

Air France: questions about flight safety



I Letter from the Director of Air France-KLM

François Robardet

Representative of the employees and former employees shareholders PS and PNC

N°875, August 29, 2022

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Monday's Press Review

Editorial

Dear readers,

In the previous weeks, I successively presented an interview with Mr. JM Jancovici and an article on the Drawdown project.

Given the current events, the third part of the series on the impact of climate change on air transport is postponed until next week.

Enjoy your reading

François

> Air France: fight in a cockpit, forgotten ignition of an engine on takeoff..., questions about flight safety

(source: La Tribune) August 26 - Given the thousands of flights operated by Air France every day, events that could have an impact on flight safety are inevitable, but they do not call into question the company's safety level in a systemic way. However, since the beginning of the year, the nature of certain incidents reported here in La Tribune raises questions and fears at a time when traffic is starting to pick

up again after two years of major disruptions due to the health crisis. A feeling reinforced by the publication of a report by the Bureau of Investigation and Analysis (BEA) on August 23, questioning the safety culture at Air France with deviations from procedures deemed too important. A few weeks before the trial before the criminal court on the AF447 accident, the Rio-Paris flight that killed 228 people in 2009, which will see Air France and Airbus appear before the court for "involuntary manslaughter", the sequence is sensitive. And the analyses of the situation diverge.

Unthinkable errors according to pilots

According to concordant sources, Air France has recorded two engine start-up failures prior to takeoff, which took place in February. One occurred on an Airbus A321 and was corrected by the crew before lining up on the runway, but the other on an A350 was only detected at the time of thrust before takeoff on a flight from Paris to Tel Aviv. If taxiing on a single engine is a normal procedure to save fuel, forgetting this situation and not planning to start the second engine appear to be unthinkable errors for several experts in these matters, including pilots, who question the way this is integrated into the checklists, which are supposed to prevent this kind of oversight.

Confirming the information to La Tribune, Air France said it has opened an internal investigation - still ongoing - on the conditions that led to the sequence on A350. The company also stated that it had submitted these elements to the BEA, which did not consider it necessary to open an investigation. Finally, the company states that, "without waiting for the results of the investigations, the company's flight operations department has taken precautionary measures by suspending this procedure on all its fleets, while the crews operating the Airbus A350 are reminded of the single-engine taxiing procedures (and the associated start-up sequences)".

In April, the AF011 go-around also caused a stir, with communications between the control tower and the aircraft being broadcast on the Internet. While this procedure is perfectly normal and even necessary for flight safety in the event of an unstabilized approach, this particular case was striking because of its poor execution by the crew.

Pilots come to blows

More recently, an unprecedented event within Air France and of a different nature occurred on board with an altercation between two pilots on an Airbus A320 between Geneva and Paris last June. According to our information, a heated confrontation between the captain and the co-pilot took place in the cockpit, during the climb after takeoff, following the co-pilot's refusal to follow an instruction. After an inadvertent blow according to the version of one of the two pilots, or a slap according to that of his colleague, the two men grabbed each other by the collar, while remaining at their cockpit, before one of the pilots threw his wooden plate (a kind of briefcase) in the face of the other. Alerted by the noise, the commercial crew entered the cockpit just as the tension was easing. To avoid a resumption of hostilities, a cabin crew spent the end of the flight sitting behind the pilots, and wrote a report. Air France confirms the "dispute" with an exchange of "inappropriate gestures".

The company nevertheless assures that "the incident ended quickly without affecting either the conduct or the safety of the flight, which continued normally". It specifies that the pilots concerned are currently stopped from flying and are awaiting a managerial decision. The latter will decide on the outcome and possible treatment of the event.

While it is not yet possible to say whether this dispute is due to professional or personal reasons, it is one of a number of events that have already been identified - and no doubt a number of others that have gone under the radar.

