

THE DEMAND FOR A SINGLE INTERNATIONAL SEARCH AND RESCUE AGREEMENT TEMPLATE FLEXIBLE FOR MULTI-REGIONAL USE AS DISSEMINATED BY THE INTERNATIONAL CIVIL AVIATION ORGANISATION

SINEAD SPENCER*

This paper aims to explore the possibility of a single International Search and Rescue (SAR) Agreement template involving a close examination of the recent plans presented from the relevant bodies of the International Civil Aviation Organisation (ICAO). The latter is inclusive but not exhaustive of, the Asia/Pacific Search and Rescue Task Force (APSAR) and applicable guidelines, as well as the International Maritime Organisation Search and Rescue (IAMSAR) which in 2014 presented an Asia/Pacific SAR template highlighting the collaborative efforts of Singapore and the United States.¹ Utilising the plans from the proposal, this paper will analyse the current research and presents a draft template for ease of dissemination when commencing inter-State SAR operations. Document analysis will be conducted as to the format, language preference and significant implications, expectations and advantages/disadvantages of the proposed SAR template as well as an indication of the apparent gaps in the current APSAR template together with suggested appropriate adaptations. The inquiry will incorporate comparatively, the APSAR and IAMSAR templates with the newly created draft proposed to be held within ICAO for multipurpose usage. The formation will encompass: a brief history of the prevalent conventions from the Convention Relating to the Regulation of Aerial Navigation (Paris Convention) to the latest amendment to the Convention on International Civil Aviation (Chicago Convention), description of general international aviation agreements in conjunction with the development of relevant international governing bodies, accepted SAR guidelines and practices with examples from the Western Australian Police Air Wing and the task force operations associated with MH370, analysis of current statistics and research, justification of the new template, a draft of the template (attached as Appendix II), any advantages and/or disadvantages including potential issues followed by a conclusion. Broadly, the research paper will aim to engage readers who also have an interest in this area of international aviation law; compiling the current data and completed manuals to form a generic arrangement; one which can be utilised in the organisation of bi-/multi-State SAR agreements.

* Sinead Spencer is a Juris Doctor student at University of Western Australia currently in her final year.

¹ International Civil Aviation Organisation, *Review IAMSAR SAR Agreement Template*, Agenda Item 5, UN Doc APSAR/TF/2-WP08 (27-30 January 2014) ('APSAR Template').

I HISTORICAL INFLUENCE

A *Treaties*

The creation of air law began in 1889 in Paris where the first international conference met to discuss the need for aviation regulation.² On 13 October 1919, six months after the first commercial international flight which took passengers from Paris to Brussels, the *Convention Relating to the Regulation of Aerial Navigation*, otherwise known as the *Paris Convention* was acceded by 38 States having been produced in three languages, French, English and Italian.³ The document placed particular focus upon the requirement for regulation of an unprecedented collection of emerging jurisprudence.

The commencement of World War II forced a reevaluation of the necessities for aviation safety and regulation. General concern from being confronted with the ‘disorder in the air’, coupled with economic and political confusion, placed a strain upon international relations.⁴ It led to the formation of the *Chicago Convention* in 1944 at which fifty-two States were represented.⁵ The President and Chairman of the Conference, Adolf A. Berle Jr opened the proceedings by stating:

The use of the air has this in common with the use of the sea: it is a highway given by nature to all men. It differs in this from the sea: that it is subject to the sovereignty of the nations 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.⁶

The actions taken as a result of the conference created the foundation for all subsequent aviation treaties, agreements and acts which are today in place.

The *Chicago Convention* pushed aviation forward into an era where serious contemplation was needed for the constant scrutiny of air regulation; to keep modernising the safety practices and codification of jurisprudence including: licensing, registration, sovereignty, navigation, customs, aircrafts in distress and liability.⁷ The final document included: the Convention, the International Air Services Transit Agreement, the International Air Transport Agreement, the Interim Agreement on International Civil Aviation, twelve annexes (technical) to the *Chicago Convention*, and a Standard Bi-

² Charles Arnold Baker, ‘The Companion to British History’ (Routledge, 2nd ed, 2001).

³ Ronald I C Bartsch, *Aviation Law in Australia* (Thomson Reuters, 3rd ed, 2010) 1, 2; International Civil Aviation Organisation, ‘The Postal History of ICAO’, (‘The Postal History of ICAO’) <https://www.icao.int/secretariat/PostalHistory/1919_the_paris_convention.htm>.

⁴ ‘The Postal History of ICAO’, <https://www.icao.int/secretariat/PostalHistory/1919_the_paris_convention.htm>.

⁵ Steven Truxel, ‘Economic and Environmental Regulation of International Aviation: From International to Global Governance’ (Taylor and Francis, 2016) 18.

⁶ Ibid quoting ‘Proceedings of the International Civil Aviation Conference’ (Chicago 1 November – 7 December 1944) vol 1, 55 <www.icao.int/ChicagoConference/Pages/proceed.aspx>

⁷ *Chicago Convention*, signed 7 December 1944 (entered into force 4 April 1947) (‘*Chicago Convention*’).

lateral Agreement Form.⁸

Since its creation, the *Chicago Convention* has been referred to and amended in many consequential treaties including the *Warsaw Convention 1929* (Carrier Liability), *The Hague Protocol to the Warsaw Convention 1959*, *Guadalajara Convention 1961*, the *Montreal Convention* in 1966 (and its subsequent protocols 1-4 and amendment in 1999). Each meeting raised emerging aviation issues pertaining to: liability, differences between ‘contracting’ and ‘actual carriers’, replacing the Franc as designated currency with Special Drawing Rights (SDRs) and changing cargo regulations.⁹ Along with the development of regulating documents, the governing bodies associated with their management followed habitually.

B Governing Bodies

1 International

The integral body governing aviation regulation is ICAO. As discussed earlier, ICAO is a specialised agency managed under the auspices of the UN which maintains and audits all regulatory documents concerning international aviation. Article 43 of the *Chicago Convention* provided for the creation of the ICAO, which was to be comprised of ‘an Assembly, a Council, and other such bodies as may be necessary’.¹⁰ The creation of ICAO was fundamental as it has since supported multiple subcommittees, and through its efforts, is today the main internationally-recognised aviation authority (as is demonstrated through its support from the 192 attending Parties).¹¹

During its inception in 1944, the *modus operandi* included: a continuous and active presence in standardisation of relevant global documents, a facilitator for regular forums, a regulator of safety and navigation, a provider of expert advisory assistance and a manager of registration functions with States *inter se* and other international organisations.¹² Evidence of this success can be seen within the multiple bodies which now work closely with ICAO in the administration of aviation safety.¹³

Evidence of ICAO’s objectives is demonstrated within Annex 12 of its Standards and Recommended Practices (SARPs) which states there is to be governance ‘applicable

⁸ Ibid 19-20.

⁹ *Warsaw Convention* signed 12 October 1929 (entered into force 13 February 1933); *The Protocol to Amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air* signed 28 September 1955 (entered into force 1 August 1963); *Convention, Supplementary to the Warsaw Convention, for the Unification of Certain Rules Relating to International Carriage by Air Performed by a Person Other than the Contracting Carrier* (‘*Guadalajara Convention*’) signed 18 September 1961 (entered into force 1 May 1964); *Montreal Convention* signed 28 May 1999 (entered into force 4 November 2003).

¹⁰ *Chicago Convention*, signed 7 December 1944 (entered into force 4 April 1947) art 43.

¹¹ ICAO, ‘Member States’ (18 November 2017) <<https://www.icao.int/MemberStates/Member%20States.Multilingual.pdf>>.

¹² Ruwantissa Abeyratne, ‘Convention on International Civil Aviation: A Commentary’ (Springer, 2013) 47-67.

¹³ See Appendix 1 briefly shows the two main SAR organisations. Other key examples include: IAMSAR and APSAR as well as the examples listed in Appendix 2.

to the establishment, maintenance and operation of SAR services and such, was the primary tool used for SAR operations'.¹⁴

2 Domestic

Within the Australian domestic framework there are many groups which collaborate on SAR operations. Appendix 3 has a list of the relevant Australian authorities and their scope regarding SAR.¹⁵ The translation of Conventions and guidelines into the domestic sphere is important as it conveys the relevant actualities of SAR within our nation. Within Australia, when any SAR beacon is activated, it alerts the Australian Maritime Search and Rescue Task Force (AMSA) which then delegates the tasks to the appropriate and proximate agency (whether it be privately or state-owned).¹⁶ This is dependent upon many factors including, facilities and capability – of aircraft and personnel. Any SAR operation tasked to police authority (both land and water) goes directly to the relevant person in charge who internally delegates the movements.¹⁷

Historical influence has been the driving force behind the Australian integration of the amendments of the Conventions we have today. The AMSA manual for example, is derived from: the *Chicago Convention* (annex 12) and the likes of IMO and IAMSAR regulations. The auditing of documents allows for alignment of international and domestic procedures which ameliorates the separation of distance between states, assists the standardisation of practices, and maintains the high level of safety in aviation.

II INTERNATIONAL AGREEMENTS

Apart from the agreements made within aviation conferences as to amendments to relevant Conventions, States are encouraged to create bi/multi-lateral agreements so to promote smooth relations and services for aviation security and navigation. As prescribed in Article 44 of the *Chicago Convention*, the purpose of fostering international relations is to ensure a minimum level of safety, encourage design development, to meet the needs of humans trans-nationally, to prevent economic waste and ensure inter-State equality.¹⁸

During the encouragement of the 'open skies' regime during the 1940's, there was an inability to reach agreement upon terms within the international convention which meant that countries were left to their own devices regarding the negotiation of separate bi-lateral agreements.¹⁹ Evolution of the United States' bi-lateral agreements for example, began in Bermuda in 1946 with the signing of an agreement permitting the US to exchange valuable traffic rights with United Kingdom.²⁰ Subsequently 50 post-war bi-lateral agreements used this model until the 1970's which brought the two nations at

¹⁴ ICAO, Annex 12 to the Convention on International Aviation: Search and Rescue, (8th ed, 2004) 3.

¹⁵ Infrastructure and Regional Development, Parliament of Australia, *Aviation Safety Regulation Review* (2014) 20.

¹⁶ Interview with Mark Overton, Pilot, Police Air Wing (Doorstop Interview, 16 January 2018).

¹⁷ *Ibid.*

¹⁸ *Chicago Convention*, signed 7 December 1944 (entered into force 4 April 1947) art 44.

