Protection of aviation security through the establishment of prohibited airspace

Zhang, W.

Protection of aviation security through the establishment of prohibited airspace

PROEFSCHRIFT

ter verkrijging van
de graad van doctor aan de Universiteit Leiden,
op gezag van rector magnificus prof.dr.ir. H. Bijl,
volgens besluit van het college voor promoties
te verdedigen op donderdag 8 juni 2023,
klokke 11.15 uur

door

Wanlu Zhang

geboren te Funan, China

in 1992

Promotoren:	prof. dr. S.J. Truxal dr. R.W. Heinsch
Promotiecommissie:	prof. dr. E.C.P.D.C. De Brabandere dr. C.E. Rose prof. dr. h.c. S. Hobe (University Cologne, Germany) prof. dr. J. Chuah (City, University of London, UK)

Omslagontwerp: Primo!Studio – Delft
Opmaak binnenwerk: Anne-Marie Krens – Tekstbeeld – Oegstgeest
Drukwerk: Ipskamp Printing – Enschede

ISBN 978 94 6473 103 3

Acknowledgements

To my supervisors, Pablo Mendes de Leon, Steven Truxal, and Robert Heinsch, thank you for giving me the opportunity to undertake this project and for your guidance and support along the way. I very much appreciated your support and guidance along the way as I struggled through many phases to complete this project.

Thank you to others who took the time to share their knowledge, read my work and discuss and challenge my ideas. I will forever be grateful for the invaluable assistance, in particular Jiefang Huang, for allowing me to undertake the research at ICAO. Thank you also Tanja Masson-Zwaan, Mia Wouters, Roderick van Dam, Julian Rotter, Peter Haanappel, and Daqun Liu, for your aid and insight in the early days.

I am lucky to have met colleagues and friends Dejian Kong, Lain Kovudhikulrungsri, Xiaoxi Sun, Hui Liu, Ed Batista, Annemarie Schuite, Dimitra Stefoudi, Leah Powell, and Zhuang Tian for making my study at Leiden such an enjoyable memory. Thank you very much, Hilkje Wijnmaalen and Natascha Meewisse, for your assistance in navigating through the procedural process. Thank you also to Paula, who I believe is looking at me smiling from up there.

Many others who helped along the way: friends and family back at China University of Political Science and Law, at ICAO, at the United Nations, and throughout the world. Thank you for reading the draft of my thesis and offering guidance from various perspectives. I want to give a big shout-out to Ms. Christina Kiewiet de Jonge who included me into her family celebrations of Koningsdag and Sinterklaas and encouraged me to carry on with the research.

Michael Huang, my beloved husband, thank you for the love, patience, and support in every way and for keeping me on track. I cannot wait to embark on the next adventure with you! My mum Li Wang and dad Jian'en Zhang, thank you for raising me to be courageous and inspiring me to rise to challenges. But, most of all, thank you all for the endless love and 24/7 family support.

Finally, I am so grateful for having spared me on the afternoon of 24 July 2014 when I was flying to a summer school over the same area as MH17; and for the calling which keeps motivating me to demand a change.

Table of contents

List of tables of figures

List of abbreviations

ACI	Airports Council International
AIC	Aeronautical Information Circular
AIP	Aeronautical Information Publication
ANB	Air Navigation Bureau (of ICAO)
ANC	Air Navigation Commission (of ICAO)
ANP	Air Navigation Plan
ANS	Air Navigation Services
ASA	Air Services Agreement
ATM	Air Traffic Management
ATS	Air Traffic Services
CAA	Civil Aviation Authority
CJEU	Court of Justice of the European Union
CZIB	Conflict Zone Information Bulletin
CZIR	Conflict Zone Information Repository
DSB	Dutch Safety Board
EASA	European Union Aviation Safety Agency
EUROCONTROL	European Organisation for the Safety of Air Navigation
EEZ	Exclusive Economic Zone
EC	European Commission
ECAC	European Civil Aviation Conference
EU	European Union
FAA	United States Federal Aviation Administration
FABs	Functional Airspace Blocks
FIR	Flight Information Region
GADSS	Global Aeronautical Distress and Safety System (of ICAO)
GANP	Global Air Navigation Plan (of ICAO)
GASP	Global Aviation Safety Plan (of ICAO)
GIS	Geographic Information System
HLSC	High-level Safety Conference
IAC	International Armed Conflict
ICAO	International Civil Aviation Organization
ICTY	International Criminal Tribunal for the former Yugoslavia
ICJ	International Court of Justice
ICRC	International Committee of the Red Cross
IHL	International Humanitarian Law
ILC	International Law Commission
MANPADS	Man-portable air-defence systems
NIAC	Non-international Armed Conflict
NOTAM	Notice to airmen

PANS	ICAO Procedures for Air Navigation Services
PIRG	Planning and implementation regional group
Proceedings	*Proceedings of the International Civil Aviation Conference.* Chicago, Ill., November 1–December 7, 1944. (Publ. No. 2820) 2 vols. United States, Department of State, Washington D.C., 1948
RCZ	Risks to civil aviation arising from Conflict Zones
SARPs	Standard and Recommended Practices
SAMs	Surface-to-air missiles
SES	European Union's Single European Sky Initiative
SMS	Safety management system
TF RCZ	Task force on Risks to Civil Aviation arising from Conflict Zones (of ICAO)
USAP	Universal Security Audit Programme (of ICAO)
USOAP	Universal Safety Oversight Audit Programme (of ICAO)
UN	United Nations
UNCLOS	United Nations Convention for the Law of the Sea
UNGA	United Nations General Assembly
UNSC	United Nations Security Council
UNTS	United Nations Treaty Series
VCLT	Vienna Convention on the Law of Treaties
WHO	World Health Organization

Introduction

1 BACKGROUND

On 17 July 2014, flight MH17 was hit by a missile over eastern Ukraine and caused hundreds of families much grief.[1] Unfortunately, a similar tragedy happened again on 8 January 2020 when flight PS752 was shot down at a moment of heightened military tensions between the United States (US) and Iran.[2] In response to these tragedies, the international community demanded to know why civil aircraft were flying over a conflict zone.[3] These tragedies would not have happened, if the appropriate authorities had established prohibited airspace over conflict zones. Prohibited airspace should have been established to protect aviation safety and security.

Meanwhile, the world has seen prohibited airspace established as a sanction measure. Such a sanction measure may give rise to disputes. For example, in 1956, Israel alleged that the Arab States refused Israeli flights to fly over Arab territory and established prohibited/restricted areas to an unreasonable extent;[4] in 2017, Bahrain, Saudi Arabia, Egypt and the United Arab Emirates (UAE) made an air blockade against Qatar, preventing Qatari aircraft from entering their airspace.[5] In particular, the establishment of prohibited airspace over strategic places, such as international straits, can lead to diplomatic disagreement. An example is a permanent Restricted Area over Pasir Gudang, adjacent to the Johore Strait between Singapore and Malaysia.[6] In these contentious cases, Member States of the International Civil Aviation Organization (ICAO) challenged the legality of these prohibited areas.[7] Lawyers need to answer difficult questions as to when, how and who to establish prohibited airspace in a way that is consistent with international air law.

---

1 Dutch Safety Board, *Crash MH17 July 2014*, October 2015, p. 1.
2 https://www.nytimes.com/2020/01/10/world/middleeast/missile-iran-plane-crash.html, last accessed 12 January 2020.
3 See ICAO Second High-Level Safety Conference 2015 (as of 5 February 2015), *Montreal Declaration on Planning for Aviation Safety Improvement*, WP No.108.
4 ICAO Assembly, Executive Committee of the Tenth Session, 1956. See Cheng, Bin. *The Law of International Air Transport*. Stevens 1962. Print. The Library of World Affairs, p. 114.
5 https://news.un.org/en/story/2020/07/1068341, last accessed 7 November 2020.
6 https://www.channelnewsasia.com/news/singapore/singapore-malaysia-southern-johor-airspace-seletar-airport-10997022, last accessed 9 April 2020.
7 See Chapters II, Section 3.

The Convention on International Civil Aviation of 1944 ('Chicago Convention') and ICAO have prescribed rules for prohibited airspace in national territories. In light of the aforementioned incidents relevant to prohibited airspace, stakeholders have called for renewed scrutiny of the Chicago Convention and ICAO regulations regarding airspace closure.[8]

On the one hand, establishing prohibited airspace is necessary as a preventive measure to protect aviation safety and security; on the other hand, prohibited airspace must be established in accordance with international air law. Therefore, it is essential to study rules relevant to prohibited airspace, in order to make sure that airspace closure is to mitigate risks to a reasonable extent. This PhD study focuses on the legal regulations of prohibited airspace for the safety and security of civil aircraft.[9]

2 Research Questions

The risk inherent in navigating by air over conflict zones has evoked concerns over the current state of aviation security.[10] Armed conflicts[11] have begun or continue to take place in many parts of the world.[12] The danger is that aircraft flying over such areas may become the 'next MH17'. In the interest of enhancing aviation security, this study endeavors to answer the following research questions:

1) *What are the conditions, including legal requirements, for establishing prohibited airspace?*
2) *Who has jurisdiction to establish prohibited airspace?*
3) *How can the status quo be changed with respect to prohibited airspace to enhance aviation security?*

---

8 ICAO, International Air Transport Association (IATA), Airport Council International (ACI), Civil Air Navigation Services Organization (CANSO), Joint Statement on Risks to Civil Aviation Arising from Conflict Zones, http://www.icao.int/Newsroom/Pages/Joint-Statement-on-Risks-to-Civil-Aviation-Arising-from-Conflict-Zones.aspx.

9 The definitions of aviation safety and security are presented in Chapter I.

10 ICAO State Letter, AN13/4.2-14/59, 24 July 2014.

11 See "International humanitarian law and the challenges of contemporary armed conflicts", prepared by the International Committee of the Red Cross for the 32nd International Conference of the Red Cross and Red Crescent, 8–10 December 2015, available at: http://rcrcconference.org/wp-content/uploads/sites/3/2015/10/32IC-Report-on-IHL-and-challenges-of-armed-conflicts.pdf, last accessed 20 December 2017. For an outline of prevailing legal opinion, see International Committee of the Red Cross (ICRC), How is the term "armed conflict" defined in international humanitarian law?; Opinion Paper, March 2008, available at www.icrc.org/web/eng/siteeng0.nsf/htmlall/armed-conflict-article–170308/$file/Opinion-paper-armed-conflict.pdf, last visited 7 May 2017.

12 Uppsala Conflict Data Program (Data of retrieval: 2020/11/07) UCDP Conflict Encyclopaedia: www.ucdp.uu.se, Uppsala University.

The research questions concern the 'who, how and when' of establishing prohibited airspace. The establishment of prohibited airspace relates to, on the one hand, the principle of air sovereignty, as agreed by governments as recognized in Article 1 Chicago Convention;[13] and on the other hand, the object of agreeing on the principle to "develop international civil aviation in a safe and orderly manner".[14] This author explores how to align the principle with that object through answering the three research questions. The roadmap and methodology for this study are as follows.

3 Roadmap of the Study

The analysis of the above research questions is developed in six chapters. Threads running through the chapters are the themes of sovereignty, jurisdiction, and territory. Chapter I sets forth the methodology employed herein and clarifies terminology to preempt any potential confusion.

Chapter II explains the regulatory regime concerning prohibited airspace, including the Chicago Convention and ICAO regulations.[15] This chapter explains the reasons and conditions necessary for establishing prohibited airspace to answer the first research question. It presents a normative analysis of Article 9 of the Chicago Convention and case studies relevant for the analysis of Article 9 of the Chicago Convention. This chapter examines airspace over territorial sea, archipelagic waters and straits for international navigation to clarify the meaning of airspace "over [a State's] territory".

Chapter III addresses the technical and operational aspects of prohibited airspace. This chapter explains the importance of information for decision-making concerning prohibited airspace, and examines the effectiveness of existing ICAO regulations regarding flight information services. It discusses the jurisdiction to establish a prohibited area in delegated airspace, whereas Chapter IV considers prohibited airspace over the high seas and in airspace of undetermined sovereignty.

Chapter V covers the establishment of prohibited areas in situations of national emergency and war. This chapter discusses the relationship between prohibited airspace, war zone, and conflict zone. Due to the development of modern humanitarian law, this chapter argues that States should have an obligation to establish prohibited airspace over conflict zones as a precautionary measure to protect civilians.

The final chapter, Chapter VI, proposes a legal regime for prohibited airspace covering three different situations. Finally, this chapter concludes that

13 Michael Milde, *International Air Law and ICAO*, Eleven International Publishing 2016, pp. 11 & 35 ('*Milde*').

14 See Chicago Convention, Preamble.

15 The definitions of ICAO regulations are presented in Chapter I.

States should work together on technical jurisdiction to establish prohibited airspace to enhance aviation security.

4 Summary of Methodology

This study employs the methodology of normative analysis, complemented by case studies. The normative analysis of existing aviation security rules forms the basis of this study. First, this study identifies and interprets rules governing prohibited airspace with recognized methods of interpretation in the Vienna Convention on the Law of Treaties (1969);[16] second, it examines the application of the rules related to prohibited airspace; finally, it explores how to improve implementation of rules that are already in place or what new rules can be proposed to safeguard aviation security in relation to prohibited airspace. A single thread of thought that runs through all chapters is the reflection of sovereignty, territory, and jurisdiction. Chapter I will further elaborate on the sources of rules governing prohibited airspace and treaty interpretation methods.

16 Vienna Convention on the Law of Treaties, 1155 U.N.T.S. 331, 8 I.L.M. 679, entered into force Jan. 27, 1980.

1 Methodology, Terminologies and Preliminary Questions

This study examines the 'who, how, and when' of establishing prohibited airspace. Answers to these questions require a legal analysis of air law rules pertinent to prohibited airspace. The methodology employed in conducting this legal analysis is discussed in the present chapter, as are clarifications on key terms and preliminary questions.

1 Methodology of this study

1.1 Outline of methodology

This study features a normative analysis of air law rules relevant to prohibited airspace,[1] as complemented by case studies. The air law rules find their basis in the Chicago Convention[2] and ICAO regulations.[3] The study follows four steps: 1) to identify relevant rules on prohibited airspace; 2) to interpret these rules alongside recognized interpretation methods enshrined in the Vienna Convention on the Law of Treaties (VCLT);[4] 3) to examine the application of these rules in practice through case studies; and 4) to suggest how the implementation may be improved for rules that are already in place; and if non-existent, to propose new rules to safeguard aviation security in relation to prohibited airspace.

1.2 Normative legal study

This study first undertakes a normative study of existing rules on prohibited airspace. The primary source of rules can be found in the Chicago Convention. The Chicago Convention is a significant landmark in the development of

---

1 The definitions of prohibited/area is presented in Section 2.2.3 of Chapter II.

2 *The Convention on International Civil Aviation*, 7 December 1944,15 U.N.T.S. 295.

3 ICAO, the International Civil Aviation Organization, was established by the Chicago Convention in 1947, when the Convention came into force. Article 43 of the Chicago Convention reads: "An organization to be name the International Civil Aviation Organization is formed by the Convention." The definition of 'ICAO regulation' is presented in Section 3 of this chapter.

4 Vienna Convention on the Law of Treaties, 1155 UNTS 331.

international law and is, at the time of writing, the fundamental source of law in international civil aviation.[5] To interpret the Chicago Convention's prescription for prohibited airspace, this study refers to the treaty interpretation methods outlined in Articles 31 and 32 of the VCLT.[6]

1.2.1 Customary treaty interpretation rules

Articles 31 and 32 of the VCLT are recognized as the reflection of existing customary international law, because such status is confirmed by various international tribunals.[7] For instance, the Permanent Court of Arbitration (PCA) in the *Arbitration regarding the Iron Rhine* explained the following:[8]

---

5 Michael Milde, *International Air Law and ICAO,* Eleven International Publishing 2016, p. 14.

6 Article 31. General Rule of Interpretation
1. 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.
2. The context for the purpose of the interpretation of a treaty shall comprise, in addition to the text, including its preamble and annexes:
(a) Any agreement relating to the treaty which was made between all the parties in connection with the conclusion of the treaty;
(b) Any instrument which was made by one or more parties in connection with the conclusion of the treaty and accepted by the other parties as an instrument related to the treaty.
3. There shall be taken into account, together with the context:
(a) Any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions;
(b) Any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation;
(c) Any relevant rules of international law applicable in the relations between the parties.
4. A special meaning shall be given to a term if it is established that the parties so intended.
Article 32. Supplementary means of interpretation
Recourse may be had to supplementary means of interpretation, including the preparatory work of the treaty and the circumstances of its conclusion, in order to confirm the meaning resulting from the application of article 31, or to determine the meaning when the interpretation according to article 31:
(a) Leaves the meaning ambiguous or obscure; or
(b) Leads to a result which is manifestly absurd or unreasonable.

7 See e.g. *Nicaragua v. Colombia*, Preliminary Objections, ICJ Reports, 2016, para. 35; *Croatia v. Serbia*, ICJ Reports, 2015, para. 138; *Peru v. Chile*, ICJ Reports, 2014, pp. 3, 28; *Costa Rica v. Nicaragua*, ICJ Reports, 2009, pp. 213, 237; ITLOS Advisory Opinion on Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area, 1 February 2011, para. 57; *Genocide Convention (Bosnia v. Serbia)* case, ICJ Reports, 2007, pp. 43, 109–10; *Indonesia/Malaysia* case, ICJ Reports, 2002, pp. 625, 645–6; *the Botswana/Namibia* case, ICJ Reports, 1999, p. 1045; *the Libya/Chad* case, ICJ Reports, 1994, pp. 6, 21–2; 100 ILR, pp. 1, 20–1; and the *Qatar v. Bahrain* case, ICJ Reports, 1995, pp. 6, 18; 102 ILR, pp. 47, 59. Other courts and tribunals have done likewise: see e.g. the GATT Dispute Settlement Panel Report on United States Restrictions on Imports of Tuna in 1994, 33 ILM, 1994, pp. 839, 892; the case concerning the Auditing of Accounts between the Netherlands and France, arbitral award of 12 March 2004, para. 59.

8 *Arbitration regarding the Iron Rhine ('Ijzeren Rijn') Railway (Belgium/Netherlands),* Award of 24 May 2005, p 23 para. 45, at www.pca-cpa.org, accessed 18 December 2017. See also Gardiner, R. *Treaty Interpretation*. Oxford University Press 2008, pp. 12-13 (emphasis added).

> It is now well established that the provisions on interpretation of treaties contained in Articles 31 and 32 of the [Vienna] Convention reflect pre-existing customary international law, and thus may be (unless there are particular indications to the contrary) applied to treaties concluded before the entering into force of the Vienna Convention in 1980.
>
> The International Court of Justice has applied customary rules of interpretation, now reflected in Articles 31 and 32 of the Vienna Convention, to a treaty concluded in 1955… and to a treaty concluded in 1890, bearing on rights of States that even on the day of Judgment were still not parties to the Vienna Convention… *There is no case after the adoption of the Vienna Convention 1969 in which the International Court of Justice or any other leading tribunal has failed to act.*

This case shows that Articles 31 and 32 of the VCLT can be applied to a treaty concluded in 1955. The VCLT was open for signature in 1969 and entered into force in 1980.[9] Interpretation rules in Articles 31 and 32 are customary international law; therefore, they can be applied retroactively to treaties predating 1969. Likewise, the Chicago Convention was concluded in 1944.[10] Articles 31 and 32 in the VCLT, due to their long-standing status as customary law, can apply retrospectively to the 1944 Chicago Convention, a multilateral treaty.

Furthermore, at the time of writing, the VCLT has 116 Contracting States,[11] less than that of the Chicago Convention, which is 193 signatories.[12] Nonetheless, interpretation rules in the VCLT, as reflected in Articles 31 and 32, are applicable to all Contracting Parties of the Chicago Convention, except for those States that have dissented from the start of the custom.[13] The Inter-

9 United Nations Treaty Collection, https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXIII1&chapter=23&Temp=mtdsg3&clang=_en, last accessed 12 April 2020.

10 On the establishment of the Chicago Convention, D. Goedhuis, *Problems of Public International Law* 81(11) *Recueil des Cours* pp. 205–307 (1952); H.A. Wassenbergh, *Post-War International Civil Aviation Policy and the Law of the Air*, Martinus Nijhoff 1962, p. 180; Haanappel, P.P.C., *The Law and Policy of Air Space And Outer Space: A Comparative Approach*, Kluwer Law International 2003, p. 17. Fifty two States signed the Final Act of the Chicago Conference. See *Proceedings of the International Civil Aviation Conference*, Vol.1 (United States Government Printing Office, Washington, 1948).

11 United Nations Treaty Collection, https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXIII1&chapter=23&Temp=mtdsg3&clang=_en, last accessed 12 April 2020.

12 https://www.icao.int/secretariat/legal/List%20of%20Parties/Chicago_EN.pdf, last accessed 12 April 2020.

13 M N Shaw, *International Law*, CUP 2017, p. 68. See e.g. the *North Sea Continental Shelf* cases, ICJ Reports, 1969, pp. 3, 38, 130; 41 ILR, pp. 29, 67, 137, and The Third US Restatement of Foreign Relations Law, St Paul, 1987, vol. I, pp. 25–6. See also T. Stein, 'The Approach of the Different Drummer: The Principle of the Persistent Objector in International Law', 26 Harvard International Law Journal, 1985, p. 457, and J. Charney, 'The Persistent Objector Rule and the Development of Customary International Law', 56 British Yearbook of International Law (1985), p. 1.

national Court of Justice (ICJ) has applied the interpretation rules set out in Articles 31 and 32 of the VCLT in many judgments,[14] even in cases where one party was not a party to the VCLT.[15] The United Nations International Law Commission (ILC) concluded that Articles 31 and 32 of the VCLT set forth, respectively, the general rule of interpretation and the recourse to supplementary means of interpretation: these rules apply as customary international law.[16] The United Nations General Assembly (UNGA) has taken note of the

14 See e.g. *Nicaragua v. Colombia*, Preliminary Objections, ICJ Reports, 2016, para. 35; *Croatia v. Serbia*, ICJ Reports, 2015, para. 138; *Peru v. Chile*, ICJ Reports, 2014, pp. 3, 28; *Costa Rica v. Nicaragua*, ICJ Reports, 2009, pp. 213, 237; ITLOS Advisory Opinion on Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area, 1 February 2011, para. 57; *Genocide Convention (Bosnia v. Serbia)* case, ICJ Reports, 2007, pp. 43, 109–10; *Indonesia/Malaysia* case, ICJ Reports, 2002, pp. 625, 645–6; *the Botswana/Namibia* case, ICJ Reports, 1999, p. 1045; *the Libya/Chad* case, ICJ Reports, 1994, pp. 6, 21–2; 100 ILR, pp. 1, 20–1; and the *Qatar v. Bahrain* case, ICJ Reports, 1995, pp. 6, 18; 102 ILR, pp. 47, 59. Other courts and tribunals have done likewise: see e.g. the GATT Dispute Settlement Panel Report on United States Restrictions on Imports of Tuna in 1994, 33 ILM, 1994, pp. 839, 892; the case concerning the Auditing of Accounts between the Netherlands and France, arbitral award of 12 March 2004, para. 59; and the Iron Rhine (Belgium/Netherlands), arbitral award of 24 May 2005, para. 45. See also *Oppenheim's International Law*, p. 1271.

15 See for instance, *Avena and other Mexican Nationals (Mexico v United States of America)* [2004] *ICJ Reports* 37 – 38, para 83: "The Court now addresses the question of the proper interpretation of the expression 'without delay' in the light of arguments put to it by the Parties. The Court begins by noting that the precise meaning of 'without delay', as it is to be understood in Article 36, paragraph (1), is not defined in the Convention [on Consular Relations]. This phrase therefore requires interpretation according to the customary rules of treaty interpretation reflected in Articles 31 and 32 of the Vienna Convention on the Law of Treaties." The VCLT applies even though one party is not a party to the VCLT, as in *Sovereignty over Pulau Litigan and Pulau Sipadan (Indonesia/Malaysia)*: "The Court notes that Indonesia is not a party to the Vienna Convention of 23 May 1969 on the Law of Treaties; the Court would nevertheless recall that, in accordance with customary international law, reflected in Articles 31 and 32 of that Convention: a treaty must be interpreted in good faith… Moreover, with respect to Article 31, paragraph 3, the Court has had occasion to state that this provision also reflects customary law…", ICJ Reports 2002, pp. 23-24, para. 37. See also in *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory (Advisory Opinion)*: "The Court would recall that, according to customary international law as expressed in Article 31 of the Vienna Convention on the Law of Treaties of 23 May 1969, a treaty must be interpreted… Article 32 provides…", ICJ Reports 2002, p. 38, para. 94. On Art. 32 of the VCLT, the ICJ also affirms its application in *Oil Platforms (Islamic Republic of Iran v United States of America)*, Preliminary Objections, ICJ Reports 1996, p. 812, para.23; see, similarly, *Kasikili/Sedudu Island (Botswana/Namibia)* ICJ Reports 1999, p. 1059, para. 18; *Case concerning Legality of Use of Force (Servia and Montenegro v United Kingdom)*, Preliminary Objections, ICJ Reports 2004, pp. 36-37, para. 98.

16 Report of the International Law Commission, Seventieth session (30 April–1 June and 2 July–10 August 2018), Official Records of the General Assembly, Seventy-third Session, Supplement No. 10, A/73/10, p. 13-14.

ILC's conclusion in a resolution adopted in December 2018.[17] Having clarified that Articles 31 and 32 of the VCLT apply to the Chicago Convention, this chapter contends that it is appropriate to start with these customary rules for the interpretation of the latter's provisions on prohibited airspace.

1.2.2 Interpretation methods in the Vienna Convention on the Law of Treaties

1.2.2.1 Ordinary meaning

Article 31(1) of the VCLT declares that 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." The ICJ noted the importance of ordinary meaning in an advisory opinion entitled *Competence of Assembly regarding admission to the United Nations*, stating that:[18]

> the first duty of a tribunal which is called upon to interpret and apply the provisions of a treaty is to endeavour to give effect to them in their natural and ordinary meaning in the context in which they occur.[19]

Article 31(1) of the VCLT requires a lawyer first to apply textual interpretation. The ordinary meaning of the terms in a treaty is the starting point of an interpretation, but only if it is confirmed by investigating the context and object and purpose, and if on examining all other relevant matters, no contra-indication is found, is the ordinary meaning determinative.[20] With respect to the provisions concerning prohibited airspace in the Chicago Convention, this study will first examine the ordinary meanings of terms therein.

1.2.2.2 Context

The word "context" in the VCLT can refer to an immediate qualifier of the ordinary meaning, or it works to identify material which is to be taken into

---

17 Resolution adopted by the General Assembly on 20 December 2018, A/RES/73/202, "Subsequent agreements and subsequent practice in relation to the interpretation of treaties". Regarding the meaning of "take note of" in the United Nations' resolution, where a report recommends a specific course of action which requires a decision by the General Assembly, a decision or resolution taking note of such report in the absence of further comment by the organ concerned constitutes authorization of the course of action contained therein. Where a report does not propose or recommend any course of action which requires a decision by the General Assembly, taking note of such report merely takes cognizance that it has been presented and does not express either approval or disapproval. See Letter dated 2 April 2001 from the Chairman of the Fifth Committee to the Under-Secretary-General for Legal Affairs, the Legal Counsel, in A/C.5/55/42, 5 April 2001, 'Exchange of letters between the Chairman of the Fifth Committee and the Under-Secretary-General for Legal Affairs, the Legal Counsel'.

18 *Competence of Assembly regarding admission to the United Nations,* Advisory Opinion: I.C.J. Reports 1950, p. 4.

19 *ibid*, p. 8.

20 See Richard K Gardiner, *Treaty Interpretation,* Oxford University Press 2008, p. 166.

account, such as comparisons with other provisions on similar matters.[21] Where a provision at issue is not self-explanatory, a comparison of relevant provisions in the same treaty may assist in the interpretation.[22] For example, in a dispute between Nicaragua and Honduras, the ICJ had to consider two provisions of a treaty which made provision for the Court to have jurisdiction.[23] The ICJ compared these two provisions and noted that both provisions fitted in with separate ways of accepting its jurisdiction.[24]

Applying this approach to the Chicago Convention, this study identifies several provisions pertinent to, on the one hand, the right and jurisdiction, and on the other hand, conditions and requirements for the establishment of prohibited airspace. These provisions together form the context. Therefore, in interpreting elements in Article 9 of the Chicago Convention, Chapter II of this thesis will compare provisions in the treaty to clarify the ordinary meanings in the treaty context.

1.2.2.3 Object and purpose

Article 31(1) of the VCLT brings the teleological element into the interpretation rules.[25] Speaking of the object and purpose of a treaty, one of the commonly mentioned sources is a treaty's preamble.[26] The Chicago Convention's preamble reflects the object and purpose of the treaty.[27] Chapter II of this study presents the objects and purposes of the Chicago Convention to help ascertain the meanings of elements relevant to prohibited airspace.

1.2.2.4 Preparatory work

Article 32 of the VCLT prescribes that the preparatory work of a treaty can be used to confirm the meaning resulting from the application of Article 31 or to ascertain the ambiguous or obscure provisions.[28] Preparatory work is not

21 *ibid.*, pp. 177-178.

22 *ibid.*, p. 185.

23 ICJ, *Border and Transborder Armed Actions (Nicaragua v Honduras) (Jurisdiction and Admissibility) ICJ Reports* 1988, p. 69.

24 *ibid.*, pp. 88-89.

25 See Alexander Orakhelashvili, *The Interpretation of Acts and Rules in Public International Law*, Oxford University Press 2008, pp. 343-344; Martin Ris, Treaty Interpretation and ICJ Recourse to *Travaux Preparatoires*: Towards a Proposed Amendment of Articles 31 and 32 of the Vienna Convention on the Law of Treaties, 14 *Boston College International and Comparative Law Review*, 111, 118 (1991); Eirik Bjorge, The Evolutionary Interpretation of Treaties, Oxford University Press 2014, pp. 1-3.

26 See Richard K Gardiner, *Treaty Interpretation,* Oxford University Press, 2008, p. 192.

27 See Section 2 of Chapter II.

28 Article 32 of the VCLT reads: "Recourse may be had to supplementary means of interpretation, including the preparatory work of the treaty and the circumstances of its conclusion, in order to confirm the meaning resulting from the application of article 31, or to determine the meaning when the interpretation according to article 31: (a) Leaves the meaning ambiguous or obscure; or (b) Leads to a result which is manifestly absurd or unreasonable." E.g., in the Libya/Chad case, the Court held that: "Interpretation must be based above all

included in Article 31 of the VCLT, but it is referenced in Article 32 as a "supplementary means" to interpret treaties. Being supplementary does not mean that preparatory work is less critical.[29] There is no rigid line between Articles 31 and 32 of the VCLT, as affirmed in the ILC's commentary on its final version of the draft Articles:[30]

> Accordingly, the Commission was of the opinion that the distinction made in articles 27 and 28 (ultimately articles 31 and 32 of the VCLT) between authentic and supplementary means of interpretation is both justified and desirable. At the same time, it pointed out that the provisions of article 28 by no means have the effect of drawing a rigid line between the "supplementary" means of interpretation and the means included in article 27. The fact that article 28 admits recourse to the supplementary means for the purpose of "confirming" the meaning resulting from the application of article 27 established a general link between the two articles and maintains the unity of the process of interpretation.[31]

A treaty's preparatory work illustrates the roots and historic evolution of the law. The context of its origin and the causes of its evolution help demonstrate the wider social and cultural framework and could assist in better understanding and interpretation of the rules.[32] To understand the rules on prohibited airspace, Chapter II of this study elaborates on the preparations leading to the Chicago Convention. This preparatory history consists of recorded draft texts and consultations on prohibited airspace. The preparatory work of the Chicago Convention sheds light on the ambiguous terms found in the treaty and confirms the division between law of war and law of peace in applying the treaty's rules on prohibited areas.

1.2.2.5 Subsequent practices

According to Article 31(3) of the VCLT, subsequent practices can serve as supplementary information when interpreting a treaty. The ILC concluded that two situations of subsequent practice are relevant to treaty interpretation: first, unilateral conduct by one or more parties in the application of the treaty is

---

upon the text of a treaty. As a supplementary measure recourse may be had to means of interpretation such as the preparatory work of the treaty." *Territorial Dispute (Libyan Arab Jamahiririya/Chad), Judgment, ICJ Reports 1994*, p 6, para 41.

29 The designation "supplementary" for Article 32 of the VCLT is a victory to confirm the primary of a purely literal approach, which however is not free from to controversy and criticism. At the Vienna Conference, the US delegation failed an attempt to integrate the content of Articles 31 and 32, according to who, the quest for an ordinary textual meaning is impossible, See Richard K Gardner, *Treaty Interpretation*, Oxford University Press, 2008, 303-305.

30 Richard K Gardiner, *Treaty Interpretation*, Oxford University Press, 2008, p. 308.

31 Yearbook of the International Law Commission 1996, A/CN.4/SER.A/1996/Add.l, vol II, p 220, para.10.

32 *Milde*, p. 5.

a supplementary means of interpretation; and second, conduct that establishes the agreement of the parties regarding the interpretation of the treaty is an authentic means of interpretation.[33]

In constructing the legal regulations on prohibited airspace, this study explores, to the extent necessary, State practices subsequent to the conclusion of the Chicago Convention. Examples are the unilateral closing of Qatari airspace by the United Arab Emirates in 2017,[34] and the airspace ban over Iran and Iraq in 2020.[35] The presentation of subsequent practices will be done through case studies.

1.3 Case studies

In addition to conducting a normative analysis, this study also provides case studies in relation to the establishment of prohibited airspace. Real-life examples show how rules are implemented and help to identify the deficiencies therein. Specifically, according to Allison, there are four categories of cases:[36]

1) representative cases, which are typical or standard examples of a wider category;
2) atypical or 'deviant cases,' which are those that deviate from the expected;
3) crucial cases, which are either those considered most likely to demonstrate a given theory that do not or those considered least likely to support a theory that do, in fact, support the theory; and
4) archetypal cases, which are defining cases, in the sense that a case studied becomes the model that influences subsequent cases of the same type.

These four types of case studies contribute to value judgments through inductively identifying new variables, hypotheses, casual mechanisms, and casual paths.[37] Each of the four types of cases help elucidate one aspect of regulations on prohibited airspace. The "downing"[38] of flight MH17 in 2014 and flight

33 Report of the International Law Commission, Seventieth session (30 April–1 June and 2 July-10 August 2018), Official Records of the General Assembly, Seventy-third Session, Supplement No. 10, A/73/10, p. 13-14.

34 See Chapter II, Section 3.3.

35 The Guardian, 'US bans airlines from flying over Iraq and Iran after attacks on military' https://www.theguardian.com/business/2020/jan/07/faa-ban-iran-iraq-us-airlines, last accessed 31 May 2020. See further in chapter V, Section 3.3.3.

36 Robert Yin, Case Study Research: Design and Methods (Applied Social Research Methods), SAGE Publications 2013, p. 87.

37 Alexander L. George & Andrew Bennett, *Case Studies and Theory Development In The Social Sciences*, MIT Press 2005, p. 75.

38 ICAO Council Adopts Unanimous Resolution Condemning MH17 Downing, see https://www.icao.int/Newsroom/Pages/ICAO-Council-adopts-unanimous-Resolution-condemning-MH17-downing.aspx, last accessed 7 May 2022/

PS752 in 2020 are 'representative cases',[39] because they exemplify how the establishment of prohibited airspace can enhance aviation security in times of armed conflict. The downing of MH17 and later PS752 are also 'deviant cases' because they deviate from expected operation of air transportation. Furthermore, the disputes between India and Pakistan in 2019[40] on prohibited airspace present 'archetypal cases' which illustrated conditions and requirements for establishing prohibited airspace. In addition, the closing of Qatari airspace by neighboring countries is a 'crucial case' that demonstrates a State's right and jurisdiction to establish prohibited airspace. Last but not least, the *Corfu Channel* case[41] is both a 'representative' and 'archetypal' case that has defined "elementary considerations of humanity" in establishing prohibited airspace.[42]

1.4 Interim conclusions

This study employs a methodology of normative analysis with case studies contributing to normative judgments. The normative analysis seeks, interprets and constructs legal rules on prohibited airspace. In accordance with Article 31 and 32 of VCLT, the focus is to seek ordinary meanings in light of the object and purpose of the Chicago Convention. Discussions on the preparatory work help to confirm the meanings of provisions on prohibited airspace. Case studies demonstrate the implementation of these provisions through subsequent State practices in relation to prohibited airspace.

2 TERMINOLOGIES

2.1 Introduction of terminologies

This section clarifies the terminologies to be used throughout this air law study. Air law itself is a selection and grouping of rules from different branches of law relevant for aviation.[43] Air law and general international law share many terms; still, meanwhile, air law has also developed distinctive connotations for particular terms relevant to prohibited airspace. Therefore, it is necessary to clarify terms that govern the whole study, and in light of VCLT customary interpretation rules, to facilitate interdisciplinary discussions. This section

39 See further in Chapter V, Section 3.3.

40 CNBC, 'Pakistan closed its air space, forcing airlines into drastic reroutes', https://www.cnbc.com/2019/03/01/india-pakistan-conflict-closing-of-air-space-disrupted-flights.html, last accessed 31 May 2020. See further in Chapter II of this study.

41 *Corfu Channel Case (United Kingdom v Albania),* Judgment, ICJ Reports 1949, p. 4.

42 *ibid*, 15-23.

43 *Milde*, pp. 173-174.

clarifies the usage of terms to prepare for the normative analysis of the legal requirements and conditions related to prohibited airspace.

2.2 Contracting States, States Parties, and Member States

This study examines air law rules relevant to prohibited airspace and their implementation by Contracting Parties, States Parties, or Member States. To avoid possible confusion, this section clarifies how and why the terms are used throughout this study.

2.2.1 Contracting Parties and States Parties

According to the VCLT, a Contracting State is a State that has consented to be bound by a treaty, whether or not the treaty has entered into force;[44] Party or State Party refers to a State which has consented to be bound by a treaty and for which the treaty is in force.[45] That is to say, a Contracting State becomes a State Party when the treaty has entered into force for that State.[46]

The text of the Chicago Convention confirmed this usage: it uses Contracting States to prescribe States' rights and obligations,[47] because the Chicago Convention had not entered into force when delegations drafted the text. The Chicago Convention uses only once "party to the Convention" in Article 94(b) on the amendment of the Chicago Convention.[48]

Nonetheless, the usage of 'Contracting Parties' or 'Member States' may vary in regional practices. For example, in the European Community, now European Union (EU), the 'Community' and/or to 'Member States' are referred to in the context of "matters pertaining to their respective competence and international obligations".[49]

---

44 Article 2(f), VCLT.

45 Article 2(g), VCLT.

46 Regarding the entering into force of treaty amendments, be it *erga omnes* or *inter se*, see *Milde* pp. 27-28. States Parties are commonly reserved for those provisions dependent upon the treaty being in force, for example on treaty amendments and review conferences.

47 The Chicago Convention uses 'Contracting States' for 58 times. For instance, "the contracting States recognize…" (Art. 1); "the contracting States undertake…" (Art. 3); "Each contracting State agrees that…" (Art.5).

48 Art. 94 (b) reads: "If in its opinion the amendment is of such a nature as to justify this course, the Assembly in its resolution recommending adoption may provide that any State which has not ratified within a specified period after the amendment has come into force shall thereupon cease to be a member of the Organization and a party to the Convention."

49 Contartese, Cristina. (2020). "Competence-Based Approach, Normative Control, and the International Responsibility of the EU and Its Member States", International Organizations Law Review, 17(2), pp. 418-456. Christian Tomuschat, 'Liability for Mixed Agreements' in David O'Keeffe and Henry G Schermers (eds), Mixed Agreements, Kluwer, 1983, p. 127. For an example, see the Association Agreement with Greece in 1961 that defined the concept of 'Contracting Parties' as follows: "either the Community and Member States or the

While acknowledging the usage in EU law, this study follows the approach in the Chicago Convention: this study refers to 'Contracting States' in discussing a State's rights and obligations as to prohibited airspace under the Chicago Convention and its Annexes; a State Party, in contrast, is used for discussions dependent upon the convention being in force for the States concerned. This study uses the term 'States Parties' only in the context of treaty amendment and review conferences.

2.2.2 ICAO Member States

ICAO officially came into being on 4 April 1947, upon sufficient ratifications of the Chicago Convention.[50] The webpage of ICAO treats the list of "Member States" the same as "the official list of ICAO Contracting States", therefore, it seems that ICAO considers that the accession to the Chicago Convention directly implies ICAO membership.[51]

However, a State's accession to the Chicago Convention does not automatically lead to membership of ICAO in the sole case that the applicant State is considered as an *enemy state* as described in Article 93 of the Chicago Convention.[52] Article 93 of the Chicago Convention says that "participation in this Convention" by enemy states requires additional procedures: approval by any general international organization set up to preserve peace (i.e., the United Nations),[53] four-fifth vote of the ICAO Assembly, and other conditions prescribed by the ICAO Assembly such as the assent of any State invaded or attached during the World War II by the applicant State. On the membership of Italy and Japan, ICAO Assembly Resolution A1-9 entitled "Consideration of applications for membership in ICAO" said that Article 93 contains provisions concerning the "application of membership";[54] this is reiterated in ICAO

Member States alone or the Community alone … The meaning in each case is to be deduced from the relevant provisions of the Agreement and from the corresponding provisions of the Treaty establishing the Community" (Point 5 of Annex II to the Agreement) (OJ 293/63 ff, at 346/63).

50 'The History of ICAO and the Chicago Convention,' https://www.icao.int/about-icao/History/Pages/default.aspx, last accessed 12 April 2020.

51 See https://www.icao.int/about-icao/Pages/member-states.aspx, last accessed 20 December 2017.

52 Article 93, the Chicago Convention.

53 *Milde,* p. 32.

54 See ICAO Assembly Resolution A1-9.

Assembly Resolution A1-5 dealing the membership of Italy,[55] and in ICAO Assembly Resolution A7-2 about the membership of Japan.[56]

In the early days, the Chicago Convention was not generally open to adherence by all States.[57] ICAO was envisaged as a 'club' for the Allies and neutral countries in World War II.[58] Members of the Allies and neutral countries could adhere to the Chicago Convention and thus become members of ICAO without any special admission procedure. For an "enemy State",[59] an obsolete category,[60] ICAO membership is not a direct implication of adherence

55 *Milde*, p. 32. Milde said that "in 1947 Italy – a former ally of Germany – was admitted by resolution A1-5 without any conditions". However, the ICAO Assembly Resolution A1-5, *Admission of Italy to Membership in ICAO*, did specify some conditions. Resolution A1-5 reads: "The Assembly Resolves:
That Italy be admitted to participation in the Convention in the Convention on International Civil Aviation subject to approval by the General Assembly of the United Nations and to the assent of those States whose special assent is required by Article 93 of the Convention and on the condition that it adheres to the convention.
…That this Resolution, together with all supporting documents, be transmitted by the Secretary General of the ICAO to any State whose assent is required by Article 93 of the Convention and which does not cast its vote in favour of this Resolution for the assent of such State; …
That Italy shall be admitted to participation in the Convention on the thirtieth day after the last of the following events has taken place:
1. Adjournment of the first session of the General Assembly of the United Nations following receipt by the General Assembly of the said application without the General Assembly having recommended the rejection of the application;
2. Receipt by the Secretary General of the Organization of all necessary assents to the said application; and
3. Receipt by the Secretary General of the Organization of notice from the Government of the United States of the receipt of Italy's notification of adherence."

56 ICAO Assembly Resolution A7-2, *Admission of Japan to Participation in the Convention on International Civil Aviation*, reiterated that "WHEREAS Article 93 of the Convention makes provision for the admission to participation therein of certain States such as Japan; … THEREFORE THE ASSEMBLY RESOLVES: (1) That Japan be admitted to participation in the Convention on International Civil Aviation in accordance with the provisions of Article 93 of the Convention and on condition that it adheres to the Convention;… "

57 *Milde*, pp. 31-32.

58 *Milde*, p. 31.

59 See Articles 107 and 53 of the United Nations Charter.

60 *ibid*. Former enemy States have become members of the United Nations. As of the year April 2020, Cook Islands is an ICAO Member State, but not a UN Member State. See https://www.un.org/en/member-states/#gotoC, last accessed 12 April 2020. Liechtenstein is a UN Member State, but not an ICAO Member State. Nonetheless, the Chicago Convention applies to the territory of Liechtenstein. The Minister of Switzerland made the statement transmitting the Swiss Instrument of Ratification: "My Government has instructed me to notify you that the authorities in Switzerland have agreed with the authorities in the Principality of Liechtenstein that this Convention will be applicable to the territory of the Principality as well as to that of the Swiss Confederation, as long as the Treaty of 29 March 1923 integrating the whole territory of Liechtenstein with the Swiss customs territory will remain in force." See https://www.icao.int/publications/Documents/chicago.pdf, last accessed 12 April 2020.

to the Chicago Convention: in addition to adhering to the Chicago Convention, an 'enemy State' has to go through Article 93's procedures to get ICAO membership – thus, a two-step process.

Nonetheless, it is not necessary to maintain the distinction of friendly and enemy State as in Articles 92 and 93 of the Chicago Convention any longer, because all Contracting States of the Chicago Convention are currently ICAO Member States. In this study, the term Member State is to emphasize the fact being a member of an organization and therefore to be used in contexts relevant to ICAO-led activities.

2.2.3 Interim conclusions

The Chicago Convention was envisaged to deal with aviation matters among friendly countries, the Allies and neutral countries in World War II. An enemy State has to go through Article 93 procedures to become an ICAO Member State. In line with the Chicago Convention, this study uses 'Contracting Parties' for normative analysis of treaty provisions related to prohibited airspace. The term 'Member States' are reserved for ICAO-centered matters and 'States Parties' for treaty review and amendment processes.

2.3 Territory, sovereignty, and jurisdiction

This study's first and second research questions seek to identify the authority that has the jurisdiction to establish prohibited airspace, and how and where such authority can do so. The Chicago Convention prescribes the rules for designating prohibited airspace over a State's territory.[61] Territory and sovereignty, therefore, are the starting points for discussing the jurisdiction to establish prohibited airspace.

2.3.1 Sovereignty

2.3.1.1 Airspace sovereignty

The competence of a State with respect to their territory is usually described in terms of sovereignty and jurisdiction, but the two terms are not employed consistently in legal sources.[62] An orthodox view of sovereignty puts emphasis

61 Article 9 of the Chicago Convention. Detailed analysis is presented in Chapter II of this study.

62 Ian Brownlie, *Principles of Public International Law*, 7th edn, Oxford University Press 2008, p. 204. ('Brownlie')

on territory,[63] so does the Chicago Convention. Article 1 of the Chicago Convention provides:

> The contracting States recognize that every State has complete and exclusive sovereignty over the air space above its territory.[64]

This provision is the leading principle in air law recognizing Contracting States' sovereignty over national airspace.[65] The concept of complete and exclusive air sovereignty means, in the first place, the exclusive *jurisdiction* of a Contracting State to adopt laws and regulations relating to the status and uses of its airspace and to implement such laws by administrative decisions and sanctions – all to the exclusion of any other State's jurisdiction.[66]

Sovereignty means independence,[67] but as soon as an independent State adheres to the international legal order, its sovereignty becomes constrained by the terms of this legal order.[68] Article 1 of the Chicago Convention has to be read in the context of other peremptory rules of general international law, such as the fulfillment of international obligations in good faith.[69] As elaborated in the *Palmas* case,

> Sovereignty in the relations between States signifies independence … [T]erritorial sovereignty … involves the exclusive right to display the activities of a State. This right has a corollary duty: the obligation to protect within the territory the rights of other States [.][70]

---

63 James Crawford, *The Creation of Studies in International Law*, 2nd edn, Oxford University Press 2007, p. 47. Cédric Ryngaert, *Jurisdiction in International Law*, Oxford Univesity Press 2008, Ch. 3. 'the Territoriality Principle'. Steven Truxal, *Economic and Environmental Regulation of International Aviation*, Routledge 2017, pp.37-40: "Territorial sovereignty is defined as supreme and exclusive authority within a State's territory, thereby defining the 'territorial State'. See also Derek Croxton, 'The Peace of Westphalia of 1648 and the Origins of Sovereignty', *The International History Review* 21, no. 3, (1999), p. 570.

64 Article 1 of the Chicago Convention.

65 This study therefore uses 'sovereign airspace' and 'national airspace' interchangeably for the airspace under a State's sovereignty.

66 *Milde*, p. 36. Mind of the division of internal and external sovereignty, sovereignty being supreme for internal affairs and independent from external interferences, it is not easy to make a distinction. Of relevance to this Section, the authors means to emphasize the independence dimension of sovereignty, so to speak the external sovereignty. See Steven Truxal, *Economic and Environmental Regulation of International Aviation*, Routledge 2017, p. 37.

67 Mendes de Leon, 'The Dynamics of Sovereignty and Jurisdiction in InternationalAviation Law', p. 486. *Island of Las Palmas Case (or Miangas), United States v. Netherlands*, Award (1928) IIRIAA 829 ICGJ 392.

68 Pablo Mendes de Leon, *Cabotage in Air Transport Regulation*, Martinus Nijhoff Publishers 1992, p. 29.

69 *Milde*, p. 36.

70 *Island of Las Palmas Case (or Miangas), United States v. Netherlands*, Award (1928) IIRIAA 829 ICGJ 392.

It is only by limiting the manner in which sovereign States may exercise their sovereignty that international society can ensure respect for the sovereignty of all States.[71] The principle of complete and exclusive sovereignty is not a self-centered entitlement;[72] it may be limited by common law, international agreements and other instruments and factors.[73] More specifically, the exercise of airspace sovereignty is qualified and "requalified" according to trends pertaining to arrangements within a State, that is with autonomous entities, as well as between States and international or supranational organizations, and is also subject to liberalization of air services and privatization of providers of such services.[74]

Last but not least, it is critical to distinguish sovereignty and sovereign rights. Both concepts denote a sense of exclusivity. Sovereignty is exercisable solely within the territory in question over all matters and all people in an exclusive matter;[75] whereas sovereign rights are limited to the matters defined by international law.[76] Considering that the term "sovereign rights" does not appear in the Chicago Convention but in the United Nations Convention on the Law of the Sea (UNCLOS) for economic exploration and exploitation in maritime zones,[77] this study thus avoids the usage of sovereign rights for discussion in relation to the air. When it comes to a specific matter within a Contracting State's territory, such as the right to establish prohibited airspace,[78] this thesis does not refer it as sovereign right, but sees it as the exercise of *sovereignty*.

2.3.1.2 Airspace sovereignty in relation to jurisdiction

In contrast with sovereignty denoting a sense of exclusive competence, jurisdiction is related to particular rights or the accumulation of rights quantitatively less than sovereignty.[79] Sovereignty is a shorthand for the legal personhood

71 Anders Henriksen, *International Law*, OUP 2017, p. 12. See also *Milde,* p. 28: " [The Chicago Convention] is to create a functioning mechanism, a 'club' of States following the shared aims, principles and expectations in a particular field of activities and in such an organization the States willingly accept a certain limitation of their sovereign powers by accepting the rule of a constitutional majoirity in the decision-making."

72 *Milde,* p. 36.

73 See Anna Konert, 'The Development of Civil Aviation and Its Impact on Sovereignty', in Pablo Mendes de Leon, & Buissing, Niall. *Behind and beyond the Chicago Convention: The evolution of aerial sovereignty*, Wolters Kluwer 2019, Chapter 29.

74 Pablo Mendes de Leon, 'The Dynamics of Sovereignty and jurisdiction in International Aviation Law', in *State, Sovereignty, and International Governance,* ed. Gerard kreijen, OUP 2002, p. 486.

75 Yoshifumi Tanaka, 'Jurisdiction of states and the law of the sea', in *Research Handbook on Jurisdiction and Immunities in International Law.* Edward Elgar Publishing 2015, p. 114.

76 *ibid,* pp. 115-129.

77 See Chapter IV, Section 2.3.

78 To be explained in Chapter II.

79 *Brownlie,* p. 204.

of a State, whereas jurisdiction concerns particular aspects and scope of such personhood, especially rights or claims, liberties, and powers.[80]

States are able to share jurisdiction with or transfer such competence to a supranational organization or another State.[81] A technical way to distinguish sovereignty from jurisdiction is to identify the existence of consent.[82] For example, State A may manage air traffic or provide navigation services within the boundaries of State B. If, however, these rights exist with the consent of the host State, then State A has no claim to sovereignty over any part of State B.[83] State A does not gain sovereignty consequently over the said airspace.

This study focuses on prohibited airspace in Article 9 of the Chicago Convention and relevant Annexes;[84] this analysis does not mean to challenge the territoriality-linked sovereignty as supported by Articles 1 and 2 of the Chicago Convention. The writing thus follows such usage that sovereignty means the traditional territorial sovereignty; jurisdiction, in comparison, is sustained by not only sovereignty but also particular rights or competences[85] conferred by States with consent, expressed in internal law, bilateral agreements or multilateral treaties.[86] Both territorial sovereignty and jurisdiction demotes a sense of scope and extent, which is spatial by nature: territorial sovereignty means "the complete spatial jurisdiction"[87] whereas jurisdiction may be limited to certain space, as explained in Chapter III on delegated airspace.

2.3.2 Territory

Since the Chicago Convention mentions sovereignty in a way linking to territory, it is necessary to explore the meaning of territory in air law. Accord-

80 *ibid*.

81 See further Section 2.3.3 of this chapter. Mendes de Leon, 'The Dynamics of Sovereignty and Jurisdiction in International Aviation Law' in Gerard Kreijen (ed.), *State, Sovereignty, and International Governance*, OUP 2002, pp 484 & 488. Pablo Gbenga Oduntan, *Sovereignty andJurisdiction in the Airspace and Outer Space: Legal Criteria for Spatial Delimitation*, Routledge 2012, pp. Robert Jennings, 'Sovereignty and International Law' in Gerard Kreijen (ed.), *State, Sovereignty, and International Governance*, OUP 2002, p. 29. Asha Kaushal, 'The Politics of Jurisdiction' (2015) 78(5) The Modern Law Review, p. 780. Cédric Ryngaert, 'The Concept of Jurisdiction in International Law' in Alexandre Orakhelashvili (ed.), *Research Handbook on Jurisdiction and Immunities in International Law*, Edward Elgar Publishing 2015 , p. 67.

82 *Brownlie,* p. 204.

83 See also Hendry I. & Dickson S., *British Overseas Territories Law,* Hart Publishing 2011, pp. 339-42.

84 See Chapter II, Section 2.

85 See Section 2.3.3 of this chapter.

86 See further Chapters III and IV on jurisdiction to provide ATS in cross-border situations and over the high seas.

87 Yoshifumi Tanaka, 'Jurisdiction of states and the law of the sea', in *Research Handbook on Jurisdiction and Immunities in International Law.* Edward Elgar Publishing 2015, p. 114.

ing to Article 2 of the Chicago Convention, the concept of territory is defined as follows:

> For the purposes of this Convention the territory of a State shall be deemed to be the land areas and territorial waters adjacent thereto under the sovereignty, suzerainty, protection, or mandate of such State.[88]

Article 2 of the Chicago Convention specifies that the territory of a State refers to land areas and territorial waters under the sovereignty, suzerainty, protection, and mandate of such State. The terms suzerainty, protectorate, and mandate were concepts of the League of Nations.[89] Such dependency relationships, exemplified by vassalage and trusteeship, have ceased to exist.[90] Removing suzerainty, protectorate and mandate from Article 2, then readers can see only sovereignty remains. Consequently, territory is a legal concept denoting areas under sovereignty. It is consistent with the definition of territory in public international law;[91] in addition to sovereignty, land, water and sea may also be governed *res nullius* and *res communis*.[92]

When it comes to airspace management, according to Article 28 of the Chicago Convention, a Contracting State is obliged to provide air traffic services (ATS) and infrastructure in its *territory*.[93] Since territory is only associated with sovereignty, a Contracting State is entitled to provide air traffic services in its sovereign airspace only; nevertheless, ICAO regulations provide that a Contracting State determines the provision of air traffic services for territories under its *jurisdiction*.[94] As clarified in the previous section, sovereignty is distinguishable from jurisdiction. Jurisdiction is used more in technical contexts where States make agreements as to particular rights, powers or

88 Chicago Convention, Article 2.

89 *Milde,* p. 37. Pablo Mendes de Leon, *Cabotage in Air Transport Regulation,* Martinus Nijhoff Publishers 1992, p. 27. Palau, the last United Nations trust territory, gained independence in 1994. See https://www.un.org/en/Sections/about-un/trusteeship-council/, last accessed Sep 14, 2020.

90 See Higgins, R. et al., *Oppenheim's International Law: United Nations*, OUP 2017, p. 101. See also Pablo Mendes de Leon, *Cabotage in Air Transport Regulation,* Martinus Nijhoff Publishers 1992, 27.

91 Oppenheim observed that '[t]he importance of State territory lies in the fact that it is the space within which the State exercise its supreme authority.' Oppenheim, *International Law,* vol. 1 8th ed., p. 452.

92 *Brownlie,* p. 203. An area designated *res nullius* consists of an area legally susceptible to acquisition by States but not as yet placed under territorial sovereignty. Areas designated *res communis*, consisting of the high seas and exclusive economic zones, are not capable of being placed under sovereignty.

93 See Article 28 of the Chicago Convention.

94 For instance, Standard 2.1.1 of Annex 11, *Air Traffic Services,* prescribes that 'Contracting States shall determine, in accordance with the provisions of this Annex and for the territories over which they have *jurisdiction*, those portions of the airspace and those aerodromes where air traffic services will be provided.' (emphasis added).

competences. This study will further clarify the meanings of sovereignty and jurisdiction in the context of providing ATS.

2.3.3 *Jurisdiction*

Jurisdiction concerns the power of the state to affect people, property and circumstances and reflects the basic principles of respect for sovereignty, equality of states, and noninterference in domestic affairs.[95] 'Jurisdiction' is thus the term that describes the scope or extent of the legal competence of a State or other regulatory authority to make, apply and enforce rules of conduct upon persons.[96] It concerns essentially the extent of each State's right to regulate behaviors or the consequences of events.[97]

According to Professor Bin Cheng, jurisdiction is composed of two parts: 'jurisaction' and 'jurisfaction'.[98] Jurisaction represents the normative element; it entitles a State to make laws or take decisions.[99] Jurisfaction enables a State to carry out the functions of a State by establishing a mechanism to make laws, to take decisions, and to implement and to enforce its laws and decisions.[100] Based on this theory, there are three types of jurisdiction: prescriptive, adjudicatory and executive jurisdiction. Prescriptive/legislative jurisdiction, that is jurisfaction, is the right of a State to apply its laws to the activities, relations or status of persons or the interests of persons in things.[101] Adjudicative jurisdiction is the right of a State's courts to subject persons or things to their adjudicative processes and issue a ruling on a matter.[102] Often accompanying adjudicatory jurisdiction, executive/enforcement jurisdiction then refers to a State's jurisdiction to enforce or compel compliance or to punish non-compliance with its laws or regulations, that is jurisaction.[103]

Jurisdiction is underpinned by sovereignty or particular rights or competences. This study uses 'exercise' of jurisdiction for the dynamic process of

---

95 M. Shaw, *International Law,* CUP 2003, p. 572. M. Akehurst, 'Jurisdiction in International Law', 46 British Yearbook of International Law 1972e3, 145; D. W. Bowett, 'Jurisdiction: Changing Problems of Authority over Activities and Resources', 53 British Yearbook of International Law 1982, p. 1; R. Y. Jennings, 'Extraterritorial Jurisdiction and the United States Antitrust Laws', 33 British Yearbook of International Law 1957, p. 146; *Oppenheim's International Law*, p. 456; I. Brownlie, Principles of Public International Law, 7th edn, OUP 2008, chapters 14 and 15; and R. Higgins, Problems and Process, OUP 1994, Chapter 4.

96 M.D. Evans, International Law, OUP 2014, p. 309.

97 *Oppenheim's International Law*, p. 456.

98 Bin Cheng, *Studies in International Space Law*, Clarendon 1997, p. 150.

99 *ibid*.

100 *ibid*.

101 C. Ryngaert, *Jurisdiction in International Law*, OUP 2008, p. 9.

102 *ibid.*

103 *ibid*, pp.9-10. The concept of 'jurisdiction' is also used in the context of an international tribunal's competence to deal with contentious cases. For example, on the jurisdiction of the International Court of Justice, see https://www.icj-cij.org/en/jurisdiction, last visited 19 September 2018.

realizing the right or competence. Chapter II of this thesis discusses the sovereignty of a State with respect to the airspace above its territory: a Contracting State is to exercise its jurisdiction[104] over all matters within its territory with no limit *ratione materiae* or *rationae personae*.[105] Chapters III and IV explore the jurisaction and jurisfaction of a delegated State in providing ATS, which is linked to the competence of the appropriate ATS authority thereby established.

2.3.4 Competence

2.3.4.1 Competence and capacity

The word 'competence' has the linguistic connotation of the ability to do something well.[106] When an entity, being a State defined by international law or an organ of the State, has a specific competence, this means that this entity is able to do something – *can* do something well. This competence is to be distinguished from a very similar concept of *capacity*. Professor Fairman said that capacity in international law means the aptitude of a person to the enjoyment and exercise of rights under that law; this is an attribute of the State as an international person.[107] Full *capacity*, that is the status of sovereignty, is the normal condition of a State, but a State is able to bind itself to special limitations.[108]

In contrast, competence is a question of what an organ or officer of a State is to transact a particular kind of governmental business.[109] Internal law determines the competence of an organ of a State and thereby confers the authority to that organ.[110] Therefore, competence is used to describe the ability of an organ or authority designated by a State; such competence is determined by internal laws. It is different from the description of the full capacity of a State – the sovereignty. A State cannot exercise sovereign powers without conferring competences to its governmental organs;[111] in this sense, the com-

104 In the context of international air transport, the concept of jurisdiction must be understood as the competence based on both national and international consensus and law, to decide on matters regarding civil aviation in policy, technical and economic terms. See Pablo Mendes de Leon. *Cabotage in Air Transport Regulation*. Nijhoff, 1992, pp. 30-31.

105 Yoshifumi Tanaka, 'Jurisdiction of states and the law of the sea', in *Research Handbook on Jurisdiction and Immunities in International Law.* Edward Elgar Publishing 2015, p. 114.

106 https://www.oxfordlearnersdictionaries.com/us/definition/english/competence, last accessed 2 February 2022.

107 Charles Fairman, 'Competence to Bind the State to an International Engagement', *The American journal of international law* 30 (1936), p. 440-441.

108 *ibid*.

109 *ibid*.

110 *ibid.*

111 On 'State organ/entity', see United Nations, Responsibility of States for Internationally Wrongful Acts 2001. The draft articles, which also contain commentaries, appears in Yearbook of the International Law Commission, 2001, vol. II (Part Two), pp. 40-42. Text

petence of an entity is determined by international law for the purpose of exercising *functional/technical* aspects of sovereignty.[112]

This usage echoes the analysis of Professor Brownlie, as mentioned in Section 2.3.2 of this chapter, the existence of consent demonstrates whether it is the full capacity, *i.e.*, sovereignty – or restricted capacity, *i.e.,* jurisdiction – is at issue. Both sovereignty and jurisdiction demotes a sense of capacity but jurisdiction is less complete than sovereignty.[113] For example, as will be mentioned in Chapter III on the ATS provision,[114] the *jurisdiction* of a providing State is less than that of a delegating State, because the delegating State, enjoying sovereignty, has the full capacity; the delegating State imposes restrictions to its capacity with its own consent – this consent is expressed in a bilateral agreement, or through regional agreements, exemplified by analyses in Chapter IV.[115]

2.3.4.2 The usage of competence in the context of EU law

Having clarified the meaning of competence in public international law, the author thinks it is necessary to discuss the meaning of 'competence' in EU law to see if EU law has developed or changed the meaning of competence in international law. In the context of EU studies, scholars delivered analysis on the division of competences between the European Community (EC), later the EU institutions, and the Member States of the EU.[116] The development in EU law challenged the perception of the power parameters of an organization

reproduced as it appears in the annex to General Assembly resolution 56/83 of 12 December 2001, and corrected by document A/56/49(Vol. I)/Corr.4. See further Section 2.2 of Chapter III.

112 On "technical sovereignty", see further in Steven Truxal, *Economic and Environmental Regulation of International Aviation*, Routledge 2017, pp. 56-57.

113 Mendes de Leon, 'The Dynamics of Sovereignty and Jurisdiction in International Aviation Law' in Gerard Kreijen (ed.), *State, Sovereignty, and International Governance*, OUP 2002, pp. 484 & 488.

114 See Sections 3.3.2 and 5.2 of Chapter III.

115 On regional agreements and ANPs, see chapter IV. Consent-based consultations and jurisdiction are necessary to find a solution of airspace that is subject to sovereignty disputes, see Section 3.3.3.2 of Chapter IV.

116 Mendes de Leon, Pablo. 'The Relationship Between Eurocontrol and the EC: Living Apart Together', *International Organizations Law Review* 4, no. 2 (2008), pp. 311-312. Contartese, Cristina, 'Competence-Based Approach, Normative Control, and the International Responsibility of the EU and Its Member States', *International Organizations Law Review* 16, no. 2 (2019), pp. 339–377. Tillotson, J., & Foster, N. G. *Text, cases, and materials on European Union law* (4th ed.), Cavendish Publisher 2003, p. 31.

vis-à-vis its Member States;[117] the debate over a competence-based approach is on-going.[118]

For the purpose of this study, the EU law development does not change the fundamental idea that 'competence' means the authority given by internal law to a certain organ to do something. The subsequent chapters of this study do not use the term 'competence' to describe the relationship or liability between an international organization and its member states, but aim to analyze the specific capacity of an 'internal' entity in delivering ATS for the establishment of prohibited airspace.[119] What is changed is the idea of 'internal' law - it is no longer about the domestic laws of EU Member States; the internal law can refer to the treaties concluded for the purpose of the EU,[120] because those fundamental treaties, such as the Treaty on the Functioning of the EU,[121] limit sovereignty through the transfer of powers from the States to the EU; these fundamental treaties underpin the competences of the EU.[122] 'Internal law' thus in this sense includes EU law and 'internal entity' includes the institutions of the EU.

Therefore, the advancement in EU law does not challenge the proposition that 'competence' means the authority to transact or manage certain governmental affairs and the competence is determined by internal law. A broader

117 See generally Azoulai, Loi¨c. *The Question of Competence in the European Union*. OUP 2014. J. Temple Lang, 'European Community Constitutional Law: The Division of Powers between the Community and the member States', *Northern Ireland Legal Quarterly* 39, no. 3 (1988), p. 209. The EU has also conducted treaty-concluding practices. Guillaume Van der Loo and Ramses A Wessel, 'The non-ratification of mixed agreements: Legal consequences and solutions' (2017) 54 Common Market Law Review, pp. 735-770, 754-758, point out that "a further indication on the delimitation of competences may be found in some Council decisions for signature and provisional application of mixed agreements that contain a list of provisions falling within Union competences (exclusive or shared) that shall provisionally apply". The Treaties Office Database of the European External Action Service provides a list of bilateral agreements and multilateral agreements concluded by the European Union (EU), the European Atomic Energy Community (EAEC) and the former European Communities (EC, EEC, ECSC), available at https://eur-lex.europa.eu/collection/eu-law/treaties/treaties-force.html.

118 See generally Delgado Casteleiro, A. (2016). *The international responsibility of the European Union: From competence to normative control*, CUP 2016.

119 See Sections 3.3.2 and 5.2 of Chapter III.

120 The EU has only the competences conferred on it by the Treaties (principle of conferral). Under this principle, the EU may only act within the limits of the competences conferred upon it by the EU countries in the Treaties to attain the objectives provided therein. Competences not conferred upon the EU in the Treaties remain with the EU countries. Articles 3, 4 and 5 of the TFEU (Treaty on the Functioning of the European Union) sets out the division of competences between the EU and EU countries.

121 European Union, Consolidated version of the Treaty on the Functioning of the European Union, 26 October 2012, OJ L. 326/47-326/390; 26.10.2012.

122 Case 6/64, *Flaminio Costa v ENEL* [1964] ECR 585. Steven Truxal, *Economic and Environmental Regulation of International Aviation*, Routledge 2017, pp. 53-54, noting the development of *functional* sovereignty in comparison with territorial sovereignty.

interpretation of 'internal law' enables the definition of competence to stand still.

2.3.5 *Interim conclusions*

The Chicago Convention recognizes 'territory' as land areas and territorial waters under State sovereignty, as prescribed in Articles 1 and 2 of the Chicago Convention. This section puts an emphasis on competence and jurisdiction because the traditional construction of territory may cause difficulties in explaining cases where a Contracting State does not actually manage its sovereignty airspace; or cases where the jurisdiction of a Contracting State to provide air traffic services exceeds the scope of its sovereign airspace. To clarify the usage of terminologies, for the purpose of this study, the usage of sovereignty is reserved exclusively for the territoriality context, in line with the 'black-letter' Chicago Convention. This study uses 'competence' for the exercise of particular functional or technical sovereign powers; the scope of a particular 'competence' is thus referred as 'jurisdiction'. Internal law determines the competence of a State organ, or that of an EU institution in the context of EU law, and thereby confers authority to that organ or institution.

2.4 Responsibility and obligation

2.4.1 *Responsibility*

In international law, responsibility may denote a competence, as Article 24 of the UN Charter provides that the UN Security Council has "primary responsibility for the maintenance of international peace and security."[123] UNCLOS also establishes a direct relationship between competence and responsibility,[124] where each party bears responsibility in its specific field of competence as indicated in the declaration of competence.[125] These treaty-making

123 See Security Council, Presidential Statement, SCOR 61st Session, 6389th Meeting, Doc. S/PRST/2010/18 of 23 September 2010.

124 UNCLOS Annex IX art 6 [1]: "Parties which have competence under article 5 of this Annex shall have responsibility for failure to comply with obligations or for any other violation of this Convention". On Annex IX of UNCLOS, see Erik Franckx et al, 'Annex IX. Participation by International Organizations', in A Proelß (ed), *The United Nations Convention on the Law of the Sea: A Commentary*, C H Beck, Hart, and Nomos, 2017, pp.2513-2014.

125 A declaration of competence is an instrument that allows the division of competence between the EU and its Member States to be reflected in the scope of the agreement. See Liesbeth Lijnzaad, 'Declarations of Competence in the Law of the Sea, a Very European Affair', in Lodge and Nordquist et al (eds), *Peaceful Order in the World's Oceans*: Essays in Honor of Satya N Nandan, Martinus Nijhoff 2014, p. 186; Joni Heliskoski, 'EU Declarations of Competence and International Responsibility' in Malcolm Evans and Panos Koutrakos (eds), *The international responsibility of the European Union: European and international perspect-*

practices make it easy to understand that 'responsibility' encompasses a right, competence or authority to do something.

Meanwhile, in international law, responsibility is used in the sense of State's *obligation* in respect of another State's human rights situations as in "the responsibility to protect"[126] and combating international terrorism.[127] International tribunals may also use responsibility to denote individual criminal liability.[128] To make it more complicated, in the theory of administrative law,[129] responsibility sometimes is treated as a term for accountability.[130]

Albeit all these different connotations exist, responsibility necessarily implies an obligation or a duty to act. Often, assigning actors with responsibility leads to the establishment of primary obligations for them. According to the customary law of state responsibility, as codified by ILC, 'responsibility' is used in a way concerned the violation of a State's international obligations.[131] Responsibility in this sense denotes an underlying obligation.[132] This study thus uses responsibility as a concept with two dimensions: 1) competence, *can* do something; and 2) obligation, *should* do something. This study adopts this two-fold construction of the concept of responsibility. Notably, 'responsibility' is still different from the concept of liability, which will be explained in the following section.

2.4.2 Obligation

In international law, an obligation, whether treaty-based or not, means an actor must do something; otherwise, the breach of an obligation incurs responsibil-

ives, Hart, 2013, p. 189; Andrés Delgado Casteleiro, 'EU Declarations of Competence to Multilateral Agreements: A Useful Reference Base?' (2012) 17 European Foreign Affairs Review p. 491.

126 See for example, M. hakimi, "State Bystander Responsiblity", EJIL 21 (2010), p. 341.

127 See T. Reinold, 'State Weakness, Irregular Warfare, and the Right to Self-Defense Post-9/11', AJIL 105 (2011), p. 244 *et seq.*

128 Statute of the International Tribunal for the Prosecution of Persons Responsible for Serious Violations of International Humanitarian Law committed in the Territory of the Former Yugoslavia since 1991, arts 1, 7 and S/RES/827 (1993) of 25 May 1993.

129 See R. Steward, "Administrative law for the 21st century", NYU Law Review 78 (2003), p. 437; Y. Papadopoulos, "Problems of Democratic Accountability in Network and Multilevel Governance", ELJ 13 (2007), p. 477 *et seq.*

130 Volker Roeben, 'Responsibility in Internatioanl Law', in Bogdandy and Wlfrum eds., Max Plank Yearbook of United Nations law, vol. 16, 2012, p. 104.

131 See Article 28 ILC Articles on Responsibility of States for Internationally Wrongful Acts, annexed to A/RES/56/83 OF 12 December 2001, in: Report of the ILC, 53rd Session, Doc. A/56/10.

132 Volker Roeben, "Responsibility in International Law", in Bogdandy and Wolfrum eds., *Max Plank Yearbook of United Nations law*, vol. 16, 2012, p. 109.

ity.[133] In its judgment on jurisdiction in the *Factory at Chorzów* case, the PCIJ used the words "breach of an engagement";[134] these words were later used by the International Court of Justice (ICJ) in the *Reparation for Injuries* case.[135] In practice, terms such as "non-execution of international obligations", "acts incompatible with international obligations", "violation of an international obligation"[136] or "breach of an engagement" are also used.[137] The phrase preferred in this study is "breach of an international obligation" corresponding as it does to the language of Article 36, paragraph 2 (c), of the ICJ Statute.[138]

In early international arbitral decisions, 'duty' and 'obligation' were both used in the context of international responsibility, but later with the progressing of the ILC's work State Responsibility, 'obligation' has been adopted as the terminology for the context of international responsibility. 'Obligation' appears 61 times in the text of Articles on State Responsibility, whereas the 'duty' appears only once, in Article 29.[139] The term 'obligation', no matter if its provenance is civil or criminal, is more often associated with the discourse

133 See Aforementioned Section 2.4 on competence, responsibility and liability. Also, Article 2 of the Articles of State Responsibility says: "There is an international wrongful act of a State when conduct consisting of an action or omission:
(a) is attributable to the State under international law; and
(b) constitutes a breach of an international obligation of the State."
See UN General Assembly, Responsibility of States for internationally wrongful acts: resolution / adopted by the General Assembly, 8 January 2008, A/RES/62/61.

134 PCIJ, *Case Concerning the Factory at Chorzów (Claim for Indemnity), Germany v. Poland*, Jurisdiction, para. 55.

135 ICJ, *Reparation for Injuries Suffered in the Service of the United Nations, Advisory Opinion,* ICJ Report, p. 184.

136 France-New Zealand Arbitration Tribunal, *Rainbow Warrior, New Zealand v. France,* 82 I.L.R. 500 (1990). p. 251, para. 75. *('Rainbow Warrior)*

137 At the Conference for the Codification of International Law, held at The Hague in 1930, the term "any failure ... to carry out the international obligations of the State" was adopted (see Yearbook ... 1956, vol. II, p. 225, document A/CN.4/96, annex 3, article 1).

138 Article 36, ICJ Statute reads: "The states parties to the present Statute may at any time declare that they recognize as compulsory *ipso facto* and without special agreement, in relation to any other state accepting the same obligation, the jurisdiction of the Court in all legal disputes concerning: a. the interpretation of a treaty; b. any question of international law; c. the existence of any fact which, if established, would constitute a breach of an international obligation ; d. the nature or extent of the reparation to be made for the breach of an international obligation."

139 Article 29 of the Articles on State Responsibility prescribes that a State has a continued 'duty' of performance, even if the other party committed some wrongful act(s). Indeed, in some situations, a material breach of a bilateral treaty may give an injured State the right to terminate or suspend the treaty in whole or in part, as prescribed in Art. 60 of VCLT. However, as the VCLT makes clear, the mere fact of a breach of a treaty does not automatically terminate the treaty. See the *Gabèíkovo–Nagymaros Project* case, p. 68, para. 114. See ILC, "Text adopted by the International Law Commission at its fifty-third session, in 2001, and submitted to the General Assembly as a part of the Commission's report covering the work of that session (A/56/10). The report, which also contains commentaries on the draft articles, appears in the Yearbook of the International Law Commission, 2001, vol. II, Part Two, http://legal.un.org/ilc/texts/instruments/english/commentaries/9_6_2001.pdf, p. 88.

of international responsibility,[140] 'duty' is more for describing more general and moral situations, as it derives from the 'Moral Law' as put by Kant.[141] Likewise, in *Black's Law Dictionary*, the word "duty" is the equivalent of "moral obligation", as distinguished from a "legal obligation".[142]

2.4.3 Interim conclusions

The concept 'responsibility' is used in different contexts to emphasize its various aspects. Responsibility expresses a hierarchy relationship – an actor supervises and exercises competence towards another actor. In this sense, the term 'responsibility' denotes that the responsible actor both *can* and *should* do something, so that it can involve both competences and obligations.

2.6 Aviation safety, security, and risk

The third research question of this thesis is how to establish prohibited airspace to enhance aviation security. To answer this question, one needs to understand how prohibited airspace can protect civil flights from risks arising from conflict zones. For this purpose, this next section clarifies the meanings of risk, safety, and security used in this study.

2.6.1 Aviation safety and security

Aviation safety has different meanings and each meaning depends on the context in which it is used. According to ICAO, 'safety' is the following:

> The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.[143]

---

140 "Obligation" appears 61 times in the text of Articles on State Responsibility, whereas "duty" appears once.

141 "A good will is a will whose decisions are wholly determined by moral demands or, as he often refers to this, by the Moral Law. Human beings inevitably feel this Law as a constraint on their natural desires, which is why such Laws, as applied to human beings, are imperatives and duties. A human will in which the Moral Law is decisive is motivated by the thought of duty." See Johnson, Robert and Adam Cureton, "Kant's Moral Philosophy", The Stanford Encyclopedia of Philosophy (Spring 2022 Edition), Edward N. Zalta (ed.), forthcoming URL = <https://plato.stanford.edu/archives/spr2022/entries/kant-moral/>.

142 See *Black's Law Dictionary Free Online Legal Dictionary 2nd ed.* https://thelawdictionary.org/duty/, last accessed Jan 10, 2018.

143 ICAO Doc 10084. Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones, 2nd ed., 2018, p. xiii.

Safety is interpreted as the result of efficient review and management of organizational processes, with the target of controlling safety risks and hazards in the operational environment.[144] The scope of review and management may range from routine suspension of a license of an unqualified pilot to the temporary grounding of all civil aircraft at the time of a crisis.[145] Safety does not mean zero risk; it means that the risk associated with aviation activities is reduced to an acceptable level.

Furthermore, aviation safety generally relates to the *internal* operation of an aircraft, such as personnel licensing and airworthiness, whereas security means "safeguarding civil aviation against acts of unlawful interference."[146] Aviation security, in contrast, is focused on *external* interferences to civil flight.[147] The operation of an airworthy aircraft with competent crew members may become unsafe if it is subject to missile attacks, which are external to the operation of aircraft.

This study focuses on prohibited airspace due to an armed conflict on the ground. A missile launched from a conflict zone is external to aircraft operations; thus, this study more specifically addresses aviation security.

2.6.2 *Defining risk*

The word 'risk' originally referred to chance in a neutral way,[148] however, this word now is used to mean the chance of undesirable results,[149] and "the danger or hazard of a loss" as shown in *Black's Law Dictionary*.[150] Similarly, aviation risk is defined as the potential for an unwanted or calculated outcome resulting from an occurrence.[151]

When conducting a risk assessment, ICAO uses a matrix that considers the category of probability or likelihood against the category of consequent severity.[152] The risk of downing an aircraft over a conflict zone is assessed in terms of the probability against the severity of losses. This risk assessment process requires timely and accurate flight information;[153] in case the risk is higher

144 Mu¨ller, Roland, Christopher Drax, and Andreas Wittmer. *Aviation Risk and Safety Management: Methods and Applications in Aviation Organizations*, Springer International Publishing 2014, p. 14.
145 Huang, Jiefang. *Aviation Safety Through the Rule of Law ICAO's Mechanisms and Practices*. Wolters Kluwer law & business 2009, p. 4. ('*Huang*')
146 Annex 17, p. 1-2.
147 *Huang*, p. 5.
148 G Leloudas, *Risk and liability in air law*, Informa Law 2009, p. 9.
149 *ibid.*
150 https://thelawdictionary.org/risk/, last accessed Jan 11, 2018.
151 ICAO Doc 10084. Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones, 2nd ed., 2018, p. xiii.
152 *ibid.*
153 Further discussion on information service is in Chapter III of this study.

than an acceptable level, the authorities are advised by Annex 11 to take contingency measures.[154]

2.6.3 Interim conclusions

This section explains the terminologies of aviation safety and security. Aviation security is used for the discussions of external interferences, including missiles from conflict zones. In assessing the risk of a missile strike to civil aircraft, timely and accurate information from the conflict zones is of utmost importance.

3 THE LEGAL FORCE OF ICAO REGULATIONS

3.1 Introduction of ICAO regulations

Building on the Chicago Convention, ICAO has been working on the 'who, how, and when' of establishing prohibited airspace.[155] ICAO, a specialized organization of the United Nations,[156] is tasked to promulgate and harmonize Standards and Recommended Practices (SARPs);[157] accompanied by technical procedures, manuals, and circulars designed to contribute to the uniform application of the regulations for air transport.[158] The said norms will collectively be referred to as 'ICAO regulations'.

Specific ICAO regulations on prohibited airspace will be analyzed in chapters II, III, and IV. This present chapter explores the legal force of ICAO regulations, more precisely, the extent of their legal enforceability. This is a preliminary question governing all the discussions about ICAO regulations.

3.2 Standards and Recommended Practices (SARPs)

3.2.1 Introduction

The Chicago Convention requires ICAO to establish certain benchmarks against which to measure Contracting States' performance of their obligations under

154 *ibid.* See Annex 11, Attachment C.

155 See further Chapters II and III of this study.

156 https://www.icao.int/about-icao/History/Pages/icao-and-the-united-nations.aspx, last visited 2 November 2018.

157 See The Chicago Convention, Art. 37: "… the International Civil Aviation Organization shall adopt and amend from time to time, as may be necessary, international standards and recommended practices and procedures dealing with…"

158 ICAO, AHWG – SFS of Air Navigation Commission, *Guide to the Drafting of SARPS and PANS*, November 2015, para. 4.2.3.

the Chicago Convention.[159] SARPs are the primary mechanism used by ICAO for this purpose.[160] The ICAO Council adopts SARPS pursuant to Article 37 of the Chicago Convention, subject to the full procedures outlined in Articles 54 and 90.[161] The adoption of SARPs requires the vote of two thirds of the ICAO Council at a meeting called for that purpose.[162]

The Chicago Convention does not provide a definition of Standards or Recommended Practices. Definitions are set forth in ICAO Assembly resolutions:

a) Standard – any specification for physical characteristics, configuration, materiel, performance, personnel or procedure, the uniform application of which is recognized as *necessary* for the safety or regularity of air navigation and to which contracting States will conform in accordance with the Convention; in the event of impossibility of compliance, notification to the Council is compulsory under Article 38 of the Convention; and
b) Recommended Practices – any specification for physical characteristics, configuration, materiel, performance, personnel or procedure, the uniform application of which is recognized as *desirable* in the interest of safety, regularity or efficiency of international air navigation and to which contracting States will endeavor to conform in accordance with the Convention.[163]

SARPs are designated as Annexes to the Chicago Convention "for convenience".[164] Arguably, they are not an integral part of the Chicago Convention and do not have the same legal force as a treaty.[165] The general international law of treaties does not apply to SARPs, but the customary interpreta-

159 The Chicago Convention, Art. 26: States must fulfill their various responsibilities "in accordance with the procedure which may be recommended" by ICAO), Art. 28 States must manage national airspace "in accordance with the standards and practices recommended or established from time to time, pursuant to this Convention") and Art. 34 ("in such form as may be prescribed from time to time pursuant to this convention"). *Huang*, pp. 43-44.

