

AF-KLM focuses on capturing CO2 from the air



| Letter from the Director of Air France-KLM

François Robardet

Representative of the employees and former employees shareholders
PS and PNC

N°870, July 25, 2022

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Monday's Press Review

> Airbus and other airlines, including Air France-KLM, focus on CO2 capture from the air

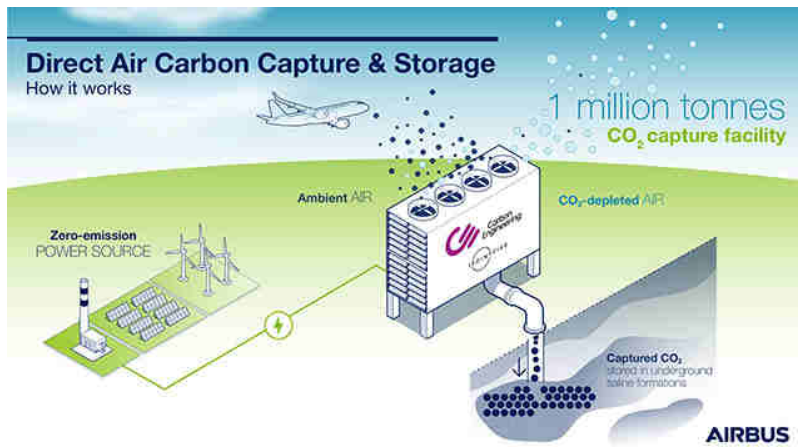
(source Agefi) July 18 - Airbus and several airlines including Air Canada, Air France-KLM, easyJet, IAG and Lufthansa announced on Monday that they will explore the still embryonic technology of direct capture of CO2 from the air in order to offset part of their greenhouse gas emissions. **"The aviation industry cannot absorb at source its CO2 emissions released into the atmosphere, so a direct carbon capture and storage solution would allow the sector to directly extract the equivalent amount of emissions from its activities from the atmospheric air,"** Airbus said in a statement.

Direct air carbon capture and storage involves filtering and removing CO2 emissions directly from the air using high-powered fans. Once removed from the air, the CO2 is stored in underground tanks

The companies involved signed letters of intent on Monday to enter into negotiations that could lead to the pre-purchase of carbon removal credits from 1Point Five, a U.S. company specializing in the new technology.

Airbus has already "pre-purchased" 400,000 tons of carbon offsets from 1PointFive.

(...)



My comment: Capturing CO₂ from the atmosphere is a good idea ... but it will require a lot of green energy.

Will there be enough green energy for the air transport industry to implement all the solutions that will allow it to reach its decarbonization objectives?

This is the question that needs to be answered quickly. The competition will be tough, as all industries will have huge needs for green power.

> Airbus-Boeing: orders resume without exuberance

(source Les Echos) July 21 - **The Farnborough Airshow**, which closed on Friday, July 22, did not quite live up to expectations. It did confirm the recovery of the aviation sector, and some good aircraft orders were announced. But caution is still the order of the day, and we are far from the exuberance of the last show before Covid in 2018, where commitments had been made for a record 1,400 aircraft for a theoretical price of 192 billion dollars! "

It's a bit of a soft show," one could hear in the aisles. It must be said that the heat wave, which raised the tarmac temperature to around 40 degrees, did not help to attract the crowds. And apart from Boeing's 777X jumbo jet, there was hardly anything new to admire on the runways. On the other hand, under the halls, the sector of electrically powered flying cabs, E-VTOL, competed with futuristic and nice models, even if none of them made a flight demonstration...

The traditional match between Airbus and Boeing in terms of order intake turned to the advantage of the latter. By Thursday evening, the American aircraft manufacturer had announced a total of 297 orders, compared with 85 for its European rival.

"It's about time Boeing stepped up to the plate," said Airbus sales director Christian Scherer. At Farnborough, Airbus only recorded two real new orders, one from Delta Airlines for 12 A220-300 single-aisle aircraft, to be delivered from 2026, and the other from the South American airline LATAM for 17 A321s, even though it triggered an order for 56 A320 single-aisle aircraft as part of its global agreement with easyJet.