The BEA gets involved

This is the meaning of the BEA report. In an investigation report highlighting a deliberate failure to follow procedure by a crew during a fuel leak, the organization pointed out several other similar cases in recent years. It used this report to denounce "a recurrence of investigations concerning Air France events recently conducted by the BEA, which show an adaptation of procedures, or even a deliberate violation of these procedures, leading to a reduction in safety margins". Similarly, he made recommendations that go beyond the fuel leak to "develop the safety culture in the direction of a stricter application of in-flight procedures" at Air France.

This extremely strong stance against the company surprised many, starting with Guillaume Schmid, vice-president of the Air France - Transavia office of the French Airline Pilots Union (SNPL

): "In a report, we talk about the incident in question, we try to understand the ins and outs. But from there to deduce conclusions on the safety culture or certain practices of the company, it is going a bit fast.

For its part, Air France says it "will obviously take into account all the recommendations in the report. Like many other elements, these recommendations will feed into the company's continuous flight safety improvement process. Without waiting for the official publication of this report, and following exchanges with the BEA, some of the recommendations have already been implemented. A Line Oriented Safety Audit (LOSA) will also be carried out for the entire company by the end of the year.

No more events than before the crisis

When asked about the repetitive aspect of the events, Air France indicates that there has been no increase in the number of events with the resumption of activity compared to the standards known before the health crisis. On the ground, Guillaume Schmid does not believe that he has seen a higher number of incidents than in normal times either.

According to experts in the field of flight safety, the number of reported events is also explained by the fact that Air France pilots are the ones who report the most safety issues within the framework of the "just culture". This culture establishes that voluntary reporting by a crew contributes to the overall improvement of safety and should not lead to sanctions in case of error, except in cases of deliberate violation

of procedures for personal reasons and not for the benefit of the company and its passengers.

Some people are also concerned that the BEA's recommendations requiring Air France to "identify and manage individual deviations from in-flight procedures" may be detrimental to this culture by limiting voluntary deferrals, and thus to the overall safety of the company. They also argue that the application of procedures must remain a means to improve the reliability of operations and not an end in itself.

The nature of the incident raises questions

However, several of these experts are concerned about the nature of these events. The impact of the health crisis is one of the main issues raised. All of the people interviewed confirm that the very low level of activity, with few teams present on site, followed by a very rapid increase in the number of flights played a very important role. However, some of them wonder whether this problem has been sufficiently taken into account by management, whether the risks have been properly assessed and whether all the necessary means have been put in place to ensure a smooth recovery. This is not only a cockpit issue, but also a company-wide issue. This has required a huge amount of work, while the low activity has put a strain on the level of preparation and automatisms. Not to mention the fact that the company lost 16% of its workforce during the crisis, especially in activities such as maintenance.

Air France has nevertheless managed to keep all its pilots flying during the crisis, maintaining a level of activity above the minimum required by regulations. It also highlights the fact that it has resumed hiring pilots from April 2021, with the aim of reaching 700 new recruits by the end of 2022. This has allowed the company to maintain its flight schedule this summer, while some of its competitors have had to cut back.

And here again, Guillaume Schmid seems to indicate that the company has done things right: "During Covid, we were able to protect ourselves. Today, we are still given instructions to avoid overoptimization. For me, there was no issue during Covid and since the recovery. We know that we fly more, that we are more tired with more demanding schedules, but it is part of our job to know how to set limits." Numerous communications have also taken place since the spring, to the attention of all categories of ground and onboard personnel, calling for the utmost vigilance during this period of traffic recovery.

While he acknowledges the surprising nature of events such as an engine not starting, Guillaume Schmid considers that the risk arising from such a situation is limited, as the aircraft stops quickly. Above all, he does not see any structural causes that could explain this type of incident: "These are oversights. These are oversights, and oversights happen regularly. This is part of the errors that occur. Afterwards, we need to know why they are not identified, and I believe that Air France has reacted to this by immediately stopping the taxiing procedure on one engine while we try to understand. Communications were made and now things are back on track."