160 *Huang*, *ibid*., p. 44.

161 Article 90 of the Chicago Convention: "*Adoption and amendment of Annexes* in Article 54, subparagraph I), shall require the vote of two thirds of the Council at a meeting called for that purpose and shall then be submitted by the Council to each contracting State. Any such Annex or any amendment of an Annex shall become effective within three months after its submission to the contracting States or at the end of such longer period of time as the Council may prescribe, unless in the meantime a majority of the contracting States register their disapproval with the Council.
b) The Council shall immediately notify all contracting States of the coming into force of any Annex or amendment thereto."

162 Chicago Convention, Article 90. See further "Making an ICAO Standard", at https://www.icao.int/safety/airnavigation/Pages/standard.aspx#5, last accessed November 2019.

163 ICAO Assembly Resolution A36-13, Appendix A.

164 *Milde*, p. 172. See also Cheng, Bin. *The Law of International Air Transport*. Stevens 1962. Print. The Library of World Affairs, 64.

165 *Milde*, p. 172.

tion rules in the VCLT should be, *mutatis mutandis*, applicable to the interpretation of the Annexes.[166]

3.2.2 Legal force of ICAO Standards

3.2.2.1 General statements

ICAO clarified that Standards are to be understood to have a normative sense, as indicated by the use of the word "shall."[167] Still, the meaning of "normative sense" requires further explication.

> Article 37 addresses the adoption of international Standards:
>
> *Adoption of international standards and procedures*
>
> Each contracting State undertakes to collaborate in securing the highest practicable degree of uniformity in regulations, standards, procedures, and organization in relation to aircraft, personnel, airways and auxiliary services in all matters in which such uniformity will facilitate and improve air navigation.
> To this end the International Civil Aviation Organization shall adopt and amend from time to time, as may be necessary, international standards and recommended practices and procedures…

The first paragraph of Article 37 of the Chicago Convention highlights that Contracting States "undertake" to collaborate by implementing ICAO Standards; arguably, "to undertake" something means to commit oneself to do a particular thing, thereby creating binding legal obligations.[168] This invites questions as to the legal force of ICAO Standards – to what extent can a Standard be legally enforced?

According to Article 37 of the Chicago Convention, Contracting States undertake to collaborate in securing the highest practicable degree of uniformity in Standards. The legal force of Standards is understood to be less than that of the Chicago Convention itself. First, the word "practicable" allows for some degree of discretion for each state to account for the feasibility of domestic application. Second, as Milde argued, this sentence was phrased as

---

166 *ibid.*

167 ICAO, AHWG – SFS of Air Navigation Commission, *Guide to the Drafting of SARPS and PANS*, November 2015, para. 4.1.1.4: "If an obligation only applies under specified conditions, the relevant Standard shall contain supplementary provisions that precisely specify such conditions; in such a case, verbs such as "may" and "need not" are used."

168 ICJ, "[t]he ordinary meaning of the word 'undertake' is to give a formal promise, to bind or engage oneself, to give a pledge or promise, to agree, to accept an obligation. It is a word regularly used in treaties setting out the obligations of the Contracting Parties… It is not merely hortatory or purposive". See *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro)*, ICJ Reports 2007, p. 111, para. 162 (Feb. 26).

"to collaborate in securing the highest practicable [adherence]" rather than "to comply with."[169] It seems a Standard's legal force can be understood as more permissive than mandatory.

Although the framing is somewhat permissive, insofar as Contracting States are to "collaborate in securing the highest *practicable* degree of uniformity in standards" in relation to aviation,[170] the uniform application by Contracting States of the specifications contained in ICAO Standards is recognized as necessary to ensure the safety, regularity, and efficiency of international air navigation;[171] thus, Contracting States are obligated to conform with Standards, unless they fulfill the requirements under Article 38 of the Chicago Convention.

3.2.2.2 Filing of differences from ICAO Standards

To explore the legal enforceability of ICAO Standards, one has to examine whether and when a Contracting State can deviate from an ICAO Standard. The Chicago Convention requires a Contracting State to file a notification of difference if a Contracting State finds itself "impracticable to comply" with an ICAO Standard. Article 38 reads as follows:

> *Departures from international standards and procedures*
> Any State which finds it impracticable to comply in all respects with any such international standard or procedure, or to bring its own regulations or practices into full accord with any international standard or procedure after amendment of the latter, or which deems it necessary to adopt regulations or practices differing in any particular respect from those established by an international standard, shall give immediate notification to the International Civil Aviation Organization of the differences between its own practice and that established by the international standard.

This notification mechanism in Article 38 of the Chicago Convention is designed to publish differences between ICAO Standards and particular national regulations and/or practices. The international community can be made aware of potential safety and security incongruities and adopt corresponding measures; for instance, civil aircraft whose certificates and licenses do not meet ICAO Standards may be rejected by another State.[172] The international community's knowledge of these differences is essential to the safety and regularity of international air navigation.[173] ICAO Standards are the *minimum* rules

169 *Milde,* pp. 173-174.
170 Chicago Convention, Art. 37 para. 1.
171 ICAO Doc. 7670, *Resolutions and Recommendations of the Assembly 1st to 9th Sessions (1947-1955),* Montreal, Canada, 1956, Assembly Resolution A1-31 'Definition of International Standards and Recommended Practices', consolidated into Resolution A 36-13: *Consolidated Statement of ICAO Policies and Associated Practices Related Specifically to Air Navigation,* in Doc. 9902, *Assembly Resolutions in Force, II03.*
172 See the following Section 3.2.2.3 of this chapter.
173 *Huang,* pp. 66-68. *Milde,* p. 175.

designed to be accepted as such by all countries of the world.[174] In this sense, ICAO Standard is necessary and binding, at least in the absence of a notification to the ICAO Council of a Member State's inability to comply with it.[175]

Nonetheless, the term "impracticable" in Article 38 is problematic insofar as it does not have an internationally agreed upon legal definition.[176] In practice, each Contracting State is left to its own discretion to determine the practicability of a Standard.[177] Thus, this could result in inconsistent regulations, standards, and procedures in relation to aviation.

Specifically, for the interpretation of the term "impracticable to comply" in Article 38, a term which also appears in Articles 9(c), 22, 23, 25, 28, and 37, Buergenthal contended that ICAO Member States have an obligation to act in good faith in determining what is "practicable"; however, realistically speaking, this does not constitute an obligation at all because a Member State can always find a "practical" reason to justify non-compliance with, or deviation from, an international Standard.[178] Similarly, Professor Cheng concluded that the ICAO Standards are not binding on Member States.[179] However, to be presented in the following sections, practices testify the legal enforceability of ICAO Standards.

The legal enforceability of ICAO Standards depends on one question: to what extent is a Contracting State free to interpret the Chicago Convention as it chooses? This question is linked to a phenomenon called "auto-interpretative international law."[180] The auto-interpretation means that Contracting States of a treaty have the final say about a particular provisions of the treaty in question. Suppose the auto-interpretation of a term such as "practicable" is allowed. In that case, it is difficult to say there is a binding obligation upon

174 See ICAO Assembly Resolutions, such as A39-21: Addressing the low response rate by Member States to ICAO State letters, in ICAO Doc 10075, Assembly Resolutions in Force (as of 6 October 2016).

175 Cheng, Bin. *The Law of International Air Transport*. Stevens 1962. Print. The Library of World Affairs, p. 70.

176 *Milde*, p. 174; Thomas Buergenthal, *Law-making in the International Civil Aviation Organization*, Syracuse University Press 1969, p. 76; Ruwantissa Abeyratne, *Convention in International Civil Aviation: A Commentary,* Springer International Publishing 2014, p. 421; Brian F. Havel & Gabriel S. Sanchez, *The Principles and Practice of International Aviation Law,* CUP 2014, p. 72; *Huang*, p. 60; Paul Stephen Dempsey, *Compliance & Enforcement in International Law: Achieving Global Uniformity in Aviation Safety*, 30 N.C.J. Int'l L. & Com. Reg. 1, 2 (2004-2005); Pablo Mendes de Leon, *The Legal Force of ICAO SARPs in a Multilevel Jurisdiction Context,* 12: 2-3 J. LuchtRecht, 11 (2013).

177 Milde viewed that States must comply with SARPs in good faith and the duty to notify is unconditional while Buergenthal interpreted that good faith offers States broad discretion on when to notify. *See Milde*, pp. 174 &179; *Buergenthal*, *ibid.,* p. 78; *Huang*, p. 60.

178 *Buergenthal*, *ibid,* p. 78.

179 Cheng, Bin. *The Law of International Air Transport*. London: Stevens & Sons Ltd, 1962. The Library of World Affairs, p. 64.

180 See Cheng, Bin, "On the Nature and Sources of International Law" in *International Law: Teaching and Practice,* Stevens 1982, pp. 203-213, as noted by *Huang*, at 61.

the Contracting States to implement or to comply with an ICAO Standard. If the Contracting States retain freedom in determining what is "practicable", this would lead to unconstrained activities driven by national interests.

The Contracting States of the Chicago Convention may not freely interpret "practicable". Referring to ICAO Assembly Resolution A36-13,[181] Huang argued that the burden may have shifted onto those States failing to comply with ICAO Standards to provide some justification for such failings.[182] Huang proposed that some ICAO Standards, such as those involving safety and security, are so fundamental that they may not be deviated from.[183] That is to say, a State's interpretation of "practicable" is subject to ICAO's supervision and, as per bilateral air service agreements, be securitized by other States.[184] ICAO audit practices to be presented in the next section demonstrate that the term "practicable" is not subject to an individual State's discretion.

3.2.2.3 The impact of enforcement of ICAO Standards

ICAO conducts audit programs to identify safety and security concerns and facilitates compliance with the Standards with an individual Member State's consent.[185] The audit programs check the implementation of Standards, and an audit team composes a correction plan after audits.[186] ICAO fully respects a sovereign State's responsibility and authority for safety oversight, including its decision-making powers for implementing corrective actions related to identified deficiencies.[187]

Even though the correction plan is not as binding as a treaty provision, it details the inconsistency with ICAO Standards. Inconsistency with ICAO Standards can impact the permission to exercise traffic rights exchanged through bilateral air services agreements (ASAs), if one takes Article 33 of the Chicago Convention into account.

---

181 "If a Contracting State finds itself unable to comply with any SARPs, it should inform ICAO of the reason for non-implementation, including any applicable national regulations and practices which are different in character or in principle."

182 *Huang*, p. 61.

183 *Huang*, p. 61-62.

184 See Section 3.2.2.3 of this chapter.

185 In 2010 the ICAO Assembly adopted Resolution "Universal Safety Oversight Audit Programme (USOAP) – continuous monitoring approach (CMA)" that directs the ICAO Secretary General to ensure that CMA continues to maintain as core elements in key safety provisions contained in Annex 1 (Personnel Licensing), Annex 6 (Operation of Aircraft), Annex 8 (Airworthiness of Aircraft), Annex 11 (Air Traffic Services), Annex 13 (Aircraft Accident and Incident Investigation) and Annex 14 (Aerodromes). See ICAO Doc A37-5. See also United Nations Security Council 7775th Meeting coverage, "Adopting Resolution 2309 (2016), Security Council Calls for Closer Collaboration to Ensure Safety of Global Air Services, Prevent Terrorist Attacks," SC/12529, 22 September 2016.

186 See ICAO Doc 9735, AN/960, *Universal Safety Oversight Audit Programme Continuous Monitoring Manual,* 4th ed., 2014.

187 ICAO Doc 9735, AN/960, *Universal Safety Oversight Audit Programme Continuous Monitoring Manual,* 4th ed., 2014, 2.3.1.

> Article 33 Recognition of certificates and licenses
> Certificates of airworthiness and certificates of competency and licenses issued or rendered valid by the contracting State in which the aircraft is registered, shall be recognized as valid by the other contracting States, provided that the requirements under which such certificates or licenses were issued or rendered valid are equal to or above the minimum standards which may be established from time to time pursuant to this Convention.

Article 33 of the Chicago Convention prescribes that certificates of airworthiness, certificates of competency, and licenses issued by one country shall be recognized as valid if these certificates and licenses are issued according to requirements no less than ICAO Standards. That is to say, certificates of airworthiness and licenses which do not meet ICAO Standards can be recognized as invalid. Therefore, another State can reject the entry of flights bearing such certificates or licenses. In practice, it can be viewed that ICAO Standards are enforced through the implementation of bilateral ASAs.

Bilateral ASAs form the basis for the admission of operators of foreign aircraft to sovereign airspace,[188] though this is different in sovereign airspace which are also governed by regional regulations such as those of the EU, African Union and ASEAN.[189] These bilateral air service agreements[190] or regional regulations[191] may contain clauses granting a State party to the

188 *Milde*, pp. 115-117.

189 See Brendan Lord, 'The Future of Sovereignty in International Civil Aviation', in Pablo Mendes de, & Buissing, Niall. (2019). *Behind and beyond the Chicago Convention: The evolution of aerial sovereignty*, Wolters Kluwer 2019, Chapter 29.

190 Bilateral agreements typically contain the following clause: "Either Party may request consultations concerning the safety standards maintained by the other Party relating to aeronautical facilities, aircrews, aircraft, and operation of the designated airlines. If, following such consultations, one Party finds that the other Party does not effectively maintain and administer safety standards and requirements in these areas that at least equal the minimum standards that may be established pursuant to the [Chicago] Convention, the other Party shall be notified of such findings and the steps considered necessary to conform with these minimum standards, and the other Party shall take appropriate corrective action. Each Party reserves the right to withhold, revoke, suspend, limit, or impose conditions on the operating authorization or technical permission of an airline or airlines designated by the other Party in the event the other Party does not take such appropriate corrective action within a reasonable time and to take immediate action, prior to consultations, as to such airline or airlines if the other Party is not maintaining and administering the aforementioned standards and immediate action is essential to prevent further noncompliance." See for instance, *Protocol of Amendment to the Air Transport Services Agreement Between the U.S. and Argentina*, https://www.state.gov/protocol-of-amendment-to-the-air-transport-services-agreement-between-the-u-s-and-argentina/, last accessed 10 December 2019. See also U.S.-The Bahamas Air Transport Agreement of 27 January 2020, https://www.state.gov/u-s-the-bahamas-air-transport-agreement-of-january-27-2020/, last accessed 10 April 2020.

191 See further Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the

bilateral agreement or subject to regional regulations to require compliance by the designated airlines of the other State with the minimum norms drawn up by ICAO; and to refuse access to its sovereign airspace if the foreign operator fails to comply with some ICAO Standards.

Even though ICAO does not have enforcement powers, the power of publicity, embarrassment and loss of credibility cannot be underestimated. A State's carriers can be eliminated from international operations for inconsistency with ICAO Standards.[192] For instance, ICAO's 2015 audit revealed numerous safety concerns against Thai airlines. Shortly thereafter, the Federal Aviation Administration (FAA) of the United States downgraded Thailand's status to Category 2, meaning that Thai airlines cannot fly to US.[193] Another example is that Malaysia Airlines was facing an investigation from the British government because up to 10 of its jets had landed into London, on 11 May 1999, with insufficient levels of fuel on board.[194] On the whole, the actions of naming and sharing with the international community can be very powerful enforcement measures.

3.2.2.4 Interim conclusions

ICAO Standards are the minimum regulations designed to be respected by all ICAO Member States. Article 37 of the Chicago Convention requires ICAO Member States to collaborate in securing the highest practicable degree of uniformity in Standards. When impracticable to comply in all respects with Standards, a Member State is obliged under Article 38 of the Chicago Convention to file the differences; the term "practicable" is not to be auto-interpreted as freely by States. ICAO audit results, even though not mandatory, can be invoked to suspend or change bilateral air service arrangements, if the bilateral agreements so prescribe.

3.2.3 Legal force of Recommended Practices

3.2.3.1 General statements

ICAO Recommended Practices are regarded as being desirable in the interest of safety, regularity, or efficiency of international air navigation and to which ICAO Member States will endeavor to conform under the Chicago Conven-

European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91.

192 *Milde*, p. 184.

193 See https://simpleflying.com/thailand-faa-rating-failure/, last accessed 24 March 2019.

194 https://www.flightglobal.com/malaysia-airlines-low-fuel-danger-spans-two-years/26291.article, last accessed 22 March 2019.

tion.[195] ICAO Recommended Practices do not have legally binding status as traditionally understood: first, Member States have no legal obligation to notify the ICAO of inconsistency with Recommended Practices under Article 38 of the Chicago Convention.[196] Second, although ICAO safety audit programs may examine the compliance with Recommended Practices and the ICAO Council is under a duty to monitor the implementation of the correction plans.[197]

3.2.3.2 Filing differences from Recommended Practices

With respect to ICAO Recommended Practices, Member States are not obliged under Article 38 of the Chicago Convention to file or publish a statement of differences but are encouraged to do so. ICAO General Assembly resolutions have 'urged' States to file reports of differences from Recommended Practices.[198] Despite the use of 'urge' in ICAO resolutions, according to Huang, such resolutions can only be considered recommendations, lacking the binding force of Article 38 of the Chicago Convention.[199]

Nonetheless, it is not accurate either to conclude that Member States can freely determine whether or not to file differences from Recommended Practices. In 2018, ICAO published a *Manual on Notification and Publication of Differences*. This manual is a specific guidance document on the notification of differences from Recommended Practices.[200] The manual provides that

---

195 ICAO Doc. 7670, *Resolutions and Recommendations of the Assembly 1st to 9th Sessions (1947-1955)*, Montreal, Canada, 1956, Assembly Resolution A1-31 'Definition of International Standards and Recommended Practices', consolidated into Resolution A 36-13: *Consolidated Statement of ICAO Policies and Associated Practices Related Specifically to Air Navigation*, in Doc. 9902, *Assembly Resolutions in Force, II03.*

196 *Huang*, pp. 62 & 191.

197 *ibid*, p. 192.

198 ICAO Assembly Resolution A36-13, Appendix D, para. 3: "The Council should urge Contracting States to notify the Organization of any differences that exist between their national regulations and practices and the provisions of SARPs as well as the date or dates by which they will comply with the SARPs. If a Contracting State finds itself unable to comply with any SARPs, it should inform ICAO of the reason for non-implementation, including any applicable national regulations and practices which are different in character or in principle. The notifications of differences from SARPs received should be promptly issued in supplements to the relevant Annexes. Contracting States should also be requested to publish in their AIPs any significant differences from the SARPs and PANS."

199 *Huang*, pp. 191-192. See also A38-WP/48 and the resulted Resolution A38-11 entitled *Formulation and implementation of Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS) and notification of differences*. A38-11 was subsequently superseded by A39-22, with the same title, at the 39th Session of the Assembly.

200 ICAO Doc 10055, AN/581, "Manual on Notification and Publication of Differences", 2018. Despite ICAO's past efforts, more than 70 per cent of Member States audited under the Universal Safety Oversight Audit Programme (USOAP) had been found to be not satisfactory in fulfilling the requirements relating to the notification and publication of differences. ICAO Secretary General had established a Task Force in 2011 to identify the main issues that caused the low level of compliance with the requirements of Article 38. The

> [W]hile Article 38 sets out obligations for the notification of differences against Standards, it is recognized that knowledge of differences from Recommended Practices may also be important for the safety, regularity and efficiency of navigation.[201]

This statement recognizes the importance of filing notice of differences to Recommended Practices. This manual, as a guiding guidance document, can be considered as without formal legal status and lacking mandatory effect.[202] however, the legal force of this the *Manual on Notification and Publication of Differences* is not so straightforward because it made a cross-reference to Standard 4.1.2 in Annex 15 to the Chicago Convention.[203]

The *Manual on Notification and Publication of Differences* refers to Standard 4.1.2 of Annex 15. Standard 4.1.2 requires a Member State to notify ICAO of any *significant* differences to "ICAO Standards, Recommended Practices and Procedures in Aeronautical Information Publication (AIP)."[204] A State deviating from Standard 4.1.2 should notify the ICAO Council under Article 38 of the Chicago Convention.

Task Force came out with a number of *recommendations* and actions to be taken by the Secretariat, including developing a new guidance material dedicated to the notification of differences - *Manual on Notification and Publication of Differences* in 2018. See ICAO General Assembly Resolution, A35-6, A36-4, and A37-5. ICAO Doc 9735, AN/960, *Universal Safety Oversight Audit Programme Continuous Monitoring Manual*, 4th ed., 2014, 'Forward'. C-Min 198/6, 104. The outcomes of the study were also reported to the 38th Session of the Assembly (A38-WP/48) and resulted in the adoption of Resolution A38-11 entitled Formulation and implementation of Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS) and notification of differences. A38-11 was subsequently superseded by A39-22, with the same title, at the 39th Session of the Assembly. ICAO, "Progress Report on Comprehensive Study on Known Issues in Respect of the Notification and Publication of Differences," C-WP/13954, Appendix A, 11/02/13.

201 ICAO Doc 10055, AN/581, *Manual on Notification and Publication of Differences*, 2018.

202 See *Huang*, p. 64; also further below, Section 4.4 of this Chapter on ICAO guidance documents.

203 1.4 REQUIREMENTS OF ANNEX 15
1.4.1 Annex 15, Aeronautical Information Services, 16th ed., July 2018, ('Annex 15'), Standard 4.1.2 states:
4.1.2 Aeronautical Information Publications (AIP) shall include in Part 1 – General (GEN):
...
c) a list of significant differences between the national regulations and practices of the State and the related ICAO Standards, Recommended Practices and Procedures, given in a form that would enable a user to differentiate readily between the requirements of the State and the related ICAO provisions;
d) the choice made by a State in each significant case where an alternative course of action is provided for in ICAO Standards, Recommended Practices and Procedures.
1.4.2 The purpose of the publication of significant differences in the AIP is, primarily, to provide flight crews, and other stakeholders, with information which is essential to international operations, and which is not readily available. More guidance on significant differences can be found in Aeronautical Information Services Manual (Doc 8126). See ICAO Doc 10055, AN/581, *Manual on Notification and Publication of Differences*, 2018, 1-3.

204 *ibid.*

Regarding the meaning of 'significant differences' to ICAO Recommended Practices, Annex 15 does not specify the indicators of significance. Another ICAO guidance document writes down the indicators of significance, the *Aeronautical Information Services Manual* (Doc 8126).[205] According to Doc 8126, *any* difference to any ICAO Standard is significant; for Recommended Practices, only the difference to those that are critical for air safety and security is significant.[206] That is to say, in cases of Recommended Practices, the indicator of significance is their importance for the safety of air navigation. Significant difference to Recommended Practices are those important for safety or air navigation.

As argued by Huang,[207] unless a Member State registers differences to that Standard, it should abide by a Standard; an ICAO Member State should abide by this Standard, unless the State files a difference. Standard 4.1.2 in Annex 15 mentions the filing of *significant* differences to Recommended Practices. Therefore, Member States should report differences to Recommended Practices that are "important for the safety of air navigation or, in the case of facilitation, to the speedy handling and clearance through customs, immigration, etc of aircraft and their loads."

Standard 4.1.2 in Annex 15, in itself, regulates the filing of significant differences from *Recommended Practices*; When a Member State files differences from Standard 4.1.2, the State would actually be registering significant differences to Recommended Practices. That is to say, in filing a difference to Standard 4.1.2, a State will be notifying how and why it is deviating from Recommended Practices that are important for the safety of air navigation.

---

205 Its para. 5.8.3 says that: "All significant differences notified to ICAO must also be included in the AIP in a form that will enable a user to differentiate easily between the national rules and practices of a State and the related ICAO provisions. They comprise differences from:
a) *any* of the International Standards;
b) Recommended Practices *that are important for the safety of air navigation* or, in the case of facilitation, for the speedy handling and clearance through customs, immigration, etc. of aircraft and the loads they carry;
c) Procedures for Air Navigation Services (PANS) that are important for the safety of air navigation; and
d) Regional Supplementary Procedures (SUPPS) that are important for the safety of air navigation.
5.8.4 It therefore follows that all the provisions in ICAO Annexes that are Standards are significant, and that any differences between the national regulations or practices of a State and the related ICAO Standards are differences which must be notified. This is an obligation which originates from Article 38 of the Convention. In the matter of Recommended Practices, PANS and SUPPS, only those differences that are important for the safety of air navigation or, in the case of facilitation, to the speedy handling and clearance through customs, immigration, etc. of aircraft and their loads are significant. Because of their nature, most of the Recommended Practices in ICAO Annexes contribute to the safety of air navigation." (emphasis added).

206 *ibid.*

207 *Huang*, pp. 64-65.

3.2.3.3 ICAO audit of compliance with Recommended Practices

The ICAO audits are conducted only with the audited State's consent out of the respect for sovereignty.[208] The consent of a State does not mean the State in question can decide the scope of the audit, for instance, to decide whether to audit Recommended Practices or not. All the bilateral memoranda of understanding for ICAO audits have been based on a single model approved by the ICAO Council, without substantive deviation.[209] A Member State may not be able to negotiate the scope of an audit, so it is unclear how voluntary the State's consent is to the scope of the ICAO regulations to be audited.

A safety audit is comprised of reviews of a State's legislative and regulatory provisions, documentation, facilities, equipment and tools, and ICAO conducts interviews for "all functionally connected safety- and security-related provisions, SARPs … produced by ICAO should be audited."[210] That is to say, Recommended Practices, as long as they are safety-related, can be audited. Furthermore, as noted in the previous section, Standard 4.1.2 of Annex 15 requires a State to notify ICAO of any significant differences to "ICAO Standards, Recommended Practices and Procedures in Aeronautical Information Publication (AIP)". Therefore, ICAO has the legal basis for auditing significant differences to safety- and security- related Recommended Practices.

The audit teams can propose correction plans that include Recommended Practices. In the follow-up of audit recommendations, the ICAO Council secure website posts charts indicating the status of outstanding and long-overdue audit recommendations.[211] However, correction plans are not binding *per se*, as explained in the previous section on Standards.

To understand the legal force of Recommended Practices better, perhaps it is necessary to compare its enforceability with that of Standards. As explained in Section 3.2.2 of this chapter on Standards, bilateral cooperation and regional pressure facilitate the implementation of ICAO Standards. In reference to the inconsistency with ICAO Standards, a State Party to a bilateral air service agreement may withhold, revoke, suspend, limit, or impose conditions on the operating authorization or technical permission of an airline or airlines designated by the other Party.[212] In comparison, bilateral air service agreements may contain clauses requiring a State party to the bilateral agreement to "*act in conformity* with appropriate Recommended Practice."[213]

208 *Huang*, pp. 75-76, citing ICAO Resolution A32-11.

209 *Huang*, pp. 75-76.

210 ICAO, Air Navigation Commission, 163rd Session, Minutes of the Third Meeting, AN Min. 163-3, 28/04/03.

211 ICAO Council-204 Session, Summary Minutes of the Third Session, C-Min 204/3, 4/6/15, para. 7.

212 See Section 3.2.2.3 of this chapter.

213 A clause as such reads: "The Parties shall, in their mutual relations, *act in conformity* with the aviation security standards and appropriate recommended practices established by the International Civil Aviation Organization and designated as Annexes to the Convention;

Arguably, in bilateral air service agreements, the requirement to "act in conformity with appropriate Recommended Practices," is weaker, in terms of legal consequences, than the requirements to conform with Standards; because, for Standards, a State can explicitly emphasize its right to impose negative consequences such as the revocation, suspension, and limitation of the operating authorization or technical permission.[214] A bilateral air service agreement may encourage parties to "act in conformity with appropriate Recommended Practices," but does not include the non-compliance of Recommended Practices as one of the grounds leading to the limitation on operating authorization or the rejection of entry.[215]

The phrase "act in conformity" may denote a sense of flexibility, meaning no negative consequences will follow in case of non-compliance. Based on the bilateral agreements reviewed by this section,[216] the non-compliance of ICAO Recommended Practices probably will not trigger the suspension of operating authorization. In contrast, the inconsistency with ICAO Standards can trigger the suspension of flights. In this sense, the enforceability of ICAO Recommended Practices is less than that of ICAO Standards.

3.2.3.4 Interim conclusions

Implementing ICAO Recommended Practices is not entirely subject to a Member State's discretion. Standard 4.1.2 of Annex 15 emphasizes the filing of differences to Recommended Practices that are important for the safety of air navigation. Not filing such significant differences to Recommended Practices deviate from Standard 4.1.2, and such deviations from a Standard should be filed in accordance with Article 38 of the Chicago Convention. In addition, through

---

they shall require that operators of aircraft of their registry, operators of aircraft that have their principal place of business or permanent residence in their territory, and the operators of airports in their territory act in conformity with such aviation security provisions." U.S.-The Bahamas Air Transport Agreement of January 27, 2020, https://www.state.gov/u-s-the-bahamas-air-transport-agreement-of-january-27-2020/, last accessed 10 April 2020. (emphasis added)

214 See Section 3.2.2.3 of this Chapter.

215 See for example, U.S.-The Bahamas Air Transport Agreement of January 27, 2020, https://www.state.gov/u-s-the-bahamas-air-transport-agreement-of-january-27-2020/, last accessed 10 April 2020. The U.S.-Bangladesh Air Transport Agreement of 30 September 2020, last accessed 1 January 2021. The Article 6 of both agreements reads: "… Either Party may request consultations concerning the safety *standards (emphasis added)* maintained by the other Party relating to aeronautical facilities, aircrews, aircraft, and operation of airlines of that other Party. If, following such consultations, one Party finds that the other Party does not effectively maintain and administer safety *standards* and requirements in these areas that at least equal the minimum standards that may be established pursuant to the Convention, the other Party shall be notified of such findings and the steps considered necessary to conform with these minimum standards, and the other Party shall take appropriate corrective action."

216 *ibid.*

air services bilateral or regional regulations, a State may be required to act in conformity with Recommended Practices.

3.3 Procedures for Air Navigation Services (PANS)

3.3.1 Introduction

Procedures for Air Navigation Services (PANS) comprise operating procedures regarded as having yet to attain a sufficient degree of maturity for adoption as SARPs and are susceptible to frequent amendment.[217] PANS are more concrete in substance than SARPs.[218] PANS and SUPPS[219] require the approval of, instead of adoption by, the ICAO Council.[220] This typically means that only an affirmative vote of a simple majority of the Council,[221] giving a formal seal of recognition.[222]

3.3.2 Legal force of PANS

PANS do not have the same legal force as ICAO Standards or Recommended Practices (SARPs). PANS documents use "should" and "shall" language; whereas in PANS, the modal verb "shall" is used where the uniform application is essential, and the modal verb "should" is used where variation in detail would not impede a successful application.[223] Critically, the use of "should" and "shall" in PANS does not denote a sense of legal obligation as used in a legally binding treaty.[224]

It is not easy to draw a clear conclusion on PANS' legal force, because ICAO Assembly resolutions tended to blur the distinctions between SARPs and PANS.[225] As aforementioned, similar to Recommended Practices, Standard 4.1.2 in Annex 15 requests Member States to file *significant* differences to PANS.

---

217 ICAO, AHWG – SFS of Air Navigation Commission, *Guide to the Drafting of SARPS and PANS*, November 2015, para. 4.2.3. See also *Milde*, p. 178.

218 See "Making an ICAO Standard", at https://www.icao.int/safety/airnavigation/Pages/standard.aspx#5, last accessed 9 November 2019.

219 ICAO Regional Supplementary Procedures (SUPPs) are applicable only for specific regions. See ICAO Doc. 7030. However, with the advent of long-range aircraft the regional specificities are further to diminish. See *Milde*, p. 178.

220 *Huang*, p. 58. Chicago Convention, Article 90. See "Making an ICAO Standard", at https://www.icao.int/safety/airnavigation/Pages/standard.aspx#5, last accessed November 2019.

221 *ibid*.

222 *Milde*, p. 179.

223 ICAO, AHWG – SFS of Air Navigation Commission, *Guide to the Drafting of SARPS and PANS*, November 2015, para. 4.2.3.

224 The meanings of auxiliary words, such as may, should, shall, must, that used in a treaty are discussed in Chapter II.

225 *Huang*, p. 63.

In addition, ICAO audits also assess the implementation of PANS. The ICAO Air Navigation Commission (ANC) has stated, "all functionally connected safety- and security-related provisions, SARPs and PANS, and related guidance materials produced by ICAO should be audited."[226] According to the ANC, an ICAO rule's legal force is not dependent on its name or form, but rather depends on the substance – denoting a 'functional' approach.

ANC's functional approach means that an ICAO regulation's substance affects its enforceability irrespective of the regulation's name. If an ICAO regulation's substance is functionally connected with aviation safety and security, be it called SARPs, PANS or guidance materials, it can be audited by ICAO. Such audit recommendations are noted by the ICAO Council.[227] As aforementioned, bilateral air service agreements are conducive to the implementation of ICAO audit results. However, for PANS, it is not often to see bilateral air service agreements allowing a State party to require compliance by the designated airlines of the other State with the PANS drawn up by ICAO.

3.4 ICAO guidance documents

3.4.1 Introduction

ICAO guidance materials provide detailed advice to States concerning the implementation of SARPs.[228] These guidance documents are updated progressively. They are published in the form of *attachments* to ICAO Annexes or in other formats,[229] such as technical manuals, circulars, and air navigation plans. Technical manuals are designed to facilitate the implementation of SARPs and PANS, and provide guidance and information that amplifies the provisions

226 ICAO, Air Navigation Commission, 163rd Session, Minutes of the Third Meeting, AN Min. 163-3, 28/04/03.

227 ICAO. C-Min 204/3, para. 7.

228 ICAO Council Working Paper C-WP/11526 "Updating the Annexes to the Convention International Civil Aviation (Doc 7300)", 6 March 2001.

229 Attachments to, and the forewords and notes in Annexes to the Chicago Convention are of normative value, although commentators offer different opinions. See *Huang*, p. 63. Prof. Schubert argued that the Foreword to Annex 11 and a note following an ICAO Standard do not carry any legal status. Francis Schubert, 'State Responsibilities for Air Navigation Facilities and Standards - Understanding its Scope, Nature and Extent' (2010) Journal of Aviation Management 21, 29. Attachments to, and the notes and forewords to Annexes, although they are developed in the same manner as Standards and Recommended Practices, are approved by the ICAO Council rather than adopted. See "Making an ICAO Standard", at https://www.icao.int/safety/airnavigation/Pages/standard.aspx#5, last accessed November 2019. See ICAO, Air Navigation Commission Procedures and Practices, 8th ed., May 2014, B-4. Summary of Statement, approved by the Council on 22 November 1955 (26/12; Doc 7633-12, C/877-12), of matters on which the ANC is authorized to take action on behalf of the Council (C-WP/2040, Appendix A, as amended by the ICAO Council.

in SARPs and PANS.[230] ICAO circulars are used to disseminate specialized information of interest to ICAO Member States and include studies on technical subjects.[231]

Air navigation plans, amended periodically, set forth details on facilities and services for international air navigation in various ICAO air navigation regions.[232] Air navigation plans are prepared on the authority of the ICAO Secretary General on the basis of recommendations from regional air navigation meetings and ICAO Council's decisions.[233]

3.4.2 Legal force of guidance documents

ICAO guidance materials lack mandatory force, but many States voluntarily follow guidance materials on the basis of their professionally persuasive value.[234] Nonetheless, guidance materials that are cross-referenced in an ICAO Standard may not be completely optional.[235] Some Member States believe that unless a State registers a difference to a Standard, it is obliged to respect it by complying with the detailed provisions contained in a guidance document concerning the same topic.[236] That is, if the ICAO Council has incorporated a guidance document into a Standard, this guidance material is lifted to the same status as a Standard. However, some Member States do not agree on this way of elevating a guidance material's legal force - there has been no consensus.[237]

With respect to the legal force of an instrument, in the *North Sea Continental Shelf*, the ICJ held that only a "very definite, very consistent course of conduct … [showing] a real intention to manifest acceptance or recognition of the applicability of the conventional regime … could justify the Court in upholding [the view that Germany was bound by the conventional regime without ratifying it or acceding]".[238] The ICJ raised that an intention accompanied by conducts manifest the legal force of an instrument.

Applying this criterion, the intention to accept the applicability of an ICAO guidance material can be manifested at the proceedings before the ICAO Coun-

230 ICAO Council Working Paper C-WP/11526 "Updating the Annexes to the Convention International Civil Aviation (Doc 7300)", 6 March 2001.
231 *ibid.*
232 ICAO Council Working Paper C-WP/11526 "Updating the Annexes to the Convention International Civil Aviation (Doc 7300)", 6 March 2001.
233 *ibid.*
234 *Huang*, p. 64.
235 *ibid.*
236 See *Huang*, pp. 64-65. US thus filed a difference with respect to Standard 2.2.1 of Annex 18.
237 The Representative of France felt that this type of legal form should not have the validity of setting a precedent. *Huang*, pp. 64-65.
238 *North Sea Continental Shelf cases* (*Federal Republic of Germany v. Denmark and The Netherlands*), judgment of 20 February 1969, *ICJ Reports* (1969), p. 25, para. §28.

cil. For example, Qatar invoked Attachment C of Annex 11 to request that the ICAO Council urgently provide contingency measures for the disruption of ATS;[239] furthermore, the United Arab Emirates (UAE) and its allies presented contingency routes in the Gulf Region "pursuant to" and "in accordance with" Attachment C of Annex 11.[240] "Pursuant to" and "in accordance with" are used mainly to invoke something with legal force.[241] Qatar and the neighboring Stats have consistently referred to and acted in accordance with Attachment C of Annex 11.[242] The States at issue voluntarily follow guidance materials. It can be inferred that the parties to the Qatar blockade case consented to be bound by the guidance in Attachment C of Annex 11.

State consent, according to the ICJ, refer both to the 'free will' of states and to their 'acceptance' of international law.[243] Lauterpacht emphasized that the decisive criterion was the parties' intent, irrespective of the form or the designation employed, if only "intention to assume an obligation was reasonably clear".[244] The parties to the Qatar blockade case invoked Attachment C of Annex 11 and argued how they have complied with the guidance therein during formal ICAO proceedings.[245] The parties did acquiesce to follow and intended to be bound by the guidelines in Attachment C to Annex 11. Attachment C of Annex 11 was considered applicable to deal with the disputes by the parties. To the parties at issue, as the parties consented, their activities are to be regulated by the guidelines in Annex 11 Attachment C.

---

239 Request of The State of Qatar For Consideration by the ICAO Council Under Article 54 (n) of The Chicago Convention, (Supplement to the letter reference no. 2017/15995, dated 15 June 2017), submitted by H.E. Abdulla Nasser Turki Al-Subaey, Chairman, Civil Aviation Authority of the State of Qatar.

240 ICAO Doc 10092-C/1186, Council – Extraordinary Session on 31 July 2017 (Closed), Summary Minutes, 22/8/17, paras 37 and 86.

241 Oxford Dictionary. See also Chicago Convention, for instance in Article 28: "… pursuant to this [Chicago] Convention".

242 ICAO Doc 10092-C/1186, Council – Extraordinary Session on 31 July 2017 (Closed), Summary Minutes, 22/8/17, paras 37 and 86.

243 See Klabbers, J., 'Clinching the Concept of Sovereignty: Wimbledon Redux', (1998) 3 Austrian Review of International and European Law 345. Since the early twentieth century, and esp. PCIJ, *S.S. Lotus Case (France v. Turkey)*, Judgment of 7 September 1927, PCIJ Rep Series A No 10, para. 35: 'The rules of law binding upon states . . . emanate from their own free will'; ICJ, , *Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v. United States), Merits, Judgment of 27 June 1986, [1986] ICJ Rep.* para. 135: 'In international law there are no rules, other than such rules as may be accepted by the states concerned, by treaty or otherwise' ('*Nicaragua*'); ICJ, *Barcelona Traction, Light and Power Company, Limited (New Application: 1962) (Belgium v. Spain)*, Second Phase, Judgment of 5 February 1970, [1970] ICJ Rep. 3, para. 47: 'Here, as elsewhere, a body of rules could only have developed with the consent of those concerned.' para. 35: 'The rules of law binding upon states . . . emanate from their own free will.

244 Document A/CN.4J63: Report by Mr. H. Lauterpacht, Special Rapporteur. ILC Yearbook (1953), vol. II, 90 et 101-102.

245 See Chapter III, Sections 4.4 & 5.3.

3.5 Interim conclusions

The presentation of ICAO regulations aims to establish the context for a study of air law rules on prohibited airspace. The effective implementation of SARPs and PANS promotes safe, secure, and sustainable development of international civil aviation. The following chart summarizes the hierarchy of ICAO regulations.

For ICAO Standards, when impracticable to comply with, a Member State is obliged under Article 38 of the Chicago Convention to immediately notify the differences between its practice and that established by the ICAO standard. ICAO audit results about Standards can be invoked to suspend or change bilateral air service arrangements if the bilateral agreements so prescribe. Standard 4.1.2 of Annex 15 asks to file differences to Recommended Practices that are important for the safety of air navigation. Not filing a statement of differences to Recommended Practices can therefore constitute a deviation from Standard 4.1.2 of Annex 15, and such a deviation should be filed in accordance with Article 38 of the Chicago Convention. PANS or guidance materials that are functionally connected to safety and security have normative value and can be audited by ICAO.

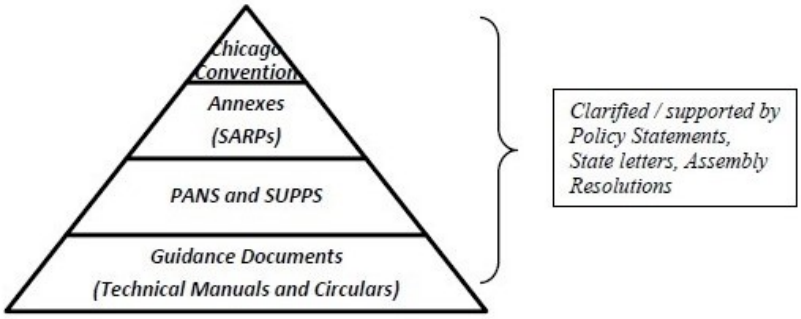

Figure 1: Hierarchy of air laws and regulations[246]

4 Chapter summary and conclusions

This study conducts a normative analysis of air law rules pertinent to prohibited airspace. The primary source of rules is the Chicago Convention. ICAO regulations are also relevant to the law and practices about prohibited airspace.

246 Source: ICAO, AHWG – SFS of Air Navigation Commission, *Guide to the Drafting of SARPS and PANS*, November 2015. Appendix to Air Navigation Commission, 'Report on Progress of the Ad-hoc Working Group on Standards for Standards and Proposed Guide to the Drafting of SARPS and PANS', AN-WP/8992, 05/11/15.

This chapter has shown that the interpretation of the Chicago Convention follows customary interpretation methods in the VCLT. This study seeks and explores the ordinary meaning, context, object, preparatory work and subsequent practices on prohibited airspace. The normative analysis sheds light onto the reconciliation between State sovereignty and the development of civil aviation in a safe and orderly manner.

ICAO regulations are not binding in the same way as the provisions of the Chicago Convention, but their normative value helps elucidate the technical aspects of prohibited airspace. The technical aspects feed into the normative analysis and lay the foundation for the improvement of law. Member States *undertake* to collaborate by implementing ICAO Standards and are obliged to file the differences between domestic practices and Standards. Furthermore, ICAO audits all functionally connected safety- and security-related regulations and publishes its results; this power of publicity and credibility promotes Member States' adherence to ICAO regulations. It is thus necessary to examine ICAO regulations next to the Chicago Convention to understand the rules for prohibited airspace. Building on the methodology, key terms, and the legal force of relevant rules, the next chapter focuses on examining the rules relevant to airspace restrictions, aiming to clarify the 'who', 'how' and 'when' to establish prohibited airspace.

2 The Interpretation of Provisions Concerning Prohibited Airspace in the Chicago Convention

1 Preliminary remarks

The downing of civil aircraft, flights MH17 and PS752, prompt the international community to inquire about the law about prohibited airspace and its role in protecting aviation safety and security.[1] Airspace restrictions invariably limit the free and unhampered use of airspace, so that the establishment as such is subject to strict scrutiny. For this purpose, this chapter will undertake a normative analysis and provide case studies on Chicago Convention's provisions on prohibited airspace. The normative analysis begins with a textual interpretation, followed by examining the context, object and purpose, in accordance with Article 31 of the VCLT. In addition, pursuant to Article 32 of the VCLT, this chapter turns to the preparatory work of the Chicago Convention and the circumstances of its conclusion to confirm or determine the meaning resulting from the application of Article 31 of the VCLT.

2 Analysis of the terms of Article 9 of the Chicago Convention

The starting point of the research on prohibited airspace will begin with the Chicago Convention. This section analyzes Article 9 of the Chicago Convention which recognizes a Contracting State's right to establish prohibited airspace over its sovereign territory.

2.1 The text of Article 9 of the Chicago Convention

Article 9 of the Chicago Convention sets out 'who', 'when' and 'how' to restrict or prohibit aircraft from flying over a territory. Article 9 of the Chicago Convention reads:

a) Each contracting State *may*, for reasons of military necessity or public safety, restrict or prohibit uniformly the aircraft of other States from flying *over* certain

1 See for instance, Atlantic Council, "Iran plane tragedies proves lessons of MH17 have not been learned". https://www.atlanticcouncil.org/blogs/ukrainealert/iran-plane-tragedy-proves-lessons-of-mh17-have-not-been-learned/, last accessed June 22, 2020.

areas of its territory, provided that no distinction in this respect is made between the aircraft of the State whose territory is involved, engaged in international scheduled airline services, and the aircraft of the other contracting States likewise engaged. Such prohibited areas shall be of reasonable extent and location so as not to interfere unnecessarily with air navigation. Descriptions of such prohibited areas in the territory of a contracting State, as well as any subsequent alterations therein, shall be communicated as soon as possible to the other contracting States and to the International Civil Aviation Organization.

b) Each contracting State *reserves also the right*, in exceptional circumstances or during a period of emergency, or in the interest of public safety, and with immediate effect, temporarily to restrict or prohibit flying *over* the whole or any part of its territory, on condition that such restriction or prohibition shall be applicable without distinction of nationality to aircraft of all other States.

c) Each contracting State, under such regulations as it may prescribe, may require any aircraft entering the areas contemplated in subparagraphs (a) or (b) above to effect a landing as soon as practicable thereafter at designated airport within its territory.[2]

Article 9 of the Chicago Convention prescribes that a Contracting State may restrict or prohibit flying over its territory for reasons of military necessity, public safety, exceptional circumstances and emergencies. However, these normative elements are not defined in the Chicago Convention or by ICAO regulations; thus they are open to interpretations.

The interpretation of these terms is not easy, because a treaty is always a record of disagreements, and negotiators may probably select words capable of reflecting different meanings to different readers;[3] at the same time, these terms are often used in other documents.[4] Notwithstanding the difficulty, pursuant to Articles 31 and 32 of VCLT,[5] this chapter seeks to interpret Article 9; specifically, the following sections adopts textual interpretation – explore the ordinary meanings of the terms in their context in light of Chicago Convention's objects and purposes; this process is facilitated by the documentary evidence of the drafting of the Chicago Convention and subsequent practices of ICAO Member States.

2 Article 9 of the Chicago Convention (emphasis added).

3 See Gardiner, R. *Treaty interpretation*, OUP 2008, p. 29.

4 Such as "military necessity" in international humanitarian law. Dunbar N.C.H., "The Significance of Military Necessity in the Law of War", in Juridical Review, Vol. 67/2, 1955, pp. 201-212.

5 On the methodology of treaty interpretation, see Chapter I, Section 1.

2.2 The right to prohibit flights over sovereign territory

2.2.1 Territorial sovereignty in relation to jurisdiction

Article 9 of the Chicago Convention prescribes rules for Contracting State to follow when establishing a prohibited or restricted airspace over "its territory". This emphasis on territory prompts this study to examine Articles 1 and 2 of the Chicago Convention because the two articles address the sovereignty a Contracting State has with respect to its territory. Articles 1 and 2 of the Chicago Convention form the context for interpreting Article 9.

According to Article 1 of the Chicago Convention, every State has complete and exclusive sovereignty over the airspace above its territory.[6] Airspace sovereignty is delimited *ratione loci* in respect of the space above national territories.[7] Each Contracting State is expected to be able to exercise control over all that takes place within its territories, and is responsible for safety oversight within its territory.[8] Namely, based on territorial sovereignty, a Contracting State is to exercise its exclusive jurisdiction for all matters within its sovereign territory.[9] The legal competence of a State to restrict or prohibit overflights over designated areas or its entire national territory is an aspect of the complete and exclusive sovereignty of a State.[10] It follows from Articles 1 and 2 of the Chicago Convention that a State has the exclusive power to close the airspace over its territory, including deciding on prohibited airspace, subject to the conditions in Article 9.

Although oftentimes territorial jurisdiction is sustained by territorial sovereignty, Prof. Cheng clarified that the jurisdiction may also be established through treaties,[11] or derived from the occupation of territories;[12] and there is hierarchy between these jurisdictional bases.[13] This chapter focuses on territorial jurisdiction that derived from territorial sovereignty – a Contracting

6 Article 1 of the Chicago Convention. See Chapter I, Section 2.3.

7 Cheng, B., "The Extra-Terrestrial Application of International Law", Current Legal Problems, Volume 18, Issue 1, 1 January 1965, pp. 132.

8 *Huang,* p. 15. *Cheng, ibid.,* p. 110.

9 M. D. Evans, *International Law*, OUP 2014, 309. *Oppenheim's International Law,* Vol. I, Peace, 9th ed., edited by Sir Robert Jennings and Sir Arthur Watts, Longman 1992, p. 456. ('*Oppenheim's International Law*')

10 *Milde,* p. 47. Kaiser, S.A., 'Legal Considerations about the Loss of Malaysia Airlines Flight MH 17 in Eastern Ukraine'. *Air & Space Law* 40, no. 2 (2015), p. 114.

11 Cheng, B., "The Extra-Terrestrial Application of International Law",135. See regional agreements on airspace delegation in Chapter III.

12 Cheng, *ibid.,* 135. About disputed territories and war zones, see Chapter V of this study.

13 Professor Bin Cheng posits that there is a clear hierarchy between jurisdiction in the order territorial, quasi-territorial and personal, and the more important ones can override the less important ones. See Bin Cheng, Article VI of the 1967 Space Treaty Revisited: "International Responsibility," "National Activities," and "The Appropriate State", *J. Space Law* 26 (1998) p. 25.

State's exclusive right and jurisdiction to establish a prohibited area over its territory. Later chapters explore jurisdiction for establishing prohibited airspace in delegated airspace and conflict zones.

2.2.2 *The use of the term "may"*

Corresponding to Articles 1 and 2 of the Chicago Convention, Article 9(b) uses the wording "reserves the *right*" to expressly underline the exclusive right to close airspace for public safety, exceptional circumstances, and emergency. In comparison, Article 9(a) prescribes that a Contracting State "may" restrict or prohibit the flight of aircraft. In legal text, the word "*may*" usually relates to permission or authorization,[14] demonstrating a State's right in managing its airspace.[15]

This section argues that the use of "may" in Article 9(a) implies qualifications for a Contracting State's right to establish prohibited airspace over its sovereign airspace. The word "may" is less explicit or certain in expressing the meaning of granting a legal right than would the phrases "reserve the right" or "entitled to".[16] The drafting committee at the Chicago Conference deliberately rejected expressions such as "reserve the right" or "be entitled to", which are more affirmative than the word "may", for Article 9(a)[17] to

14 Coates, J., *The Semantics of Modal Auxiliaries*. Croom Helm 1983, pp. 21-23. Besides the deontic meaning, the word "may" also has two other meanings: (i) epistemic meaning, concerning the speaker or drafter's degree of knowledge regarding a proposition, and the proposition is frequently associated with the idea of possibility or probability; and (ii) dynamic meaning, referring to the uses of modal verbs for the purpose of expressing ability and disposition, and cannot be categorized as deontic modality or epistemic modality. Other auxiliary words have a more definite words, such as *shall* is used to impose an obligation; *must* is chosen to strongly denote to an obligation, and *should* is used in international conventions with moral and ethical tones. See Gotti M., Semantic and Pragmatic Values of Shall and Will in Early Modern English Statutes,. in Gotti/Dossena (eds.) *Modality in Specialized Texts*, Peter Lang,2001, p. 122. Williams, C., 2005. *Tradition and change in legal English: verbal constructions in prescriptive texts,* Peter Lang 2005, p. 124. See also Article 3*bis* of the Chicago Convention reads: "The contracting States recognize that every State *must* refrain from resorting to the use of weapons against civil aircraft in flight and that, in case of interception, the lives of persons on board and the safety of aircraft must not be endangered. This provision shall not be interpreted as modifying in any way the rights and obligations of States set forth in the Charter of the United Nations."

15 ICAO, Air Navigation Commission, 189th Session, Minutes of the Seventh Meeting, AN Min. 189-7, 28/3/12, para. 16.

16 Black's Law Dictionary, (8th ed., 2004), p. 3106.

17 As to the preparatory work of the regulations on airspace closure, the US, UK and Canadian Delegations prepared draft conventions for international civil aviation and mostly guided the deliberations on prohibited airspace in 1944. The Canadian Revised Preliminary Draft of an International Air Convention adopted the word "entitled" in the provision for prohibited areas in airspace, which is more direct in expressing a legal right. The US draft uses *may* instead of entitled to. The Proceedings of the Chicago Conference did not explain why the US draft was preferred over the Canadian draft, or others, or why delegates chose

leave room for imposing conditions for the exercise of this right. In harmony with the somehow permissive "may", working on the US proposal,[18] drafters added a qualification to this right, that is, "so as not to interfere unnecessarily with air navigation". The requirements in Article 9(a)[19] are to prevent Contracting States from using prohibited airspace(s) as a means of blocking foreign scheduled international air service.[20] That is to say, the word "may" expresses the right to establish a prohibited area in Article 9(a), and at the same time, the exercise of this right is subject to the qualifications deliberately put in by the drafting committee.[21]

The right to establish prohibited airspace, although being qualified, is still a right;[22] the terms in Article 9(a), due to their ordinary meanings, do not impose any obligation to close airspace(s) on Contracting States. The Chicago Convention does not prescribe an obligation to prohibit traffic for the protection of international civil aviation against security risks.[23] Taking into account ICAO Member States' practices, no Annex to the Chicago Convention,

---

may instead of be entitled to. See the United States Proposal of a Convention on Air navigation – Document 16; Canadian Revised Preliminary Draft of an International Air Convention – Document 50; United Kingdom Proposal of Amendment of Document 16 – Document 350; United Kingdom Proposal of a Substitute for Article 10 (c) of Document 16 – Document 353; and See Appendix 1, List of Documents Issued at the Conference, in *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), 1367. See Document 372, Verbatim Minutes of Joint Plenary Meeting of Committees I, III, and IV, November 22, in *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), p. 456.

18 The prototype of Article 9 is the Article 10 in US proposal. Its Article 10(a) reads as follows: "Article 10, (a) Each member Contracting State may, for military reasons, or in the interest of public safety, prohibit uniformly the aircraft of the other Contracting States from flying over certain areas of its territory of reasonable extent, provided that no distinction in this respect is made between the aircraft of the State whose territory is involved, engaged in international scheduled airline services, and the aircraft of the other Contracting States likewise engaged. List and descriptions of the areas above which air traffic is thus prohibited in the territory of a Contracting State, as well as any subsequent alterations therein, will be communicated as soon as possible to the other Contracting States and the Executive Council." See Document 16, United States Proposal for a Convention on Air Navigation, in *Proceedings of the International Civil Aviation Conference,* (United States Government Printing Office, Washington, 1948), pp. 557-558.

19 See Section 2.5 of this chapter.

20 Cheng, B., *The Law of International Air Transport,* Stevens 1962, pp. 120-124.

21 Ruwantissa Abeyratne, *Convention on International Civil Aviation: A Commentary,* Springe 2014, pp. 13-45. See Sections 2.5 & 2.6 of this chapter.

22 ICAO, Air Navigation Commission, 189th Session, Minutes of the Seventh Meeting, 8 March 2012, AN Min 189-7, para. 16: In relation to the development by States of plans for the flexible use of the airspace, …. Article 9 (Prohibited areas) of the Chicago Convention indicated a State could restrict or prohibit uniformly the aircraft of other States from flying over certain areas of its territory. It was felt that the recommendation ICAO can only "urge" States to develop and implement clear plans.

23 Kaiser, S.A., 'Legal Considerations about the Loss of Malaysia Airlines Flight MH 17 in Eastern Ukraine', (2015), 40 Air and Space Law, Issue 2, p. 115.

or ICAO Assembly Resolution[24] contains any provisions that confirm a commitment of Contracting States to their responsibility for the introduction of timely and appropriate restrictions for civil aircraft flights in their national and delegated airspace.[25] Therefore, the conditions in Article 9 of the Chicago Convention have to be interpreted in a way that they qualify a Contracting State's competence in establishing prohibited airspace(s); Article 9 does not impose an *obligation* on Contracting States to establish prohibited airspace(s).

2.2.3 *The definitions of prohibited and restricted area*

Having explained that the wording of Article 9 of the Chicago Convention expresses a Contracting State's right to establish prohibited airspaces *over* its territory, it is not difficult to highlight that a prohibited/restricted airspace is about *overflight* only, namely, prohibiting or restricting the transit rights of civil aircraft. In this connection, the ICAO definition of the term "prohibited area" merits attention in Annex 2 to the Chicago Convention.[26]

> Prohibited area is an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited.[27]
>
> Restricted area is an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions.[28]

---

24 ICAO Assembly "…Urges all Contracting States to strictly comply with the provisions of the Convention on International Civil Aviation, its Annexes and its related procedures, in order to prevent a recurrence of such potentially hazardous activities (a rockets lunching)" (Resolution À32-6). In addition, ICAO's Contracting States recognize that "…the safety of international civil aviation is the responsibility of Member States both collectively and individually…" (A37-1), while "…the ultimate responsibility to ensure both the safety and security of civil aviation rests with Member States…" (A38-15, App. E).

25 ICAO, Risk Assessment of Operations Over Airspace Affected by Armed Conflict – Responsibility of States For Ensuring The Flight Safety of Civil Aircraft within Their National And Delegated Airspace over Armed Conflict Zones or Zones Of Military Exercises, C-WP/14227, 20/10/14, para. 1.4.

26 Over the high seas, another interesting concept always appears in conjunction with prohibited or restricted airspace – 'danger areas.' *Milde*, 47. The juxtaposition of concepts of prohibited/restricted areas, danger areas, and FIR (flight information region) is further presented in Chapter III.

27 Annex 2, Rules of the Air, 10th ed., July 2005, p. 1-5 ('Annex 2'). Restricted areas are generally established when the risk level involved in the activities conducted within the area is such that it can no longer be left to the discretion of individual pilots whether or not they want to expose themselves to such risk. In many cases the activities within a restricted area are not permanently present, it is therefore of particular importance that the times when these areas are actually required be closely surveyed and monitored. See ICAO Doc 9426, Air Traffic Services Planning Manual (1992), Chapter 3, para. 3.3.2.5.

28 Annex 2, p. 1-5. See ICAO Doc 9426, Air Traffic Services Planning Manual (1992), Chapter 3, para. 3.3.2.6.

The ICAO definitions use the terminology of "*flight* of aircraft"; arguably, *flight* covers *over*flight and flight *into* or *out*, meaning flight transiting, entering and exiting airspace. ICAO definitions refer to broader situations than prohibited airspace under Article 9 of the Chicago Convention. The words "flying over" Article 9 of the Chicago Convention refer to transit rights.[29] Article 9 is to provide a potent instrument to prohibit or restrict the *transit* rights of aircraft. If a Contracting State prohibits or restricts scheduled air service *into* a territory,[30] that State is not exercising the right under Article 9, but rather a right to require permission or authorization under Article 6 of the Chicago Convention.[31] Article 6 of the Chicago Convention set the foundation to exchange traffic rights in bilateral air agreements.[32] The definitions by ICAO, with references to "flight of aircraft" could mean both "entry" and "overflight" of aircraft, covering situations under both Articles 6 and 9 of the Chicago Convention. This study, nonetheless, uses prohibited/restricted areas in the sense of prohibiting overflight, concerning the transit right only. Prohibited area and prohibited airspace are used interchangeably throughout this study.

The definitions of prohibited and restricted areas used in this study are the following:

> Prohibited area is an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the *over*flight of aircraft is prohibited.[33]

> Restricted area is an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the *over*flight of aircraft is restricted in accordance with certain specified conditions.

In addition, ICAO definitions put an emphasis on the location of a prohibited area. Prohibited airspace must be set up above the land areas and territorial waters of a State,[34] that is, within a State's territory as defined in Article 2 of the Chicago Convention.[35] The rationale is relevant to the scope of territorial jurisdiction, which is elaborated in section 2.3 of this chapter.

---

29 The first and second freedoms. *Milde,* pp. 16 & 93.

30 For instance, the widespread airspace restrictions due to COVID-19 in 2020. See more in Section 2.4 of this chapter.

31 Article 6 of the Chicago Convention: "No scheduled international air service may be operated over or into the territory of a contracting State, except with the special permission or other authorization of that State, and in accordance with the terms of such permission or authorization."

32 *Milde,* p. 111. Commercial traffic rights allow commercial international services between countries (third, and fourth Freedom rights, as well as fifth Freedom rights, between intermediate points and points beyond and sixth Freedom rights to/from behind points).

33 Annex 2, p. 1-5.

34 ICAO Doc 9426, Air Traffic Services Planning Manual (1992), Chapter 3, para. 3.3.2.2.

35 See Section 2.3 of this chapter.

2.2.4 *Summary on a Contracting State's right to establish prohibited airspace*

A Contracting State's right to prohibit or restrict air traffic over its sovereign territory derives from territorial sovereignty. Article 9 uses the words "may" in subparagraph (a) and 'reserve the right' in subparagraph (b) to confirm that right and, at the same time, prescribes conditions to qualify that right. By way of comparison, the right to establish a prohibited area expressed by the word "may" is not as affirmative as the phrases r*eserve the right* or *entitled to*, so Article 9 (a) prescribed additional requirements as to prohibited airspace's location and extent whereas Article 9(b) did not. Furthermore, considering that Article 9 of the Chicago Convention aims at prohibiting/restricting *overflight*, this section proposes that definitions of prohibited and restricted areas should focus on the element of overflight.

2.3 The meaning of "its territory"

2.3.1 *Territorial sea*

Article 9 allows a Contracting State to establish prohibited or restricted areas "over its territory". A Contracting State's territory is defined in Article 2 of the Chicago Convention. As clarified in Chapter I, "territory" in the Chicago Convention means the land areas and territorial waters adjacent thereto under the sovereignty.[36] Land areas under sovereignty are relatively easy to ascertain because countries hold boundaries among themselves, although there exist undetermined territories.[37] Compared to land areas, it is more complicated with "territorial waters adjacent thereto under the sovereignty". The term "territorial water" in the Chicago Convention does not have the same meaning as the term "territorial sea" as often mentioned in the law of the sea.[38] Rather,

36 See J. Ming, *The US/China Aviation Collision Incident at Hainan in April 2001 – China's Perspective*, 51 Zeitschrift für Luft- und Weltraumrecht (2002), p. 557; M. Franklin, *Sovereignty and the Chicago Convention: English Court of Appeal Rules on the Northern Cyprus Question*, XXXVI (2) Air and Space Law (2011), 109-110; M. *Chatzipanagiotis, Establishing Direct International Flights to and from Northern Cyprus*, 60(3) Zeitschrift für Luft- und Weltraumrecht (2011), p. 478.

37 See further in Section 3.3 of Chapter IV.

38 According to UNCLOS, Article 3, territorial sea does not encompass contiguous zones, exclusive economic zones (EEZ) or the water above the continental shelf. See also Pablo Mendes de Leon and E.J. Molenaar, 'Still a Mile too Far? International Law Implications of the Location of an Airport in the Sea', 14 *Leiden Journal of International Law* (2001), pp. 234-245.

for States who have adhered to both the Chicago Convention and UNCLOS,[39] "territorial waters under the sovereignty" include not only the territorial sea, but also internal waters, international straits, and archipelagic waters.[40]

The *territorial sea*, according to UNCLOS, is the sea area which a coastal State can claim up to twelve nautical miles from the baseline.[41] Territorial sea is under the sovereignty of a coastal State, and UNCLOS provisions on the territorial sea are "fully co-extensive and compatible" with Article 2 of the Chicago Convention.[42] UNCLOS does not change the *status quo* in air law with respect to territorial waters.

2.3.2 *International straits*

Due to establishment of the 12-mile territorial sea, many straits fall within the territorial sea of the coastal States, which leads to the 'territorialisation' of international straits.[43] UNCLOS requires States bordering the international straits not to hamper transit passage and must give appropriate publicity to any danger to navigation or overflight within or over the strait of which they have knowledge.[44]

In particular, UNCLOS regulates the transit right of aircraft over international straits. Contracting States of UNCLOS agreed that aircraft's transit is unimpeded through international traits used for international navigation between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone".[45] Due to fact that many Contracting

39 1833 U.N.T.S. 397, done in Montego Bay on 10 December 1982 and enter into force on 16 November 1994. UNCLOS not only represents a codification of existing conventional and customary international law of the sea, but in numerous fields adopts the "progressive development" of international law, pursuant to Article 13, paragraph 1 a) of the UN Charter. It reads: "1. The General Assembly shall initiate studies and make recommendations for the purpose of: a. promoting international cooperation in the political field and encouraging the progressive development of international law and its codification;…" The convention has been ratified by 168 parties, which includes 167 states (164 United Nations member states plus the UN Observer state Palestine, as well as the Cook Islands and Niue) and the European Union. An additional 14 UN member states have signed, but not ratified the convention. See https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=_en.

40 Y Tanaka, *The International Law of the Sea,* 2nd ed., CUP 2012, p. 8.

41 According to Article 2, paragraph 2 of the UNCLOS, coastal States are entitled to exercise full sovereignty over their territorial sea, whose breadth does not exceed 12 nautical miles, measured from baselines determined under the UNCLOS.

42 ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implication, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'", LC/26-WP/5-1, 4/2/87.

43 Y Tanaka, *The International Law of the Sea,* 2nd ed., CUP 2012, p. 97.

44 UNCLOS, Art. 44.

45 UNCLOS, Arts. 37 &38.

States of UNCLOS are also Member States of ICAO,[46] ICAO decided to address the impact of the application the UNCLOS to the air. In 1987, at the 26th Session of ICAO Legal Committee, the Secretariat study pointed out that the States bordering straits used for international navigation exercise its sovereignty or jurisdiction subject to UNCLOS, and "in no circumstances can the States bordering such straits *suspend* or limit the right of transit passage, nor can they require the application of their own rules of the air".[47] No State filed an objection to this statement.[48] A prohibited area, if established over international straits, would compromise the transit rights enjoyed by aircraft in international straits.[49] Therefore, a Contracting State's competence, the scope of which is the jurisdiction, to restrict air traffic over international straits is compromised by the unimpeded transit right of foreign aircraft. That is to say, a coastal State cannot establish a prohibited area over international straits, even if part of the international strait is within its territorial sea.

Nonetheless, taking a closer look, the ICJ discussed as *obiter dictum* that the passage right through international straits shall not be suspended in *peace* time.[50] Since the Chicago Convention is a part of the law of peace made on the assumption of peace conditions, it is not difficult to understand that the ICAO meeting proceedings, addressing peacetime aircraft operation, do not encourage to establish prohibited airspace over international straits. The ICAO Secretariat study did not specifically discuss transit rights over international straits in war.

---

46 See ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implication, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'", LC/26-WP/5-1, 4/2/87.

47 ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implication, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'", LC/26-WP/5-1, 4/2/87.

48 See Comments from States, LC/26-WP/5-2 to 40, 4/2/87, ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implication, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments".

49 UNCLOS, Art. 38: "[A]ll ships and aircraft enjoy the right of transit passage, which shall not be impeded; except that, if the strait is formed by an island of a State bordering the strait and its mainland, transit passage shall not apply if there exists seaward of the island a route through the high seas or through an exclusive economic zone of similar convenience with respect to navigational and hydrographical characteristics."

50 The *dictum* in the Corfu Channel judgment: "It is, in the opinion of the Court, generally recognized and in accordance with international custom that States in peacetime have a right to send their warships through straits used for international navigation between two parts of the high seas without the previous authorization of a coastal State, provided that the passage is innocent. Unless otherwise prescribed in an international convention, there is no right for a coastal State to prohibit such passage through straits in times of peace." See ICJ Reports 1949, p. 22.

It is thus unclear whether a State can establish a prohibited area to suspend air traffic over an international strait in times of *war* or a declared *national emergency*. This issue of *war* and prohibited airspace will be presented in Chapter V.

2.3.3 *Internal waters*

According to UNCLOS, internal waters are those waters which lie landward of the baseline from which the territorial sea is measured.[51] States have the same sovereign jurisdiction over internal waters as they do over other territories.[52] Internal waters are also under a State's sovereignty.[53] The illustration of maritime zones is as follows.

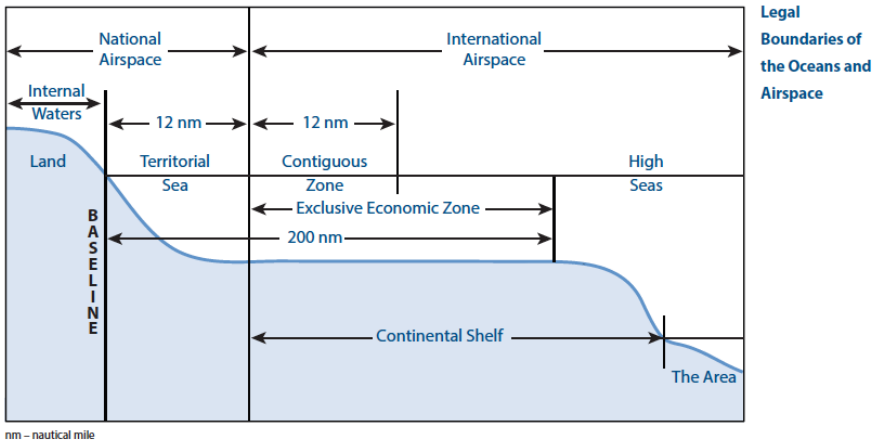

Figure 2: UNCLOS Maritime and Airspace Zones[54]

51 UNCLOS, Art. 8(1). Specifically, internal waters in a legal sense embrace (i) parts of the sea along the coast down to the low-water mark, (ii) ports and harbours, (iii) estuaries, (iv) landward waters from the closing line of bays, and (v) waters enclosed by straight baselines. On the other hand, internal waters in the law of the sea do not include waters within the land territory and land-locked waters or lakes. See G. Gidel, Le droit international public de la mer: le temps de paix, vol.1, Introduction, la haute mer (reprint, Paris, Duchemin, 1981), pp. 40–41; P. Vincent, Droit de la mer (Brussels, Larcier, 2008), p. 33.

52 Y Tanaka, *The International Law of the Sea*, 2nd ed., CUP 2012, pp. 77-78.

53 UNCLOS, Art.2.

54 Source: https://sites.tufts.edu/lawofthesea/chapter-two/, accessed 8 August 2019.

2.3.4 *Archipelagic waters*

Separately from the above, the term 'archipelagic waters' is a new concept created by UNCLOS.[55] Archipelagic waters are important for this study because they are part of the "territory" in the sense of Article 9 of the Chicago Convention. Archipelagic waters are the waters enclosed by the archipelagic baselines, that is the baselines of an archipelagic State.[56] The archipelagic waters are "enclosed by the archipelagic baselines, drawn by joining the outermost points of the outermost islands and drying reefs of the archipelago, regardless of their depth or distance from the coast".[57] The following chart shows the scope of archipelagic waters and an archipelagic State's territorial sea.

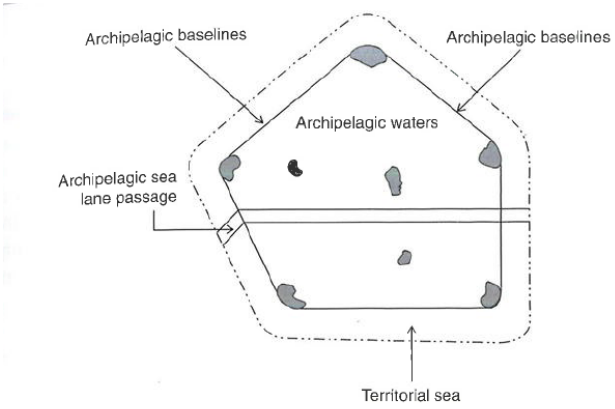

Figure 3: Archipelagic sea lane passage[58]

Article 49 of the UNCLOS prescribes that the sovereignty of an archipelagic State covers internal waters, archipelagic waters and extends to its territorial sea.[59] For example, the Republic of Trinidad and Tobago declares that as an archipelagic State its sovereignty extends to: (a) The archipelagic waters regardless of their depth or distance from the coast; and (b) The airspace over the archipelagic waters as well as their bed and subsoil and the resources both

55 UNCLOS, Article 46: "For the purposes of this Convention:
(a) "archipelagic State" means a State constituted wholly by one or more archipelagos and may include other islands;
(b) "archipelago" means a group of islands, including parts of islands, interconnecting waters and other natural features which are so closely interrelated that such islands, waters and other natural features form an intrinsic geographical, economic and political entity, or which historically have been regarded as such."

56 UNCLOS, Article 47.

57 UNCLOS, Article 47.

58 Source: Y Tanaka, The International Law of the Sea, 2nd ed., Cambridge University Press 2012, p. 113.

59 UNCLOS, Article 48 &49.

living and non-living contained therein.[60] Since an archipelagic State enjoys sovereignty over archipelagic waters, the State should have the right to establish a prohibited area over its archipelagic waters.

Meanwhile, similar to international straits, aircraft enjoy the right of archipelagic sea lanes passage over archipelagic waters.[61] UNCLOS does not say the relationship between this passage right and the sovereignty of coastal States. A question thus arises - can an archipelagic State suspend a foreign aircraft's transit rights by way of setting up a prohibited area? That is to say, would this archipelagic sea lanes passage right compromise an archipelagic State's right to establish a prohibited area over archipelagic waters?

Neither UNCLOS nor the Chicago Convention expressly addresses the suspension of foreign aircraft's transit passage over areas of archipelagic waters: Article 52 of UNCLOS only says that an archipelagic State can suspend the innocent passage of foreign *ships* if such suspension is essential for the protection of its security.[62] The deletion of the term "aircraft" in the aforementioned Article 52, according to ICAO Secretariat's study, is because the Chicago Convention is the proper source of law on aircraft's archipelagic sea lanes passage.[63] ICAO further clarifies that foreign aircraft, while passing through archipelagic sea lanes, must observe the Rules of the Air established by ICAO.[64] Namely, with respect to civil flights over archipelagic waters, the Chicago Convention and ICAO regulations prevail over the UNCLOS.

Returning to the Chicago Convention, no provision supports an aircraft's passage right in the airspace above archipelagic waters. ICAO opined that since

---

60 See the Republic of Trinidad and Tobago's Archipelagic Waters and Exclusive Economic Zone Act, 1986, Act No. 24 of 11 November, deposited with UN Office of Legal Affairs, available at: https://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/TTO_1986_Act.pdf, last accessed May 29, 2020.

61 UNCLOS, Article 53, para. 1: "An archipelagic State may designate sea lanes and air routes thereabove, suitable for the continuous and expeditious passage of foreign ships and aircraft through or over its archipelagic waters and the adjacent territorial sea." ICAO implements this UNCLOS rule by prescribing that for purely practical reasons of coordination, the archipelagic States are expected to present their proposals on air routes to the Regional Air Navigation Conferences for the inclusion into the appropriate Regional Air Navigation Plan for eventual approval by the ICAO Council." See ICAO Legal Committee 33rd session's working paper, 'Proposal to Amend Article 2 of the Chicago Convention', presented by Indonesia, LC/33-WP/4-7, 17/4/08.

62 UNCLOS, Art. 52 (2).

63 ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implication, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'", LC/26-WP/5-1, 4/2/87, para. 10.

64 See UNCLOS Articles 54: "Articles 39, 40, 42 and 44 apply mutatis mutandis to archipelagic sea lanes passage." Therefore, the UNCLOS acknowledges that ICAO regulations apply to archipelagic sea lanes passage. ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implication, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'", LC/26-WP/5-1, 4/2/87.

a State's sovereignty covers archipelagic waters, "its territory" in Article 2 of the Chicago Convention should include archipelagic waters.[65] An aircraft's archipelagic sea lanes passage right is subject to an archipelagic State's sovereignty.[66] Considering that there is no explicit rule saying that aircraft's archipelagic transit rights cannot be suspended, an archipelagic State may suspend the transit rights; it would be difficult to argue that such transit rights can defeat a State's sovereignty over its archipelagic waters. After all, international law has a long-established principle that whatever is not explicitly prohibited by international law is permitted, as was highlighted in the famous *Lotus* case.[67] A State can invoke the *Lotus* doctrine and sovereignty principle to justify its actions within its territory including archipelagic waters.[68] Therefore, this section contends that an archipelagic State may establish prohibited or restricted areas to suspend archipelagic transit rights, subject to the conditions in Article 9 of the Chicago Convention.

2.3.5 *Summary on the meaning of "territory"*

Reading Articles 1, 2, and 9 of the Chicago Convention together, the author concludes that a State has the right to restrict or prohibit flying over its territory. The exclusive jurisdiction to restrict or prohibit flying covers its entire territory: landmass, waters and seas under its sovereignty. Considering the evolving practices in the law of the sea, this section interprets the term "territorial waters" in Article 2 of the Chicago Convention as including 1) the territorial sea, 2) international straits; 3) internal waters and 4) archipelagic waters. Foreign aircraft enjoy transit rights over international straits and archipelagic waters. The transit rights over international straits are unimpeded in peacetime. A foreign aircraft's transit right over archipelagic waters is subject to the sovereignty of the archipelagic State. An archipelagic State can establish prohibited airspace over its archipelagic waters as long as conditions in Article 9 of the Chicago Convention are satisfied.

---

65 *ibid.*

66 *ibid.*

67 The Case of the S.S. Lotus, 1927 PCIJ Series A, No. 10. Dupuy P., 'L'Unité de l'Ordre Juridique International: Cours Général de Droit International Public (2000)', 297 Recueil des Cours (2002) 1, at 94. See also the overview in Handeyside, 'The Lotus Principle in ICJ Jurisprudence: Was the Ship Ever Afloat?', 29 Michigan Journal of International Law (2007–2008) 71, at 72.

68 Caminos, H., & Cogliati-Bantz, V., *The Legal Regime of Straits: Contemporary Challenges and Solutions*. CUP 2014, pp. 227-230.

2.4 Conditions to establish prohibited airspace under Article 9 of the Chicago Convention

Article 9 prescribes the conditions or justifications for establishing prohibited airspace, such as "military necessity" and "public safety". Neither the Chicago Convention nor any of its Annexes provide detailed normative elaboration on the conditions that would necessitate the establishment of prohibited/restricted areas.[69] This section explores the textual meanings of these conditions in their context, in light of the Chicago Convention's objects and purposes and subsequent practices developed in the application of Article 9.

2.4.1 Military necessity

2.4.1.1 General remarks

The word "military necessity" in Article 9(a) of the Chicago Convention denotes a given course of action required for the accomplishment of a particular military goal, often used in international humanitarian law.[70] The first use of the term military necessity was first introduced to justify the limitless use of force, such as that prescribed in the doctrine of *Kriegsraison*.[71] Then in the 1940s, military necessity was invoked to permit a belligerent, subject to the laws of war,[72] to apply any amount and kind of force to compel the complete submission of the enemy with the least possible expenditure of time, life, and money.[73] This formulation was called the *Hostages* formulation,[74] and this interpretation subordinates necessity to law, but within the limits of law it permits the commander to discount civilian interests completely.[75]

---

69 ICAO EUR Doc 019, Volcanic Ash Contingency Plan, European and North Atlantic Regions, July 2016.

70 See, e.g., Pietro Verri, Dictionary of the International Law of Armed Conflict, ICRC 1992, p. 75: "In its wider sense, necessity means doing what is necessary to achieve war aims."

71 The most famous expression of this conception of necessity as an extra-legal limit to the law is the Prussian military maxim 'Kriegsraison geht vor Kriegsmanier': the necessities of war (Kriegsraison) take precedence over the rules of war. See Luban D. (2013). "Military Necessity and the Cultures of Military Law", *Leiden Journal of International Law*, 26(2), pp. 315, 341. Johansen, S, *The Military Commander's Necessity: The Law of Armed Conflict and its Limits,* CUP 2019, Chapters 4 & 6.

72 On the laws of war, see Chapter V of this study.

73 *US v. List* (American Military Tribunal, Nuremberg, 1948), 11 NMT 1230, at 1253.

74 The post-war formula for military necessity appeared in the second round of Nuremberg trials, in the *Hostages* case: Military necessity permits a belligerent, subject to the laws of war, to apply any amount and kind of force to compel the complete submission of the enemy with the least possible expenditure of time, life, and money. See *US v. List* (American Military Tribunal, Nuremberg, 1948), 11 NMT 1230, at 1253.

75 Luban, D. (2013). "Military Necessity and the Cultures of Military Law", *Leiden Journal of International Law*, 26(2), pp. 315, 347.

More recently, a more humanitarian interpretation of military necessity demands to assess the relative weight attributed to military advantage,[76] against the non-military task of foreseeing and quantifying the future loss of civilian life and damage to civilian property.[77] According to this view, decision-makers should take into account the possible gain in protecting civilians in military activities.[78] In the assessment of military necessity, authorities should examine the proportionality between military advantage and harm to civilians.[79] That is to say, among options of the same marginal military advantage, the choice which offers more protection to civilians outweighs others.

Furthermore, military necessity is a situation-specific notion that does not involve any requirement of causation *sine qua non*.[80] That is to say, a measure of military necessity does not have to be the only available option. Decision makers can face a range of choices – some stand the greatest chance of success, whereas some are more resource-efficient.[81] This means even if there are alternatives to achieve a certain military goal, a State may still prohibit or restrict the use of its airspace on the grounds of military necessity.

2.4.1.2 The context of the Chicago Convention

Since the phrase "military necessity" has several connotations, it is not easy to ascertain its meaning in Article 9 of the Chicago Convention. Therefore, following the interpretation rules in Article 31 of the VCLT, this section explores the meaning of military necessity in the context of the Chicago Convention.

Speaking of the context of the Chicago Convention, it is necessary to note that the treaty was concluded to apply in peace time.[82] As aforementioned in Chapter I, the Chicago Convention is a treaty between friendly countries and is open to a 'club' of the Allies and neutral countries after World War II.

---

76 Johansen, S, *The Military Commander's Necessity: The Law of Armed Conflict and its Limits,* CUP 2019, Chapter 15.

77 *ibid,* p. 405.

78 *ibid.*

79 Luban, D. (2013). "Military Necessity and the Cultures of Military Law", *Leiden Journal of International Law*, 26(2), p. 349.

80 Hayashi, N, *Military Necessity,* Leiden University PhD dissertation 2017, pp. 32-33. Luban, D. (2013). "Military Necessity and the Cultures of Military Law", *Leiden Journal of International Law*, 26(2), 315-349.

81 Hayashi, N, *Military Necessity,* Leiden University PhD dissertation 2017, pp. 32-33.

82 *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), p. 55: "The use of air … differs from the sea: that it is subject to the sovereignty of the nation over which it moves. Nations ought therefore to arrange among themselves for its use in that manner which will be of the greatest benefit to all humanity, wherever situated. …There can be no question of alienating or qualifying this sovereignty. But consistent with sovereignty, national ought to subscribe to those rules of *friendly intercourse* which shall operate between friendly states *in times of peace* to the end that air navigation shall be encouraged, and that communication and commerce may be fostered between all *peaceful* states."

