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MSC/Circ.1044
5 June 2002

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

1 The Maritime Safety Committee (MSC), at its seventy-fifth session (15 to 24 May to 2002), having been informed that the International Civil Aviation Organization (ICAO) had approved amendments to the IAMSAR Manual, as prepared by the Joint ICAO/IMO Working Group on Harmonization of Aeronautical and Maritime Search and Rescue and endorsed by the Sub-Committee on Radiocommunications and Search and Rescue (COMSAR) at its sixth session (18 to 22 February 2002), adopted the annexed amendments in accordance with the procedure laid down in resolution A.894(21).

2 MSC 75 decided that the adopted amendments should apply as from 1 July 2003.

ANNEX**AMENDMENTS TO THE IAMSAR MANUAL****SECTION 1****Media Relations****Volume I – System Management**

Add new section 5.7 as follows:

“5.7 Dealing with the Media

5.7.1 The management of media affairs is an important element in SAR operations and should be an integral part of the SAR system. It should thus receive appropriate consideration and planning. If the media do not obtain information from the primary source they will seek it elsewhere. Incorrect or misleading information may then emerge which will benefit no-one and may lead to undue concern amongst Next of Kin.

5.7.2 As search and rescue operations often take place in public, it is important that the information that emerges is correct. The SAR service thus has a responsibility to ensure that an accurate picture is reported. As the primary source, the SAR service should be proactive in communicating facts to the media. Holding back information that is available from other sources may lead to incorrect information being communicated by the media.

5.7.3 All personnel who may be required to have direct contact with the media should receive appropriate training.”

Volume II – Public Relations

Amend text as follows:

"1.10.3 (a). In order to ensure the formulation of a consistent and controlled message to the public, the RCC (or its media relations personnel) should be designated as the focal point for the releases of information relating to SAR operations. Press releases or media conferences can be used as an early release of information, a public update on progress, and as a final release summarizing the entire case after SAR operations are concluded. All information released by the RCC should normally be approved by the SMC and appropriate authorities, and contain only factual information.

1.10.3 (b). Once initial media information has been released, the RCC should consider programming and advertising regular and frequent updates in order to address the needs of the media. These could take the form of further press releases or holding press conferences. A press conference gives the RCC the opportunity to initiate the following actions:

- give information;
- give interviews;

* Contents and index for each volume should be checked and renumbered, if necessary.

- answer questions;
- summarize what has happened and what the RCC is doing in order for the media to fully understand what has occurred;
- give the RCC a “human face”; and
- give the media controlled opportunities to obtain video footage, photographs, and audio for broadcast use.

1.10.5. When a major incident occurs, such as with a large aircraft or cruise ship, hundreds of persons may be at risk, involving many nationalities. In this situation, the RCC could become the focus of world attention. Such events will undoubtedly require the involvement of other emergency service providers and a concerted effort will be required by the RCC if a consistent and controlled message to the public is to be maintained. Actions by the RCC may include the following:

- request representatives from involved emergency service providers to help man a joint media relations team;
- select a spokesperson(s);
- issue a press release;
- make information available on the Internet;
- call a press conference;
- prepare a room for the media; and
- control media access."

Volume III – Media Relations

Add the following paragraph at the end of the topic – *Contact with the Media*, page 2-41:

- "• The rescue facility spokesperson should refer any request for personal opinions, comments on departmental policies, search rationale or sensitive matters to the appropriate RCC and/or higher authority."

SECTION 2

ACO Function

Amendments to the text in the IAMSAR Manual, Volume I. Add new paragraph 2.6.2 as follows:

"2.6.2 Responsible authorities should find ways for information, training and exercising the ACO function, both for those who act as ACOs and for those who co-operate closely with ACOs".

Amendments to the text in the IAMSAR Manual, Volume II. Text in italics constitutes proposed revisions to the text. Replace the existing paragraph 1.2.5 by the following:

"1.2.5 Aircraft Co-ordinator. *The purpose of the aircraft co-ordinator function is to maintain high flight safety and co-operate in the rescue action to make it more effective. The ACO function should be seen as a co-operating, supporting and advisory service.*

