INTERNATIONAL CIVIL AVIATION ORGANIZATION
EASTERN AND SOUTHERN AFRICAN OFFICE

SEMINAR ON SEARCH AND RESCUE AND
CIVIL/MILITARY COORDINATION

(Nairobi, 29 November 2006)

SUMMARY OF
DISCUSSIONS AND RECOMMENDATIONS
The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.
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PART I - HISTORY OF THE SEMINAR

1. Objective of the seminar

1.1 The main objective of this seminar was to bring more awareness to Heads of ATS Operations, Chiefs of Rescue Coordination Centres (RCC) and Military Officials charged with Civil/Military Aviation Coordination responsibilities on the latest developments in the field of Search and Rescue and to facilitate the exchange of information and experiences on problems being faced by Civil Aviation Authorities as a result of the common use of airspace by civil and military aviation.

1.2 Place and Duration of the Seminar

1.2.1 The seminar on Search and Rescue and Civil/Military Coordination was held at the International Civil Aviation Organization, Eastern and Southern African (ESAF) Office, Nairobi on 29 November 2006.

1.3 Organization

1.3.1 The seminar was opened by Mr. Geoffrey P. Moshabesha, Regional Director ICAO ESAF Office. Mr. A. Kharuga and Mr. Konan Brou, RO/ATMs ICAO ESAF Office and Mr. Ibrahim Auvo, RO/ATM ICAO WACAF Office conducted the seminar.

1.4. Working Languages

1.4.1 The seminar was conducted in English only. The documentation was in English.

1.5 Attendance

1.5.1 The seminar was attended by 87 (Eighty Seven) participants from 26 (Twenty Six) States and 4 (Four) International Organizations; namely; ASECNA, IATA, IFALPA and IFATCA. The list of participants is at Appendix A to this Summary.
1.6 Agenda

1.6.1 The seminar approved the following Agenda

Agenda Item 1: ICAO Responsibilities and Activities in the SAR Field.

Agenda Item 2: Co-operation in the Provision of SAR Services.

Agenda Item 3: Coordination between Aeronautical and Maritime SAR Services.

Agenda Item 4: Involvement of the Military in Search and Rescue.

Agenda Item 5: International Arrangements for the Provision of SAR Services.

5.1: ICAO Policy on future aviation Distress Beacons including COSPAS-SARSAT.

5.2: Satellite Aided Search and Rescue COSPAS-SARSAT.

Agenda Item 6: Civil/Military Coordination.

6.1 Basic principles on Civil/Military Coordination.


6.3 PowerPoint Presentation.

Agenda Item 7: Any other business

Questionnaire Related to National Search and Rescue.
PART II     -     SUMMARY OF DISCUSSIONS AND RECOMMENDATIONS

2. Summary of Discussions

2.1 The seminar noted with concern that the implementation of SARPs relating to SAR in Annex 12 (Search and Rescue Services) and its related IAMSAR Manual (Doc.9731) have not received much attention from the States. Among the serious deficiencies in the implementation of the SAR provisions are those relating to:

- Lack of co-operation agreements between States in order to promote a more effective and economic utilization of SAR facilities.

- Need for training of SAR personnel; in accordance with IAMSAR Manual (Doc.9731).

- Need to carry out search and rescue exercises regularly, preferably annually. (AFI/7, Rec 6/7).

- Need for States which have not done so, establish a registry of 406 MHz and make available at the COSPAS/ SARSAT international registration data base and RCC.

- Need for all aircraft to carry ELTs in accordance with Annex 6, to carry automatic ELTs operating on 406 MHz and on 121.5 MHz for homing and locating. (AFI/7 Rec. 6/1).

- Need for providing a SAR point of contact (SPOC) for COSPAS/ SARSAT, and

- Need for establishment of appropriate SAR Legislation.

- Need for the States which have not done so, support ICAO/AFCAC SAR evaluation project.

- Need for States to support the SAR funding programme as provided by the Saly Portual SAR Declaration.
2.2 Recommendations

2.2.1 SAR Organization and Plan

2.2.2 That, in application of Article 25 of the Chicago Convention, States should designate, within the relevant Ministry in charge of Civil Aviation, an appropriate official as the Head of the National Search and Rescue Service. The latter will, in turn, accomplish the task to set up an efficient search and rescue plan and means for implementing such a plan in the area/region (SRR) under his/her responsibility.

2.2.3 That the Head of the National Search and Rescue Service should:

a) appoint the Chief of the Rescue Coordination Centre (RCC) from which search and rescue action shall be controlled, coordinated and directed. The Chief RCC will, in addition to his/her normal duties, assume the direction and supervision of the SAR Mission Coordinator for the duration of a search and rescue operation. (AFI/7, Rec.6/5).

b) in setting up the SAR Plan, make sure that the following arrangements are established:

- determination of facilities, personnel and equipment that will be required by the SAR service and definition of their functions in terms of search and rescue.

- establishment, in his/her area of responsibility or search and rescue region (SRR), of rescue units as well as a rescue co-ordination centre or sub-centre (RCC/RSC) as appropriate.

- to ensure that persons qualified in the conduct of aircraft accident inquiry accompany the rescue units to the site of distress in order to facilitate accident investigations.

- as much as practicable, provide RCC/RSC accommodation in existing ACCs/FICs so as to ensure convenient means of communication within the national SRR and also with RCCs/RSCs in the adjacent SRRs.
2.3 Involvement of the military in SAR operations

2.3.1 That States establish such arrangements as to integrate their military organization into national search and rescue operations and, in so doing, ensure that cooperation and coordination with military authorities is maintained with the objective of promoting the following initiatives:

a) military organizations can avail some of their SAR oriented training programmes to the civil authorities so as to minimize training cost, which, at the same time, would increase the number of personnel with necessary SAR technical know-how.

b) the military usually possess equipment and facilities capable of undertaking SAR operations.

c) SAR civil organization should adequately equip the RCCs to respond to the need of SAR.

2.3.2 That, in order to encourage co-operation and understanding between civil and military users of airspace, the personnel employed in the provision of both civil and military air traffic services should receive, to the greatest extent possible, basic training to common standards and ratings based on applicable ICAO provisions so as to produce a personnel of comparable qualifications.

2.4 SAR Cooperation Agreements

2.4.1 That States which have not done so undertake the following actions as a matter of priority to:

a) conclude agreements with national organizations and agencies not directly connected with SAR but likely to provide assistance in terms of facilities, services and personnel (e.g. national armed forces, police, hospitals, etc).

b) pool the available resources in order to establish jointly a single SAR organization, since it is nearly impossible for any State to have adequate dedicated resources for search and rescue operations and considering that the proposed arrangement would reduce the number of facilities that each State would otherwise provide individually. In this context, interested States will take the opportunity to implement the AFI/7 Recommendation 6/3 by negotiating the relevant agreements.
c) promote the spirit of the Memorandum of Understanding between ICAO and IMO by operating combined maritime and aeronautical SAR systems and facilities in view of their many advantages in terms of efficiency and effectiveness and, also, in consideration of the fact that the boundaries of aeronautical and maritime search and rescue regions are expected to coincide. (AFL/7 Rec.6/4).

d) become member participants in the COSPAS-SARSAT programme as requested by the ICAO Council and recommended in APIRG Conclusion 8/20 which noted with concern that there was an urgent need for AFI States to operate the existing satellite facilities for SAR.

2.5 SAR Legislation

2.5.1 That States which have not done so:

a) enact the SAR legislation that will make the SAR operations legal and empower the SAR Mission Coordinator to discharge his/her duties and protect him/her against legal action by owners of facilities in case of accidents occurring to these facilities during search and rescue operations.

b) ensure that the legislation in a) above should also empower the SAR Mission Coordinator to request external assistance when the available facilities and personnel are found not to be coping with the situation or are viewed impaired or insufficient to cope with the distress situation.

c) make sure that the request referred to in b) is not subjected to any approval by high level authorities, but that a notification should be sufficient.

2.6 Civil/Military Coordination - Interception of civil aircraft

2.6.1 That States which have not done so:

a) establish a national civil/military coordination committee, comprising high level representatives of the Military, Civil Aviation Authorities, of which the main function should be to resolve joint civil/military aviation problems. (AFL/7 Rec.5/3).
b) establish a permanent secretariat consisting of a small number of civil and military aviation specialists who should report to the Civil/Military Coordination Committee.

2.6.2 That, in order to avoid misinterpretation or misunderstanding between individual civil and military ATS units, applicable procedures for all foreseeable circumstances should be laid down in written form and agreed upon by all the responsible authorities concerned. In this respect:

a) common terminology and abbreviations should be developed and utilized by both users of the airspace in order to avoid confusion in communications and correspondence. Such terms and abbreviations should, as much as possible, be those developed and published by ICAO in Doc. 8400.

b) common rules and procedures applicable to civil and military air operations should be developed for use by both civil and military pilots and should be based on the appropriate ICAO provisions.

c) areas prohibited to civil flights and areas in which civil flights are restricted or not permitted without special clearance should be clearly delineated and promulgated in the national AIP.

d) joint consultation should be held prior to the establishment of new aerodromes, military installations, navigational aids and other facilities and procedures which, once completed, might have an impact on the organization and use of the airspace.

e) plans regarding the organization and use of airspace should be developed in common by both the civil and military authorities, taking into account:

i) national security requirements;

ii) safety and economy of flights;

iii) the need for keeping airspace reservations and restrictions to a minimum and the need to periodically review and assess the continued requirement for those restrictions;

iv) inconvenience caused where conflict of interest occurs between civil and military users.
2.6.3 That States implement special arrangements as proposed in Appendices G to O in order to ensure that military services are notified of the ICAO provisions (such as the Chicago Convention, Article 3 bis, Assembly Resolution A 35-14, Annexes 2, 11 and 15, Doc 9433, Doc 9554, etc) related to civil/military coordination and promote familiarization visits by military personnel to civil air traffic services units and vice versa.

2.6.4 That States promote the intent of Article 3 bis of the Chicago Convention by recognizing and applying the following facts:

a) that every contracting State should refrain from resorting to the use of weapons against civil aircraft in flight and that, in the case of interception, the lives of persons on board and the safety of aircraft must not be endangered.

b) that every contracting State recognize that any other contracting State, in the exercise of its sovereignty, is entitled to require the landing at some designated airport of a civil aircraft flying above its territory without authority or if there are reasonable grounds to conclude that it is being used for any purpose inconsistent with the aims of this Convention, it may also give such aircraft any other instructions to put an end to such violations. For this purpose, the contracting States may resort to any appropriate means consistent with relevant rules of international law, including the relevant provisions of this Convention, specifically paragraph (a) of the Article. Each contracting State agrees to publish its regulations in force regarding the interception of civil aircraft.

c) that every civil aircraft shall comply with an order given in conformity with paragraph (b) of this Article. To this end each contracting State shall establish all necessary provisions in its national laws or regulations to make such compliance mandatory for any civil aircraft registered in that State or operated by an operator who has his principal place of business or permanent residence in that State. Each contracting State shall make any violation of such applicable laws or regulations punishable by severe penalties and shall submit the case to its competent authorities in accordance with its laws or regulations.

d) that contracting States refrain, to the extent possible, from establishing prohibited, restricted or danger areas, bearing in mind that, in accordance with Annex 15 of ICAO, prohibited areas or restricted areas may only be established over the territories of a State and not over international waters or high seas.
e) that the military authority should coordinate with Civil Aviation Authorities before establishing restricted, prohibited or danger areas.

