

Appointment of an expert: a critical technical tool serving dispute resolution in aeronautics (subject to special care)

Following an aviation incident report, the Court expert – whose choice of profile determines the quality of the report that will be submitted to the judges – must highlight the initial causes of the incident or accident, the sequence of human errors and technical failures. In doing so, it is necessary to consider that each stakeholder involved in the operation of an aircraft has its own skills, and therefore it is essential to review each of these skills to cover the entire spectrum in an exhaustive manner (causal links)

An aerial event is never the result of fluke. There are a number of factors or causes, endogenous or exogenous, that the investigators involved must identify. Judicial investigation normally has no relation with regulatory technical investigations. Nevertheless, most

often, it is at the end of technical investigations carried out under the control of the civil aviation authorities¹ that court experts, specialized in aeronautics, intervene at the request of the judge.

There are several levels of expert intervention after an aerial



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To expertise is to explain effects, in this case those of corrosion.

event. The role of the justice expert will not be to carry out prevention or risk analysis, like the dedicated state agencies. The purpose of the expert mission is, in fact, to provide a technical response to legal questions.

Two types of disputes are common, either following an accident or arising from

difficulties encountered in the operational functioning of an aeronautical structure (maintenance problems, “best practice” or “state of the art” issues, etc.). Disputes following an accident are generally the subject of criminal proceedings, while disputes arising from difficulties are often dealt with in civil or commercial courts. In the case of an accident, which is a particular aerial event, it is necessary to define the role of the expert in his functions, both *a priori* and *a posteriori*. In addition to the analysis of the facts for the search for the truth, there is a difficult and intricate piece of work around the “aeronautical responsibilities” (in the technical sense) of the various parties involved in the event, whatever its classification.

1. WHAT IS AN AIRCRAFT ACCIDENT?

The following definition allows a better understanding of this notion. A distinction must be made between an accident and an incident, both of which are classified as a specific aviation event.

Annex 13 of the International Civil Aviation Organization (I.C.A.O.)² defines an aircraft accident in this way:

- **Accident:** means an event related to the operation of an aircraft which, in the case of a manned aircraft, occurs between the time a person boards the aircraft with the intention of taking a flight and the time all persons who boarded with that intention have disembarked, or, in the case of an unmanned aircraft, which occurs between the time the aircraft is ready to manoeuvre in preparation for the flight and the time it comes to rest at the end of the flight and the main propulsion



To investigate is to explain how to switch from one condition to another

system is shut down, and in which:

(a) A person is seriously injured or dies as a result of:

- * his or her presence in the aircraft;
- * direct contact with any component detached from the aircraft as a result of an aircraft accident;
- * direct exposure to jet engine blast;

(b) The aircraft sustains damage or structural failure that:

- * adversely affect the structural strength, performance or flight characteristics of the aircraft;
- * would normally require major repairs or replacement of the impacted component (with a few listed exceptions).

(c) The aircraft is missing or inaccessible.

I.C.A.O. Annex 13 characterizes an aircraft incident in this way:

- **Serious incident:** an incident involving circumstances indicating that there was a high probability of an accident and associated with the operation of an aircraft which, in the case of a manned aircraft, occurs between the time a person

boards the aircraft with the intention of taking a flight until all such persons have disembarked, or in the case of an unmanned aircraft, occurs between the time the aircraft is ready to manoeuvre in preparation for the flight until it comes to a stop at the end of the flight and main propulsion is shut down ;

- **Minor aerial incident:** an event, other than an accident, associated with the operation of an aircraft that affects or could affect the safety of operations.

2. THE AERIAL EVENT

The aerial event does not necessarily have a judicial impact in Europe, unlike the situation in the United States³. Indeed, Article 1 of Regulation (EU) No. 376/2014 of the European Parliament specifies: “*This Regulation aims to improve aviation safety by ensuring that relevant safety information relating to civil aviation is reported, collected, stored, protected, exchanged, disseminated and analysed*”; and “*the sole objective of occurrence reporting is the prevention of accidents and incidents, and not the attribution of fault or liability*”. There is a legal impact when a party claims it before a court of law because it believes it has suffered damage as a result of the event.

The obligation to report in the regulatory framework is defined with regard to the following categories of events:

- (a) events related to the operation of the aircraft;
- (b) events related to technical conditions, maintenance and repair of the aircraft;
- (c) events related to air navigation services and facilities;
- (d) events related to aerodromes and ground services.

These “events” constitute a continuously fed source of data, the processing of which is intended to improve flight safety. The Commission Implementing Regulation (EU) 2015/1018 of 29 June 2015 sets out the exhaustive list of events that must be mandatorily reported.