The aircraft co-ordinator should normally be designated by the SMC, or if that is not practicable, by the OSC. The ACO function will normally be performed by the facility with the most suitable mix of communication means, radar, *GNSS (Global Navigation Satellite System)* combined with trained personnel to effectively co-ordinate the involvement of multiple aircraft in SAR operations while maintaining flight safety. Generally the ACO is responsible to the SMC; however, the ACO work on-scene must be co-ordinated closely with the OSC, and if no SMC or OSC, as the case may be, the ACO would remain in overall charge of operations. Duties of the ACO can be carried out from a fixed-wing aircraft, helicopter, ship, a fixed structure such as an oil-rig, or an appropriate land unit. Depending on needs and qualifications, the ACO may be assigned duties that include the following:

- *Co-ordinate the airborne resources in a defined geographical area;*
- Maintain flight safety – *issue flight information;*
- *Practise flow planning (example: point of entry and point of exit);*
- Prioritise and allocate tasks;
- Co-ordinate the coverage of search areas;
- *Forward radio messages (can be the only duty);*
- Make consolidated situation reports (SITREPs) to the SMC and the OSC, as appropriate; and work closely with the OSC; and
- *It is important that the ACO is aware of the fact that the participating airborne units, if possible, try to avoid disturbing other participating units with, for example, noise and rotor wind."*

SECTION 3

Critical incident stress management

Volume I

Insert a new bullet into section 2.7.1, at the end as follows:

"Critical incident stress counselors"

Insert a new bullet in section 5.3.3, before the last bullet, as follows:

"- develop procedures to provide critical incident stress counselling to SAR personnel;"

Volume II

New text to insert into Volume II, before existing Section 6.18, renumber existing 6.18 to 6.19. Amend Table of Contents page vii as appropriate:

"6.18 Critical Incident Stress

6.18.1 Exposure to traumatic events and duties, particularly if they involve dead, mutilated or dismembered bodies, is extremely stressful. SAR personnel may need to cope with such situations during or after a SAR operation. Adverse psychological effects of working in such an environment increase with prolonged exposure, and may be cumulative for personnel involved in multiple events over time.

6.18.2 Aircraft accidents may involve SAR personnel in such operations for a prolonged period, especially if the accident occurs at sea where there are few alternative personnel and facilities to handle recovery of dead, mutilated or dismembered bodies.

6.18.3 Recovery time for persons so exposed is commonly two to three months, but may last over one year and may require professional help a year or more after the event. Even persons experienced in their profession, and with duties such as body recovery, can experience acute or long-term health problems during and after responding to such events. SAR personnel often do not realize how they can be affected.

6.18.4 Situations involving death, severe injuries, etc. usually cause SAR personnel to consider the vulnerability of themselves and others close to them, and to share the anguish of family members and others adversely affected by the tragedy. Event anniversaries may trigger adverse responses.

6.18.5 When SAR authorities assign personnel to on scene duties, transport or other responsibilities involving handling or viewing of bodies or body parts, or to similar traumatic duties, they should:

- (a) After severe events, arrange separate debriefings or counselling sessions for each category of personnel. The demands differ and it is important that the group is small and has an understanding of the incident from their own professional perspective;

- (b) Daily or at each shift change, provide information and advice to crews coming on duty to perform such tasks, and counsel them when they are relieved, regardless of whether the persons involved believe they need the assistance;
- (c) Conduct a thorough critical incident stress debrief for crews when they will no longer be returning to traumatic duties;
- (d) Minimize unnecessary exposure when possible, and in any case, limit assignment to such duties to a maximum of three weeks without subsequently returning them to the operation;
- (e) If possible, schedule adequate rest periods to minimize fatigue, a major factor in compounding traumatic stress;
- (f) Limit the number of personnel involved when practicable;
- (g) After crews have been debriefed and relieved of duty, arrange to follow-up with them and their families to monitor needs and assist as appropriate; actively follow-up for at least one year since symptoms and problems are sometimes delayed;
- (h) To aid recuperation after exposure, schedule at least 48 hours away from work responsibilities;
- (i) Provide access to trained counselling, chaplains, and other human support services during and after the event, and involve spouses or other close persons in follow-up efforts to help the person affected recover more easily; and
- (j) Arrange for expressions of appreciation by senior personnel, as well as public expressions of appreciation, as these can help personnel adapt after facing stressful duties."

SECTION 4

Volume II, Appendix B

Pages B-2 to B-4 should be replaced with the pages of this section as follows:

Examples of COSPAS-SARSAT Formats

Note: Not all variations have been included in the examples but may be developed using the message field table and examples that follow.