¹⁹ Paul B Larsen, Joseph C Sweeney and John E Gillick, *Aviation Law: Cases, Laws and Related Sources* (Transnational Publishers, 2006) 231.

²⁰ *Ibid.*

odds with their original accord.²¹

The agreement templates originally provided States with the capability to accommodate the ‘five freedoms of the air’ and since then have been used for multitudinous purposes including the management of capacity, cabotage, routes and frequency.²²

Agreements can be both content and context-specific which gives both/all States the appropriate template within which to negotiate. For example, agreements can regulate government to government air transport and can determine the competition of airlines.²³ This means that some agreements also determine aspects of nations’ economies. Naturally, there are associated problems which arise and to cater for this, therefore procedures for dispute resolutions are usually built into the documents themselves. However, the judiciary may also become involved as was the case of *Chicago & Southern Airlines Inc. v Waterman Steamship Corp*²⁴ whereby the United States’ Supreme Court examined the ‘reviewability’ of the specific decisions made by the President at that time.²⁵ Under a U.S statute, the Secretary of Transportation was required to submit a report to the President who could revoke, suspend, issue, deny or authorise the foreign air carrier to provide transportation.²⁶ The statute also protected the economic/selection rights of the carrier which was the contentious issue at the time.²⁷

Possibly the most relevant example of a current agreement which has been adapted to the specific regional needs is the APSAR template (located under Appendix 4). This document demonstrates the general formation as well as the valued SAR provisions (as discussed between Singapore and the United States). The APSAR Template is understood as a Memorandum of Understanding (MOU) which clearly describes the scope, the responsibilities of both parties, the relevant SAR region, the Rescue and Coordination Centres (RCCs), cooperation, finances, application, modification and provision for duration, and withdrawal or discontinuation. Both States must sign and are expected to undertake the agreed upon terms. This is a fundamental document which puts into place the SARPs and guidelines as outlined by ICAO.

III SAR PRACTICES AND GUIDELINES

SAR practices and guidelines differ slightly between States. Contributing factors include, location, funding, government assistance, and necessity. A country like Australia has a very well-developed AMSA manual as its SAR regions are vast (both on land and over water). Dissimilar to this are countries like Nepal which, both land-locked and ranking lowly on the ICAO ‘Capability Matrix’ (see Appendix 5) does not provide

²¹ Ibid.

²² Ibid.

²³ Juliet A. Melville, ‘Identifying the regulatory effect of bilateral agreements on international aviation’ 4 *Journal of Air Transport Management* (1998) 39-46.

²⁴ *Chicago & Southern Air Lines Inc. v Waterman Steamship Corp* (1948) 333 U.S. 103.

²⁵ Above n 17, 247.

²⁶ Ibid.

²⁷ Ibid.

for a valued SAR program.

The IAMSAR manual incorporates amendments adopted by ICAO and is representative of the *Safety at Life of Sea Convention (SOLAS Convention)* regarding the requirement that vessels carry up-to-date versions.²⁸ There are three volumes each concentrating upon different operational aspects of SAR; Organisation and Management, Mission Co-ordination and Mobile Facilities.²⁹ Relevant to this paper is Manual I which aids States to coordinate effective and economical SAR services.³⁰ Appendix 6 has an outlined IAMSAR agreement as contained within Manual I which contains general provisions for States when entering into joint operations. The individual provisions are almost identical to the APSAR template and were possibly the fundamental resource for the Agreement. The layout is similar as are the headings for each section which may reflect the support for the IAMSAR Manuals and their legal justification for subsequent drafts.

Domestically, NATSAR has a plan for SAR in Australia which has expert input from AMSA, Australian Defence Force, State and Federal Police and all State and Territory Governments. This is set out within Chapter One of the AMSA Manual, Part A: *Organisation and Cooperation - The National SAR Plan*.³¹ The guidelines are arranged in conjunction with IAMSAR Manual and Annex 12 of ICAO's SARPs. They clearly define the responsibilities of the states and territories, military and RCCs. Adjoining are the provisions which deal exclusively with the connected commercial and private organisations (ss1.1.37 - 41).³² Also listed is the initial response plan (s1.2.6) and provisions for the judgement of best placed SAR authorities (ss1.2.7 - 1.2.17). The AMSA Manual is equivalent to its IAMSAR counter-part but with a few nuances which, in this proposal should be contemplated within the global draft template. These nuances are as follows: relevant definitions, reasons and procedures for transfer of coordination, time stipulations for transfer of coordination, military influence and the procedures and the post-operational protocol.³³

A Collaborative Efforts

The most recent and differential investigation has been the tragedy of Malaysia Airlines flight from Kuala Lumpur to Beijing (MH370) which, with 227 passengers on board, became incommunicado on the 8 March 2014.³⁴ The last reported transmission was from the first officer on board who said, "All right, good night" as he signed off from Malaysia Air Traffic Control. They did not contact Ho Chi Minh City to announce

²⁸ IMO, *IAMSAR Manual*, (2018) <<http://www.imo.org/en/OurWork/safety/radiocommunicationsandsearchandrescue/searchandrescue/pages/iamsarmanual.aspx>>.

²⁹ Ibid.

³⁰ Ibid.

³¹ AMSA, *National Search and Rescue Manual*, (2017) 24-39 <<https://natsar.amsa.gov.au/documents/NATSAR-Manual/Chapter1PartA.pdf>>.

³² Ibid 29.

³³ AMSA above n 21.

³⁴ Nigel Cawthorne, 'Flight MH370: The Mystery' (John Blake 2014) 10.

their presence and were not heard from again.³⁵

The joint investigations were originally between China and Malaysia with subsequent introduction of other States. Once the area was mapped, China and Kazakhstan began leading the northern arc investigation, with China deploying over 20 satellites.³⁶ Australia became involved as the most proximate country to the projected crash zone which placed the plane within Australia's 52.8 million square km SAR region.³⁷ Indonesia was heading the search and rescue in the southern region.³⁸ John Young, the emergency response General Manager of AMSA worked closely with the Australian Defence Force stating that they were not, and did not have the capability to search underwater which limited the SAR to above water exploration.³⁹

This is a good example of SAR agreements in action with over 11 countries providing assistance with SAR vessels and other specialised equipment.⁴⁰ Countries relied upon many of the existing treaties in order to maximise the efficiency of the search. For example, annex 13 of the *Chicago Convention* provides that '[t]he State of Occurrence shall institute an investigation... but may delegate... by mutual agreement'.⁴¹ It also provides for incidents where the accident does not fall within an area of a non-ICAO State.⁴² Additionally, the Malaysian Government requested aid under the *Five Power Defence Arrangement* which, established in 1971 requires military assistance to be given from Australia, Malaysia, New Zealand, Singapore and United Kingdom.⁴³ Subsequently, at the request of the Malaysian Government Australia became the leaders of the SAR (March 2014).⁴⁴

Domestic aid (as briefly described within, '*B Governing Bodies*'), depends upon where the initial call is received. In this case, for international assistance, AMSA tasked the most appropriate groups.

In a hypothetical situation today, the local state SAR group is the Police Air Wing in Western Australia and in an emergency, if in the context of an international investigation is responsible only for the operations tasked by AMSA.⁴⁵

IV STATISTICS AND SUPPORTING RESEARCH

A General Correlation

Appendix 7 demonstrates ICAO's intel of data from accidents and incidents from

³⁵ Ibid 12.

³⁶ Ibid 230.

³⁷ Shane Monks, 'Flight MH370': international law and how we use it' 21 *Australian International Law Journal* (2014) 107.

³⁸ Cawthorne, above n 26.

³⁹ Ibid.

⁴⁰ Shane Monks, above n 27.

⁴¹ *Chicago Convention*, signed 7 December 1944 (entered into force 4 April 1947) annex 13.

⁴² *Chicago Convention*, signed 7 December 1944 (entered into force 4 April 1947) annex 13 [5.3].

⁴³ Ibid 107.

⁴⁴ Above n 27, 110.

⁴⁵ Above n 18.

1991 to 2015. With the exception of the September 11 attacks in 2001, it is evident that there has been an increase in injured passengers from 2011-2015 with significant numbers from 2014/2015 specifically.

Although not a direct correlation to SAR, the graph is an insight into the type of evidence ICAO is gathering as well as the potential connection between the increase in deaths and injuries and the requirement for efficient SAR management.

Within ICAO's Safety Report 2017, the RASG regions (Appendix 8) is listed.⁴⁶ The evidence within Appendix 9 suggests that the majority of fatalities and accidents actually took place within the Pan America region (PA), followed by Europe (EU) and then Middle East (MI), Asia/Pacific (APAC) and lastly Africa (AFI), however that trend does not reflect the most recent research conducted on SAR (APSAR template).⁴⁷ Therefore there seems to be a disparity between the States which are prioritising SAR templates and the ones which actually are in most need of them.

C ICAO's Annual Report

There was a rise in air passengers travelling in 2016 to 3.8 billion, a significant 6.8% higher than the previous year.⁴⁸ This led to an increase in auditing, general concern regarding safety and perhaps revaluation of navigation and infrastructure. During the annual report of ICAO in 2016, President of the Council Mr Olumuyiwa Bernard Aliu stated that '... [there is] ongoing reprioritisation of assistance and capacity-building...'⁴⁹ The report also mentioned that:

'Other notable air navigation developments included further improvements to the concept of operations for ICAO's Global Aeronautical Distress and Safety System (GADSS) and new performance-based SARPs for rapid location of finding downed aircraft and the prompt recovery of black box data...'

This outlined the priorities of ICAO's next strategical programs and, amongst a few other key issues, (including carbon emissions and drone usage) the report concentrated the focus to providing counsel for more productive SAR operations.

Interestingly, research also collected by ICAO included a comparison of the global effectiveness of different implementations. (See Appendix 10) The data displays a significant inequality between accident investigation and all other 7 aspects.⁵⁰ At about 10% lower than the average, may be evidence to suggest that a review of the organisation of investigations is needed. This complements Mr. Aliu's comments within the Annual Report. Concluding remarks can be made that on the agenda is air safety and rescue.

⁴⁶ ICAO, Doc 10004 Global Safety Aviation Plan, (2nd ed, 2016) appendix 2.

⁴⁷ Ibid appendix 1.

⁴⁸ ICAO, Annual Report: The World of Air Transport, (2016).

