Regional aviation safety organisations: enhancing air transport safety through regional cooperation

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Chapter 7

Conclusions and Recommendations

'*There is no real ending. It is just the place where you stop the story.*'

Frank Herbert (1920-1986)[1]

7.1 INTRODUCTION

This study has been a first comprehensive attempt to analyse, from the legal and institutional points of view, how regional cooperation and more specifically RASOs can contribute to the improvement of civil aviation safety and the achievement of the objectives of 'uniformity in regulations, standards, procedures, and organization' as formulated in Article 37 of the Chicago Convention.

Aviation safety has traditionally been regulated at the global level by ICAO, while aviation regulations are implemented and enforced at the national level by competent aviation authorities of ICAO Member States. Though this is still largely the case today, the last twelve years have seen the emergence and rapid development of RASOs, which form an intermediate level between ICAO and individual States.

RASOs are not an entirely new concept, as Section 5.4.2 of Chapter 5 has explained. However, the increasing reliance on these organisations is a clear demonstration of a growing conviction of the international aviation community, as was demonstrated under Section 2.4.3 of Chapter 2, that they can significantly help States in enhancing their safety oversight capabilities in a cost efficient way, and contribute to the achievement of the Chicago Convention objectives of uniformity of regulations, procedures and requirements which are essential for the global aviation industry.

With a view to reaching the primary objective of verifying the extent to which RASOs meet the expectations vested in them by the international aviation community, Chapter 1 formulated seven specific research questions:

(1) What should be the role of RASOs in global governance of civil aviation safety?
(2) Can the optimal RASO model be identified from a legal point of view? If yes, how can it best be defined and structured?

[1] Frank Herbert was a critically acclaimed American science fiction novelist, author of the famous 'Dune' saga.

(3) In which domains can RASOs yield maximum safety benefits, and under which legal conditions?
(4) For which States are RASOs most relevant?
(5) What is the expected future evolution of RASO type bodies?
(6) Are there any shortcomings in the current international legal framework that pose an obstacle to further development of RASOs?
(7) What are the international responsibility and civil liability implications resulting from RASOs establishment and functioning?

This final chapter will now draw on the analysis and conclusions reached in the preceding parts of the present study in order to answer these research questions.

7.2 CONCLUSIONS AND RECOMMENDATIONS WITH REGARD TO SPECIFIC RESEARCH QUESTIONS

(1) What should be the role of RASOs in global governance of civil aviation safety?

This study has demonstrated in Chapter 2 that despite past criticism of ICAO regarding its effectiveness in ensuring the implementation and enforcement of aviation safety standards at the global level, States have consistently managed to improve the level of effective implementation of USAOP protocols.

Chapter 2 also concluded that States with completely deficient safety oversight systems constitute only 0.3% of the worldwide international air traffic, which is a marginal risk to aviation safety. Overall, aviation safety, in particular in commercial air transport, stands at present at a very high level.

Notwithstanding the above, Chapters 1 and 2 have also demonstrated that the current global aviation safety framework, as established by the Chicago Convention, faces a number of important challenges:

(1) The first one is that not all of the States, in particular in Africa, have as yet been able to build safety oversight systems to at least the minimum level of effectiveness required by ICAO, mainly due to lack of financial resources or technical capability. In 2014, 43% of ICAO Member States had below-average level of effective implementation of the eight CEs of safety oversight system as defined by ICAO. The current financially challenging times are equally putting pressure on aviation authorities who traditionally did not have problems with resources, such as in Europe or the United States;

(2) Secondly, aviation safety levels and the levels of effective implementation of the eight CEs of safety oversight vary significantly between States around the world, as well as within ICAO regions. As air traffic continues to grow, there is also a concern that absolute numbers of accidents could increase if the current improvement rates stagnate. It has been demonstrated in Chapter 1 that two of the three ICAO regions which between 2005 and 2012 experienced the highest rate of traffic growth (Latin America and the Caribbean: 17%; Africa: 20%; Asia: 38%), also demonstrate the lowest

level of effective implementation of the eight CEs (Latin America and the Caribbean: 68%; Africa: 44%; Asia: 71%).

(3) Finally in order to further reduce accident rates, which will be necessary in view of the ongoing traffic growth, more sophisticated methods of oversight will be needed, including pro-active and even predictive safety management tools as rightly advocated by GASP. Chapter 1 argued that not all the States individually may be able to deploy such methods in an effective manner.

The current system also suffers, as Section 2.2.4 of Chapter 2 has shown, from a *death by audit syndrome*, which stems from redundant regulatory oversight and repetitive certifications of the same aviation activities conducted within jurisdictions of different States. In addition some jurisdictions of the world, such as the EU or US, have implemented unilateral auditing schemes which to a large extent replicate the objective of ICAO USOAP, namely verification of effective compliance of States with minimum ICAO SARPs. These repetitive certifications and auditing schemes, although necessary, currently represent one of the major inefficiencies of the global aviation safety system, which according to Article 37 of the Chicago Convention, should be based on 'the highest practicable degree of uniformity in regulations, standards, procedures, and organization in relation to aircraft, personnel, airways and auxiliary services.'