In 1944, the US government extended an invitation to 55 friendly States[83] to attend an International Civil Aviation Conference in Chicago (hereafter the 'Chicago Conference').[84] While the Chicago Conference was in progress, the world was transitioning from war to peace. It was envisaged that after the war, a peaceful order will be established. This is evidenced by the *Canadian Revised Preliminary Draft of an International Air Convention*:

> [T]he treaty being negotiated at the Chicago conference was drafted with an assumption that *an overriding treaty of peace* will determine the obligations and rights of the defeated powers.[85]

To understand the meaning of "military necessity" in Article 9, it helps to explore how this phrase was added to Article 9 at the Chicago Conference. With respect to the drafting of a provision on prohibited airspace, the Chicago Conference first considered the issue with one article[86] but later end up with two articles – Article 9 on prohibited airspace and Article 89 on war and national emergency.[87] It was at the UK's motion[88] that the drafting committee restructured the rules and added Article 89 to requalify Article 9.[89] This approach followed the traditional division between the law of war and the law of peace: international conventions particularly those relating to commerce

---

83 List of governments and authorities to whom invitations were extended: Afghanistan, Australia, Belgium, Bolivia, Brazil, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czechoslovakia, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, France, UK, Greece, Guatemala, Haiti, Honduras, Iceland, India, Iran, Iraq, Ireland, Lebanon, Liberia, Luxembourg, Mexico, Netherlands, New Zealand, Nicaragua, Norway, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Saudi Arabia, Spain, Sweden, Switzerland, Syria, Turkey, Union of South Africa, Union of Soviet Socialist Republics, Uruguay, Venezuela, Yugoslavia, Denmark, Thailand. See *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), p. 13.

84 See *Invitation of the United States of America to the Conference,* in *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), p. 11.

85 Reprinted from a pamphlet prepared for the Canadian Government, Ottawa, October 1944, by Edmond Cloutier, Printer to the King's Most Excellent Majesty, Ottawa, 1944. *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), p. 570 (emphasis added).

86 *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), pp. 557-558.

87 Article 89 reads: "In case of war, the provisions of this Convention shall not affect the freedom of action of any of the contracting States affected, whether as belligerents or as neutrals. The same principle shall apply in the case of any contracting State which declares a state of national emergency and notifies the fact to the Council."

88 *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), Document 350, p. 693.

89 *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), p. 472. ICAO, Air Navigation Commission, 189th Session, *Minutes of the Seventh Meeting,* 8 March 2012, paras 10-12.

and communications are concluded having regard to normal peace condition;[90] and the situation of war will justify extraordinary self-preservation measures taken by a State.[91]

That is to say, war or national emergency brings about a special relationship between the belligerent State and enemy State or nationals, and permits the former to take all necessary measures in relation to the latter to prevent them from engaging in any activity harmful to the former's security.[92] If a State loses control of its territory and engages in war again, it resumes the freedom of action as belligerents.[93] The Chicago Convention would not affect a Contracting State's freedom as a belligerent to close airspace.[94] No provision in the Chicago Convention limits a State's freedom to close its airspace for self-preservation in war.[95] This chapter focuses on airspace closure as pre-

90 Joint dissenting judgment of Judges Anzilotti and Huber in the *Wimbledon Case* (1923), PCIJ: A 1, pp. 36-37: "In this respect, it must be remembered that international conventions and more particularly those relating to commerce and communications are generally concluded having regard to normal peace conditions. If, as the result of a war, a neutral or belligerent State is faced with the necessity of taking extraordinary measures temporarily affecting the application of such conventions in order to protect its neutrality or for the purposes of national defence, it is entitled to do so even if no express reservations are made in the convention. This right possessed by all nations which is based on generally accepted usage, cannot lose its *raison d'être* simply because it may in some cases have been abused… The right of a State to adopt the course which it considers best suited to the exigencies of its security and the maintenance of its integrity, is so essential a right that, in case of doubt, treaty stipulation cannot be interpreted as limiting it, even though these stipulations do not conflict with such an interpretation." See in Bin Cheng, *General Principles of Law As Applied By International Courts and Tribunals*, Stevens 1953, pp.55-56 (hereafter Bin Cheng, *Principles*).

91 Bin Cheng, *Principles*, pp.29-31.

92 Bin Cheng, *Principles*, p. 53.

93 In ICAO, it has been widely understood that aviation security instruments which criminalize certain acts are not applicable to the military activities in armed conflict. For instance, in a resolution adopted on 20 August 1973, the ICAO Council condemned Israel for violating Lebanon's sovereignty and for the diversion and seizure of a Lebanese civil aircraft, and considered that the actions by Israel "constitute a violation of the Chicago Convention", but did not refer to The Hague and Montreal Conventions. (For reference, see ICAO Doc 9225-LC/178, *International Conference on Air Law*, Rome, August–September 1973, Minutes and Documents (1978) at 385-386). Activities of armed forces during an armed conflict, as those terms are understood under international humanitarian law, are not governed by the Chicago Convention. See further elaboration in Chapter V of this study.

94 See Article 89 of the Chicago Convention, more in Chapter V of the study.

95 Bin Cheng, *International Air Transport*, Stevens 1962, p. 483. Self-preservation is described as a 'general principle of law recognized by civilised nations' as contemplated by Art. 38 (1) (c) ICJ Statute. Self-preservation is to justify a unilateral action taken in response to a situation of 'grave and imminent peril' affecting the 'essential interests' of the responding State, see Art. 25 (1) (a) and (b) UN ILC Articles on Responsibility of States for Internationally Wrongful Acts, and ICJ, Advisory Opinion, *Legality of the Threat or Use of Nuclear Weapons*, p. 263. Meanwhile, a State's right to survival and right to resort to self-defence should be compatible with the requirements of the international law applicable in armed conflict, particularly those of the principles and rules of international humanitarian law, as well

scribed in Article 9; the analysis on airspace closure in war is presented in Chapter V.

2.4.1.3 Contextual interpretation of military necessity in Article 9

Considering the context of the Chicago Convention being a treaty for peace times, military necessity in Article 9 does not cover actions in war or national emergency.[96] In Article 9, the phrase "military necessity", albeit being somehow counter-intuitive, the author argues that this phrase is to be read narrowly: excluding military activities in wartime.

The reason is as follows: prohibited airspace established *due to military necessity*, pursuant to Article 9, have to fulfill the conditions and requirements therein, such as the requirement of non-distinction.[97] On the contrary, Article 89 of the Chicago Convention says that the provisions of the Convention shall not affect the freedom to take actions in wartime.[98] Article 89 made it clear that, if a State engages in a war or declares national emergency, the said State resumes the freedom of action. The phrase "resume the freedom of action" in Article 89, arguably, means to regain the freedom to act in a way unaffected by the requirements in the Chicago Convention. That is to say, in wartime, conditions and requirements in Article 9 of the Chicago Convention do not prevent a Contracting State, for example, from making distinctions as to nationalities when establishing prohibited airspace.[99] In case a Contracting State is to establish prohibited areas *due to war or national emergency*, pursuant to Article 89, its freedom is not qualified by Article 9 of the Chicago Convention.[100]

---

as with specific obligations under treaties and other undertakings.

96 See further elaboration in Chapter V, Section 2.2.1 of this study.

97 See Section 2.5 of this chapter.

98 In ICAO, it has been widely understood that aviation security instruments which criminalize certain acts are not applicable to the military activities in armed conflict. For instance, in a resolution adopted on 20 August 1973, the ICAO Council condemned Israel for violating Lebanon's sovereignty and for the diversion and seizure of a Lebanese civil aircraft, and considered that the actions by Israel "constitute a violation of the Chicago Convention", but did not refer to The Hague and Montreal Conventions. (For reference, see ICAO Doc 9225-LC/178, *International Conference on Air Law*, Rome, August–September 1973, Minutes and Documents (1978) at 385-386). Activities of armed forces during an armed conflict, as those terms are understood under international humanitarian law, are not governed by the Chicago Convention. See further elaboration in Chapter IV of this study.

99 Bin Cheng, International Air Transport, 483. Meanwhile, a State's right to survival and right to resort to self-defence should be compatible with the requirements of the international law applicable in armed conflict, particularly those of the principles and rules of international humanitarian law, as well as with specific obligations under treaties and other undertakings which deal with special issues, such as nuclear weapons. See ICJ, *Legality of the Threat or Use of Nuclear Weapons,* Advisory Opinion of 8 July 1996. https://www.icj-cij.org/files/case-related/95/095-19960708-ADV-01-00-EN.pdf.

100 See further in Chapter V, Section 2.4.2 on the closure of EU airspace against Russian aircraft.

Therefore, "military necessity" in Article 9 has to be interpreted as covering military activities in peacetime, such as training exercises, practice firing, testing of anti-aircraft missiles, or other planned operations under the State's control.[101] Article 9 of the Chicago Convention does not cover prohibited areas in wartime, and the conditions therein do not apply to wartime airspace restrictions. This interpretation is supported by preparatory work of the Chicago Convention where State representatives drafting the Chicago Convention acknowledged that the Chicago Convention is to regulate civil aviation in peacetime and activities during wartime are to be regulated by other treaties.[102] In the sense of the Chicago Convention, Article 9 means to regulate prohibited airspace in peacetime, which is evidenced by the mere existence of Article 89 targeting the situations of war and national emergency.[103]

In this connection, the case of Flight SA1812 (Siberia Airlines) deserves attention. In 2001, the Russian airliner was destroyed by two long-range antiaircraft missiles fired during a Ukrainian air defense exercise off the Black Sea's Crimean coast.[104] The accident took place because of a planned military exercise, not relating to war or national emergency.[105] The authorities in charge of the military exercise could have invoked military necessity to establish prohibited airspace in accordance with Article 9 of the Chicago Convention, so as to prevent the civilian loss.

2.4.2 Public safety

Public safety in Article 9 of the Chicago Convention is a general term that can accommodate many situations. As clarified in Chapter I, Section 2.6, 'safety' means the risk associated with aviation activities is reduced to an acceptable level. Public safety in aviation, accordingly, does not mean that regulators must

101 See ICAO Doc 9554-AN/932, Manual Concerning Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft Operations, 1st ed., 1990. Examples of military activities which may pose a threat to civil aircraft and which should be coordinated with ATS authorities include: a) practice firing or testing of any weapons air-to-air, air-to-surface, surface-to-air or surface-to-surface in an area or in a manner that could affect civil air traffic; b) certain military aircraft operations such as air displays, training exercises, and the intentional dropping of objects or of paratroopers; c) launch and recovery of space vehicles; and d) operations in areas of conflict, or the potential for armed conflict, when such operations include a potential threat to civil air traffic. Further on military activities over conflict zone and war, see Chapter IV of this study.

102 See Chapter V, Sections 2.2&2.3.

103 *ibid.*

104 https://www.nytimes.com/2020/01/09/world/middleeast/civilian-planes-shot-down.html, last accessed 5 January 2020.

105 No State has declared national emergency due to this military exercise.

guarantee zero risk at any time for the general public,[106] but rather the maintenance of an acceptable level of risk through risk management.

Article 9 emphasizes public safety as a justification to close airspace, twice, in both subparagraphs (a) and (b). The rationale is that every State can resort to extraordinary measures within its territory by virtue of its sovereignty.[107] It is every State's prime objective and duty to maintain internal peace, safety and social order, covering humans and objects in its territory.[108] The term public safety in Article 9 supports Contracting States to take all necessary steps to protect domestic safety; and if necessary, a State may prevent the passage of aircraft in its territory,[109] even though bilateral/regional agreements have granted foreign aircraft the right of overflight.[110] It has therefore become general practices to establish such areas only to protect "critical industrial complexes" whose damage due to an aircraft accident could "assume catastrophic proportions" (*e.g.* nuclear power plants) or especially "sensitive installations which are essential for the national security".[111]

What is necessary to preserve peace and safety for its citizens, the State concerned is the one to judge in peace time, and its decision for domestic situations is final.[112] For example, after the 17 February Revolution in 2011,[113] the Libyan authorities closed its airspace but did not issue a Notice to Airmen (NOTAM).[114] The airspace closure had been coordinated verbally with Malta Area Control Centre (ACC) – foreign flights were turned back by the Libyan Arab Jamahiriya due to lack or cancellation of landing permits.[115] In response to the complains from Member States, ICAO concluded that Libyan's measure to require new landing permits did not violate the Chicago Convention, although the permit is was difficult or impossible to obtain for foreign aircraft.[116] Recalling the sovereignty principle in Article 1 of the

106 Speaking of the health risk associated with international flights where one or more passengers are suspected of having a communication disease,
107 Bin Cheng, *Principles*, p. 51.
108 *Spanish Zone of Morocco Claims* (1923), Rapport III (1924), 2 UNRIAA, p. 642. See also *Palmas* Case (1924), p. 93.
109 Bin Cheng, *Principles*, pp.51-52.
110 Bin Cheng, *Principles*, p. 52.
111 See ICAO Doc 9426, Air Traffic Services Planning Manual (1992), Chapter 3, para. 3.3.2.6.
112 Bin Cheng, *Principles*, pp. 67-68
113 https://www.cnn.com/2013/09/20/world/libya-civil-war-fast-facts/index.html, last accessed 27 December 2018.
114 ICAO, Council – 192nd Session, "Summary Minutes of the Third Meeting", ICAO Doc. C-DEC 192/3, 4 March 2011, para. 79.
115 ICAO, Council – 192nd Session, "Summary Minutes of the Third Meeting", 4 March 2011, ICAO Doc. C-DEC 192/3, para. 79. Malta ACC reported that the Libyan Arab Jamahiriya were turning some flights back due to the lack or cancellation of landing permit
116 ICAO, Council – 192nd Session, "Summary Minutes of the Third Meeting", ICAO Doc. C-DEC 192/3, 4 March 2011, para. 76.

Chicago Convention, ICAO recognized that the Libyan authorities were exercising their rights granted under Article 9(b) of the Chicago convention.[117]

The key information was that the Libyan government was still in control and maintained normal communications concerning the airspace. The air navigation service providers in adjacent FIRs reported *normal* communications with the Tripoli ACC;[118] activities being carried out are consistent with Annex 11 – *Air Traffic Services* provisions on contingency planning.[119] The ICAO Air Navigation Bureau from the beginning had been involved in the coordination and monitoring of air navigation services in the Tripoli FIR.[120]

Therefore, despite domestic disturbances, there was no declared national emergency or war in the sense of Article 89 – it was still peacetime; Article 9(b) had been used as a justification for Libyan airspace closure due to public safety. The government, despite internal turbulences, was still in control of its airspace. In the peace time, Libyan government was the one to make final decisions as to its prohibited airspace.

2.4.3 Exceptional circumstances

Pursuant to Article 9(b) of the Chicago Convention, Contracting States have the right to prohibit flight over its territory in exceptional circumstances temporarily. The literal meaning of exceptional circumstances is unnatural or unexpected situations.[121] From practical experiences, exceptional circumstances have included terrorism threats, such as 9/11 attacks, or natural disasters, such as the Eyjafjallajökull volcanic eruption in 2010.[122]

On the day of 11 September 2001, American Airlines Flight 11 and United Airlines Flight 175 were hijacked. Subsequently, both aircraft intentionally crashed into the twin towers in New York, and 2,753 people were killed as a result.[123] All commercial and general aviation traffic, except national defense or emergency services, was grounded entirely for 96 hours.[124] US authorities

117 *ibid*, paras. 74-76.
118 *ibid*, para. 77.
119 On contingency planning, see further in Chapter III of this study on the operational aspects of establishing a prohibited airspace.
120 ICAO, Council – 192nd Session, "Summary Minutes of the Third Meeting", ICAO Doc. C-DEC 192/3, 4 March 2011, para. 69. "the Bureau was receiving daily updates from Regional Offices, several air navigation service providers adjacent to the Tripoli FIR, as well as the European Organisation for the Safety of Air Navigation (EUROCONTROL) Central Flow Management Unit (CFMU)."
121 https://en.oxforddictionaries.com/definition/exceptional, last accessed June 22, 2020.
122 David Alexander, "Volcanic Ash in the Atmosphere and Risks for Civil Aviation", Int. J. Disaster Risk Science, 2013, 4(1), p. 11-13.
123 https://www.cnn.com/2013/07/27/us/september-11-anniversary-fast-facts/index.html, last accessed June 22, 2020.
124 The 9/11 Commission Report, https://govinfo.library.unt.edu/911/report/911Report.pdf, pp.23-25, 327.

did not explicitly invoke Article 9 of the Chicago Convention ordering airspace closure, but the National Commission on Terrorist Attacks Upon the United States, also known as the "9/11 Commission", repeatedly mentioned air sovereignty,[125] and there has been no objection that US actions were justified under the terms of Article 9.[126]

In response to the abhorrent terrorist acts, the UN Security Council adopted Resolution 1368 which included a paragraph highlighting "the inherent right of individual or collective self-defense in accordance with the [UN] Charter".[127] Since 2001, States in numerous cases have referred to the principle of self-preservation and more specifically, the right of anticipatory self-defence to justify anti-terrorism actions that would otherwise have been inconsistent with treaties, such as the UN Charter's provision on the use of force.[128] ICAO, on the other hand, reviewed the adequacy of aviation security conventions and updated Annex 17;[129] it also established the Universal Security Oversight Audit Programme[130] relating to airport security arrangements and civil aviation security programs. At the national level, since the 9/11 attacks, the US has routinely used temporary flight restrictions (TFR) to restrict airspace within the distance of 30 nautical miles from the President's location, with a 10-nautical-mile radius no-fly zone for non-scheduled flights.[131]

Besides terrorist attacks, natural disasters such as the eruption of volcanos may also constitute exceptional circumstances under Article 9 of the Chicago

125 *ibid*.

126 See generally Peter P.C. Haanappel, *Law and Policy of Air Space and Outer Space: A Comparative Approach*, Kluwer 2003, p. 45. Brian F Havel & Babriel Sanchez, *The Principles of Practices of International Aviation Law,* CUP 2014, p. 43.

127 UN Security Council, Resolution 1358 (2001), Adopted by the Security Council at its 4370th meeting, on 12 September 2001. Self-defense is the most important measure of self-preservation. See James A Green, '*Self-Preservation*', Max Planck Encyclopedias of International Law [MPIL], March 2009.

128 Christopher Greenwood, 'The Caroline', Max Planck Encyclopedias of International Law [MPIL], April 2009.

129 This amendment includes the introduction of various definitions and new provisions in relation to the applicability of this Annex to domestic operations, international cooperation relating to threat information, appropriate authority, National Aviation Security Committee, national quality control, access control, passengers and their cabin and hold baggage, in-flight security personnel and protection of the cockpit, code-sharing/collaborative arrangements, Human Factors and management of response to acts of unlawful interference. The status of a number of specifications was changed to Standards. See ICAO Annex 17, Security, Safeguarding International Civil Aviation Against Acts of Unlawful Interference, 11th ed., March 2020.

130 See Chapter I, Section 3.2.2 on the legal force of Standards.

131 See US Code of Federal Regulations: CFR Sections 91.137, 91.138, 91.139, 91.141, 91.143, 91.145, 99.7. For example, President Biden was expected to visit his vacation home in Rehoboth Beach in 2021: the travel plans also include a temporary flight restriction (TFR) on airspace within 30 miles of the president's location. See https://mdcoastdispatch.com/2021/04/15/airport-operators-seek-answers-on-bidens-travel-impact/, last accessed 11 November 2021.

Convention. Speaking of volcanic ash and prohibited airspace, in the week of 14–21 April 2010, 313 airports in Europe were closed due to the Eyjafjallajökull eruption.[132] The closure of airspace was an exercise of the sovereignty under Article 9 of the Chicago Convention.[133] Icelandic authorities estimated that the ash cloud could damage the aircrafts' engines and thus endanger the lives of passengers and crew members as well as the aircraft.[134] The eruption in 2010 forced authorities to specify limits on how much ash they considered exceptional and unsafe for flight operation.[135] The UK took the lead and specifies ash-concentration values: any airspace where ash density exceeded 4 mg per cubic meter were considered *exceptional*, and thus was deemed prohibited airspace.[136]

2.4.4 Emergency

As for the term "emergency" in Article 9(b), there is no legal definition in multilateral air law treaties.[137] In international law, the definition of the term emergency is usually referred to as "grave and imminent perils that threaten vital interests."[138] Emergencies are often followed by 1) extraordinary deployment of governmental powers and resource;[139] and 2) justifications for a State's breach of international obligation as being the only means to safeguard

132 David Alexander, 'Volcanic Ash in the Atmosphere and Risks for Civil Aviation', Int. J. Disaster Risk Science, 2013, 4(1), pp. 11-13.

133 See Ruwantissa I.R. Abeyratne, *Responsibility and Liability Aspects of the Icelandic Volcanic Eruption*, 35 Air & Space L. (2010), pp. 281, 283. On competence, see Section 2.3.4 of Chapter I.

134 http://www.telegraph.co.uk/news/worldnews/europe/iceland/8528915/Iceland-shuts-airspace-after-volcanic-eruption.html , last visited (19-12-2011).

135 ICAO, Council – 193rd Session, "Summary Minutes of the Eighth Meeting", ICAO Doc. C-Dec 193/8, 29 June 2011, para. 47.

136 http://news.bbc.co.uk/2/hi/uk_news/8685913.stm, last accessed June 22, 2020. ICAO, Sixth Meeting of the International Airways Volcano Watch Operations Group, 19 to 23 September 2011, IAVWOPSG/6-REPORT.

137 The multilateral air law treaties which I have examined one by one are those listed in ICAO Secretariat's database: https://www.icao.int/secretariat/legal/Lists/Current%20lists%20of%20parties/AllItems.aspx, last accessed May 13, 2019. As to "emergency", there is no semantic uniformity across diverse institutional treaty regimes. See Desierto, D. *Necessity and National Emergency Clauses: Sovereignty in Modern Treaty Interpretation*. BRILL 2012, p. 135.

138 Garcia-Amador, Special Rapporteur, *Third Report on International Responsibility*, A/CN.4/111, Yearbook of the International Law Commission, vil. II, 1958, p. 53, para. 14.

139 For a sample of constitutional discourses on emergencies in various jurisdictions, see Bruce Ackerman, *The Emergency Constitution*,113 Yale L.J. 1029 (2004); David Dyzenhaus, *The Constitution of Law: Legality in a Time of Emergency*, CUP 2006; Gabriel L. Negretto and Jose Antonio Aguilar Rivera, *Exception and Emergency Powers: Liberalism and Emergency Powers in Latin America* 21 Cardozo L. Rev. 1797 (2000).

such essential interests.[140] Indicators of emergencies include the existence of a serious threat or damage to a nation's essential interests.[141] As elaborated in the previous section on public safety,[142] by virtue of territorial sovereignty, the State concerned makes final decisions as to the existence of perils in its territory.[143]

Two articles in the Chicago Convention mention the term "emergency" – Article 9 and Article 89. According to Article 9(b), in case of *emergency*, a Contracting State can "with immediate effect", temporarily restrict or prohibit flying over the whole or any part of this State's territory, on condition that such restriction or prohibition shall be applied without distinction of nationality to aircraft of all other States. According to Article 89, in case of a *national* emergency, a Contracting State resumes freedom to take actions not bound by the Chicago Convention, but this is not with immediate effect; the State has to complete formalities – there must be a declaration of national emergency and the ICAO Council must be notified.[144]

Notably, Article 89 added the adjective "national" before the word emergency. Arguably, Article 89 refers to a more severe situation where the country's vital interest is in peril,[145] whereas Article 9's use of emergency can cover relatively less severe situations such as regional emergencies. In case of war, there is a natural presumption of national emergency.[146] The analysis of national emergency and war is further presented in Chapter V.

The benchmarks for emergency, 'grave and imminent perils', abstract as they are, vary from case to case.[147] Speaking of airspace restrictions due to

---

140 Early as in 1837 *The Caroline* case, http://avalon.law.yale.edu/19th_century/br-1842d.asp (last visited 3 December 2018), emergency or necessity serves as a legal basis for a State to suspend compliance with an international legal obligation. The ILC specifically codified the doctrine of necessity in Articles on State Responsibility Article 25. See James Crawford, *The International Law Commission's Articles on State Responsibility*. CUP 2002, pp. 178-186.

141 See Desierto, D., *Necessity and National Emergency Clauses: Sovereignty in Modern Treaty Interpretation.* Brill 2012, p. 135.

142 See Section 2.4.2 of this chapter.

143 *Faber Case, Vienna Arbitration, 1903,* p. 600, in Bin Cheng, *Principles*, pp. 67-68

144 Bin Cheng, *Principles*, p. 113. On Article 89, see Chapter V of this study.

145 Notably, ICJ in *Threat or Use of Nuclear Weapons (Advisory Opinion)* links the situation of national emergency with the derogation of human rights, see *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion*, ICJ Reports 1996, para. 25. Case law on human rights further defines national emergency as a situation "threatening the life of the nation". According to Jean-Marie Henckaerts and Louise Doswald-Beck *in Customary International Humanitarian Law,* CUP 2009, p. 300), this phrase "threatening the life of the nation" does not require that the whole nation be involved in the emergency but that the essence of the emergency consist of the fact that the normal application of human rights law cannot be ensured in view of the nature of the emergency.

146 Bin Cheng, *Principles*, p. 53.

147 See, for instance, US President Trump declared a national emergency on the border with Mexico in February 2019 due to immigration, https://www.nytimes.com/2019/02/15/us/politics/national-emergency-trump.html; Trump declares national emergency over threats against US technology in May 2019, https://www.cnbc.com/2019/05/15/trump-signs-

emergency, one can relate to the unprecedented year 2020 when many countries restricted their airspace to international aviation for the reason of awareness that an aircraft may have cases of COVID-19, a deadly communicable virus.[148] In the US, on 13 March 2020, President Trump declared a *nationwide emergency*; all 50 US states, the District of Columbia, and 4 US territories have been approved for major disaster declarations to assist with additional needs identified under the nationwide emergency declaration for COVID-19.[149]

The US measure to close airspace in March 2020 was due to a health emergency.[150] However, the US measure did not establish prohibited areas in the sense of Article 9, because the measure is linked to the right to fly into US, rather than the right to *overfly* it.[151] For airspace restrictions due to COVID-19, the most pertinent provision is instead Article 6 of the Chicago Convention because it requires any scheduled air service over or *into* the territory of a Contracting State to obtain special permission or authorization.[152] With the application of Article 6 of the Chicago Convention, ICAO recommended that Contracting States should not interrupt air transport for health reasons,[153] whereas flight restrictions can be considered in exceptional circumstances, but a State should first consult with the World Health Organization and the health authorities for a risk assessment.[154]

---

executive-order-declaring-national-emergency-over-threats-against-us-technology.html.

148 For instance, on 11 March 2020, the United States barred the entry of all foreign nationals who had visited China, Iran and European countries during the previous 14 days. See New York Times, 'Coronavirus Travel Restrictions, Across the Globe' https://www.nytimes.com/article/coronavirus-travel-restrictions.html, last accessed May 25, 2020.

149 https://www.fema.gov/coronavirus/disaster-declarations, last accessed June 20, 2020.

150 Article 14 of the Chicago Convention obliges Contracting States to take effective measures to prevent the spread by means of air navigation of communicable diseases as the Contracting States shall from time to time decide to designate. Further see ICAO SARPs are Annex 9, Standard 8.15 & 8.16.

151 See Section 2.2 of this chapter. Article 9 of the Chicago Convention is to prohibit "flying over certain areas of its territory".

152 In practice, such special permission or other authorization is usually reciprocally exchanged between States in the form of a bilateral air services agreement (BASA). See *Milde,* p. 45.

153 ICAO Annex 9, Chapter 2, paragraph 2.4.

154 Article 28 of International Health Regulations (2005) prescribes that:
"1. Subject to Article 43 or as provided in applicable international agreements, a ship or an aircraft shall not be prevented for public health reasons from calling at any point of entry. However, if the point of entry is not equipped for applying health measures under these Regulations, the ship or aircraft may be ordered to proceed at its own risk to the nearest suitable point of entry available to it, unless the ship or aircraft has an operational problem which would make this diversion unsafe.
2. Subject to Article 43, or as provided in applicable international agreements, ships or aircraft shall not be refused *free pratique* by States Parties for public health reasons; in particular they shall not be prevented from embarking or disembarking, discharging or loading cargo or stores, or taking on fuel, water, food and supplies. States Parties may subject the granting of *free pratique* to inspection and, if a source of infection or contamination is found on board, the carrying out of necessary disinfection, decontamination, disinsection or deratting, or other measures necessary to prevent the spread of the infection

2.4.5 Summary on the justifications to establish prohibited airspace

In assessing the justifications in Article 9 of the Chicago Convention, pursuant to Articles 1 and 2 of the Chicago Convention, a Contracting State is to make final decisions as to the existence of grave and imminent perils or other exceptional circumstances in its territory. Consistent with the principle of territorial sovereignty, a Contracting State is allowed to prohibit or restrict the overflight of foreign aircraft in its territory, subject to conditions and requirements in Article 9 of the Chicago Convention. The Chicago Convention considers safety and security to be of such overriding importance that a State can close its airspace for military necessity, public safety, exceptional circumstances and emergency. These conditions in Article 9 are to be read narrowly for a peace context which cover stable situations and disturbances that do not amount to war or national emergency.

2.5 The application of the non-distinction requirement

Having explained the four justifications where a Contracting State can establish prohibited airspace over its territory, Article 9 of the Chicago Convention further sets out requirements for the exercise of this right: under subparagraph (a), a Contracting State shall not make a distinction between aircraft of the State whose territory is involved, engaged in international scheduled airline services, and the "aircraft of the other Contracting States likewise engaged"; under subparagraph (b), a Contracting State's restriction or prohibition of transit rights shall be applicable without distinction of nationality to "aircraft of all other Contracting States". Considering that these terms are too vague, not self-explanatory and could lead to disagreements.[155] Readers may wonder if the reference to "no distinction" in Article 9 means identical treatment or merely mandates equality of opportunity. This issue to be analyzed in light of the objects and purposes of the Chicago Convention enshrined in its preamble, as per Articles 31 and 32 of VCLT.

2.5.1 The objects and purposes of the Chicago Convention

The Chicago Convention is part of the law of peace regulating air transport relationships among friendly countries. This observation is corroborated by the Chicago Convention's object and purpose. A treaty's objects and purposes

---

or contamination."

155 *Milde,* p. 47.

are often demonstrated in its preamble as the *raison d'être*.[156] The Chicago Convention's preamble says:

> *Whereas* the future development of international civil aviation can greatly help to create and preserve friendship and understanding among the nations and peoples of the world, yet its abuse can become a threat to the general security; and
> *Whereas* it is desirable to avoid friction and to promote that cooperation between nations and peoples upon which the peace of the world depends;
> *Therefore,* the undersigned governments having agreed on certain principles and arrangements in order that international civil aviation may be developed in a safe and orderly manner and that international air transport services may be established on the basis of equality of opportunity and operated soundly and economically;
> *Have* accordingly concluded this Convention to that end.[157]

The fourth paragraph of the preamble says "to that end",[158] States concluded the Chicago Convention; and 'that end' refers back to the first three paragraphs of the preamble. The first three paragraphs set forth the object and purpose of the Chicago Convention.[159]

The terms 'object' and 'purpose' in English are defined by each other and the two words appear to be a unitary concept.[160] However, their French counterparts are different,[161] because there is a difference between '*l'objet*' and "*le but*". French public law has developed a distinction between '*l'objet*' and '*le but*' of a legal instrument.

---

156 Jean-Pierre Cot et Alain Pellet, *La Charte des Nations Unies, Commentaire article par article*, ECONOMICA 2005, pp. 4-5: « Certains se réfèrent à la jurisprudence de la Cour Internationale de Justice dans les affaires du Droit d'Asile (Rec. 1950, p. 282) et des Ressortissants des Etats-Unis au Maroc (Rec. 1952, p. 196) pour considérer que la question ne fait pas de doute: l'utilisation du préambule pour éclairer la portée des obligations souscrites l'intègre sans conteste dans les normes du droit des traités. D'autres proposent une analyse plus nuancée en ne retenant le préambule que lorsqu'il énonce le but du traité avec une précision suffisante pour diriger l'interpréation du dispositif». See also Charles de Visscher, *Problème d'interprétation judiciare en droit international public*, Paris, Pedone 1963, p. 61; cf. Charles Rousseau, *Droit international public*, Tome 1, Paris, Sirey 1970, p. 87.

157 Preamble of the Chicago Convention.

158 The French expression is "à ces fins", see ICAO Doc 7300, https://www.icao.int/publications/Documents/7300_1ed.pdf, last accessed 3 March 2019.

159 *Huang,* p. 59.

160 David S. Jonas, & Thomas N. Saunders, "The Object and Purpose of a Treaty: Three Interpretive Methods", Vanderbilt Journal of Transnational Law, vol. 43 (3), May 2010, 565, pp. 578-579.

161 The French language is examined here because in 1944, delegations agreed to, "draw up a text in the English, French, and Spanish languages, each of which shall be of equal authenticity." See https://www.icao.int/publications/Documents/7300_orig.pdf. However, the French and Spanish texts had not been established until 1949 where the Assembly of the International Civil Aviation Organization passed Resolution A3-2 where specified that French and Spanish texts are used only for the internal purposes of the Organization. See ICAO A3-2: "Preparation of French and Spanish texts of the Convention".

> According to his French doctrine, the term 'object' indicates thus the substantial content of the norm, the provisions, rights and obligations created by the norm. The object of a treaty is the instrument for the achievement of the treaty's purpose, and this purpose, in turn, the general result which the parties want to achieve by the treaty. While the object can be found in the provisions of the treaty, the purpose may not always be explicit and be prone to a more subjective understanding.[162]

'*L'objet*' is what it does in the sense of creating a particular set of rights and obligations, and *le but* is the reason for establishing '*l'objet*.'[163] *L'objet* is more specific than *le but* in the sense of identifying rights and obligations. The first two recitals of the Chicago Convention's preamble describe the general motivation to draft the Chicago Convention: the purposes. The purposes are to make use of international civil aviation to create and preserve peace, friendship, understanding and cooperation among nations and peoples, yet meanwhile pre-empt the abuse and threat to the general security.

The objects of the Chicago Convention, in contrast, are more concrete: they are the substantial content of the norm, the provisions, rights and obligations to achieve the purpose. As it is written in paragraph 3 of the preamble, "therefore, governments agreed on certain *principles and arrangements*". The expression "in order that" in the third paragraph brings about the objects of the Chicago Convention – aviation safety and security, and equality of opportunity. The objects of the treaty are that international civil aviation may be developed in a safe and orderly manner and on the basis of equality of opportunity. These objects underpin requirements in the Chicago Convention, including to those prescribed in Article 9.

These objects and purposes in the Chicago Convention's preamble help ascertain the meaning of its specific Article 9 on prohibited airspace. With respect to prohibited airspace, on the one hand, the Chicago Convention emphasizes the overwhelming priority of ensuring safety and security among friendly countries.[164] Based on the considerations of safety and security, Article 9 lists four justifications for airspace closure or restrictions.[165] On the other hand, Article 9 highlights the requirement of "no distinction" trying to

---

162 Buffard, I. and Zemanek, K., 'The Object and Purpose of a Treaty: An Enigma?', Austrian Rev of Int'l and European L, 1998, p. 326.

163 Gardiner, R. *Treaty interpretation*. OUP 2008, p. 192.

164 *Huang*, pp. 15-16.

165 See Section 2.4 of this chapter on justifications for establishing a prohibited airspace.

level the playing field,[166] so that aircraft of different countries are treated in the same manner with respect to a prohibited/restricted airspace.[167]

2.5.2 *National treatment and most-favoured-nation treatment*

Having clarified that the Chicago Convention aims to achieve equality of opportunity, this section explains such equality with respect to prohibited areas. Article 9(a) of the Chicago Convention does not allow a distinction between national aircraft and foreign aircraft engaging in international scheduled airline service. Article 9(a) requires that foreign and domestic scheduled international air services have equal *opportunity* to operate air services. Article 9(a) speaks of equality between domestic and foreign aircraft. It is often related to the concept of 'national treatment' (NT).[168]

The standard of national treatment in Article 9(a) applies to scheduled international air services but not to non-scheduled flights.[169] The reason is that the non-distinction requirement in Article 9(a) is to prevent Contracting States from using prohibited areas as a means of frustrating the operation of international scheduled international air service.[170] For non-scheduled services, Article 9(a) does not prohibit a distinction between domestic scheduled air service and foreign non-scheduled services. A Contracting State, if establishing a prohibited area for reasons of military necessity or public safety, is allowed to make a distinction between domestic scheduled air service[171] and foreign non-scheduled flights.[172] Prohibited airspace under

166 On the discussion on free-market competition and protectionism, see Pablo Mendes de, & Buissing, Niall. (2019). *Behind and beyond the Chicago Convention: The evolution of aerial sovereignty*, Wolters Kluwer 2019, Chapter 20. Peter Haanappel, *Bilateral Air Transport Agreements – 1913, 1980,* 5 Int'l Trade L. J. 241 (1980). Malgorzata Polkowska, *The Development of Air Law: From the Paris Conference 1910 to the Chicago Convention of 1944,* 33 Annals Air & Space L. 59 (2008).

167 Article 11 of the Chicago Convention emphasizes that, *subject to the provisions of this [Chicago] Convention*, the laws and regulations of a contracting State relating to the admission to or departure from its territory of aircraft engaged in international air navigation shall be applied to aircraft of all contracting States without distinction as to nationality. This Section examines the specific provision on prohibited airspace, Article 9, to discuss the requirement of equal treatment therein.

168 National treatment is often discussed in international economic law. For example, Kamperman Sanders, A. *The principle of national treatment in international economic law trade, investment and intellectual property*, Cheltenham: Edward Elgar Publishing 2014, pp. 5-6.

169 Bin Cheng, *The Law of International Air Transport*, Stevens 1962, p. 124.

170 *ibid,* pp. 120-124.

171 ICAO Council adopted the following definition of a scheduled international air service: "A scheduled international air service is a series of flight that possesses all the following characteristics: (a) it passes through the airspace over the territory of more than one State; (2) it is performed by aircraft for the transport of passengers, mail or cargo for remuneration, in such a manner that each flight is open to use by members of the public; (c) it is operated, so as to serve traffic between the same two or more points, either (i) according to a published time-table, or (ii) with flights so regular or frequent that they constitute a recognizably

Article 9(a) may allow domestic aircraft to pass over but forbid a foreign country's charter flights to do so.[173]

Article 9(b) of the Chicago Convention, in comparison, says that airspace restriction or prohibition shall be applicable without distinction of nationality to aircraft of all *other* States. Article 9(b) does not make a distinction between scheduled air services or non-scheduled flights. In other words, the distinction is prohibited among other foreign countries, no matter whether their aircraft engage in international scheduled or non-scheduled air service; meanwhile, national aircraft can be exempt from such restriction or prohibition.[174] That is to say, a prohibited area under Article 9(b), with immediate effect, is closed to all foreign flights. One can relate to the most-favoured-nation treatment (MFN).[175]

NT and MFN treatments are treaty tools used to implement the non-discrimination principle.[176] The non-distinction requirement was designed to require governments to contractually qualify their sovereignty and to engage in obligations of equal treatment.[177] This qualification to sovereignty, as aforementioned in Section 2.4.1.3 of this chapter, does not apply to war or national emergency, according to Article 89 of the Chicago Convention.

Notably, equal treatment under Article 9 is about the equality of opportunity, as outlined in the preamble of the Chicago Convention.[178] That is to say, State A cannot close the airspace over a particular area to States B and C while allowing State D's airlines to continue flights over the excluded zone.[179] Aircraft of different countries should have the same opportunity with regard to the access to a prohibited/restricted airspace.

---

systematic series. " See ICAO, First Assembly, Commission No. 3, Discussions, Vol. III "Distinction between scheduled and Non-Scheduled Operations in International Civil Air Transport," ICAO Doc. 4522, A1-EC/74 (1947).

172 Article 5 of the Chicago Convention grants three rights to all non-scheduled flights, subject to the qualifications specified in the Article: (1) right to enter and make final stop for non-traffic purposes; (2) right to enter and fly over non-stop; and (3) Right to enter, fly over and stop for non-traffic purposes on a transit flight. These rights may be exercised by aircraft bearing the nationality of a party to the Chicago Convention without the necessity of obtaining prior permission. However, advance notice of intended arrival for traffic control, public health and similar purposes could be required. See ICAO Doc. 7278-C/841 (May 10, 1952), p. 9. Bin Cheng, *The Law of International Air Transport* (1962), pp. 193-195.

173 See Section 3.2 of this chapter on India-Pakistan disputes.

174 Bin Cheng, *The Law of International Air Transport,* Stevens 1962, pp. 124, 176-177.

175 United Nations Conference on Trade Development. (2010). *Most-favoured-nation treatment*. UNCTAD/DIAE/IA/2010/1, New York: United Nations.

176 United Nations Conference on Trade Development. *Most-favoured-nation treatment*. UNCTAD/DIAE/IA/2010/1, New York: United Nations (2010), pp. 13-15.

177 Kurtz, J. *National treatment*, in The WTO and International Investment Law, CUP 2016, pp. 80-82.

178 See Section 2.5.1 of this chapter.

179 Brian F. Havel & Gabriel S. Sanchez, *The Principles and Practice of International Aiviation Law,* CUP 2014, pp. 43-44.

The equal opportunity does not necessarily mean the equality of results. Results in this context are associated with the exercise of transit rights or 'privileges'[180] – the technical right to fly over without landing and landing for technical reasons only.[181] The granting of privileges remains a sovereign prerogative of each Contracting State and is dealt with in air services agreements. These agreements are concluded between States or, in exceptional cases, between States and/or Regional Economic Integration Organizations (REIOs),[182] acting in addition to States.

States usually do not exchange complete freedom of overflight between themselves.[183] The routes for overflight are often rigid in the sense that all the traffic points on a special route are individually indicated.[184] Recalling the UK delegate's speech at Committee III (I) of the Chicago Conference: "in a bilateral agreement the route and the rights in respect thereto… would be clearly laid down in agreement and would govern that route and nothing else. It would be dangerous to have anything by implication which compelled a country to give the same rights in respect to another route."[185] In this context, a blanket MFN or NT requirement does not fit into the general scheme of these air services agreements, especially in matter of routes and capacity.[186]

That is to say, in juxtaposition with this sovereign prerogative, bilateral air services agreements are different from each other in terms of privileges granted under each agreement.[187] The specification of routes in which the designated airlines of the Contracting Parties may operate has become the first and foremost instrument in regulating the transit privileges granted.[188] In essence, the non-distinction requirement in Article 9 is to achieve the object of equality of *opportunity* as per the Preamble of the Chicago Convention. States all have the opportunity to negotiate and exchange transit rights among themselves. Although a provision on MFN or NT may help enforce the prohibition of transit traffic on an equal footing, it does not mean to accord identical privileges to all aircraft of different nationalities.

180 Peter P.C. Haanappel, *Pricing and Capacity Determination in International Air Transport,* Kluwer 1984, p. 11.

181 *ibid.*

182 Pablo Mendes de, & Buissing, Niall. (2019). *Behind and beyond the Chicago Convention: The evolution of aerial sovereignty,* Wolters Kluwer 2019, pp. 97-107.

183 Bin Cheng, *The Law of International Air Transport*, Stevens 1962, pp. 387-388.

184 *ibid.*

185 *Proceedings of the International Civil Aviation Conference,* (United States Government Printing Office, Washington, 1948), p. 1279.

186 Bin Cheng, *The Law of International Air Transport*, Stevens 1962, p. 357.

187 Hans Kelsen, 'The Principle of Sovereign Equality of States as a Basis for International Organization', 53 *Yale Law Journal* 207, 208-209 (1944).

188 Bin Cheng, *The Law of International Air Transport*, Stevens 1962, p. 387.

2.5.3 Nationality of aircraft

Having explained that the requirement of non-distinction as to *nationality* restricts the competence for airspace closure, this section further explores the meaning of the phrase "aircraft of other Contracting States". Article 9 uses such expression to refer not to State aircraft in the strict sense of term,[189] but to all civil aircraft registered in and, therefore, on account of Article 17 of the Chicago Convention, bearing the nationality of the other Contracting State, whether such aircraft are owned by private individuals or the State.[190]

Article 17 of the Chicago Convention, however, does not mention the nationality of the owner, [191] or the nationality of the operator.[192] If a prohibited area is set up against a particular airline, does it make a distinction as to the nationality of aircraft? A question thus arises as to whether a distinction based on an *airline's* nationality is consistent with Article 9 of the Chicago Convention, or whether a prohibited area against one particular airline is consistent with Article 9. Answers to this question depends on the interpretation of "nationality of aircraft" in the Chicago Convention.

The nationality of an aircraft depends on its State of registration. The registration of aircraft in any Contracting State, according to Article 19 of the Chicago Convention, shall be made in accordance with its own laws and regulations, subject to Article 18 of the Chicago Convention which prohibits the registration of an aircraft in more than one State at a time. Domestic laws vary from one to another in the conditions they require for registration: some require national ownership for registration,[193] and some do not. Nonetheless,

---

189 Bin Cheng, *The Law of International Air Transport,* Stevens 1962, pp. 192-193.

190 See ICAO Doc. 7278-C/841 (May 10, 1952), p. 7. Bin Cheng, *The Law of International Air Transport,* Stevens 1962, 193-194.

191 R.Y. Jennings, *General Course on Principles of International Law,* 121 Recueil des Cours de l'Académie de droit international de La Haye (1967), p. 143.

192 Drafting Committee for the Chicago Convention provided an article on airlines' nationality and revised several times, but nonetheless, it was not included in the final text of the Chicago Convention. See *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), pp. 427, 415 & 429:

- Article XIV, Nationality of Airlines: "No state shall be bound to grant any of the privileges of this Convention an airline of any state unless it shall be satisfied that substantial ownership and effective control are vested in the nationals of that state."
- Article XIV, Nationality of Airlines: "Each member state reserves the right to withhold or revoke a certificate or permit to an air transport enterprise of another state in any case where it is satisfied that substantial ownership and effective control is vested in nationals of a state not a party to this agreement"
- Article XX: "Nationality of aircraft" or "nationality of airline" means the nationality of the state in which the aircraft of the aircraft of airline are registered.

193 For instance, Aircraft can only be registered in the German aircraft register if it is exclusively owned by German nationals or by companies which have their principal place of business in Germany, and which are substantially owned and effectively controlled by German nationals. Moreover, the majority of the persons who are entitled to represent the company or who are personally liable for the company must be German. See, Articles 20 and 3 of

most of the time, the owner and the operator are of the same nationality in most scheduled air services.[194] For instance, Air China often operates aircraft registered in China, and therefore of Chinese nationality. Nonetheless, an airline can use aircraft of a different nationality in the case of lease, charter or interchange of an aircraft or in similar situations.[195] In case of the joint operation of aircraft by several States, as in the Scandinavian Airline System (SAS),[196] the ICAO Assembly urges Contracting States to create a joint register,[197] and aircraft are always registered in a section allocated to a particular State.[198] For this situation, Article 83*bis* of the Chicago Convention makes arrangements for the transfer of certain functions and duties normally incumbent on the State of Registry to the State of Operator.[199] Therefore, an airline's operator, most of the time, though not necessarily, is the owner of aircraft of the same nationality.

---

the German Aviation Act ('Luftverkehssgesetz'). An aircraft may be registered in India in either of the following categories, namely: (a) Category A – Where the aircraft is wholly owned either – (i) by citizens of India; or (ii) by a company or corporation registered and having its principal place of business within India; or (iii) by the Central Government or any State Government or any company or any corporation owned or controlled by either of the said Governments; or (iv) by a company or corporation registered elsewhere than in India, provided that such company or corporation has given the said aircraft on lease to any person mentioned in sub-clause (i), sub-clause (ii) or sub-clause (iii); and (b) Category B – Where the aircraft is wholly owned either – (i) by persons resident in or carrying on business in India, who are not citizens of India; or (ii) by a company or corporation registered elsewhere than in India and carrying on business in India. http://dgca.nic.in/aircraft/air-ind.htm

194 F. Videla Escalada, *Nationality of Aircraft: A Vision of the Future, in T.L. Masson and P.M.J. Mendes de Leon*, Air and Space Law: De Lege Ferend*a,* Essays in Honour of Henri A. Wassenbergh (Martinus Nijhoff Publishers 1992), p. 76.

195 ICAO Secretariat, "Safety Aspects of Economic Liberalization and Article 83*bis*", LC/36-WP/2-3, 27/10/15.

196 See ICAO Circular 99-AT/20 (1970): Scandinavian Airline System – Consortium Agreement and Related Agreements.

197 See ICAO Resolution A 24-12: Practical measures to provide an enhanced opportunity for developing States with community of interest to operate international air transport services, adopted by the ICAO Assembly during its 24th Session (ICAO Doc. 9414, A-24 Res.) see also Bin Cheng, *Nationality and Registration of Aircraft - Art.77 of the Chicago Convention*, 32 Journal of Air Law and Commerce 551 (1966), p. 557; M. Milde, *Nationality and Registration of Aircraft Operated by Joint Air Transport Operating Organizations or Internationa Operating Agencies*, X Annals of Air and Space Law (1985), pp. 133 - 135; K. El-Hussainy, *Registration and Nationality of Aircraft operated by International Agencies in Law and Practice*, X Air Law (1985), pp. 15-27; I.H.Ph. Diederiks-Verschoor, *International Co-operation and its Implications for Aircraft Registration and Nationality*, XIX Annals of Air and Space Law Part I (1992), pp. 145-159, and G. FitzGerald, *Nationality and Registration of Aircraft Operated by International Operating Agencies and Art.77 of the Convention on International Civil Aviation of 1944*, Canadian Yearbook of International Law, 1967, p. 193.

198 See ICAO Doc. 8787-LC/156-1 and ICAO Doc.8787-LC/156-2.

199 Article 83 *bis* of the Convention on International Civil Aviation (the Convention) entered into force on 20 June 1997. The corresponding Protocol to the Convention (Doc 9318) is in force for the 166 States parties to it as of 1 October 2015.

Considering the link between an aircraft's nationality and an airline's nationality, it is not difficult to see that a distinction based on airline's nationality may probably also make a distinction as to aircraft' nationality. In practice, airlines of different nationalities are often conferred different treatments. Every country can close its airspace to commerce with other nations and foreign airlines if it so wishes.[200] As explained in Section 2.3 of this chapter, a Contracting State exclusively exercises the right to restrict or prohibit overflight within its territory on the basis of territorial sovereignty. Transit rights for scheduled international air services are generally exchanged between the Contracting States in respect of air transport enterprises or airlines of each other.[201] More specifically, in bilateral or regional air transport agreements, the practice is to exchange transit and traffic rights in respect of airlines designated by the Contracting States.[202] Airlines wishing to exercise transit privileges must be designated by a government as 'substantially owned' and 'effectively controlled' by the designating State or their nationals.[203] The

200 P.C. Haanappel, *Pricing and Capacity Determination in International Air Transport,* Kluwer 1984, p. 11.

201 Bin Cheng, *The Law of International Air Transport,* Stevens 1962, p. 128. For instance, The International Air Services Transit Agreement and the International Air Transport Agreement address the nationality of an operator or airline. Art. I, Section 5 and 6 respectively: "Each contracting State reserves the right to withhold or revoke a certificate or permit to an air transport enterprise of another State where it is not satisfied that substantial ownership and effective control are vested in nationals of a contracting State ..."

202 Bin Cheng, *ibid*, pp. 128 & 359. David T. Arlington, *Liberalisation of Restrictions on Foreign Ownership in U.S. Carriers: the United States Must Take the First Step in Aviation Globalization*, 59 Journal of Air Law and Commerce, pp. 133-192 (1993). B. Wood, "Foreign ownership of international airlines: a European view", in: Prof. Chia Jui Cheng and P.M.J. Mendes de Leon ed., The Highways of Air and Outer Space over Asia 311-327 (1992). J. Balfour, *Factortame: the Beginning of the End for Nationalism in Air Transport?* XVI (6) Air Law 251-266 (1991).

203 See A, Cosmas, P. Belobaba, W. Swelbar, *Framing the Discussion on Regulatory Liberalisation: A Stakeholder Analysis of Open Skies, Ownership and Control*, in: Int. J. Aviation Management, Vol.1, No. 1/2, 2011, 21. Notably, in European context, the November 2002 decision of the European Court of Justice (ECJ) created a legal imperative to include Community designation of airlines in air services agreements, based on the "Right of Establishment." *Case C-466/98 Commission v UK and Northern Ireland* [2002] ECR I-9427 §47, 48. See further Pablo Mendes de Leon, *The Future of Ownership and Control Clauses in Bilateral Air Transport Agreements; Current Proposals and Legal Objections,* in S. Hobe *et al.* (eds.), *Consequences of Air Transport Globalization* (2003), pp. 19-36; P.M.J. Mendes de Leon, *A New Phase in Alliance Building: the Air France/KLM Venture as a Case Study,* 53 Zeitschrift für Luft- und Weltraumrecht (2004) pp. 359-385. A.I. Mendelsohn, *Myths of International Aviation*, 68(3) Journal of Air Law and Commerce (2003), pp. 519-535; H.P. van Fenema, *Substantial Ownership and Effective Control as Airpolitical Criteria,* in: T.L. Masson-Zwaan and P.M.J. Mendes de Leon (eds. in chief), *Air and Space Law: De Lege Ferenda*, Essays in Honour of Henri A. Wassenbergh (Martinus Nijhoff Publishers 1992), pp. 27-42; P.P.C. Haanappel, *Airline Ownership and Control, and Some Related Matters*, XXVI Air and Space Law (2001), pp. 90-104; B. Cheng, *The Law of International Air Transport* (1962), pp. 375-379; M. Staniland, *The Vanishing National Airline?,* European Business Journal (1998), pp. 71-77; D.T. Arlington, *Liberalization of restrictions on foreign ownership in U.S. carriers: the United States must take the first step in*

privilege to fly over another State's airspace is always associated with an airline' nationality, not an aircraft's nationality.

In this context, Article 9 of the Chicago Convention prescribes that no distinction shall be made on the grounds of an aircraft's nationality. Considering that mostly an airline and its aircraft have the same nationality, if a Contracting State specifically denies the transit of one particular airline, then probably aircraft of that particular nationality is predominantly affected, creating a distinction as to aircraft's nationality. However, it might not always be so, depending on the statistical presentation of each case.

2.5.4 Summary on the 'non-distinction' requirement

Article 9 of the Chicago Convention requires that a Contracting State shall not make a distinction on the basis of aircraft's nationality when establishing prohibited airspace. The term "aircraft of a Contracting States" refers to aircraft bearing the nationality of that State, irrespective of airline's nationality. An action of a Contracting State to prohibit the transit rights of one particular airline might not necessarily create a distinction as to aircraft's nationality, but such action very likely leads to different treatments among aircraft of different nationalities.

This non-distinction requirement means to prevent Contracting States from using prohibited airspace as an instrument to discourage international air transport; it is a qualification to a Contracting State's sovereignty so that the State should accord an equal opportunity to aircraft of different nationalities. Nonetheless, most States prescribe fixed airways for overflight bilaterally so different States' airlines use different routes to fly over the same territory. The privileges for one route do not automatically apply to another route through a blanket NT or MFT provision.

2.6 The requirement of reasonable extent and location

2.6.1 The geographic scope of prohibited airspace

This section discusses another requirement in Article 9 of the Chicago Convention – "reasonable extent and location". Article 9(a) requires that airspace prohibition or restriction shall be over certain chosen areas of the State in question, not over the entire airspace.[204] Prohibited areas shall be of reason-

aviation globalization, 59 Journal of Air Law and Commerce (1993), pp. 133-181; H.A. Wassenbergh, *Principles and Practices in Air Transport Regulation* (Martinus Nijhoff Publishers 1992), p. 158.

204 Sreejith, S. *Legality of the Gulf Ban on Qatari Flights: State Sovereignty at Crossroads*, Journal of Air and Space Law, *43*(2), 194 (2018).

able extent and location so as not to interfere unnecessarily with air navigation. Article 9(b) requires a Contracting State to *temporarily* impose restrictions over the whole or any part of its territory.

As aforementioned in Section 2.2 of this chapter, Article 9(b) uses the phrase "reserve the right"; this phrase affirms the competence or right more robust than the word "may" in Article 9(a). Furthermore, Article 9(b) has fewer conditions to qualify a Contracting State's discretion than Article 9(a). As to the meaning of "reasonable extent and location", the Chicago Convention does not give more details. Contracting States may have different interpretations and have disputes with each other. The example of establishing a prohibited area in the Bay of Gibraltar (1967) gives rise to such a dispute.

2.6.2 Prohibited area in the Bay of Gibraltar (1967)

In 1967, the UK claimed that Spain established a prohibited area directly opposite the British airport of Gibraltar and that the prohibited area's extent and location would effectively prevent safe flight operations.[205] As aforementioned in Section 2.3, UNCLOS prescribes rules for international straits; nonetheless, the Strait of Gibraltar is not covered by the UNCLOS prescription concerning transit rights for international straits because the passage for Gibraltar is regulated by special long-standing international conventions.[206] Therefore, the prohibited airspace over Gibraltar is to be examined under the respective provisions of the Chicago Convention.

The UK alleged that Spain had violated Article 9(a) of the Chicago Convention because the extent and location of the prohibited area was not "reasonable" and that it interfered unnecessarily with air navigation.[207] At that time, there were no criteria for the "reasonable extent and location" of a prohibited area. Consequently, ICAO did not comment on the legality of Spanish measures, nor the application of Article 9 of the Chicago Convention. In November 1969, the ICAO Council, however, noted the following statement by its president:

> [T]he disagreement between the UK and Spain relating to the interpretation and application of Article 9 of the Convention would be deferred *sine die*; the question would not be included in the work program for any future session unless there was a request to that effect by a Council member and the Council agreed to it.[208]

---

205 Y Tanaka, *The International Law of the Sea*, 2nd ed., CUP 2015, pp. 102. The free passage of the Strait of Gibraltar was declared in the 1904 Anglo-French Declaration (Article 7), and was confirmed by Article 6 of the 1912 Treaty between France and Spain regarding Morocco. Declaration between the United Kingdom and France Respecting Egypt and Morocco, 8 April 1904, (1907) 1 AJIL Supplement pp. 6–9. (1913) 7 AJIL Supplement pp. 81-93.

206 *Milde*, pp. 205-206.

207 *ibid*.

208 Doc 8903-C/994, p. 27 (emphasis added).

This dispute, nonetheless, could have instigated ICAO initiatives to specify indicators for the reasonable extent and location of prohibited areas. ICAO specified the criteria for reasonable extent and location in Annex 11 to the Chicago Convention.

2.6.3 The criteria for reasonable extent and location

Annex 11 of the Chicago Convention specifies that a prohibited/restricted area can be established as a contingency plan.[209] Its Recommendation 2.33.5 defines the reasonable extent and location:

> [W]hen a prohibited, restricted or danger area is established, the area should be *as small as practicable* and be contained *within simple geometrical limits*, so as to permit ease of reference by all concerned.[210]

Recommendation 2.33.5 in Annex 11 sets forth two indicators for reasonable extent and location: prohibited areas should be "as small as practicable" and be "contained within simple geometrical limits."

Regarding enforceability, arguably, Recommendation 2.33.5 in Annex 11 is a significant recommendation because the boundaries of prohibited areas determine the scope where aircraft can fly safely. The extent and location of a prohibited area determines safe routes and flight plans which are pre-requisites for a safe flight. As explained in Chapter I of this study, a *significant* Recommendation is subject to ICAO's audit and Member States should file a difference if cannot observe it, according to Standard 5.2.2 of Annex 15.[211] Considering that Recommendation 2.33.5 in Annex 11 is significant to aviation safety and security, Member States should file a difference if cannot observe it.

Furthermore, in 1984, the outcome of the Third Middle East Regional Air Navigation Meeting put forward additional indicators of "reasonable extent and location" for the establishment of prohibited, restricted, and danger areas.[212] As mentioned in Chapter I, Section 3, technical recommendations

209 See more in Chapter III, Section 4.3 on the contingency measures.

210 Annex 11, 15th ed., July 2018, Recommendation 2.33.5.

211 See Chapter I of this study on the legal force of Recommended Practices..

212 …e) should the establishment of prohibited, restricted or danger areas become unavoidable, the following principles should apply:
1. give due regard to the need not to prejudice the safe and economic operation of civil aircraft;
2. provide adequate buffer, in terms of time and size, within the designated area, appropriate to the activities to be conducted;
3. use standard ICAO terminology in designation of the areas;
4. promulgate information regarding the establishment and day-to-day use of the areas will in advance of the effective date(s);

at ICAO regional meetings provide detailed advice to States concerning the implementation of SARPs.[213] These technical indicators for a reasonable extent and location later were incorporated in ICAO technical manual Doc 9434, MID/3.[214]

2.6.4 Summary on reasonable extent and location

Complementing the Chicago Convention, ICAO regulations have directed Member States to consider that a prohibited or restricted area should be "as small as practicable" and be "contained within simple geometrical limits." These indicators for "reasonable extent and location" have normative value and Member States can be audited for their implementation.

2.7 The requirement to notify the international community

According to Article 9(a) of the Chicago Convention, descriptions of prohibited areas and subsequent alterations shall be communicated to the other Contracting States and ICAO as soon as possible. This is a procedural condition which a Contracting State should follow when prohibiting or restricting the operation of foreign aircraft uniformly. Standard 6.2.1 of Annex 15 to the Chicago Convention further specifies that "the limits (horizontal and vertical)", "type and periods of activity in prohibited or restricted area (when known)", regulations and procedures applicable to permanent danger shall be distributed under the regulated system of aeronautical information regulation and control (AIRAC).[215]

Pursuant to Article 9(b) of the Chicago Convention, prohibited areas are established with *immediate* effect in exceptional circumstances or emergencies,

---

5. arrange for the closest possible co-ordination between *civil ATS units and relevant units* responsible for activities within the restricted or danger areas so as to enable the ATS units to authorize civil aircraft to traverse the areas in emergencies, to avoid adverse weather, and whenever the restrictions do not apply or the areas are not active; review the continuing need for the prohibited, restricted or danger areas at regular intervals; (emphasis added) See ICAO, Third Middle East Regional Air Navigation Meeting, "Report of ATS Working Group A to the ATS Committee on Agenda Item 2 f), MID/3-WP/96, 3/4/84, para. 2.6.5. The recommendations were put forward in a regional meeting, but the meeting was held in ICAO headquarter, which was extraordinary, and the ICAO Council noted these recommendations. See ICAO, Council – 112th Session, Minutes with Subject Index, C-Min.112/7, pp.56-59, in Doc 9444-C/1083.

213 ICAO Council Working Paper C-WP/11526 "Updating the Annexes to the Convention of International Civil Aviation", 6 March 2001.

214 ICAO Doc 9434, Regional Air Navigation Meeting, March/April 1984.

215 Aeronautical information regulation and control (AIRAC) defines a series of common dates and an associated standard aeronautical information publication procedure for States. See Standard 6.2.1 of Annex 15.

or for public safety. There is no need to circulate this information of prohibited areas to the international community. However, according to Article 89 of the Chicago Convention, a Contracting State that declares a *national* emergency shall notify the ICAO Council of that fact; and thereby, the requirements in Article 9 will not affect the State's freedom of action.[216] The notification requirement is significant as it enables the sharing of information so that flights can change flight plans and file for alternative routes timely.[217] The information service is essential for the safe and orderly development of civil aviation.

2.8 Interim conclusions

A Contracting State enjoys sovereignty over its territory and can exercise the sovereignty to establish prohibited/restricted airspace over its territory, subject to conditions and requirements in Article 9 of the Chicago Convention. Under Article 9 of the Chicago Convention, establishing prohibited airspace is an exercise of right rather than obligation. The conditions, or justifications for closing airspace, include military necessity, public safety, exceptional circumstances, and emergency; these conditions are to be interpreted narrowly so that they do *not* cover the airspace restrictions in times of war or in national emergency.

The requirements in Article 9 of the Chicago Convention include two aspects: the national treatment in Article 9(a) and the most-favored-nation treatment in Article 9(b). The benchmark for measuring distinction is based on the nationality of the aircraft. Therefore, a Contracting State's prohibition of one particular *airline's* transit rights might not necessarily create distinction as to the nationality of the aircraft, taking note of flexible arrangements under Article 83*bis* of the Chicago Convention. Furthermore, a prohibited/restricted area should be "as small as practicable" and "contained within simple geometrical limits."

The normative analysis is the foundation upon which this study answers the three research questions on prohibited airspace. As explained in Chapter I, this interpretation of a treaty provision is to be complemented by subsequent practices. Real-life examples of prohibited airspace help further understand the application for these conditions and requirements in Article 9.

216 See further in Chapter V.
217 On Article 89 and national emergency, see Section 2.4 of Chapter V.

3 Practices in the Application of Article 9 of the Chicago Convention

This section examines examples of prohibited airspace to confirm the meaning of terms as explained in previous sections. The following cases will be discussed:

- Pasir Gudang restricted area (2019) in Section 3.1;
- India-Pakistan dispute (1950s and 2010s) in Section 3.2;
- Qatar 'blockade' case (2017-2021) in Section 3.3.

3.1 Pasir Gudang restricted area (2019)

Malaysia announced to establish a permanent Restricted Area for military activities over Pasir Gudang, a port town of Malaysia, from 2 January 2019.[218] Singapore objected to this initiative and described the restricted area being in a "controlled and congested airspace" that will impact the existing and normal operations of aircraft transiting through.[219] Pasir Gudang is located within 3km from Singapore's Seletar airport. The airspace over Pasir Gudang is controlled by Malaysia.

Figure 4: The Pasir Gudang Port[220]

218 https://www.flightglobal.com/singapore-protests-new-malaysian-airspace-restriction/130820.article

219 https://www.channelnewsasia.com/news/singapore/singapore-malaysia-southern-johor-airspace-seletar-airport-10997022, last accessed 9 April 2020.

220 Source: https://ops.group/blog/malaysia-shuts-down-plans-for-ils-approach-at-singapores-seletar-airport/, last accessed 8 August 2020.

The Malaysian announcement to establish the airspace over Pasir Gudang as a restricted area, according to public news information, is a response to Singapore's plan to implement procedures for an instrument landing system (ILS) at Seletar airport;[221] Malaysia considered that Singapore's plan would "stunt development" around the Pasir Gudang industrial area, including imposing height restrictions on buildings and affecting port activities.[222]

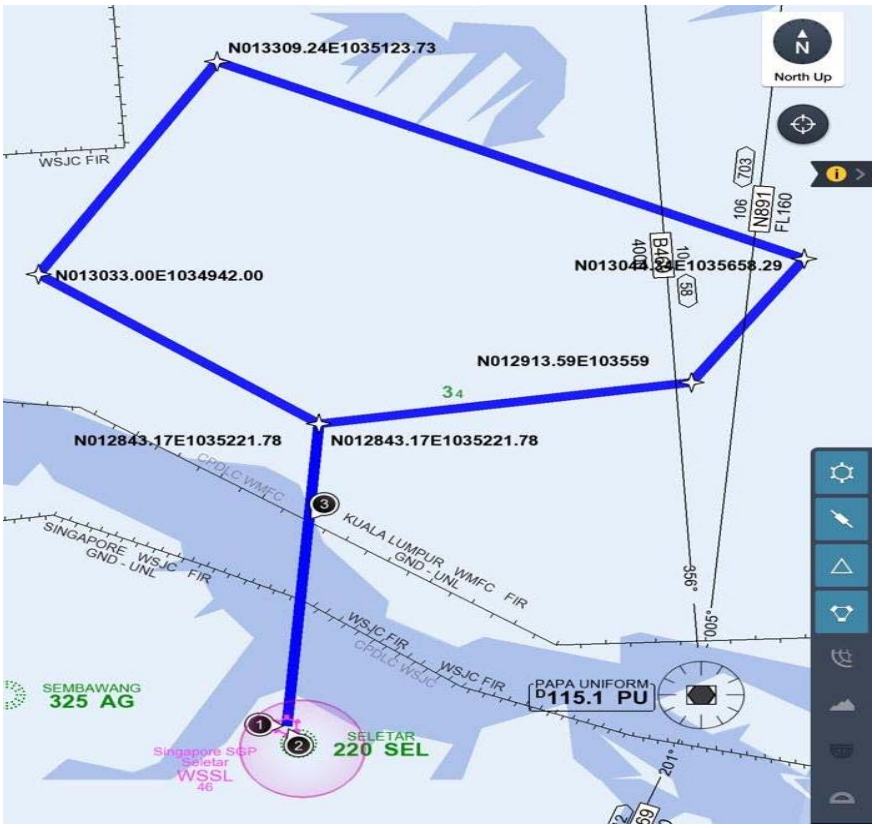

Figure 5: Proposed restricted airspace over Pasir Gudang[223]

221 The ILS procedure refers to an assisted navigational aviation facility at the airport which provides vertical and horizontal guidance to pilots while the flight is descending and approaching the runway. ILS procedures provide a point of entry which guarantees the accuracy and efficiency of flights and increases the probability of landing a plane in an airport, Malaysian Transport Minister Mr. Loke explained in parliament. See https://www.channelnewsasia.com/news/singapore/singapore-malaysia-southern-johor-airspace-seletar-airport-10997022, last accessed 9 April 2020.

222 https://www.flightglobal.com/singapore-protests-new-malaysian-airspace-restriction/130820.article, last accessed 9 April 2020.

223 Source: https://ops.group/blog/malaysia-shuts-down-plans-for-ils-approach-at-singapores-seletar-airport/, last accessed 8 August 2020.

It is difficult to argue that the deployment of ILS satisfied the conditions in Article 9: military necessity, public safety, exceptional circumstances or emergency. The reason to establish Pasir Gudang restricted airspace was that the ILS of Singapore's Seletar airport would impose additional requirements or limitations preventing Malaysia from developing tall buildings in Pasir Gudang or operating tall ships in Pasir Gudang Port.[224] First, this reason is not relevant to military necessity or public safety;[225] it is rather about concerns over possible hindrance to Pasir Gudang's economic development due to the ILS. Second, it is also difficult to compare potential limitations to building height to exceptional circumstances, such as the 9/11 terrorism attacks or volcanic eruption.[226] Thus, the creation of ILS is difficult to be justified by military necessity, exceptional circumstances or public safety under Article 9.

Nonetheless, in this author's view, it is possible to justify the ILS with 'emergency'. If the ILS was proved to have created grave and imminent perils that threaten vital interests for Malaysia, this situation could constitute emergency for a country. Meanwhile, to be justified as an emergency under Article 9, as aforementioned in Section 2.4 of this chapter, it would be more persuasive if Malaysia could use the extraordinary deployment of governmental powers and resource in relation to the port, at a level comparable to crises such as the COVID-19 pandemic.

Finally, Singapore concedes to Malaysia's sovereignty right to establish prohibited areas in its territory. In the spirit of bilateral cooperation and good faith, on 9 April 2019, Singapore and Malaysia made a joint statement.[227] Singapore has withdrawn the ILS procedures for Seletar Airport and Malaysia has indefinitely suspended its permanent restricted area over Pasir Gudang.[228]

Pasir Gudang is within Malaysian territory, so Malaysia is able to exercise the sovereignty to establish prohibited airspace over Pasir Gudang. The deployment of ILS at Singapore's Seletar airport is hardly commensurable with natural disasters, pandemics or terrorist attacks, but Malaysia is the one to determine whether the situations could create grave and imminent perils that threaten vital interests of Malaysia. This case highlights that a State makes decisions about its domestic situations in peacetime. Other countries may contest that no sufficient evidence shows that a situation falls into the justifications in Article 9. Nonetheless, a Contracting State of the Chicago Convention can claim

224 https://www.channelnewsasia.com/news/singapore/singapore-malaysia-southern-johor-airspace-seletar-airport-10997022, last accessed 9 April 2020.

225 See Section 2.4.1 of this chapter.

226 See Section 2.4.3 of this chapter.

227 Joint Statement by Prime Minister Tun Dr Mahathir Mohamad and Prime Minister Lee Hsien Loong at the 9th Malaysia - Singapore Leaders' Retreat in Putrajaya on 9 April 2019, https://www.mfa.gov.sg/Newsroom/Press-Statements-Transcripts-and-Photos/2019/04/0904_SG-MY-Joint-Statement, last accessed April 9, 2020.

228 *ibid.*

to establish prohibited areas by virtue of airspace sovereignty, and often other Contracting States defer to this exercise of sovereignty.

3.2 India-Pakistan dispute (1950s and 2010s)

India and Pakistan have established prohibited airspace against each other during the past decades. This section examines the legality of these State practices and reflects their contribution to the interpretation of Article 9 of the Chicago Convention.

3.2.1 Dispute in the 1950s

In early 1952, Pakistan established a prohibited area along its western border with Afghanistan,[229] therefore Indian carriers were forced to fly via Karachi before continuing to Iran, and then north to Kabul, comprising a flight path of 1,900 miles.[230] India claimed that Pakistan violated Article 9 of the Chicago Convention, because the action was discriminatory: the prohibited area was subjectively imposed only against India; in contrast, other countries, such as Iran, still enjoyed the privilege of overflight.[231] Second, the Pakistani prohibited airspace is not of reasonable extent and location, because of its excessive impact upon commercial aviation.[232]

Pakistan countered that it had simply inherited the prohibited areas established in British India in 1935,[233] and due to the hostility of the local population toward India, the government could not guarantee the safety of Indian crew and passengers along Pakistan's western border.[234]

Speaking of the legality of the 1950s prohibited area, it seems difficult to justify Pakistan's action as far as Article 9 of the Chicago Convention is concerned. Being a Contracting States of the Chicago Convention since 1947,[235] Pakistan has agreed to observe the conditions in Article 9 in establishing prohibited airspace; the historical west-border restrictions have to be viewed in light of *lex posterior*, the Chicago Convention. Article 9 of the Chicago Convention requires Contracting States not to discriminate aircraft on the basis of nationality. Pakistan's action in 1950s, driven by the population's opposition

229 *Milde,* pp. 204-205.
230 Steven D. Jaffe, *Airspace Closure and Civil Aviation,* Routledge 2016, pp. 172-174.
231 *Milde,* pp. 204-205.
232 Steven D. Jaffe, *Airspace Closure and Civil Aviation,* Routledge 2016, p. 173.
233 *ibid.*
234 ICAO Press Release 1952, in Steven D. Jaffe, *Airspace Closure and Civil Aviation*, Routledge 2016, p. 173.
235 Pakistan adheres to the Chicago Convention on 6 November 1947. India adheres to the Chicago Convention on 1 March 1947. See https://www.icao.int/secretariat/legal/List%20of%20Parties/Chicago_EN.pdf, last accessed 6 September 2020.

against India, did target Indian carrier and Indian aircraft.[236] It was only Indian aircraft that cannot transit over the said prohibited area in Pakistan. Thus, a distinction is made due to aircraft's nationality; this distinction violates Article 9 of the Chicago Convention.

Finally, the dispute was settled through Pakistan's establishment of special corridors leading across the prohibited zone, enabling Indian aircraft to reach Kabul with minimum rerouting.[237] On 19 January 1953, the ICAO Council noted that the disagreement had been settled.[238]

3.2.2 Dispute in the 2010s

3.2.2.1 Summary of the facts

In the early morning hours of 26 February 2019, Indian warplanes crossed the *de facto* border in the disputed region of Kashmir,[239] and dropped bombs against the town of Balakot in Pakistan.[240] This attack in Balakot was alleged to be in retaliation for a suicide bombing in Indian-administered Kashmir that killed more than 40 Indian soldiers and was claimed by the Pakistan-based Islamist militant group Jaish-e-Mohammed.[241] Pakistan condemned the Jaish-e-Mohammed bombing, and denied any connection to it.[242] On February 28, Pakistan said its air force shot down two Indian fighter jets over the disputed border region of Kashmir.[243]

---

236 As clarified in Section 2.5 of this chapter, Indian aircraft is not necessarily operated by Indian carrier, and Indian carrier's aircraft do not necessarily equal to aircraft of Indian nationality. Nonetheless, the hostility of the two countries in 1950 made it clear that Pakistan's action pivot to both Indian carrier and Indian aircraft.

237 *Milde,* pp. 204-205.

238 Doc 7388-C/860, pp. 30-31.

239 Joanna Slater; Niha Masih (15 February 2019), "Modi vows action after dozens die in deadliest attack in Indian-held Kashmir in 3 decades", Washington Post Quote: "Both India and Pakistan claim the Himalayan region of Kashmir, but it has been divided between them for more than 70 years."

240 Joanna Slater (26 February 2019), "India strikes Pakistan in severe escalation of tensions between nuclear rivals", *Washington Post*; Michael Safi, Mehreen Zahra-Malik, Azar Farooq (26 February 2019), "Get ready for our surprise: Pakistan warns India it will respond to airstrikes", *Guardian* Quote: "Pakistan, ... said the war planes made it up to five miles inside its territory." See https://graphics.reuters.com/INDIA-KASHMIR/010090XM162/index.html, last accessed 6 September 2020.

241 "Pulwama attack: India will 'completely isolate' Pakistan". BBC. 16 February 2019. Archived from the original on 15 February 2019. Retrieved 16 February 2019. "Jaish terrorists attack CRPF convoy in Kashmir, kill at least 38 personnel". The Times of India. 15 February 2019. Archived from the original on 15 February 2019. Retrieved 15 February 2019.

242 "On Kashmir attack, Shah Mahmood Qureshi says 'violence is not the govt's policy'". DAWN.COM. 16 February 2019. Archived from the original on 23 February 2019. Retrieved 26 February 2019.

243 https://www.cnn.com/2019/02/27/india/india-pakistan-strikes-escalation-intl/index.html#:~:text=New%20Delhi%2C%20India%20(CNN),it%20responded%20to%20the%20incident, last accessed May 31, 2019.

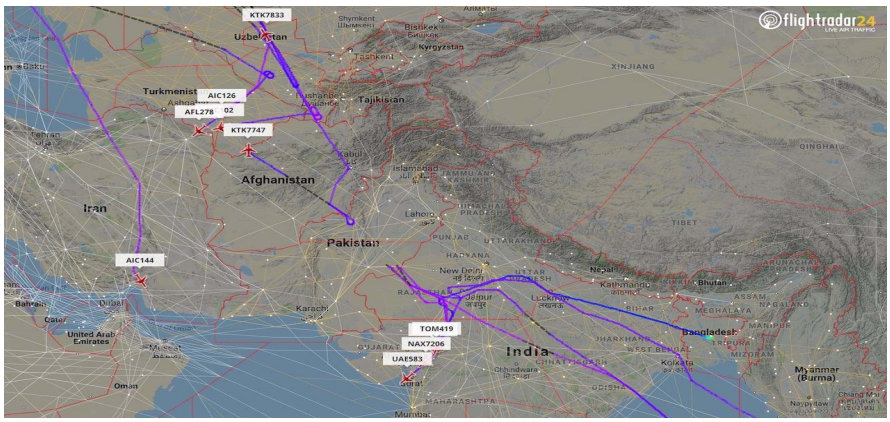

Figure 6: Airspace closure over Pakistan[244]

Tensions between India and Pakistan escalated and affected air traffic in the region. Pakistan closed its airspace entirely and India closed more than half a dozen airports for all civilian air traffic on 27 February 2019.[245] India lifted its airport closure within hours.[246] In contrast, Pakistan's top aviation official told parliament that airspace would only be reopened if India withdrew fighter jets placed at bases near the border.[247] Finally, on 15 July 2019 at 19:11 UTC, Pakistan reopened its airspace to all commercial traffic with immediate effect. Flights were once again transiting Pakistan along published routes as they had done prior to 27 February 2019.[248]

From February to July 2019, due to the closure of Pakistani airspace, international airlines that normally transit between Indian and Pakistani airspace have been forced to reroute, including flights by Singapore Airlines,

244 Source: https://www.flightradar24.com/blog/tensions-between-india-and-pakistan-affect-air-traffic/, last accessed May 31, 2019.

245 "Pakistan airspace restrictions extended to May 30", https://in.reuters.com/article/pakistan-airspace/pakistan-airspace-restrictions-extended-to-may-30-aviation-official-idINKCN1SM0U0, Reuters, last accessed May 21, 2019.

246 "Pakistan airspace to remain shut for Indian flights till May 30", https://www.thehindu.com/news/international/pakistan-airspace-to-remain-shut-for-indian-flights-till-may-30/article27138888.ece, last visited May 21, 2019.

247 "Pakistan reopens airspace months after India standoff", https://www.aljazeera.com/news/2019/07/pakistan-reopens-airspace-months-india-standoff-190716062219180.html, last accessed May 21, 2019.

248 A0710/19 (Issued for OPKR OPLR) – WITH IMMEDIATE EFFECT PAKISTAN AIRSPACE IS OPEN FOR ALL TYPE OF CIVIL TRAFFIC ON PUBLISHED ATS ROUTES. 15 JUL 19:08 2019 UNTIL PERM. CREATED: 15 JUL 19:11 2019.

Finnair, British Airways, Aeroflot, Thai Airways, and of course, Air India.[249] This incident provokes the following comments.

3.2.2.2 The legality of Pakistan's restrictions

3.2.2.2.1 Pakistan's right to regulate its territorial airspace

First of all, the dispute concerns transit rights through Pakistani airspace. Article I, Section 1 of the Transit Agreement, to which both India and Pakistan are parties, affirms the right of overflight for both countries' airlines.[250] Article I, Section 2 of the Transit Agreement also made it explicit that the exercise of overflight privileges shall be in accordance with the Chicago Convention,[251] including the principle of territorial sovereignty. This means that airlines' transit rights are subject to a Contracting State's territorial sovereignty. On the basis of territorial sovereignty, Pakistan exclusively exercises the right to restrict transit rights over its territory in accordance with Article 9 of the Chicago Convention.

Airstrikes between India and Pakistan bring public safety concerns, and may also invoke military necessity under Article 9(a), or qualify exceptional circumstances under Article 9(b). As aforementioned in section 2.6 of this chapter, prohibited airspace in Article 9(a) has to be part of the territory of reasonable extent and location; prohibited airspace in Article 9(b) can cover the *entire* territory, but it has to be temporary. After incidents in February 2019, Pakistan was circulating notices to airmen (NOTAMs) that closed its *entire* airspace,[252] so that this section examines this action against Article 9(b) of the Chicago Convention. Article 9(b) requires that airspace prohibition or restriction shall be applicable without distinction of nationality to all foreign aircraft.

That is to say, based on territorial sovereignty, Pakistan enjoys the exclusive right to prohibit the use of its sovereign airspace. Still, the exercise of such right has to satisfy the non-distinction requirement, among others, in Article

---

249 https://www.flightradar24.com/blog/tensions-between-india-and-pakistan-affect-air-traffic/, last accessed June 20, 2020.

250 "Each contracting State grants to the other contracting States the following freedoms of the air in respect of scheduled international air services:
1. The privilege to fly across its territory without landing;
2. The privilege to land for non-traffic purposes.
The privileges of this Section shall not be applicable with respect to airports utilized for military purposes to the exclusion of any scheduled international air services. In areas of active hostilities or of military occupation, and in times of war along the supply routes leading to such areas, the exercise of such privileges shall be subject to the approval of the competent military authorities."

251 Nonetheless, whether absolute sovereignty in the Chicago Convention always pre-empt conferral of air freedoms by other treaties invites further discussion. See Sreejith, S. Legality of the Gulf Ban on Qatari Flights: State Sovereignty at Crossroads. *Air and Space Law* (2018), *43*(2), pp. 191-203.

252 See Section 3.2.2.1 of this chapter.

9(b) of the Chicago Convention. Notably, all the Pakistan NOTAMs from 2019 February to April formulate that "Pakistani airspace remains closed for *all*, except the following routes..." As to the use of routes, according to ICAO's Asia/Pacific Region ATS Route Catalogue of April 2019,[253] regional consultation has been going on among Pakistan, India, Afghanistan and their neighboring countries. There was no unilateral measure from Pakistan preventing *one particular* country's aircraft from flying over its territory. None of the NOTAMs single out one particular country's aircraft or airline:[254] it is consistent with the non-distinction requirement in Article 9(b).

