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**ADOPTION OF AMENDMENTS TO THE INTERNATIONAL AERONAUTICAL
AND MARITIME SEARCH AND RESCUE (IAMSAR) MANUAL**

1 The Maritime Safety Committee (MSC), at its eighty-third session (3 to 12 October 2007), having been informed that the International Civil Aviation Organization (ICAO) had approved the amendments to the IAMSAR Manual prepared by the Joint ICAO/IMO Working Group on Harmonization of Aeronautical and Maritime Search and Rescue, and that they had been endorsed by the Sub-Committee on Radiocommunications and Search and Rescue (COMSAR), at its eleventh session (19 to 23 February 2007), adopted the annexed amendments in accordance with the procedure laid down in resolution A.894(21).

2 The Committee decided that the amendments should enter into force on 1 June 2008.

ANNEX

SECTION 1

PROPOSED AMENDMENTS TO IAMSAR MANUAL – VOLUME I

1 Chapter 1

- Make changes to the existing paragraph 1.3.1 to 1.3.5 as follows (new text underlined, deletions ~~struck through~~):

“1.3.1 As Party to the International Convention for the Safety of Life at Sea (SOLAS), the International Convention on Maritime Search and Rescue, or the Convention on International Civil Aviation, a Party undertakes to provide certain aeronautical and/or maritime SAR co-ordination and services. ~~The international community expects these commitments to be fulfilled.~~ Reference to Search and Rescue is also contained in the UN Convention on Law of the Sea, 1982. This Convention includes a general statement at Article 98, paragraph 2, dealing with search and rescue:

‘Every coastal State shall promote the establishment, operation and maintenance of an adequate and effective search and rescue service regarding safety on and over the water and, where circumstances so require, by way of mutual regional arrangements, co-operate with neighbouring States for this purpose.’

The international community expects these commitments to be fulfilled by all State parties.

- 1.3.2** These services can be provided by States individually establishing effective national SAR organizations, or by establishing a SAR organization jointly with one or more other States. The role of agreements and plans in establishing SAR services will be discussed throughout this Manual.
- 1.3.3** Appendix (K) provides an overview of the relevant Articles, Annexes and Chapters of the International Convention on Maritime Search and Rescue and the Convention on International Civil Aviation.
- 1.3.34** Every State should have in place statutes and related provisions that establish a legal foundation for establishing a SAR organization and its resources, policies, and procedures.
- 1.3.45** SAR managers should seek legal advice on how domestic and international laws pertain to SAR policies and procedures.
- 1.3.56** State legislative provisions should be aligned with accepted principles of international law, and may serve purposes such as:”

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2 Chapter 2

- Make changes to paragraph 2.2.11 as follows (new text underlined, deletions ~~struck through~~):
 - “2.2.11 On-scene channels are used between SRUs and the OSC. The SMC should specify an on-scene communications channel for use by all SRUs based on the equipment carried by the SRUs. If an on-scene radio frequency is required for communications between air and surface facilities involved in a SAR operation, distress and on-scene frequencies may be used. Designated SAR aircraft operating in maritime areas ~~must~~ should be equipped with a frequency for communicating with vessels during SAR operations.”
- Add new paragraphs 2.2.12 and 2.2.13 as follows:
 - “2.2.12 Administrations should encourage voluntary fitting of air band radio equipment, especially on marine SAR units and government vessels, but also on SOLAS ships operating in areas where working with aircraft not fitted with maritime band radio equipment is known to be a possibility.
 - 2.2.13 SAR Co-ordinators should consider the possible need for communications between aircraft and surface units within their SAR Regions, and ensure that this need can be met even for aircraft that cannot communicate directly on maritime frequencies. Typically the RCC should be able to provide a communication link between the aircraft and surface units with their own equipment or by making other arrangements. SAR and government vessels should be encouraged ~~to be able to~~ fit equipment to communicate directly on aeronautical frequencies. Passenger ships subject to the SOLAS Convention are required to have this capability.”