Chapter 2 of this study has reached the conclusion that, whilst there are elements which can be further improved, such as more standardisation and uniformity in application of Article 38 on the filing of differences (see Section 2.2.2 of Chapter 2), the main challenge for ICAO and the global aviation community in the years to come will be to achieve the required harmonisation of the global regulatory framework and effective implementation of the new proactive and predictive safety management techniques called for by GASP, by continuing to rely exclusively on national safety oversight systems.

Chapter 2 has also concluded that, with ICAO membership standing at 191 States in 2014 and based on the principle of individual State responsibility for safety oversight, it has become unavoidable that the level of implementation of SARPs and eight CEs will be variable across the world. In this respect it was argued that, to effectively standardise this large number of States, ICAO will not be able to continue working as it did in the past with the limited resources available. The recent shift to the USOAP-CMA methodology, which was mentioned in Section 2.2.4 of Chapter 2, is a very telling demonstration of that new reality.

Based on the above considerations, Chapter 2 has argued that ICAO needs to find a way which would allow it, in addition to monitoring State safety performance, helping States in addressing the detected deficiencies and enforcing global standards, to also address more decisively the ongoing erosion of the present aviation safety system in terms of redundant regulatory oversight and waste of resources deriving from duplicate certifications. Chapter 2 has proposed that the way forward to achieve these objectives is to build a GASON, with RASO type organisations as its main building blocks.

With respect to the proposed GASON, this study has proposed (see Section 2.5 of Chapter 2) that its architecture should be based on ICAO relying on and working closely with a number of strong RASOs, which could ensure harmonised implementation of SARPs and organise enforcement mechanisms. Such a

system, it was argued, would not only allow ICAO to be more efficient in its use of limited resources, but would also contribute to a more uniform implementation of SARPs, as instead of a multitude of national regimes the system could ultimately provide for a more limited number of regional schemes which would be easier for ICAO to standardise and monitor. The regional approach would also contribute to harmonisation of actual safety performance through regional safety performance planning, at the RASGs level, in consistent with the globally agreed safety targets.

Based on the above considerations, Section 2.5 of Chapter 2 has proposed the following definition of the GASON:

> A worldwide system for the standardisation and monitoring of ICAO Member States' level of effective implementation of eight Critical Elements of State safety oversight, relying on information generated by Regional Aviation Safety Organisations; which are empowered, through international agreements or supranational law, to ensure uniform compliance of their Member States with the Chicago Convention and Standards and Recommended Practices laid down in the Annexes to this Convention.

Having proposed the GASON, this study, in Chapter 3, looked in more detail at the very notion of a RASO and more generally at regional aviation safety cooperation initiatives. It has been noted in this respect (see Section 3.4 of Chapter 3) that RASOs are already a positive reality. By mid-2014, over 100 ICAO Member States were members of such organisations, if looked at from the perspective of a broad interpretation of this term as currently followed by ICAO. In addition a number of ICAO Member States have been considering or are in the course of setting up similar organisations, as was explained under Section 5.4.2 of Chapter 5.

The RASO concept has already been reflected in a number of ICAO Assembly Resolutions, and one of them even puts RASOs on equal terms with States (see Section 2.4.3 of Chapter 2). References to RASOs are also present in ICAO Annexes 13 and 19 (see Section 6.3 of Chapter 6). In addition ICAO has published two manuals dedicated entirely to RASOs' establishment and functioning (see Section 3.4.3 of Chapter 3).

This study has also found in Section 3.4.1.1 of Chapter 3 that the recent boom of RASOs has resulted, in particular in Africa, in the establishment of a significant number of such organisations, but unfortunately sometimes with an overlapping membership. Similar duplications exist to a certain extent in Europe where a number of regional aviation organisations, that is EASA, EUROCONTROL and ECAC, continue to function in parallel, as Chapter 4 has demonstrated. While this study did not analyse in detail the consequences of these overlaps and duplications, it was argued that they are likely to result in inefficiencies and should be further studied.

Finally, while arguing that RASOs should be more closely integrated into global governance of aviation safety through the GASON, this study also acknowledged, in Section 2.5 of Chapter 2, that this would require a high level of confidence by ICAO in the robustness of the regional systems. This in turn would necessitate strong and appropriately empowered RASOs which at present is rarely the case. This is because, as Section 5.2 of Chapter 5 has found, the majority of present RASOs provide mainly advisory and coordination services, without carrying out safety functions with legally binding effects.

Recommendation No 1:

ICAO and its Member States should give consideration to the development of a Global Aviation Safety Oversight Network (GASON). Building a GASON would require appropriately empowered RASOs, which is at present still rarely the case. The GASON should therefore be treated as a long term strategy for integrating RASOs into the global governance for civil aviation safety management.

(2) Can the optimal RASO model be identified from a legal point of view? If yes, how can it best be defined and structured?

Despite RASOs having been a positive reality for many years, there is at present still no definition of RASO agreed at the international level, as Section 3.2 of Chapter 3 has explained. The international aviation community recommended in 2011 the development of such a definition, but so far this recommendation has not been implemented. In this respect, as a first step, this study has classified these organisations (see Section 3.2 of Chapter 3) into two broad categories, that is RSOOs and RAIOs, depending on whether their function is safety regulation and oversight, or investigation of aviation accidents.

The common denominator which is used today by ICAO and States to define an organisation or form of cooperation as a RSOO or a RAIO is its general objective of strengthening safety oversight/investigation capabilities of States located in the same geographical region rather than a particular institutional or legal setup. This was discussed in Section 3.2 of Chapter 3.