Weaknesses noted

An opinion that is not shared by all. After pointing out that there were certainly some harmful, isolated and unrepresentative behaviors, an expert in flight safety issues indicated that the recurrent deviations from procedures reported by the BEA are not due to a lack of professionalism on the part of pilots, mechanics and ground staff, but rather to a managerial shortcoming. According to him, this is illustrated by an inability to take into account weak signals or by a tolerance of unacceptable situations. He also mentions a deterioration of working conditions since the beginning of the crisis, with a lack of staff, an intensification of activity and a lack of technical means necessary to apply procedures, with at the same time a will of the staff to continue the operation to the maximum for the economic good of the company. Even if this goes well most of the time, this combination of factors can, in his opinion, lead to a multiplication of events, or even to a major accident.

The introduction of new procedures at the beginning of the year for calculating the performance of the Airbus fleet, i.e. the introduction of a possible weakening factor in an already complicated context, also raises questions. The two missed engine starts occurred just after the change in procedures, according to one pilot.

"If the changes in procedure are well accompanied, this does not pose any problem. And in this case, I think it was. It went very well and there were no notable incidents," said Guillaume Schmid, who was joined by an expert on the subject, even though he was otherwise rather critical. Air France has also decided to suspend the implementation of new procedures as the summer approaches to avoid weakening the service, notably the briefing modifications decided by Airbus. They will be implemented later this year.

Going backwards

Finally, some people even mention a possible backward step compared to what was put in place following the AF447 accident, or at least a slackening of pressure on these subjects with less awareness than in the last decade. They regret this situation, believing that the important work undertaken had borne fruit with real improvements. One of them believes that incidents such as that of AF011 are typical of things that no longer happen and that are happening again.

For its part, Air France assures that there is no slackening and continues to affirm that this is an absolute imperative. The 35 recommendations of the Independent Safety Review Team (ISRT), a group of safety experts who intervened after AF447, still seem to be in force within the company.

On the other hand, the company has broken with a principle applied after the Rio-Paris accident, with the adoption of new procedures for the Airbus fleet. Even if they only concern a reduced perimeter, this marks a return to procedures specific to Air France, designed in particular to standardize certain elements between the Airbus and Boeing fleets. For the past ten years, the company has been striving to implement only manufacturer procedures.

One of our interlocutors also pointed out that a large part of the events concerned instructors, who are normally "the specimens of the specimens". Even before the BEA report, he mentioned a cultural issue, without being able to determine whether it was a question of laxity, negligence, lack of vigilance or loss of situational awareness, and how much of it could be attributed to individual behavior and how much to a management problem.

What sanction in case of deliberate fault?

The question of sanctions for a pilot who has committed a deliberate fault, particularly in his own interest, is also being debated. According to various people interviewed, the joint composition (specific to cabin crew) of management and union representatives on the commissions that have to decide on disciplinary matters limits the possibilities of severe sanctions. According to them, this leads to a feeling of impunity which can lead to abuses and even to some of the events mentioned.

This could change with the introduction a few weeks ago of a new flight safety protocol structuring this fair culture. This protocol provides for a committee of wise men, made up of pilots jointly appointed by the company and the representative union (the SNPL in this case), to determine whether a deviation from procedure is voluntary or justified, and whether it is necessary to lift the crew's anonymity with a view to a managerial response that could go as far as a sanction. Although deemed independent, the pilots on the committee will all belong to Air France.

Guillaume Schmid approves of this development, which puts an end to a certain vagueness about the procedure to be followed: "The protocol provides that with the analysis of flights, we ask ourselves each time what is acceptable or not, and that behind this we assume that there will be a managerial treatment when it is appropriate. This is not something we sweep under the carpet. The SNPL has participated in this and we are very comfortable with it."

My comment: *On such a sensitive subject, I am not allowed to comment.*

For this reason, I have left the article as it was published, without highlighting certain passages.