3 Chapter 4

- Make changes in paragraph 4.4.4, subparagraph (c) as follows (new text is underlined, deletions ~~struck through~~):
 - “(c) Some ships may carry radios for use in survival craft capable of transmitting and receiving ~~on the frequency 500 KHz (radiotelegraphy)~~ and on the frequency 2182 ~~KHz~~ kHz (radiotelephony). Some vessels may also carry portable survival craft VHF transceivers. Appendix G provides more information on carriage for SOLAS Ships.”

4 Appendix A

- Make changes to Appendix A as follows (new text is underlined, deletions struck through):

“Article 1

A Search and Rescue Organization shall be established for the provision of search and rescue services to ~~[State’s aeronautical or maritime] craft, and foreign craft.~~ in accordance with the IMO International Convention on Maritime Search and Rescue 1979, as amended, and the Convention on International Civil Aviation, Annex 12.

The Search and Rescue Organization shall, as far as its primary function permits, assist in other emergencies.

Article 2

The ~~Departments~~ competent national authorities ~~civil aviation and/or Merchant Marine~~ shall be responsible for the provisions ~~organization and operation~~ of the Search and Rescue ~~Organization~~ services.

Article 3

During search and rescue operations, the ~~Departments~~ competent national ~~civil aviation and/or Merchant Marine~~ authorities shall be entitled to call for the collaboration and support of other Government services.

The ~~Departments~~ competent national ~~civil aviation and/or Merchant Marine~~ authorities shall be authorized to conclude agreements concerning the provision of assistance with local (State, provincial, municipal) authorities and suitable private agencies or persons.

Article 4

The ~~Departments~~ competent national ~~civil aviation and/or Merchant Marine~~ authorities shall be responsible for negotiating the terms of international agreements with the Search and Rescue organization of other States.*

All Government services concerned shall take measures to facilitate, as far as possible, the immediate and temporary entry of personnel, and their equipment, from other States who, in agreement with the ~~Departments~~ competent national ~~civil aviation and/or Merchant Marine~~ authorities are participating in search and rescue operations. All Government services concerned shall seek to implement, as appropriate, the search and rescue recommendations and standards of *the International Civil Aviation Organization and/or the International Maritime Organization.*”

* Depending on the administrative practices, agreements of this type may have to be endorsed at higher levels.

- 5 – Insert a new appendix K as follows:

“Appendix K

National responsibilities of Contracting States under International Conventions

1 AVIATION ARRANGEMENTS

1.1 The Convention on International Civil Aviation (Chicago Convention) provides a basis for international co-operation between Contracting States in the provision of international civil aviation SAR services. The Chapters, Articles and Annexes detail certain principles and arrangements in order that international civil aviation services may be developed in a safe and orderly manner, international air transport established on the basis of equality of opportunity and all such services operated soundly and economically.

1.2 The Convention Articles and Annexes, include the following:

Articles specific to search and rescue and aircraft emergencies are as follows:

| | |
|-------------------------|--------------------------------------|
| Articles 1 and 2 | Airspace and Sovereignty; |
| Article 12 | Rules and Regulations; |
| Article 25 | Search and Rescue; |
| Article 26 | Accident and Incident Investigation; |
| Article 28 | Air Navigation Facilities; |
| Article 31 | Certificate of Airworthiness; |
| Article 32 | Licences of Personnel; and |
| Article 68 | Designation of Routes and Airports. |

1.3 Details of the Articles are elaborated in Annexes to the Convention.

The Annexes that have a bearing on emergency situations involving aircraft are the following:

| | |
|-----------------|--|
| Annex 2 | Rules of the Air; |
| Annex 3 | Meteorological Services; |
| Annex 6 | Operation of aircraft and helicopters; |
| Annex 10 | Communications; |
| Annex 11 | Air Traffic Services (including the responsibilities for search and rescue alerting and in-flight emergency response); |
| Annex 12 | Search and Rescue; |
| Annex 13 | Aircraft Accident Investigation; |
| Annex 14 | Aerodrome and Heliport Design and Operations; and |
| Annex 17 | Security and Unlawful Interference. |

1.4 It should be noted that the Chicago Convention does not provide any minimum response standards or sanctions in relation to the non-provision of aviation search and rescue services but relies on Contracting States to provide a level of service commensurate with their perceived requirements and available resources. There is also an assumption that neighbouring countries will work together to achieve the common good.