Based on the above, this study has concluded, in Section 3.3 of Chapter 3, that developing a RASO definition would be advantageous for two main reasons:

(1) Firstly, because the notions of RSOO and RAIO are being increasingly used in ICAO documentation, including Assembly Resolutions and Annexes to the Chicago Convention, such definition would help in ensuring clarity as to who exactly is an addressee of these documents, especially where they give to a RSOO or a RAIO a right to carry out functions or duties so far normally exercised only by States.

(2) Secondly, there is a need for a definition which would promote the most efficient forms of RASOs, and notably those which have the competence to carry out, on behalf of States, safety related functions and duties set out by the Chicago Convention, in a legally binding manner.

The objective of a RASO definition should be therefore, in addition to clarifying the roles of States and RASOs, to promote those forms of RASOs which are able to accept the most advanced forms of delegations. This capability will make RASOs more suitable to constitute strong building blocks of the GASON. In this respect Section 4.3.2 of Chapter 4 has demonstrated that the competence of a RASO to exercise civil aviation safety functions with legally binding effects presupposes the possession by a RASO of a separate international legal personality.

In view of the above, Chapter 3 has proposed the following definition of a RASO:

An organisation established by States from the same geographical region, which has legal personality under international law and whose principal purpose is the provision of support for the carrying out of safety-related functions and duties set out by the Chicago Convention and its Annexes, and preferably the actual carrying out of some or all of such functions and duties on behalf of its participating States.

This study has also concluded in Section 5.4.1 of Chapter 5 that there is no single template that States use when setting up regional aviation safety bodies, and that the organisational and legal frameworks of these organisations are far from being uniform. Nevertheless for the purpose of this study a typology of regional aviation safety bodies has been proposed, in Chapter 3, which distinguishes between two main categories: (i) pre-RASOs and (ii) RASOs.

While pre-RASOs do not strictly speaking fall within the scope of the proposed RASO definition because of their lack of international legal personality, they have however been included in the proposed typology for the sake of completeness, and because such pre-RASOs have a tendency to evolve into RASOs proper, as Section 5.4.2 of Chapter 5 has demonstrated.

In addition to proposing a RASO typology, this study has also reviewed, analysed and categorised, in Section 5.2 of Chapter 5 the various types of delegation arrangements commonly used by States when setting up RASOs and pre-RASOs. In this respect three levels of delegations have been distinguished from an operational point of view:

(1) *Level 1 (Coordination level):* At the basic level, States may decide to delegate specific competences to individuals not employed by their national civil aviation authorities. Such authorisations then give the underlying authority to inspectors of a regional body to perform audits, inspections and other oversight or investigative work on behalf of the national authority which gave the authorisation;

(2) *Level 2 (Harmonisation level):* The next level, which goes beyond authorisation of individuals only, is the delegation to a RASO/pre-RASO, as an organisation, of the competence to perform specific technical work on behalf of its Member States or member authorities. In other words, this type of delegation means that a regional body will perform the technical findings, such as inspections, tests, examinations, on behalf of all or selected Member States/aviation authorities, and then submit the results, together with recommendations, for further legal action at the national level(s).

(3) *Level 3 (Unification level):* Finally States may want to delegate to a regional body both the conduct of the technical work, as well as responsibility for the issuance of the certificate/approval confirming that the applicable requirements have been met. Under this option efficiencies are potentially most significant, because it effectively results in centralisation of a given safety function at regional level. There is only one technical process and one approval issued at its end. From the perspective of the aviation industry this is a one-stop-shop for obtaining the approvals that they need to provide the services at the market.

While this study did not recommend, *a priori*, any particular level of delegation, as this choice should be based on a thorough assessment of the needs and policies of the States concerned and their aviation industries, Chapter 5 has concluded that Level 3 delegations can offer the following advantages:

- Centralisation of a particular safety function at the regional level, which allows for economies of scale and better pooling of resources;
- Less risk of duplication between the national and regional levels, as in this case the safety function normally ceases to be exercised at the national level;
- From a regulatory point of view, Level 3 delegations offer a fully unified action, be it a single certificate valid throughout the region, or a single rule applicable, in a uniform manner, to all aviation organisations under the jurisdiction of the RASO.

Whilst Level 3 RASOs offer the above advantages which make them very well placed to form effective building blocks of the GASON, this study also found, in Chapter 5, that Level 3 RASOs are still very rare. In mid-2014 there were only three RASOs, that is EASA in the EU, IAC in the CIS, and ECCAA in the OECS, which effectively possessed such powers.

One of the reasons behind this still low number of Level 3 RASOs is the presence of, as also identified by ICAO, strong sovereignty issues that impede regional cooperation.[2] In this respect, this study recalled in Section 2.2.1 of Chapter 2, that a distinction should be made between the principle of State sovereignty in aviation law, which is indivisible, and the exercise of this sovereignty which can be delegated to other States or international organisations, as is the case for example in the ATM sector with the provision of ANS.

Recommendation No 2:

a) ICAO is invited to consider the definition of RASO proposed in this study as a basis for developing a corresponding definition for inclusion in subsequent editions of its RSOO and RAIO manuals.

b) States are invited to take note of the conclusions reached by this study with respect to the different levels of delegations available for RASOs. In particular they are invited to consider the benefits that this study has demonstrated as regards Level 3 delegations.

(3) In which domains can RASOs yield maximum safety benefits, and under which legal conditions?

Chapter 3 found that the RASOs in existence today have broad mandates and do not specialise in any single domain of aviation safety. RAIOs, which were addressed in Section 3.5 of Chapter 3, could be expected to be such specialised RASOs, but so far there is still little experience with RAIO functioning. In practice, until mid-2014 there was only one RAIO, that is IAC, which was fully operational, but it functions within a broader organisational framework of a RASO which

[2] Outcomes of 2011 RSOO Symposium (C-WP/13810), *supra* note 4 in Ch.1, at Paragraph 2.3.1.

also performs other functions (see Section 3.4.3.3 of Chapter 3). It was also found in Chapter 3 that some RASOs, such as PASO, CASSOA, or ECCAA in addition to aviation safety deal also with aviation security.

The fact that RASOs have rather general mandates can be considered a good thing from a safety point of view, given the interrelatedness of the different components of the aviation system which makes it difficult to consider one domain in isolation from the others.

In order to assist States in setting up RASOs, based on analysis of case studies of these organisations from around the world, as well as review of practical examples of the different safety functions that these bodies perform, this study proposed, in Chapter 5, a practical 'tool-box' for the setting up of RASOs. Structured around the eight ICAO CEs of safety oversight, this 'tool-box' provides States with a *menu* of potential options from which they could choose, taking into account that, as advocated by ICAO, when setting up RASOs States should focus on those activities that demonstrate a higher impact on regional safety oversight and contribute towards developing an effective aviation safety oversight framework.'[3]

A similar approach to the proposed 'tool-box' method was used in the EU during the initial establishment process of EASA, and when States first created a list of potential functions and tasks, such as rulemaking, certification, standardisation, and considered the implications of the different institutional solutions on each of them.

With respect to the establishment of the GASON, there are a number of safety functions to which States should pay particular attention:

(1) Existence of a harmonised regulatory framework without, in principle, national differences, although, as Section 4.4.1.1 of Chapter 4 has demonstrated, this is an ideal objective which in practice may be difficult to achieve even for supranational systems such as the EU;

(2) Existence of a regional mechanism, similar to EASA standardisation inspections and other monitoring activities (see Sections 4.4.3.1 and 4.4.3.3 of Chapter 4), which would allow a RASO to feed the ICAO USOAP-CMA programme, and thus enable ICAO to rely on a RASO for monitoring its Member States' compliance with the Chicago Convention and relevant SARPs (existence of a harmonised regulatory framework is a prerequisite to achieve this synergy).

With regard to point (1) above, this study found (see Section 5.2 of Chapter 5) that while a RASO may be involved in the development of aviation safety regulations from a technical point of view by preparing drafts thereof, the actual adoption of aviation safety legislation is very unlikely to be given to a RASO. This study did not identify a single RASO which enjoys legislative functions. This demonstrates that States essentially treat RASOs as technical agencies implementing and enforcing the law but not creating it.

Finally, this study found (see Section 5.4.5 of Chapter 5) that there may be unintended consequences when transferring the exercise of safety functions from a State to a regional level. This is because, when one or more State safety func-

[3] ICAO Doc. 9734 Part B, *supra* note 3 in Ch.1, at Paragraph 2.2.1.

tions are taken out of the national framework and transferred to the regional level, some essential safety links may be lost. This was demonstrated in Section 5.4.5.1 of Chapter 5 by the example of the transfer of 'State of Design' functions in the context of EASA in the EU. For this reason this study has recommended in Section 5.4.5 of Chapter 5 that every RASO should be considered as part of the overall civil aviation safety system of its Member States, and that RASO functions should be fully integrated into that system.

Recommendation No 3:

a) *States are invited to use a 'tool-box' approach when setting up RASOs. This method structures the RASO development process along the eight CEs of State safety oversight and assists States in choosing the safety functions and levels of delegations which are best suited to the particular situation of the States in the region, and the needs of their aviation industry.*

b) *States should treat RASOs as part of their overall civil aviation safety system, and to ensure that RASOs are fully integrated into that system. This helps to avoid breaking essential safety links between the different ICAO requirements when transferring the exercise of a given safety function from a State level to a regional level.*

(4) For which States are RASOs most relevant?

The analysis of ICAO documentation, including Assembly Resolutions and RASO manuals which was conducted in Section 2.4.3 of Chapter 2 and Section 3.2 of Chapter 3, revealed that at present the primary focus of ICAO is on seeing RASOs as tools for assisting States in raising their safety oversight capabilities, in particular by allowing them to pool resources and achieve economies of scale.

While the above is certainly a very valid RASO function, such organisations can equally offer benefits for States which do not face pressing problems with establishing effectively functioning safety oversight systems. This is the case for example in Europe, where States have historically enjoyed a high level of aviation safety, underpinned by effective levels of oversight, but where the primary reason, at least initially, behind the establishment of, first JAA, and subsequently EASA was to achieve regulatory efficiencies for the aeronautical industry as Chapter 4 has demonstrated.

Similarly with regard to the proposed GASON, as Section 2.5 of Chapter 2 highlighted, the main RASO function would be to ensure regulatory harmonisation and standardisation at regional levels, and to allow ICAO, instead of monitoring directly 191 Member States, to rely in this respect on a more limited number of regional systems. This in turn means that any ICAO Member State should be seen as a potential candidate for participating in a RASO-based system. Indeed, this is already largely the case today. This study has found in Chapter 3, that in 2014 over 100 ICAO Member States were members of RASOs, if looked at from the perspective of a broad interpretation of this term as currently followed by ICAO.

The findings of this study however also bring a note of caution with regard to the expectations vested into RASOs by the international aviation community. This stems from the fact that some of the regional initiatives reviewed have expe-

rienced or reported difficulties in relation to financing their activities or attracting and recruiting sufficient numbers of qualified technical personnel. For example the experiences of the AFI-CIS and of ECCAA demonstrate that it may be difficult to recruit or to pool aviation safety inspectors at a regional level, if they are simply not available in sufficient numbers. These difficulties were summarised in Section 5.4.3 of Chapter 5.

Similarly, in the vast majority of cases RASOs functioning today do not replace the national aviation authorities but function in parallel to them, as was highlighted in Section 5.4.1 of Chapter 5. This suggests that if the additional costs resulting from establishment of a RASO are not offset by efficiencies stemming from its operations or by additional revenues, States may actually be worst off in terms of their overall budgets. Although this issue was not studied in detail, based on examples of financial and resource related difficulties reported by some of the RASOs (see Section 5.4.3 of Chapter 5) it was argued that if States cannot reduce their costs, while at the same time will need to contribute to the financing of a RASO, this may actually lead to lack of sustainable funding of the latter and putting in danger its operations. Such a negative scenario materialised in the case of one of the RASOs studied, that is PASO which was addressed in Section 3.4.3.2 of Chapter 3.

Overall, whilst different examples of RASOs were reviewed and analysed in the study, two of them merit particular highlighting in these final conclusions:

(1) The first one is the RCAA model, which was presented and discussed in Section 3.6 of Chapter 3. In 2014 there was just one example of such an authority actually functioning in practice - the ECCAA. This is a unique organisation which acts as a single aviation authority for all its Member States. While experiencing its own challenges, ECCAA enabled its Member States 'to achieve effective civil aviation safety oversight at a fraction of the cost of establishing their own civil aviation authorities.'[4] This RASO model should be particularly considered by large groupings of small States with limited resources and/or States with low level of aviation activities which are unable to generate revenues big enough to support fully fledged national civil aviation authorities;

(2) The second model worth highlighting in these final conclusions is a supranational RASO, meaning a RASO which evolves within the broader legal and institutional framework of a REIO, and relies on the latter for its functioning. In 2014, there were still very few such organisations. The most notable example of such a RASO is EASA in the EU. Its case study, presented in Chapter 4, has demonstrated that combining the supranational legal competences of a REIO, with the technical capabilities of a RASO can offer substantial benefits. These include the possibility of creating a harmonised, legally binding and directly applicable legal framework, large-scale recognition of certificates and approvals, and possibility of Level 3 delegations which are exercised in a uniform manner in all the RASO Member States.

[4] 'Interview No 7', (2014), *supra* note 232 in Ch.3.

Recommendation No 4:

a) Regional groupings of small States with limited resources and/or States with low level of aviation activity which are unable to generate revenues big enough to support fully fledged national civil aviation authorities, are recommended to consider establishing RASOs in the form of a single regional civil aviation authority.

b) States which are members of supranational regional integration organisations, similar to the EU, are recommended to set up their RASOs within the legal and institutional framework of such supranational organisations.

(5) What is the expected future evolution of RASO type bodies?

Although the institutional frameworks and legal basis of RASOs and pre-RASOs are very varied, this study also found in Section 5.4.2 of Chapter 5 that there is a strong tendency for these organisations to evolve over time into more formal entities. Section 5.4.2 of Chapter 5 has demonstrated that out of the nine organisations established since 2003, six have already undergone such evolution, while some of the other are considering it in the future.

The key characteristic feature of the above identified RASO/pre-RASO evolution trend is transition into organisations established by international agreements and having a legal personality, if not under international law, then at least under the domestic law of one of the Member States. ICAO also has a general policy of transitioning COSCAPs into RASO type bodies, although this process is still ongoing as was demonstrated in Section 3.4.1.1 of Chapter 3.

Section 5.4.2 of Chapter 5 has identified the following typical examples of evolutions: from a technical cooperation project (Pre-RASO Type I) into an international regional safety organisation with legal personality (RASO Type I); or a network of aviation safety authorities (pre-RASO Type II) evolving into an international regional safety organisation with legal personality (RASO Type I). In Europe a network of aviation safety authorities (pre-RASO Type II) evolved into a supranational aviation safety agency (RASO Type II).

Based on the trend identified above, it can be expected that RASOs/pre-RASOs will continue to evolve in the years to come towards organisations established under international law and having a legal personality separate from its Member States. Section 5.4.2 of Chapter 5 has found that the evolution trend characterises especially young RASOs. Given the fact that a large number of such organisations were established only in the last decade, and that additional RASO organisations are in the planning, in particular in Africa and Middle East, the expectation of further evolutions can be formulated with a relatively high degree of confidence.

The fact that regional aviation safety bodies have an overall tendency to evolve into organisations with legal personality hopefully means that it is likely in the future that there will be more RASOs vested with delegations of safety functions at Level 3. Such RASOs would further contribute to the development of the GASON as proposed in Chapter 2.

Following on from the above, this study recommends the setting up of regional aviation safety bodies in the form of RASOs, that is organisations estab-

lished by international agreements or supranational acts which create direct legal effects and enable Level 3 delegations (see Section 5.2 of Chapter 5). This legal form, by also providing for legal personality of RASOs under domestic law of its Member States, eliminates the need for establishing additional associations or foundations under private law (see Section 3.3 of Chapter 3 and Section 5.4.4 of Chapter 5).

Recommendation No 5:

States and ICAO should consistently support the evolution of regional aviation safety bodies, into more institutionalised types of organisations established on the basis of international agreements or supranational law and having international and domestic legal personality.

(6) Are there any shortcomings in the current international legal framework that pose an obstacle to further development of RASOs?

Overall, this study found no evidence that any particular provision or principle of international law is a serious obstacle to the establishment of RASOs. States have even been able to establish organisations vested with power to issue certificates on their behalf, as Section 5.2 of Chapter 5 has demonstrated.

From the perspective of the Chicago Convention the main limitation is the fact that only States can be a party to the Convention. This means that, from the perspective of the Chicago Convention, RASOs can act only as agents of States and the latter cannot transfer to a RASO their ultimate responsibility for compliance with requirements of the Convention and its safety related Annexes. This conclusion, which has been reached in Chapter 6 of the study, is further elaborated in a summary related to the research question No 7 below.

In addition, this study has identified three more specific limitations from the perspective of the Chicago Convention concerning the delegation of State safety functions to a RASO. These limitations are related to the exercise by a RASO of the responsibilities and tasks of the 'State of Registry' (see Section 6.3.1.1 of Chapter 6), and 'State of the Operator' (see Section 6.3.1.2 of Chapter 6):

(1) Although a RASO can act as a 'State of Registry' with respect to individual States, meaning registering aircraft on their behalf, such aircraft would still have the *nationality* of the State on behalf of which they were registered in accordance with Article 17 of the Chicago Convention. It is thus not possible today for a RASO to register aircraft on a *multinational* basis. The only exception to this rule could be aircraft operated by international operating agencies under Article 77 of the Chicago Convention. Until 2014 there has only been one case of an international operating agency having its aircraft registered on a non-national basis (Arab Air Cargo), but this scheme involved a number of States acting jointly as a 'State of Registry' rather than delegating registration functions to an international organisation;

(2) Where a RASO exercises on behalf of its Member States the functions and duties of the 'State of the Operator' or 'State of Registry' it will not be

able to conclude Article 83bis with third countries in its own name. This stems from the fact that only States can be parties to the Chicago Convention and thus directly use its Article 83bis;

(3) Where a RASO exercises on behalf of its Member States only the functions and duties of the 'State of Registry', while the RASO Member States continue to exercise the functions and duties of the 'State of Operator', any agreements concerning the transfer of responsibilities which may be concluded between the RASO and its Member States, may not be recognised by third countries. Similar to point (2) above this limitation results from the fact that RASOs cannot be party to the Chicago Convention.

Chapter 6 also explored the need to amend the Chicago Convention in order to clearly enable RASOs which enjoy the most far reaching regulatory powers to exercise them in RASOs own name, and thus to take full responsibility, from international law point of view, for the work they are doing.

While this study argued that at present there is insufficient interest amongst the ICAO Member States in opening a discussion on amending the Chicago Convention, should such a debate be launched in the future, two main possibilities could be further explored: (1) The first option could be a limited amendment of the Chicago Convention, altering the scope of its current Article 83bis in a way to allow transfer of safety functions not only to other States but also to international organisations; (2) Another option would be through the inclusion of the so called *REIO clause*, which provides for the possibility of adherence to an international treaty of a REIO, such as the African RECs or the EU.

The study highlighted that the actual need to amend the Chicago Convention, putting aside the political willingness of the States to actually do that, could be a point of moot. On the one hand it can be argued that the principle of ultimate State responsibility for safety oversight discourages ICAO Member States from establishing 'Level 3' RASOs which 'provide the best dividend in terms of efficiency and the effective use of resources'.[5] The fact that there are very few Level 3 RASOs can be used as an argument to support such a claim. On the other hand, and this is a point of view this study supports, it can be argued that States would take less interest in aviation safety, if they were to be allowed to release themselves from responsibility and *hide* behind a regional body – which is why ICAO puts so much emphasis on individual State responsibility in its manual on RSOOs.

As far as the safety related Annexes to the Chicago Convention are concerned, a detailed analysis of their provisions conducted in Section 6.3 of Chapter 6 has revealed the following:

(1) Although there is no consistency in the way the different formulations regarding aviation authorities are used in the Annexes, the vast majority of the SARPs use broad formulations which refer to a *State* and/or to an *authority* in a more general sense without specifying that it has to be a *national* authority;

[5] ICAO Doc. 9734 Part B, *supra* note 3 in Ch.1, at Paragraph 3.1.1.

(2) In the rare cases where an ICAO Annex uses the term *national*, the relevant State and ICAO practice demonstrates that this term is actually interpreted as covering also RASO type bodies;

(3) Many of the ICAO Annexes explicitly envisage that a State has an obligation to designate an authority, which is to discharge, on its behalf, relevant safety related responsibilities or provision of services necessary for international air navigation.

