

Brèves de l'industrie aérospatiale – 1 novembre 2021

Industrie Aérospatiale

Airbus delivery rates (28 octobre)

Airbus has acknowledged that supply chain challenges have recently impacted delivery rates. It claims that the problems are temporary and that its aircraft production increase plans are under control, although it expects October to be similar. Some aircraft have also been completed but not delivered. It plans to deliver the “vast majority” of backlogged aircraft by the end of 2021.

Heroux Devtek (28 octobre)

Héroux-Devtek a annoncé un contrat avec Lockheed Martin pour le développement de trains d'atterrissage destinés à sa prochaine génération d'avions de défense.

CAE (28 octobre)

CAE a annoncé l'acquisition, évalué à 392,5 millions \$US, de la division AirCentre de Sabre, qui est une gamme de solutions d'optimisation et de gestion des vols et des équipages.

Airbus (28 octobre)

Airbus revoit à la hausse ses prévisions financières pour 2021, avec un bénéfice net de plus de 2,6 Md€ au 30 septembre, pour des ventes en hausse de 17% par rapport à 2020. 424 avions commerciaux ont été livrés au cours des neuf premiers mois de 2021, dont 340 de la famille des A320. Airbus prévoit de livrer 600 appareils pour l'année 2021, 40 plus qu'en 2020.

Boeing B737 production rates (28 octobre)

Boeing has increased 737 production rates from 16 to 19 per month this year. It plans to achieve a rate of 31 during 2022 and clear its MAX backlog in 2023. However, these plans are subject to the timing of China's re-approval of the MAX, and to supply chain risks. Boeing has now delivered about one third of the 450 MAX aircraft that were in inventory at the end of 2020. However, due to ongoing production, 370 aircraft remain in inventory.

Airbus production rates (27 octobre)

Airbus plans to increase A320-family production rates to 65 aircraft per month by mid-2023, up from 64 previously. The A220 rate will increase from five to six next year with a target of 14 by mid-decade. By the end of 2022 the A330 rate will rise from two to “almost three” but the A350 rate will not now increase from five to six until early 2023.

Boeing new product team (27 octobre)

Boeing has recently established a new product team, responsible for development of a future commercial aircraft. However, Boeing has released very few details of its plans. It is associating new product development with parallel development of its production systems.

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GE Aviation/ P&W (27 octobre)

NASA has awarded GE Aviation and Pratt & Whitney six new contracts totalling \$18.8 million for Research & Development of advanced engine cores for single-aisle airliners. The contracts are part of NASA's Hybrid Thermally Efficient Core (HyTEC) project, whose goal is to develop a "high-power-density" turbofan core that is 5-10% more fuel efficient than current technology.

Lockheed Martin third quarter financials (27 octobre)

Lockheed Martin's third quarter revenues were down 3% year on year to \$16 billion, but operating profits rose 5% to \$1.9 billion. Sales by the Aeronautics division fell 2% to \$6.7 billion due mainly to lower net sales under the F-35 development and production contracts. This was partially offset by increased F-16 sales and \$30 million for classified development contracts.

Boeing third quarter financials (26 octobre)

Boeing's commercial aviation business lost nearly \$700 million in the third quarter. It delivered no 787s but continued to build them at a reduced rate of two per month. Boeing's services and defence businesses were profitable resulting in a corporate third-quarter loss of \$132 million versus \$466 million in 2020. Boeing says that Issues with the 787 will cost it around \$US1 billion.

Raytheon Technologies third quarter results (26 octobre)

Raytheon Technologies has reduced its 2021 revenue forecast to \$64.5 billion due to continued low B787 rates and supply chain challenges. It expects that the lower B787 rates will continue into 2022. Pratt & Whitney (P&W) delivered 165 large commercial engines in the third quarter, up from 114 in 2020. It posted a \$189 million operating profit on revenues of \$4.7 billion, up 35% year-on-year. P&W's commercial aftermarket sales increased 56% year-on-year.