3.2.2.2.2 Pakistan's restriction in Airway P518

In April 2019, Pakistan eased the restriction, and some reports said that only *Indian* carrier and aircraft could not fly over Pakistani airspace.[255] This is not accurate. Since April, there has been one airway available for flights between the two countries – Airway P518, but for westbound flights only.[256]

253 https://www.icao.int/APAC/Documents/edocs/Asia-Pacific%20Region%20ATS%20Route%20Catalogue%20Version%2018.pdf, last accessed June 20, 2020.

254 A0409/19 (Issued for OPKR OPLR) – E)PAKISTAN AIRSPACE WILL REMAIN CLOSED FOR ALL OVERFLYING (TRANSIT) FLIGHTS TILL 24TH APRIL 2019,TIME 1000 UTC(EST) EXCEPT THE FOLLOWING ATS ROUTES: 01) PURPA DCT 3550N07210E DCT PS G325 KALAT G452 DERBO AND VICE VERSA 02) PURPA DCT 3550N07210E DCT PS G325 PG G665 ASVIB AND VICE VERSA 03) PURPA DCT 3550N07210E DCT PS G325 JI-METBI/EGRON AND VICE VERSA 04) PURPA DCT 3550N07210E DCT PS G325 PG T385 TAPDO 05) APELO B505 PG G325 PS DCT 3550N07210E DCT PURPA 06) ALPOR M504 TELEM 07) SAPNA DCT TAPDO AS CONTINGENCY CONNECTIVITY FOR WEST BOUND FLIGHTS ON 24 HRS BASIS 08) TRANSIT FLIGHTS ARE ALSO PERMITTED ON ROUTE SEGMENT SERKA-KALAT AND VICE VERSA 09) PIRAN A453 GADER AND VICE VERSA 10) KABIM DCT TAPDO AND VICE VERSA AS BI-DIRECTIONAL CONTINGENCY CONNECTIVITY FOR TRANSIT FLIGHTS ON 24HRS BASIS 11) ALPOR G216 LAKIV N894 TELEM. SFC – UNL, 08 APR 11:00 2019 UNTIL 24 APR 10:00 2019 ESTIMATED. CREATED: 08 APR 11:02 2019.
A0410/19 – IN ADDITION TO OUR NOTAM A0409/19 FOLLOWING ATS ROUTES ARE ALSO AVAILABLE FOR OVERFLYING (TRANSIT) FLIGHTS: 1) KABIM P518 PG KEBUD 2) KABIM P518 PG ASVIB. FL280 – FL430, 08 APR 11:10 2019 UNTIL 24 APR 10:00 2019 ESTIMATED. CREATED: 08 APR 11:11 2019
A0257/19 (Issued for OPKR OPLR) – PAKISTAN AIRSPACE WILL REMAIN CLOSED FOR ALL OVERFLYING (TRANSIT) FLIGHTS TILL 11TH MARCH 2019, TIME 1000UTC(EST) EXCEPT THE FOLLOWING ATS ROUTES: I) PURPA DCT 3550N07210E DCT PS G325 KALAT G452 DERBO AND VICE VERSA II) PURPA DCT 3550N07210E DCT PS G325 PG G665 ASVIB AND VICE VERSA III) PURPA DCT 3550N07210E DCT PS G325 JI-METBI/EGRON AND VICE VERSA IV) PURPA DCT 3550N07210E DCT PS G325 PG T385 TAPDO V) APELO B505 PG G325 PS DCT 3550N07210E DCT PURPA VI) ALPOR M504 TELEM VII) SAPNA DCT TAPDO AS CONTINGENCY CONNECTIVITY FOR WEST BOUND FLIGHTS ON 24 HRS BASIS VIII) TRANSIT FLIGHTS ARE ALSO PERMITTED ON ROUTE SEGMENT SERKA-KALAT AND VICE VERSA. SFC – UNL, 08 MAR 11:30 2019 UNTIL 11 MAR 10:00 2019 ESTIMATED. CREATED: 08 MAR 13:57 2019.

255 "Pakistan's airspace to remain shut for Indian flights till May 30", https://economictimes.indiatimes.com/industry/transportation/airlines-/-aviation/pakistans-airspace-to-remain-shut-for-indian-flights-till-may-30/articleshow/69344427.cms?from=mdr#:~:text=Pakistan%20fully%20closed%20its%20airspace,Kuala%20Lumpur%20on%20March%2027, last accessed 21 May 2020.

256 At that time, Pakistan also published a bunch of NOTAMs saying that they would allow eastbound overflights on a few airways which connect Oman and India through Pakistan's airspace over the Gulf of Oman, but initially India did not authorise the use of these. That changed on 2nd June, when India published a NOTAM saying they would allow eastbound flights to enter Indian airspace at waypoint TELEM. Evidence showed that Pakistan attempted to open one eastbound and one westbound transiting airway through Pakistani airspace between the Muscat and Mumbai FIRs (NOTAM A0258/19), but reciprocal connect-

The question is whether the action by Pakistan to restrict traffic, allowing westbound traffic on Airway P518, is consistent with the non-distinction requirement in Article 9(b). It is difficult to argue that Pakistan made a distinction as to the nationality of the aircraft in the use of Airway P518, because all aircraft are provided with equal opportunity[257] to use Airway P518 to go west. Lufthansa adjusted routes and increased the amount of additional fuel in the event of delays; Emirates, Etihad, Air France, and more continued to fly with adjustments.[258] There was no discriminatory treatment to aircraft of one particular nationality.

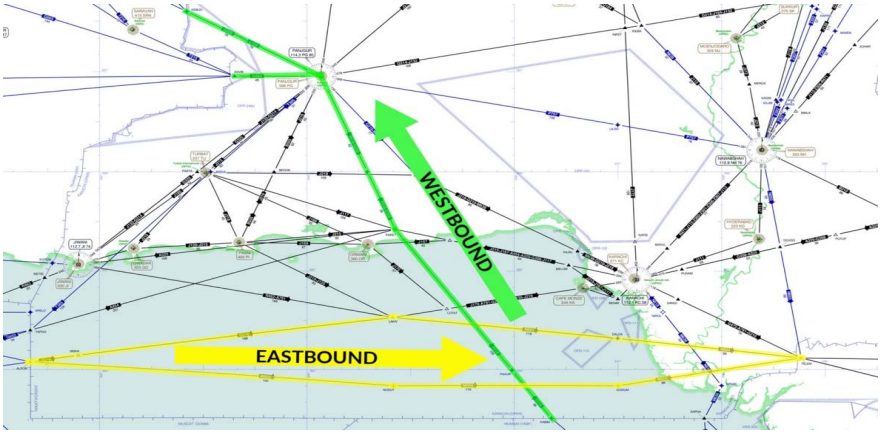

Figure 7: Air routes between India and Pakistan in April 2019[259]

Unfortunately, Indian airlines were reported to have suffered extraordinary losses[260] because its long-haul flights were diverted around the Pakistani

ivity was denied by Mumbai FIR (NOTAM A0357/19).
So piecing together the Notams issued by both countries, here are the options for overflights.
– Westbound: Airway P518, from waypoint KABIM on the Pakistan/India border in the south, to either KEBUD or ASVIB on the the Pakistan/Iran border in the north.
– Eastbound: Choice of two routes from waypoint ALPOR on the Oman/Pakistan border in the west, to waypoint TELEM on the Pakistan/India border in the east.
See https://ops.group/blog/pakistan-india/, last accessed June 29, 2020.

257 See Preamble of the Chicago Convention.

258 "Why Pakistan closing its airspace hurts it more than it hurts India", https://www.cnbctv18.com/aviation/why-pakistan-closing-its-airspace-hurts-it-more-than-it-hurts-india-4255841.htm, CNBC, last accessed June 29, 2020.

259 Source: https://ops.group/blog/pakistan-india/, last accessed 5 May 2019.

260 According to India's civil aviation minister, national carrier Air India lost Rs 491 crore until July 2, while IndiGo suffered a loss of Rs 25.1 crore till May 31. SpiceJet and GoAir lost Rs 30.73 crore and Rs 2.1 crore, respectively till June 20 due to the Pakistan airspace closure. These losses are minuscule stacked for an economy of India's size. https://www.indiatvnews.com/news/india-air-india-lost-rs-491-crtill-july-2-due-to-closure-of-pakistan-airspace-government-532364.

airspace, thus taking longer to reach destinations in Europe, the Gulf, and the US.[261] In particular, Air India's loss was significantly high, because Air India, backed by the government of India, is the only Indian airline that can have substantial overseas operations.[262]

Pakistan's regulation of Airway P518 applies to aircraft of all nationalities. Opportunities are equal, but results are not: Indian airlines and Indian aircraft are in a more disadvantaged position compared to other countries. What is the reason? Was there a distinction on the basis of the nationality of the aircraft? A conundrum arises as to how to interpret the distinction on account of aircraft's nationality with the practice of route fixing in bilateral air services agreements.

Airway P518 is a route fixed in the bilateral agreement between the Government of India and the Government of Pakistan relating to Air Services (India-Pakistan BASA).[263] India and Pakistan do not exchange complete freedom of overflight between themselves.[264] Aircraft of India and Pakistan fly over each other's territory through designated routes; both countries have control over every single point along the route, whether or not within their own territories.[265] Airway P518 is a rigid route, in the sense that all the traffic points on the route are individually indicated.[266] Under the bilateral agree-

261 "Air India loses Rs 300 crore in 2 months due to Pakistan's airspace restrictions", https://www.businesstoday.in/sectors/aviation/air-india-loses-rs-300-crore-in-2-months-due-to-pakistan-airspace-restrictions/story/341498.html, last visited May 21, 2019.

262 "Why Pakistan closing its airspace hurts it more than it hurts India", https://www.cnbctv18.com/aviation/why-pakistan-closing-its-airspace-hurts-it-more-than-it-hurts-india-4255841.htm, last accessed June 29, 2020.

263 P518 NOBAT 2109.0N 06800.0E PARET 2527.2N 06451.5E PANJGUR https://www.icao.int/APAC/Meetings/2013_SAIOACG3_SEACG20/WP09%20ATS%20Route%20Catalogue.pdf, last accessed June 29, 2020.

264 Agreement between the Government of India and the Government of Pakistan Relating to Air Services, June 23, 1948. https://mea.gov.in/bilateral-documents.htm?dtl/5183/Agreement+relating+to+Air+Services, last accessed June 29, 2020.

265 See Section 2.5 of this chapter.

266 An airline designated by the Government of India shall be entitled to operate air services in both directions on each of the routes specified in this paragraph and to land for traffic purposes in the territory of Pakistan at each of the points therein specified.
I. Delhi and/or Jodhpur to Karachi.
II. Delhi – Lahore.
III. Bombay – Karachi.
IV. Ahmedabad and/or Bhuj – Karachi.
V. Bhuj – Karachi.
VI. Calcutta – Dacca.
VII. Calcutta – Chittagong.
VIII. Bombay or Delhi to Karachi and thence to Muscat, points in the Persian Gulf, points in Oman and Qatar Peninsulas, points in Iran, points in Iraq, points in the Middle East and points in Europe including the United Kingdom and if desired, beyond.
IX. Bombay or Delhi, Karachi, Masirah, points in Hadramaut, Aden and via intermediate points to Dar-es-Salaam and, if desired, beyond.

ment between India and Pakistan, India is entitled to operate air services in both directions on each of the routes specified in the BASA.[267] After the air strikes, Pakistan unilaterally changed the both-direction operation in Airway P518 to one-direction. This action was allowed under the Indian-Pakistan bilateral air service agreement.[268] Nonetheless, the question is whether this action is consistent with Article 9.

Pakistan's action to make aircraft go westbound in Airway P518 did not make a distinction on account of aircraft's nationality: all aircraft on this route to go west only, no matter the airline's nationality or aircraft's nationality. However, not all foreign aircraft *de facto* need Airway P518 to the same extent. In comparison, some other air routes are open, such as routes connecting China and Iran, subject to close coordination with Pakistani authorities.[269]

X. Calcutta to Ghittagong, points in Burma, Siam, Indo- China and Hongkong to China and, if desired, beyond.

267 Agreement between the Government of India and the Government of Pakistan Relating to Air Services, Article IX, para. 10.

268 For the operation on Airway P518 and M504, Pakistan only allowed one-direction traffic for Indian airlines after February 2019; this is restriction to Indian airline and aircraft's transit rights, but such unilateral restriction is consistent with bilateral agreement between the two countries.
Changes made by either Contracting Party in the specified air routes, except those which change
I. the final point of departure within its own territory and
II. the points served by the designated airlines in the territory of the other Contracting Party, shall not be considered as modifications of this Agreement. The aeronautical authorities of either Contracting Party may therefore proceed unilaterally to make such changes, provided, however, that notice of any change shall be given without delay to the aeronautical authorities of the other Contracting Party.
https://mea.gov.in/bilateral-documents.htm?dtl/5183/Agreement+relating+to+Air+Services, last accessed June 29, 2020.

269 https://ops.group/blog/pakistan-india/, last accessed June 29, 2020.

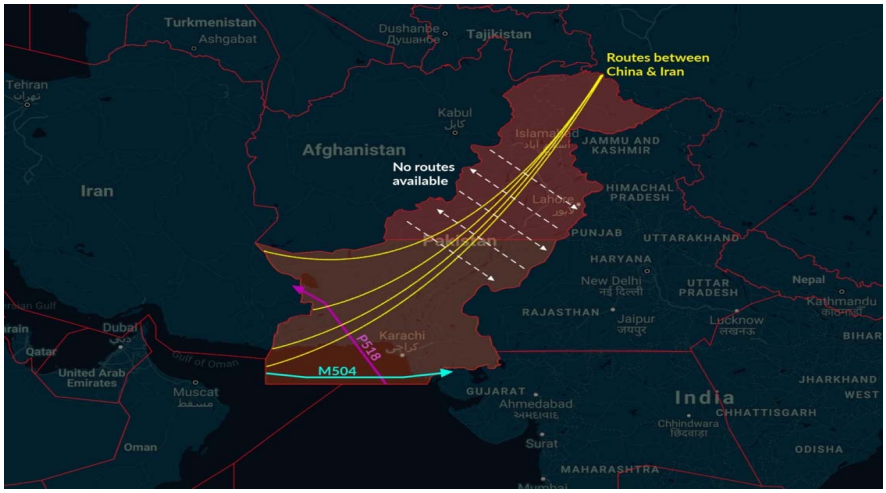

Figure 8: Air Routes over Pakistan in April 2019[270]

For India, however, the restriction in Airway P518 meant that no aircraft could use the route to go east to New Delhi in 2019.[271] Pakistan took actions in Airway P518, a route fixed in the BASA with India, so that Indian airlines and aircraft going to New Delhi have to take detours. This is a geographic fact. Such detours hit Indian airlines more than other countries – New Delhi is Indian capital.

Pakistan's restriction in Airway P518 *per se* applies to all aircraft, irrespective of nationality; however, such a restriction is applied in an air route fixed in the bilateral agreement with India. Airway P518 is more important to India than to other countries. If the action of Pakistan made any distinction, it is a distinction on account of *routes*, targeting India-related routes such as Airway P518. Due to the practices of route fixing in bilateral agreements, Pakistan's action impacts the operation of airlines designated under India-Pakistan BASA, and depending on domestic laws, if the aircraft affected are also registered in India,[272] it could be proven that discriminatory treatments were in place for Indian aircraft. This is a long causal link. Pakistani NOTAMs *per se* always show that air restrictions apply to *all* aircraft, irrespective of the nationality of the aircraft.[273]

Nonetheless, even if the discriminatory treatment is proven, Pakistan may still argue that this violation of this non-distinction requirement would be

270 Source: https://ops.group/blog/pakistan-india/, last accessed June 29, 2020.
271 *ibid.* https://ops.group/blog/pakistan-india/, last accessed June 29, 2020.
272 See Section 2.5.3 of this chapter.
273 *ibid.*

justified in cases of war and national emergency, because a Contracting State resumes its complete freedom action as a belligerent, pursuant to Article 89 of the Chicago Convention. This argument was employed by India in the hearing of Indian-Pakistan's 1970s dispute.[274] In fact, air strikes between these two countries might create a situation of war, but neither country declared war or notified ICAO of the existence of a national emergency in 2019.[275] The elements of war and its starting point is presented in Chapter IV of this study.

3.2.3 Interim conclusions

Albeit prescriptions in bilateral/regional agreements, the suspension of transit privileges over a Contracting State's territory is subject to territorial sovereignty and the Chicago Convention. Pakistan's prohibited airspace along its western border in the 1950s did target Indian aircraft only; the action was hardly consistent with Article 9 of the Chicago Convention. The regulation of transit rights by Pakistan in 2019 in law did not make a distinction regarding aircraft's nationality. However, because Airway P518 is the route designated in Indian-Pakistan BASA, Air Indian and Indian airlines are the principal airlines being hit. This measure made a distinction on the basis of air routes, but it applies to all aircraft without making a distinction as to the nationality of an aircraft.

3.3 Qatar 'blockade' case (2017-2021)

In June 2017, Saudi Arabia, the United Arab Emirates (UAE), Bahrain and Egypt alleged that Qatar had failed to suppress the activities of terrorists and extremists,[276] and thereby declared the immediate closure of their airspaces to all Qatari registered aircraft.[277] This section will focus on airspace closure against Qatar and discuss the associated regulatory issues.

---

274 See Chapter V, Section 2.3.2 of the chapter.

275 In fact, Pakistan was asking Indian authorities' cooperation to open more routes, but get refused by India due to safety reasons and air strikes. See https://ops.group/blog/pakistan-india, last accessed 29 June 2020.

276 See the joint statement of Bahrain, the United Arab Emirates, Saudi Arabia and Egypt in response to the foreign Minister of Qatar in his address to the 37th session of the United Nations Human Rights Council, http://english.alarabiya.net/en/News/gulf/2018/02/28/Arab-Quartet-responds-to-Qatar-s-remarks-at-the-UN-Human-Rights-Council.html, last accessed 6 January 2020. Memorial of the Kingdom of Bahrain, the Arab Republic of Egypt, the Kingdom of Saudi Arabia and the United Arab Emirates, https://www.icj-cij.org/files/case-related/174/174-20181227-WRI-01-00-EN.pdf, last accessed June 29, 2020.

277 http://flightservicebureau.org/qatar-airspace-update/, last accessed July 26,2018, last accessed June 29, 2020.

3.3.1 *The proceedings*[278]

On 30 October 2017, Qatar filed two complaints to the ICAO Council.[279] On 19 March 2018, Bahrain, Egypt, Saudi Arabia, and the UAE raised preliminary objections to the effect that the ICAO Council did not have the jurisdiction, or in the alternative, that the claims made by Qatar were inadmissible, on the grounds that the lawfulness of the countermeasures and Qatar's compliance with critical obligations under international law are entirely unrelated to the Chicago Convention.[280] The ICAO Council, at the eighth meeting of its 214th Session on 26 June 2018, rejected these preliminary objections by 23 votes to 4, with 6 abstentions.[281]

On 4 July 2018, Bahrain, Egypt, Saudi Arabia, and the UAE appealed the ICAO Council's decision to the ICJ, as provided for by Article 84 of the Chicago Convention, arguing that the ICAO council is not competent to adjudicate.[282] On 14 July 2020, the ICJ rejected the appeal and held, by fifteen votes to one,

278 See Pablo Mendes de Leon, "The End of Closed Airspace in the Middle East: A Final Move on the Regional Chess Board?", (2021), 46, Air and Space Law, Issue 2, pp. 299-308.

279 On 30 October 2017, Qatar presented Application (A) and its corresponding Memorial under the terms of Article 84 of the Chicago Convention. Bahrain, Egypt, Saudi Arabia and the United Arab Emirates were named as Respondents. The said Application (A) and its corresponding Memorial relate to a disagreement on the "interpretation and application of the Chicago Convention and its Annexes" following the referenced announcement by the Governments of the Respondents on 5 June 2017 "with immediate effect and without any previous negotiation or warning, that Qatar-registered aircraft are not permitted to fly to or from the airports within their territories and would be barred not only from their respective national air spaces, but also from their Flight Information Regions (FIRs) extending beyond their national airspace even over the high seas". On 30 October 2017, Qatar also presented Application (B) and its corresponding Memorial under the terms of Article II, Section 2 of the International Air Services Transit Agreement (Transit Agreement) and Chapter XVIII of the Chicago Convention. Bahrain, Egypt and the United Arab Emirates were named as Respondents. Application (B) relates to a disagreement on the "interpretation and application" of the Transit Agreement, following the referenced announcement by the Governments of the Respondents on 5 June 2017 "with immediate effect and without any previous negotiation or warning, that Qatar-registered aircraft are not permitted to fly to or from the airports within their territories and are barred from their respective national air spaces". ICAO Council, ICAO Annual Report: Settlement of Differences, available at https://www.icao.int/annual-report-2017/Pages/ supporting-implementation-strategies-legal-and-external-relationsservices-settlement-of-differences.aspx, last accessed: 31 Jan. 2020.

280 Memorial of the Kingdom of Bahrain, the Arab Republic of Egypt, the Kingdom of Saudi Arabia and the United Arab Emirates, https://www.icj-cij.org/files/case-related/174/174-20200714-JUD-01-00-EN.pdf, last accessed 29 June 2020.

281 ICAO Council – 214th Session, Summary Minutes of the Eighth Meeting of 26 June 2018, ICAO document C-MIN 214/8, 23 July 2018, para.124.

282 *Appeal Relating to the Jurisdiction of the ICAO Council under Article 84 of the Convention on International Civil Aviation (Bahrain, Egypt, Saudi Arabia and United Arab Emirates v. Qatar),* Joint Application Instituting Proceedings, 4 July 2018, https://www.icj-cij.org/files/case-related/173/173-20180704-APP-01-00-EN.pdf, last accessed 29 June 2020.

that the ICAO Council indeed has jurisdiction to entertain Qatar's application on 30 October 2017 and that the said application is admissible.[283]

On 11 June 2018, Qatar filed a case to the International Court of Justice (ICJ), in which Qatar accused the UAE of human rights violations as a result of the blockade and of expelling Qataris and closing UAE airspace and seaports to Qatar.[284] On 23 July 2018, the ICJ approved a number of preliminary measures in favor of Qatar[285] based on the obligations of the UAE under a human rights treaty, the Convention on the Elimination of all Forms of Racial Discrimination (CERD).[286] In June 2019, the ICJ rejected the UAE's request for provisional measures, including unblocking Qatari territorial access to the website by which Qatari citizens could apply for a permit to return to the UAE.[287] On 4 January 2021, Saudi Arabia and Qatar agreed to open airspace, land, and sea borders.[288]

3.3.2 The legality of the blockade in air law

This case study considers the legality of the closure of Saudi Arabia, Egypt, Bahrain, and UAE's airspace in light of Article 9 of the Chicago Convention. By NOTAMs issued during the week of 5 June 2017, Saudi Arabia, Egypt, Bahrain, and UAE restricted the airspace over their respective territories in respect of overflight by Qatar-registered aircraft, *i.e.*, the airspace over the territory of the four countries, including their respective territorial seas within the relevant flight information region(s) (FIR(s)) – and did not apply to international airspace over the high seas.[289]

283 *ibid,* last accessed 29 June 2020.

284 ICJ, *Interpretation and Application of the International Convention on the Elimination of All Forms of Racial Discrimination (The State of Qatar v. The United Arab Emirates)*, Application Instituting Proceedings, 11 June 2018, https://www.icj-cij.org/en/case/172, last accessed June 29, 2020.

285 *ibid,* Request for the Indication of Provisional measures, Order, 23 July 2018.

286 In accordance with the *Convention on the Elimination of all Forms of Racial Discrimination (CERD)*, first, families that include a Qatari, separated by the measures adopted by the UAE on 5 June 2017, are reunited; second, Qatari students affected by those measures are given the opportunity to complete their education in the UAE or to obtain their educational records if they wish to continue their studies elsewhere; and third, Qataris affected by those measures are allowed access to tribunals and other judicial organs of the UAE.

287 ICJ, *Interpretation and Application of the International Convention on the Elimination of All Forms of Racial Discrimination (The State of Qatar v. The United Arab Emirates)*, Request for the Indication of Provisional measures, Order, 14 June 2018, https://www.icj-cij.org/en/case/172, last accessed 29 June 2020.

288 Saudi Arabia 'to open airspace, land and sea border' with Qatar, https://www.aljazeera.com/news/2021/1/4/saudi-arabia-qatar-agree-to-open-airspace-land-and-sea-border, last accessed 5 January 2021.

289 ICAO, Working Paper presented by the Secretary General, Council – Extraordinary Session, concerning the Request of Qatar – Item under Article 54(n) of the Chicago Convention, ICAO document C-WP/14639, 14 July 2017, para. 2.1.

According to Article 9 of the Chicago Convention, Contracting States have the right to restrict or prohibit the overflight within its territory. In 2017, the blockade was alleged to induce Qatar's compliance with its general international law obligations, including under the applicable international treaties and United Nations Resolutions on anti-terrorism.[290] Saudi Arabia, Egypt, Bahrain, and UAE claimed the closure of their airspace for the purpose of ensuring safety, regularity, and efficiency of air traffic.[291]

Public safety, as aforementioned,[292] is a reason to close airspace under both Article 9(a) and Article 9(b) of the Chicago Convention. Under Article 9(a), airspace prohibition or restriction can only be over *part* of the territory and the State has to accord the same treatment between domestic and foreign scheduled air traffic services; under Article 9(b), the prohibition or restriction can be over the whole of the territory, but it has to be temporal and applies to aircraft of all foreign nationalities.

Saudi Arabia, Egypt, Bahrain, and UAE closed *all* of their airspaces to Qatari airlines and Qatari-registered aircraft. Since the prohibited airspace is over the *entire* territory, it is necessary to examine conditions for airspace closure under Article 9(b) of the Chicago Convention.

Article 9 (b) requires that airspace restriction or prohibition shall be applicable without distinction of nationality to aircraft of all other States. The blockade prohibited Qatari-registered aircraft from using the airspace of the four countries. Qatari-registered aircraft are singled out due to their nationality. Other countries' aircraft can still fly over the four countries. In closing its sovereign airspace, Saudi Arabia, Egypt, Bahrain and UAE did make a distinction on with regard to the nationality of the aircraft, so the measure is inconsistent with Article 9(b).

The blockade by these four countries also made a distinction on account of nationality of the *airline*. Qatar Airways was not able to land or fly over Bahrain, Cairo, Jeddah and UAE FIRs.[293] That is to say, if a Qatari airline lease an aircraft registered in India, for example, this aircraft still was not able to fly over the airspace of Saudi Arabia, Egypt, Bahrain, and UAE. Nonetheless, as aforementioned in Section 2.5 of this chapter, the Chicago Convention did not prohibit the distinction made on the basis of the nationality of the *airline*. The distinction as to the nationality of the airline is not inconsistent with Article 9 of the Chicago Convention, unless statistics show that distinction

290 ICJ, Appeal Relating to The Jurisdiction of The ICAO Council Under Article II, Section 2, Of The 1944 International Air Services Transit Agreement (*Bahrain, Egypt and United Arab Emirates v. Qatar*), Memorial of the Kingdom of Bahrain, the Arab Republic of Egypt, and the United Arab Emirates, vol. I, chapter 2., https://www.icj-cij.org/files/case-related/174/174-20181227-WRI-01-00-EN.pdf, last accessed 29 June 2020. p. 55.

291 *ibid*, pp. 56-59.

292 See Section 2.4.2 of this chapter.

293 Letter from Abdulla Nasser Turki Al-Subaey, Chairman of Qatar Civil Aviation Authority, to Fang Liu, ICAO Secretary General (5 June 2017).

between *airlines* also leads to the distinction on account of the nationality of the *aircraft*.

Mindful of the potential inconsistency with Article 9, during the proceedings, Saudi Arabia, Egypt, Bahrain, and UAE were trying to justify their action on the basis of a countermeasure.[294] However, in order to be justifiable, a countermeasure must meet certain conditions, including proportionality.[295] Proportionality requires a comparison between the 'effects of the countermeasures' and the 'injury suffered', taking into account 'the rights in question'.[296] As has been ruled by the ICJ, the ICAO Council has the jurisdiction to decide on the availability of countermeasures and whether the conditions for their exercise have been met.[297] It is out of this study's scope to present a quantitative analysis for Qatar's alleged actions in relation to terrorism to see whether these actions are proportionate with the effects of the blockade.

This study argues that the blockade may be justified as a measure for self-preservation during a *national* emergency as per Article 89 of the Chicago Convention, which allows Contracting States to resume freedom in action in *national* emergencies. This argument relates to the scope of application of Article 9 and boils down to a Contracting State's exclusive rights and powers with respect to its own territory.[298]

As was explained in Section 2.4.4 of this chapter, the term "national emergency" means to cover a special emergency situation, the benchmark of which is grave and imminent perils that endanger the country's vital interests. Article 9 lists emergency as a justification for airspace closure, whereas Article 89 specifies that *national* emergency is a caveat to Article 9. The Chicago Convention and its Article 9, including the qualifications to a Contracting State's right therein, are the law for peacetime. Article 9 does not affect the interests of the national defense of the (ex-)enemy States.[299] Therefore, depending on the case, if the Gulf situation constitutes grave and imminent

294 Appeal Relating to The Jurisdiction of The ICAO Council Under Article II, Section 2, of The 1944 International Air Services Transit Agreement (*Bahrain, Egypt and United Arab Emirates v. Qatar*), Judgment July 14, 2020, paras.46-48; Appeal Relating to The Jurisdiction Of The ICAO Council Under Article 84 of The Convention On International Civil Aviation (*Bahrain, Egypt, Saudi Arabia And United Arab Emirates V. Qatar*), Judgment July 14, 2020, para. 46-48.

295 Art. 51 of Articles of State Responsibility, Commentary, para. 2; *Archer Daniels Midland Company and Tate & Lyle Ingredients Americas, Inc v Mexico*, ICSID Case No. ARB (AF)/04/5, para. 155.

296 Art. 51 Articles of State Responsibility.

297 Appeal Relating to The Jurisdiction of The ICAO Council Under Article II, Section 2, of The 1944 International Air Services Transit Agreement (*Bahrain, Egypt and United Arab Emirates v. Qatar*), Judgment July 14, 2020, para.49; Appeal Relating to The Jurisdiction of The ICAO Council Under Article 84 of The Convention On International Civil Aviation (*Bahrain, Egypt, Saudi Arabia And United Arab Emirates V. Qatar*), Judgment July 14, 2020, para. 49.

298 See Chapter V, Section 2.2.

299 Bin Cheng, *Law of International Air Transport*, Stevens 1962, p. 296.

perils that threaten vital interests of the countries on a nationwide scale,[300] the countries affected are entitled to declare a national emergency and notify the ICAO Council in accordance with Article 89. Once Article 89 is activated,[301] the States at issue resumes the freedom from the Chicago Convention, so that Article 9 does not limit the freedom to establish prohibited airspace against aircraft of one particular nationality.

3.3.3 *The closure of delegated airspace*

Having examined the closure of the four countries' airspace, this section now looks at the airspace over Qatar's territory. In addition to banning all Qatar-registered aircraft from overflying *Bahrain airspace*,[302] on 5 June 2017, Bahrain specified that all Qatar-registered aircraft should use two specific entry and exits routes in the *Bahrain FIR*.[303] Because the Bahrain FIR fully encompasses Qatar's sovereign airspace and much of the high seas surrounding it, this measure had the effect of closing off the rest of the airspace over the Arabian Gulf high seas.[304] Qatar has delegated the provision of services above its territorial airspace to Bahrain; Qatar controls traffic within their Terminal Control Area (TMA) up to Flight Level 245 (FL 245).[305]

Qatar complained that the blockade concern not only the four countries' sovereign airspaces, but also the FIRs under their jurisdiction.[306] Since 12 June 2017, contingency routes had been promulgated by Bahrain, Iran and Oman, to add to existing air traffic services (ATS) routes over the Gulf already being utilized for arrival and departures to/from Qatar.[307] As a compromise, Bahrain accommodated the Qatar-registered aircraft rerouted away from Bahrain Airspace over the high seas within Bahrain FIR by implementing

300 Qatar's actions are alleged to have raised a serious risk of compromising neighbor countries' security and interests and stability of the peoples of the region. https://www.icj-cij.org/files/case-related/173/173-20181227-WRI-01-00-EN.pdf, para. 2.46.

301 See further in Chapter V on Article 89.

302 ICAO Response to Preliminary Objections (B), Exhibit 5, NOTAMS Issued by the Respondents, pp. 971-973.

303 *ibid.*

304 ICAO Council, First ATM Contingency Coordination Meeting For Qatar, Summary of Discussions, ICAO Doc. ACCM/1 (6 July 2017), Appendix A at 4-5 (map indicating that prior Westbound routes were prohibited by NOTAM, leaving only two available routes for entry into and exit from Doha for Qatar-registered aircraft).

305 ICAO, 'Current FIR Status', https://www.icao.int/safety/FITS/Lists/Current%20FIR%20Status/DispForm.aspx?ID=211&ContentTypeId=0x010052E9663F7BEC124F98A382A2B443E7C2, last accessed July 26, 2018. Letter from Abdulla Nasser Turki Al-Subaey, Chairman of Qatar Civil Aviation Authority, to Fang Liu, ICAO Secretary General (5 June 2017).

306 Counter-Memorial of the State of Qatar, https://www.icj-cij.org/files/case-related/173/173-20180704-APP-01-00-EN.pdf, last accessed 13 September 2021.

307 ICAO Council, 211th Session, Summary Minutes of the Tenth Meeting, ICAO Doc. C-MIN 211/10 (23 June 2017), p. 5.

contingency ATS routes: DOH-ALVEN direct to EGMT in Tehran FIR (from 5 June to 22 June 2017) and T800 starting 22 June 2017.[308]

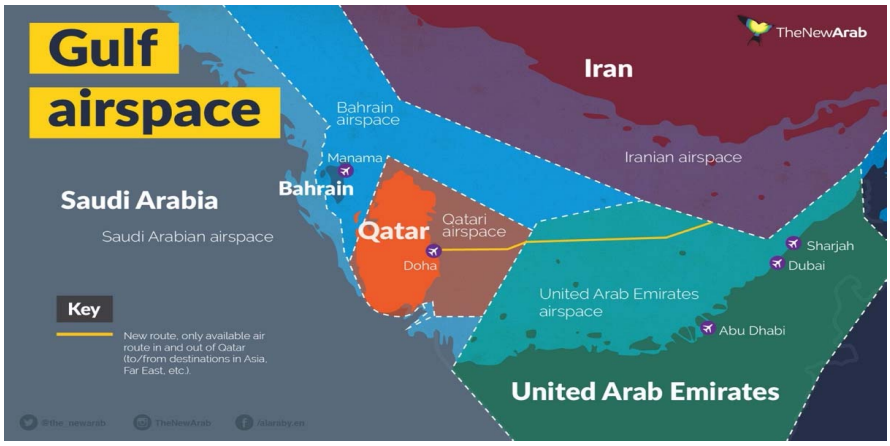

Figure 9: The new route in and out of Qatar[309]

This case shows that an FIR covering more than one country's territory can give rise to disputes. Bahrain *de facto* manages an FIR that includes Qatar's airspace. On the one hand, Qatar is the *de jure* authority to regulate its airspace by its accession to the Chicago Convention, in light of the treaty's Articles 1 and 2; and according to Article 28 of the Chicago Convention, Qatar shall provide air navigation facilities to facilitate international air navigation in "its territory".[310] On the other hand, in practice, Bahrain FIR authorities provide navigational facilities and flight information to an area that includes Qatari airspace, on the basis of Annex 11 and regional navigational plan under ICAO's auspice.[311] A question arises as to the balance between sovereignty and technical considerations. It is about the jurisdiction derived from treaties. Chapter III continues the discussion on territory, sovereignty, and FIR with a focus on prohibited area in delegated airspace.

308 ICAO Council, First ATM Contingency Coordination Meeting for Qatar, Summary of Discussions, ICAO Doc. ACCM/1 (6 July 2017), para.6.4.

309 Source: https://english.alaraby.co.uk/english/comment/2018/1/15/uaes-claims-about-airliner-interception-damage-all-gulf-aviation, last accessed 8 August 2019.

310 See Section 3.2 of Chapter III.

311 ICAO Council, First ATM Contingency Coordination Meeting for Qatar, Summary of Discussions, ICAO Doc. ACCM/1 (6 July 2017), Appendix A at 4-5.

3.3.4 *Interim conclusions*

The blockade against Qatar in 2017 was not consistent with Article 9 of the Chicago Convention, because only Qatar-registered aircraft is prevented from using the airspace of the four countries. Nonetheless, depending on local situations, the four countries could declare a national emergency and invoke Article 89 to justify their ban. Bahrain's NOTAMS attracts more attention because its FIR encompasses all of Qatar's sovereign airspace. Chapter III will discuss who and how to establish a prohibited area in delegated airspace(s).

4 CHAPTER SUMMARY AND CONCLUSIONS

In order to understand the current legal regime on prohibited airspace, this chapter starts with a normative analysis of Article 9 of the Chicago Convention. The normative analysis answers the first and second research questions concerning the legal conditions and the jurisdiction to establish prohibited airspace.

Articles 1 and 2 of the Chicago Convention recognize a Contracting State's sovereignty over its territory. On the basis of the sovereignty principle, Article 9 of the Chicago Convention confirms that a Contracting State has the right to establish prohibited/restricted airspace over its territory. This jurisdiction is limited to "its territory": the landmass and waters under its sovereignty. In particular, 'territorial waters' in the Chicago Convention, meaning waters under sovereignty, include 1) the territorial sea, 2) international straits; 3) internal waters and 4) archipelagic waters.

Meanwhile, Article 9 sets conditions and requirements to qualify the exercise of this right: under Article 9(a), a prohibited or restricted airspace can be established by reasons of military necessity, public safety, emergency, or exceptional circumstances. Furthermore, no distinction shall be made between national aircraft and foreign aircraft engaging in international scheduled airline service; the prohibited airspace should be of "reasonable extent and location" as not to interfere unnecessarily with air navigation; and Contracting States should circulate the descriptions of the prohibited areas to the international community.

Under Article 9(b) of the Chicago Convention, a Contracting State reserves the right to prohibit or restrict overflights of designated areas in exceptional circumstances, during a period of emergency or in the interest of public safety. The prohibited or restricted areas thereby established must be temporary and shall be applicable without distinction of nationality to aircraft of all *other* States. In practice, depending on bilateral air service agreements, a blanket requirement of non-distinction does not mean all aircraft get the same treatments, because the routes and capacity are fixed individually in each bilateral agreement. A Contracting State's action to restrict traffic on account of a route

does not violate Article 9(b)'s requirement, but it may in effect create discriminatory treatment among aircraft of different nationalities.

These conditions and requirements in Article 9 qualifying the exercise of sovereignty prevent Contracting States from using prohibited airspace as an instrument for frustrating air services agreements and disrupting international air services in peacetime. These qualifications and requirements, nonetheless, do not affect the exercise of sovereignty by a Contracting State in times of war or national emergency.

3 Technical and Operational Aspects of Prohibited Airspace

1 Preliminary remarks

Chapter II has examined the conditions for a Contracting State to establish prohibited airspace over its territory; and this chapter will explore more complicated situations, such as the closure of bilaterally delegated airspace. Because the establishment of prohibited airspace is always accompanied by air navigation services,[1] this chapter studies the technical and operational aspects of establishing prohibited airspace, starting with exploring the relevance of air navigation services to the establishment of prohibited airspace.

2 Relevance of ANS to prohibited airspace

2.1 Introductory remarks

As clarified in Annex 11 of the Chicago Convention,[2] prohibited airspace(s) shall be established with the indication of the nature of hazards.[3]

> Each prohibited area, restricted area, or danger area established by a State shall, upon initial establishment, be given an identification and full details shall be promulgated.[4]
> #AIP-DS# Description, supplemented by graphic portrayal where appropriate, of prohibited, restricted and danger areas together with information regarding their establishment and activation, including:
> 1) identification, name and geographical coordinates of the latest limits in degrees, minutes and seconds if inside and in degrees and minutes if outside control area/control zone boundaries;
> 2) upper and lower limits; and

1 See Section 2.1 of this chapter.
2 Annex 11, Standard 2.33.1.
3 Hazard is defined as "a condition or an object with the potential to cause or contribute to an aircraft incident or accident." See ICAO Doc 9858, *Safety Management Manual*, 4th ed., 2018. In aviation, a hazard can be considered as a dormant potential for harm which is present in one form or another within the system or its environment. This potential for harm may appear in different forms, for example: as a natural condition (e.g., terrain) or technical status (e.g., runway markings).
4 Annex 11, Standard 2.33.1.

3) remarks, including time of activity.
Type of restriction or nature of hazard and risk of interception in the event of penetration shall be indicated in the remarks column.[5]

Identifying hazards requires accurate and timely information regarding risks to international civil aviation. In this process, air navigation services (ANS), including information services,[6] plays an essential role in ascertaining risk levels of air routes.[7] ANS encompasses, among others, communication, meteorological, search and rescue, and air traffic management (ATM).[8] Within the frame of ATM,[9] an air traffic service (ATS) ensures the safety of flight by maintaining safe routes and optimizing the traffic flows.[10] An appropriate ATS authority[11] can take contingency responses to events such as meteorological and geological phenomena, pandemics, national security and industrial relations issues.[12]

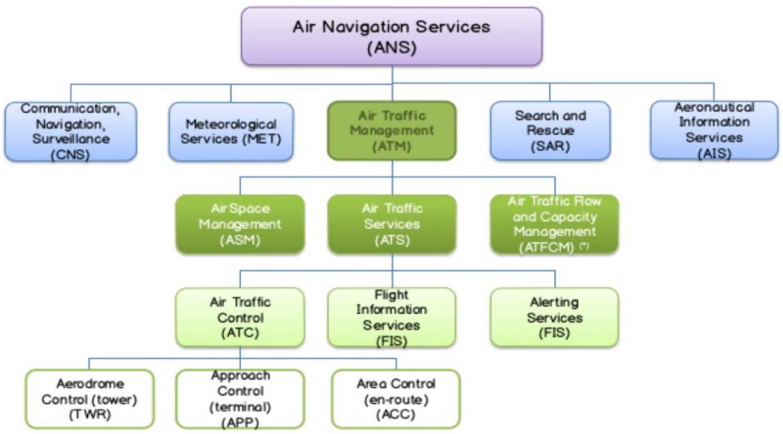

Figure 10: Air Navigation Services[13]

5 See ICAO Doc 10066, Aeronautical Information Management, 1st ed., 2018, Appendix 2, ENR 5.1. See also the presentation by Raúl A. Martínez Díaz, ICAO NACC RO/AIM, "Doc 10066 – PANS AIM Contents", at Mexico City, 3 to 5 September 2019.

6 A flight information service is defined as "a service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights." *ibid*, p. 1-8.

7 On the responsibility to assess risks, see Section 4.2 of this chapter.

8 See ICAO Doc 4444.

9 Gabriela, STROE, & Irina-Carmen, ANDREI. (2016). Automation and Systems Issues in Air Traffic Control. *INCAS Bulletin, 8*(4), pp. 125-140.

10 *ibid.*

11 On the concept of an appropriate ATS authority, see Section 2.2 of this chapter.

12 See for example, ICAO, CAR Region Air Traffic Management Contingency Plan, Draft Version 1.2 May 2020, approved by NAM/CAR Air Navigation Implementation Working Group; Published by ICAO North American, Central American and Caribbean Office (NACC) Office.

13 Source: Razvan Margauan's Introductory lecture to the Air Traffic Management course at the Aerospace, EUROCONTROL, March 2015.

In connection with prohibited airspace, an appropriate ATS authority is competent to announce that the airspace is closed under the following circumstances:[14]

- "Airspace Not Safe", due to causal events such as industrial action, earthquake, nuclear emergency, etc. affecting the provision of ATS;
- "Airspace Not Secured", due to contingency events such as military activity, military conflict, war, terrorist activities, unlawful interference, etc. necessitating the avoidance of such airspace; and
- "Airspace Not Available", due to causal events such as national security-political decisions, civil unrest, imposition of sanctions, etc. necessitating the avoidance of such airspace.

To pre-empt the use of certain airspace, an appropriate ATS authority can label a segment of airspace as "not available" and thus prohibits airspace users from using the routes therein. Where the appropriate ATS authority declares airspace as not safe/secured/available, it is the pilot-in-command that has the final say as to the disposition of the aircraft;[15] nonetheless, the pilot-in-command is also obliged not to operate an aircraft in a negligent or reckless manner.[16] Flying through airspace with a NOTAM[17] warning of "not safe/secured/available" could constitute negligent or reckless operation of an aircraft.[18]

If the appropriate ATS authority prohibiting the overflight of aircraft out of safety concerns, the pilot-in-command should not behave recklessly in contravention of such warnings. Therefore, the airspace announced by the appropriate ATS authority as "not safe/secured/available" is an airspace of defined dimensions within which the overflight of aircraft is prohibited/restricted; such airspace restrictions with the effect of airspace closure falls

14 For instance, see ICAO ATM Contingency Plan (AFI) Africa and Indian Ocean, version 1, July 2019, para. 12.1.

15 See Standard 2.4 of Annex 2.

16 See Standard 3.1.1 of Annex 2.

17 A NOTAM is defined as 'a notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.' See Annex 11 to the Chicago Convention, 1-6.
For airspace announced as not available, it may happen that the ATC facility involved will be subject to evacuation. In this instance the ANSP will issue NOTAMs and broadcast that contingency procedures have been initiated, so that the airspace is closed to aircraft. For example:
NOTAM: Due to emergency evacuation of (States ACC) all ATC services are terminated. Flights within (States ACC) FIR should continue as cleared and contact the next ATC agency as soon as possible. Flights not in receipt of an ATC clearance should land at an appropriate airfield or request clearance to avoid (State) FIR. Flights should monitor (defined frequencies).
See ICAO, ATM Operational Contingency Plan for South Atlantic Oceanic FIRS, 1st ed., May 2019, p. 6.

18 See Merinda E. Stewart, *Freedom of Overflight: A Study of Coastal State Jurisdiction in International Airspace,* Wolters Kluwer 2021, chapter II, Section 2.1.

into the scope of prohibited/restricted airspace.[19] The establishment of prohibited/restricted airspace(s), through the announcement of "not safe/secured/available", requires the coordination of technical and operational functions of the appropriate ATS authority or authorities.

2.2 Appropriate ATS authority

An appropriate ATS authority is defined in the foreword of Annex II as the relevant authority designated by the State responsible for providing ATS in the airspace concerned.[20] Through an appropriate ATS authority as designated, an ICAO Member State provides ATS in accordance with Article 28 of the Chicago Convention.[21] If, and so long as, an ICAO Member State has not notified ICAO to the contrary, it shall be deemed to have agreed to provide ATS in its territory;[22] for those parts of the high seas, an ICAO Member States provide ATS in accordance with regional air navigation agreements and ICAO regulations.[23]

According to Annex 11 to the Chicago Convention, an appropriate ATS authority is *responsible* for providing flight information and assessing risks of air routes,[24] so that airspace users can access ATM resources for their specific operational requirements.[25] On the one hand, the appropriate ATS authorities determine the access and level of service provided to civil aircraft wishing to operate in any controlled airspace.[26] On the other hand, the appropriate

19 Prohibited/restricted airspace or area, by definition (See Chapter II, Section 2.2.3), is an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the overflight of aircraft is prohibited/restricted. In this sense, prohibited/restricted areas cover "airspace not safe/secured/available".

20 See the definition in Annex 11, I-4. "Appropriate ATS authority: The relevant authority designated by the State responsible for providing air traffic services in the airspace concerned."

21 Abeyratne, Ruwantissa, *Air Navigation Law*, Spring Link 2012, p. 24. See Standard 2.1.2 of Annex 2 and the following Section 3 of this chapter.

22 *ibid.*

23 See Section 3.2.2 of Chapter IV.

24 See Annex 11, Attachment C, para. 4.2, also ICAO Doc 10066, Aeronautical Information Management, 1st ed., 2018, Appendix 2, ENR 5.1, and the presentation by Raúl A. Martínez Díaz, ICAO NACC RO/AIM, "Doc 10066 – PANS AIM Contents", at Mexico City, 3 to 5 September 2019. More on the responsibilities of an appropriate ATS authority, see Section 4 of this chapter.

25 See generally ICAO, Manual on Collaborative Air Traffic Flow Management, 1st ed., 2012.

26 Distinguishing civil aircraft operations from State aircraft operations was important enough to warrant the creation of Article 3 of the Chicago Convention, which excludes State aircraft used in military, customs and police services from ICAO's regulations. Further, ICAO developed ATM contingency plans in recognition of the fact that circumstances causing disruptions of services to international *civil* aviation vary widely and that contingency measures in response to specific events and circumstances must be adapted to these circumstances. See Attachment C to Annex 11, para. 1.3; see also ICAO working paper,

ATS authority is competent to announce the existence of hazards and close the airspace under selective circumstances.[27] As such, the appropriate ATS authority is responsible for managing the traffic flow, and establishing prohibited airspace, including through announcing that a portion of airspace is not available/safe/secured.

In some cases, the appropriate authority designated for providing ATS services sits within the national civil aviation administration authority. For example, in the US, the appropriate ATS authority is the Chief Operating Officer of the Air Traffic Organization, acting under the authority of the Federal Aviation Administration (FAA).[28] In China or France, the appropriate ATS authority is national civil aviation administration or a department within the administration.[29] In countries where the provision of air navigation services was neither corporatized, privatized, nor commercialized, it is not difficult to identify the 'appropriate ATS authority' as the national civil aviation administration, because such administration, as an authority, *provides* ATS in accordance with national laws.

However, it is less straightforward to identify the 'appropriate ATS authority' when the provision of air navigation services have been corporatized, privatized, or commercialized.[30] When an air navigation service provider

---

"ICAO provisions related to access to the High Seas", presented by the Secretariat at European Air Navigation Planning Group (EANPG) Flexible Use of Airspace (FUA) Task Force (FUA-TF/3), third meeting, Paris, 10 to 11 February 2009, para. 2.2.

27 See more on the responsibility of the appropriate ATS authorities in Section 4 of this chapter.

28 The Air Traffic Organization (ATO) was established by FAA in February 2004 to take over the entire air traffic operations, pursuant to Presidential Executive Order 13180. See https://www.faa.gov/air_traffic/publications/atpubs/aip_html/part1_gen_Section_3.3.html, last accessed Oct 15, 2021. ICAO Case Studies on Commercialization, Privatization and Economic Oversight of Airports and Air Navigation Services Providers (ANSPs), https://www.icao.int/sustainability/CaseStudies/UnitedStates.pdf, last accessed Oct 15.

29 In China, the Air Traffic Management Bureau of the Civil Aviation Administration of China (CAAC) holds under its responsibility the control functions on air traffic and navigation services, aeronautical regulation and services of communications and meteorology and, in general, the technical aspects of ANS; whereas in France, functional separation occurred in 2005 within the French Civil Aviation Administration (DGAC), whereby the Direction des Services de la Navigation Aérienne (DSNA) was set up as the Air Navigation Services provider branch of the DGAC, under safety, security and economic oversight by functionally separate DGAC directorates (namely Direction du Transport Aérien (DTA), and Direction de la Sécurité de l'Aviation Civile (DSAC)), see ICAO Case Studies on Commercialization, Privatization and Economic Oversight of Airports and Air Navigation Services Providers (2013) available at: https://www.icao.int/sustainability/pages/Eap_ER_Databases_CaseStudies_ANSPs.aspx, last accessed 7 November 2021.

30 *ibid*. See also IATA, Commercialisation of Air Navigation Service Providers (2011), available at: https://www.iata.org/policy/Documents/commercialisation-ansps.pdf, last accessed 7 November 2021. In comparison with ICAO (2013), IATA understands commercialization not only as a change in organizational-ownership structures, but also as an orientation of ANSPs to commercial revenue. Hobe et al reviewed the development of European ANSPs, see Stephan Hobe, Katharina Irmen, Christian Plingen, 'Privatization of German and Other European Air Navigation Service Providers and the Single European Sky Regulations',

(ANSP)[31] is a private entity, it is questionable whether this private entity can be called an 'authority', even under the domestic law.[32] Even more complex is that, the function of ANSPs, under European law, is contingent upon the oversight of a national supervisory authority (NSA);[33] an NSA controls the operation of an ANSP through issuing certificates.[34] An NSA in this context is an authority, while noting that this authority *supervises* rather than *provides* ATS.[35] It is equally questionable whether a NSA can be called 'the appropriate ATS authority', which by definition is to *provide* ATS.

In Annex 11 to the Chicago Convention, a Note to Standard 2.1.3 says that: "the authority responsible for establishing and providing the services may be a State or a *suitable agency*."[36] The Note does not specify that the appropriate ATS authority has to be a *governmental* agency, so the concept of 'an appropriate ATS authority' can be interpreted as accommodating corporatized or private entities providing ATS. Therefore, one interpretation is that a corporatized or private ANSP can be called an appropriate ATS authority as long as the State properly designated it to provide ATS in accordance with national law. A second interpretation is that the conducts of a corporatized or private

(2007), 32, Air and Space Law, Issue 3, pp. 168-178. Dempsey claims that commercialization is not only a change in organizational-ownership structures in order to improve the cost-effectiveness and quality of services provided, but also a way of introducing public-private business relationships into the industry, see Dempsey, P. S., Janda, R., Nyampong, Y., Saba, J., & Wilson, J. The McGill Report on Governance of Commercialized Air Navigation Services, XXXI Annals of Air & Space Law (2006), pp. 213-347. Commercializing Air Traffic Control: Have the Reforms Worked? Canadian Public Administration 51(1). DOI: 10.1111/j.1754-7121.2008.00004.x. Jones and Guthrie divide the services provided by Air Navigation Service Providers into public service (non-commercial) and commercial services, see Jones, A., & Guthrie, J. 2008. Protecting 'Public Interest' in Modernised Skies Protecting 'Public Interest' in Modernised Skies, in: Paper Presented at the 5th International Conference on Accounting, Auditing & Management in Public Sector Reforms, Amsterdam, September 3–5, 2008.

31 Flight information service and alerting service are provided by air navigation service providers (ANSPs) to en-route traffic for a given area. See Annex 11, Standards 4.2.1 & 5.1.3. In the EU context, Regulation (EC) 2096/2005 contains further specifications as to the common requirements. The term 'Air Navigation Services Provider' is defined as 'any public or private entity providing air navigation services for general air traffic'. See Art 2 No 5 Regulation (EC) 549/2004 of 10 March 2004.

32 On the terminologies of corporatization and privatization under German law, see Stephan Hobe, Katharina Irmen, Christian Plingen, 'Privatization of German and Other European Air Navigation Service Providers and the Single European Sky Regulations', (2007), 32, *Air and Space Law*, Issue 3, pp. 169-170: The German Constitution uses the term 'federal administration' (bundeseigene Verwaltung), German Air Navigation Services Provider (Deutsche Flugsicherung (DFS) was organized as a limited liability company (Gesellschaft mit beschränkter Haftung – GmbH).

33 See Art 4 Regulation (EC) 549/2004 of 10 March 2004, Art 3 para. 2 of Regulation (EC) 2096/2005 of 20 December 2005.

34 *ibid.*

35 *ibid.*

36 Note 1 to Standard 2.1.3 of Annex 11.

ANSP are attributed to the supervising State civil aviation administration, so that it is a State organ, such as an NSA, that 'provides' ATS, in an indirect way, through supervising the activities of the private ANSP.

The first interpretation depends on the meaning of an 'ATS authority' in national laws, *i.e.*, what is a legally valid designation of an 'authority'; and the second interpretation adopts a broad definition of 'provision', which hinges upon the attribution theory in customary international law on State responsibility.[37]

No matter which interpretation a Contracting State has adopted and thereon designates an ATS authority, the author emphasizes that, at the international level, the State is liable for the consequences arising from the provision of ATS in its territory. For example, the German Federal Administration of Air Navigation Services (*Bundesanstalt für Flugsicherung*, BFS), a federal government agency, was commercialized through the amendment of the German Constitution.[38] Germany subcontracted the ATS provision over the airspace of southern Germany, including the town of Überlingen, to a Swiss company Skyguide.[39] In 2002 when a mid-air collision happened over Überlingen, Skyguide was in control of the said airspace.[40] It depends on domestic German law to clarify which authority is 'the appropriate ATS authority' for the airspace over Überlingen.[41] Despite technical complications due to the delegation of ATS pro-

37 ILC, 'Draft Articles on Responsibility of States for Internationally Wrongful Acts, with Commentaries' (2001) II(2) Ybk ILC 26, Article 30 on p. 88 and Article 31 on p.91. Cessation of conduct in breach of an international obligation is the first requirement in eliminating the consequences of wrongful conduct. The obligation to make full reparation is the second general obligation of the responsible State consequent upon the commission of an internationally wrongful act, see *Factory at Chorzów*, Jurisdiction, Judgment No. 8, 1927, P.C.I.J., Series A, No. 9, p. 21.

38 In October 1992, the Deutsche Flugsicherung GmbH (DFS) was established as a limited liability company, which is wholly owned by the Federal Government and governed by Private Company Law. In January 1993, DFS formally succeeded BFS and commenced its operation. Since 1994, DFS has been responsible for performing not only civil but also regional military air traffic control. ICAO Case Studies on Commercialization, Privatization and Economic Oversight of Airports and Air Navigation Services Providers, https://www.icao.int/sustainability/pages/Eap_ER_Databases_CaseStudies_ANSPs.aspx, last accessed 7 November 2021.

39 See https://www.swissinfo.ch/eng/charges-brought-against-skyguide-staff/5364820, last accessed 7 November 2021.

40 *ibid.*

41 See Stephan Hobe, Katharina Irmen, Christian Plingen, 'Privatization of German and Other European Air Navigation Service Providers and the Single European Sky Regulations', (2007), 32, *Air and Space Law*, Issue 3, pp. 168-178. In December 2004, the Federal Government announced a plan to change the ownership of DFS, selling 74.9 per cent of its equity to private investors and reorganizing it as a public-private partnership (PPP). The Parliament formally approved the proposal with the Air Navigation Services Act in April 2006. However, the privatization process was stopped by the President's decision in October 2006 because it conflicted with a constitutional clause, which says air traffic management within Germany must be carried out by a State organization. See ICAO Case Studies on Commercialization, Privatization and Economic Oversight of Airports and Air Navigation

vision, with respect to liability issues, the Court of Konstanz found that Germany is responsible and therefore must cover for the losses addressed to victims.[42]

2.3 Case study of airspace closure due to the unavailability of ATS

It did happen that due to the non-availability of ATS, aircraft have been prohibited from using certain air routes, and thus prohibited airspace is established for targeted aircraft. For example, in 1956, Israel alleged that the Arab States were not providing ATS to aircraft *en route* to or from Israel, refusing them permission to fly over Arab territory, and establishing prohibited/restricted areas to an unreasonable extent.[43] The allegations were admitted by Egypt.[44]

The Executive Committee of the ICAO Assembly decided not to discuss the matter raised by Israel upon a motion submitted by Peru.[45] The motion proposed that the debate be adjourned on the grounds that although the situation described by Israel had technical aspects, it was part of a much larger political problem that did not fall within the jurisdiction of ICAO at all.[46]

The situation changed over the course of the 1970s and 1980s with the conclusion of peace treaties.[47] The tables below show that Israel gained support from Egypt, Kenya, and South Africa to facilitate its operation of international flights; the three States were willing to provide ATS for Israeli flights in 1989,[48] thus, prohibited areas against Israeli flights had decreased.[49] After

---

Services Providers, https://www.icao.int/sustainability/pages/Eap_ER_Databases_Case Studies_ANSPs.aspx, last accessed 7 November 2021.

42 See further in F.P. Schubert, 'The Liability of Air Navigation Services Providers: Some Lessons from the Single European Sky', in Daniel Calleja Crespo & Pablo Mendes de Leon, *Achieving the Single European Sky: Goals and Challenges,* Kluwer 2011, p. 55.

43 ICAO Assembly, Executive Committee of the Tenth Session, 1956. See Bin Cheng, *The Law of International Air Transport*, p.114.

44 *ibid*. Egypt maintained that both these measures were part of a boycott instituted in the interests of self-preservation and based on the existence of a technical state of war between Israel and her neighbors which was entirely compatible with the non-existence of a state of active belligerence mentioned in UN Security Council's resolution.

45 See ICAO Assembly, Executive Committee of the Tenth Session, 1956, quoted by *ICAO Bulletin* (1956), p. 32 *et seq*. It is interesting that this document did not specify whether or not the ICAO Air Navigation Bureau proposed or took technical actions on this matter.

46 *ibid.*

47 Kristian Coates Ulrichsen. (2018). Egypt–Israel Peace Treaty. A Dictionary of Politics in the Middle East, 2018-06-21.

48 ICAO, Circular 221-AT/89, International Air Passenger and Freight Transport – Middle East, 1989.

49 See Mohamed R.M. Khonji's (Regional Director ICAO Middle East Office) presentation, "Civil/Military Coordination in the Middle East (MID) Region", at Global Air Traffic Management Forum on Civil/Military Cooperation (Montréal, 19 to 21 October 2009). Air traffic services (ATS) routes in the MID Region go through airspace that has many military-

the signing of the Abraham Accords in 2020,[50] with the making of détente and the grant of traffic and transit rights, Israel opened direct flight routes with more States in the Middle East. Dubai and Israel were the first to establish direct flights in November 2020;[51] Bahrain and Israel also started about 14 direct passenger flights;[52] Israel and Jordan opened the air corridor for commercial airlines;[53] and the first Morocco-Israel direct flight landed in Marrakech on 25 July 2021.[54]

use and shared (civil/military) airspaces, including over high seas, which emphasizes the need for effective coordination between civil and military activities in order to safeguard the safety of civil aviation operations. In this regard, MIDANPIRG/10 adopted Conclusions 10/25 – Civil/military coordination, 10/26 – Coordination of flights operating over high seas and 10/27 – Uncoordinated flights over the Red Sea area. Effective coordination is also necessary to achieve progress under the Global Air Navigation Plan – Global Plan Initiatives relating to increased airspace capacity and improved ATS routes and terminal operations, as well as to reduce flight operational costs through more favorable route trajectories. See ICAO, C-WP/13121, "Implementation of regional plans – proposals for special implementation projects for 2008", presented by Secretary General at the ICAO Council's 183rd Session, 19/02/08.

50 On Sept. 15, 2020, Emirati Foreign Minister Abdullah bin Zayed al-Nahyan, Bahraini Foreign Minister Abdullatif bin Rashid al-Zayani, then-Israeli Prime Minister Benjamin Netanyahu, and then-U.S. President Donald Trump met on the South Lawn of the White House to sign the Abraham Accords, normalizing relations between the two Gulf Arab states and Israel. Morocco followed suit several months later, signing a similar agreement with Israel on 22 December 2020. On 6 January 2021, Sudan and Israel also agreed to normalize relations. See https://www.state.gov/the-abraham-accords/, last accessed 28 August 2021.

51 Roie Yellinek, "The Abraham Accords one year on", 19 August 2021, https://www.mei.edu/publications/abraham-accords-one-year, last accessed 28 August 2021.

52 Lahav Harkov, "Bahrain and Israel sign direct flights agreement", 22 October 2020, https://www.jpost.com/arab-israeli-conflict/bahrain-signs-aviation-agreement-with-israel-for-14-weekly-flights-646559, last accessed 28 August 2021.

53 Davi Casey, "Israel-Jordan airspace deal to open-up new routes",9 October 2020. https://www.routesonline.com/news/29/breaking-news/294281/israel-jordan-airspace-deal-to-open-up-new-routes/, last accessed 28 August 2021.

54 Steven Scheer, "Israeli airlines start direct flights to Morocco", July 15, 2021. https://www.reuters.com/business/aerospace-defense/israels-el-al-starts-flights-morocco-after-improved-diplomatic-ties-2021-07-25/, last accessed 28 August 2021.

Table 1: Air service links in the Middle East in 1988

Appendix 4-3. Air service links between States in the Middle East
(one or more weekly through-plane scheduled passenger services by any airline - June 1988)

	Between													
and	Bahrain	Democratic Yemen	Iran Islamic Rep. of	Iraq	Israel	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Syrian Arab Republic	United Arab Emirates	Yemen	Totals
Bahrain						X	X	X	X	X	X	X	X	X	9
Democratic Yemen							X	X		X	X	X	X	X	7
Iran Islamic Rep. of										X		X	X		3
Iraq						X	X				X				3
Israel															0
Jordan	X			X			X	X	X	X	X	X	X	X	10
Kuwait	X	X		X		X		X	X	X	X	X	X	X	11
Lebanon	X	X				X	X		X	X	X	X	X		9
Oman	X					X	X	X		X	X		X		7
Qatar	X	X	X			X	X	X	X		X	X	X	X	11
Saudi Arabia	X	X		X		X	X	X	X	X		X	X	X	11
Syrian Arab Republic	X	X	X			X	X	X		X	X		X	X	10
United Arab Emirates	X	X	X			X	X	X	X	X	X	X		X	11
Yemen	X	X				X	X			X	X	X	X		8
Totals	*9*	*7*	*3*	*3*	*0*	*10*	*11*	*9*	*7*	*11*	*11*	*10*	*11*	*8*	*110*

Source: 'ABC World Always Guide', June 1988.

Appendix 4-4. Air service links between States in the Middle East and States in other regions
(one or more weekly through-plane scheduled passenger services by any airline - June 1988)

	Between														
And	Bahrain	Democratic Yemen	Iran Islamic Rep. of	Iraq	Israel	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Syrian Arab Republic	United Arab Emirates	Yemen	Totals
AFRICA															
Algeria											X	X			2
Chad											X				1
Cote d'Ivoire								X							1
Djibouti		X							X		X		X	X	5
Egypt	X			X	X	X	X	X	X	X	X	X	X	X	12
Ethiopia		X											X	X	3
Kenya					X				X		X		X	X	5
Liberia								X							1
Libyan Arab Jamahiriya						X	X				X	X			4
Madagascar											X				1
Mauritania											X				1
Mauritius													X		1
Morocco				X		X	X				X				4
Niger											X				1
Nigeria								X			X				2
Reunion											X		X		2
Rwanda											X				1
Senegal											X				1
Seychelles	X										X		X		3
Sierra Leone								X							1
Somalia		X								X	X		X	X	5
South Africa					X										1
Sudan	X			X			X	X	X	X	X	X	X	X	10
Tunisia				X		X	X	X			X	X	X		7
Uganda											X		X		2
United Rep. of Tanzania									X		X		X		3
Totals	*3*	*3*	*0*	*4*	*3*	*4*	*5*	*7*	*5*	*3*	*20*	*5*	*12*	*6*	*80*

This study does not comment on the future path of Arab-Israeli normalization, nor does it enter into the merits of the Israel-Arab agreements, but rather it aims to demonstrate the relevance of ANS to the operation of air routes. Prohibited airspace can be established by technical authorities through withholding ATS so that air routes are closed against airlines or aircraft registered in a particular State.[55] Practices in themselves testify the link between the competence[56] of appropriate ATS authorities and the establishment of prohibited airspace.

2.4 Interim conclusions

The operations of civil aviation involve a complex process which, amongst others, depends on the provision of ATS. An appropriate ATS authority, in implementing safety management, may determine that certain routes are not safe/secure/available; therefore, the ATS authority issues warnings and declares that air routes are restricted or prohibited from being used by civil aircraft. The closure of air routes could lead to prohibited airspace being established against one targeted State. Due to the closure of air routes, especially those air routes that connect national airspaces and international airspaces, a Contracting State may lose all its connections to international civil aviation. This targeted State may thus question the legality of this encirclement. To address this problem, the following sections explain the competence and responsibility of appropriate ATS authorities to close air routes under international air law.

3 International rules with respect to the provision of Air Traffic Services

3.1 Introductory remarks

Having established the link between ATS and the establishment of prohibited areas, this section further examines rules with respect to ATS in the Chicago

55 See Section 2.5.3 of Chapter II for the difference between nationality of airlines and nationality of aircraft. It may be argued that a distinction has been made against Israeli flights, inconsistent with the non-discriminatory requirement in Article 9 of the Chicago Convention (see Chapter II of this study). The counter-argument was that the measures against Israel was in the interests of self-preservation and based on the existence of a technical state of *war*. On the justification for a discriminatory measure in war and national emergency in accordance with Article 89 of the Chicago Convention, see further in Chapter V, Section 2.2.

56 As explained in Section 2.3.4 of Chapter I, the competence of an authority or State organ is determined by the State's internal laws.

Convention and ICAO regulations.[57] Article 28(a) of the Chicago Convention prescribes the provision of ATS in national airspace; pursuant to Article 28(b), ICAO adopted operational practices and regulations pertinent to the provision of ATS in bilaterally delegated airspace, over the high seas, and in airspace of undetermined sovereignty, whereby extending the jurisdiction of an appropriate ATS authority.

3.2 Responsibility to provide ATS in national airspace

3.2.1 The national competence to provide ATS

Article 28(a) of the Chicago Convention requires a Contracting State to provide air navigation services (ANS) and facilities "in its territory".

> Each contracting State undertakes, so far as it may find practicable, to:
> (a) Provide, in its territory, airports, radio services, meteorological services and other air navigation facilities to facilitate international air navigation, in accordance with the standards and practices recommended or established from time to time, pursuant to this Convention;
> (b) Adopt and put into operation the appropriate standard systems of communications procedure, codes, markings, signals, lighting and other operational practices and rules which may be recommended or established from time to time, pursuant to this Convention;
> (c) Collaborate in international measures to secure the publication of aeronautical maps and charts in accordance with standards which may be recommended or established from time to time, pursuant to this Convention.[58]

Pursuant to Article 1, in conjunction with Article 2 of the Chicago Convention, a Contracting State has sovereignty over the airspace above its territory. As explained in Section 2.3.1 of Chapter I, sovereignty means independence and exclusivity in managing territorial airspace.[59] Therefore, a sovereign State, with the full capacity to manage its territorial airspace, is able to confer part of the capacity, such as ATS provision capacity, to its designated ATS authority;[60] thereby the designated ATS authority has the competence to provide ATS in the territorial airspace. Because the competence of an ATS authority derives from territorial sovereignty, this competence also shares the nature of independence and exclusivity as the origin sovereignty.[61] The provision

57 The definition of ICAO regulations and its legal force is presented in Chapter I.
58 Article 28 of the Chicago Convention.
59 See Chapter I, Section 2.3.
60 On 'appropriate ATS authority', see Section 2.2 of this chapter.
61 See ICAO Doc 9161, 'Manual on Air Navigation Services Economics', 5th ed., 2013, para. 2.5.

of ATS over sovereign territory is a national competence.[62] A Contracting State discharges the responsibility[63] to provide ATS through conferring this *competence* to its designated ATS authority.

3.2.2 The obligation to provide ATS

Article 28(a) of the Chicago Convention also made it clear that the provision of ATS in the territory of a Contracting State is a matter of national "undertaking", so far as it may find practicable. As explained in Chapter I,[64] "to undertake" something means to commit oneself to do a particular thing, thereby creating binding legal obligations, a duty.[65]

First of all, the provision of ATS is supervised by ICAO through the Universal Safety Oversight Audit Programme (USOAP).[66] The Chicago Convention imposes an obligation on the ICAO Council in Article 69: the ICAO Council shall consult with a State which is not in a position to provide reasonably adequate ATS for the safe, regular, efficient and economical operations of aircraft.[67] A Member State of ICAO, despite of being in a technical difficult situation to provide ATS, is expected to mobilize all possible resources and collaborate with

62 For instance, ICAO General Assembly Resolution A37-20 – *Consolidated statement of continuing ICAO policies in the air transport field*, where Appendix F urges Contracting States to ensure that Article 15 of the Convention is fully respected, regardless of the organizational structure under which airports and air navigation services are operated, and reminds States that they alone remain responsible for the commitments they have assumed under Article 28 of the Chicago Convention.

63 On the responsibility, see Section 4 of this chapter.

64 See Chapter I, Section 3.2.2.

65 ICJ, "[t]he ordinary meaning of the word 'undertake' is to give a formal promise, to bind or engage oneself, to give a pledge or promise, to agree, to accept an obligation. It is a word regularly used in treaties setting out the obligations of the Contracting Parties… It is not merely hortatory or purposive". See *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro)*, ICJ Reports 2007, p. 111, para. 162 (Feb. 26). In *the Matter of the Chagos Marine Protected Area Arbitration (Mauritius v. UK)*, UK had argued that "Lancaster House Undertakings" were not binding and had no status in international law. The Tribunal firmly rejected that argument, holding that those undertakings became a binding international agreement upon the independence of Mauritius. PCA Case No. 2011-3 (UNCLOS Annex VII Arb. Trib. Mar. 18, 2015), at http://www/pca-cpa.org.

66 ICAO's safety oversight system encompasses the whole spectrum of civil aviation activities. Universal Safety Oversight Audit Programme (USOAP) was established in 1999 to promote global aviation safety. Assembly Resolution A33-8 expanded the programme to include Annex 11 – Air Traffic Services. See ICAO Doc. 9734 – Safety Oversight Manual, Part A – The Establishment and Management of a State Safety Oversight System, 2017, ICAO Doc. 9735 – ICAO Universal Safety Oversight Audit Programme Continuous Monitoring Approach Manual, 2014 ICAO Doc 10004 Global Aviation Safety Plan: 2020 – 2022.

67 It reads that "[T]he Council shall consult with the State directly concerned, and other State affected, with a view to finding means by which the situation may be remedied, and may make recommendations for that purpose."

Council for the provision of ATS.[68] Article 70 of the Chicago Convention allows a State to conclude an arrangement[69] with the ICAO Council regarding the financing of air navigation facilities and the ICAO Council is given the option in Article 71 of agreeing to provide resources and assistance at the request of a State.[70] All these provisions in the Chicago Convention demonstrate that the practical level of ATS provision is supervised by the ICAO Council.

Secondly, the rules and practices of ICAO Member States, including those on the provision of ATS, are audited regularly for compliance with ICAO regulations.[71] ICAO regulations for ATS provision are embodied in Annex 2,[72] Annex 11[73] and other Annexes to the Chicago Convention.[74] As discussed in Chapter I, SARPs contained in annexes of Chicago Convention do not possess the same legal binding power as an international treaty;[75] however, should a State notify neither its objection nor the differences with domestic regulations/ practices, a Standard must be considered to be binding on that State.[76]

---

68 See ICAO Assembly resolution A38-2. See further in Chapter V, Section 3.4 on the situation of impossibility to perform.

69 Article 70 reads that "A contracting State, in the circumstances arising under the provisions of Article 69, may conclude an arrangement with the Council for giving effect to such recommendations. The State may elect to bear all of the costs involved in any such arrangement. If the State does not so elect, the Council may agree, at the request of the State, to provide for all or a portion of the costs."

70 Article 71 reads: "If a contracting State so requests, the Council may agree to provide, man, maintain, and administer any or all of the airports and other air navigation facilities including radio and meteorological services, required in its territory for the safe, regular, efficient and economical operation of the international air services of the other contracting States, and may specify just and reasonable charges for the use of the facilities provided."

71 In 2010 the ICAO Assembly adopted Resolution "Universal Safety Oversight Audit Programme (USOAP) – continuous monitoring approach (CMA)" that directs the ICAO Secretary General to ensure that CMA continues to maintain as core elements in key safety provisions contained in Annex 1 (Personnel Licensing), Annex 6 (Operation of Aircraft), Annex 8 (Airworthiness of Aircraft), Annex 11 (Air Traffic Services), Annex 13 (Aircraft Accident and Incident Investigation) and Annex 14 (Aerodromes). See ICAO Doc A37-5. See also United Nations Security Council 7775th Meeting coverage, "Adopting Resolution 2309 (2016), Security Council Calls for Closer Collaboration to Ensure Safety of Global Air Services, Prevent Terrorist Attacks," SC/12529, 22 September 2016.

72 Such as Annex 2, Standard 2.1.2. In particular, the compliance with Annex 2 is mandatory and does not give the States the flexibility provided in Article 38 of the Chicago Convention to register differences from any provisions of Annex 2. See Annex 2, Forward.

73 See Section 4 of this chapter on Annex 11.

74 ICAO regulations prescribe that Contracting States shall build infrastructure, such as airports and air traffic control towers, to guide the operations of aircraft. See ICAO regulations on aerodrome in Annexes 3, 6, 9, 10, 17, and 18.

75 Member States of ICAO agreed to "cooperate" and not "comply" which would have denoted a legally binding force. See Michael Milde, *International Air Law and ICAO*, Eleven International Publishing, 2008, pp.175-176.

76 Van Antwerpen, Niels. Cross-border provision of Air Navigation Services with specific reference to Europe: Safeguarding transparent lines of responsibility and liability. Kluwer Law International 2008. p. 36.

Furthermore, ICAO regulations towards the realization of safety and security in civil aviation navigation are obligatory for all States to comply with.[77] As explained in Section 3.2.2.2 of Chapter I, ICAO regulations, such as those involving safety and security, are so fundamental that they may not be deviated from by Member States.[78] Applying this conclusion to ICAO regulations on ATS, ICAO Member States shall protect the public interest of the community of international civil aviation,[79] through observing ICAO regulations in relation to the safe provision of ATS.[80] ICAO regulations on ATS, due to their fundamental importance to aviation safety and security, are taken by Member States as an obligation, rather than an option. In particular, to be argued in Section 4.4 of this chapter, ICAO regulations on contingency responses crystalized customary international law in this regard, testified by *opinio juris generalis*.[81]

Thirdly, as Chapter I of this study elaborated,[82] bilateral air service agreements may also contain clauses requiring compliance with the ICAO regulations that are fundamental to civil aviation. ICAO views ATS as a fundamental component in civil aviation.[83] The non-implementation of these Standards relevant to ATS may thus have an adverse impact on bilateral civil aviation relations, such as the revocation of traffic rights.[84] The power of publicity, embarrassment, and loss of credibility further explain that a Member State of ICAO is obliged to provide safe ATS in accordance with the Chicago Convention and ICAO regulations.[85]

In conclusion, ICAO regulations relating to the procedure, implementation and measures for safe ATS establish legal obligations for Member States to comply with. The ICAO audit mechanism and bilateral peer pressure, through air service agreements, are conducive to a Member State's implementation of these legal obligations for providing safe ATS in the airspace under the urisdiction of the said State.[86]

3.2.3 The interpretation of "so far as it may find practicable"

Having established the State obligation to provide safe ATS, the phrase "so far as it may find practicable" in Article 28 does allow for discretion for each

77 *Antwerpen ibid*, p. 35. ICAO, Resolution of Assembly that applies on 8 October 2004, Doc. 9848, Resolution A35-14.
78 *Huang*, pp. 61-62.
79 Jiefang Huang, "Aviation Safety, ICAO, and Obligation Erga Omnes," *Chinese Journal of International Law, Volume 8, Issue 1, March 2009*, p. 72.
80 *ibid*, pp. 72-73
81 *ibid.*
82 See of Chapter I, Section 3.2.2.3.
83 Ruwantissa Abeyratne, *Strategic Issues in Air Transport: Legal, Economic, and Technical Aspects*, Springer 2012, pp. 22-25.
84 See Chapter I, Section 3.2.2.3.
85 *ibid.*
86 On the jurisdiction in providing ATS, see the following Section 3.3 of this chapter.

Contracting State to account for the feasibility of domestic application.[87] Confusion does arise when the interpretation of *practicable* is discussed together with Articles 37 and 38 of the Chicago Convention, and thereby channels into the arguments against the compulsory legal force of ICAO regulations in relation with ATS.

This section argues that the legal force of ICAO regulations and the domestic enforceability of Article 28 are technically two questions. The first question regarding the legal force of ICAO regulations is answered in Section 3 of Chapter I of this thesis. The second is whether the phrase "so far as it may find practicable" makes it optional for Contracting States to provide ATS – whether all SARPs on ATS provision are without legal enforceability. The second question is to be answered in this section.

It is worth emphasizing that the phrase "so far as it may find practicable" in Article 28 does not mean to address the legal force of SAPRs to be adopted years later, nor to make the SARPs in relation to ATS purely optional.[88] As said in Section 3 of Chapter I, The legal force of SARPs is determined on the basis of Articles 37 and 38 of the Chicago Convention, and viewed in light of ICAO General Assembly resolutions and ICAO practices on this specific subject.[89] In contrast, the interpretation and application of the phrase "so far as it may find practicable" relates to the question of treaty interpretation; the interpretation is subject to the customary rules on treaty law as enshrined in the VCLT.[90]

The ordinary meaning of the word "practicable" means "capable of being put into practice."[91] To explore the meaning of *practicable* in the context of the Chicago Convention, it is necessary to review the proceedings of the 1944 Chicago Conference, where delegations discussed the meaning of this phrase:[92]

> In the present instance the basic [Chicago Convention] … serves the purpose of enabling legislation. The more clearly the authorized scope of the technical documents can be stated in the basic convention, without unduly circumscribe their future development to keep abreast of the demands of the art, the better it will be.

87 See Abeyratne, Ruwantissa. (2014). Flight MH 17 and state responsibility for ensuring safety and security of air transport. Journal of Transportation Security, 7(4), pp. 347-353.

88 Abeyratne, Ruwantissa, Air Navigation Law, Spring Link 2012, argues that notwithstanding the lack of mandatory element in Article 28, it cannot be deduced that a State has no responsibility whatsoever under Article 28 of the Chicago Convention or Annex 11 is purely optional, see pp. 23-24 &246-247.

89 See Chapter I, Section 3.

90 See Articles 31 and 32 of the VCLT.

91 https://www.merriam-webster.com/dictionary/practicable.

92 See Articles 31 and 32 of the VCLT. Regarding the interpretation methodology, see Chapter I of this study.

> The need for complete acceptance of international standards with respect to uniformity in the use of radio frequencies and functional standardization of certain operation characteristics of communications systems is obvious… The extent of the provision to be made [of communications procedures and systems] must however be limited in force to recommendations which each State commit itself to implement in its own territory to the greatest extent practicable.[93]

The Chicago Conference held in 1944 addressed the concerns from Contracting States over a treaty on air navigation which may carry attached materials of binding regulatory force. Noting the technical discrepancies among Contracting States, the drafting committee clarifies that the Chicago Convention serves the purpose of *enabling* future legislation on ATS.[94] For this purpose, the phrase "as far as practicable" in Article 28 means to give authority to future technical regulations, rather than to circumscribe or restrict the legal force of future standards or procedures with respect to the provision of ATS.

As presented in the proceedings of the Chicago Conference, the phrase "as far as practicable" allows Contracting States to implement Article 28 commensurate to their state of art or technical capability.[95] The word "practicable" does not mean to affect the compulsory nature of ICAO follow-up SAPRs in relation to safe ATS, but works to accommodate a customary rule that a State can invoke the caveat of "impossibility of performance" to preclude wrongfulness for not complying with Article 28 of the Chicago Convention.[96]

On the ground of impossibility of performance, a State can justify its non-performance of treaty obligations:[97]

> The wrongfulness of an act of a State not in conformity with an international obligation of that State is precluded if the act is due to *force majeure*, that is the occurrence of an irresistible force or of an unforeseen event, beyond the control of the State, making it materially impossible in the circumstances to perform the obligation.

This rule in the VCLT, also recognized as a general principle of law,[98] allows for the preclusion of wrongfulness of State acts due to an irresistible force or an unforeseen event beyond the control of the State. The ICJ opined in the

93 *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), p.705.

94 *ibid*.

95 *ibid.*, pp. 704-705.

96 See Article 61(1) of the VCLT, more is elaborated in Chapter V Section 3.4.

97 ILC, 'Draft Articles on Responsibility of States for Internationally Wrongful Acts, with Commentaries' (2001) II(2) Ybk ILC 26, pp. 76-78. The ILC Articles were adopted by the ILC itself in August 2001 and are annexed to GA resolution 56/83 of 12 Dec. 2001.

98 citing the European Court of Justice: see, e.g., case 145/85, *Denkavit v. Belgium*, Eur. Court H.R., Reports 1987–2, p. 565; case 101/84, *Commission of the European Communities v. Italian Republic*, Eur. Court H.R., Reports Reports 1985–6, p. 2629.

