ALMA MATER STUDIORUM

JULY / SEPTEMBER 2018 YEAR XVII N° 3

The Aviation & Space Journal

ISSN 2281-9134
The Aviation & Space Journal
[online]
Website: www.aviationspacejournal.com

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E-mail: newsletter@lslex.com
Registrazione presso il tribunale di Bologna n. 7221 dell'8 maggio 2002

UAV Operations: The European Union Legal Framework on Privacy and Data Protection

*Anna Masutti**

Introduction

In the last years, people have been forced to accept a progressive curtailment of their privacy rights in order to enjoy greater security, better customer service and the enormous opportunities offered by the Internet and its enabling technologies. Concerns have been expressed on the loss of control of one's personal data that can be spread everywhere through the social networks without control.

UAVs are able to collect data much more efficiently than either satellites or manned aircraft ever could. Nevertheless, they (in particular micro drones) represent a real danger for privacy rights as they can collect high-resolution images and videos, telephone conversations, and intercept electronic communications and any other wave or signal depending on the payload installed on-board. They can also recognise faces, or even detect 'abnormal behaviour' and identify human targets. Finally, future solar-power drones will also be able to 'stay in the air forever' becoming a continuous surveillance tool in the hand of public authorities.

Until now, UAVs have been employed predominantly by States, mainly for security purposes, however, UAV technology is becoming increasingly accessible to private undertakings and even individuals. UAVs can be easily fitted with cheap payloads, including, cameras and other sensors to collect data. This opens a quite dangerous scenario whereby individuals must now guard themselves from intrusions by other individuals. Consequently, on many occasions the European Commission has expressed its concern about the proliferation of surveillance tools, especially in regards to UAVs. Several privacy risks may arise in relation to the processing of data collected by the equipment on-board a UAV. Such risks can range from a lack of transparency due to the difficulty of being able to view small and micro drones from the ground, to a difficulty in knowing the purposes for which the personal data is being collected[1]. A short explanation of the difference between small and micro drones is required in order to better understand the phenomenon. As opposed to micro UAV's that weigh no more than 2 kilograms not exceeding an airspeed of 30 knots and that

*Senior Partner at LS Lexjus Sinacta Law Firm, Italy and tenured Professor of Air Law and European Transport Law at the University of Bologna.

would not travel higher than 400 feet above ground level, small UAV's are defined as any unmanned aircrafts, other than a balloon or kite, having a mass of not more than 20 kg without its fuel but including any articles or equipment installed in or attached to the aircraft at the commencement of its flight[2]."

The European Union Legal Framework on Privacy and Data Protection

The privacy and data protection problems, which arise from technological progress (like drones), could usefully be addressed through the application of the European Union (EU) legal framework. In fact, the EU is committed to accede to the European Convention of Human Rights (ECHR) on the basis of Article 6 of the Treaty[3]. Article 7 of the EU Charter of Fundamental Rights (which became binding in December 2009 when the Lisbon Treaty came into force)[4] replaced the right to privacy of 'correspondence' with the right to privacy of 'communications'[5]. In addition, Article 8 of the Charter states that "everyone has the right to the protection of personal data concerning him or her" and that such data must be processed for specific purposes only and exclusively with the consent of the person concerned. The same provision establishes the right to access the data collected concerning oneself and, if needed, the right to have it rectified. Compliance with these rules should be subject to the control of an independent overseeing authority[6].

Article 7 of the Charter mainly derives from Article 286 of the Treaty establishing the European Community and Directive 95/46/EC of the European Parliament and of the Council[7] on the protection of individuals with regard to the processing of personal data and on the free movement of such data, as well as, on Article 8 of the ECHR and on the Council of Europe Convention of 28 January 1981 for the Protection of Individuals with regard to Automatic Processing of Personal Data[8], which has been ratified by all the Member States.

The Applicability of the Current Data Protection Framework in the Future Use of Drones

Regarding which European norms appear to be applicable to drones, it is interesting to see that, according to the opinion of DPAs of 19 European Member States: '[T]he Data Protection Directive (95/46/EC) was applicable to the use of RPAS for visual surveillance (96%), two-thirds agreed that the 2008/977 Framework decision was applicable and a significant minority felt that the e-Privacy Directive (41%) and the Data Retention Directive (20%) might also be applicable.[9] Consequently, if Directive 95/46/EC is almost 100% applicable to drones, then it can be deduced that the new Regulation 679/2016 is equally applicable, although such analysis has not yet been made.

In January 2012, the Commission proposed a revision of Directive 95/46/CE, submitting to public scrutiny two draft instruments: the transformation of the Directive into a 'General Data Protection Regulation' (GDPR)[10] (which will also apply to data processing by private or commercial UAV operators) and a Directive regulating sensitive data processing by competent authorities for the purposes of law enforcement[11].

On 27 April 2016, the Regulation and Directive were adopted and, on 4 May 2016, the official texts of the Regulation and the Directive were published in the Official Journal of the EU. While the Regulation entered into force on 24 May 2016, it shall only apply as of 25 May 2018. The Directive entered into force on 5 May 2016 and now the EU Member States transposes it into their national on 6 May 2018.

The Regulation and the Directive provide for tighter, harmonised rules and are aimed at preventing fragmentation in the way personal data protection is implemented across the Union. Moreover, the GDPR seeks to address the threats to privacy posed by recent technological developments. It addresses several issues, largely neglected or insufficiently dealt with by the current legal framework, such as the need for special protection of health-related data, the need for clearer rules as regard to data access and portability, and the rules concerning data processing on grounds of public interest.

Furthermore, the Regulation tries to strike a balance between the rights of individuals to protect their personal data and the need to make data available to State officials for public interest or law enforcement purposes. Finding a balance between the need to guarantee the right of individuals to 'opt out' or delete their personal data (the so-called 'right to be forgotten')[12], and the need to provide access to the same data to public officials is especially difficult. An even bigger concern is raised by the possible use that could be made of sensitive data by private subjects for commercial purposes.

The GDPR clarifies the issue of the consent of the data subject, which should be given explicitly and by any appropriate means enabling a specific indication of the wishes of the subject itself. According to the proposed Regulation, '[s]ilence, pre-ticked boxes or inactivity should not therefore constitute consent.'[13]

The Regulation also reiterates most principles established by Directive 95/46/EC, such as the right not to be subject to profiling or behavioural targeting[14], the right to object to the processing of personal data[15], the right to rectification[16] and right to access[17].

Moreover, the Regulation establishes strict requirements concerning the transparent and ease of access to any information concerning the processing of personal data[18] and stresses the importance of 'privacy by design[19], requiring controllers and processors to implement all appropriate technical and organisational measures to ensure security of processing[20]. Section 4 provides for the designation of a Data Protection Officer by the controller and a processor when data are processed by a public authority and in other few cases.

In order to ensure a correct and uniform application of the new legal framework, the Regulation sets up a 'consistency mechanism', which requires supervisory authorities 'to cooperate with each other and, where relevant, with the Commission, through the consistency mechanism'[21].

Finally, Article 40 of the GDPR provides: 'The Member States, the supervisory authorities, the Board and the Commission shall encourage the drawing up of codes of conduct intended to contribute to the proper application of this Regulation, taking account of the specific features of the various processing sectors and the specific needs of micro, small and medium-sized enterprises'.

To sum up, the new Regulation establishes, *inter alia*, a few basic principles for data protection and privacy: i) *transparency*: the data collector must notify the 'data subject' of the personal information collected, the purpose of that collection and use of the data; ii) *data minimisation*: data must be 'relevant' to the purpose for which it is being collected and the data collected must be the minimum amount of data necessary for the purposes pursued; iii) *consent*: individuals must give consent to their data being collected; iv) *accountability*: the data controller must be identifiable and accountable to individuals and regulatory authorities; v) *right of access, correction and erasure:* individuals retain control over the information that is collected about them.

It is important to say that this Regulation has reiterated the basic principles enshrined in Directive 95/46/EC and Regulation 45/2001/EC, while also filling most of the gaps of the previous European legislation on privacy and data protection.

Regarding the privacy law in the EU Member States, it can be observed that in principle the data protection laws and the legislation concerning the telecommunication and Internet services sector of the Member States are all very similar as they transcribe the EU Data Protection Directive and e-Privacy Directive.

Some Member States such as UK, France, Italy, Belgium, Germany and many more have already issued regulations for UAVs providing norms on data protection and privacy right.

Conclusion

The current data protection and privacy legislation is characterised by a lack of provisions specific to UAV as regard to the collection and distribution of data and images. However, by way of analogy, the existing regulatory framework may be applicable to the use of drones, and the existing case law on data collection and handling may provide guidance in the drafting and implementation of regulation specific to drones, if necessary.

In fact, the existing privacy and data protection rules are themselves sufficient to distinguish between lawful and unlawful use of drones, however without effective oversight by authorities, effective enforcement procedures, and sufficient resources and manpower, these rules are bound to remain unheeded.

Moreover, privacy rights can be protected also by 'embedding' privacy laws in the technology that now threatens them. Privacy by design might actually prove to be an extremely useful tool to ensure the enforcement of EU and national legislation. This objective has been facilitated by the capacities of computers to draw upon the tools of artificial intelligence (AI) and operational research. The importance of privacy by design had already been acknowledged by the EU lawmakers in the recent Regulation 679/2016/EU.

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[1] Article 29 Data Protection Working Party - WP 231 - Opinion 01/2015 on Privacy and Data Protection Issues relating to the Utilisation of Drones, 01673/15/EN, Adopted on 16 June 2015.

