



The Legal Flyer

VOLUME 1, ISSUE 1

FEBRUARY 2023



The Hague Court of Arbitration for Aviation

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Feature Article

The Hague

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By Dominik Weiß

In many cases, commercial disputes among members of the aviation sector are still resolved by litigation rather than arbitration, even though arbi-

tration may offer several advantages for the parties involved in the dispute. The recently established Hague Court of Arbitration for Aviation (Hague CAA) could contribute to change this by offering specialized arbitration in aviation related matters.

Especially in the context of international commercial disputes within the aviation sector, arbitration offers several advantages compared to litigation. For instance, the possibility to appoint an arbitrator with special knowledge of the aviation sector, aviation law and the technology used in-

stead of having the dispute decided by a judge with no link to the aviation sector, who is often heavily depending on the opinion of expert witnesses. Another practical advantage is that due to the widely ratified New York Convention, the international enforcement of arbitration awards is often much easier than enforcing rulings of national courts.

Further, by choosing arbitration in a country, in which none of the involved parties is based, a possible "homefield advantage" of one party is eliminated. The new Hague CAA is not affiliated with particular parts of the aviation industry and administered by the widely respected Netherlands Arbitration Institute (NAI), which fur-

ther ensures the court's neutrality.

Similar to other industry specific courts like the Court of Arbitration for Art (CAfA), the Chambre Arbitrage Maritime

de Paris (CAMP) or the Court of Arbitration for Sport (CAS), the Hague CAA's main selling point is its specialization. By choosing the Hague CAA, parties have

access to the court's pool of aviation law and technology specialists, who can act as arbitrators, mediators, or experts in the proceedings.

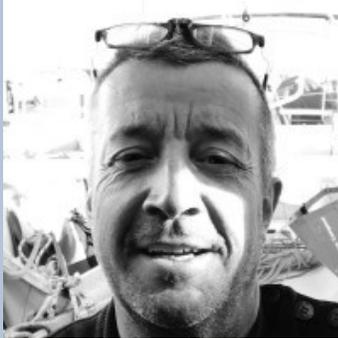
As a consequence of its aviation specialization, the Hague CAA's procedural rules were designed to meet the particular needs of the aviation sector, especially for speed and flexibility. For instance, the parties have the possibility to appoint an emergency arbitrator to decide urgent measures within a maximum of 15 days after his or her appointment. The Hague CAA is also offering more flexibility regarding the location of hearings and the possibility of their virtual attendance compared to litigation in most countries. Additionally, the



procedural rules set forth expedited proceedings for amounts in dispute of less than € 10 million or when the parties consent thereto.

EDITORIAL

Aviation Sector is at Risk!



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By Prof. Laurent Grosclaude

Aircrafts are very sensitive to winds. Tail wind: a quicker than expected post-covid traffic resumption (84 % of 2019 traffic in 2022, probably 110 % in 2023), the best traffic forecast ever for 2040 (8,5 bn), a jam-packed backlog at least for the EU manufacturer, and arrogantly healthy financiers and lessors... Front wind: among all transportation sectors, aviation is from far the less decarbonized (that is to say the most polluting...); if aviation represents today 3% of all carbon emissions, the dramatic rise of the traffic combined with the quick decarbonization of the other sectors will logically lead to a 9 to 10 % share in 2035/2040.

Do we have today the technical solution to fly zero-emissions? No. Will we have it in 2040? It is doubtful. Electricity production is widely fossil-fuels-based, S.A.F. are very costly and raise the dilemma *food or fuel*. Hydrogen is a far horizon. Even though we find THE solution to fly zero-emissions by 2040, how long will it take to replace the existing 40,000-aircraft in service in 2040? And who can seriously believe and demonstrate that offsetting is the solution?

Flying has been, is, and will remain a dream. Aircraft will not disappear but if we continue to put the head in the sand, the sector will legitimately be under attack.

Aviation needs to reinvent itself, but this takes time, and we no longer have this time.

For the time being, the solution is in us, the solution is us, we who love aircraft and aviation more than everything. By flying less, we will contribute to save the planet and certainly the aviation sector.



Thanks to its dynamic and bright students, the Concorde intake initiated, drafted and published this very first edition of The Legal Flyer. I am proud of their creation. Enjoyable reading to all!

The Hague Cont.