MESSAGE CONTENT OF A COSPAS-SARSAT ALERT

Message Field #	TITLE
45	MESSAGE TYPE
46	CURRENT MESSAGE NUMBER
47	MCC REFERENCE
48	DETECTION TIME & SPACECRAFT ID
49	DETECTION FREQUENCY
50	COUNTRY OF BEACON REGISTRATION
51	USER CLASS OF BEACON
52	IDENTIFICATION
53	EMERGENCY CODE
54	POSITIONS
54a	RESOLVED POSITION
54b	A POSITION & PROBABILITY
54c	B POSITION & PROBABILITY
54d	ENCODED POSITION AND TIME OF UPDATE
55	SOURCE OF ENCODED POSITION DATA
56	NEXT PASS TIMES
56a	NEXT TIME OF VISIBILITY OF RESOLVED POSITION
56b	NEXT TIME OF VISIBILITY A POSITION
56c	NEXT TIME OF VISIBILITY B POSITION
56d	NEXT TIME OF VISIBILITY OF ENCODED POSITION
57	BEACON HEX ID & HOMING SIGNAL
58	ACTIVATION TYPE
59	BEACON NUMBER
60	OTHER ENCODED INFORMATION
61	OPERATIONAL INFORMATION
62	REMARKS
63	END OF MESSAGE

**SAMPLE WITH MESSAGE FIELD ANNOTATIONS
(406 MHz Notification of country of beacon registration -NOCR)**

FROM AUMCC
TO RCC AUSTRALIA

(Message
Field #)

- #45 1. DISTRESS COSPAS-SARSAT NOTIFICATION OF COUNTRY OF BEACON REGISTRATION ALERT
- #46,47 2. MSG NO. 16999 UKMCC REF 12345
- #48 3. DETECTED AT 22 FEB 95 1708 UTC BY SARSAT 04
- #49 4. DETECTION FREQUENCY 406.0269 MHZ
- #50 5. COUNTRY OF BEACON REGISTRATION 232/G.BRITAIN
- #51,52 6. USER CLASS - MARITIME ID MMSI LAST SIX DIGITS 387718
- #53 7. EMERGENCY CODE NIL
- #54 8. POSITIONS
- #54a RESOLVED - NIL
- #54b DOPPLER A - NIL
- #54c DOPPLER B - NIL
- #54d ENCODED - 50 24.0N 005 16.0W UPDATE TIME UNKNOWN
- #55 9. ENCODED POSITION PROVIDED BY EXTERNAL DEVICE
- #56 10. NEXT PASS TIMES
- #56a RESOLVED - NIL
- #56b DOPPLER A - NIL
- #56c DOPPLER B - NIL
- #56d ENCODED - NIL
- #57 11. HEX ID BEEE01D20001401 HOMING SIGNAL 121.5 MHZ
- #58 12. ACTIVATION TYPE - MANUAL
- #59 13. BEACON NUMBER ON AIRCRAFT OR VESSEL NO. 7
- #60 14. OTHER ENCODED INFORMATION
- A. BEACON MANUFACTURER AND MODEL NUMBER - LITTON/948
- #61 15. OPERATIONAL INFORMATION
- A. REGISTRATION INFORMATION AT UKMCC
TELEX: 75194 UKMCC G
AFTN: EGQPZSZX
TELEPHONE: (44-1343) 836015
- B. RELIABILITY OF ENCODED POSITION DATA - GOOD
- #62 16. REMARKS - NIL
- #63 END OF MESSAGE

SAMPLE 406 MHz RESOLVED POSITION ALERT

(LEOSAR - with encoded position)

FROM AUMCC
TO RCC AUSTRALIA

1. DISTRESS COSPAS-SARSAT POSITION RESOLVED ALERT
 2. MSG NO. 17001 UKMCC REF 12345
 3. DETECTED AT 22 FEB 95 1915 UTC BY COSPAS 06
 4. DETECTION FREQUENCY 406.0269 MHZ
 5. COUNTRY OF BEACON REGISTRATION 232/G.BRITAIN
 6. USER CLASS - MARITIME ID MMSI LAST SIX DIGITS 387718
 7. EMERGENCY CODE - NIL
 8. POSITIONS
 - RESOLVED - 55 23.2N 022 29.9W
 - DOPPLER A - 55 19.1N 022 20.4W
 - DOPPLER B -
 - ENCODED - 55 23.2N 022 25.0W UPDATE TIME UNKNOWN
 9. ENCODED POSITION PROVIDED BY EXTERNAL DEVICE
 10. NEXT PASS TIMES
 - RESOLVED - 22 FEB 95 2130 UTC
 - DOPPLER A - NIL
 - DOPPLER B - NIL
 - ENCODED - NIL
 11. HEX ID BEEE01D20001401 HOMING SIGNAL 121.5 MHZ
 12. ACTIVATION TYPE - MANUAL
 13. BEACON NUMBER ON AIRCRAFT OR VESSEL NO. 7
 14. OTHER ENCODED INFORMATION
 - A. BEACON MANUFACTURER AND MODEL NUMBER - LITTON/948
 15. OPERATIONAL INFORMATION
 - A. REGISTRATION INFORMATION AT UKMCC
 - TELEX: 75194 UKMCC G
 - AFTN: EGQPZSZX
 - TELEPHONE: (44-1343) 836015
 16. REMARKS - NIL
- END OF MESSAGE

