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# **COSPAS-SARSAT PROGRAMME MANAGEMENT POLICY**

**C/S P.011**

**Issue 1 –Revision 4**

**October 2009**

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This document has been superseded  
by a later version

**COSPAS-SARSAT PROGRAMME MANAGEMENT POLICY****History**

Issue	Revision	Date	Comments
1		Nov 2005	Approved by CSC-35
1	1	Oct 2006	Approved by CSC-37
1	2	Nov 2007	Approved by CSC-39
1	3	Oct 2008	Approved by CSC-41
1	4	Oct 2009	Approved by CSC-43

This document has been superseded  
by a later version

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## **1. PROGRAMME OBJECTIVES AND LONG-TERM PLANNING**

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### **1.1 Mission Statement and Objectives**

The International Cospas-Sarsat Programme provides accurate, timely and reliable distress alert and location data to help search and rescue authorities assist persons in distress.

The objective of the Cospas-Sarsat system is to reduce, as far as possible, delays in the provision of distress alerts to SAR services and the time required to locate a distress and provide assistance, as these have a direct impact on the probability of survival of the person in distress at sea or on land.

To achieve this objective, Cospas-Sarsat Participants implement, maintain, co-ordinate and operate a satellite system capable of detecting distress alert transmissions from radiobeacons that comply with Cospas-Sarsat specifications and performance standards, and of determining their position anywhere on the globe.

### **1.2 Strategic Planning, Programme Management and Long-Term Evolution**

The functions of the Council include the development of the necessary technical, administrative and operational plans for the implementation of the International Cospas-Sarsat Programme Agreement (ICSPA), document C/S P.001. The development of a strategic plan, therefore, falls into the purview of the Cospas-Sarsat Council. Issue 1 of the document C/S P.016 “Cospas-Sarsat Strategic Plan” was approved by the Council in October 2008. While the Plan covers the twenty-year period 2008 to 2028, the Council intends to do periodic reviews as necessary.

The scope and goals of the Programme are established in Article 2 of the ICSPA, which defines as follows the purpose of the Agreement:

- assure the long-term operation of the System;
- provide distress alerts and location data to the international community on a non discriminatory basis; and
- support, by providing these distress alerts and location data, the objectives of the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) concerning search and rescue.

The following sections highlight the structure of the international cooperation established under the ICSPA and the basic management policies adopted by the Council for various aspects of the System to support the objectives set out in the ICSPA.

### **1.2.1 Funding, Management and Operation of the Satellite Alerting System**

The satellite, ground processing and communication capabilities that compose the Cospas-Sarsat System are established and operated by the participating countries (the Cospas-Sarsat Participants). The Cospas-Sarsat satellite alerting and locating services are made available free of charge to the international SAR community and users in distress. Each Space Segment Provider and Ground Segment Provider retains full responsibility for and control of its contribution to the Cospas-Sarsat Satellite System. However, through their formal association with the Cospas-Sarsat Programme, all Space and Ground Segment Providers make a commitment to operate their contribution to the System in accordance with the specifications and standards approved by the Council.

The purpose of the Cospas-Sarsat System is to assist SAR services worldwide. Cospas-Sarsat distress alert and location data is provided by Cospas-Sarsat Participants to the responsible SAR services. However, the satellite system, including its Space and Ground Segments (i.e. the satellites, LUTs and MCCs) is not a part of the SAR services and the responsibility of Cospas-Sarsat Participants is solely to process and forward available Cospas-Sarsat data to the designated competent authority in each country, in accordance with the Cospas-Sarsat Data Distribution Plan (document C/S A.001).

### **1.2.2 Satellite System Composition, Evolution and Enhancements**

The Cospas-Sarsat satellite system is composed of three parts: the Space Segment, the Ground Segment and distress beacons, as described at Article 3 of the International Cospas-Sarsat Programme Agreement (ICSPA). The Cospas-Sarsat System also includes enhancements decided by the Council pursuant to section 3.2 of Article 3 of the ICSPA.

At present, the Space Segment is composed of two types of satellite constellations:

- low-altitude Earth-orbiting (LEO) satellites in polar orbits support the LEOSAR system, and
- geostationary (GEO) satellites support the GEOSAR System.

The LEOSAR system was designed to accommodate 121.5 MHz distress beacons which existed prior to the development of the Cospas-Sarsat System and the 406 MHz beacons specifically designed to operate with the System. Because of the limited performance of the older 121.5 MHz beacon technology and the excessive false alert rate experienced with these beacons, the satellite processing of 121.5 MHz signals was terminated on 1 February 2009.

For the longer term, Cospas-Sarsat is preparing for the use of satellites in medium-altitude Earth orbits (MEO), which are expected to constitute the space segment of the 406 MHz MEOSAR System.



### **1.2.3 Integration of MEOSAR Components into the Cospas-Sarsat System**

It is a basic Cospas-Sarsat policy that System evolution should ensure full compatibility of new Space or Ground Segment components with Cospas-Sarsat specified 406 MHz beacons. The future MEOSAR system will provide this backward compatibility at 406 MHz, but will also provide an opportunity for enhancing the satellite alerting services for SAR, both through compatible evolution using existing beacons and using new 406 MHz beacon designs for improved performance.

Furthermore, the providers of the future MEOSAR system components have agreed that their MEOSAR contributions should be designed so as to provide inter-operability among satellite constellations and MEOLUTs. Further detail on Cospas-Sarsat policies concerning the operation of the System and future developments is provided at section 5 of this document.

Cospas-Sarsat will maintain the global performance of the Cospas-Sarsat System and the availability of the existing LEOSAR and GEOSAR systems as long as necessary to ensure the continuity of the satellite alerting and locating services.

To achieve a seamless transition to a future operational 406 MHz system that would include MEOSAR components, the integration of MEOSAR system elements (MEO satellites and MEOLUTs) into the Cospas-Sarsat system will be accepted only after a thorough demonstration and evaluation of the MEOSAR system capabilities and performance, in particular their compatibility with the LEO and GEO satellite components and with existing beacons.

## **1.3 Partnership and Communications**

Pursuant to Article 13 of the ICSPA, Cospas-Sarsat cooperates with the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO), the International Telecommunication Union (ITU) and other international organisations to ensure the compatibility of the Cospas-Sarsat distress alerting services with the needs, the standards and the applicable recommendations of the international community.

Cospas-Sarsat has observer status at the IMO and the ITU and participates in the meetings of the IMO/ICAO Joint Working Group on SAR. The Secretariat represents Cospas-Sarsat at a number of meetings of international organisations and standards organisations that address distress beacon matters.

The Cospas-Sarsat Council has granted observer status to ICAO, IMO and ITU at the Open Meetings of the Cospas-Sarsat Council (CSC) and the Joint Committee (JC). In addition, a number of organisations have received observer status at JC meetings and, on an ad-hoc basis, at Task Group meetings (see section 2.4 and Annex E).

#### **1.4 International Coordination and Liaison**

The presentation to the international community of Cospas-Sarsat plans and objectives and the coordination of actions decided by the Cospas-Sarsat Council with international organisations are part of the Cospas-Sarsat Secretariat functions outlined in the ICSPA, and shall be performed in accordance with Council guidance and directions.

Although the Secretariat acts on behalf of Participants in the Cospas-Sarsat Programme, Secretariat actions in international fora need to be supported by the administrations of participating States. Therefore, Participants retain primary responsibility for international coordination and liaison and should endeavour to:

- coordinate at a national level with their SAR agencies on issues related to the international SAR community;
- coordinate at a national level with their telecommunication authorities on issues affecting the operation of Cospas-Sarsat satellites, LUTs and radiobeacons, and with other regulatory authorities as necessary in respect of the carriage and registration of Cospas-Sarsat radiobeacons;
- accurately publicise Cospas-Sarsat plans, objectives and System performance at international meetings; and
- support whenever possible the policies and actions recommended by the Cospas-Sarsat Council on matters pertaining to Cospas-Sarsat Programme activities.

- END OF SECTION 1 -

## **2. MANAGEMENT STRUCTURE OF THE COSPAS-SARSAT PROGRAMME**

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The management structure of the Programme is defined in the International Cospas-Sarsat Programme Agreement (ICSPA), which states the responsibilities of the Parties to the ICSPA and establishes two organs:

- a) the Council; and
- b) the Secretariat.

In the following sections of this document, the term "Parties" designates the States signatory to the ICSPA and the term "Participants" designates the Parties and the States and organizations that have notified their association with the Cospas-Sarsat Programme in accordance with the agreed procedure. Further information on the rules and the procedure for association with the Programme is provided at section 3.

### **2.1 Cospas-Sarsat Council**

The Cospas-Sarsat Council (CSC) is composed of one Representative from each of the Parties to the Agreement (ICSPA Article 8). The CSC meets at least once a year to “carry out the relevant policies and co-ordinate the activities of the Parties” (ICSPA Article 9), but can meet as often as necessary to discharge its functions. Council decisions are taken unanimously by the Representatives of the Parties.

The CSC meets in Closed Meetings, with attendance by Parties only, primarily to address the management of the Secretariat and the administration of the Programme, including relations with prospective Participants, System users, manufacturers and international organisations.

The CSC also meets at least once a year in an Open Meeting during which the associated States and organisations may address any issue pertaining to the administration of the Programme and the management of the System that is of interest to Participants. These include matters concerning the Common Costs of the Programme, the operation of the System and its development, the report and recommendations of the Joint Committee, and relations with international organisations. The Council decided at its CSC-10 Session that "formal Council decisions which affect other Participants should be submitted as proposals to the Open Meeting where the matters could be discussed, and decisions taken and recorded in the Summary Record of the Open Meeting" (CSC-10/CLD/SR/8.3.5).

The ICSPA states that "the Council shall adopt its own rules of procedure". The approved Rules of Procedure for the Cospas-Sarsat Council are provided at Annex B to this document. At its first session the CSC decided (CSC-1/CLD/SR/11.2) that “the Chairperson and Vice-Chairperson of the Council shall be selected from among the

Representatives of the Parties on the principle of rotation”, and “shall remain in office for two successive regular sessions of the Council subsequent to the session in which they were elected”.

## **2.2 Subsidiary Bodies**

The CSC may establish subsidiary organs as required for the implementation of the Agreement (ICSPA Article 7.2).

### **2.2.1 Joint Committee**

The CSC decided at its first Session (CSC-1/OPN/SR/7.1.2) to establish a Cospas-Sarsat Joint Committee (JC). The JC comprises two Working Groups:

- the Operations Working Group (OWG); and
- the Technical Working Group (TWG).

The CSC further decided (CSC-2/OPN/SR/8.1.3) that:

- the Joint Committee shall comprise a Chairperson appointed by the Council and the Working Groups meeting in a plenary session; and
- the Chairpersons of the Working Groups shall also be appointed by the Council.

The JC meets at least once a year, as directed by the CSC, to address the items of the agenda approved by the CSC. The rules of procedure for the meetings of the JC and its Working Groups are approved by the CSC and provided at Annex C to this document. The terms of reference for the JC and its Working Groups are defined as follows.

2.2.1.1 The JC, meeting in plenary session, shall:

- (a) coordinate the activities of the Working Groups regarding the operation of the System, the technical aspects of the Programme and the System exercises decided by the CSC;
- (b) prepare, update or coordinate the development of all System documents and submit the final draft documents to the CSC for approval;
- (c) perform or coordinate studies on all aspects of the Programme as requested by the CSC, and submit final reports to the CSC for approval;
- (d) prepare, review and approve the report of the JC to the CSC, including a record of the Working Groups' activities; and
- (e) make appropriate recommendations to the CSC regarding all aspects of the Programme.

#### 2.2.1.2 The OWG functions include:

- (a) the development of necessary plans and documents for the operation of the System;
- (b) the coordination of all relevant aspects of System operations, to provide timely and reliable Cospas-Sarsat alerts from vessels, aircraft and persons in distress to SAR organisations;
- (c) the preparation of operational performance standards;
- (d) the assessment of System operational performance and status;
- (e) performing studies, reporting and making recommendations on System operations and performance; and
- (f) other matters regarding System operations that fall within the purview of the OWG.

#### 2.2.1.3 The TWG functions include:

- (a) the development of technical plans and documents for the implementation of the Programme;
- (b) the coordination of technical aspects of the Programme between participating States;
- (c) the preparation of technical specifications and standards for the System;
- (d) the assessment of System technical performance and status;
- (e) performing studies, reporting and making recommendations on all technical aspects of the Programme; and
- (f) other technical matters regarding the System's space and ground segments and radio beacons, that fall within the purview of the TWG.

2.2.1.4 In accordance with these terms of reference and the applicable rules of procedure, the Chair of the JC shall consult with the Chairs of the OWG and the TWG to implement its responsibilities. The duties of the Chairs of the JC and its Working Groups are summarised at Annex D to this document. Both Working Groups shall coordinate their activities as necessary.

### 2.2.2 Task Groups

The CSC may decide, upon recommendation by the JC, to establish Task Groups to address specific issues and prepare documents for submission to the JC. The JC recommendation to the CSC for the establishment of a Task Group shall be accompanied by draft terms of reference for the proposed Task Group.

When deciding to establish a Task Group, the CSC shall approve the terms of reference, amended as necessary, decide on the date and venue for the meeting, and designate the Chairperson of the Task Group meeting. The Chairperson shall be selected on the basis

of known competence in the subject matter. All Participants may submit proposals for the selection of the Chairperson.

The Secretariat shall convene the Task Group meeting as directed by the Council and invite Participants to be represented after appropriate coordination with the designated Chairperson. Participants may request to be invited to Task Group meetings that are addressing matters of particular interest to them. In consideration of the subject matter to be addressed, and subject to a CSC decision, Observers may be invited to attend a Task Group meeting. The rules of procedure for the JC shall be applicable to the Task Group meeting, unless otherwise specified in the terms of reference.

The Chairperson of a Task Group is responsible to the CSC for the work and output of the Task Group. The report of the Task Group shall be submitted to the JC for consideration and comments, unless otherwise directed by the Council. The Report shall also be submitted for consideration at the subsequent Open Meeting of the CSC, together with the Task Group recommendations to the Council and the JC comments and recommendations on the subject matter.

### **2.2.3 Experts' Working Groups**

The Council may establish Experts' Working Groups (EWG) to address specific issues and prepare recommendations for its consideration. The terms of reference of the EWG and the date and venue of the meeting shall be approved by the CSC. The EWG Chair shall be selected by the CSC on the basis of competence in the subject matter.

The Head of Secretariat shall convene the EWG meeting as directed by the CSC and invite experts on the subject matter to participate in the EWG, after appropriate coordination with the designated Chairperson. The Chairperson of an EWG is responsible to the CSC for the work and output of the EWG.

## **2.3 Cospas-Sarsat Secretariat**

The Cospas-Sarsat Secretariat is “the permanent administrative organ for the Programme and shall assist the Council in the implementation of its functions” (ICSPA Article 10). Cospas-Sarsat Secretariat services shall be provided in accordance with the relevant decisions of the CSC, including the actions, functions and Head of Secretariat objectives described in the annual Work Plan and Spending Plan approved by the Council.

Further details on the procedures to be followed by the Secretariat to coordinate with the Parties and Participants and report on its activities to the CSC are provided in the document "Cospas-Sarsat Secretariat Management Guide" (C/S P.012), approved by the CSC.

## **2.4 Cospas-Sarsat Meetings**

### **2.4.1 Schedule and Annual Cycle of Cospas-Sarsat Meetings**

The schedule of Cospas-Sarsat meetings for the forthcoming year is decided at the Open Meeting of the last CSC session in the year.

The annual cycle of meetings normally includes one Joint Committee meeting, one Council session with Closed Meeting only, and one Council session with Open and Closed Meetings. The Council decides on an ad hoc basis to establish Task Groups or Experts' Working Groups, as appropriate. The mandate and terms of reference of Task Groups and Experts' Working Groups can be extended or amended only by the CSC.

### **2.4.2 Working Language of Cospas-Sarsat Meetings**

The International Cospas-Sarsat Programme Agreement stipulates (ICSPA Article 8) that "the languages of the Council shall be English, French and Russian". At CSC-3 in 1989, the Council approved its rules of procedure (CSC-3/OPN/SR/4.1.5), which are provided at Annex B to this document. Rule 15 (B) of the Council Rules of Procedure states that "speeches in meetings of the Council may be made in English, French or Russian and shall be interpreted into the other languages of the Programme". The Secretariat shall organise simultaneous translation to and from the three languages of the Programme at Council meetings.

Meetings of subsidiary bodies will normally be held in the English language only, with no interpretation.

### **2.4.3 Cospas-Sarsat Meeting Documents**

Documents for Council sessions may be written in one of the languages of the Council. Documents submitted in the French or Russian languages shall be provided to the Secretariat with sufficient advance notice for their translation into English prior to the applicable deadline for document submission.

Documents for other Cospas-Sarsat meetings should be submitted to the Secretariat in English only and will be made available to meeting participants in English only.

The Secretariat shall mail invitations with agendas and terms of reference, as appropriate, for each Cospas-Sarsat meeting in accordance with CSC directions and guidelines. Subsequent to the meeting, the Secretariat shall mail a report or Summary Record, as appropriate, to Participants and Observers.