2.7 Observations

2.7.1 The seminar recognized the need for regular SAR/Civil Military Coordination seminars/workshops.

2.7.2 The seminar was of the opinion that future SAR/Civil Military Coordination meeting should be given a longer period.
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<tr>
<td>1.</td>
<td>ALGERIA</td>
<td>Colonel FELLAGUE Menouar</td>
<td>Chef du service SAR</td>
<td>Algeria</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Tel: 21321495080 Fax: 21321495112</td>
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<td>E-mail: <a href="mailto:fellague@hotmail.com">fellague@hotmail.com</a></td>
</tr>
<tr>
<td>2.</td>
<td>ANGOLA</td>
<td>Mr. Jeronimo de Almeida Rodrigues</td>
<td>Air Traffic Controller</td>
<td>CCR – Aeroporto de Luanda</td>
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<td>Fax: 244-222351267</td>
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<td>3.</td>
<td>ANGOLA</td>
<td>Mr. Celso Ludgero Amaro Gaspar</td>
<td>Air Traffic Controller</td>
<td>Aeroporto Internacional de Luanda</td>
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<td>E-mail: <a href="mailto:celsoludgers@hotmail.com">celsoludgers@hotmail.com</a></td>
</tr>
<tr>
<td>4.</td>
<td>ANGOLA</td>
<td>Ms. Bernarda De Paiva Henrique</td>
<td>Chief – Division of ATS</td>
<td>Angola</td>
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<td>E-mail: <a href="mailto:dinahenrique@hotmail.com">dinahenrique@hotmail.com</a></td>
</tr>
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<td>5.</td>
<td>BURUNDI</td>
<td>Mr. NDIKURIYO Célestin</td>
<td>Contrôleur du Trafic Aérien</td>
<td>Régie des Services Aéronautiques</td>
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<td>E-mail: <a href="mailto:RSA@CBINF.com">RSA@CBINF.com</a></td>
</tr>
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<td>6.</td>
<td>CAMEROON</td>
<td>Mr. Manga Fouda Fidèle</td>
<td>Air Navigation SAR</td>
<td>Cameroon – CCAA</td>
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<td>E-mail: <a href="mailto:mangaff@yahoo.fr">mangaff@yahoo.fr</a></td>
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<td>7.</td>
<td>CAMEROON</td>
<td>Mr. Ngono Eloundou Leopoldine</td>
<td>Chef Service Sécurité du Traffic</td>
<td>CCAA Yaoundé – Cameroon</td>
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<td>Aérien</td>
<td>Tel: 237-230-3090 Fax: 237-230-3362</td>
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<td>8.</td>
<td>CÔTE D’IVOIRE</td>
<td>N’ZÉBO OI N’ZÉBO Sylvain</td>
<td>In Charge of Studies</td>
<td>CÔTE D’IVOIRE&lt;br&gt;Tele: 225-07-045642/255-21-7424&lt;br&gt;Fax: 255-21-276346&lt;br&gt;E-mail: <a href="mailto:snzebo@yahoo.fr">snzebo@yahoo.fr</a></td>
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<td>9.</td>
<td>CÔTE D’IVOIRE</td>
<td>Mr. Assi Ayebi Henri Jacques</td>
<td></td>
<td>Cote d'Ivoire – ANAC&lt;br&gt;Tele: 00-225-0524-9570&lt;br&gt;E-mail: <a href="mailto:assiayebi@yahoo.fr">assiayebi@yahoo.fr</a></td>
</tr>
<tr>
<td>10.</td>
<td>EGYPT</td>
<td>Mr. Mohamed Abu El Soud Hassan</td>
<td>Senior Air Traffic Controller&lt;br&gt;Civil/Military Coordination Manager (NANSC) NANSC</td>
<td>National Air Navigation Service Company&lt;br&gt;Tele: Hse: 202-2152570&lt;br&gt;Office: 202-267-8889 Mobile: 0106014423</td>
</tr>
<tr>
<td>12.</td>
<td>EGYPT</td>
<td>Mr. Michel Youssef Naim Finan</td>
<td>Senior Air Traffic Controller ATC Inspector - ECAA</td>
<td>Egypt Civil Aviation&lt;br&gt;Tele: 202-7925749</td>
</tr>
<tr>
<td>13.</td>
<td>GHANA</td>
<td>Mr. Martey Boye Atoklo</td>
<td>National Programme Manager (RVSM)</td>
<td>Ghana Civil Aviation PMB – KIA Accra - Ghana&lt;br&gt;Tele: 233-21-773283 Fax: 233-21-773293&lt;br&gt;E-mail: <a href="mailto:matoklo@hotmail.com">matoklo@hotmail.com</a></td>
</tr>
<tr>
<td>14.</td>
<td>GHANA</td>
<td>Mr. E. Oti-Boadi</td>
<td>Manager Search and Rescue</td>
<td>Ghana Civil Aviation PMB – KIA Accra - Ghana&lt;br&gt;Tele: 233-24-540656 Fax: 233-21-769401&lt;br&gt;E-mail: <a href="mailto:eotiboadi@yahoo.com">eotiboadi@yahoo.com</a></td>
</tr>
<tr>
<td>15.</td>
<td>GHANA</td>
<td>Mr. Evans Patrick K. Azumah</td>
<td>Military Representative</td>
<td>Ghana Armed Forces Command and Staff College – Otu Barracks Teshie – Accra - Ghana&lt;br&gt;Tele: 233-224-854604 Fax: 233-21773293&lt;br&gt;E-mail: <a href="mailto:evanskoma@yahoo.com">evanskoma@yahoo.com</a></td>
</tr>
<tr>
<td>16.</td>
<td>GUINEA</td>
<td>Mr. Diallo Mamadou Saliou II</td>
<td>Ag. SATCO/ANA</td>
<td>Guinea Agence Navigation Aérienne&lt;br&gt;Tele: 000 2446033916&lt;br&gt;E-mail: <a href="mailto:saliou2ana@yahoo.fr">saliou2ana@yahoo.fr</a></td>
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<td>17</td>
<td>Kenya</td>
<td>Mr. Levis Juma Malova</td>
<td>Marine SAR/GMDSS Officer</td>
<td>Kenya Airports Authority Tel: 0723-745487 Fax: 311867 E-mail: <a href="mailto:jefambc@yahoo.com">jefambc@yahoo.com</a></td>
</tr>
<tr>
<td>18</td>
<td>Kenya</td>
<td>Mr. James E. Seda</td>
<td>KCAA Wilson Airport Tel: (020) 606246 Fax: (020) 604692 E-mail: <a href="mailto:jseda@kcaa.or.ke">jseda@kcaa.or.ke</a> E-mail: <a href="mailto:seda55sed@yahoo.com">seda55sed@yahoo.com</a></td>
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<tr>
<td>19</td>
<td>Kenya</td>
<td>Mr. Jackson Ooko Kiriga</td>
<td>Chief ATCO</td>
<td>Kenya Civil Aviation Authority Tel: 254-20-827470 Fax: 254-20-822300 E-mail: <a href="mailto:info@kcaa.or.ke">info@kcaa.or.ke</a></td>
</tr>
<tr>
<td>20</td>
<td>Kenya</td>
<td>Ms. Keziah Ogutu</td>
<td>SATCO</td>
<td>Kenya Civil Aviation Authority Tel: 254-20-827100/0722386001 Fax: 254-20-827102 E-mail: <a href="mailto:kezogutu@yahoo.com">kezogutu@yahoo.com</a></td>
</tr>
<tr>
<td>21</td>
<td>Kenya</td>
<td>Mr. Joseph Kennedy Omenda</td>
<td>Chief Aeronautical Information Officer</td>
<td>Kenya Civil Aviation Authority Tel: 254-20-827100 Fax: 254-20-822300 E-mail: <a href="mailto:ais@kcaa.or.ke">ais@kcaa.or.ke</a></td>
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<tr>
<td>22</td>
<td>Kenya</td>
<td>Mr. David Ontwaka Ondieki</td>
<td>Aeronautical Information Officer</td>
<td>Kenya Civil Aviation Authority Tel: 254-20-827470/5 Fax: 254-20-822300 E-mail: <a href="mailto:ais@kcaa.or.ke">ais@kcaa.or.ke</a> E-mail: <a href="mailto:dondieki@kcaa.or.ke">dondieki@kcaa.or.ke</a></td>
</tr>
<tr>
<td>23</td>
<td>Kenya</td>
<td>Major Stanley Sofu Righa</td>
<td>Major – Kenya Air force</td>
<td>Kenya Air Force Tel: 0721263834 E-mail: <a href="mailto:sshigha@yahoo.co.uk">sshigha@yahoo.co.uk</a></td>
</tr>
<tr>
<td>24</td>
<td>Kenya</td>
<td>Mr. Ephantus M. Kamau</td>
<td>Senior Air Traffic Controller</td>
<td>Kenya Civil Aviation Authority Tel: 254-20-827100 Fax: 254-20-827102 E-mail: <a href="mailto:kmainnah@yahoo.com">kmainnah@yahoo.com</a></td>
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<td>KENYA</td>
<td>Mr. Patrick Mwangi Kinuthia</td>
<td>CATCO/RVSM NPM</td>
<td>Kenya Civil Aviation Authority</td>
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<td>E-mail: <a href="mailto:pkinuthia@kcaaa.or.ke">pkinuthia@kcaaa.or.ke</a></td>
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<td>KENYA</td>
<td>Captain Dave Ngui Muli</td>
<td>Senior Marine Pilot</td>
<td>Kenya Airports Authority</td>
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<td></td>
<td>Tel: 254-0723-636084 E-mail: <a href="mailto:nguimuli@hotmail.com">nguimuli@hotmail.com</a></td>
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<td>Major Alphone Otieno Ndar</td>
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<td>Tel: 0722-776393 E-mail: <a href="mailto:a_ndar@yahoo.com">a_ndar@yahoo.com</a></td>
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<td>KENYA</td>
<td>Capt. Joseph Opere</td>
<td>Manager Product Training</td>
<td>Kenya Airways</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Tel: 254-20-6422080 E-mail: <a href="mailto:joseph.opere@kenya-airways.com">joseph.opere@kenya-airways.com</a></td>
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<td>Mr. Ramesh J. Peshavaria</td>
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<td>Kenya Association of Air Operators</td>
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<td></td>
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<td>Tel: 0733-703060 E-mail: <a href="mailto:vjpeshavaria@yahoo.com">vjpeshavaria@yahoo.com</a></td>
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<td>KENYA</td>
<td>Mr. Nick Ngethe</td>
<td>SFOI, KCAA</td>
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<td></td>
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<td></td>
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<td>Tel: 827470/5 Fax: 822300 E-mail: <a href="mailto:ngethe@kcaaa.or.ke">ngethe@kcaaa.or.ke</a></td>
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<td>31</td>
<td>LIBYA</td>
<td>Mr. Gamal Gumma El Arebi</td>
<td>Chief of ATC</td>
<td>Air Navigation Administration</td>
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<td>Civil Aviation Department – Tripoli Libya</td>
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<td>Tel: 0218213605535 Fax: 0218213605535</td>
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<td>Mr. Elghadi Abdurazag</td>
<td>RVSM NPM Libya</td>
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<td>Mr. Marcus Kpudeh Enders</td>
<td>SATCO</td>
<td>Roberts International Airport</td>
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<td></td>
<td></td>
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<td>Tel: 231-6512014/2316825835 E-mail: <a href="mailto:towerroberts@yahoo.com">towerroberts@yahoo.com</a></td>
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<td>Miss. Edna A. Lloyd</td>
<td>Deputy General Manager</td>
<td>Liberia/Roberts International Airport Tel:2316517156/231-77059650 Fax:231-77013135 E-mail:<a href="mailto:diedarl@yahoo.com">diedarl@yahoo.com</a></td>
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<td>MADAGASCAR</td>
<td>M. ROBINSON Eugène A.</td>
<td>Chef du Service de la Navigation Aérienne et Procédures Espace Aérien au Sein de l'Aviation Civile de Madagascar</td>
<td>L’Aviation Civile de Madagascar Tel :261-2022-224-38 Fax :261-2022-24726 E-mail :<a href="mailto:acm@acm.mg">acm@acm.mg</a></td>
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<td>36</td>
<td>MADAGASCAR</td>
<td>M. JEAN-LOUIS Alain</td>
<td>Chargé de procedures Espace Aérien au sein de l'Aviation Civile de Madagascar</td>
<td>L’Aviation Civile de Madagascar Tel :261-2022-22162/261202222438 Fax :261-2022-24726 E-mail :<a href="mailto:acm@acm.mg">acm@acm.mg</a></td>
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<td>MALAWI</td>
<td>Mr. Damiano Dixie Paul Kwatani</td>
<td>Senior Air Traffic Control Officer</td>
<td>Department of Civil Aviation – Malawi Tel:265 (0) 1770577/265(0)8892494 Fax:265(0)1773279 E-mail:<a href="mailto:telsaviation@malawi.net">telsaviation@malawi.net</a> E-mail:<a href="mailto:casavia@malawi.net">casavia@malawi.net</a></td>
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<td>MOZAMBIQUE</td>
<td>Mr. Emanuel José Da Conceiçao Chaves</td>
<td>Director of Operation</td>
<td>Aeroportos de Moçambique E.P Tel :258-21466984 Fax :258-21465783 E-mail :<a href="mailto:admptec@tropical.co.mz">admptec@tropical.co.mz</a> E-mail :<a href="mailto:chaves101066@yahoo.com.br">chaves101066@yahoo.com.br</a></td>
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<td>Mr. Elias Elon Cossa</td>
<td></td>
<td>Aeroportos de Moçambique E.P Tel :258-824619080 Fax :258-21-465783 E-mail :<a href="mailto:admptec@tropical.co.mz">admptec@tropical.co.mz</a></td>
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<td>NIGERIA</td>