"This is a business recovery show [...] and **the big issue for Airbus today is less about increasing the size of the order book than serving the order book**, that is, delivering the aircraft," Airbus President Guillaume Faury told AFP. "

Today, we have difficulties, **we are behind on the production and delivery of the A320 family, for a whole bunch of reasons, including the engine but not only**," he added, recalling the disorganization of the suppliers' chains. He said he hopes to be out of this "crisis of exit" by mid-2023. "In the first half of the year, we delivered 297 aircraft and produced 26 gliders," said Guillaume Faury, who wanted to reach 720 deliveries by 2022, a figure that now seems optimistic. **Boeing, on the other hand, is clearly banking on Farnborough to get back into the game and put its 737 MAX medium-haul jet back in the saddle, which has now been reauthorized to fly. Boeing especially wanted to push the longest version of the range, the 737 MAX-10, on which it has all its hopes to compete against the A321 of Airbus.**

Boeing is pushing for rapid certification of this version, so much so that the aircraft manufacturer multiplied demonstration flights during the show. And it got two orders that should put pressure on regulators: **Delta Airlines ordered 100 737 MAX-10s** with an option for 30 more on the first day of the show, while on Thursday **Qatar Airways also ordered 25 MAX-10s** with an option for 25 more. In a way, this is the answer of the shepherd to the shepherdess

(...)

In the end, the show marks a recovery with a total of 450 to 500 aircraft ordered, taking into account the orders received by regional transport specialists Embraer and ATR.

***My comment:** The few orders for the B737-10 Max remain subject to the condition that the US Congress grants a waiver to Boeing so that this aircraft can be certified after the December 31, 2022 deadline.*

Read the article "Boeing ready to give up on the 737 MAX 10" in my [letter n°868](#).

> **Competing with Airbus and Boeing, the Chinese C919 could be marketed as early as 2023**

(source Les Echos) July 25 - It's probably only a matter of months. Next year, the aeronautical duopoly formed by Airbus and Boeing on the Chinese aeronautical market will probably have to make room for a newcomer. **This weekend, Chinese aircraft manufacturer Comac announced that it had successfully completed all certification flights for its new single-aisle, twin-engine jet, the C919.**

Designed to carry 158 passengers over 4,075 km in its standard version, the C919 is the second commercial aircraft developed by China. Much more ambitious than the ARJ21, which is primarily a regional jet, **it was designed to compete directly with the Airbus A320, which remains the world's best-selling aircraft, and the Boeing 737 MAX, which is still not allowed to fly in China.**

Everything is now a question of timing. **The manufacturer**, which announced that

"the six C919 test aircraft have completed their test flight tasks, marking the end of certification" **now hopes to receive certification for its single-aisle aircraft in the coming months.** Ideally by the next National Congress of the Communist Party, which is scheduled to take place in October or November.

This would allow a marketing in 2023, according to the Global Times. Once this certification is obtained, pilot training and demonstration flights should take between 6 and 12 months.

(...)

Beijing sees this aircraft as a reason for pride, since **apart from its engine, the C919 is the first medium-haul aircraft to be designed entirely in China.** This is enough to make us forget that its development cost twice as much as expected (Beijing paid up to 72 billion dollars in public aid) and that the program was six years behind schedule. To the point that the certification that was supposed to take place last year has been postponed.

For the moment, **Comac has announced that it has received 815 official orders from 28 customers around the world. Even if the main buyers remain Chinese airlines.** Starting with China Eastern Airlines, whose OTT subsidiary should be the first to receive its aircraft and which had announced that it would order five in the spring of 2021.

And it could eventually benefit from the announced infatuation of airlines for single-aisle aircraft, which, according to recent Airbus forecasts, should represent 80% of the aircraft to be purchased over the next twenty years. **Comac hopes to account for a third of the Chinese market and, by 2035, a fifth of the international market**

But for the time being, Comac has had to accept the fact that several mega-orders placed by Chinese airlines in recent months have primarily been placed with Airbus and Boeing. It's true that while the C919 may be a rival, it won't be a real competitor until it obtains international certification. This may take some time.

***My comment:** It took ten years for China to develop an aircraft similar to Boeing's B737 and Airbus' A320.*

Yet the aircraft relies heavily on Western components, including engines supplied by CFM (the consortium of General Electric and Safran) and avionics.

It is likely that it will take Airbus or Boeing (much) longer to develop a hydrogen aircraft. If they do, it will be too late for the airline industry to benefit from this new type of aircraft to reach the zero CO2 objective in 2050.

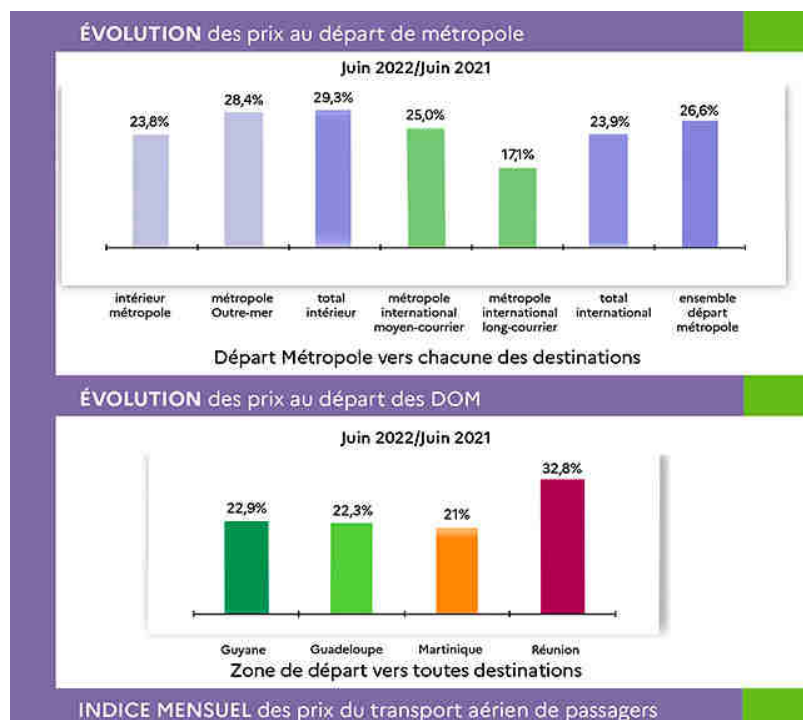
> **Airline: ADP Group revises its forecasts upwards**

(source L'Echo touristique) July 19 - On Monday, **the ADP group raised its traffic forecasts for 2022.** And this, despite the many disruptions that the air transport sector is currently facing, during the peak summer vacation period

The group expects total traffic to be between 74% and 84% of 2019 levels for its entire network of operated airports, and **between 72% and 82% of 2019 levels for Paris Airport.**

ADP had previously forecast total passenger traffic in 2022 worldwide to be between 70% and 80%. And between 65% and 75% of pre-crisis levels for the group and its Paris airports.

ADP said its total June traffic increased by 15.9 million passengers compared to the same month in 2021. It reached 118.2 million passengers in the first half of the year, or 71.9% of 2019 levels.



My comment: *The level of traffic in Paris airports is approaching that of 2019 more quickly than anticipated.*

And this despite strong increases in fares (+25% compared to 2021), a consequence of the soaring price of kerosene since the beginning of the invasion of Ukraine.

> Airline sector: two agreements signed to raise minimum wages

(source AFP) July 20 - **Two agreements aimed at raising all minimum wages in air transport and simplifying the classification grid of the branch have been signed by social partners**, announced Wednesday the National Federation of Aviation and its trades (FNAM).

These agreements have been signed "by four of the five representative trade unions within the industry, namely the CFDT, CGT, CFE-CGC and UNSA", which together account for 75% of the votes, said the FNAM, the main professional organization of the airline industry

The new wage agreement concerns ground staff and not flight crews, and is similar to a catch-up when the minimum wage has recently increased significantly, and the entire sector is disrupted this summer by staff shortages and strikes of flight attendants and pilots in airlines. This agreement provides for an increase of the first seven salary levels of the grid by 6%, "that is to say an annual increase between 1,100 euros and 1,417 euros for employees on these first levels," says the FNAM

This is the second time this year that the branch's minimum wages have been revalued. "Last January, the FNAM had ratified a first wage agreement aimed at revaluing the lowest salaries of the grid in view of the impact of the increase in the Smic", said the employers' organization.