[2] Civil Aviation Authority, The Air Navigation Order 2016 and Regulations, available from: http://publicapps.caa.co.uk/docs/33/CAP393Ed5Am2_JUN2017_BOOKMARK(e).PDF

[3] Consolidated version of the Treaty on European Union, 13 December 2007, *2008/C 115/01* at Art. 6.

[4] I*bid* at Art. 6(1).

[5] Charter of Fundamental Rights of the European Union, 26 October 2012, 2012/C 326/02 at Art. 7.

[6]*Ibid* at Art. 8.

[7] Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, *OJ L 281, 23.11.1995, p. 31-50*.

[8] Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data, STE n°108, Strasbourg, 28 January 1981.

[9] Study on Privacy, *supra 2* at p. 147.

[10] European Commission, Proposal for a Regulation of the European Parliament and of the Council ("General Data Protection Regulation"), COM(2012) 11 final 2012/0011 (COD)(2012).

[11] European Commission, Proposal for a Directive of the European Parliament and of the Council dated 25 January 2012, COM(2012) 10 final 2012/0010 (COD)(2012).

[12] Regulation (EU) 2016/679, *supra* 11 at Recital 65 and Art. 17.

[13] *Ibid* at Recitals 32, 42, 51 and Art. 7.

[14] *Ibid* at Recital 122 and Art. 4.

[15] *Ibid* at Sec. 4.

[16]*Ibid at Art. 19.*

[17] *Ibid at Art. 15.*

[18]*Ibid at Art. 12, Sec. 1.*

[19]Chapter IV, Section 1, Article 25, *Data protection by design and by default*, Regulation (EU) 2016/679 of the European Parliament and of the Council on the protection of natural persons with regard to the processing of personal data on the free movement of such data (General Data Protection Regulation), available from: http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32016R0679&from=EN .

[20]*Ibid at Art. 25.*

[21]*Ibid at Arts 47 and 63.*

A Review of the Role and Functions of ICAO in Resolving Conflicts

*by Neda Şentürk**

Abstract

The Chicago Convention provides the ICAO Council with broad dispute settlement powers strengthened by a sanctions mechanism. The enforcement of these powers, however, has been contested and the subject of debate among legal scholars. The purpose of the present paper is to introduce the sanctions mechanism and provide a critical analysis on ICAO's roles and functions in resolving disputes that arise between its Member States.

Brief Introduction to the Dawn and Development of International Civil Aviation Law

Ever since the Montgolfier Brothers flew the hot air balloons in 1770s, there has been a will to regulate civil aviation. In those days, this intention was pertinent to safety reasons which are related to inherent risks.[1] In the course of time, as a result of ever-developing technology and emergent needs, civil aviation gradually became more international and accordingly the air vehicles started to operate within the airspaces over various territories. This urged states to codify international air law so as to ensure that the air traffic is managed safely and without interfering the sovereignty of each state.

Since the Regulation of Aerial Navigation of 1919, hereinafter referred to as the Paris Convention[2], was under the influence of the aftermath of the First World War and considering the fact that the States were in tendency to place emphasis on their national interests back then, the rules regulating air law were established based on the "state sovereignty principle".[3] The Convention on International Civil Aviation of 1944, hereinafter referred to as the Chicago Convention, which is considered to be the constitution of international civil aviation law, maintained the same approach as its predecessor, the Paris Convention, and was also built on the same principle.

Not only Article 1 of the Chicago Convention affirms the recognition of the Member States' complete and exclusive sovereignty over their territories, but other articles, including but not limited to Articles 5, 6, 7 and 9, are also established based on the same notion. As will be explained under the following sections, this principle, which dominates not only international aviation law but also public international law entirely, is considered to be the reason behind the relative disability for international

* LL.M. Advanced Studies in Air and Space Law

organizations to enforce their contested "adjudicative" powers effectively.[4]

One of the most important contributions of the Chicago Convention to international aviation law is the establishment of ICAO which has been vested with both rule making[5] and dispute settlement powers in international air law.

The ongoing crisis occurred in the Middle East[6] prompted me to make a study of the dispute settlement machinery in international aviation. Is there an efficient mechanism enabling ICAO to reconcile its Member States in case of a dispute? If such mechanism exists, how does it work? Why did ICAO remain passive in solving the problems between its Member States? What role could ICAO have to settle the Middle East dispute? Throughout the present paper, I will seek answers to these questions.

For the sake of clarity, the terms "disagreement", "dispute" and "conflict" used in the present paper will have the same meaning.

A Closer Look at ICAO

When it comes to a matter related to public international aviation law, one must always ask himself this question: "What does the Chicago Convention say about this subject?"[7] In order to establish a useful analysis, I therefore find it essential to introduce ICAO's objectives and structure through the instrumentality of Chicago Convention prior to elaborating on its roles and functions in settling disputes.

- ### Objectives of ICAO

The outline of the objectives of ICAO is presented under the preamble of the Chicago Convention. Since ICAO was born in an environment bearing traces of the aftermath of the Second World War, its main objective was determined as the development of the international civil aviation in a safe and orderly manner.

More specifically, the objectives which ICAO is appointed to pursue are indicated under Article 44 of the Chicago Convention.

Although the protection of safety[8], notably preserving the continuity of a safe aviation environment, is still its primary goal, ICAO is urged to tackle various challenges faced in the course of aviation history, such as security[9], environmental protection, efficiency, continuity and the rule of law.

The increase in ICAO's responsibilities is criticized by some authors alleging that some matters shall be left to regional organizations and ICAO shall refocus on its key concern, namely the safety.[10] I, however, find this embracing approach of ICAO in addressing new problems useful with regard to enhancing uniformity of applicable rules and contributing to the development of international civil aviation law as the Article 44 (i) of the Chicago Convention suggests.

- **How Does ICAO Operate? : Through Its Bodies**

ICAO is composed of four main bodies and their functions are laid down by the Chicago Convention. These bodies are (i) the Assembly, (ii) the Council, (iii) the Secretariat[11] and (iv) the Air Navigation Commission[12].

Since this paper is intended to review the current dispute settlement mechanism of ICAO, I will solely elaborate on the Assembly and the Council which I deem most important with regards to understanding the dispute settlement process. Even though the Council, as will seen in Section 2.2.2, is the body which is entitled to solve the disagreements, I also give place to the Assembly in this paper to understand better the structure of the Council due to the fact that the States to be represented in the Council are elected by the Assembly[13] and the Council is responsible for carrying out the directions of the Assembly[14].

- **The Assembly**

Because the Assembly, which is headquartered in Montreal, Canada, is where all ICAO Member States gather[15], it is referred to as the sovereign body of ICAO in the literature and even in ICAO's official website.[16] This reference is rightfully criticized by part of the doctrine by alleging that the Assembly cannot be considered as a sovereign organ whilst it is convened by the Council and is responsible to other organs in the exercise of its functions and powers.[17]

I do believe that, as befits the name, the sovereignty of an organ is determined depending on to what extent this organ is decisive in shaping the future of whatever area it is related to. That being said, when we look at the distribution of roles within ICAO, we can easily see that all the functions having concrete impact on international civil aviation such as adoption of SARPs and settlement of disputes are not being implemented by the Assembly, but by the Council which is defined as the governing body by ICAO itself.[18] In Article 49 of the Chicago Convention which provides powers and duties of the Assembly, there are several references to the Council. Taking it a step further, Article 49 (k) establishes that the Assembly is entitled to deal with any matter within the sphere of action of ICAO which is not specifically assigned to the Council.

- **The Council**

The Council is the permanent body of ICAO[19] and currently contains 36 Member States.[20]As mentioned under Section 2.2.1., the Council, which is considered to be as the executive body of ICAO[21], runs determinant legislative, judicial and administrative functions.[22]

Pursuant to Article 49 (b) of the Chicago Convention, the Assembly elects the Contracting States to be represented on the Council. One may object the discussions under Section 2.2.1, based on this article and may accordingly state that the Council is a reflection of the Assembly. According to Article 50 (b) of the Chicago Convention and Rule 55 provided by the Standing Rules of Procedure of the Assembly of the International Civil Aviation Organization[23], the States are elected as three parts so as to constitute an adequate representation on the Council. The first part is composed of the election of States that occupy chief importance in air transport. The second part consists of States which make the largest contribution to the provision of facilities for international civil air navigation whereas the third part involves States whose

designation will ensure that all the major geographical areas of the world are represented on the Council.[24]

Although all the major aviation states are represented in the Council through above-mentioned election model, the desired outcome may not be achieved due to political interests to some extent. To put it more explicitly, the Council does not consist of a group of individual members which are free from political concerns but rather composes of the representatives of Contracting States that are likely to look out for their own national interests.[25]

The next section is dedicated to examine the ICAO's dispute settlement mechanism and to introduce a review on whether this mechanism is capable to settle the disputes between the Member States. In order to make this analysis, I will refer to the major cases brought before ICAO and the manner that the Council has adopted.

Quasi – Judicial Power of ICAO: Dispute Settlement Mechanism

- **The Principle – What Should Be?[26]:**

Pursuant to the Article 84 of the Chicago Convention, the settlement of disputes arising from the interpretation or application of the Chicago Convention between two or more Member States is left to the Council so long as the disagreement cannot be settled by negotiation by the parties.[27] In order to apply this article, some hidden prerequisites shall be met.