⁴⁹ Olumuyiwa Bernard Aliu, *Annual Report, Message from the President of the Council*, 39th sess, 37th mtg, 1.

⁵⁰ ICAO, *Safety Audit Results: USOAP Interactive Viewer* (2017) < <https://www.icao.int/safety/Pages/USOAP-Results.aspx>>.

Contiguous plans are being developed, with Appendices 4 and 6 commissioned as a result.

V JUSTIFICATION

The primary justification for this adapted global template is the perceived need for an ease of accessibility. There are currently two main templates – IAMSAR (Appendix 4) and APSAR (Appendix 6). Firstly, the APSAR template, although somewhat general has been created with the Asia/Pacific region in mind and therefore needs adaption in order to be globally-appropriate. This sympathises with ICAO’s goal of standardisation. Although ultimately States are free to engage in negotiations, ICAO has in place the Standards and Recommended Practices (SARPs) which are pivotal to the creation of all subsequent SAR agreements. The SARPs are in place as both, recognised and desirable guidelines in the interests of both safety regulation and international air navigation.

The relevant annexure for SAR is annex 12 which in *Chapter 2*, recommends the cooperation of States so to enable the *prompt* allocation of SAR services (s2.1.1) as well as the provision for the establishment of services to be deemed appropriate by regional air navigation agreements (s 2.1.1.1).⁵¹ The provisions within both the established templates and the newly presented one are inextricably linked with the SARPs and one only has to look as so far as the chapter titles to gauge an idea of the valued aspects: Organisation, Cooperation, Preparatory Measures and Operating Procedures. The first three are focused solely upon smooth inter-State agreements and planning for SAR-related incidents.

Additionally, this new template will align with ICAO’s initiative, ‘No Country Left Behind’; first adopted in 2016 promotes the fostering of global accessibility of ‘significant socio-economic benefits’.⁵² Through the maintenance of one document, ICAO may be able to more easily audit its usage and amend its language according to the most recent data, the general proposal being that each ICAO State can use this template with all included significant resources with immediate effect and therefore increase the efficiency of SAR whilst decreasing the inequality of accessibility.

A slightly more theory-based justification suggests that the need for a simple international template is a response to the disturbing increase in the numbers of aviation accidents and incidents. As briefly discussed in *Statistics and Supporting Research*, we now know the regions most prone to the above, by means of accumulated data regarding injuries and fatalities, and therefore commensurate requirements must involve expansion within relevant bi- and multi-lateral SAR agreements. Although an argument in the alternative may suggest that technology could supersede the need for such agreements as SAR becomes rarer in the face of the same, it is the uncertainty that demands the need for simplicity and easy access to SAR templates.

⁵¹ Above n 16.

⁵² ICAO, *No Country Left Behind*, (2016) < <https://www.icao.int/about-icao/NCLB/Pages/default.aspx>>.

VI TEMPLATE

The template under Appendix 11 is the newly created SAR agreement which combines aspects from the APSAR and IAMSAR models to forge a single document appropriate for multi-State negotiations regarding Aeronautical and/or Maritime SAR. The description below clearly depicts the choices made and associates the need for certain remaining provisions.

A *Identical Provisions*

Provisions which remained identical to the APSAR and IAMSAR templates are:

- Scope and Objectives (3.1, 3.3 IAMSAR)
- Application
- Responsibilities
- RCCs
- Cooperation
- Modification

The rationale behind these decisions is the unnecessary modifications that would disrupt the overall format and original intentions of such an agreement. The drafters of the two substantive templates must be acknowledged and their decisions on vernacular is highly respected. The language in the above parts is clear and simple to understand and therefore not regarded as a high priority for change.

D *Adapted Provisions*

Provisions which have been adapted:

- Title
- Summary (adapted from APSAR)
- Introduction and Goal
- Sovereignty and SAR Regions
- Cost
- Withdrawal

It was important for the above to be altered from their primary formats as they needed to encompass a global audience. The *Title*, *Summary* and *Introduction* needed to be new, clear statements which identify the goals and objectives of this template. The inclusion of *Sovereignty* adapted with the *SAR Regions* is necessary to maintain the link with *Chicago Convention* and the emphasis within every aviation treaty. To remain transparent, the *Sovereignty* and the reminder of its presence was a pertinent

change. The clauses in *Cost* were taken from the NATSAR guidelines (s9.1(1.1.9))⁵³ and are subjectively viewed as logical regarding individual Parties funding their own tasks. There was a lack of depth within both APSAR and IAMSAR templates.

The changes to *Withdrawal* are based on the assumption that the original time allowance of six months is too long for countries which may not be able to substantiate finance and assistance for that period of time. Therefore, the provision has been changed to withdrawal acceptable after one month of written notice. This may need to be monitored by ICAO as to the appropriateness of that specific choice.

E *New Provisions*

New provisions:

- Signatories
- Definitions
- Military Intervention
- Liability
- Re-Integration

The need for more than two spaces for signatories allows both bi-/multi-lateral Agreements to be made using the one document. Including a *Definitions* section seemed only natural in alignment with other aviation legal instruments including Conventions, Statutes, Case judgements and orders. *Military Intervention*, *Liability* and *Re-integration* are all evident within international SAR operations (MH370) however not provided for in the old templates. To allow for an holistic, globally-adaptive instrument they are argued to be a necessary part of this new template.

VII **ADVANTAGES AND DISADVANTAGES**

Innate in the development of new legal instruments is the capacity for ambiguity and misinterpretation. There are possibilities that this new template may have linguistic challenges associated with semantic differences and/or gaps in language references regarding some provisions. These are issues which would need to be solved at the negotiation stage. Similarly, other UN documents may require external assistance when translating.

Other impediments might include; the demand for reimbursement for funding which is currently located neither within either the SAR Agreement templates nor within the new template. Due to the ongoing costs of upgrading and maintenance of SAR equipment and services which are solely the responsibility of the individual nation as well as the current inequality of each State's economic situation, it is difficult to allocate asset reimbursement of assets or any requirements to separate regular spending from SAR-specific costs. Each State is able to conduct its own negotiations as to whether

⁵³ Above n 31.

there needs to be reimbursement attached to the SAR procedures on a case-by-case scenario. This is why it has not been included within the draft template.

The cost associated with organising meetings is relatively low regarding registration. For example, a recent meeting on drones had no charge for member representatives to attend.⁵⁴ However, it is the cost of travel and accommodation which falls to the individual nations which may burden the budgets of some States.

There is always the chance that the contracting States modify the Agreement substantially. Whilst in template form it is completely at each nation's discretion and is only meant to guide the primary stages of organisation which therefore at current level, need not include region-specific data.

VIII CONCLUSION

Aviation Agreements have been created and adapted with historical influence shaping their development. The *Chicago Convention* effectively formed a template for modern legal instruments which has led to their specificity today. The coextensive establishment of ICAO and subsequently, IAMSAR has strengthened the foundation of the aforementioned within States' domestic legislation.

International cooperation has moved to an era where States are assisting one another regarding SAR in a positive way including funding and upholding treaties in order to increase efficiency and safety in all aviation navigation. The APSAR template is one such example. The United States and Singapore presented the draft for the Asia/Pacific region specifically to strive for a unified, regional approach to SAR. This unification highly promoted by ICAO is a fundamental reason behind this legal paper. There is a perceived requirement for a single, global template; different from both IAMSAR and APSAR templates; an Agreement which encourages bi- *and* multi-State negotiation, clearly defines the scope and objectives of each interaction, takes note of the associated financial issues, regards military intervention, and has a procedure in place for withdrawal and re-opening of cases. It is for these reasons that the perceived 'gap' in current documents was exploited and found to be a relevant and worthwhile topic for discussion.

The newly drafted template is transparent in its formation, with the utilisation of both previous templates and their layouts to provide a useful skeleton for the effectuation of the global version. The additions and adaptations are argued to be pertinent in its creation. Although potentially a costly exercise and perhaps a technologically challenging event, the belief is that the current statistics are displaying an increase in accidents which have a natural connection to SAR. The short-term advantages arguably align with ICAO's values and attitudes reflecting a safe, global aviation community and therefore justify this proposal.

⁵⁴ ICAO, *Registration Information*, (2017) ICAO < <https://www.icao.int/Meetings/RPAS17/Pages/Registration-information-.aspx>.>

The hope is to provide a single document, more easily manageable and adjustable, available to all States when activating the primary stages of a SAR operation so to increase the efficiency and the effectiveness of all aspects of the SAR. It is the argument of this paper that the current legal documents are not able to fulfil this role and therefore there existed a need for a new, standardised template able to assist States and ICAO for the future of SAR success stories.

IX APPENDICES

Appendix 1 *Cooperation Between IMO and ICAO*

Global SAR System



Two SAR organizations internationally

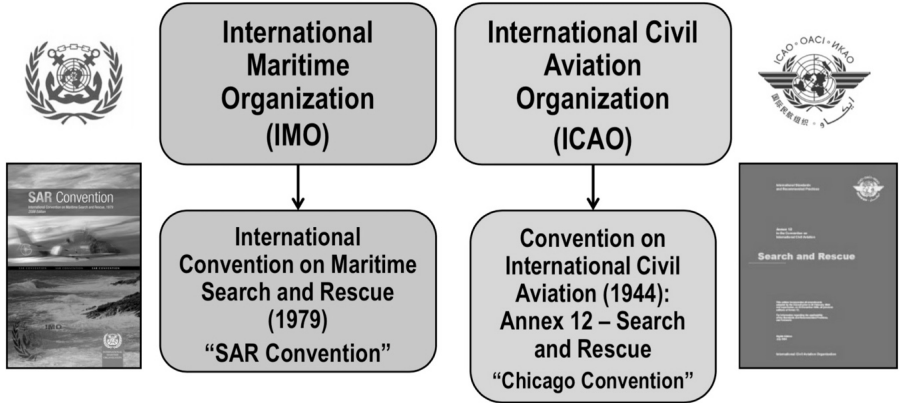


Figure 1: Rick Button, *International SAR: SAR Controllers Training* (2016) http://www.dco.uscg.mil/Portals/9/CG5R/EmergencyBeacons/2016SarsatConf/Presentations/SAR_2016_Mar%202_International%20SAR%20Briefing_Button.pdf

Appendix 2 *Cooperative Organisations*

The following organisations may be invited to attend relevant ICAO meetings:⁵⁵

1 *Non-Governmental Organisations*

- Aeronautical Radio Inc. (ARINC)
- Aerospace Medical Association (AsMA)
- Air Crash Victims' Families' Federation International (ACVFFI)
- Airports Council International (ACI)
- Air Transport Research Society (ATRS)
- Aviation Working Group (AWG)
- Civil Air Navigation Services Organisation (CANSO)
- European Organisation for Civil Aviation Equipment (EUROCAE)
- Flight Safety Foundation (FSF)
- Global Express Association (GEA)
- Institute of International Law (IDI)
- Inter-American Statistical Institute (IASI)
- International Academy of Aviation and Space Medicine (IAASM)
- International Aeronautical Federation (FAI)
- International Air Transport Association (IATA)
- International Association for the Physical Sciences of the Ocean (IAPSO)
- International Association of Aircraft Brokers and Agents (IABA)
- International Association of Institutes of Navigation (IAIN)
- International Business Aviation Council (IBAC)
- International Chamber of Commerce (ICC)
- International Commission on Illumination (CIE)
- International Committee for Airspace Standards and Calibration (ICASC)
- International Coordinating Council of Aerospace Industries Associations (ICCAIA)
- International Council of Aircraft Owner and Pilot Associations (IAOPA)

⁵⁵ ICAO, *Organisations able to be invited to ICAO Meetings*, (2017) <<https://www.icao.int/about-icao/Pages/Invited-Organizations.aspx#idIOGov>>.