<td>Mr. Roy Ukpebo Ilegbodu</td>
<td>General Manager Standards</td>
<td>Nigeria Civil Aviation Authority Tel :234-18055093310 E-mail:<a href="mailto:ROYILEGBODU@GMAIL.COM">ROYILEGBODU@GMAIL.COM</a></td>
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<td>DGM ATS/OPS STDs</td>
<td>Nigeria Civil Aviation Authority Tel:08055093335 Fax:01-4931597 E-mail:<a href="mailto:jdnkem@yahoo.com">jdnkem@yahoo.com</a></td>
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<td>42</td>
<td>Nigeria</td>
<td>Mr. Alfred Odeworitse Edukugho</td>
<td>Air Navigation Safety Inspector</td>
<td>Nigeria NCAA Tel:0803-320-2046</td>
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<td>43</td>
<td>Nigeria</td>
<td>Mr. Hillary Kwanashie Okoro</td>
<td>Deputy General Manager</td>
<td>Nigeria NAMA Tel:234-8033002411/234-8055096135 E-mail :<a href="mailto:kwashy2002@yahoo.co.uk">kwashy2002@yahoo.co.uk</a></td>
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<td>44</td>
<td>Nigeria</td>
<td>Mr. Inyamkume Begha</td>
<td>Director, Aerodrome and Airspace</td>
<td>Nigeria NCAA Tel :234-1-4031597/234-8055093302 E-mail :<a href="mailto:inyambegha@msn.com">inyambegha@msn.com</a></td>
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<td>Nigeria</td>
<td>Mr. Onwudinj Wilfred Jerry</td>
<td>Air Traffic Operations Manager</td>
<td>Nigerian Airspace Management Agency Tel:234-80530998100 E-mail :<a href="mailto:jerryonwudinjo@yahoo.co.uk">jerryonwudinjo@yahoo.co.uk</a></td>
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<td>46</td>
<td>Roberts FIR</td>
<td>Mr. Alimamy Dixon Conteh</td>
<td>SATCO/RVSM Manager</td>
<td>Roberts FIR Tel:224-6340-4391 E-mail:<a href="mailto:alimamydixon@yahoo.co.uk">alimamydixon@yahoo.co.uk</a></td>
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<td>Senegal</td>
<td>Mr. M'BODJ Amadou Bassirou</td>
<td>Chef de departement Infrastructures Aéronautique</td>
<td>Agence Nationale de l'Aviation civile du Senegal Tel :221-869-5335/5540810 Fax :8200403 E-mail :<a href="mailto:OUAALOMBODJ@hotmail.com">OUAALOMBODJ@hotmail.com</a></td>
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<td>48</td>
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<td>Mr. Fall Papa Atoumane</td>
<td>Directeur Technique</td>
<td>ANACS Tel:221-869-5335 Fax:221-18200403 E-mail:<a href="mailto:atoumane.fall@anacs.sn">atoumane.fall@anacs.sn</a></td>
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| 49 | SIERRA LEONE     | Mr. John Suffian Sesay | SATCO                                         | Sierra Leone Airports Authority  
Tel:232-22-223881/338307/338418/338361  
Cell phone:232-76-636807/232-30-204949  
Fax:232-22-223188  
E-mail:jssesay01@yahoo.com |
| 50 | SOMALIA (CACAS)  | Mr. Ali Jama Abdi  | SATCO                                         | Somalia (CACAS)  
Tel:7622785/6/9  
E-mail:icaosom@africonaonline.co.ke |
| 51 | SOMALIA (CACAS)  | Mr. Abdi Aden Hussein | SATCO                                         | Somalia (CACAS)  
Tel:7622785/6/9  
E-mail:icaosom@africonaonline.co.ke |
| 52 | SOMALIA (CACAS)  | Mr. Peter Mboguia  | Chief, Aeronautical Information Services       | Somalia (CACAS)  
Tel:254-20-7622775/7622785  
Fax:254-20-7122340  
E-mail:icaosom@africonaonline.co.ke  
E-mail:icaosomnet@icao.or.ke |
| 53 | SOMALIA (CACAS)  | Mr. Abdillahi Ali Shire | Technical, Aeronautical Information Services Officer | Somalia (CACAS)  
Tel:254-20-7622775 Fax:254-20-7622775  
E-mail:icaosom@africonaonline.co.ke |
| 54 | SOMALIA (CACAS)  | Capt. Mohamed M. A. Weli | Personnel Licensing Officer                  | Somalia (CACAS)  
Tel:0733139440  
Email:icaosom@africonaonline.co.ke |
| 55 | SOMALIA (CACAS)  | Mr. Jama Abdillahi Ofleh | Flight Standards Officer                      | Somalia (CACAS)  
Tel:2544722737392  
E-mail:icaosom@africonaonline.co.ke  
E-mail:jama.ofleh@mail.com |
| 56 | SOUTH AFRICA     | Mr. Hennie Marais  | Senir Manager – Air Traffic Management        | Air Traffic & Navigation Services (ATNS)  
Tel:27825699862 Fax:27-961-0405  
E-mail:henniem@atns.co.za |
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<td>Mr. Petros Ngobe</td>
<td>Senior ATC Defence</td>
<td>Department of Civil Aviation c/o Defence Airwing Ministry of Works and Transport Tel:268-5186263/4 Cell:6124474 Fax:2685184395 E-mail: <a href="mailto:matsaphaairport@realnet.co.sz">matsaphaairport@realnet.co.sz</a></td>
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<td>Air Traffic Controller</td>
<td>Department of Civil Aviation Ministry of Works and Transport Tel:092685186263/4 5186803 Fax:092685184084 E-mail: <a href="mailto:matsaphaairport@realnet.co.sz">matsaphaairport@realnet.co.sz</a></td>
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<td>Mr. Simo E. Shongwe</td>
<td>Air Traffic Controller</td>
<td>Swaziland Civil Aviation Tel:268-5184344 Fax:268-5184084 E-mail:<a href="mailto:simoshoe@yahoo.com">simoshoe@yahoo.com</a></td>
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<td>Mr. Samir Hamad</td>
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<td>Mr. Chrispo Metili</td>
<td>Flight Operations Officer</td>
<td>Tanzanian Government Flight Agency Fax:255-22-284477 E-mail:<a href="mailto:chmetili@yahoo.co.uk">chmetili@yahoo.co.uk</a></td>
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<td>Mr. Dixon M. Bundala</td>
<td>Acting Manager Operations</td>
<td>Air Tanzania Co. Ltd. Tel:255-22-784737231 Fax:255-222844157 E-mail:<a href="mailto:dixonbundala@airtanzania.com">dixonbundala@airtanzania.com</a></td>
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<td>Mr. Saidi Abdullah Onga</td>
<td>Principal ATCO -- Operations</td>
<td>Tanzania Civil Aviation Authority Tel:255-22-2115079 Fax:255-22-2118905 E-mail:<a href="mailto:songa@teca.go.tz">songa@teca.go.tz</a>/sa_onga@yahoo.com</td>
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Tel:255-754314166 Fax:006222110260  
E-mail:mbuluko@yahoo.com |
| 66  | TANZANIA    | Colonel R. M. Muhuga      | Colonel                                  | Tanzania Peoples Defence Forces  
Tel:255-754284974 Fax:255-222410328  
E-mail:muhuga@hotmail.com |
| 67  | TANZANIA    | Colonel Kachenje S. Kachenje | Colonel                                | Tanzania Armed Forces  
Tel:255-754554113 |
| 68  | TANZANIA    | Lt. Colonel A. M. Sehaiya | Lt. Colonel                              | TPDF Air Defence - Tanzania  
Tel:255-754310651  
E-mail:sehaiya@yahoo.com |
| 69  | UGANDA      | Lt. Julius Katanaka       | Liaison Officer                          | Uganda Civil Aviation Authority  
Tel:256-782-646169 Fax:256-41-32066420  
E-mail:juliuskatanaka@yahoo.com |
| 70  | UGANDA      | Mr. Rwakitere             | Commander Airbase                        | Uganda  
Tel:041-320266/0712359993  
E-mail:rwakitere@yahoo.com |
| 71  | UGANDA      | Mr. Ochan Alex Albinus    | Manager Air Traffic Management           | Uganda Civil Aviation Authority  
Tel:256-41-320368 Cell:256-752660935 Fax:256-41-320964  
E-mail:aochan@caa.co.ug |
| 72  | UGANDA      | Mr. Sezibwa Moses J. K.   | Senior Air Traffic Controller            | Uganda Civil Aviation Authority  
Tel:256-712-320907 Fax:256-41-320964  
E-mail:mszeibwa@caa.co.ug |
| 73  | UGANDA      | Mr. David Amoni Clay      | Officer in-Charge ANS                    | Uganda Civil Aviation Authority  
Tel:256-751613119 Fax:256-41-32-964  
E-mail:damoni@caa.co.ug |
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<td>Mr. Ben Kwoba</td>
<td>Principal Airworthiness Surveyor</td>
<td>Uganda Civil Aviation Authority&lt;br&gt; Tel:41353000 Fax:320964&lt;br&gt; E-mail:<a href="mailto:benkwoba@yahoo.com">benkwoba@yahoo.com</a></td>
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<td>ZAMBIA</td>
<td>Mr. Tembo Bernard</td>
<td>Quality Control Officer – ATS</td>
<td>National Airports Corporation Ltd.&lt;br&gt; Tel:260-271091/260-097453868</td>
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<td>Lt. Colonel Sam Simwada</td>
<td>Liaison Officer</td>
<td>ATLU&lt;br&gt; Tel:260-97789298 Fax:260-1-271181&lt;br&gt; E-mail:<a href="mailto:samsiwanda@yahoo.com">samsiwanda@yahoo.com</a></td>
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<td>ZAMBIA</td>
<td>Ms. Mary Harah</td>
<td>MATS</td>
<td>National Airports Corporation&lt;br&gt; Tel:260-1-271018 Fax:260-1-271018&lt;br&gt; E-mail:<a href="mailto:maryharah2005@yahoo.com">maryharah2005@yahoo.com</a></td>
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<td>Colonel Patrick Sinjwala</td>
<td>Director ATS</td>
<td>Zambia Air Force&lt;br&gt; Department of Civil Aviation Zambia&lt;br&gt; Tel:260-1-253250 Fax:260-1-254480</td>
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<td>CATCO</td>
<td>Tel:260-1-253250 Fax:260-1-254480&lt;br&gt; E-mail:<a href="mailto:amatambwe@exitel.com">amatambwe@exitel.com</a></td>
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<td>ZAMBIA</td>
<td>Mr. Alex Mutaka Sinyangwe</td>
<td>SATCO/RVSM National Program Manager</td>
<td>Department of Civil Aviation - HQ&lt;br&gt; Tel:260-1-253250/421424 Fax:260-1-251841&lt;br&gt; Cell:260-97421424&lt;br&gt; E-mail:<a href="mailto:aviation@coppernet.zm">aviation@coppernet.zm</a>&lt;br&gt; E-mail:<a href="mailto:asinyangwe@yahoo.com">asinyangwe@yahoo.com</a></td>
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<td>ZAMBIA</td>
<td>Mr. Stanley Sitali</td>
<td>Avionics Manager</td>
<td>National Airports Corporation Ltd.&lt;br&gt; Tel:260-1-271195&lt;br&gt; E-mail:<a href="mailto:Stanley.sitali@uniaero.com">Stanley.sitali@uniaero.com</a></td>
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<td>ZIMBABWE</td>
<td>Mr. Richard Munyenyiwa</td>
<td>RVSM National Program Manager</td>
<td>Civil Aviation of Zimbabwe&lt;br&gt; Tel:263-4-575187/3 Fax:263-4-575163/585100&lt;br&gt; E-mail:<a href="mailto:rmunyenyiwa@yahoo.co.uk">rmunyenyiwa@yahoo.co.uk</a></td>
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<td>Mr. Martin Sacramento</td>
<td>Chef de Service</td>
<td>ASECNA Tel:221-869-5746 E-mail: <a href="mailto:SACRAMENTOMar@asecna.org">SACRAMENTOMar@asecna.org</a></td>
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<td>Mr. Bakienon Louis</td>
<td>Chef Bureau Circulation</td>
<td>ASECNA Tel:221-869-5209 Fax:221-820-7495 E-mail: <a href="mailto:bakienonlou@asecna.org">bakienonlou@asecna.org</a></td>
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<td>IATA</td>
<td>Mr. Judimar das Chagas</td>
<td>Route Improvement Specialist, Safety, Operations &amp; Infrastructure, Africa</td>
<td>IATA Tel:27-11523-2722 Fax:27-11-5232707 Cell:27-83-679-9668 E-mail: <a href="mailto:chagasj@iata.org">chagasj@iata.org</a></td>
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<tr>
<td>86</td>
<td>IFALPA</td>
<td>Captain Souhaiel Dallel</td>
<td>Captain</td>
<td>IFALPA Tel:216-98320771 216-71861334 E-mail: <a href="mailto:souhaiel.dallel@topnet.tn">souhaiel.dallel@topnet.tn</a></td>
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<tr>
<td>87</td>
<td>IFATCA</td>
<td>Mr. James Erastus Seda</td>
<td>Chief ATS OPS/Training Wilson Airport</td>
<td>Wilson Airport Tel:254-020-606246 Fax:0254-20-604692 E-mail: <a href="mailto:jesda@kcaa.or.ke">jesda@kcaa.or.ke</a></td>
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<td>Regional Officer/Air Traffic Management</td>
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SAMPLE – SAR AGREEMENT BETWEEN

.......... RCC and ..........RCC (or BETWEEN PARTY A and PARTY B)

1. PREAMBLE

The authorized representatives of ......................... and ..................... agree that the procedures contained in this document shall remain in force from the effective date specified until either amended or cancelled.