First and foremost, as rightly indicated by many authors in doctrine[28], this article obliges the interpreters to determine the nature of the dispute due to the fact that different settlement options may be required[29] depending on whether the dispute is, characterized, for instance, as political or legal. Nonetheless, in my opinion, the fact that the disputes between States are generally considered to be arisen from political preferences does not necessarily mean they will not be subject to legal discussions at the same time. The politics and the law, by their very nature, interact with each other. The politics alone, therefore, cannot be the excuse of not to trigger the legal mechanism. According to the aforementioned Article, I discover, in case the disagreement stemmed from the interpretation or application of the Chicago Convention, the Council is competent to make a decision regardless of the fact that the dispute is also influenced by the politics unless there exists one of the conditions mentioned under Article 89 of the Chicago Convention. When it comes to the matters concerning the States, it is inevitable that the national interests and related political choices will come to fore. The fact that a dispute arose from political reasons does not necessarily mean that it did not cause any legal effects and consequences. In order for the mechanism provided by Article 84 of the Chicago Convention not to be congested, the Council should take the utmost care while making decision whether or not to interfere. A further critical analysis and suggestions on this matter will take place under Section 3.3.

Second, the parties to a dispute shall attempt to resolve the disagreement by negotiations at first, namely prior to applying to the Council's decision. As will seen under the following sub-section, the Council often invites the parties in dispute to further negotiate on the matter which generally results in the parties being settled eventually. The Council's this approach is supported by some legal scholars stating that the functions of the Council in terms of dispute settlement is closer to be assisting to settling the disagreements rather than adjudicating them based on the fact that the Council is not a court of law.[30] I, however, think that the Council could be more effective than a conciliator based on the fact that the Chicago Convention provides the Council with the power of decision-making. The Chicago Convention, furthermore, sets out two types of sanctions -whether practicable or not- in order to ensure the Council's decisions are being applied.

These sanctions are provided either for the airlines or for States which fail to comply with the Council's decision. In the former the Contracting States are obliged not to permit the operation of an airline over their territory whereas in the latter the Assembly is required to suspend the voting power of the Contracting State in the Assembly and in the Council.[31]

As seen so far, the Chicago Convention provides broad authorities to the Council and a strong dispute settlement mechanism crowned with mighty sanctions at least on paper.

Now, with the above facts and discussions in mind, I find it useful to briefly address how this dispute settlement mechanism actually worked in practice so far. Looking back is essential to predict and to avoid future deadlocks that are likely to occlude this problem-solving mechanism.

- **The Practice – What Actually Exists?:**

The first case concerning the conflict between India and Pakistan, in which India alleged that Pakistan has unfairly prohibited a part of its airspace, was brought before the Council in 1952, only eight years after the entry into force of the Chicago Convention. Although Pakistan asserted that this restriction has been imposed for security purposes, it turned out to be that Pakistan has allowed an Iranian air carrier to use its transit rights through the area in question. India then claimed that this has resulted in Pakistan violating non-discrimination principle referred in Article 9 of the Chicago Convention.[32] As mentioned under Section 3.1., The Council is entitled to settle the disputes between Member States only provided that this dispute cannot be solved by Member States' negotiations. The Council, therefore, urged India and Pakistan to continue negotiations which eventually culminated in the problem between the parties being solved.

In 1967, the United Kingdom filed a claim against Spain upon the Spanish ban on overflight of the surroundings of Gibraltar. The parties, then, requested the Council to defer the matter *sine die*.[33]

The third dispute submitted to the Council, in 1971, was again occurred between India and Pakistan over the unilateral suspension of Pakistani flights by India over its territory. Although the parties have ultimately made a joint statement indicating that they had not intended to continue the proceedings before the Council, I find this case important in which both the Council and the ICJ have affirmed the Council's competency over the dispute settlement.[34]

Another case brought to the Council in 1998 involved a dispute between Cuba and United States regarding the flight right of Cuban-registered aircraft towards Canada over the United States' territory.[35] Yet again, the problem was solved not through the decision issued by the Council but rather with the contribution of the its mediation.

The most recent case concerning the then EU Regulation regulating the noise of aircraft engines between the United States and the fifteen EU States, which is often referred to as Hushkit case, was brought to the Council in 2000.[36] The said Regulation caused almost all United States carriers not to fly their older aircraft within the EU.[37] The dispute was settled when the EU has repealed the said Regulation following the negotiations between the parties under the guidance of the ICAO President as the Conciliator.

In the following sub-section, I will seek an answer to the question "What role can ICAO have to settle the probable disputes in the future?". In order to reach a satisfying response, I will use the recent Middle East dispute as an illustration.

- **Remarks and Analysis - What Can Be Done?**

As seen so far, the Council's tendency is more likely to remain neutral and to push the disputing States settle the conflict by negotiations in an amicable manner and less likely to make a final decision.

Taking the attitude that the Council has had towards the aforementioned cases into consideration, its contribution to encourage the parties in dispute to settle the matter by negotiations cannot be underestimated.

Nevertheless, as rightly pointed out by David Mackenzie[38], in regions struggling with various political problems which involve several external factors, as is the case in the Middle East, it can be more compelling to reach an amicable solution.

The recent Middle East dispute involves on one hand Qatar claiming that her rights arising from the International Air Transit Agreement and Articles 5, 6 and 9 of the Chicago Convention are violated and the Arab quartet, on the other hand, alleging that this issue is related to their sovereignty over the airspace above their territories. ICAO, thus, invited parties to comply with the provisions of the Chicago Convention. Considering the broad dispute settlement powers of the Council, pushing parties to find an amicable solution is applaudable but not sufficient.

ICAO, after investigating whether or not the parties to the dispute negotiated to settle the disagreement and being convinced that the parties could not be successful in doing so, shall get involved in the matter by starting to examine if the dispute arose from the interpretation or application of the Chicago Convention.

In the Middle East dispute, even though the involvement of political reasons is undeniable, ICAO may consider presenting an opinion including remarks on the interpretation of Articles 5, 6 and 9 and on whether there exists one of the conditions mentioned under Article 89 which enables the freedom of action of the Contracting States. This, I believe, would expedite the negotiation process.

Conclusion and Final Remarks

As discussed throughout the present paper, the dispute settlement mechanism of ICAO, which has rarely been triggered by its Member States, has been constantly criticized by most of the scholars claiming that ICAO had been ineffective despite its broad dispute settlement powers provided by the Chicago Convention.

I suggest a three phased negotiation process in order not to further by-pass the dispute settlement mechanism provided by the Chicago Convention. In the first phase the parties to a dispute may be imposed to complete the negotiations in a certain time for which a limit set by the Council in accordance with Article 14 of the Rules for the Settlement of Differences. In case parties do not reach a solution by the end of this term, the Council may grant them an extra time-period without specifying *a final decision* but rather by indicating its own *view* concerning the dispute. This would, in my view, increase the pressure on the parties and speed up the negotiation process. Finally, in the third phase, the Council may declare its decision should the parties cannot settle by themselves.

Although the state sovereignty principle rules the international law, I find it significant to remember Assad Kotaite's words[39]: "The adherence of States to international law is voluntary, not due to external coercion. International law is both obligatory (when States adhere to Conventions and treaties) and voluntary (because it is the decision of States freely to adhere to it)."

I, thus, believe that the dispute settlement mechanism of the Chicago Convention does not prejudice the sovereignty of the Contracting States which adhered to the Chicago Convention with their own free will. Having said that, an establishment of a new body may be considered and the problem-solving powers may be assigned to such body which is to be designed, unlike the Council, free from the political concerns.

LIST OF ABBREVIATIONS

EU European Union
ICAN International Commission for Air Navigation
ICAO International Civil Aviation Organisation
ICJ International Court of Justice
SARPs Standards and Recommended Practices

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[1]A. Trimarchi, From the Chicago Convention to Regionalism in Aviation. A Comprehensive Analysis of Evolving Role of the International Civil Aviation Organization, The Aviation and Space Journal 30 (2016).

[2]This convention is known as the first legal instrument regulating international civil aviation and was followed by Ibero-American Convention, Pan-American Convention. It established ICAN which is the ancestor of ICAO.

[3]P. M. de Leon, Introduction to Air Law 3, 10th ed (2017).

[4]B. F. Havel & G. S. Sanchez, Do We Need a New Chicago Convention (2011).

[5]Keynote Address By The Secretary General Of The International Civil Aviation Organization (ICAO) Dr. Fang Liu, On ICAO's Contributions To The International Civil Aviation Framework (Leiden University, The Netherlands, 2017)

[6]Bahrain, Egypt, United Arab Emirates and Saudi Arabia, hereinafter referred to as the Arab Quartet, have closed their airspaces to Qatar due to long-lasting conflicts on Qatar's foreign policy.

[7]This remark is inspired from one of the lectures given by Prof. Pablo Mendes de Leon at Leiden University.

[8]The term "safety" is defined in Safety Management Manual, ICAO Doc. 9859 AN/474 (2013) as "the state in which the possibility of harm to persons or of property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and safety risk management."

[9]The term "security" is defined in Annex 17 to the Chicago Convention as "safeguarding civil aviation against acts of unlawful interference."

[10]O. Onidi, A Critical Perspective on ICAO Contribution of the Directorate General for Energy and Transport to the Airneth Seminar on "The Future of ICAO", 33, 38-45 (2008).