Working papers or reports submitted for consideration at Cospas-Sarsat meetings, including Council sessions, will not be mailed to Participants. With the exception of documents submitted to Closed Meetings of Council sessions, meeting documents shall



be placed by the Secretariat in the appropriate section of the Cospas-Sarsat website as PDF files for downloading by Participants. Meeting documents and reports will be made available in printed form at the beginning of the meeting whenever possible.

Amendments to System documents or new System documents agreed by the Joint Committee and submitted to Council for approval per the Joint Committee recommendations should be prepared by the Secretariat and placed in the protected section of the Cospas-Sarsat website for downloading by Participants at least six weeks prior to the Council session. One hard copy of each new or revised System document shall be provided to each delegation at the beginning of the Council session under a red cover (the Red Book) with each page labelled with the words “Submitted to Council for approval”.

#### **2.4.4 Deadlines for Submission of Meeting Documents**

Cospas-Sarsat Participants need adequate time to consider proposals and establish national positions prior to Council or Joint Committee meetings. In addition, documents for consideration at meetings must be submitted to the Secretariat with sufficient advance notice for registration, formatting, conversion to PDF files and placement on the website for downloading by Participants.

It is, therefore, essential that Participants and the Secretariat abide by the following deadlines for the submission of documents to Council and Joint Committee meetings.

Routine Secretariat documents (agenda, reports, etc.) shall be made available on the Cospas-Sarsat website at least 6 weeks prior to the date of a meeting. The applicable deadlines for other documents shall be stated and distributed with the agenda for the meeting.

Documents shall be provided to the Secretariat prior to meetings with a notice of:

- 4 weeks for papers that recommend changes to System technology, current operations or policy; and
- 2 weeks for information papers or documents submitted in response to other papers that propose changes.

In respect of documents submitted to the Secretariat after the specified deadlines, the meeting Chair, in conjunction with the Secretariat, may decide either to:

- accept a late document that addresses urgent matters, and such document shall be labelled as "Late Submission - Urgent Matter"; or
- defer the late document to the next meeting of the Council or the Joint Committee.



#### **2.4.5 Invitations to Cospas-Sarsat Meetings**

All Participants shall be invited to be represented at Joint Committee meetings and the Open Meetings of the Council, unless their association with the Programme has been put in abeyance by the CSC.

Invitations to Task Group meetings and Experts' Working Group meetings will be issued by the Secretariat, after coordination with the Chair of the meeting. Unless otherwise directed by the Council, the Secretariat will issue invitations to those Participants that are directly concerned by the matters to be addressed per the approved terms of reference for the meeting, or individual experts that have knowledge and expertise of the subject to be considered.

#### **2.4.6 Observers at Cospas-Sarsat Meetings**

Subject to a specific CSC decision, administrations or agencies of States that have not completed the notification of their association with the Cospas-Sarsat Programme may be invited to attend Cospas-Sarsat meetings as observers.

Normally, observer status at a particular meeting will be granted to an agency or administration only if that agency or administration has formally stated a firm intention to implement the association procedure in the near future, or when confirmation has been provided to the CSC that the formal notification procedure was in progress. Invitations may be issued on the Council's instruction only.

The CSC may also decide to invite national or international organisations as observers to specific Cospas-Sarsat meetings, where their competencies and expertise might assist the discussion of technical or operational matters.

The list of organisations that may be invited to attend JC, TG and EWG meetings, as appropriate, is provided at Annex E to this document.

#### **2.4.7 Attendance at Cospas-Sarsat Meetings**

In accordance with the provision of the Arrangement Regarding the Headquarters of the International Cospas-Sarsat Programme, the list and composition of delegations attending a Cospas-Sarsat meeting at the Organization's Headquarters must be provided to the host country. For the above reason, as well as for the sound administration of the Programme, delegations attending Cospas-Sarsat meetings shall be established as follows:

- Heads of Delegations attending a Cospas-Sarsat meeting shall be accredited in accordance with the rules of procedures for the meeting.
- For Council meetings, Heads of Delegations must be accredited by a letter from the official Representative of the Cospas-Sarsat Participant sent to the Head of the Secretariat prior to the meeting. This signed letter can be forwarded by normal mail, as facsimile message or in a PDF attachment to an email message.

Accreditations can be valid for several Council sessions or for a single session. The duration of the accreditation shall be specified in the letter. If an accreditation ceases to be valid, a new accreditation shall be sent as described above.

- For Joint Committee meetings and the other subsidiary organs of the Council (e.g. Task Groups), the accreditation of the Head of Delegation shall be sent to the Head of Secretariat by the official Representative of the Cospas-Sarsat Participant, before the meeting, as described above. Alternatively, the Head of a Participant's delegation to the Joint Committee or other Council subsidiary organs may be accredited by a letter from the accredited Head of Delegation to the Council.
- The list of delegates or advisers in each delegation must be provided in writing (letter, facsimile or email) to the Secretariat by either the official Representative of the Participant or the accredited Head of Delegation.
- The official contact for Observers invited to participate in a Cospas-Sarsat meeting must inform the Secretariat of the composition of their delegation prior to the meeting.

#### **2.4.8 Meetings Held Outside of the Cospas-Sarsat Programme Headquarters**

Upon receiving a proposal by a Participant to host a Cospas-Sarsat meeting, the CSC may decide to accept the invitation and hold the meeting outside the Organization's Headquarters. The invitation should be submitted to the CSC in due time for consideration at its Open Meeting in the year preceding the date of the meeting. In respect of Joint Committee and Task Group meetings, it is desirable that such proposed invitations be announced at the JC meeting that precedes the Open Meeting of the CSC.

The basic principle to be applied for the payment of expenditure for Cospas-Sarsat meetings held outside the Organization's Headquarters is that the host organiser bears the additional costs incurred for holding the meeting. However, this principle may be difficult to implement strictly and should, therefore, be interpreted in the following way:

- a) **Travel Costs and Hotel Accommodation for Delegates:** All participants in the meeting, including the Cospas-Sarsat Secretariat Staff, should pay for their travel costs and hotel accommodation.
- b) **Secretariat and Meeting Support Staff:** Except when specifically agreed to by the CSC, the host shall cover all expenditure incurred for staff supporting the meeting, which does not include the permanent Staff of the Cospas-Sarsat Secretariat but may include overtime required from typists, photocopy operator, etc., to be hired by the host.
- c) **Interpretation/Sound System:** The Cospas-Sarsat Secretariat normally arranges and pays for expenses related to interpreters at CSC meetings, but the installation

and operation of interpretation equipment (sound system) should be paid for by the host of the meeting.

- d) Accommodation and Equipment: The host shall pay for all expenditure related to meeting rooms, offices and the required typing, word processing, printing, copying equipment and stationery required for the meeting. This includes the cost of operating this equipment (electric power, photocopies, paper, computer diskettes, etc.).
- e) Communication Facilities: The Host shall provide the appropriate telephone and facsimile equipment free of charge. Delegates may be requested to pay for their own communications. The Secretariat may also pay for its own communications.

A detailed list of requirements for hosting Cospas-Sarsat meetings is provided in the Secretariat document C/S S.002 "Guidelines for Cospas-Sarsat Meetings Held Outside Secretariat Headquarters", which can be obtained from the Secretariat. The precise nature of equipment, support and stationary required for successfully hosting a specific meeting should be discussed and agreed with the Secretariat.

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### **3. ASSOCIATION WITH THE COSPAS-SARSAT PROGRAMME**

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The International Cospas-Sarsat Programme was established pursuant to the International Cospas-Sarsat Programme Agreement (ICSPA) signed in Paris on 1 July 1988 by Canada, the Republic of France, the United States of America and the Union of Soviet Socialist Republics. The Secretary General of ICAO and the Secretary-General of IMO are the Depositaries of the ICSPA.

On 6 January 1992, the Russian Federation notified the Secretary-General of IMO that the Russian Federation maintained "all rights and obligations of the USSR in the International Cospas-Sarsat Programme".

Article 16 to the ICSPA declares that the ICSPA is "open for accession by any State that agrees to contribute a minimum of one basic unit to the Space Segment and is prepared to assume the responsibilities of a Party", subject to the agreement of the existing Parties in respect of its Space Segment contribution. However, only a limited number of States can realistically contribute to the Space Segment per the rules of the ICSPA, and a significant number of States contributing to the Ground Segment of the System are interested in its management. To allow for this, a specific method for non-Party States' association with the Cospas-Sarsat Programme is provided at Articles 11 and 12 of the ICSPA. The Parties to the ICSPA and the States or organizations that have notified their association in accordance with the procedures described below are referred to as Participants in the Cospas-Sarsat System.

Finally, the Council may also accept additional contributions to the Cospas-Sarsat Space Segment implemented and operated by Space Segment Providers that are not a Party to the ICSPA. This form of association is discussed in section 3.3 and illustrated at section 5.1 of this document.

#### **3.1 User States**

User States are those States that:

- use the System both through the reception of Cospas-Sarsat alerts and the deployment of radiobeacons; and
- have formally notified the Depositary of the ICSPA of their association with the Cospas-Sarsat Programme pursuant to Article 12 of the ICSPA and in accordance with the approved procedure described in the document C/S P.002 "Procedure for the Notification of Association with the International Cospas-Sarsat Programme by States Non-Party to the Cospas-Sarsat Agreement".

Per Article 12 of the ICSPA and the subsequent development of Cospas-Sarsat standards for the use of the System, User States undertake to assume the following responsibilities:

- to make or regulate the use of radiobeacons with characteristics that comply with appropriate provisions of the ITU and Cospas-Sarsat approved specifications;
- to maintain a 406 MHz beacon register or provide through other means for the registration of 406 MHz beacons; and
- to receive and exchange alert data and other information in respect of the Cospas-Sarsat System operation in accordance with procedures agreed with the Council.

Per Article 12 of the ICSPA, User States should also endeavour to participate in appropriate meetings of the Programme and are entitled to receive all documents pertaining to these meetings or submit documents for review at these meetings.

### **3.2 Ground Segment Providers**

Ground Segment Providers are those States that:

- have established, or plan to establish in the near future, Ground Segment equipment to operate with the Cospas-Sarsat satellite System and to use the System both through the reception of Cospas-Sarsat alerts and the deployment of radiobeacons; and
- have formally notified the Depositary of the ICSPA of their association with the Cospas-Sarsat Programme pursuant to Article 11 of the ICSPA and in accordance with the approved procedure described in the document C/S P.002 "Procedure for the Notification of Association with the International Cospas-Sarsat Programme by States Non-Party to the Cospas-Sarsat Agreement".

Per Article 11 of the ICSPA and the subsequent development of Cospas-Sarsat standards for the use of the System, Ground Segment Providers undertake to assume the following responsibilities:

- to adhere to the technical specifications and operating procedures approved by the Council for the purpose of ensuring adequate System performance;
- to endeavour to deliver Cospas-Sarsat alerts and location information in accordance with procedures agreed with the Council; and
- to discharge the same responsibilities as User States in respect of their use of the System.

Per Article 11 of the ICSPA, Ground Segment Providers should also endeavour to participate in appropriate meetings of the Programme and are entitled to receive all

documents pertaining to these meetings or submit documents for review at these meetings.

### **3.3 Space Segment Providers**

The Parties to the ICSPA are the main providers of the Cospas-Sarsat Space Segment. However, organisations or States that are not Party to the ICSPA may wish to contribute space segment capabilities that they own and operate, without assuming the responsibilities of a Party. In such circumstances, a formal procedure and specific documentation may be developed by the Council in cooperation with the prospective Space Segment Provider, to formally acknowledge the additional space segment contribution as part of the Cospas-Sarsat System. This form of association is subject to prior agreement with the Cospas-Sarsat Parties on the nature, the terms and the conditions of the proposed contribution to the Cospas-Sarsat Space Segment,

At the CSC-24 Session, in April 2000, the Council decided "to pursue the development of formal relations with EUMETSAT and India as Space Segment Providers, using Articles 9 (Functions of the Council) and 13 (Relationship with International Organizations) of the ICSPA as a basis".

The Council will review on a case-by-case basis the suitability of proposed Space Segment contributions and decide as appropriate on the conditions for their acceptance into the Cospas-Sarsat System, the applicable commissioning requirements and the terms and conditions of the cooperation with new Space Segment Providers. If such cooperation on a new Space Segment contribution is approved, the respective responsibilities and commitments of the Parties and the new Space Segment Provider should be formally spelled out in a specific document, or series of documents, as appropriate.

### **3.4 Procedure for Association with the Cospas-Sarsat Programme**

The standard procedure for States that wish to become associated with the Cospas-Sarsat Programme as a provider of Ground Segment equipment or as a user of the Cospas-Sarsat System is described in the document C/S P.002 "Procedure for the Notification of Association with the International Cospas-Sarsat Programme by States Non-Party to the Cospas-Sarsat Agreement".

There is no standard procedure for association by States or organizations that wish to contribute elements of the Space Segment. Possible contributions to the Space Segment will be addressed by the Council on a case-by-case basis.

### **3.4.1 Association by States Non-Party to the ICSPA to Participate in the System as Ground Segment Providers or User States**

Any State may decide to become associated with the Cospas-Sarsat Programme as a Ground Segment Provider or as a User State, and may unilaterally notify its association by depositing the standard letter of notification of association approved by the Cospas-Sarsat Council with one of the Depositaries of the ICSPA.

The Depositary will review the notification of association to verify that the letter:

- is identical to the standard text approved by the Council, or that any amendment to the standard text has been approved by the Council prior to the notification; and
- has been signed by the Head of State, or the Head of Government, or the Minister for Foreign Affairs, or by a duly authorised representative and is accompanied with the proper authorisation signed by one of the authorities mentioned above.

The aim of the procedure is to ensure that the signatory of the standard letter of notification of association is acting with the full authority of the State, particularly with regards to the State's operational responsibilities and regulatory competencies concerning SAR, whether in the maritime, aeronautical, or telecommunications domains.

If the notification procedure is accomplished as required, the Depositary will notify the Parties and the Secretariat of the date the association will become effective (i.e. 30 days after the notification of association was received by the Depositary). Further information concerning the procedure for the notification of association is provided in the document C/S P.002.

### **3.4.2 Association by Organisations**

In exceptional circumstances the Cospas-Sarsat Council may decide to accept a request for formal association with the Programme by an organisation.

In such cases, the notification shall be in the form of a letter agreed with the Council and sent to the Cospas-Sarsat Secretariat. Sample letters and detailed information on the procedure are provided in the document C/S P.003 "Procedure for the Association of Organizations with the International Cospas-Sarsat Programme".

## **3.5 Common Rules of Participation**

The preamble to the ICSPA states that access to the Cospas-Sarsat System is provided to all States on a non-discriminatory basis and free of charge for the end-user in distress. Therefore, there is no requirement for a country to become associated with the



Cospas-Sarsat Programme in order to benefit from Cospas-Sarsat satellite alerting services. All countries can avail themselves of the System by:

- regulating the use of Cospas-Sarsat compatible beacons,
- designating a SAR point of contact (SPOC) for receiving alerts and location data produced by the System, and
- establishing a register for 406 MHz beacons with a 7-day / 24-hour point of contact.

For those States and organisations that decide to become formally associated with Cospas-Sarsat, the basic principle is that each Participant is responsible for financing all costs of their participation, including the costs associated with the implementation, maintenance and operation of equipment that constitute their contribution to the System. In addition, States and organisations formally associated with the Programme pursuant to Articles 11 and 12 of the ICSPA are expected to contribute an annual flat fee towards the administrative costs of the Programme (Common Costs) as described at section 4 of this document.

States and organisations that contribute elements of the Cospas-Sarsat Space and Ground Segments shall make alert and location data produced by their equipment available to SAR services, in accordance with the procedures and standards approved by the Council. This includes commissioning their equipment into the Cospas-Sarsat System in accordance with applicable standards.

The rules for participating in the Cospas-Sarsat System or for States to avail themselves of Cospas-Sarsat satellite alerting services are summarised in the document C/S P.007 "Guidelines for Participating in the Cospas-Sarsat System".

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#### **4. COMMON COSTS OF THE PROGRAMME**

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Article 6 of the ICSPA states that:

- (6.1) "each Party [...] shall be fully responsible for financing all costs associated with its contribution to the Space Segment [...] and the common costs arising from the obligations of the Agreement" (i.e. the ICSPA);
- (6.2) "common costs associated with the organization, administration and coordination of the Programme, including those incurred in financing the activities of the Council and the Secretariat, shall be shared equally by the Parties"; and
- (6.4) non-Party States "choosing to participate in activities associated with the organization, administration and co-ordination of the Programme as referred to in Article 6.2 may be invited to contribute to the common costs involved under terms determined by the Council".

Pursuant to section 6.2 of their standard letter of notification of association, Participants declare that they are "prepared to contribute the standard annual amount, determined from time to time by the Council in agreement with Non-Party States associated with the Programme, towards the Common Costs associated with the organization, administration and co-ordination of the Programme".

##### **4.1 Definition of the Programme Common Costs and Funding**

As stated at Article 6.2 of the ICSPA, the Common Costs are the costs associated with the organization, administration and coordination of the Programme, including those incurred in financing the activities of the Council and the Secretariat. They do not include any expenses incurred for "the reception and transmission of distress alert data through the Cospas-Sarsat Space Segment", which are provided by the Parties and other Space Segment Providers free of charge to other Participants (ICSPA, Article 6.3).