- International Federation of Aeronautical Information Management Associations (IFAIMA)
- International Federation of Airline Dispatchers' Associations (IFALDA)
- International Federation of Air Line Pilots' Associations (IFALPA)
- International Federation of Air Traffic Controllers' Associations (IFATCA)
- International Federation of Air Traffic Safety Electronics Associations (IFATSEA)
- International Federation of Helicopter Associations (IFHA)
- International Geographic Union (IGU)
- International Law Association (ILA)
- International Maritime Radio Committee (CIRM)
- International Organization for Standardization (ISO)
- International Society of Air Safety Investigators (ISASI)
- International Statistical Institute (ISI)
- International Transport Workers' Federation (ITF)
- International Union of Aerospace Insurers (IUAI)
- International Union of Geodesy and Geophysics (IUGG)
- International Union of Railways (UIC)
- Royal Aeronautical Society (RAeS)
- RTCA, Inc.
- Société internationale de télécommunications aéronautiques (SITA)
- Society of Automotive Engineers (SAE) International
- The International Air Cargo Association (TIACA)
- World Wide Airport Coordinators Group (WWACG)

3 *Other Inter-Governmental Organisations:*

- African Civil Aviation Commission (AFCAC)
- African Union (AU)
- Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)
- Arab Civil Aviation Commission (ACAC)
- Central American Corporation for Air Navigation Services (COCESNA)

- Council of Europe (CE)
- European Civil Aviation Conference (ECAC)
- European Union (EU)
- European Organisation for the Safety of Air Navigation (EUROCONTROL)
- European Space Agency (ESA)
- International Atomic Energy Agency (IAEA)
- International Criminal Police Organization (ICPO-INTERPOL)
- International Hydrographic Organization (IHO)
- International Institute for the Unification of Private Law (UNIDROIT)
- Interstate Aviation Committee (IAC)
- Joint Aviation Authorities – Training Organisation (JAA-TO)
- Latin American Civil Aviation Commission (LACAC)
- League of Arab States (LAS)
- Organization of American States (OAS)
- Pacific Islands Forum
- Pan American Institute of Geography and History (PAIGH)
- Sistema de la Integración Centroamericana (SICA)
- World Customs Organization (WCO)
- World Trade Organization (WTO)

Appendix 3 *Table Decentralised Structure of Australia's Aviation Regulation and Safety Entities*⁵⁶

Entity	Responsibility
Minister for Infrastructure and Regional Development	Responsible to Parliament and the Australian public for civil aviation matters, including safety and security.
Department of Infrastructure	Provides overarching policy advice to the government on a broad range of aviation-related matters, including safety regulation. The Department also undertakes economic, security and environmental regulation of aviation.
ATSB	Australia's independent transport safety investigator
CASA	Australia's independent aviation safety regulator
Airservices Australia	Australia's sole civil air navigation service provider. A wholly government-owned corporation providing air traffic operations and associated aviation services.
Department of Defence	Responsible for Australian military aviation, including air traffic control in military-controlled airspace.
Australian Maritime Safety Authority	Australia's aviation and marine search and rescue provider.
Bureau of Meteorology	Responsible for providing meteorological services to the aviation sector.

⁵⁶ Infrastructure and Regional Development, Parliament of Australia, *Aviation Safety Regulation Review* (2014) 20.

Appendix 4 *Memorandum of Understanding*⁵⁷

MEMORANDUM OF UNDERSTANDING

FOR COOPERATION BETWEEN

THE [name of national agency]

AND [name of national agency]

CONCERNING AERONAUTICAL [AND/OR] MARITIME SEARCH AND RESCUE

1. Introduction

1.1. The [name of national agency] and [name of national agency], hereinafter referred to as the “Participants” in this Memorandum of Understanding (MOU), recognize the benefits enjoyed from previous close cooperation with regard to search and rescue (SAR) operations and training, and further recognize that additional benefits may be enjoyed from the cooperative arrangements detailed herein.

1.2. The Participants have been recognized by their respective governments as having primary responsibility for coordinating and providing aeronautical and maritime SAR services within their respective aeronautical and maritime SAR regions within the oceanic environment.

1.3. The Participants recognize the great importance of cooperation in aeronautical and maritime SAR, and in the provision of expeditious and effective SAR services to save lives and reduce suffering. The Participants also recognize the assumed responsibilities for SAR within the framework of the International Convention on Maritime Search and Rescue, 1979, the Convention on International Civil Aviation, 1944, and the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual.

1.4. The Participants have reached the following understanding.

2. Objectives and Scope

2.1. This MOU establishes a framework for cooperation among the Participants in carrying out activities related to SAR within the oceanic environment, and sets out their various responsibilities.

2.2. The Participants should ensure close coordination with their respective aeronautical and maritime SAR authorities to help promote common and effective SAR services.

3. Responsibilities

3.1. The [name of national agency] is responsible for maintenance of

⁵⁷International Civil Aviation Organisation, *Review IAMSAR SAR Agreement Template*, Agenda Item 5, UN Doc APSAR/TF/2-WP08 (27-30 January 2014) (‘APSAR Template’).

safety of life at sea and within its respective aeronautical and maritime SAR regions, under its Rescue Coordination Center (RCC).

3.2. The [name of national agency] is responsible for the maintenance of safety of life at sea and within its aeronautical and maritime SAR regions under its RCC[s].

3.3. Each Participant, on receiving information of an incident where any person is in distress within its respective SAR regions should take urgent measures to provide the most appropriate assistance regardless of the nationality or status of such a person, or the circumstances in which the person is found.

3.4. SAR operations should normally be carried out in accordance with the relevant SAR manuals and recommendations of ICAO and IMO, including the IAMSAR Manual, taking into account nationally accepted SAR procedures.

3.5. The Participants should make every effort to retrieve persons in distress, provide for their initial medical or other needs and deliver them to a place of safety; additionally, when it does not involve excessive risk or cost to the units involved in SAR operations, the Participants may attempt to rescue the craft that the persons in danger are aboard.

3.6. To ensure that SAR operations are conducted in an efficient and coordinated manner, the Participants should consult and cooperate with each other as necessary and appropriate, lending mutual assistance as their capabilities allow. If primary responsibility for coordination of a SAR response or operation cannot be immediately ascertained, the RCCs concerned should consult with each other to resolve the responsibility.

3.7. For any SAR operation involving coordination between the Participants, the Participants through appropriate consultation, intend to decide in each case, which Participant is to act as SAR Mission Coordinator.

3.8. SAR facilities of either Participant may conduct SAR operations within the SAR region of the other Participant with coordination carried out by each Participant's RCC.

3.9. Entry of SAR units of one Participant into or over the territory of the other Participant for the purpose of conducting SAR operations should, to the best of each Participant's ability, be expeditiously arranged via the appropriate RCCs.

3.10. Solely for the purpose of rendering emergency rescue assistance to persons, vessels, or aircraft in danger or distress, when the location is reasonably well known, SAR facilities of a Participant may immediately enter into or over the territory of the other Participant, with notification of

such entry made as soon as practicable.

3.11. The RCC of the State requesting for assistance or for the use of suitable facilities of another State, shall provide all pertinent details on the scope of the assistance/facilities required. The requesting RCC should provide full briefing, directly or indirectly, to the SAR Units that have been made available, on the scope of the mission before the units enter the SRR of the requesting RCC. If it is deemed necessary for SAR Units of a State to land at an airfield and/or to make use of the facilities of the requesting State in the course of performing an assigned SAR task, the RCCs concerned should make all necessary arrangements to facilitate the above.

3.12. To facilitate the coordination referred to in this section, the Participants should, to the best of their ability, keep each other fully and promptly informed of all relevant SAR operations. The Participants should develop appropriate procedures in accordance with the IAMSAR Manual to provide for the most effective and efficient means of communication.

4. SAR Region

4.1. The aeronautical and maritime SAR regions of [State] and [State] are separated geographically by a continuous line as per the following:

[Provide the geographic coordinates of the lines of delimitation between both States' SAR regions only. Add additional States lines of delimitation for regional SAR MOU.]

4.2. The establishment of SAR regions is intended only to affect an understanding concerning the regions within which a Participant accepts primary responsibility for coordinating SAR operations.

4.3. The delimitation of SAR regions is not related to and does not prejudice the delimitation of any boundary between States.

5. Rescue Coordination Centers (RCCs)

5.1. The primary operational points of contact under this MOU are the internationally

5.1.1. [Identify national RCC]

5.1.2. [Identify national RCC]

5.2. Participants, to the best of their ability, should provide any information which might be useful in order to expedite and improve coordination.

5.3. Identification of these operational points of contact, as referred to in this Section, is not intended to preclude appropriate direct coordination between any SAR facility or other organizational elements of the

Participants, especially when time is of the essence in the saving of lives.

5.4. Any transfer of SAR mission coordination responsibilities between the RCCs should be conducted by consultation between RCCs.

6. Cooperation

6.1. The subordinate elements of the Participants may provide for further coordination and cooperation by the establishment of appropriate operational arrangements and procedures consistent with this MOU.