[11]The Secretariat consists of (i) Air Navigation Bureau, (ii) the Air Transport Bureau, (iii) the Technical Co -operation Bureau, (iv) the Legal Affairs and External Relations Bureau, and (v) the Bureau of Administration and Services.

[12]Pursuant to Article 57 (a) of the Chicago Convention, Air Navigation Comission contributes to the development of SARPs.

[13]*See*, Art. 49 (b) of the Chicago Convention.

[14]*See*, Art. 54 (b) of the Chicago Convention.

[15] According to ICAO's official website, there are 192 Member States as of the date of 01.10.2018. *See*, https://www.icao.int/MemberStates/Member%20States.English.pdf,accessed on 01.10.2018.

[16] P. M. de Leon, Introduction to Air Law 35, 10th ed (2017); https://www.icao.int/Meetings/a39/Pages/default.aspx, accessed on 01.10.2018.

[17] P.A.A. Fossungu, The ICAO Assembly: The Most Unsupreme of Supreme Organs in the United Nations System - A Critical Analysis of Assembly Sessions, 26 Transp. L.J. 1, 50 (1998).

[18] https://www.icao.int/Meetings/a39/Pages/default.aspx, accessed on 01.10.2018.

[19] *See*, Art. 50 (a) of the Chicago Convention.

[20] Pursuant to Article 50 (a) of the Chicago Convention, Member States are elected by the Assembly for a three-year period.

[21] P. M. de Leon, Introduction to Air Law 35, 10th ed (2017).

[22] These functions are divided into two parts: (i) mandatory functions22; and (ii) permissive functions22. The mandatory functions of the Council ranges from the adoption of SARPs which are scattered among nineteen Annexes associated with the Chicago Convention to the appointment of the Secretary General.

[23] Standing Rules of Procedure of the Assembly of the International Civil Aviation Organization, ICAO Doc. 7600/8, at page 18 (2014).

[24] https://www.icao.int/about-icao/Council/Pages/council-states-2016-2019.aspx, accessed on 01.10.2018.

[25] J. Bae, Review of the Dispute Settlement Mechanism Under the International Civil Aviation Organization: Contradiction of Political Body Adjudication, 4, 65-81, (2012).

[26] Article 84 of the Chicago Convention provides an appellate mechanism against the decisions of the Council through either an ad hoc arbitral tribunal or the ICJ. A further examination of appeal procedure falls outside the scope of this paper. This paper is only intended to the analyze the Council's dispute settlement functions and capability.

[27] Pursuant to Article 66 of the Chicago Convention, ICAO is also entitled to settle the disputes arising from International Air Services Transit Agreement and International Air Transport Agreement.

[28] P. M. de Leon, Introduction to Air Law 30, 10th ed (2017); *See also,* J. Bae, Review of the Dispute Settlement Mechanism Under the International Civil Aviation Organization: Contradiction of Political Body Adjudication, 4, 65-81, (2012).

[29] H. Lauterpacht & M. Koskenniemi, The Function of Law in the International Community 360 (2011).

[30] D. Mackenzie, ICAO : A History of the International Civil Aviation 198 (2010).

[31] *See*, Arts. 87 and 88 of the Chicago Convention.

[32] P. M. de Leon, Introduction to Air Law 31, 10th ed (2017).

[33] Annual Report of the Council to the Assembly for 1969, ICAO Doc. 8869 A18-P/2, at page 133 (1970).

[34] Appeal Relating to the Jurisdiction of the ICAO Council (*India v. Pakistan*), 1972 ICJ Rep.

[35] Documentation for the session of the Assembly in 2001 Annual Report of the Council, at page 15 (1998).

[36] Documentation for the session of the Assembly In 2001 Annual Report of the Council, ICAO Doc. 9770, at page 14 (2000).

[37] M. Vaugeois, Settlement of Disputes at ICAO and Sustainable Development (2016).

[38] D. Mackenzie, ICAO : A History of the International Civil Aviation 198 (2010).

[39] A. Kotaite, My Memoirs 42 (2013).

BIBLIOGRAPHY

Articles

A. Trimarchi, From the Chicago Convention to Regionalism in Aviation. A Comprehensive Analysis of Evolving Role of the International Civil Aviation Organization, The Aviation and Space Journal 30 (2016).

B. F. Havel & G. S. Sanchez, Do We Need a New Chicago Convention (2011).

O. Onidi, A Critical Perspective on ICAO Contribution of the Directorate General for Energy and Transport to the Airneth Seminar on “The Future of ICAO” (2008).

P.A.A. Fossungu, The ICAO Assembly: The Most Unsupreme of Supreme Organs in the United Nations System - A Critical Analysis of Assembly Sessions, 26 Transp. L.J. 1, 50 (1998).

J. Bae, Review of the Dispute Settlement Mechanism Under the International Civil Aviation Organization: Contradiction of Political Body Adjudication, 4, 65-81, (2012).

Books

P. M. de Leon, Introduction to Air Law, 10th ed (2017).

H. Lauterpacht & M. Koskenniemi, The Function of Law in the International Community (2011).

D. Mackenzie, ICAO : A History of the International Civil Aviation (2010).

A. Kotaite, My Memoirs 42 (2013).

Case Law

Appeal Relating to the Jurisdiction of the ICAO Council (*India v. Pakistan*), 1972 ICJ Rep.

Documents of International Organisations

Safety Management Manual, ICAO Doc. 9859 AN/474 (2013).

Standing Rules of Procedure of the Assembly of the International Civil Aviation Organization, ICAO Doc. 7600/8

Annual Report of the Council to the Assembly for 1969, ICAO Doc. 8869 A18-P/2 (1970).

Documentation for the session of the Assembly in 2001 Annual Report of the Council (1998).

Documentation for the session of the Assembly In 2001 Annual Report of the Council, ICAO Doc. 9770 (2000).

Treaties

Regulation of Aerial Navigation (1919).

Convention on International Civil Aviation (1944).

Internet

'International Civil Aviation Organization' *(Icao.int,* 2018) https://www.icao.int/Pages/default.aspx accessed 01.10.2018.

Other

Keynote Address By The Secretary General Of The International Civil Aviation Organization (ICAO) Dr. Fang Liu, On ICAO's Contributions To The International Civil Aviation Framework (Leiden University, The Netherlands, 2017).

AVIATION

Search and Rescue Operations Pertaining to Aviation Accidents in Indonesia: Logical Fallacy within the National Legal Framework?

*Ridha Aditya Nugraha**
*Maria Zefanya Sampe***
*Valantino Agus Sutomo****

Abstract

The International Civil Aviation Organization puts a lot of effort to prevent aircraft accident. However, based on statistic, such accident still potentially occurs. As an archipelagic, Indonesia relies on air transportation which leads to more aircraft flying on its airspace. The country has an international obligation to ensure civil aviation safety, one of them through ensuring Search and Rescue operation 24/7. This article shall examine the Indonesian legal framework with regard to Search and Rescue operation for aircraft accident, then analyzing the conflicting provisions among them which lead to legal uncertainty.

Introduction

Search and rescue (SAR) operations in the high seas have only become well developed since 1985, following establishment of the International Convention on Maritime Search and Rescue of 1979 as the legal basis.[1] Before the legal framework existed, there was a tradition of helping one another, either through obligation or reliance upon the Good Samaritan principle.

Today the SAR system is based on close coordination between the International Maritime Organization (IMO) and the International Civil Aviation Organization (ICAO). As the magna carta of international civil aviation, the Chicago Convention of 1944[2] regulates SAR operations within Annex 12. A comprehensive annex has already been established and will be further developed according to the recent situations related to aviation safety. Furthermore, the International Telecommunications Union (ITU) has established special emergency frequencies for SAR operations.

Today, aviation business growth is taking the lead in the Asia Pacific region, including Indonesia. Over the next five years, there will be nearly 11,000 aircraft deliveries with 19% ending in the Asia Pacific region.[3] As a long-term forecast, around 12,820 new aircraft will be delivered to the region between 2013 and 2032.[4] Indeed, a huge number of new aircraft will mushroom in the Asian skies over the next decade.

*Air and Space Law Studies, Universitas Prasetiya Mulya.Comments should be addressed to ridha.nugraha@pmbs.ac.id

**Department of Business Mathematics, Universitas Prasetiya Mulya.

***Department of Business Mathematics, Universitas Prasetiya Mulya.

The views expressed are purely those of the authors.

Indonesia is an archipelago located between two continents, namely the gateway to Asia and Australia, and the situation above means traffic in the country's airspace is increasing. Hence, offsetting aside the serious efforts to improve aviation safety levels, there is still of the potential for aircraft accidents. With two-thirds of the Indonesian territory consisting of the sea at varying depths, as well as mountainous and isolated areas, the country's obligation lies in ensuring a reliable SAR operation is ready to be conducted when the time comes.

Finally, any SAR operation ends with the question of who shall be held responsible for expenses. Airlines depend on the insurance industry to ensure such amounts can be adequately covered. This article strives to identify the legal issues and loopholes concerning SAR operations held for aviation accidents within the Indonesian legal framework.

The Legal Framework in Indonesia

Three national legal frameworks regulate SAR operations. Article 6 as well as Annex 12 of the Chicago Convention are two of the primary references when it comes to aviation accidents. Those legal frameworks are set out below.

- ### The Indonesian Aviation Law of 2009

In terms of the aviation sector, Chapter XV of the Indonesian Aviation Law[5] regulates SAR operations with regard to aviation accidents. The scope of aviation accidents is defined as any aircraft which crashes, burns, collides, skids, and loses contact. SAR issues are mentioned briefly within just five articles, 352 to 356, leaving other details to be regulated in various legal frameworks.