At its Second Session in May 1989, the Council decided to approve the principles (CSC-2/OPN/SR/2.2.2) that:

- a) "the costs incurred by the Parties or the Ground Segment Providers for the establishment of the System, its maintenance and its operation are not included in the Common Costs of the Programme"; and
- b) "details regarding the Common Costs of the programme will be disclosed at the Open Meeting of the Council to support discussion of non-Party States' contributions".

Per Article 9 of the ICSPA (Functions of the Council), the Council is responsible for "the implementation of those provisions of Article 6 (Financial Matters) that require Council action". Under direction from the Council, the Secretariat will prepare a forecast of the expected Common Costs for the forthcoming year for review at the Open Meeting of the Council. The forecast shall be amended as necessary by the Council to form the approved Spending Plan for the forthcoming accounting year.

The Parties to the ICSPA are responsible for funding the totality of the Common Costs, each of them for an equal share of the total Common Costs. However, the required funding for the Programme Common Costs is offset by the annual contribution from other Participants, as determined in agreement with the Council.

## **4.2 Annual Contributions**

All States and organisations that have formally notified their association with the Programme shall pay the annual standard fee determined by the Council as their contribution towards the Common Costs of the Programme.

At its CSC-11 Session in 1993 (CSC-11/OPN/SR/5.4.7) the Council decided that:

- a) future evolution of the annual contribution should be decided with a minimum 3-year advance notice period before any agreed increase to the annual fee is implemented (e.g. a change decided at the Open Meeting of the October 2005 session of the Council would become effective from 2008 only); and
- b) future discussions on Participants' contributions should be supported by appropriate financial statements provided to Participants for review prior to the Council Session"

Non-Party Participants currently contribute an amount of CAN \$ 42,000.00 per year. The contribution of each Party currently stands at CAN \$ 190,000.00 per year (CSC-35/OPN/SR/6.6.4).

## **4.3 Invoicing and Payment of Contributions**

Invoices for the agreed annual contributions are raised by the Secretariat in January in accordance with the Council's decision, and are issued in Canadian dollars (CAN \$). Participants should send a letter advising the Cospas-Sarsat Secretariat of the appropriate recipient of invoices for annual contributions (CSC-3/OPN/SR/4.4.5 and CSC-12/CLD/SR/3.2.3).

If payment is not received in full by the end of June, a reminder will be issued by the Secretariat to all Participants with outstanding contributions.

When payment is received by the Secretariat, an acknowledgement for the amount credited to the Secretariat bank account is despatched to the Representative of the relevant Participant. This acknowledgement states whether there is a shortfall or overpayment of the amount due.

Payments received in other currencies will be converted into CAN \$, using the bank's current rate of exchange on the date of receipt of the payment (CSC-25/OPN/SR/5.5.12). Where there is a shortfall in the contribution payment, the outstanding amount will be added to the following year's invoice. Similarly, any overpayment will be deducted from the following year's contribution invoice.

Payments should be made using the bank account details as stated on the invoice, making clear reference to the Cospas-Sarsat Programme and the corresponding invoice number. Where payment is made by electronic or telegraphic transfer, Cospas-Sarsat should be informed in writing to ensure that payments are allocated correctly.

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## 5. THE COSPAS-SARSAT SYSTEM

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The Cospas-Sarsat System is described at Article 3 of the ICSPA as comprising:

- a) a Space Segment made up, under normal operating conditions, of at least four compatible satellite assemblies operating in low-altitude polar Earth orbit and designed to receive, process and store 406 MHz signals, and repeat 121.5 MHz signals;
- b) a Ground Segment established by the Parties and other States comprising Local User Terminals (LUTs) to receive and process the satellite signals and Mission Control Centres (MCCs) to accept the output from LUTs and convey distress alerts and location data to appropriate authorities; and
- c) radiobeacons designed to operate on 406 MHz and 121.5 MHz that comply with appropriate provisions of the ITU and Cospas-Sarsat specifications.

However, the satellite processing of 121.5 MHz signals was terminated on 1 February 2009 in accordance with a decision made by the Council at its Twenty-Fifth Session in October 2000.

Article 3 of the ICSPA also provides for "enhancements to the Cospas-Sarsat Space Segment configuration", as decided by the Cospas-Sarsat Council. The Cospas-Sarsat satellite system currently includes the low-altitude polar orbiting satellites of the Cospas and Sarsat constellations, as described at Article 3 of the ICSPA, and geostationary satellites from the GOES series (USA), the MSG series (EUMETSAT) and INSAT series (India). In future, satellite constellations in medium-altitude earth orbit with a 406 MHz repeater capability may also be integrated into the Cospas-Sarsat System.

### 5.1 Space Segment

The status of the Cospas-Sarsat Space Segment is provided in the document C/S A.001 "Cospas-Sarsat Data Distribution Plan". Updates to the Space Segment status are also provided on the Cospas-Sarsat website.

Detailed descriptions of the Cospas-Sarsat LEOSAR and GEOSAR Space Segments are provided in the documents:

- C/S T.003 "Description of the Payloads Used in the Cospas-Sarsat LEOSAR System"; and
- C/S T.011 "Description of the Payloads Used in the Cospas-Sarsat GEOSAR System".

### 5.1.1 The LEOSAR Space Segment

The Cospas-Sarsat satellite system in low-altitude polar orbit, established by Canada, France, Russia and the USA and referred to as the **LEOSAR** system, was declared operational at the first meeting of the Cospas-Sarsat Steering Committee held in Seattle, Washington, USA, in 1985. The LEOSAR Space Segment described in the 1988 ICSPA includes the 121.5 MHz SAR repeater (SARR) channel and the 406 MHz SAR receiver-processor (SARP) channel provided on both Sarsat and Cospas satellite constellations. As of 1 February 2009, however, 121.5 MHz SARR instruments on orbit were turned off and payloads on replacement satellites launched after that date were configured without the 121.5 MHz SARR capability.

The additional 406 MHz SAR repeater (SARR) channel, provided on Sarsat satellites only, was formally acknowledged as part of the Cospas-Sarsat System at the CSC-21 Session (October 1998). At CSC-21, the Council approved amendments to documents C/S T.002 "Cospas-Sarsat LEOLUT Performance Specification and Design Guidelines" and C/S T.005 "Cospas-Sarsat LEOLUT Commissioning Standard" to include the performance and commissioning requirements of the LEOLUT processing system for the 406 MHz SARR channel. A 406 MHz SARR capability is also planned on future Cospas satellites, beginning with the Cospas-13 satellite.

### 5.1.2 The GEOSAR Space Segment

Geostationary satellites with a 406 MHz repeater capability, referred to as the **GEOSAR** space segment, are a significant enhancement to the original Cospas-Sarsat System. Following experiments performed in 1984 by the USA in conjunction with Canada and France using the geostationary meteorological satellite GOES-7, the Council decided to undertake a thorough demonstration and evaluation of the performance of a 406 MHz geostationary alerting system, compatible with existing Cospas-Sarsat 406 MHz beacons.

#### 5.1.2.1 The GOES GEOSAR Space Segment

The GEOSAR Demonstration and Evaluation (D&E) of the GEOSAR system was performed between July 1996 and February 1998, using the satellites GOES-8, GOES-9 and INSAT-2A, and experimental GEOLUTs in Canada, Chile, France, India, Spain and the UK. The Council approved the D&E report (document C/S R.008) in October 1998 and decided (CSC-21/OPN/SR, section 4.2.4) "to adopt the D&E conclusion that the enhancement of the Cospas-Sarsat System through the integration of 406 MHz GEOSAR components was desirable" and "to accept the GOES-East and GOES-West 406 MHz GEOSAR components as an enhancement to the existing Cospas-Sarsat System".

The characteristics of the GOES GEOSAR system are described in the document C/S T.011 "Description of the Payloads Used in the Cospas-Sarsat GEOSAR System". In a letter to the Secretary-General of ICAO dated 5 February 1999, the USA informed the Depositaries of the ICSPA of the addition of the GOES GEOSAR capability to the Cospas-Sarsat System.



#### 5.1.2.2 The MSG GEOSAR Space Segment

The cooperation between Cospas-Sarsat and the EUMETSAT organization in respect of the METEOSAT Second Generation (MSG) space segment was established through an exchange of letters (letter from the Chair of the CSC to the Director General of EUMETSAT dated 15 June 2001 and the response of EUMETSAT's Director General dated 28 June 2001), which make reference to the "EUMETSAT to Cospas-Sarsat MSG GEOSAR Operations Interface Control Document (ICD)" that defines the detailed responsibilities of each organisation. Changes of substance to the ICD shall be reviewed and agreed by the Cospas-Sarsat Joint Committee and signed by the Head of Secretariat and the Chair of the Cospas-Sarsat Council. However, administrative updates to the ICD are only reviewed by the Secretariat and signed by the Head of Secretariat.

The D&E of the MSG GEOSAR system was performed between October 2002 and June 2004 and the document C/S R.013 "Cospas-Sarsat METEOSAT Second Generation (MSG) GEOSAR Performance Evaluation Report" was approved by the Council at the CSC-33 Session. The Council also decided to "formally accept the commissioning of MSG GEOSAR components into the Cospas-Sarsat System" (CSC-33/OPN/SR, section 4.1.8).

The characteristics of the MSG GEOSAR space segment are described in the document C/S T.011 "Description of the 406 MHz Payloads Used in the Cospas-Sarsat GEOSAR System". The Depositaries of the ICSPA were informed, in a letter from the Head of Secretariat dated 16 November 2001 (ref. CS01/304/F440), of the agreement between Cospas-Sarsat and EUMETSAT concerning the MSG GEOSAR enhancement to the Cospas-Sarsat Space Segment.

#### 5.1.2.3 The INSAT GEOSAR Space Segment

The INSAT-2A satellite was used during the GEOSAR D&E performed between July 1996 and February 1998 with an experimental GEOLUT installed at Bangalore, India. The characteristics of the 406 MHz INSAT GEOSAR system are provided in the document C/S T.011 "Description of the 406 MHz Payloads used in the Cospas-Sarsat GEOSAR System". The INSAT-3 satellites equipped with a 406 MHz repeater provide a narrow-beam downlink which does not give direct access to INSAT GEOSAR data outside India.

A specific Understanding between India and the Cospas-Sarsat Parties for the association of India as a Provider of GEOSAR services and the formal integration of the INSAT GEOSAR system to the Cospas-Sarsat System, was signed at the beginning of 2007. This Understanding, recorded under the reference C/S P.009, became effective on 25 March 2007.

The completion of the INSAT GEOSAR D&E with a new GEOLUT installed in Bangalore is pending. However, in recognition of the significant benefits demonstrated by the INSAT GEOSAR operation, GEOSAR alert data provided by the INSAT system is distributed in the Cospas-Sarsat network under the responsibility of India.

#### 5.1.2.4 Future Electro Space Segment

A 406 MHz GEOSAR capability is planned on the Russian geostationary satellite Electro-L.

#### 5.1.3 **Space Segment Commissioning and Changes of Status**

New satellites will be launched from time to time to maintain the operational status of the LEOSAR or the GEOSAR space segments. New SAR satellite payloads shall be commissioned into the System in accordance with the provisions of documents C/S T.004 "Cospas-Sarsat LEOSAR Space Segment Commissioning Standard" or C/S T.013 "Cospas-Sarsat GEOSAR Space Segment Commissioning Standard", as appropriate.

The Commissioning Authority is either the responsible Space Segment Provider or a Cospas-Sarsat Party designated with the agreement of the Space Segment Provider.

Information on changes to the status of operational satellites or SAR payloads should be distributed to all Ground Segment Providers by the responsible Space Segment Provider or Commissioning Authority, in accordance with the applicable Cospas-Sarsat operational requirements. It should also be forwarded to the Secretariat with a specific request to amend the Space Segment status published on the Cospas-Sarsat website.

The Secretariat shall not amend the status of a Space Segment component published on the Cospas-Sarsat website unless a written request to do so has been documented in a Council Summary Record, or received from the responsible Space Segment Provider or Commissioning Authority. The date of the last amendment to the status of the Space Segment shall be provided with the published status report.

### 5.2 **Ground Segment**

The Cospas-Sarsat Ground Segment includes:

- a) LUTs installed by Participants in the System to receive and process LEOSAR or GEOSAR downlink signals, and forward alerts to the associated MCC; and
- b) MCCs that filter, geographically sort and process alert data received from their associated LUTs and other MCCs, and forward alert messages to other MCCs, SAR Points of Contacts (SPOCs) or Rescue Coordination Centres (RCCs).

LUT performance specifications and commissioning standards are provided in the documents:

- C/S T.002 "Cospas-Sarsat LEOLUT Performance Specification and Design Guidelines"
- C/S T.005 "Cospas-Sarsat LEOLUT Commissioning Standard"

- C/S T.009 "Cospas-Sarsat GEOLUT Performance Specification and Design Guidelines"
- C/S T.010 "Cospas-Sarsat GEOLUT Commissioning Standard".

MCCs' performance specification, communications interface description and commissioning standard are provided in the documents:

- C/S A.002 "Cospas-Sarsat Mission Control Centres Standard Interface Description" (SID)
- C/S A.005 "Cospas-Sarsat Mission Control Centre (MCC) Performance Specification and Design Guidelines"
- C/S A.006 "Cospas-Sarsat Mission Control Centre Commissioning Standard".

The structure of the inter-MCC communications network, the procedures for the exchange of Cospas-Sarsat alert and location data and System data between MCCs, and the rules applicable to the distribution of Cospas-Sarsat alerts to SPOCs, RCCs, or the responsible authority for SSAS alerts, are provided in the document C/S A.001 "Cospas-Sarsat Data Distribution Plan" (DDP).

### **5.2.1 SAR Points of Contact (SPOCs)**

SPOCs are MCCs, RCCs and other established and recognised national points of contact that can accept or assume responsibility for the coordination and the fast and effective transfer of Cospas-Sarsat alert data to enable the rescue of persons in distress. To avail themselves of the System, States should:

- designate a single SAR point of contact (SPOC) for receiving Cospas-Sarsat alert and location data for distress locations in their SAR area of responsibility;
- provide the address, telephone, telex or facsimile number or AFTN address of their SPOC to the Cospas-Sarsat Secretariat; and
- develop a comprehensive plan for the distribution of alert and location data to SAR authorities, as appropriate.

Each MCC distributes Cospas-Sarsat alert data to its national RCCs and to designated SPOCs in the other countries included in its service area, as defined in the document C/S A.001 "Cospas-Sarsat Data Distribution Plan" (DDP). MCCs should coordinate with countries in their service areas to collect information on SPOCs for inclusion in the DDP.

### **5.2.2 Implementation of New LUTs and MCCs**

The decision to implement a new LUT and MCC is the sole responsibility of the Participant that funds the purchase and installation of the equipment. There are no

mechanisms or plans for the Cospas-Sarsat Programme to fund or subsidise the purchase, implementation or operation of new Ground Segment equipment. However, only States or organisations that have completed the appropriate procedure for the notification of their association as Ground Segment Provider or as Ground Segment Operator, respectively, may have their equipment commissioned and integrated into the Cospas-Sarsat System.

A State that has notified its association with the Cospas-Sarsat Programme as a Ground Segment Provider per the terms of the standard letter of notification of association, assumes the responsibility "to adhere to the technical specifications and operating procedures set by the Council for the purpose of ensuring adequate System performance" and "to provide, as agreed with the Council, appropriate performance data in order to confirm compatibility of its Ground Segment equipment with the System".

Prior to its full integration into the Cospas-Sarsat System, any new Ground Segment equipment must be commissioned in accordance with the applicable Cospas-Sarsat requirements detailed in the documents listed above.

The cost of implementing the commissioning procedure and reporting to the Cospas-Sarsat Joint Committee is the responsibility of the Agency or Administration that has installed the equipment to be commissioned.

The general principles summarised below govern the commissioning of Ground Segment equipment into the Cospas-Sarsat System.

#### 5.2.2.1 LUT Commissioning

The implementation of the commissioning procedure is the responsibility of the Ground Segment Provider/Operator. A commissioning report in the format described in the documents C/S T.005 for LEOLUTs, or C/S T.010 for GEOLUTs, shall be submitted to the Cospas-Sarsat Secretariat, for review by the Joint Committee.

The commissioning report must be submitted to the Secretariat by the Representative of the Participant or the designated Cooperating Agency at least four weeks prior to the Joint Committee meeting. After review of the report, the Joint Committee will make a recommendation to the Cospas-Sarsat Council. Formal commissioning will be recorded at the subsequent meeting of the Council, as appropriate.

If the commissioning test results in the report do not demonstrate full compliance with the applicable Cospas-Sarsat specification, corrective action must be taken.

If the test results in the commissioning report submitted to the Secretariat demonstrate compliance with the specification, the new LUT may be declared at initial operational capability (IOC) by the Ground Segment operator, and alert data derived from the new LUT may be used by the associated MCC and distributed internationally in accordance with the document C/S A.001 (DDP), under the responsibility of the Ground Segment operator. The declaration of IOC status may occur prior to the JC review of the LUT

commissioning report. However, the report must be submitted to the Secretariat prior to IOC.

All new LUTs (LEOLUT or GEOLUT) shall be commissioned in accordance with the above policy, including new equipment replacing previously commissioned equipment. New operational capabilities added to existing LUTs (as defined in the specification documents C/S T.002 or C/S T.009, e.g. additional processing channel, combined LEO/GEO processing, etc.) shall also be commissioned per the applicable requirements of the documents C/S T.005 or C/S T.010.