2 MARITIME ARRANGEMENTS

2.1 The International Convention on Maritime Search and Rescue, 1979, known as the SAR Convention 1979, is designed to provide a framework for carrying out search and rescue operations following accidents at sea.

2.2 The SAR Convention, as amended, clarifies the responsibilities of Governments and puts emphasis on the regional organizational approach and co-ordination between maritime and aeronautical operations.

2.3 Articles I to VIII of the Convention discuss the general obligations of Parties under the Convention, and the obligations or rights of vessels provided for in other international instruments.

2.4 The chapters and resolutions that have a bearing on the management of emergency incidents involving persons in distress at sea, include the following:

- Chapter 1** Terms and definitions used;
- Chapter 2** Organization and co-ordination of Search and Rescue services;
- Chapter 3** Co-operation between States;
- Chapter 4** Overview of Rescue Co-ordination Centre and Rescue Sub-Centre operating procedures; and
- Chapter 5** Operational requirements of ship reporting systems.”

SECTION II

PROPOSED AMENDMENTS TO THE IAMSAR MANUAL – VOLUME II

1 Chapter 1

- In paragraph 1.10.3, add the new following text after sub-section (c). The added text should appear as sub-section (d).

“1.10.3

- (d) On the other hand, the type of information that the RCC spokesman could release, depending on the specific circumstances of the SAR operation, includes, but is not limited to:

general reason for the SAR operation;

type of aircraft or vessel involved;

owner/operator of the aircraft or vessel (only after the owner/operator has been informed and given consent);

name of vessel/flight number (only after the owner/operator has been informed and given consent);

number of people on board;

general area being searched;

number and types of aircraft and vessels engaged in the search and the number of hours flown;

arrangements for land or marine search (as applicable);

~~number of sighting or hearing reports received;~~

details of other authorities participating in the search;

contact number for use by the next of kin to obtain information;

contact number for further information; and

contact number for media enquiries.”

2 Chapter 2

- Make changes to paragraph 2.3 as follows (new text is underlined, deletions ~~struck through~~) and renumber the paragraphs accordingly:

“2.3.1 ~~Vessels~~ Ships communicate with coast radio stations and with each other on maritime frequencies available in MF, HF and VHF bands. The GMDSS (Global Maritime Distress and Safety System) is mandatory for all SOLAS ships from 1999. Volume I, Appendix G provides more information on carriage requirements for SOLAS ships.

~~2.3.3. Use of 500 KHz for Morse Code distress, safety and calling transmissions has historically been popular, and has often overcome language barriers. However with the event of more advanced technologies, use of 500 KHz is decreasing. As of February 1999, international requirements to have this capability aboard ships will cease. Silence periods on this frequency are observed for three minutes twice an hour, beginning at 15 and 45 minutes past each hour, to facilitate reception of distress calls, and in the and in the last 15 seconds of each period to announce distress, urgency, or safety broadcasts.~~

2.3.3 ~~The frequency 2182 KHz~~ kHz, an international maritime voice distress, safety and calling frequency may be also available in SAR aircraft. ~~Silence periods on this frequency are observed for three minutes twice an hour, beginning on the hour and at 30 minutes past each hour, to facilitate reception of distress calls.~~

2.3.5 ~~MF Radio Alarms. A number of coast and ships stations are equipped to transmit the radio alarm signal on 500 KHz radiotelegraphy or 2182 KHz radiotelephony by means of an automatic signal generating device. The signal actuates automatic devices giving an alarm to attract attention of operators not maintaining an aural watch, and is followed by the Morse signal “SOS SOS SOS” on 500 KHz~~