Article 62 mentions that it is mandatory for every airline to insure aircraft accident investigations. Although the article does not mention the explicit wordings "insuring SAR operation," aircraft accident investigations potentially depend on SAR operations, such as the AirAsia QZ8501 case in finding the hull and debris in the Java Sea. This premise leads to the conclusion that the article implicitly refers to "aircraft accident investigation insurance" as SAR operational insurance. Unfortunately, the ministry regulation to enforce this issue has not come into force yet.

Finally, the Indonesian Aviation Law mandates the government to designate an institution in order to formulate the blue print as well as conduct SAR operations. Details about the organizational structure and roles shall be determined through presidential regulation.

- ### The Indonesian Search and Rescue Operation Law of 2014

Following common practice in other parts of the world, the Indonesian Government is held responsible for conducting SAR Operations.[6] The *Badan Nasional Pencarian dan Pertolongan* (BNPP, or the National Organization for Search and Rescue) is appointed to hold the mandate. Prior to the enactment of the Indonesian Search and Rescue Operation Law, the non-department organization was known as *Badan SAR Nasional* (*Basarnas)*.

This law provides the legal groundwork to perform SAR operations outside Indonesian territory.[7] The provision is important for civil aviation considering the country's nature as an archipelagic. With two-thirds of Indonesian territory designated as water, there is definitely the potential for aircraft accidents in the sea. The 2014 AirAsia QZ8501 accident which occurred in the Java Sea supports this premise. When such accidents happen in nearby waters, such as the Pacific and the South China Sea, any SAR operation will potentially rely on the Indonesian fleets.

The law limits SAR operations to a maximum of seven days;[8] under the belief that such a period is the maximum limit for a human being to survive without any food or water. However, the time limit could be extended if i.) there is new information or a positive indication; or ii.) there is a request from the airline. Both situations above end up with different scenarios in terms of SAR operational funding. Under the first scenario, BNPP shall be responsible for operating costs, while the second scenario requires the airline to pay.

In terms of funding, this may come from three sources, i.) national state budget (*Anggaran Pendapatan dan Belanja Negara*); ii.) regional state budget (*Anggaran Pendapatan dan Belanja Daerah*); and/or iii.) other funding sources which are not binding.[9] In a republic where local autonomy prevails, both central and local governments are meant to perform such tasks jointly by considering the mentioned funding scheme above.

- **The Presidential Regulation of 2016**

The BNPP structure is regulated through Presidential Regulation No. 83[10]. Noticing the nature of the legal framework, this means the head of the organization shall be directly responsible to the Indonesian President. The main aim of the Presidential Regulation is none other than determining BNPP structure, job descriptions and authority in order to maximize SAR operational performance.

Besides the internal structure, the Presidential Regulation also stipulates that BNPP has the authority to utilize the Indonesian Army as well as the Indonesian National Police personnel, including its equipment, to ensure the performance of tasks.[11] This provision secures BNPP resources to conduct SAR operations in difficult terrains, and especially in the oceans, which require naval support.

Finally, the Presidential Regulation stipulates that BNPP operational costs shall be incurred by the national state budget.[12] Further explanation on the operational cost definition or the cap is not provided within the regulation.

Search and Rescue Operation Insurance Calculation

One of the biggest fears among airlines is a loss that they cannot recover from, including SAR operations. The costs could be very expensive, such as was the case with Malaysia Airlines' MH370. To date, a sum of up to 200 million USD has been spent for this SAR operation.[13]

Given the high value of aircraft, it is very risky for airlines, with the possibility of suffering substantial losses from either accidents or incidents that could lead to catastrophic situations. In the aviation insurance field, there are several other important aspects an insurance company must protect that are not only related to the physical condition of an aircraft (hull), but also passengers, crew, cargo, and SAR in the event of an aircraft accident. Globally, one of the more interesting aspects of aviation insurance is SAR operational insurance, which is related to modeling risks that are deemed geospatial problems.[14]

A mathematical model approach is used to simplify SAR operations by determining some areas in order to find the victim(s) within a shorter time frame to increase survival chances. There are some approaches that could be conducted by SAR teams, such as Probability of Area (PoA), Point Last Seen (PLS), and Last Known Point (LKP). Which of those three are used as the initial planning point leads to the search area or Probability of Detection (PoD).[15] As a result, Probability of Success (PoS) is determined through the calculations of PoA and PoD. The results will be utilized as a part of risk calculation within SAR insurance.[16]

In relation to risk modeling, an actuary works by predicting losses related to ratemaking and reserving to estimate the cost to the policy holder. Ratemaking is used to determine the premium that must be charged to the policy holder; while the reserve calculation aims to ensure an insurance company holds sufficient reserves. Past data shall become a reference to determine the amount needed for payment based upon the claim's severity. To assess uncertain risks, an actuary determines the variables within a premium calculation for the airline.

One of the models to determine the SAR insurance premium is a compound model with an aggregate claim calculation approach to determine the collective risks of any SAR operation.[17] This consists of operational costs (including any equipment used), injury risk, and death risk borne by the SAR team on duty. In actuarial science, the actuary will use past data as a reference for calculating the pure premium. Additional costs such as commissions, brokerages, taxes, licenses, fees, general expenses, profit, and other items will be added to the pure premium.[18]

Determining the right variable(s) is very important in risk modeling. To measure the injury risk experienced by any SAR team member, several internal factors such as gender, health or medical history, age, and experience of such a person in conducting SAR operations shall be considered. It must be highlighted that not all SAR team members have the same experience, qualifications, and training records. Apart from that, external factors such as weather, location, availability of SAR equipment, and others are important to include within the risk calculation.

The above-mentioned variables construct a generalized linear model as predictive modeling to determine severity. In practice, there are several models which categorize injury under four classifications, namely i.) death; ii.) heavy injury; iii.) slight injury; and iv.) no injury. The categorization becomes a reference to determine claim severity when any member of the SAR team is injured.

In reality, not all data from the risk variables could be accurately obtained. To overcome the situation, some studies use assumptions to develop simulations in modeling processes to calculate the premium rate. The most important thing is how to determine the premium rate that matches the risk value.

Conflict of Laws in Indonesia and its Implication for SAR Operational Funding

At present, there is a conflict between the Indonesian Aviation Law and the Indonesian SAR Operation Law. The first one clearly mentioned within Article 62 is that it is mandatory for every airline to insure aircraft accident investigations. Without doubt, this also means SAR operating costs must be insured by any airline operating in Indonesia.[19] However, more detail on the aviation insurance issue is still missing, as the mandated government regulation has not yet been enacted.

The polemic began when the Indonesian SAR Operation Law came into force in 2014, five years after the Indonesian Aviation Law was enacted. Article 73 identifies three sources of funding for conducting SAR operations, namely i.) national state budget (*Anggaran Pendapatan dan Belanja Negara*); ii.) regional state budget (*Anggaran Pendapatan dan Belanja Daerah*); and/or iii.) other funding sources that are not binding. Because there is no further provision mentioning which should be prioritized, and also considering the absence of a government regulation as mentioned above, the existence of Article 73 potentially leads to legal uncertainty.

The Indonesian Presidential Regulation of 2016 has worsened the situation by indicating that BNPP operational costs shall be incurred by the national state budget. Neither the regional state budget nor other funding sources are mentioned, thus establishing the national state budget as the sole funding source. In other words, the presidential regulation denies the existence of any insurance instrument.

The current complex situation leads to a question of whether the legal uncertainty means opening doors for any act that falls under the scope of inflicting financial loss to the state budget or bridging corruption according to Indonesian law.

As Indonesian Aviation Law is deemed as *lex specialis*, its provision should prevail and not others. As one of the consequences, the Indonesian Presidential Regulation of 2016 mentioning BNPP operational costs shall be incurred exclusively by the national state budget is invalid. The legal framework must be read comprehensively. Thus, the three sources of funding must be revived, with emphasis on “the other funding sources which are not binding” or the insurance instrument.

Both the Indonesian SAR Operation Law and the Indonesian Presidential Regulation of 2016 must be read together with Article 62 of the Indonesian Aviation Law, which is similar in nature to AVN 1C, one of the most popular policies available on the London market that is categorized as all risk types.[20] The idea of this article is to utilize and prioritize the insurance instrument as the main funding source for paying for SAR operations following an aircraft accident. In other words, not a single cent from either the state or the regional state budget is worth spending to conduct any SAR operation.

Monies from either the state or the regional budget should only be allocated when the SAR operational insurance limit is exceeded. However, not every state places a minimum amount of insurance coverage within its aviation law, including for SAR operations,[21] as this is the case of Indonesia.

The existence of both state and regional state budget provisions are designed to guarantee that BNPP will have sufficient resources to conduct SAR operations effectively and efficiently when an aircraft accident occurs. Furthermore, the state budget mentioned within the Indonesian Presidential Regulation of 2016 is designated to fund BNPP's daily internal activities but is definitely not for SAR operations, especially for any commercial flight.[22] When such an operation ends, an 'at cost-invoice' must be immediately sent to the airline, and they then forward it to the insurer(s). The Indonesian Government has no right to seek any commercial advantage from SAR operations.

Potentially, there is a dispute regarding the SAR operational cost calculation issued by the authority. An airline has the right to contest when such an amount delivered by the Indonesian Government seems unrealistic. As this situation never happens in Indonesia, there has not been any court settlement.