For enhancements to LUTs concerning new or updated functionalities as agreed with the Cospas-Sarsat Council, the Ground Segment operator should perform the test programme established by the Joint Committee and report as directed by the Council. For any other enhancement or update to the LUT equipment, the LUT operator should perform all testing that may be required to ensure that the expected performance is achieved and maintained, and notify the Council in accordance with the applicable reporting procedures.

The status of commissioned LUTs will be recorded in the document C/S A.001 (DDP) and published in the Cospas-Sarsat System Data document and on the Cospas-Sarsat website.

#### 5.2.2.2 MCC Commissioning

The commissioning of a new MCC in the Cospas-Sarsat System demonstrates the capability of the MCC to exchange data with other MCCs in the network in a timely and reliable manner and process messages in accordance with Cospas-Sarsat functional requirements.

This demonstration requires, in particular:

- the description of communication links with other Cospas-Sarsat MCCs, including a decision concerning the Data Distribution Region (DDR) in which the MCC under development (DMCC) will be integrated; and
- a precise definition of the new MCC service area (i.e. the agreed list of SPOCs that will be served by the DMCC in addition to its national RCCs).

Therefore, the commissioning of a new MCC can only be performed in cooperation with the nodal MCC responsible for the DDR, after the development of a detailed commissioning plan and coordination with adjacent MCCs in respect of the DMCC service area. A complete description of the DMCC with its communication links, points of contact and agreed service area shall be provided to the Secretariat. The Secretariat shall prepare the required amendments to the relevant operational documents (DDP, SID and Geosort) for review by the Joint Committee and approval by the Council, as appropriate, prior to the beginning of DMCC operation.

Following implementation of the DMCC commissioning tests and analysis of test results that demonstrate conformance with Cospas-Sarsat requirements, the responsible

nodal MCC should submit a report to the Secretariat. This report will be submitted to the Joint Committee for review and subsequent approval by the Cospas-Sarsat Council. The responsible nodal MCC may declare the new MCC at initial operational capability (IOC). Formal commissioning of the new MCC will be recorded at the subsequent meeting of the Council, as appropriate.

For enhancements to existing MCCs concerning new or updated functionalities as agreed with the Cospas-Sarsat Council, the Ground Segment operator should perform the test programme established by the Joint Committee and report as directed by the Council. For any other enhancement or update to the MCC software or communication capabilities, the MCC operator should perform all testing that may be required to ensure that the expected performance is achieved and maintained, and notify the Council in accordance with the applicable reporting procedures.

The status of commissioned MCCs will be recorded in the C/S A.001 document (DDP) and published in the Cospas-Sarsat System Data document and on the Cospas-Sarsat website.

#### 5.2.2.3 MCC Service Areas

##### *(a) Service Area Description*

The document C/S A.001 (DDP) defines an MCC service area as “that part of the world within which a Cospas-Sarsat alert data distribution service is provided by that MCC”. An MCC service area is described in the DDP as a list of SAR Points of Contact (SPOCs) designated by States to interface with Cospas-Sarsat that receive Cospas-Sarsat distress alerts from that MCC (i.e. their associated MCC).

In accordance with the rules of Cospas-Sarsat alert data distribution described in the DDP, SPOCs in other countries shall not be served by more than one MCC.

MCCs should coordinate with their SPOCs with a view to establishing reliable communication links and developing awareness of the Cospas-Sarsat System, its alert message formats and their contents.

Changes to the list of SPOCs that define an MCC service area can be agreed bilaterally between interested MCCs after proper coordination with all interested parties, provided that, in particular:

- the affected SPOCs have been duly informed with appropriate advance notice of the proposed change of associated MCC and have either expressed their consent or did not object to the proposed change; and
- the MCC that accepts responsibility for serving a SPOC has adequate communication links with this SPOC.



*(b) Service Area Boundaries*

Search and Rescue Regions (SRRs) defined and coordinated internationally by ICAO and IMO, are assigned to the aeronautical, maritime or Joint RCCs established by States. An MCC service area will usually include the various SRRs of the RCCs associated with the SPOCs that define the MCC service area.

For the practical implementation of the Cospas-Sarsat alert data distribution procedures described in the document C/S A.001 (DDP), which demand the geographic sorting of distress alerts, the precise boundaries of MCC service areas must be coordinated among all interested parties. In particular, coordination is required between a new MCC and existing MCCs that previously assumed responsibility for the distribution of Cospas-Sarsat alert data in the proposed service area of the new MCC.

Usually, the service area boundaries reflect existing boundaries of SRRs as defined and coordinated internationally by ICAO or IMO. On land, special effort should be made to limit the number of points required to define the service area boundary and keep this number of data points to a manageable level, consistent with the capability of MCCs to geographically sort distress alerts in accordance with their computed location. The boundary description resulting from the coordination of a new MCC service area should be provided to the Cospas-Sarsat Secretariat for distribution to all MCCs.

It is highly desirable that adjacent MCC service areas have common boundaries with identical geographical coordinates. Discrepancies between adjacent MCCs' boundaries should be resolved by bilateral agreement between the neighbouring MCCs, noting that the description of the MCC service areas is not related to and shall not prejudice the delimitation of any boundaries between States.

*(c) Geosort Document*

The description of MCC service area boundaries used by MCCs to geographically sort Cospas-Sarsat alerts are recorded in the Geosort document. This document reflects the agreement of MCCs in respect of their common service area boundaries, or the absence of agreement between adjacent MCCs which results in the implementation of partially overlapping service areas.

The Cospas-Sarsat Council does not and cannot approve the Geosort document, nor the recorded descriptions of MCC service areas. Therefore, the geographical description of an MCC service area provided in the Geosort document should be considered as the unilateral declaration by an MCC, after proper coordination with all interested parties, of the geographical area for which the MCC operator has taken a commitment to distribute Cospas-Sarsat alert data to the responsible SAR authority, in accordance with Cospas-Sarsat principles, procedures and requirements.

*(d) Coordination of a New MCC Service Area*

A new MCC shall provide for consideration by the Joint Committee a list of SPOCs which it proposes to serve. Subject to the concurrence of MCCs that are already providing the alerting service to the concerned SPOCs and following the coordination per section 5.2.2.3 (a) above, the definition of the new MCC service area at FOC will be recorded in the DDP.

When no agreement can be reached on the list of SPOCs to be associated with the new MCC service area, the document C/S A.001 (DDP) will follow the previous service area definition of the MCC already commissioned into the Cospas-Sarsat System.

At IOC, the service area of the new MCC is limited to its national search and rescue regions (i.e. the new MCC distributes alert data to its national RCCs only). If no significant problems are discovered during the IOC phase, the MCC may transition to full operational capability (FOC), subject to appropriate coordination with other Cospas-Sarsat MCCs, and undertake the distribution of alert data to all SPOCs in its service area.

Cospas-Sarsat encourages existing and prospective Ground Segment Providers to undertake coordination on a bilateral basis to implement, wherever and whenever possible, a common definition of the boundary between adjacent MCC service areas, with a view to simplifying the geo-sorting process and ensuring an efficient and effective distribution of Cospas-Sarsat alert data. Ground Segment Providers should, therefore, undertake all reasonable efforts to achieve common MCC service area boundaries and limit overlapping areas.

If a common boundary cannot be agreed after proper coordination with all interested parties, the unilateral declaration of the service area boundaries proposed by each MCC should be submitted to the Cospas-Sarsat Secretariat for distribution to and consideration by all concerned MCCs. If the implementation of the proposed new boundaries and the resulting overlap is practically feasible, all Cospas-Sarsat MCCs will be requested to implement the geo-sorting of alert data in accordance with the declared service areas and ensure in all circumstances the distribution of data regarding alerts located in the overlap to both MCCs in parallel.

5.2.2.4 Nodal MCC Network

The Cospas-Sarsat MCC communications network is organised into a number of Data Distribution Regions (DDR). A DDR comprises two or more MCC service areas. Cospas-Sarsat alert data and System information are exchanged between DDRs through a single MCC which acts as point of contact / communication node for that DDR.

The DDRs and the nodal MCC network are described in the Cospas-Sarsat Data Distribution Plan (C/S A.001). Specific operational, functional and performance requirements for nodal MCCs are defined in the document C/S A.005 and specific commissioning requirements for the nodal MCC function are described in the document C/S A.006, particularly as regards the communication links with other nodes in the network.



Pursuant to the requirements of document C/S A.005, a nodal MCC shall coordinate with and act as a focal point for MCCs in its DDR on Cospas-Sarsat System matters, and provide support and assistance to developing MCCs within its DDR.

### **5.2.3 Monitoring and Reporting Ground Segment Equipment Operation and Status**

Detailed requirements in respect of System monitoring and reporting are listed in the document C/S A.003 "Cospas-Sarsat System Monitoring and Reporting".

#### **5.2.3.1 Ground Segment Equipment Status**

Guidelines for equipment integration into the Cospas-Sarsat System detailed in annexes to documents C/S A.006 (MCC commissioning), C/S T.005 (LEOLUT commissioning) and C/S T.010 (GEOLUT commissioning), state that, after reaching IOC status, the operation of the LUT or MCC shall be monitored for at least three months. If performance is confirmed to be satisfactory, the LUT or MCC will be declared at full operational capability (FOC). If serious performance anomalies are noted, FOC should be withheld until these anomalies are rectified. However, Ground Segment equipment shall not be maintained at IOC status for more than one year.

In case the equipment cannot reach FOC, its status should be downgraded to "under development". If FOC status cannot be maintained after formal commissioning, the equipment should be reported as "commissioned, not operational" until normal operation is resumed with adequate performance.

The status of Ground Segment equipment will be published in the document C/S A.001 (DDP), as approved by the Council, and also reported on the Cospas-Sarsat website and in the Cospas-Sarsat System Data document.

#### **5.2.3.2 Annual System Test**

At CSC-21 the Council decided to adopt Joint Committee recommendation on determining and reporting the status of Ground Segment equipment on a recurring basis (CSC-21/OPN/SR/3.3.5). In particular, the Council agreed that the Joint Committee with inputs from nodal MCCs and other Ground Segment Operators should review the status of all commissioned Ground Segment equipment on an annual basis.

A Ground Segment System test will be conducted annually to help confirm the status of commissioned LEOLUTs, GEOLUTs and MCCs in the Cospas-Sarsat System, using test messages transmitted by beacon simulators and the test script defined in the document C/S A.003 "Cospas-Sarsat System Monitoring and Reporting". Each Ground Segment operator should coordinate with their associated nodal MCC and report to the Joint Committee the results of its Ground Segment equipment processing of the test transmissions. The Joint Committee shall make recommendations to the Council in respect of possible changes to the status of Ground Segment equipment.

### 5.2.3.3 Changes to Ground Segment Equipment Status

Changes to Ground Segment equipment status should be reported by Ground Segment Providers per the requirements of document C/S A.003.

The Secretariat will update the status of Ground Segment equipment published on the Cospas-Sarsat website. However, the Secretariat shall not amend the status of a Ground Segment component unless a written request to do so has been documented in a Council Summary Record, or received from the responsible Ground Segment Provider.

The date of the last amendment to the status of the Ground Segment shall be provided with the published status report.

## 5.3 Beacons

Article 3 of the ICSPA lists "radiobeacons, which are designed to be activated in a distress and to transmit a radio signal on frequencies of 406 MHz and / or 121.5 MHz, the characteristics of which comply with appropriate provisions of the International Telecommunication Union and Cospas-Sarsat specifications", as the third component of the Cospas-Sarsat System. Following the termination of the satellite processing of 121.5 MHz beacon transmissions on 1 February 2009, all beacons in the Cospas-Sarsat System must operate in the frequency band 406.0 to 406.1 MHz. However, the majority of these beacons also include a 121.5 MHz transmitter for homing purpose and, therefore, continue to transmit a 121.5 MHz signal.

Articles 11 and 12 of the ICSPA require Ground Segment Providers and User States to:

- "make use of radiobeacons for operation in the System, the characteristics of which comply with appropriate provisions of the ITU and Cospas-Sarsat specifications"; and
- "maintain, as applicable, a radiobeacon register".

The above requirements are also stated in the standard letters of notification of association as Ground Segment Provider or User State (document C/S P.002).

Finally, Article 9 of the ICSPA defines as a Council function "the preparation, consideration and adoption of technical specifications for [...] radiobeacons" and [...] "the adoption of procedures for type approval of [...] radiobeacons".

### 5.3.1 Beacon Specification and Type Approval

The documents C/S T.001 "Specifications for Cospas-Sarsat 406 MHz Distress Beacons" and C/S T.007 "Cospas-Sarsat 406 MHz Beacon Type Approval Standard" provide the approved specifications and type approval standards for 406 MHz beacons compatible with the Cospas-Sarsat System.

Cospas-Sarsat cannot enforce the application of its 406 MHz beacon specification and type approval standard, or impose these requirements on States that do not voluntarily associate themselves with the Programme. The document C/S T.007 states that:

"The issuing of performance requirements, carriage regulations and the testing and type approval of 406 MHz distress beacons are the responsibilities of national authorities. However, to ensure beacon compatibility with Cospas-Sarsat receiving and processing equipment, it is essential that beacons meet specified Cospas-Sarsat performance requirements. Compliance with these requirements provides assurance that the tested beacon performance is compatible with, and will not degrade, the Cospas-Sarsat system. [...] Therefore, it is recommended that national authorities and search and rescue agencies require manufacturers to comply with the provisions of the C/S T.007 document".

To assist national authorities in this respect, the Cospas-Sarsat Secretariat will issue a Cospas-Sarsat Type Approval Certificate to 406 MHz beacon manufacturers for each model that has successfully undergone type approval testing as required in the document C/S T.007. States may choose to rely on the results of Cospas-Sarsat type approval testing for national type approval, as an alternative to re-testing the 406 MHz transmission characteristics of the beacons. However, the Cospas-Sarsat type approval procedure does not cover the mechanical and environmental specifications of distress beacons or their installation on board ships or aircraft. Therefore, States should ensure that the applicable requirements have been properly addressed by manufacturers before approving a particular model.

The Secretariat will maintain a database for all beacon models that have received a Cospas-Sarsat Type Approval Certificate and publish a summary description of approved models on the Cospas-Sarsat website. The list of type-approved models will also be published in the Cospas-Sarsat System Data document.

Cospas-Sarsat type approval testing must be performed at Cospas-Sarsat accepted test facilities. The procedure and conditions for obtaining Cospas-Sarsat acceptance are detailed in document C/S T.008 "Cospas-Sarsat Acceptance of 406 MHz Beacon Test Facilities".

Cospas-Sarsat cooperates with the ITU and other standards organisations to ensure that international specifications and standards for 406 MHz beacons are consistent with Cospas-Sarsat requirements. Transmission requirements applicable to 406 MHz beacons are defined in Recommendation ITU-R M.633, in Annex 10 of the ICAO Convention and in IMO Assembly Resolution A.810, by reference to the Cospas-Sarsat specification.

### 5.3.2 Beacon Coding and Registration

Beacon coding is detailed in the specification document (C/S T.001) and further illustrated in document C/S G.005 "Cospas-Sarsat Guidelines on 406 MHz Beacon Coding, Registration and Type Approval". The Cospas-Sarsat website also provides a "beacon tutorial" that includes detailed guidance on beacon coding. States should ensure that beacons authorised for use under their jurisdiction and registered in their databases are coded in accordance with the applicable Cospas-Sarsat requirements.

Pursuant to the requirement of Annex 10 of the ICAO Convention and IMO Assembly Resolution A.887(21), States should maintain a current register for all 406 MHz ELTs and EPIRBs to establish the correspondence between a 406 MHz ELT or EPIRB and its owner or its carrier vehicle. A register is equally necessary for establishing the correspondence between a 406 MHz PLB and its owner or user.

The country code is the only information in the beacon message that can provide a link to the administration maintaining the beacon registration database. Therefore, to enable SAR services to retrieve pertinent registration data, the country code encoded in the beacon message must be that of the country maintaining the registration database (CSC-23/OPN/SR/4.1.20).

States are requested to provide IMO, ICAO, as appropriate, and Cospas-Sarsat with the details of their beacon register's point of contact where SAR services can obtain information on the ship, or aircraft carrying a transmitting beacon, or the owner of a PLB. The information contained in the beacon register should be available to SAR services 24 hours / day and 7 days / week to facilitate the expeditious processing of Cospas-Sarsat distress alerts.

When available, information on national registers' points of contact will be published in the document C/S A.001 (DDP). In addition, the Cospas-Sarsat Secretariat will maintain the document C/S S.007 "Handbook of Beacon Regulations", which includes available information on administrative contacts for beacon coding and registration in each country.

### 5.3.3 International Beacon Registration Database (IBRD)

Despite the clear advantage of registration, a significant number of beacons are not properly registered due to a lack of registration facilities in a number of countries. Furthermore, a number of beacon registers do not have 24-hour points of contact easily accessible by SAR services. Therefore, the Cospas-Sarsat Council decided at its CSC-33 Session (CSC-33/OPN/SR/4.4.8) to proceed with establishing an International Beacon Registration Database (IBRD).

#### 5.3.3.1 International Regulations and Purpose of the IBRD

IMO policy, as stated in IMO Assembly Resolution A.887(21), adopted on 25 November 1999, provides in paragraph 2 that "every State requiring or allowing the use of these GMDSS systems should make suitable arrangements for ensuring registrations of these identities are made, maintained and enforced." These

arrangements are further clarified in paragraph 12 which provides that “Every State should maintain a suitable national database or co-ordinate with other States of their geographical area to maintain a joint database”.