You will find below information that will allow you to form an opinion.

What is the role of the BEA, the French Bureau of Investigation and Analysis for Civil Aviation Safety?

(Sources: beginning of the Air France report and BEA website)

--- beginning of the quote ---

The BEA is the French authority for civil aviation safety investigations. Its

investigations have as sole objective the improvement of air safety and do not aim at determining faults or responsibilities.

The BEA uses and promotes the safety data and lessons learned during its investigations to prevent future civil aviation accidents.

The BEA's investigations are independent, distinct and without prejudice to any judicial or administrative action aimed at determining faults or responsibilities. -

-- end of quote ---

The Reason model (also known as the Swiss Gruyere model)

(Source: <https://zenavioncoaching.com>)

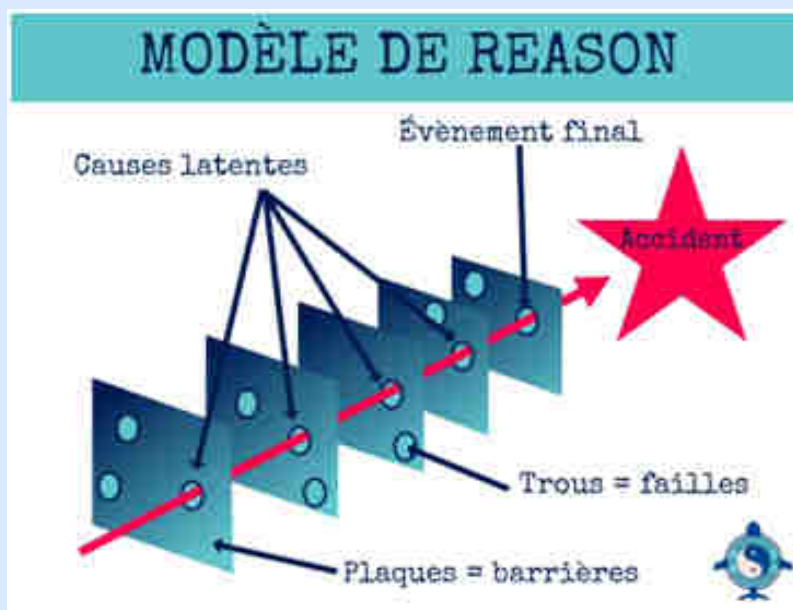
--- beginning of quote ---

There is rarely a single cause of an airplane crash. More often than not, it is a succession of small, seemingly innocuous things, visible or invisible hazards, which, when linked together, lead to an accident.

Reason

's model helps to understand why accidents happen and highlights the complexity of cause and effect relationships.

J. Reason, Professor of Psychology, has proposed a simple model to illustrate the complexity of the chain of events that can lead to an accident: a series of plates with holes.



Let's imagine that each link in the safety chain is modeled by a plate and that a hole

in this plate represents a flaw in safety: lack of experience, bad practice, insufficient knowledge, lack of maintenance of an aircraft, technical failures, unfavorable weather conditions, etc...

If the plates are put in perspective, there are two options:

1. there is no alignment of the holes, a sign that at least one of the plates has played its "safety" role: no accident occurs.

2. The holes are aligned and despite all the elements that could have prevented the accident, no safety device could prevent it: the accident occurs.

For J. Reason, the sources of failures are of three types:

- Technical failures

- Human errors

- Organizational failures

According to him "error is inseparable from human intelligence".

The fact is that human error is involved in the vast majority of air disasters. So, will we go so far as to have airplanes piloted by machines, and no longer by men? Would you be ready to get on planes without a pilot and stewardess on board?

--- end of quote ---

Precisions on the report of the BEA:

Contrary to what has been said, the BEA does not forbid pilots (of Air France or other airlines) to go outside the framework of the procedures. Page 50 of the report states:

The BEA is aware that certain rare technical or operational situations may require the crew to show discernment and to be able to go outside the framework of procedures when they feel that safety requires it.