GE Aviation third quarter results (26 octobre)

GE Aviation returned a third quarter profit of \$846 million. Demand for aircraft engines and aftermarket services recovered substantially from 2020. In 2021 to-date, GE has received orders for 1,271 commercial aircraft engines, including 866 CFM LEAP. GE Aviation delivered 377 commercial engines in the third quarter, down from 391 last year. However, the volume of aftermarket engine shop visits increased 40% year on year.

Airbus / aircraft leasing companies (25 octobre)

Airbus has rejected calls by major aircraft leasing companies and engine manufacturers to reconsider its production plans for A320 family aircraft. They include 64 aircraft monthly in the second quarter of 2023, plus studies to increase rates to 70 in early 2024 and 75 by 2025.

FAA delegation policy (21 octobre)

The FAA has told US lawmakers that it is strengthening aircraft self-certification rules further to legislation stemming from Boeing 737 MAX groundings. The FAA has also limited delegation to Boeing of some work related to B737 Max 10 and B777-9 certification.

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Aviation Commerciale

Air Canada (28 octobre)

Air Canada est le premier transporteur aérien canadien à se joindre à l'Aviation Climate Taskforce (ACT). Cet organisme sans but lucratif, formé de 10 sociétés aériennes internationales et du Boston Consulting Group a pour but d'accélérer la recherche et l'innovation liées aux technologies de décarbonisation, y compris carburants d'aviation durables.

Breeze Airways (27 octobre)

Breeze Airways has revealed the first of 80 A220-300 aircraft on order at the Airbus final assembly line in Mobile, AB. This first A220 is expected to enter service in Q2 2022.

Spirit Airlines (25 Octobre)

Spirit Airlines has signed an agreement with Pratt & Whitney for PW1100G-JM engines that will power its new Airbus A320neo family aircraft. Deliveries from the 100-aircraft order are expected to begin in 2023, and the agreement includes options for another 50 aircraft.

Boeing (24 octobre)

Boeing is anticipating a \$400 billion market opportunity for commercial aircraft in Africa, predicting fleet growth of 1,030 aircraft by 2040.

Aviation d'affaires

Bombardier Aviation third quarter results (28 octobre)

Bombardier Aviation lost \$377 million in the third quarter of 2021 but its revenues increased 17% year over year. It has also reduced its debt by \$3 billion during 2021 to date. Third quarter revenues were \$1.4 billion, 17% up on revenues from business jet operations in 2020. Services revenues also increased 33% year on year. Bombardier delivered 27 business jets in the third quarter, up from 24 in the same period of 2020 and achieved a book-to-bill ratio of 1.7:1.

Textron Aviation and Textron Bell third quarter results (28 octobre)

Textron Aviation's third-quarter revenue increased nearly 50% year-on-year in a strong business aircraft pricing environment. The company downplayed supply chain risks but warned that it will lose staff due to the US government's Covid-19 vaccine mandate. Third-quarter revenue increased 49% year-on-year to \$1.2 billion and it received orders valued at \$721 million for a total backlog of \$3.5 billion, nearly twice the value one year ago. In the quarter, Textron Aviation delivered 49 jets and 35 commercial turboprops manufactured by Cessna and Beechcraft.

Textron Bell delivered a \$105 million profit in the third quarter, down from \$119 million in the same period of 2020. Its backlog is \$4.1 billion, down from \$5.7 billion one year ago. It delivered 33 commercial helicopters in the third quarter, down from 41 in the third quarter of 2020.

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Gulfstream Aerospace third quarter results (27 octobre)

Gulfstream Aerospace third quarter orders were \$3.247 billion, a 79% increase year on year. Its book to bill ratio was 1.7:1 for a backlog of \$14.69 billion. It delivered 40 aircraft including 20 G500/600s in the third quarter but acknowledged supply chain challenges in the short term.

Défense**US Air Force /General Electric (29 octobre)**

The US Air Force has announced that General Electric's F110-129 engines will continue powering the Boeing F-15EX Eagle II, awarding the company a \$1.6 billion contract. This excludes the Pratt & Whitney F100 as an alternative, which powered the F-15 Eagle and F-15E Strike Eagle.