ICAO policy on registration of ELTs is contained in Chapter 5 of the ICAO Convention, which provides that “States shall make arrangements for a 406 MHz ELT register. Register information regarding the ELT shall be immediately available to search and rescue authorities. States shall ensure that the register is updated whenever necessary.”

It is, therefore, the sole responsibility of States to provide the appropriate regulatory environment, facilities and resources that are required for an effective registration process. The IBRD is a means designed by Cospas-Sarsat to assist with the registration process when, due to a lack of resources, States have not implemented facilities for a national register. The IBRD is also meant to assist States in making their registration data available to SAR authorities on a 24-hour basis, 7 days per week. However, it is not designed to become the unique central repository for beacon registration data.

In providing the IBRD and making the IBRD available to States and users under their jurisdiction, Cospas-Sarsat does not accept or take over the specific responsibilities of States as stated by IMO and ICAO and declines all responsibilities or liabilities that might be associated with the registration of any data in the IBRD, or its availability or unavailability to SAR authorities. When States choose to allow the registration of data from users under their jurisdiction in the IBRD, or upload national registration data into the IBRD, they retain full and exclusive responsibility for the integrity of such data, its accuracy and its availability to SAR. In this regard, Cospas-Sarsat does not provide any guaranty as to the continuous operation of the IBRD.

#### 5.3.3.2 Functional Requirements and Operations Policy for the IBRD

The IBRD is designed to be freely available to users with no access to national registration facilities and to Administrations who wish to avail themselves of the facility to make their national beacon registration data more available to SAR services. However, direct registration of beacons in the IBRD is not allowed for the country codes of Administrations that have informed Cospas-Sarsat of their decision to control the registration of beacons under their jurisdiction, whether in the IBRD or in their own national registration databases.

The IBRD provides various levels of access to:

- a) beacon owners who wish to register their beacons when no registration facility exists in their country and the responsible Administration has agreed to allow direct registration in the IBRD;
- b) Administrations who control the registration of beacons identified with their country code, but wish to make registration data available to international SAR services via the IBRD;

- c) SAR services that need to access beacon registration data to efficiently process distress alerts; and
- d) other authorised government entities or agencies for the purpose of controlling the proper coding or registration of beacons.

The functional requirements for the IBRD are provided in the documents C/S D.001 "Functional Requirements for the Cospas-Sarsat International Beacon Registration Database" and the IBRD operations policy is defined in the document C/S D.004 "Operations Plan for the Cospas-Sarsat International Beacon Registration Database".

Access to the IBRD is controlled by user codes assigned by the Cospas-Sarsat Secretariat in accordance with Council guidelines. Administrations wishing to use the IBRD should designate a National Point of Contact. Cospas-Sarsat will accept designations from the Cospas-Sarsat Representative or, for non-participating countries, the IMO or the ICAO Representative for that country.

The Secretariat will provide each National IBRD Point of Contact with user identifications and passwords to be used by:

- National Data Providers for registration of beacons with their country code(s);
- SAR services for IBRD queries; and
- authorised shore based service facilities and inspectors to verify proper coding and actual registration of the beacon.

These IBRD user identifications and passwords should be distributed within each country under the responsibility of the National IBRD Point of Contact. Detailed rules for accessing the IBRD are provided in the document C/S D.004.

#### **5.4 System Evolution**

The initial design of the Cospas-Sarsat System was agreed by the development agencies in 1979 when the first Memorandum of Understanding was signed in Leningrad, in former USSR. The System has evolved almost continuously since that time with various additions, such as the Sarsat 406 MHz search and rescue repeater system (SARR) which was not officially part of the initial programme, or the 406 MHz GEOSAR system for which early experiments were performed by the USA in 1984.

All past evolutions aimed at providing enhancements to the existing System while maintaining full compatibility with earlier equipment, in particular the 406 MHz beacon specifications. All future evolutions shall ensure backward compatibility and maintain the required system performance. Specifically, the planned introduction of MEOSAR components within the operational Cospas-Sarsat System shall provide full backward compatibility with existing 406 MHz beacons.



The USA, the European Commission (EC) and Russia began consultations with Cospas-Sarsat in 2000 regarding the feasibility of installing 406 MHz SAR instruments on their respective medium-altitude Earth orbit navigation satellite constellations. The medium-altitude (about 20,000 km) satellite system for SAR, now referred to as the MEOSAR system, will include the USA contribution called the Distress Alerting Satellite System (DASS) based on the GPS navigation satellites' constellation, the European system based on the Galileo navigation satellites' constellation called SAR/Galileo, and the Russian system based on the Glonass navigation satellites' constellation referred to as SAR/Glonass.

The MEOSAR system is expected to provide an enhanced distress alerting capability characterised by:

- near instantaneous global detection and independent locating capability for Cospas-Sarsat beacons;
- robust beacon to satellite communication links, high levels of space and ground segment redundancy and availability;
- resilience against beacon to satellite obstructions and interference; and
- the possible provision of additional, enhanced SAR services, including a return link to the beacon.

At the CSC-33 Session, the Council approved the document C/S R.012 "Cospas-Sarsat MEOSAR Implementation Plan" (MIP) that addresses matters that impact on the possible introduction of a MEOSAR capability into the Cospas-Sarsat System, including the compatibility of MEOSAR constellations with each other and with the Cospas-Sarsat System. The MIP includes, inter alia, the definition of MEOSAR compatibility and interoperability, management structures and policies agreed for the development and introduction of MEOSAR components in the Cospas-Sarsat System, minimum operational requirements and enhanced performance objectives.

It is expected that the future Cospas-Sarsat MEOSAR ground segment (i.e. MEOLUTs) will be funded, established, integrated in the Cospas-Sarsat System and operated along similar principles as used in the international cooperation on the existing Cospas-Sarsat System, by various countries and organisations that are already or may become associated with the Programme.

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## **6. SYSTEM OPERATION AND MANAGEMENT**

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System operation is the responsibility of each provider of System elements, i.e. the Space Segment Providers and Ground Segment Providers. The providers of Cospas-Sarsat System elements are committed through various instruments, i.e. the ICSPA for the Parties, specific agreements for other Space Segment Providers and the letter of notification of association for non-Party Participants, to operate their contribution to the System in accordance with the specifications, standards and processes approved by the Council, as described in the System documents.

The objective of the Cospas-Sarsat System is to reduce, as far as possible, delays in the provision of distress alerts to SAR services and the time required to locate a distress and provide assistance, as these have a direct impact on the probability of survival of the person in distress. To ensure that this objective is fulfilled, whenever possible, Cospas-Sarsat has established a Quality Management System (QMS), outlined in the Cospas-Sarsat Quality Manual, document C/S P.015. The application of Cospas-Sarsat QMS principles to System operation includes a quasi-real-time monitoring process of the System operation and specific reporting requirements for all operators of System elements, as described in document C/S A.003 “Cospas-Sarsat System Monitoring and Reporting”.

### **6.1 Continuous Monitoring and Objective Assessment of the System Status**

The monitoring process described in document C/S A.003 involves reporting to nodal MCCs the data generated at each LEOSAR satellite pass by LEOLUTs, or periodically for GEOLUTs, using the transmissions of designated orbitography or reference beacons. The transmitted data is automatically assessed on a daily basis using a set of predetermined criteria. The result of this objective assessment, which characterises the current status of each LUT-satellite combination, is reported by nodal MCCs on the Cospas-Sarsat website.

### **6.2 Annual Report on System Status and Operations**

In order to assemble basic information on the evolution of the Cospas-Sarsat System, track the implementation of the approved changes in each part of the System and maintain up-to-date data on the operational status of the System, it is important that Participants provide information on the status of their contribution to the System, or changes to the portion of the System that they operate.

#### **6.2.1 Reporting Requirements**

The status of the System, including its Space Segment, Ground Segment and beacons, a summary of its performance and the history of detected anomalies should be reported

annually by all Participants. To that end, System status and performance reporting criteria have been defined in the document C/S A.003 “Cospas-Sarsat System Monitoring and Reporting”.

Information to be provided includes:

- Space Segment status (reported by the Space Segment Providers only);
- Ground Segment status, including MCC and LUT availability statistics;
- status of implementation of approved System changes (see section 6.4 of this document);
- current beacon population figures and forecasts;
- numbers of confirmed distress alerts and false / undetermined alerts, and false alert rate calculations (see section 6.2 of this document);
- MCC back-up test results;
- interference monitoring;
- processing anomalies; and
- reports of SAR events assisted by Cospas-Sarsat (see section 6.3 of this document).

#### **6.2.2 Template for Annual Report, Submission Deadlines and Processing of Participant Reports**

The Secretariat will host a template for the Annual Report on System Status and Operations on the Cospas-Sarsat website at the beginning of each calendar year, formatted as a Joint Committee paper for that year. However, in order to allow the Secretariat sufficient time to aggregate the reports, each Participant should submit their Annual Report on System Status and Operations to the Secretariat by the end of the month of February for the previous year reporting period.

The Secretariat will then prepare the draft document C/S R.007 “Cospas-Sarsat Report on System Status and Operations” for the calendar year, for review by the Joint Committee and subsequent approval by the Council.

On the basis of the information provided by Participants at Cospas-Sarsat meetings, including the results of the annual System test and any reported anomalies, the Joint Committee will prepare updates to the description of the System provided in the appropriate System documents and on the Cospas-Sarsat website. When Participants, including the provider of a System component, agree on the proposed change to the description of the status of this System component, the agreement and the amended status should be documented in writing and the corresponding amendment published by the Secretariat on the Cospas-Sarsat website. If a disagreement exists, the Secretariat should follow the Joint Committee recommendation and the matter should be addressed at the next Council Session.

## 6.3 False Alerts and System Anomalies

### 6.3.1 False Alerts

A false alert is a Cospas-Sarsat distress alert message that is forwarded to SAR authorities, but which does not correspond to an actual distress situation. Every false alert represents a waste of valuable SAR resources since each must be investigated by SAR services before the case can be closed. Additionally, a high false alert rate causes SAR services to question the reliability and integrity of all Cospas-Sarsat data.

Investigation into false alerts revealed the following typical causes:

- beacon mishandling (e.g. improper testing, storage or disposal);
- beacon malfunctions (e.g. faulty activation switch, water ingress, or electronics malfunction);
- mounting failures; and
- extreme environmental conditions.

In view of their impact, Cospas-Sarsat has developed a comprehensive false alert monitoring and reporting programme, which is described in the document C/S A.003 (System monitoring and reporting). This programme provides guidance to Participants for tracking and reporting the number and the causes of false alerts. The information obtained from this programme is reported to international organisations (i.e. IMO) to seek their assistance in reducing the number of false alerts through education programmes. It is also used by Cospas-Sarsat for developing enhancements to the System that help reduce the number and / or impact of false alerts on SAR services.

Cospas-Sarsat currently reports two false alert rates:

- a) the ratio of false alerts to the total number of alerts transmitted to SAR services, i.e. the “SAR” false alert rate; and
- b) the ratio of false alerts to the estimated beacon population, i.e. the “beacon” false alert rate.

The SAR false alert rate is a measure of the impact of false alerts on SAR services. However, because this rate is traditionally high (around 95% or more) in all automatic alerting systems, a large reduction in the number of false alerts would translate into a much smaller reduction of the rate. Therefore, a better appreciation of the impact of false alerts can be derived using the ratio of actual distress alerts to the total number of alerts, e.g.:

SAR false alert rate of 98% = one real distress for 50 Cospas-Sarsat alerts

SAR false alert rate of 96% = one real distress for 25 Cospas-Sarsat alerts

SAR false alert rate of 90% = one real distress for 10 Cospas-Sarsat alerts

A reduction of the SAR false alert rate from 98% to 90% would correspond to a reduction by a factor 5 of the actual number of false alerts.

The beacon false alert rate is independent of the size of the population. It is a good indication of beacon performance and provides a good basis for tracking global trends in the System. It can also be used to characterise the performance of a particular beacon type or model.

### **6.3.2 System Anomalies**

Processing anomalies are messages produced by the Cospas-Sarsat system, which either should not have been generated or which provided incorrect information. Possible examples of processing anomalies include:

- beacon transmissions that were incorrectly decoded by the System;
- distress alert messages that might be generated from the incorrect processing of 406 MHz interferers; and
- large Doppler location errors, which may be caused by a number of different circumstances, including faulty beacons, detections during beacon warm-up periods, incorrect satellite orbit vectors at LUTs, etc.).

The number of processing anomalies produced by the System is very low; nevertheless, they do represent a waste of valuable resources since, like false alerts, each should be investigated to determine the cause. Cospas-Sarsat has provided guidance in document C/S A.003 for categorising and reporting processing anomalies, in an attempt to determine the causes of processing anomalies with a view to developing and implementing procedures for their elimination.

If a System component is repeatedly producing anomalies or its performance is continuously degraded, the status of this component published in Cospas-Sarsat documents and the website should be amended per the Joint Committee recommendation or in accordance with the relevant Council decision.

## **6.4 Collection of Cospas-Sarsat Data on SAR Incidents**

Detailed requirements for the collection of Cospas-Sarsat data on SAR incidents are listed in the document C/S A.003 "Cospas-Sarsat System Monitoring and Reporting".

### **6.4.1 Distress Incident Report for Documentation of SAR Events and Persons Rescued**

Cospas-Sarsat collects reports from Participants on SAR events and the rescue of persons in order to assess the effectiveness of the Cospas-Sarsat System and its contribution to search and rescue. Participant reports should be provided to the Secretariat quarterly. The Secretariat will collate the reports for review by Participants at the Joint Committee. These reports will form part of the document C/S R.007

Cospas-Sarsat Report on System Status and Operations and, after approval of the C/S R.007 Report by the Council, will be posted on the Cospas-Sarsat website. Summary statistics will be published in the annual Cospas-Sarsat System Data Document and Information Bulletin.

#### **6.4.2 Collecting and Reporting Data for SAR Event Analysis**

Occasionally, a distress event might be of particular interest and in such circumstances a Participant or ICAO or IMO representative could request that the Council Chairperson instruct the Secretariat to request MCC operators to collect data pertaining to that incident.

The procedure for collecting Cospas-Sarsat data and the list of data to be collected for SAR event analysis are specified in Annex I of document C/S A.003. The data collected should allow a detailed analysis of the status of the Space and Ground Segments, communications in the Ground Segment, System and beacon performance at the time of the incident, and include a detailed record of GEOLUT, LEOLUT and MCC data processing.

When a request has been made for the collection of data for SAR incident analysis, Ground Segment operators should ensure that the source data from their Ground Segment equipment is preserved and archived for subsequent analysis and documentation, should the Council request additional investigation of the event.

### **6.5 Changes to System Specifications, Ground Segment Requirements and Standards**

As Cospas-Sarsat evolves into a mature system it is important to monitor the system's stability and control its evolution. A well defined process of change management ensures that only those changes which have a significant, cost effective impact on Cospas-Sarsat are approved for implementation. Figure 6.1 and Table 6.1 provide an overview of the management of change within the Cospas-Sarsat System. The change management process begins with proposals to change elements of the Ground Segment, Space Segment, beacon specifications or beacon type approval standards by participants to the Joint Committee (JC) or specifically established Task Groups (TG).

Based on participants' proposals or TG reports, the JC debates the merits of the issue and, if agreed by the participants, makes a recommendation to the Cospas-Sarsat Council (CSC) for approval of the proposed change. The recommendation includes a proposed implementation date and an indication of the criticality of the change. Between the JC meeting and the next Council meeting, the Participants confirm the possible implementation date and resources required through consultations with their equipment vendors / manufacturers. The CSC has the responsibility to approve the change and adopt the associated implementation schedule. The CSC also approves appropriate amendments or additions to the documentation.

### 6.5.1 Evaluation Criteria

To properly evaluate proposed changes, the Joint Committee requires specific information and evaluation criteria upon which it can make an objective decision. A reasonable set of evaluation criteria includes the following:

- Detailed description of the change
  - Is the change description complete?
  - Is the change consistent with current Council policy?
- Requirement for change
  - Is there a new requirement? If so, what is it and what is the source of the requirement?
  - Is the change proposed because an existing requirement is not being met? If so, what is the deficiency?
- Performance impact
  - What performance specification is impacted by the change?
  - What is the impact if the change is not implemented?
- Resources required
  - Information on resources required may include manpower and equipment costs as well as an assessment of whether the amount of required resources is considered high, low or medium. Note that the estimates provided for this element may vary significantly for each Administration and should only be considered for information purposes.
- Implementation schedule
- Who and or what does it affect?
  - Are all members of Cospas-Sarsat affected by the change or a limited set of Participants? If a limited set, who are they?
  - Are external entities (e.g., SPOCs, RCCs, beacon manufacturers, etc.) affected. If so, who are they?
  - What subsystem is impacted (MCCs, LUTs, Space Segment, etc.)?

### 6.5.2 Change Approval Process

When Participants introduce proposed changes they should, at a minimum, define the change and address each of the evaluation criteria listed above. The list of criteria will be included in the JC document template provided prior to each meeting.

