

## Aarhus Convention MoP7 and PRTRs MoPP4 SLIDE Proposals following intervention

### Biosafety information in the aviation sector in the light of the principles of precaution and transparency

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*Six months after the report of the French Senate on the restructuring of the European aeronautics industry<sup>1</sup>, and following the Climate Summit and the G7, the issue of indoor air pollution in air transport arises, particularly in the against the principles of precaution and transparency of information. The facts show in 2021 that no record exists for the quality of indoor air in the field of transport, particularly in the air. While there would be a large number of air events, related to the issue of cabin interior air quality (Fume events) for which alerts have been given since 2010 by the International Civil Aviation Organization (ICAO)<sup>2</sup>, and the Federal Aviation Administration (FAA)<sup>3</sup>.*

*The lack of bio-security health transparency on environmental data as well as the popularized accessibility to environmental information of the indoor air cabinet remain in 2021, for air transport users, absent. While it is a major public health issue. It is therefore this culture of transparent information favorable to a positive transversal approach to management in aviation safety, which is still embryonic, which is proposed. By emphasizing the promotion of efficient and dynamic notification and analysis of safety events, as well as a culture of new analysis and exploitation of notified events (accidents as well as incidents), environmental uses having an impact major security in the air sector could be taken into account.*

<sup>1</sup> [https://www.senat.fr/rap/r98-414/r98-414\\_mono.html](https://www.senat.fr/rap/r98-414/r98-414_mono.html)

<sup>2</sup> Note de travail OACI (Organisation de l'aviation civile internationale) A37WP.230TE.133 du 16.09.2010 relative à l'impact sur la sécurité aérienne de l'exposition à des vapeurs d'huile pendant les vols commerciaux

<sup>3</sup> FAA Aircraft Cabin Bleed Air Contaminants\_ A Review November 2015/ SAFO Safety Alert for Operators U.S. Department of Transportation Federal Aviation Administration, SAFO 18003, DATE: 3/26/18, Flight Standards Service, Washington, DC

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The principles of precaution and transparency of environmental information have made it possible to access information that will be called bio-security. If the Kiev Protocol of May 23, 2003 obliges since 2005 to report all outdoor polluting emissions, and if the Stockholm Convention of May 22, 2001 retains 21 pollutants, there is no record of the quality of the cabin interior air. despite the issue of the smoke event retained by the ICAO and the FAA. The expertise of uses and users in the air sector thus remains delicate. The threefold proposal to revise the Warsaw and Chicago Conventions by including an environmental, technical and societal dimension takes on its full meaning. Indeed, it was not until 2010 to read the definitions of air accident and incident, the safety impact of the release of pollutants during commercial flights, and 2015 and 2020 to read the recommendations. Health and safety litigation remains but is not specific to the aviation sector; international jurisprudence abounds; the US bill remains in abeyance. This culture of cross-functional security information, which is embryonic, proposed by the AVSA was adopted by the DSAC in 2020 in the "Plan horizon 2023". The state of the art in 2021 provides a number of recommendations that the expert must describe.

#### **I- State of the art and expert recommendations in the light of the Kiev protocol of 23/05/2003 and the Stockholm Convention of 22/15/2001**

Air pollution inside the cabin (fume event) is qualified by the ICAO and the FAA as "particularly serious". Materialized by fumes (smoke) from pyrolyzed aircraft engine cooling oil, contaminating the aircraft's air conditioning system (bleed air), it remains extremely dangerous. Its consequences range from simple complications to the most serious on the respiratory, neurological, cardiac and digestive levels, depending on the nature and duration of the exposure. The current lack of treatment of this release by systematic decontamination presents, from both a technical and legal point of view, a probable, serious and objective risk, the probability of which remains a decisive criterion for assessing the environmental health risk. If this release of pollutants does not fall within the scope of the Kiev Protocol, because it is internal and not systematic, it would fall within that of the Stockholm Convention of May 22, 2001. The expert can recommend that this release be entered in a register new, with regard to Article 5.9 of the Aarhus Convention.

#### **A- State of the art in 2021 of chemical pollutant discharges present in the cabin interior air**

The first reports date from 1997, the consequence of the exposure was qualified as "aerotoxic syndrome", by Professors Chris Winder and Dr Jean-Christophe Balouet. There followed studies, toxicology and traceability reports, agreement, testimonies, Airbus reports, toxicological recognition of the syndrome, reports from the FAA, the BEA, France, airlines, litigation and forensic expert reports, literature scientific, SAFO alerts, theses, seminars, conferences, specialist press articles.

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#### **B- State of the art of expert reports on discharges of chemical pollutants present in the cabin interior air**

While the Kyiv Protocol requires all polluting emissions to be declared in an online register, it only applies to external discharges. TCPs (tricresylphosphates or tricresyl phosphates) are one of the 21 pollutants that are dangerous to human health today under the Stockholm Convention. The recent BEA investigation report evokes this paradigm. By retaining the partial incapacity of the captain and the co-pilot and the emergency diversion. By contamination of cabin air. This report notes the absence of toxicological analysis on the personnel and serious security problems recognized by EASA and Airbus. He refers to the studies of his German (BFU) and British (CAA UK) counterparts but without mentioning the published reports, and he concludes by recommending generalizing the use of hair tests. The expert can therefore recommend a toxicological expertise in accordance with international agreements.

#### **II State of the art and expert recommendations in the light of the Palermo convention of 15 November 2000 and the Sendai 2015-2030 framework of actions.**

The expert must quantify the prejudices, inaptitudes, breaches of the obligation of prevention. In view of the major health issue, it could issue recommendations in the light of the Palermo Convention of November 15, 2000 and the Sendai Framework of Actions for Disaster Risk Reduction 2015-2030.

#### **A- In the light of the Palermo convention of November 15, 2000**

The situation remains worrying, in the light of the principles of precaution, prevention, information and participation, polluter pays, general protection of health and the environment, and withdrawal from exposure to hazardous material. Article L.4121-1 of the French Labor Code recalling the employer's safety obligation. The expert could recommend referring to the Palermo Convention of 15 November 2000 and to the UN Convention A / RES / 55/25 of 8 January 2001 against transnational organized crime. It could promote the term "organized environmental crime" in the air sector, according to the aforementioned ICAO Circular Cir344- AN / 202, referring in particular to point 3.1.5 of the additional ICAO document Doc8984 AN / 895 which defines 'pilot inability to fly, the FAA specifying since 2018 that contamination can take place without visual or olfactory signs. This would thus make it possible to strengthen the use of new transversal security strategies based on new legal indicators, legal security expertise and mediation by all appropriate means.

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#### **B- In light of the Sendai Framework of Actions**

The expert could recommend referring to the Sendai Framework for Disaster Risk Reduction 2015-2030. To promote better international cooperation on cross-sectional bio-security information on risks and adaptation strategies. The expert could suggest strengthening the Independent Experts-Civil Protection-EU partnerships, strengthening the transversal recognition of the anxiety-provoking phenomenon of risks by the administration and justice and strengthening the training of State services in new environmental risks. This also makes it possible to strengthen the use of new transversal security strategies based on new legal indicators, real security legal expertise and alternative modes of dispute such as mediation.