ALMA MATER STUDIORUM

OCTOBER/ DECEMBER 2019 YEAR XVIII N° 4

The Aviation & Space Journal

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

The Issue's Contributors:
Daniela M. Rojas Garcia
King James Nkum
Ivana Ljubas
Ridha Aditya Nugraha
Alfredo Roma
Anna Masutti
Francesca Berni, Francesca Cecconi

CONTENTS

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

Should Air Cargo Disputes be Settled Through International Commercial Arbitration?

A Commentary on the Arbitration Clause of the Montreal Convention of 1999

*Daniela Maria Rojas Garcia**

Abstract

This paper analyses the option of settling air cargo disputes through international commercial arbitration in the terms of Article 34 of the Convention for the Unification of Certain Rules for International Carriage by Air signed in the ICAO Diplomatic Conference on 28 May 1999 in Montreal (the "MONTREAL CONVENTION" or the "CONVENTION"). This option has been historically underestimated and undervalued in the face of the limited liability regime established by the Convention against the air carrier; which would make arbitration seem as a commercially unreasonable option. However, the international nature of the air carriage relation, as well as the possibility for the parties of the contract of air cargo carriage to break the liability limits established therein, makes room for the parties to consider the possibility of settling air cargo disputes in an international context and venue. Recourse to this alternative method of dispute resolution is not only strategically advisable from a purely commercial perspective, but also in the context of surpassing the every-day problems that the parties will usually face when settling their disputes before the domestic courts of almost any jurisdiction.

Introduction

One of the most important features of international commercial law is the high level of contractual autonomy that the parties enjoy in dealing with their transactions. This autonomy allows for the players of the international scene to develop their own sets of rules, tailor-made to comply with the needs of each industry. It is thus surprising, that an inherently international relation such as that of the carriage by air, makes little to no recourse to international commercial arbitration to delocalize air cargo disputes and enjoy the benefits of this procedure.

The Montreal Convention is the international instrument created to unify the different international treaty regimes covering air transport liability.[1] It allows for the possibility to agree on arbitration to settle air cargo disputes, which aligns with the underlying objectives of international commercial law, as it provides for the parties' contractual freedom for the purposes of air cargo carriage, however limited by the rules established therewith.

*Colombian-qualified attorney specialized in international transport law and holding an Advanced LL.M in Air & Space Law from Leiden University. Her practice focuses on international commercial and investor-State arbitration at Zuleta Abogados Asociados in Colombia.

Particular interest poses the question of whether or not arbitration is worthwhile from a commercial standpoint, provided that the carrier's liability is already limited to 19 Special Drawing Rights (SDR) per kilogram of cargo, regardless of the carrier's actual responsibility for the damage.[2] It has thusly been stated that the costs of arbitration would simply exceed that of the liability of the carrier, making it commercially unattractive, except for very particular cases.[3] However, this statement, albeit true in some cases, does not constitute a general rule. One example is the provision of, Article 22(3) of the Convention, which establishes that the may be broken if the consignor has made a special declaration of the value of the carried goods at the time of handing over the shipment to the carrier.[4] Another example is Article 25, that provides for private contractual autonomy which allows the parties to agree to raise the liability limits. Thus, either by declaration or by agreement, there is a way to circumvent such limits and pursue compensation at least as high as the declared – or agreed – value of the cargo.

Under these circumstances, the question of cost-effectiveness[5] of domestic recourse in the face of international commercial arbitration becomes relevant. The significance of cost effectiveness will be especially considered in cases where, for example, the relation of the parties is not a one-time undertaking, but a supply of air cargo services that extends for a longer period of time.

In this context, consider the possibility of a long-term relation of any given consignor with a cargo carrier under a single underlying contract of air carriage, for the provision of air cargo carriage services during a set period of time. In this scenario, the consignor could abide to ship the cargo periodically and exclusively, in exchange for regular payments. Whenever a dispute arises in this or similar contexts, the parties will most likely benefit from international commercial arbitration.

This paper will analyse the provisions of the Montreal Convention that are to have an impact on the parties' agreement to submit air cargo claims to international arbitration. To this end, this paper is structured as follows: **Section I** analyses the elements of international arbitration under the Montreal Convention; **Section II** reviews the benefits of international commercial arbitration for air cargo disputes, and **Section III** makes some concluding remarks.

The Elements of International Arbitration under the Montreal Convention

International arbitration is a creature of consent derived from the agreement of the parties to submit their differences to an independent arbitral tribunal, for a final and binding decision.[6] This agreement can be entered into, either before the dispute arises by means of a contractual arbitration clause or separate from it but linked to it; or after the dispute has arisen by way of a *compromis*. Generally speaking, there are no particular formal requirements for the manifestation of the parties' consent other than the agreement be made in writing. However, the parties, the relevant industry or national laws, may impose certain requirements for their consent to arbitration to be valid and binding in a given jurisdiction.

The arbitration clause and the *compromis* need to be properly drafted, as they give jurisdiction to the arbitrators, determine the scope of their powers, govern how the arbitration will be conducted, and regulate the role of the relevant local courts within the arbitration procedure. The aim that arbitration results in a final, enforceable,

binding award, while avoiding delays, dilatory motion practice and unnecessary involvement of State courts. Arbitration agreements will usually address the most essential issues of arbitration, including the express consent of the parties, the scope of the dispute to be submitted to arbitration, reference to the applicable rules to conduct the arbitral process, the seat of the arbitration, the method of appointment of arbitrators and the choice-of-law clause.[7]

When drafting the arbitration clause, it is important that it expressly provides for a final a binding decision by an arbitral tribunal, and not for an advisory recommendation. It should also avoid that the dispute resolution method of arbitration be treated as a possible option that will require further consent from the parties at the moment the dispute arises. These recommendations are of the utmost importance, as good drafting of the arbitration agreement secures that the parties will enjoy the benefits of arbitration. The chosen dispute resolution method in an international agreement is the pathway to secure the enforceability of the parties' rights and obligations under the contract.

1.1 The Arbitration Agreement

The Montreal Convention allows for the parties to consent to arbitration on cargo claims,[8] either before or after the dispute has arisen,[9] as long as they abide by the rules established by its provisions. These rules are found throughout the Convention, as they are intrinsically intertwined with the unified air carriage regime provided thereof.

Notably, international commercial arbitration presumes that the arbitration agreement is separable from the underlying contract.[10] Consequently, the law applicable to the arbitral agreement could be validly different from the substantive law applicable to the underlying contract, and from the procedural law applicable to the dispute. This, given that their agreement is distinct and independent from it.[11] As stated by the United States Supreme Court in *Robert Lawrence Co. v. Devonshire Fabrics*:

> *"the mutual promises to arbitrate form the quid pro quo of one another and constitute a separable and enforceable part of the agreement".* [12]

The Montreal Convention, thus, provides a series of mandatory rules with respect to arbitration in Articles 34, 49 and 29:

Regarding Article 34, Paragraph (1) requires that the parties' consent to arbitration be expressed in written form.[13] When the arbitration agreement is entered into before the occurrence of damage, it may be contained in the air waybill in the contract of air carriage or in a separate document; in any case, the agreement must always be in writing. This requirement coincides with Article II of the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards of 1958 (the "New York Convention"),[14] by means of which the Contracting States recognize such an agreement in order to, later on, recognize the arbitral award derived from it.

Paragraph (2) of Article 34[15] provides for the seat of the arbitration, subjecting the dispute to the jurisdictional rules established in Article 33. This provision requires that the arbitration proceedings take place in one of such jurisdictions, ensuring that the award will be produced in accordance with the rules of the Convention the jurisdiction of one of the relevant Contracting States.[16] Lastly, Paragraph (3)[17] states that the tribunal is to apply the Montreal Convention as the applicable substantive law.

To avoid defeating the object and purpose of the Convention, the provisions of Article 34 are to be read in conjunction with its Preamble,[18] and with Article 49.[19] This means that the jurisdictional limitations of the Convention are always mandatory, regardless of when in time – before or after the occurrence of damage – have the parties agreed to arbitration. The wording of the provision is not to allow for the parties to deviate from the Montreal Convention by entering into a contractual agreement after the occurrence of damage.[20]

With respect to Article 49 of the Montreal Convention, it mandates that any and all prior and special agreements between the parties – in this case, the arbitration agreement – strictly adhere to the Convention, and do not to purport to infringe its rules. Such infringement could be made either by deciding the law to be applied, or by altering the jurisdictional rules. So long as the arbitration agreement does not fall under these prohibitions, it must be deemed valid.

Lastly, *Article 29 of the Montreal Convention* reinforces the rule of Paragraph (3) of Article 34, as it provides for the exclusive and mandatory nature of the regime established by the Convention as the applicable legal framework in which the dispute is to be settled: any and all – air cargo – carriage claims "*however founded, whether under this Convention or in contract or in tort or otherwise*" (emphasis added) – are to follow the liability regime established therein; this regime excludes exemplary, punitive and any other non-compensatory damages. The Convention, however, makes indirect recourse to applicable national law in relation to the matters of substantial law not expressly regulated by it.

1.2 The scope of the arbitration

1.2.1 The element of jurisdiction *ratione materiae*

The term 'jurisdiction' refers to the question of whether a particular court is seized to hear a case.[21] Under the Montreal Convention only air cargo claims are arbitrable; thus, the mandate of a given arbitral tribunal will require it to review its jurisdiction *ratione materiae*. This analysis will address the question of whether the dispute arises from a 'contract of carriage of cargo' in the terms of Article 34(1).

The arbitration clause or the *compromis* of an air cargo dispute could, thus, state that the parties 'consent to submit to arbitration all disputes arising out of or in relation to the contract of carriage of goods by air as defined by Article 1 of the Montreal Convention'. Precisely, Article 1(2) defines 'international carriage' for the purposes of the Convention, as

> *"any carriage in which, according to the agreement between the parties, the place of departure and the place of destination, whether or not there be a break in the carriage or a transhipment, are situated either within the territories of two States Parties, or within the territory of a single State Party if there is an agreed stopping place in the territory of another State, even if that State is not a State Party." (Emphasis added)*

The concept of 'international carriage' defines the jurisdiction *ratione materiae* of the tribunal and determines the applicability of the Convention as the legal substantive framework of the dispute – *i.e.*, its liability regime. If the carriage falls within

the meaning of Article 1(2), the Montreal Convention will exclusively apply for any claim – *however founded* – that arises from a contract of air carriage of cargo.

On its part, Article 18 of the Montreal Convention establishes that liability of the air cargo carrier is engaged on the basis of damage to cargo. Under Article 19 such damage can only arise from (i) the destruction, (ii) the loss, or (iii) the damage of cargo occurred during the carriage by air, or (iv) the damage occasioned by delay. Any given arbitral tribunal will have to establish its jurisdiction *ratione materiae* evaluating if the claim, indeed, falls within the framework of air cargo claims, it occurred during the operation of international air carriage,[22] it derived from the destruction, and it caused the loss or damage of such cargo.[23]

1.2.2 The seat of arbitration

The seat of the arbitration refers to the judicial or formal legal place of the arbitral process where the arbitral award will be formally made.[24] Under general international commercial arbitration, the choice of the seat of the arbitration is usually left to the autonomy of the parties and it determines the procedural questions of the process.

The freedom to choose the arbitral seat in international cargo claims, remains left to the autonomy of the parties; however, it is limited by the Montreal Convention stating that "*questions of procedure shall be governed by the law of the court seized of the case*".[25] This court, in the case of arbitration will be the arbitral tribunal constituted under the parties' agreement, and under the jurisdictional rules of Article 33 (1) of the Convention.

It is important to understand the parties' contractual autonomy under the framework and limitations of the Montreal Convention in order to give full effect – *effet utile* – to both, the provisions of the contract of carriage and the provisions of the Convention.[26] This means that the parties are not precluded from selecting the seat of the arbitration as long as it is limited to the jurisdictional rules of the Convention.[27] The reason for this rule is that the procedural choice of law is independent from the substantive choice of law, both of which are not necessarily required to coincide. In this manner, the parties should be free to set in advance the law of the procedural seat, leaving the question of substantive applicable law to be determined after occurrence of damage, as mandated by the Convention.[28]

A relevant distinction is to be made: the seat of the arbitration is different from the physical place where the parties will conduct the arbitral process.[29] The latter is chosen by the parties only on the grounds of convenience for the conduction of the procedure, but without any relevant consequences, as opposed to the seat of the arbitration.[30] Therefore, the seat and the physical place of conduction of hearings and other procedural steps may validly differ as well.

It is important to note that the line between procedural and substantive matters is not always clear. For example, in some jurisdictions, the question of who has legitimate rights to pursue legal action against the carrier may be considered to be a procedural matter, while in other jurisdictions such question may be a substantive one; the definition of the concept of compensable damages may be procedural in some jurisdictions, and substantive in others.

The arbitral seat will most commonly have an impact on internal procedural matters such as the parties' autonomy to agree on substantive and procedural issues of the arbitration, the procedural standards of fairness, the possibility of consolidation, joinder and intervention, the conduction of hearings and other procedural steps, issues of disclosure and of arbitrator's remedial powers and the possibility to grant provisional measures, the selection of arbitrators, evidence-taking in aid to the process by national courts, etc. It can also potentially touch on external procedural issues such as judicial supervision of the arbitral proceedings by the courts of the arbitral seat, the arbitrators' *kompetenz-kompetenz* and the allocation of competence to consider and decide jurisdictional challenges between arbitral tribunals and domestic courts, annulment of arbitral awards, or selection, removal and replacement of arbitrators.

Since the Montreal Convention does not make special recourse to any particular body of laws to govern procedural matters, the parties of an air cargo dispute are also free to decide to whether or not to subject the procedure to institutional or *ad hoc* arbitration.[31] The aim of this freedom would appear to be to facilitate the arbitral procedure. One could argue in favour of the parties establishing that arbitration be institutional, administered by one of the international organisations and under its rules. Institutions such as the International Chamber of Commerce (ICC), the London Court of International Arbitration (LCIA) or the International Centre for Dispute Resolution (ICDR) are long-standing, renowned institutions with cost-effective and efficient arbitration rules of which air cargo parties would greatly benefit.

Recourse to any of these rules of arbitration will settle, unless otherwise provided by the parties themselves, purely procedural matters such as the conduction of hearings, written submissions, appointment and replacement of arbitrators, constitution of the arbitral tribunal, initiation of the procedure, etc. This choice will not prevent all possible procedural disputes but will relieve the parties of dealing with the most relevant matters of the process, which has a positive impact of the timeline of the settlement of the dispute. Applicable national law of the seat will still determine issues such as the arbitrability of claims under domestic legislation, the legal standing of the parties to initiate actions, as well as other definitions not found in the Convention.

1.2.3. The choice of substantive applicable law

The selection of the law applicable to the merits of the dispute usually requires the application of the relevant conflict-of-law rules, which are different in each State. Facing this question, an international arbitral tribunal will therefore have to decide which of the possible substantive laws to apply. Note that this choice will be limited by the possibilities provided for in the Montreal Convention, and the national applicable law will deal with any issue not covered by the rules and regimes established in the Convention, as mandated by Articles 26, 29 and 34(3) of the Convention.