This Agreement supersedes and cancels the existing Agreement between ........ and ...... dated ...............

2. EFFECTIVE DATE

The provisions in this Agreement shall be implemented on ............. at 0001 UTC.

3. OBJECTIVE

The objective of this Agreement is to specify co-ordination procedures between ............. and .............

4. SCOPE

a) Knowing the importance of co-operation in search and rescue (SAR), and of the provision of expeditious and effective SAR services;

b) Desiring to support the provisions of the International Convention on Maritime Search and Rescue of the International Maritime Organization (IMO) and/or the Convention on International Civil Aviation of the International Civil Aviation Organization (ICAO); and

c) Seeking to provide an overall plan for SAR co-ordination, use of available resources, mutual assistance, and efforts to improve SAR services;

d) The Parties have agreed as follows in paras. 5, 6, 7, 8 and 9:
5. **EXTENT OF ASSISTANCE**

5.1 The Parties agree to co-operate in the following areas:

a) Support each other by pooling SAR facilities as appropriate for operations within their respective search and rescue regions (SSRs);

b) Make, and respond to, requests for operational assistance between the designated rescue co-ordination centres (RCCs) or rescue sub-centres (RSCs) of the Parties as capabilities allow;

c) Develop procedures and communications appropriate for co-ordination among facilities of both Parties responding to the same distress incident, and for co-ordination between the RCCs or RSCs of the parties;

d) Normally apply the guidance of the International Aeronautical and Maritime SAR Manuals regarding SAR operational procedures and communications;

e) Work to establish agreed procedures, which balance concerns for sovereignty and for saving lives, regarding entry of various types of SAR facilities into the territory of the other Party, solely for a search or a rescue operation; and

f) Enter into other collaborative SAR efforts which may include:

I. mutual visits by SAR personnel of the Parties;

II. joint training or exercises;

III. co-operation in development of SAR procedures, techniques, equipment, or facilities;

IV. exchange of pertinent SAR or communications, information; and

V. establishment of one or more SAR committees to provide a means for ongoing co-operation in improving SAR effectiveness.

6. **SEARCH AND RESCUE REGIONS**

6.1 Establishment of SRRs is intended only to effect an understanding concerning where each Party accepts primary responsibility for co-ordinating or providing SAR services. SRRs of the Parties shall be separated by lines connecting points as follows; [appropriate co-ordinate points describing applicable lines]
7. TERMS OF AGREEMENT

Each Party will:

a) keep information readily available on availability of any SAR facilities or other resources which may be need for implementing this Agreement.

b) keep each other fully and promptly informed of all SAR operations of mutual interest, or which may involve use of facilities of the other Party;

c) authorize its RCC(s) to request assistance via the RCC(s) of the other party, and to provide all pertinent information on the distress situation and the scope of assistance needed;

d) authorize its RCC(s) to promptly respond to a request for assistance from an RCC of the other Party.

e) authorize its RCC(s) to promptly arrange, or arrange in advance, with other national authorities for territorial entry of SAR facilities of the other Party (including overflight or landing of SAR aircraft, and similar accommodation of surface (land or water) SAR units) as circumstances dictate for fuelling, medical, or other appropriate and available operational support, or in response to a request to the RCC of the other Party for assistance of those facilities which would involve territorial entry;

f) normally fund its own activities in relation to this Agreement unless otherwise arranged by the Parties in advance, and, in any event, will not allow a matter of reimbursement of cost to delay response to persons in distress.

8 AMENDMENTS

8.1 Any change to this Agreement, including its cancellation or replacement, requires the consent of the Parties concerned. This applies to the substance of the change as well as to its date of applicability. Any change shall be made either in the context of a meeting between the two Parties, or by exchange of correspondence with acknowledgement by all signatories.

8.2 Whilst temporary deviations from these procedures may be agreed between the RCC supervisors concerned, as specified in paragraph 9 below, permanent amendments to this document shall be effective only in the form of a written amendment duly signed by authorized representatives.
9. DEVIATIONS

9.1 Deviation from the procedures specified in this Agreement shall only be permitted in exceptional circumstances and not without prior co-ordination on a case-by-case basis.

9.2 Any deviations from these provisions, that arise due to an emergency or are applied to ensure the safety of life, shall immediately be notified to the other Party concerned and shall be terminated as soon as the circumstances that caused the deviation cease to exist.

Authorized Signatories

Signed at ___________________________ on ____________

For: (PARTY A): For: (PARTY B):

———
SAR Agreements

Notes regarding SAR agreements, and the sample agreement that begins on the following page:

Parties may be organizations within a State, maritime and/or aeronautical SAR authorities of two or more different States (particularly with neighbouring search and rescue regions), or higher authorities of two or more States, i.e., the sample agreement can be adapted for local, national, or international use.

Each section of the sample agreement may be optionally used or adapted as the Parties agree, bearing in mind consistency with the principles of international law, and the goals of IMO, ICAO and the States and organizations concerned.

It is generally advisable to include specific information, such as phone numbers or addresses, in appendices or other documents separate from the basic signed agreement.

When SRRs are addressed in the agreements, normally only the lines separating the SRRs of the Parties are described, since other delimitation of the SRRs would normally involve States other than the Parties. Agreements between national organizations may not need to address geographic areas of responsibility. It should be recognized among the Parties that the establishment of SRRs is mainly for ensuring the availability of SAR services, and to facilitate proper distribution of distress alerts to RCCs; SRRs should not be viewed as affecting political boundaries, and do not need to align with political boundaries if the Parties so agree for the sake of improving or simplifying SAR operations. SRR delimitation over international waters is not intended to obstruct the provision of SAR services in any way. Furthermore, the provision of SAR services within an SRR shall be without regard to the nationality or circumstances of the persons in distress.

If agreements discuss territorial entry for SAR, provisions should account for a balance of concerns for sovereignty and concerns for saving lives.

The concept of "territory" is understood to include territorial land, airspace and seas.

It is advisable that SAR agreements address sensitive issues to the degree necessary for practical SAR co-operation between or among the Parties, while emphasizing the humanitarian nature of SAR, and avoiding topics which are unrelated to SAR, or which are both politically sensitive and unnecessary.

Agreement on [Aeronautical and/or Maritime] Search and Rescue between [name the Parties]

1. INTRODUCTION

Knowing the importance of co-operation in search and rescue (SAR), and of the provision of expeditious and effective SAR services;

Desiring to support the provisions of the [International Convention on Maritime Search and Rescue of the International Maritime Organization (IMO) and/or the Convention on International Civil Aviation of the International Civil Aviation Organization (ICAO)]; and
Seeking to provide an overall plan for SAR co-ordination, use of available resources, mutual assistance, and efforts to improve SAR services;

The Parties have agreed as follows:

2. **EXTENT OF ASSISTANCE**

The Parties agree to co-operate in the following areas:

(a) Support each other by pooling SAR facilities as appropriate for operations within their respective search and rescue regions (SRRs);

(b) Make, and respond to, requests for operational assistance between the redesignated rescue coordination centres (RCCs) or rescue sub-centres (RSCs) of the Parties as capabilities allow;

(c) Develop procedures and communications appropriate for co-ordination among facilities of both Parties responding to the same distress incident, and for co-ordination between the RCCs or RSCs of the Parties;

(d) Normally apply the guidance of the International Aeronautical and Maritime SAR Manuals regarding SAR operational procedures and communications;

(e) Work to establish agreed procedures, which balance concerns for sovereignty and for saving lives, regarding entry of various types of SAR facilities into the territory of the other Party, solely for a search or a rescue operation; and

(f) Enter into other collaborative SAR efforts which may include:
   - mutual visits by SAR personnel of the Parties;
   - joint training or exercises;

   - co-operation in development of SAR procedures, techniques, equipment, or facilities; exchange of pertinent SAR or communications information; and

   - establishment of one or more SAR committees to provide a means for ongoing co-operation in improving SAR effectiveness.

3. **SEARCH AND RESCUE REGIONS**

Establishment of SRRs is intended only to effect an understanding concerning where each Party accepts primary responsibility for co-ordinating or providing SAR services. SRRs of the Parties shall be separated by lines connecting points as follows: [appropriate co-ordinate points describing applicable lines]
4. TERMS OF AGREEMENT

Each Party will:

(a) Keep information readily available on availability of any SAR facilities or other resources which may be needed for implementing this Agreement.
(b) Keep each other fully and promptly informed of all SAR operations of mutual interest, or which may involve use of facilities of the other Party;
(c) Authorize its RCC(s) to request assistance via the RCC(s) of the other Party, and to provide all pertinent information on the distress situation and the scope of assistance needed;
(d) Authorize its RCC(s) to promptly respond to a request for assistance from an RCC of the other Party;
(e) Authorize its RCC(s) to promptly arrange, or arrange in advance, with other national authorities for territorial entry of SAR facilities of the other Party (including over flight or landing of SAR aircraft, and similar accommodation of surface (land or water) SAR units) as circumstances dictate for fuelling, medical, or other appropriate and available operational support, or in response to a request to the RCC of the other Party for assistance of those facilities which would involve territorial entry;
(f) Normally fund its own activities in relation to this Agreement unless otherwise arranged by the Parties in advance, and, in any event, will not allow a matter of reimbursement of cost to delay response to persons in distress.

5. GENERAL PROVISIONS

This Agreement:
shall enter into force . . . [provisions as appropriate].
may be amended. . . [provisions as appropriate]; and
may be terminated or superseded. . . [provisions as appropriate];
SPECIMEN AGREEMENT FOR
FACILITATION OF ENTRY OF SAR FACILITIES

The following is an exchange of Notes between States (i.e. State A and State B) that have signed a cooperation agreement in respect of search and rescue operations.

Dear Sir/Madam,

1. I have the honour to refer to the discussions that have taken place with regard to the necessity of ensuring adequate co-operation between our two Governments in search and rescue operations along our common territorial boundary.

2. As a result of the conclusions reached in the course of these discussions, my Government wishes to propose:

(1) That, in future, public aircraft of State A or State B which are engaged in air search and rescue operations, be permitted to enter or leave either country without being subject to the immigration or customs formalities normally required by the Government of either country, provided that the Rescue Co-ordination Centre (RCCs) involved in the search and rescue operation either directly or through some person delegated by it, assumes the responsibility of informing by telephone, fax or e-mail:

(a) the immigration office at the port of entry nearest to the territory over which any search or rescue operation is to be instituted, of the intended operation, furnishing it with details concerning the purpose of the flight, the identification marks of each aircraft and the number of persons comprising the crew of each aircraft;

(b) the customs office nearest to the territory over which any search or rescue is to be instituted, of the intended operation, giving details concerning the territory to be searched, the possible duration of the stay of the aircraft, the identification marks of each aircraft and the number of persons comprising the crew of each aircraft;

(2) That, should a landing be made by public aircraft of one country in the territory of the other in the course of such search and rescue operation, an oral or telephonic report shall be made to the nearest collector of Customs so that he/she may assist, in any way possible, in connection with any special importation required in the search and rescue operation. This report may be made by the RCC organizing the operation, or by the pilots concerned, whichever would best serve the interests of the particular operation.
(3) That, should any merchandise carried in the aircraft in question, from one country to the other in the course of such search or rescue operation, remain in the latter country on conclusion of the operation, such merchandise will be subject to the customs treatment normally accorded in that country to imported merchandise.