The appropriate Working Group Chair will schedule the paper for discussion in accordance with the Rules of Procedure for the Joint Committee. The group chairperson will ensure that the discussion focuses on the information provided by the Participants that match the evaluation criteria. The result of the discussion may include modifications to the change proposal to address more completely the evaluation criteria. The final result of the discussion in the Working Group should be an agreement whether or not to recommend that the Council approve the proposal. In addition, for each proposed System change agreed by the JC, the Working Group will

assign a change type (see Table 6.1) and determine whether the implementation of the change needs to be tracked.

After the JC, the Secretariat will prepare a list of recommended changes for CSC consideration.

The CSC will review the changes recommended by the JC and assess the proposal using the evaluation criteria and the information provided in support of the change proposal, prior to making their decision. Based on this data and the policy guidelines summarised in C/S P.011, the CSC will approve or disapprove the recommended change and may request further study by the JC.

### **6.5.3 Tracking and Controlling Changes**

The Cospas-Sarsat change management process follows the best practices and includes a provision for tracking and controlling changes. This information is important to track the status of changes and accurately highlight the System status outside the Programme.

The implementation of all changes that require coordination among Ground Segment operators, Space Segment providers, or external entities (e.g., beacon manufacturers) will be tracked. Each Participant will report on the status of tracked changes as part of their annual System status report, using the format listed at Annex B to the document C/S A.003.

The Secretariat will provide to the CSC a list of changes agreed to and recommended by the JC for their review at each Open Meeting of the Council. The Council will use this list and the summary of changes from System Status Reports to:

- evaluate the status of changes within the Cospas-Sarsat System;
- encourage Participants to complete necessary changes, particularly critical changes, by the agreed deadlines;
- evaluate the priority of new changes that are brought to the Council for approval; and
- make adjustments to priorities and due dates, as appropriate.

### **6.5.4 Roles and Responsibilities**

The roles and responsibilities for the management of change within the Cospas-Sarsat System are:

#### **6.5.4.1 Administrations**

- Propose changes to items of the approved configuration and provide information in accordance with the evaluation criteria listed above in section in 6.4.1.
- Coordinate with vendors / manufacturers on cost and implementation schedule for changes recommended by the Joint Committee.



- Implement changes approved by the Council and provide comments to the Council, as appropriate.
- Report on the status of approved changes as part of their annual System Status Report.

#### 6.5.4.2 Joint Committee / Task Groups

- Review proposed changes.
- Decide which changes should be forwarded to the Council for final disposition based on the appropriate evaluation criteria.
- Assign a change type (see Table 6.1) to each change.
- Identifies changes that shall be tracked with respect to their implementation by Participants.

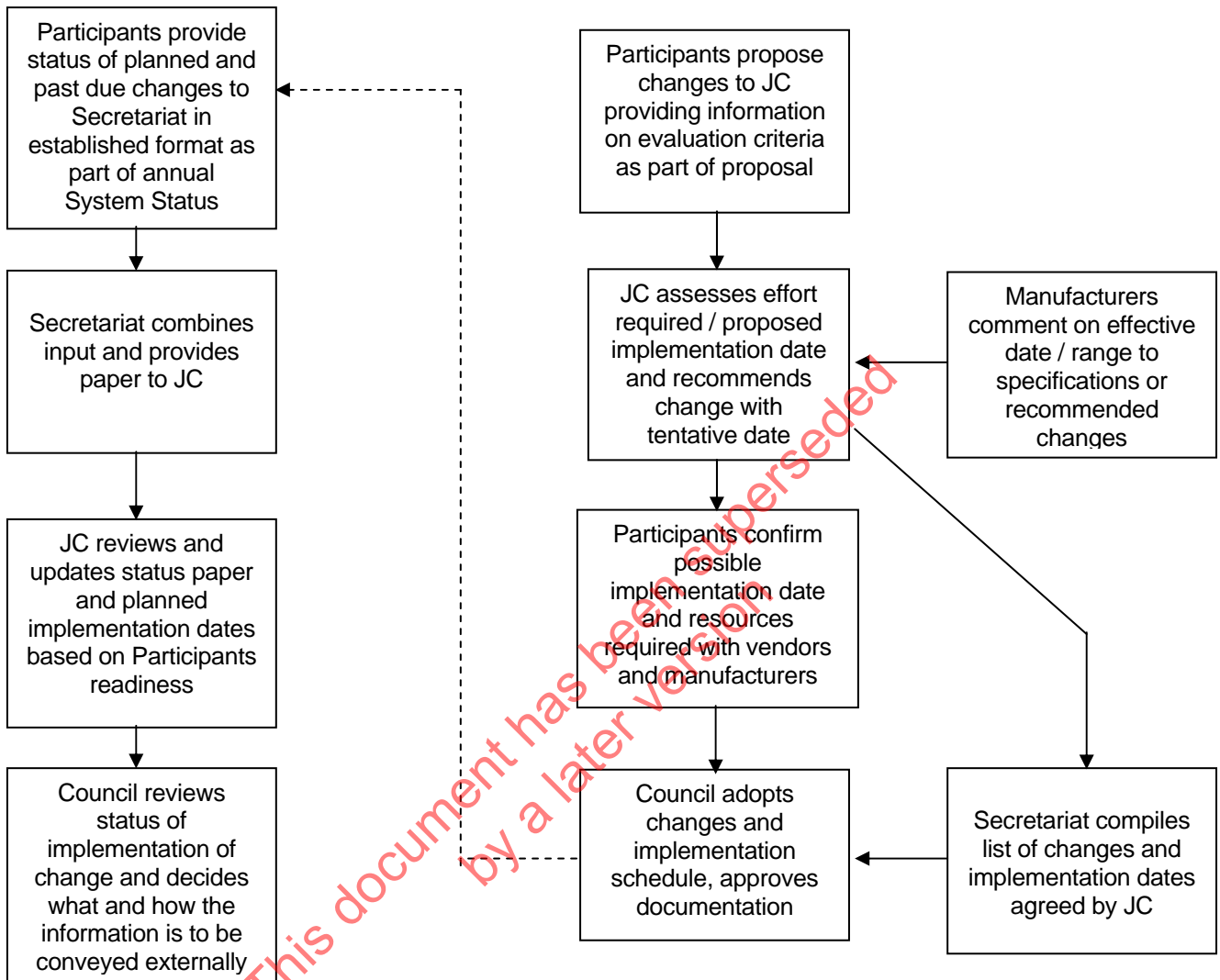
#### 6.5.4.3 Secretariat

- Provide a list of changes approved by the Joint Committee to the CSC for their consideration. This list will include information provided in response to the evaluation criteria.
- Summarize the status of changes provided in the annual System Status Reports.
- Inform Participants and manufacturers of the approved changes by correspondence or through the Cospas-Sarsat web site, as required.

#### 6.5.4.4 Council

- Establish and modify, as appropriate, Cospas-Sarsat policy on change management.
- Review the System changes agreed by the JC along with the information provided in response to the evaluation criteria and decide on final disposition of each change. The CSC can approve, disapprove a proposed change, or send the proposal back to national Administrations and / or the JC for further study. When the CSC decides to approve a System change, the CSC will also make a final decision on the change type and the scheduled implementation date.
- Review information on the status of pending changes approved at previous CSC sessions and make adjustments as necessary.



**Figure 6.1: Cospas-Sarsat Change Management Process**

**Table 6.1: Types of System Changes**

<b>Type of Change</b>	<b>Critical</b> (Directly affects users or prevents operators from completing their mission)	<b>Routine</b> (Indirectly affects SAR services, beacon manufacturers but could directly affect Cospas-Sarsat Ground Segment operations)
<b>Corrective</b>  Change necessary to meet existing specifications, requirements or advertised system capabilities.	<b>Examples:</b>  LLEs, alert data not delivered, system processing anomalies treated as operational alerts, beacon failure to operate as required.  <b>Implementation:</b>  Immediate after Council approval	<b>Examples:</b>  MCC configuration, ability to archive data.  <b>Implementation:</b>  2 years after Council approval or agreed date/range.
<b>Adaptive</b>  Change necessary to adapt system to a change in system technology (e.g., beacon, space segment), system configuration, specification, or mission.	<b>Examples:</b>  METOP Manoeuvres, SSAS.  <b>Implementation:</b>  When required after Council approval.	<b>Examples:</b>  New GEOSORT regions.  <b>Implementation:</b>  2 years after Council approval or agreed date/range.
<b>Enhancement</b>  Changes improve current operations possibly as a result of new specifications.	<b>Examples:</b>  New DDP  <b>Implementation:</b>  When required after Council approval.	<b>Examples:</b>  Location protocol beacons  <b>Implementation:</b>  2 years after Council approval or agreed date/range.
<b>Correction to System Documentation (Except C/S T.001)</b>  Correction/clarification that only affects documentation; not Ground Segments operations or specifications.	N/A	<b>Examples:</b>  Clarifications to DDP that do not affect MCC processing.  <b>Implementation:</b>  Immediate after Council approval.
<b>Correction to C/S T.001</b>  Correction / clarification that only affects documentation, not beacon specifications.	N/A	<b>Examples:</b>  Typographical errors, clarification to existing requirements.  <b>Implementation:</b>  As agreed after Council approval.

Note: Some changes can be completed unilaterally; other may require bi-lateral or multi-lateral coordination.

## 6.6 Interconnection of MCC Information Technology (IT) Systems

The architecture and operating concept of the Cospas-Sarsat System requires the interconnection of Mission Control Centres (MCCs) to exchange alert and System data. An interconnection is the direct connection of two IT systems for the purpose of exchanging data. This architecture ensures the timely delivery of distress alerts and a robust network providing redundancy. In order to ensure the security of individual MCC systems and the reliability of the MCC network, each MCC operator shall follow security controls published in Cospas-Sarsat documentation. The risks of not properly securing MCC systems includes the chance that distress alerts could be intercepted, corrupted, or individual MCC systems compromised.

Ground Segment Providers wishing to connect MCC systems should identify the most secure means of exchanging alert and System information while considering cost implications and risks to operations and to other systems. Once the communication link is established between two MCCs, it shall be tested to ensure there are no obvious ways for unauthorized users to circumvent or defeat security controls.

On an ongoing basis each MCC operator shall:

- maintain equipment and configuration to ensure that all security patches and other related updates are installed and kept current;
- ensure that only authorized users have access to MCC systems;
- conduct scans and correct detected vulnerabilities as appropriate; and
- analyze their respective systems to detect and track unusual or suspicious activities across the interconnection and report their findings to other MCCs.

Appropriate MCCs shall be notified of any significant changes which could affect the exchange of alert and System data, or change the security posture of either MCC. To maintain a robust network, each MCC shall identify, establish, maintain, and test backup arrangements for the delivery of distress alerts to search and rescue services.

## 6.7 MCC Back-up

To maintain a robust distribution of distress alert data to search and rescue authorities, the capability of an MCC to continuously deliver alert messages shall not be interrupted for longer than one hour, after which suitable back-up arrangement should be activated. MCCs should identify, establish, maintain and test back-up arrangements to deliver distress alert and location data to the SPOCs normally supported by the failed MCC until such time as the affected MCC is able to resume normal operations, or an alternative long-term solution has been agreed and implemented. All MCCs should have the ability to temporarily transfer the responsibility for the distribution of distress alert data to another MCC, regardless of any arrangements made locally, for example operating dual MCCs.

## 6.8 Protection and Management of Cospas-Sarsat Frequencies

The Cospas-Sarsat System makes use of the following frequencies:

Frequency	Use
406.0 – 406.1 MHz	Uplink frequency band used by 406 MHz distress beacons
1544.0 – 1545 MHz	Downlink frequency band used by Cospas, Sarsat, GOES and MSG satellites for relaying signals of distress beacons
4505.7MHz	Downlink frequency band used by Insat satellites for relaying signals of 406 MHz distress beacons

### 6.8.1 Protection of Frequencies Used by Cospas-Sarsat

In light of the adverse impact that interference has on System performance, Cospas-Sarsat has developed:

- frequency protection requirements for the various instruments that comprise the System, which are published in the document C/S T.014 "Cospas-Sarsat Frequency Requirements and Coordination Procedures";
- procedures to be used by Participants for responding to coordination requests from administrations in respect of the possible introduction of new systems that would share the frequencies used by Cospas-Sarsat, also provided in the document C/S T.014;
- procedures for interference monitoring and responding to interference observed in the 406.0 – 406.1 MHz band, which are provided in the document C/S A.003 "Cospas-Sarsat System Monitoring and Reporting"; and
- guidance to Ground Segment operators for registering with the International Telecommunication Union (ITU) their country's use of the 1544 – 1545 MHz frequency band by their LEOLUTs and GEOLUTs, as provided in the documents C/S T.005 (LEOLUT commissioning standards) and C/S T.010 (GEOLUT commissioning standard).

The Cospas-Sarsat protection requirements have been incorporated into the following ITU Recommendations:

- ITU-R M.1478, Protection criteria for Cospas-Sarsat search and rescue instruments in the band 406-406.1 MHz; and
- ITU-R M.1731, Protection criteria for Cospas-Sarsat local user terminals in the band 1544-1545 MHz.

### **6.8.2 Cospas-Sarsat Management of the 406.0 – 406.1 MHz Band**

The International Telecommunication Union (ITU) has allocated the 406.0 - 406.1 MHz frequency band for the dedicated use of 406 MHz emergency position indicating radiobeacons (EPIRBs). Since the overall capacity of the Cospas-Sarsat System is directly related to the distribution of beacon carrier frequencies within the band, Cospas-Sarsat has developed procedures for assessing and managing the number of beacons operating in various portions of the allocated spectrum.

As described in the document C/S T.012 “Cospas-Sarsat 406 MHz Frequency Management Plan” Cospas-Sarsat manages the use of the 406 MHz band by:

- dividing the 406.0 – 406.1 MHz band into 3 kHz channels;
- monitoring and forecasting the traffic load in each channel; and
- opening and closing specific channels for new 406 MHz beacon models submitted for type approval, as required to ensure that the channel capacity is not exceeded.

Cospas-Sarsat provides as much advance notice as possible of the opening and closing of specific channels in order to ensure that:

- Administrations and organisations are able to adapt their regulations as required; and
- beacon manufacturers have sufficient advance notice to design new models and produce beacons for operation in the new channels.

### **6.8.3 1544.0 – 1545.0 MHz Downlink Frequency Band**

Article 5 of the Radio Regulations allocates the 1544 – 1545 MHz frequency band to the Mobile-Satellite Service (MSS) for links in the space-to-Earth direction and restricts its use to distress and safety communications (Article 5.356 refers). Under Article 5.354, the use of the band by the MSS is subject to a formal coordination process.

It is, therefore, highly desirable that all Ground Segment Providers in the Cospas-Sarsat System formally notify the ITU of their use of the band, as detailed in the document C/S T.014, and engage in a formal coordination process with the administrations that propose new systems for operation in this band, in accordance with the applicable ITU procedure. Participants that undertake the formal coordination process should cooperate with other Cospas-Sarsat Participants and accordingly inform the Joint Committee.

The existing and planned uses of the band, particularly the planned use by the MEOSAR system, are described at Annex J to document C/S T.014.

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## 7. COSPAS-SARSAT DOCUMENTATION

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The Cospas-Sarsat documentation consists of the following series of documents:

- § C/S P.xxx: Programme documents, which include the agreements, arrangements or understandings that establish the Programme with its legal basis and management structure, list the System components and record Council policies in respect of the System management;
- § C/S G.xxx: General System documents that provide a high level description of the System and its management;
- § C/S A.xxx: Operational System documents that record the detailed description of agreed procedures and standards for the operation of the System Space and Ground Segments, and the applicable alert data distribution policies and procedures;
- § C/S D.xxx: International Beacon Registration Database (IBRD) documentation, including functional requirements and operation procedures;
- § C/S T.xxx: Technical System documents that provide a detailed technical description of and requirements for the System Space and Ground Segments and 406 MHz beacons;
- § C/S R.xxx: Reports prepared under Council direction for consideration and approval by the Cospas-Sarsat Council; and
- § C/S S.xxx: Secretariat documents prepared by the Secretariat for its own use or the information of Participants.

The Cospas-Sarsat documentation also includes:

- § the Council records, meeting reports, and documents submitted by Participants and the Secretariat for consideration at Cospas-Sarsat meetings, which are archived by the Secretariat;
- § the System Data document and Information Bulletin published periodically by the Secretariat under Council guidance, which are intended for general release;
- § the Cospas-Sarsat website maintained by the Secretariat under Council guidance; and
- § promotional material developed by the Secretariat under Council direction.

## **7.1 Documentation Management**

The Cospas-Sarsat Secretariat is responsible for maintaining the Cospas-Sarsat documentation, including archives. Such maintenance and archiving shall be performed in accordance with the applicable Council guidelines.

### **7.1.1 Cospas-Sarsat Meeting Documents**

Documents for discussion at Cospas-Sarsat meetings shall be submitted to the Secretariat before the agreed deadlines for formatting, registration and placement on the Cospas-Sarsat website, as described in section 2 of this document.

The Secretariat shall maintain archives of all documents submitted to Cospas-Sarsat meetings and reports or summary records produced during meetings in hard copy and electronic formats for a minimum of five years.

Meeting documents should not be publicly released, unless otherwise requested by the Council. The Secretariat may release meeting documents, except the Closed Council documents, to the Participants' Representatives and other authorised recipients as directed by the Council. Participants' Representatives should control the distribution of meeting documents in their own country.