Finally, the AirAsia QZ8501 case shows the absence of a government regulation on insurance, as mentioned within the Indonesian Aviation Law, has no consequences for an airline in claiming insurance. This is proven through the payment towards hull, crew, passengers and cargo insurance, which refers to Article 62 of the Indonesian Aviation Law.[23] Thus, there is no ground to mention "aircraft accident investigation insurance" held through "other funding sources which are not binding".

Conclusion and the Way Forward

The conflict between the Indonesian Aviation Law, the Indonesian SAR Operation Law and the Presidential Regulation of 2016 has led to legal uncertainty. Even though the first mentioned law, which is deemed *lex specialis,* mentions an insurance instrument, it is difficult to determine which fund should be allocated and prioritized to conduct SAR operations when an aircraft accident happens.

As one of the solutions, with the aim of allocating SAR operational costs to the insurance instrument, the Indonesian SAR Operation Law should be amended. Both the state and the regional budgets must be deprioritized; setting up "other funding sources which are not binding" or insurance as the main option. The state and regional budgets should only be allocated when the insurance instrument limit is exceeded.

Finally, it is a logical fallacy to place the burden for SAR operational costs on the Indonesian Government when they have already forecast such risks and striven to protect taxpayer money through all risk aviation insurance, which is a mandatory element of the Indonesian Aviation Law.

Acknowledgement

The author wishes to thank Mr. Sofian Pulungan, insurance expert at CIU Insurance, for his valuable insights concerning aviation insurance.

[1]Ram S. Jakhu, Paul Stephen Dempsey and Tommaso Sgobba (eds.), *The Need for an Integrated Regulatory Regime for Aviation and Space - ICAO for Space?* (Mörlenbach: Springer-Verlag/Wien, 2011), p. 96.

[2]Convention of the International Civil Aviation of 1944, done in Chicago.

[3]http://pages.aviationweek.com/2018forecast accessed on 29 June 2018.

[4]Boeing Forecast in 2014. See also https://www.telegraph.co.uk/finance/newsbysector/industry/10958954/Boeing-forecasts-5.2trn-in-aircraft-orders-over-next-20-years.html accessed on 29 June 2018.

[5]The Indonesian Law No. 1 Year 2009 concerning Aviation.

[6]The Indonesian Law No. 29 Year 2014 concerning Search and Rescue Operation, art. 5.

[7]*Ibid.*, art. 25(2).

[8]*Ibid.*, art. 34.

[9]*Ibid.*, art. 73(2).

[10]The Indonesian Presidential Regulation No. 83 Year 2016 concerning Search and Rescue Institution.

[11]*Ibid.*, art. 4.

[12]*Ibid.*, art. 45.

[13]https://www.theguardian.com/world/2017/jan/18/malaysia-airlines-flight-mh370-australia-says-cost-didnt-force-suspension-of-search accessed on 6 September 2018.

[14]Paul J. Doherty, Qinghua Guo, Wenkai Li and Jared Doke, "Space-Time Analyses for Forecasting and Understanding Future Incident Occurrence: A Case-Study from Yosemite National Park Using the Presence and Background Learning Algorithm", *International Journal of Geographical Information Science*, Vol. 28(5), 910-927, doi: 10.1080/13658816.2014.890202.

[15]Ken Phillips, Maura J. Longden, Bil Vandergraff, William R. Smith, David C. Weber, Scott E. McIntosh and Albert R. Wheeler, "Wilderness Search Strategy and Tactics", *Wilderness & Environmental Medicine*, Vol. 25(2), 166-176, doi:10.1016/j.wem.2014.02.006.

[16]*Ibid.*

[17]Stuart A. Klugman *et al.*, *Loss Models: From Data to Decision*, 4th Edition (Wiley, 2012), pp. 135-147.

[18]David B. Schofield, *Going from a Pure Premium to a Rate* (1998).

[19]Interview with Mr. Sofian Pulungan as insurance expert at CIU Insurance in Jakarta, August 2018.

[20]Pablo Mendes de Leon, *Introduction to Air Law,* Tenth Edition (Alphen aan den Rijn: Kluwer Law International, 2017), p. 418.

[21]*Ibid.*, p. 411.

[22]Interview with Mr. Sofian Pulungan as insurance expert at CIU Insurance in Jakarta, August 2018.

[23]*Ibid.*

Regulation (EC) No 261/2004:

the ECJ Clarifies the Concept of "Operating Air Carrier" in Case of Wet Lease

*Alessandra Laconi**

On 4 July 2018, the Court of Justice of the European Union (ECJ) laid down its ruling in the case *Wolfgang Wirth and others v. Thomson Airways Ltd.* (judgment in case C-532/17). In particular, the main issue concerning the case was the identification of the "operating air carrier" according to Regulation (EC) No 261/2004[1] in case of flights operated under wet lease agreements.

As it is known, the properly said wet lease fits into the context of cooperation between airlines for the use of aircraft on scheduled flights: in particular, the lessor undertakes to make available to the lessee one or more aircraft with its crew, or to make a certain number of flights on lines served by the lessee.[2] In these cases, the boarding card is issued by the lessee (thus, individual transport contracts are concluded between the lessee and the passengers).

The relevance of the contractual forms under consideration led the EU legislator to provide for specific provisions in the context of Regulation (EC) No 1008/2008:[3] in particular, according to article 13, "*a Community air carrier may have one or more aircraft at its disposal through dry or wet lease agreement*", and "*Community air carriers may freely operate wet-leased aircraft registered within the Community except where this would lead to endangering safety*". The second paragraph of article 13 also provides that dry lease agreements to which a Community air carrier is a party or wet lease agreements under which the Community air carrier is the lessee of the wet-leased aircraft shall be subject to prior approval in accordance with applicable Community or national law on aviation safety.

Despite the use of leasing contracts is quite common in the aviation field, until now the European Regulation on Air Passenger Rights has been characterized by some interpretative doubts concerning the identification of the actual "operating air carrier" according to EU law.

*Lawyer, PhD student at Alma Mater Studiorum - University of Bologna, School of Law

Background: the facts and the proceedings

The case regarded a claim for compensation pursuant to Regulation (EC) No 261/2004. The applicants were on a trip from Hamburg to Cancún, and they arrived more than three hours late. In that particular case, TUIFly GmbH wet leased an aircraft from Thomson Airways for a stipulated number of flights. Therefore, according to the contract, the lessee (TUIFly) was responsible for the overall operational aspects of the flight, including passenger handling and welfare, cargo handling, security of passengers and baggage, on-board services, as well as for the applications for slots, the marketing of the flights, and for ensuring all the needed authorizations.

The booking confirmation released to the passengers bore the TUIFly code, but also that the flight was "operated" by Thomson Airways, even if the bookings were issued by TUIFly.

The passengers asked for compensation against Thomson Airways pursuant to articles 5 and 7 of Regulation (EC) No 261/2004, but Thomson Airways denied the claim arguing that that it was not the operating carrier within the meaning of article 2(b) of the Regulation, which defines the "*operating air carrier*" as "*an air carrier that performs or intends to perform a flight under a contract with a passenger or on behalf of another person, legal or natural, having a contract with that passenger*".

Thus, even where the compensation was theoretically due, it was not for the lessor to pay the sums owed to passengers in the cases provided by the Regulation.

Following that refusal, the passengers brought an action before the Local Court of Hamburg (Amtsgericht), who stated that Thomson Airways had to be considered as the operating carrier in the light of recital 7 of the applicable Regulation, according to which it is irrelevant if the flight is performed by the operating air carrier under a dry or wet lease agreement. Therefore, the Local Court considered that the definition of "operating air carrier" includes both those air carriers which make use of leased aircrafts and the ones which directly perform a flight with their own aircrafts and crew. In addition to this, the Local Court underlined that, since the booking confirmation explicitly referred to Thomson Airways as the operating air carrier, the consumer has the right to rely on that information.

At the outcome of the first instance proceedings, Thomson Airways appealed the judgment before the Regional Court (Landgericht), pointing out that TUIFly had the operational responsibility for the whole performance of the flight, thus the claims for compensation must be brought against that carrier (and not to the lessor).

In this scenario, the Regional Court of Hamburg filed the request for a preliminary ruling concerning the interpretation of the aforementioned article 2(b) of Regulation (EC) No 261/2004, referring to the ECJ the following precise question in order to clarify the concept of "*operating air carrier*":

"Is the concept of "operating air carrier" in [Regulation No 261/2004] to be interpreted as meaning that an air carrier which leases to another air carrier an aircraft, including crew, for a contractually-stipulated number of flights under a so-called wet lease, but which does not bear the principal operation responsibility for the individual flights, and where it is stated in the passengers' booking confirmation that the flight is "operated by" that very carrier, is the operating air carrier within the meaning of that regulation?".

The judgment of the ECJ: the concept of "operating air carrier"

The ECJ started its analysis from the wording of article 2(b) of the Regulation, arguing that the definition of "operating air carrier" provided therein consists of two conditions:

1. firstly, the considered air carrier must be regarded as "operating", meaning that said carrier has to actually operate the flight (the latter to be defined in the light of the previous case-law of the ECJ, *i.e.* "*an air transport operation, being as it were a "unit" of such transport, performed by an air carrier which fixes its itinerary*")[4];
2. moreover, a contract has to be concluded with a passenger.