(4) The term "Public Aircraft" as used in this Note, refers to aircraft of the Governments of State A and State B and such other aircraft of State A and State B registry as may be brought under the control of a Rescue Co-ordination Centre in either country for the purposes of a search and rescue operations.

(5) If your Government concurs in the foregoing proposals, it is the desire of my Government that this Note, together with your reply agreeing thereto, constitute an agreement between our two Governments that is to be effective from the date of your reply and to remain in force until ....... days after either party to the agreement has signified to the other a desire to terminate it.

Accept, Sir/Madam, the renewed assurances of my highest consideration.

(signed).....................
RESPONSE

The following sample is sent by State A in response from State B confirming that the provisions in their passed agreement are still valid. The Note from State B would then be as follows:

Dear Sir/Madam,

1. I have the honour to acknowledge the receipt of your Note No. ..........dated ..........2002, referring to the discussions that have taken place with regard to the necessity of ensuring adequate co-operation between our two Governments in search and rescue operations along our common boundary, and to this end proposing:

2. (Repeat of text of para. 2 of Note from State A)

3. (Repeat of text of para. 3 of Note from State A)

4. In reply, I have the honour to inform your Government that my Government concurs in the foregoing proposals and agrees that your Note and this reply shall be regarded as constituting an agreement between our two Governments that is to be effective from this date and shall remain in force until ......days after either party to the agreement has signified to the other a desire to terminate it.

Accept, Sir/Madam, the renewed assurances of my highest consideration.

(signed)..........................

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6
SAMPLE LEGISLATION ESTABLISHING
A SAR ORGANIZATION

Note: The sample legislation can be adapted for the use by aeronautical, maritime, or authorities of both.

[Type of Legislation] of the [Legislative Body]

concerning

the establishment of a Search and Rescue Organization

[Date]

Article 1

A Search and Rescue Organization shall be established for the provision of search and rescue services to
[State’s aeronautical or maritime] craft, and foreign craft.
The Search and Rescue Organization shall, as far as its primary function permits, assist in other emergencies.

Article 2

The [Departments in charge of Civil Aviation and/or Merchant Marine] shall be responsible for the organization and operation of the Search and Rescue Organization.

Article 3

During search and rescue operations, the [Departments in charge of Civil Aviation and/or Merchant Marine] shall be entitled to call for the collaboration and support of other Government services.

The [Departments in charge of Civil Aviation and/or Merchant Marine] shall be authorized to conclude agreements concerning the provision of assistance with local (State, provincial, municipal) authorities and suitable private agencies or persons.

1*Depending on the administrative practices, agreements of this type may have to be endorsed at higher levels.
SAR Civil/Military Coordination Seminar Summary
Appendix D

Article 4

The [Departments in charge of Civil Aviation and/or Merchant] shall be responsible for negotiating the terms of international agreements with the Search and rescue organization of other States*. All Government services concerned shall take measures to facilitate, as far as possible, the immediate and temporary entry of personnel, and their equipment, from other States who, in agreement with the [Departments in charge of civil Aviation and/or Merchant Marine] are participating in search and rescue operations. All Government services concerned shall seek to implement, as appropriate, the search and rescue recommendations and standards of [the international Civil Aviation Organization and/or the International Maritime Organization].

Article 5

Questions of assignment of costs, connected with the conduct of a search and rescue operation, shall not be allowed to interfere with its prompt and effective execution by the [Departments in charge of Civil Aviation and/or Merchant Marine].

Article 6

This [type of legislation] shall be effective as of [date]

[place] [date]

For the [legislative body]

[signature]
MEMORANDUM OF UNDERSTANDING BETWEEN
THE SECRETARIATS OF ICAO AND IMO CONCERNING
CO-OPERATION IN RESPECT OF SAFETY OF AIRCRAFT
OPERATIONS TO AND FROM SHIPS AND OTHER MARINE VEHICLES
AND OF AERONAUTICAL AND MARITIME
SEARCH AND RESCUE (SAR) ACTIVITIES

The undersigned, with a view to ensuring the best possible co-ordination of activities of the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) in matters concerned with the safety of aircraft operations to and from ships and other marine vehicles and with aeronautical and maritime search and rescue operations, agree as follows:

1. Arrangements will be made for consultations between the Secretariats of the two Organizations in regard to these matters, with a view to ensuring consistency or compatibility between services and procedures in all cases where joint efforts or close co-operation may be required and in order to avoid any unnecessary duplication of efforts by them.

2. In determining the allocation of responsibilities of the two Organizations to ensure safety of aircraft operations to and from ships and other marine vehicles, the following principles shall be applied:

   (a) All matters which are directly connected with the design, construction, equipment and operation of aircraft in general, and of helicopters in particular, should be regarded as falling primarily within the field of responsibility of ICAO.

   (b) All matters which are directly connected with the design, construction and equipment of ships and other marine vehicles and their operation should be regarded as falling primarily within the field of responsibility of IMO.

   (c) Matters which do not fall clearly within sub-paragraphs (a) or (b) above should be regarded as falling primarily within the field of responsibility of IMO.

3. In determining the allocation of responsibilities of the two Organizations in respect of search and rescue in maritime areas, the following principles shall be applied:
(a) All matters which are directly connected with search and rescue by aircraft in general, and with air search and rescue facilities and operating procedures in particular, should be regarded as falling primarily within the field of responsibility of ICAO.

(b) All matters which are directly connected with search and rescue by marine craft in general, and with marine search and rescue facilities and operating procedures in particular, should be regarded as falling primarily within the field of responsibility of IMO.

(c) Matters which do not fall clearly within sub-paragraphs (a) or (b) above should be regarded as the responsibility of both Organizations and dealt with by appropriate collaboration between them.

4. Any draft amendment to Annex 12 “Search and Rescue” to the Convention on International Civil Aviation being considered by ICAO or any amendment to the Technical Annex to the International Convention on Maritime Search and Rescue, 1979, being considered by IMO and related to matters covered by this Memorandum of Understanding should be communicated by the Organizations proposing the amendment to the other Organization. Similarly, draft amendments to the ICAO SAR Manual or to the IMO SAR Manual which are related to matters covered by this Memorandum of Understanding will be communicated in due time to the other Organization with a view to keeping both manuals aligned as closely as possible.

5. The consultations referred to in paragraph 1 above should also take place in respect of matters falling, in accordance with paragraphs 2 and 3 above, primarily within the responsibility of one or the other Organization, so that each Organization may, when it deems it necessary, safeguard its responsibilities and interests in these matters and thereby ensure effective co-operative action whether carried out by one or the other or both Organizations.

6. In practice, the two Secretariats should take all available steps to ensure that the consultations referred to in paragraph 1 are undertaken before either Organization proceeds to take definitive action on matters subject to this Memorandum of Understanding.

7. The two Secretariats shall make available to each other relevant information and documentation prepared for meetings at which matters covered by this Memorandum of Understanding are to be considered.
8. Appropriate steps shall be taken to ensure that relevant advice from other Organizations and bodies are made available in matters covered by this Memorandum of Understanding, in accordance with the regulations and procedures of the respective signatory Organization.

9. Either Secretariat may propose revision of the present Memorandum of Understanding which will be effected by agreement between the two Organizations.

10. Either Secretariat may terminate the present Memorandum of Understanding by giving six months prior written notice to the other.

IN WITNESS THEREOF, the undersigned have affixed their signatures to this Memorandum of Understanding which shall enter into force when signed on behalf of both Organizations.

(signed by the President of the ICAO Council on 15 February 1985 and by the Secretary-General of IMO on 12 March 1985).
ICAO POLICY ON FUTURE AVIATION DISTRESS BEACONS

1. The long-term objectives of ICAO in respect of distress beacons are as follows:

   a) All aviation distress beacons should be designed to co-operate with the COSPAS-SARSAT system in alerting and locating distress sites, preferably including identification of the beacon.

   b) In order to obtain optimum benefit from the COSPAS-SARSAT system, 406 MHz should become the primary frequency for alerting, identification and location of aviation distress sites.

   c) The 121.5 MHz frequency will continue to be in use up to 2009, for the foreseeable future to fulfill a role in distress beacons for overflight monitoring and homing, and should continue to be available for voice communications.

2. In order to accomplish the foregoing long-term objectives, the following measures should be taken:

   a) Specifications for aviation distress beacons should be developed for inclusion in Annex 10, which will provide a choice between:

      1) distress beacons operating simultaneously on 406 MHz (121.5 MHz being provided for overflight monitoring and homing purposes at a lower power level in the same beacons, or by a separate beacon); and

      2) improved distress beacons operating on 121.5/243 MHz.

   b) The use of first-generation distress beacons (operating on 121.5/245 MHz) should gradually be phased out through States' requirements for the use of distress beacons which meet the Annex 10 specifications in all new installations of distress beacons.

   c) The use of evasion distress beacons operating on 406 MHz (and simultaneously on 121.5 MHz) should be encouraged.

   d) Although at present no termination date is envisaged for distress beacons operating on 121.5/243 MHz, in the light of experience it may become desirable to require the use of distress beacons operating simultaneously on 406/121.5 MHz or on 406 MHz alone. Such a requirement is not expected until after the year 2004.(Annex 6, Part 1, para. 6.17 refers).
EXTRACTS FROM

CONVENTION ON INTERNATIONAL CIVIL AVIATION THE "CHICAGO CONVENTION"
CONVENTION

ON INTERNATIONAL CIVIL AVIATION

Signed at Chicago, on
7 December 1944

PREAMBLE

WHEREAS the future development of international civil aviation can greatly help to create and preserve friendship and understanding among the nations and peoples of the world, yet its abuse can become a threat to the general security; and

WHEREAS it is desirable to avoid friction and to promote that cooperation between nations and peoples upon which the peace of the world depends;

THEREFORE, the undersigned governments having agreed on certain principles and arrangements in order that international civil aviation may be developed in a safe and orderly manner and that international air transport services may be established on the basis of equality of opportunity and operated soundly and economically;

Have accordingly concluded this Convention to that end.

Came into force on 4 April 1947, the thirtieth day after deposit with the Government of the United States of America of the twenty-sixth instrument of ratification thereof or notification of adherence thereto, in accordance with Article 91 (b);

CONVENTION

RELATIVE A LA AVIATION CIVILE INTERNATIONALE

Signée à Chicago,
le 7 décembre 1944

PREAMBULE

CONSIDERANT qu'il est indispensable de développer et de maintenir une meilleure coordination entre les nations et les peuples de la terre pour le bénéfice du monde,

CONSIDÉRANT qu'il est impératif d'éviter toute tension entre les nations et les peuples et de promouvoir entre eux la coopération dont dépend la paix du monde,

EN CONSÉQUENCE, les Gouvernements soussignés étant convenus de certains principes et arrangements, afin que l'aviation civile internationale puisse se développer d'une manière sûre et ordonnée et que les services internationaux d'aviation soit puissent être établis sur la base de l'égalité des chances et exploitées d'une manière saine et économique,

Ont conclu la présente Convention à ces fins.

Entrée en vigueur le 4 avril 1947, trois mois jour- pour-jour après le dépôt au secrétariat des États-Unis d'Amérique du vingt-sixième instrument de ratification au sens de l'article 91, paragraphe 1.

CONVENIO

SOBRE LA AVIACION CIVIL INTERNACIONAL

Firmado en Chicago, el
7 de diciembre de 1944

PREAMBULO

CONSIDERANDO que el desarrollo futuro de la aviación civil internacional puede contribuir poderosamente a crear y a preservar la amistad y entendimiento entre las naciones y los pueblos del mundo, mientras que el abuso de la misma puede llegar a constituir una amenaza a la seguridad general;

CONSIDERANDO que es deseable evitar toda disensión entre las naciones y los pueblos y promover entre ellos la cooperación de que depende la paz del mundo;

POR CONSIGUIENTE, los Gobiernos que suscriben, habiendo convenido en ciertos principios y arreglos, a fin de que la aviación civil internacional pueda desarrollarse de manera sana y ordenada y que los servicios internacionales de transporte aéreo puedan establecerse sobre una base de igualdad de oportunidades y realizarse de modo sano y económico;

Han concluido a estos fines el presente Convenio.

Entró en vigor el 4 de abril de 1947, al vigésimo día del depósito del vigésimo sexto instrumento de ratificación o notificación de adherencia al artículo 91 (b).
PART I
AIR NAVIGATION

CHAPTER I GENERAL PRINCIPLES AND APPLICATION OF THE CONVENTION

Article 1

Sovereignty

The contracting States recognize that every State has complete and exclusive sovereignty over the airspace above its territory.