6.2. In addition to that related to specific SAR cases, participants may exchange information that may serve to improve the effectiveness of SAR operations. This information may include, but not be limited to:

- 6.2.1. communication details;
- 6.2.2. information about SAR facilities;
- 6.2.3. descriptions of available airfields;
- 6.2.4. knowledge of fueling and medical facilities; and
- 6.2.5. information useful for training SAR personnel.

6.3. The Participants intend to endeavor to promote mutual SAR cooperation by giving due consideration to collaboration including, but not limited to:

- 6.3.1. exchange visits between SAR personnel;
- 6.3.2. joint SAR exercises and training;
- 6.3.3. the use of ship reporting systems for SAR purposes;
- 6.3.4. sharing of information systems, SAR procedures, techniques, equipment, and facilities;
- 6.3.5. to provide services in support of SAR operations;
- 6.3.6. to coordinate national positions on international SAR issues of mutual
- 6.3.7. interest;
- 6.3.8. to support and conduct joint research and development initiatives aimed at reducing search time, improving rescue effectiveness, and minimizing risk to SAR personnel; and
- 6.3.9. to conduct regular communications checks and exercises, including the use of alternative means of communications that would be used to handle communication overloads during major SAR operations.

7. Finances

- 7.1. Unless otherwise determined by the Participants, each Participant is to fund its own expenses for activities pertinent to this MOU.
- 7.2. The provisions of the MOU are contingent upon the availability of SAR personnel, facilities and funding.
- 7.3. SAR services provided by the Participants to persons in danger or distress are to be without subsequent cost recovery from the person(s) assisted.

8. Application of this MOU

- 8.1. This MOU does not create binding obligations under international law.
- 8.2. Nothing in this MOU is intended to affect in any way rights and duties based on international agreements or other arrangements between the Participants or their respective governments.
- 8.3. All activities conducted under this MOU are subject to the regulations and policies of the Participants and to all laws, regulations, and policies to which the Participants are subject.
- 8.4. No provision of this MOU should be construed as an obstacle to prompt and effective action by any Participant to relieve distress whenever and wherever found.
- 8.5. Any dispute regarding the interpretation or implementation of this MOU, or any of its subordinate memoranda of understanding, is to be resolved by consultation between the Participants and is not to be referred to an international body or third party for settlement.

9. Modification

- 9.1. This MOU may be modified in writing by the Participants.

10. Duration, Withdrawal and Discontinuation

- 10.1. Cooperation under this MOU may commence from the date of signature and may continue indefinitely.
- 10.2. Either Participant may withdraw from this MOU at any time, but should give not less than six (6) months' notice in writing to the other Participant.
- 10.3. Cooperation under this MOU may be discontinued mutually by the Participants in writing, or by any superseding arrangement.
- 10.4. The Participants intend to consult regarding any SAR operations at the time such discontinuation would take effect.

Signed in duplicate at [City, State], this ____ day of _____, 2013.

For the [national agency]:

Signed in duplicate at [City, State], this ____ day of _____, 2013.

For the [national agency]:

Appendix 5 ICAO SAR Capability Matrix⁵⁸

	Training	Aiding	Legislation	SAR Contingency	SAR Agreements	Relationships	Communications	Quality Control	Coastal Military	Resources	SARUX	Library	Compensation	SAR Programme	Supply Degrading	Special Equipment	SAR Aircraft	Navigation	ELTs	CORPASCASARAT Alerts
Afghanistan																				
Australia	A	A	A	A	A	B	A	A	A	A	A	A	A	A	A	A	A	A	B	A
Bangladesh	D	C	B	E	E	E	C	E	B	E	E	C	E	E	C	C	B	E	B	C
Bhutan																				
Borneo	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	E	A	A	A	E
Cambodia	B	B	C	B	C	B	C	E	D	C	C	C	D	C	E	E	D	D	E	D
China	A	A	A	A	A	A	D	D	A	D	D	C	D	E	A	A	A	A	A	E
Cook Islands	E	D	D	E	E	C	C	D	E	D	E	E	E	E	D	D	E	A	E	E
DPR Korea	D	B	D	B	E	D	B	C	D	C	D	E	E	E	D	E	C	C	E	E
Fiji	D	C	C	C	C	C	C	D	D	C	D	C	E	C	D	E	C	C	C	E
French Polynesia	A	A	A	B	C	A	A	A	A	B	A	A	A	A	A	A	A	A	A	A
Hong Kong, China	A	A	A	A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
India	D	C	C	E	D	C	C	E	C	C	C	C	C	D	D	E	C	E	A	A
Indonesia	A	B	A	A	A	D	D	D	A	D	A	D	B	B	C	E	B	B	B	D
Israel	A	A	A	A	B	A	A	A	A	A	A	A	B	A	A	A	A	A	A	A
Kiribati																				
Laos PDR	C	B	C	B	B	B	E	D	D	B	C	C	C	C	B	D	B	B	D	A
Macao, China	A	A	A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Malaysia	A	A	C	A	B	A	A	A	A	A	A	D	A	A	A	E	A	A	A	D
Maldives	C	A	C	E	B	A	B	C	A	C	B	D	B	A	C	C	C	A	C	A
Marshall Islands																				
Micronesia	C	D		E	E	D	C					E		D	D					
Mongolia	C	B	B	C	B	B	A	A	A	B	A	A	A	D	D	B	A	B	A	A
Myanmar	D	E	D	C	E	B	C	C	B	E	E	E	E	E	C	E	B	C	E	E
Nauru																				
Nepal	B	B	C	D	E	C	C	D	B	D	E	D	E	B	B	C	B	B	B	D
New Caledonia	C	B	B	B	C	B	A	E	A	C	C	D	E	E	A	E	A	A	A	A
New Zealand	A	A	A	A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Pakistan	C	C	B	B	E	B	B	C	B	C	E	E	E	E	B	E	B	B	C	A
Palau																				
Papua New Guinea	B	A	B	C	B	B	C	C	B	C	C	H	C	C	C	E	E	E	A	E
Philippines	C	B	A	B	B	B	B	C	H	C	C	H	C	C	D	D	B	A	A	A
Republic of Korea	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sansu																				
Solomon Islands																				
Singapore	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sri Lanka	A	A	A	A	D	B	A	B	A	B	B	A	D	B	B	B	C	B	A	A
Thailand	B	A	A	A	B	A	A	A	A	A	A	H	B	B	A	A	A	A	A	A
Timor Leste																				
Tonga	C	D	E	E	D	C	C	E	B	E	E	E	E	E	E	E	C	E	A	E
United States	A	A	A	A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Vanuatu																				
Viet Nam	B	B	B	A	B	B	B	C	A	B	C	C	D	C	C	E	B	C	B	B

A – Fully meets Annex 12 requirements

B – Meets Annex 12 requirements in most areas

C = Meets Annex 12 requirements in some areas

D = Initial implementation

E = Not implemented

Blank = No response

*French Polynesia Process fully implemented by July 2013

⁵⁸ICAO, SAR Capability Matrix, International Civil Aviation Organisation (11 Aug 2014).

Appendix 6 *Bilateral or Regional SAR Agreement*⁵⁹

**Agreement FOR COOPERATION
BETWEEN THE [name of national agency/State]**

AND [name of national agency/State]

Note: The term agreement is used in order to be consistent with ICAO Annex 12 and the International Convention on Maritime Search and Rescue. State may elect to use a different term such as “Memorandum of Understanding”, “Letter of understanding”, “Arrangement” or others as appropriate.

This template serves as guidance for States to draft a SAR Agreement (which may take the form of an MOU or SAR Arrangement or other instrument title) and the text to be included in this document is for the Parties involved to decide.

Concerning Aeronautical [and/or] Maritime Search and Rescue

1 Introduction

1.1 The [name of national agency/State] and [name of national agency/State] (hereinafter referred to as the “Parties” in this Agreement, recognize the benefits enjoyed from previous close cooperation with regard to search and rescue SAR operations and training, and further recognize that additional benefits may be enjoyed from the cooperative arrangements detailed herein; and ^{[[[]]}_{SEP}

1.2 The Parties have been recognized by their respective governments as having primary responsibility for coordinating and providing aeronautical and maritime SAR services in their respective aeronautical and maritime SAR regions. ^{[[[]]}_{SEP}

1.3 The Parties recognize the great importance of cooperation in aeronautical and maritime SAR, and in the provision of expeditious and effective SAR services to save lives and reduce suffering and have assumed their respective responsibilities for SAR within the framework of the International Convention on Maritime Search and Rescue, 1979, the Convention on International Civil Aviation, 1944, and the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual. ^{[[[]]}_{SEP}

1.4 The Parties have accordingly reached the following understanding. ^{[[[]]}_{SEP}

2 Objectives and Scope

2.1 This agreement establishes a framework for cooperation among the Parties in carrying out activities related to SAR within the aeronautical and/or maritime environment and sets out their various responsibilities. ^{[[[]]}_{SEP}

⁵⁹ Above n 30.

2.2 The Parties should ensure close coordination with their respective national aeronautical and maritime SAR authorities to help promote common and effective SAR services under this agreement. [SEP]

3 Responsibilities

3.1 [name of national agency] and [name of national agency] are each responsible for the maintenance of safety of life and within their respective aeronautical and maritime SAR regions, under their respective Rescue Coordination Centre (RCC). [SEP]

3.2 Each Party, on receiving information of an incident where any person is in distress within its SAR region, should take urgent measures to provide the most appropriate assistance regardless of the nationality or status of such a person, or the circumstances in which that incident occurred or is detected. [SEP]

3.3 SAR operations should normally be carried out in accordance with the relevant SAR manuals and recommendations of International Civil Aviation Organization (ICAO) and the International Maritime Organization IMO, including the IAMSAR Manual (as amended from time to time), taking into account SAR procedures established by national legislation. [SEP]

3.4 The Parties should make every effort to retrieve persons in distress, provide for their initial medical or other needs and deliver them to a place of safety; additionally, when it does not involve excessive risk or cost to the units involved in SAR operations, the Parties may attempt to rescue the craft or vessel on which the persons in danger are aboard. [SEP]

3.5 To ensure that SAR operations are conducted in an efficient and coordinated manner, the Parties should consult and cooperate with each other as necessary and appropriate, lending mutual assistance as their capabilities allow. [SEP]

3.6 Either Party may conduct SAR operations within the SAR region of the other Party under the coordination of that other Party's RCC. [SEP]

3.7 Entry of the SAR units of one Party into or over the territory of the other Party for the purpose of conducting SAR operations should be expeditiously arranged to the best of each Party's ability and via the appropriate RCCs. [SEP]

3.8 Solely for the purpose of searching for the site of an accident, rescuing survivors of such accidents, rendering emergency rescue assistance to persons, vessels, or aircraft in danger or distress and when the location is reasonably well known, permission to enter its territory shall be granted by a State to another State's search and rescue unit(s),

provided that a request has been transmitted to the rescue coordination centre of the concerned State or to such other authority as has been designated by the State. ^{[[]]}_{SEP}

3.9 The RCC of the State requesting assistance or the use of suitable SAR facilities of another State (“the requesting RCC” and “the assisting State” respectively), shall provide all pertinent details on the scope of the assistance or facilities required. The requesting RCC should provide a full briefing, directly or indirectly, to the SAR Units that have been made available by the assisting State, on the scope of the mission before the SAR units enter the SRR of the requesting RCC. If it is necessary for the SAR Units of an assisting State to land at an airfield or to make use of the facilities of the requesting RCC in the course of performing an assigned SAR task, the RCC concerned should make all necessary arrangements to facilitate the taking of such measures or actions. ^{[[]]}_{SEP}

3.10 To facilitate the coordination referred to in this section, the Parties should, to the best of their ability, keep each other fully and promptly informed of all relevant SAR operations. The Parties should develop appropriate procedures in accordance with the IAMSAR Manual to provide for the most effective and efficient means of communication.