The approaches to determine the national applicable law to the arbitration will vary on a case-by-case basis, including (a) the conflict-of-law rules of the arbitral seat, (b) the international conflict-of-law rules, (c) the successive application of the conflict-of-law rules of the relevant States of each case, and (d) the 'direct' application of substantive law irrespective of the conflict analysis.[32]

As previously stated, Article 49 of the Montreal Convention prohibits the parties from establishing the applicable law before damage has arisen, therefore, the arbitral clause must leave this question to be determined by the tribunal at the time of settling the dispute. Notably, the Convention itself differentiates the procedural from the substantive applicable laws:

On one hand, Paragraph (2) of Article 34, provides that "*the arbitration proceedings **shall**, at the option of the claimant, **take place** within one of the jurisdictions referred to in Article 33*" (emphasis added). This provision deals exclusively with the seat of the arbitration – where the arbitration 'takes place' from a juridical standpoint, as referred to *above*.

On the other hand, Paragraph (3) of Article 34, and Articles 26 and 29 of the Convention set the Montreal Convention as the only applicable substantive law. Thus, considering the object and purpose of the Convention, one is to understand that there is a limited freedom – yet a freedom nonetheless – to choose national applicable law subject to the jurisdictional rules of Articles 33 and 46. This, regardless of whether or not the parties have reached an agreement in such regard.[33] It is necessary, in any case, to make the distinction between the law of the seat and the law that governs the merits, even if in some cases these coincide.

The Benefits Of International Commercial Arbitration For Air Cargo Dispute Settlement

International commercial arbitration gives the parties to an international contract the freedom to choose the means and procedure to settle their disputes in a stable, neutral and centralized environment of enhanced certainty and predictability of their legal rights, whenever such relation touches on international commercial interests.[34] Private parties will usually strive for this kind of environment, especially when the relevant industry is highly technical and inherently international, such as the aviation industry. Uncertainty derived from the settlement of international commercial disputes within any national legal framework is bound to exist amongst the parties, when a contract touches on more than one jurisdiction. This, because each party has their own substantive laws and conflict-of-laws rules. A contractual provision that specifies in advance – even with limitations – the forum for settlement of disputes is a precondition for achieving the orderliness and predictability that is essential to international commercial relations.[35] This is true for the aviation industry in general.

Air cargo disputes will likely arise from other commercial relations that are parallel to the contract of carriage but are intrinsically intertwined with it. For this reason, party autonomy and procedural flexibility to suit the parties' needs[36] of speed, confidentiality and privacy[37] appears as a desirable environment to settle these types of disputes.[38]

Most modern domestic laws[39] as well as current bilateral and multilateral conventions leave the parties free to determine the rules to be applied to the settlement of their dispute.[40] This is particularly true for most recent arbitration laws, the New York Convention and even present regional conventions.[41] Additionally, international arbitration is fostered by institutional arbitration rules that provide a specialized and highly-supportive enforcement regime for most contemporary international commercial arbitrations.[42]

One of the most important factors for the settlement of aviation disputes – and in this case, of air cargo disputes – is the fact that the parties are able to designate an expert arbitrator, specialized in aviation and in the regime established in the Montreal Convention, and the amended and unamended Warsaw system. An expert arbitrator will be knowledgeable of the global aviation industry, its underlying policy and the legal issues in dispute,[43] allowing the tribunal to make better decisions both from the legal and the commercial perspectives. This approach is currently being put into practice by the Shanghai International Economic and Trade Arbitration Commission (SHIAC), and the newly inaugurated Shanghai International Aviation Court of Arbitration (SIACA).[44]

International arbitral institutions provide for generic but well-tested model clauses and rules that deal with procedural issues, which is convenient for international commercial relations, as it provides a neutral procedural environment. This context is particularly well-received when the parties are not comfortable with the domestic rules of any particular seat.[45]

Finally, international commercial arbitration provides additional benefits of the aviation industry, that may prove useful in the commercial context; the most relevant of them being the duty of confidentiality of arbitrations and of all persons linked to the procedure. This duty can be tailor-made to each case in particular, in order to safeguard the parties' commercial interests and their contractual and procedural rights and obligations.

Conclusions

The New York Convention[46] provides for a virtually universal constitutional charter for the international commercial arbitral process. Its terms have enabled national courts and arbitral tribunals to develop the most effective and durable means for enforcing international arbitration agreements and arbitral awards.[47] With uniformity being one of the essential objectives of the Montreal Convention, the system of international commercial arbitration creates uniform legal standards applicable to the enforcement of the process, the recognition of the award and the agreement itself.[48] This context promotes the use of arbitration as the preferred means for resolving international commercial disputes, facilitating international trade and investment.[49] This appears to be most desirable for settling international air cargo claims.

Entering into arbitration agreements produces important legal effects for the parties, the domestic courts and arbitrators: *First*, it produces the positive effect of subjecting the parties to participate in the process in good faith and cooperatively in the arbitration of their disputes pursuant to that agreement. Even though most countries will have within their respective jurisdictions an obligation to act in – procedural – good faith, the obligations that arise as a consequence of the arbitral agreement will have a broader scope and application. This, because such obligation will be interpreted in the framework of well-developed international standards, with the aim that the dispute be resolved in the best possible way. *Second*, the agreement has the negative effect of excluding the jurisdiction of State courts, which is only a consequence of the positive effect.[50]

This context appears to be nothing but beneficial to the aviation industry, particularly when dealing with air cargo disputes that involve international commercial interests which exceed the mere issue of the places of departure and destination. The Montreal Convention aimed at creating a more effective, unified and harmonized regime for international civil aviation, using objective, predictable rules.[51] This aim aligns with the objectives of international commercial arbitration. This is why, international commercial arbitration is indeed, a most suitable and cost-effective mechanism to resolve air cargo disputes.[52]

---

[1] MÉNDEZ DE LEÓN, 2017, p. 153; MC99 Policy.

[2]DETTLING-OTT, Article 34, 2010, p. Article 34 – 2, 3.

[3]DETTLING-OTT, Article 34, 2010, p. Article 34 – 2, 3.

[4]In the context of large shipments of high value, insurance companies will require the shipper to declare the actual value of the cargo in order to provide coverage of the carried goods. Therefore, the declaration of value established in Article 22(3) of the Montreal Convention is not an unusual practice.

[5]The question of cost-effectiveness includes considerations of time, efforts, physical and monetary resources, etc. Domestic judicial processes usually extend for years as they have more than one instance, with the possibility to appeal the decision and with procedural delays that will usually be long and expensive. This scenario will then require the payment of legal fees for a longer period of time.

[6]United Steelworkers v. Warrior, 1960, p. 574 and 582.

[7]BERNARDINI, 2004, p. 45; *See also:* BOND, (1990), p. 14.

[8]Montreal Convention, 1999, Article 34.

[9]DETTLING-OTT, Article 34, 2010, p. Article 34 – 2, 3.

[10]GRIGERA NAÓN, 2001, pp. 55 and 289.

[11]CRAIG & PARK, 2000, §5.04.

[12]*Robert Lawrence Co. v. Devonshire Fabrics*, 1959, pp. 402, 409.

[13]DETTLING-OTT, Article 34, 2010, p. Article 34 – 2, 5.

[14]The New York Convention has been widely and successfully adopted by most States in the world, which is why it is considered as the cornerstone instrument of international arbitration.

[15]Montreal Convention, 1999, Paragraph (4), Article 34 states that this provision shall not be overruled by the parties' consent; otherwise, it will be deemed null and void.

[16]GIEMULLA, Article 49, 2010, p. Article 49 – 1.

[17]Montreal Convention, 1999, Paragraph (4), Article 34, states that this provision shall not be overruled by the parties' consent; otherwise, it will be deemed null and void.

[18]The Preamble of the Montreal Convention includes phrases such as "*RECOGNIZING the need to modernize and **consolidate** the Warsaw Convention and related instruments*"; "*REAFFIRMING the **desirability of an orderly development of international air transport operations** (…)*"; "*CONVINCED that collective State action for further **harmonization and codification** of certain rules governing international carriage by air through a new convention* (…)" (all emphases added).

[19]Montreal Convention, 1999, Article 49: "*Any clause contained in the contract of carriage and all special agreements entered into **before the damage occurred** by which the parties **purport to infringe the rules** laid down by this Convention, whether by deciding the law to be applied, or by altering the rules as to jurisdiction, shall be null and void.*" (Emphasis added)

[20]A contrary view is provided by GIEMULLA, Article 49, 2010, p. Article 49 – 1.

[21]SERRAO, 1999, p. 55. *See also*: MILLER, 1999: It explains that the expression 'jurisdiction of the court' has two different meanings: "*The first one is the judicial jurisdiction of the State which gave the court power to hear the controversy. The judicial jurisdiction of the State is its power, as a political body, to subject a given person, thing or occurrence, to its judicial process* (…) *The second meaning of the expression 'jurisdiction of the court' is the power of a court to adjudicate a particular controversy. When used in that second sense, the term 'jurisdiction' is often called 'competence' of a court which is said to exist when the law gives the court the capacity, or power, to hear a case.*"

[22]*See:* Montreal Convention, 1999, Articles 1(2), 18(2) and 18(3).

[23]*See:* Montreal Convention, 1999, Article 18.

[24]BORN, 2015, p. 87.

[25]Montreal Convention, 1999, Article 33(4).

[26]UNIDROIT Principles, 2010, Article IV(5).

[27]DETTLING-OTT, Article 34, 2010, pp. Article 34 – 3 to 4, 9.

[28]Montreal Convention, 1999, Articles 33(1), 46 and 49.

[29]LATHAM & WATKINS, 2018, p. 22.

[30]BORN, 2015, pp. 91-92.

[31]nder VCLT, 1969, Article 31(1) of the Vienna Convention on the Law of Treaties, "*a treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty, in their context and in the light of its object and purpose*". Given that Montreal Convention, 1999, Article 33(4) only requires that "*questions of procedure* [be] *governed by the law of the court seized of the case*", if the parties have agreed that the court seized of the case is an international arbitral tribunal, interpretation under general rules of international law will lead to the conclusion that there are no grounds to presume that the will of the Contracting States was to prevent air cargo parties from making this choice. In relation to this matter see also: DETTLING-OTT, Article 34, 2010, p. Article 34 – 3, 6.

[32]BORN, 2015, p. 92.

[33]DETTLING-OTT, Article 34, 2010, p. Article 34 – 3, 6.

[34]For a general definition of 'international commercial contracts' *see*: CISG, 1980, Preamble and Article 1(1); HCCH, 2015, Article 1(2).

[35]Scherk v. Alberto-Culver Co., 1974, pp. 506, 516-517.

[36]GAILLARD, 1999, pp. 151-152, 303-304.

[37]Luongo, 2018, p. 1.

[38]Guillemin, 2006, p. 21.

[39]*See for example:* Colombia, Law 1563 of 2012, Articles 58, 64 and 101 of Law 1563 of 2012; The Netherlands, Code of Civil Procedure, Article 1054(2); Quebec, Canada, Code of Civil Procedure, Article 944.10. *See also:* DERAINS, 1987, p. 57.

[40]GAILLARD, 1999, p. 152, 304.

[41]ICC No. 174, 19, p. 32.

[42]BORN, 2015, p. 1.

[43]Whalen, 2009, p. 149.

[44]*The SHIAC is "the first arbitrary institution for civil aviation (…) inaugurated on August 28 [2014]], introducing the mechanism of international aviation arbitration to China". This institution is the result of the joint efforts of the China Air Transport Association, the IATA, and the SHIAC. It aims at offering international aviation arbitration services, to support and foster excellent legal experts in the aviation legal industry and to continue developing research on international aviation legal practices. More information available at: http://www.shiac.org/Aviation/index_E.aspx*

[45]*This is also known as 'partial delocalisation of the dispute'.*

[46]*VAN DEN BERG, 2014, p. 103: the New York Convention is "widely regarded as the cornerstone of current international commercial arbitration"; SCHWEBEL, 1996, pp. 83 and 85; KERR, 1977, pp. 121 and 127.*

[47]*BORN, 2015, p. 33.*

[48]*PATTOCCHI & JERMINI, 2000, ¶ 20; See also: VAN DEN BERG, 2014, pp. 1, 54-55, 168-169, 262-263, 274, 357-358.*

[49]*BARIN & RIGAUD, 2001, pp. 35, 42 (ASA Spec. Series No. 15 2001). See also: Judgment of 8 August 1990, XVII Y.B. Comm. Arb. 545 (1992) (Italian Corte di Cassazione) (referring to effects of arbitration agreement: "its positive effects, i.e., referral of the dispute to arbitrators, and its negative effects, i.e., exclusion of court jurisdiction in the Contracting States").*

[50]The qualification of 'positive and 'negative effects of the arbitration agreement is not to be confused with advantages and disadvantages of arbitration. The qualification is to mean that arbitration creates an obligation of doing something – submitting claims exclusively to arbitration – and of refraining to do something – make recourse to domestic courts to settle the dispute.

[51]Vasallo, 2009, p. 8.

[52]Whalen, 2009, p. 418.

International Air Law:
Imperative For Effective Policy On Aviation In Africa

*King James Nkum**

Abstract

The liberalization of air transportation globally has led to greater competition, thereby necessitating effective policy regime to promote and guarantee safety, security, rights of air travelers and protection of the environment. This trend paved the way for steady reduction of state control of aviation affairs to that of regulation through policy formulation. Consequently, a number of countries have evolved a system of collaboration among themselves through the instrumentality of regional, inter-regional and other strategic partnerships establishment as informed by common economic interests. The goal of harmonizing regulations, integration and management of assets, pooling of resources, inter alia is to enhance the growth of civil aviation for regional development. This Article seeks to explore the policy framework of the aviation industry in Africa with a view to canvassing for its effectiveness towards accelerated economic development of the Continent.

1. Current Institutional Framework

Part of the regional arrangement initiated at the international aviation scene was the establishment of the African Civil Aviation commission (AFCAC) by the ICAO, pursuant to Article 55 of the Chicago Convention[1]. The AFCAC was conceived by the Constitutive Conference convened by ICAO and the then OAU in Addis Ababa, Ethiopia in 1969. Subsequently, it was adopted as the Specialized Agency of African Union[2] in the field of civil aviation during the OAU Summit of 1975 at Kampala, Uganda. The Body located at Dakar, Senegal[3] eventually became OAU/AU Specialized Agency on 11 May, 1978. Accordingly, the Revised AFCAC Constitution 2009 re-enacted the purpose of the Commission as the Specialized Agency of the AU responsible for civil aviation matters in the African sub-region[4] as contained in the 1969 Constitution.

The AFCAC is mainly saddled with the task of enhancing civil aviation security and facilitation in Africa. The Agency seeks to perform this onerous task based on its goal to foster a safe, secure, efficient, cost effective, sustainable and environmentally friendly civil aviation industry in Africa as rightly observed by Woldeyohaness, Director of Safety and Technical Services at AFCAC[5]. As such, the issue of facilitating cooperation and coordination among African states towards the development of an integrated and sustainable air transport system comes to the fore[6].

*Senior Lecturer, Faculty of Law, Taraba State University, Jalingo-Nigeria

Connected to this goal is the need to ensure the implementation of ICAO Standards and Recommended Practices (SARPs), as well as the development of harmonized rules and regulations in tandem with global standards[7].

Membership of the Body is open to all African States with equal rights in terms of participation and representation at AFCAC meetings[8]. The smooth functioning of the Secretariat is carried out by the Secretary General who is appointed by the Plenary upon the Bureau's recommendation for a term of three (3) years, renewable for another single term[9].