As such, there are possible interactions between incidents, accidents and aerial events; the legal expert appointed to advise the judge will have to analyze the course of the various events that occurred around the aircraft after the incident or accident. Indeed, a “negative” event may for example



To expertise is to measure the defect;
to investigate is to explain the defect.

have consequences on the airworthiness of the accident aircraft, whose return to service could then be compromised.

3. THE ROLE OF THE COURT EXPERT, THE "TECHNICAL ARM" OF THE JUDGE

It should be mentioned that the expert must carry out his mission with conscience, objectivity and impartiality. He carries out technical investigations ordered by judges on the occasion of disputes brought before the courts.

Article 238 of the French Civil Procedure Code contains, in particular, the following provisions: *“The technician must give his opinion on the points for the examination of which he has been appointed. He may not answer any other questions, except with the written agreement of the parties.”*

The expert – whose choice of profile determines the quality of the report that will be submitted to the judge, see infra – must highlight the initial causes of the incident or accident, the sequence of human errors and technical failures.

It is often at the end of the various administrative, technical (Office of Investigation and Analysis – BEA for the French Bureau d'enquêtes et d'analyses) and police investigations that Court experts are appointed (it is customary to say that the BEA safety investigation serves the judicial authority⁴). In this respect, the court that appoints the expert defines expert mission leaders, which can take inspiration on these various reports.

Can and/or should the content and relevance of these documents be questioned? This is sometimes seen in practice.

Once the circumstances are known, there is no reason for an aerial accident investigation to

take place over time. However, very often, the dispute is not judged as a whole until many years later⁵, in view of the financial stakes inherent to aeronautical issues⁶ (design defect, maintenance defect, operating defect...).

On the other hand, the expert writes a report according to his own skills. With 14 regulatory control points in terms of “aeronautical liability”⁷, an excessively strong orientation of the Court expert can be a source of contestation (in particular in that it can be detrimental to his independence).

3.1. The diversity of stakeholders during an expertise

In the event of an air accident, one or more “know-it-all” will write reports⁸ according to their missions. If the I.C.A.O. in its Annex 13 defines perfectly the conditions for carrying out investigations, there is no entity to question these reports, accepted as true, bases for the analysis work of the Court expert.

However, during his mission, the Court expert must deal with:

- the litigant who requested his designation;
- the judge who ordered his designation;
- the parties’ lawyer: the principle is that the expert must respond to their observations/comments.

In addition to the implementation of the expert mission, the Court expert must integrate the principle of contradiction (defined by article 16 of the French Civil Procedure Code) into his reflection and ensure its respect in practice through five main actions:

- tact and firmness;
- communication of documents to all parties (failing this, the expert's report could be annulled);

- acceptance of requests for findings and verification;
- no preconceived opinions: this may lead the expert to question reports and become an investigator;
- restitution by the expert of the documents submitted.

In short, the requirement of the expertise is to answer the technical interrogations of justice. As we have just noted, in the context of his understanding of the case, a Court expert can and must question the other technical reports. Based on the potential gaps or inconsistencies that he finds, the expertise can evolve on investigative functions, which can extend the time of study and expertise by extension.

We need to consider more broadly that each player involved in the operation of an aircraft has its own competences. Reviewing each of these skills allows us to comprehensively and exhaustively cover the entire spectrum of accident analysis. In fact, all the players involved, such as investigators from the Air Transport Brigade (Gendarmerie Nationale), the Office of Investigation and Analysis (Direction Générale de l'Aviation Civile Française), and the medical experts appointed in the context of the police investigation, will also draw up a report, the synthesis of which may not provide sufficient information for the judge, who may then consider it necessary to appoint a Court expert.

So: which expert for which mission?

3.2 Necessary questions

The first question refers us to the principle of designation. Is the profile of the designated court experts in adequacy with the requested mission?

Knowing that there are very few major events in aeronautics, one must consider the small amount of expertise required. This results in a real lack of experience of some experts, associated with the absolute necessity to conduct an expertise in case of a major event. An airplane crash is a human tragedy in essence. It has repercussions on the victims and their families, but also on the investigators and experts. This impact can have an influence on the way a report is written. In these particular conditions, it is good to question the content of the documents made available to the expert that can be written in contexts of strong psychological and sociological pressure.

The second question concerns the potential “wrong pick”. At the time of designation, the C.N.E.J.A.E.⁹ (For the French Compagnie nationale des experts de justice en aéronautique et espace) has the profiles of the experts duly listed. Consultation prior to the directory allows the judge to validate the perfectly adapted profiles. The consultation of the office can validate the choices. Thus, it is possible to avoid the error of designation such as that of an expert specialized in maintenance to analyze the behavior of a pilot, or of a specialist on large transporters to expertise a motorized ultralight accident.