Another important way of dispute resolution and valid alternative to litigation is mediation. By choosing this way and finding an amicable solution, parties are often able to avoid high procedural costs and to continue their business relationship relatively unharmed. Mediation is also offered by

the Hague CAA.

Overall, many parties are well advised to seriously consider resolving their disputes by mediation or arbitration rather than litigation. For members of the avi-

ation sector, the newly established Hague CAA is a promising new venue for this purpose.



INNOVATION & AVIATION

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By Yashvi Padhya

The aviation industry is one of the most innovation driven industries owing to the fact that it often has to rise to the demand of competition, customers, or compliance. This gives rise to a well-founded and dynamic ecosystem of licensing, assignments, and fierce protection of Intellectual Property within the industry. Companies invest a significant amount into their research and development sectors to ensure

their relevance in the upcoming markets. The prioritization of innovation depends on two things: regulatory compliance and competition. In such a niche field it is often that the companies are working on solutions for problems which are faced by their clients and also to innovate in order to comply with the directives of authorities, for example, the research undertaken to accomplish the 2050 net zero carbon emissions goal of ICAO. After COVID-19

the aviation industry has seen a boost in innovations not only limited to sustainable aviation fuels but also in use of cloud technology, block chain, predictive maintenance technology, digitalization of airports, in-flight technology, etc.



INNOVATION & AVIATION CONT.

Along with this boost has also been a steady rise in IP infringement cases within the industry. The UK High Court adjudicated a case in later half of 2020 filed by Lufthansa Technik AG (Lufthansa) for infringement of their 'electric power supply device' for use in commercial cabins, wherein the court rules that the patent was in fact infringed by the defendants. In 2021, Wisk Aero sued Archer Aviation for alleged patent infringement and trade secret theft of its electric aircraft designs which were submitted to the USPTO in January 2020. Wisk also alleged that Archer employed ten former Wisk engineers and one of those employees stole confidential data; however in early 2022 the US

Federal prosecutors decided not to charge an Archer employee accused of stealing trade secrets. Both the companies are fierce competitors to enable zero-emission air taxis for short distance travel over urban areas. The trial is set to begin in early 2023 and would be significant in illustrating the interplay of aviation and intellectual property. Another noteworthy litigation has been initiated between inflight connectivity provider SmartSky Networks against Gogo Business Aviation alleging infringement of four of their patents for the forthcoming 5G air-to-ground (ATG)-supported inflight connectivity.

The need for innovation has also given rise to more cooperation within industry. Start-up innovators are beginning to play a key role in being the driving force behind the innovation race with more and more companies relying on bringing in outside inventions rather than just focusing on in-house R&D. This has led to expansion of the field and given rise to competition which will result in better services for the public at large.



Antonov 225, Maria

by Airton Da Paixão

Our Director has indicated that he is considering allowing the Concorde Class to bestow a name on the next International Aviation Law LL.M. class. I would like to make a pitch to my colleagues that we suggest Maria in honor of the Antonov 225. In my view this aircraft, of which one existed and has sadly been destroyed, is a majestic and iconic testament to humankind's perpetual quest to press the threshold of aviation's utility. There is an ongoing effort to raise funds to return the damaged aircraft to airworthy condition, however, this enthusiasm may be a bridge too far as the cost would be astronomical. I think that we can participate in keeping the "Dream" alive by naming the next class Maria.



"A majestic and iconic testament to humankind's perpetual quest to press the threshold of aviation's utility."

Airton Da Paixão

THE KEY TO THE BALANCE OF AVIATION TECHNOLOGY, ECONOMY - AND THE ECOLOGICAL PURITY OF OUR COMMON HOME - NATURE

Carbon emissions for aviation

By Sofiya Denisova



One of the main modern problems in the aviation industry is the problem of reducing carbon emissions for international aviation. Airlines should

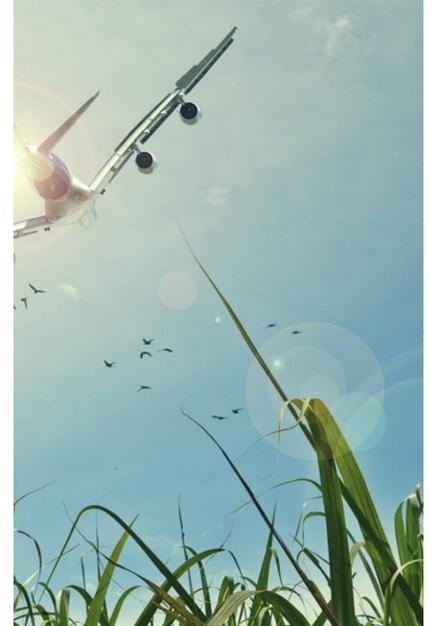
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think about the environment and the problems associated with climate

