Brèves de l'industrie aérospatiale – 15 novembre 2021

Industrie Aérospatiale

GE *(9 novembre)*

GE has announced plans to spin off its healthcare and energy businesses as separate public companies by early 2024, resulting in a dedicated aviation company. It will retain a 19.9 percent stake in the healthcare business.

Airbus Helicopter *(9 novembre)*

An Airbus H225 has performed the first helicopter flight using 100 percent sustainable aviation fuel (SAF) in one of its Safran Makila 2 engines. The flight campaign will assess the impact of unblended SAF on the helicopter systems, with the goal of certifying use of SAF blends that exceed today's 50 percent limit.

De Havilland Aircraft of Canada *(9 novembre)*

Further to the end of strike action, De Havilland Aircraft of Canada is now completing the remaining Dash 8 400s on order. It will also begin the decommissioning of the Downsview facility following its sale by Bombardier in 2018. The company aims "to resume new aircraft production at a new site at the earliest possible time, subject to market demand."

Embraer *(8 novembre)*

Embraer has revealed a concept for a family of aircraft named "Energia". It comprises nine- to 50-seat aircraft with a mix of hybrid, hydrogen, dual fuel gas turbine, and electric propulsion systems. The Energia aircraft could enter service between 2030 and 2040.

Héroux-Devtek *(8 novembre)*

Héroux-Devtek annonce que son contrat avec Boeing pour la livraison de systèmes complets de trains d'atterrissage destinés aux programmes Boeing 777 et 777X sera prolongé d'une période de 6 ans. Le contrat, signé en 2013, comprend également la fabrication de pièces de rechange.

Pratt & Whitney Canada carbon offset service *(8 novembre)*

Pratt & Whitney Canada is offering a new carbon offset service to business jet customers enrolled in an Eagle Service™ Plan (ESP™). Subscribers contribute a fee for each flight and P&WC calculates and sources carbon credits from South Pole, a third-party carbon offset provider.

US Association For Manufacturing Technology *(3 novembre)*

Orders for manufacturing technology in August 2021 totaled $560 million according to the US Association For Manufacturing Technology. an increase of nearly 20% over July 2021. The year-to-date total was$3.55 billion, higher than any year since 1998. Orders from the aerospace sector increased modestly over July 2021 but still lagged behind their pre-pandemic spending.

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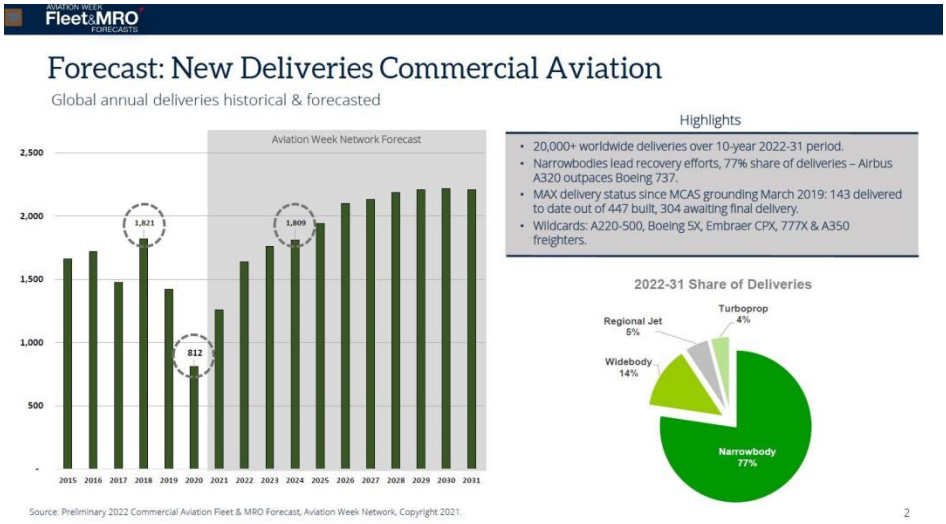
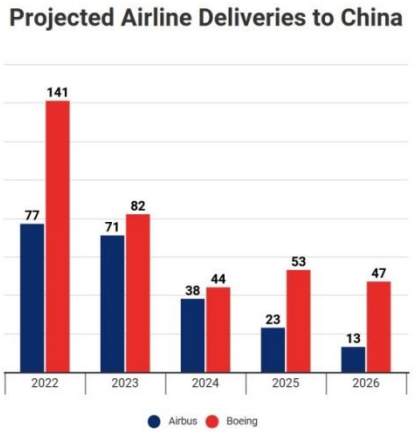
Aviation Commerciale





Aviation Week Network Fleet Discovery

The Aviation Week Network's Commercial Aviation Fleet Discovery database indicates that 266 Airbus aircraft remain on order from either Chinese airlines or lessors that plan to place them in China. The Boeing number is 483 aircraft, but there are more than 100 finished but undelivered MAXs. These orders are less than 5% of the Airbus backlog and under 10% of Boeing's, compared with around 20% for both of them in the recent past.