In terms of its aims and functions, the Agency was set up under Article 3 of its Constitution for the following purpose:

- Coordinating civil aviation in the Continent and to cooperate with ICAO and all other relevant organizations and other bodies which are involved in the promotion and development of civil aviation in Africa[10].
- Facilitating, coordinating and ensuring the successful implementation of the Yamoussoukro Decision by supervising and managing Africa's liberalized air transport industry[11].
- Formulating and enforcing appropriate rules and regulations that give fair and equal opportunity to all stakeholders and promote fair competition[12].
- Promoting understanding on policy matters between its Member States and states in other parts of the world[13].
- Fostering *inter alia*, the implementation of ICAO Standards and Recommended Practices for the safety, security, and environmental protection and regularity of the aviation sector[14].
- Ensuring adherence to and implementation of Decisions of the Agency's Executive Council and Assembly[15].

Similarly, the functions of the Agency as outlined in Article 4 of AFCAC Constitution include the following gamut of responsibilities:

- Undertaking studies on technical regulatory and economic development in air transport, with particular focus on their implications for Africa;
- Encouraging and supporting Member States to comply with ICAO Standards and Recommended Practices, as well as the regional air navigation plans;
- Fostering and coordinating the programs for the development of training facilities in Africa and encourage and support the training and development of personnel in all Fields of civil aviation;
- Encouraging and supporting the creation of autonomous civil aviation entities;
- Developing collective arrangements to build the necessary resources for the promotion of international civil aviation, particularly those provided within the framework of bilateral and multilateral programs for technical cooperation to member States;
- Ensuring advocacy and defense of common positions of Member States at international for a relating to civil aviation;
- Ensuring seamless and close cooperation with various Regional Economic Communities (RECs)[16] as well as those of other African Organizations concerned with civil aviation matters;
- Advising Member States on all civil aviation matters;
- Examining specific problems which may hinder the development of and operation of the Continent's civil aviation industry, and where possible, take corrective and/or preventive actions in coordinating with Member States as required;

- Acting pursuant to provisions of Article 9 of the Yamoussoukro Decision to discharge its duties of Executing Agency[17] of the Air Transport in Africa;
- Developing and harmonizing common rules and regulations for the safety, security, environmental protection, fair competition, dispute settlement and consumer protection, amongst others;
- Increasing and coordinating synergies in the fields of search and rescue, salvage and accident investigation;
- Coordinating the development and implementation of plans in the fields of aviation infrastructure;
- Coordinating the election of African States into the ICAO Council and of African experts into Air Navigation Commission after receiving approval of AU;
- Support and facilitating the appointment of Africans into ICAO, its organs and other international civil aviation bodies; and
- Performing such other functions as may be conferred upon it by the Executive Council or the Assembly of the AU to fulfill its objectives[18].

Realizing the imperative for a common civil aviation policy capable of promoting the development of African airlines and thereby projecting the continent on the global map of air transport at the international scene, AFCAC in line with its objective, outlined five strategic objectives[19] namely: air transport, safety, security, human resources development, and rule of law[20].

With particular reference to the goal of ensuring sustainable human resource development for African aviation, AFCAC unequivocally asserts that it has organized, coordinated and hosted meetings, courses and seminars in the technical fields aimed at the improvement of aviation safety in Africa and the development of human resources vide technical cooperation[21]. The different technical sessions are said to have covered deliberations on regional challenges and initiatives, training, lack of adequately trained and skilled personnel, safety of air transport, development of sustainable aviation security, capacity building and need for Government and Industry cooperation, regional and national planning and cooperation.

Similarly, courses were organized to train personnel in aviation safety in collaboration with training institutions in order to enhance safety level in conformity with ICAO standards[22]. In the same vein, AFCAC has taken additional initiatives and activities in the technical fields including the signing of new Memoranda of Understanding (MOUs) and amending the existing ones to reflect the current situation of the aviation industry in Africa[23]. According to the Agency, the aim is to prioritize aviation training and the provision of technical support to strengthen aviation training institutions[24].

The Plenary is the supreme organ of the AFCAC, composed of duly accredited representatives of Member States responsible for civil aviation in Africa[25]. In terms of functions, the Plenary plays the following constitutional roles:

- Issuance of policy guidelines through resolution and recommendations;
- Election of the President and Vice-President of AFCAC to serve as members of the Bureau;
- Approval of the organizational Structure of the Agency as well as the appointment of Secretary General upon the recommendation of the Bureau;
- Approval of the work programs, business plan, budget, rules and regulations of AFCAC

Current Legal Framework

Apart from the national and international legal instruments which regulate civil aviation in Africa, there exists some regional legal framework in this regard. These include the several Resolutions, Declarations and Action Plans adopted by various conferences of African Ministers of civil aviation.

As earlier observed, the AFCAC Constitution 1969 established the African institutional framework on civil aviation. Prior to this time, the Convention on International Civil Aviation (or Chicago Convention) of 1944 formed the sole legal framework on the continent as far as regional civil aviation was concerned. The Chicago Convention was made in view of the need for the development of safe and orderly air transport services within and international scene on the basis of equality of economic and operational opportunity.

The AFCAC Constitution was followed by the Abuja Treaty[29] of 1991 adopted by the heads of States and Governments of the member States of the then OAU. The Treaty established the African Economic Community with the aim of *inter alia* deriving mutual benefit, coordination and integration of policies for the social and economic development of Africa more particularly in civil aviation.

Similarly, the Yamoussoukro Decision of Cote D'Ivore on 14 November 1999 relating to the implementation of the Yamoussoukro Declaration for the liberalization of access to air transport markets in Africa was subsequently endorsed by the Assembly of heads of States and government of the then OAU[30]. It was adopted in Lome, Togo on 12 July, 2000.

The Constitutive Act of the African Union (AU) adopted in Lomé, Togo, on 11 July 2000, particularly Articles 14, 15 and 16 thereof entrust the African Union Commission with the role of coordination in the transport, communication and tourism sectors.

Subsequent to the above, the African Civil Aviation Policy (AFCAP) was adopted by the Second Conference of the AU Ministers of Transport, in Luanda, Angola on 25 November 2011 and the strategies and commitments outlined therein.

The 2007 Addis Ababa Declaration on civil aviation security in Africa is an important milestone in aviation safety. Five years later, the Abuja Declaration on Aviation Safety in Africa was signed in 2012. The Declaration envisages that member States shall ensure that Aviation Training organizations in Africa attain reputation as international centers of excellence.

The Ministerial Decision of the third African Union Conference of Ministers responsible for transport entrusting AFCAC with the responsibility[31] of being the Executing Agency[32] for the Yamoussoukro Decision constitutes another legal framework.

Finally, other initiatives exist which were developed for and implemented in Africa by other States and organizations. These include *inter alia*:

- ICAO African Regional Comprehensive Implementation Plan and COSCAPs, IATA IOSA and ASET,
- World Bank Project for Sustainable Air Transport in Africa,
- US Safe Skies for Africa Initiative, etcetera.

- Establishment of committees and working groups, as necessary to undertake special assignments or tasks on civil aviation in Africa, with such functions as may be specified, and appoint their members;
- Approval of such other activities, rules and procedures as deemed appropriate, to meet the objectives of the Body;
- Appointment of External Auditors of the Agency;
- Consider and take appropriate action on the External Auditors report;
- Ensure the effective implementation of the Yamoussoukro Decision, principally the liberalization of air transport services;
- Adoption of the financial rules and regulations, accounting and auditing rules and regulations for AFCAC;
- Submit its tri-annual report on the State of implementation of the Yamoussoukro Decision to the Assembly of Heads of States and Governments through the Executive Council;
- Adoption of its rules of procedure, including the establishment of committees as deemed appropriate as well as the Rules of Procedures of the Bureau; and
- Undertake such other functions as may be requested or conferred upon it by the relevant Organs of the AU.

The AFCAC Bureau is composed of the President and five (5) Vice-Presidents elected by the Plenary in accordance with the AU geographical representation formula. The Coordinator of the African Group at ICAO Council is authorized to attend meetings of the Bureau in the capacity of an ex-officio. The Presidency of AFCAC is based on a rotation, each region serving a single term of three (3) years[26]. The functions of the Bureau are constitutionally outlined including:

- Convening the ordinary and extraordinary plenary sessions, subjects to the relevant provisions of Article 10, and determine the provisional agenda;
- Ensuring the implementation of the AFCAC work programs and other resolutions of the AFCAC Plenary;
- Supervising and coordinating the activities of the Secretariat and any committee or working group;
- Preparing its own rules and procedures and summit same to the Plenary for approval;
- Implementation of the resolution, directives and decisions of the Plenary and discharge the duties and obligations which are conferred upon it in the constitution;
- Selection and recommendation from a short-list to the Plenary, candidates for the position of Secretary General;
- Supervision of the administrative and financial management of the Secretariat;
- Submission of periodic reports on its activities to the Plenary; and
- Carrying out any functions that may be assigned to it by the Plenary[27].

Apart from AFCAC, there are other regulators concerned with the regulation of civil aviation on the African continent. These Civil Aviation Authorities (CAAs) are the national bodies vested with the regulatory and oversight responsibility of the aviation industry. The CAAs ensure compliance by the industry with national policies and ICAO SARPs. Some States have pooled their resources together to form Regional Safety Oversight Organizations (RSOOs) in order to increase their regulatory and oversight capabilities, such as the Civil Aviation Safety and Security Oversight Agency (CASSOA) of the EAC and the Banjul Accord Group Aviation Safety Oversight Organization (BAGASOO)[28].

Imperative for Effective African Civil Aviation Policy

The economic contribution of air transport to the Gross Domestic Product (GDP) of many nations is huge, owing to the fact that the sector is an innovative industry that drives economic and social progress. It connects people, countries and cultures; provides access to global markets and generates trade and tourism. Aviation provides the only rapid worldwide transportation network, which makes it essential for global business and tourism thus facilitating economic growth, particularly in developing countries.

Statistics shows that there are over 2,000 airlines around the world operating a total fleet of over 23,000 aircraft and serving about 4,000 airports through a route network of several million kilometers managed by around 200 air navigation service providers. Air carriers transport almost three billion passengers annually. The total value of goods transported by air represents 35% of all international trade. Over 40% of international tourists now travel by air. The air transport industry directly generates 5.5 million jobs globally and directly contributes USD 408 billion to global GDP. The industry contributes USD 1.1 trillion to world GDP through its direct, indirect and induced impacts – equivalent to 2.3 % of world GDP. The air transport industry, in 2008, generated a total of 32 million jobs globally, through direct, indirect, induced and catalytic impacts. Aviation's global economic impact (direct, indirect, induced and catalytic) is estimated at USD 3,560 billion, equivalent to 7.5% of world Gross Domestic Product (GDP)[33].

Unfortunately the above bright prospect does not represent the African dream of a prosperous civil aviation industry. According to Woldeyohannes the air transport industry in Africa generated around 430,000 jobs in 2006 and contributed more than USD 9.2 billion to African GDP (direct, indirect and induced impacts). On a global level, Africa represents 10% of total jobs and 2% of GDP generated by the air transport industry, including catalytic impacts operates well below its share of the international civil aviation market[34].

Bad leadership remains the bane of Africa's underdevelopment. African airlines are generally under-capitalized; they operate narrow route networks, in addition to deploying small and ageing aircraft fleet. These airlines are weak and unable to compete with the global mega carriers. To reverse this trend and facilitate the growth of its civil aviation, Africa's leadership must continue to create enabling and conducive environment that attracts private sector capital investment in the industry. This underscores the urgent need for African States to forge a common approach to civil aviation towards the goal of realizing the full potential.

The imperative for achieving the cardinal objective of the African air transport is not in dispute. The issue is whether the stakeholders are committed to the goal of achieving this mission. There are numerous and complex problems faced by Africa's civil aviation which requires political will to be addressed. Some of these challenges as enumerated hereunder calls for a more effective legal and strategic policy framework.

Security and safety constitutes the major challenge bedeviling the continent's aviation sector. This quagmire is informed by the fact that most of the states lack effective safety oversight mechanisms. The high degree of deficiencies in airport and air navigation systems *inter alia*, collectively conspires to rob the continents of its vast economic potential in the sector. The overall effect of these inadequacies is the un-

acceptable accident rates that are many times higher than the global average[35]. The safety problem is compounded malpractices due to lack of harmonized corrective measures. The Continent is faced with daunting aviation security challenges especially due to limited systems to mitigate the new and emerging threats against civil aviation including the menace of terrorism and insurgency. In addition, there is the need to initiate measures targeted at minimizing the impact of air transport on the environment, as tighter international standards are being imposed.

Moreover, there is a growing insufficiency in qualified personnel that is worsened by attrition to other markets commonly referred to as "brain drain" and high turnover of middle and senior managers particularly in government owned institutions[36]. Manpower development and training is a basic necessity for the aviation business in the light of the current displacement of local technical personnel by expatriates. With the high level of expatriates taking over positions of local technical personnel, the next decade could spell doom for the Africa's aviation industry if nothing is done to reverse the trend. Aviation practitioners unanimously agree that the lack of sufficiently trained and type-rated technical personnel in the Continent's aviation sector would incessantly give rooms for expatriates to take over the jobs of African personnel. It is not surprising that several pilots trained from different aviation colleges on the Continent and beyond are roaming the streets without jobs especially in a country like Nigeria. This implies that local airlines are getting dispensation for expatriate quota, which is already affecting affect Nigerian professionals.

Of course, the policy thrust of African aviation is based on the desire of member States for the promotion of a harmonized approach to manage the various aspects of civil aviation including safety, security, efficiency and environmental protection, among other objectives. Accordingly, the Policy Statement of African civil aviation encourages all member States to pursue the development of institutions for basic, advanced and refresher trainings to meet the current and future needs of the African aviation industry[37]. The African Civil Aviation Policy (AFCAP) is a concise overarching policy framework document forming the basis of which African Regional Programs, Action Plans and common Rules, Regulations and Guidelines should be formulated[38].

However, in spite of the numerous initiatives and good efforts to improve civil aviation in Africa, overall success has been too little and too slow mainly because of lack of political will as well as institutional and procedural constraints[39]. In formulating these guidelines, Woldeyohannes is of the view that a well thought out and implementable policies requires a coherent policy framework which inter alia outline and solicit the necessary political commitment[40]. As such it would be imperative for all entities, bodies as well as other stakeholders in African aviation sector to ensure that their States abide by the AFCAP in policy formulation and execution in ensuring complementarity, focus, harmonization and uniformity on issues pertaining to Safety, Security and Sustainable Development of Air Transport in Africa[41].

In this regard, it would be instructive to pursue the realization of the Comprehensive Regional Implementation Plan for Aviation Safety in Africa (AFI Plan) adopted by the 36th ICAO Assembly to address the aviation safety deficiencies in Africa. The ICAO/ AFI Plan is meant to be implemented through three focus areas namely:

- Enabling States to establish and maintain effective and sustainable safety oversight systems;
- Assisting States to resolve identified deficiencies within a reasonable time; and
- Enhancing aviation safety culture of African aviation service providers[42].