~~radiotelegraphy and the spoken words "MAYDAY MAYDAY MAYDAY" on 2182 KHz.~~

- a) ~~The telegraphy distress alarm consists of a series of twelve dashes sent in one minute, the duration of each dash being four seconds, and the duration of the interval between consecutive dashes being one second.~~
- b) ~~The radiotelephony alarm consists of two audio-frequency tones transmitted alternately (similar in sound to a two-tone siren used by some ambulances). It is sent continuously for a period lasting from 30 seconds to a minute. A long continuous tone at the end of the alarm signifies that the signal originated from a coast station and not a ship station.~~
- e) ~~Radio alarms may only be used to announce:~~
- ~~That a distress call or message is about to follow; or~~
- ~~That transmission of an urgent meteorological warning; or~~
- ~~The loss of a person overboard, when help of other vessels is required and cannot be satisfactorily obtained by use of the urgency signal only.~~
- d) ~~Tests of radio alarms are prohibited."~~

3 Appendix G

- In second paragraph of G.2.15, insert the underlined text as follows:

"Communications equipment. All aircraft should be equipped to maintain good communications with their RCC (either directly or indirectly) and other SAR facilities. SAR aircraft, particularly those engaged in oceanic searches, should be equipped to communicate with vessels or survival craft. They also should be able to communicate with survivors on VHF-FM Channel 16 (156.8 MHz) and VHF-AM on 121.5 MHz and 123.1 MHz. SAR co-ordinators should consider the possible need for communications between aircraft and surface units within their SAR Regions, and ensure that this need can be met even for aircraft that cannot communicate directly on maritime frequencies. Typically the RCC should be able to provide a communication link between the aircraft and surface units directly or by making other arrangements. SAR and government vessels should be encouraged to communicate directly on aeronautical frequencies. Passenger ships subject to the SOLAS Convention are required to have this capability."

- In second paragraph of G.3.9, insert the underlined text as follows:

“Communications. The communications requirements for SAR vessels are generally the same as those for SAR aircraft. Good direct or indirect communications with the RCC, RSC, and other SAR units are essential. All SAR units must have radiocommunications to guard and communicate on the international distress frequency being used by the ship or other craft in distress. Radio equipment should be capable of operating on MF/HF and VHF/UHF to communicate with the RCC and rescue units. SAR co-ordinators should consider the possible need for communications between aircraft and surface units within their SAR Regions, and ensure that this need can be met even for aircraft that cannot communicate directly on maritime frequencies. Typically the RCC should be able to provide a communication link between the aircraft and surface units with their own equipment or by making other arrangements. SAR and government vessels should be encouraged to fit equipment to be able to communicate directly on aeronautical frequencies. Passenger ships subject to the SOLAS Convention are required to have this capability. Chapter 2 discusses selection of radio frequencies.”

SECTION III

PROPOSED AMENDMENTS TO THE IAMSAR MANUAL – VOLUME III

1 Section 2

- Add the following text on page 2-42 at the end of chapter “Contact with the Media”:

“On the other hand, the type of information that the RCC spokesman could release, depending on the specific circumstances of the SAR operation, includes, but is not limited to:

general reason for the SAR operation;

type of aircraft or vessel involved;

owner/operator of the aircraft or vessel (only after the owner/operator has been informed and given consent);

name of vessel/flight number (only after the owner/operator has been informed and given consent);

number of people on board;

general area being searched;

number and types of aircraft and vessels engaged in the search and the number of hours flown;

arrangements for land or marine search (as applicable);

~~number of sighting or hearing reports received;~~

details of other authorities participating in the search;
contact number for use by the next of kin to obtain information;
contact number for further information; and
contact number for media enquiries.

2 Section 3

– Delete in page 3-10 the following crossed out text:

~~“Radio Telegraph (WT)~~

- ~~• Radio telegraph is a Morse Code service provided in the MF and HF maritime bands. For distress alerting, it is used on the frequencies 500 MHz and 8364 KHz.~~
 - ~~• After 1 February 1999, SOLAS vessels are not required to continue use of the service.~~
 - ~~• This service overcomes language barriers, but it depends upon trained radio or less.~~
 - ~~• Ship to shore WT working frequencies are 425, 454, 458, 468, 480 and 512 KHz.~~
 - ~~• During their hours of service, ships are supposed to watch on 500 KHz for three minutes twice per hour beginning at h + 15 and h + 45 by an operator using headphones or loudspeaker.~~
- ~~□ During these periods of silence, only distress, urgency and safety signals are permitted.”~~
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