CO2 emissions from international aviation activities. It is impossible not to mention France, one of the first countries that began to take care of this problem. France has previously raised the issue of reducing flights over its territory in order to reduce CO2 emissions and on December 02, 2022, the European Commission approved a ban on domestic flights between French cities, the distance between which can be overcome in less than 2.5 hours by train. Also the large companies engaged in aircraft construction are actively engaged in this issue. For example, Airbus is developing new aircraft that will run on hydrogen internal combustion engines.

This ZEROe project is aimed at improving the environmental situation in the world, including reducing CO2

lawyer in this field, I believe that it is necessary to create such an international regulation of mandatory environmental technologies in the aviation industry, which will be applied by



Based on the above, several questions arise:

1. What should make airlines change their fleet to new environmentally friendly aircraft? Is it really possible?
2. The issue of responsibility for CO2 emissions, the establishment of certain standards limiting these emissions.
3. At what level should the issue of responsibility be controlled: at the international or state level?



change, as well as what needs to be done to minimize CO2 emissions into the atmosphere. At the international level, there is already such an organization as CORSIA, which deals with environmental issues in international aviation. CORSIA has developed Annex No. 16, according to which there are certain deadlines for reporting

emissions.

Currently, the task is to solve such a legal problem as finding a reasonable balance between strict state regulation of environmentally friendly technologies in the aviation industry and the economic efficiency of their implementation and use. As a practicing

most countries of the world on a voluntary basis.

Moreover, it is necessary to choose different models of regulation of environmental standards of the aviation industry - depending on the specifics of the region of their application: either "hard law" or "soft law". It is also necessary to consider the possibility

Carbon emissions for aviation Cont.

of CORSIA to act not only as a controlling organization on the part of the ICAO, but also an organization that will be able to set standards and hold violators accountable.

In conclusion, I would like to note that the operation of legal norms is ensured, among other things, by State sanctions. Environmental regulations

in the aviation industry are no exception. The issue of environmental problems is acute in the world, especially in developed countries, so airlines and states should pay more attention to environmental problems. There will be no sustainable development in the 21st century without taking care of the environment, and this should not be forgotten.


 The logo for CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation) features the word "CORSIA" in a bold, blue, sans-serif font. To the left of the text is a circular icon containing a green globe with a blue airplane silhouette flying over it.

It is the first global market-based measure for any sector and represents a cooperative approach that moves away from a «patchwork» of national or regional regulatory initiatives.



EUROPEAN UNION GIVES LEGALITY TO FRENCH BAN ON SHORT HAUL FLIGHTS WITH A FEW STIPULATIONS

By Francis Metumba Ikomey

France made history by becoming the first EU member state and first nation worldwide to impose restrictions on air travel over concerns for its

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environmental impact. This is a great step in fighting the scourge of aircraft borne CO2 emissions.

France initially included the ban in a 2021 climate law, this ban was proposed by the country's Citizens Convention on climate and became effective in April 2022, but its legality was challenged by French airports, airlines as well as Airports Council international's European branch on grounds of discrimination of passengers.

The challenge spurred the European commission to carry out an in-depth investigation to look into the matter, making it the first time this article of Air Services Regulation is raised by an EU member state.

The European Commission

has now published its decision of the 2nd of December 2022 to accept the ban on routes with a regular and direct train alternative of two and a half hours or less in France.

Although French lawmakers originally proposed to cut eight internal flight routes, only those from Paris Orly Airport to Nantes, Bordeaux and Lyon were confirmed to provide the required rail services. These three routes will be prohibited for any airline.

France's original ban also included a proposed exemption to domestic flights that are part of a multi-stop international journey, but this exemption was removed by the Commission. The European commission vetoed this planned exception because it would have allowed most of the flights to continue operating.

The European Commission has also limited the current ban to a three-year time period, mandating that it is reviewed after two years. This time limit is meant to comply with the European law on which the french ban is based (The Air Services Regulation) which the commission is currently planning to revise.