Turkey and the F-35 (28 octobre)

The US Department of Defense is negotiating disputes resulting from Turkey's removal from the F-35 program after it took delivery of Russian S-400 surface-to-air missile systems whose "anti-stealth" capabilities might detect vulnerabilities in the aircraft. Turkish companies manufactured over 900 parts for the F-35, and they were transferred to other companies at an estimated cost of \$500 - \$600 million. Turkey has demanded return of what it claims was \$1.4 billion paid for undelivered F-35s. The Turkish president has also claimed that Turkey is negotiating with the US government to acquire new F-16 aircraft, as well as upgrade kits for its existing fleet.

Italian International Flight Training School - IFTS (27 octobre)

The Japan Air Self-Defense Force (JASDF) has become a customer of the International Flight Training School (IFTS) in Italy. Its pilots will undergo advanced training there. The school's other customers are Germany and Qatar. IFTS is operated by Leonardo and the Italian Air force and includes an industrial partnership between Leonardo and CAE related to aircraft and simulators.

Bell 429 in Australia (26 octobre)

The New South Wales (NSW) Police Force has commissioned three Bell 429 helicopters in multi-mission configuration that were acquired under its Future Light Helicopter Programme. Also, both Babcock Australia and Hawker Pacific have included the 429 in their bids for an Australian Special Forces requirement for 20 helicopters. Airbus Helicopters is offering the H145M.

US Navy "Tactical Surrogate Aircraft" (21 octobre)

The US Navy (USN) is researching options for up to 64 "Tactical Surrogate Aircraft". They would provide adversary air support and serve as flight lead aircraft to train pilots on frontline combat aircraft. This is a similar requirement to the USAF Advanced Tactical Trainer project. Candidates are likely to include the Boeing T-7A, Lockheed T-50A and Leonardo T-100, based on the company's M-346.

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MRO

DRAKKAR Aéronautique / Groupe Argo Aviation (27 octobre)

DRAKKAR Aéronautique & Transport terrestre et Groupe Argo Aviation, ont annoncé la création d'Argo MRT Amériques, une entreprise commune offrant des services mobiles de réparation.

West Start Aviation/CCX Technologies (25 octobre)

MRO provider West Star Aviation has become a dealership for CCX Technologies (Ottawa, ON), a cyber security solutions provider. West Star will sell, install in aircraft and maintain CCX's products. They include the AP-250, which features two dual-band Wi-Fi radios with encryption and a half-km range, as well as a one terabyte solid-state drive with all data encrypted at rest.

IAE V2500 MRO (22 octobre)

International Aero Engines (IAE) has stated that V2500 engine overhauls are again, including a substantial increase since earlier this year. IAE is now building up material provisions, working with suppliers to ensure readiness, increasing spare engine availability and increasing staff. Over 2,000 V2500 engines are in service powering A320 family aircraft.

Drones - Advanced Air Mobility

Vertical Aerospace and Ferrovial (28 octobre)

Vertical Aerospace is to cooperate with Spanish infrastructure operator Ferrovial, which owns 25% of Heathrow Airport (HAL), to create a network of 25 Vertiports across the UK, supporting domestic launch operator Virgin Atlantic Airways. Ferrovial also has 50% shareholdings in three other UK airports and interests in another 29 European ones. It has previously announced an agreement with Lilium to construct a network of vertiports across Florida and has proposed building a 20-strong network of facilities in Spain..

Urban Blue (27 octobre)

L'aéroport de Nice ainsi que trois aéroports italiens (Rome, Venise et Bologne) s'allient autour d'un nouveau projet visant à bâtir des infrastructures plus vertes. Baptisée Urban Blue, cette nouvelle entreprise vise à favoriser le développement d'infrastructures de mobilité aérienne urbaine (MAU) au niveau international, pour les avions électriques à décollage vertical. La société aura pour but de concevoir, de construire et gérer les vertiports.