4 SAR Regions

4.1 The aeronautical and maritime SAR regions of [State] and [State] are separated geographically by a ^{[[]]}_{SEP} continuous line as follows: ^{[[]]}_{SEP} [Provide the geographic coordinates of the lines of delimitation between both States’ SAR regions only. Add additional States’ lines of delimitation for regional SAR Agreement.] ^{[[]]}_{SEP}

4.2 The establishment of SAR regions is intended only to provide an understanding concerning the regions within which a Party accepts primary responsibility for coordinating SAR operations. ^{[[]]}_{SEP}

4.3 The delimitation of SAR regions is not related to and does not prejudice or have any bearing on the delimitation of any boundary between States. ^{[[]]}_{SEP}

5 Rescue Coordination Centres (RCCs) ^{[[]]}_{SEP}

5.1 The primary operational points of contact under this Agreement are the internationally recognized aeronautical and maritime RCCs of the Parties.

5.1.1 [Identify national RCC] ^{[[]]}_{SEP}

5.1.2 [Identify national RCC] ^{[[]]}_{SEP}

5.2 The Parties, to the best of their ability, should provide to each other any information which might be useful in order to expedite and improve coordination. [] [SEP]

5.3 Identification of the operational points of contact, as referred to in this Section, is not intended to preclude appropriate direct coordination between any SAR facility or organizational unit of the Parties, especially when time is of the essence in the saving of lives. [] [SEP]

5.4 Transfer of SAR mission coordination responsibilities between the RCCs, if deemed necessary, should be conducted by consultation between RCCs. [] [SEP]

6 Cooperation

6.1 The subordinate elements of the Parties may provide for further coordination and cooperation by the establishment of appropriate operational arrangements and procedures consistent with this Agreement. [] [SEP]

6.2 In addition to information related to specific SAR cases, the Parties may exchange any other information that may serve to improve the effectiveness of SAR operations. This information may include, but not be limited to: [] [SEP]

6.2.1 communication details; [] [SEP]

6.2.2 information about SAR facilities; [] [SEP]

6.2.3 descriptions of available airfields; [] [SEP]

6.2.4 knowledge of fuelling and medical facilities; and [] [SEP]

6.2.5 information useful for training SAR personnel. [] [SEP]

6.3 The Parties will endeavour to promote mutual SAR cooperation by giving due consideration to collaboration including, but not limited to:

6.3.1 exchange visits between SAR personnel; [] [SEP]

6.3.2 joint SAR exercises and training; [] [SEP]

6.3.3 the use of ship reporting systems for SAR purposes; [] [SEP]

6.3.4 sharing of information systems, SAR procedures, techniques, equipment, and facilities; [] [SEP]

6.3.5 provision of services in support of SAR operations; [] [SEP]

6.3.6 coordination of national positions on international SAR issues of mutual interest;

6.3.7 supporting and conducting joint research and development initiatives aimed at reducing search time, improving rescue

effectiveness, and minimizing risk to SAR personnel; and [REDACTED]

6.3.8 conducting regular communications checks and exercises, including the use of alternative means of communications that would be used to handle communication overloads during major SAR operations. [REDACTED]

7 Finances

7.1 Unless otherwise agreed by the Parties, each Party is to fund its own expenses for activities pertinent [REDACTED] to this Agreement. [REDACTED]

7.2 The provisions of the Agreement are contingent upon the availability of SAR personnel, facilities and funding. [REDACTED]

7.3 SAR services provided by the Parties to persons in danger or distress are to be without subsequent cost recovery from the person(s) assisted. [REDACTED]

8 Application of this Agreement

8.1 Nothing in this Agreement is intended to affect in any way rights and duties based on international [REDACTED] agreements or other arrangements between the Parties or their respective governments. [REDACTED]

8.2 All activities conducted under this Agreement should be in conformity with national legislation of the Parties, as well as with the relevant international conventions in force. [REDACTED]

8.3 No provision of this Agreement should be construed as an obstacle to prompt and effective action by any Party to relieve distress whenever and wherever found. [REDACTED]

8.4 Any dispute regarding the interpretation or implementation of this Agreement is to be resolved by consultation between the Parties and is not to be referred to any international body, court or third party for settlement. [REDACTED]

9 Modification [REDACTED]

9.1 This Agreement may be modified in writing by the Parties.

10 Duration, Withdrawal and Discontinuation

10.1 Cooperation under this Agreement may commence from the date of signature and may continue [REDACTED] indefinitely. [REDACTED]

10.2 Either Party may withdraw from this Agreement at any time, upon giving not less than six (6) months' notice in writing to the other Party. [REDACTED]

10.3 Cooperation under this Agreement may be discontinued mutually by the Parties in writing, or by any superseding arrangement. [REDACTED]

10.4 The Parties should ensure that such discontinuation does not adversely impact any SAR operations or other cooperation in progress at

the time that such discontinuation takes effect and should consult each other closely for this purpose. []
SEP

Signed in duplicate at [City, State], this day of , 2016.

For the [national agency]:

Signature of Authorized Signatory

Name:

Designation:

Organization:

Signed in duplicate at [City, State], this day of , 2016.

For the [national agency]:

Signature of Authorized Signatory

Name:

Designation:

Organization:

Appendix 7 *Aviation Security Report 2015*⁶⁰

Annual Report 2015 - Appendix 1

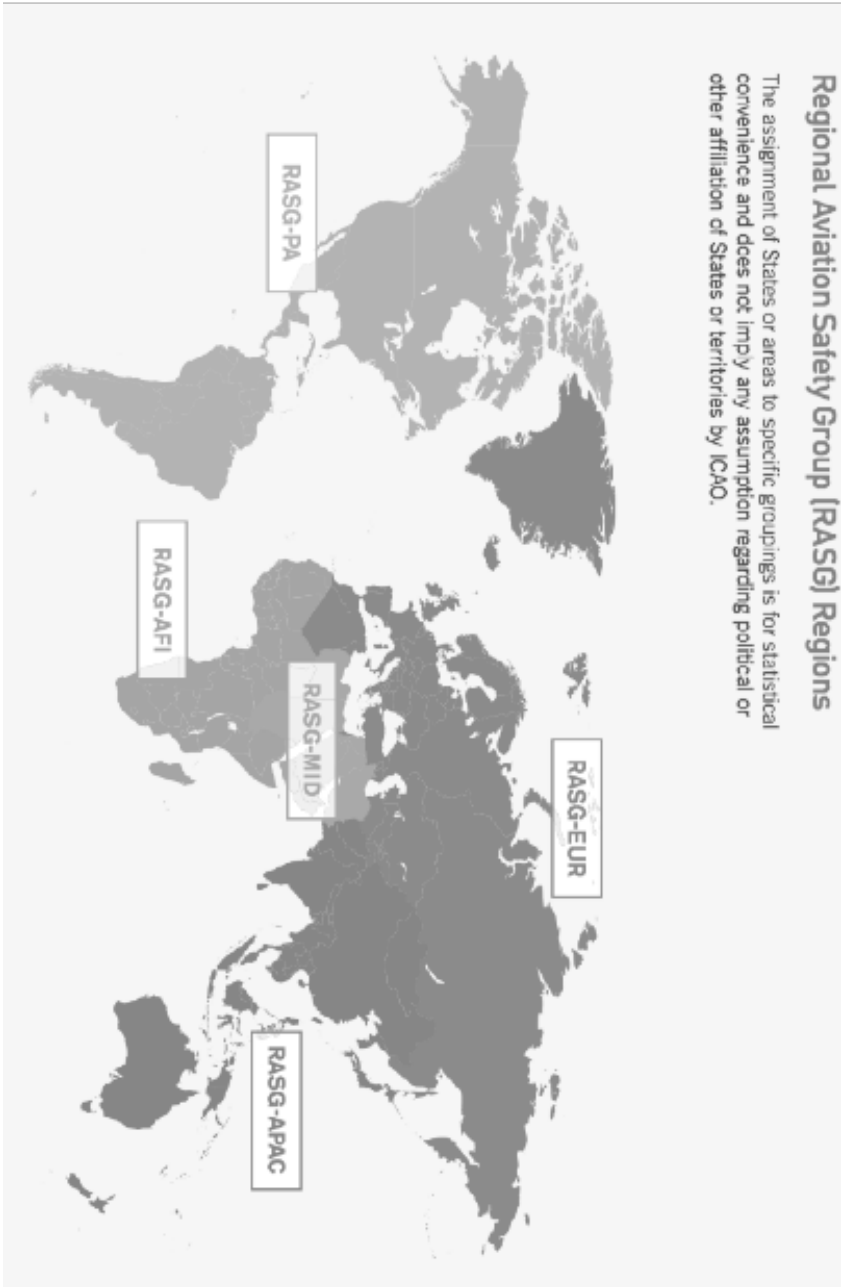
Table 11. Aviation Security

Year	Number of acts of unlawful interference	Number of acts of unlawful seizure		Number of acts of facility attack		Number of acts of sabotage	Other acts ¹	Number of persons injured or killed during acts of unlawful interference	
		Actual seizures	Attempted seizures	Actual facility attacks	Attempted facility attacks			Injured	Killed
1991	15	7	5	1	0	0	2	2	7
1992	10	6	2	1	0	0	1	123	10
1993	48	30	7	3	0	0	8	38	112
1994	43	22	5	4	0	2	10	57	51
1995	17	9	3	2	0	0	3	5	2
1996	22	3	12	4	0	0	3	159	134
1997	15	6	5	2	0	1	1	2	4
1998	17	11	2	1	0	0	3	1	41
1999	14	11	2	0	0	0	1	3	4
2000	30	12	8	1	0	0	9	50	58
2001 ¹	24	7	2	7	4	1	3	3 217	3 525
2002	40	2	8	24	2	2	2	14	186
2003	35	3	5	10	0	5	12	77	20
2004	16	1	4	2	2	4	3	8	91
2005	6	2	0	2	0	0	2	60	3
2006	17	1	3	4	0	1	8 ²	27	2
2007	22	4	2	2	3	0	11	33	18
2008	23	1	6	3	0	0	13 ³	31	11
2009	23	5	3	1	0	0	14 ¹	4	3
2010	14	0	1	1	0	1	11 ¹	13	6
2011	6	0	2	0	0	1	3 ²	152	35
2012	10	1	2	2	0	0	5 ²	44	20
2013	8	1	0	3	0	1	2 ²	1	7
2014	21	2	2	9	0	1	7 ²	334	44
2015	13	2	2	2	2	4	1	403	6