The European Union is working on a series of new high speed

rail lines as part of its TEN-T project, in an effort to make more short-haul flights redundant, including a 60 kilometre tunnel linking Milan to Paris that will see the seven hour journey cut into half.

About 12% of of France's domestic flights will be affected by the ban according to the Guardian newspaper, which also noted that carbon emissions for each passenger on a domestic flight is 70% higher than long-haul routes, which is six times higher than if the trip was taken by train.

The french government states that future improvements in the rail services in particular, for the purposes of connecting flights will enable more routes to be added to the ban.

Greenpeace climate crusaders believe the ban is a baby step in the right direction.





ConcorDIA

By Raluca Karassi

Dear reader, we have wonderful news to share with you! On 10 March 2023, the "Concorde Intake" class had the constitutive meeting of the first Association of the students to the Master 2 LL.M. International Aviation Law of the University Toulouse I Capitole. Our Association, who will be



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named **CondorDIA** (a fusion of "Concorde" and the French translation of the subject of our course - Droit Aerien International-International Aviation Law).

The scope of our Association is "to promote the LL.M. International Aviation Law in France and abroad, to organize and promote activities related to training, to inform professionals in the aeronautical sector of the activities of the Master, to disseminate to the general public the developments related to air law, and to defend the interests of the students of the Master 2 LL.M. International Aviation Law. The Association's primary aim is to foster a bond among currently enrolled students, past and future

students as well as creating a forum for honorary members with a common interest in International Aviation Law.

We proudly present you the Association's logo, which captures our essence: people from all around the globe, driven by the love for knowledge and the passion for law and aviation, with the upward vision and determination to boldly push the boundaries of both sectors.

To present we held one meeting of the Association's constituents at which time we introduced the initial cadre of officers, our official logo and voted on the adoption of the bylaws. Your present officers are **Dominik Weiß**, President, **Yashvi Padhya**, Treasurer, **Raluca Karassi**, Secretary. Noteworthy in launching of the Association is current class member **Marie Linieres** who contributed substantially to the drafting of its bylaws.

I hope that this is the beginning of a fruitful cooperation among like-minded individuals of the world. In the future the Association will have its dedicated website with an e-mail address and a forum for those who wish to join the association, offer suggestions or make financial contributions. Those who are too excited to wait until this happens, in the meantime can reach the Association through its secretary **Raluca Karassi** at: raluca.karassi@gmail.com



Dominik Weiß
President



Yashvi Padhya
Treasurer



Raluca Karassi
Secretary



Marie Linieres
Author, Bylaws



A Brief History of Selected Aviation Milestones

by Airton Da Paixão

The fascination with flight: Dreaming about it, putting it on paper; and acting on those inquisitive dreams involved acts of courage, resourcefulness, innovation, technology and resilient persistence.

The primary limitation of flight was overcoming the laws of gravity, the rules of motion, the lack of materials, a means of propulsion and controllability of an aircraft.

To understand how these challenges were overcome it is fitting that we examine a chronological timeline of milestones that led the current state of the art and the many applications that now benefit from the pioneers' discoveries and inventions.

One of the first recorded feats of overcoming gravity and taking to the sky was the hot air balloon of the Montgolfier brothers of France who flew their balloon on June 4, 1783.

Each success rests on the shoulders of those who in the same pursuit failed. Although it is not the focus of this writing, we must acknowledge the accomplishments and the progress achieved on the basis of the contributions of those who were not successful. With this in mind we next consider the contributions of the Wright brothers.

The Wright brothers, Orville and Wilbur are credited with inventing and building the first heavier-than-air aircraft and successfully flying it at Kitty Hawk, North Carolina, on December 17, 1903, at the brothers' home country, USA. Their claim to be the first has been challenged by their domestic and foreign contemporary pioneers, however, it is generally accepted that they were the first and they continued to improve on that original model.

Alberto Santos-Dumont, a Brazilian of Portuguese and French heritage was a significant contributor to the quest of sustainable and controllable flight. His aeronautical studies and achievements were mostly accomplished in Paris where he, in 1901, flew a powered airship around the Eiffel Tower for which he won the Deutsch



Alberto Santos-Dumont

Prize. He improved on that model and progressed to powered heavier-than-air aircraft and was recognized by the *Fédération Aéronautique Internationale* for his flight on 23 October 1906 in his 14-bis, also known as the *Oiseau de Proie*, at the Bagatelle Gamefield in Paris. He flew a distance of 60 meters at an altitude of two to three meters.