The APNA (Association des Professionnels Navigants de l'Aviation) provides an interesting insight:

--- beginning of quote ---

The safety of flights can be broken down into 3 steps: identifying the risk, measuring

the risk and making it acceptable. The identification of risk is the essential step, because it depends on the guarantee given to field operators of the absence of sanctions when they voluntarily report their errors and deviations, the latter being evaluated at 98% as carried out in the interest of the service. The strict application of procedures is called a zeal strike, the denial of deviation risks being a return to organizational silence.

--- end of quote ---

Why do the BEA's recommendations go beyond the incident studied?

Each time the BEA analyzes an incident or an aircraft accident, it looks for all the potential causes that could lead to the accident. It then proposes actions to prevent all these causes as much as possible, even if it turns out that some of them did not play any role in the accident under investigation.

Other investigative bodies such as the BFU in Germany, the AAIB in the United Kingdom or the National Transportation Safety Board in the United States proceed in the same way.

Is this report unique?

For the record, the BEA is investigating incidents in France (all manufacturers) and incidents involving French manufacturers (Airbus and ATR in particular) around the world.

Since the beginning of 2022 alone, 30 companies operating Airbus aircraft have been the subject of 35 investigations reported by the BEA. Only two of these investigations concerned incidents that occurred in France.

At the same time, the BEA reported two investigations into incidents involving Boeing aircraft, one in France and one in Switzerland

What action has Air France taken?

Air France was informed on several occasions during the BEA investigation. As with every investigation, the remarks made by the BEA were studied and action plans were drawn up where necessary.

> A new conflict looms between KLM pilots and the government

(source FD) August 22 - **The pilots' union VNV is claiming victory.** According to the union, the government no longer dictates the employment conditions at KLM. **The agreement in principle with the management means that the 3,000 pilots**

will again receive a salary increase, a year-end bonus and many social benefits. This agreement, VNV writes to its members, marks a break with the salary sacrifice of the employees, which was a condition for obtaining state support during the Covid-19 crisis.

It seems unlikely that the CLA agreement with the pilots will survive. When billions in state aid were made available to KLM in April 2020, the Ministry of Finance set the hard condition that the airline reduce its influenceable costs (i.e., mainly personnel costs) by 15%. The strongest shoulders would bear the heaviest burden. This means that employees earning at least three times their normal salary (mainly pilots) would have to give up at least 20% of their total salary costs.

KLM accelerated the repayment of its loans to banks and the government last spring, in order to gain more freedom. But the airline did not terminate the financing agreement, which runs until 2026. That's why the conditions surrounding the cuts and greening remain in place.

The Ministry of Finance says in a reaction that the conditions of the aid program apply in full, even though KLM recently repaid the loans. The State Agent will check whether the CLA agreement is in line with the conditions. He will report on this in his next report, which will be issued this fall.

(...)

My comment: In the Netherlands, CLA agreements are the equivalent of NAO agreements (*Négociations annuelles Obligatoires*) in France.

As indicated in the article, KLM has not renounced state aid. It is very likely that the Dutch government will maintain its demands.

> **No return to normal operations this winter for London Heathrow and British Airways**

(source Les Echos) August 26 - **London Heathrow airport is having a long Covid.** While air traffic has almost returned to its pre-crisis level almost everywhere in Europe, **London's largest airport continues to severely limit airline traffic**, preventing them from taking full advantage of the summer recovery. A situation that should even continue until next spring, judging by the latest announcements of **British Airways**.

The British company, the main user of Heathrow, **has just announced an 8% reduction in its flight schedule for the winter season, from October 31 to April 1**, which is the equivalent of 10,000 cancelled flights. This decision follows the extension by Heathrow airport of its capacity cap of 100,000 passengers per day until October 29.