This time, it is the May 1st increase that has been passed on. **With this new agreement, the minimum wage of an employee in the first step is raised "to more than 11% above the current annual minimum wage", said the FNAM.** The minimum wage is to be revalued by 2.01% on 1 August due to inflation, which reached 5.8% in June.

Hélène Clavé, Deputy General Delegate in charge of social affairs at the FNAM, welcomed the signing of these two agreements. She praised the quality of the social dialogue "which has enabled a compromise to be reached despite the fragile, unstable and uncertain economic context of the sector", according to a statement.

Like many other sectors, the airline industry

is struggling to recruit to meet growing demand with the end of travel restrictions related to the Covid-19 pandemic.

My comment: *These agreements are very important for employees.*

The revaluation of the minimum wages impacts upwards the seniority bonuses, based on the classification levels.

However, these agreements only concern minimum wages. To guarantee the purchasing power of employees, it will be essential that additional agreements are negotiated and signed within each of the companies in the air transport sector.

End of the press review

> Advice for employees and former employees who are shareholders

You will find on my [navigaction](#) site the modalities of access to the managers' sites.

To avoid forgetting to change your contact information each time you change your postal address, **I advise you to enter a personal e-mail address.** It will be used for all correspondence with the management organizations.

Keep all the documents related to your Air France-KLM shares in one place: all the letters you receive from the different managers, Natixis, Société Générale, your personal financial institution if you bought your shares through it.

> Management of employee investment funds. Good to know

When you invest money in one of the Air France FCPE funds, you get shares in these funds. You do not hold shares directly.

It is the supervisory boards, which you elected in July 2021 for a five-year term, that manage the funds and make the decisions.

The Aeroactions, Majoractions and Concorde funds only hold Air France shares.

The Horizon Épargne Actions (HEA), Horizon Épargne Mixte (HEM) and Horizon Épargne Taux (HET) funds manage portfolios of various stocks.

My comment: If you would like more information on the management of the various Air France FCPEs, please consult [my website navigation, section Air France-KLM employee shareholding](#).

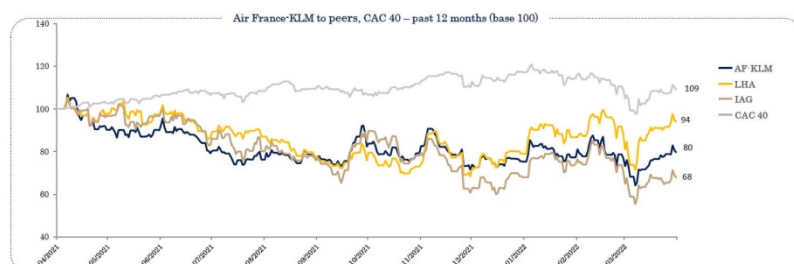
> My comments on the Air France-KLM share price trend

Air France-KLM shares closed at 1.2455 euros on Monday 25 July. It is down slightly this week by -1.93%.

Since the beginning of the capital increase operation, it has lost nearly 34%.

Several reasons explain this decline. The first is specific to Air France-KLM: it is the mechanical consequence of the capital increase.

The other two reasons are valid for all airlines: on the one hand, the acceleration of inflation, and on the other hand, the numerous flight cancellations planned during the summer throughout Europe.



Comparative evolution of the Air France-KLM share price vs. IAG and LH over one

year, before the recapitalization of Air France-KLM.

Since March 2021, Air France-KLM's share price has evolved in much the same way as that of its two main European competitors, the Lufthansa and IAG groups.

However, there has been a divergence since the beginning of the year. Lufthansa's share price is performing better than Air France-KLM's, probably because the recapitalization of Air France-KLM was delayed.