### **7.1.2 Cospas-Sarsat Programme Documents**

Programme documents (P series) shall not be amended without the approval of the Parties.

The Programme documents of interest to existing or prospective Participants (e.g. the ICSPA) should be placed on the non-protected section of the Cospas-Sarsat website in PDF format only, as directed by the Council.

### **7.1.3 Cospas-Sarsat System Documents**

System documents (G, A, D, T and R series) shall be maintained by the Secretariat and updated according to the applicable Council guidance. In principle:

- § the text of the main body of a System document shall not be changed without Council approval of the revision or the new issue;
- § annexes to System documents that provide descriptions of the Space or Ground segment components under the direct responsibility of a Space or Ground Segment Provider can be updated following a review of the new data / information by the Joint Committee and the updated annex may be published by the Secretariat as requested by the Joint Committee and documented in the agreed Joint Committee Report;



- changes to annexes of System documents that define policies or detailed procedures that affect the specification of System components, their approval or commissioning standards or their operation shall be agreed by the Joint Committee and submitted to Council for approval; and
- except for the correction of errors identified by Participants or the Secretariat, the Council will not normally approve changes to System documents that have not been reviewed, agreed and recommended by the Joint Committee.

System documents will normally be placed on the non-protected section of the Cospas-Sarsat website in PDF format only, for downloading by Participants or other interested parties free of charge. The Secretariat will provide hard copies of the System documents upon request, free of charge, subject to availability.

In addition to the full text of the approved System document, the Secretariat will place on the Cospas-Sarsat website for downloading the replacement pages of new revisions of System documents, after their approval by the Cospas-Sarsat Council.

## **7.2 Document Holders**

Each Participant in the Cospas-Sarsat System may nominate a document holder to receive all updates to approved System documents.

A full set of the approved System documents will be provided upon request to the designated document holder of Participants after they have officially become associated with the programme. The Secretariat will send replacement pages of existing System documents or new System documents to document holders only upon request.

Cospas-Sarsat Participants should advise the Secretariat of any changes to the designated document holder(s) in their country.

## **7.3 Cospas-Sarsat Website**

The Secretariat maintains the Cospas-Sarsat website in the three languages of the Programme in accordance with Council guidance. The website provides a description of the Cospas-Sarsat System and Programme, and includes information on:

- System operations, including SAR operations assisted by Cospas-Sarsat alert and location data; and
- issues of interest to Cospas-Sarsat Participants, Administrations, SAR services and users of the System.

The website provides a 406 MHz beacon decoding facility and information and national points of contact for beacon coding registration. The list of type approved beacon models, with a summary description of each model, and the list of points of contact for beacon manufacturers shall also be provided and maintained on the Cospas-Sarsat website by the Secretariat. System documents approved by the Council shall be freely accessible on the website for downloading, except as otherwise directed by the Council.

Meeting documents and reports can be accessed via password in protected areas of the website.

The Secretariat shall maintain password protected areas on the Cospas-Sarsat website:

- the first area will contain Council meeting documents or other sensitive information and will be accessible by Participants only (i.e. States and organisations formally associated with the Programme); and
- the second area will contain Joint Committee and Task Group meeting documents and will be accessible by Participants and other interested parties, including organisations that have received observer status at Cospas-Sarsat Joint Committee meetings.

The Secretariat will issue passwords for access to the restricted areas of the website to each Cospas-Sarsat Representative and their designated Head of Delegation to the Council. Best security practices demand that these passwords be renewed once per year. To that end, each January the Secretariat will provide the designated Representative with the new username and password by regular mail. The new username and password will also be sent to the Heads of Delegation to the Council and/or Joint Committee Meeting by email. For security reasons, the username and its associated password will be sent in separate emails.

The same policy in respect of password access to Joint Committee and/or Task Group documents will apply to organizations with observer status. The password correspondence will be addressed to the official point of contact and forwarded to designated Heads of Delegation as appropriate.

Once a password is received, the Representative or Head of Delegation is responsible for ensuring relevant members of his / her delegation have access to the protected area of the website. Passwords may be changed at the request of the Representative in cases where a breach of security is suspected.

**ANNEXES  
TO THE  
COSPAS-SARSAT PROGRAMME  
MANAGEMENT POLICY DOCUMENT  
C/S P.011**

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**ANNEX A****LIST OF ACRONYMS, ABBREVIATIONS AND DEFINITIONS**

AFTN	aeronautical fixed telecommunications network
CLD	Closed Meeting of a CSC session
CSC	Cospas-Sarsat Council
DASS	Distress Alerting Satellite System: US MEOSAR system based on the GPS MEO satellite constellation
DDP	Data Distribution Plan (document C/S A.001)
DMCC	developmental MCC
D&E	demonstration and evaluation [phase of a satellite system]
EC	European Commission
ELT	emergency locator transmitter (aeronautical)
EPIRB	emergency position indicating radiobeacon (maritime)
ESA	European Space Agency
EUMETSAT	European Organisation for Meteorological Satellite
EWG	Experts Working Group established by the CSC
FOC	full operational capability
Galileo	European navigation satellite system (MEO satellite constellation)
GEOLUT	LUT in the GEOSAR system
GEOSAR	geostationary Earth orbit satellite system for search and rescue
Geosort	geographical sorting of alerts
GJU	Galileo Joint Undertaking
Glonass	Russian navigation satellite system (MEO satellite constellation)
GMDSS	Global Maritime Distress and Safety System
GOES	Geostationary Operational Environmental Satellite (US geostationary meteorological satellite series)
ICAO	International Civil Aviation Organisation
ICD	MSG GEOSAR Interface Control Document

ICSPA	International Cospas-Sarsat Programme Agreement
IMO	International Maritime Organisation
INSAT	India's geostationary satellites for meteorology, communication, Earth observation
IOC	initial operational capability
ITU	International Telecommunication Union
JC	Cospas-Sarsat Joint Committee
LEOLUT	LUT in the LEOSAR system
LEOSAR	Low-altitude Earth orbit satellite system for search and rescue
LLE	large location error
LUT	local user terminal (ground receiving station)
MCC	mission control centre
MEO	medium-altitude Earth orbit (about 20,000 km)
MEOSAR	MEO satellite system for search and rescue
MEOLUT	LUT in the MEOSAR system
METEOSAT	meteorological geostationary satellite series (EUMETSAT)
MHz	megahertz
MSG	METEOSAT second-generation satellite series (EUMETSAT)
OPN	Open Meeting of a CSC session
OWG	Operations Working Group of the Joint Committee
Parties	States that are a party to the ICSPA
Participants	Parties and other States and organisations that have notified their association with the Cospas-Sarsat Programme in accordance with the provisions of the ICSPA
PLB	personal locator beacon
RCC	rescue co-ordination centre
SAR	search and rescue
SAR/Galileo	MEOSAR system based on the Galileo satellite constellation
SAR/Glonass	MEOSAR system based on the Glonass satellite constellation
SARP	SAR receiver-processor instrument or channel in the LEOSAR system
SARR	SAR repeater instrument or channel in the LEOSAR system

SID	MCC's standard interface description (document C/S A.002)
SPOC	SAR point of contact
SR	summary record of a Council session
SRR	search and rescue region
TG	Task Group established by the CSC
TWG	Technical Working Group of the Joint Committee

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**ANNEX B****RULES OF PROCEDURE  
FOR THE COSPAS-SARSAT COUNCIL****PART I - COMPOSITION****Rule 1: Participation and Attendance**

- A. The Council, established in accordance with Article 7 of the International Cospas-Sarsat Programme Agreement, shall be composed of one Representative from each Party. The Representative may be accompanied by deputies, technical advisers, and industry representatives who are the members of the delegation of his/her Party.
- B. Representatives of the Parties shall be accredited to participate in the Council either on a permanent basis or for a limited number of sessions. A competent national authority shall accredit the Representative by letter, telex or telegraph addressed to other Parties through the Secretariat. The Representative shall notify the Secretariat of the names and functions of the members of his/her delegation, before the beginning of the session.
- C. The Head of the Secretariat, as well as the Secretariat staff, shall attend Council sessions and support the Council as requested.
- D. The Chairperson of any subsidiary organ of the Council may be invited to attend a Council session.
- E. The Representative of a Party must ensure that members of his/her delegation represent the views of the Party and speak under the authority of that Representative.

**PART II - SESSIONS****Rule 2: Location of Sessions**

- A. The Council shall meet at the location of the Secretariat unless the Council decides otherwise.
- B. Sessions may be held elsewhere provided the prospective host agrees to defray the additional expense involved.

**Rule 3: Regular Sessions**

- A. The Council shall meet as often as may prove necessary for the efficient discharge of its functions but not less than once in any twelve-month period.
- B. The Council shall normally decide at each session the date of the following session.

- C. Council sessions shall consist of open and / or closed meetings.
- D. Closed meetings shall be restricted to the Parties.

**Rule 4: Extraordinary Sessions**

- A. A Party can at any time seek the concurrence of the other Parties for the convening of an extraordinary session stating the purpose for which the session is required.
- B. The extraordinary session of the Council shall be convened as soon as practicable with the concurrence of all the other Parties.

**PART III - OFFICERS**

**Rule 5: Chairperson and Vice-Chairperson**

- A. A Chairperson and Vice-Chairperson shall be selected from among the Representatives of the Parties on a rotational basis.
- B. The Chairperson and Vice-Chairperson shall remain in office for two (2) successive regular sessions of the Council subsequent to the session in which they were selected. The Vice-Chairperson will normally succeed the Chairperson in office.
- C. If the Chairperson is unable to carry out his/her duties, the Vice-Chairperson shall take over the functions of the Chairperson.
- D. The Chairperson of the Council remains the Representative of his/her Party and shall designate a deputy from his/her delegation to present the views of his/her Party as appropriate. In the event the Chairperson chooses to present his/her Party's position in any meeting, he/she shall indicate clearly that he/she is doing so as Representative of his/her Party.

**Rule 6: Responsibilities of the Chairperson**

- A. The Chairperson shall exercise his/her responsibilities under the authority of the Council.
- B. During the meetings of the Council, the Chairperson shall act in accordance with customary practice. The Chairperson shall open and close the meetings, direct the deliberations, give the floor to speakers in the order in which they request it, strive to seek unanimous approval and announce decisions adopted and prepare and issue a Summary Record.
- C. Between the Council sessions, the Chairperson shall:
  - ensure, in cooperation with the Secretariat, the preparation and distribution of Council documents;

- ensure the coordination with each Party's Representative before taking action on behalf of the Council towards either the Secretariat or third parties.

#### **PART IV - PROCEDURE FOR THE SESSIONS**

##### **Rule 7: Session Preparation**

- A. Agenda
  - A.1 Provisional agenda items for the next regular Council session shall be established at the conclusion of the session.
  - A.2 Additional items may be added to the provisional agenda at the request of a Party up to 90 days prior to the opening date of the Council session.
  - A.3 The Council may add items relating to urgent matters at any time upon agreement of all Representatives of the Parties.
  - A.4 The Head of the Secretariat shall prepare the provisional agenda of the Council session under the direction of the Chairperson, and distribute the provisional agenda at least six weeks before the date of the Session.
  - A.5 The provisional agenda will be subject to the approval of the Council as the first item of business of the session.
- B. Documents for Council Sessions
  - B.1 Council papers addressing items of the provisional agenda that recommend changes to System technology, current operations or policy shall be submitted to the Secretariat for translation, formatting and distribution at least four weeks prior to the opening date of the Council session. The Secretariat shall make these documents available to Representatives as soon as possible, in accordance with Council guidance.
  - B.2 Council papers submitted for information only or in response to another document submitted in accordance with Rule B.1, shall be provided to the Secretariat not later than two weeks before the opening date of the Council session.
  - B.3 When documents are submitted after the applicable deadlines, the Chairperson of the Council may decide, in conjunction with the Secretariat, either to accept these documents if they address an urgent matter or to defer their consideration until the next session of the Council.
  - B.4 Information papers submitted for establishing proposed agenda items for subsequent sessions may be presented during a Council session.

Rule 8:            Quorum

A quorum shall consist of the Representatives of all of the Parties.

Rule 9:            Proceedings

- A. Representatives of the Parties may submit proposals for Council discussion during the course of a Council session.
- B. Proposals relating to procedural motions and points of order shall be given priority.
- C. No commercial marketing activity shall take place during the sessions of the Council. However, presentations on commercial products for the purpose of providing technical information to delegates may be made at the request of Party Representatives, or Heads of Delegations from Non-Party Participants, with the approval of the Chairman of the Council.

Rule 10:          Council Decisions

- A. Only Representatives of the Parties may participate in Council decision-making.
- B. Decisions of the Council shall be taken unanimously.

Rule 11:          Council Records

- A. The Council shall approve official documents and, before the end of each session, a Summary Record.
- B. The Summary Record approved by the Council shall be the only official record of a Council session.
- C. A Representative of a Party may request the inclusion of his/her statement in the Summary Record.
- D. Items of the Summary Record shall be recorded as “Noted” and “Decided”.
  - (i) The following shall be recorded as “Noted”:
    - reports and proposals submitted for Council consideration;
    - the principal relevant points raised during the course of the discussion.
  - (ii) The decisions taken by the Council shall be recorded as “Decided”.
  - (iii) The Recommendations and Resolutions approved by the Council shall be appended to the Summary Record in the form of annexes, except for System documents or revisions of System documents submitted to Council for approval in accordance with Rule 11 E.
- E. Draft of new System documents, or draft revisions of System documents prepared by subsidiary organs upon request of the Council and submitted for approval in accordance with these Rules of Procedure, shall not be appended to the Summary

Record of the Council session after approval, unless they are amended during the Session. Only amendments made during the Session to the draft System documents or to the draft revisions of the System documents submitted to the Council shall be included as Annexes to the Summary Record.

## **PART V – NON-PARTY PARTICIPANTS**

### Rule 12:

- A. Non-Party Participants having met the requirements of Article 11 or Article 12 of the Agreement are entitled to attend Open Council meetings, receive all the relevant documents pertaining to the meeting, submit papers, propose agenda items and participate in the discussion.
- B. Heads of Delegations of Non-Party Participants attending meetings of the Programme shall be accredited as representing these Non-Party Participants either on a permanent basis or for a limited number of sessions. The Head of Delegation shall be accredited by competent national authority by letter, telex or telegraph addressed to the Secretariat.
- C. The Council may invite national agencies and international organizations to attend its open meetings on mutually agreed terms and conditions.
- D. Each Head of Delegation shall notify the Secretariat of the names and functions of members of his/her delegation before the beginning of the session.
- E. Heads of Delegations may invite deputies, technical advisers and industry representatives to attend Council meetings as part of his/her delegation. Each Head of Delegation must ensure that technical advisers and industry representatives from his/her delegation represent the views of the Participant, and speak under the authority of that Head of Delegation.

## **PART VI - SUBSIDIARY ORGANS**

### Rule 13:      Subsidiary Organs

- A. The Council may establish subsidiary organs according to article 7.2 of the International Cospas-Sarsat Programme Agreement as necessary.
- B. The Council decides the establishment of these organs, defines their Terms of Reference and decides on their Rules of Procedure.
- C. Non-Party Participants referred to in Part V shall have the right to be represented in appropriate subsidiary organs.
- D. All reports of the subsidiary organs shall be transmitted to the Council for consideration and approval as necessary.

**PART VII - MISCELLANEOUS****Rule 14: Public Relations**

The Council shall decide upon press releases and other public relations initiatives concerning its proceedings and decisions.

**Rule 15: Languages**

- A. The languages of the Council shall be English, French and Russian.
- B. Speeches in meetings of the Council may be made in English, French or Russian and shall be interpreted into the other two languages.
- C. Other documents of the Council sessions may be written in one of the languages of the Council.
- D. Correspondence from the Secretariat shall be written in the language of the Council which is appropriate to the recipient.
- E. Official Programme documents issued by the Secretariat, on the authority of the Council, shall be available in English, French and Russian.

**Rule 16: Amendments**

- A. The Council may amend these Rules after a proposed amendment has been placed on the agenda for discussion at the Council session and adopted unanimously by the Council.
- B. The amendment shall enter into force at the end of the session at which it has been adopted.

**Rule 17: Conflicts with the International Cospas-Sarsat Programme Agreement**

In the event of a conflict between these Rules of Procedure and the International Cospas-Sarsat Programme Agreement, the provisions of the Agreement shall prevail.

**ANNEX C****RULES OF PROCEDURE  
FOR THE COSPAS-SARSAT JOINT COMMITTEE****PART I - COMPOSITION****Rule 1: Participation and Attendance**

- A. The Cospas-Sarsat Joint Committee (the Joint Committee), established by the Cospas-Sarsat Council (the CSC) in accordance with Article 7 of the International Cospas-Sarsat Programme Agreement, shall be composed of the Heads of Delegations from the Parties and from States associated with the Programme in accordance with Articles 11 or 12 of the International Cospas-Sarsat Programme Agreement. The Heads of Delegations may be accompanied by deputies, technical advisers, and industry representatives who are the members of the Participant's delegation.
- B. Heads of Delegations shall be accredited to participate in the meetings of the Joint Committee either on a permanent basis or for a limited number of meetings. The Head of Delegation shall be accredited by the competent national authority by letter, telex or telegraph addressed to the CSC through the Cospas-Sarsat Secretariat (the Secretariat). Each Head of Delegation shall notify the Secretariat of the names and functions of the members of his/her delegation, before the beginning of the meeting.
- C. The Head of the Secretariat, as well as the Secretariat staff, shall support the meetings of the Joint Committee, as directed by the CSC.
- D. States having met the requirements of Article 11 or Article 12 of the Agreement are entitled to attend the meetings of the Joint Committee, receive or access all the relevant documents pertaining to the meeting, submit papers, propose agenda items and participate in the discussion.
- E. Each Head of Delegation must ensure that members of his/her delegation represent the views of the Participant and speak under the authority of the Head of Delegation.