Obviously, **British Airways does not believe that London Heathrow will return to normal once the summer season is over and prefers to anticipate by cancelling short-haul flights, rather than having to cancel them at the last minute, as happened this summer.**

(...)

However, these difficulties have not prevented British Airways from returning to profit in the second quarter, for the first time since the beginning of the crisis, and to expect a profitable year 2022. **According to the company, the elimination of 10,000 short-haul flights this winter will not have any serious consequences for passengers, who will be replaced on other flights during the day.** It should also not have a significant impact on its turnover (and even less on its profits), as short-haul flights contribute very little to BA's results, whose activity is essentially long-haul.

(...)

My comment: Heathrow was the leading international airport before the crisis.

It is now in fifth place in Europe in July and August, with an average of 1,000 flights per day, compared with 1,279 at Roissy-CDG.

Schiphol airport, which is still suffering from a shortage of ground staff, did better, with 1,269 daily flights. And this despite several hours of waiting at the checkpoints for passengers.

> **Easyjet slows down in Berlin, tourism in Germany is cut off**

(source Les Echos) August 29 - **EasyJet is to Berlin what Lufthansa is to Frankfurt: "our local company"**, says Burkhard Kieker, head of the Berlin tourist office. **By announcing last June a reduction of its flights and staff in Berlin, the British low-cost airline has therefore fuelled concern in the German capital.** Starting **this winter, 11 planes instead of 18 will be stationed at Berlin Brandenburg Airport.** The recent agreement with the staff will reduce the 800 flight attendants and pilots currently stationed in Berlin by one third.

This downsizing could "have an economic effect of up to two billion euros for the city", estimates Burkhard Kieker in an interview with the "Tagesspiegel", including the impact on trade, congresses or the start-up ecosystem.

(...)

The announcement of easyJet comes all the more badly as tourism was starting to recover in Germany after the two black years of Covid. In June alone, accommodation establishments recorded a total of 48.9 million overnight stays, of which 25.2 million were occupied by international tourists, an increase of 304.4% compared to June 2021.

(...)

As in France, the lack of personnel is weighing on the recovery of tourism in Germany. In June, 7,600 positions were not filled, according to a study by the IW Institute of Economics. This shortage affects all regions, but especially Bavaria, where the economic recovery favors the migration of hotel and restaurant professionals to better paid jobs.

(...)

My comment: *Low-cost airlines have almost all returned to, or even exceeded, their pre-crisis levels this summer, surfing on strong demand for leisure destinations in Europe.*

The only exception is the British airline easyJet, which recorded activity at 86% of its 2019 level.

It has been disadvantaged by the weak recovery of business travel, which constitutes a significant part of its activity. Its results have suffered. To limit its losses, easyJet had to reduce its activity and its workforce at the beginning of the health crisis.

But easyJet is now finding it difficult to recruit, like other companies in Great Britain.

Since January 1, 2021 and the implementation of the Brexit, immigration rules in the UK have changed for EU nationals. No more free movement of people, the British government has implemented a points-based immigration system that restricts hiring opportunities for companies based in Britain. Candidates to immigration must pay more than 1000€ to obtain a visa allowing them to work in Great Britain.

> Airline: Faced with rising fares and inflation, winter could bring a chill...

(TourMaG source) Aug. 22 - (...) "**There appears to be growing concern about the final quarter of the year**, as a combination of economic news and limited visibility around corporate demand finally begins to get attention," among carrier teams, predicts IOAG, a travel data provider.

To illustrate, the current capacity reduction between October and November is about 16%, compared to only 8% in 2019.

If the industry continues at this pace, it will not be until April 2023 that air travel returns to full capacity... except for low-cost carriers. The latter were the first to start up again in 2020 and 2021. Their advance did not stop at the change of year.

(...)

With the increase in fuel prices coupled with the end of the crisis, **airlines have not hesitated to increase airfares.** Especially since at the same time the demand has

followed.