Article 2

Territory

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

Article 3

Civil and state aircraft

(a) This Convention shall be applicable only to civil aircraft, and shall not be applicable to state aircraft.
(b) Aircraft used in military, customs and police services shall be deemed to be state aircraft.
(c) No state aircraft of a contracting State shall fly over the territory of another State or land thereon without authorization by special agreement or otherwise, and in accordance with the terms thereof.

(d) The contracting States undertake, when issuing regulations for their state aircraft, that they will have due regard for the safety of navigation of civil aircraft.

Article 4

Usage of civil aviation

Each contracting State agrees not to use civil aviation for any purpose inconsistent with the aims of this Convention.

CHAPTER II
FLIGHT OVER TERRITORY OF CONTRACTING STATES

Article 5

Right of non-scheduled flight

Each contracting State agrees that all aircraft of the other contracting States,
EXTRACT FROM ASSEMBLY RESOLUTION A35-14 APPENDIX P

11-12 Resolutions of the Assembly

2. States shall ensure the closest practicable cooperation between maritime and aeronautical search and rescue services where they serve the same area and, where practical, establish joint rescue coordination centres to coordinate aeronautical and maritime search and rescue operations;

3. if any search and rescue regions need to extend over the territories of two or more States, or parts thereof, agreement thereon should be negotiated between the States concerned;

4. the providing State in implementing search and rescue services over the territory of the delegating State shall do so in accordance with the requirements of the delegating State, which shall establish and maintain in operation such facilities and services for the use of the providing State as are mutually agreed to be necessary;

5. any delegation of responsibility by one State to another or any assignment of responsibility over the high seas shall be limited to technical and operational functions pertaining to the provision of search and rescue services in the area concerned;

6. remedies to any inadequacies in the provision of efficient search and rescue services, including over the high seas, should be sought through negotiations with States which may be able to give operational or financial assistance in search and rescue operations, with a view to concluding agreements to that effect; and

and, furthermore, declares that:

7. any Contracting State which delegates to another State the responsibility for providing search and rescue services within its territory does so without derogation of its sovereignty; and

8. the approval by Council of regional air navigation agreements relating to the provision by a State of search and rescue services within areas over the high seas does not imply recognition of sovereignty of that State over the area concerned.

Associated practices

1. Contracting States should, in cooperation with other States and the Organization, seek the most efficient delineation of search and rescue regions and consider, as necessary, pooling available resources or establishing jointly a single search and rescue organization to be responsible for the provision of search and rescue services within areas extending over the territories of two or more States or over the high seas.

2. The Council should encourage States whose air coverage of the search and rescue regions for which they are responsible cannot be ensured because of a lack of adequate facilities, to request assistance from other States to remedy the situation and to negotiate agreements with appropriate States regarding the assistance to be provided during search and rescue operations.

APPENDIX P

Coordination of civil and military air traffic

Whereas the airspace as well as many facilities and services should be used in common by civil aviation and military aviation;

Whereas Article 3 (d) of the Convention requires that Contracting States, when issuing regulations for their State aircraft, have due regard for the safety of navigation of civil aircraft;

Whereas satisfactory solutions to the problem of common use of airspace have not evolved in all areas; and

Whereas although full integration of the control of civil and military air traffic may be regarded as the ultimate goal, improvement in coordination in many States offers, at the present time, an immediate approach towards resolution of existing difficulties;

The Assembly resolves that:

1. the common use by civil and military aviation of airspace and of certain facilities and services shall be arranged so as to ensure the safety, regularity and efficiency of international civil air traffic; and

2. the regulations and procedures established by Contracting States to govern the operation of their State aircraft over the high seas shall ensure that these operations do not compromise the safety, regularity and efficiency of international civil air traffic and that, to the extent practicable, these operations comply with the rules of the air in Annex 2.
11-13 Associated practices

1. Contracting States should as necessary initiate or improve the coordination between their civil and military air traffic services to implement the policy in Resolving Clause 1 above.

2. The Council should ensure that the matter of civil and military coordination in the use of airspace is included, when appropriate, in the agenda of divisional and regional meetings.

3. When establishing the regulations and procedures mentioned in Resolving Clause 2, the State concerned should coordinate the matter with all States responsible for the provision of air traffic services over the high seas in the area in question.

APPENDIX Q

The provision of adequate aerodromes

Whereas major improvements to the physical characteristics of aerodromes are required at many locations;

Whereas in certain cases these improvements will involve considerable outlay and it would be inadvisable to plan such work without taking into account future developments;

Whereas States and aerodrome authorities will continue to need to know the general trends in aerodrome requirements which succeeding generations of aircraft will most likely produce;

Whereas many serious problems can be avoided if the operating requirements of new aircraft are such as to permit them to operate economically without further demands on the physical characteristics of aerodromes;

Whereas the operation of aerodromes has many advantages, environmental considerations have imposed limitations upon the operation of aircraft at some locations. In view of the capacity problems currently experienced globally, account should be taken of the introduction into service of newer quieter aircraft; and

Whereas there is a growing trend for aerodromes to be operated by autonomous entities, the obligation of States to ensure safe aerodrome facilities and services remains unaffected;

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Appendix H

The Assembly resolves that:

1. the technical requirements for aerodromes shall be kept under review by the Organization;

2. there is a need for future generations of aircraft to be designed so that they are capable of being operated efficiently, and with the least possible environmental disturbance, from aerodromes used for the operation of present-day aircraft;

3. States shall undertake certification of aerodromes; and

4. States should ensure that safety management systems are introduced at their aerodromes.

Associated practices

1. In the light of the results of the continuing review mentioned in Resolving Clause 1 above, the Council, taking into account the requirement to improve still further existing safety levels, should:

a) develop additional guidance material on future developments; and

b) keep Contracting States informed of developments.

2. The Council should continue to draw the attention of aircraft manufacturers and operators to the policy expressed in Resolving Clause 2.

APPENDIX R

Ground and flight testing of radio navigation aids

Whereas it is essential that the performance of radio navigation aids is checked through regular testing; and

Whereas the development of greatly improved ground testing facilities would minimize the need for flight testing;

The Assembly resolves that:

1. pending the possible availability of greatly improved ground testing facilities, radio navigation aids shall be checked through regular flight testing.
2.16 Coordination between military authorities and air traffic services

2.16.1 Air traffic services authorities shall establish and maintain close cooperation with military authorities responsible for activities that may affect flights of civil aircraft.

2.16.2 Coordination of activities potential By hazardous to civil aircraft shall be effected in accordance with 2.17.

2.16.3 Arrangements shall be made to permit information relevant to the safe and expeditious conduct of flights of civil aircraft to be promptly exchanged between air traffic services units and appropriate military units.

2.16.3.1 Air traffic services units shall, either routinely or on request, in accordance with locally agreed procedures, provide appropriate military units with pertinent flight plan and other data concerning flights of civil aircraft. In order to eliminate or reduce the need for interceptions, air traffic services authorities shall designate any areas or routes where the requirements of Annex 2 concerning flight plans, two-way communications and position reporting apply to all flights to ensure that all pertinent data is available in appropriate air traffic services units specifically for the purpose of facilitating identification of civil aircraft.

2.16.3.2 Special procedures shall be established in order to ensure that:

a) air traffic services units are notified if a military unit observes that an aircraft which is, or might be, a civil aircraft is approaching, or has entered, any area in which interception might become necessary;

b) all possible efforts are made to confirm the identity of the aircraft and to provide it with the navigational guidance necessary to avoid the need for interception.
EXTRACTS FROM ANNEX 15 – APPENDIX I

Annex 15 – Aeronautical Information Services

ENR 1.12 Interception of civil aircraft

The requirement is for a complete statement of interception procedures and visual signals to be used with a clear indication of whether ICAO provisions are applied and if not, a complete presentation of differences.

ENR 5.2 Military exercise and training areas and air defence identification zone (ADIZ)

Description, supplemented by graphic portrayal where appropriate, of established military training areas and military exercises taking place at regular intervals, and established air defence identification zone (ADIZ), including:

1) geographical coordinates of the lateral limits in degrees, minutes and seconds if inside and in degrees and minutes if outside control area/control zone boundaries;

2) upper and lower limits and system and means of activation announcements together with information pertinent to civil flights and applicable ADIZ procedures; and

3) remarks, including time of activity and risk of interception in the event of penetration of ADIZ.

ENR 5.3 Other activities of a dangerous nature and other potential hazards

ENR 5.3.1 Other activities of a dangerous nature

Description, supplemented by charts where appropriate, of activities that could affect flights including:

1) geographical coordinates in degrees and minutes of centre of area and range of influence;

2) vertical limits;

3) advisory measures;

4) authority responsible for the provision of information; and

5) remarks, including time of activity.
SAR Civil/Military Coordination Seminar Summary
Appendix K

EXTRACTS FROM ANNEX 2

3.7 Unlawful interference

An aircraft which is being subjected to unlawful interference shall endeavour to notify the appropriate ATS unit of this fact, any significant circumstances associated therewith and any deviation from the current flight plan necessitated by the circumstances, in order to enable the ATS unit to give priority to the aircraft and to minimize conflict with other aircraft.

Note 1.- Responsibility of ATS units in situations of unlawful interference is contained in Annex 11.

Note 2.- Guidance material for use when unlawful interference occurs and the aircraft is unable to notify an ATS unit of this fact is contained in Attachment B to this Annex.

Note 3.- Action to be taken by SSR-equipped aircraft which are being subjected to unlawful interference is contained in Annex 11, the PANS-ATM (Doc 4444) and the PANS-OPS (Doc 8168).

Note 4.- Action to be taken by CPDLC-equipped aircraft which are being subjected to unlawful interference is contained in Annex 11, the PANS-ATM (Doc 4444), and guidance material on the subject is contained in the Manual of Air Traffic Services Data Link Applications (Doc 9694).

3.8 Interception

Note.- The word "interception" in this context does not include intercept and escort service provided, on request, to an aircraft in distress, in accordance with Volumes II and III of the International Aeronautical and Maritime.


3.8.1 Interception of civil aircraft shall be governed by appropriate regulations and administrative directives issued by Contracting States in compliance with the Convention on International Civil Aviation, and in particular Article 3(d) under which Contracting States undertake, when issuing regulations for their State aircraft, to have due regard for the safety of navigation of civil aircraft. Accordingly, in drafting appropriate regulations and administrative directives due regard shall be had to the provisions of Appendix 1, Section 2 and Appendix 2, Section 1.

Note.- Recognizing that it is essential for the safety of flight that any visual signals employed in the event of an interception which should be undertaken only as a last resort be correctly employed and understood by civil and military aircraft throughout the world, the Council of the International Civil Aviation Organization, when adopting the visual signals in Appendix 1 to this Annex, urged Contracting Parties to ensure that they be strictly adhered to by their State aircraft. As interceptions of civil aircraft are, in all cases, potentially hazardous, the Council has also formulated special recommendations which Contracting States are urged to apply in a uniform manner. These special recommendations are contained in Attachment A.

3.8.2 The pilot-in-command of a civil aircraft, when intercepted, shall comply with the Standards in Appendix 2, Sections 2 and 3, interpreting and responding to visual signals as specified in Appendix 1, Section 2.

Note.- See also 2.1.1 and 3.4.

Please Note: Appendix I is not attached due to bulkiness please refer to Annex 2 Appendix I.
EXTRACT FROM DOC.9426
Chapter 2 Co-ordination

2.1 INTRODUCTION

2.1.1 Co-ordination is the art of communicating with another with a view of reaching an agreed solution to a common problem. Without co-ordination, planning has no meaning. This chapter describes the requirement for coordination in airspace and traffic management, particularly in relation to the resolution of often conflicting demands on the use of airspace, the development of both national and international procedures and agreements to be used, and the efforts that are necessary to ensure services and facilities are organized to the best advantage of all users of the airspace. It cannot be stressed too strongly that without adequate co-ordination, misunderstandings as a result of lack of knowledge of each other's intentions may occur, and safety in the air may be compromised.

2.1.2 Co-ordination of civil and military airspace requirements is essential. One effective means to achieve coordination is to establish a national air coordinating committee. In some States these committees are known variously as "standing committee for the co-ordination of aviation", "joint civil/military airspace co-ordinating committee", "joint civil/military aircraft control committee". Regardless of the title, the function of such a committee should always be to mutually resolve joint civil/military aviation problems. However, it is not usual for a State to establish a single air traffic control (ATC) organization to meet the needs of both civil and military airspace requirements to ensure the uniform development and application of ATS procedures.