**PART II - MEETINGS****Rule 2: Location of Meetings**

The Joint Committee shall meet at the location of the Secretariat unless the CSC decides otherwise.

**Rule 3: Dates of Meetings**

- A. The Joint Committee shall meet as decided by the CSC, normally once a year.
- B. The dates of meetings of the Joint Committee shall be approved by the CSC.

**PART III - OFFICERS****Rule 4: Chairperson**

- A. The Chairperson of the Joint Committee and the Chairperson of each Working Group of the Joint Committee shall be designated by the CSC.
- B. The Chairpersons shall normally remain in office for two (2) successive meetings.
- C. If a Chairperson is unable to carry out his/her duties during a meeting, an acting chairperson shall be selected by the Heads of Delegations.
- D. If the Chairperson is also the Head of his/her delegation, the Chairperson should designate a deputy from his/her delegation to present the views of his/her delegation as appropriate. In the event the Chairperson chooses to present his/her delegation's position in any meeting, he/she shall indicate clearly that he/she is doing so as member of his/her delegation.

**Rule 5: Responsibilities of the Chairperson**

- A. The Chairperson shall exercise his/her responsibilities under the authority of the CSC and in accordance with the Terms of Reference approved by the CSC.
- B. During meetings, the Chairperson shall act in accordance with customary practice. The Chairperson shall open and close the meetings, direct the deliberations, give the floor to speakers in the order in which they request it, strive to seek unanimity, announce the conclusions of the discussion and prepare a report to the CSC.
- C. Before the meetings, the Chairperson shall:
  - (i) ensure the appropriate co-ordination with the other Chairpersons of the Joint Committee and / or the Working Groups and the designated Agencies from Cospas-Sarsat Participants; and
  - (ii) ensure, in co-operation with the Secretariat, the preparation and distribution of documents;.

**PART IV - PROCEDURE FOR THE MEETINGS****Rule 6: Meeting Preparation**

- A. Agenda
  - A.1 A draft agenda for the subsequent meeting shall be established at the conclusion of the meeting.
  - A.2 The Head of the Secretariat shall prepare a provisional agenda for the following meeting based on the agreed draft and submit this provisional agenda



for consideration by the CSC. The provisional agenda for the meeting shall be approved by the CSC at a Session that precedes the Joint Committee meeting.

- A.3 Items relating to urgent matters may be proposed at any time by Heads of Delegations.
- A.4 The Head of the Secretariat shall review the provisional agenda of the meeting in co-ordination with the Chairperson of the Joint Committee and may propose amendments to the Parties. The Head of Secretariat shall distribute the provisional agenda approved by the CSC or amended with the agreement of all Parties at least 6 weeks before the date of the meeting.
- A.5 The provisional agenda will be subject to approval by the Joint Committee as the first item of business of the meeting.

B. Documents for Meetings

- B.1 Documents addressing items of the provisional agenda that recommend changes to System technology, current operations or policy shall be submitted to the Secretariat four weeks prior to the opening date of the meeting. Furthermore, these documents should address the following criteria for evaluation of change described at section 6 of the document C/S P.011:

- (i) Detailed description of the proposed change
- (ii) Reason for the change
- (iii) Performance impact of the proposed change
- (iv) Estimated effort or resources required for implementing the change
- (v) Proposed implementation schedule for the change
- (vi) Affected entities

The Secretariat shall format these documents and place them on the Secretariat website as soon as possible for downloading by Participants.

- B.2 Documents submitted for information only or in response to another paper submitted in accordance with Rule B.1 shall be provided to the Secretariat not later than two weeks before the opening date of the meeting.
- B.3 When documents are submitted after the applicable deadlines, the Chairperson of the Joint Committee may decide, in conjunction with the Secretariat, either to accept these documents if they address an urgent matter or to defer their consideration until the next meeting of the Joint Committee.
- B.4 Information papers submitted for establishing proposed agenda items for subsequent meetings may be presented during a meeting.

Rule 7: Proceedings

- A. Delegates, under the authority of their Head of Delegation, may submit proposals for discussion during the course of a meeting.
- B. Proposals relating to procedural motions and points of order shall be given priority.

- C. No commercial marketing activity shall take place during Joint Committee meetings.
- D. Presentations on commercial products for the purpose of providing technical information to delegates may be made at the request of a Head of Delegation, with the approval of the Chairman of the Joint Committee.

**Rule 8: Meeting Records**

- A. The Joint Committee shall, before the end of each meeting, approve a Report to the CSC.
- B. The Report to the CSC approved by the Joint Committee shall be the only official record of the meeting of the Joint Committee and its Working Groups.
- C. Items of the Report shall be recorded as "Noted" and "Recommended".
  - (i) The following shall be recorded as "Noted":
    - reports and proposals submitted for consideration;
    - the principal relevant points raised during the course of the discussion.
  - (ii) The proposals agreed to by the Joint Committee shall be recorded as "Recommended".
  - (iii) The technical specifications, plans, standards and reports agreed to by the Joint Committee for submission to the CSC, shall be appended to the Report of the Joint Committee in the form of annexes.
- D. Heads of Delegations may request the inclusion of statements by his/her delegation in the Report.

**PART V - OTHER PARTICIPANTS**

**Rule 9: Observers**

- A. National agencies and international organisations may be invited by the Cospas-Sarsat Secretariat, in accordance with the applicable Council guidelines, to participate as observers at the meetings of the Joint Committee.
- B. Observers shall notify the Secretariat of the names and functions of members of their delegation before the beginning of the meeting.
- C. Observers at Joint Committee meetings may receive or access all the relevant documents pertaining to the meeting, submit documents for consideration by the meeting, and participate in the discussion at the invitation of the Chair.

**PART VI - WORKING GROUPS OF THE JOINT COMMITTEE****Rule 10:**

- A. The establishment of Working Groups of the Joint Committee and their Terms of Reference are decided by the CSC.
- B. The Rules of Procedure of the Joint Committee are applicable to the Working Groups.

**PART VII - MISCELLANEOUS****Rule 11:**     **Public Relations**

The Joint Committee may recommend public relations actions to the CSC, but must not make press releases or take public relations initiatives without the approval of the CSC.

**Rule 12:**     **Languages**

The working languages of the Joint Committee and its Working Groups shall be decided by the CSC.

**Rule 13:**     **Amendments**

- A. The Joint Committee may recommend amendments to these Rules of Procedure for CSC approval.
- B. The amendment shall enter into force once approved by the CSC.

**Rule 14:**     **Conflicts with the International Cospas-Sarsat Programme Agreement**

- A. These Rules of Procedure shall not conflict with the International Cospas-Sarsat Programme Agreement, the Rules of Procedure of the CSC or the Terms of Reference for the Cospas-Sarsat Joint Committee and its Working Groups.
- B. In the event of a conflict between these Rules of Procedure and the above-mentioned documents, the provisions of the International Cospas-Sarsat Programme Agreement or the Rules of Procedures of the CSC, or the Terms of Reference shall prevail.

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**ANNEX D****DUTIES OF CHAIRPERSONS  
OF THE JOINT COMMITTEE  
AND ITS WORKING GROUPS**

(Adopted by Council at CSC-17/OPN)

**D.1. CHAIRPERSON OF THE JOINT COMMITTEE**

D.1.1 The Chairperson of the Joint Committee is responsible to the Council.

D.1.2 The Chairperson's primary responsibilities are the planning and conduct of the Joint Committee Meeting. This task involves close liaison with the Secretariat, well in advance of the meeting, to ensure that action items are properly addressed and documents are solicited and distributed, as appropriate. Specifically, the Chairperson should:

- a) review the Report of the last Joint Committee meeting, the Summary Records of previous Council sessions and the reports/output from Task Group meetings;
- b) become familiar with the current issues concerning the Programme, so as to be able to prompt action by the Secretariat and / or Participants;
- c) co-ordinate with the Secretariat all actions required for the preparation of the Joint Committee meeting;
- d) develop a programme of work for the Joint Committee, based on the priorities established by Council and the current necessities of the Programme; and
- e) report to the Chairperson of the Cospas-Sarsat Council as necessary, and in particular consult with the Chairperson of the Council to resolve possible conflicts concerning the preparation of the Joint Committee meeting.

D.1.3 The programme of work for the Joint Committee should be co-ordinated with the Chairpersons of the Operations Working Group (OWG) and the Technical Working Group (TWG) to ensure that:

- a) all documents submitted for review at the Joint Committee, technical and operational issues, and action items, are appropriately addressed by the TWG, the OWG or by both;
- b) there is no duplication of efforts;
- c) sufficient time is allowed for completion of the necessary tasks by the appropriate Working Group; and
- d) discussions in the working groups are reported to, and recommendations to Council are reviewed in the plenary meeting.

- D.1.4 The Chairperson should publish a detailed work programme to guide the Joint Committee participants in their efforts. Throughout the meeting, the Chairperson should keep abreast of progress in respect to all items being addressed and revise the work programme as necessary. The Chairperson should summarise the discussion and state the agreed conclusion before terminating the review of an item.
- D.1.5 The Chairperson is responsible for ensuring that contentious issues brought to the Joint Committee are discussed in a free-flowing, friendly manner and that discussion time is equitably shared. He/she is responsible for terminating discussion of a topic after the discussion has allowed for a fair exchange of opinions.
- D.1.6 The Chairperson is responsible for ensuring that documents submitted with proposed changes to System technology, current operations or policy are properly reviewed with respect to the change management criteria contained at section 6 of the document C/S P.011 (Rule 6.B.1 of the Rules of Procedure for Joint Committee meetings).
- D.1.7 The Chairperson is responsible for ensuring that the Report to Council prepared by the Secretariat reflects the pertinent conclusions of the Joint Committee, highlights national positions which Participants wish to bring to the Council's attention, and include a complete list of actions for Participants and / or the Secretariat, with completion deadlines agreed with all Participants.
- D.1.8 The Chairperson is responsible for presentation of the Joint Committee Report to the Open Meeting of the Council session following the Joint Committee meeting. This presentation can be done by the Chairperson of the Joint Committee or be a combined presentation by the Chairpersons of the Joint Committee, the OWG and the TWG.

## **D.2. CHAIRPERSONS OF THE WORKING GROUPS OF THE JOINT COMMITTEE**

- D.2.1 The Technical Working Group and the Operations Working Group are sub-groups of the Joint Committee, established by the Council to consider matters brought before the Joint Committee that are, respectively, of a technical or operational nature. Their objective is to agree actions to be performed by Participants in the Programme or the Secretariat, prepare recommendations submitted to the Council for adoption, and draft documents for approval by the Council.
- D.2.2 The Working Group Chairperson is responsible for planning and conducting the meetings, and reporting on the accomplishments of the Working Group. The activities involved are described as follows.
- D.2.3 In the months prior to the Joint Committee meeting, the Chairperson should gain a thorough understanding of issues to be considered, based on the review of the

previous Joint Committee Reports to Council, decisions from previous Council sessions, action items from the last Joint Committee meeting, and consultations with Participants and the Secretariat.

- D.2.4 When the documents submitted for review by the Joint Committee are distributed, the Chairperson should read and understand all papers on subjects of concern to the Working Group, conferring with authors and other experts as required.
- D.2.5 After all papers have been received, and prior to the beginning of the Joint Committee meeting, the Chairperson of a Working Group should confer with the Chairpersons of the Joint Committee and of the other Working Group and determine the venue (Plenary Session, TWG or OWG) for presentation and discussion of each paper. Papers requiring action by both Working Groups should be identified, and the handling of such papers should be coordinated with the Chairperson of the other group. All Chairpersons should agree on a detailed programme of work for the Joint Committee meeting.
- D.2.6 The Chairperson of a Working Group is responsible for ensuring that documents submitted with proposed changes to System technology, current operations or policy are properly reviewed with respect to the change management criteria contained at section 6 of the document C/S P.011 (Rule 6.B.1 of the Rules of Procedure for Joint Committee meetings). The Chairperson should summarise the discussion and state the agreed conclusion before terminating the review of an item.
- D.2.7 The Chairpersons of the Working Groups should attend the plenary meetings of the Joint Committee and conduct Working Group meetings on the basis of the work programme. As meetings progress, the Chairperson of a Working Group should confer periodically with the Chairpersons of the Joint Committee and of the other Working Group and adjust the work programme as necessary to reflect progress made.
- D.2.8 The Chairpersons of the Working Groups should review and ensure the accuracy of the meeting record prepared by the Secretariat.
- D.2.9 The Chairpersons of the Working Groups should attend the Open Session of the Council subsequent to the Joint Committee meeting to assist the Joint Committee Chairperson and the Secretariat in presenting and discussing the recommendations of the Joint Committee.
- D.2.10 At the Council meeting marking the end of their term of service, the Chairpersons of the Working Groups should recommend a successor to the Council.

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**ANNEX E****LIST OF ORGANISATIONS THAT HAVE OBSERVER STATUS AT  
COSPAS-SARSAT JOINT COMMITTEE MEETINGS**

CIRM	Comité International Radio Maritime ( <i>International Maritime Radio Committee</i> )
ESA	European Space Agency
ETSI	European Telecommunications Standards Institute
EUMETSAT	European Organisation for Meteorological Satellite
EUROCAE	European Organization for Civil Aviation Equipment
ICAO	International Civil Aviation Organisation
ICS	International Chamber of Shipping
IEC	International Electrotechnical Commission
IFALPA	International Federation of Airline Pilots Associations
IMO	International Maritime Organisation
IMSO	International Maritime Satellite Organisation
ITU	International Telecommunication Union
RTCA	Radio Technical Commission for Aeronautics (USA)
RTCM	Radio Technical Commission for Maritime Services (USA)

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**ANNEX F****LIST OF REFERENCE DOCUMENTS**

<b>C/S Reference</b>	<b>Abbreviation in text</b>	<b>Title</b>
C/S A.001	DDP	Cospas-Sarsat Data Distribution Plan
C/S A.002	SID	Cospas-Sarsat Mission Control Centres Standard Interface Description
C/S A.003		Cospas-Sarsat System Monitoring and Reporting
C/S A.005		Cospas-Sarsat Mission Control Centre (MCC) Performance Specification and Design Guidelines
C/S A.006		Cospas-Sarsat Mission Control Centre Commissioning Standard
C/S D.001		Functional Requirements for the Cospas-Sarsat International 406 MHz Beacon Registration Database
C/S D.004		Operations Plan for the Cospas-Sarsat International 406 MHz Beacon Registration Database
C/S G.005		Cospas-Sarsat Guidelines on 406 MHz Beacon Coding, Registration and Type Approval
C/S G.007		Handbook on Distress Alert Messages for Rescue Coordination Centres (RCCs), Search and Rescue Points of Contact (SPOCs) and IMO Ship Security Competent Authorities
C/S P.001	ICSPA	The International Cospas-Sarsat Programme Agreement
C/S P.002		Procedure and Standard Letter for Notification of Association with the Cospas-Sarsat Programme by States
C/S P.003		Procedure and Standard Letters of Association with the Cospas-Sarsat Programme by Organisations
C/S P.007		Guidelines for Participating in the Cospas-Sarsat System
C/S P.012		Cospas-Sarsat Secretariat Management Guide
C/S R.007		Cospas-Sarsat Report on System Status and Operations
C/S R.008		Report of the Demonstration and Evaluation of the 406 MHz Geostationary System

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C/S R.012	MIP	Cospas-Sarsat 406 MHz MEOSAR Implementation Plan
C/S R.013		Cospas-Sarsat METEOSAT Second Generation (MSG) GEOSAR Performance Evaluation Report
C/S S.002		Guidelines for Cospas-Sarsat Meetings held outside of the Cospas-Sarsat Secretariat
C/S S.007		Handbook of Beacon Regulations
C/S T.001		Specifications for Cospas-Sarsat 406 MHz Distress Beacons
C/S T.002		Cospas-Sarsat LEOLUT Performance Specification and Design Guidelines
C/S T.003		Description of the Payloads Used in the Cospas-Sarsat LEOSAR System
C/S T.004		Cospas-Sarsat LEOSAR Space Segment Commissioning Standard
C/S T.005		Cospas-Sarsat LEOLUT Commissioning Standard
C/S T.007		Cospas-Sarsat 406 MHz Beacon Type Approval Standard
C/S T.008		Cospas-Sarsat Acceptance of 406 MHz Beacon Test Facilities
C/S T.009		Cospas-Sarsat GEOLUT Performance Specification and Design Guidelines
C/S T.010		Cospas-Sarsat GEOLUT Commissioning Standard
C/S T.011		Description of the Payloads Used in the Cospas-Sarsat GEOSAR System
C/S T.012		Cospas-Sarsat 406 MHz Frequency Management Plan
C/S T.013		Cospas-Sarsat GEOSAR Space Segment Commissioning Standard
C/S T.014		Cospas-Sarsat Frequency Requirements and Coordination Procedures

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