1. Includes in-flight attacks and other acts of unlawful interference.
2. Official reports on the events of 11 September 2001 in the United States did not include the number of deaths and injuries on the ground. Therefore, estimated totals were taken from media sources.
3. Includes attempted sabotage.

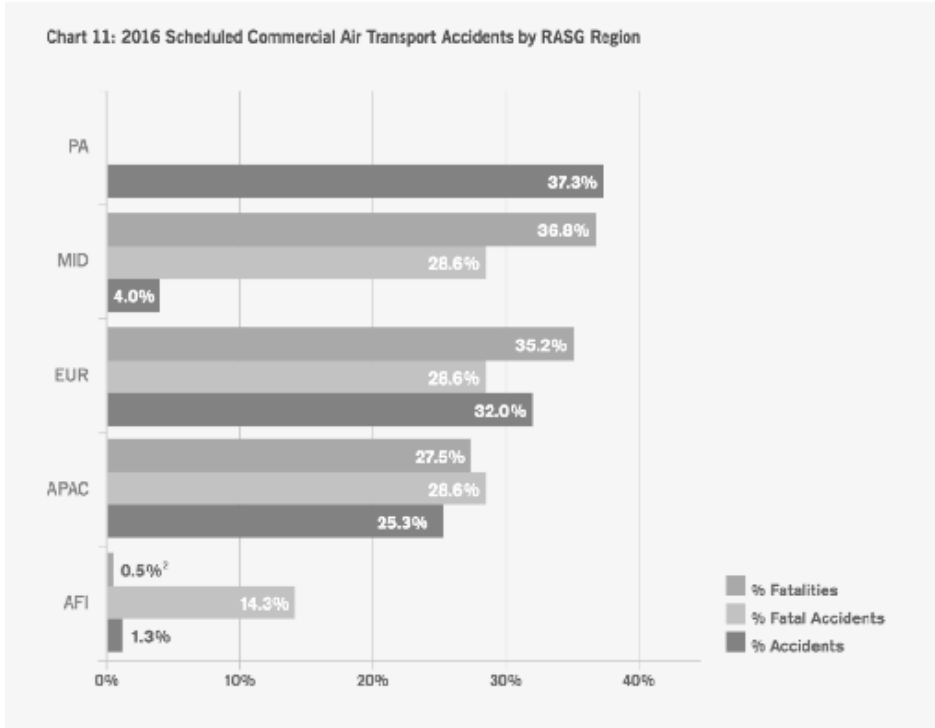
⁶⁰ ICAO Economic development: Facts and Figures, <<https://www.icao.int/sustainability/Pages/FactsFigures.aspx>>

Appendix 8 *RASG Regions*⁶¹



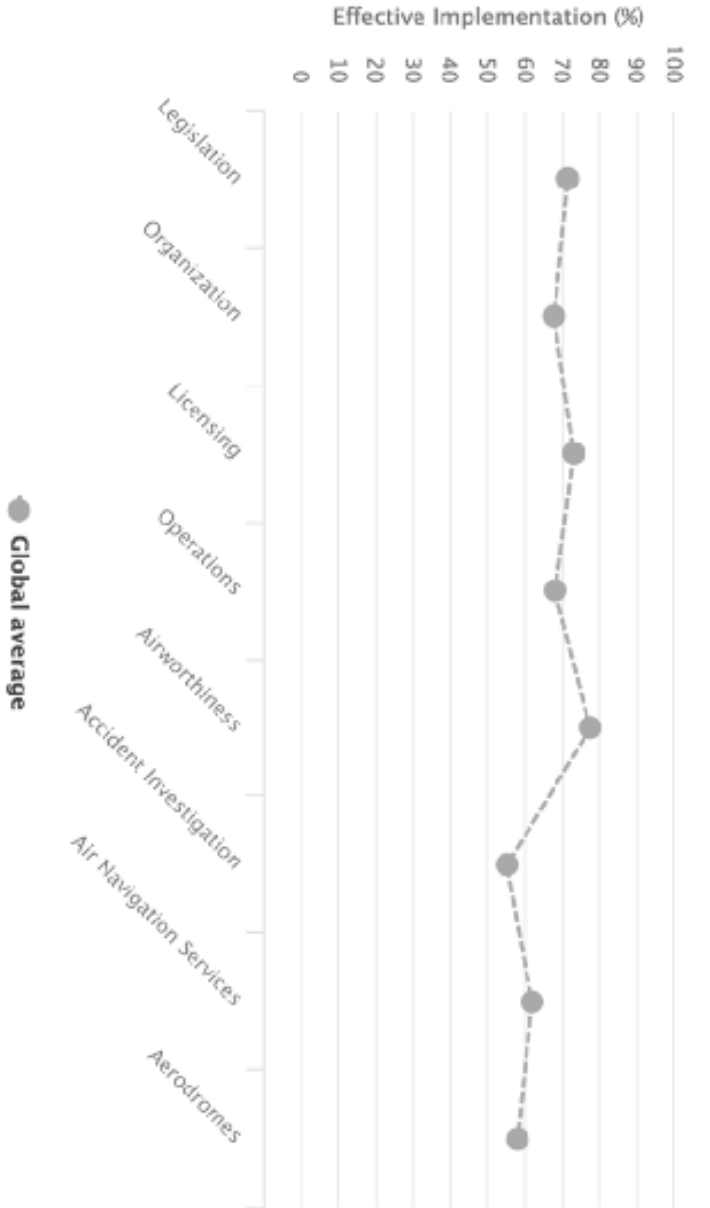
⁶¹ Above n 35.

Appendix 9 Commercial Travel Accidents by Region⁶²



⁶²ICAO above n 35.

Appendix 10 *Global Effectiveness Implementation 185 Countries*⁶³



⁶³ICAO above n 37.

Appendix 11 *Global SAR Template 2018*

**Global Bi-/Multi-lateral Agreement Template for all Aeronautical and/or
Maritime Search and Rescue**

Agreement for cooperation between the:

[name of national agency or State]

And [name of national agency or State]

And [name of national agency or State]

And [name of national agency or State]

Summary: This template provides a SAR format for all bi-/multi-lateral agreements within which contains the relevant provisions concerning all cooperative aspects of joint SAR operations.

1 Introduction: This paper relates to ICAO's globally standardised SARPs for search and rescue. The strategic goal is to promote safety and efficiency in international aviation through the use of Inter-State collaborative agreements.

1.1 The [name of national agency/State] and [name of national agency/State] (hereinafter referred to as the "Parties" in this Agreement, recognize the benefits enjoyed from previous close cooperation with regard to search and rescue SAR operations and training, and further recognize that additional benefits may be enjoyed from the cooperative arrangements detailed herein; and ^[1]_[SEP]

1.2 The Parties have been recognized by their respective governments as having primary responsibility for coordinating and providing aeronautical and maritime SAR services in their respective aeronautical and maritime SAR regions. ^[1]_[SEP]

1.3 The Parties recognize the great importance of cooperation in aeronautical and maritime SAR, and in the provision of expeditious and effective SAR services to save lives and reduce suffering and have assumed their respective responsibilities for SAR within the framework of the International Convention on Maritime Search and Rescue, 1979, the Convention on International Civil Aviation, 1944, and the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual. ^[1]_[SEP]

1.4 The Parties have accordingly reached the following understanding. ^[1]_[SEP]

2 Definitions

2.1 The term for this legal instrument will often determine the wording used within the document. Here, the term ‘agreement’ will be used to bind the States to the inserted provisions. There is an understanding that ‘Agreement’ may be changed to Memorandum of Understanding or Arrangement if deemed more suitable and still maintaining the intent of all related international conventions.

3 Scope and Objective

3.1 This agreement establishes a framework for cooperation among the Parties in carrying out activities related to SAR within the aeronautical and/or maritime environment and sets out their various responsibilities. [1] [SEP]

3.2 The Parties remain active in their cooperation and continue to refer to all relevant documents and conventions to maximise efficiency and safety in all operations.