In 2014 there were only two ICAO Annexes, that is No 13 and No 19, which explicitly refer to RASOs, although only Annex 19 actual contains Standards and Recommended Practices in this respect. Analysis of the relevant provisions of these two Annexes which was conducted in Section 6.3 of Chapter 6 revealed that ICAO is still struggling somewhat with accepting that a RASO could completely replace a national aviation authority. In particular Section 6.3 of Chapter 6 found that, although Annex 19 suggests that there may be limitations regarding the safety management functions which may be delegated to a RSOO or a RAIO, that Annex does not offer further guidance in this respect.

Recommendation No 6:

a) ICAO Annexes should be drafted in a way which recognises that it is perfectly acceptable for a State to discharge its safety related obligations under the Chicago Convention and related Annexes by relying either on a national authority(ies) or, in part or even entirely, on a RASO type body, as long as the State concerned can demonstrate that the relevant SARPs are effectively implemented.

b) Should the possibility for an amendment of the Chicago Convention arise in the future, it is recommended that consideration is given to either adjusting its Article 83bis in a way which would allow the transfer of safety functions and duties not only between States but also to RASOs, or incorporating a REIO-type clause into the Convention. It is further recommended not to relieve States from their responsibility for safety regulation and oversight but rather provide for a joint and several responsibility of States and RASOs.

(7) What are the international responsibility and civil liability implications resulting from RASOs establishment and functioning?

The success of the GASON proposed in Chapter 2, measured by more effective and uniform implementation of ICAO SARPs and efficiencies in terms of the use of resources by ICAO and its Member States, will to a large degree depend on whether the RASOs which form its building blocks are appropriately empowered by its Member States to exercise civil aviation safety responsibilities and functions – either on behalf of these Member States or in RASOs own name.

In order to facilitate successful empowerment of RASOs, Section 6.2 of Chapter 6 has first of all clarified and systematised the general principles and concepts concerning the attribution and delegation of civil aviation safety responsibilities and functions both in domestic, and international law context.

Having clarified the concepts and principles, Chapter 6 has, building on the general theory of conferrals of powers on international organisations, reached the following conclusions (see Sections 6.2.2 and 6.5 of Chapter 6):

(1) From the international law point of view nothing prevents a State from delegating the exercise of its State safety functions, as envisaged under the Chicago Convention and its Annexes, to a RASO. However, given the fact that only States can be parties to the Chicago Convention, such delegation does not relieve a State from *ultimate responsibility* of compliance. Even when States establish Level 3 RASOs, the transfer of responsibility in such cases takes place only *inter se*, but not vis-à-vis other ICAO Member States.

(2) Furthermore, three general types of delegations of powers to RASOs can be distinguished, that is agency relationships, delegations proper, and transfers:

   (a) An *agency relationship* occurs when States use Level 3 delegations in respect to functions for which they are responsible under the Chicago Convention. In such cases a RASO will be exercising such a function on behalf of the States concerned, meaning that it can change their rights and obligations under international law.

   (b) *Delegation proper* occurs when States give to a RASO functions which are not created by the Chicago Convention. In such cases States attribute to a RASO a new competence, which the RASO will be carrying out in its own name and for which it will be responsible.

   (c) *Transfer of responsibilities* results in releasing a State from an obligation of compliance. Transfers are at present envisaged only under Article 83bis of the Chicago Convention. Given the fact that RASOs cannot be parties to the Convention, in principle Article 83bis transfers are only possible between States.

When it comes to the potential responsibility of regional aviation safety bodies under international law, Section 6.5 of Chapter 6 has concluded that this will depend, in accordance with ICJ case law, whether a RASO has a separate international legal personality. Whether such legal personality exists has to be assessed on a case by case basis, as few RASO founding agreements explicitly provide for it.

Section 6.5 of Chapter 6 has found that the majority of current RASOs can be considered as having international legal personality and thus having their international legal responsibility potentially engaged. This conclusion was reached based on considerations such as: explicit provisions to this end in the RASO founding agreements, conclusion by RASO of headquarters agreements, or existence of a relationship of an international agency between a RASO and its Member States.

The substance of such responsibility in the first place depends on the underlying relationship which exists between a RASO and its Member States in accordance with the principle of specialty. Given the fact that RASOs cannot be

parties to the Chicago Convention, the main source of their international law obligations are their founding agreements. The obligations stemming from such founding agreements are directed towards RASO Member States (see Section 6.5 of Chapter 6).

This study also considered, in Section 6.5.4 of Chapter 6, whether international responsibility of a RASO could be engaged by a non-Member State in respect to the provisions of the Chicago Convention. That question is especially relevant for Level 3 RASOs which are expected to carry out their delegated functions in compliance with the Convention and its Annexes. The present study came to the conclusion that such possibility should not be excluded *a priori*, especially in the case of RASOs which have operational responsibilities, such as aircraft certification, the negligent exercise of which could contribute to accidents. From a legal point of view, such responsibility vis-à-vis third countries could be justified by the fact that some of the safety oversight obligations can be considered as *erga omnes*, as was demonstrated by other studies. In addition, such responsibility could be considered in relation to those countries which explicitly recognised a RASO and their safety competences by concluding BASAs with RASO Member States.