2.1.3 In addition to civil/military co-ordination, and of equal significance to civil air operations, is co-ordination with neighbouring States. International flights could not operate satisfactorily without regional or bilateral airspace and traffic management agreements reached through proper co-ordination. Procedures and methods to be used by ATS should be discussed at the earliest practical stage with civil agencies, who may be required to provide essential supporting services, as well as with the users, i.e. the airline operators, and other commercial and private groups.

2.2 CO-ORDINATION WITH THE MILITARY

2.2.1 Rapid changes in the sophistication and the performance characteristics of both civil and military aircraft in the early 1950s, accompanied by the construction of major civil and military airfields, and the organization of the airspace into a network of airways, terminal areas and control zones, resulted in more or less significant restrictions on the freedom of movement by military aircraft. On the one hand, the civil operators demanded safeguard of their aircraft by the rigid application of separation standards whilst the military authorities required the fullest amount of tactical freedom and flexibility in the conduct of their flight operations.

2.2.2 One of the initial objectives of ICAO was to develop international rules for the safe, orderly and expeditious flow of air traffic. The need to co-ordinate civil and military traffic movements was quickly recognized by the 10th Session of the Assembly of ICAO in Resolution A/19-2 which has subsequently been reaffirmed 12th, 14th and 23rd Sessions. Annex 11, 2.16 contains Standards for co-ordination between military authorities and ATS. For convenience, the Standards are repeated below:

"2.16.1 Air traffic services authorities shall establish and maintain close co-operation with military authorities responsible for activities which may affect flights of civil aircraft.

2.16.2 Co-ordination of activities potentially hazardous to civil aircraft shall be effected in accordance with 2.15.

2.16.3 Arrangements shall be made to permit information relevant to the safe and expeditious conduct of flights of civil aircraft to be promptly exchanged between ATS units and appropriate military units.

2.16.3.1 Air traffic services units shall, either routinely or on request, in accordance with locally agreed procedures, provide appropriate military units with pertinent flight plan and other data concerning flights
of civil aircraft.

2.16.3.2 Procedures shall be established to ensure that ATS units are advised if a military unit observes that an aircraft which is, or is believed to be a civil aircraft, is approaching, or has entered, an area in which interception might become necessary. Such advice shall include any necessary corrective action which might avoid the necessity for interception.

2.2.3 Considerable differences exist in regard to the role which military aviation is required to play in any particular State. The methods by which civil-military co-ordination is accomplished in respective ATS organizations is left to the determination of the individual States. However, in order to understand the problem, it is necessary to consider the civil requirements for airspace in all three dimensions and relate these requirements to the environment in which the military need to conduct their operations. The resultant sharing of the airspace must therefore be made in such a manner that military operations do not constitute a hazard to the safe conduct of civil flights. A national co-ordinating organization is often established to meet these sometimes opposing objectives.

2.2.4 For practical reasons, it is not always possible to envisage a single solution to the problem of co-ordination between civil and military authorities. However, there are three main methods adopted to help smooth the integration of civil/military traffic. They are as follows:

a) total integration: In this case a single unified service provides ATS to all aircraft irrespective of whether they are civil or military;

b) partial integration: In this case the service is composed of both civil and military personnel and ATS - are provided jointly by both authorities in common airspace;

c) side-by-side operation: In this case ATS are provided separately by the civil and military authorities.

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However, co-operation and safety is ensured through appropriate co-ordination at all levels.

2.2.5 The task of a co-ordinating committee is to develop national ATS rules and procedures for approval and implementation by the respective civil and military authorities. The manner of achieving such rules and procedures is suggested by the following guidelines:

a) procedures should, whenever possible, conform to the civil aviation rules and regulations developed by ICAO or the State concerned;

b) aeronautical facilities and ground services required for civil or military use should be provided jointly or on a common, integrated basis;

c) personnel in civil and military ATS units should be required to meet equal standards in training and rating, based on applicable ICAO provisions;

d) neither the military nor the civil authority should unilaterally establish controlled and/or reserved or restricted airspace;

e) duplication of effort in research and development as well as in practical operations should be avoided and ground facilities, equipment and services should be shared whenever practical.

2.2.6 If civil/military co-ordination is not handled properly, major problems will arise and create difficulties. The following list of subjects requires particular attention in the resolution of common problems:

a) common terminology and abbreviations should be developed and used by both users of the airspace in order to avoid confusion in communication and correspondence. Such terms and abbreviations should, whenever possible, be those developed and published by ICAO;

b) common rules and procedures applicable to civil and military air traffic, based on the appropriate provisions of ICAO, should be developed for use by both civil and military aircraft. These rules should, where necessary, be supplemented by specific rules covering particular operational requirements of either user. In addition, these rules should be supplemented by
common operating practices and procedures. In so far as they are of concern to both users, these rules and procedures should be published in a manner so as to facilitate cross reference between both users;

c) plans regarding the organization and use of airspace should be developed in common by both the civil and the military authorities and take account of the following factors:

1) national security requirements;
2) the requirements for safety, flexibility and economy of air traffic;
3) the desirability of joint use of airspace by the provision of suitable services, including radar;
4) compatibility of civil and military operation in the same general area;
5) the need for keeping airspace reservations and restrictions to a minimum, so that minimal interference with civil or military air operations occurs;
6) the need to periodically review and assess the continued requirement for airspace restrictions;
7) consideration of the effects of incompatibility between civil and military navigation and communication equipment;
8) the inconvenience caused to each user where conflict of interest occurs between civil and military users;
9) the need for joint consultation prior to the establishment of new aerodromes, military installations, navigation aids and other facilities which, once completed, have an impact on the organization and use of the airspace.

d) military exercises having an impact on air navigation should be co-ordinated in such a manner that early liaison is established between the exercise planners and the appropriate civil authorities. Except where prevented by security requirements, details of military exercises affecting air navigation should be published with an agreed period of advance notification;

e) in order to encourage co-operation and understanding between civil and military users of airspace, personnel employed in the provision of any ATS should receive, to the greatest extent possible, basic training to common standards. Although it is recognized that specialized civil and military training is also necessary, the aim of all training should be to produce personnel of comparable qualifications. Additionally, operating procedures for civil and military facilities should, wherever possible, be based on the same principles and be identical when possible. ICAO provisions should be taken into full account when relevant;

f) civil and military facilities should, wherever possible, be based on the same principles and be identical when practicable. ICAO provisions should be taken into full account when relevant;

g) provisions should be created within and, where appropriate, between States, to make possible the rapid and efficient reporting, investigating and resolving of airspace violations and/or near-miss incidents. The associated procedures should provide means for corrective or remedial action.

2.2.7 The practical application of civil/military coordination is based on the philosophy that the greatest degree of safety and efficiency in the utilization of airspace is achieved when civil and military air traffic are integrated in a common system, and all aircraft within national airspace are subject to common rules of the air and A TC procedures. However, it must be recognized that there will be occasions when civil and military requirements are incompatible and special airspace arrangements are necessary. Depending on the significance of either the civil or the military requirements, practical co-ordination can range from simple arrangements to circumstances whereby significant and sophisticated military requirements must be accommodated.

2.2.8 In some States, it is common practice for military personnel to be attached to civil A TC units where they are employed in both operational and procedural positions and are also involved in areas such as research and development and airways planning. As all ATC procedures must per se be fully co-ordinated with the military authorities before adoption, the involvement of military personnel in the activities, as both users and providers is essential.

2.2.9 Conversely, civilian liaison personnel should be attached to appropriate military commands. These personnel should present and interpret, as necessary:
a) the effect and purpose of civil aviation policy, regulations and procedures as they affect military operations;
b) assist military personnel in the preparation, coordination and processing of arrangements for the movement of military traffic; and
c) assist in the resolution of problems which arise out of misunderstanding of military operations, civil procedures, systems limitations, and other matters of controversial nature in relation to operations.

2.2.10 Under some arrangements, the military authorities may delegate the responsibility for coordinating day-to-day activities to civil ATS personnel working in area control centres (ACCs). Such activities include, inter alia, briefing controllers on military activities and performing liaison duties during active military operations.

2.2.11 An example of arrangements for civil/military coordination of A TS in one State (United States) is provided in Appendix A.
Chapter 15. Procedures related to Emergencies, Communication Failure and Contingencies

15.5 OTHER IN-FLIGHT CONTINGENCIES

Note.- The texts of 15.5.1 and 15.5.2 are reproduced from Annex 11, Chapter 2 and have the status of Standards.

15.5.1 Strayed or unidentified aircraft

Note 1.- The terms "strayed aircraft" and "unidentified aircraft" in this paragraph have the following meaning:

Strayed aircraft. An aircraft which has deviated significantly from its intended track or which reports that it is lost.

Unidentified aircraft. An aircraft which has been observed or reported to be operating in a given area but whose identity has not been established.

Note 2.- An aircraft may be considered, at the same time, as a "strayed aircraft" by one unit and as an "unidentified aircraft" by another unit.

15.5.1.1 As soon as an air traffic services unit becomes aware of a strayed aircraft, it shall take all necessary steps as outlined in 15.5.1.1.1 and 15.5.1.1.2 to assist the aircraft and to safeguard its flight.

Note.- Navigational assistance by an air traffic services unit is particularly important if the unit becomes aware of an aircraft straying, or about to stray, into an area where there is a risk of interception or other hazard to its safety.

15.5.1.1.1 If the aircraft's position is not known, the air traffic services unit shall:

a) attempt to establish two-way communication with the aircraft, unless such communication already exists;

b) use all available means to determine its position;

c) inform other ATS units into whose area the aircraft may have strayed or may stray, taking into account all the factors which may have affected the navigation of the aircraft in the circumstances;

d) inform in accordance with locally agreed procedures, appropriate military units and provide them with pertinent flight plan and other data concerning the strayed aircraft;

e) request from the units referred to in c) and d) and from other aircraft in flight every assistance in establishing communication with the aircraft and determining its position.

Note.- The requirements in d) and e) apply also to ATS units informed in accordance with c).

5.5.1.1.2 When the aircraft's position is established, the air traffic services unit shall:

a) advise the aircraft of its position and corrective action to be taken; and

b) provide, as necessary, other ATS units and appropriate military units with relevant information concerning the strayed aircraft and any advice given to that aircraft.

15.5.1.2 As soon as an air traffic services unit becomes aware of an unidentified aircraft in its area, it shall endeavour to establish the identity of the aircraft whenever this is necessary for the provision of air traffic services or required by the appropriate military authorities in accordance with locally agreed procedures. To this end, the air traffic services unit shall take such of the following steps as are appropriate in the circumstances:

a) attempt to establish two-way communication with the aircraft;

b) inquire of other air traffic services units within the FIR about the flight and request their assistance in establishing two-way communication with the aircraft;

c) inquire of air traffic services units serving the adjacent FIRs about the flight and request their assistance in establishing two-way communication with the aircraft;
15.5.1.2.1 The air traffic services unit shall, as necessary, inform the appropriate military unit as soon as the identity of the aircraft has been established.

Note.- Requirements for coordination between military authorities and air traffic services are specified in Annex 11, 2.16.

15.5.2 Interception of civil aircraft

15.5.2.1 As soon as an air traffic services unit learns that an aircraft is being intercepted in its area of responsibility, it shall take such of the following steps as are appropriate in the circumstances:

a) attempt to establish two-way communication with the intercepted aircraft on any available frequency, including the emergency frequency 121.5 MHz, unless such communication already exists;

b) inform the pilot of the intercepted aircraft of the interception;

c) establish contact with the intercept control unit maintaining two-way communication with the intercepting aircraft and provide it with available information concerning the aircraft;

d) relay messages between the intercepting aircraft or the intercept control unit and the intercepted aircraft, as necessary;

e) in close coordination with the intercept control unit take all necessary steps to ensure the safety of the intercepted aircraft; and

f) inform ATS units serving adjacent FIRs if it appears that the aircraft has strayed from such adjacent FIRs.

15.5.2.2 As soon as an air traffic services unit learns that an aircraft is being intercepted outside its area of responsibility, it shall take such of the following steps as are appropriate in the circumstances:

a) inform the ATS unit serving the airspace in which the interception is taking place, providing this unit with available information that will assist in identifying the aircraft and requesting it to take action in accordance with 15.5.2.1;

b) relay messages between the intercepted aircraft and the appropriate ATS unit, the intercept control unit or the intercepting aircraft.

15.5.3 Fuel dumping

15.5.3.1 GENERAL

15.5.3.1.1 An aircraft in an emergency or other urgent situations may need to dump fuel so as to reduce to maximum landing mass in order to effect a safe landing.