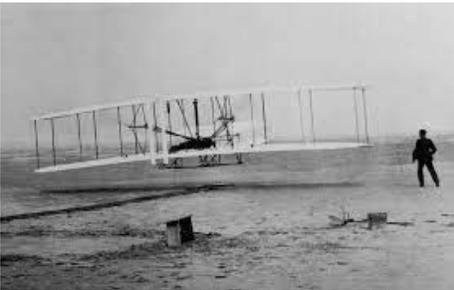
Louis Charles Joseph Blériot, a French aviator and inventor made significant contributions



Louis Charles Joseph Blériot

to the advancement of aviation and is well-known for being the first to cross the English

Channel which he accomplished in 1909 winning a £1,000 prize awarded by the Daily Mail newspaper. He also was the



The Wright Flyer

first to fly an aircraft with two passengers, one of which was Alberto Santos-Dumont. He went on to start a successful aircraft manufacturing company named Blériot Aéronautique.

On May 20-21, 1927, Charles Lindbergh, an American aviator, completed the first solo transatlantic flight having flown the 3,600 mile distance from New York to Paris in 33.5 hours

The invention of the jet engine is credited to Frank Whittle and Hans Ohain. Ohain's engine for which he obtained a U.S. patent in 1939, was an axial-flow engine and Whittle's engine was a centrifugal flow engine. On October 14, 1947,

Chuck Yeager broke the sound barrier on the Bell X-1 Glamorous Glennis having flown at Mach 1.05. Prior to his flight it was not known if an aircraft could stand flight at speeds above the speed of sound. This discovery opened up the possibility of supersonic flight in the both the military and commercial arena.

Commercial flight is believed to have started in the United States. Based on the accepted definition of commercial flight the first such flight recorded took place on January 1, 1914, with one paying passenger, Abram C. Pheil, who flew from St. Petersburg, Florida, across the bay to Tampa, Florida. It was a 27-kilometer flight, and it took 23 minutes.

Fly-by-wire technology in commercial aviation was introduced by the Airbus A320. This innovation was significant because it not only improved flight control it substantially reduced aircraft weight. Another important factor is that it now made switching from one model of aircraft to another easier as the flight control characteristics are very similar regardless of aircraft weight.

Airbus has the distinction of having the



Charles Lindbergh

Brief History of Aviation, Cont.

largest aircraft currently in the sky since the introduction of the A380 in 2007. Of greater note is its safety record which is squeaky clean save one engine failure that did not result in loss of the airframe or injury to passengers or crew.

KLM began operating in 1919 making it the oldest airline that is still in operation. Its headquarters is at the Schiphol Airport in Amsterdam, and it serves 130 destinations.



Chuck Yeager



UPS by the number of destinations.

Air travel has become indispensable as a means of transporting people and cargo and is projected to continue to grow in the future. Challenges going forward: Sustainability and sensitivity to the environment; crowded airspace and airports. Innovation will have to continue playing a significant role going forward as it did in the pioneering days.



Bell X-1 Glamorous Glennis

CJEU Judgment Case C-597/20

By Sun Jaroensiridamrong

On 29 September 2022, a judgement on Case C-597/20 was issued by the Court of Justice of the European Union (CJEU) stating that designated National Enforcement Bodies (NEBs) under article 16 of Regulation No 261/2004 (the Regulation) may, in response to individual complaints, compel an air carrier to pay compensation to passengers.

To summarize, the CJEU held that the

national law of each member state. Germany's National Enforcement Body "Luftfahrt-Bundesamt" clearly states in their website that "Luftfahrt-Bundesamt does not provide any compensation or reimbursement services to passengers based on Regulation (EC) No. 261/2004 and we cannot enforce civil law claims of individual passengers against the airline concerned". While most of the member states apply this approach, member states such as Ireland and Denmark apply a total opposite standard where they confer a much more powerful enforcement duty upon their NEBs.