Hence, the time has indeed come for Africa to formulate and implement a comprehensive policy which uniquely provides a framework and the platform for the formulation, collaboration and integration of national and multinational initiatives/ programs in various aspects of civil aviation. This roadmap is expected to position the Continent's air transport in the global economy. For such a policy to succeed, it must provide for the appropriate empowerment of national and regional technical bodies to enable them carry out their responsibilities effectively towards national and regional development. Thus, as aptly affirmed by Woldeyohannes, the policy document should address, inter alia, the following issues:

- The vision and strategic objectives for African civil aviation,
- Specific targets to bring Africa at par with the rest of the world, particularly in safety, air traffic and economic statistics,
- Common objectives, policy statements and strategies for the management of the various aspects of civil aviation: - safety, security, airspace management, air transport, etcetera,
- Linkage with other socio-economic sectors, e.g. tourism, trade, to enhance demand for air transport,
- Common approach to external relations and foreign operations,
- Procedure for periodic review and monitoring of implementation of the policies and adoption of regulations and Action plans as may be required,
- Delegation of authority from Heads of Government to conference of Ministers, AU commission, AFCAC as appropriate, etcetera[43].

By forging a paradigm shift in focus, from national to common regional market; from inter-state to intra-African operations, Africa will be better positioned to respond to the intricacies of globalization and ultimately gravitate from regional competition to global competition in the grand scheme of things.

Conclusion

In conclusion, a number of policies, plans and programs have been formulated for the African aviation industry both at the national and regional levels. As good as these initiatives may be, they have not proven to be effective in addressing Africa's civil aviation challenges. This is largely due to policy summersault. It is therefore imperative for policy-makers in the sector to make decisions that are concise and coordinated. Policy direction should be projected to the next 50 to 100 years in Nigeria as obtainable in other climes[44]. Moreover, beyond policy formulation is the need for its implementation to the latter.

Keywords: Legal Framework, Policy, Aviation, Treaty, Convention, Regional, Air Transportation.

---

[1]The others are Latin American Civil Aviation Commission (LACAC), Arab Civil Aviation Commission (ACAC) and European Civil Aviation Conference (ECAC).

[2]The African Union (AU) is an organization of African States formed to:
- Accelerate the political and socio-economic integration of the continent;
- Promote and defend African common positions on issues of interest to the continent and its peoples;
- Achieve peace and security in Africa; and
- Promote democratic institutions, good governance and human rights.

[3]Article 8 Revised AFCAC Constitution 2009.

[4]Ibid Article 2.

[5]See Woldeyohannes, Mesfin Fikru. "Efforts and Commitment towards the Provision of Sustainable Aviation Training in Africa". Constitutive Assembly of the Association of African Aviation Training Organizations (AATO) Assembly, Abuja, Nigeria, 10-12 April 2013.

[6]Ibid

[7]Ibid

[8]Article 5 AFCAC Constitution Op Cit.

[9]See Ibid Article 14 (1) – (5).

[10]Ibid, Article 3 (a).

[11]Ibid, Article 3 (b).

[12]Ibid, Article 3 (c).

[13]Ibid, Article 3 (d).

[14]Ibid, Article 3 (e).

[15]Ibid, Article 3 (f).

[16]RECs bring together countries in sub- regions for economic integration. Currently, there are eight RECs recognized by the AU, each established under a separate regional treaty. They are:
- Arab Maghreb Union (UMA)
- Common Market for Eastern and Southern Africa (COMESA)
- Community of Sahel-Saharan States (CEN-SAD)
- East African Community (EAC)
- Economic Community of Central African States (ECCAS)
- Economic Community of West African States (ECOWAS)
- Intergovernmental Authority on Development (IGAD)
- Southern Africa Development Community (SADC)

[17]The Body referred to in Article 9 (4) of the Yamoussoukro Decision.

[18]Ibid Article 4 (a) – (p).

[19]The strategic objective is for the five year period of 2011 – 2016.

[20]Woldeyohannes, Mesfin Fikru. Op Cit.

[21]Highlights of the Policy Statements, Objectives, Strategies and Concepts on Aviation Training and Human resource Development as contained in the African Civil Aviation Policy (AFCAP) adopted by the Conference of African Ministers for Transport held in Luanda in November 2011 (CAMT 2) and endorsed by the AU Heads of State Assembly, held in January 2012.

[22]Ibid

[23]AFCAC has concluded Memoranda of Understanding with the governments of China, India, Korea, Singapore, Turkey, United Arab Emirates Indonesia and others.

[24]Woldeyohannes, Mesfin Fikru. Op Cit.

[25]Article 10 (1) – (3) AFCAC Constitution Op Cit.

[26]Ibid, Article 12 (1) – (3).

[27]Ibid, Article 13 (a) – (i).

[28]Woldeyohannes, Mesfin Fikru. Op Cit.

[29]The Abuja Treaty means the Treaty establishing the African Economic Community adopted at Abuja, Nigeria on 3 June, 1991 which entered into force on 12 may, 1994.

[30]Vide Decision AHG/OAU/AEC/Dec.1 (iv)

[31]The Decision was adopted in Addis Ababa, Ethiopia on 11 May, 2007 and subsequently endorsed by the Assembly of heads of States and Government in Accra, Ghana on 29 June, 2007

[32]Op Cit.

[33]Ibid

[34]Ibid

[35]Ibid

[36]Ibid

[37]Ibid

[38]Ibid

[39]Ibid

[40]Ibid

[41]Ibid

[42]Ibid

[43]Ibid

[44]Ibid

AVIATION

" If it's not Boeing, I'm not going? "

Boeing 737 MAX Crash Cases from the EU Product Liability Directive Perspective

*Ivana Ljubas**

Abstract

For the past year, it was hard to open any newspapers or a web portal without seeing the name of probably world's best-known aircraft manufacturer in the headlines. Both preliminary reports, after crashes in October 2018 and March 2019, suggest that Angle of Attack sensors and software – The Maneuvering Characteristics Augmentation System – caused, or at least played a serious role, in both incidents. This paper examines those two recent Boeing 737 MAX 8 tragedies in the light of the EU product liability law, focusing on the European Directive 85/374/EC and the definition of the term (defective) product. Title of the paper refers to some pilots' who preferred the American manufacturer, saying: "If it's not Boeing, I'm not going."

Introduction

In 2018, airlines flew approximately 4.3 billion passengers on nearly 45 million flights worldwide. According to IATA annual review from June 2019, it is expected that 2019 will set a new record and according to the projections, by 2036 there will be 7,8 billion passengers. The year 2018 also resulted in 15 accidents and 556 fatalities but, despite these sad statistics, air transport is still considered to be the safest mode of transportation.[1]

On 28 October 2018, Lion Air flight JT610, scheduled on a domestic route from Soekarno-Hatta International Airport in Jakarta to Depati Amir Airport in Pangkal Pinang, crashed into the Java sea only 13 minutes after the take-off, killing all 189 passengers and crew on board. The airline acquired new Boeing 737 MAX 8 aircraft in August 2018 and it had flown 895,21 hours.[2]

Only a few months later, on 10 March 2019, Ethiopian Airlines Flight ET302 crashed on international scheduled passengers flight from Addis Ababa Bole Int. Airport to Nairobi, Kenya Jomo Kenyatta Int. Airport. A Boeing's 737 MAX 8 nose-dived into the ground 28 NM South East of Addis Ababa, after 6 minutes airborne, killing all 157 passengers and crew on board. The airline acquired the aircraft in November 2018 and it had flown 1330,3 hours.[3]

*5th year law student, Faculty of Law, University of Zagreb

The views expressed are purely those of the author

Both preliminary reports, as well as news reports and actions conducted by the Federal Aviation Administration (hereinafter: the FAA), other regulators, and Boeing, suggest that Angle of Attack sensors (hereinafter: the AOA sensors) and software – The Maneuvering Characteristics Augmentation System (hereinafter: the MCAS) – caused or at least played a serious role in both incidents.[4]

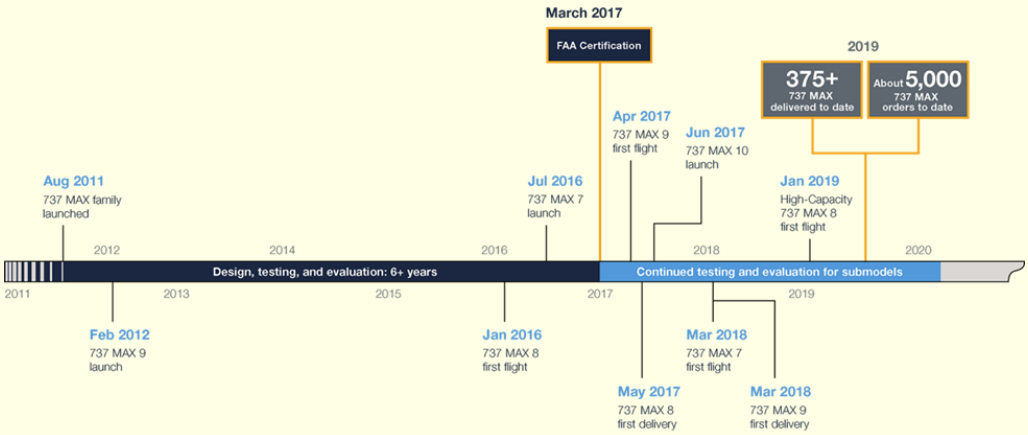
After Lions Air crash, Boeing reacted with an update to the flight crew operations manual for its 737 MAX 8, warning of a possible fault in the aircraft's AOA system that could cause the aircraft to violently pitch nose down, and the FAA followed with an Emergency Airworthiness Directive (2018-23-51, from 7 November 2018), demanding compliance from the operators in less than 30 days. After second incident on March 11, China, who operates the largest fleet of Boeing 737 Max aircraft was the first country who grounded them[5], followed by majority aviation agencies and individual airlines in the next two days, including also EASA[6] and finally FAA[7] after the Trump's initiative (although initially reaffirming the safety of the new aircraft - FAA Continued Airworthiness Notification to the International Community from 11 March 2019).

At the time of writing this paper, all 387 Boeing 737 MAX 8 aircrafts are grounded, while numerous investigations (e.g. U.S. House committee hearings, Department of Justice criminal investigation) and procedures (e.g. litigations stemming from two deadly crashes, pilot's class-action suits and airlines requiring compensation) are underway.

The Boeing 737 Max

1.1 Production timeline

In spring 2011, Boeing was unpleasantly surprised when they learned that American Airlines, their loyal and exclusive customer for more than a decade, was negotiating and ready to order hundreds of new fuel-efficient A320neo jets from Boeing's European rival Airbus. In order to win the deal, instead of designing a new type of aircraft from scratch – which would probably take a decade – Boeing decided to take a shortcut and, to be blunt, mount new, bigger and fuel-efficient engines on old 737 aircraft frame. It was far quicker, easier and cheaper and only three months later, the fourth generation of the Boeing 737 planes—MAX family (that includes the 737 MAX 7, 737 MAX 8, High-Capacity 737 MAX 8, 737 MAX 9 and 737 MAX 10) was born.[8]



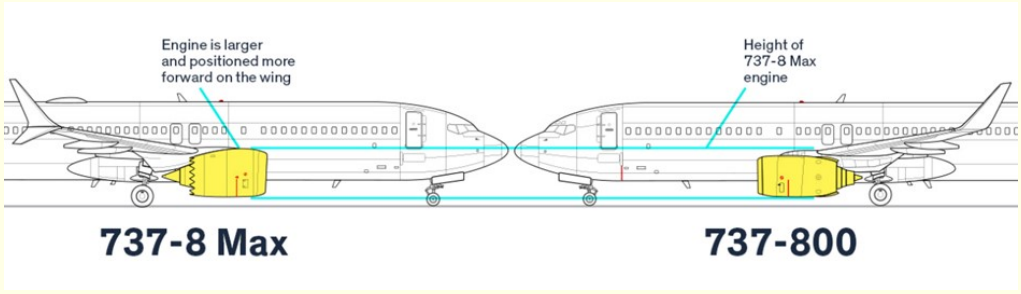
Picture 1 - 737 MAX Family Timeline (source www.boeing.com)

Because Boeing was trotting behind Airbus who announced A320neo in 2010, engineers and designers were pushed to work at roughly double the normal pace. The instructions from the Company were clear - minimum change to avert a requirement that pilots need to spend time training in simulators, minimum change to reduce costs, and to get it done quickly.[9]

This "If it's not broke, don't fix it" business strategy, to keep updating the plane rather than designing a new type, offered competitive advantages and was a win-win for both airlines and Boeing. Pilots were already familiar and comfortable flying it, so there was no need for the airlines to invest in new training. For Boeing, it was faster and cheaper to redesign and recertify than starting a new - but the limits of 50 years old aircraft were being pushed and now the plan backfired and left 346 mourning families and the company in a crisis never seen before.[10]

1.2. Airframe and Aerodynamic problem

As a result of Boeing's strategy, ground clearance became a problem because engineers needed to find a way to mount much bigger engines on the old airframe, so they had to move the mounting point of the engines more forward and farther up. There is a direct correlation between the diameter of a turbofan engine's fan blades and the amount of thrust the engine can produce. Generally speaking, the larger the fan diameter, the more powerful the engine.[11]

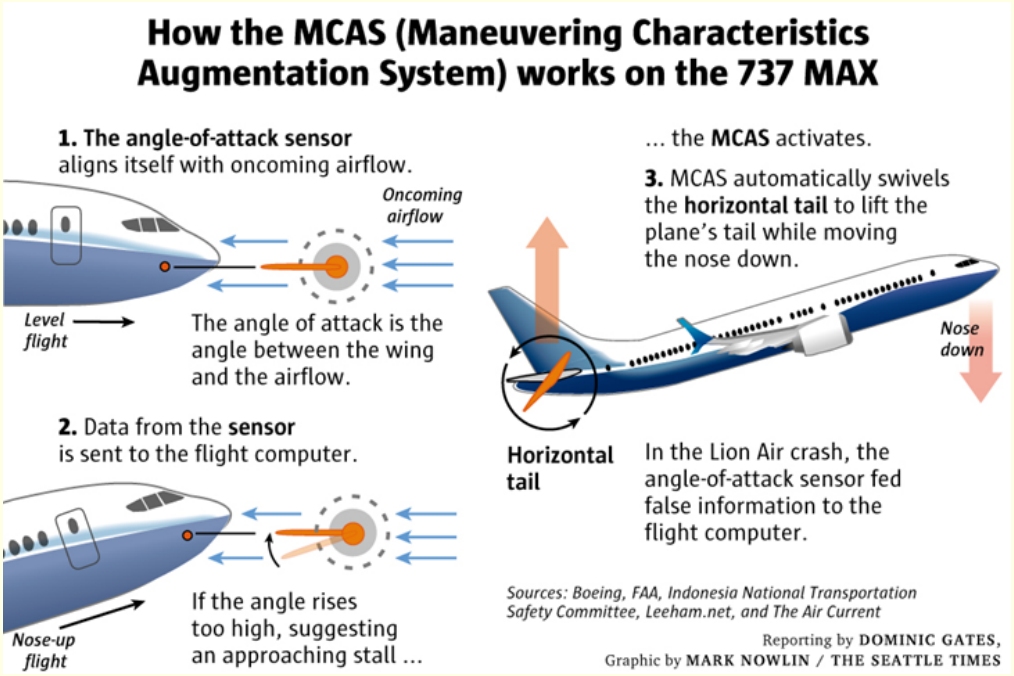


Picture 2 - Comparison of the engines (source: www.spectrum.ieee.org)