15.5.3.1.2 When an aircraft operating within controlled airspace needs to dump fuel, the flight crew shall advise ATC. The ATC unit should then coordinate with the flight crew the following:

a) the route to be flown, which, if possible, should be clear of cities and towns, preferably over water and away from areas where thunderstorms have been reported or are expected;

b) the level to be used, which should be not less than 1 800 m (6 000 ft); and

c) the duration of the fuel dumping.

15.5.3.2 SEPARATION

Other known traffic should be separated from the aircraft dumping fuel by:

a) at least 19 km (10 NM) horizontally, but not behind the aircraft dumping fuel;

b) vertical separation if behind the aircraft dumping fuel within 15 minutes flying time or a distance of 93 km (50 NM) by;

1) at least 300 m (1000 ft) if above the aircraft dumping fuel; and

2) at least 900 m (3 000 ft) if below the aircraft dumping fuel.

Note.- The horizontal boundaries of the area within which other traffic requires appropriate vertical separation extend for 19 km
(10 NM) either side of the track flown by the
aircraft which is dumping fuel, from 19 km (10
NM) ahead, to 93 km (50NM) or 15 minutes
along track behind it (including turns).

15.5.3.3 COMMUNICATIONS

If the aircraft will maintain radio silence during
the fuel dumping operation, the frequency to be
monitored by the flight.

CHAPTER 16. MISCELLANEOUS
PROCEDURES

16.1 RESPONSIBILITY IN REGARD TO
MILITARY TRAFFIC

16.1.1 It is recognized that some military
aeronautical operations necessitate non-
compliance with certain air traffic procedures. In
order to ensure the safety of flight operations the
appropriate military authorities shall be asked,
whenever practicable, to notify the proper air
traffic control unit prior to undertaking such
manoeuvres.

16.1.2 A reduction of separation minima
required by military necessity or other
extraordinary circumstances shall only be
accepted by an air traffic control unit when a
specific request in some recorded form has been
obtained from the authority having jurisdiction
over the aircraft concerned and the lower minima
then to be observed shall apply only between
those aircraft. Some recorded form of instruction
fully covering this reduction of separation
minima must be issued by the air traffic control
unit concerned.

16.1.3 Temporary airspace reservation, either
stationary or mobile, may be established for the
use of large formation flights or other military
air operations. Arrangements for the reservation
of such airspace shall be accomplished by co-
ordination between the user and the appropriate
ATS authority. The coordination shall be
effectuated in accordance with the provisions of
Annex 11 and completed early enough to permit
timely promulgation of information in
accordance with the provisions of Annex 15.
MODEL LETTER OF AGREEMENT FOR JOINT USE OF AIRSPACE

BETWEEN

THE CIVIL AVIATION ADMINISTRATION
AND
THE DEPARTMENT OF DEFENCE

1. Preamble

1.1 The authorized representatives of ......................... and ....................... agree that the procedures contained in this document shall remain in force from the specified effective date until amended by agreement between the two Parties, or cancelled by either Party.

1.2 This letter of Agreement supersedes existing Letters of Agreement between ......................... and ....................... dated .........................

2. EFFECTIVE DATE

The provisions in this Letter of Agreement shall be implemented on ............ at 0001 UTC.

3. OBJECTIVE

The objective of this Letter of Agreement is to specify co-ordination procedures between .................... and ....................

4. SCOPE

4.1 The policy of the Civil Aviation Administration in the development of civil/military joint use of airspace is in accordance with the Assembly Resolving clause A32-14 Appendix P, and responds to the provisions of Annex 11 paragraphs 2.16 and 2.17 and has resulted in the formation of a civil/military co-ordination committee.

4.2 The procedures contained herein are supplementary to the ICAO Standards and Recommended Practices in Annexes 2 and 11, the Procedures for Air Navigation Services/Rules of the Air Traffic Services (PANS-RAC, Doc.4444), the Regional Supplementary Procedures (Doc 7030) and the ATS Planning Manual (Doc.9426) Part II, Section 1, Chapter 2.

4.3 The following Planning Criteria (PC) and Methods of Application (MA) will be used when carrying out activities relative to the joint use of airspace.
PC.1 The aim of the creation of one single integrating system catering for both the civil and military requirements. The related organization of the airspace should satisfy the requirements of all users in an optimum way.

PC.2 Establishment of civil/military co-ordination bodies to ensure, at all levels, the co-ordination of decisions relating to civil and military problems of airspace and traffic management.

PC.3 Arrangements for close liaison and co-ordination between civil ATS units and relevant military operational control and/or air defence units in order to ensure integration of civil and military air traffic or its segregation, if required. Such arrangements would also contribute to the reduction or elimination of the need for interception of strayed or unidentified aircraft.

PC.4 Military exercises likely to affect civil flight operations should be scheduled, whenever possible, so as not to coincide with peak periods of civil air traffic and/or not to affect areas where high density of civil air traffic occurs.

MA.5 Prior to and during the conduct of military exercises measures should be taken to ensure that both civil and military aircraft are able to conduct their operations without risk of dangerous incidents and without restricting each other unnecessarily. Particular attention should be given to the need for reducing to the minimum the time periods during which civil flight operations will have to be restricted.

MA.6 Penetration of controlled airspace by military aircraft not under the control of the appropriate ATC unit should be avoided. If this is not possible such penetrations should take place only on condition that:

a) they have been made, subject to a specific letter of agreement between the civil ATC unit and the military unit concerned; and

b) direct speech communications exist between the civil ATC and military units concerned; and

1) they are carried out under radar surveillance by the military unit in question, applying at least the applicable ICAO separation minima.

PC.7 Regulations governing flights of State aircraft over the high seas should, to the maximum extent practicable, comply with the relevant provisions of Annex 2. Where this is not possible due to the nature of operations involved, measures should be taken to ensure that other aircraft are not endangered by such operations.
4.4 This Letter of Agreement also formalizes the delegation of responsibility from .......... (using Agency) to .......... (controlling Agency) for the provision of air traffic services within those portions of airspace as defined in paragraph 8 below and the agreed points of transfer of responsibility. This Letter of Agreement is based on operational considerations only and does not therefore contribute to, neither can it be invoked for, any other purpose beyond this context.

5. AMENDMENTS

5.1 Any amendment to this Letter of Agreement shall be made either through a meeting between the units, or by exchange of correspondence, or by exchange of AFTN messages, with acknowledgement by all signatories.

5.2 Whilst temporary deviations from these procedures may be agreed between the ATS supervisors concerned, as specified in paragraph 7.1 below, permanent amendments to this document shall be effective only in the form of a written amendment duly signed by authorized representatives.

5.3 This Letter of Agreement may be cancelled by either party subject to at least .......... (days/months/years) prior notification.

6. PROCEDURES

6.1 Movement and control procedures, message transmissions, co-ordinating procedures, procedures for the transfer of communications and transfer of responsibility shall be done in accordance with the guidelines of PANS-RAC Part VIII.

6.2 Aircraft outside ATS routes shall be assigned flight levels in accordance with the table of cruising levels in Appendix 3 to Annex 2.

6.3 Aircraft at the same level shall be laterally or longitudinally separated in accordance with PANS-RAC or the National AIP.

7. DEVIATIONS

7.1 Deviation from the procedures specified in this Letter of Agreement shall only be permitted in exceptional circumstances and with prior co-ordination on a case-by-case basis.

7.2 Any deviation from these provisions due to an emergency or to ensure the safety of air traffic, shall be notified immediately to other unit(s) concerned and shall be terminated as soon as the circumstances that caused the deviation cease to exist.
8. **AREA OF APPLICATION**

In accordance with Civil Aviation Act .................. of the Civil Aviation Regulations......................, the following letter establishes procedures for the use of .................., by .................., the controlling Agency, and by .................. the Using Agency.

1. The Using Agency shall release ..................to the Controlling Agency when not in use for the purpose designated.

2. When the airspace is released to the Controlling Agency, CAA may clear IFR traffic and authorise VFR traffic into..................

3. The Controlling Agency shall return the use of .................. to the Using Agency upon request. Such request shall be made at least .................. (hours/days) prior to the use by the Using Agency. (In determining this specific time, consideration should be given to factors such as: IFR procedures which may impinge on the area, communications and the time required to ascertain that all VFR aircraft shall be clear of the area).................. Tower/Approach/ACC/FIC is designated as liaison unit for the relaying of information concerning the release of the area between the Controlling Agency and the Using Agency. (This statement to be used only when required).

9. **EXECUTED**

For the Controlling Agency:

Signed: ..........................

Function: ..........................

Date: ..........................

For the Using Agency:

Signed: ..........................

Function: ..........................

Date: ..........................
MODEL OPERATIONAL LETTER OF AGREEMENT
BETWEEN (ATS UNIT) AND (MILITARY UNIT)

1. Introduction

1.1 Effective Date

1.2 This Letter of Agreement shall become effective on ____________________.

1.2.1 The objective of this Letter of Agreement is to establish co-ordination procedures for the exchange of information between (ATS unit) and (military unit), relating to flights by civil aircraft operating on ATS routes in the area specified at Part 1 below. The object of this Letter of Agreement is to achieve identification of aircraft which have deviated from their assigned flight plan, thus eliminating or reducing the need to have recourse to interception and, consequently, the inherent risks that this might entail.

1.3 Scope

1.3.1 The procedures contained in this Letter of Agreement supplement or refine the provisions prescribed in ICAO Annexes and Documents with respect to interception of civil aircraft and shall be applicable to flights specified in the previous paragraph.

2. Co-ordination procedures

2.1 Exchange of Information

2.1.1 From (Military unit) to (ATS unit).

2.1.1.1 (The military unit) shall notify (the ATS unit) if an unidentified aircraft is observed to approach or to have penetrated the area(s) specified in Part 1 to this Letter of Agreement.

2.1.2 From (ATS unit) to (military unit)

2.1.2.1 The information to be supplied by (the ATS unit) to the (military unit) with respect to flights on the ATS route(s) associated with the area(s) specified in Part 1 to this Letter of Agreement shall include:
2.1.2.2 Should (the ATS unit) become aware of a strayed aircraft:

1) if the aircraft's position is not known, it shall notify (the military unit), providing pertinent flight plan and other data concerning the strayed aircraft; and

2) when the aircraft's position is established, it shall provide (the military unit), as necessary, with relevant information concerning the strayed aircraft and any advice/instructions given to it.

2.1.2.3 Should (the ATS unit) become aware of unidentified aircraft in, or in the vicinity of the critical area(s) specified in Part 1 to this Letter of Agreement, it shall notify (the military unit), as well as when the identity of the aircraft has been established.

2.1.2.4 Should (the ATS unit) become aware that an aircraft is being intercepted:

a) within its area or responsibility:

1) it shall establish contact with (the intercept control unit) maintaining two-way communication with the intercepted aircraft and shall provide all available information concerning the aircraft; and

2) it shall retransmit, as necessary, messages between the intercepting aircraft or (the intercept control unit) and the intercepted aircraft; and

b) outside its area of responsibility, it shall inform, as necessary, (the military unit), providing it with all available information concerning the aircraft and the co-ordination measures carried out.
3. Communication facilities

3.1 Communications between (ATS unit) and (military unit)

3.1.1 To allow effective compliance with co-ordination procedures, the units involved shall use or shall install the communications facilities detailed in Part 2 of this Letter of Agreement. These facilities shall permit the establishment, within 15 seconds, of communications by direct speech arranged for conference communications, with automatic recording.

3.2 Emergency channel (121.5 MHz)

3.2.1 For communications between civil and/or intercepting aircraft and (ATS unit) and (intercept control unit) the 121.5 MHz frequency shall be used:

4. Revisions

4.1 This Letter of Agreement shall be revised when the procedures contained herein or in its components (Part 1 and Part 2) are affected for amendments for ICAO Standards, Supplementary Procedures and Regional Plans, or when new facilities are commissioned by the units involved. In the case of new facilities and/or the modification of existing facilities, it is the responsibility of the unit originating these to initiate the action; in all other cases, the unit concerned shall propose the pertinent amendment.

4.2 If the amendment affects only the information given in Part 1 or Part 2, the new revised component (part) shall be incorporated into this Letter of Agreement to be effective on a mutually agreed date.

5. Transition provisions

5.1 From the effective date shown in 1.1 above, the co-ordination procedures relating to exchange of information described in this Letter of Agreement supersede any other procedure applied by common agreement between (the ATS unit) and (the military unit).

Part 1

1. Specific airspace or areas covered are:

a)

b)

c)

d)
2. ATS routes covered are:
   a) 
   b) 
   c) 
   d) 

Part 2

1. Required communication facilities.
   a) 
   b) 
   c) 
   d) 

- END -