The Commission for Aviation Regulation (CAR) is the designated enforcement body in Ireland. In accordance with article 45 (a) of the Aviation Act 2001 (amended in 2006) and Statutory Instrument 274/2005, CAR may issue a "Direction" when there is a non-compliance by an air carrier. The Direction may instruct an air carrier to pay compensation to the passengers. Failure to comply with a Direction would be a criminal offence subjected to prosecution. According to CAR'S 2020 Annual Report, out of 3454 cases submitted between 1 July 2019 and 30 June 2020, 87 directions were issued. Denmark's National Enforcement Body is the Danish Civil Aviation and Railway Authority. It processes passengers complaints free of charge

within 3-6 months. Complaints that are upheld by the authority to refund or compensate the passenger must be complied with by the air carrier. The air carrier has four weeks to compensate the passenger. If the air carrier fails to compensate the passenger, a written warning is issued. In the case where the air carrier still fails to pay, the authority will send the complaint to the prosecution office. Any parties that disagree with the authority's decision may always present their case before national courts.

Due to the vagueness of article 16 of the Regulation, standards and procedures of national enforcement bodies are to an extent, applied differently throughout each member state. This ruling of the CJEU however confirms that the Regulation does not prohibit nor oblige NEBs to compel an air carrier to provide redress to passengers, such matter depends on the domestic law of the member states.

CJEU's judgement: <https://curia.europa.eu/jcms/upload/docs/application/pdf/2022-09/cp220163en.pdf>

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duty of NEBs to act against individual passenger complaints depends solely on the national law of the member states. Furthermore, as long as passengers and air carriers are able to bring their proceedings before national courts, the power of NEBs to compel an airline to pay compensation to the passengers depends again, solely on the

The Concorde

by: Airton Da Paixão

It is impossible for an aviation enthusiast not to stand in awe in the presence of the Concorde the supersonic commercial transport and the namesake of

our aviation law class. When our Director, Mr. Laurent Grosclaude, bestowed upon our class the name Con-

corde I did not realize its significance until I researched its meaning: "Moral relationship, situation that exists between people having the

same disposition of heart, of mind, and living in harmony, possibly by collaborating in a common work."¹

Now that I have been enlightened with this word's meaning I am not only flattered, but also feel a sense of responsibility to live up to the expectation that has been placed on our shoulders. It is fitting that we examine the history of how

this magnificent aircraft, the Concorde, received its name. As it turns out there is an interesting history regarding this: "Le 13 janvier 1963, le président français Charles de Gaulle suggéra que l'avion soit baptisé « Concorde » et, le 24 octobre, une première maquette grandeur nature du « Concord » sans « e » fut présentée ; une polémique s'ensuivit sur le nom de l'avion. Le ministre britannique de la Technologie Tony Benn mit fin à la polémique en annonçant : « Le Concord britannique s'écrira désormais avec un « e » car cette lettre signifie aus-

si Excellence, England, Europe et Entente".²

Our class is well poised to emulate the collaborative spirit of France and Britain that culminated in the design, manufacture and operation of this aircraft with a remarkable safety record, save one unfortunate accident that contributed to its operational demise.

The groundwork for supersonic flight was laid when on October 14, 1947, Chuck Yeager broke the sound barrier on the Bell X-1. Prior to then it was not known if an aircraft would be able to withstand flight at a speed higher than the speed of sound. Following this breakthrough, the U.S. and Russia pro-

areas. Another negative characteristic was its four thirsty engines that consumed a substantial amount of fuel. On the positive side of the spectrum was what it delivered which was the reduction in time of a transatlantic crossing to almost half. A London to New York flight took approximately 3.5 hours for any passenger with the deep pockets to afford the \$12,000.00 fare.

This allowed a business traveler to fly London-New York and, if desired return on the same day. To illustrate the benefit of operating at such high speed consider the following: In 1985 promoters organized a concert to benefit Africa. The project was named Live Aid and held at a European and an American venue with its duration overlapping. One of the acts, Phil Collins, was booked to perform at both venues in two continents and was only able to accomplish this feat with the help of the Concorde.

Not within the scope of this article is the performance and characteristics of the Concorde. However, I have inserted two boxes with summaries of this information. Also, not considered here are the details of how its operation abruptly ended. Two independent events, a terrorist attack in the U.S. and the

tragic accident in Paris were causal.

Fans of supersonic travel are now experiencing optimistic anticipation as a U.S. company, ironically called Boom, has a supersonic airplane on the drawing board and has received orders from multiple major airlines.

ceded to develop prototypes of supersonic aircraft suitable for commercial transportation. They were outdone by the effort of France and Britain who by 1976 were able to commence operation and accumulate a fleet of twenty aircraft with Air France and British Airways each operating ten.