This solution let to an aerodynamic problem - change disrupted the plane's centre of gravity and caused the MAX to have a tendency to elevate its nose upward during flight, increasing the possibility of a stall. At any angle of attack beyond C_{Lmsx}, the airflow can no longer follow the upper surface of the wing and the flow separates. The wing loses lift, and the airplane accelerates downward because weight exceeds lift.[12]

1.3. Systems engineering problem

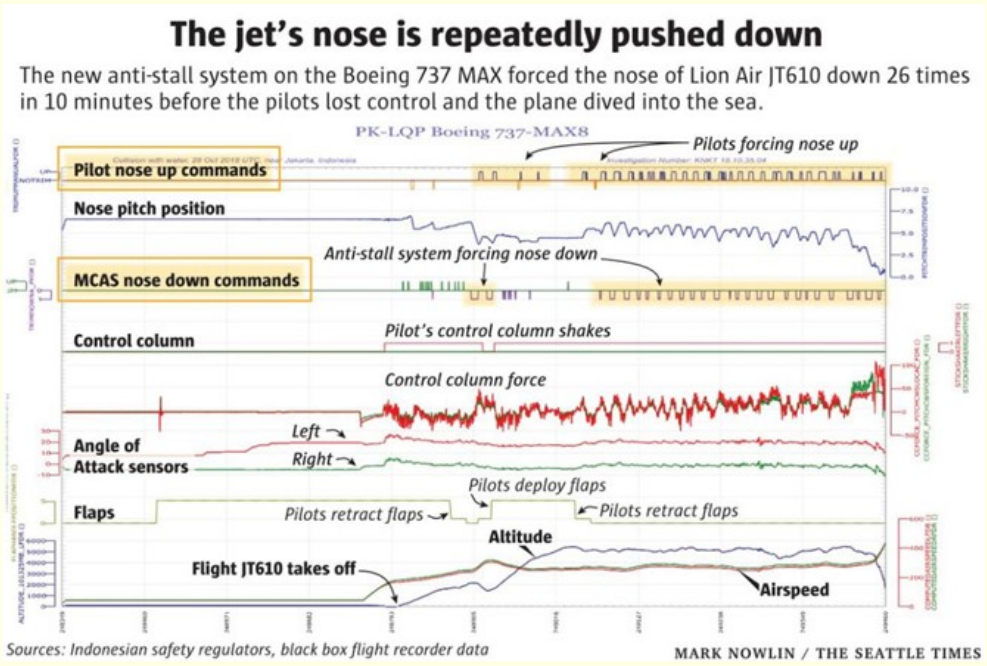
Boeing's solution to its hardware and the aerodynamic problem was a software. Boeing's engineers created the MCAS to automatically counteract this pointing up tendency and direct the nose of the plane downward. The MCAS is a flight control law implemented on the 737 MAX to improve aircraft handling characteristics and decrease pitch-up tendency at elevated angles of attack. It was designed and certified for the 737 MAX to enhance the pitch stability of the airplane, so that it feels and flies like other 737s. Originally, the MCAS was designed to activate only in limited circumstances, when three conditions occur (the airplane nose approaches a higher-than-usual angle, the pilot is manually flying up, the airplane flaps are up),[13] but after first test flight in January 2016, the Company decided to make some changes and they made the software more aggressive and dangerous. The original version of the MCAS could move the stabilizer, the part of the tail that controls the vertical direction of the jet, a maximum of about 0.6 degrees in about 10 seconds. The new version could move the stabilizer up to 2.5 degrees in 10 seconds. The FAA had already approved the previous version of the MCAS and didn't require to take a second look because the changes didn't affect how the plane operated in extreme situations.[14]



Picture 3 - the MCAS (source: www.seattletimes.com)

The MCAS software also had a major design defect being that it relied on the reading from a single sensor called the angle of attack vane, even though the aircraft has two of them, one on each side of the fuselage near the cockpit. The angle of attack is the angle between the chord line of the wing and the relative wind.

Picture 4 - the position of AOA Sensors (source: www.boeing.com)



Picture 5 - black box from Lion Air JT610 flight (source:www.seattletimes.com)

Black box data from the Lion Air crash indicate that a single faulty sensor (a vane on the outside of the fuselage that measures the plane's "angle of attack," the angle between the airflow and the wing) triggered the MCAS multiple times during the flight, initiating a battle between the system, as it repeatedly pushed the nose of the plane down, and the pilots who wrestled with the controls to pull it back up.

1.4.The aftermath of the crashes

Problems that have surfaced after crashes are numerous. From the questionable FAA certification process[15] and delegation a part of it back to the Boeing, quality of pilots training[16] and flight hours requirements[17], maintenance of the aircraft[18] etc., to problems primarily of a financial nature, that occurred for Boeing. According to the current information, Boeing is going to pay around $5.6 billion of compensation to its MAX customers, on top of that, the production slowdown is going to cost a further $1.7 billion. Boeing also recently established a $100 million fund for families and communities affected by the two crashes.[19] These numbers do not include the potential outcomes of litigation.[20] Of course, there are all the cancelled flights and even cancelled routes[21] due to grounding of all MAX aircrafts all over the world, some of the airlines (e.g. Norwegian) are in serious financial problems,[22] and some of them (e.g. Ryanair) are scaling back from their growth plans.[23]

Product Liability

Product liability is any liability placed on the producer, distributor, importer, retailer or other suppliers of products in respect of death or personal injury or property damage occasioned by the use of the product. Liability for products can be civil (based on contract, negligence, strict liability and absolute liability) or it can be imposed by the criminal law. The increase in product liability claims can be seen in the enhanced number over the last 130 years as a result of the innovations of the technical and scientific community, but also it has coincided with increased safety expectations of consumers.[24]

2.1.Product liability in aviation

In aviation, when talking about liability, we first think of the air carrier's liability for the damage done to passengers (for death, bodily injury and health damage or cancelled flight, long delay and denied boarding) and their baggage or for cargo that is being shipped by aircraft (loss, damage and delay). On the other side, there is a non-contractual liability for damage caused by a plane in flight to persons or property on the surface.

The existing international framework governing air carriers' liability for passengers' death and bodily injury can be very handy in cases where the damage was caused by the product (aircraft) deficiencies. The first reason for that is that contractual liability of air carrier falls under international air law. It is regulated under Convention for the Unification of Certain Rules Relating to International Carriage by Air (Warsaw Convention 1929) and Convention for the unification of certain rules for international carriage by air (Montreal Convention, 1999). Article 21 of Montreal Convention regulates the liability of air carrier as 2 tier - strict liability up to 113,100 SDR (128,821 as of 28 December 2019) and unlimited liability beyond (but subject to a range of defences).

This is a situation where product liability, as a part of civil law, comes forward. Firstly because of the safety of the passengers and responsibility of the manufacturer for placing a defective product on the market, and secondly for giving passengers an alternative in regards to compensation for damages. There are, at first sight, better chances for the plaintiff to recover more damages from the more lucrative manufacturer than from air carrier.[25]

2.2.Product liability in the European Union

Council Directive of 25 July 1985 on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products (hereinafter: Directive 85/374)[26] governs product liability in the EU. It was the first EU legislation which touched the private law of the Member States.[27] The Directive sets the conditions under which consumers may claim compensation for the damage caused by defective products on the internal market and has three strategic objectives:

1. to ensure the free movement of goods,
2. to offer protection of consumers' health and property, and
3. to leave competition among market operators in the Single Market undistorted.[28]

The Directive 85/374 has been substantially amended by Directive 1999/34/EC, which extended its scope to include agricultural and fishery products[29]. Therefore, Directive 85/374 and the Directive 2001/95/EC,[30] are two primary and most important sources of EU legislation governing the product safety and liability in the EU.

Differently from regulations, according to EU law, directives are legislative acts that set out objectives that all EU Member States must achieve through their implementation. Therefore, directive is not a binding legislative act that must be applied directly and in its entirety in all Member States, but it is rather up to Member States to transpose particular directive into their national law and find a way to reach the goal of that directive, taking into consideration and adapting it to their own needs.[31] As a result of the legal nature of Directive 85/374, product liability regime is not entirely the same across all Member States and it may differ a little bit.

2.3.Council Directive 85/374/EEC

Articles 1 and 4 of the Directive introduce the concept of strict liability of the producer and place the burden of proof upon the injured person. Therefore, the claimant needs to prove the damage, the defect and the causal relationship between them (Article 4), but there is no need to prove the breach of a standard of care that a reasonable person should exercise in a given situation to avoid causing injury (he doesn't have to prove the negligence or fault of the producer/importer), as it is required under many major common law jurisdictions.

Under the Directive 85/374 product is defined as all movables, even though incorporated into another movable or an immovable (Article 2), including electricity. However, nuclear energy is expressly excluded from the Directive's scope (Article 14).

Producer means the manufacturer of a finished product, of a component and any person who presents himself as a producer. Also, any person who imports a product for sale, hire, leasing or any form of distribution in the course of his business into the EU shall be responsible as a producer (Article 3).

The Directive also provides the possibility of joint liability (Article 5) and lists six reasons for the exoneration from the liability. The most important for the manufacturer is under Article 7(b) saying "that, having regard to the circumstances, it is probable that the defect which caused the damage did not exist at the time when the product was put into circulation by him or that this defect came into being afterwards". For the manufacturer of a component, the most important exoneration reason lies under Article 7(f) providing "that the defect is attributable to the design of the product in which the component has been fitted or to the instructions given by the manufacturer of the product" (Article 7).

Furthermore, the liability of the producer shall not be reduced when the damage is caused both by a defect in the product and by the act or omission of a third party, but it may be reduced or disallowed when the damage is caused both by a defect in the product and by the fault of the injured person or any person for whom the injured person is responsible (Article 8).

The meaning and scope of the term "damage" under this Directive relate to:

a. damage caused by death or by personal injuries, and
b. damage or destruction of any item of property other than the defective product itself, with a lower threshold of 500 Euros, if the item of property:
   - is ordinarily intended for private use or consumption, and that
   - was used by the injured person mainly for his own private use or consumption.

The 500 Euros threshold applies only to damage/destruction of property and it prevents claimants from obtaining compensation in case of lower damages, but it doesn't apply in case of death and physical injuries. When talking about non-material damage, the Directive does not contain more detailed provisions but rather refers to national law (Article 9).

The statute of limitation imposed by Directive is of three years and it begins from the day on which the plaintiff became aware, or should reasonably have become aware, of the damage, the defect and the identity of the producer (subjective deadline, Article 10), but not after the expiry of a period of ten years from the date on which the producer put into circulation the actual product which caused the damage unless the injured person has in the meantime brought an action against the manufacturer (objective deadline, Article 11).

Pursuant to Article 13, the Directive does not affect or exclude other rights that an injured person may have under existing national laws that were in place at the time Directive was adopted. Hence, the Directive is meant to operate alongside national laws of the Member States relating to product liability, based on e.g. contract and/or tort, and leaves the possibility of a co-existence of product liability systems open.[33]

As it is often the case in directives, Article 15 provides the possibility of derogation in some cases (Article 2 and 7) as well as the possibility for Member States, in addition to the €500 threshold, to limit producer's total liability for damage resulting from a death or personal injury caused by the same defect to not less than 70 million Euros (Article 16).

2.4. Implementation of the Directive and it's relevance in national product liability laws

As mentioned earlier, the product liability regime may differ from Member State to Member State as a result of implementation in their respective national laws.

Article 21 of Directive 85/374 stipulates that every five years the Commission is going to present a report to the Council on the application of the Directive and, if necessary, submit appropriate proposals to it. Therefore, in January 2018 Commission published the final report on the evaluation of the Directive 85/374/EEC (hereinafter: the EU Report). Alongside public consultation, the European Commission also carried out a targeted survey and face-to-face interviews with different categories of stakeholder (e.g. producers, industrial associations, consumer associations, insurers, public authorities, law firms, consultancy firms and academics.

According to the EU Report, all 28 Member States have transposed the Directive into their legislation. Five Member States (Spain, Finland, France, Hungary, Luxembourg) have adopted the derogation under Article 15 of the Directive, however, the derogation has not been transposed uniformly across them. Two Member States have adopted it without limitations, thereby applying it to all categories of producers and products, and the other three excluding some categories of producers and products. When transposing the Directive, all Member States except seven of them have introduced some provisions to clarify certain concepts of the Directive: i.e. a criteria to determine when a product is "put into circulation", the "reasonable time" by which the injured person has to be informed of the identity of the producer/ supplier, some specified the nature of damages that can be indemnified etc.

The EU Report concludes that the Directive is effective in guaranteeing producers' liability and a well-functioning internal market for goods, but it did not conclude the effectiveness of the Directive vis-à-vis new technological developments.[34]

When it comes to efficiency, the Directive is a private law instrument which leaves to the parties (i.e. the Member States) the burden of enforcement. Therefore, the length of the procedures differs from Member State to Member State and the main costs (e.g. court fees, lawyers and experts fees, that vary considerably across the Member States) can fall in the end on either the consumer or producer - depending on the outcome of the proceedings.

The EU Report concludes that the Directive is coherent with EU rules on consumer protection in the area of contractual liability, the 'digital contracts proposals', the EU product safety policies as well as EU rules on applicable law.

Overall, according to the EU Report, the Directive still seems to be relevant to the initial needs seeing that the number of claims as well as the average EU litigation rate regarding the defective products has not fallen in recent years.[35] That relevance is less straightforward when considering new technological developments. In that regard, the most challenged are the definitions of product, damage, defect, and the list of exemptions of liability in favour of the producer, such as the development risk clause. Ergo, it might be smart, sooner rather than later, to reconsider amendment of the Directive than relaying to the means of the interpretation only. Furthermore, some of the key elements of a product liability action are left to domestic law (e.g. areas of causation, remoteness of damage, standard of proof, contributory acts, procedure and rules of discovery etc.) which disrupts the process of harmonization of product liability law across the Member States.

Analysis of Directive 85/374 and it's applicability to aviation cases

All in all, as seen above, Directive 85/374 partially managed to uniform consumer protection and harmonise product liability rules all over the EU, which the Member States could not achieve by themselves, and has reached a reasonable uniformity in its implementation. Having that in mind, it is necessary to analyse some of the key concepts of the Directive and their applicability to aviation.