Gabčíkovo–Nagymaros Project case that the non-availability of objects or structures indispensable for the execution of the treaty constitute the grounds of impossibility of performance.[99]

UN Member States have consistently recognized technical capability with respect to aviation operation as a ground for precluding wrongfulness in relation to the non-performance of treaty obligations since.[100] Since the 1970s, the UN secretariat also made it clear that aviation technical incapability and navigational errors constitute a ground to preclude negative legal consequences.[101]

This interpretation is supported by ICAO audit practices.[102] Where Contracting States fail to comply with ICAO regulations fundamental to aviation safety and security, these States have to provide justification for such failings – the burden of proof is shifted to States invoking the caveat of technical incapability.[103] A Contracting State is entitled to invoke the caveat of "impossibility of performance" so as to avoid negative legal consequences in relation to the inadequate provision of ATS. The caveat intends to preclude the wrongfulness of a State's acts: only that it is a legal wrong to *not* provide safe ATS, then it is possible to preclude the wrongfulness. No need to preclude wrongfulness if there is no wrong at the first place. Admitting that it is a legal wrong not to provide safe ATS, this section concludes that the provision of safe ATS is compulsory for Contracting States. The phrase "so far as it may find practicable" does not make it optional for a Contracting State to provide ATS, nor does it weaken the legal force of ICAO SAPRs on the provision of ATS.

---

99 ICJ, Case concerning the *Gabčíkovo-Nagymaros Project (Hungary/Slovakia)*, Judgment, I.C.J. Reports 1997, p. 63, para. 102.

100 See, e.g., the cases of accidental intrusion into airspace, and the cases of accidental bombing of neutral territory attributable to navigational errors during the First World War discussed in the study prepared by the Secretariat, "'Force majeure' and 'fortuitous event' as circumstances precluding wrongfulness: survey of State practice, international judicial decisions and doctrine", study prepared by the United Nations Secretariat, in Yearbook of the International Law Commission 1978, vol. II (Part One), p. 61, document A/CN.4/315), paras. 250–256. See also the exchanges of correspondence between the States concerned in the incidents involving United States military aircraft entering the airspace of Yugoslavia in 1946, United States of America, Department of State Bulletin (Washington, D.C.), vol. XV, No. 376 (15 September 1946), p. 502, reproduced in the study prepared by the UN Secretariat, para. 144, and the incident provoking the application to ICJ in 1954, I.C.J. Pleadings, *Treatment in Hungary of Aircraft and Crew of the United States of America*, p. 14 (note to the Hungarian Government of 17 March 1953).

101 The core legal consequences of an internationally wrongful act set out in Part Two are the obligations of the responsible State to cease the wrongful conduct (art. 30) and to make full reparation for the injury caused by the internationally wrongful act (art. 31). ILC, 'Draft Articles on Responsibility of States for Internationally Wrongful Acts, with Commentaries' (2001) II(2) Ybk ILC 26, p. 87.

102 See Chapter I, Section 3.2.2.

103 *Huang*, p. 61.

Thus the responsibility in relation to ATS in Article 28 of the Chicago Convention is a two-fold structure: first, Article 28 establishes the responsibility to provide safe ATS, in terms of the dimensions of both competence and obligation;[104] second, a Contracting State can invoke the caveat of "impossibility to perform", that is, technical capabilities, to preclude negative consequences arising from the non-performance of Article 28 of the Chicago Convention. In this case, the burden of proof is shifted to the said State.

Furthermore, the preclusion of negative legal consequences does not mean that a State with limited technical capacities is left to do nothing about it. The level of being "practicable" is not to be auto-interpreted[105] as freely by Contracting States. Member States of ICAO are prompted, by peer pressure or the power of credibility and publicity,[106] to build cooperation with States/organizations with adequate technical capability. Contracting States establish ANSP peer review programs within a group[107] or seek capacity-building programs with other States or organizations.[108] Those inter-governmental technical cooperation programs testify that Member States of ICAO do not have the discretion to determine the 'practicable' level of adequate ATS provision in its territory without being supervised by the ICAO Council and/or bilaterally connected States.

In conclusion, Article 28 of the Chicago Convention *obliges* a Contracting State to provide safe ATS within its territory. This obligation to provide ATS being established, combined with the competence to provide ATS in national airspace, as explained in Section 3.2.1 of this chapter, lead to the conclusion that a State *can* and *should* provide ATS in the airspace over its territory. Having explained the competence and obligation dimensions, this chapter concludes that a State has *responsibility* to provide safe ATS within its territory.

104 On the two dimensions of responsibility, see further in chapter 4 of this study.

105 See Chapter I, Section 3.2.2.

106 See Chapter I, Section 3.2.2.3.

107 For instance, the Africa ANSP Peer Review Mechanism is a joint initiative between African air navigation service providers (ANSPs) to improve aviation safety across Africa. The initiative was launched in February 2015 following agreement between ICAO and CANSO on the need to address critical safety issues in ATM. It works by encouraging African ANSPs to work in partnership to assess safety management systems (SMS) and other operations requirements, share experiences and learn about measures for improvement in safety and operational performance. See ICAO, "Status of Implementation of the ANSP Peer Review Mechanism", presented by CANSO Africa, Twenty-Second Meeting of the AFI Planning and Implementation Regional Group (APIRG/22) (Accra, Ghana, 29 July–2 August 2019), APIRG/22 – WP/30.

108 See for instance, ICAO AN-Conf/13-WP/284, "Implementation of ATS Surveillance Infrastructure on the African Continent", 28/9/18.

3.3 Jurisdiction to provide ATS

3.3.1 Three situations with respect to ATS provision

The previous section explained that Article 28(a) of the Chicago Convention establishes the national responsibility of providing ATS in national airspace. Meanwhile, based on Article 28(b) of the Chicago Convention, Annex 11 covers the provision of ATS in sovereign airspace, as well as in airspace beyond national territory:[109]

> The Standards and Recommended Practices in Annex 11, [including those on prohibited, restricted and danger areas], apply to the airspace under the *jurisdiction* of a Contracting State wherein air traffic services are provided and also wherever a Contracting State accepts the responsibility of providing air traffic services over the high seas or in airspace of undetermined sovereignty.

Article 28 of the Chicago Convention requires States to provide ATS "in its territory", whereas Annex 11 considers *jurisdiction* to be the benchmark for the regulation of ATS. The concept of "territory" in the Chicago Convention means land, water, and sea under the *sovereignty* of a State.[110] In juxtaposing jurisdiction and sovereignty, Annex 11 confirms that it applies to airspace under the *jurisdiction* of a Contracting State, instead of *sovereignty*. To differentiate the jurisdiction sustained by sovereignty and the jurisdiction sustained by ATS competences, this chapter refers to the former as 'sovereign jurisdiction' and the latter as 'ATS jurisdiction'.

According to Annex 11 to the Chicago Convention, a Contracting State is to provide ATS under its *jurisdiction*,[111] including where the State accepts the responsibility of providing ATS in delegated airspace, over the high seas or in airspace of undetermined sovereignty: Annex 11 provides an exhaustive list of three situations of ATS jurisdiction; and only in the first situation, the sovereign jurisdiction and the ATS jurisdiction are exercised unequivocally by the same Contracting State.

- *Situation 1:* A route, or portion of a route, contained within airspace under the sovereignty of a State establishing and providing its own ATS.
- *Situation 2:* A route, or portion of a route, contained within airspace under the sovereignty of a State which has, by mutual agreement, delegated to another State, responsibility for the establishment and provision of ATS.

---

109 Annex 11, Air Traffic Services, 15th ed., July 2018, Foreword ('Annex 11').

110 See Section 2.3 of Chapter II.

111 See https://gis.icao.int/icaofir/. The ICAO GIS Services is an electronic database based on the geographical (FIRs) from around the world. On FIRs, see the following Section 3.3.2.

– *Situation 3:* A portion of a route contained within airspace over the high seas or in airspace of undetermined sovereignty for which a State has accepted the responsibility for the establishment and provision of ATS.[112]

Situation 1 concerns airspace under national sovereignty, such as airspace over territorial land and sea. As explained in Chapter II, the provision of ATS and traffic management in sovereign territories are subject to the discretion of the territorial State; the establishment of prohibited areas "in its territory" is regulated by Article 9 of the Chicago Convention.

Situation 2 refers to ATS provision over another State's territory. The delegating State retains sovereignty over the delegated airspace,[113] whereas the providing State, operating with the appropriate ATS authorities,[114] is responsible to limit or prohibit the use of certain portions of airspace to enable the safe operation of civil aviation;[115] here, the following question comes out: who has the jurisdiction to establish prohibited areas, the delegating State or the providing State? This question concerns the possible division of "jurisfaction" and "jurisaction" between two States.[116] This chapter thus examines the bilateral agreements to answer this question.

Situation 3 addresses the provision of ATS over the high seas and in airspace of undetermined sovereignty. Considering that the providing State does not act on the basis of national sovereignty,[117] Articles 9 and 28(a) of the Chicago Convention do not apply; the next chapter thus examines ICAO regulations with respect to airspace restrictions over high seas and in the airspace of undetermined sovereignty.

In a nutshell, Annex 11 makes clear that *jurisdiction* is the legal basis to provide ATS; the jurisdiction covers not only sovereign airspace, but also bilaterally delegated airspace, airspace over the high seas, and airspace of undetermined sovereignty.

112 Chapter 2 of Annex 11.

113 See Section 5.3 of this chapter on the case study of Qatar's sovereign airspace in Bahrain FIR.

114 See Section 2.2 of this chapter.

115 ICAO Doc 10092-C/1186, Council – Extraordinary Session on 31 July 2017 (Closed), Summary Minutes, 22/8/17, para.37 & paras. 31-32.

116 On Jurisfaction and Jurisaction, see Section 2.3.3 of Chapter I.

117 ICAO, information paper C-WP/14639 Restricted (Contingency arrangements to facilitate the flow of traffic over the high seas airspace in the Gulf region) (restricted), presented by the Secretary General.

3.3.2 *ATS jurisdiction in FIRs*

A Contracting State discharges the *responsibility* to provide ATS[118] through conferring the competence to its designated ATS authority for territorial airspace – sovereign jurisdiction;[119] meanwhile, an ATS authority may have the *competence* to regulate airspaces beyond national territories: the appropriate ATS authority therein manages flight information regions (FIRs) under its *jurisdiction*, which can extend across sovereign territories, and/or extend over high seas, and/or to areas of undetermined sovereignty – ATS jurisdiction.[120]

The concept FIR is not mentioned in the Chicago Convention but is defined in Annex 11 of the Chicago Convention as "an airspace of defined dimensions within which flight information service (FIS) and alerting service are provided."[121] The term FIR is defines dimensions of airspaces where the provision ATS falls within the jurisdiction of one authority.[122] FIRs can encompass sovereign airspace, airspace over the high seas, and airspace of undetermined sovereignty, subject to conditions in Annex 11 regarding their establishment.[123] FIRs are primarily set up pursuant to technical considerations.[124]

For example, the Singapore FIR was developed to achieve maximum efficiency in the provision of ATS to aircrafts with an emphasis on safety.[125] Singaporean ATS authorities may continue having the *competence* to manage

---

118 The connotation of responsibility in relation with competence, see further Section 4 of this chapter.

119 See Section 3.2 of this chapter.

120 See https://gis.icao.int/icaofir/. The ICAO GIS Services is an electronic database based on the geographical (FIRs) from around the world.

121 FIR is "An airspace of defined dimensions within which flight information service and alerting service are provided." I Annex 11, p.1-7.

122 FIRs are identified by the name of the unit having jurisdiction in such airspace, such as Singapore FIR or Hanoi FIR. See Annex 11, Recommendation 2.12.3.

123 Annex 11, Section 2.5, Designation of the portions of the airspace and controlled aerodromes where air traffic services will be provided:
2.5.1 When it has been determined that air traffic services will be provided in particular portions of the airspace or at particular aerodromes, then those portions of the airspace or those aerodromes shall be designated in relation to the air traffic services that are to be provided.
2.5.2 The designation of the particular portions of the airspace or the particular aerodromes shall be as follows:
2.5.2.1 Flight information regions. Those portions of the airspace where it is determined that flight information service and alerting service will be provided shall be designated as flight information regions.

124 Ida Bagus Rahmadi Supancana, 'The Speeding-up Process on the Realignment of Flight Information Region (FIR) in Areas A, B, C from Singapore to Indonesia: Issues of Sovereignty, or Safety, or Both?', in Pablo Mendes de Leon & Niall Buissing. (2019). *Behind and beyond the Chicago Convention: The evolution of aerial sovereignty*, Wolters Kluwer 2019, pp. 163-173. See also ICAO Doc. 9426-AN/924, p. I-2-1-2, para. 1.3.1. See further in Section 3.4 of this chapter on the delegation of the responsibility to provide ATS.

125 Park, W., "The Boundary of the Airspace and International Law", Thesis, McGill, (1987), p. 32.

certain parts of Indonesian airspace.[126] All of the airspace(s) managed by Singapore, the Singapore FIR, is under the *jurisdiction* of Singapore ATS authorities. Singapore emphasized that the country "has been implementing and will continue to implement the standards and recommendations laid down by ICAO for the safety of air navigation"[127] and pledged to provide "a high standard of air traffic services for flights."[128]

ICAO advises that the delineation of airspace, wherein ATS are to be provided, should be related to the nature of the route structure and the need for efficient service rather than to national boundaries.[129] Technical considerations are upheld by ICAO resolutions in the delineation of FIRs among Member States.[130] ICAO Assembly Resolution A38-12 Appendix G confirms that the boundaries of ATS airspaces, whether over States' territories or over the high seas, shall be established on the basis of technical and operational considerations with the aim of ensuring optimum efficiency and economy for both providers and users of the services.[131] With respect to the limits of ATS route segments, whether over States' territories or beyond, the establishment of change-over points is based on "technical and operational reasons".[132]

Consequently, with the consent of concerned States,[133] FIRs are delineated primarily in accordance with technical considerations. As clarified in the following Section 3.4, Contracting States can conclude agreements to confer a particular competence, the competence to provide ATS, to a delegated State; the delegated State, now also called a 'providing State'[134] has the jurisdiction to provide ATS in the airspace agreed by both parties. This ATS jurisdiction, sustained by the competence to announce air routes as not safe/secure/available,[135] is exercised by the appropriate ATS authority in charge of the said FIR. In case FIRs go beyond territorial limits, the appropriate ATS authorities

126 As of 26 January 2022, Singapore and Indonesia agreed to realign FIR boundaries generally in accordance with Indonesia's territorial lines. Nonetheless, Indonesia will delegate parts of its realigned FIR to Singapore to provide air navigation services. See The Straits Times, 'S'pore-Indonesia agreement on airspace can smooth bilateral relations, say analysts', https://www.straitstimes.com/singapore/politics/spore-indonesia-agreement-on-airspace-can-smooth-bilateral-relations-say-analysts, last accessed 4 February 2022. See Section 3.4 of this chapter on bilateral agreements.

127 ICAO. 1977. Assembly 22nd Session: Minutes of the Plenary Meetings. Montreal: International Civil Aviation Organization, 68-69.

128 ICAO. 1983. Assembly 24th Session: Plenary Meetings, Minutes. Montreal: International Civil Aviation Organisation, 44.

129 Annex 11, Recommendation 2.11.1.

130 See Chapter IV on prohibited airspace in airspace of undetermined sovereignty.

131 ICAO Assembly Resolution A38-12, Appendix G. ICAO Assembly Resolution A37-15, Appendix M concerning Delimitation of Air Traffic Services (ATS) Airspace.

132 See Recommendation 2.14.1 of Annex 11.

133 On the consent of a delegating State, see Section 5 of this chapter for the case study of Qatar airspace within Bahrain FIR.

134 See Standard 2.1.1 of Annex 11.

135 See Sections 4.2 and 4.3 of this chapter.

can have the jurisdiction to close airspace over the land or sea beyond territorial limits.

3.4 The delegation of the responsibility to provide ATS

Having explained that the ATS jurisdiction can derive from bilateral agreements, this section explores the delegation of the responsibility to provide ATS between Contracting States of the Chicago Convention. The aforementioned Singapore FIR is an example as such. The delegation of the responsibility to provide ATS is consistent with the Chicago Convention, because Article 28 (b) of the Chicago Convention predicts new operational practices and rules to be adopted by ICAO from time to time. Accordingly, ICAO adopted Annex 11 to the Chicago Convention, which specifies the delegation of ATS through mutual agreements. Standard 2.1.1 of Annex 11 prescribes the following:

> Contracting States shall determine, in accordance with the provisions of this Annex and for the territories over which they have jurisdiction, those portions of the airspace and those aerodromes where air traffic services will be provided. They shall thereafter arrange for such services to be established and provided in accordance with the provisions of this Annex, except that, by mutual agreement, a State may delegate to another State the responsibility for establishing and providing air traffic services in flight information regions, control areas or control zones extending over the territories of the former.[136]

Mutual agreements as such include air transport agreements and other agreements to regulate ANS.[137] ATS authorities of one State thereby collaborate with that of neighboring States in ensuring the cross-border provision of ATS. For instance, as mentioned in the previous section, prior to the new agreement between Singapore and Indonesia in 2022, the Riau Archipelago, a province of Indonesia, was within the Singapore FIR.[138] The airspace over the Riau Archipelago, until January 2022, was under the jurisdiction of the Singapore aviation authority as far as ATS is concerned.[139] In this case, Indonesia is the 'delegating State' and Singapore is the 'providing State'.

---

136 Standard 2.1.1 of Annex 1.

137 See Section 5.3 of this chapter on the *Qatar 'blockade' case (2017-2021).*

138 See https://gis.icao.int/icaofir/. The ICAO GIS Services is an electronic database based on the geographical (FIR's) from around the world. This Information is gathered from each state from regional offices and approved amendments dating back to 1947.

139 ICAO, SG briefing of 13 April 2015, C-WP/10768, LC/29-WP/8 1, para. 10. Chappy Hakim, "A Strange Anomaly in Management of Airspace", Strait Times, 21 March 2016. https://www.straitstimes.com/opinion/a-strange-anomaly-in-management-of-airspace.

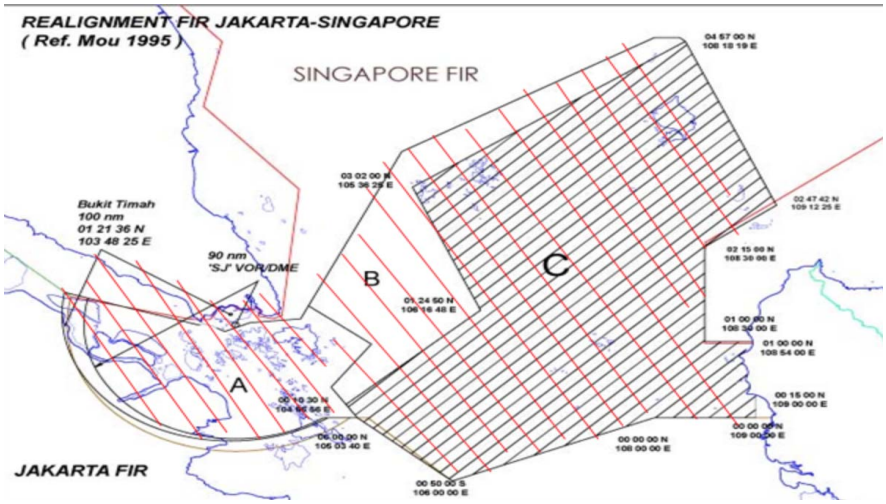

Figure 11: Singapore FIR[140]

With respect to the termination of delegation, Standard 2.1.1 of Annex 11 is followed by a Note saying that

> *Note.* – …[T]he providing State in providing air traffic services within the territory of the delegating State will do so in accordance with the requirements of the latter which *is expected to* establish such facilities and services for the use of the providing State as are jointly agreed to be necessary. *It is further expected* that the delegating State would not withdraw or modify such facilities and services without prior consultation with the providing State. Both the delegating State and the providing State *may* terminate the agreement at any time.[141]

This Note specifies how to terminate a delegation agreement. Prescription as such was not included in Standard 2.1.1 but attached as a 'note'. Chapter I has explained that notes and attachments in Annexes to the Chicago Convention are of normative value.[142] The legal force of a Note in an Annex to the Chicago Convention is to be examined in light of the words it used.[143] This Note to Standard 2.1.1 uses words such as "expected to" and "may" and avoids strong words such as 'should' or 'shall' which could implicate legal obligations.

140 Source: http://masyarakathukumudara.or.id/wp-content/uploads/2016/02/FIR.png, last accessed 10 January 2022.
141 Note to Standard paragraph 2.1.1 of Annex 11.
142 See Chapter I, Section 3.4.2. The approval of notes is an item under the exclusive authority of the ICAO Council, not be delegated to Air Navigation Commission. See ICAO, Air Navigation Commission Procedures and Practices, 8th ed., May 2014, B-4.
143 *ibid.*

As explained in Chapter II,[144] the word "may" denotes a sense of right, so the said Note does not impose legal obligations, but emphasize the right to terminate the agreement. The said Note is designed to explain that, unless otherwise prescribed by the contracting parties, the principle of sovereignty is paramount, overriding all other considerations of air navigation planning. After consultations, if the delegating State insists on terminating the delegation of ATS over its territory, the providing State has to return the responsibility of providing ATS to the delegating State.[145]

The mentioned Note highlights that a delegating State is entitled to terminate the delegation of ATS provision over its sovereign territory; meanwhile, pursuant to Article 65 of the VCLT,[146] or as prescribed in bilateral agreements, the termination of agreement may have to follow certain procedures such as the issuance of notices and conduct of consultations.

Following the termination of a delegation agreement, new FIRs, meaning FIRs with new boundaries may be established; the delegating State is entitled to resume control over its sovereign airspace in accordance with Article 1, in conjunction with Article 2 of the Chicago Convention. For example, Qatar and Bahrain terminated their bilateral delegation agreement after consultations;[147] Qatar took back control of its sovereign airspace and the ICAO Council announced to establish a new Doha FIR in July 2021.[148] State practices as such reinforce the legal force of this Note to Standard 2.1.1 because future cases will make a reference to a precedent as such. It would be difficult to argue that this Note has no legal force, considering that both Contracting States and the ICAO Council repeatedly refer to Annex 11 with *opinion juris* and implement this Note with State practices.[149]

In conclusion, despite technical considerations and arrangements,[150] it is unequivocal that a delegating State continues to have sovereignty over its

144 See Chapter II, Section 2.2.2.

145 See further in Section 5.3 of this chapter regarding the newly established Qatar FIR taking back the Qatar sovereign airspace from the Bahrain FIR.

146 See Article 65 of the Vienna Convention of the Law of Treaties: "A party which, under the provisions of the present Convention, invokes either a defect in its consent to be bound by a treaty or a ground for impeaching the validity of a treaty, terminating it, withdrawing from it or suspending its operation, must notify the other parties of its claim. The notification shall indicate the measure proposed to be taken with respect to the treaty and the reasons therefor."

147 For example, the ICAO Council acknowledged during its meeting the right of Qatar to request the establishment of a Doha FIR/SRR over its sovereign territory and contiguous airspace consistent with Article 1 of the Chicago Convention and in accordance with Assembly Resolution A40-4, Appendix G. See https://www.icao.int/Newsroom/Pages/New-decisions-at-ICAO-Councils-223rd-Session-support-aviations-recovery-and-development.aspx, last accessed 30 July 2021. See further the case study on *Qatar 'blockade' case (2017-2021)* in Section 5.3.

148 *ibid.*

149 See further the case study on the *Qatar 'blockade' case (2017-2021)* in Section 5.3.

150 On technical considerations of establishing FIRs, see Section 3.3 of this chapter.

airspace, while a providing State may exercise the ATS jurisdiction to different extents: it depends on the bilateral agreement to determine the extent to which a providing State prescribes the rules or enforces the operations regarding airspace restrictions. A bilateral agreement can make a reference to the Note to Standard 2.1.1 of Annex 11 or include an article in the delegation agreement:[151]

> If [State A] delegates to [State B] the responsibility for providing air traffic services over its territory, it does so without derogation of its national sovereignty. [State B]'s responsibility is limited to technical and operational considerations and does not extend beyond those pertaining to the safety and expedition of aircraft using the concerned airspace. Furthermore, [State B] in providing air traffic services within the territory of the [State A] will do so in accordance with the requirements of [State A] which is expected to establish such facilities and services for the use of [State B] as are jointly agreed to be necessary. It is further expected that [State A] would not withdraw or modify such facilities and services without prior consultation with the [State B]. Both [State A] and [State B] may terminate the agreement between them at any time.

Inter-governmental negotiations may further specify the details of a delegation agreement, in particular, the competences and obligations of a providing State with respect to airspace restrictions. During the consultations, the two States can also discuss technical cooperation[152] and capacity development[153] and revenue allocation,[154] alongside the competence to establish prohibited airspace.[155]

3.5 Interim conclusions

Article 28(a) of the Chicago Convention prescribes the responsibility of a Contracting State to provide ATS within territories, thereby establishing the

151 See it can make reference to the Note under Standard 2.1.1 of Annex 11.

152 ICAO Doc 10084, *Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones*, 2nd ed., 2018, Appendix D.

153 Briefing of UN Security Council's 8057th Meeting, SC/13009, 27 September 2017.

154 As to the revenue allocation, for instance, Oceanic flights over the sovereign airspace of pacific states are been managed from the NADI Air Traffic Management Centre in Fiji. ICAO has been offering support to the consultations on revenue sharing arrangements between these Island States. The relevant underlying principles have been further addressed by ICAO in Assembly Resolution A37-20, Appendix F, Consolidated statement of continuing ICAO policies in the air transport field, and additional guidance material is provided in DOC 9082 ICAO's Policies on Charges for Airports and Air Navigation Services, ICAO Doc 9161, Manual on Air Navigation Services Economics.

155 Peter Shaw Smith, "Qatar Airways Wants Compensation for Lost Airspace Access", https://www.ainonline.com/aviation-news/air-transport/2020-07-17/qatar-airways-wants-compensation-lost-airspace-access, last accessed 26 July 2018.

sovereign jurisdiction; and Article 28(b), read in conjunction with Annex 11 to the Chicago Convention, allows for the possible extension of a Contracting State's ATS jurisdiction to areas beyond territories. One example is that Contracting States can conclude agreements *inter se* to delegate the provision of ATS over sovereign territories. A sovereign State is entitled to terminate a delegation agreement, on the basis of Articles 1 and 2 of the Chicago Convention; unless otherwise prescribed by the contracting parties, the principle of sovereignty is paramount, overriding all other considerations of air navigation planning.

The phrase "so far as it may find practicable" in Article 28 does not mean to affect the compulsory nature of ICAO SAPRs in relation to safe ATS, but works to accommodate a customary rule that a State can invoke the caveat of "impossibility of performance" to preclude wrongfulness for not complying with Article 28 of the Chicago Convention. ICAO regulations concerning the procedures, implementation and measures for safe ATS establish legal obligations for Member States to comply with.

4 Responsibility of the appropriate ATS authorities relating to prohibited airspace

4.1 Introductory remarks

On the basis of State responsibility to provide ATS as prescribed in Article 28 of the Chicago Convention, this section explores the responsibility of ATS authorities in relation to the establishment of prohibited airspace. Annex 11 to the Chicago Convention details contingency measures such as the establishment of prohibited airspace.

4.2 Responsibility to assess risks of air routes

4.2.1 The competence to assess risks of air routes

The appropriate ATS authority, as explained in Section 2.2 of this chapter, is envisaged to supplement and update information on weather, navigation aid status, and *anything else likely to affect safety*.[156] Arguably, *anything else likely to affect safety* includes information relevant to hazards to aviation, such as missile strikes in a military exercise. Operators of flight information centers or area control centers collect all information pertinent to a state of emergency

156 ICAO Air Traffic Services Planning Manual, Doc 9426-AN/924 (1st ed., 1984), Chapter 2, 2.2.1.1. See also, Annex 11, Standards 4.2.1 & 4.2.2.

of an aircraft.[157] A new amendment to Annex 11 (50-B, applicable as of 5 November 2020)[158] prescribes that the arrangements for activities potentially hazardous to civil aircraft, whether over the territory of a State or over the high seas, shall be coordinated with the appropriate air traffic services authorities.[159] Hence, the appropriate ATS authorities of an FIR are *competent* to collect and provide information used for risk assessment and decisions for contingency measures.[160]

Furthermore, ICAO clarified that "charged with responsibility of ATS" means the competence to conclude further arrangements and define implementation plan and operation details for contingency plans.[161] Annex 11 emphasizes that it is the competence of appropriate ATS authorities to assess the risk to civil air traffic due to military conflict or acts of unlawful interference with civil aviation,[162] as well as a review of the likelihood and possible consequences of natural disasters or public health emergencies.[163] Therefore, the *responsibility* of the appropriate ATS authorities as prescribed in Annex 11 encompasses the competence to assess risk levels of air routes.

4.2.2 The obligation to assess risks of air routes

In addition to the competence dimension of the responsibility to assess risk levels of air routes, it is necessary to clarify the *obligation* dimension as well. Annex 11 and Annex 17 have repeatedly required the appropriate ATS authorities to undertake risk assessments of air routes: ICAO revised Annex 17 in 2018 and added a new requirement that appropriate authorities *shall* establish and implement procedures to share with stakeholders, in a practical and timely manner, relevant information to assist them in conducting effective security risk assessments relating to their operations.[164] Annex 11 was also amended

157 Annex 11, Standard 5.1.2.

158 See ICAO, Twelfth Air Navigation Conference, AN-Conf/12, Recommendation 6/4, and the Secretariat, with the assistance of the Fatigue Risk Management System Task Force (FRMSTF), 19–30 November 2012.

159 Annex 11, Standard 2.19.1.

160 ICAO working paper, "ICAO provisions related to access to the High Seas", presented by the Secretariat at European Air Navigation Planning Group (EANPG) Flexible Use of Airspace (FUA) Task Force (FUA-TF/3), third meeting, Paris, 10 to 11 February 2009. As said in Chapter I, Section 2.3.4, competence of a State organ is determined by State law; a State's rules and procedures on ATS are supervised by ICAO, see Chapter I, Section 3.2.2, so this chapter discusses the competence in light of ICAO regulations, and does not examine each individual national laws.

161 See the correspondence between Minister of Transportation of Bahrain and ICAO Secretary General, 22 January 2013 on the subject of "Bilateral Agreement for the delegation of the responsibility for the provision of ATS Services."

162 Annex 11, Attachment C, para. 4.2. As to coordination due to armed conflicts, see Chapter IV of this study.

163 *ibid.*

164 Annex 17, Standard 3.1.5.

in 2018 to strengthen ATS authorities' capacity for safety assessments:[165] appropriate ATS authorities *shall* conduct a risk assessment of airspace concerned for hazardous activities to civil aircraft and take mitigating actions when necessary.[166]

The use of "shall" in legal texts denotes a positive legal duty – *obligations to act*.[167] Arguably, ICAO Member States which endorse these Standards in Annex 11 and Annex 17 are obliged to comply with it; otherwise, as explained in Section 3.2.2 of Chapter I, a Member State is obliged under Article 38 of the Chicago Convention to file the differences.[168] The non-compliance with these Standards, meaning ATS authorities failing to conduct risk assessments, is detailed in ICAO audit results; and the results can be invoked to suspend or change bilateral air service arrangements.[169]

With respect to the legal force of Attachment C to Annex 11,[170] there have been different opinions as to the legal enforceability of attachments to an Annex to the Chicago Convention;[171] nonetheless, the ICAO attachment at least have normative value for States to look up to for international coordination processes.[172] As argued in section 3.4.2 of Chapter I, Annex 11 Attachment C's legal force is no less than Annex 11 itself.

This conclusion is further supported by ICAO proceedings on the *Qatar 'blockade'* case.[173] During the aforementioned ICAO proceedings, States parties to the dispute invoked ICAO guidelines, such as Attachment C to Annex 11, and technical manuals to provide justifications for their actions;[174] there was no counter-arguments questioning the applicability or legal force of ICAO technical guidance in this regard.[175] States parties to the dispute chose to

165 Annex 11, Section 2.19.

166 As of the end of 2021, an amendment is being progressed for a new Standard 2.19.3: "The appropriate ATS authority shall ensure that a safety risk assessment is conducted, as soon as practicable, for activities potentially hazardous to civil aircraft and that appropriate risk mitigation measures are implemented." See Dutch Safety Board, *Flying over conflict zones: Follow-up recommendations MH17 Crash investigation,* February 2019, p.83.

167 See Chapter II, Section 2.2.2.

168 See Chapter I, Section 3.2.2.

169 *ibid.*

170 Attachment C to Annex 11, 'Material Relating to Contingency Planning', Part I.

171 See Chapter I, Section 3.4. Prof. Huang discussed the different opinions as to the legal force of ICAO guidance documents, see *Aviation Safety Through the Rule of Law ICAO's Mechanisms and Practices*. Wolters Kluwer law & business 2009, p. 62-65.

172 *ibid.*

173 The ICAO proceedings on the *Qatar 'blockade' case (2017-2021)* is presented in Section 3.3.1 of Chapter II.

174 See Request of The State of Qatar for Consideration by the ICAO Council Under Article 54 (n) of The Chicago Convention, (Supplement to the letter reference no. 2017/15995, dated 15 June 2017), submitted by H.E. Abdulla Nasser Turki Al-Subaey, Chairman, Civil Aviation Authority of the State of Qatar. ICAO Doc 10092-C/1186, Council – Extraordinary Session on 31 July 2017 (Closed), Summary Minutes, 22/8/17, paras 37 and 86.

175 *ibid.*

follow Attachment C to Annex 11 as the applicable binding law for their dispute and take it upon themselves as an legal obligation to conduct a risk assessment of airspace concerned for hazardous activities to civil aircraft.[176] The adherence to Attachment C of Annex 11 reflects the *opino juris* of those State Parties.[177] If Attachment C to Annex 11 is optional for Contracting States, it would be difficult to explain why the States and the ICAO Council spent time arguing and deliberating on the consistency of their actions with Attachment C to Annex 11. This chapter further argues, in Section 4.4 of this chapter, that Attachment C to Annex 11, guidelines for contingency measures for application in the event of disruptions of ATS, has crystalized customary international law in this regard.

4.3 Responsibility to take contingency measures

4.3.1 Contingency response to establish prohibited airspace

Due to the competence to assess risks is entrusted to the appropriate ATS authorities,[178] such authorities are competent to conduct risk evaluation; Annex 11 to the Chicago Convention further requires that 'appropriate ATS authorities' *shall* develop and promulgate contingency plans for implementation in the event of disruption of air traffic services in FIRs under its ATS jurisdiction.[179] In this connection, Attachment C to Annex 11 and technical manual Doc 4444 prescribe that the appropriate ATS authorities are responsible for implementing safety management systems (SMS) for the airspace under its ATS jurisdiction.[180]

To implement safety management, the appropriate ATS authorities are responsible for making a contingency plan which details recommended contingency responses to events such as meteorological and geological phenomena, pandemics, national security, and industrial relations issues.[181] The contingency plan may give notice that particular portions of airspace should be avoided avoidance of under certain circumstances.[182] The appropriate ATS authorities have the competence to declare air routes as not safe/secured/

176 *ibid.*
177 *North Sea Continental Shelf*, Judgment, I.C.J. Reports 1969, pp. 3, 45, para. 78. See further Section 4.4 of this chapter.
178 Annex 11, Attachment C, para. 4.2 (b).
179 Annex 11, Standard 2.32.
180 ICAO, Doc 4444, *Air Traffic Management*. 16th ed., 2016, para. 2.1.3. More on the jurisdiction of ATS authorities, see Section 3.3 of Chapter III.
181 *ibid*., para. 2.2.
182 Annex 11, Attachment C, para. 4.2 (b). See also ICAO ATM Contingency Plan (AFI) Africa and Indian Ocean, version 1, July 2019, para. 12.1. See Section 2.1 of this chapter on the use of NOTAMs.

available, as introduced at the beginning of this chapter. This is the competence dimension of the responsibility to take contingency measures.

4.3.2 The obligation to take contingency measures

In addition to the competence dimension,[183] the appropriate ATS authorities are *obliged* to take contingency measures. Annex 11 uses "shall" in prescribing the responsibility to take contingency measures.[184] As held by the Italian Supreme Court and other courts,[185] this use of 'shall' in Annex 11 entails legal obligations.

On 24 February 2004, a Cessna 550 inbound to Cagliari, Italy, at night requested and was approved for a visual approach without crew awareness of the surrounding terrain; it was subsequently destroyed by terrain impact and all on board were killed.[186] The investigation concluded that the accident was mainly because the crew were in the absence of adequate visual references; nonetheless, two Italian Air Force air traffic controllers were convicted of negligence and failing to exercise a sufficient duty of care during the course of providing air traffic service.[187]

> The Italian Supreme Court of Cassation took the view that, even if the plane was flying according to visual flight rules (VFR), the duty of controllers to separate the aircraft from terrain and the duty to do everything to ensure a safe flight still exists, based on their 'guarantee position' towards aircraft occupants. In terms of negligence, irrespective that ICAO Annex 11 paragraph 2.2 does not include prevention of collision of obstacles as a function of air traffic control in the circumstances which prevailed in the accident, they were nonetheless negligent and careless because they did not promptly appreciate the abnormality and danger of the pilot's route and underestimated the existence of conditions which could be thought of as non-standard and improper for the safe conduct of aircraft navigation.[188]

183 See Section 3.2 of this chapter on the two dimensions of responsibility – competence and obligation.

184 See Chapter I, Section 3.2.2.

185 Eurocontrol, "The 2004 Cagliari accident and its aftermath", *Hindsight* 18, 2013 Winter, pp. 76-77.

186 The Final Report of the investigation carried out under ICAO Annex 13 with the sole objective of preventing accidents and specifically excluding any assessment of guilt and responsibility, published on 1 July 2009 was not made available in English translation but an unofficial and partial translation into English may be found on SKYbrary. http://www.skybrary.aero/index.php/C550,_vicinity_Cagliari_Sardinia_Italy,_2004_(CFIT_HF), last visited: 8 January 2015.

187 *ibid.*

188 Eurocontrol, "The 2004 Cagliari accident and its aftermath", *Hindsight* 18, 2013 Winter, pp. 76-77.

The Italian Supreme Court held that, even when the pilot flies under VFR (Visual Flight Rules),[189] the appropriate ATS authorities are obliged to guarantee the safety of aircraft occupants, on the basis of a duty of care, as a threshold of negligence.[190] The said judgment clarifies that, even if Annex 11 does not spell out the word *obligation*, ATS authorities is obliged to evaluate risks, to take contingency actions, and to separate the aircraft from danger.[191]

Cases from various jurisdictions also corroborate that national authorities should discharge the *obligation* of ensuring passenger safety in a reasonable and prudent fashion. A number of court decisions emphasized the obligations of the ATS authority to separate aircraft from dangers.[192] For example, the reasoning of the judges in *Swanson and Peever v. Canada* supports the understanding that State authorities are charged with a duty of care towards safeguarding passenger safety and ANSPs will be held accountable if their negligence is the *condition sine qua non* of the accident.[193]

These *national* jurisprudences illustrate the *opinio juris*[194] of various States towards the connotation of contingency measures in Annex 11. The aforementioned court judgments have consistently upheld the obligation of an ATS authority to separate civil aircraft from dangers. It is difficult to argue against these jurisprudences that ICAO regulations on contingency measures are just

189 In comparison with Visual Flight Rules (VFR), courts are even more likely to accept the responsibility of the ATS authorities for flights under Instrument Flight Rules (IFR). See Chatzipanagiotis, M. (2007). Liability Aspects of Air Traffic Services Provision. *Air & Space Law, 32*(4), pp. 328-329.

190 *ibid*. Commentators debated how and why a common law concept 'duty of care' is applied by the Italian Supreme Court. The duty of care is linked to the civil law's threshold of negligence. See Eurocontrol, "The 2004 Cagliari accident and its aftermath", *Hindsight* 18, 2013 Winter, pp. 76-77.

191 Eurocontrol, "The 2004 Cagliari accident and its aftermath", Hindsight 18, 2013 Winter, pp. 76-77.

192 See J. Korzeniowski, (2000) *Liability of Aviation Regulators: Are the Floodgates Opening?* 25(1) Air and Space law 31-34. Pablo Mendes de Leon, *An Introduction to Air Law,* Kluwer 2017, Chapter 8, Section 2.2.

193 In *Swanson and Peever v. Canada* ((1991) 124 N.R. 218), Canada paid compensation to the families of those killed in the crash of an airplane owned by Wapiti Aviation. Transport Canada was well aware of Wapiti's past safety violations but did not take sufficient measures to force Wapiti to correct its system. See also *Chadwick v. Canada (2010),* reported by Charlos Martin Newsletter of 26 January 2011, International Law office; www.international lawoffice.com. See Pablo Mendes de Leon, *An Introduction to Air Law,* Kluwer 2017, Chapter 8, Section 2.2.

194 It is widely held that national court decisions can constitute both *opinio juris* and State practices. See ICJ, *Jurisdictional Immunities of the State (Germany v. Italy: Greece intervening), Judgment, I.C.J. Reports 2012,* paras. 55, 77, 83-5 where ICJ examines many national court decisions and holds that there is no exception to state immunity either for acts of war or for violations of *jus cogens* norms. See H. Lauterpacht, Decisions of Municipal Courts as a Source of International Law, 10 *British Yearbook of International Law* 65, pp. 84-85.

guidelines for voluntary abidance.[195] The next section continues to explain the legal force of ICAO regulations on contingency measures.

4.4 Customary international law status of ICAO regulations on contingency responses

The previous sections explained the *opinio juris* expressed by States in complying with ICAO regulations on contingency responses, that is, Annex 11 to the Chicago Convention and its Annex C. This section argues that these regulations constitute customary international law.

With respect to customary international law, traditional writings maintain that customary international law consists of two elements: (1) usage, states' practice, and (2) *opinio juris*, a sense of legal obligation.[196] On the basis of the ICJ judgment for *North Sea Continental Shelf* cases,[197] Professor Bin Cheng introduced the concept of instant custom.[198] Cheng's theory emphasizes the prominence of *opinio* juris in establishing a new customary international law:[199] *opinio juris* means the acceptance or recognition of, or acquiescence in, the binding character of a rule in question implied in a State's action or omission.[200] It is no longer necessary that State practices have to be repeated or prolonged, provided that the *opinio juris* of the states concerned can be established clearly.[201] State practice, instead of being a constitutive and indispensable element, merely provides evidence of the existence and contents of the underlying rule and of the requisite *opinio juris*.[202]

Despite criticism to the instant custom theory,[203] this theory found supporters in explaining the customary law status of those "value-loaded norms" – norms reflecting common values, those upholding human rights and humanitarian protection, can and should survive notwithstanding contrary *de facto*

---

195 See Chapter I, Section 3.

196 *North Sea Continental Shelf*, Judgment, *I.C.J Reports 1969*, para. 74-77.

197 *ibid.*

198 Bin Cheng, "United Nations Resolutions on Outer Space: 'Instant' International Customary Law?" First published in 5 Indian JIL (1965), pp. 23-48; reprinted in Cheng, *Studies in International Space Law*, Clarendon Press 1997, pp. 125-149.

199 *ibid.*

200 *ibid,* p. 138.

201 *ibid.*

202 *ibid,* p. 146.

203 G.J.H.van Hoof, Rethinking the Sources of International Law, p. 86 (1983). and more recent…. Legal scholar G.J.H. van Hoof contends that customary international law as a method of law creation conveys the idea that rules are based on states' practice. According to van Hoof, Cheng's theory of instant custom conveys precisely the opposite idea, suggesting that such practice is irrelevant to customary international law.44 Abandoning altogether the traditionally required usage element, Cheng's theory may be considered an extreme version of the notion that customary international law can form rapidly.

practices.[204] Instant custom, in this regard, is no mere acceleration of the custom-formation process, but a veritable revolution in the theory of custom.[205] This revolution means to uphold universal values in a way that strong *opinion juris generalis* is able to compensate the lack of actual repetitive practices.[206] Because of the strong support of *opinion juris generalis* in upholding human rights and humanitarian protection, those norms, despite the existence of contrary practices, are still recognized as customary international law.[207]

In terms of safety standards laid down within the framework of the Chicago Convention, according to Professor Huang, those regulations are designed to protect the common interests of the international civil aviation community and to enhance the global normative system for the safety of civil aviation.[208] ICAO regulations are not pronounced on the basis of *quid pro quo*, under which States could derogate from obligations *inter se.*[209] Considering the inherent link between aviation safety and the elementary considerations of humanity,[210] the obligation to provide safety oversight has arguably acquired an *erga omnes* character, due to "the importance of the rights involved."[211]

Considering that all Member States have a legal interest in upholding ICAO regulations designed to protect the common value of aviation safety,[212] this section argues that State practices thereof provide evidence of the existence of *opinion juris*. For example, during ICAO proceedings in 2017, Member States argued for the application of Annex 11 to the Chicago Convention and those statements delivered by government representatives expressed the *opino juris* in conforming with Annex11 to the Chicago Convention in case of ATS dis-

204 B Schlütter, *Developments in Customary International Law*. Nijhoff 2010, pp. 25-29.

205 See Prosper Weil, "Towards Relative Normativity in International Law?", 77 *American Journal of International Law* (1983), pp. 413-435.

206 Birgit Schlütter, *Developments in Customary International Law*. Nijhoff 2010, pp. 25-29. Rein Müllerson, "On the nature and scope of customary international law", *Austrian. Review of International & European Law*, vol. 2 (1997), pp. 341–360.

207 See Annual reports of the United Nations Human Rights Council, the President's statements adopted at the organizational session of the Human Rights Council held on 7 and 16 December 2020 and the resolutions and decisions adopted by the Council at its twenty-ninth special session, held on 12 February 2021, its forty-sixth session, held from 22 February to 24 March 2021,its thirtieth special session, held on 27 May 2021,and its forty-seventh session, held from 21 June to14 July 2021:https://www.ohchr.org/EN/HRBodies/HRC/Pages/Documents.aspx, last accessed 1 November 2021.

208 Jiefang Huang, 'Aviation Safety, ICAO and Obligations Erga Omnes', *Chinese Journal of International Law*, Volume 8, Issue 1, March 2009, pp. 76-79.

209 *Huang*, p. 166.

210 On the element consideration of humanity, See the ICJ, *Corfu Channel* case, in Chapter V, Section 3.2 of this study.

211 *Huang*, p. 166-168.

212 *ibid.*

ruption.[213] This *opinio juris* is also demonstrated through national judicial decisions.[214] In addition to judicial organs, civil aviation authorities such as FAA,[215] EASA[216] and others[217] have promulgated information for risk assessment and contingency measures, in line with Annex 11, Attachment C's paragraphs 4.2 and 4.3.[218]

Furthermore, in case of ATS disruption, the appropriate ATS authorities undertake to implement Attachment C to Annex 11,[219] by declaring route changes. Thus the flights took detours.[220] Violations of these contingency arrangements lead to legal consequences, such as monetary fines or suspension of license.[221] In 2021, many airlines suspended flights to Israel amid rising violence in the conflict between Israel and Palestine.[222] Contingency arrangements were in place pursuant to Annex 11 because of the "potentially hazardous situation created by the armed conflict in Israel and Gaza".[223] Legal consequences as such testify the binding nature of the underlying rules with respect to contingency arrangements for ATS disruption. States' practices are carried out in such a way as to be evidence of a belief that this practice is

213 See Request of The State of Qatar for Consideration by the ICAO Council Under Article 54 (n) of The Chicago Convention, (Supplement to the letter reference no. 2017/15995, dated 15 June 2017), submitted by H.E. Abdulla Nasser Turki Al-Subaey, Chairman, Civil Aviation Authority of the State of Qatar. ICAO Doc 10092-C/1186, Council – Extraordinary Session on 31 July 2017 (Closed), Summary Minutes, 22/8/17, paras 37 and 86.

214 See Section 4.3.2 of this chapter.

215 FAA, 'Prohibitions, Restrictions and Notices', https://www.faa.gov/air_traffic/publications/us_restrictions/, last accessed 1 Nov 2021.

216 European Aviation Safety Agency, List of Safety Information, http://ad.easa.europa.eu/sib-docs/page-1.

217 See for example, UAE General Civil Aviation Authority, https://www.gcaa.gov.ae/en/epublication/pages/safetyalerts.aspx. Uses can refer to the system of CNMS (China NOTAM Management System) to check whether Chinese airlines detour certain areas. All information are published via the CNMS system regarding international flights' destination and overflown areas. See Aeronautical Information Service Center of Air Traffic Management Bureau of Civil Aviation Administration of China,http://www.aischina.com/EN/EnDefault.aspx, 'Flight Routes for International Flights from Mainland of China (EFF201702011600UTC)'.

218 *ibid*.

219 *ibid*.

220 *ibid* databases from civil aviation authorities. For example, US Department of Transportation Office of the Secretary Washington, D.C. Order 2016-11-11. 'Qatar Airways Q.C.S.C. Violations of 49 U.S.C.§§ 41301 and 41712. 'Docket OST 2016-0002.

221 US Department of Transportation Office of the Secretary Washington, *ibid*.

222 The three United States carriers with scheduled service to Israel – Delta Air Lines, United Airlines and US Airways – quickly canceled their flights and were later joined by Air Canada and a number of Western European airlines, including Air France, Lufthansa and KLM. Turkish Airlines and the Russian carrier Aeroflot also suspended flights. https://www.nytimes.com/2014/07/23/world/middleeast/faa-halts-us-flights-to-israel.html, See alsohttps://www.haaretz.com/israel-news/.premium-most-foreign-airlines-suspend-flights-to-israel-over-gaza-rockets-1.9813022, last accessed 29 October 2021.

223 New York Times, "Airlines Suspend Flights to Israel After Hamas Rocket Falls Near Main Airport", https://www.nytimes.com/2014/07/23/world/middleeast/faa-halts-us-flights-to-israel.html, last accessed 1 November 2021.

rendered obligatory for contingency measures. The practices of ICAO and Member States provide evidence of the existence and contents of the underlying customary rules enshrined in Attachment C to Annex 11.

On the basis of the theory of instant custom, considering State practices proving *opino juris*, either through judgments of courts or decisions of civil aviation authority, this section argues that ICAO regulations on the contingency responses in Annex 11, including Attachment C, have crystalized customary international law in this regard.

4.5 Interim conclusions

The appropriate ATS authorities, as prescribed in Annex 11, are *responsible* for assessing risk levels of air routes and taking contingency measures. Responsibility as such encompasses two dimensions: competence and obligation.

On the one hand, an appropriate ATS authority is entrusted with the competence to manage traffic flows, including determining the access and level of service provided to civil aircraft. The scope of this competence, meaning the jurisdiction of the appropriate ATS authority, is marked through individual Flight Information Regions (FIRs). The appropriate ATS authority in its FIR in charge have the competence to take appropriate action to monitor any of any developments that might lead to events requiring contingency arrangements, such as announcing airspaces as "not available".

On the other hand, establishing prohibited areas is more than merely a technical function of the concerned ATS authority. The responsibility thereby accepted by the appropriate ATS authority establishes the primary obligations as such: the obligation to assess risk levels of air routes and the obligation to take contingency measures. Even if Annex 11 does not specifically emphasize the obligation dimension, various court judgments and civil aviation authorities have confirmed that an appropriate ATS authority is obliged to assess risks, close airspace, and re-assign air routes. State practices as such testify the existence of such *opinio juris*. Considering that Attachment C of Annex is designed to protect the common values, applying the instant custom theory, no matter how short the amount of time that elapses since its adoption, those particular air rule in Annex 11 should be considered as customary international law, in light of the fact that Member States consistently follow and endorse these rules.

5 PROHIBITED AIRSPACE IN BILATERALLY DELEGATED AIRSPACE

5.1 Introductory remarks

Based on the international rules for ATS, this section will explore how to establish a prohibited area in bilaterally delegated airspace. As aforementioned in Section 3.4 of this chapter, once a portion of airspace is delegated to another State, it is the responsibility of the providing State to seek and collect timely information regarding the airspace. Nonetheless, a delegating State still retains sovereignty over the airspace in accordance with Article 1 of the Chicago Convention: it remains a question who and how to establish prohibited airspace.

5.2 The '(non)-use' of sovereign airspace

According to Annex, the appropriate ATS authority of the providing State are responsible for developing ATM contingency plans and closing airspace.[225] However, Annex 11 also highlights an exception to this competence. Attachment C to Annex 11 emphasizes the following:

> In developing a contingency plan, sovereign airspace can be *used* only on the initiative of, or with the agreement or consent of, the authorities of the State concerned regarding such use. Otherwise, the contingency arrangements must involve bypassing the airspace and should be developed by adjacent States or by ICAO in cooperation with such adjacent States.[226]

This paragraph is to be read in conjunction with Article 1 of the Chicago Convention, confirming that a State enjoys and exercises exclusive jurisdiction in its sovereign airspace. Even if jurisdiction over a portion of national airspace is delegated to another State, the *use* of this portion is subject to the consent of the delegating State.[227] An interpretation is that the word *use* encompasses the situation of 'non-use': specifically, the closure of a portion of airspace. In developing contingency plans for delegated airspace, the appropriate ATS authority of the providing State is competent and obliged to plan to establish

---

225 Annex 11, Standard 2.32. Such contingency plans shall be developed with the assistance of ICAO as necessary, in close coordination with the air traffic services authorities responsible for the provision of services in adjacent portions of airspace and with airspace users concerned. According to Annex 11, the responsibility for appropriate contingency action in respect to delegated airspace rest with the State providing the services until, and unless, the delegating State temporarily terminates the delegation; upon termination, the delegating State assumes responsibility for appropriate contingency action. See Attachment C to Annex 11, 'Material Relating to Contingency Planning', Sections 3 & 4.

226 Attachment C to Annex 11, 'Material Relating to Contingency Planning', para.6.1.

227 See Section 3.4 of this chapter.

prohibited/restricted areas,[228] but this plan must be approved or consented to by the sovereign State, which is the delegating State. The word 'use' is interpreted as including 'non-use' or closure of airspace.

ICAO Assembly Resolution A37-15 supported this interpretation,[229] in line with the sovereignty principle. This Assembly Resolution clarifies that a State which delegates the responsibility for providing ATS within the airspace over its territory to another State does so without derogating its sovereignty,[230] reflecting a consensus on the delegation of ATS among ICAO Member States. The responsibility of a providing State is limited to those competences and obligations[231] prescribed in Annex 11 as supported by Article 28(b) of the Chicago Convention; to discharge responsibility as such is to follow the requirements of the providing State as are jointly agreed to be necessary.[232] In this way, the providing State's competence is limited by bilateral agreements in a way which is consistent with the Chicago Convention and Annex 11; matters not jointly agreed to are still subject to territorial sovereignty: the use or non-use of sovereign airspace is to be determined by the delegating State who retains sovereignty.

5.3 Case study of the Qatar blockade in 2017-2021

As presented in Chapter II Section 3.3 on the case study of the Qatar blockade,[233] Qatar delegated the provision of ANS, including ATS, above its territorial airspace to another country, namely Bahrain. Qatar and Bahrain signed an agreement under which Qatar delegated the provision of ANS within its

228 See Section 4.2 and 4.3 of this chapter.

229 ICAO Assembly Resolution A37-15, 'Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation', published at https://www.icao.int/Meetings/AMC/Assembly37/Documents/ProvisionalEdition/a37_res_prov_en.pdf, last accessed 6 June 2021.

230 ICAO Assembly Resolution A37-15: Delegation to a foreign organization is not an abandonment of sovereignty; sovereign competences are not impacted. On the contrary, delegation of service provision is an act of sovereignty. There are examples of successful cross-border air navigation services provision in all regions of the world. There is a mutual delegation between the USA and Canada; Tonga and Samoa have a delegation to New Zealand; there are various delegations in Europe from and to Finland, France, Norway, Sweden, and Switzerland. See ICAO working paper, "Airspace Sovereignty", ATConf/6-WP/80, 4/3/13. See also, P.F. Schubert, 'Limits in the Sky: Sovereignty and Air Navigation Services', in Pablo Mendes de Leon & Niall Buissing. (2019). *Behind and beyond the Chicago Convention: The evolution of aerial sovereignty*, Wolters Kluwer 2019, pp. 147-160.

231 See Section 4 of this chapter on the responsibility to assess risks and the responsibility to take contingency measures.

232 See Note to Standard 2.1.1, Annex 11.

233 See Section 3.3 of Chapter II.

sovereign airspace to Bahrain from April 2000 onwards.[234] When Bahrain and Qatar became independent from the UK in 1971, they maintained the FIR shapes in the region, which had previously been determined according to where radars had initially been installed.[235] The large Bahrain FIR was thus preserved, which was seen as a superior option to equally distributing FIRs to each State.[236] As a result, the Bahrain FIR encompasses the airspace over Qatar's territory.[237]

In 2017, Bahrain cut off Qatar's air corridors to the outside world,[238] triumphing over Qatar's sovereignty with technical arrangements.[239] At ICAO meetings, Qatar questioned the legality of the closure of its sovereignty airspace by Bahrain.[240]

The legality of the airspace closure depends on the type of jurisdiction that Bahrain enjoys in the airspace over Qatari territory. It is a matter of comparing sovereign jurisdiction and ATS jurisdiction. For that purpose, it is necessary to examine the Qatar–Bahrain's *Air Transport Agreement* 2007[241] which contains a special provision stating that Qatar would always need to use the airspace under Bahrain's jurisdiction:

> In the event of armed conflict or political unrest, and if they occur, unusual developments or circumstances under which the institution designated by one of the parties is unable to operate on the agreed routes or in the airspace segment, the other party shall do everything in its power to facilitate the continuation of air transport

234 ICAO Council working paper C-WP/14641, Request of the State of Qatar for consideration by the ICAO Council under Article 54 n) of the Chicago Convention], presented by Qatar (restricted), para. 1.3.

235 *ibid.*

236 Alex Macheras, "Here for the long haul: How Qatar is overcoming the aviation blockade", https://www.alaraby.co.uk/english/comment/2018/1/8/how-qatar-is-overcoming-the-aviation-blockade, last accessed 26 July 2018.

237 *ibid.* https://www.alaraby.co.uk/english/comment/2018/1/8/how-qatar-is-overcoming-the-aviation-blockade, last accessed 26 July 2018.

238 Bahrain closes Qatari air corridors, see https://www.corporatejetinvestor.com/articles/bahrain-closes-qatari-air-corridors-324/, last accessed 26 July 2018.

239 ICAO Council working paper C-WP/14641, Request of the State of Qatar for consideration by the ICAO Council under Article 54 n) of the Chicago Convention], presented by Qatar (restricted).

240 ICAO Doc 10092-C/1186, Council – Extraordinary Session on 31 July 2017 (Closed), Summary Minutes, 22/8/17, para.17.

241 See the ICAO WAGMAR database for scanned copies of the agreements: https://dna.icao.int/WAGMAR/Search/InitAgreementSearchModel, last accessed 29 January 2021.

> through proper arrangements of air routes.[242] [*loose translation from Arabic by the author*]

This provision says that both parties have to do their best to arrange air routes, even in the event of armed conflict, political unrest, or unusual circumstances. Armed conflict or political unrest can give rise to military necessity or public safety concerns as written in Article 9 of the Chicago Convention.[243] This article can be interpreted as putting forward that airspace can be closed in the event of armed conflict or political unrest by either Qatar or Bahrain. In this connection, the quoted paragraph can be interpreted in two ways: the first is to state that Qatar can close its airspace by invoking Article 9 of the Chicago Convention, meaning Qatar retains both jurisfaction and jurisaction; the second interpretation is that Bahrain can close Qatari national airspace as a contingency measure in face of the disruption of ATS, meaning Qatar retains jurisfaction but Bahrain is to exercise jurisaction through the Bahrain ATS authority. Nonetheless, in both circumstances, parties shall jointly seek new proper arrangements of air routes.

This bilateral Air Transport Agreement in 2007 between Qatar and Bahrain is not clear about prohibited areas: parties did not specify who and how is to establish prohibited areas in Qatar's sovereign airspace; it is necessary to further break down the ATS jurisdiction: who is to prescribe ATS rules, as a matter of jurisfaction; and who is to execute the ATS rules, as a matter of jurisaction.

During the proceedings at ICAO,[244] both parties also refer to the *Agreement to Regulate Air Navigation Services* signed in 2019 between the State of Qatar and the State of Bahrain.[245] Its Article 3 and 4 reads as follows:

---

242 ¹ في حالة النزاعات المسلحة أو الإضطرابات السياسية و في طل حدوث ؛
نيفرطلا دحأ لبق نم ةنيعملا ةسسؤملا اهبجومب زجعت ةيداع ريغ فورظ وأ تاروطت
فرطلا لذبي ،ةددحملا قرطلا ىلع اهيلع قفتملا طوطخلا ليغشت نع نيدقاعتملا
لالخ نم طوطخلا هذه رارمتسا ليهستل هعسو يف ام ةياغ رخآلا دقاعتملا
.قرطلا هذه ىلع ةبسانملا ليغشتلا تابيترت

Translation: In the event of armed conflict or political unrest, and if they occur, unusual developments or circumstances under which the institution designated by one of the parties is unable to operate on the agreed routes or in the airspace segment, the other party shall do everything in its power to facilitate the continuation of air transport through proper arrangements of air routes.

243 See Chapter II, Section 2.4 on the conditions to establish prohibited airspace – military necessity, public safety, emergency and exceptional circumstances.

244 The ICAO proceedings on the *Qatar 'blockade' case (2017-2021)* is presented in Section 3.3.1 of Chapter II.

245 This agreement signed by Qatar and Bahrain in 2019 is presented as Exhibit 46 by Qatar at ICAO the proceedings. More on the proceedings, *ibid*.

> Article (3)
> The Contracting Parties have agreed that Bahrain's Center for Aviation Information shall be responsible for monitoring air traffic in the airspace above the State of Qatar and its territorial waters, excluding these airways or below those altitudes whose monitoring is the responsibility of the State of Qatar within the framework of the technical arrangements between the Civil Aviation Authorities of the two countries according to Article (4) of this agreement. This agreement shall be subject to review between the Parties as and when operationally required.
>
> Article (4)
> The Contracting Parties have authorized specialists representing both Civil Aviation Authorities to sign a technical arrangement (letter of agreement) determining the specific Terminal Control Area (TMA) for Doha's International Airport, and all other relevant matters within Bahrain's Flight Information Region in accordance with the rules and regulations specified by the International Civil Aviation Organization.

The two articles further testify that Qatar delegated to Bahrain *technical and operational* functions to monitor air traffic in Qatar's national airspace, more like the scope of jurisaction. Bahrain does not have the jurisfaction to prescribe, but is to enforce what has been prescribed in bilateral agreements: Bahrain is responsible for providing safe and efficient ANS in the delegated airspace. However, the problem is that this bilateral *Agreement to Regulate Air Navigation Services* in 2019 between Qatar and Bahrain did not address the *jurisdiction* to establish prohibited areas in Qatar's airspace within the Bahrain FIR; meanwhile, its Article 4 says that "all other relevant matters" are to be arranged in accordance with the rules and regulations specified by ICAO. "All other relevant matters", arguably, refer to all matters that is relevant to the provision of ATS, including the responsibilities specified in Annex 11, to be explained in the next paragraph.[246]

Those responsibilities laid down in Annex 11 include taking contingency measures and closing airspace by an appropriate ATS authority under its *jurisdiction*.[247] Since the bilateral agreement in 2019 directs attention to ICAO regulations for "all other relevant matters", it is necessary to examine Annex 11 to the Chicago Convention. Annex 11 prescribes these responsibilities with one exception: in developing contingency plans for delegated airspace, if ATS authorities of the delegated State plan to establish prohibited/restricted areas in sovereign airspace, this plan must be approved or consented to by the delegating State. This interpretation of "use of airspace" includes *non-use*. Said interpretation is confirmed by the ICAO Council proceedings.[248]

During ICAO Council meetings, all four blocking countries, namely, Bahrain, the UAE, Egypt, and Saudi Arabia, made clear that they *never* intended to close

246 See Section 4 of this chapter on the responsibilities of ATS authorities.
247 See Section 4.3 of this chapter.
248 ICAO Doc 10092-C/1186, Council – Extraordinary Session on 31 July 2017 (Closed), Summary Minutes, 22/8/17, para.40.

Qatar's national airspace, nor did they ever argue they have the competence to do so.[249] Bahrain emphasized that from the outset, Qatari traffic had never been stopped by any of the said four Member States from using any of the routes which depart from and arrive into Qatari airspace.[250] Saudi Arabia stated that the four Member States wished to focus on *technical* issues and that it fully respects every Member State's complete and exclusive sovereignty over the airspace above its territory under Article 1 of the Chicago Convention.[251]

The proceedings at the ICAO Council demonstrate that sovereign airspace can be used only on the initiative of, or with the agreement or consent of, the delegating State concerned regarding such use. Bahrain's competences to take contingency measures is limited by the exception prescribed in Annex 11 and its bilateral agreements with Qatar: none of the bilateral agreements grant Bahrain the jurisaction to unilaterally execute airspace closure nor the jurisfaction to prescribe new rules for "all other relevant matters". Thus, Bahrain is not entitled to establish prohibited areas in Qatar's sovereign airspace without Qatar's consent. Qatar retains the final say over prohibited areas in its sovereign airspace, by default, even if the airspace has been delegated to Bahrain; in this sense, Qatar retains both the jurisfaction and jurisaction as to the closure of its sovereign airspace. The sovereign jurisdiction defeats ATS jurisdiction in Qatari sovereign airspace.

As of July 2021, the ICAO Council has agreed, in principle, with the establishment of a Doha Flight Information Region (FIR) drawing on Qatar's proposal, which would include Qatar's sovereign airspace and, to optimize safety and efficiency of the regional airspace, other contiguous airspace over the high seas.[252] The proposal of Qatar also included its intention to withdraw from the current arrangement whereby it has delegated to Bahrain the provision of ANS over its sovereign territory in accordance with paragraphs 2.1.1 of Annex 11 to the Chicago Convention.

Built on this latest ICAO Council decision, Qatar and Bahrain will probably go through the process of terminating their bilateral delegation agreement. As such, the aforementioned Qatar-Bahrain bilateral agreements will be of historical value. This research provides an examination of the situation during

249 ICAO Doc 10092-C/1186, Council – Extraordinary Session on 31 July 2017 (Closed), Summary Minutes, 22/8/17, para.40.

250 *ibid.*

251 ICAO Doc 10092-C/1186, Council – Extraordinary Session on 31 July 2017 (Closed), Summary Minutes, 22/8/17, para.48.

252 See New decisions at ICAO Council's 223rd Session, https://www.icao.int/Newsroom/Pages/New-decisions-at-ICAO-Councils-223rd-Session-support-aviations-recovery-and-development.aspx, last accessed 31 July 2021; announcements from Qatar Ministry of Transportation and Communication, https://www.motc.gov.qa/en/news-events/news/icao-council-agrees-qatar%E2%80%99s-proposal-establish-doha-flight-information-region-fir, last accessed 31 July 2021.

that limited period of time as a precedent. In this way, this research is relevant to airspace closure in delegated airspace arising in future.

5.4 Interim conclusions

In accordance with Article 1 in conjunction with Article 28 of the Chicago Convention, the provision of ATS is a national prerogative by virtue of its sovereignty. Meanwhile, appropriate ATS authorities have the competences and obligations to make risk assessments of air routes and take contingency measures, including declaring a segment of airspace as "not safe/secure/available".

Lacking consent from the territorial State, any pending technical or operational operations will have to be addressed outside of the sovereign airspace of a State, unless otherwise agreed by concerned States. In the context of cross-border ATS provision, a delegating State, by default, retains both jurisfaction and jurisaction with respect to prohibited airspace; the ATS jurisdiction to manage traffic flows are subject to bilateral agreements. Unless otherwise prescribed, sovereign airspace is to be used or closed, on the initiative of, or with the agreement or consent of, the delegating State: in establishing prohibited areas, the 'use' of sovereign airspace is to be interpreted as including 'non-use'; this interpretation is supported by Member States interventions at the ICAO Council meetings.

A bilateral delegation agreement can specify the possible division of jurisfaction and jurisaction between a delegating State and a providing State. For example, a delegating State is to prescribe the conditions for airspace closure and a providing State is to execute only: upon suggestions from the appropriate ATS authorities of a providing State, a delegating State has the final say as to the closure of its sovereign airspace.

6 Chapter summary and conclusions

This chapter examines the 'how' of establishing prohibited areas within a State's territory, in light of the technical aspects of ATS. Article 28 (a) of the Chicago Convention prescribes that the provision of safe ATS *can and should* be done by the sovereign State.

The concept of responsibility of an appropriate ATS authority encompasses two dimensions: competence and obligation. In connection with prohibited airspaces, ICAO regulations specify that, an appropriate ATS authority is competent to assess risks, and the authority is also obliged to do so, because Attachment C to Annex 11 crystalized customary international law on contingency measures. An appropriate ATS authority is both competent and obliged to make contingency plans, announcing that portions of airspace are not

available/secure/safe', in cases of ATS disruption as elaborated in Attachment C to Annex 11.

By virtue of mutual agreements, a State can delegate to another State the responsibility for the provision of ATS over its territory. The delegation of responsibility to provide ATS does not entail the derogation of national sovereignty of the delegating State. A contingency plan made by the providing State can involve airspace restrictions, but if it concerns sovereign airspace, the execution of this plan must be approved or consented to by the delegating State, unless otherwise prescribed in bilateral agreements.

Article 28 (b) allows for new standards and procedures to be established, and Annex 11 was thereby produced by ICAO. According to Annex 11, an appropriate ATS authority is responsible for managing FIRs under its *jurisdiction*, within or beyond the territorial State's sovereign airspace. This chapter explained the expanding ATS jurisdiction in the context of cross-border ATS provision and the next chapter continues elaborating airspace closure beyond territorial limits.

4 Airspace restrictions outside territorial limits

1 Preliminary remarks

This chapter explores airspace restrictions beyond territorial limits in order to answer the second research question – who has jurisdiction to establish prohibited airspace? The following sections examine the establishment of prohibited airspace, or more broadly, airspace restrictions, over the high seas, and in airspace of undetermined sovereignty. First of all, readers may wonder whether prohibited airspace exists outside the territory of a State. The answer is affirmative: as mentioned in the previous chapter, in 2017, Saudi Arabia, the United Arab Emirates, Bahrain, and Egypt cut off Qatar's air corridors to international traffic.[1] Second, readers may wonder who is legally entitled to establish prohibited areas, as well as how and when, outside a State's territory. This chapter focuses on the 'who', 'when' and 'how' of establishing prohibited airspace outside territorial limits.

2 Responsibility to provide ATS over the high seas

2.1 The Relationship between UNCLOS and the Chicago Convention

Having explored the provision of ATS over national airspace in Chapter III, including the delegation of ATS provision, this study turns to address the provision of ATS over the high seas. With respect to airspace(s) over the sea, international law has evolved into a sophisticated, yet fragmented,[2] structure, in which multiple legal instruments may be applicable. Within the mandate given by Article 28(b) of the Chicago Convention, ICAO adopted operational

1 See Section 5.3 of Chapter III.

2 On "fragmentation", among a volume of literature, see, in particular, International Law Commission, 'Fragmentation of International Law: Difficulties Arising from the Diversification of International Law', Doc A/CN.4/L.682; M. Craven, 'Unity, Diversity and the Fragmentation of International Law' (2003) 14 Finnish Yearbook of International Law, p. 36; M. Koskenniemi, P. Leino, 'Fragmentation of International Law? Postmodern Anxieties' (2002) 15 Leiden Journal of International Law, p.553; M. Prost, 'All Shouting the Same Slogans: International Law's Unities and the Politics of Fragmentation' (2006) 17 Finnish Yearbook of International Law, p.1; S. Singh, 'The Potential of International Law: Fragmentation and Ethics' (2011) 24 Leiden Journal of International Law, p. 23.

practices and rules, including Annex 2 and Annex 11 to the Chicago Convention, to regulate civil aviation over the high seas. In particular, Annex 2 to the Chicago Convention, ICAO's Rules of the Air over the high seas, deserve special attention because these rules are binding *ipso jure* upon all Member States.[3]

In addition to the Chicago Convention and ICAO regulations,[4] the United Nations Convention on the Law of the Sea (UNCLOS) prescribes rules for civil aircraft and airspace.[5] UNCLOS represents not only a comprehensive codification of the existing conventional and customary international law of the sea, but in numerous fields, it represents "progressive development" of international law, under Article 13(1)(a) of the Charter of the United Nations.[6]

The relationship between UNCLOS and the Chicago Convention is not clear: for example, one issue is whether in the context of the Chicago Convention, the word "territory" in Article 2 should be interpreted as encompassing "archipelagic waters" or not.[7] De Vries Lentsch opined that the archipelagic waters would come within the scope of Article 2 of the Chicago Convention as soon as the archipelagic state's sovereignty over these waters becomes part of customary international law.[8] However, Meijers pointed out that, in making the United Nations Convention on the Law of the Sea between 1973 and 1982,[9] States were not engaged in expressing their will to create *customary* law, but on the contrary, they expressed their will to make *treaty* law; a treaty rule is

3 See Section 2.2 of this chapter.

4 On the scope and meaning of 'ICAO regulations' as used in this study, see Section 3 of Chapter I.

5 See for instance, ships *and aircraft* enjoy the right of unimpeded transit passage in straits used for international navigation between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone (UNCLOS, Articles 37 and 38). See more on international straits in Chapter IV.

6 ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87, paras. 2.2-2.3.

7 The ICAO Secretariat considers that the sovereignty of coastal States extends to the airspace over the archipelagic waters, See ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87. Nonetheless, State practices significantly vary from one another in declaring the regime for archipelagic waters, see Merinda E. Stewart, *Freedom of Overflight: A Study of Coastal State Jurisdiction in International Airspace,* Wolters Kluwer 2021, pp. 231-233.

8 De Vries Lentsch, P. (1983). The right of overflight over strait states and archipelagic states: Developments and prospects. Netherlands Yearbook of International Law, vol. 14, p. 220.

9 In 1973, the General Assembly requested the Secretary-General to invite States to the Third United Nations Conference on the Law of the Sea, and decided that the mandate of the Conference was the adoption of a Convention dealing with all matters relating to the Law of the Sea (resolution 3067 (XXVIII) of 16 November 1973). https://legal.un.org/diplomaticconferences/1973_los/, last accessed April 16, 2022.

often circumscribed more precisely and placed in a more clearly defined context.[10] That being said, UNCLOS is comprised of treaty rules, instead of customary rules that would replace the Chicago Convention; the definition of "territory" under the Chicago Convention is not directly impacted by UNCLOS but it is more likely based on "interaction between custom and treaty".[11]

Regarding those progressive developments, as of August 2022, there is still no consensus among States as to the development of UNCLOS into international customary law.[12] Should UNCLOS be only a source of conventional international law, by virtue of the principle of *pacta tertiis nec nocent nec prosunt*,[13] the convention would not create either rights or obligations for a third State without its consent. Therefore, taking into account the treaty law status of UNCLOS, this section only discusses the rules for States that are parties to *both* UNCLOS and the Chicago Convention.

To clarify the relationship between the two specialized instruments, it is necessary to examine general principles, such as the maxim *lex specialis derogat legi generali*.[14] According to this principle, the normative distinction between general and special laws is important in maintaining a systematic reconciliation; the special secondary rules of the regime will prevail.[15]

However, a problem with the *lex specialis* principle is that this principle is based on a particular fiction of unified State conduct – that is, the presumption that States act with a unified legislative will when they conclude treaties or enact customary rules.[16] The *lex specialis* rule is grounded in the

10 See H. Meijers, "How is international law made? – The stages of growth of international law and the use of its customary rules", 9 NYIL (1978), pp. 3-26. See also De Vries Lentsch, P. (1983). The right of overflight over strait states and archipelagic states: Developments and prospects. Netherlands Yearbook of International Law, vol. 14, p. 188.

11 Carlos Jim nez Piernas, 'Archipelagic Waters', Max Planck Encyclopedia of Public International Law [MPEPIL] 2009, para. 29. See Chapter II, Section 2.3.4.

12 For example, the minutes of UN General Assembly deliberations on the resolution on the law of the sea, A/75/PV.48 (resumed), 31 December 2020 and A/76/PV.48, 9 December 2021.

13 See VCLT Art. 34.

14 Jenks, 'Conflict of Law-Making Treaties' (1953) 30 BYbIL 401, 405. Simma, 'Self-Contained Regimes' (1985) XVI Netherlands Ybk Intl L 111. Wilting, Vertragskonkurrenz im Volkerrecht (Carl Heymans Verlag 1996). See also the International Law Commission's treatment of the notion of lex specialis, M. Koskenniemi, 'Study on the Function and Scope of the lex specialis Rule and the Question of "Self-Contained Regimes"'(2004) Preliminary Report by the Chairman of the Study Group submitted for consideration during the 2004 session of the International Law Commission, Doc. ILC(LVI)SG/FIL/CRD.1 and Add. 1, available from the Codification Division of the UN Office of Legal Affairs.

15 Bruno Simma and Dirk Pulkowski, 'Of Planets and the Universe: Self-contained Regimes in International Law' (2006) 17 EJIL (3), p.483.

16 *ibid*.

presumption that a legislator, in regulating a specific case, wants to carve out an exception from the general rules existing for a set of matters.[17]

Yet the reality is far from reflecting the ideal presentation of unified legislative intent, treaty negotiations of air law and sea law fall within the competences of two different domestic ministries,[18] and the interaction between these two are limited. During the more than nine years of deliberations at the Third United Nations Conference on the Law of the Sea ('UNCLOS III Conference'), ICAO did not formulate or address to the Conference any specific policy for international civil aviation to be taken into account in the drafting of a new convention.[19] ICAO was represented by an observer at the UNCLOS III Conference, but the ICAO input for the Conference was confined to factual information on the Chicago Convention and its Annexes, as well as the organization of ICAO as such.[20]

The drafters of UNCLOS were different from those of the Chicago Convention; the two legal instruments, although referring to common terms such as aircraft and high seas, do not regulate the same issues. UNCLOS is the *lex specialis* for the sea,[21] while the Chicago Convention maintains the status of *lex specialis* for the air.[22] The UN Conference on the Law of the Sea did not discuss the update or combination of the Chicago Convention with the new convention of the law of sea.

---

17 *Cf.* Bruno Simma and Dirk Pulkowski, 'Of Planets and the Universe: Self-contained Regimes in International Law' (2006) 17 EJIL (3), pp. 483 & 489.

18 See the recount of the historical process to adopt the UNCLOS, in ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87, Section 3.

19 ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87, para. 2.4.

20 *ibid*. De Vries Lentsch, P., 'The right of overflight over strait states and archipelagic states: Developments and prospects' (1983) Netherlands Yearbook of International Law, vol. 14, pp. 165-225.

21 Ong, D. International Law of the Sea. In M. Bowman & D. Kritsiotis (Eds.), *Conceptual and Contextual Perspectives on the Modern Law of Treaties*, CUP 2018, pp. 710-712.

22 Dempsey argues that "[a]ny chronological review of the development of international aviation law must begin with the "Constitution" of international civil aviation, the Chicago Convention of 1944". Paul Stephen Dempsey, *Public International Air Law* (Montreal: McGill University, Institute and Center for Research in Air & Space Law, 2008), p.69. Article 82 reads: "The contracting States accept this Convention as abrogating all obligations and understandings between them which are inconsistent with its terms, and undertake not to enter into any such obligations and understandings." Milde observed that Article 82 of the Chicago Convention underlines that Contracting States committed themselves to abrogate any inconsistent obligations and understandings. See Michael Milde, "International Air Law and ICAO" in Marietta Benkö, ed., *Essential Air and Space Law*, vol. 4, Eleven International Publishing, 2008, p.18.

Thus, it is difficult to conclude that UNCLOS, a treaty, has updated the scope of "territory" for the Chicago Convention; it is equally difficult to argue that UNCLOS is *les specialis* that can replace the Chicago Convention in the sense of *legi generali.* A similar reasoning holds that UNCLOS is a *lex posterior.* Both *lex specialis* and *lex posterior* are presumptions as to the intent of the lawmaker or legislator on the same issue in question.[23] The argument based on *lex posterior* or *lex specialis* seems less powerful with regard to treaties in different regimes.[24]

As mentioned in Chapter I,[25] the Chicago Convention is the 'Constitution' of international civil aviation, supported by its Article 82;[26] treaty provisions adopted after the Chicago Convention, such as UNCLOS, must be aligned with principles and provisions laid down in the Chicago Convention such as the provisions on the high seas.[27] UNCLOS also confirms in its Article 311 that the treaty does not alter the rights and obligations of States Parties which arise from other agreements, and do not affect the enjoyment by other States Parties of their rights or performance of their obligations under the Chicago Convention.[28] Treaties prior to UNCLOS, such as the Chicago Convention, are not to be replaced by UNCLOS.

Therefore, *in abstracto*, UNCLOS is not to supersede the Chicago Convention due to its specialized aspects on the ocean or its adoption being later than the Chicago Convention.[29] The rights and obligations in the Chicago Convention are not to be replaced by UNCLOS. Regarding airspace restrictions over the seas, UNCLOS does not alter the rights and obligations of States Parties that arise from the Chicago Convention.

2.2 The supremacy of ICAO Rules of the Air over the high seas

According to Article 87 of UNCLOS, the high seas are open to all States; the freedoms of the high seas include freedom of navigation and overflight; no State can validly purport to subject any part of the high seas to its sover-

23 Joost Pauwelyn, *Conflicts of Norms in Public International Law*, CUP 2003, pp. 367-80.

24 ILC, 'Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion International Law. Report of the Study Group of the International Law Commission. Finalized by Martti Koskenniemi' UN Doc A/CN.4/L.682 (13 April 2006), para. 255, p. 130.

25 See Chapter I, Section 1.2.

26 See Section 2.2 of this chapter.

27 See Chicago Convention, Article 12.

28 UNCLOS, Article 311.

29 ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87, paras 5.4 & 5.5.

eignty.[30] UNCLOS provides for freedom of overflight, but does not directly regulate it beyond cases of piracy, the hot pursuit of foreign ships and the right of visit in limited instances.[31] In interpreting the freedom of overflight, in juxtaposition with airspace restrictions over the high seas, it is necessary to take into account the balance achieved by *State practices* between the freedoms of the high seas and sovereign jurisdiction.[32]

Regarding the *State practices* on airspace regulation over the high seas, ICAO is entrusted by its Member States to regulate flights over the high seas;[33] ICAO Rules of the Air, embodied in Annex 2 to the Chicago Convention, are made mandatory by a specific cross-reference in Article 39, paragraph 3 of UNCLOS.[34] The adoption and amendment of the Rules of the Air is and remains a "constitutional prerogative" of the ICAO Council under Articles 37, 54(l) and 90 of the Chicago Convention.[35] ICAO Rules of the Air over the high seas are binding *ipso jure* upon all Member States, as clarified by the ICAO Council:[36]

> Flight over the high seas – It should be noted that the Council resolved, in adopting Annex 2 in April 1948 and Amendment ... that the Annex constitutes Rules relating to the flight and manoeuvre of aircraft within the meaning of Article 12 of the Convention.[37] Over the high seas, therefore, these rules apply without exception.[38]

30 See UNCLOS, Part VII.

31 Nicholas Grief, *Public International Law in the Airspace of the High Seas*, Springer 1994, p. 3. Merinda E. Stewart, *Freedom of Overflight: A Study of Coastal State Jurisdiction in International Airspace,* Wolters Kluwer 2021, p.84.

32 DP O'Connell, *The International Law of the Sea – Vol II,* OUP 1982, p. 796.

33 See ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87, paras. 9.6-9.7.

34 UNCLOS, Art. 39, para.3 reads: "Aircraft in transit passage shall: (a) observe the Rules of the Air established by the International Civil Aviation Organization as they apply to civil aircraft; state aircraft will normally comply with such safety measures and will at all times operate with due regard for the safety of navigation; (b) at all times monitor the radio frequency assigned by the competent internationally designated air traffic control authority or the appropriate international distress radio frequency."

35 See ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87, paras. 9.6-9.7.

36 See ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87. See also Benilde Correia e Silva, *Some Legal Aspects of Flight Information Regions*, Master's Thesis, Institute of Air and Space Law, McGill University, 1990, p. 7.

37 Article 12 of the Chicago Convention reads that "over the high seas, the rules in force shall be those established under this Convention."

38 Annex 2, Rules of the Air, 10th ed., July 2005, p (v).

No State can file a notification of difference to Annex 2 – Rules of the Air for the flight over the high seas.[39] This consideration can be taken a step further: Member States are under an obligation to comply with ICAO regulations with respect to civil flights over the high seas, and reasons related to technical or economic ability cannot be submitted to justify non-compliance.[40] This combination of majority rule and binding force upon all Member States makes ICAO an international legislature for the Rules of the Air for civil aviation over the high seas.[41] The high seas is not under the sovereignty of any State, and the ICAO Council adopts the mandatory rules for flights over the high seas; thus, ICAO must be considered as the "ultimate legislator"[42] with respect to the Rules of the Air over the high seas.

2.3 The meaning of 'high seas' in ICAO regulations

In light of ICAO's significant role, by way of Article 12 of the Chicago Convention, in establishing the rules for all flights over the high seas, it is necessary to clarify the meaning of "high seas" in ICAO regulations. The Chicago Convention and ICAO regulations,[43] do frequently refer to high seas; references as such were not built on UNCLOS, because the sea treaty came into being decades later; the concept of high seas in air law come from general international law,

39 See ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87, paras. 9.6-9.7.

40 Benilde Correia e Silva, *Some Legal Aspects of Flight Information Regions*, Master's Thesis, Institute of Air and Space Law, McGill University, 1990, p. 20.

41 See ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87, paras. 9.6-9.7. Jochen Erler, "The Regulatory Functions of ICAN and ICAO: A Comparative Study," Master's Thesis, Institute of Air and Space Law, McGill University, 1964, p. 14. In contrast with Annex 2 'Rules of the Air', Annex 11 of the Chicago Convention, 'Air Traffic Services', allows Member States to file differences to the SAPRs therein, see the Foreword of Annex 11. Nonetheless, Schubert questions the legal basis of deviation from SAPRs in Annex 11 on the ground that the Foreword of Annex 11 does not carry legal status. See Francis Schubert, 'State Responsibilities for Air Navigation Facilities and Standards – Understanding its Scope, Nature and Extent' (2010) Journal of Aviation Management 21, p. 29. Jean Carroz, 'International Legislation on Air Navigation over the High Seas' (1959) 26 J Air L & Comm 158, p. 162.

42 On the use of "ultimate legislator", see ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87, para. 9.7.

43 The definition of 'ICAO regulation' is presented in Section 3 of Chapter I.

meaning sea zones outside every State's jurisdiction.[44] The Chicago Convention, in Article 12 and its Annexes, refers to "the high seas" without references to contiguous zones or exclusive economic zones (EEZ),[45] leaving the question of whether the high seas encompasses only the high seas in the sense of Article 86 of UNCLOS, or whether the term also applies to the EEZ and contiguous zones as defined by UNCLOS.

First of all, a contiguous zone is next to the territorial sea and may not extend beyond 24 nautical miles from the baselines from which the breadth of the territorial sea is measured.[46] UNCLOS emphasizes that a coastal State is entitled to exercise *control*, but not jurisdiction or sovereign authority, with regard to the water areas in contiguous zones.[47] Since coastal States have no jurisdiction in contiguous zones, such zones arguably, fall into the scope of high seas as defined by the Chicago Convention, and ICAO has the final say for the regulations of airspace over contiguous zones. The ICAO Secretariat Study supported the view that the provision of ATS over contiguous zones must be regulated by ICAO.[48]

Second, the EEZ is more complicated than contiguous zones. The EEZ is an area of the sea donned with a specific legal regime by the UNCLOS. In the EEZ, a coastal State has *sovereign rights*,[49] not sovereignty,[50] for the purpose

44 ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87, Section 13.

45 *ibid.*

46 Article 33 of the UNCLOS reads: "1. In a zone contiguous to its territorial sea, described as the contiguous zone, the coastal State may exercise the control necessary to: (a) prevent infringement of its customs, fiscal, immigration or sanitary laws and regulations within its territory or territorial sea; (b) punish infringement of the above laws and regulations committed within its territory or territorial sea. 2. The contiguous zone may not extend beyond 24 nautical miles from the baselines from which the breadth of the territorial sea is measured."

47 Regarding the airspace over the contiguous zones, the UNCLOS provision on contiguous zones *per se* would not rule out an action against a foreign aircraft on the surface of the waters within the contiguous zone, or even interception of such an aircraft in flight in that zone. See ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87.

48 ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87.

49 It is a type of 'functional sovereignty' which has to be connected to particular grounds permitted by international law, see R Higgins, *Problems & Process, International Law and How We Use It,* Oxford University Press, 1994, 131.*The M/V "Virginia G" Case (Panama/Guinea-Bissau),* Judgment, 14 April 2014, paras. 211 and 215.

of exploring, exploiting, conserving, and managing the natural resources. A coastal State also has sovereign rights concerning *other activities* for the economic exploitation and exploration of the zone,[51] and has jurisdiction with regard to the protection and preservation of the marine environment;[52] and arguably, has no jurisdiction to interfere with peaceful military activities in EEZ.[53]

A question thus arises: would the Rules of the Air adopted by the ICAO Council apply over the EEZ? The ICAO Secretariat Study adopted a broad interpretation for the term "high seas" in the Chicago Convention and its Annexes:

> The coastal States are granted in the EEZ sovereign rights with respect to natural resources and jurisdiction over installations; in all other respects the traditional freedoms of the high seas are preserved for other States. More particularly, the coastal States are not granted by the UNCLOS *any rights or jurisdiction* over the airspace above the EEZ and no regulatory power with respect to flights over the EEZ. For all practical and legal purposes, the status of the airspace above the EEZ and the regime over the EEZ is the same over the high seas and the coastal States are not granted any precedence or priority. Consequently, for the purpose of the Chicago Convention, its Annexes and other air law instruments, the EEZ should be deemed to have the same legal status and the high seas and any reference in these instruments to the high seas should be deemed to *encompass* the EEZ.[54]

ICAO recognizes EEZs as part of the high seas in the sense of the Chicago Convention. Since UNCLOS does not confer any jurisdiction over the airspace above contiguous zones or the EEZ to its Contracting States, the ATS over contiguous zones and the EEZ is to be regulated by the ICAO.[55]

---

50 Sovereign rights do not have implication to sovereignty or more appropriately, territorial sovereignty. Having sovereign rights over resources in an exclusive economic zone is not to be confused with having sovereignty over that same area. Sovereignty rights are a collective but limited set of rights and power. See Tanaka, Y. The international law of the sea (2nd ed.). CUP 2015, pp. 6-7.

51 UNCLOS, Article 56, para. 1.

52 UNCLOS Article 60, para. 3.

53 Merinda E. Stewart, *Freedom of Overflight: A Study of Coastal State Jurisdiction in International Airspace,* Wolters Kluwer 2021, p. 210. Bernard H Oxman, 'The Regime of Warships under the United Nations Convention on the Law of the Sea' (1984) 24 Virginia Journal of International Law 809, p. 838; Umberto Leanza and Maria Cristina Caracciolo, 'The Exclusive Economic Zone' in David J Attard, Malgosia Fitzmaurice and Norman A Martínez Gutiérrez (eds), *The IMLI Manual on International Maritime Law: Volume 1 – The Law of the Sea*, OUP 2014, pp.192-93.

54 ICAO Legal Committee 26th Session, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'," LC/26-WP/5-1, 4/2/87, para. 11&12.

55 *ibid*. See also Kay Hailbronner, 'Freedom of the Air and the Convention on the Law of the Sea' (1983) 77 Am J Int'l L 490, p. 491.

Therefore, the term "high seas" in the Chicago Convention and ICAO regulations is quite broad: the term is interpreted by ICAO as international waters, including the UNCLOS' contiguous zones, EEZ, and high seas. The following figure helps illustrate the relationship between these concepts.

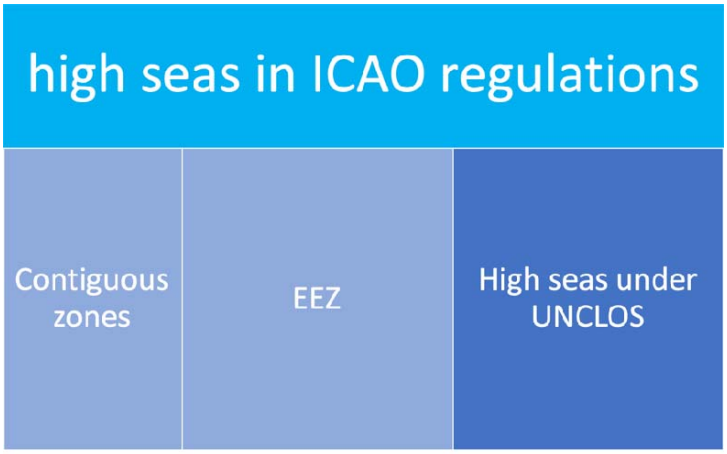

Figure 12: High seas[56]

2.3.1 *The significance of regional agreements under the auspice of ICAO*

Having explained the meaning of 'high seas' in ICAO regulations,[57] this section discusses how ICAO Member States coordinate for the provision of ATS over the high seas. In this regard, Standard 2.1.2 of Annex 11 to the Chicago Convention highlights the critical role of regional agreements under the auspices of ICAO.

> Those portions of the airspace over the high seas … where air traffic services will be provided shall be determined on the basis of regional air navigation agreements. A Contracting State having accepted the responsibility to provide air traffic services in such portions of airspace shall thereafter arrange for the services to be established and provided in accordance with the provisions of this Annex.[58]

According to Standard 2.1.2 of Annex 11, ICAO delegates the provision of ATS to its Member States through regional air navigation agreements and thereby

56 Source: created by the author.
57 On ICAO regulations, see Chapter I, Section 3.
58 Standard 2.1.2 of Annex 11.

established air navigation plans (ANPs).[59] The competence of an appropriate ATS authority to provide ATS over the high seas is subject to regional agreements under the auspice of ICAO.[60] ANPs thereby set forth the facilities, services, and regional supplementary procedures to be provided or employed by the Contracting States pursuant to Article 28 of the Chicago Convention.

It is somehow disconcerting that neither the legal status of the regional ANP or agreement, nor its definition is clear.[61] With respect to the legal force of regional ANPs *vis-à-vis* all ICAO Member States,[62] Buergenthal offers an explanation saying that ICAO Annexes, Plans, SUPPS[63] and Regional ANPs constitute an integral body of aviation legislation comparable both in structure and content to comprehensive domestic air navigation codes.[64] Notwithstanding another view that the ANPs are technical and operational documents with no entailed consequences,[65] this present study supports the arguments from Buergenthal, because as illustrated in the next section, a regional ANP limits the discretion of coastal States and Contracting States cannot amend it without the approval from ICAO.

Finally, in terms of sovereignty, it is worth emphasizing that the approval by the ICAO Council of regional air navigation agreements over the high seas does not imply recognition of sovereignty of that State over the airspace concerned.[66] Paragraph 1.3.3 of Part I, Section 2, Chapter 1 of the Air Traffic

---

59 See ANP Documents: Asia/Pacific Region (Doc 9673), Africa-Indian Ocean Region (Doc 7474), European Region (Doc 7754), Caribbean and South American Regions (Doc 8733), Middle East Region (Doc 9708), and North Atlantic Region (Doc 9634/9635).

60 "Consolidated statement of continuing policies and associated practices related specifically to air navigation", ICAO Assembly Res. 27-10, (1989) Appendix K. Buergenthal, T., *Law Making in the International Civil Aviation Organization*, University of Virginia Press1969, p. 118. The development of these regional plans is undertaken by the ICAO's six planning and implementation regional groups (PIRGs) in coordination with States and supported by the ICAO's Regional Offices and the Air Navigation Bureau.

61 Abeyratne Ruwantissa. *Air navigation law*. Springer 2012, p. 24. The author refers to an example that in November 1996, at the 38th meeting of the European Air Navigation Planning Group, it was recorded that an Air Navigation Plan consisted of an authoritative internationally agreed reference document, which corresponded to a contract between States covered by the Plan regarding air navigation facilities to be provided, to be approved by the ICAO Council in accordance with the provisions of the Chicago Convention. ICAO Doc. EANPG COG/2-WP/6, 12/03/1996 at 3.

62 *ibid*. Once a regional ANP is approved by the ICAO Council, the Council, in any given instance, is to act on behalf of all Member States of ICAO, including those not covered by the regional ANP.

63 See Sections 3.2 and 3.3 of Chapter I.

64 Thomas Buergenthal, *Law Making in the International Civil Aviation Organization*, Syracuse University Press 1969, p. 121.

65 M. Milde, "Legal Aspects of Airports Constructed in the Sea," in M. Milde and H. Khadjavi ed., *Public International Air Law*, Vol. Two, McGill University Press 2002, p.192.

66 Assembly Resolution A38-12: Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation, APPENDIX G – Delimitation of air traffic services (ATS) airspaces, states more particularly in resolving declaring clause 7.

Services Planning Manual (Doc 9426) specifies the following regarding such competence over the high seas:

> [I]t should be noted that the assumption of such delegated responsibility by a State, by virtue of a regional air navigation agreement, does not imply that this State is then entitled to impose its specific rules and provisions in such airspace at its own discretion. In fact, conditions of operation therein will be governed by applicable ICAO provisions of a worldwide and supplementary regional nature and specific national provisions may only be applied to the extent that these are essential to permit the State the efficient discharge of the responsibilities it has assumed under the terms of the regional air navigation agreement.

This paragraph confirms that the delegation of ATS over the high seas does not mean that the delegated State can apply its own domestic rules to air navigation above the high seas.[67] Annex 11 indicates that a Contracting State accepting the responsibility for providing ATS over the high seas may apply SARPs in a manner consistent with that adopted for airspace under its jurisdiction,[68] meaning that coastal States may register differences with Annex 11; however, the discretion of coastal States is not without limitation: ICAO also stated that specific national provisions may only be applied to the extent that these are essential to allow for the efficient discharge of the responsibilities.[69] Responsibilities of the appropriate ATS authorities for monitoring traffic and taking flow management measures, including airspace restrictions, are further limited by regional agreements and ANPs.[70] Through adherence to air navigation agreements and ANPs, Member States agree to provide ATS over the high seas.

67 Francis Schubert, 'Limits in the Sky: Sovereignty and Air Navigation Services' in Pablo Mendes de Leon and Niall Buissing (eds), *Behind and Beyond the Chicago Convention: The Evolution of Aerial Sovereignty*, Wolters Kluwer 2019, pp. 148-150; Niels van Antwerpen, Cross- Border Provision of Air Navigation Services with Specific Reference to Europe: Safeguarding Transparent Lines of Responsibility and Liability, Kluwer Law International 2008, pp.151-152.

68 Chicago Convention, Annex 11, (ix): "The Standards and Recommended Practices contained in Annex 11 apply… wherever a Contracting State accepts the responsibility of providing air traffic services over the high seas or in airspace of undetermined sovereignty. A Contracting State accepting such responsibility may apply the Standards and Recommended Practices in a manner consistent with that adopted for airspace under its jurisdiction."

69 ICAO Air Traffic Services Planning Manual, 1.3.3. As referred to in, ICAO WP/02, ICAO Provisions, Policy and Guidance Material on the Delegation of Airspace over the High Seas, Presented by the Secretariat at the First Unassigned High Seas Airspace Special Coordination Meeting, Lima (22 June 2019), 2.6. See Merinda E. Stewart, *Freedom of Overflight: A Study of Coastal State Jurisdiction in International Airspace,* Wolters Kluwer 2021, p. 89.

70 See Section 4 of Chapter III on the responsibility of the appropriate ATS authorities.

2.3.2 *Case study of the re-delegation of ATS provision over the high seas*

In 2013, Saudi Arabia agreed with Bahrain to conclude an agreement for the delegation of the responsibility for the provision of ATS in a portion of the northeast of Saudi Arabia's airspace.[71] The competent authorities, charged with the responsibility for ANS in the two countries, intend to establish a Joint Air Navigation Committee to amend the ICAO MID ANP to re-align the two FIR boundaries.[72]

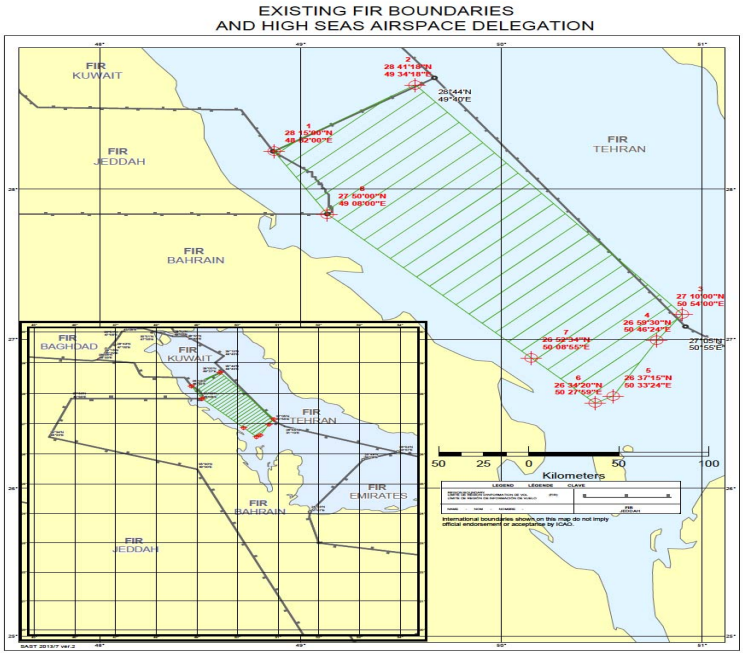

Figure 13: ATS in the northeast of the Kingdom of Saudi Arabia's airspace[73]

For this purpose, Bahrain and Saudi Arabia approached the ICAO MID (Middle East) Regional Office in 2013 with a joint updated proposal;[74] the proposal

71 Agreement between the Kingdom of Saudi Arabia and the Kingdom of Bahrain on the Delegation of Air Traffic Services provision in portion of the North East Saudi Arabia Airspace, Signed at Jeddah, on 26 Safar 1434 H Corresponding to 8 January 2013.

72 Letter to Secretary General of International Civil Aviation Organization, jointly signed by H. E. Kamal bin Ahmed Mohammed, Minister, Ministry of Transportation, Kingdom of Bahrain, and H. H. Prince Fahad Bin Abdullah M. A1 Saud, President, General Authority of Civil Aviation, Kingdom of Saudi Arabia, 8 January 2013.

73 Source: *ibid*.

74 8 January 2013, reference 256/2/4216, transmitting for registration with ICAO the Agreement on the Delegation of the Responsibility for Providing Air Traffic Services in Portion of the North East Saudi Arabia Airspace, signed at Jeddah on 8 January 2013

was discussed and coordinated between the ICAO-MID Office, ICAO-HQ, and all concerned States; accordingly, a proposal for amendment to the MID ANP was processed.[75]

After reviewing the ATS delegation agreement between Bahrain and Saudi Arabia,[76] ICAO determined that the Saudi delegation to Bahrain of the responsibility for the provision of ATS prescribed requires the amendment of the regional ANP – Middle East Region (Doc 9708).[77] In approving Doc 9708, the ICAO Council had determined that ATS in the *high seas* airspace at issue were the responsibility of Bahrain.[78] Bahrain and Saudi Arabia are competent to make arrangements for their sovereign airspace(s), but the Bahrain-Saudi joint proposal is at odds with the authority of the ICAO Council, insofar as the proposal purported to delegate responsibility for the provision of ATS in an area that is above the high seas.[79] That is to say, Bahrain and Saudi Arabia can well decide among themselves for the ATS provision over their territorial airspace(s), but when it comes to the high seas, the two States' proposal to re-align the FIRs boundary over the high seas is subject to the ICAO Council's authority.[80] The two States' proposal concerning ATS over the high seas will not legally take effect until ICAO approves it.

This case testifies that ICAO Member States cannot change the existing provision of ATS in contravention of ANPs, without being approved by the ICAO Council. A providing State cannot act at odds with the authority of ICAO over the high seas. Responsibilities of the appropriate ATS authorities over the high seas are limited by air navigation agreements and ANPs which are established on the basis of the Chicago Convention and Annex 11. The provision of ATS and the proper functioning of ANPs over the high seas built on Member States' commitments laid down under ICAO's auspices.

75 See ICAO working paper ATM/AIM/SAR SG/13-WP/22, "Realignment of the Bahrain/Jeddah FIRs Boundary," presented by Bahrain, 26/09/2013, at the Thirteenth Meeting (ATM/AIM/SAR SG/13), in Cairo, Egypt, 30 September–3 October 2013.

76 Agreement between the Kingdom of Saudi Arabia and the Kingdom of Bahrain on the Delegation of Air Traffic Services provision in portion of the North East Saudi Arabia Airspace, Signed at Jeddah, on 26 Safar 1434 H Corresponding to 8 January, 2013.

77 See ICAO working paper ATM/AIM/SAR SG/13-WP/22, "Realignment of the Bahrain/Jeddah FIRs Boundary," presented by Bahrain, 26/09/2013, at the Thirteenth Meeting (ATM/AIM/SAR SG/13), in Cairo, Egypt, 30 September–3 October 2013.

78 See ICAO Doc 9708.

79 See Annex A to the Agreement between the Kingdom of Saudi Arabia and the Kingdom of Bahrain on the Delegation of Air Traffic Services provision in portion of the North East Saudi Arabia Airspace, Signed at Jeddah, on 26 Safar 1434 H Corresponding to 8 January 2013.

80 See ICAO working paper ATM/AIM/SAR SG/13-WP/22, "Realignment of the Bahrain/Jeddah FIRs Boundary," presented by Bahrain, 26/09/2013, at the Thirteenth Meeting (ATM/AIM/SAR SG/13), in Cairo, Egypt, 30 September–3 October 2013.

2.4 Interim conclusions

ICAO recognizes contiguous zones and EEZ as part of the high seas in the sense of the Chicago Convention. Over the high seas, through regional air navigation agreements and regional ANPs, ICAO delegates the responsibility to provide ATS to coastal States. These ANPs produced under the auspices of ICAO shall be respected by providing States, because ICAO is the ultimate legislator with respect to the Rules of the Air over high seas. Regional agreements and ANPs limit the competence of ATS authorities over the high seas to ensure the consistency with the Chicago Convention and Annex 11.

In juxtaposing jurisdiction and sovereignty, Annex 11 confirms that it applies to airspace under the *jurisdiction* of a Contracting State, that is the 'ATS jurisdiction'. FIRs under the jurisdiction of ATS authorities may encompass sovereign airspace, airspace over the high seas, and airspace of undetermined sovereignty. The relationship between territory, sovereignty, and FIRs is illustrated as follows.

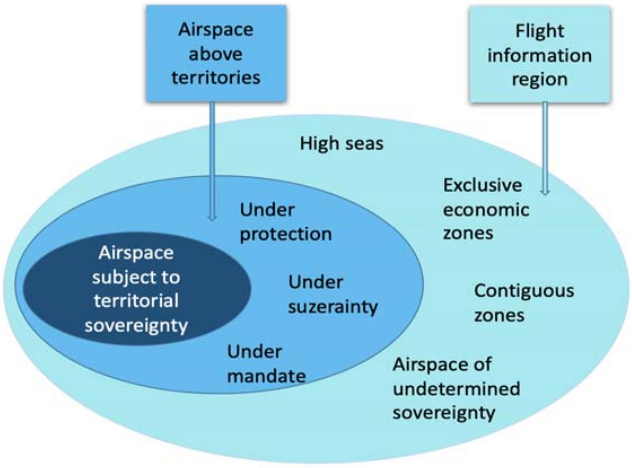

Figure 14: Relationship territory, sovereignty and FIRs[81]

3 AIRSPACE RESTRICTIONS OVER THE HIGH SEAS AND IN AIRSPACE OF UNDETERMINED SOVEREIGNTY

3.1 Introductory remarks

As set out in Chapter III, the appropriate ATS authorities are competent and obliged to deploy contingency responses, including setting up prohibited

81 Source: created by the author.

airspace by announcing that certain portions of airspace(s) are not available/secured/safe.[82] Notably, the establishment of prohibited airspace needs to take care of traffic flow management in coordination with neighboring FIRs: the imposition of airspace restrictions as such depend on cooperation from regional ATS authorities on flight level allocation and flow management. Under the auspices of ICAO, the Air Navigation Planning and Implementation Regional Group (ANPIRG) coordinates the planning, coordination, and implementation of a regional ATM contingency plan.[83] Neighboring FIRs collaborate in providing contingency routes and flight level structure.[84] In light of ICAO technical regulations, the announcement of an air route being not available/safe usually rely on collective efforts.[85]

Nonetheless, the rights and obligations of stakeholders for this coordination process are not clearly defined. It is "advisable"[86] that affected States and ATS authorities agree to collaborate on implementing contingency measures. The signature of the contingency agreements with Area Control Centers (ACCs) of the States at the interfaces with the ICAO Region be considered as "recommended" and not mandatory.[87] States may choose not to enter agreements about contingency measures. As of February 2021, for example, in MID region, 80% of States developed ATS Contingency Plan; 73% Area Control Centres had signed a bilateral contingency agreement.[88]

In the coordination process to establish prohibited airspace, cooperation from neighboring FIRs is encouraged by ICAO but not mandatory; it is optional for a State to sign contingency agreements and to coordinate with other authorities. The regional contingency planning may work well through diplomatic channels; but in case of political sensitive situations,[89] several legal questions may arise: what are the rules for establishing prohibited airspace as a con-

82 See Chapter III, Section 2.

83 For example, the 47th Conference of Directors General of the Asia/Pacific Region (Macao, China, October 2010) requested the ICAO Regional Office to consider the establishment of a task force for planning, coordination and implementation of a regional ATM Contingency Plan (Action Item 47/1). Subsequently, the 22nd Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/22, Bangkok, Thailand, June 2011) formed a Regional ATM Contingency Planning Task Force (RACP/TF) for planning, coordination and implementation of a regional ATM contingency plan. See ICAO, Asia/Pacific Region ATM Contingency Plan, version 2.0, Approved by ATM/SG/5 and published by the ICAO Asia and Pacific Office, Bangkok, September 2017, paras. 5.1-5.4. See also ICAO ATM Contingency Plan (AFI) Africa and Indian Ocean, version 1, July 2019, paras. 3.1.

84 *ibid.*

85 *ibid.*

86 ICAO, MIDANPIRG/17 & RASG-MID/7-REPORT, para. 6.2.65.

87 ICAO, MIDANPIRG/17 & RASG-MID/7-REPORT, para. 6.2.43.

88 ICAO working paper, "Review of the Action Taken by The ANC and the Council on the Report of MIDANPIRG/17 and the RASG-MID/7 Report", MIDANPIRG/18 & RASG-MID/8-WP/2 25/01/2021.

89 See case study of the *Qatar 'blockade' case (2017-2021)* in Chapter III, Section 5.3.

tingency measure over the high seas? Does an ATS authority of a FIR has the competence to close airspace of undetermined sovereignty? The section below will answer these questions.

3.2 Category I: The regulations of prohibited airspace above the high seas

3.2.1 Freedom of overflight above the high seas

This section discusses the establishment of prohibited areas over the high seas since Article 87 of the UNCLOS prescribes the freedom of overflight above the high seas.[90] Indeed, the freedom of flight over the high seas is a fundamental principle accepted by almost all countries,[91] although there have been discussions as to the right of a coastal State to impose a safety zone[92] around a maritime construction or to establish an ADIZ (Air Defence Identification Zones).[93]

Of particular relevance to this study's research questions is the jurisdiction of coastal States to carry out the responsibility for providing ATS in international airspace within their FIRs. To fulfill this responsibility, the Chicago Convention and Annex 11 provide measures to be done to mitigate risks arising from hazards over the high seas.[94] Annex 11 prescribes airspace closure or re-route arrangements which have to be taken as contingency measures.[95]

As argued in Section 2.2 of this chapter, UNCLOS does not replace the Chicago Convention to regulate flights over the high seas;[96] the evaluation of legality under UNCLOS, therefore, is separate from the compliance with the Chicago Convention and Annex 11. Some military activities blocking air routes

90 As explained in Chapter II, over international straits, a coastal State's jurisdiction to regulate navigation is limited by the right of transit passage and ICAO Rules of the Air. See Chapter II, Section 2.3.

91 See Article 87 of the UNCLOS, which has been ratified by 168 parties, which includes 167 states (164 United Nations member states plus the UN Observer state Palestine, as well as the Cook Islands and Niue) and the European Union, see https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=_en, last accessed 20 September 2020.

92 Merinda E. Stewart, *Freedom of Overflight: A Study of Coastal State Jurisdiction in International Airspace,* Wolters Kluwer 2021, pp. 94-100.

93 *ibid*, pp.183-198.

94 Annex 11, Standard 2.19.2. Hazard is defined by ICAO as 'a condition or an object with the potential to cause or contribute to an aircraft incident or accident'. See ICAO Doc 10084, Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones (2nd edn., 2018) xiii. See further Section 3.2.2 of this chapter.

95 See Attachment C to Annex 11, Section 6.

96 See Sections 2.1 & 2.2 of this chapter.

over the high seas may violate the freedom of overflight under UNCLOS;[97] nonetheless, that assessment under UNCLOS is outside of the scope of this study.[98] Rather, the following section deals with the protection of civil aircraft from dangerous activities which have taken place over the high seas, no matter such dangerous activities are consistent with UNCLOS or not.[99] The focus is on the jurisdiction and methods pertaining to the establishment of airspace restrictions over the high seas.

3.2.2 Danger areas over the high seas

3.2.2.1 Preliminary remarks

Over the high seas, in terms of airspace restrictions, only danger areas can be established; prohibited and restricted airspace cannot be established over the high seas.[100] Danger areas are often mentioned in ICAO documents and regulations.[101] As set out in the Definition section of Annex 11, a danger area is an airspace of defined dimensions within which activities are dangerous for the operation of aircraft may exist at a specified time.[102] A danger area implies the least degree of restriction compared to the prohibited area.[103] It is the flight crew's responsibility to make a final judgment,[104] but danger areas traditionally are absolutely avoided by aircraft in accordance with an appropriate Safety Risk Assessment (SRA).[105]

Above the high seas, it is possible to establish danger areas over the high seas where the reservation of airspace becomes unavoidable;[106] all States have the right to use international airspace in a manner that requires the establishment of a danger area, regardless of which State is responsible for the FIR,[107] but the said danger areas should be of a temporary nature and States should apply several principles to make sure the danger area is temporary and

97 Merinda E. Stewart, *Freedom of Overflight: A Study of Coastal State Jurisdiction in International Airspace,* Wolters Kluwer 2021, pp. 128-131.
98 See Introduction and Chapter I of this thesis.
99 On the meaning of 'high seas', see Section 2.3 of this chapter.
100 ICAO Doc 9426, Air Traffic Services Planning Manual (1992), Chapter 3, para. 3.3.2.4.
101 For instance, ICAO, Doc 8900/2, 'Repertory – Guide to the Convention on International Civil Aviation', 2nd ed., 1977, Part I, Chapter II, 'Article 9'. Annex 2, Chapter I, 'Definitions'. Annex 11, p.1-6.
102 Annex 11, Definition.
103 Merinda E. Stewart, *Freedom of Overflight: A Study of Coastal State Jurisdiction in International Airspace,* Wolters Kluwer 2021, pp. 68-70.
104 *ibid*. ICAO, ATM Contingency Plan: Africa and Indian Ocean Region (July 2019) p. 71.
105 *ibid*.
106 ICAO ASIA/PAC/3, Rec. 5/14. Based on ICAO LIM MID (COM/MET/RAC) RAN Meeting 1996, Recommendation 2/9, 2/10 and 2/13 (reprinted in ICAO, Report of the Special Civil/Military Coordination Meeting (SCMCM), Sana'a Yemen 18–19 June 2006).
107 Merinda E. Stewart, *Freedom of Overflight: A Study of Coastal State Jurisdiction in International Airspace,* Wolters Kluwer 2021, pp. 68-70.

minimal.[108] Focusing on establishing danger areas as a contingency measure, this section discusses the danger areas established by the appropriate ATS authority in charge of the FIR encompassing airspace(s) over the high seas.

3.2.2.2 Conditions to establish a danger area over the high seas

As Section 4 of Chapter III states, the appropriate ATS authorities are responsible for taking contingency measures, including airspace restrictions. Over the high seas, as the responsibility of a coastal State to provide ATS is prescribed by ANPs and Annex 11.[109] The ANP of the Asia/Pacific Region, for example, specifies that "States should refrain, to the extent possible, from establishing prohibited, restricted or danger areas."[110] ANPs as such can prescribe when

108 ICAO ASIA/PAC/3, Rec. 5/14. Based on ICAO LIM MID (COM/MET/RAC) RAN Meeting 1996, Recommendation 2/9, 2/10 and 2/13 (reprinted in ICAO, Report of the Special Civil/Military Coordination Meeting (SCMCM), Sana'a Yemen 18-19 June 2006), in comparable Table para. 26: "When reservation of airspace outside territorial limits becomes unavoidable, it should be of a temporary nature and States should apply the following principles:
a) prior to requesting the establishment of a temporary airspace reservation, the requesting authority shall obtain full information on the likely effect of such a reservation on air traffic. Such information shall include areas of high traffic density which may exist in the vicinity or at the planned location of the airspace reservation, as well as information on peak periods of traffic operating through such areas. In the light of that information, the requesting authority should, to the extent possible, select the site of the airspace reservation, and the time and duration so that this will have the least effect on normal flight operations conducted in the area in question;
b) in specifying the extent of a requested temporary airspace reservation and its duration, the requesting authority shall limit the size of the area to the absolute minimum required to contain the activities intended to be conducted within that area, taking due account of: 1) ATS route structure and associated airspace arrangement; 2) operational requirements of civil aircraft; 3) the navigation capability of aircraft or other vehicles within the airspace reservation; 4) the means available to monitor those activities so as to guarantee that they will be confined within the airspace reservation; 5) the ability to interrupt or terminate activities;
c) the duration of the airspace reservation shall be limited, taking a realistic account of preparation of the activities and the time required to vacate the reservation after the completion of the activities; and
d) the actual use of the temporary airspace reservation shall be based on appropriate arrangements made between the ATS unit normally responsible for the airspace and the requesting authority. Such arrangements shall be based on the general agreement reached previously between the competent ATS authority or ATS authorities and the requesting authority. They should, inter alia, cover: 1) the start of the use of the temporary airspace reservation; 2) the termination of its use; 3) emergency provisions in case of unforeseen events affecting the activities to be conducted within the temporary airspace reservation.

109 See Sections 2.3.1 of this chapter.

110 ICAO ASIA/PAC/3, Rec. 5/14. Based on ICAO LIM MID (COM/MET/RAC) RAN Meeting 1996, Recommendation 2/9, 2/10 and 2/13 (reprinted in ICAO, Report of the Special Civil/Military Coordination Meeting (SCMCM), Sana'a Yemen 18-19 June 2006). Asia/Pacific Region' ANP says that States should refrain, to the extent possible, from establishing prohibited, restricted or danger areas; when the establishment of prohibited, restricted or danger areas becomes unavoidable: a) give due regard to the need not to prejudice the safe and economical operation of civil aircraft; b) provide adequate buffer, in terms of time

and how a State in charge of an FIR, the providing State, is to establish danger areas in airspace(s) under its ATS jurisdiction.

The appropriate ATS authorities of a providing State are obliged to meet conditions in an ANP in order to impose airspace restrictions. In principle, contingency measures which are not consistent with regional ANPs must be approved by the President of the ICAO Council; nonetheless, some ANPs may prescribe that deviations due to emergency situations or natural disasters do not need to be approved by ICAO. For instance, the ANP for Asia/Pacific recognizes that in some cases of natural disasters, the required approval of a contingency plan is unnecessary;[111] in such cases, the ICAO approval for deviations from an ANP can be waivered. Thus, in case of 'emergency situations' such as natural disasters, State(s) responsible for providing ATS over the high seas may decide to establish danger areas as contingency actions, and the ICAO does *not* need to approve this action in advance.[112]

In the execution of setting up a danger area, the provision of the ATS is not subject to an implied principle of non-discrimination, meaning the danger area may be targeted against specific aircraft;[113] but the State responsible for the FIR has such narrowly defined ATS jurisdiction in the airspace that any discrimination must be justifiable in accordance with safety and efficiency considerations.[114]

The Third Middle East Regional Air Navigation Meeting further sets forth conditions for such "danger areas outside a State's territory".[115] Concerning

---

and size, within the designated area, appropriate to the activities to be conducted; c) use standard ICAO terminology in designation of the areas; d) promulgate information regarding the establishment and day-to-day use of the areas well in advance of the effective date(s); e) arrange for the closest possible coordination between civil ATS units and relevant units responsible for activities within the restricted or danger areas so as to enable the ATS units to authorize civil aircraft to traverse the areas in emergencies, to avoid adverse weather and to indicate whenever the restrictions do not apply or the areas are not active; and f) review the continuing need for the prohibited, restricted or danger areas at regular intervals.

111 ICAO ASIA/PAC/3, Rec. 5/13.

112 *ibid*.

113 Merinda E. Stewart, *Freedom of Overflight: A Study of Coastal State Jurisdiction in International Airspace*, Wolters Kluwer 2021, p. 244.

114 *ibid*.

115 ICAO, Third Middle East Regional Air Navigation Meeting, "Report of ATS Working Group A to the ATS Committee on Agenda Item 2 f), MID/3-WP/96, 3/4/84, para. 2.6.5: … d) refrain, to the extent possible, from establishing prohibited, restricted or danger areas, bearing in mind that prohibited areas or restricted areas may only be established over the territories of a State and not over *international waters*; …

f) should the establishment of danger areas outside territorial limits become unavoidable they should be of a temporary nature and the following principles should apply:

1. prior to requesting the establishment of a temporary airspace reservation, the requesting authority shall obtain full information on the likely effect of such a reservation on air traffic. Such information shall include areas of high traffic density which may exist in the vicinity or at the planned location of the airspace reservation, as well as information on peak periods

the scope, a danger area outside of a State's territorial limits shall be limited to the "absolute minimum", as opposed to "reasonable extent and location" in Article 9 of the Chicago Convention.[116] This requirement reflects that ICAO has been cautious with the establishment of danger areas over the high seas.

It could also happen that an ANP does not mention or prescribe any rules for danger areas; that being so, in accordance with Attachment C of Annex 11, a danger area can still be set up as part of the execution of a contingency plan.[117] In case that a State established danger areas as a contingency measure whereas the regional ANP said nothing of danger areas, such airspace restrictions should be approved, as necessary, by the President of the ICAO Council on behalf of the ICAO Council.[118]

Hypothetically, States or the appropriate ATS authorities may interpret 'emergency situations' so broadly that they encompass a wide range of security threats. The appropriate ATS authorities may claim the competence to establish danger areas over the high seas beyond natural disasters. In this regard, it is necessary to supervise the execution of contingency plans so that the competence will not be abused.

---

of traffic operating through such areas. In the light of that information, the requesting authority should, to the extent possible, select the site of the airspace reservation, and the time and duration so that this will have the least effect on normal flight operations conducted in the area in question;

2. in specifying the extent of a requested temporary airspace reservation and its duration, the requesting authority shall limit the size of the area to the absolute minimum required to contain the activities intended to be conducted within that area, taking due account of:

a. the navigation capability of aircraft or other vehicles within the airspace reservation;

b. the means available to monitor those activities so as to guarantee that they will be confined within the airspace reservation; and

c. the ability to interrupt or terminate activities;

3. the duration of the airspace reservation shall be limited, taking a realistic account of preparation of the activities and the time required to vacate the reservation after the completion of the activities;

4. the actual use of the temporary airspace reservation shall be based on appropriate arrangements made between the ATS unit normally responsible for the airspace and the requesting authority. Such arrangements shall be based on general agreement reached previously between the competent authority or ATS authorities and the requesting authority. They should, inter alia, cover:

a. the start of the use of the temporary airspace reservation;

b. the termination of its use and

emergency provisions in case of unforeseen events affecting the activities, to be conducted within the temporary airspace reservation;

116 See Section 2.6 of Chapter II.

117 Annex 11, Attachment C, Material Relating to Contingency Planning, para. 2. See also ICAO ASIA/PAC/3, Rec. 5/13.

118 Annex 11, Attachment C, Material Relating to Contingency Planning, para. 2. See also ICAO ASIA/PAC/3, Rec. 5/13.

3.2.2.3 The supervision of contingency responses over the high seas

The supervision of contingency responses is more complex than it seems to be. Annex 11 Attachment C states that ICAO is available for monitoring developments and will, *as necessary*, assist in the development of arrangements such as prohibited, restricted, and danger areas;[119] meanwhile, ICAO will not initiate and coordinate appropriate contingency action until the FIR authorities cannot adequately discharge the responsibility.[120]

ICAO only 'monitors and assists with' contingency responses when the appropriate ATS authorities cannot discharge their responsibility. It is not clear when ICAO *shall* interfere with the decisions of an appropriate ATS authority. For example, NATO allies and the Russian Federation conduct operations in the Arctic and impose airspace restrictions over the high seas.[121] ICAO did not specify the right moments for the organization to intervene. There is no authoritative interpretation of "as necessary".

3.2.3 Summary: Danger areas over the high seas

The establishment of danger areas over the high seas do not expressly prohibit the operation of the aircraft of another State: safety management practices might allow the operation of certain aircraft; nonetheless, the underlying safety concerns can in practice lead to the closure of airspace to all civil aircraft.

Regional ANPs usually do not encourage imposing restrictions over the high seas; nonetheless an ANP can specify conditions for establishing danger areas, such as the area must be of defined dimensions and for a specified time. Considering that unilaterally established airspace restrictions will probably affect the freedom of overflight over the high seas, a providing State cannot unilaterally establish prohibited airspace in contravention of an ANP. A regional ANP may allow establishing danger areas under certain circumstances, such as natural disasters, without any prior approval from ICAO. In addition, a regional ANP may specify that, *as necessary*, ICAO supervises the execution ANPs; it is open to interpretations when ICAO is obliged to monitor and assist with the development of danger areas in airspace(s) over the high seas.

119 Annex 11, Attachment C, para. 4.3.
120 Annex 11, Attachment C, para. 3.4.
121 https://thebarentsobserver.com/en/security/2020/09/experts-warn-potentially-deadly-great-power-games-arctic, last accessed Oct 1, 2020.

3.3 Category II: The regulations of prohibited airspace over areas of undetermined sovereignty

3.3.1 Airspace of undetermined sovereignty

The territory or boundaries of a State may be the subject of a dispute with other States, because a State does not need to have defined boundaries for it to be considered to exist.[122] ICAO documents often refer to the airspace of undetermined sovereignty,[123] but have not defined the concept of "undetermined sovereignty". Literally speaking, the word "undetermined" means "not authoritatively decided or settled".[124]

At the risk of over-simplification and purely in terms of fact, those territories of 'undetermined sovereignty' can be identified through the United Nations proceedings, including the General Debates of the General Assembly and the working sessions of General Assembly's Special Committees on Decolonization (C-24).[125] The reason is that "undetermined territory" may give rise to contentions among sovereign States and the United Nations is mandated to maintain international peace and security.[126] Therefore, heads of States often argue entitlements to territories at the UN General Assembly: for example, Cyprus deplores the territorial division for more than four decades;[127] Armenia and Azerbaijan sparred over the region of Nagorno-Karabakh.[128]

---

122 James Crawford, *The Creation of States in International Law,* 2nd, Oxford University Press 2006, pp. 46-47.

123 For example, in Annex 11, Standards 2.1.2, 2.1.3 and 3.4.1.

124 See for instance Merriam-Webster Dictionary, https://www.merriam-webster.com/dictionary/undetermined, last accessed April 17, 2021.

125 The Special Committee on the Situation with regard to the implementation of the Declaration on the Granting of Independence to Colonial Countries and Peoples is also known as the Special Committee on Decolonization, or C-24. The C-24 was established in 1961 by the General Assembly (GA), as its subsidiary organ devoted to the issue of decolonization, pursuant to GA resolution 1654 (XVI) of 27 November 1961. https://www.un.org/dppa/decolonization/en/c24/about, last accessed 1 February 2021.

126 See the UN Charter, Preamble.

127 https://news.un.org/en/story/2020/09/1073512, last accessed Sep 11, 2021. See further in Section 3.3 of Chapter IV about the disputes over Northern Cyprus.

128 https://www.un.org/french/docs/cs/repertoire/93-95/CHAPTER%208/EUROPE/item_9_ArmeniaAzerbaijan.pdf last accessed 1 February 2021. On 23 September 2021, His Excellency Ilham Heydar oglu Aliyev, President, Republic of Azerbaijan, spoke at the General Debate: "There is no administrative territorial unit called Nagorno-Karabakh in Azerbaijan. We have created Karabakh and Eastern Zangazur economic zones by the Presidential decree signed on 7 July this 2021. …I would like to call on all the UN Member States and the UN Secretariat to avoid using legally non-existing, politically biased and manipulative names." see https://un.mfa.gov.az/en/news/3361/statement-by-he-mr-ilham-aliyev-president-of-the-republic-of-azerbaijan-at-the-general-debate-of-the-76th-session-of-the-united-nations-general-assembly, last accessed 24 September 2021.

After the annual General Debate closes,[129] special committee's sessions, for example, the C-24 considers the questions of 17 Non-Self-Governing Territories and Puerto Rico:[130] in 2019, the UN Special Committee on Decolonization discussed the sovereign dispute between Argentina and the United Kingdom over the Falkland Islands (Malvinas) and adopted a resolution.[131] In addition to disputed territories where more than one country claims sovereignty, the airspace of undetermined sovereignty also covers Antarctica,[132] where existing sovereignty claims are put into a state of suspense in accordance with particular legal arrangements.[133]

Although this study is not to give a definition of 'undetermined sovereignty', it is worth mentioning that the determination of territorial sovereignty is a political issue; due to its mandate, the United Nations records territories of undetermined sovereignty.[134] ICAO, as a technical agency of the United Nations, is not mandated to resolve territorial disputes,[135] but to help States achieve the highest possible degree of uniformity in civil aviation regulations, standards, procedures, even if there are disputes as to territories.[136] That is why ICAO consistently uses the reference to the airspace of 'undetermined

129 The annual General Debate closes before the end of September, see the schedule of General Assembly Meetings, https://www.un.org/en/ga/info/meetings/76schedule.shtml, last accessed 24 September 2021.

130 Under Chapter XI of the Charter of the United Nations, the Non-Self-Governing Territories are defined as "territories whose people have not yet attained a full measure of self-government". The General Assembly, by its resolution 66 (I) of 14 December 1946, noted a list of 72 Territories to which Chapter XI of the Charter applied. In 1963, the Special Committee on Decolonization or known as the "C-24"approved a preliminary list of Territories to which the Declaration applied (A/5446/Rev.1, annex I). As of the year 2021, 17 Non-Self-Governing Territories remain on the agenda of the C-24. https://www.un.org/dppa/decolonization/en/nsgt, last accessed 12 September 2021.

131 See https://www.un.org/press/en/2019/gacol3339.doc.htm, last accessed 1 February 2021. Member States which have or assume responsibilities for the administration of such Territories are called administering Powers, rather than sovereign powers. The UN General Assembly and the ICJ determined that the people of the territory are entitled to form an independent State, see UNGA Resolution 34/37 of 21 Nov. 1979 and *Western Sahara*, Advisory Opinion, I.C.J. Rep. 1975 (Oct. 16), p. 12, p. 68, para. 162.

132 Antwerpen, N. van (2008). *Cross-border provision of air navigation services with specific reference to Europe* : *Safeguarding transparent lines of responsibility and liability*, Kluwer Law International 2008, Chapter 4.2.

133 R. Jennings and A. Watts (eds.), Oppenheim's International Law (1992), Volume I, at 694-695.

134 In collaboration with the General Assembly, the United Nations Security Council establishes peacekeeping operations as well as advance or observer missions to resolve disputes peacefully under Chapter VI, such as promoting reconciliation, assisting with the implementation of a peace agreement, or performing mediation and good offices, and execute more forceful action as authorized under Chapter VII of the UN Chapter. See https://www.un.org/securitycouncil/content/repertoire/peacekeeping-missions, last accessed 12 September 2021. See more about UN Security Council measures in Chapter IV.

135 https://www.icao.int/about-icao/History/Pages/default.aspx, last accessed 11 September 2021.

136 See Standard 2.1.2 of Annex 11 and the immediate next section.

sovereignty' but did not define it; and this does not prevent discussions as to the provision of ATS in those airspace(s) of 'undetermined sovereignty'. This study acknowledges the existence of disputes, but the entitlements over particular territories are not to be examined in this chapter.

3.3.2 Prohibited airspace over territories of undetermined sovereignty

3.3.2.1 The right to establish prohibited airspace over territories of undetermined sovereignty

Having clarified the concept of territories of undetermined sovereignty, this section now looks into the question: does a State still have the right to establish prohibited areas in the airspace of undermined sovereignty? This question concerns whether the loss of effective control[137] leads to the loss of territorial sovereignty.

Of relevance to this point is a customary rule that the jurisdiction of a State is curtailed by territory loss and it can only close *seaports* under its control.[138] It may be argued, in analogy to seaport closure, that a State is no longer competent to declare closed sea or airspace that is out of its control.[139] However, the English High Court held that this rule from customary sea law may not be simply applied to airspace, in *R* (*on the application of Kibris Turk Hava Yollari & CTA Holidays*) *v. Secretary of State for Transport* (*Republic of Cyprus, interested party*).[140]

The claimants, a Turkish airline and a travel company, had sought an operating permit under the Air Navigation Order 2005 to allow them to operate direct flights between the United Kingdom and the northern part of Cyprus. The northern part of Cyprus has been administered by Turkish Cypriots since 1974 and proclaimed itself the "Turkish Republic of Northern Cyprus" in 1983 ('the TRNC').[141] The legal status of northern Cyprus is not unanimously recog-

137 The effective exercise of sovereign authority, the notion of *effectivités*, is a vital element for occupation of *terra nullius* and prescription as modes of acquisition of territory. Malcolm Shaw, "Territory in International Law", Netherlands Yearbook of International Law 13 (1982), pp. 61–91, 82–83. See also *Island of Palmas* case, 840.

138 [2010] EWCA Civ 1093, 12/10/2010, para. 63.

139 The authorities cited for that proposition include the passage from Oppenheim's International Law: "The rights of insurgents in territorial waters depend on the extent of their effective territorial control within the state. They would seem in principle to have the right to close ports under their control merely by an order to that effect without the need to impose a blockade; contrariwise, the parent government is not entitled to close by decree ports which insurgents control (as it is entitled to do in respect of ports under its own control) but must establish an effective blockade in order to do so…"

140 *R (on the application of Kibris Turk Hava Yollari & CTA Holidays) v. Secretary of State for Transport (Republic of Cyprus, interested party)*, [2009] EWHC 1918 (Admin), 28/07/2009, paras 38-41.

141 See https://www.state.gov/reports/2021-country-reports-on-human-rights-practices/cyprus/area-administered-by-turkish-cypriots/, last accessed 6 September 2022.

nized by all Member States of the United Nations.[142] ICAO recognizes the Greek Cypriot (southern) portion of the island and its Nicosia ACC as responsible for air traffic services throughout the entire FIR.[143]

Figure 15: The airspace over Cyprus[144]

The claimant submitted that a State does not enjoy sovereignty over an area of land and the airspace above it, unless it exercises effective control over the area in question.[145] The Republic of Cyprus' entitlement to exercise its jurisdiction has been suspended in respect of Northern Cyprus as a result of its loss of effective control over that territory.[146]

The English High Court held that the Republic of Cyprus continued to retain the title of sovereignty with regard to the northern part of Cyprus that is currently removed from its control; the customary rule about seaport closure

142 The United Nations Peacekeeping Force in Cyprus (UNFICYP) was originally set up by the Security Council in 1964 to prevent further fighting between the Greek Cypriot and Turkish Cypriot communities. In the absence of a political settlement to the Cyprus problem, UNFICYP has remained on the island to supervise ceasefire lines, maintain a buffer zone, undertake humanitarian activities and support the good offices mission of the Secretary-General. More information: https://peacekeeping.un.org/en/mission/unficyp, last accessed 8 August 2021.

143 See Mark Franklin and Sarah Porter, 'Sovereignty over Airspace and the Chicago Convention: Northern Cyprus' (2010) 35(1) A&SL 63; Alexis Heraclides, Greek-Turkish Conflict in the Aegean (Palgrave MacMillan Limited 2010) pp. 193-98; Nicholas Grief, 'The Legal Principles Governing the Control of National Airspace and Flight Information Regions and their Application to the Eastern Mediterranean' (European Rim Policy and Investment Council, 2009).

144 Source: https://ops.group/blog/cyprus-risks-in-the-nicosia-fir/, last accessed 10 March 2021.

145 *R (on the application of Kibris Turk Hava Yollari & CTA Holidays) v. Secretary for Transport (Republic of Cyprus, interested party)*, [2009] All ER (D) 295 (Jul). [2009] EWHC 1918 (Admin), 28 July 2009, para. 40.

146 *ibid*, [2010] EWCA Civ 1093, 12/10/2010, para. 63.

does not displace a State's rights under the Chicago Convention;[147] the Court therefore rejected the argument and held that a State may retain sovereignty over territory even if it does not control that territory effectively.[148]

> [S]overeignty is defined by reference to the independence, authority and rights of the state under consideration. While territorial integrity of the state is a key facet of sovereignty, sovereignty as a concept does not require that territorial integrity has been maintained and its does not require that the state is in a position to exercise all of the rights that form part of statehood.[149]

Hence, notwithstanding the loss of control over detached territories, a State retains its sovereignty over that territory.[150] The State is still competent to provide ATS prescribed in Article 28(a) of the Chicago Convention, unless the State has delegated this responsibility of ATS provision to another State, or the State has invoked the argument of 'impossibility to perform.'[151] The English High Court held that the competence to provide ATS and regulate traffic under the Chicago Convention was not to be replaced by customary rules on effective control.[152]

The reasoning is two-fold: pursuant to Article 28 of the Chicago Convention, the competence to provide ATS can derive from sovereignty; pursuant to public international law, an existing title of sovereignty[153] is not defeated by competing control status by another entity: international law does not require a State to be in effective control over the whole of the territory over

147 *ibid*.
148 [2009] EWHC 1918 (Admin), 28/07/2009, para. 41.
149 *ibid.*
150*ibid.*
151 See further in Chapter V, Section 3.4.
152 [2009] EWHC 1918 (Admin), 28/07/2009, paras. 38-41. On 'effective control', the notion is often used in scholarships and judgments, but has never been defined, see Alexander Orakhelashvili, *The Interpretation of Acts and Rules in Public International Law,* Oxford University Press 2008, pp.137-138: "Effective control of a territory is purely a question of fact and depends on the ascertainment of the fact as to who is in control, and correlation of different physical presences in the area." See ICJ, *Legal Consequences for States of the Continued Presence of South Africa in Namibia (South West Africa) notwithstanding Security Council Resolution 276 (1970), Advisory Opinion,* para. 118: "Physical control of a territory, and not sovereignty or legitimacy of title, is the basis of State liability for acts affecting other States." In *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda),* Judgment, ICJ Reports 2005, para. 177, the ICJ further notes that, although Uganda recognized that as of 1 September 1998 it exercised "administrative control" at Kisangani Airport, there is no evidence in the case file which could allow the Court to characterize the presence of Ugandan troops stationed at Kisangani Airport as occupation in the sense of Article 42 of the Hague Regulations of 1907.
153 See ICJ, Frontier Dispute (Burkina Faso/Mali), Judgment, 1986 ICJ Reports, p. 586, para. 64. Kohen, M. G. (2018). "Titles and effectivités in territorial disputes". In *Research Handbook on Territorial Disputes in International Law*. Edward Elgar Publishing, pp. 164-165.

which it enjoys sovereignty;[154] and the loss of effective control of a territory does not affect the sovereignty over that territory. The territory of a State cannot be lost or disappear as a result of its total or partial occupation during a conflict.[155]

The value of effective control or occupation, or activities *à titre de souverain*, always depends on the nature of the territory and the nature of the competing State claims:[156] effective control can only create a territorial title if a sovereign power does not already exist; whereas if a sovereign title already exists, it takes precedence over contradictory effective control of another State.[157] Moreover, the existing sovereign power can also "fight back" against the factual control status, by issuing decrees, enacting legislation or engaging in any other relevant sovereign conduct, so that the sovereign power can keep its intention to be "sovereign alive" and thus deprive those *effectivités* of the capacity to divest it of its title.[158]

Therefore, a State is entitled to announce prohibited airspace over the territory of which it has lost effective control. Depending upon the circumstances,[159] the appropriate ATS authorities are still competent to execute contingency plans that includes the suspension of use of certain portions of airspace;[160] such conduct can show the intention to be sovereign alive. Since the responsibility to provide ATS does is not linked with effective control of the territory, this section emphasizes that technical cooperation, including the establishment of prohibited airspace is to be decoupled from the status of control over a territory.[161] The competence of the appropriate ATS authorities is not to be eclipsed by the loss of effective control of a territory.

---

154 See also *Lighthouses in Crete and Samos (Fr. v. Greece),* 1937 P.C.I.J. (ser. A/B) No. 62 (Oct. 8), para. 38.

155 UN General Assembly, International Law Commission, Seventy-third session, Sea-level rise in relation to international law, Second issues paper by Co-Chairs of the Study Group on sea-leel rise in relation to international law, A/CN.4/752, 19 April 2022, para. 90.

156 Malcolm Shaw, "Introduction: The International Law of Territory: An Overview", in *Title to Territory*, ed. Malcolm Shaw (Aldershot, Hants, England: Ashgate/Dartmouth, 2005), 24. Decision Regarding Delimitation of the Border between The State of Eritrea and The Federal Democratic Republic of Ethiopia, Eritrea/Ethiopia Boundary Commission, Award of April 13, 2002, RIAA vol. 25 (2002) 83, para. 3.29: "It is also important to bear in mind that conduct does not by itself produce an absolute and indefeasible title, but only a title relative to that of the competing State."

157 Shaw, "Introduction", xxiv; Kohen and Hébié, "Territory, Acquisition", para. 36. The ICJ consistently applied the same formula as to the relationship between effectivités and sovereignty to territory in cases such as *Frontier Dispute (Burkina Faso/Mali),* ICJ Reports 1986, para. 63. *Land, Island and Maritime Frontier Dispute (El Salvador/Honduras: Nicaragua intervening)*, ICJ Reports 1992, paras. 61–62; *Maritime Delimitation between Nicaragua and Honduras in the Caribbean Sea (Nicaragua v. Honduras),* ICJ Reports 2007, paras. 151–158.

158 Marcelo Kohen and Mamadou Hébié, "Territory, Acquisition", in Max Planck Encyclopedia of Public International Law, ed., Rüdiger Wolfrum, para. 39.

159 On technical impossibility, see Chapter V Section 3.4.

160 Annex 11, Attachment C, Material Relating to Contingency Planning, para. 6.1.

161 See Standard 2.1.2 of Annex 11 and the immediate next section.

3.3.3.2 Regional contingency plan over disputed territories

Acknowledging that the competence to impose airspace restrictions is decoupled from the control status of a territory, this section focuses on technical arrangements for airspace restrictions. Due to the potential overlapping territorial claims, ICAO initiates and coordinates appropriate contingency action in the event of disruption of ATS affecting international civil aviation operations or at the request of States.[162] Under such circumstances, ICAO works in coordination with States responsible for airspace adjacent to that affected by the disruption and in close consultation with international organizations concerned.[163] Pursuant to Standard 2.1.2 of Annex 11, Contracting States relevant to the airspace of undetermined sovereignty should be engaged in regional agreement negotiations on the provision of ATS.[164]

As explained in the previous section on the high seas,[165] ICAO may interfere *as necessary*. For instance, in 2015, the Agency for Air Navigation Safety in Africa and Madagascar (ASECNA), on behalf of Benin and Togo, published an AIP notifying their intent to provide ATS within a portion of the Accra FIR which is under the responsibility of Ghana.[166] Considering that more than one ATS provide may be controlling flights following this AIP, ICAO convened coordination meetings with relevant parties and reminds Member States to assist in the accommodation of the re-routed traffic and possible airspace restrictions.[167] In the end, the States concerned agreed to make arrangements to avoid the provision of ATS by more than two authorities: the ATS over the territories of Ghana and over the high seas within the Accra FIR is provided by the Ghana Civil Aviation Authority; ATS over the territories of Benin and Togo is provided by ASECNA on behalf of Benin and Togo.[168] Albeit the border issues between the three countries,[169] regional political consultations under the auspices of ICAO determined the execution of regional contingency arrange-

162 Annex 11, Attachment C, Material Relating to Contingency Planning, para. 3.4.

163 *ibid*. See ICAO Working Paper, 'ATM Aspects and Safety Issues in the Simferopol FIR', Presented by Ukraine, A40-WP/17, TE/69, 8/8/19. ICAO Working Paper, "ATM Aspects within SIMFEROPOL and DNIPROPETROVS'K FIRs" (Presented by Ukraine), AN-Conf/13-WP/245.

164 Standard 2.1.2 reads "Those portions of the airspace over the high seas or in airspace of undetermined sovereignty where air traffic services will be provided shall be determined on the basis of regional air navigation agreements."

165 See Section 3.2 of this chapter.

166 See ICAO, Letter of the Secretary General on 3 July 2015, entitled "Safety of civil aircraft operating in the Accra FIR".

167 See ICAO, Letter of the Secretary General on 16 July 2015, entitled "Update on safety of civil aircraft operating in the Accra FIR".

168 *ibid.*

169 Lentz, Carola. "'This Is Ghanaian Territory!': Land Conflicts on a West African Border." American Ethnologist 30, no. 2 (2003), pp. 273–89. See also https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Tackle-Ghana-Togo-land-boundary-disputes-Kan-Dapaah-to-Ghana-Boundary-Commission-1296595, last accessed 8 August 2021.

ments. All in all, the success of a coordination process depends on technical consultations in the region.

3.3.3 *Summary: Prohibited airspace over territories of undetermined sovereignty*

From a legal perspective, the sovereignty of a State does not require that territorial integrity be maintained; the effective control of territories does not take precedence over an existing title of sovereignty. In other words, the right to establish prohibited airspace is not affected by the change of control status but only by the acquisition and loss of territorial sovereignty. A sovereign power is entitled to announce the establishment of prohibited airspace over its territories, including those removed from its control.

Taking note of the political sensitivity in association with sovereignty disputes, Standard 2.1.1 of Annex 11 to the Chicago Convention emphasizes that in the airspace of undetermined sovereignty, contingent airspace restrictions can derive their legality from regional air navigation agreements without commenting on the territorial disputes. In this process, ICAO initiates and coordinates appropriate contingency action in the event of disruption of ATS, as exemplified by the change of Accra FIR in 2015. These ICAO-led consultations are subject to regional political processes.

4 Chapter summary and conclusions

Once a Contracting State has accepted the *responsibility* to provide ATS, the appropriate ATS authorities have the competence to regulate the airspace under their *jurisdiction*. Over the high seas, ICAO is the ultimate legislator for civil flights; the competence of an appropriate ATS authority over the high seas is limited to operational and technical matters written in ANPs.

It is inconsistent with the Chicago Convention for Contracting States to expand national and regional legislation over the high seas in a way that deviates from approved ANPs. Airspace restrictions over the high seas may constitute deviations from ANPs; and the deviations as such need to be approved by the President of the ICAO Council. An ANP can prescribe a caveat that, in natural disasters or other emergency situations, a providing State is competent and obliged to establish danger areas without advanced approval from ICAO.

In the airspace of undetermined sovereignty, more than one power may claim to establish prohibited areas on the basis of national sovereignty. Arguably, losing control over a territory does not deprive the *de jure* State from establishing prohibited airspace over its detached territory. Meanwhile, States may argue for sovereignty as the only basis for closing airspace, whereas the appropriate ATS authorities may announce that certain portions of airspace are not available/secured/safe based on Annex 11 to the Chicago Convention.

In this context, ICAO with its convening power can facilitate regional negotiations for the provision of safe ATS where technical consultations can discuss on airspace restrictions on the basis of ATS jurisdiction rather than sovereignty.

5 Airspace Restrictions in Times of War

1 Preliminary remarks

Previous chapters addressed the 'who,' 'when,' and 'how' of establishing prohibited airspace. This chapter continues the discussion with a special reference to wartime and aims to answer the third research question – how to improve the rules with respect to prohibited airspace to enhance aviation security? War and armed conflict can lead to exceptional circumstances which endanger public safety; these circumstances could justify a State's establishment of prohibited airspaces, subject to qualifications in Article 9 of the Chicago Convention, such as the requirement of non-discrimination.[1] Meanwhile, Article 89 of the Chicago Convention prescribes that a State resumes full *freedom of action* in times of war, so that to establish a prohibited area as such is not subject to any requirements. In juxtaposition of Articles 9 and 89 of the Chicago Convention, it seems difficult to understand how to establish prohibited airspaces in wartime. This chapter answers this research question.

2 The competence to establish prohibited areas in war

2.1 Introductory remarks

This section starts with a normative analysis of Article 89 of the Chicago Convention. This normative analysis aims to account for the competence divide between States, ICAO, and the UN for airspace restrictions.

2.2 The competence to establish prohibited areas in wartime

2.2.1 The 'war' clause in the Chicago Convention

Article 89 of the Chicago Convention specifically addresses the situation of war:

1 See Chapter II, Section 4.

> Article 89 *War and emergency conditions*
> In case of war, the provisions of this Convention shall not affect *the freedom of action* of any of the contracting States affected, whether as belligerents or as neutrals. The same principle shall apply in the case of any contracting State which declares a state of national emergency and notifies the fact to the Council.

Article 89 emphasizes that in the case of war and national emergency, no provision of the Chicago Convention shall affect a Contracting State's freedom of action. Accordingly, in case of war, the freedom of a Contracting State is not affected by any provision of the Chicago Convention. Therefore, a question arises: in times of war, is the competence of a State regarding prohibited airspace still regulated by Article 9 of the Chicago Convention, despite that the Convention has a special provision on war?

To answer this question, it is necessary to explain the temporal application scope of Article 9 of the Chicago Convention. Article 9 of the Chicago Convention pertains to normal peace conditions, because the Chicago Convention is a treaty for peacetime.[2] This temporal qualification is evidenced by the preparatory work of the Chicago Convention.[3] In 1944, negotiating States made it clear that they were discussing the exchange of air freedoms among friendly countries for the upcoming *peace* time following the end of WWII: the US emphasized that the drafting conference in Chicago was a great attempt to build enduring institutions of *peace*.[4] The UK Delegation said that, after engaging in air warfare, they were happy to have the opportunity to help build the aviation rules in *peace*.[5] The Canadian Delegation saw the settlement of the problem of international air transport as an opportunity to establish a lasting *peace* and a new order of security.[6] The French Delegation emphasized that the expansion of civil air transportation is the first proof of the common determination of the Allies to organize and to defend *peace*.[7] The Australian and the New Zealand Delegations argued for an international ownership and operation of air-transport for an orderly and *peaceful* world.[8]

2 See also Chapter II, Section 2.
3 *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948).
4 Document 32, *Verbatim Minutes of Opening Plenary Session*, November 1, in *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), p.43.
5 *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), p. 63.
6 *ibid.*, p. 74.
7 *ibid.*, p. 82.
8 *ibid.*, p. 79.

State representatives invited to the Chicago Conference[9] understood that the issue of peace and war shall be dealt by "an overriding peace treaty", later known as the Charter of the United Nations.[10] Under that assumption, the Chicago Conference was set to draft a *peace treaty*, dealing with *peaceful* relations among *friendly* countries in the field of aviation. The Chicago Convention belongs to the category of post-war treaties to establish a peaceful order.[11] The substantive provisions of the Chicago Convention, including Article 9, are to regulate air transport relations among *peaceful* States,[12] and in case of war, the Chicago Convention deals with it with a special separate provision:[13] that is Article 89 which specially deals with prohibited airspace in times of war and national emergency.

The very initial draft of the Chicago Convention had one comprehensive provision, draft Article 10,[14] for prohibited airspace in times of war and peace; but eventually the Chicago Conference adopted two provisions: Article 9 on prohibited airspace in peacetime and Article 89 on war and national emerg-

---

9 List of governments and authorities to whom invitations were extended: Afghanistan, Australia, Belgium, Bolivia, Brazil, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czechoslovakia, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, France, UK, Greece, Guatemala, Haiti, Honduras, Iceland, India, Iran, Iraq, Ireland, Lebanon, Liberia, Luxembourg, Mexico, Netherlands, New Zealand, Nicaragua, Norway, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Saudi Arabia, Spain, Sweden, Switzerland, Syria, Turkey, Union of South Africa, Union of Soviet Socialist Republics, Uruguay, Venezuela, Yugoslavia, Denmark, Thailand. See *ibid.*, p.13.

10 United Nations, Charter of the United Nations, 24 October 1945, 1 UNTS XVI.

11 See *Invitation of the United States of America to the Conference, Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), p. 11. The Chicago Conference's invitation said: "The approaching defeat of Germany, and the consequent liberation of great parts of Europe and Africa from military interruption of traffic, sets up the urgent need for establishing an international civil air service pattern on a provisional basis at least, so that all important trade and population areas of the world may obtain the benefits of air transport as soon as possible, and so that restorative processes of prompt communication may be available to assist in returning great areas to processes of peace."

12 See Chapter II, Section 2.4.

13 Joint dissenting judgment of Judges Anzilotti and Huber in the *Wimbledon Case* (1923), PCIJ: A 1, pp. 36-37: "In this respect, it must be remembered that international conventions and more particularly those relating to commerce and communications are generally concluded having regard to normal peace conditions. If, as the result of a war, a neutral or belligerent State is faced with the necessity of taking extraordinary measures temporarily affecting the application of such conventions in order to protect its neutrality or for the purposes of national defense, it is entitled to do so even if no express reservations are made in the convention. This right possessed by all nations which is based on generally accepted usage, cannot lose its *raison d'être* simply because it may in some cases have been abused… The right of a State to adopt the course which it considers best suited to the exigencies of its security and the maintenance of its integrity, is so essential a right that, in case of doubt, treaty stipulation cannot be interpreted as limiting it, even though these stipulations do not conflict with such an interpretation." See also, Bin Cheng, *Principles*, pp.55-56.

14 *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), pp. 557-558.

ency.[15] The original draft Article 10 had three paragraphs; delegations took out the last paragraph which dealt with national emergency[16] and combined that paragraph with a new draft article on war;[17] thus an independent new provision came into being – the as-adopted Article 89.

In conclusion, Article 89 of the Chicago Convention was adopted to foreshadow a future arrangement regarding the use of airspace in times of war and national emergency, separate from other provisions of the Chicago Convention which deal with peacetime. Therefore, based on the context of the Chicago Convention and the evidence of its preparatory work, it can be concluded that the establishment of prohibited airspace in times of war and national emergency is regulated through Article 89, rather than Article 9 of the Chicago Convention.

2.2.2 *The relationship between Article 89 and Article 9 of the Chicago Convention*

As said, the provisions of the Chicago Convention shall not affect Contracting States' conduct in cases of war and national emergency.[18] The application of Article 89 was investigated by ICAO after the flight MH17 tragedy. The ICAO established the Special Group to Review the Application of ICAO Treaties Relating to Conflict Zones (hereafter the "Special Group").[19]

At the Special Group's meeting, delegations observed that Article 89 was to bridge the two bodies of law: during World War II in 1944, two bodies of laws law existed – one which applied to *peacetime* and one which applied to *wartime*; States involved in war, the *belligerents*, were required to provide notice of such involvement to *neutral* States to enable them to exercise their rights and obligations.[20] Considering the law of war has developed into a separate system, it would not be possible for the Chicago Convention to include all the war rules on aviation; so that Article 89 was adopted to link to the bodies of air law applicable to war.[21]

In particular, Professor Bin Cheng commented that, the adoption of Article 89 provided the legal basis for a Contracting State to justify its self-preserving measures in times of war;[22] self-preserving measures, such as airspace restrictions in times of war, do not need to comply with the requirements in

15 See Chapter II, Section 2.4.
16 *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), pp. 557-558.
17 *ibid.*, pp. 472 & 693.
18 See Article 89, the Chicago Convention.
19 See ICAO, The Council Decision relating to the Outcome of the Meeting of the Special Group to Review the Application of ICAO Treaties relating to Conflict Zones (SGRAIT-CZ), Legal Committee – 36th Session, LC/36-IP/1, 25/11/15.
20 *ibid.*
21 ICAO, Special Group to Review the Application of ICAO Treaties Relating to Conflict Zones, Report, SGRIT-CZ/1, Montreal, 13-14 July 2015, paras 2.1-2.2.
22 Bin Cheng, *Principles*, pp. 29-31.

the Chicago Convention.[23] Hence, the establishment of prohibited airspace in times of *war* does not have to satisfy the conditions in Article 9, because Article 9 deals with times of *peace*.[24] Consequently, airspace restrictions in times of war are not subject to the qualifications in Article 9 of the Chicago Convention. It is legal for Contracting States to invoke Article 89 and take self-preserving measures which, for example, make a distinction among nationalities of aircraft, which would otherwise violate Article 9.[25]

Plainly, it cannot be stressed enough that the Chicago Convention, including Article 9, was designed to regulate civil aviation during peacetime. In peacetime, it was thought that however differently States may manage their airspaces, the territorial government could still control and guarantee the safety of their air routes.[26] However, in times of war, the right of a State to self-preservation has to be respected *over* qualifications in Article 9.[27] Article 89 allows discriminatory measures to be taken in establishing airspace restrictions. A Contracting State is entitled to justify its discriminatory measures in closing airspace, for example, targeting aircraft of certain nationalities, in times of war.

In conclusion, Article 89 of the Chicago Convention supports the right of a Contracting State to take extraordinary measures for self-preservation. If a prohibited area is established in wartime, a State is entitled to claim that its right for self-preservation overrides qualifications in Article 9 of the Chicago Convention. By invoking war and national emergency, Contracting States are entitled to suspend the application of Article 9: for example, it is justifiable to establish prohibited areas against civil aircraft of particular nationalities.

2.3 The determination of 'war'

2.3.1 Preliminary remarks

Having explained that the right of a State to establish prohibited airspace is not qualified by Article 9 of the Chicago Convention, it is necessary to clarify the meaning of "war";[28] that is, to elaborate on the legal definition of the term war for the purpose of understanding when Article 89 is applicable. Therefore, the question is when a war starts: this question has been raised by States before the ICAO Council and the International Court of Justice (ICJ).

---

23 See the following Section 2.3 of this chapter on the India-Pakistan disputes in front of the ICAO Council in 1970s.

24 See Chapter II, Section 4.

25 On distinction among nationalities of aircraft, see Chapter II, Section 2.5.

26 *ibid.*

27 Bin Cheng, *Principles*, pp. 29-31.

28 The starting of national emergency vis-à-vis emergency is explained in Chapter II, Section 2.4.4. On national emergency, see below Section 2.4 of this chapter.

2.3.2 *The interpretation of war by ICAO and the ICJ*

In 1971, ICAO meetings discussed the meaning of war as codified in Article 89 of the Chicago Convention. In February 1971, following a hijacking incident of Indian aircraft by pro-Pakistan Kashmiri, India suspended overflights of its territory by Pakistani – and only Pakistani – civil aircraft.[29] In March 1971, Pakistan presented complaints to the ICAO as to the application of Article 84 of the Chicago Convention and Article II of the Transit Agreement.[30] India then filed a preliminary objection questioning the jurisdiction of the ICAO Council to handle the matter.[31]

India's main argument was that the operation of the Chicago Convention and Transit Agreement had been suspended because of the 1965 Indo-Pakistani War. India relied on the provision of Article 89 of the Chicago Convention that would grant it "freedom of action" in case of war or emergency.[32]

To justify the establishment of prohibited areas in airspace against Pakistan, India elaborated on Article 89 at length. The key point of the discussion for the legality of India's prohibited area was the interpretation of "war" in Article 89. It was the Indian intention to invoke Article 89 to suspend the application of the Chicago Convention. India interpreted "war" in Article 89 broadly, not just as the duration of the actual fighting but extending to even after the war is terminated if the essential security of a State requires some freedom of action.[33] India argued that "war" in Article 89 covers military tensions that did not yet amount to war under international law.[34] The ICAO Council eventually rejected India's preliminary objection in July 1971.[35] The decision is reflected only in the minutes of the Council meeting, not in a special document

29 ICJ, Appeal relating to the Jurisdiction of the ICAO Council, *India v. Pakistan*, Memorial submitted by the Government of India, 22 December 1971, para.28.

30 *Milde,* p.190.

31 *ibid*.

32 The intervention of Mr. Palkhivala, Chief Counsel of India, in the second meeting of ICAO Council's 74th Session. See ICAO, Council – seventy-fourth session, Minutes of the Second meeting, ICAO Doc. 8956-c/1001, C-Min. LXXIV/s (closed), p. 159 paras. 59-60. This document was reproduced as Annex E to the Memorial submitted by the Government of India to the International Court of Justice in an Appeal Relating to the Jurisdiction of the ICAO Council, 22 December 1971, https://www.icj-cij.org/en/case/54/written-proceedings, last accessed 30 December 2018.

33 The intervention of Mr. Palkhivala, Chief Counsel of India, in the second meeting of ICAO Council's 74th Session. See ICAO, Council – seventy-fourth session, Minutes of the Second meeting, ICAO Doc. 8956-c/1001, C-Min. LXXIV/s (closed), p. 159 paras. 59-60. This document was reproduced as Annex E to the Memorial submitted by the Government of India to the International Court of Justice in an Appeal Relating to the Jurisdiction of the ICAO Council, 22 December 1971, https://www.icj-cij.org/en/case/54/written-proceedings, last accessed 31 December 2018.

34 *ibid*.

35 ICAO, C-Min. 74/6.

as a "decision" under Article 84 of the Convention.[36] The Minutes indicated the result of the vote but do not explain any arguments or reasons for the decision.

At the ICJ, the status of war was also the subject matter of the deliberations in the Appeal Relating to the Jurisdiction of the ICAO Council *(India v. Pakistan)*.[37] In the appeal, India argued that Article 89 is permissive in nature such that during war and emergency conditions, Contracting States have the "freedom of action";[38] therefore, if a Contracting State is questioned about not allowing its enemies to overfly while war is going on, it can say that it does not have to declare the Convention terminated, because the Convention itself gives it complete freedom of action. However, the ICJ did not comment on the exact legal position.

Unfortunately, neither ICAO nor the ICJ have clarified the meaning of 'war' in Article 89 of the Chicago Convention. ICAO seems to avoid deliberating on activities during times of conflict,[39] the organisation instead addressed procedural issues such as information sharing over conflict zones.[40] Perhaps in the 1970s, Member States of ICAO thought it was more political than legal to determine whether the hostile acts between two sovereign States constitute 'war' in Article 89 of the Chicago Convention. Difficult as it is to define 'war', considering the development of the law of war since 1970s,[41] the following sections propose an interpretation of 'war', using the interpretation methods in Articles 31 and 32 of the VCLT.[42]

36 ICAO, Council – seventy-fourth session, Minutes of the Second Meeting, ICAO Doc. 8956-c/1001, C-Min. LXXIV/s (closed). This document was reproduced as Annex E to the Memorial submitted by the Government of India to the International Court of Justice in an Appeal Relating to the Jurisdiction of the ICAO Council, 22 December 1971, https://www.icj-cij.org/en/case/54/written-proceedings, last accessed 31 December 2018.

37 *Appeal relating to the Jurisdiction of the ICAO Council (India v. Pakistan),* 1972, Written Proceedings, Memorial submitted by the Government of India, last accessed 31 December 2018.

38 *ibid.*, p. 5.

39 For instance, Article 6(2) of 2010 Convention on the Suppression of Unlawful Acts Relating to International Civil Aviation reads: "The activities of armed forces during an armed conflict, as those terms are understood under international humanitarian law, which are governed by that law are not governed by this Convention, and the activities undertaken by military forces of a State in the exercise of their official duties, inasmuch as they are governed by other rules of international law, are not governed by this Convention."

40 ICAO, "Procedure to Disseminate Information on Risks to Civil Aviation Arising from Conflict Zones," C-WP/14498, Appendix, 2/5/16. ICAO, "Civil Aircraft Operations Over Conflict Zones," November 2016 (restricted).

41 On the 'law of war', see the following Section 3.3 of this chapter.

42 Article 31 of the VCLT.

2.3.3 *Preparatory work of the Chicago Convention*

The Chicago Convention does not define 'war'.[43] Based on the analysis of the preparatory work of the Chicago Convention, which provides a supplementary means of interpretation,[44] in 1944, delegations were discussing the ending of war between States and peaceful relationships among States.[45] The word *war* was introduced by a UK motion;[46] there was no record of defining the concept of war during the Chicago Conference. From a historical perspective, public international law was only dealing with the relationship between sovereign States.[47] The traditional law of war would only be applied between two or more sovereign States.[48] Therefore, the word war refers to armed conflicts among States: this is the ordinary meaning taking into account the context of the Chicago Convention being a treaty of peace.

2.3.4 *Subsequent agreement between the parties regarding the meaning of 'war'*

2.3.4.1 *Evolutive interpretation of 'war'*

As explained in Section 2.2 of this chapter, the adoption of Article 89 is to bridge the divide between air law and the law of war; this rationale is supported by intergovernmental processes at ICAO.[49] ICAO convened a special meeting to review the application of ICAO treaties relating to conflict zones in Montreal from 13 to 15 July 2015.[50] At the meeting, Member States recog-

---

43 The ordinary meaning of war, as used in the 2020s, is often associated with hostilities and armed conflict. See Karen DeYoung, "Is it a 'war'? An 'armed conflict'? Why words matter in the U.S. fight vs. the Islamic State", https://www.washingtonpost.com/world/national-security/is-it-a-war-an-armed-conflict-why-words-matter-in-the-us-fight-vs-the-islamic-state/2014/10/06/f4528a6c-49a1-11e4-891d-713f052086a0_story.html, last accessed 20 January 2021. The aviation insurance industry has defined war as acts or operations of hostilities committed by belligerents as agents of sovereign powers. See *Atlantic Mutual Insurance Co. v. King*, [1919] 1 KB 307 at 310. This case is about a claim under a marine cargo reinsurance policy; the vessel Tennyson carrying hides and skins from Brazil to New York had an explosion on 18 February 1916; primary insurers thereby bring the action to recover from the defendang reinsurers the proportion of the loss. See also Michel, K. (2013). *War, Terror and Carriage by Sea*. Routledge 2013, pp. 54-56. See also Margo R D., Aviation Insurance, 3rd., ed., Butterworths, LexisNexis 2000, p. 338.

44 VCLT, Art. 32. See Chapter I, Section 1.2 on treaty interpretation methods.

45 See also Chapter II, Section 2.4.1.

46 See *Proceedings of the International Civil Aviation Conference,* Vol.1 (United States Government Printing Office, Washington, 1948), United Kingdom Proposal of Amendment of Document 16 – Document 350; United Kingdom Proposal of a Substitute for Article 10 (c) of Document 16 – Document 353, pp. 472 & 693.

47 R Heinsch et al, *An Introduction to Public International Law*, CUP 2022, p. 235 (*'Heinsch'*).

48 *ibid*, see also Leslie C *Green, The Contemporary Law of Armed Conflict* 2nd ed., Juris 2000, p. 54.

49 ICAO, "Special Group to Review the Application of ICAO Treaties Relating to Conflict Zones" (18 September 2015) SGRIT-CZ/1 Draft Report, paras. 7.13-7.14.

50 *ibid.*

nized that the recourse to relevant rules of international law for the purpose of treaty interpretation is necessary:[51] Article 89 represents, in fact, two Articles consolidated into one.