Aero HygenX *(11 novembre)*

Aero HygenX (Ottawa), makers of the RAY line of autonomous UV-C disinfecting robots for aircraft, and Lufthansa Technik have signed a non-exclusive global distribution agreement. Lufthansa Technik will become a RAY distribution partner.

Air Canada and Carbon Engineering *(10 novembre)*

Air Canada and Carbon Engineering (CE) have signed an MoU to identify how CE's proprietary Direct Air Capture (DAC) technology can advance aviation decarbonization. They plan to explore sustainable aviation fuels (SAF), permanent carbon dioxide removal and innovation, including opportunities for Air Canada to purchase SAF manufactured utilizing CE's technologies.

SAF commitments *(10 novembre)*

IAG and Southwest Airlines have signed MOUs with Velocys Renewables to purchase the entire production of sustainable fuel from a planned US bio-refinery project in Mississippi for a ten-year period beginning in 2026. The biorefinery would use a combination of biogenic feedstock, renewable power, and carbon capture and storage in its fuel production.

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British Airways *(5 novembre)*

British Airways has selected Collins Aerospace to upgrade the interiors of its fleet of Boeing 777 aircraft. Collins will perform the-cabin integration work including engineering design, test and approval. The upgrades are expected to be completed by the end of 2022.

Aviation d'affaires

Hermeus *(10 novembre)*

Hermeus, which previously received a $60 million U.S. Air Force contract for the initial development of a hypersonic business jet for presidential travel, has made a live demonstration of its engine at maximum afterburner power. This powerplant for the Hermeus scale model Quarterhorse test vehicle is a turbine-based combined cycle engine based on the GE J85.

Clay Lacy Aviation *(10 novembre)*

Clay Lacy Aviation's FAA Part 145 repair station at Waterbury airport, CT, has been certified by Transport Canada to provide maintenance services for Canadian-registered business jets.

Gulfstream *(9 novembre)*

Gulfstream is investing $70 million to build a new 225,000 sq ft aircraft maintenance and services facility at the Phoenix Mesa Gateway airport. It is scheduled to open in 2023.

Défense

Russia/China heavy lift helicopter *(10 novembre)*

Russia and China appear to have signed an agreement to begin development of a new Advanced Lift Helicopter designated AC332, scheduled to enter service after a 13-year development program. Russian Helicopters will be responsible for the transmission, tail rotor and the ice protection system. The helicopter will be in the 40t weight class.

Acquisition of Sikorsky Blackhawk helicopters by Romania *(10 novembre)*

Romania will acquire 12 Sikorsky S-70i Black Hawks for operation by its SMURD emergency services organisation. They will be built by Sikorsky's Polish subsidiary PZL Mielec and completed locally by Romaero and Deltamed. Deliveries are due to begin in 2023.

Collins Aerospace *(8 novembre)*

Collins Aerospace a été choisi par l'armée de l'Air indonésienne pour la modernisation de ses C-130H Hercules et fournira sa solution avionique Flight2 et son système de gestion de vol RNP/Area Navigation, avec un logiciel de largage de précision à haute altitude.

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Affinity Flying Training Services Ltd *(8 novembre)*

Affinity Flying Training Services Ltd has received a £65 million contract from the UK Ministry of Defence (MoD) for the operation of four additional Texan T-6C aircraft over a 12-year period under the UK Military Flying Training System (UKMFTS), operated by Ascent Flight Training.

Raytheon UK *(5 novembre)*

The RAF's Shadow surveillance aircraft fleet will be upgraded and expanded from six to eight aircraft by Raytheon UK. The upgrade will integrate Sovereign Defensive Aids Systems.

MRO

Air France Industries *(9 novembre)*

Air France Industries a posé la première pierre de son nouveau centre de maintenance des moteurs d'avions. Ce projet à 30 M€, baptisé « Single Roof », permettra de gagner 15% de temps sur l'entretien des moteurs des compagnies aériennes. La livraison est prévue en 2023.

World Star Aviation *(9 novembre)*

World Star Aviation has signed a firm order with Israeli Aerospace Industries (IAI) for ten Boeing 737-800 converted freighters and ten options. The modifications will be performed at Bedek Lingyun Aircraft Maintenance Engineering (Belinco), Yichang, China.

Zeroavia *(9 novembre)*

ZeroAvia has signed two new agreements. The first is with ASL Aviation Holdings for the conversion of ATR 72 freighters to hydrogen-electric power to serve as a demonstrator aircraft. The second is with Hindustan Aeronautics (HAL) to develop a retrofit of its 600kW ZA600 powertrain for the Dornier 228 twin-turboprop, which HAL still manufactures.

Safran Landing Systems *(8 novembre)*

Safran Landing Systems a signé un contrat de cinq ans avec China Eastern Airlines pour la maintenance des trains d'atterrissage de 31 Airbus A330 à partir de l'atelier de Singapour qui est une joint-venture avec SIAec (Singapore Airlines Engineering Company).

Gogo/Duncan Aviation *(8 novembre)*

Gogo Business Aviation has announced that Duncan Aviation is providing engineering and certification of the first article STC for its 5G cellular communications system. Duncan will modify its existing Avance L5 STCs to include 5G for the majority of midsize to large-cabin jets.