The Concorde encountered considerable resistance primarily because of the environmental consequence of its sonic boom. This limited operation to destinations near coastlines so that the noise would be over water and not populated

Performance¹

- **Cruise speed:** Mach 2.02 (≈1,340 mph, 2,158 km/h) at cruise altitude
- **Range:** 3,900 nmi (4,500 mi, 7,250 km)
- **Service ceiling:** 60,000 ft (18,300 m)
- **Rate of climb:** 5,000 ft/min (25.41 m/s)
- **lift-to-drag:** Low speed- 3.94, Approach- 4.35, 250 kn, 10,000 ft- 9.27, Mach 0.94- 11.47, Mach 2.04- 7.14
- **Fuel consumption:** 46.85 lb/mi (13.2 kg/km) operating for maximum range
- **Thrust/weight:** 0.373
- **Maximum nose tip temperature:** 260 °F (127 °C)

¹ Data from Wall Street Journal, The Concorde Story, The International Directory of Civil Aircraft, Richard Seamen aircraft museum

¹Centre National de Ressources Textuelles et Lexicales, <https://www.cnrtl.fr/definition/concorde>

²Jean-Pierre Manel, *The Great Adventure of Concorde*, R. Solar, 1969, p. 48

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The Concorde in Photos



Concorde, Tupoleve Tu 144 (Soviet Built) at Sinsheim Transportation and Technology Museum, Germany



Concorde Cockpit



Concorde Flight Engineer Panel



General characteristics²

- **Crew:** 3 (2 Pilots and a flight engineer)
- **Capacity:** 92–120 passengers(128 in high-density layout)
- **Length:** 202 ft 4 in (61.66 m)
- **Wingspan:** 84 ft 0 in (25.6 m)
- **Height:** 40 ft 0 in (12.2 m)
- **Fuselage internal length:** 129 ft 0 in (39.32 m)
- **Fuselage width:** maximum of 9 ft 5 in (2.87 m) external 8 ft 7 in (2.62 m) internal
- **Fuselage height:** maximum of 10 ft 10 in (3.30 m) external 6 ft 5 in (1.96 m) internal
- **Wing area:** 3,856 ft² (358.25 m²)
- **Empty weight:** 173,500 lb (78,700 kg)
- **Useful load:** 245,000 lb (111,130 kg)
 - **Powerplant:** 4 × Rolls-Royce/SNECMA Olympus 593 Mk 610 afterburning turbojets
- **Dry thrust:** 32,000 lbf (140 kN) each
- **Thrust with afterburner:** 38,050 lbf (169 kN) each
- **Maximum fuel load:** 210,940 lb (95,680 kg)
- **Maximum taxiing weight:** 412,000 lb (187,000 kg)

² Data from *Wall Street Journal, The Concorde Story, The International Directory of Civil Aircraft, Richard Seamen aircraft museum*

Honor Roll



Center: Laurent Grosclaude, Program Director



Frédéric Dehais



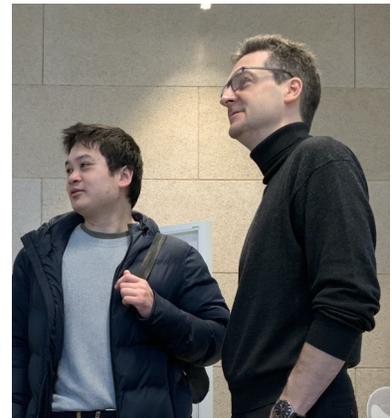
Cas Pratique—SAFRAN



First on Left: Anna Lavrenyuk



Second from Left: Frédéric Yon



L: Arnaud Chan; R: Jan Holtzhäusser

The Concorde Class at Université Toulouse 1 Capitole wishes to express its gratitude to the various companies that have partnered with the University and generously contributed to our educational journey. You have welcomed our class into your facilities and provided your most talented individuals to lecture on the relevant topics in our Aviation Law curriculum. The opportunity to benefit from the perspective of people with hands-on real-world experience from industry-leading professionals is invaluable and greatly appreciated. As the accompanying photos indicate, on occasion the lecture was so spirited that when classroom space was unavailable it continued at a more relaxed venue. In addition to your participation in molding and preparing us professionally some even went the extra kilometer and provided internship opportunities and even consideration for employment. We are deeply thankful to have had this opportunity and hope that this partnership will grow and strengthen going forward. Also, we are very grateful to Laurent Grosclaude, Program Director, and Arnaud Chan who facilitated our admission and matriculation process. *Merci beaucoup.*



Salomé Masset



Second from Right: Patrick Varin



Linda Vincent

Honor Roll, Cont.