Zeroavia hydro-electric Q400 (26 octobre)

Alaska Air Group will install a ZeroAvia ZA2000 hydro-electric engine and powertrain in a De Havilland DHC-8-400 operated by its Horizon Air regional airline. It is also placing options for kits to convert up to 50 aircraft. This will involve scaling up ZeroAvia's current 600kW powertrain to deliver between 2MW and 5MW. The goal is to achieve a range of 500 nm.

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Helipass (25 octobre)

Flight-booking platform Helipass is in talks with its network of around 120 helicopter operators to encourage them to transition to electric aircraft. It has agreed with Embraer's Eve Urban Air Mobility Solutions to market up to 100,000 flight hours annually in its four-passenger eVTOL. Helipass intends to include other eVTOL types in its platform and has already approached manufacturers Volocopter, Joby, and Lilium.

Energy sector/ Nuclear (22 octobre)

Unmanned aerial systems (UAS) are playing an increasing role in the energy sector. Applications include visual inspections of wind turbines, flare stacks and pipelines and evaluation of vegetation encroachment near power lines. Their use in the nuclear community has only recently been explored, at a Duke Energy facility and at Fukushima Daiichi. Uses include inspections for water leaks in cooling systems and post-accident radiation surveys.

Spatial**Airbus Defence and Space/Air Liquide (27 octobre)**

Airbus Defence and Space, Air Liquide et ispace Europe créent Euro2Moon, une OBNL ayant pour objectif de favoriser une meilleure utilisation des ressources lunaires, d'accélérer le développement de l'économie cislunaire et de fédérer les efforts industriels en Europe.

ClearSpace Today (27 octobre)

The UK Space Agency has selected startup ClearSpace Today to define a space mission to remove multiple defunct spacecraft from orbit. The mission, which will be launched in 2025, will be the first ever spacecraft to deorbit two non-functional satellites consecutively, and will also demonstrate other novel technologies, such as spacecraft-to-spacecraft refuelling.

CS Group (25 octobre)

CS Group fait partie du consortium qui a signé en 2017 un contrat pour développer le Copernicus Research Users Support (programme européen d'observation de la Terre). L'entreprise a développé trois types de services pour démocratiser l'accès aux données Copernicus : un accès facilité aux données depuis le cloud, une cellule de support pour répondre aux questions des utilisateurs novices, et un programme de formations pour développer des applications à partir des données en utilisant des logiciels open source.

Chine (23 octobre)

La Chine a lancé un satellite nommé Shijian-21, propulsé par la fusée Longue Marche 3B, lancée depuis le Xichang Satellite Launch Center, province du Sichuan (Sud-ouest). Sa mission exacte est classée secrète, mais la China Aerospace Science and Technology Corp., gérée par l'État, aurait déclaré que le satellite était « chargé de démontrer des technologies pour atténuer et neutraliser les débris spatiaux ».

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Innovation

Airbus, Dassault Aviation/SAF (29 octobre)

Airbus, Dassault Aviation, Onera, the French Ministry of Transport and Safran have launched the first in-flight study of a single-aisle aircraft using 100% sustainable aviation fuel (SAF). The study aims to support certification of 100 percent SAF for use in civil aircraft. During the flight, one CFM LEAP-1A engine installed on an Airbus A319neo operated on 100 percent SAF.

UK Government/ Aerospace Technology Institute (28 octobre)

The UK Government has guaranteed funding for the Aerospace Technology Institute (ATI) to 2031. However, budgeted amounts have not been disclosed, creating some uncertainty.

APC wing-tip design (25 octobre)

German company APC is developing a tri-blade wing-tip configuration that it plans to flight test on an Airbus A330. It comprises three separate blades which are designed to reduce lift-induced drag. It is being produced in collaboration with Varel-based firm Deharde and Stade-based Airbus affiliate CTC.

MHIRJ and Zeroavia (25 octobre)

MHI RJ Aviation Group (MHIRJ), and ZeroAvia will cooperate in developing hydrogen-electric propulsion for regional jet applications. They will leverage ZeroAvia's hydrogen fuel cell powertrain technology and MHIRJ's aircraft design, certification and support experience. MHIRJ will provide engineering and certification services, as well providing advisory services evaluating the feasibility of a green retrofit program for regional aircraft.