ReMAP *(8 novembre)*

A consortium of 13 aviation and technical partners named Real-time Condition-based Maintenance for Adaptive Aircraft Maintenance Planning (ReMAP) is testing a new approach to predictive maintenance to overcome the acknowledged data sharing challenge. With EU funding, the consortium will trial ReMAP with partner KLM. ReMAP uses a hybrid approach, combining data-based machine-learning algorithms and physics-based models.

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Boeing MRO *(29 octobre)*

Boeing has begun construction of a 370,000-sq ft maintenance, repair and overhaul (MRO) facility at Cecil Airport in Jacksonville, Florida that will support U.S. Navy and Air Force aircraft.

Drones - Advanced Air Mobility

Phystech Ventures *(11 novembre)*

Phystech Ventures, a venture capital company has made the following observations concerning the Urban Air Mobility (UAM) market. During 2020 and 2021 over $5B was invested in UAM vehicles for passenger and cargo carriage, 4.6B by just six companies in the USA and the EU. 129 companies are developing UAM vehicles and only 13 of these are commercializing their product. Current battery technology does not offer enough power density to sustain medium or long ranges. 35% UAM vehicle developers use hybrid propulsion with internal combustion engines.

Spatial

MDA *(11 novembre)*

MDA has been awarded a contract by the Canadian Space Agency (CSA) to undertake a Phase A initial design study for a Canadian Lunar Rover mission. It will advance eight key technologies: mobility, communications, operations, thermal control for lunar night survival, power generation and storage, and semi-autonomous plus autonomous operations.

Isar Aerospace *(10 novembre)*

La startup allemande Isar Aerospace, qui développe le micro-lanceur Spectrum, a levé 180 M$ et prévoit un premier tir d'essai depuis Andoya, en Norvège, en 2022. Elle a signé des accords avec Airbus Defence & Space et l'entreprise bulgare EnduroSat pour des lancements avec Spectrum.

Viasat/Inmarsat *(8 novembre)*

Viasat plans to acquire Inmarsat for $7.3 billion and, pending regulatory approvals, to finalize the transaction in the latter half of 2022.The combined company will integrate spectrum, satellite, and terrestrial assets into a global high-capacity hybrid space and terrestrial network.

Seraphim Space Investment Trust plc *(8 novembre)*

Seraphim Space Investment Trust plc, the world's first listed fund focused on SpaceTech, has made a $25 million investment in HawkEye 360 Inc. a provider of space-based RF data and analytics. This takes Seraphim Space's portfolio of assets to a total of 20 SpaceTech companies.

Innovation

Enerkem *(12 novembre)*

Enerkem a réalisé une percée importante en convertissant du carbone contenu dans la biomasse forestière en carburant d'aviation durable grâce à son procédé thermochimique exclusif. Cette étape a été franchie au Centre d'innovation d'Enerkem à Westbury, au Québec.

UK National Composites Centre *(10 novembre)*

The National Composites Centre (NCC) is launching the Composites Technology Forum for UK Defence, bringing together large industry primes, academia and SMEs to share knowledge, expertise and opportunities for future collaboration targeting defence markets**.**

Airbus *(9 novembre)*

Deux A350 ont effectué un vol transatlantique, se suivant à 3 km de distance, entre Toulouse et Montréal. Il s'agit du premier vol long-courrier effectué dans le cadre du projet fello'fly d'Airbus. Plus de 6 tonnes d'émissions de CO2 ont été économisées au cours du voyage, ce qui confirme le potentiel d'économie de carburant de plus de 5% sur les vols long-courriers.

NAVBLUE and University of Waterloo *(9 novembre)*

NAVBLUE, an Airbus company, and the University of Waterloo's Institute for Sustainable Aeronautics (WISA) will explore the application of emerging technologies to NAVBLUE's software for flight operations, flight data analysis and navigational data.

Wright Electric *(9 novembre*

Wright Electric has launched the Joint Technical Assessment Phase (JTAP) of its Mw-class propulsion system with Honeywell and EaglePicher. Honeywell's contributions include turbo-generator and fuel cell technologies and its test facilities. EaglePicher is a battery specialist.

Airbus Scale *(5 novembre)*

Airbus has launched Airbus Scale, a new innovation unit that brings together corporate innovation, startup engagement and company building activities. It complements other Airbus innovation centres such as Acubed in Silicon Valley, the Airbus China Innovation Centre (ACIC) in Shenzhen and the Airbus UpNext technology demonstrator entity.

Ammonia as fuel *(5 novembre)*

UK-based Reaction Engines has formed a joint venture with catalyst expert the Science and Technology Facilities Council and venture capital firm IP Group, to develop a compact ammonia "cracker" reactor. It uses heat exchanger technology developed for the SABRE engine. Ammonia is broken down into hydrogen and nitrogen to create a fuel that can be used in a jet engine with only minor modifications. SABRE is a precooled hybrid air-breathing rocket engine.

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