3.3 The Parties should ensure close coordination with their respective national aeronautical and maritime SAR authorities to help promote common and effective SAR services under this agreement. [1] [SEP]

4 Application

4.1 Nothing in this Agreement is intended to affect in any way rights and duties based on international [1] [SEP] agreements or other arrangements between the Parties or their respective governments. [1] [SEP]

4.2 All activities conducted under this Agreement should be in conformity with national legislation of the Parties, as well as with the relevant international conventions in force. [1] [SEP]

4.3 No provision of this Agreement should be construed as an obstacle to prompt and effective action by any Party to relieve distress whenever and wherever found. [1] [SEP]

5 Responsibilities

5.1 [name of national agency] and [name of national agency] are each responsible for the maintenance of safety of life and within their respective aeronautical and maritime SAR regions, under their respective Rescue Coordination Centre (RCC). [1] [SEP]

5.2 Each Party, on receiving information of an incident where any person is in distress within its SAR region, should take urgent measures to provide the most appropriate assistance regardless of the nationality or status of such a person, or the circumstances in which that incident occurred or is detected. [1] [SEP]

5.3 SAR operations should normally be carried out in accordance with the relevant SAR manuals and recommendations of International Civil Aviation Organization (ICAO) and the International Maritime Organization IMO, including the IAMSAR Manual (as amended from time to time), taking into account SAR procedures established by national legislation. ^[17]_[SEP]

5.4 The Parties should make every effort to retrieve persons in distress, provide for their initial medical or other needs and deliver them to a place of safety; additionally, when it does not involve excessive risk or cost to the units involved in SAR operations, the Parties may attempt to rescue the craft or vessel on which the persons in danger are aboard. ^[17]_[SEP]

5.5 To ensure that SAR operations are conducted in an efficient and coordinated manner, the Parties should consult and cooperate with each other as necessary and appropriate, lending mutual assistance as their capabilities allow. ^[17]_[SEP]

5.6 Either Party may conduct SAR operations within the SAR region of the other Party under the coordination of that other Party's RCC. ^[17]_[SEP]

5.7 Entry of the SAR units of one Party into or over the territory of the other Party for the purpose of conducting SAR operations should be expeditiously arranged to the best of each Party's ability and via the appropriate RCCs. ^[17]_[SEP]

5.8 Solely for the purpose of searching for the site of an accident, rescuing survivors of such accidents, rendering emergency rescue assistance to persons, vessels, or aircraft in danger or distress and when the location is reasonably well known, permission to enter its territory shall be granted by a State to another State's search and rescue unit(s), provided that a request has been transmitted to the rescue coordination centre of the concerned State or to such other authority as has been designated by the State. ^[17]_[SEP]

5.9 The RCC of the State requesting assistance or the use of suitable SAR facilities of another State ("the requesting RCC" and "the assisting State" respectively), shall provide all pertinent details on the scope of the assistance or facilities required. The requesting RCC should provide a full briefing, directly or indirectly, to the SAR Units that have been made available by the assisting State, on the scope of the mission before the SAR units enter the SRR of the requesting RCC. If it is necessary for the SAR Units of an assisting State to land at an airfield or to make use of the facilities of the requesting RCC in the course of performing an assigned SAR task, the RCC concerned should make all necessary arrangements to facilitate the taking of such measures or actions. ^[17]_[SEP]

5.10 To facilitate the coordination referred to in this section, the Parties should, to the best of their ability, keep each other fully and promptly informed of all relevant SAR operations. The Parties should develop appropriate procedures in accordance with the IAMSAR Manual to provide for the most effective and efficient means of communication. [SEP]

6 Sovereignty and SAR Regions

6.1 Each Party remains vigilant of other States' sovereignty and continues to respect the international governing laws.

6.2 The aeronautical and maritime SAR regions of [State] and [State] and [State] are separated geographically by a continuous line as follows: [SEP][Provide the geographic coordinates of the lines of delimitation between both/all States' SAR regions only.] [SEP]

6.3 The establishment of SAR regions is intended only to provide an understanding concerning the regions within which a Party accepts primary responsibility for coordinating SAR operations. [SEP]

6.4 The delimitation of SAR regions is not related to and does not prejudice or have any bearing on the delimitation of any boundary between States. [See 6.1.]

7 Rescue Coordination Centres (RCCs)

7.1 The primary operational points of contact under this Agreement are the internationally recognized aeronautical and maritime RCCs of the Parties.

7.1.1 [Identify national RCC] [SEP]

7.1.2 [Identify national RCC] [SEP]

7.1.3 [Identify national RCC]

7.1.4 [Identify national RCC]

7.2 The Parties, to the best of their ability, should provide to each other any information which might be useful in order to expedite and improve coordination. [SEP]

7.3 Identification of the operational points of contact, as referred to in this Section, is not intended to preclude appropriate direct coordination between any SAR facility or organizational unit of the Parties, especially when time is of the essence in the saving of lives. [SEP]

7.4 Transfer of SAR mission coordination responsibilities between the RCCs, if deemed necessary, should be conducted by consultation between RCCs. [SEP]

8 Cooperation

8.1 The subordinate elements of the Parties may provide for further coordination and cooperation by the establishment of appropriate operational arrangements and procedures consistent with this Agreement. [REDACTED]

8.2 In addition to information related to specific SAR cases, the Parties may exchange any other information that may serve to improve the effectiveness of SAR operations. This information may include, but not be limited to: [REDACTED]

8.2.1 communication details; [REDACTED]

8.2.2 information about SAR facilities; [REDACTED]

8.2.3 descriptions of available airfields; [REDACTED]

8.2.4 knowledge of fuelling and medical facilities; and [REDACTED]

8.2.5 information useful for training SAR personnel. [REDACTED]

8.3 The Parties will endeavour to promote mutual SAR cooperation by giving due consideration to collaboration including, but not limited to:

8.3.1 exchange visits between SAR personnel; [REDACTED]

8.3.2 joint SAR exercises and training; [REDACTED]

8.3.3 the use of ship reporting systems for SAR purposes; [REDACTED]

8.3.4 sharing of information systems, SAR procedures, techniques, equipment, and facilities; [REDACTED]

8.3.5 provision of services in support of SAR operations; [REDACTED]

8.3.6 coordination of national positions on international SAR issues of mutual interest; [REDACTED]

8.3.7 supporting and conducting joint research and development initiatives aimed at reducing search time, improving rescue effectiveness, and minimizing risk to SAR personnel; and [REDACTED]

8.3.8 conducting regular communications checks and exercises, including the use of alternative means of communications that would be used to handle communication overloads during major SAR operations. [REDACTED]

9 Cost

9.1 A SAR authority that hires or requisitions privately owned facilities for a SAR operation will, unless otherwise agreed between the Parties, bear any costs of hiring or payment of compensation for such requisitioning.

9.1 Unless otherwise agreed by the Parties, each Party is to fund its own expenses for activities pertinent ^{[[]]}_[SEP]to this Agreement. ^{[[]]}_[SEP]

9.2 The provisions of the Agreement are contingent upon the availability of SAR personnel, facilities and funding. ^{[[]]}_[SEP]

9.3 SAR services provided by the Parties to persons in danger or distress are to be without subsequent cost recovery from the person(s) assisted. ^{[[]]}_[SEP]

10 Military Intervention

10.1 Notwithstanding any terms within this agreement, a State's military is able to be involved as determined by that State's government if they deem it necessary when providing assets or assistance.

10.2 Any State which utilises their military for SAR is responsible for costs and maintenance during the operation.

11 Liability

11.1 Any claims for liability during a SAR operation are to be covered directly by the managing body of that specific operation utilising the appropriate scheme; this may not necessarily be the State in control of the RCC.

12 Transfer of Coordination

Reasons for Transfer of Coordination

12.1 The SAR authority with overall coordination should evaluate all available information and intelligence and make an initial assessment of the probable search area and assets required. If the required response is assessed as being beyond the capacity of the authority then that authority should request assistance at an early stage. Delaying requests for assistance, may lead to reduced chances of survival and/or significant increase in the size of the search area.

12.2 Overall coordination responsibility may be transferred from one SAR authority to another in the following circumstances:

- a) Where a SAR authority has activated a SAR operation in response to a distress or other emergency situation that is found to be outside their responsibility.
- b) When an RCC is fully committed, overall coordination of a further incident in that region may be transferred to an adjacent RCC.
- c) Whenever more accurate knowledge of the distressed craft's position or movements comes to hand.
- d) When it becomes apparent that a SAR authority other than the one initiating the action is more favourably placed to assume responsibility.

- e) Where a SAR operation is beyond the State's capabilities.
- f) Where the circumstances of the SAR operation require the implementation of the State's disaster plan or the declaration of a state or territory emergency.

13 Transferring Overall Coordination

13.1 A transfer of coordination responsibility between SAR Authorities may be effected at any time by a SAR Authority requesting another SAR Authority to assume overall coordination (or by another SAR Authority offering to take coordination) In these instances:

- a) Consultation shall take place between the SMC's of both SAR Authorities concerned and verbal agreement reached on which SAR Authority is best placed to continue to coordinate the incident and the reasons for accepting coordination.
- b) Transfer of coordination will formally occur at the time verbal agreement is made by the appropriately qualified person(s) who is authorised to accept coordination.
- c) Full details of all relevant information and actions taken by the initiating SAR Authority shall then be passed in accordance with the information exchange requirements of that authority.
- d) If overall coordination cannot be accepted immediately, the initiating SAR Authority shall retain coordination until a mutually agreed time of transfer;
- e) All assets or SAR Authorities concerned shall be advised of the transfer of coordination.

14 Modification

14.1 This Agreement may be modified in writing by the Parties.

15 Withdrawal

15.1 Cooperation under this Agreement may commence from the date of signature and may continue ^[]_[] indefinitely. ^[]_[]

15.2 Either Party may withdraw from this Agreement at any time, upon giving not less than 1 months' notice in writing to the other Party. ^[]_[]

15.3 Cooperation under this Agreement may be discontinued mutually by the Parties in writing, or by any superseding arrangement. ^[]_[]

15.4 The Parties should ensure that such discontinuation does not adversely impact any SAR operations or other cooperation in progress at the time that such discontinuation takes effect and should consult each other closely for this purpose. ^[]_[]

16 Re-Integration

16.1 Original Parties signature to this Agreement may request to re-join the SAR efforts with the approval and re-signing of another Agreement between all contracting Parties at the time of re-integration.

16.2 Any Party not originally a signatory to this document may join the SAR efforts upon the signing of another SAR Agreement if it is beneficial to the success of the SAR operation and/or if they have new information to add to the SAR efforts.

17 Disputes

17.1 Any disputes which arise are at first instance to be solved by mediation between all signatories to this agreement.

17.2 Any dispute not successfully resolved using 17.1 regarding any issue is to be taken to ICAO where a separate body can aid in resolution.

17.3 Any Party which wishes to take further legal action must do so with ICAO's approval and if suitable taken to The International Court of Justice in The Hague.

Sign

Signed in duplicate at [City, State], this ____ day of _____, 20__.

For the [national agency]:

Signed in duplicate at [City, State], this ____ day of _____, 20__.

For the [national agency]:

Signed in duplicate at [City, State], this ____ day of _____, 20__.

For the [national agency]:

Signed in duplicate at [City, State], this ____ day of _____, 20__.

For the [national agency]: