Protection of aviation security through the establishment of prohibited airspace

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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.

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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.