The last question concerns the duration of procedures, in which experts¹⁰ play a leading role.

“The expert's culture of doubt allows the search for irrefutable evidence!”

It is relevant at this stage to recall the terms of the Charter on recommendations on good practice between lawyers and experts¹⁰. Without however recalling the role of the justice expert who must enlighten justice, it seems more essential for the parties to provide evidence rather than recriminations against the expert.

The absolute weapons of the justice expert consist in his impartiality, his professional conscience and his ability to challenge the statements, reports and “transversal” information with a leitmotif: “*technical truth, nothing but technical truth*”. The culture of doubt allows the search for irrefutable evidence! Each overly marked orientation of the expert would allow the parties to formulate contestations, whose extensions can sometimes be counted in years.

3.3. A guide to the aeronautical adversarial process

The expert’s report consists of two main parts. The first reports the findings and the second allows for analysis as part of the conclusions. This methodology differs from the technical experts report, whose content is often only accessible to professionals.

The methodology of the study concerning “aeronautical responsibility” defines four steps: reporting an event, analyzing this event, developing and then implementing a corrective action plan¹¹. It seems appropriate that the Court expert should be able to apply this principle to the reports at his disposal. He makes his findings and must consider that certain points may be badly, insufficiently, perfectly or rigorously developed. This initial analysis is essential; it enables the relevance of the available documentation

concerning the event to be analysed to be understood.

The Court expert, under these conditions, respects the contradiction by questioning the relevance of the documents at his disposal. He is in his role. At the same time, the duration in time of the proceedings¹² implies a questioning of the expert on the methodologies used during the drafting of the various reports provided to him.

The quantity of documents received, in particular from the lawyers of the parties to the expertise, represents hours of reading, note-taking, analysis, and conformity control; this must be centered on a single idea: the contradiction and the technical enlightenment of the judge on the basis of evidence. The Court expert must make up his mind of the "event" to which he must provide answers. However, depending on

his findings, as we have seen earlier, he may be confronted with situations requiring more in-depth investigation. It is at this precise moment that the delays will increase, because a Court expert cannot conclude his report without having developed all the stages of his analysis.

CONCLUSION

The work of the aeronautical expert, in his technical mission defined "*by the judge, is to enlighten the judge by findings, consultation or expertise on a question of fact that requires the enlightenment of a technician*" (art. 232 of the French Civil Procedure Code). His report must be as exhaustive as possible and cover the entire spectrum of the causes of the event or accident.

It should be remembered that the entirety of aviation regulations has more than 10,000 pages, whose

control by the judge is almost impossible, given their number and volume. The expert cannot also know all of these texts, but he is aware of their existence and their relative importance in relation to the dispute. The integration of relevant regulatory aeronautical data may be a time factor to be taken into account.

At the same time, the consideration of human emotion must be integrated into the process of triggering an expertise. Indeed, it is generated by the event. It is proportional to the intensity of the event, both for the families of victims and for the experts.

As far as the technical context is concerned, choosing the right expert for the mission guarantees not only the quality of the expert report, but also a mastery that is both temporal and in accordance with the rules of the trade.

NOTES

1. According to the requirements of Annex 13 of the I.C.A.O.
2. Concerning Europe, it is the Regulation (EU) No. 996/2010 of the European Parliament and of the Council of 20 October 2010 on investigation and prevention of accidents and incidents in civil aviation.
3. Read the article published in the Experts Magazine n°149 - April 2020.
4. Indeed, the sequence of facts that led to the incident or accident, established by the BEA, is naturally available to judicial investigators.
5. Accident of the Moorea Twin-Otter or the crash of Air France 447.
(Attention: Polynesia - Air Moorea - is not exactly France, it is a COM (overseas collectivity) of the French republic which has a territorial assembly with a president and a government that has adopted the Procedure Codes, so justice is rendered as in France. Polynesia is however not independent and belongs to the French Republic).
6. Refer to the article on aeronautical liability (Revue Experts n°149 - April 2020).
7. Read the article published in the Revue Experts n°149 - April 2020.
8. Documents making up the file submitted to the Court expert.
9. National company of Court experts in aeronautics and space.
10. Document drawn up by the National Council of Bars and Law Societies on November 18, 2005.
11. As defined in the article on aeronautical liability (Revue Experts n°149 - April 2020).
12. As defined in the article on aviation liability (Revue Experts n°149 - April 2020).