> In 1944 (during the Second World War) there existed two bodies of laws: those that applied to peace and those that applied to war. States involved in war, the 'belligerents', would notify the fact to the 'neutral' States so that they could exercise their rights and obligations, including those associated with aviation. However, today the division between the two bodies of law is completely different, having evolved into the law applied to armed conflicts. Given that Article 89 does not provide an answer to the very diverse scenarios of armed conflicts, this delegation posited that the legal answer may have to be sought in other bodies dealing with international law as applied to armed conflicts.[52]

In interpreting the word *war* in Article 89 of the Chicago Convention, it is thus necessary to rely on the relevant rules of the law of war, encompassing customary international law rules[53] applicable in the relations between ICAO Member States.

This evolutive interpretation method to bring in other rules of international law is permissible under the rules of Article 31 of the VCLT.[54] The ILC also argues that international law is a dynamic legal system, and subsequent developments in customary law and general principles of law allow for interpretations in a non-static manner when the concept used is open or evolving.[55] Because the concept of war is constantly evolving with the development of the law of war, it is necessary to break away from the peace-aligned legislation and go beyond the Chicago Convention. Considering that the law of war has evolved into a separate legal regime since the end of World War II, it is necessary to look up to the law of war for the interpretation of war. The term "war" in Article 89, associated with a Contracting State's self-preserving measures, is to be interpreted in light of the developments in the law of war.

---

51 *ibid.*

52 *ibid.*

53 See below Section 3 of this chapter on customary international humanitarian law.

54 VCLT, Articles 31.

55 International Law Commission, Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law, Report of the Study Group of the International Law Commission. A/CN.4/L.702 (18 July 2006) para. 22; International Law Commission, Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law, Report of the Study Group of the International Law Commission, Finalized by Martti Koskenniemi, A/CN.4/L.682 (13 Apr. 2006) para. 478 (a). See also Christian Djeffal, Static and Evolutive Treaty Interpretation: A Functional Reconstruction, CUP 2016, pp. 15-16.

2.3.4.2 The meaning of war in IHL

With respect to the law of war, there are rules which regulate the "means and methods of warfare", the so-called 'Hague Law';[56] there are also rules dealing with the "protection of persons and objects" *hors de combat*, which are referred to as 'Geneva Law.[57] The Hague Law and Geneva Law together constitute the law of armed conflict, also commonly known as international humanitarian law (IHL), or *jus in bello*.[58]

The reference to 'war' went through major changes in 1949: with the revision of the Geneva Conventions, the term armed conflict was introduced to replace the term of war.[59] The reason was that 'armed conflict' focuses more on the facts on the ground, while the war was mainly connected with a declaration of war.[60] Furthermore, the concept of 'armed conflict' is divided into international and non-international armed conflicts (IAC and NIAC): IAC takes place between sovereign powers and NIAC involves domestic rebels but excludes mobs or rioters.[61] IACs and NIACs are subject to different rules.[62]

To further interpret "war" in the Chicago Convention, it is necessary to refer to the definition of an international armed conflict (IAC) contained in Common Article 2 of the Geneva Conventions, which has been well accepted as customary international law.[63]

> In addition to the provisions which shall be implemented in peacetime, the present Convention shall apply to all cases of declared war *or of any other armed conflict* which may arise between two or more of the High Contracting Parties, even if the state of war is not recognized by one of them.

---

56 *Heinsch*, p. 231.

57 *ibid.*

58 *ibid.* In the last 150 years, States have made international rules to limit the effects of armed conflict for humanitarian reasons. The Geneva Conventions and the Hague Conventions are the main examples. Usually called international humanitarian law (IHL), this is also known as the law of war or the law of armed conflict. See https://www.icrc.org/en/doc/war-and-law/overview-war-and-law.htm, last accessed 29 February 2020.

59 *ibid,* pp. 234-235. See also Dinstein, Y. *War, Aggression and Self-Defence*. CUP 2005, pp. 5-7.

60 *Heinsch*, p. 235.

61 See S. Vité, Typology of armed conflicts in international humanitarian law: legal concepts and actual situations, 91 International Review of the Red Cross, no. 873, March 2009, pp.69-75. Heinsch R.W. (2015), Conflict Classification in Ukraine: The Return of the "Proxy War"?, International Law Studies 91, pp. 339-340.

62 See Heinsch R.W. (2015), Conflict Classification in Ukraine: The Return of the "Proxy War"?, *International Law Studies* 91, pp. 339-340. Compared to the full-fledged rules governing international armed conflicts, Common Article 3 provide only a very minimal set of rules regulating non-international armed conflicts, especially with regard to the means and methods of warfare. In addition, the 1977 Second Additional Protocol (AP II) to the Geneva Conventions was the first international treaty which only contained rules for non-international armed conflicts.

63 *Heinsch ibid.*

> The Convention shall also apply to all cases of partial or total occupation of the territory of a High Contracting Party, even if the said occupation meets with no armed resistance. Although one of the Powers in conflict may not be a party to the present Convention, the Powers who are parties thereto shall remain bound by it in their mutual relations. They shall furthermore be bound by the Convention in relation to the said Power, if the latter accepts and applies the provisions thereof.

Common Article 2 of Geneva Conventions clarifies that a formal declaration of war is not necessary, and that instead, the factual circumstances determine the situation of IAC, thereby triggering the application of IHL.[64] An international armed conflict consists of "the use of force in a warlike manner between states".[65] That is to say, the key in the identification of war is the engagement in violence, not the declaration of war or other formalities.[66] There needs to be an "intervention of members of armed forces".[67] The ICTY and other tribunals have affirmed two main components of an international armed conflict: (a) the initiation of armed conflicts,[68] and (b) the involvement of two States.[69] Furthermore, the 2016 ICRC Commentary on Common Article 2 clarifies that "an armed conflict can arise when one State unilaterally

64 *ibid.*

65 K. J. Partch, Armed Conflict, in R. Bernhardt, *Encyclopedia of Public International Law*, Vol. I., Elsevier, 1990, p. 251.

66 Dinstein, Y. *War, Aggression and Self-Defence*. CUP 2005, pp. 5-7.As Dinstein argued, there are two sorts of war: war in the technical sense and war in the material sense. War in the technical sense emphasizes the formalities – a declaration of war. Whether the countries did fire at each other is not important. For example, Germany and Latin America did not engage in a de facto armed clash in either war. However, due to the declaration of war, Germany and Latin America were de jure at war. Another example is the driehonderdvijfendertigjarige oorlog. The Netherlands, in 1651 allied with Cromwell, declared war against the Scilly Isles, where the British Royalist fleets were based. No shots were fired between the Dutch and the Scilly Islanders, and a peace treaty was not concluded between the Netherlands and the British Scilly Islands until 1986. During the time between a declaration of war and the conclusion of peace treaty, 335 years (!), the Netherlands and the Scilly Isles were in a state of war in the technical sense until 1986. See also L. Oppenheim, International Law, II, 202 (H. Lauterpacht ed., 7th ed., 1952.

67 Heinsch R.W. (2015), Conflict Classification in Ukraine: The Return of the "Proxy War"?, International Law Studies 91, pp. 331-333. International Committee of the Red Cross, *How is the Term "Armed Conflict" Defined in International Humanitarian Law?* 1 (Opinion Paper, 2008), *available at* https://www .icrc.org/eng/assets/files/other/opinion-paper-armed-conflict.pdf.

68 ICTY, *The Prosecutor v. Dusko Tadic, Decision on the Defence Motion for Interlocutory Appeal on Jurisdiction, 2 Oct. 1995, IT-94-1-AR72 (RP D6413-D6491),* para. 70.

69 *ibid.* Pictet defined international armed conflict as 'any opposition between two states involving the intervention of their armed forces and the existence of victims', see Jean S. Pictet, *Humanitarian Law and the Protection of War Victims*, Henry Dunant Institute, Geneva, 1975, p. 52 and Pictet (ed.), *Commentary on the Fourth Geneva Convention*, ICRC, 1958, pp. 20-21.

uses armed force against another State even if the latter does not or cannot respond by military means."[70]

An IAC, which involves more than one Sovereign State, is equivalent to the concept of "war" in the Chicago Convention, because in 1944, the drafters of the Chicago Convention by and large had inter-state conflicts, *e.g.* the Second World War, in mind.[71] Having said that Contracting States recognize that Article 89 is to bridge the law of peace and the law of war,[72] IHL's developments in the connotation of 'war', since the 1940s, shall be taken into consideration in interpreting Article 89 of the Chicago Convention.[73] The criteria crystalized in IHL law and jurisprudence reflect the international community's evolutive understanding of the concept of 'war'. As of the 2020s, States have accepted the aforementioned criteria of IACs developed by IHL as customary international law, thereby replacing the usage of the term "war" with IAC.[74]

2.4 Triggers of the application of Article 89

2.4.1 The temporal dimension of war

The previous section examined the ordinary meaning of 'war' in the context of the Chicago Convention, together with the historical documents[75] and evolutive development in IHL.[76] It is now necessary to explore the application scope of Article 89 in light of past and current IHL developments. According to Article 89 of the Chicago Convention, the triggers of its application are two scenarios: war and national emergency. As said, in 1944, the term "war" probably referred only to hostilities between sovereign States – that is, inter-

70 See ICRC, *Commentary on the First Geneva Convention: Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field, 2nd edition, 2016*, para. 223: "The unilateral use of armed force presupposes a plurality of actors and still reflects an armed confrontation involving two or more States, the attacking State and the State(s) subject to the attack, therefore satisfying the requirement of Article 2(1). The fact that a State resorts to armed force against another suffices to qualify the situation as an armed conflict within the meaning of the Geneva Conventions.", and its para. 193: "Article 2(1) broadens the Geneva Conventions' scope of application by introducing the notion of 'armed conflict', thereby making their application less dependent on the formalism attached to the notion of 'declared war." However, the question remains whether this progressive development is generally accepted.

71 See Section 2.2.2 of this chapter.

72 See Section 2.2 of this chapter. ICAO, "Special Group to Review the Application of ICAO Treaties Relating to Conflict Zones" (18 September 2015) SGRIT-CZ/1 Draft Report, paras. 7.13-7.14.

73 *ibid.*

74 This section focuses on the concept of war. The other trigger of Article 89, national emergency, is discussed in the following Section 2.4.2 of this chapter.

75 See Section 2.3.3 of this chapter.

76 See Section 2.3.4 of this chapter.

national armed conflict (IAC).[77] More specifically, the critical point in identifying an international armed conflict is the intervention of members of armed forces.[78]

Applying these criteria to the dispute between India and Pakistan in 1971, one has to say that although there was a certain tension between the two countries, there were no firings between national armed forces. The UN Security Council had secured a cease-fire in September 1965,[79] and there was no *de facto* armed fire or use of force from February to July 1971. All in all, the decisive factor in defining a war is deeds – that is, the recourse to armed forces.[80] Since there was no actual use of force between the two countries, India was not at war with Pakistan in the first half of 1971. Therefore, Article 89 was not activated automatically on the grounds of war.

2.4.2 National emergency and non-international armed conflict (NIAC)

With respect to the term "national emergency" mentioned in Article 89, one can say that it covers broad situations.[81] In this context, it is safe to say that NIAC may also give rise to a 'national emergency',[82] although commentators may have different interpretation as to the intensity and level of organization.[83] Common Article 3 of Geneva Conventions is a starting point for interpreting the meaning of NIACs,[84] because that article has developed into the

77 Non-international armed conflict drew attention in 1970s, see ICRC, Protection of Victims of Non-International Armed Conflicts, Document presented at the Conference of government experts on the reaffirmation and development of international humanitarian law applicable in armed conflicts, Vol. V, Geneva, 24 May–12 June 1971, p. 79. M. Bothe, K.J. Partsch, W.A. Solf, *New Rules for Victims of Armed Conflicts*, Martinus Nijhoff 1982, pp. 45–52.

78 ICTY, Prosecutor v. Dusko Tadic, IT-94-1-AR72, Appeals Chamber, Decision, 2 October 1995, para. 70.

79 UN Security Council Resolution 211 (1965).

80 ICTY, *The Prosecutor v. Dusko Tadic*, Decision on the Defence Motion for Interlocutory Appeal on Jurisdiction, IT-94-1-A, 2 October 1995, para. 70.

81 See Chapter II, Section 2.4.4 of this study on emergency.

82 See Section 2.4.2 of this chapter.

83 See for instance, the situation in Ukraine, Heinsch R.W. (2015), Conflict Classification in Ukraine: The Return of the "Proxy War"?, International Law Studies 91, p. 335.

84 Common Article 3 reads:
"In the case of armed conflict not of an international character occurring in the territory of one of the High Contracting Parties, each Party to the conflict shall be bound to apply, as a minimum, the following provisions:
(1) Persons taking no active part in the hostilities, including members of armed forces who have laid down their arms and those placed 'hors de combat' by sickness, wounds, detention, or any other cause, shall in all circumstances be treated humanely, without any adverse distinction founded on race, colour, religion or faith, sex, birth or wealth, or any other similar criteria.
To this end, the following acts are and shall remain prohibited at any time and in any place whatsoever with respect to the above-mentioned persons:

absolute minimum standard applicable to non-international armed conflicts.[85] Common Article 3 seems to set forth only two required criteria when determining the existence of a non-international armed conflict: (a) the existence of a conflict "not of an international character," which has to (b) "occur on the territory of one of the High Contracting Parties."[86] On the basis of Common Article 3, international tribunals have further clarified the elements necessary to establish a NIAC.[87]

Regarding the relationship between NIAC and national emergency, it is up to a State to consider whether hostilities which reached the thresholds of NIAC may constitute a national emergency.[88] As explained in Section 2.4.4 of Chapter II, although the Chicago Convention does not specify criteria for a national emergency, a Contracting State is able to declare a national emergency for a State when the situation threats the life of the nation or the national interest is in peril.[89] The Chicago Convention does prescribe an obligation for a Contracting State declaring national emergency: the said State should notify the situation to the ICAO Council in order to suspend the application of the Chicago Convention.[90]

(a) violence to life and person, in particular murder of all kinds, mutilation, cruel treatment and torture;
(b) taking of hostages;
(c) outrages upon personal dignity, in particular humiliating and degrading treatment;
(d) the passing of sentences and the carrying out of executions without previous judgment pronounced by a regularly constituted court, affording all the judicial guarantees which are recognized as indispensable by civilized peoples.
(2) The wounded and sick shall be collected and cared for.
An impartial humanitarian body, such as the International Committee of the Red Cross, may offer its services to the Parties to the conflict.
The Parties to the conflict should further endeavour to bring into force, by means of special agreements, all or part of the other provisions of the present Convention.
The application of the preceding provisions shall not affect the legal status of the Parties to the conflict."

85 *ICJ, , Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v. United States), Merits, Judgment of 27 June 1986,* ICJ Reports 1986, para. 218.

86 Heinsch R.W. (2015), Conflict Classification in Ukraine: The Return of the "Proxy War"?, International Law Studies 91, p. 335.

87 The Appeals Chamber of the ICTY in the previously 1995 Tadiæ Jurisdiction Decision affirmed the following: Common Article 3 is only applicable to NIACs "whenever there is […] protracted armed violence between governmental authorities and organised armed groups or between such groups within a State." The ICTY 2008 Haradinaj Trial Chamber judgment further stressed two factors which need to be fulfilled: (1) the armed violence needs to amount to a certain intensity and (2) armed groups need to have a special level of organisation.

88 See Chapter II, Section 2.4.4.

89 *ibid.*

90 There have been some cases where States have notified ICAO of a state of emergency in their countries. In these situations, States have proclaimed that under Article 89 of the Chicago Convention, they were not able to comply with their obligations under the Chicago Convention. These cases include Honduras in 1957, India in 1962, Pakistan in 1965, Pakistan

This interpretation of war and national emergencies accounts for the ICAO Council's decision that from February to July 1971, there was no war or national emergency between India and Pakistan in the sense of Article 89 of the Chicago Convention.[91] First of all, there was no actual fighting to constitute 'war'; second, to invoke an emergency under Article 89, a State must notify the ICAO of the situation, but India had not filed a situation of national emergency with the ICAO.[92] Therefore, Article 89 was not triggered and Article 9 still applied to the case. In establishing a prohibited area, India had to observe the requirements, such as non-discrimination[93] as prescribed in Article 9 of the Chicago Convention.

In contrast to the 1970s, sadly in 2020s, an international armed conflict broke out after Russia declared a "special military operation" and Russian armed forces attacked Ukraine since 24 February 2022.[94] It is a war between two sovereign States,[95] condemned by the UN General Assembly as "the aggression against Ukraine in violation of Article 2(4) of the UN Charter."[96] The European Union Aviation Safety Agency updated their safety bulletin recommending air operators exercise caution due to heightened military activity.[97] Furthermore, European nations shut their airspace against Russian aircraft on 27 February 2022.[98] Commentators may question whether the pre-

---

and India in 1971, and Iraq in 1973. See ICAO, 'Special Group to Review the Application of ICAO Treaties Relating to Conflict Zones' (26 June 2015) SGRIT-CZ/1-WP/1, para. 2.7.

91 See ICAO, Council – seventy-fourth session, Minutes of the Second meeting, ICAO Doc. 8956-c/1001, C-Min. LXXIV/s (closed), p. 275. This document was reproduced as Annex E to the Memorial submitted by the Government of India to the International Court of Justice in an Appeal Relating to the Jurisdiction of the ICAO Council, 22 December 1971, https://www.icj-cij.org/en/case/54/written-proceedings, last accessed 31 December 2018.

92 *ibid.*

93 See further Chapter II of this study on the limitations to the establishment of a prohibited airspace.

94 See the plead of UN Secretary General Mr. Guterres https://news.un.org/en/story/2022/02/1112592, last accessed 28 February 2022. "Russia declares war, launches attack in Ukraine; explosions reported", https://www.usatoday.com/story/news/politics/2022/02/23/russia-ukraine-invasion-crisis-update/6906567001/, last accessed 28 February 2022.

95 See UN General Assembly: Eleventh Emergency Special Session (Ukraine), convened on 28 February 2022. https://journal.un.org/classic/viewdetails/en/officials/d298e6e4-a436-4ae7-c171-08d9fa2de937/statements, last accessed 28 February 2022. See also «La guerre revient en Europe», https://www.leparisien.fr/politique/la-crise-en-ukraine-durera-emmanuel-macron-inquiet-dune-situation-imprevisible-26-02-2022-3NS6LHFN5BDL3OODUYYYUZPJ2U.php, last accessed 28 February 2022.

96 United Nations General Assembly Resolution ES-11/1 is a resolution of the eleventh emergency special session of the United Nations General Assembly, adopted on 2 March 2022. The resolution was sponsored by 96 countries, and passed with 141 voting in favor, 5 against, and 35 abstentions.

97 EASA updates Conflict Zone Information Bulletin with respect to Ukraine, https://www.easa.europa.eu/en/newsroom-and-events/news/easa-updates-conflict-zone-information-bulletin-respect-ukraine, last accessed 15 September, 2022.

98 https://www.reuters.com/business/aerospace-defense/europe-moves-close-its-skies-russian-planes-2022-02-27/, last accessed 28 February 2022.

conditions to close airspace, such as non-discrimination and reasonable extent in Article 9 of the Chicago Convention, have to be satisfied under such circumstances;[99] this section re-emphasizes that, as said in Section 2.5 of Chapter II, once a war breaks out and Article 89 of the Chicago Convention is thus activated, Contracting States affected, whether as belligerents or as neutrals, in this case Ukraine, the EU countries, and Russia,[100] are able to resume liberty so that their airspace closure measures are free from the preconditions in Article 9 of the Chicago Convention.

Therefore, the key conclusion is that whether the parties to the conflict recognize themselves as being at war or not is irrelevant.[101] Even if States have not declared war or notified the ICAO Council, as long as their armed forces have begun firing, they are legally in wartime. Based on the evolution of the law of war, including the revision of Geneva Conventions in 1949,[102] "war" in Article 89 of the Chicago Convention means IAC, that is, the recourse to armed forces between sovereign States.[103] This construction of 'war', meaning IAC, can explain the decisions of ICAO and the ICJ, in a way that is consistent with the development of both air law and IHL. Deeds mark the beginning of 'war' in Article 89 of the Chicago Convention. In times of national emergency, a Contracting State has to notify the ICAO Council of such situation in order to trigger the application of Article 89 of the Chicago Convention. Article 89 allows the State concerned to have a final say as to whether or not it encounters national emergency. Once Article 89 is activated, Contracting States are no longer bound by Article 9 of the Chicago Convention and thus are free to establish prohibited airspace against particular State(s).

2.4.3 The geographic dimension of combat zone and conflict zone

Having clarified that 'war' in Article 89 refers to IAC, the previous section explained the *temporal* dimension of war: the recourse to armed forces among

99 See Sections 2.5 and 2.6 of Chapter II.

100 See EU response to Russia's invasion of Ukraine – "The EU has shown unity and strength and has provided Ukraine with humanitarian, political, financial and military support." https://www.consilium.europa.eu/en/policies/eu-response-ukraine-invasion/, last accessed 15 September 2022. "EU agrees to give _500M in arms, aid to Ukrainian military in 'watershed' move", https://www.politico.eu/article/eu-ukraine-russia-funding-weapons-budget-military-aid/, see also https://www.ft.com/content/800b9cdc-e0a8-42c5-9cb5-3e04242ad9b3, last accessed 28 February 2022. It deserves a separate study to examine EU's role in the war and discuss whether EU's support to Ukraine put European nations in a situation of war against Russia, albeit the lack of formal recognition through declarations of war. On the declaration of war, see Section 2.3.4.2 of this chapter.

101 See Section 2.3.4.2 of this chapter

102 *ibid.*

103 *Heinsch*, pp. 235-236.

sovereign States marks the beginning of 'war'.[104] This section is designed to clarify the *geographic* dimension of war as laid down in Article 89.

A combat zone, or colloquially a 'war zone', is the place where an armed conflict takes place: IHL rules apply to armed conflicts;[105] and the geographical scope, as a matter of fact, can be called combat zones, although the latter is rather a factual term than a legal concept.[106] Plainly, military operations may not be carried out beyond the area of war.[107]

Relevant and similar to a combat zone, in the air law context, ICAO uses the concept of "conflict zones", defined as follows:

> Airspace over areas where armed conflict is occurring or is likely to occur between militarized parties, and is also taken to include airspace over areas where such parties are in a heightened state of military alert or tension, which might endanger civil aircraft.[108]

The ICAO definition of a conflict zone is not limited to areas in which an armed conflict is occurring or is likely to occur between militarized parties. It also includes "a heightened state of military alerts or tension". This definition covers more than the zones of armed conflict where actual armed fire exists. The expression "might endanger civil aircraft" only requires a *possibility* of endangering overflying aircraft. For instance, in November 2018, Russia captured three Ukrainian Navy vessels attempting to pass from the Black Sea into the Sea of Azov through the Kerch Strait.[109] This led to military tension in the areas surrounding the Kerch Strait. This area was a conflict zone according to the ICAO definition because missiles were deployed and the missiles posed risks to civil aircraft.[110] However, the area of Kerch Strait in November 2018 was *not* a *combat* zone in the sense of IHL: it was an area of military

104 See Section 2.4.1 of this chapter.

105 The thresholds of IAC and NIAC are explained in Section 2.3 of this chapter.

106 "The term 'combat zone' is a factual term which does not have any consequences for the application of IHL." See Heinsch R.W. (2012), Unmanned Aerial Vehicles and the Scope of the 'Combat Zone': Some Thoughts on the Geographical scope of Application of International Humanitarian Law, Humanitäres Völkerrecht – Informationsschriften 25(4): 184, p.185.

107 C. Greenwood, Scope of Application of Humanitarian Law, in: D. Fleck, Handbook of International Humanitarian Law, Oxford 2008, p. 216.

108 ICAO, "Procedure to Disseminate Information on Risks to Civil Aviation Arising from Conflict Zones," C-WP/14498, 2/5/16. ICAO, "Civil Aircraft Operations Over Conflict Zones," November 2016 (restricted).

109 "Kerch strait confrontation: what happened and why does it matter?", https://www.theguardian.com/world/2018/nov/27/kerch-strait-confrontation-what-happened-ukrainian-russia-crimea, last accessed 2 January 2019.

110 "Russia is going to deploy new missile systems in Crimea", https://www.cnbc.com/2018/11/28/russia-to-deploy-new-s-400-missile-systems-in-crimea.html, last accessed 2 January 2019.

standoff, but there was no intervention of members of armed forces among sovereign States.

That is to say, the ICAO definition of a conflict zone includes both combat zones, and areas of military alerts and tension. Combat zones are where armed intervention takes place, and areas of military alerts are where, for instance, missiles are positioned, posing risks to civil aviation, but no intervention has occurred yet. Nonetheless, a State may consider that these situations make national interest in peril and declare a *national emergency* and trigger the application of Article 89 of the Chicago Convention; alternatively, the State can declare emergency or public safety concerns;[111] therefore, in such as case, a State has the right to establish prohibited, restricted, or dangerous areas over its territory, subject to the conditions and requirements in Article 9 of the Chicago Convention.

2.5 Interim conclusions

In cases of war and national emergencies, the Contracting States affected are entitled to resume their freedom from action under the Chicago Convention and take self-preserving measures, including airspace restrictions. As to the meaning of war, this section explored the ordinary meaning, the preparatory history, and ICAO proceedings to confirm that in 1944 'war' meant armed conflict between sovereign States. Due to the development of the law of war since 1949, this section clarified that the equivalent concept to 'war' is 'international armed conflict', as it has been predominantly used in international (humanitarian) law. The starting point of international armed conflict, a war, is the beginning of recourse to armed forces, regardless of the declaration of war.

A combat zone is where an armed conflict takes place, including international and non-international armed conflicts (IAC and NIAC). The ICAO definition of conflict zones is broader than the concept of combat zone in IHL, because it includes areas where parties are in a heightened state of military alert or tension.[112] In a heightened alert area, perhaps there was no recourse to armed forces yet, but deployed weapons still pose a risk to civil aircraft.

For such a heightened alert area, in accordance with Article 9 of the Chicago Convention, a Contracting State, invoking military necessity, emergencies, or public safety concerns, has the right to establish prohibited areas

111 Regarding the conditions to prohibit or restrict the use of airspace, see Chapter II of this study.

112 ICAO, "Procedure to Disseminate Information on Risks to Civil Aviation Arising from Conflict Zones," C-WP/14498, 2/5/16. ICAO, "Civil Aircraft Operations Over Conflict Zones," November 2016 (restricted).

over its territory; in extreme cases where national interest is in peril,[113] the State may declare a national emergency due to this heightened area, and notify the ICAO Council – this means the State triggers the application of Article 89 and resumes freedom from the Chicago Convention.

In the case of an IAC, that is 'war', a State does not need to notify the ICAO Council and Article 89 is activated automatically. In case of a NIAC, a State should notify the ICAO Council when it considers that the situation amounts to national emergency. In doing so, Article 89 of the Chicago Convention is activated and a Contracting State resumes liberty from the Chicago Convention: the said State is no longer bound by the requirements in Article 9, such as that of non-discrimination, in establishing prohibited airspace. The following table helps clarify the terms and governing rules of each situation.

113 See Chapter II of this study, Section 2.4.4.

Table 2: Prohibited airspace in times of IAC, NIAC and military tensions[114]

	Temporal dimension	*Geographic dimension*	*Link with the Chicago Convention*	*Applicability of IHL*
IAC	Starting from the recourse to armed forces	Combat zones, meanwhile also Conflict zones	- Automatic trigger Article 89; the State's acts are regulated by IHL - the State is entitled to establish prohibited airspace free from qualifications in the Chicago Convention	Applicable
NIAC	Starting from the existence of a conflict not of an international character		- The State is entitled to invoke military necessity, emergencies, or public safety concerns to establish prohibited airspace, subject to the requirements such as non-discrimination in Article 9 - alternatively, when national interest is in peril, the States has to notify ICAO of national emergency to trigger the application of Article 89; and after that, the State is entitled to establish prohibited airspace free from qualifications in Article 9	Applicable, in a limited fashion compared to IAC
Military alert or tension	Starting from military tension or alert that might endanger civil aircraft	Conflict zones only	Depending on the situation, the State may - invoke military necessity, emergencies, or public safety concerns to establish prohibited airspace, subject to the requirements such as non-discrimination in Article 9 - alternatively, when national interest is in peril, the States has to notify ICAO of national emergency to trigger the application of Article 89; and after that, the State is entitled to establish prohibited airspace free from qualifications in Article 9	Not applicable

114 Source: created by the author.

3 THE OBLIGATION TO ESTABLISH PROHIBITED AIRSPACE OVER CONFLICT ZONES

3.1 Preliminary remarks

As said, IHL rules apply to armed conflicts; and the factual geographical scope can be expressed as combat zones.[115] With respect to combat zones, throughout the year 2019,[116] the Uppsala Conflict Data Program (UCDP) recorded 54 active state-based conflicts: the highest number in the post-1946 period, including seven wars and 28 state-based conflicts involving IS (Islamic State), al-Qaida, or their affiliates.[117] The graphically concrete description would be that "dozens of passenger planes are still flying over combat zones and conflict areas on a daily basis".[118] As aviation naturally needs to traverse great areas, it is highly probable that thousands of people fly over conflict zones that are left open by the territorial States every day.

In discussing rules for establishing prohibited areas, it is inevitable to examine general IHL rules, in addition to the Chicago Convention.[119] Therefore, this chapter studies IHL obligations for combat zones and explores the rationale for expanding IHL obligations to ICAO's conflict zones. This section argues that prohibited airspace over conflict zones should be set up as precautionary measures to safeguard aviation safety and security. The obligation to set up prohibited airspace over conflict zones is underpinned by humanitarian rules in public international law. The rationale to prioritize civilian

115 See Section 2.4.2 of this chapter.

116 This study uses the data from the year 2019, prior to the global COVID-19 pandemic, to discuss the impact of armed conflict to air travel. The reason is that, since the global pandemic begun, the study of conflict prevention and resolution has brought in a new focus – the fight against the virus COVID-19: on 23 March 2020, Secretary-General António Guterres issued an urgent appeal for a global ceasefire in all corners of the world to focus together on the true fight against COVID-19. See https://www.un.org/en/globalceasefire, last accessed 27 December 2021. The author believes that the pandemic is an extraordinary period of time which will finally end, so this study does not investigate the data during the pandemic. The chapter is written to prepare for humanity's return to the normal.

117 Pettersson, Therese & Magnus Öberg (2020) Organized violence, 1989-2019. Journal of Peace Research 57(4), pp. 597-613.

118 Janene Pieters, "Passenger Jets Still Flying Over Conflict Zones" < http://www.nltimes.nl/2015/07/14/passenger-jets-still-flying-over-conflict-zones/> accessed 5 May 2020. Since 2016, armed conflicts are increasing, so more flights are operating over conflict zones. Arguably, not all armed conflicts could affect air space and some conflicts present no missile capability so far. However, MH17 accident was also considered astonishing in that the conflict should expand to airspace above the flight level 320. See Dutch Safety Board, *Crash of Malaysia Airlines flight MH17,* (the Hague, October 2015) <www.safetyboard.nl> accessed 15 May 2020, 195. A full examination of aviation risk assessment and management is beyond the scope of the normality discussion this paper hopes to offer.

119 See Section 2.2 of this chapter.

protection is built on, as cited in the *Corfu Channel* case, the "elementary considerations of humanity".

3.2 General international law – the *Corfu Channel* case

In the famous *Corfu Channel* case,[120] where two British ships struck mines in Albanian waters, the perpetrator of mine laying remained unknown. While Albanian knowledge of the mine was abstract, Albanian responsibility was nevertheless established.[121] The ICJ reckoned that the obligation to disclose the existence of a minefield and warn approaching British warships was based on "elementary considerations of humanity."[122]

The *Corfu Channel* statement is significant in two particular ways: first, it takes note of the need to safeguard the safety and security of transportation;[123] second, it highlights the importance of a general norm regarding human protection.[124] At the time when the UN Charter had just entered into force, and no elaborate human rights law regime was in place, such "considerations of humanity" were in fact "related to human values already protected by positive legal principles which, taken together, reveal certain criteria of public policy and invite the use of analogy."[125]

Notably, the phrase "elementary considerations of humanity" has been echoed and emphasized in subsequent domestic and international decisions.[126] It has been invoked in humanitarian, environmental, human rights,

120 ICJ, *Corfu Channel Case (United Kingdom v Albania),* Merits, ICJ Reports, 1994, p. 4.
121 *ibid,* p. 36.
122 *ibid,* pp.15-23.
123 The *Corfu Channel* doctrine was later reiterated and developed later in the law of the sea cases, e.g. The *M/V "SAIGA" (No. 2) Case (Saint Vincent and the Grenadines v Guinea)* Merits, Judgment, ITLOS Case No 2, ICGJ 336 (ITLOS 1999), 1 July 1999, International Tribunal for the Law of the Sea [ITLOS], para. 155 ('*Saiga*'); *The "Juno Trader" Case (Saint Vincent and the Grenadines v Guinea Bissau)* Prompt Release, ITLOS Case No 13, ICGJ 346 (ITLOS 2004), 18 December 2004, ITLOS, para. 77, see also Separate Opinion of Judge Treves, para. 1; Joint Separate Opinion of Judges Mensah and Wolfrum, para. 34.; *Guyana v Suriname*, Award, 17 September 2007, Permanent Court of Arbitration [PCA] para. 405. *The Arctic Sunrise Arbitration (Netherlands v Russia)* Award, 14 August 2015, PCA, para. 191.
124 Ian Brownlie, *Principles of Public International Law*, 7th edn, OUP 2008, p. 27.
125 *ibid.*
126 See the recounts in Matthew Zagor, "Elementary considerations of humanity," in Karine Bannelier, Theodore Christakis & Sarah Heathcote (eds), *The ICJ and the Evolution of International Law,* Routledge 2012, p. 264.

and maritime law cases.[127] This established the basis of what some consider to be a constitutionalist, value-oriented formulation of international law.[128]

However, the connotation of "elementary considerations of humanity" is not unequivocal. Those seeking further enlightenment as to the nature and status of the principle or how the judges reached their conclusion in the *Corfu Channel* case find little assistance in the judgments or arguments put to the ICJ.[129] Before other tribunals, decisions can vary in what exactly those "considerations of humanity"[130] are, as well as their legal implications. For some judges, the expression is considered to be indicative of fundamental human rights and dignity, serving the purpose of protecting individuals,[131] whereas others seemed to consider it as a matter which underpins the *lex lata*, yet at the same time, leads to a more human-oriented *lex ferenda*.[132] Importantly, the background behind both schools of thought is that these "considerations of humanity" are invoked solely by individuals against allegedly unlawful

127 *Military and Paramilitary Activities in und against Nicaragua (Nicaragua v United States of America)* (Merits) [1986] ICJ Rep 14, para. 215; *Prosecutor v Kupreškiæ et al*. (Trial Judgment) ICTY-95-16-T (14 January 2000), para.524. Especially, In *Abu Zubaydah v Poland*, European Court of Human Rights held that Poland violated Article 3, art. 8 and art.13 of European Convention of Human Rights, because Poland made no attempt to prevent those violations of human rights from happening, see *Abu Zubaydah v Poland* App no 7511/13 (ECtHR, 24 July 2014). See also *Osman v United Kingdom* App no 23452/94 (ECtHR, 28 October 1998), para. 116; *Z and Ors v United Kingdom* App no 29392/95 (ECtHR, 10 May 2001), para. 73; Inter-American Court of Human Rights *Velásquez Rodriques v Honduras (Merits),* 29 July 1988, Series C, No. 4, paras 172-175; Helen Duffy, *The 'War on Terror' and the Framework of International Law* (CUP 2015), pp. 472-473, 804; Sandra Kra¨henmann, 'Positive Obligations in Human Rights Law During Armed Conflicts' in Robert Kolb and Gloria Gaggioli eds., *Research Handbook on Human Rights and Humanitarian Law*, Edward Elgar 2013, p. 170.

128 Matthew Zagor, "Elementary considerations of humanity," in Karine Bannelier, Theodore Christakis & Sarah Heathcote eds., *The ICJ and the Evolution of International Law,* Routledge 2012, p. 264.

129 *ibid* p. 266. As to the doctrine's place in the topology of international law sources, there have been quite voluminous discussion, e.g., Fitzmaurice aligned "an obligation to act in accordance with elementary considerations of humanity" in the context of discussing "general principles of good conduct," see G. Fitzmaurice, "The Law and Procedure of the International Court of Justice: General Principles and Substantive Law" (1950) 27 British Ybk Intl L, p. 4; H. Waldock, "General Course on Public International Law"(1962) 106 Recueil des Cours de l'Académie de Droit International p. 63 ; F. Francioni, "International 'Soft Law:' A Contemporary Assessment," in V. Lowe and M. Fitzmaurice (eds) *Fifty Years of the International Court of Justice: Essays in Honour of Sir Robert Jennings,* CUP 1996, p. 169; F.O. Raimondo, "The International Court of Justice as a Guardian of the Unity of Humanitarian law" (2007) 29 *Leiden Journal of International Law,* p. 597.

130 ICJ, *Corfu Channel Case (United Kingdom v Albania)* (Merits) [1949] ICJ Rep, pp. 15-23. Coupland, R. (2001). Humanity: What is it and how does it influence international law? *Revue Internationale de La Croix-Rouge/International Review of the Red Cross*, *83*(844), pp. 969-970.

131 *Saiga, Separate Opinion of President Mensah*, para. 20.

132 *Saiga*, *Dissenting Opinion of Judge Ndiaye*, para. 90.

action exercised by the State.[133] This is the anchor point at which the present issue of airspace usage can relate to considerations of humanity.

Considering the contentious and ever-lasting debate over the nature and application of these "considerations of humanity", this section does not endeavor to further elaborate on its normativity, but rather argues that this formulation offers the proposition that air law discussions must take humanitarian considerations into account. This compromise of subjecting airspace management to civilian protection is consistent with general principles of international law. The interaction of air law and the law of war deserves attention for discussions about prohibited airspace over conflict zones.

3.3 Humanitarian rules

As discussed in Section 2.4 of this chapter, pursuant to Article 89 of the Chicago Convention, a Contracting State enduring a war resumes freedom automatically from the Chicago Convention, meaning that it does not need to notify the ICAO Council. The State concerned does not need to fulfill the requirements in Article 9 of the Chicago Convention to establish prohibited airspace. Meanwhile, the said State has to observe IHL as the applicable law in armed conflicts.[134] As explained in Section 2.2 of this chapter, Article 89 bridges the Chicago Convention and IHL. IHL rules supplement the Chicago Convention when it comes to the time of war.

3.3.1 Customary rule on precautionary measures

As the prevailing regime governing armed conflicts, established IHL rules reveal the effort of the human conscience to mitigate the brutalities and dreadful sufferings created by armed conflicts.[135] The four Geneva Conventions and

133 Traditionally, such "considerations of humanity" are applied to cases where the rights of people are on one side and State obligation is on the other. However, the *Enrica Lexie* case presents a different situation, in which the rights of two groups of humans oppose each other and they both invoke humanitarian arguments. A distinction is carefully drawn here. See *The "Enrica Lexie" Incident (Italy v India)* Provisional Measures, Order of 24 August 2015, ITLOS, para. 133. <www.itlos.org/fileadmin/itlos/documents/cases/case_no.24_prov_meas/C24_Order_24.08.2015_orig_Eng.pdf > accessed 25 July 2016. On the one hand, Italy invokes considerations of humanity to protect its marines from the alleged breaches of due process; on the other hand, India put forward humanitarian considerations to bring to trial Italians who have allegedly killed two Indians. As Judge Paik has observed, "there are differences between the present case and those other cases, the most critical one being the difference in terms of the gravity of the offence allegedly committed by the accused." *Declaration of Judge Paik*, para. 7.

134 See Section 2.4.2 of this chapter.

135 ICJ, *Legality of the Threat or Use of Nuclear Weapons* (Dissenting Opinion of Judge Weeramantry) [1996] ICJ Rep, pp. 429, 443.

their Additional Protocols are international treaties that contain the most important rules limiting the barbarity of war.[136]

> Among others, IHL establishes the obligation to take precautionary measures, [I]n the conduct of military operations, constant care must be taken to spare the civilian population, civilians and civilian objects.

As such, "those who plan or decide upon an attack shall […] *take all feasible precautions* in the choice of means and methods of attack with a view to avoiding, and in any event, minimizing incidental loss of civilians".[137] The ICTY in the *Kupreškiæ* case further ordered "each party to the conflict, *to the extent feasible*, *to remove civilian persons and objects under its control from the vicinity of military objectives* in both international and non-international armed conflicts."[138]

In terms of the principle of precautions, this section does not expand on the application of this principle in IAC and NIAC, because State practices established this rule as a norm of customary international law applicable in both international and non-international armed conflicts.[139] Consequently, as long as armed conflicts exist, no matter whether it triggers an IAC (war) or a NIAC which gives rise to national emergency, the territorial State is entitled to resume freedom from the Chicago Convention, but at the same time is obliged to take feasible precautious measures in accordance with IHL.

The crucial question is, what can be understood by 'feasible' precautions? In general, feasible refers to those measures which are practicable, taking into account all circumstances at the time.[140] General Assembly Resolution 2444 (XXIII) and Resolution 2675 (XXV), reflecting *opinio juris*,[141] clarified that *every*

---

136 See ICRC, 'The Geneva Conventions of 1949 and their Additional Protocols', https://www.icrc.org/en/document/geneva-conventions-1949-additional-protocols, last accessed 27 December 2021.

137 See Article 57 of Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (adopted 8 June 1977, entered into force 7 December 1978) 1125 UNTS 3 ('API').

138 *Prosecutor v Kupreškiæ et al*. (Trial Judgment) ICTY-95-16-T (14 January 2000), paras. 49, 132 and 524.

139 ICRC, Customary IHL Database, Rule 15, https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule15#Fn_4C706F6B_00019, last accessed 27 December 2020. In addition, for Contracting States of the Protocol Additional to the Geneva Conventions, and relating to the Protection of Victims of International Armed Conflicts, they are obliged to observe Article 57 and 58 of API and take precautionary measures in attach and against the effects of attacks.

140 See ICRC, Customary IHL Database, Rule 15, https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule15#Fn_4C706F6B_00019, last accessed 27 December 2020.

141 With respect to an *opinio juris*, its existence may be proven by UN General Assembly Resolutions that may have normative value, especially those in certain formulations that contain the term "should". See *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports 1996,* para. 70.

effort should be made to spare civilian populations from the ravages of war, and *all necessary precautions should be taken to avoid injury, loss, or damage to civilians*.[142] Therefore, in considering feasible precautions, every and all necessary measures shall be taken into account.

In particular, precautionary measures must be taken by both the attacking party ("precautions in attack") and the attacked party ("precautions against the effects of attack").[143] Before an attack, those who plan and decide upon the attack must do everything feasible to verify that their targets are military and not civilian in nature.[144] The party to be attacked must remove the civilian population under their control from the vicinity of military objectives, like military headquarters or barracks.[145] The attacked party is obliged, to the maximum extent feasible, to take measures to protect the civilian population under their control against military attacks from the enemy.

3.3.2 *Customary obligation of removing civil objects from combat zones*

Having clarified the customary international law rule to take precautions in armed conflicts, this section argues that this precaution rule obliges States dealing with armed conflict to establish prohibited areas. Customary IHL rules and ICTY jurisprudence confirm that States have the customary humanitarian obligation to remove civilian objects from combat zones.[146] Parties to armed conflict, including the State engaging in international or non-international armed conflict, should remove civilian persons and objects under its control from the vicinity of military objectives to the extent feasible.[147]

Considering that civil aircraft fall into the category of civilian objects, applying the IHL rule on precautionary measures, a State dealing with armed conflict is obliged under IHL to remove civil aircraft and civilians away from combat zones. In the discharge of this obligation, the concerned State shall establish restrictions to the use of airspace in advance, because this precautionary measure is the only feasible and effective way to *remove* in-transit civil aircraft from dangers in the sense that aircraft will not come into combat zones. If a civil aircraft has to fly into a combat zone, the aircraft is highly vulnerable to attacks from weapons such as missiles. For the vast majority of civil aircraft, no mitigating actions is available once a plane is operating on a dedicated flight

142 UNGA Res 2444 (XXIII) (19 December 1968) UN Doc A/7218 (adopted by unanimous vote of 111 votes in favor to none against); UNGA Res 2675 (XXV) (9 December 1970) UN Doc A/RES/2675 (adopted by 109 votes in favor; none against, and eight abstentions).

143 *Heinsch*, pp. 242-243.

144 *ibid.*

145 *ibid.*

146 See Section 3.3.1 of this chapter. See also *Prosecutor v Kupreškiæ et al*. (Trial Judgment) ICTY-95-16-T (14 January 2000), paras. 49, 132 and 524.

147 *ibid.*

route at cruising altitude where a missile was waiting.[148] Any mitigating actions to reduce vulnerability will need to take place prior to the flight reaching the conflict zone.[149] The only mitigation action available is to urgently close airspace.[150] Alternatives such as to intercept or divert flights at the last minute requires coordination between the pilot and technical departments;[151] in time-sensitive situations as such, it is difficult, if not impossible, for a civil aircraft in-flight to escape from the chase of flying missiles.

It is worth re-emphasizing that establishing prohibited airspace for in-transit aircraft is necessary because such civil aircraft deserve protection. The aircraft is civil in nature, and it flies *over*, not *lands into*, a combat zone.[152] Due to the inherent technical aspects of aviation, the civil aircraft and passengers highly rely on the provision of ATS.[153] The civil aircraft operates at a height of more than 31,000 feet without any military capability, and passengers are fastened into their seats. In the course of its normal operation, free from external interferences, the aircraft and passengers on board do not have the chance to get into touch with hostiles on the ground.

Takin into account of the vulnerability of civilians, IHL customary rules have established a State's obligation to take feasible precautionary measures; *a fortiori,* in the context of protecting in-transit civil aircraft, States thus shall take more stringent precautionary measures to protect in-transit aircraft and passengers. Considering the technical realities, precautionary measures as such should include the establishment of prohibited airspace.[154] This standing is supported by "the actual practice and *opinio juris* of States."[155] A number of States adhere to the practice of advising their airlines not to fly over conflict zones. For example, regarding the case of MH17, national aviation authorities and airlines, including all US commercial airlines, British Airways, Qantas, and Cathay Pacific had been avoiding Ukrainian airspace for months after receiving a Notice to Airmen (NOTAM).[156]

Airspace usage over conflict zones is to be compromised by the obligation under IHL to take precautionary measures. These obligations are powerful

148 ICAO Doc 10084, *Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones*, 2nd ed., 2018, para. 4.1.4.

149 *ibid.*

150 *ibid,* para.4.6.7.

151 See Chapter III on the technical aspects of air traffic control.

152 See Dutch Safety Board, *Report on the MH17 accident,* pp. 23-24.

153 See Chapter III, Section 2.

154 On technical aspects of contingency plans, see Chapter III, Section 4.3 of this study.

155 Continental Shelf (Libyan Arab Jamahiriya v Malta), (Merits) [1985] ICJ Rep 13, para. 27.

156 U.S. FDC 4/2182 (A0025/14)–null AIRSPACE SPECIAL NOTICE UKRAINE POTENTIALLY HAZARDOUS SITUATION -SIMFEROPOL (UKFV) AND DNEPROPETROVSK (UKDV) FLIGHT INFORMATION REGIONS (FIR). See also Rupert Neate and Jessica Glenza, 'Many airlines have avoided Ukrainian airspace for months' (London, 18 July 2014), http://www.theguardian.com/world/2014/jul/18/airlines-avoid-ukraine-airspace-mh17, last accessed 14 May 2016. See also the following Section 3.3.3.2 of this chapter.

constraints for all the States subscribed to the cause of maintaining peace and security. Both air law and IHL aim to promote civilian safety. The commitments set out in humanitarian instruments lead to the security assurances given by the international community to civilians. Based on the IHL principle of precautions, air law should recognize an obligation to establish prohibited airspace over combat zones.

3.3.3 *The expansion of customary obligations to 'conflict zones' defined by ICAO*

Building on the existence of an obligation to protect civilians in international humanitarian law, this section continues to argue for a humanitarian obligation to establish prohibited airspace over conflict zones which encompass heighted alert areas, in addition to combat zones. The use of airspace over heighted alert areas needs to consider the IHL obligation to take precautionary measures.

IHL applies to armed conflicts, excluding disturbances and tensions;[157] whereas previous sections of this chapter clarify that the concept of conflict zones may also cover situations of military tensions. Observing the mismatch, this section argues that the humanitarian obligation to establish prohibited airspace, deriving from IHL, should be expanded from armed conflict scenarios to include military tensions which could endanger civil aircraft. Even if there has been no active armed conflict as defined in IHL, since local situations create military alerts or tension that could endanger civil aircraft, this airspace should be closed. The reason is that such military alerts or tension creates risks to overhead aircraft no less real than those in active armed conflict: this proposition is testified by the PS752 tragedy.

3.3.3.1 *The tragedy of PS752*

On 3 January 2020, Iran declared the intention to strike US bases in Iraq, though at the time of writing it has not yet done so.[158] The areas of concern are conflict zones that have created military tension, but there has been no firing yet. Nonetheless, flight PS752 was shot down shortly after takeoff from Tehran Imam

157 International humanitarian law distinguishes between international armed conflicts, opposing two or more States, and non-international armed conflicts. ICTY, *The Prosecutor v. Dusko Tadic*, Judgment, IT-94-1-T, 7 May 1997, para. 561-568; see also ICTY, *The Prosecutor v. Fatmir Limaj*, Judgment, IT-03-66-T, 30 November 2005, paras. 84, 135-179. D. Schindler, 'The Different Types of Armed Conflicts According to the Geneva Conventions and Protocols', The Hague Academy Collected Courses, Vol. 63, 1979-II, p. 147.

158 See BBC, 'Iran missile attack: Did Tehran intentionally avoid US casualties?', https://www.bbc.com/news/world-middle-east-51042156, last accessed 7 July 2021.

Khomeini International Airport on 8 January 2020.[159] All 176 people aboard were killed.[160]

The tragedy of PS752 could have been avoided, if relevant States had established prohibited airspace over the areas around the said airport due to heightened military alert situations following the killing of Iranian General Qasem Soleimani;[161] it was widely reported in January 2020 that Iran retaliated by launching ballistic missiles against US bases in Iraq.[162] Although there was no armed conflict in Tehran in the sense of IHL, airlines nonetheless took precautions. Several countries prohibited their airlines from operating in Iranian and Iraqi airspace due to the high safety risk to civil aircraft.[163] Civil aviation authorities chose to suspend operations rather than run the risk of flying over the areas of heightened military alert situations.[164] These practices upholding aviation safety and security conform to the object and purpose of the precautionary principle in IHL.[165] Therefore, the author argues to translate the precautionary principle into restrictions of airspace usage over heightened alert areas.

---

159 "Iran Says It Unintentionally Shot Down Ukrainian Airliner". The New York Times. 10 January 2020. Archived from the original on 11 January 2020. Retrieved 10 January 2020. "Ukrainian airplane with 180 aboard crashes in Iran: Fars". Reuters. 8 January 2020. Archived from the original on 8 January 2020. Retrieved 8 January 2020.

160 BBC, 'Iran plane crash: What we know about flight PS752', https://www.bbc.com/news/world-middle-east-51047006, last accessed 7 July 2021.

161 "FAA bans US airlines flying over Iraq, Iran and Gulf after missile attacks". South China Morning Post. 8 January 2020. Archived from the original on 8 January 2020. Retrieved 9 January 2020. Hatch, Patrick (8 January 2020). "Qantas to divert some flights after Iran missile attack". The Sydney Morning Herald. Archived from the original on 8 January 2020. Retrieved 9 January 2020. "Airlines re-route flights away from Iraq, Iran airspace after missile attack on U.S. troops". gulfnews.com. Archived from the original on 9 January 2020. Retrieved 9 January 2020. "Major airlines re-route flights away from Iraq, Iran airspace". The Business Times. 9 January 2020. Retrieved 9 January 2020.

162 Bhattacharjee, Amanda Macias,Jacob Pramuk,Riya (7 January 2020). "Iran fires missiles at multiple bases housing US troops in Iraq". CNBC. Archived from the original on 8 January 2020. Retrieved 9 January 2020.

163 Kaminski-Morrow, Davin. "US bans Iranian and Iraqi overflights citing risk to aircraft". Flight Global. Retrieved 8 January 2020.

164 "FAA bans US airlines flying over Iraq, Iran and Gulf after missile attacks". South China Morning Post. 8 January 2020. Archived from the original on 8 January 2020. Retrieved 9 January 2020. Hatch, Patrick (8 January 2020). "Qantas to divert some flights after Iran missile attack". The Sydney Morning Herald. Archived from the original on 8 January 2020. Retrieved 9 January 2020. "Airlines re-route flights away from Iraq, Iran airspace after missile attack on U.S. troops". gulfnews.com. Archived from the original on 9 January 2020. Retrieved 9 January 2020. "Major airlines re-route flights away from Iraq, Iran airspace". The Business Times. 9 January 2020. Retrieved 9 January 2020.

165 On the object and purpose of the precautionary principle, see ICRC, Customary IHL Database, Rule 15, https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule15#Fn_4C706F6B_00019, last accessed December 27, 2020. In addition, for Contracting States of the Protocol Additional to the Geneva Conventions, and relating to the Protection of Victims of International Armed Conflicts, they are obliged to observe Article 57 and 58 of API and take precautionary measures in attach and against the effects of attacks.

Regarding the risk assessment, as said in Section 2.6 of Chapter I, aviation safety does not mean zero risk but aims to reduce the risk to an acceptable level. This chapter highlights the fact that the risk level associated with civil aviation over Iraq and Iran was not acceptable in January 2020 due to the trajectories of ballistic missiles: this legal study is not to explore the technical algorithm used by civil aviation authorities but reiterate their findings[166] that the risk of operating civil aircraft exceeded the acceptable level. Considering the unacceptable risk level associated with destruction weaponry, the scope of the conflict zone should take into account the radius of the possible destruction by anti-aircraft weaponry. Therefore, conflict zones as defined by ICAO, meaning areas posing risks to civil aircraft in-transit, should include the areas of Iran and Iraq that were susceptible to ballistic missiles, even if there is no armed conflict under IHL. The author proposes extending the precautionary measures to heighted alert areas by establishing prohibited airspace.

Understanding that civil aviation operations over certain areas during a certain time may be too risky, States should be aware that they have an obligation to protect civilian aircraft from *upcoming* missile strikes. The establishment of prohibited airspace is a commendable example of performing such humanitarian obligations. Due to the possibility of endangering civil aircraft, ICAO specifically included those heightened military alert situations into the concept of 'conflict zones'.[167]

If one still thinks that the tragedy of PS752, during heightened military alert situations, is 'one single shot', the following table shows that recurrent attacks happened during heightened military alert situations, that is, over 'conflict zones' as defined by ICAO. Whether all of these incidents were in fact during armed conflicts is still a matter of considerable debate, such as Afghanistan in 1984.[168] Some heightened military alert situations did not satisfy the thresholds in IHL such as "protracted armed violence",[169] but those situations pose the same risk to overflying aircraft just as active armed conflicts. Bearing in mind the comparable risk level, it is reasonable to extend precautionary measures to airspace over heightened alert areas by establishing prohibited airspace.

166 *ibid.*

167 See Section 2.4.3 of this chapter.

168 Coldren, Lee O. "Afghanistan in 1984: The Fifth Year of the Russo-Afghan War." Asian Survey, vol. 25, no. 2, 1985, pp. 169–179.

169 Dustin A. Lewis, The Notion of "protracted armed conflict" in the Rome Statute and the termination of armed conflicts under international law: An analysis of select issues, International Review of the Red Cross (2019), 101 (912), pp. 1091–1115.

Table 3: Attacks against Civilian Aircraft over 'Conflict Zones' as defined by ICAO (1978-2020)[170]

Date	*Location*	*Aircraft*	*Operator*	*Outcome*
8 Nov 1983	Angola	Boeing 737	Angolan Airlines (TAAG)	130 fatalities of 130 people on board
9-Feb 1984	Angola	Boeing 737	Angolan Airlines (TAAG)	Aircraft overran runway on landing after being struck by a missile at 8,000 ft during climb out. No fatalities with 130 on board.
21 Sep 1984	Afghanistan	DC-10	Ariana Afghan Airlines	Aircraft was damaged by the missile, including damage to two hydraulic systems, but landed without further damage. No fatalities.
3 July 1988	Strait of Hormuz	Airbus A300B2-203	Iran Air	290 fatalities of 290 people on board.
10 Oct 1998	Democratic Republic of Congo	Boeing 727	Congo Airlines	41 fatalities of 41 people on board.
4 Oct 2001	Black Sea	Tupolev Tu-154M	Siberia Airlines	78 fatalities of 78 people on board.
22 Nov 2004	Iraq	Airbus A300	DHL Cargo	Aircraft suffered a complete loss of hydraulic power and departed the runway during an emergency landing.
17 July 2014	Ukraine	Boeing 777-200ER	Malaysia Airlines	298 fatalities of 298 people on board.
8 Jan 2020	Iran	Boeing 737-8KV	Ukraine International Airlines	176 fatalities of 176 people on board.

These accidents involving planes being shot down could have been avoided if prohibited airspace had been established. Said accidents create a growing awareness of the need to protect the aviation industry and passengers from conflict zones and from the misunderstanding that unsafe airspace can nonetheless be utilized. If such protection is not achieved, how many more civil aircraft will need to be destroyed over conflict zones in order to bring changes?

170 Source: created by the author.

3.3.3.2 Obligatory prohibited airspace over heighted alert areas

Reality testifies that not only armed conflict but also heightened military alert situations can endanger overflying civil aircraft. The most recent example is the closure of Ukrainian airspace in February 2022. On 12 February 2022, the United States warned that Russian troops could invade the eastern European nation at any time.[171] Ukraine officially closed the country's airspace to commercial flights on 24 February 2022, citing a "high risk" amid Russia's invasion;[172] this official flight restriction notice came *just before* Russian President Vladimir Putin announced that his forces would launch a "military operation" in Ukraine. Having clarified in Section 2.3.4 of this chapter that the actual resort to armed forces marks the beginning of "war", that is 24 February 2022; whereas the Russian deployment of troops at the eastern border of Ukraine had already posed imminent risk to overflying aircraft at least since February 13, according to the US intelligence.[173] Immediately on 13 February 2022, the Dutch airline KLM and Germany's Lufthansa stopped their service to Ukrainian airspace.[174] After the tragedies of MH17 and PS752, it is widely acknowledged that the risk associated with conflict zones exceeds the acceptable level and civil aircraft should not continue run the such risk.

171 The Economist. "Russia's invasion of Ukraine". 26 February 2022. Archived from the original on 26 February 2022.

172 A full list of affected airlines and their responses can be found at https://www.euronews.com/travel/2022/02/24/ukraine-travel-are-airlines-still-flying-to-poland-russia-belarus-lithuania-moldova, last accessed Feb 25, 2022.

173 See https://www.reuters.com/world/biden-putin-speak-ukraine-warnings-mount-2022-02-12, last accessed 25 February 2022.

174 See https://www.reuters.com/world/europe/ukraine-sees-no-point-closing-its-airspace-presidential-adviser-says-2022-02-13/, last accessed Feb 25, 2022.

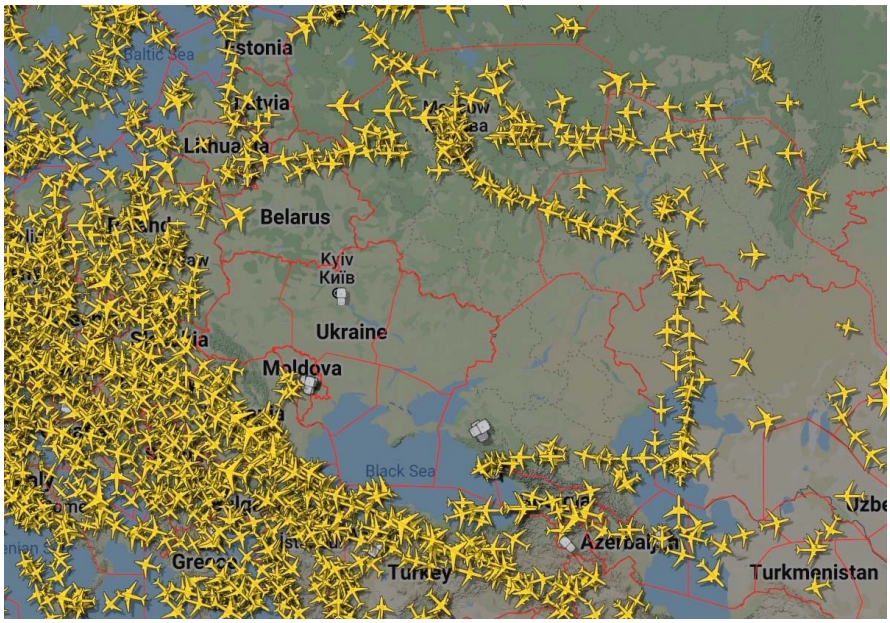

Figure 16: Civil aviation over Ukraine on 24 February 2022[175]

It is well accepted by airspace users that to close airspace after military attacks would be too late.[176] Drawing the lessons from the tragedy of PS752,[177] Canada, together with ICAO, has championed the Safer Skiers Initiative to protect civil aircraft flying over conflict zones.[178] The conscience of the international community has also responded in the Security Council Resolution[179] with the sufficiently demonstrated collective will to eliminate such external

175 Source: https://www.flightradar24.com/blog/ukraine-aviation-situation-updates/, last accessed 26 February 2022.

176 See https://www.standard.co.uk/news/world/major-airlines-divert-flights-ukraine-airspace-russia-b982417.html, last accessed 26 February 2022.

177 See the remarks of Canadian Minister of Transport for intervention in the ICAO Council: Fifth meeting of the 222nd session of the Council ICAO headquarters, Montreal, Canada (Via Zoom),https://www.canada.ca/en/transport-canada/news/2021/03/speaking-notes-for-the-honourable-omar-alghabra-minister-of-transport-remarks-for-intervention-in-the-icao-council-fifth-meeting-of-the-222nd-sessi.html. last accessed 26 February 2022.

178 On Safer Skies Initiative, see https://tc.canada.ca/en/initiatives/safer-skies-initiative, last accessed February 26, 2022. See Canadian Minister of Transport provides update on Safer Skies Initiative at ICAO Council meeting, https://www.canada.ca/en/transport-canada/news/2021/06/minister-of-transport-provides-update-on-safer-skies-initiative-at-icao-council-meeting.html, 18 June 2021, last accessed 26 February 2022.

179 UN Security Council Resolution 2166 (21 July 2014)

risk to civil aviation. The general public expressed their dissatisfaction in the Dutch Parliament Hearing on 22 January 2016.[180]

Over conflict zones, airspace has to be closed prior to the beginning of military strikes: the timing should be when the local situations create military alerts or tension that pose risks to civil aircraft, including the situations of military standoffs. This timing echoes the definition of "conflict zones" as proposed by ICAO, encompassing combat zones and heightened alert areas.[181] As argued in Chapter III,[182] ICAO regulations have emphasized the responsibility of the appropriate ATS authority to assess risks and close airspace. Both IHL and ICAO regulations[183] consistently require States to take precautionary measures to protect civil aircraft from armed conflict. The obligation to take precautionary measures has been highlighted in ICJ jurisprudence,[184] IHL, and ICAO regulations. Removing civil aircraft from 'conflict zones' as defined by ICAO, is consistent with "elementary considerations of humanity", and is also consistent with ICAO regulations for the safety and security of aviation.

Before conclusion, it is necessary to emphasize that this study is set out to examine the establishment of prohibited airspace for *civil aircraft.*[185] The operation of military and state aircraft for the evacuation purpose is an important issue worthy of separate considerations by another study.

In conclusion, it is necessary to establish prohibited airspace for civil flights not only after the firings start, in combat zones, but also when the military standoffs or tensions create risks to aircraft, that is, heighted alert areas. The geographic scope would be conflict zones, as defined by ICAO, encompassing combat zones and heightened alert/tension areas which pose risk to overhead civil aircraft.

3.4 Caveat to the obligation: technical considerations

Having argued for a State's obligation to establish prohibited airspace, this section emphasizes a *caveat* to the performance of this obligation – the obliga-

180 Tweede Kamer der Staten-Generaal, MH17 Hoorzitting, Beleidsreactie Onderzoeksrapporten over MH17, <https://www.tweedekamer.nl/vergaderingen/commissievergaderingen/details?id=2015A05483>, last accessed 14 May 2016.

181 See Section 2.4.3 of this chapter.

182 See Chapter III, Section 4.3.

183 On the customary international law status of ICAO regulations on contingency responses, see Section 4.4 of Chapter III.

184 See Section 3.2 of this chapter.

185 See the research questions in the Introduction chapter. The term 'private aircraft' refers to what we now term 'civil aircraft'. The term was suggested by the drafting Committee of Subcommittee 2 on 10 November 1944 (ICAO WP/2-1, Secretariat Study on 'Civil/State Aircraft', Presented by the Secretariat at the Legal Committee 29th Session, Montreal (3 March 1994) Attachment I at 2.2.1). Under Article 3(b) of the Chicago Convention, aircraft used in military, customs and police services shall be deemed to be State aircraft.

tion may be suspended due to technical impossibility. As explained in Section 3.2.3 of Chapter III, Contracting States of the Chicago Convention provide ATS and implement contingency arrangements commensurate to their state of art or technical capability.

ICAO emphasizes that the responsibility for instituting special measures remains with the States responsible for providing ATS and that State is to act based on *all available information*. As clarified by ICAO in its correspondences to Member States,

> The responsibility for instituting special measures to assure the safety and security of international civil aircraft operations remains with the State responsible for providing air traffic services in the airspace affected by the conflict, even in cases where coordination is not initiated or completed. Based on *all available information*, the State responsible for providing air traffic services should identify the geographical area of the conflict, assess the hazards or potential hazards to civil aircraft operations, and determine whether such operations in or through the area of conflict should be avoided or may be continued under specified conditions.[186]

ICAO attaches importance to the availability of information,[187] but did not specify the criteria of *available* information from conflict zones.[188] Annex 11 generally requires technical infrastructure and personal expertise for flight information services.[189] In conflict zones, a Contracting State responsible for ATS may have lost the technical control over the ATS: for example, infrastructure has been destroyed or staff went missing, therefore ATS authorities lose the technical competence to collect available information. Technical authorities, thus, are unable to precisely decide the height up to which the airspace should be closed.

If a Contracting State is not able to take precautionary measures due to the limited technical competence, that concerning State, or technical authorities providing services for that State,[190] can invoke, 'the impossibility to perform' to discharge itself from the obligation to establish prohibited airspace. As explained in Section 3.2.3 of Chapter III, this caveat is built on "the impossibil-

186 ICAO, State Letter AN 13/4.2-14/59, 24 July 2014.

187 Annex 17, Standard 3.1.3 requires contracting States to keep the level of threat to civil aviation "within its territory" under constant review; Standard 2.4.3 expressly obliges contracting States to establish procedures to share threat information with other Contracting States. On the information sharing between ATS units and military authorities, see Annex 11, Standards 2.18.1 – 2.18.3 and 2.24.3.

188 See K. Samuel, M. Aronsson-Storrier, & K. Bookmiller ed., *The Cambridge Handbook of Disaster Risk Reduction and International Law*, CUP 2019, pp. 331-332.

189 Annex 11 to the Chicago Convention. See Chapter III of this study.

190 On the delegation of the provision of ATS, see Section 3.4 of Chapter III.

ity to perform", prescribed in Article 61 (1) of the VCLT and accepted as a rule of customary international law.[191]

> A party may invoke the impossibility of performing a treaty as a ground for terminating or withdrawing from it if the impossibility results from the permanent disappearance of destruction of an object indispensable for the execution of the treaty. If the impossibility is temporary, it may be invoked only as a ground for suspending the operation of the treaty.

This provision enables a party to invoke the impossibility of performance as a ground for terminating or suspending its obligation. Due to the fact that aviation operation is heavily dependent on technical support,[192] it is reasonable to consider technical possibility of performing an obligation under air law. The suspension of an obligation is justified by temporary technical impossibility, meaning not terminating but temporarily delaying the performance of the obligation in question.[193]

This *caveat* does not apply automatically, because the words of Article 61(1) of the VCLT[194] make it clear that the suspension must be "invoked."[195] In invoking Article 61(1) of the VCLT, a State has to notify the situation, such as through issuing NOTAM(s),[196] to inform the 'unavailability of information' about certain conflict zones. NOTAMs as such sensitize airspace uses so that flights can timely change flight plans and file for alternative routes. As explained in Section 2 of Chapter III, although a pilot-in-command has the final say as to the disposition of an aircraft, flying through airspace with a NOTAM warning of "not safe/secured/available" could constitute negligence or reckless operation of an aircraft.[197] In the end, that said conflict zone, being avoided by all flights, become prohibited airspace *per se*.

All in all, establishing prohibited airspace over conflict zones has to consider technical feasibility. Where a Contracting State has lost control of ATS

---

191 *Case concerning the Gabčíkovo-Nagymaros Project (Hungary/Slovakia)*, Judgment, ICJ Reports 1997, paras. 102-103. Giegerich, Thomas, Article 61. Supervening Impossibility of Performance, in O Dörr/K Schmalenbach (Hrsg), *Vienna Convention on the Law of Treaties. A Commentary*, Springer 2012, p.1051.

192 See Chapter III, Section 3.2.3.

193 See Chapter III, Section 3.2.3.

194 Art. 61 (1) reads, "A party may invoke the impossibility of performing a treaty as a ground for terminating or withdrawing from it if the impossibility results from the permanent disappearance or destruction of an object indispensable for the execution of the treaty. If the impossibility is temporary, it may be invoked only as a ground for suspending the operation of the treaty."

195 Villiger, M. E. *Commentary on the 1969 Vienna Convention on the Law of Treaties*. Brill 2009, pp. 757-758. See also Olivier Corten and Pierre Klein ed., *The Vienna Conventions on the Law of Treaties: A Commentary*, OUP 2011, entry of Article 61.

196 See Chapter III, Section 2..

197 For example, in 2016, Qatar Airways operates in airspace prohibited by the FAA (Federal Aviation Administration), in violation of the conditions of its statement of authorization.

infrastructure or information sources for a conflict zone, this State could, through diplomatic means or by issuing alerts and/or NOTAMs, clarify that it cannot perform the obligation to establish prohibited airspace due to technical difficulties. Technical impossibility as such precludes the wrongfulness for not imposing airspace restrictions over conflict zones.

In conclusion, in line with an ICAO working paper,[198] each State shall

1) make all possible efforts for timely and proper restriction of flights of civil aircraft over conflict zones, where there exist threats to civil aircraft, including combat zones, military standoff areas and exercise zones;
2) the prohibited airspace established shall cover, at a minimum, the radius of the possible destruction by anti-aircraft weaponry;
3) in case it is not technically possible to do so, the State shall invoke Article 61 (1) of the VCLT and inform ICAO and other States immediately of the existence of threats to civil aircraft.

3.5 Interim conclusions

This section argued that a State is obliged to establish prohibited airspace over a conflict zone, encompassing combat zones of both international armed conflict and non-international armed conflict. The legal underpinning is reflective of a norm of customary international law applicable in both international and non-international armed conflicts: constant precautions must be taken to spare civilians and civilian objects. Contracting States are obliged under IHL to take all feasible precautions to avoid, and in any event to minimize, incidental loss of civilian life, injury to civilians and damage to civilian objects. Building on humanitarian considerations, a practical solution is to isolate civil aircraft from the battlefield by establishing prohibited airspace. Otherwise, the failure to mitigate risks from conflict zones can result in great sufferings.

By virtue of Article 89 of the Chicago Convention, it may now be safely concluded that the drafters of the Chicago Convention and its Contracting States did not hesitate to pursue the 'unity' of international law, especially when rules outside the regime appeared to better serve the safety priorities of aviation legal systems. Air law therefore cannot be considered to be fully

---

As a result, Qatar Airways violated 49 U.S.C. §§41301 and 41712. "US FAA therefore directs Qatar Airways to cease and desist from future violations of these provisions, and assesses the company a compromise civil penalty of $185,000." US Department of Transportation Office of the Secretary Washington, D.C. Order 2016-11-11. 'Qatar Airways Q.C.S.C. Violations of 49 U.S.C.§§ 41301 and 41712. 'Docket OST 2016-0002. https://www.transportation.gov/sites/dot.gov/files/docs/eo-2016-11-11.pdf, last accessed April 17, 2022.

198 ICAO, Risk Assessment of Operations Over Airspace Affected by Armed Conflict – Responsibility of States For Ensuring The Flight Safety of Civil Aircraft within Their National And Delegated Airspace over Armed Conflict Zones or Zones Of Military Exercises, C-WP/14227, 20 Oct. 2014, para. 3.5.

comprehensive. It is compelled to face the reality by adopting humanitarian rules. The obligation to take precautionary measures under IHL should be applied *mutatis mutandis* to conflict zones as defined by ICAO, including heightened alert situations, such as military standoff, where armed conflict has not yet but is likely to occur between militarized parties. Such a heightened military alert or tension can endanger civil aircraft at very short notice. The State and responsible ATS authorities should execute contingency plans by establishing prohibited/restricted areas. It is the only effective way to reduce aircraft vulnerability over conflict zones.

4 Chapter summary and conclusions

International customary and treaty law do not contain specific prescriptions requiring a State to establish prohibited airspace in times of war or national emergency. Nonetheless, in accordance with Article 89 of the Chicago Convention, in wartime, or time of international armed conflict, a State resumes freedom from the Chicago Convention and is entitled to establish prohibited airspace against one or more States. Furthermore, as a consequence of respective IHL rules, a State is obliged to remove civil aircraft from dangerous airspace. This can be done by establishing prohibited/restricted airspace.

This chapter explored the rationale and application of Article 89 of the Chicago Convention. *War* means international armed conflict (IAC), whose threshold has been developed through IHL. *National emergency* refers to situations when national interest is in peril, as assessed by the State concerned; national emergency may include but not limited to NIAC. Depending on the intensity, NIAC can create *national* emergency, as well *emergencies,* military necessity, public safety issues, and exceptional circumstances – the four situations in Article 9 of the Chicago Convention.[199] IHL establishes that during NIAC, the parties involved shall remove civil aircraft by establishing prohibited airspace; though in practice the threshold of NIAC may be subject to different interpretations, at least a State dealing with military tensions or standoffs can choose, according the existing positive law:

1) to establish prohibited airspace in accordance with Article 9 of the Chicago Convention, or
2) to notify ICAO Council of a *national emergency*, and consequently, Article 89 of the Chicago Convention is triggered – and the State resumes freedom from the Chicago Convention; and if in case of NIAC, IHL will apply.

Such conclusions provide answers to the first two research questions of the thesis. Furthermore, to answer the third research question – how to enhance

199 See Chapter II, Section 2.4.

aviation safety – this author has argued in this chapter that due to the development of IHL, a State, *when technically possible to do so*, is obliged to establish prohibited areas over conflict zones in its territory, encompassing combat zones and zones of heighted alert situations. This obligation is underpinned by "elementary considerations of humanity" as raised in the *Corfu Channel* judgment, and the full-fledged humanitarian rules emphasizing the precautious measures to protect civilians. Considering the recurrent tragedies over conflict zones, military tension/standoffs have posed the same level of risk to civil aircraft as active armed conflict. There is no reason to ignore such risk. A State shall be obliged to remove civil aircraft from conflict zones through establishing prohibited airspace.

Considering equivalent grave risks from military tensions, the author proposes to apply the principle of precautions to heightened alert situations and thus expand the obligation to close airspace to 'conflict zones', including but not limited to 'combat zones'.

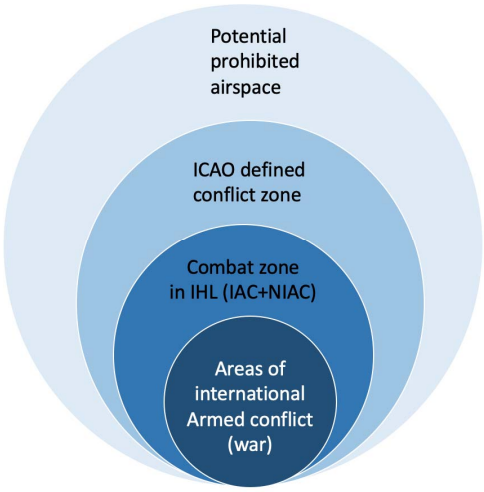

Figure 17: The relationship among conflict zones, prohibited airspace, and combat zones[200]

200 Source: created by the author.

6 A synthesis and the prospect for a coherent security regime for prohibited airspace

1 Preliminary remarks

The research questions of this study are: *when to establish prohibited airspace, who is to establish pursuant to international law, and how to enhance civil aviation safety and security?* For this purpose, previous chapters have examined the Chicago Convention, ICAO regulations and relevant international treaties such as UNCLOS and Geneva Conventions. Based on this normative approach, the author will briefly present the main conclusions in this chapter and also propose coherent rules on prohibited airspace, *lex ferenda,* as the focus of this chapter.

2 A coherent legal regime for prohibited airspace

2.1 Normative analysis of the Chicago Convention and ICAO regulations

2.1.1 Conditions to establish prohibited airspace in the Chicago Convention – how?

On the basis of Articles 1 and 2 of the Chicago Convention, the treaty's Article 9 confirms a Contracting State's right to establish a prohibited or restricted airspace over its sovereign territory. At the same time, Article 9 sets qualifications for this right, such as the requirement of non-distinction.

According to the current author, the conditions in Article 9 of the Chicago Convention, presenting the 'how' aspect of establishing prohibited airspace, include two non-distinction requirements: the national treatment in Article 9(a) and most-favored-nation treatment in Article 9(b). This non-distinction requirement means to prevent Contracting States from using prohibited airspace as an instrument to interrupt or discourage international air transport. The benchmark for measuring distinction is set upon the nationality of an aircraft rather than the nationality of an airline. Therefore, a Contracting State's prohibition of one particular *airline's* transit rights might not necessarily create a distinction as to the nationality of the aircraft, taking note of flexible arrangements under Article 83*bis* of the Chicago Convention. Furthermore, primarily

States prescribe rigid airways for overflight bilaterally,[1] so that airlines of different States do use different routes to fly over the same territory. Therefore, the privileges for one route do not automatically apply to another route through a blanket national treatment (NT) or most-favoured-nation treatment (MFT) provision.

2.1.2 *Justifications for prohibited airspace under Article 9* – when?

Article 9 of the Chicago Convention prescribes justifications for establishing prohibited airspace: military necessity, public safety, exceptional circumstances, and emergencies. Chapter II has explored the textual meanings of these justifications in their contexts, in light of the Chicago Convention's objects and purposes as well as actual State practices.[2]

These justifications outline the situations necessitating the establishment of prohibited airspace. Prohibited airspace established under Article 9 of the Chicago Convention must follow the non-distinction requirement. The interpretation of the situations and requirements in Article 9 has to consider that the Chicago Convention is a law for peace: its Article 89 allows Contracting States to resume the freedom of action in times of war and national emergencies in order to take self-preserving measures. Therefore, the non-distinction requirement does not apply to prohibited airspace established in wartime and during national emergencies. As to the meaning of war, in accordance with Articles 31 and 32 of the Vienna Convention on the Law of Treaties, Chapter V has explored the ordinary meaning of war in the context, the preparatory work of the Chicago Convention and subsequent State practices; after careful analysis, the author concluded that the word "war" in Article 89 of the Chicago Convention meant armed conflict between sovereign States.

In juxtaposition with Article 89, the interpretation of Article 9 has to consider that each of the four justifications refers to situations in peacetime when prohibited airspace thereby established is subject to the non-distinction requirement.[3]

- The phrase "military necessity" in Article 9 means to cover military activities such as training exercises, practice firing, testing of anti-aircraft missiles, or other planned operations in peacetime. This phrase is interpreted narrowly so as not to not limit Contracting States' freedom in action against particular State(s) pursuant to Article 89 of the Chicago Convention.
- By reason of "public safety", Contracting States are competent to establish prohibited airspace to protect national security; the State concerned is the one to judge in peacetime, and its decision for domestic situations is final.

1 See Chapter II, Section 2.5.2.
2 See Chapter II, Section 2.4.
3 See Chapter II, Section 2.5.

- "Exceptional circumstances" are broad enough to encompass terrorism threats, natural disasters, or other situations which the State considers to be exceptional.
- The reference to "emergency" covers relatively less severe situations, such as regional emergencies, compared to the use of "national emergency" in Article 89. The State concerned is to determine whether the situations could create grave and imminent perils threatening national interests.

2.1.3 *Jurisdiction to establish prohibited airspace* – who?

The question 'who' is to establish prohibited airspace concerns the jurisdiction to impose airspace restrictions. First, the jurisdiction to establish prohibited airspace over its territory is derived from territorial sovereignty, pursuant to Articles 1, 2 and 9 of the Chicago Convention.

Furthermore, Chapters III and IV thus set out to examine the three situations in respect of the provision of ATS and their implications for the establishment of prohibited airspace. According to Annex 11, an appropriate ATS authority is responsible for managing FIRs under its jurisdiction:

– Situation 1: ATS provision within airspace under the sovereignty of a State.
– Situation 2: ATS provision within airspace under the sovereignty of a State which has, by mutual agreement, delegated to another State, responsibility for the establishment and provision of ATS.
– Situation 3: ATS provision within airspace over the high seas or in airspace of undetermined sovereignty.

The responsibility thereby accepted by the appropriate ATS authority encompasses the competences and obligations: 1) to assess risks of air routes; and 2) to take contingency measures, including airspace restrictions. The appropriate ATS authority of a flight information region (FIR) thus exercises the jurisdiction to take appropriate action to monitor any of any developments that might lead to events requiring contingency arrangements such as announcing airspaces as "not safe/secured/available".[4] Airspace users rely on the judgments of the appropriate ATS authority as to the flow management and closure of air routes under the framework of safety management systems (SMS). Therefore, the appropriate ATS authority, by virtue of Annex 11, is considered as trustworthy to provide safety supervision.

The author concluded that the jurisdiction to establish prohibited airspace may come from territorial sovereignty, bilateral agreements, or multilateral arrangements under the auspices of ICAO. Accordingly, the following section proposes a coherent legal regime for the establishment of prohibited airspace

4 See Chapter III, Section 2.1.

under the following situations: sovereignty and ATS jurisdiction exercised by the same State, by different States and by no State.

2.2 Sovereignty and ATS jurisdiction exercised by the same State

2.2.1 From 'may' to 'should'

Article 1 of the Chicago Convention recognizes aerial sovereignty as a State's *de jure* complete and exclusive jurisdiction and control over the airspace. Article 9 of the Chicago Convention uses the words "may" in subparagraph (a) and "reserve the right" in subparagraph (b) to confirm that Contracting States have the right to decide whether to use certain airspace at their discretion; at the same time Article 9 prescribes conditions to qualify this sovereign right.[5] With the widespread adherence to the United Nations Charter, sovereignty does not mean absolute freedom and is limited by international law.[6]

First, applying the theory of instant custom, Attachment C to Annex 11 has crystalized customary international law on contingency measures, in light of the strong *opinio juris generalis* demonstrated at ICAO proceedings, as well as judgments of courts and decisions of aviation authorities.[7] An appropriate ATS authority is both competent and obliged to make contingency plans, announcing that portions of airspace are "not available/safe/available". The establishment of prohibited areas is more than merely a technical function, but more the 'responsibility' of the concerned ATS authority. This study consistently refers to 'responsibility' as a two-dimension concept encompassing competence and obligation: *can* do and *should* do.[8] The appropriate ATS authority is obliged to establish prohibited airspace in light of the risks associated with particular air routes – not only *may* do so, but *should* do so. When the sovereignty and ATS jurisdiction is exercised by the same State, the decision from the ATS authority can be seen as the exercise of sovereignty, so there is not much controversy, compared to the situation when the ATS jurisdiction and sovereignty are exercised by two different States.[9]

Secondly, mindful that the Chicago Convention is a treaty belonging to the law of peace, the use of the term "may" in Article 9 is contextualized by the maintenance of peace. Article 89 of the Chicago Convention allows Con-

5 See Chapter II, Sections 2.5 & 2.6.
6 See Chapter I, Section 2.3.1
7 See Chapter III, Section 4.4.
8 See Chapter III, Section 3.2.
9 See Chapter III, Section 5.

tracting States to resume freedom from the treaty. In case of war or national emergency, Contracting States are entitled to set up prohibited airspace against one particular State.[10] Meanwhile, the State concerned is bound by IHL, including the treaties adhered to and customary humanitarian law rules. States thus shall take more stringent precautionary measures to protect in-transit aircraft and passengers by establishing prohibited airspace in advance. Contracting States are obliged under IHL to take all feasible precautions to avoid, and in any event to minimize, incidental loss of civilian life, injury to civilians, and damage to civilian objects.[11] Building on humanitarian considerations, a practical solution is to isolate civil aircraft from the battlefield through the establishment of prohibited airspace. Contracting States are obliged to close dangerous airspace, that is, *should* do it.