Hence, the Court affirmed that the air carrier to be considered as operating is the one which decides to perform a particular flight, thus executes the contract of air carriage and fixes the itinerary: due to that activities, the same air carrier bears the full responsibility for performing the flight (thus, including the facts and the events related to cancellations and/or significant delays).

In the case brought to the attention of the Court, it was an undisputed fact that Thomson Airways – in execution of the wet lease contract – only provided the aircraft and the crew, while – on the other hand – TUIFly materially managed all other operational aspects of the flight (including, *inter alia*, the overall planning of the flight itself and its performances).

Therefore, in this factual and legal context, Thomson Airways (as well as any other lessor of an aircraft and its crew to another air carrier, who is the sole responsible subject for the related flight) cannot – in any case – be considered as an "operating air carrier" pursuant to Regulation No 261/2004 (and, in particular, to article 2(b) of that Regulation).

In other words, in case of long delay of a flight, the air company which must pay the compensation owed to passengers is not the air company which leased the aircraft and its crew, but the air company which decided to perform the flight.

Contrary to the finding of the German Local Court of first instance, the ECJ argued that such a conclusion does not conflict with the goal summarized in recital 1 of the Regulation in question (which consists in ensuring a high level of protection for passengers). In fact, in this regard, it can be underlined that the compensation can be granted to the involved passengers without taking into consideration the contractual agreements signed by the air carrier which actually performs the particular flight.

For the same grounds, the reached conclusion is in line with the content of recital 7 of the Regulation, which states that – in order to guarantee the effective application of the Regulation itself – the operating air carrier (who performs or intends to perform a flight) is always responsible for the obligations referred to its activity, regardless of whether the transport is carried out with owned aircraft or following the conclusion of a wet lease contract or on any other basis.

Moreover, the Court duly considered the fact that the booking confirmation issued to the passengers reported the flight was "operated" by Thomson Airways, even if it merely leased to TUIFly the aircraft and the crew. In particular, the Court assessed the relevance of this circumstance in relation to the application of Regulation No 2111/2005.[5]

In this respect, the judgment under exam clearly shows the non-coincidence between the objectives pursued by the two Regulations: in fact, recital 1 of the recalled Regulation No 2111/2005 states that the Community is called to ensure a high level of protection for passengers from safety risks (the latter is a different objective from the protection of passengers in the event of denied boarding and of or long delay of flights). Thus, a logical corollary to the above is the irrelevance of the information reported in the booking confirmation for the determination of the "operating air carrier".

Conclusions

The analysed decision provides useful clarification as to where the responsibility lies for late flight compensation, confirming that the "operating air carrier" within the meaning of Regulation (EC) No 261/2004 is the air carrier that manages the overall planning of the flight and not the different carrier that merely provides aircraft and crew on a wet lease-basis. Furthermore, it can be noted that the carrier reported on the booking is not necessarily the actual operating carrier for the purposes of the Regulation.

The judgment takes considerable practical relevance, both for passengers and for air carriers. In fact, in the previous scenario of legal uncertainty, passengers – even if their rights are protected by EU law – took the risk to submit their claims to the wrong airline, or to deal with mutual shiftings of responsibilities between the involved airlines.

As for air carriers, it has to be highlighted that – when handling claims raised under Regulation (EC) 261/2004 – they have to duly consider whether the flight was carried out on the basis of a wet lease agreement. In other words, this results into an assessment of the capacity of the airline to receive the claim, according to its contractual role (lessor or lessee).

From a different perspective, it should be pointed out that air carriers have to consider the principle of law rendered by the ECJ in the operative part of the commented judgment also when drafting/reviewing wet lease agreements, and in particular the terms concerning ultimate liabilities in case of delay, depending on the causes (*i.e.*, considering if the delay is due to the aircraft/crew and/or to operational issues).

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[1]Regulation (EC) No 261/2004 of the European Parliament and of the Council of 11 February 2004 establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights, and repealing Regulation (EEC) No 295/91. In relation to the legal nature of the compensation provided by article 7 of the Regulation, see A. MASUTTI, *Il ritardo nel trasporto aereo. Prevenzione e responsabilità*, Torino, 2008, p. 198-204; A. PEPE, *Inadempimento e compensazione pecuniaria nel trasporto aereo*, in *Riv. Dir. Civ.*, 2017, 6, 1639; E. ORRÙ, *Cancellazione del volo e risarcimento del danno supplementare*, in *Rivista Italiana di Diritto del Turismo*, 7/2013, pp. 28-43.

[2]*In the most common formula, wet lease agreements provide for aircraft, crew, maintenance and insurance (ACMI). In italian jurisprudence, see T.A.R. (Administrative Court) Palermo, 13.5.2013, n. 1097, in Foro amm., 2013, II, 1769. See also A. LEFEBVRE D'OVIDIO, G. PESCATORE, L. TULLIO, Manuale di Diritto della Navigazione, XIV edition, Giuffrè Editore, Milano, 2016, p. 443; E. ROSAFIO, Wet lease e tutela del passeggero, in Rivista del Diritto della Navigazione, 2014, pp. 185-206; M. MUSI, I rapporti di collaborazione tra vettori, Aracne, 2014, pp. 79-86; A. MASUTTI – V. SCAGLIONE, Il leasing di aeromobile, in I contratti del trasporto, Zanichelli Editore, Torino, 2013, pp. 211-212; A. MASUTTI, Il Diritto Aeronautico. Lezioni, casi e materiali, Giappichelli Editore, Torino, 2009, pp. 319-322.*

[3]*Regulation (EC) No 1008/2008 of the European Parliament and of the Council of 24 September 2008 on common rules for the operation of air services in the Community. With specific reference to article 13 of the Regulation, see A. MASUTTI – V. SCAGLIONE, Il leasing di aeromobile, in I contratti del trasporto, Zanichelli Editore, Torino, 2013, pp. 213-214.*

[4]*See the judgments: 22 June 2016, Mennens, C-255/15, EU:C:2016:472, paragraph 20; 13 October 2011, Sousa Rodriguez and others, C-83/10, EU:C:2011:652, paragraph 27; 10 July 2008, Emirates Airlines, C-173/07, EU:C:2008:400, paragraph 40. For the definition of "flight" see also E. ORRÙ, La nozione di volo ai sensi del Reg. (CE) n. 261/2004 alla luce della recente giurisprudenza, in Rivista Italiana di Diritto del Turismo, 9/2013, pp. 14-29.*

[5]*Regulation (EC) No 2111/2005 of the European Parliament and of the Council of 14 December 2005 on the establishment of a Community list of air carriers subject to an operating ban within the Community and on informing air transport passengers of the identity of the operating air carrier, and repealing Article 9 of Directive 2004/36/EC.*

Book Review

A Fresh View on the Outer Space Treaty, by Froehlich, Annette (ed.), Springer - Studies in Space Policy, 2018, pp. V-87, ISBN 978-3-319-70434-3.

*Sergio Marchisio**

1967 marked the 50th anniversary of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space (OST), including the Moon and Other Celestial Bodies, opened for signature on January 27th 1967, and entered into force on October 10th of the same year.

To understand the role of the Treaty within the overall legal regime of outer space during the past fifty years, we should go back to the basic features of the Treaty itself. The historical context of the Outer Space Treaty reveals that the creation of a special regime for outer space and celestial bodies was necessitated by the commencement of space activities. Having an agreed set of legally binding rules for exploration and use of a new area beyond national jurisdictions was absolutely vital. This objective was realized through the rapid translation into treaty language of a series of principles previously embodied in resolutions of the UNGA, in particular the Declaration of Legal Principles governing the activities of States in the Exploration and Use of Outer Space of December 1963. Principles having the legal nature of hortatory recommendations were transformed into legally binding provisions, under the principle *pacta sunt servanda*. Through the Outer Space Treaty, the entire system of space law has progressively grown. Space law is a concise and comprehensive notion used by lawyers to encompass all the rules aiming at regulating the activities of States and other subjects, including private operators, in outer space. These rules belong to different legal systems, international law as well as national legal orders, on the one hand, and to different branches of law, public and private law, on the other hand.

Whether we deal with international law or national legislation on space matters, the Outer Space Treaty is the top of a normative chain. The basic principles of the OST have permeated the content of all the rules governing space activities, whatever their nature and source, international, regional or national.

*ECSL Chairman - Professor of Space Law at the Sapienza University of Rome

As a foundational instrument, the OST has significantly contributed to the progressive development and codification of international space law in the meaning of Article 13 of the United Nations Charter, as well as to the development of national space legislation adopted for its implementation.

The Treaty is one of the most significant law-making treaties concluded in the second half of the twentieth century. It suffices to think on the freedom of exploration and use of outer space as the province of all mankind; the principle of the benefit for all countries; the freedom of access to all areas of celestial bodies; the freedom of scientific investigation coupled with the principle of international cooperation; the renunciation of national appropriation of outer space, including the Moon and other celestial bodies, by any means; the confirmation of the applicability of international law, including the Charter of the United Nations, to activities in the exploration and use of outer space, the Moon and other celestial bodies, in the interest of maintaining peace and security; the international responsibility for national activities in outer space; the obligation of authorize, and continuously supervise private activities in space and the obligation to repair damages caused by space objects.

It is true indeed that its content per Principles is relatively flexible, or, as someone likes to say, permissive, because it allows the fundamental freedoms of outer space and because we can apply the Latin statement that any action not prohibited by the Treaty can be undertaken: *Quod lege non prohibitum, licitum est*. The Outer Space Treaty has been respected in the practice of States and international organizations perhaps more than some other international law-making instruments. The application of the principles of the Outer Space Treaty have not raised significant international problems that would have required resolution at international conferences or through jurisdictional procedures.