3.1. Definition of defective product and the expectation of safety standard

Definition of a defective product in Article 6 depends on the expectation of safety of the entitled person. This definition is connected to the strict liability standard laid down in Article 1. Generally, there are at least two formulations of the strict liability standard. One is based on the risk-utility test (that essentially balances the foreseeable risk of harm of the product, which could be reduced or avoided by adopting a reasonable alternative design and, failing to adopt such a design, "renders the product not reasonably safe")[36], and the other on the test of consumer expectations. When talking about strict liability opposed to the fault, the two most important differing factors are that liability is based on the objective nature of the product rather than on the behaviour of the producer and that the producer is imputed with the knowledge of the risks of the product, albeit he did not and (he) could not have known of them when he marketed the product. On one side, criticism around the expectation standards is concerned with the psychological ability and limitations of the consumer to even roughly estimate what level of safety he can expect, especially if he is not provided with the information necessary to form accurate expectation, moreover if the product falls into the modern and complex technology category, about which the general population has limited or non-existent knowledge. On the other hand, there is a danger of industries setting their own standards via marketing and advertising, especially nowadays through social media, and in that manner influencing consumer expectations.[37] Since the expectation is a very subjective criterion, this wording in Directive could be a source of uncertainty in its application. The EU Report concludes that criterion is in fact objective because the defectiveness must lay on the basis of the legitimate expectations of the public (what normal prudent persons would expect) and thus not on the subjective expectations of an individual.[38]

3.2. Definition of damage

Definition in Article 9 specifies damage as damage caused by death or by personal injuries, as well as damage/destruction of any item of property intended for private use. While the term death is pretty clear, the Directive doesn't offer further explanation of the term „personal injury". Therefore, the question is if it covers only physical injury, or if it includes psychological injury (damage) accompanied by physical injuries and/or maybe psychological injury alone? Since MC 1999 provides compensation in cases of psychological injury only if caused or accompanied by physical injury, as it is established in case law (e.g. Eastern Airlines, Inc. v. Floyd (499 U.S. 530, 1991) and El Al Israel Airlines, Ltd. v. Tsui Yuan Tseng (525 U.S. 155, 1999), this kind of interpretation of personal injury could offer claimants an alternative to bring a claim for this type damages other than under MC 1999. This solution could be very beneficial in product liability cases arising from airplane crashes (provided that the other conditions are met) since claimants are often affected with the Posttraumatic Stress Disorder. But there is another problem which goes along with the previous inconsistency of interpretation, that lies under the last subparagraph of the same Article which states that the Directive leaves the matter of non-material damages in hands of the Member States. That kind of solution is likely to lead to uncertainty and rather different amounts of damages in different Member States for the same cases or, in the worst case, no damages at all because the national legislation doesn't provide for them. The lack of harmonization around the question of the type and amount of recoverable damages jeopardizes the attempts of harmonization and prevention of the need for forum shopping.[39]

3.3. Definition of a producer

Article 3 of the Directive holds responsible as a producer any person who imports into the EU a product for sale, hire, leasing or any form of distribution in the course of his business. In a situation where the EU carrier, e.g. Lufthansa, buys an aircraft from a non-EU manufacturer e.g. Boeing, and sells or leases it to another air carrier, and then is found liable as a producer under the Directive, there is a question whether the national court should continue applying Directive 85/374 or it should apply MC 1999. This issue arises due to the fact that a producer is an air carrier to whom the liability relates, and especially taking into consideration the exclusivity principle of the MC as stated in Article 29 of the Convention.[40]

3.4. Definition of a product

Finally, the most important definition in light of this paper's topic is one of the product. Article 2 of the Directive defines a product as all movables, even though incorporated into another movable or an immovable (e.g. building materials such as cement integrated into the house), but does not extend to immovables. According to this definition, the interpretation of the term product means, even though it's not expressly established, that only physical, movable goods should be considered as products. This definition was good enough at the time when the Directive was adopted. Therefore, even if we manage to squeeze through some of the new technical developments under this – outdated – definition of a product, e.g. if we consider software as an integral part of an aircraft, it still leaves us in a grey area of uncertainty that is not suitable for the society we live in today.[41]

3.5. Is software a product under Directive 85/374?

The EU Report shows that even in Member States' national jurisdictions there is no specific legislation concerning the product liability for new technological developments, such as software, robots, artificial intelligence or 3D printing. As a result of their specificities and peculiarities, the applicability of the Directive to these technologies is not straightforward. Those specificities and peculiarities include, to name a few, the complexity of some IT products that combine both product and service (services are not defined nor covered by Directive, e.g. cloud technologies), the interconnectedness of automated systems, the increasing autonomy and learning capacity involved in artificial intelligence, autonomous vehicles and robots, the blurriness of the distinction between producers and consumers due to the sharing economy as well as to the 3D printers, the difficulty in differentiation between private and professional use of a product, the concerns about privacy and cybersecurity etc.[42]

In recent Boeing MAX crashes, although investigations are not yet completed and causes of accidents cannot be determined with certainty, preliminary reports in both Lion Air and Ethiopian Air cases strongly suggest that the faulty AOA sensors that fed the MCAS software with the erroneous information were the probable cause of the accidents.

So if faulty software causes a plane to crash, the question is if the software, as an immovable, should be considered as a component, an integral part of the plane and as a product within the definition in Article 2?[43] On the other hand, the fact that in Lions Air crash there were no instructions in regards to the MCAS in pilot's flying manual and what's even more appalling, the pilots didn't even know the MCAS existed and was working the whole time in the background. Apparently, it is up to national courts and the Court of Justice of the EU to offer clarification through case law in this type of situations. Nevertheless, these accidents should be warning signs and at the same time food for thought for the Commission to speed up and make up their mind when it comes to the amendment of the Directive 85/374, so that for once legislation is not ten steps behind technology and we are not reacting ex-post factum.

3.5. Clarification of the term presentation

In light of the Boeing 737 MAX accidents, we should discuss the term of presentation of the product in Article 6, par. I of the Directive 85/374 that explains what circumstances are taken into consideration when defining a defective product and claimants expectations towards the safety of the said product. That term could be widely interpreted, as it covers everything from packaging and containers, literature and manuals, the way the product is displayed, promotional material and advertisements for the product. The presentation could raise or lower consumer safety expectations, latter being the rarer, almost non-existent case. Typically advertising and marketing practices are stressing the advantages of the product and promoting confidence in it, so was the case with Boeing and the fourth generation of 737. The Company didn't say a word to the pilots about the MCAS or the reason why it was developed, they didn't mention it in pilot's flight manual nor did they provide the procedure and checklist for overriding the software in case of failure (management at Southwest Airlines told its pilots that Boeing did not include any de-

scription of the MCAS in the flight manual because a pilot "should never see the operation of the MCAS" in normal flying)[44]. What is even worse, the Company tried really hard[45] to reduce the manufacturing and certificating costs and to eliminate the additional cost for the air carriers relating pilots training on the simulators, leaving pilots and hundreds of people for whose lives they are accountable for in the dark. We are here once again returning to the problem of expectations standards, or rather the inability of creating it due to the lack of information.

3.6. Exonerating reasons

When observing the exonerating reasons in Article 7 of Directive 85/374, the last one under the subparagraph (f), concerning the liability of the manufacturer of the component is of importance. There is a specific defence where the defect arose because of the misuse of the component by the end producer, or more importantly, like in Boeing cases, where the defect is due to the design of the product into which the component is fitted or where the defect is due to the faulty manufacturer's instructions. In the latter case, the manufacturer's instructions must have been very clear and detailed which left the component manufacturer with no margin of manoeuvre so that he can exercise his judgement and avoid making a defective product. This scenario could be important in cases when aircraft manufacturer outsourced the design of software to its subcontractors but provided them with detailed instructions which strongly resembles the recent events. Indeed, Boeing, at the time when the MCAS was developed, was laying off experienced in house engineers to cut costs and relied on Indian engineers making as little as US$9 an hour to develop and test software[46]. Related or just a coincidence, in recent years, Boeing has won several orders for Indian military and commercial carriers, such as a $22 billion one in January 2017 to supply SpiceJet Ltd. which included 100 737 MAX 8 and represented Boeing's largest order ever from India, a country dominated by Airbus.[47]

Conclusion

This paper has analysed recent Boeing MAX crashes in Indonesia and Ethiopia, the timeline of events and consequences of those accidents. Even though all of the investigations and the proceedings are taking place in the US, this paper examines tragedies in the light of the EU product liability law, focusing on the European Directive 85/374/EC terms and main principles, and their applicability to aviation cases. The conclusion is that, while the Directive is still relevant, it would be smart to reconsider amending the Directive and some of the key elements of a product liability action that are left to domestic law, to enhance the process of harmonization of product liability law across the Member States. It would also be advisable to update Directive according to the time that we live in. These tragic accidents should be warning signs for the Commission to speed up the work when it comes to the amendment of the Directive 85/374 so that we are not left in the dark if tragedies like this happen in the EU.

[1]See https://aviation-safety.net/graphics/infographics/ASN_infographic_2018.jpg - accessed 24 July 2019.

[2]Preliminary Aircraft Accident Investigation Report, Komite Nasional Keselamatan Transportasi (KNKT.18.10.35.04 - 29 October 2018) 1-6.

[3]Aircraft Accident Investigation Preliminary Report No. AI-01/19, Federal Democratic Republic of Ethiopia, Ministry of Transport, Aircraft Accident Investigation Bureau (March 2019) 3, 14

[4]See https://www.internationallawoffice.com/Newsletters/Aviation/USA/Cozen-OConnor/Reflections-on-Boeings-exposure-following-737-MAX-crashes?utm_source=ILO+Newsletter&utm_medium=email&utm_content=Newsletter+2019-05-08&utm_campaign=Aviation+Newsletter - accessed 24 July 2019.

[5]See https://www.bbc.com/news/business-48362283 - accessed 24 July 2019.

[6]Airworthiness Directive, No. 2019-0051R1, 25 March 2019 (Revision), Original issued 12 March 2019 https://www.easa.europa.eu/newsroom-and-events/press-releases/easa-suspends-all-boeing-737-max-operations-europe

[7]See https://www.faa.gov/news/updates/media/Emergency_Order.pdf - accessed 24 July 2019.

[8]As found in https://www.boeing.com/commercial/737max/737max-legacy.page#/facts - accessed 25 July 2019

[9]See https://www.nytimes.com/2019/03/23/business/boeing-737-max-crash.html?module=inline accessed 24 July 2019.

[10]See https://www.nytimes.com/2019/04/08/business/boeing-737-max-.html- accessed 24 July 2019.

[11]See https://www.businessinsider.com/boeing-737-max-design-pushed-to-limit-2019-3- accessed 30 July 2019

[12]Jeppesen Sanderson Training Products - *Instrument Commercial Manual* (Canada, 2000.) 12-36

[13]See https://www.boeing.com/commercial/737max/737-max-contacts.page - accessed 30 July 2019

[14]See https://www.nytimes.com/2019/06/01/business/boeing-737-max-crash.html?module=inline&login=google - accessed 30 July 2019.

[15]See https://www.intelligent-aerospace.com/commercial/article/16537741/canceled-flights-swapped-planes-how-boeing-737-maxs-grounding-hits-airlines-and-passengers-as-summer-vacations-loom - accessed 30 July 2019.

[16]See https://www.nytimes.com/2019/07/17/opinion/boeing-737-max.html?searchResultPosition=1 https://edition.cnn.com/2019/06/26/politics/boeing-737-max-flaw/index.html- accessed 30 July 2019.

[17]See https://eu.usatoday.com/story/news/nation/2019/07/06/boeing-737-max-crash-grounded-problems-flight-training-pilots-faa/1641781001/ - accessed 30 July [2019.]

[18]See https://www.seattletimes.com/business/boeing-aerospace/black-box-data-reveals-lion-air-pilots-struggle-against-boeings-737-max-flight-control-system/- accessed 30 July 2019.

[19]See https://www.nytimes.com/2019/07/18/business/boeing-737-charge.html?searchResultPosition=2- accessed 30 July 2019.

[20]See https://www.bbc.com/news/business-48859463 - accessed 30 July 2019.

[21]See https://thepointsguy.com/news/southwest-airlines-suspends-13-routes-because-of-boeing-737-max-grounding/- accessed 30 July 2019.

[22]See https://simpleflying.com/norwegian-737-max-crisis/- accessed 30 July 2019.

[23]See https://www.nytimes.com/2019/07/16/business/boeing-737-max-ryanair.html?searchResultPosition=3- accessed 30 July 2019.

[24]Geraint Howells, C*omparative product liability* (Dartmouth, 1993) p.1-2.

[25]Sidhant Sharma, *Aviation Product Liability in the European Union* (The Aviation & Space Journal, Jan / Mar 2016 year XV N° 1) 2-3.

[26]Council Directive 85/374/EEC of 25 July 1985 on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products - *Official Journal L 210 , 07/08/1985 P. 0029 - 0033.*

[27]Simon Whittaker, *Liability for Products* (Oxford, 2005), 1.

[28]Evaluation of Council Directive 85/374/EEC on the approximation of laws, regulations and administrative provisions of the Member States concerning liability for defective products - final report (January 2018) p. xi.

[29]Directive 1999/34/EC of the European Parliament and of the Council of 10 May 1999 amending Council Directive 85/374/EEC on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products -*Official Journal L 141 , 04/06/1999 P. 0020 - 0021.*

[30]Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety (Text with EEA relevance) - *Official Journal L 011 , 15/01/2002 P. 0004 - 0017*

[31]https://europa.eu/european-union/eu-law/legal-acts_en#directives - accessed 26 July 2019

[32]https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM%3Al32012 - accessed 27 July 2019

[33]Duncan Fairgrieve, editor - *Product liability in comparative perspective* (Cambridge, 2005).

[34]*Op.cit.* n 27, ix., 16.

[35]*Op.cit.* n 27, xiii. - xvi.

[36]As found in https://www.internationallawoffice.com/Newsletters/Aviation/USA/Cozen-OConnor/Reflections-on-Boeings-exposure-following-737-MAX-crashes?utm_source=ILO+Newsletter&utm_medium=email&utm_content=Newsletter+2019-05-08&utm_campaign=Aviation+Newsletter#Civil%20liability - accessed 30 July 2019.

[37]*Op.cit.* n 28, 7-13, 35-36.

[38]*Op.cit.* n 27, 84.

[39]*Op.cit.* n 28, 45.

[40]*Op.cit.* n 29, 7.

[41]*Op.cit.* n 27, 75.

[42]*Op.cit.* n 27, 64.

[43]*Op.cit.* n 28, 34.

[44]https://www.seattletimes.com/business/boeing-aerospace/faa-evaluates-a-potential-design-flaw-on-boeings-737-max-after-lion-air-crash/ - accessed 30 July 2019.

[45]See https://www.nytimes.com/2019/03/23/business/boeing-737-max-crash.html?module=inline - accessed 30 July 2019.

[46]See https://www.straitstimes.com/business/companies-markets/boeings-737-max-software-outsourced-to-lower-paid-contractors-former - accessed 28 July 2019.

[47]See https://economictimes.indiatimes.com/industry/transportation/airlines-/-aviation/boeings-737-max-software-outsourced-to-rs-620-an-hour-indian-engineers/articleshow/69999513.cms?from=mdr - accessed 28 July 2019.

ASEAN Open Skies 3rd and 4th Protocols: Encouraging Seamless Air Connectivity in ASEAN

*Ridha Aditya Nugraha**

Abstract

This article shall explain ASEAN Open Skies' ongoing progress pertaining to the agreements on liberalisation of multilateral air services. The introduction of two new ASEAN Open Skies Protocols, namely the third and fourth agreements in the last two years are aimed to encourage seamless air connectivity in the region and breaking the ice. The article aims to describe the current situation and analysing the potential obstacles in their implementation. At the end, this article provides legal and policy recommendation pertaining to the current development of the agreements.

1. The State of Play

The Association of South East Asian Nations (ASEAN) Open Skies Agreements came into effect on 1 January 2015. It is intended to increase regional connectivity by allowing ASEAN member states airlines fly more freely throughout the region. Noticing the difference stage of liberalisation among the Member States, from the beginning ASEAN Open Skies aims to only allow up to the 5th Freedom of the Air. This situation lasts until now, prohibiting the 6th to the ultimate 8th and 9th Freedoms of the Air which grant cabotage rights.

The ASEAN Open Skies Agreements consist of the ASEAN Multilateral Agreement on the Full Liberalisation of Air Freight Services (MAFLAFS)[1], the ASEAN Multilateral Agreement on Air Services (MAAS)[2], and the ASEAN Multilateral Agreement on the Full Liberalisation of Passenger Air Services (MAFLPAS)[3]. In line with the open skies concept, limitations on capacity and schedule are to be eliminated. This multilateralism aims to replace the existing bilateral service agreements among the Member States.

