 46% stake.

AerCap and GECAS are both in the business of buying planes and leasing them back to airlines.

The deal would combine two of the biggest portfolios in the industry, growing AerCap's fleet from 1,044 planes to more than 2,000. It also helps diversify the business: The combination would have more than 200 customers and combine GECAS's North American-focused operations with AerCap's substantial exposure to Asia.

Leasing companies, by their nature, carry a lot of leverage. To do the deal, AerCap is adding $24 billion in new debt on top of its $15.8 billion in total unsecured debt as of Dec. 31, making it potentially vulnerable should the pandemic cause another period of instability with airlines or send the economy into a recession.

The nature of the deal also adds a GE overhang on the shares. Terms call for General Electric to be subject to a staged lock-up agreement allowing it to dispose a portion of its 46% stake after nine months and the entire stake after 15 months. Given GE is in a period of restructuring and has been looking to raise cash, there is reason for concern that the company, when allowed, will sell into any appreciation in AerCap shares, potentially limiting the upside momentum for some time.

Finally, AerCap was seen as the premier stock among aircraft lessors because of the quality of its portfolio. AerCap has focused its investment on newer, latest-generation technology that tends to be easier to place elsewhere if an airline customer goes into default. GE's portfolio is a broader range of assets and could, at least temporarily, dent the premium perception AerCap has earned.

There's risk with any transaction, but AerCap is set up well to deliver on the potential of this deal. AerCap's management has significant integration experience, vaulting to the upper echelon of the industry via a 2014 purchase of International Lease Finance from AIG.

Post-deal, AerCap's fleet will still be relatively young, with an average age of about 7 years and 56% of the portfolio considered new tech. AerCap's management team in the past has proven itself as skilled sellers of aircraft, part of what has kept the portfolio young, and should be able to sell off some of the GECAS portfolio it finds less desirable.

The combination also reduces customer concentration risk. Following the deal, AerCap's top 10 customers will account for about 30% of net book value, compared to about 40% previously. And the company's average remaining lease term is 7.1 years, giving AerCap plenty of time to sort through the portfolio and to plan for the future.

4 Reasons "Revenue Generation" is like marriage

Source: The Revenue Game

Reason one – you are no longer only you. You are part of a team. There is your spouse's family, friends, work, church and social life which need to coexist with your own. All of this needs to be aligned to something bigger than their historic role and they must exist well together for years to come and the team will change with every birth, death and life challenge.

When you join a company that is committed to "Revenue Science™" you are no longer an individual performer. You don't make promises to clients until you know if it can be delivered at a fair margin. You don't commit resources without a plan and a schedule. Metrics are set at a strategic level and then defined tactically by you, your peers, your team and everyone you impact by meeting the goals and who impacts you if they don't. "Revenue Generation" is like marriage because you have to be committed to something bigger than yourself and find ways to bring everyone else along with you.

Reason two – you are not the only one with good ideas. Try to pick a restaurant everyone likes, a restaurant that works for no meat, no gluten, no fat and is organic. Now add a couple of kids who really want the toy but not the food.

"Revenue Science™" has sales, marketing, legal, product development, financial and customer service who don't speak the same language and have specific metrics to get their bonus. You have a room full of smart people and each one has great ideas and none of the ideas go together. In marriage and "Revenue Generation" having a to honor everyone on the team and their contribution is the place to start.

Reason three – it is hard to know what is really important and how to build a plan to get there. Do you focus on saving or buy a house now when it is a stretch knowing the price will just go up? When is moving for a job a good idea based on family, two careers, health, kids, schools and recreation? Decisions based on children, houses, education, careers are all important, but there is a need to prioritize based on common goals.

"Revenue Science™" has to consider price or value, short-term or long-term goals, stockholder or customer focus and which drives the business your strategy or execution. Marriages and businesses need a set of principles everyone accepts to be the lines to stay between.

Reason four – when you commit to something bigger than yourself and apply the discipline to overcome whatever happens they are both worth the work. Both marriage and "Revenue Science™" succeed when the commitment and the disciple are supported by a combination of fundamental principles and the best science available is applied by people working on being humble for the greater good.