Moreover, over the last 50 years, technological developments and the rapid expansion of new space activities have risen challenging legal and policy issues in the use and exploration of outer space. Along the last fifty years, space activities have evolved and recently even beyond marketing. New emerging space nations on the one side and new private companies engaging in space with innovative, flexible organizations focused on new technologies. New projects are developing, such as those regarding the mega constellations of small satellites which want to facilitate access to space through the reduction of costs and the acceleration of production. There are initiatives for rendering repair services to satellites on orbit and proximity operations as well as for active debris removal.

But, as the other face of the same coin, we notice also growing concerns relating to emerging challenges, such as the handling of space debris, the possible effects of large constellations deployments on the current and future orbital debris environment, the possible risks imposed on space missions by these new applications. After having listed the many merits of the Outer Space Treaty, we should also be aware that the Treaty would and could not comprise all existing and foreseeable aspects of space activities. Already on the occasion of the 30th anniversary of the OST, the European Centre for Space Law (ECSL) published a book of essays named “Outlook on Space Law over the next 30 years”.

The conclusion recognized that particular provisions of the Treaty were poorly drafted or rather obscure, and required further interpretation of some general terms used in it (see *Outlook on Space Law over the Next 30 Years*, *Essays published for the 30th Anniversary of the Outer Space Treaty*, Lafferranderie G. and Crowther D. (eds.), The Hague -London - Boston, 1997, pp. 1-10). Moreover, it was also noted that it only provides rudimentary protection of the space environment, in a single sentence contained in article IX.

Now, on the occasion of the 50th Anniversary, several comments have been dedicated to the OST. Among them, *A Fresh View on the Outer Space Treaty*, edited by Annette Froehlich, presently Resident Fellow at the European Space Policy Institute (ESPI) in Vienna, seconded by the German Aerospace Centre (DLR), has the merit of collecting, as the title says, "fresh" views, presented by students and young professionals for a new understanding of the OST. The contributions not only look back at the important achievements reached by the Treaty, but address also selected issues that are crucial for evaluating how the OST is still able to cope with new aspects related to the emerging commercial, economic, environmental and social questions.

For instance, the protection of the fragile outer space environment is considered a topic of utmost importance, and, in this perspective, it is argued that the important principles related to the benefit of earthly environment, especially those embedded in the 1992 UN Rio Declaration on Environment and Development, are applicable, through the OST, in outer space, the Moon and celestial bodies.

Another key question concerns the preservation of the peaceful uses of outer space in order to fulfil the main objectives of the Charter of the United Nations. One of the aims of the OST is indeed to avoid any military confrontation in space. In this line, the book contains very interesting comments on actions such as the deliberate destruction of satellites and whether they can be qualified as threats or breaches of peace according the UN Charter. Furthermore, the possible institution of UN peacekeeping operations in outer space is discussed in view of these threatening scenarios.

Other contributions touch upon the use and exploration of outer space, the realization of human settlements in outer space and celestial bodies; the use of robotics and artificial autonomous beings; the conciliation between the presence of the commercial opportunities of states and the ability of the private sector to generate profit for fostering investments throughout the integration of principles of global governance in international space law.

Certainly not all the open issues are addressed in the book. However, the editor, Annette Froehlich, and the young contributors should be commended for their engagement, for the challenging methodology they used and for the brilliant results achieved. This publication offers a comprehensive and up-to-date analysis on legal and regulatory aspects of space activities and a quick view on how young people look at the role of a Treaty, that is not "young" and perhaps is ageing, but which is surely still vital and the main legal point of reference for the entire space community.

The new EASA Basic Regulation enters into Force

*Filippo Tomasello**

In the previous issue 02/2018 of this Journal (http://www.aviationspacejournal.com/wp-content/uploads/2018/07/The-Aviation-Space-Journal-Year-XVII-April-June-2018-1.pdf), we had published an article by Filippo Tomasello, announcing that, on last 12 June, the European Parliament (EP) had approved in first voting of the ordinary procedure, the reform of EASA proposed at end of 2015 by the European Commission (EC).

In that article the author stated that, through an informal 'trialogue', the EP, the EC and the Council had already reached an informal 'political agreement' in last December 2017. Therefore, there was consistent hope that the Council 'position' would have been identical to the text adopted by the Parliament.

And in fact, on 26 June 2018, the Council of the EU Ministries of Transport ratified the text voted by the EP. This allowed the President of the EP Antonio Tajani and the Austrian Ministry Karoline Edtstadler on behalf of the Council, to adopt the act on 4 July 2018.

The New EASA Basic Regulation (NBR) was published on the Official Journal L212 on 22 August 2018 and entered into force 20 days after, with the number 1139.

*Senior Partner http://www.eurousc-italia.it/en/home-2/ Professor at http://www.unifortunato.eu/corso-di-laurea/laurea-triennale-scienze-tecnologie-del-trasporto-aereo/ Benevento - Consultant for GASOS to ICAO - Foreign expert at http://ev.buaa.edu.cn/

Three subsequent extensions of the EASA mandate			
Year	**Extension**	**Regulation**	**Domains in EASA scope**
2002	//	1592 (first establishment of EASA)	• Airworthiness • Drones of more than 150 kg • Environmental protection
2008	First	216 (repealing 1592/2002)	• Air Operations • Flight Crew competence • Third Country Operators
2009	Second	1108 (amending 216/2008)	• Aerodromes • Air Traffic Management (ATM) • Air Navigation Services (ANS)
2018	Third	1139 (repealing 216/2008)	• Drones of any mass • Cyber-security • Ground handling • Interoperability of ATM/ANS systems in the single European sky

Article 140 in the NBR establishes transitional measures, among which:

- By 11 September 2020, EASA shall issue "Opinions" to simplify the rules applicable to general aviation for aircraft intended primarily for sport and recreational use, concerning in particular Commission Regulations (EU) No 748/2012 (Part 21 on initial airworthiness), (EU) No 1321/2014 (continuing airworthiness), (EU) No 1178/2011 (flight crew licences, training organisations, instructors and examiners) and (EU) No 965/2012 (aircraft operations);
- Although very light manned aircraft, historical aircraft, amateur built aircraft and similar remain out of scope of EASA, by 12 September 2021 that Agency may issue guidance material for voluntary use by Member States to support the development of proportionate national rules concerning the design, production, maintenance and operation of such aircraft;
- The EC, supported by EASA, should adapt to the NBR the implementing rules previously adopted, not only on the basis of Regulation (EC) No 216/2008 (the former Basic Regulation), but also of Regulation (EC) No 552/2004 (i.e. the interoperability Regulation in the single European sky, which is repealed), by 12 September 2023;
- The new Articles of NBR on Unmanned Aircraft Systems (UAS) will become applicable when the related implementing rules would enter into force.

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[1]*European Commission, Proposal for a Regulation of the European Parliament and of the Council on common rules in the field of civil aviation and establishing a EU Aviation Safety Agency, and repealing Regulation (EC) No 216/2008 of the European Parliament and of the Council, COM(2015) 613 final of 7 December 2015.*

[2]*Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91.* https://eur-lex.europa.eu/legal-content/AUTO/?uri=CELEX:32018R1139&qid=1536318192783&rid=1

[3]*EASA has already proposed a delegated act to put on the market drones intended for the "open" category and an Implementing Regulation for UAS operations in the "open" and "specific" categories, through Opinion 01/2018 of 6 February 2018.*

FORTHCOMING EVENT

WALA

10th Anniversary Edition

London - October 15-17, 2018

Our 10th anniversary edition will be taking place in London on October 15-17, 2018, kindly hosted by London Gatwick Airport.

We are extremely happy to celebrate this milestone in such an exciting city, and we look forward to seeing soon in London!

Every year WALA Conference gathers over 100 delegates from more than 30 countries around de world, representing all Continents.

For more information about WALA please visit www.wala.aero

FORTHCOMING EVENT

11th McGill University/PEOPIL Conference on International Aviation Law, Liability, Insurance and Finance

Dublin - October 19 - 20, 2018

This event will bring together world-Leading aviation liability, insurance & finance experts to address the following topics:

- Comparative Jurisprudence under the Warsaw System and the Montreal Convention of 1999
- Liability of Airlines, Airports, Maintenance Providers & Air Navigation Service Providers (ANSPs)
- Products Liability of Manufacturers Aircraft, Engines & Component Parts
- Governmental Liability
- Challenges of Settlement
- Consumer Protection Regulation & Litigation
- Unruly Passengers and Liability for Acts of Unlawful Interference
- Accident Investigations, Annex 13 & Criminalization of International Aviation
- Regulation of Drones and Liability of Operators
- Aircraft Leasing and Finance

Location: The National Gallery of Ireland Merrion Square - Dublin 2
https://www.mcgill.ca/iasl/events/iali/iali2018/programme

https://www.mcgill.ca/iasl/channels/event/11th-mcgill-universitypeopil-conference-international-aviation-law-liability-insurance-and-finance-284279

FORTHCOMING EVENT

WORKSHOP

"Operazioni Remote con i SAPR"

Rome - Casa dell'Aviatore

Novembre 15,2018

Date: November 15, 2018

Location: Rome - Casa dell'Aviatore - V.le dell'Università 20

Coordinator: Gen. SA (r) Giuseppe MARANI