The latest air passenger price index published by the Directorate General of Civil Aviation (DGCA) **reveals a price increase of 43.5% for all destinations combined, just in July 2022.**

"The increase is strongly driven by the medium-haul international network, for which the increase recorded is 54.5%. While the international long-haul network shows a less pronounced increase of 28.8%, "explains the note of the Directorate for oversight of civil aviation activities.

The increase is more contained (+21.1%) to overseas destinations, where Air France's overcapacity prevents its competitors from re-establishing yield management and thus posting much higher prices.

If we compare the figures for July 2022 with those for 2019, we observe that the increase is less, but still reaches +37.7% (all segments combined).

(...)

After a good summer overall, and despite a few bumps in the road, the airline industry will now have to deal with several unknowns, such as inflation, sluggish economic growth, and a lingering armed conflict on Europe's doorstep.

***My comment:** European airlines are very cautious, even pessimistic, when it comes to making forecasts for the next winter season (October 2022 to March 2023).*

They fear a slowdown in activity after the strong rebound of the summer.

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 1.4345 euros on Monday 29 August. It is down this week by -1.07%.

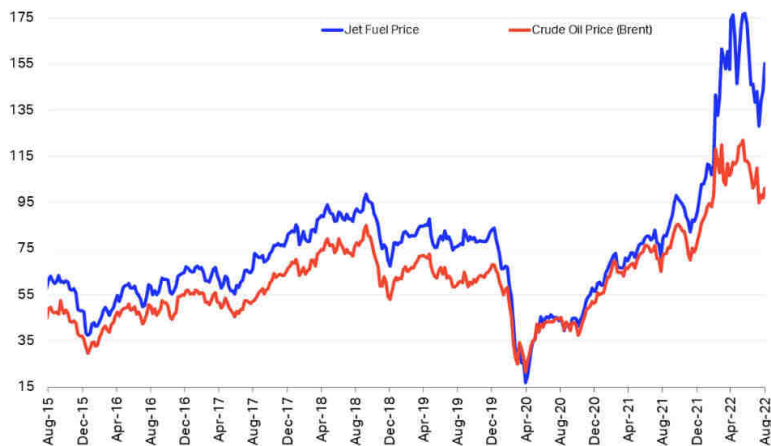
The average (consensus) analyst price for AF-KLM shares after the capital increase is 1.50 euros. The highest price target is 1.90 euros, the lowest 0.85 euros. I only take into account analysts' opinions after the May 2022 capital increase.

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 - August 2022.

Jet Fuel & Crude Oil Price (\$/barrel)



Source: S&P Global, Refinitiv Eikon

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

Indeed, 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 price per barrel by region (source IATA) as of August 29, 2022

Fuel Price Analysis

The jet fuel price ended last week up 8.1% at \$155.2/bbl:

26 August 2022	Share in World Index	cts/gal	\$/bbl	\$/mt	Index Value 2000 = 100	vs. 1 week ago	vs. 1 month ago	vs. 1 yr ago
Jet Fuel Price	100%	369.40	155.15	1225.17	424.12	8.1%	8.5%	95.9%
Asia & Oceania	22%	352.26	147.95	1168.78	422.73	10.7%	9.1%	93.4%
Europe & CIS	28%	378.68	159.05	1254.88	428.52	7.4%	8.1%	101.9%
Middle East & Africa	7%	355.70	149.39	1179.57	446.13	9.5%	8.4%	96.9%
North America	39%	373.58	156.90	1239.54	417.13	7.4%	8.8%	92.7%
Latin & Central America	4%	380.29	159.72	1261.79	442.45	5.6%	4.7%	96.2%

The barrel of Jet Fuel in Europe is up this week by \$11 to \$159. After peaking at \$182 in June 2022, it was down to \$132 in early August.

It was \$79 a little over a year ago.

Brent crude oil (North Sea) is up this week by +\$4 to \$101.

Since mid-February, it had 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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To contact me: [message for François Robardet](#).

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