However, the international legal personality of a RASO would be effective vis-à-vis non-Member States only if it has been explicitly or implicitly recognised by such third States. In this respect Section 6.5.4 of Chapter 6 has found that most of the RASOs are regularly invited by ICAO to international symposia and conferences, in addition some of them, such as IAC or EASA, have either concluded working arrangements with third-countries, or have been designated as authorised agents of their Member States under BASAs concluded with third countries. Some of them, such as EASA or ECCAA, have been subject to ICAO USOAP audits, which is also a sign of recognition in international relations.

In addition, this study demonstrated in Section 6.5.4 of Chapter 6 that third countries recognise the legal effects that the currently operational Level 3 RASOs, that is EASA, IAC and ECCAA, take on behalf of their Member States. In the case of EASA the relationship of international agency that exists between this RASO and EU Member States is even globally recognised. This is because EASA, as was also demonstrated in Section 6.5.4 of Chapter 6, acts as a 'State of Design' for one of the leading aircraft manufacturers in the world, namely Airbus. This means that third country 'States of Registry' readily accept Type Certificates issued by EASA on behalf of EU Member States, and exchange with EASA information which is necessary for ensuring the continuing airworthiness of the aircraft under Annex 8 to the Chicago Convention.

Irrespective of the above, this study did not identify any cases heard by international courts or tribunals and related to breach by either a State or a RASO of international safety oversight or regulatory obligations (see Section 6.5.4 of Chapter 6). On this basis it was concluded that it is more likely that, rather than the international responsibility of RASOs being engaged by States, victims of aviation accidents would be trying to engage RASOs civil liability in domestic courts. In this respect this study concluded as follows:

(1) There is at present no international legal instrument which would harmonise the domestic civil liability regimes of States in respect to damage caused through the conduct of civil aviation safety regulatory and oversight tasks. Accordingly such civil liability would depend primarily on

provisions of the RASO founding documents and applicable domestic law (see Section 6.6.4 of Chapter 6);

(2) Only three RASOs founding documents explicitly provide for the possibility of holding RASOs liable for non-contractual civil damages (see Section 6.6.4.3 of Chapter 6). In addition this study has identified case law - albeit entirely from domestic, common law jurisdictions - where courts confirmed that national aviation regulators owe a *duty of care* towards the travelling public and set *negligence* as a threshold beyond which the regulator may be held liable. Similar principles could be applied to RASOs (see Section 6.6.2 of Chapter 6);

(3) The possibility to engage civil liability of a RASO would in the first case depend on the recognition of its separate legal personality under domestic law. This should normally not be a problem as far as the jurisdictions of the RASO Member States are concerned, but could be more difficult in case of non-Member States. The question of jurisdictional immunity in domestic proceedings would also have to be considered. In this respect the study concluded that most of the RASO founding documents studied contain provisions on privileges and immunities, although the scope of the rights granted vary considerably (see Section 6.6.4.2 of Chapter 6);

(4) This study advocates that treatment of RASOs from a liability point of view should chiefly depend on the type of delegations and competences they have been granted by States. The more operational competences were given to a RASO, the exercise of which can result in damages to third parties, the more stringent the liability regime should be (see Section 6.6.4.3 of Chapter 6);

Finally this study has concluded in Section 6.7 of Chapter 6, that there is a need for a clear ICAO policy on the role of States in the supervision of RASOs, which could be included in one of the future editions of the ICAO RSOO and RAIO manuals, or the new Annex 19 which, as it applies to safety management in general, has a horizontal application. It was argued that ICAO should in particular offer more guidelines on how such supervision should be organised depending on the level of delegation effectuated. It was recommended that the supervision policy should be based on the principle that States and RASOs working on their behalf are seen by ICAO and its Member States as a system which, taken together, should guarantee the level of safety oversight required by the Chicago Convention.

Recommendation No 7:

a) It is recommended that ICAO develops guidance and/or SARPs on how States should be organising oversight of RASOs. The supervision policy should be based on the principle that States and RASOs working on their behalf are seen by ICAO and its Member States as a single system which, taken together, should guarantee the level of safety oversight required by the Chicago Convention.

b) States should also promote in the RASO founding agreements clear provisions on RASO civil liability for non-contractual damages, especially in the case of organisations enjoying 'Level 3' delegations.

7.3 RECOMMENDATIONS FOR FURTHER RESEARCH

This has been the first comprehensive study of legal and institutional aspects related to RASOs' establishment and functioning, and their role in supporting global aviation safety. As such it necessarily focused, in the first place, on mapping this new area of international cooperation and identifying key elements of RASO functioning which are most essential for enhancing global aviation safety and achievement of ICAO objectives of regulatory harmonisation and standardisation.

The author hopes that this topic, including the findings and recommendations of this particular study, will be subject to further review, analysis and critical discussion. In this respect, the issues meriting further research are related, in particular, to the following questions:

- Delegation arrangements, in particular those needed for establishing RCAA;
- International responsibility of RASOs and their Member States;
- Domestic civil liability of RASOs for negligent exercise of regulatory and oversight functions;
- Sustainability of RASOs, including possibly the development of a methodology for measuring their effectiveness;
- How different RASOs could best cooperate with each other to harmonise their activities and achieve efficiencies within the GASON.

The author would also like to invite practitioners and academics to conduct further, detailed case studies of different RASOs, similar to the case study of EASA in Chapter 4, and to present the resulting conclusions and recommendations.

It would also be worthwhile in several years' time to conduct a follow-up study in order to verify whether the RASO evolution trends which were identified in Chapter 5 will continue.