2.2.2 *When should States establish prohibited airspace?*

Having said that a Contracting State should establish prohibited airspace, referring to the discussion in Chapter III on contingency measures that should be taken by the appropriate ATS authority,[12] it is necessary to specify when precisely a prohibited area should be set up. The author finds the answer to this question in the positive law of IHL for humanitarian obligations in armed conflicts. Customary IHL rules confirm that States have the customary humanitarian obligation to remove civilian objects from combat zones. This rule is applicable to armed conflicts for removing aircraft through imposing airspace restrictions.

The breakout of war, satisfying the thresholds of international armed conflicts (IAC) in IHL, triggers the application of Article 89 of the Chicago Convention. The starting point of international armed conflict, a war, is the beginning of recourse to armed forces, regardless of the declaration of war.[13] In the case of IAC, a Contracting State does not need to notify the ICAO Council; Article 89 is triggered automatically by the resort to armed forces. Once Article 89 is triggered, the States affected are entitled to impose airspace restrictions as self-preserving measures, if they feel the need;[14] such measures are not subject to the requirements in Article 9. In other words: *can establish prohibited airspace*. Meanwhile, during armed conflicts, all States should respect the customary humanitarian rule to take precautionary measures; this means an obligation to impose airspace restrictions. In other words: *should establish prohibited airspace*. Again, this study elaborated on the two dimensions of States' *responsibility* with respect to prohibited airspace over conflict zones.

---

10 See Chapter II, Section 2.5 and Chapter V, Section 2.4.
11 See Chapter V, Section 3.3.
12 See Chapter III, Section 4.
13 See Chapter V, Section 2.3.
14 See Chapter V, Section 2.2.2.

In addition to areas of armed conflicts, this study further investigates conflict zones in air law which is a broader concept than the combat zone in IHL: this concept also includes areas where parties are in a heightened state of military alert or tension. In a heightened alert area, perhaps there was no recourse to armed forces yet, but deployed weapons still pose risk to civil aircraft. IHL does not apply to such areas *per se*.

With respect to such a heightened alert area which has not passed into areas of war, three points should be mentioned:

- First of all, Article 89 of the Chicago Convention is not automatically triggered for national emergencies. In extreme cases where national interest is in peril, a State may declare a national emergency and notifies the ICAO Council, thereby triggering the application of Article 89 and resumes freedom from the Chicago Convention;
- Secondly, if the State does not declare a national emergency and thereby chooses not to trigger Article 89, the said State has *the right* to invoke military necessity, emergencies, exceptional circumstances, or public safety concerns to establish prohibited areas over its territory, in accordance with the conditions and requirements in Article 9 of the Chicago Convention; and
- Finally, having investigated the repeated tragedies over conflict zones, this study argues that the customary precautionary principle[15] drawn up in IHL should apply to heightened alert/tension areas so that the State has an *obligation* to establish prohibited airspace over conflict zones, as defined by ICAO.

2.3 Sovereignty and ATS jurisdiction exercised by different States

2.3.1 Prohibited airspace in bilaterally delegated airspace

Chapter III examined the provisions in Annex 11 on the delegation of ATS responsibility between two sovereign States. Once a portion of airspace is delegated to another State, it is the responsibility of the providing State to seek and collect timely information regarding the airspace. In spite of that, the delegating State still has sovereignty over the delegated airspace following Article 1 of the Chicago Convention. Following the termination of a delegation agreement, the delegating State is entitled to resume control over its sovereign airspace in accordance with Article 1, in conjunction with Article 2 of the Chicago Convention.

Chapter III emphasized the obligations of the appropriate ATS authorities to undertake risk assessments of air routes and take contingency measures

15 See Chapter V, Section 3.3.1.

such as declaring a segment of airspace as "not safe/available." Nonetheless, the competences of the providing authority are limited by bilateral agreements and Annex 11. Lacking consent from the territorial State, any pending technical or operational operations will have to be addressed outside of the sovereign airspace of a State. The appropriate ATS authorities' contingency plan can involve airspace restrictions, but if it concerns sovereign airspace within territorial limits,[16] the execution of this plan must be approved or consented to by the delegating State, unless otherwise prescribed in bilateral agreements. Chapter III section 5 examines the *Qatar 'blockade' case* (2017-2021)[17] and concludes that sovereign airspace is to be used or closed on the initiative of, or with the agreement or consent of, the delegating State.

2.3.2 *Danger areas over the high seas*

Chapter IV clarifies the connotation of the term "high seas" in the Chicago Convention and ICAO regulations: the term is interpreted by ICAO as international waters, including the UNCLOS' contiguous zones, EEZ, and high seas.[18] ICAO is the ultimate legislator for civil flights operated over the high seas. ANPs made under the auspices of ICAO prescribe the technical competences of ATS authorities over the high seas. The approval by the ICAO Council of regional air navigation agreements over the high seas does not imply recognition of sovereignty of that State over the airspace concerned – the high seas are under no one's sovereignty.

Chapter IV has concluded that the appropriate ATS authorities are competent and obliged to announce certain portions of airspace as not available/safe/secured on the basis of Annex 11, in a way consistent with regional agreements and ANPs. Operations as such may establish danger areas over the high seas, because prohibited or restricted areas are not permitted over the high seas. ANPs over the high seas can prescribe the 'when' and 'how' for the appropriate ATS authorities to establish a danger area. A regional ANP may allow a temporary danger area to be established in anticipation of natural disasters, in a timely manner, absent ICAO's approval.

2.3.3 *Prohibited airspace in areas of undetermined sovereignty*

Chapter IV explored the establishment of prohibited airspace in regions of political sensitivity. The United Nations' meetings and its subsidiary organs' work record territorial disputes. As presented in the English judgments relating to Northern Cyprus, it was considered that a State's sovereignty does not require territorial integrity has been maintained; the effective control of territ-

16 See Chapter III, Section 5.2.
17 See Chapter II, Section 3.3 and Chapter III, Section 5.3.
18 See Chapter IV, Section 2.3.

ories does not take precedence over existing territorial titles. Accordingly, a sovereign power is entitled to announce the establishment of prohibited airspace over its territories, including those areas not under effective control.

Cognizant of competing territorial claims, the establishment of prohibited airspace, as a regional contingency measure, does not in itself symbolize or strengthen either party's territorial claim. Chapter IV highlights that the legal basis is no longer Article 9 of the Chicago Convention, but Annex 11 of the Chicago Convention:[19] Member States can consult on regional ATS contingency measures, including declaring airspace as "not available" at technical meetings convened by ICAO.

2.4 ATS jurisdiction not exercised by any State

Having argued for a State's obligation to establish prohibited airspace, Chapter V investigates the situation where no State is technically competent to exercise the ATS jurisdiction, due to armed conflict or other reasons. Technically, Article 28 of the Chicago Convention establishes the responsibility of Contracting States to provide safe ATS, in terms of the dimensions of both competence and obligation; meanwhile, a Contracting State can invoke the caveat of "impossibility to perform",[20] that is, technical capabilities, to preclude negative consequences arising from the non-performance of Article 28 of the Chicago Convention.

The author identified a caveat to the performance of this obligation on the basis of Article 61 (1) of the VCLT and customary international law. In cases of war and national emergencies, a Contracting State may lose the technical competence to collect available information and thus the State concerned are unable to precisely decide the height up to which the airspace should be closed. Therefore, Chapter V emphasizes that in *invoking* Article 61(1) of the VCLT, the State has to inform the technical impossibility through issuing NOTAMs, so that flights can timely change flight plans and file for alternative routes. In the end, that said conflict zone, being avoided by all flights, become prohibited airspace *per se*. The obligations to take contingency measures remain, in both peace and war, but technical impossibility precludes the wrongfulness for not imposing airspace restrictions over conflict zones.

19 See Chapter IV, Section 3.3.2.
20 See Chapter V, Section 3.4.

Table 4: Matrix for a coherent security regime for prohibited airspace[21]

Jurisdiction	*Scenario*	*Actions*	*Legal Basis*
Sovereign and technical jurisdiction exercised by the same State	Prohibited airspace in sovereign airspace	- The State should establish prohibited airspace over conflict zones and diligently complies with Article 9 of the Chicago Convention and ICAO regulations - In times of war and national emergency, the State is entitled to establish prohibited airspace against particular State(s)	Article 9 of the Chicago Convention, ICAO regulations and IHL obligations
Sovereign and technical jurisdiction exercised by different States	Prohibited airspace in another State's territorial airspace, over the high seas, or in the airspace of undetermined sovereignty	- Regional consultations on the procedures and liabilities in relation to prohibited airspace - The appropriate ATS authority should establish prohibited airspace over conflict zones and diligently complies with ICAO regulations	ICAO regulations, bilateral delegation agreement and regional ANPs
Technical jurisdiction exercised by none	Prohibited airspace over combat zones	- International wrongfulness precluded in case of the technical impossibility to establish prohibited airspace	Public international law and ICAO regulations

3 STOCKTAKING AND PROSPECT FOR LEX FERENDA

This study endeavors to understand why legal technicalities seem to go against good conscience. Mindful of the general public's indignation over the use of dangerous airspace,[22] The author re-investigated the permissive prescription in Article 9 of the Chicago Convention against the background of general international law.

21 Source: created by the author.
22 See Chapter V, Section 3.3.3.

According to the current author, the *Corfu Channel* doctrine[23] presents support for applying a normative humanism to the regulation of international transport relations, which maintains the value of promoting aviation safety and security. The Chicago Convention by itself, in particular its Article 9, cannot be considered entirely exclusive; the interpretation thereof has to consider a new reality by adopting humanitarian rules.

Novel as it is to introduce humanitarian rules into the Chicago Convention, the regulations in Annex 11 to the Chicago Convention support the conclusion that contingency measures should be adequately taken into account by the appropriate ATS authorities. The State and responsible ATS authorities should execute contingency plans by establishing prohibited areas. It is the only effective way to reduce aircraft vulnerability over conflict zones. The customary rules in Annex 11 on contingency measures should be strengthened and brought to the attention of Contracting States as *lex ferenda* no less enforceable than the Chicago Convention itself.

After careful analysis, the conclusion is reached that air law should strengthen the language on the obligation of States to establish prohibited airspace over a conflict zone, encompassing combat zones and zones with heightened alert situations posing risks to civil aircraft in-transit. This change means a shift in the paradigm of legal technicalities away from the idea of *lex specialis* or *lex posterior*, and towards considering the function of prohibited airspace in saving lives. Furthermore, the obligation to take precautionary measures under IHL should be applied *mutatis mutandis* to conflict zones as defined by ICAO, including heightened alert situations, such as military standoff, where armed conflict has not yet but is likely to occur between militarized parties.

In the end, the author hopes that readers will not misunderstand what has been advocated. This study does not mean to preach some higher moral standards but tries to call attention to dangers that threaten the safety and security of civil aviation.

Contracting States of the Chicago Convention, the authorities and providers for ATS, airlines, and the industry as a whole may figure out all sorts of excuses for leaving dangerous airspace open. The question at this moment is not whether some excuses, such as the word "may" in Article 9, technical incapacity to collect information etc., are good or bad. The point is that all the excuses are one more proof of how deeply, whether we realize it or not, the international community believes in the safety and security of civil aviation; believes that the judgments of authorities are trustworthy as they are the custodians of aviation safety and security; believes that it is unacceptable that flying civil aircraft are shot down over conflict zones.

23 See Chapter V, Section 3.2.

Such beliefs are so deeply rooted that the international community cannot admit the opposite: international law does not protect civil aircraft in-transit over conflict zones; there is no regulatory control over the airspace above conflict zones; the civil aircraft and passengers have to always take the risk over conflict zones. The truth is that because the international community believes in a safe and reliable air transport system so much – we feel the obligations to close dangerous airspace over conflict zones pressing on us so much – we cannot bear to admit the fact that we are denying this obligation; and consequently we reduce ourselves to finger-pointing or to hide behind black-letter law.

These, then, are the two points the author wants to make. First, we ought to close the airspace over conflict zones, and cannot really deny this idea. Second, the positive law in the Chicago Convention is not strong enough to mandate the establishment of prohibited airspace over conflict zones.

Summary

The study focuses on how to establish prohibited airspace over conflict zones. This study endeavors to answer the following research questions:

1) *What are the conditions, including legal requirements, for establishing a prohibited airspace?*
2) *Who has jurisdiction to establish prohibited airspace?*
3) *How can the status quo be changed with respect to prohibited airspace to enhance aviation security?*

The establishment of prohibited airspace concerns on the one hand, the principle of air sovereignty, agreed by governments as recognized in Article 1 Chicago Convention, and on the other hand, the object of agreeing on this principle to "develop international civil aviation in a safe and orderly manner". Threads running through the chapters are the themes of sovereignty, jurisdiction and territory.

After explaining the methodology in Chapter 1, this study explores the positive law with respect to prohibited airspace, including the Chicago Convention and ICAO regulations. Chapter 2 clarifies the reasons and conditions necessary for establishing prohibited airspace to answer the first research question. On the basis of Articles 1 and 2 of the Chicago Convention, the treaty's Article 9 confirms a Contracting State's right to establish a prohibited or restricted airspace over its sovereign territory; and at the same time, Article 9 sets out qualifications for this right, such as the requirement of non-distinction. The benchmark for measuring (non-)distinction is set upon the nationality of an aircraft, rather than the nationality of an airline. Therefore, a Contracting State's prohibition of one particular airline's transit rights might not necessarily create distinction as to the nationality of the aircraft, taking note of flexible arrangements under Article 83bis of the Chicago Convention.

The interpretation of the situations and requirements in Article 9 has to take into account that the Chicago Convention is a law designed for peacetime: its Article 89 allows Contracting States to resume the freedom of action in times of war and national emergencies in order to take self-preserving measures. Therefore, the non-distinction requirement does not apply to prohibited airspace established in wartime and during national emergencies.

Chapter 3 addresses the technical and operational aspects of prohibited airspace. This chapter explains the importance of information necessary for

decision-making concerning prohibited airspace, and examines the effectiveness of existing ICAO regulations regarding flight information services in a flight information region (FIR). Article 28 (b) of the Chicago Convention predicts new operational practices and rules to be adopted by ICAO from time to time. According to ICAO regulations, a Contracting State may provide ATS over another State's territory, over the high seas and in airspace of undetermined sovereignty. That is to say, in addition to territorial sovereignty, the jurisdiction of an appropriate ATS authority may also derive from bilateral agreements, or multilateral arrangements under the auspices of ICAO; this is the "ATS jurisdiction" as referred by this study, covering the situations of delegated airspace, airspace over the high seas and airspace of undetermined sovereignty.

Chapter 4 continues the discussion on ATS jurisdiction and concluded that the responsibility thereby accepted by the appropriate ATS authority encompasses the competences and obligations: 1) to assess risks of air routes; and 2) to take contingency measures, including airspace restrictions. Applying the theory of instant custom, the Attachment C to Annex 11 has crystalized customary international law on contingency measures, in light of the strong *opinio juris generalis* demonstrated in ICAO proceedings, as well as judgments of courts and decisions of aviation authorities. An appropriate ATS authority is both competent and obliged to make contingency plans which announce that portions of airspace are "not available/safe/secured".

Chapter 5 covers the establishment of prohibited areas in the situations of national emergency and war. It discusses the relationship between prohibited airspace, war zone, and conflict zone. Due to development of modern humanitarian law, this chapter argues that States should have the obligation to establish a prohibited airspace over conflict zones as a precautionary measure to protect civilians. In the case of an International Armed Conflict (IAC), a Contracting State does not need to notify the ICAO Council; Article 89 is triggered automatically by the resort to armed forces. Once Article 89 is triggered, the States affected are entitled to the freedom of action, including the freedom to impose airspace restrictions; restrictions as such are not subject to the non-distinction requirement in Article 9. In other words: *can* establish prohibited airspace. Meanwhile, during armed conflicts, all States should respect the customary humanitarian rule to take precautionary measures; this means an obligation to impose airspace restrictions. In other words: *should* establish prohibited airspace. The competence, that is "can" do, and the obligation, that is "should" do, are the two dimensions of the concept of responsibility. Again, this chapter elaborated on the two dimensions of States' responsibility with respect to prohibited airspace over conflict zones.

The final chapter, Chapter 6, proposes a legal regime for prohibited airspace covering three different situations: sovereignty and ATS jurisdiction exercised by the same State, by different States and by no State. Aspiring for changes, the author proposes that air law should strengthen the language on the obligation of States to establish prohibited airspace over a conflict zone, encompass-

ing combat zones and zones with heightened alert situations posing risks to civil aircraft in-transit. This means a shift in the paradigm of legal technicalities away from the idea of *lex specialis* or *lex posterior*, and towards considering *lex ferenda*. The obligation to take precautionary measures under International Humanitarian Law (IHL) should be applied *mutatis mutandis* to conflict zones as defined by ICAO.

Samenvatting (Dutch summary)

BESCHERMING VAN DE LUCHTVAARTBEVEILIGING DOOR DE INSTELLING VAN EEN VERBODEN LUCHTRUIM

Dit proefschrift richt zich op de vraag hoe een verboden luchtruim boven conflictgebieden kan worden ingesteld. Het onderzoek probeert de volgende vragen te beantwoorden:

1) *Wat zijn de voorwaarden, inclusief wettelijke vereisten, voor het instellen van een verboden luchtruim?*
2) *Wie is bevoegd om een verboden luchtruim in te stellen?*
3) *Hoe kan de status quo met betrekking tot het verboden luchtruim worden gewijzigd om de veiligheid van de luchtvaart te verbeteren?*

De instelling van een verboden luchtruim betreft enerzijds het beginsel van soevereiniteit van de luchtvaart, dat door regeringen is overeengekomen zoals erkend in artikel 1 van het Verdrag van Chicago, en anderzijds het doel om overeenstemming te bereiken over dit beginsel om "de internationale burgerluchtvaart op een veilige en ordelijke wijze te ontwikkelen". De thema's soevereiniteit, jurisdictie en territorium lopen als een rode draad door de hoofdstukken heen.

Nadat in hoofdstuk 1 de methodologie is toegelicht, wordt in dit proefschrift het positieve recht met betrekking tot het verboden luchtruim onderzocht, met inbegrip van het Verdrag van Chicago en de ICAO-regelgeving. Hoofdstuk 2 verduidelijkt de redenen en voorwaarden die nodig zijn voor het instellen van een verboden luchtruim om de eerste onderzoeksvraag te beantwoorden. Op basis van de artikelen 1 en 2 van het Verdrag van Chicago bevestigt artikel 9 van dat verdrag het recht van een verdragsluitende staat om een verboden of beperkt luchtruim boven zijn soevereine grondgebied in te stellen. Tegelijkertijd stelt artikel 9 kwalificaties voor dit recht vast, zoals het vereiste van non-discriminatie. De maatstaf voor het vaststellen van (non)-discriminatie is gebaseerd op de nationaliteit van een vliegtuig en niet op de nationaliteit van een luchtvaartmaatschappij. Daarom hoeft het verbod van een verdragsluitende staat op de transitrechten van een bepaalde luchtvaartmaatschappij niet noodzakelijkerwijs een onderscheid te creëren met betrekking

tot de nationaliteit van het luchtvaartuig, gelet op de flexibele regelingen krachtens artikel 83bis van het Verdrag van Chicago.

Bij de interpretatie van de situaties en vereisten in artikel 9 moet rekening worden gehouden met het feit dat het Verdrag van Chicago een wet is die is ontworpen voor vredestijd: artikel 89 stelt verdragsluitende staten in staat de vrijheid van handelen te hervatten in tijden van oorlog en nationale noodsituaties om zelf beschermende maatregelen nemen. Daarom is het vereiste van non-discriminatie niet van toepassing op een verboden luchtruim dat is ingesteld in oorlogstijd en tijdens nationale noodsituaties.

Hoofdstuk 3 behandelt de technische en operationele aspecten van een verboden luchtruim. In dit hoofdstuk wordt het belang van informatie die noodzakelijk is voor besluitvorming over verboden luchtruim toegelicht, en wordt er ingegaan op de effectiviteit van de bestaande ICAO-regelgeving met betrekking tot vluchtinformatiediensten in een vluchtinformatiegebied (FIR). Artikel 28 onder b) van het Verdrag van Chicago voorziet in nieuwe operationele praktijken en regels die van tijd tot tijd door de ICAO zullen worden vastgesteld. Volgens de ICAO-regelgeving mag een verdragsluitende staat ATS verstrekken over het grondgebied van een andere staat, over de volle zee en in een luchtruim met onbepaalde soevereiniteit. Dat wil zeggen dat, naast de territoriale soevereiniteit, de jurisdictie van een geschikte ATS-autoriteit ook kan voortvloeien uit bilaterale overeenkomsten of multilaterale regelingen onder auspiciën van de ICAO. Dit is de 'ATS-jurisdictie' waarnaar in dit proefschrift wordt verwezen, die betrekking heeft op de situaties van gedelegeerd luchtruim, luchtruim boven volle zee en luchtruim met onbepaalde soevereiniteit.

Hoofdstuk 4 zet de discussie over ATS-jurisdictie voort en concludeert dat de verantwoordelijkheid die daarbij door de bevoegde ATS-autoriteit wordt aanvaard, de bevoegdheden en verplichtingen omvat: 1) het beoordelen van risico's van vliegroutes en 2) het nemen van noodmaatregelen, waaronder luchtruimbeperkingen. Door toepassing van de theorie van "instant custom", heeft bijlage C bij annex 11 het internationaal gewoonterecht inzake noodmaatregelen uitgekristalliseerd, in het licht van de sterke *opinio juris generalis* die is aangetoond tijdens ICAO-vergaderingen, evenals uitspraken van rechtbanken en beslissingen van luchtvaartautoriteiten. Een geschikte ATS-autoriteit is zowel bevoegd als verplicht om rampenplannen op te stellen waarin wordt aangekondigd dat delen van het luchtruim 'niet beschikbaar/veilig/beveiligd' zijn.

Hoofdstuk 5 behandelt het instellen van verboden gebieden in geval van nationale noodtoestand en oorlog. Het bespreekt de relatie tussen verboden luchtruim, oorlogsgebied en conflictgebied. Als gevolg van de ontwikkeling van het moderne humanitaire recht wordt in dit hoofdstuk betoogd dat staten de verplichting zouden moeten hebben om een verboden luchtruim boven conflictgebieden in te stellen als voorzorgsmaatregel om burgers te beschermen. In het geval van een internationaal gewapend conflict (IAC) hoeft een verdragsluitende staat de ICAO Council niet in kennis te stellen; artikel 89 treedt

automatisch in werking door de inzet van gewapende strijdkrachten. Zodra artikel 89 in werking is getreden, hebben getroffen staten het recht op de vrijheid van handelen, inclusief het recht om bij wijze van zelfbeschermingsmaatregel luchtruimbeperkingen op te leggen; dergelijke maatregelen zijn niet onderworpen aan de non-discriminatie-eisen van artikel 9. Met andere woorden: een staat kan een verboden luchtruim instellen. Ondertussen moeten alle staten tijdens gewapende conflicten de humanitaire gewoonteregel respecteren om voorzorgsmaatregelen te nemen. Dit betekent een verplichting om luchtruimbeperkingen op te leggen. Met andere woorden, staten moeten een verboden luchtruim instellen. De bevoegdheid, dat wil zeggen 'kunnen' doen, en de verplichting, dat wil zeggen 'moeten' doen, vormen samen het begrip verantwoordelijkheid. Zoals eerder genoemd zijn in dit onderzoek de twee dimensies van de verantwoordelijkheid van staten met betrekking tot het verboden luchtruim boven conflictgebieden uitgewerkt.

In het laatste hoofdstuk, hoofdstuk 6, wordt een juridische regeling voor verboden luchtruim voorgesteld die drie verschillende situaties omvat: soevereiniteit en ATS-jurisdictie uitgeoefend door dezelfde staat, door verschillende staten en door geen enkele staat. In haar streven naar veranderingen stelt de auteur voor om in het luchtrecht de formulering te versterken van de verplichting voor staten om een verboden luchtruim in te stellen boven een conflictgebied, bestaande uit gevechtszones en zones met verhoogde waakzaamheid die risico's opleveren voor burgerluchtvaartuigen in transit. Dit betekent een verschuiving in het paradigma van juridische techniek, weg van het idee van *lex specialis* of *lex posterior,* en in de richting van *lex ferenda.* De verplichting om voorzorgsmaatregelen te nemen op grond van het Internationaal Humanitair Recht (IHR) moet *mutatis mutandis* worden toegepast op conflictgebieden zoals gedefinieerd door de ICAO.

Selected bibliography

I Treaties

- Agreement between the United Nations and the International Civil Aviation Organization, (31 May 1948), ICAO Doc 7970.
- Agreement between the Government of India and the Government of Pakistan Relating to Air Services, (1948).
- Charter of the United Nations (San Francisco, 26 June 1945), 1 U.N.T.S. XVI.
- Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation (Montreal, 23 Sep. 1971), 974 U.N.T.S. 177.
- Convention on the Suppression of Unlawful Acts Relating to International Civil Aviation (Beijing, 10 Sep. 2010), ICAO Doc. 9960
- Convention on International Civil Aviation (Chicago, 7 Dec. 1944), 15 U.N.T.S. 295.
- International Air Services Transit Agreement (Chicago, 7 Dec. 1944), 84 U.N.T.S. 387.
- International Convention for the Suppression of the Financing of Terrorism (New York, 9 Dec.1999), 2178 U.N.T.S. 197.
- Statute of the International Court of Justice.
- United Nations Convention on the Law of the Sea (Montego Bay, 10 Dec. 1982), 1833 U.N.T.S. 397.
- Vienna Convention on the Law of Treaties (Vienna, 23 May 1969) 1155 U.N.T.S. 331.

II Cases and decisions

1. *International Court of Justice / Permanent Court of International Justice*

- *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro)*, Judgment, I.C.J. Reports 2007.
- *Appeal Relating to The Jurisdiction of The ICAO Council Under Article II, Section 2, of The 1944 International Air Services Transit Agreement* (*Bahrain, Egypt and United Arab Emirates v. Qatar*), Judgment, I.C.J. Reports 2020.
- *Barcelona Traction, Light and Power Company, Limited (Belgium v. Spain)*, Judgment, I.C.J. Reports 1970.
- *Border and Transborder Armed Actions (Nicaragua v Honduras) (Jurisdiction and Admissibility)*, I.C.J. Reports 1988.
- *Case concerning Legality of Use of Force (Servia and Montenegro v United Kingdom)*, Preliminary Objections, I.C.J. Reports 2004.

- *Competence of Assembly regarding admission to the United Nations,* Advisory Opinion: I.C.J. Reports 1950.
- *Corfu Channel Case (United Kingdom v Albania),* Judgment, I.C.J. Reports 1949.
- *Genocide Convention (Bosnia v. Serbia)* case, Judgment, I.C.J. Reports, 2007.
- *Interpretation and Application of the International Convention on the Elimination of All Forms of Racial Discrimination (The State of Qatar v. The United Arab Emirates),* Request for the Indication of Provisional measures, Order, 23 July 2018.
- *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, Advisory Opinion, I.C.J. Reports, 2004.
- *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, I.C.J. Reports, 1996.
- *'Lotus' (France v Turkey*), 1927 P.C.I.J. (ser. A) No. 10 (Sept. 7).
- *Lighthouses in Crete and Samos (France v. Greece),* 1937 P.C.I.J. (ser. A/B) No. 62 (Oct. 8).
- *Nicaragua v. Colombia*, Preliminary Objections, I.C.J Reports, 2016.
- *North Sea Continental Shelf (Federal Republic of Germany/Denmark),* I.C.J. Reports, 1969.
- *Oil Platforms case (Iran v. United States of America),* Judgment, I.C.J. Reports 2003.
- *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Judgment, I.C.J. Reports 2010.
- *Qatar v. Bahrain* case, Judgment, I.C.J. Rep, 1995.
- *Sovereignty over Pulau Litigan and Pulau Sipadan (Indonesia/Malaysia)*, I.C.J. Reports 2002.
- *Territorial Dispute (Libyan Arab Jamahiririya/Chad)*, Judgment, I.C.J. Reports 1994.

2. *Other tribunals*

- *Air Transport Association of America and Others v Secretary of State for Energy and Climate Change,* Case C-366/10, (Eur. Ct. Justice Dec. 21, 2011).
- *Archer Daniels Midland Company and Tate & Lyle Ingredients Americas, Inc v Mexico*, ICSID Case No. ARB (AF)/04/5.
- *Matter of the Chagos Marine Protected Area Arbitration (Mauritius v. UK),* PCA Case No. 2011-3 (UNCLOS Annex VII Arb. Trib. Mar. 18, 2015).
- *Island of Palmas Case (or Miangas), United States v Netherlands*, Award, (1928) II RIAA 829.
- ITLOS Advisory Opinion on Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area, 1 February 2011.
- *Commission v UK and Northern Ireland* [2002] Case C-466/98, ECR I-9427.
- *R (on the application of Kibris Turk Hava Yollari & CTA Holidays) v. Secretary of State for Transport (Republic of Cyprus, interested party),* [2009] EWHC 1918 (Admin).
- *R on the Application of Air Transport Association of America and Others v Secretary of State for Energy and Climate Change*, [2010] EWHC 1554 (Admin).

III. UN Documents

1. General Assembly

- United Nations, General Assembly Resolution 2131 (XX), Declaration on the Inadmissibility of Intervention in the Domestic Affairs of States and the Protection of Their Independence and Sovereignty, 21 December 1965.
- United Nations, General Assembly Resolution 2551 (XXIV), Forcible Diversion of Civil Aircraft in Flight, 13 December 1969.
- United Nations, General Assembly Resolution 2625 (XXV), Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations, 24 October 1970.
- United Nations, General Assembly Resolution 2645 (XXV), Aerial Hijacking or Interference with Civil Air Travel, 25 November 1970.
- United Nations, General Assembly Resolution 40/61, Measures to prevent international terrorism which endangers or takes innocent human lives or jeopardizes fundamental freedoms and study of the underlying causes of those forms of terrorism and acts of violence which He in misery, frustration, grievance and despair and which cause some people to sacrifice human lives, including their own, in an attempt to effect radical changes, 9 December 1985.
- United Nations, General Assembly Resolution 68/262, Territorial Integrity of Ukraine, 27 March 2014.
- United Nations, General Assembly Resolution 74/168, Situation of human rights in the Autonomous Republic of Crimea and the city of Sevastopol, Ukraine, 20 January 2020.
- Articles on State Responsibility, Official records of the General Assembly, Fifty-sixth Session, Supplement 10 A/56/10.
- United Nations, Statement by His Highness Sheikh Abdullah Bin Zayed Al Nahyan, Minister of Foreign Affairs and International Cooperation of the United Arab Emirates before the General Assembly, 72nd Session, 18th Plenary Meeting, document A/72/PV.18, 22 September 2017.
- United Nations, Statement by H.E. Shaikh Khalid Bin Ahmed Bin Mohamed Al Khalifa, Minister of Foreign Affairs of the Kingdom of Bahrain, before the General Assembly, 72nd Session, 20th Plenary Meeting, document A/72/PV.20, 23 September 2017.
- United Nations, Statement of H.E. Adel Ahmed AlJubeir, Minister of Foreign Affairs of the Kingdom of Saudi Arabia before the General Assembly, 72nd Session, 20th Plenary Meeting, document A/72/PV.20, 23 September 2017.
- United Nations, Statement of H.E. Adel Ahmed Al-Jubeir, Minister of Foreign Affairs of the Kingdom of Saudi Arabia before the General Assembly, 73rd Session, 28 September 2018.
- United Nations, Statement by H.E. Shaikh Khalid Bin Ahmed Bin Mohamed Al Khalifa, Minister of Foreign Affairs of the Kingdom of Bahrain, before the 73rd Session of the United Nations General Assembly, 29 September 2018.
- United Nations General Assembly Resolution ES-11/1, Aggression against Ukraine, 2 March 2022.

2. *United Nations Security Council*

- Resolution 579 (1985) adopted by the Security Council at its 2618th Meeting on 9 October 1985.
- Resolution 1267 (1999) adopted by the Security Council at its 4051st Meeting on 15 October 1999.
- Resolution 1358 (2001) dopted by the Security Council at its 4370th meeting on 12 September 2001.
- Resolution 1373 (2001) adopted by the Security Council at its 4385th Meeting on 28 September 2001.
- Resolution 1624 (2005) adopted by the Security Council at its 5261st Meeting on 14 September 2005.
- Resolution 1718 (2006) adopted by the Security Council at its 5551st meeting on 14 October 2006.
- Resolution 2133 (2014) adopted by the Security Council at its 7101st Meeting on 27 January 2014.
- Resolution 2166 (2014) adopted by the Security Council at its 7221st meeting, on 21 July 2014
- Resolution 2175 (2015) adopted by the Security Council at its 7256th meeting, on 29 August 2014.
- Resolution 2178 (2014) adopted by the Security Council at its 7272nd Meeting on 24 September 2014.
- Resolution 2199 (2015) adopted by the Security Council at its 7379th Meeting on 12 February 2015.
- Security Council Committee Pursuant to Resolutions 1267 (1999), 1989 (2011) and 2253 (2015) Concerning ISIL (Da'esh) Al-Qaida and Associated Individuals, Groups, Undertakings and Entities, Narrative Summaries of Reasons for Listing QDi.380 Abd al-Latif bin Abdallah Salih Muhammad al-Kawari, United Nations Security Council Subsidiary Organs (last updated 21 September 2015)
- Resolution 2396 (2017) adopted by the Security Council at its 8148th Meeting, 21 December 2017.
- Security Council 7775th Meeting coverage, "Adopting Resolution 2309 (2016), Security Council Calls for Closer Collaboration to Ensure Safety of Global Air Services, Prevent Terrorist Attacks," SC/12529, 22 September 2016.

3. *International Law Commission*

- Garcia-Amador, Special Rapporteur, *Third Report on International Responsibility*, A/CN.4/111, Yearbook of the International Law Commission, vol. II, 1958.
- International Law Commission, Articles on Responsibility of States for Internationally Wrongful Acts (2001), in Report of the International Law Commission on the Work of its Fifty-third Session (2001).
- International Law Commission, Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law, Report of the Study Group of the International Law Commission, Finalized by Martti Koskenniemi, A/CN.4/L.682 (13 Apr. 2006).

- International Law Commission, Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law, Report of the Study Group of the International Law Commission. A/CN.4/L.702 (18 July 2006).
- International Law Commission, Report of the International Law Commission of its Fifty- Eighth Session, G.A. Res. 10, U.N. GAOR, 61st Sess., U.N. Doc. A/61/10, (2006).
- International Law Commission, Commentary on the Draft Convention on Arbitral Procedure adopted by the ILC at its Fifth Session (1955).
- Report of the International Law Commission, Seventieth session (30 April–1 June and 2 July–10 August 2018), Official Records of the General Assembly, Seventy-third Session, Supplement No. 10, A/73/10.
- Yearbook of the International Law Commission 1996, A/CN.4/SER.A/1996/Add.l.

IV ICAO DOCUMENTS

1. Annexes

- Annex 2, Rules of the Air (10th ed., July 2005).
- Annex 6, Operation of Aircraft, Part I International Commercial Air Transport – Aeroplanes (9th ed. July 2010).
- Annex 8, Airworthiness of Aircraft (11th ed., July 2010)
- Annex 11, Air Traffic Services (15th ed., July 2018)
- Annex 13, Aircraft Accident and Incident Investigation (12th ed., July 2020)
- Annex 15, Aeronautical Information Services (16th ed., July 2018).
- Annex 17, Security (11th ed., Mar. 2020).
- Annex 18, The Safe Transport of Dangerous Goods by Air (4th ed. Jul. 2011).

2. Guidance material

- ICAO, Aeronautical Information Management, Doc 10066 (1st ed., 2018).
- ICAO, Air Traffic Management, Doc 4444 (16th ed., 2016).
- ICAO, Air Traffic Services Planning Manual, Doc 9426-AN/924 (1st ed., 1984).
- ICAO, APAC Air Navigation Plan, vol. I, updated December 2020 (Amendment No. APAC-I 16/05, Nov 2016).
- ICAO, "Civil Aircraft Operations Over Conflict Zones," (November 2016) (restricted).
- ICAO, Circular 221-AT/89, International Air Passenger and Freight Transport – Middle East, 1989.
- ICAO, Global Aviation Safety Plan, 2020-2022, Doc 10004 (2019).
- ICAO, Manual Concerning Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft Operations, Doc 9554-AN/932 (1st ed., 1990).
- ICAO, Manual on Collaborative Air Traffic Flow Management, Doc 9971 (3rd ed., 2018).
- ICAO, Manual on Civil/Military Cooperation in Air Traffic Management, Doc 10088 *replaces Circular 330.
- ICAO, Policies on Charges for Airports and Air Navigation Services, Doc 9082 (8th ed. 2009).

· ICAO, Manual on Notification and Publication of Differences, Doc 10055, AN/581 (2018).
· ICAO, Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones, Doc 10084 (2nd ed., 2018).
· ICAO, Rules of Procedure for the Council, Doc. 7559/10 (2014).
· ICAO, Safety Management Manual, Doc 9859 (4th., 2018).
· ICAO, Safety Oversight Manual, Doc 9734 AN/959, Part A, The Establishment and Management of a State's Safety Oversight System, (2nd ed. 2006).
· ICAO, Rules for the Settlement of Differences, Doc 7782, approved on 9 April 1957; amended on 10 November 1975.

3. Assembly Resolutions

· ICAO, Resolution A1-11.
· ICAO, Resolution A1-31.
· ICAO, Resolution A2-24.
· ICAO, Resolution A7-2.
· ICAO, Resolution A15-7.
· ICAO, Resolution A18-4.
· ICAO, Resolution A24-12.
· ICAO, Resolution A27-10.
· ICAO, Resolution A32-6.
· ICAO, Resolution A35-6.
· ICAO, Resolution A36-4.
· ICAO, Resolution A36-13.
· ICAO, Resolution A36-19.
· ICAO, Resolution A37-1.
· ICAO, Resolution A37-5.
· ICAO, Resolution A37-15.
· ICAO, Resolution A37-20.
· ICAO, Resolution A38-12.
· ICAO, Resolution A38-15.
· ICAO, Resolution A39-21.
· ICAO, Resolution A39-22.

4. Other ICAO Documents

· ICAO, AHWG – SFS of Air Navigation Commission, Guide to the Drafting of SARPS and PANS, November 2015.
· ICAO, Rules of Procedure for the Council, Doc. 7559/10 (2014).
· ICAO, Rules for the Settlement of Differences, Doc 7782, approved on 9 April 1957; amended on 10 November 1975.
· ICAO, Universal Safety Oversight Audit Programme Continuous Monitoring Manual, Doc 9735, AN/960, 4th ed., 2014.
· ICAO Council, Council Resolution on Malaysia Airline Flight MH17, destroyed over Eastern Ukraine on 17 July 2014 (2014), available at https://www.icao.int/Newsroom/NewsDoc2014/COUNCIL RESOLUTION ON MALAYSIA AIRLINES FLIGHT MH17.pdf.

- ICAO Council, Action of the Council: Seventy-fourth Session, ICAO Doc. 8987-C/1004 (8 July 1971, 27-29 July 1971, 28 Sept.– 17 Dec. 1971).
- ICAO Council, 74th Session, Minutes of the Second Meeting, ICAO Doc. 8956-C/1001 (27 July 1971).
- ICAO Council, 74th Session, Minutes of the Third Meeting, ICAO Doc. 8956-C/1001 (27 July 1971).
- ICAO Council, 74th Session, Minutes of the Fourth Meeting, ICAO Doc. 8956-C/1001 (28 July 1971).
- ICAO Council, 74th Session, Minutes of the Fifth Meeting, ICAO Doc. 8956-C/1001 (28 July 1971).
- ICAO Council, 74th Session, Minutes of the Sixth Meeting, ICAO Doc. 8956-C/1001 (29 July 1971)
- ICAO Council, 161st Session, Summary Minutes of the Fourth Meeting, ICAO Doc. C-MIN 161/4 (15 Nov. 2000).
- ICAO Council, 192nd Session, Summary Minutes of the Third Meeting, ICAO Doc. C-DEC 192/3, 4 March 2011.
- ICAO Council, 211th Session, Item under Article 54(n) of the Convention on International Civil Aviation – Request of the State of Qatar, Summary Minutes of the Tenth Meeting of 23 June 2017, C-MIN 211/10, 11 July 2017.
- ICAO Council, 211th Session, Ninth Meeting: Summary of Decisions, ICAO Doc. C-DEC 211/9, 21 June 2017.
- ICAO Council, 211th Session, Summary Minutes of the Tenth Meeting, ICAO Doc. C-MIN 211/10, 23 June 2017.
- ICAO Council, 211th Session, Tenth Meeting, Summary of Decision, ICAO Doc. C-DEC 211/10, 23 June 2017.
- ICAO Council, First ATM Contingency Coordination Meeting For Qatar, Summary of Discussions, ICAO Doc. ACCM/1, 6 July 2017.
- ICAO Council, Extraordinary Session on 31 July 2017 (Closed), Summary Minutes, Doc 10092-C/1186, 22/8/17
- ICAO Council, Third ATM Contingency Coordination Meeting for Qatar, Summary of Discussions, ICAO Doc. ACCM/3, 5-6 Sept. 2017.
- ICAO Council, Fourth ATM Contingency Coordination Meeting for Qatar, Summary of Discussions, ICAO Doc. ACCM/4, 28 April 2018.
- ICAO Council, Order of Business for the Extraordinary Council Meeting of 31 July 2017, concerning the Request of Qatar – Item under Article 54(n) of the Chicago Convention, 25 July 2017.
- ICAO Council, Minutes of the Meeting of the Extraordinary Session, Summary of Decisions of 31 July 2017, concerning the Request of Qatar – Item under Article 54(n) of the Chicago Convention, 2 August 2017.
- ICAO Council, Summary Minutes of the Meeting of the Extraordinary Session of 31 July 2017, concerning the Request of Qatar – Item under Article 54(n) of the Chicago Convention, 22 August 2017.
- ICAO Council, 214th Session, Summary Minutes of the Eighth Meeting of 26 June 2018, ICAO document C-MIN 214/8, 23 July 2018.
- ICAO Council, 214th Session, Summary Minutes of the Eleventh Meeting of 29 June 2018, ICAO document C-MIN 214/11 (Draft), 10 September 2018.
- Decision of the ICAO Council on the Preliminary Objection in the Matter: the State of Qatar and the Arab Republic of Egypt, the Kingdom of Bahrain, the Kingdom

of Saudi Arabia and the United Arab Emirates (2017) – Application (A), 29 June 2018.
· ICAO EUR Doc 019, Volcanic Ash Contingency Plan, European and North Atlantic Regions, July 2016.
· ICAO, Interactive Map, "Cairo FIR", available at https://gis.icao.int/icaoviewer new/#/41.3577/23.5481/6 (data updated: 17 Apr. 2018).
· ICAO, working paper presented by the Secretariat, "Consideration of the Report of the Rapporteur on 'United Nations Convention on the Law of the Sea – Implication, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments'", LC/26-WP/5-1, 4/2/87.
· ICAO, working paper presented by Bolivia and Russian Federation, "Risk Assessment of Operations Over Airspace Affected by Armed Conflict – Responsibility of States For Ensuring The Flight Safety of Civil Aircraft within Their National And Delegated Airspace over Armed Conflict Zones or Zones Of Military Exercises", C-WP/14227, 20 Oct. 2014.
· ICAO, working paper presented by the Secretariat, 'Sharing Information on Risks to Civil Aviation Arising From Conflict Zones', HLSC/15-WP/13, 2 January 2015.
· ICAO, working paper presented by the Secretariat, "Procedure to Disseminate Information on Risks to Civil Aviation Arising from Conflict Zones", C-WP/14498, 2/5/16.
· ICAO, working paper presented by the Secretariat, 'Task Force on Risks to Civil Aviation Arising from Conflict Zones, Appendix A, Chairman's Report', C-WP/14220, 8 September 2014.
· ICAO, information paper presented by the Secretary General, Council – Extraordinary Session, concerning the Request of Qatar – Item under Article 54(n) of the Chicago Convention, ICAO document C-WP/14639, 14 July 2017.
· ICAO, "Proposal for Revision of BANP – ICAO Doc 9673", presented by the Secretariat, at Sixteenth Meeting of the Communications/Navigation/Surveillance and Meteorology Sub-Group (CNS/MET SG/16) of APANPIRG, CNS/MET SG/16-IP/18, Bangkok, Thailand, 23/07/12.
· ICAO, working paper, presented by Bahrain, Egypt, Saudi Arabia and the United Arab Emirates, Council – Extraordinary Session, concerning the Request of Qatar – Item under Article 54(n) of the Chicago Convention, ICAO document C-WP/14640, 19 July 2017.
· ICAO, working paper, "Implementation of regional plans – proposals for special implementation projects for 2008", presented by Secretary General at the ICAO Council's 183rd Session, C-WP/13121, 19/02/08.
· ICAO, working paper, presented by the State of Qatar, Council – Extraordinary Session, concerning the Request of Qatar – Item under Article 54(n) of the Chicago Convention, ICAO document C-WP/14641, 19 July 2017.
· ICAO, working paper, presented by the Secretariat, "Safety Aspects of Economic Liberalization and Article 83bis", LC/36-WP/2-3, 27/10/15.
· ICAO Working Paper, presented by Ukraine, "ATM Aspects within SIMFEROPOL and DNIPROPETROVS'K FIRs", AN-Conf/13-WP/245, 28/9/18.
· ICAO Working Paper, presented by Ukraine, 'ATM Aspects and Safety Issues in the Simferopol FIR', A40-WP/17, TE/69, 8/8/19.

- Application (A) and Memorial of the State of Qatar Relating to the Disagreement on the Interpretation and Application of the Convention on International Civil Aviation (Chicago, 1944), 30 October 2017.
- Preliminary Objections of the Arab Republic of Egypt, the Kingdom of Bahrain, the Kingdom of Saudi Arabia and the United Arab Emirates in Re Application (A) of the State of Qatar Relating to the Disagreement Arising under the Convention on International Civil Aviation done at Chicago on 7 December 1944, 19 March 2018.
- Request for the Intervention of the ICAO Council in the Matter of the Actions of the Arab Republic of Egypt, the Kingdom of Saudi Arabia, the United Arab Emirates and the Kingdom of Bahrain to close their Airspace to aircraft registered in the State of Qatar, attaching Application (1) of the State of Qatar, Complaint Arising under the International Air Services Transit Agreement done in Chicago on December 7, 1944, and Application (2) of the State of Qatar, Disagreement Arising under the Convention on International Civil Aviation done in Chicago on December 7, 1944, 8 June 2017.
- Request of the State of Qatar for Consideration by the ICAO Council under Article 54(n) of the Chicago Convention, 15 June 2017.
- Response of the State of Qatar to the Preliminary Objections of the Respondents; In re Application (A) of the State of Qatar Relating to the Disagreement on the interpretation and application of the Convention on International Civil Aviation (Chicago, 1944), 30 April 2018.
- Rejoinder to the State of Qatar's Response to the Respondents' Preliminary Objections of the Arab Republic of Egypt, the Kingdom of Bahrain, the Kingdom of Saudi Arabia and the United Arab Emirates In Re Application (A) of the State of Qatar Relating to the Disagreement Arising under the Convention on International Civil Aviation done at Chicago on 7 December 1944, 12 June 2018.
- Letter AN 13/4.3 of 17 July 2017 from the Secretary-General of ICAO to Representatives on the Council.
- Letter of 3 November 2017 from the Secretary-General of ICAO to the Appellants.
- Letter of 17 November 2017 from the Secretary-General of ICAO to the Appellants.
- Letter of 16 January 2018 from the Permanent Representative of the Arab Republic of Egypt on the ICAO Council to the President of the ICAO Council.
- Letter of 9 February 2018 from the Secretary-General of ICAO to the Appellants.
- Letter of 17 May 2018 from the Permanent Representative of the Arab Republic of Egypt to the President of the ICAO Council.
- Letter of 28 May 2018 from the Secretary-General of ICAO to the Appellants.
- Letter of 13 June 2018 from the President of the ICAO Council to the Appellants, attaching Working Paper in respect of Application (A), ICAO document C-WP/14778, 23 May 2018.

V. EU Documents

- Common Position of 29 June 1998 defined by the Council on the basis of Article J.2 of the Treaty on European Union concerning a ban on flights by Yugoslav carriers between the Federal Republic of Yugoslavia and the European Community (98/426/CFSP) [1998] OJ L190/3.

- Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91.
- Council Implementing Regulation (EU) No 611/2011 of 23 June 2011 Implementing Regulation (EU) No 422/2011 Concerning Restrictive Measures in View of the Situation in Syria, 2011.
- European Commission Staff Working Document, 'A fresh look at the Single European Sky', accompanying the documents 'Amended proposal for a Regulation of the European Parliament and of the Council on the implementation of the Single European Sky (recast)'and 'Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) 2018/1139 as regards the capacity of the European Union Aviation Safety Agency to act as Performance Review Body of the Single European Sky', {COM(2020) 579 final}.
- The Report of the Wise Persons Group on the future of the Single European Sky in April 2019, Recommendation 3, available at https://ec.europa.eu/transport/sites/transport/files/2019-04-report-of-the-wise-persons-group-on-the-future-of-the-single-european-sky.pdf.

VI BOOKS

Abeyratne, R. I. R., *Convention on International Civil Aviation, A Commentary*, Springer International Publishing 2014.

Abeyratne, R. I. R., *Rulemaking in Air Transport: A Deconstructive Analysis*, Springer International Publishing 2016.

Antwerpen, N. *Cross-border provision of air navigation services with specific reference to Europe: Safeguarding transparent lines of responsibility and liability*, Kluwer Law International 2008.

Benvenisti, E., *The Law of Global Governance*, 368 Recueil des Cours de l'Académie de droit international de La Haye 368 (2014).

Brownlie, I., *Principles of Public International Law*, 7th edn, Oxford University Press 2008.

Buergenthal, T., *Law-making in the International Civil Aviation Organization*, Syracuse University Press 1969.

Caminos, H., & Cogliati-Bantz, V., *The Legal Regime of Straits: Contemporary Challenges and Solutions*, Cambridge University Press 2014.

Cheng, B., *General Principles of Law As Applied By International Courts and Tribunals*, Stevens 1953.

Cheng, B., *The Law of International Air Transport*, Stevens 1962.

Cot J., et Pellet A., *La Charte des Nations Unies, Commentaire article par article* (ECONOMICA 2005).

Crawford, J., *Brownlie's Principles of Public International Law*, 8th ed., Oxford University Press 2012.

Crawford, J., *Creation of States in International Law* 2nd ed., Clarendon Press, 2007.

Crawford, J., *International Law as an Open System: Selected Essays*, Cameron May 2002.

Crawford, J., *The International Law Commission's Articles on State Responsibility: Introduction, Text and Commentaries*, Cambridge University Press 2002.
Dempsey, P. S., *Public International Air Law*, McGill University 2008.
Desierto, D., *Necessity and National Emergency Clauses: Sovereignty in Modern Treaty Interpretation,* Brill 2012.
Diederiks-Verschoor, I.H.Ph. & Mendes de Leon, P.M.J., *An Introduction to Air Law*, 9th ed., Kluwer Law International 2012.
Djeffal, C., *Static and Evolutive Treaty Interpretation: A Functional Reconstruction*, Cambridge University Press 2016.
Dyzenhaus, D., *The Constitution of Law: Legality in a Time of Emergency*, Cambridge University Press 2006.
Evans, M., *International Law*, Oxford University Press 2014.
Oppenheim's International Law, Vol. I, Peace, 9th ed., edited by Sir Robert Jennings and Sir Arthur Watts, Longman 1992.
Gardiner, R. K., *Treaty Interpretation*, 2nd ed., Oxford University Press 2015.
Goedhuis, D., *Problems of Public International Law* 81(11) Recueil des Cours de l'Académie de droit international de La Haye 205 (1952).
Haanappel, P.P.C., *Pricing and Capacity Determination in International Air Transport*, Kluwer 1984.
Haanappel, P.P.C., *The Law and Policy of Air Space And Outer Space: A Comparative Approach,* Kluwer Law International 2003.
Havel & Sanchez, *The Principles and Practice of International Aviation Law,* Cambridge University Press 2014.
Hendry I. & Dickson S., *British Overseas Territories Law*, Hart Publishing 2011.
Henriksen, A., *International Law*, Oxford University Press 2017.
Higgins, R., *Problems and Process: International Law and How We Use It*, Clarendon Press 1994.
Huang, J., *Aviation Safety Through the Rule of Law: ICAO's Mechanisms and Practices*, Wolters Kluwer 2009.
Jaffe, S., *Airspace Closure and Civil Aviation*, Routledge 2016.
Jennings, R., & Watts, A., (eds.), *Oppenheim's International Law*, 9th ed, Longman 1992.
Jennings, R., *General Course on Principles of International Law*, 121 Recueil des Cours de l'Académie de droit international de La Haye 143 (1967).
Kaul, I., Grunberg, I., & Stern, M.A., *Global Public Goods: International Cooperation in the 21st Century*, Oxford University Press 1999.
Kolb R. and Gaggioli G. eds., *Research Handbook on Human Rights and Humanitarian Law*, Edward Elgar 2013.
Larsen PB, Gillick JE, Sweeney JC. *Aviation Law: Cases, Laws and Related Sources.* 2nd ed., Brill 2012.
Leloudas, G., *Risk and Liability in Air Law*, Informa Law 2009.
Mendes de Leon, P., *Cabotage in Air Transport Regulation,* Martinus Nijhoff Publishers 1992.
Mendes de Leon, P., & Niall. B., *Behind and beyond the Chicago Convention: The evolution of aerial sovereignty*, Wolters Kluwer 2019.
Milde, M., *International Air Law and ICAO*, 3rd ed., Eleven International Publishing 2016.
Müller, et al., *Aviation Risk and Safety Management: Methods and Applications in Aviation Organizations*, Springer International Publishing 2014.
Hayashi, N, Military Necessity, Leiden University PhD dissertation 2017.

Higgins, R. et al., *Oppenheim's International Law: United Nations*, Oxford University Press 2017.
Jaffe, S., *Airspace Closure and Civil Aviation*, Routledge 2015.
Johansen, S, *The Military Commander's Necessity: The Law of Armed Conflict and its Limits,* Cambridge University Press 2019.
Oduntan, G., *Sovereignty and jurisdiction in the airspace and outer space: Legal criteria for spatial delimitation*. Routledge 2012.
Orakhelashvili, A., *Collective Security*. Oxford University Press 2011.
Ryngaert, C., *Jurisdiction in International Law*, 2nd ed., Oxford University Press 2015.
Samuel, K., Aronsson-Storrier, M., & Bookmiller, K. eds., *The Cambridge Handbook of Disaster Risk Reduction and International Law*. Cambridge University Press 2019.
Sanders, K., *The principle of national treatment in international economic law trade, investment and intellectual property*, Edward Elgar Publishing 2014.
Schindler, D.,'The Different Types of Armed Conflicts According to the Geneva Conventions and Protocols, The Hague Academy Collected Courses, Vol. 63, 1979-II
Shaw, M., International Law, Cambridge University Press 2017.
Schermers, H. G., & Blokker, N., *International Institutional Law: Unity within Diversity*, 5th rev. ed., Martinus Nijhoff 2011.
Schiek, D., Waddington L., & Bell, M., *Non-Discrimination Law*, Hart Publishing 2007.
Tams, C.J., *Enforcing Obligations Erga Omnes in International Law*, Cambridge University Press 2005.
Tanaka, Y., *The International Law of the Sea,* 2nd ed., Cambridge University Press 2005.
V. Lowe and M. Fitzmaurice ed., *Fifty Years of the International Court of Justice: Essays in Honour of Sir Robert Jennings,* Cambridge University Press 1996.
Truxal, S., *Economic and Environmental Regulation of International Aviation*, Routledge 2017.
Wassenbergh, H.A., *Post-War International Civil Aviation Policy and the Law of the Air,* Martinus Nijhoff 1962.
Weber, L., *International Civil Aviation Organization (ICAO),* Kluwer Law International 2012.

VII Contribution to Books

Bjorge, E., *The Convergence of the Methods of Treaty Interpretation: Different Regimes, Different Method of Interpretation?*, in A Farewell to Fragmentation Reassertion and Convergence in International Law (Andenas, M., Cambridge University Press 2015).
Escalada, F., *Nationality of Aircraft: A Vision of the Future,* in Air and Space Law: De Lege Ferend*a,* Essays in Honour of Henri A. Wassenbergh (Martinus Nijhoff Publishers 1992).
Kurtz, J. *National treatment*, in The WTO and International Investment Law, Cambridge University Press 2016.
Lord, L., *The Future of Sovereignty in International Civil Aviation*, in *Behind and beyond the Chicago Convention: The evolution of aerial sovereignty* (Wolters Kluwer 2019).
Mendes de Leon, P., *The Dynamics of Sovereignty and Jurisdiction in International Aviation Law* in State, Sovereignty and International Governance (Kreijen, G., Oxford University Press, 2002).

Shelton, D., *International Law and 'Relative Normativity'*, in International Law (Oxford University Press 2014).

Schubert, F., *Limits in the Sky: Sovereignty and Air Navigation Services*', in Behind and beyond the Chicago Convention: The evolution of aerial sovereignty (Wolters Kluwer 2019).

Supancana, I.B.R., *The Speeding-up Process on the Realignment of Flight Information Region (FIR) in Areas A, B, C from Singapore to Indonesia: Issues of Sovereignty, or Safety, or Both?*, in Behind and beyond the Chicago Convention: The evolution of aerial sovereignty (Wolters Kluwer 2019).

van Fenema, H.P., *Substantial Ownership and Effective Control as Airpolitical Criteria,* in *Air and Space Law: De Lege Ferenda*, Essays in Honour of Henri A. Wassenbergh (Martinus Nijhoff Publishers 1992).

VIII ARTICLES

Abeyratne, R. I. R., "Law Making and Decision Making Powers of the ICAO Council – A Critical Analysis", 41 Zeitschrift für Luft- und Weltraumrecht 387(1992).

Abeyratne, R. I. R., *Outcome of the 39th Session of the International Civil Aviation Organization Assembly*, 42:1 Air & Space Law 13 (2017).

Bradley, C. A., *Unratified Treaties, Domestic Politics, and the U.S. Constitution*, 48:2 Harvard Int'l Law Journal 307 (2007).

Cheng, B., *Nationality and Registration of Aircraft – Art.77 of the Chicago Convention*, 32 Journal of Air Law and Commerce 551 (1966)

Cheng, B., *The Extra-Terrestrial Application of International Law*, Current Legal Problems, Volume 18, Issue 1, 132 (1965).

Ciobanu, A., *Saving the Airlines: A Narrower Interpretation of the Term "Accident" in Article 17 of the Montreal Convention*, 31 Annals of Air and Space L. 1 (2006).

Cornett, A., *Air Carrier Liability under Warsaw: The Ninth Circuit Holds that Aircraft Personnel's Failure to Act in the Face of Known Risk is an "Accident" When Determining Warsaw Liability – Husain v. Olympic Airways*, 68 J. Air L. & Com. 163 (2003).

Dempsey, P., *Compliance & Enforcement in International Law: Achieving Global Uniformity in Aviation Safety,* 30 N.C.J. Int'l L. & Com. Reg. 1 (2004-2005).

Diederiks-Verschoor, I., *International Co-operation and its Implications for Aircraft Registration and Nationality*, XIX Annals of Air and Space Law Part I (1992).

Dupuy, P., 'L'Unité de l'Ordre Juridique International: Cours Général de Droit International Public (2000)', 297 Recueil des Cours de l'Académie de droit international de La Haye 1 (2002).

Franklin, M., *Sovereignty and the Chicago Convention: English Court of Appeal Rules on the Northern Cyprus Question*, XXXVI (2) Air and Space Law (2011).

Fitzgerald, G. F., *The Judgment of the International Court of Justice in the Appeal Relating to the Jurisdiction of the ICAO Council*, 12 Canadian Yearbook of Int'l L. 153 (1974).

Heinsch R.W., Unmanned Aerial Vehicles and the Scope of the 'Combat Zone': Some Thoughts on the Geographical scope of Application of International Humanitarian Law, Humanitäres Völkerrecht – Informationsschriften 25(4) (2012).

Heinsch R.W. (2015), Conflict Classification in Ukraine: The Return of the 'Proxy War'?, International Law Studies 91 (2015).

International Law Institute, *Obligations and Rights Erga omnes in International Law by Giorgio Gaja (Rapporteur)*, 71:1 Institut de Droit International Annuaire, 116 (2005).
Kaiser, S.A., *Legal Considerations about the Loss of Malaysia Airlines Flight MH 17 in Eastern Ukraine*, Air & Space Law 40, no. 2, 107 (2015).
Luban, D., (2013). "Military Necessity and the Cultures of Military Law", Leiden Journal of International Law, 26(2), 315.
Mendes de Leon, P., *The Legal Force of ICAO SARPs in a Multilevel Jurisdiction Context*, 12: 2-3 J. LuchtRecht, 11 (2013).
Mendes de Leon, P., et al., , *Still a Mile too Far? International Law Implications of the Location of an Airport in the Sea*, 14 Leiden Journal of International Law (2001).
Milde, M., *The Chicago Convention – After Forty Years*, 9 Annals of Air and Space Law 119 (1984).
Milde, M., *Nationality and Registration of Aircraft Operated by Joint Air Transport Operating Organizations or International Operating Agencies*, X Annals of Air and Space Law (1985),
Polkowska, M., *The Development of Air Law: From the Paris Conference 1910 to the Chicago Convention of 1944,* 33 Annals Air & Space L. 59 (2008).
Scott, J., *Extraterritoriality and Territorial Extension in EU Law*, 62 Am. J. Comp. L. 87 (2014).
Simma, B., & Pulkowski, D., *Of Planets and the Universe: Self-contained Regimes in International Law*, 17:3 Eur. J. Int'l L., 483 (2006).
Simma, B., *Universality of International Law from the Perspective of a Practitioner*, 20:2 Eur. J. Int'l L., 265 (2009).
Sreejith, S. *Legality of the Gulf Ban on Qatari Flights: State Sovereignty at Crossroads*, Journal of Air and Space Law, *43*(2), 194 (2018).
Warner, E., *Notes from PICAO Experience*, 1 Air Affairs 30 (1946).

IX Studies, Reports and Databases

· Dutch Safety Board, Buk surface-to-air missile system caused MH17 crash, Preliminary Report, 17 July 2014, www. safetyboard.nl.
· Dutch Safety Board, MH17 Crash, Final Report, 13 Oct. 2015, www. safetyboard.nl.
· Dutch Safety Board, MH17 Passenger Information, Oct. 2015, www. safetyboard.nl.
· Dutch Safety Board, MH17 Passenger Information Recommendation, Oct. 2015, www. safetyboard.nl.
· Dutch Safety Board, MH17 Crash, Final Report, 13 Oct. 2015, www. safetyboard.nl.
· Dutch Safety Board, Investigation in short: Flying over conflict zones, 21 Feb. 2019, www. safetyboard.nl.
· Dutch Safety Board, MH17 Crash, https://www.onderzoeksraad.nl/en/media/attachment/2019/2/28/20194452_interactieve_rapportage_opvolging_aanbevelingen_mh17_2019_eng_190227.pdf, 21 Feb. 2019, www. safetyboard.nl.
· ICAO, "Report on the Conflict Zone Information Repository (CZIR)," C-WP/14558, 6/2/17 (restricted).
· ICRC databases on international humanitarian law, https://www.icrc.org/en/icrc-databases-international-humanitarian-law.
· EASA Safety information Bulletins, https://ad.easa.europa.eu/sib-docs/page-1.

- FAA Airspace Restrictions, https://www.faa.gov/uas/recreational_fliers/where_can_i_fly/airspace_restrictions/.
- Black's Law Dictionary Free Online Legal Dictionary 2nd Ed., https://thelawdictionary.org/ (accessed 13 Jan. 2016)

X Conference Proceedings and Presentations

- Mohamed R.M. Khonji's (Regional Director ICAO Middle East Office) presentation, "Civil/Military Coordination in the Middle East (MID) Region", at Global Air Traffic Management Forum on Civil/Military Cooperation, Montréal, 19 to 21 October 2009.
- Hernán Longo, "Sharing information in order to fight against terrorism", ICAO, Hong Kong ICAO TRIP Regional Seminar (2017), available at https://www.icao.int/Meetings/TRIP-HongKong-2017/ Documents/1.HERNAN%20LONGO.pdf.
- Proceedings of the International Civil Aviation Conference, Vol.1 (United States Government Printing Office, Washington, 1948).
- ICAO Presentation, "Informal briefing of the Council on the Settlement of Differences", by Dr. Jiefang Huang, Director of ICAO Legal and External Relations Bureau, 19 June 2018.
- ICAO Presentation, "Council Informal Briefing – Qatar: Technical Issues", 30 June 2017.
- ICAO Presentation, "Civil-Military Cooperation", by Mr. Thomas Bombaert, Air Traffic Management Expert, ANB/ICAO, 26 March 2018.
- ICAO Presentation, "Doc 10066 – PANS AIM Contents", by Raúl A. Martínez Díaz, ICAO NACC RO/AIM, Mexico City, 3 to 5 September 2019.
- ICAO Presentation, "Update on the ICAO work program on Conflict Zones and way forward", by Mr. Kas E. Beumkes, Senior Safety Expert Expert, ANB/ICAO, 26 November 2018.

XI. Press Releases

- Press Release issued by the Minister of Interior of the Kingdom of Saudi Arabia, "Injunctions on Security and Ideology for Citizens and Residents; and An Extra Grace Period of 15 Days for Those Taking Arms outside the Kingdom to Rethink Their Position and Return Home [to] Riyadh", 7 March 2014.
- https://www.icao.int/Newsroom/Pages/Joint-Statement-on-Risks-to-Civil-Aviation-Arising-from-Conflict-Zones.aspx on Risks to Aviation Arising from Conflict Zones. https://www.icao.int/Newsroom/Pages/Joint-Statement-on-Risks-to-Civil-Aviation-Arising-from-Conflict-Zones.aspx.
- Statement of the Arab Republic of Egypt Ministry of Foreign Affairs, "The Egyptian Ministry of Foreign Affairs summons the Qatari Ambassador to Cairo", 4 January 2014.
- Joint statement of Bahrain, the United Arab Emirates, Saudi Arabia and Egypt in response to the foreign Minister of Qatar in his address to the 37th session of the United Nations Human Rights Council.

- Joint Statement by Prime Minister Tun Dr Mahathir Mohamad and Prime Minister Lee Hsien Loong at the 9th Malaysia – Singapore Leaders' Retreat in Putrajaya on 9 April 2019.
- Kingdom of Bahrain Ministry Foreign Affairs News Details, "Statement of the Kingdom of Bahrain on the severance of diplomatic relations with the State of Qatar", 5 June 2017.
- Kingdom of Bahrain Ministry of Foreign Affairs News Details, "A Statement Issued by the Kingdom of Saudi Arabia, the United Arab Emirates and the Kingdom of Bahrain", 5 March 2014.
- Note Verbale of 1 January 2014 from the Embassy of the Arab Republic of Egypt in Doha to the Ministry of Foreign Affairs of the State of Qatar.
- United Arab Emirates Ministry of Foreign Affairs & International Cooperation, "UAE Calls for Comprehensive Approach to Address Different Dimensions of Regional Threats", 30 September 2018.
- United States Department of Treasury Press Release, "Administration Takes Additional Steps to Hold the Government of Syria Accountable for Violent Repression Against the Syrian People", 18 May 2011.

XII National documents

- Letter from Abdul Latif Bin Rashid Al-Ziyani, GCC Secretary General, to Khalid Bin Mohamed Al Ativa, Minister of Foreign Affairs of the State of Qatar, 19 May 2014.
- Letter from Muhammad Bin Abdul Rahman Al Thani, Minister of Foreign Affairs of the State of Qatar, to Abdulatif Bin Rashid Al Zayani, GCC Secretary General, 7 Aug. 2017.
- Republic of Trinidad and Tobago's Archipelagic Waters and Exclusive Economic Zone Act, 1986, Act No. 24 of 11 November.
- US Federal Aviation Administration, "Prohibition Against Certain Flights in the Simferopol (UKFV) FIR", a rule on April 25, 2014, 79 FR 22862, available at: https://www.federalregister.gov/documents/2014/04/25/2014-09545/prohibition-against-certain-flights-in-the-simferopol-ukfv-flight-information-region-fir.

XIII Other Sources

- Atlantic Council, "Iran plane tragedies proves lessons of MH17 have not been learned".https://www.atlanticcouncil.org/blogs/ukrainealert/iran-plane-tragedy-proves-lessons-of-mh17-have-not-been-learned/.
- A. Gearan & K. DeYoung, "State Department issues unusual public warning to Saudi Arabia and UAE over Qatar rift", available at https://www.washingtonpost.com/world/national-security/state-department-issues-unusual-public-warning-tosaudi-arabia-and-uae-over-qatar-rift/2017/06/20/66294a58-55e9-11e7- a204-ad706461fa4f_story.html, Washington Post, 20 June 2017.
- Chappy Hakim, "A Strange Anomaly in Management of Airspace", Strait Times, March 21, 2016. https://www.straitstimes.com/opinion/a-strange-anomaly-in-management-of-airspace.

- "Coronavirus Travel Restrictions, Across the Globe" https://www.nytimes.com/article/coronavirus-travel-restrictions.html, New York Times, last accessed May 25, 2020.
- E. Dickinson, "How Qatar Lost the Middle East", Foreign Policy, 5 March 2014.
- "Emergency corridors opened before Qatar Airways", Al Arabiya, available at https://www.youtube.com/watch? v=gIqCPuto9gU, 9 August 2017.
- "Threats and Responses: Counterterrorism; Qaeda Aide Slipped Away Long Before Sept. 11 Attack", The New York Times, 8 March 2003.
- "Gulf blockade disrupts Qatar Airways flights", Al Jazeera, available at https://www.aljazeera.com/news/2017/06/gulfblockade-disrupts-qatar-airways-flights-170606081841215.html, 7 June 2017.
- Joanna Slater, "India strikes Pakistan in severe escalation of tensions between nuclear rivals", Washington Post, 26 February 2019.
- J. Malsin and C. Stephen, "Egyptian Air Strikes in Libya Kill Dozens of Isis Militants", The Guardian, 17 February 2015.
- Kevin Jon Heller, "Saudi Arabia Threatens to Shoot Down a Qatari Airways Plane", OpinioJuris (18 Aug. 2017), available at http:// opiniojuris.org/2017/08/18/33233/.
- Max Bearak, "Three maps explain how geopolitics has Qatar Airways in big trouble", Washington Post, available at https:// www.washingtonpost.com/news/worldviews/wp/2017/06/07/threemaps-explain-how-geopolitics-has-qatar-airways-in-big-trouble/?utm_ term=.5f6aff93a5e6, 7 June 2017
- "Pakistan airspace restrictions extended to May 30", https://in.reuters.com/article/pakistan-airspace/pakistan-airspace-restrictions-extended-to-may-30-aviation-official-idINKCN1SM0U0, Reuters, last accessed May 21, 2019.
- "Pakistan airspace to remain shut for Indian flights till May 30", https://www.thehindu.com/news/international/pakistan-airspace-to-remain-shut-for-indian-flights-till-may-30/article27138888.ece, last accessed May 21, 2019.
- 'Pakistan closed its air space, forcing airlines into drastic reroutes', CNBC, available at https://www.cnbc.com/2019/03/01/india-pakistan-conflict-closing-of-air-space-disrupted-flights.html, last accessed May 21, 2019.
- "Pulwama attack: India will 'completely isolate' Pakistan". BBC. 16 February 2019.
- "Qatar row: Air travellers hit by grounded flights", BBC, available at https://www.bbc.com/news/world-middle-east-40159085, 5 June 2017.
- "Unacceptable call for Al Jazeera's closure in Gulf crisis", Reporters Without Borders (28 June 2017), available at https://rsf.org/en/news/ unacceptable-call-al-jazeeras-closure-gulf-crisis.
- "Report: General Details on the Individuals and the Bodies related to Al-Qaida on the List of Terrorist Organizations", Emirates News Agency, 9 June 2017.
- "Why Pakistan closing its airspace hurts it more than it hurts India", https://www.cnbctv18.com/aviation/why-pakistan-closing-its-airspace-hurts-it-more-than-it-hurts-india-4255841.htm, CNBC, last accessed June 29, 2020.
- Zahraa Alkhalisi, "Arab blockade is nightmare for Qatar Airways", CNN (6 June 2017), available at https://money.cnn.com/2017/06/06/ news/qatar-airways-blockade-nightmare/index.html.

Curriculum vitae

Wanlu 'Laura' Zhang is an associate specialist at the United Nations Educational, Scientific and Cultural Organization (UNESCO) at the time of writing. She holds a LLB (cum laude) and Master (with distinction) from China University of Political Science and Law, a Diploma of Common Law from Oxford University, and a certificate on Space Law and Policy from European Centre for Space Law.

Ms. Zhang commenced her PhD study at Leiden Law School of Leiden University in 2015 under the supervision of Prof. Pablo Mendes de Leon and later of Prof. Steven Truxal and Prof. Robert Heinsch. During her study, she presented her PhD research at the Annual Conference of Cambridge Journal of International and Comparative Law in 2016 and the Dutch Ministry of Infrastructure and Water Management in 2018. Ms. Zhang worked in the legal bureau of International Civil Aviation Organization (ICAO) in 2015 and acted as a secretary for the 36th Legal Committee Conference in Montréal. Prior to the completing of her Ph.D., she also did research at the International Institute for the Unification of Private Law (UNIDROIT) in 2018.

Ms. Zhang is also Attorney-at-Law at the Chinese Bar and worked for Clifford Chance LLP in Beijing and Hong Kong, China.

In the range of books published by the Meijers Research Institute and Graduate School of Leiden Law School, Leiden University, the following titles were published in 2021, 2022 and 2023

MI-365 M.P.A. Spanjers, *Belastingbudget. Onderzoek betekenis budgettaire impact belastingen bij parlementaire vaststelling belastingwetgeving* (diss. Leiden), Den Haag: Flosvier 2021, ISBN 978 90 8216 072 7

MI-366 J. Zhang, *The Rationale of Publicity in the Law of Corporeal Movables and Claims. Meeting the Requirement of Publicity by Registration?* (diss. Leiden), Den Haag: Boom juridisch 2021

MI-367 B.C.M. van Hazebroek, *Understanding delinquent development from childhood into early adulthood in early onset offenders* (diss. Leiden), Amsterdam: Ipskamp Printing 2021, ISBN 978 94 6421 2723

MI-368 M.R. Manse, *Promise, Pretence and Pragmatism – Governance and Taxation in Colonial Indonesia, 1870-1940* (diss. Leiden), Amsterdam: Ipskamp Printing 2021

MI-369 M.E. Stewart, *Freedom of Overflight: – A Study of Coastal State Jurisdiction in International Airspace* (diss. Leiden), Amsterdam: Ipskamp Printing 2021

MI-370 M.T. Beumers, *De bescherming van immateriële contractuele belangen in het schadevergoedingsrecht* (diss. Leiden), Den Haag: Boom juridisch 2021, ISBN 978 94 6290 962 5

MI-371 C.M. Sandelowsky-Bosman, T. Liefaard, S.E. Rap & F.A.N.J. Goudappel, *De rechten van ongedocumenteerde kinderen in Curaçao – een gezamenlijke verantwoordelijkheid*, Den Haag: Boom juridisch 2021, ISBN 978-94-6290-965-6

MI-372 G.J.A. Geertjes, *Staatsrecht en conventie in Nederland en het Verenigd Koninkrijk,* (diss. Leiden), Zutphen, Uitgeverij Paris bv 2021, ISBN 978 94 6251 270 2

MI-373 L. Noyon, *Strafrecht en publieke opinie. Een onderzoek naar de relatie tussen de strafrechtspleging en het publiek, met bijzondere aandacht voor het Openbaar Ministerie,* (diss. Leiden), Den Haag: Boom juridisch 2021, ISBN 978 94 6290 978 6

MI-374 F. Behre, *A European Ministry of Finance? Charting and Testing the National Constitutional Limits to EU Fiscal Integration*, (diss. Leiden), Amsterdam: Ipskamp Printing 2021

MI-375 R. Spence, *Collateral transactions and shadow banking* (diss. Leiden), Amsterdam: Ipskamp Printing 2021

MI-376 B.H.M. Custers, F. Dechesne & S. van der Hof (red.), *Meesterlijk. Liber amicorum ter gelegenheid van het emeritaat van prof. dr. Jaap van den Herik,* Amsterdam: Ipskamp Printing 2021

MI-377 E. Campfens, *Cross-border claims to cultural objects. Property or heritage?*, (diss. Leiden), The Hague: Eleven 2021, ISBN 978 94 6236 250 5

MI-378 S.R. Bakker, *Uitzonderlijke excepties in het strafrecht. Een zoektocht naar systematiek bij de beslissingen omtrent uitsluiting van strafrechtelijke aansprakelijkheid in bijzondere contexten,* (diss. Rotterdam), Den Haag: Boom juridisch 2021, ISBN 978 94 6290 998 4, ISBN 978 90 5189 194 2 (e-book)

MI-379 M. Gkliati, *Systemic Accountability of the European Border and Coast Guard. The legal responsibility of Frontex for human rights violations,* (diss. Leiden), Alblasserdam: Ridderprint 2021

MI-380 C.-I. Grigorieff, *The Regime for International Air Carrier Liability. To what Extent has the Envisaged Uniformity of the 1999 Montreal Convention been Achieved?,* (diss. Leiden), Amsterdam: Ipskamp Printing 2021

MI-381 M. Stam, *Essays on Welfare Benefits, Employment, and Crime,* (diss. Leiden)

MI-382 C.M.F. Mommers, *Voluntary return and the limits of individual responsibility in the EU Returns Directive,* (diss. Leiden), Amsterdam: Ipskamp Printing 2022, ISBN 978 94 6421 583 0

MI-383 M.E. Franke, *Over de grens van de onrechtmatige daad. Een onderzoek naar de plaats van de rechtvaardiging in het buitencontractuele aansprakelijkheidsrecht*, (diss. Leiden), Den Haag: Boom juridisch 2022, ISBN 978 94 6290 152 0

MI-384 B.L. Terpstra, *Instrumental and normative pathways to compliance. Results from field research on moped drivers,* (diss. Leiden), Amsterdam: Ipskamp Printing 2022

MI-385 Q. Mauer, *Application, Adaptation and Rejection. The strategies of Roman jurists in responsa concerning Greek documents*, (diss. Leiden), Den Haag: Boom juridisch 2022, ISBN 978 94 6236 291 8, ISBN (e-book) 978 90 5189 952 8

MI-386 F. Tan, *The Duty to Investigate in Situations of Armed Conflict. An examination under international humanitarian law, international human rights law, and their interplay*, (diss. Leiden), Amsterdam: Ipskamp Printing 2022

MI-387 G.G. Lodder, *Recht doen of Recht hebben. Een analyse van de rechten van de migrant op bescherming door de staat tegen arbeidsuitbuiting*, (diss. Leiden), Amsterdam: Ipskamp Printing 2022, ISBN 978 94 6421 679 0

MI-388 M. Mannan, *The Emergence of Democratic Firms in the Platform Economy: Drivers, Obstacles and the Path Ahead*, (diss. Leiden), Amsterdam: Ipskamp Printing 2022

MI-389 A.M. Bouland, *'Please Give Me My Divorce'. An Ethnography of Muslim Women and the Law in Senegal*, (diss. Leiden), Amsterdam: Ipskamp Printing 2022

MI-390 B.J. Braak, *Overcoming ruptures: Zande identity, governance, and tradition during cycles of war and displacement in South Sudan and Uganda (2014-9),* (diss. Leiden), Amsterdam: Ipskamp Printing 2022

MI-391 S.R. Varadan, *Article 5 of the UN Convention on the Rights of the Child. Parental guidance and the evolving capacities of the child*, (diss. Leiden), Amsterdam: Ipskamp Printing 2022, ISBN 978 94 6421 700 1

MI-392 J.M.W. Pool, *De rol van de curator bij de aanpak van onregelmatigheden. Een empirisch-juridisch onderzoek naar de rol van de curator in de praktijk bij de aanpak van onregelmatigheden voor en tijdens faillissement*, (diss. Leiden), Amsterdam: Ipskamp Printing 2022, ISBN 978 94 6421 827 5

MI-393 D.S. Verkroost, *'Met zachte drang'. Uitgangspunten voor jeugdhulpverlening op het snijvlak van vrijwilligheid en dwang,* (diss. Leiden), Den Haag: Boom juridisch 2022, ISBN 978 94 6212 735 7, ISBN 978 94 0011 197 4 (e-book)

MI-394 D. Mândrescu, *The application of EU antitrust law to (dominant) online platforms,* (diss. Leiden), Amsterdam: Ipskamp Printing 2022

MI-395 A.H.A. Mohammad, *De normering van academisch ondernemerschap. Perspectieven vanuit het onderwijs(bekostigings)recht, het Europees staatssteunrecht en de academische vrijheid & wetenschappelijke integriteit*, (diss. Leiden), Amsterdam: Ipskamp Printing 2023

MI-396 T.L. Masson-Zwaan, *Widening the Horizons of Outer Space Law*, (diss. Leiden), Amsterdam: Ipskamp Printing 2023, ISBN 978 94 6421 977 7

MI-397 W. Zhang, *Achieving decent work in China. A case study of decent working time*, (diss. Leiden), Amsterdam: Ipskamp Printing 2023

MI-398 T.M. Vergouwen, *The effect of directives within the area of direct taxation on the interpretation and application of tax treaties*, (diss. Leiden), Amsterdam: Ipskamp Printing 2023

MI-399 R. de Massol de Rebetz, *Beyond the Dichotomy between Migrant Smuggling and Human Trafficking. A Belgian Case Study on the Governance of Migrants in Transit*, (diss. Leiden), Amsterdam: Ipskamp Printing 2023

MI-400 W. Ruijs, *Pandbelening,* (diss. Leiden), Den Haag: Boom juridisch 2023, ISBN 978 94 0011 288 9 (e-book)

MI-401 C. Sriporm, *Franchising Legal Frameworks. A Comparative Study of the DCFR, US Law and Australian Law Regarding Franchise Contracts*, (diss. Leiden), Amsterdam: Ipskamp Printing 2023, ISBN 978 94 6473 088 3

MI-402 N. Amin, *State-building, Lawmaking, and Criminal Justice in Afghanistan: A case study of the prison system's legal mandate, and the rehabilitation programmes in Pul-e-charkhi prison*, (diss. Leiden), Den Haag: Eleven International Publishing 2023

MI-403 J. Tobing, *The Essence of the 1999-2002 Constitutional Reform in Indonesia: Remaking the Negara Hukum. A Socio-Legal Study,* (diss. Leiden)

MI-404 W. Zhang, *Protection of aviation security through the establishment of prohibited airspace*, (diss. Leiden), Amsterdam: Ipskamp Printing 2023, ISBN 978 94 6473 103 3