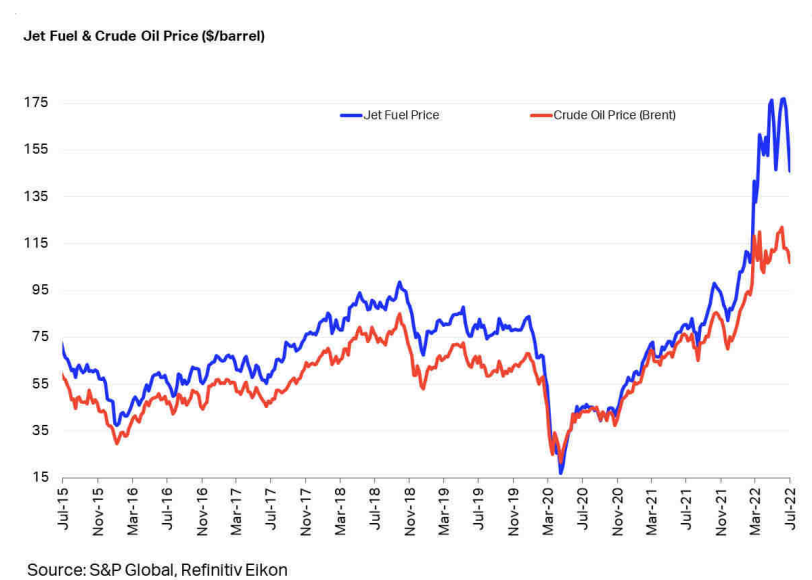
IAG's share price is down sharply. The high level of debt of the Anglo-Spanish group is highlighted by analysts.

The average (consensus) analyst price for AF-KLM shares after the capital increase is 1.39 euros. The highest price target is 1.90 euros, the lowest 0.85 euros. I only take into account analysts' opinions after the May 2022 capital increase.

You can find the details of the analysts' consensus on my blog.

> **My comment on the evolution of fuel prices**

Since the start of the war in Ukraine, there is no longer any correlation between the price of a barrel of Brent oil and a barrel of Jet Fuel. This is very clear on the graph below, which covers the period June 2015 - July 2022.



According to specialists, this increase is due to an increase in the fuel reserves of the armed forces, which are composed solely of Jet Fuel.

In fact, for the past few years, to ensure the strength of the infrastructure, the French Army has favored a single fuel policy aimed at powering all equipment, land vehicles and generators with jet fuel for air use.

Jet fuel prices by region (source IATA)

15 July 2022	Share in World Index	cts/gal	\$/bbl	\$/mt	Index Value	vs. 1 week ago	vs. 1 month ago	vs. 1 yr ago
					2000 = 100			
Jet Fuel Price	100%	348.47	146.35	1155.75	400.08	0.1%	-17.3%	85.7%
Asia & Oceania	22%	320.74	134.71	1064.21	384.90	-2.7%	-23.3%	75.5%
Europe & CIS	28%	355.56	149.33	1178.25	402.35	1.8%	-17.0%	89.5%
Middle East & Africa	7%	327.81	137.68	1087.09	411.15	-0.7%	-20.7%	79.8%
North America	39%	360.46	151.39	1196.01	402.48	0.5%	-14.0%	89.0%
Latin & Central America	4%	369.23	155.08	1225.12	429.59	0.1%	-13.5%	91.2%

Jet fuel in Europe is down \$7 a barrel to \$142 this week. It's down \$35 in a month.

It was at \$79 just a year ago.

Brent crude oil (North Sea) is down this week by \$1 to \$105.

Since mid-February, it has been yo-yoing between \$100 and \$120.

At the beginning of March, Brent had reached \$132, close to its record of \$150 (in 2008).

At the end of October 2020, it was at a low of \$37.

This information is not intended to be a solicitation to buy or sell Air France-KLM shares.

You can react to this press review or send me any information or thoughts that will help me better carry out my duties as a director of the Air France-KLM group.

You can ask me, by return, any question relating to the Air France-KLM group or to employee share ownership...

See you soon.

To find the last press reviews of Monday, it is [here](#)

If you like this press review, please pass it on.

New readers will be able to receive it by [giving me](#) the email address of their choice.

| François Robardet

Director of Air France-KLM representing the employees and former employees shareholders of PNC and PS.

You can find me on my twitter account @FrRobardet

When I was elected, I received the support of the CFDT and the UNPNC. This
press review deals with subjects related to the Air France-KLM shareholding.

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