The existence of ASEAN Economic Community Blueprint 2025[4] encourages the goals of ASEAN Open Skies. The increasing number of aircraft delivered to the Member States[5], geographical situation, from the Malaya Peninsula, numerous mountains and terrains, and two archipelagos - namely Indonesia and the Philippines, are also determining factors.

*Air and Space Law Studies - International Business Law Program, Universitas Prasetiya Mulya, Tangerang, Indonesia.

The views expressed are those of the author.
Comments should be addressed to ridha.nugraha@pmbs.ac.id.

While the region promotes free movement among its citizens through air connectivity, no ASEAN carrier concept has been established. Currently, restrictions on foreign direct investment vary among ASEAN Member States. To penetrate the regional market, some airlines, either ASEAN or non-ASEAN nationals, have invested in other neighbouring ASEAN Member States. These airlines are, among others, AirAsia (Malaysian carrier based in Kuala Lumpur with a total of 147 fleet)[6], Jetstar Asia (Australian Qantas's subsidiary based in Singapore with a total of 18 fleet)[7], Lion Group (Indonesian carrier based in Jakarta with total 108 fleet)[8], and VietJet (Vietnam carrier based in Hanoi with a total of 71 fleet)[9].

Huge investments have been made by the abovementioned airlines for serving other ASEAN Member States' domestic market. The targeted countries are big and archipelagic countries such as Indonesia, Malaysia, Thailand, and the Philippines; and now also includes Vietnam, as its aviation business is emerging.

In parallel, this business strategy raises ownership and control issues.[10] Unlike "ownership", the term of "control" has never been challenged in court since it is harder to prove due its nature. Efforts to challenge or test the scope of "control" is rather sensitive and could discourage foreign direct investment growth, specifically the establishment of new airlines within the region. So far, status quo is deemed as the ideal situation and seems to be preserved with caution.

As a breakthrough for encouraging seamless air connectivity, both ASEAN Open Skies Third Protocol and Fourth Protocol are introduced in 2017 and 2018. The last one is a phenomenon whereas ownership and control issue is alive and still becomes a sensitive matter among ASEAN Member States to discuss. Hopefully, the presence of two new protocols could enhance a seamless ASEAN Connectivity by 2025 as targeted.

2. ASEAN Open Skies Third Protocol

Nowadays, code-share arrangements are inevitable due to the increasing competition between airlines. Even before the ASEAN Open Skies Agreement was enacted, code-share practice has existed whether among the Member States' airlines or between the Member and non-Member States' airlines. The Third Protocol in particular, focuses on domestic code-share arrangements in which such rights exist only as part of an international journey.

> Article 2 of the ASEAN Open Skies Third Protocol
>
> "*[t]he designated airline(s) of each Contracting Party shall be allowed to exercise domestic code-share rights as marketing airline(s) provided that there shall be no exercise of cabotage rights.*"

Up until the 31 December 2019, the six ASEAN Member States which have ratified the Third Protocol are Vietnam (26 November 2018), Singapore (3 January 2019), Malaysia (6 March 2019), Myanmar (13 March 2019), Thailand (26 June 2019), and the Philippines (19 December 2019)[11]. The Third Protocol is in force since 13 March 2019 with the third signatories. The term "cabotage rights" in the aforementioned sentence includes the holding out of air services for sale on purely domestic routes by the marketing airline(s) of that Contracting Party.

For example, Thai Airways code-sharing with Vietnam Airlines allows the sale of Bangkok-Hanoi ticket via transit in Ho Chi Minh City, but not Ho Chi Minh City-Hanoi route and vice versa in its Bangkok-Ho Chi Minh City-Hanoi leg, and vice versa. Thai Airways is not allowed to embark new passengers nor cargo during its Ho Chi Minh City transit. This measure is to keep the advantage still at Vietnamese carriers' for securing the domestic market.

From the perspective of passenger protection, the implementation of Third Protocol among all Member States means encouraging international liability regime, either the Warsaw Convention of 1929[12] or Montreal Convention of 1999[13], to apply rather than domestic law. More options for passengers to buy a single or return ticket pertaining to code-share flights.

3. ASEAN Open Skies Fourth Protocol

Not much has been gained pertaining to liberalisation of multilateral air service agreements. ASEAN Open Skies Fourth Protocol[14] was introduced in November 2018 as a breakthrough. This protocol aims to increase connectivity by introducing co-terminal rights.

> Article 2 of the ASEAN Open Skies Fourth Protocol
>
> *"[t]he designated airline(s) of each Contracting Party shall be allowed to ex ercise co-terminal rights, provided that there shall be no exercise of cabo tage rights."*

The term "cabotage rights" includes the holding out of air services for sale on purely domestic routes by the designated airlines(s) of that Contracting Party. As of 31 December 2019, six states have ratified this protocol, namely Singapore (31 May 2019), Thailand (26 June 2019), Malaysia (16 August 2019), Myanmar (12 September 2019), Vietnam (31 October 2019), and the Philippines (4 December 2019).[15] The Fourth Protocol is in force since 16 August 2019 with the third signatories.

The notion of "…shall be no exercise of cabotage rights…" means any carrier is prohibited to embark passenger and cargo within the domestic transit right. As an example, Garuda Indonesia is not allowed to embark new passengers and cargo during transit in Kuala Lumpur from its Jakarta-Kuala Lumpur-Penang leg, and vice versa. The aircraft is entitled to fly between two points within another ASEAN Member States but without any economic right. This scheme is to protect Malaysian carriers' domestic market from new foreign competitors. Protectionism is aimed to be set up at this stage.

ASEAN Open Skies Fourth Protocol also raises a new question whether this is a new – 10th Freedom of the Air, or whether it is just an improvised version of the existing ones. The current practices in six ASEAN Member States - Singapore, Thailand, Malaysia, Myanmar, Vietnam, and the Philippines - shall determine the premise. If the protocol succeeds, this could be a model for other regional jurisdiction with similar nature like ASEAN. One of them is African Union with its Yamoussoukro Decision which also aims up to 5th Freedom of the Air among its Member States that also faces some obstacles in implementing.

The implementation of the Fourth Protocol shall encourage the enforcement of international liability regime, especially those travelling with low-cost carrier (LCC) in ASEAN. Noticing its point-to-point business model and the status quo of the ASEAN Open Skies, most of the time a passenger needs to buy two separate tickets when flying to another country. With Kuala Lumpur (Malaysia)-Ho Chi Minh City (Vietnam)-Hanoi (Vietnam) as example, the first Kuala Lumpur-Ho Chi Minh City leg is an international flight. No doubt, international convention either the Warsaw Convention of 1929 or the Montreal Convention of 1999 shall prevail.

However, the Ho Chi Minh City-Hanoi leg is a domestic flight if the passenger has no consecutive single ticket. As the consequence, there is a room for domestic law which could also mean less legal certainty for the non-nationals. The Fourth Protocol exists to ensure the highest passenger protection by allowing a passenger to buy Kuala Lumpur-Hanoi through one single ticket even though there will be a change of aircraft and flight number in Ho Chi Minh City.

4. The Way Forward for Multilateralism in the Region

Aviation is important in strengthening ASEAN integration. However, the Single Aviation Market or also known as ASEAN Open Skies development is based on consensus. The ASEAN Way is alive, which means no ASEAN institution nor any Member State has the authorisation to ensure the ratification and implementation of an agreement. No hard laws pertaining to multilateralism could be enforced to ASEAN Member States, including the new ASEAN Open Skies Third and Fourth Protocols in obtaining ratification.

As one of the main consequences, there is no guarantee on when and whether the two protocols will be fully implemented. The ASEAN Way becomes one of the internal factors which determine the direction ASEAN Open Skies will take. Four ASEAN Member States, namely Brunei Darussalam, Cambodia, Indonesia, and Lao PDR have yet to take action on this matter.

Tourism will potentially become the external factor deciding its direction. Currently, tourism is being promoted in ASEAN since it has a significant impact in the national economy. Thailand, followed by Indonesia, Malaysia, Vietnam and Lao PDR are among the leaders in terms of international tourist visits. However, besides infrastructure, there is a lack of flights caused by the restrictions placed on the Freedom of Air. The premise saying tourism is the key determining factor shall be proven in the next several years.

At the end, liberalisation in the ASEAN skies seems to be more feasible than liberalisation on land which speaks on foreign direct investment limitation. Both new ASEAN Open Skies Protocols should be analysed promptly also with consideration, in parallel, that the region has already enacted ASEAN-China Open Skies agreement. Failure to analyse the impact could mean putting ASEAN Member States airlines not in an equal position with Chinese carriers for future competition.

---

[1]ASEAN Multilateral Agreement on the Full Liberalisation of Air Freight Services, done in Manila, the Philippines, 20 May 2009.

[2]ASEAN Multilateral Agreement on Air Services, done in Manila, the Philippines, 20 May 2009.

[3]ASEAN Multilateral Agreement on the Full Liberalisation of Passenger Air Services, done in Bandar Seri Begawan, Brunei Darussalam, 12 November 2010.

[4]The ASEAN Economic Community Blueprint 2025 was adopted by ASEAN Leaders at the 27th ASEAN Summit in Kuala Lumpur, Malaysia, 22 November 2015.

[5]Global Market Forecast - Global Network, Global Citizens 2018 (Airbus) https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.airbus.com/content/dam/corporate-topics/publications/media-day/GMF-2018-2037.pdf&ved=2ahUKEwiute2TpYvkAhUXX30KHeoxAsIQFjAAegQIAxAB&usg=AOvVaw1gEZjQDCgmRdda0U-St0HV&gt accessed on 2 January 2020.

[6]AirAsia, Preliminary Operating Statistics for the 3rd Quarter 2019, https://ir.airasia.com/misc/AAGB-Prelim-3Q19-Operating-Statistics.pdf accessed on 1 January 2020.

[7]Jetstar Asia Fleet Details and History as per-31 July 2019, https://www.planespotters.net/airline/Jetstar-Asia accessed on 1 January 2020.

[8]Lion Air, *Armada Kami*, http://www.lionair.co.id/id/lion-experience/armada-kami accessed on 1 January 2020.

[9]VietJet Air Fleet Details and History as per-30 December 2019, https://www.planespotters.net/airline/VietJetAir accessed on 1 January 2020.

[10]Ridha Aditya Nugraha, *Reviewing Ownership and Control of the Indonesian Airlines*, ASEAN Aviation Integration Platform (AAIP) Policy Paper No. 2 Year 2019, http://www.ukm.my/aaip/wp-content/uploads/2019/03/AAIP-Policy-Paper-No.-2_2019-Reviewing-Ownership-and-Control-of-the-Indonesian-Airlines-12.pdf on 1 January 2020.

[11]ASEAN Transport Instruments and Status of Ratification, https://asean.org/storage/2017/05/IoR-matrix-Air-Transport-Instruments.pdf accessed on 1 January 2020.

[12]Convention for the Unification of Certain Rules Relating to International Carriage by Air, signed at Warsaw, 12 October 1929.

[13]Convention for the Unification of Certain Rules for International Carriage by Air, done at Montreal, 28 March 1999.

[14]ASEAN Open Skies Protocol 4 on Co-Terminal Rights between Points Within the Territory of Any Other ASEAN Member States, done at Bangkok, on 9 November 2018.

[15]ASEAN Transport Instruments and Status of Ratification, https://asean.org/storage/2017/05/IoR-matrix-Air-Transport-Instruments.pdf accessed on 1 January 2020.

The establishment of the United States Space Force and the Outer Space Treaties

*Alfredo Roma**

Introduction

On December 20, 2019, by signing the National Defence Authorization Act (i.e. the Pentagon's budget for fiscal year 2020), Donald Trump gave birth to the Space Force, a new body of the US Armed Forces tasked with "*protecting US interests in outer space*". It will have 16,000 men, and will be part, at least for now, of the Air Force Department, as the Navy Corps is part of the Navy Department. The President himself is Commander-in-Chief of the Space Force. The immediate task of this new branch of the armed forces will be to protect existing space infrastructure, which for the United States is represented by over 800 satellites. Satellites can be distinguished on the basis of their on-board equipment, whether used for eminently scientific purposes such as satellites for astrophysics or meteorology, or for both civilian and military purposes such as satellites for telecommunications, navigation and Earth observation. To these must be added orbital space stations like the International Space Station (ISS).

The peaceful use of outer space

All infrastructure in the outer space are potentially dual use, i.e. civilian and military. However, the various international treaties on outer space clearly state that space may only be used for peaceful purposes[1]. In particular, Article IV of the Outer Space Treaty (OST) of 1967[2] states that *"States Parties to the Treaty undertake not to place in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner. The moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration of the moon and other celestial bodies shall also not be prohibited."*

*Former President od the Italian Civil Aviation Authority (ENAC) and of the European Civil Aviation Conference (ECAC)

The law of outer space is therefore based on its peaceful use, and the same principle is reflected in customary international law, expressed in the *Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space* of 1962[3], also specified in Article 3 of the United Nations Charter which prohibits the use of force. This general principle of governance of outer space envisages the possibility of sanctions being imposed by the United Nations Security Council. However, it must be remembered that the provisions of the 1967 Space Treaty cannot be considered as absolutely and definitively excluding the military use of outer space, since Article 51 of the Charter of the United Nations establishes the right to self-defence when a State is attacked by another entity. On the basis of this principle, a 2001 study was carried out by the US Secretary of Defence Donald Rumsfeld, which considered a scenario in which the strategic imperative for the United States of America was the need to keep the nation safe from a cosmic Pearl Harbor, ensuring that *"The President has the option to deploy weapons in outer space."*
A variety of agreements were adopted in the Sixties and Seventies to prevent weapons systems being loaded onto satellites, based on the lessons learned in other areas. The first of these is the Partial Test Ban Treaty (1963)[4], later developed into the Comprehensive Test Ban Treaty[5]. These treaties are connected to the aforementioned Article IV of the 1967 Space Treaty.

Activity in space – the current scenario

From 1950 onwards, the scenario of activity in space has broadened considerably. In addition to the traditional competitors - the United States and the Russian Federation - other actors have emerged, such as the European Union, the European Space Agency (ESA) and its member States, mainly France, Germany, Italy and United Kingdom. China and India have recently joined these countries. The space sector is usually the responsibility of a country's government, but it also includes research and development centres, think tanks and universities, and the manufacturers of launch vehicles and their fuel, satellites, sensors and other detection technologies.
This development has led to a proliferation of satellites[6] and space infrastructure on which our everyday lives depend. On need only think of telecommunications, navigation systems (the American GPS, European Galileo, Russian Glonass and Chinese Compass) and Earth observation satellites like the European Copernicus. Worldwide financial transactions, and above all national security, including cyber security, are also dependent on satellites.

The possibility of a space blockade

With current technologies it is possible to block the functioning of a State. A space blockade is the deliberate interruption of the operation of critical space infrastructure, starting with operations launched by or against space infrastructure designed to ensure the continuity of government action and business when ground infrastructure is not usable, interruptions that can generate a domino effect on the classic terrestrial, maritime and air geopolitical domains. A space blockade can be caused in three ways: 1) by using satellites against other satellites in orbit; 2) by using satellites to direct attacks against ground infrastructure; and 3), by using ground-based infrastructure to hit satellites that maintain the interdependence between space and ground-based infrastructure[7].