**Distinguished Lecturers and
Corporate Partners to whom
we Extend our Gratitude and
Admiration***

Axelle Cartier
Mélissa Ounis
Julian Cohen
Karl Hennessee
Mélanie Etienne
Patrick Varin
Frédéric Gaillarde
Lukas Rass-Masson
Miguel Urdanoz
Nour Alrabie
Juan Manuel Velazquez
Marie Bresson
Florence Boubay
Laurent Grosclaude
Frédéric Yon
Olivier Ferrante
Salomé Masset
Anna Lavrenyuk
Gregory Laville De La Plaigne
Anne Faber
Matthieu Gualino
Anne-Sophie Dalet
Jan Holtzhäusser
Olivier Ferrante
Linda Vincent
Frédéric Dehais
Sophie Brugaillere
Christelle Tarris
Camila Gonzalez
Olivier Pontreau
Michel Fraysse



**Names are not listed in any particular order.
Anyone omitted was as a consequence of an
honest mistake. Regrettably not all corporate
partner's logos are depicted.*



The Concorde Class Tours Musée Aeroscopia and Airbus Facilities

by Airton Da Paixao

During the first week of class, we were treated to a guided tour of both Musée Aeroscopia in Blagnac and the Airbus Industrie manufacturing facility. Specifically, we toured the assembly line of the A350. The museum which has been in operation since 2015 and hosts more than two hundred thousand guests yearly, offers a comprehensive history of aviation and an eclectic static display of aircraft with major historical significance. On the tarmac just outside the primary building guests are greeted by a vintage Caravelle, a Concorde supersonic passenger transport and an A400M Atlas tactical military airlifter. The indoor facility does not fail to impress and is graced by three large aircraft. On display and available for interior touring are another Concorde, an Airbus A-300B and a Super Guppy. The Concorde of which twenty were built by France and Great Britain saw commercial operation between 1976 and 2003. Air France and

British Airways operated ten aircraft, respectively. The Airbus A-300 was the first twin engine widebody aircraft and was a multi-national endeavor involving multiple European countries. The final assembly was performed at the Airbus facility in France. The Super Guppy was used to facilitate this multi-national arrangement by transporting major components, such as the empennage and wings for final assembly at Airbus manufacturing plant near Toulouse.

During the tour of the A-350 assembly line we were informed about the many positive attributes of this magnificent aircraft. This airplane comes in two versions the -900 and the -1000. Both built with mostly composite material providing the benefit of superior aerodynamics, lighter weight and reduced incidence of corrosion and airframe fatigue. The aircraft is powered

by the innovative Trent family of Rolls Royce powerplants that deliver reliability, lower fuel consumption and reduced CO2 emissions.



Colleague Profile

Raluca Karassi our admired and illustrious colleague is a diplomat having served her country of Romania in a long and distinguished career. In her capacity as diplomat with the Romanian Ministry of Foreign Affairs she has held notable positions among them Diplomatic Counsellor and Legal Advisor for the Romanian Embassy at The Hague in the Netherlands, First Secretary, ROU Del to NATO in Brussels and personal counsellor to the Romanian Prime Minister. Raluca studied at the National College of Defense and at the University of Bucharest and holds a Master's in Humanitarian Law from that institution. She found herself in Toulouse after taking a sabbatical from her diplomatic duties to support her husband's career as he is currently a Flight Test Engineer at Airbus. Not one to let her ambition and motiva-

tion remain at idle for too long she enrolled at Université Toulouse 1 Capitole to pursue an LL. M. in Aviation Law. In addition to being our esteemed colleague, we have relied on her wisdom and expertise as we navigate our course of study. With the goal of improving our educational experience and providing feedback to advance improvement to the curriculum for future students, she spearheaded a survey and organized a committee to gather input that can be translated into meaningful and synergistic suggestions to improve the program going forward. She also was instrumental in launching ConcorDIA, our student association and serves as one of its officers. Raluca is currently at ATR as an intern in their export control department.



“Raluca, our admired and illustrious colleague.”

Raluca Karassi