The main threat to consider is the presence of heated competition between nations with space activities that can lead to the risk of transposing geopolitical tensions in search of dominance in outer space. The present tension between USA and Iran is a typical situation capable of leading to conflict in space. It is important to remember that space is indispensable to the availability of goods produced by traditional sectors such as the food industry, energy, transport and finance, and is thus likely to be used for the purposes of economic warfare.

Example of a space blockade

A hegemonic nation attacks a telecommunications satellite belonging to a regional power by damaging it with microwave emitters or by corrupting its signal with jamming and spoofing systems. The satellite, now disabled, cannot convey information to the infrastructure used to manage sectors dependent on the services it provides. This leads to a domino effect on all sectors connected to the satellite service due to the effective blockade of the service itself, thus paralyzing all connected infrastructure, bringing the entire country system to its knees and triggering a situation of tension with the consequent risk of war. China recently launched a satellite into space that destroyed another Chinese satellite, demonstrating how a war in space might begin.

Review of the rules on space

In this context, the US government's decision to establish a Space Force appears clear in its purposes. The hope is that the objective of this force is to defend its space and ground infrastructure, including cyber security, and exclude the placing into orbit of weapons systems, including nuclear ones, because such a move would also be implemented by Russia and China, leading to the militarization of space and thus violating the principle of the peaceful use of outer space established by international treaties. However, there is reason to doubt that this is so: in addition to the conclusions of the Rumsfeld study, when in 2019 the First Committee of the United Nations General Assembly (UNGA) adopted three Russia-drafted resolutions to prevent an arms race in outer space, the United States and Israel were the only two member states to vote against all three resolutions.[8]
It should also be noted that in current theatres of war the operations of air, land and sea forces are guided by satellites, including the destructive activity of drones.
In this context, the revision of the space treaties, international space law, humanitarian law and the Law of Armed conflict (LOAC)[9] is an urgent priority.

---

[1]The concept of the peaceful use of outer space is clearly expressed by the creation in 1958 of COPUOS, the *United Nations Committee on the Peaceful Uses of Outer Space*. COPUOS and its Legal Subcommittee have drafted the text of the five general multilateral treaties on outer space.

[2]Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (General Assembly resolution 2222 (XXI), adopted on 19 December 1966, opened for signature on 27 January 1967, enacted on 10 October 1967.

[3]Two declarations of legal principles to govern the activities of states in the exploration and use of outer space have been adopted by the Assembly, one in 1961 and the other in 1963. The latter Declaration reaffirms and expands the scope of the earlier one. The principles contained in it represent the consensus and maximum agreement attainable by the Committee on Peaceful Uses of Outer Space established by the Assembly to deal with technical co-operation between states and the legal regulation of outer space.

[4]The Limited Test Ban Treaty (LTBT), also known as the Partial Test Ban Treaty (PTBT), is an arms control agreement intended to restrict the testing of nuclear weapons and limit nuclear proliferation. The LTBT was initially a trilateral agreement between the United States, Soviet Union, and United Kingdom. Signed in Moscow on August 5, 1963, the original signatories sought "an end to the contamination of man's environment by radioactive substances." As a result, the treaty prohibits testing nuclear weapons in the atmosphere, underwater, and in outer space. It does, however, permit nuclear test explosions underground. Ratified by the United States Senate on September 24, 1963, the LTBT was enacted and opened for signature by other countries on October 10, 1963.

[5]The Comprehensive Test Ban Treaty (CTBT) prohibits "any nuclear weapon test explosion or any other nuclear explosion" anywhere in the world. The treaty was opened for signature in September 1996, and has been signed by 184 nations. The treaty cannot enter into force until it is ratified by 44 specific nations, eight of which have yet to do so: China, India, Pakistan, North Korea, Israel, Iran, Egypt, and the United States. The U.S. Senate voted against CTBT ratification in 1999, and although President Barack Obama announced his intention to seek Senate reconsideration of the treaty in 2009, he did not pursue the initiative, though the United States did see through UN Security Council Resolution 2310, which was the first UN Security Council resolution to support the CTBT.
The 2018 Trump administration published the Nuclear Posture Reviews, noting that "*Although the United States will not seek ratification of the Comprehensive Nuclear Test Ban Treaty, it will continue to support the Comprehensive Nuclear Test Ban Treaty Organization Preparatory Committee as well as the International Monitoring System [IMS] and the International Data Center [IDC]. The United States will not resume nuclear explosive testing unless necessary to ensure the safety and effectiveness of the U.S. nuclear arsenal, and calls on all states possessing nuclear weapons to declare or maintain a moratorium on nuclear testing.*"

[6]Some studies estimate that more than 14,000 satellites have been launched into outer space since Sputnik 1 in 1967, but 78% of them are out of use, and are therefore "space debris", capable of causing damage to the satellites on which our everyday life depends.

[7]See A. Roma "Space Blockade: a threat to space activities? "- The Aviation & Space Journal OCT/DIC 2014 YEAR XIII N° 4.

[8]The resolutions, namely "Further Practical Measures for the Prevention of an Arms Race in Outer Space," "No First Placement of Weapons in Outer Space" and "Transparency and Confidence-Building Measures in Outer Space," respectively received 124, 166 and 166 votes in favour. The first resolution urges the global community to continue undertaking efforts to maintain peace and improve security in the world and avoid a conflict in space.

[9]After World War II, the Geneva Convention created a treaty among nation States to abide by in the event of future conflicts. There have been numerous conflicts since 1949 with many crimes of war being prosecuted. The rules that are to be followed are called the Law of Armed Conflict, or the Law of War, which covers everything from the treatment of prisoners of war to the rules of engagement to be used by armed forces. The LOAC arises from a desire among civilized nations to prevent unnecessary suffering and destruction while not impeding the effective waging of war. A part of public international law, LOAC regulates the conduct of armed hostilities. It also aims to protect civilians, prisoners of war, the wounded, sick, and shipwrecked.

Book Review

Fundamentals of International Aviation Law and Policy

Benjamyn I. Scott and Andrea Trimarchi

Routledge - Taylor and Francis Group -

*Anna Masutti**

Fundamentals of International Aviation Law and Policy offers the reader an exhaustive and comprehensive overview of the legal arena concerning international civil aviation. The textbook not only meticulously explores the existing international regulatory framework concerning the public and private spheres of international civil aviation, but lays also emphasis on notable instances of regional and domestic legislation, with a dynamic view on recent technological and social development of air transport.

Benjamyn I. Scott and Andrea Trimarchi attempt to confer the textbook a highly international spirit, albeit not disregarding regulatory progresses specific to the European – and some national – contexts. This is done through a critical scrutiny of the main international legal sources governing civil aviation and through a comparison of selected meaningful domestic regulatory scenarios.

Although the book fluidly and systematically addresses all major areas of international aviation regulation, the authors adopt a threefold structure. The first two parts loyally retrace the canonical distinction between public and private air law. While the first part (chapters 1-6) aims at providing historical and political context as to the current status of aviation regulation, the functioning of ICAO and the development of aviation commercial relations, the second part (chapters 7-9) is dedicated to liability aspects of flying (contractual and extra-contractual) and insurance. The third and last part of the *opus* combines elements of public and private aviation law and discusses subject matters, which are somehow hybrid in nature, not formally stemming from the magna charta of international civil aviation, that is, the Chicago Convention of 1944. These include competition law, environmental law and regulation of suborbital transportation; current – or emerging – trends, which are undoubtedly destined to increasingly capture the attention of stakeholders and regulators in the years to come.

The authors adopt an innovative approach and aim at engaging the reader with a consistent use of learning tools. Delivery of such aims is attained through the inclusion of didactic and tailored instruments providing immediate information, visual representation and interactive elements. In line with its legal nature, *Fundamentals of International Aviation Law and Policy* provides a dogmatic and theoretical analysis of the main sources of both public and private international aviation law.

*Professor of Air Law at the University of Bologna, Partner LS LexJus Sinacta Italy

The authors accurately resort to the use of practical examples and judicial cases (international and national) to bring clarity around the most controversial and disputed aspects of the current regulation. Oftentimes, this notably results in discussions and recommendations with respect to emerging trends, future developments and upcoming challenges of aviation regulation.

The authors' experience and fresh views, as well as their objective to engage readers and students, significantly distinguish this textbook from other textbooks concerned with aviation law. The book not only discusses pure legal and regulatory issues, but also includes elements of policy, economics and technology, which are *de facto* preparatory to the understanding of air transport as a whole.

It furthermore constitutes a useful guide for students and professionals involved in the aviation sector. The use of simple terminology, definitions, didactic instruments and immediate information renders it also a valid and easily accessible tool for all students and professionals, with or without prior legal background, who need or intend to gain knowledge on the basic notions and principles of international aviation law.

This book forms part of the series *Aviation Fundamentals*, edited by Dr Suzanne Kearns (University of Waterloo). *Aviation Fundamentals* is a series of air transport textbooks that incorporates instructional design principles and helps the recruitment and education of the next generation of aviation professionals (NGAP), a task which has been named a 'Global Priority' by the ICAO Assembly. The series' objective is to become the leading source of textbooks for a variety of subject areas thaught at aviation colleges and universities.

Workshop:

University of Bologna, Italy, School of Law,

11 December 2019

The developments of air transport services:

a Turkish perspective and the recent developments of the International Express Services

Air Law and European Transport Law Courses, prof. Anna Masutti

Speakers: Serap Zuvin
Alessandro Lega

*Berni Francesca**

*Cecconi Francesca***

The purpose of the seminar is to get an overview of the actual aviation industry and the development of airport and transport in general, with a special focus on Turkey. This Nation represents the fastest growing market and Mrs. Serap Zuvin explains us its evolution. A direct witness of the increase in air transportation demand is Mr. **Alessandro Lega**. As managing director of FedEx Express, he gives a concrete example of this phenomenon and brings his great experience to show how this can be considered one of the most promising fields of the last decades.

Serap Zuvin is a preeminent lawyer from Istanbul and she specializes in aircraft financing, aviation in general and current development of aviation sector in Turkey. She graduated at Istanbul University, faculty of Law. In 2000, after several years of practice in leading law firms, she started her own that recently merged with another Turkish law firm.

The aviation market is growing fast: the number of passengers and consequently the capacity of aircrafts increased dramatically. According to IATA, in 2037 passengers will be approximately 8.2 billion. The boost is coming especially from the Asian Pacific Region (which includes Asia, Australia and New Zealand), while China will set to overtake US as the largest aviation market in the world and India will take the position of UK in 2025.

The reasons of this growth are many: expansion of the economy, increase of incomes, cheap airfares, free competition; also millennials are behind the travel increase, since people are more curious and want to go to new places.

*/** Students attending the Air Law Course

Turkey is investing in infrastructures and new technology, in fact today it represents the aviation market with the highest growth rate. This had a great impact on the airports as well. Big airlines create new hubs and existing airports are being highly renovated or build from scratch, with new technology and advanced security systems. In this regard, Mrs. Serap Zuvin said that her homeland has been smart in capturing the demand about innovation and in building the new leading airport, a real marvel engineering: the Istanbul airport, completed in only 42 months. It is the largest single roof airport building, fully operational from 6 April 2019.

This is how the Turkish scenario looks: Turkey has civil aviation agreements with more than 150 countries and has 315 destinations. With the opening of foreign investments in the 1980s, many laws changed. Almost all the legislation is modelled on EU Law. Turkey is part of important international Conventions such as: Chicago Convention, Montreal Convention and Cape Town Convention. The latter, which is intended to reduce risks for creditors, and consequently the borrowing costs to debtors, through the resulting improved legal certainty, was signed in 2001 and it prevails over the existing laws.

Furthermore, a great work in designing aircraft with low emissions and longer flight range has been carried out. Turkey tries to be advanced also in this case. Currently, Ryanair results as the greenest airline in Europe: the carbon emissions are the lowest and they decreased from 87% to 67% over the last decade. Other promising investments are made in 5G technology, that can deliver messages even in high congested areas, combining more network channels at the same time.

Nowadays, China has world's biggest aviation market: top level in manufacturing, technology, security, China is the winning new comer in the market. Now more than ever, China is keen to provide financing to the airlines in the Turkish market.

The other guest was **Alessandro Lega**, president of AICAI and managing director of legal affairs of FedEx Express. He studied law in Turin with a thesis in the field of Maritime Law and he was soon hired by a local law firm. He then made an experience at the European Commission, before initiating a LLM in Maritime and Aviation Law in London. He stayed in the city for work, and he was hired by a big entrepreneur, who invested in renewable energy, so becoming an expert also in that field.

FedEx, leader in transport industry, is not only a currier, it is much more. It acts transversally helping commercial activities all over the world and it can be called a "trade enabler": it helps every kind of company, also small ones, facing and assuming itself all the complexities of the service. FedEX fleet is the fourth in the world, with 678 aircrafts and it serves 650 airports.

Mr Lega brought us, by way of example, the FedEx North Pacific Regional Hub, whose facility opened in April 2014. After the aircraft lands, they quickly remove the container from the plane, that are then transported into cargo shed, where packages are sorted automatically by the sorting machine. Information such as the package's custom clearance status and its destination is instantly read, entered and finally loaded on trucks.

Another purpose of this facility is to handle transshipment cargo, which is basically cargo that's not Japan bound. Their final destinations are other countries and they unload and sort according to their country of destination.

One of the unique features of this facility is its temperature-controlled warehouse. In recent years the number of customers, who inquire about temperature-controlled storage, has increased. The customers of FedEx's Cold Chain Center are primarily healthcare companies. The inside temperature is strictly controlled and the packages can be sorted or stored without getting exposed to variations in temperature.

The North Pacific Regional Hub in Kansai, not only contributes to the streamlining of Asia's networks, but also helps improving their service for customers in Western Japan. FedEx makes sure that all planes depart on time and that packages are promptly delivered to customers. These are two big responsibilities.

For sure, this giant, whose size can be compared to Florence (more or less 400.000 people), involves many fields such as aviation, handling, tracking, custom clearance. This complexity reflects on the job. The actual challenge has to do with regulation: markets are generally highly regulated and this requires the work of many experts.

An advice comes also for us, as students: be flexible, literally escape from your comfort zone, because "where there is a challenge, there is also an opportunity".

---

[1]Çakmak Avukatlık Ortaklığı, Beşiktaş law firm in Istanbul.

12 Th European Space Conference

New Decade, Global Ambitions:
Growth, Climate, Security & Defence

Brussels - 21, 22 January 2020 - Egmont Palace

The Conference will take place in:

Le Palais d'Egmont
Place du Petit Sablon, 8 bis
1000 Bruxelles

Tuesday 21 January / Wednesday 22 January

https://www.spaceconference.eu/index.html

Programme:

https://www.spaceconference.eu/programme.html

IATA Legal Symposium

New York Marriott Brooklyn Bridge

New York, US - 19, 21 February 2020

The IATA Legal Symposium is the world's premier annual aviation law event, with a reputation for insight, relevance and value among in-house counsel, private practitioners, and government lawyers alike. The event is well known for its engaging subject matter, outstanding speakers, lively debate and, of course, some of the best networking opportunities you'll find anywhere in the industry.

https://www.iata.org/en/events/legal-symposium

The Conference will take place in:

New York Marriott Brooklyn Bridge
New York, US
19, 21 February 2020