SAMPLE 406 MHz CONTINUED TRANSMISSION ALERT

(LEOSAR - with encoded position)

FROM AUMCC
TO RCC AUSTRALIA

1. DISTRESS COSPAS-SARSAT POSITION RESOLVED UPDATE ALERT
 2. MSG NO. 17002 UKMCC REF 12345
 3. DETECTED AT 22 FEB 95 2130 UTC BY COSPAS 06
 4. DETECTION FREQUENCY 406.0269 MHZ
 5. COUNTRY OF BEACON REGISTRATION 232/G.BRITAIN
 6. USER CLASS - MARITIME ID MMSI LAST SIX DIGITS 387718
 7. EMERGENCY CODE - NIL
 8. POSITIONS
 RESOLVED - 55 23.2N 022 29.9W
 DOPPLER A - 55 19.1N 022 20.4W
 DOPPLER B -
 ENCODED - 55 23.2N 022 25.0W UPDATE TIME UNKNOWN
 9. ENCODED POSITION PROVIDED BY EXTERNAL DEVICE
 10. NEXT PASS TIMES
 RESOLVED - 22 FEB 95 2201 UTC
 DOPPLER A - NIL
 DOPPLER B - NIL
 ENCODED - NIL
 11. HEX ID BEEE01D20001401 HOMING SIGNAL 121.5 MHZ
 12. ACTIVATION TYPE - MANUAL
 13. BEACON NUMBER ON AIRCRAFT OR VESSEL NO. 7
 14. OTHER ENCODED INFORMATION
 A. BEACON MANUFACTURER AND MODEL NUMBER - LITTON/948
 B. ENCODED POSITION ACCURACY - 2 MINUTES
 15. OPERATIONAL INFORMATION
 A. REGISTRATION INFORMATION AT UKMCC
 TELEX: 75194 UKMCC G
 AFTN: EGQPZSZX
 TELEPHONE: (44-1343) 836015
 16. REMARKS - NIL
- END OF MESSAGE

SAMPLE 406 MHz POSITION CONFLICT ALERT

(LEOSAR - without encoded position)

FROM AUMCC
TO RCC AUSTRALIA

1. DISTRESS COSPAS-SARSAT POSITION CONFLICT ALERT
 2. MSG NO. 17001 UKMCC REF 12345/12346
 3. DETECTED AT 22 FEB 95 1738 UTC BY SARSAT 02
 4. DETECTION FREQUENCY 406.0269 MHZ
 5. COUNTRY OF BEACON REGISTRATION 232/G.BRITAIN
 6. USER CLASS - MARITIME ID MMSI LAST SIX DIGITS 387718
 7. EMERGENCY CODE - NIL
 8. POSITIONS
 - RESOLVED - NIL
 - DOPPLER A - 56 16.1N 001 18.4W PROB 50
 - DOPPLER B - 54 47.9N 019 37.0W PROB 50
 - ENCODED - NIL UPDATE TIME NIL
 9. ENCODED POSITION PROVIDED BY: NIL
 10. NEXT PASS TIMES
 - RESOLVED - NIL
 - DOPPLER A - 22 FEB 95 1830 UTC
 - DOPPLER B - 22 FEB 95 1831 UTC
 - ENCODED - NIL
 11. HEX ID BEEE01D20001401 HOMING SIGNAL 121.5 MHZ
 12. ACTIVATION TYPE - MANUAL
 13. BEACON NUMBER ON AIRCRAFT OR VESSEL NO. 7
 14. OTHER ENCODED INFORMATION
 - A. BEACON MANUFACTURER AND MODEL NUMBER - LITTON/948
 15. OPERATIONAL INFORMATION
 - A. REGISTRATION INFORMATION AT UKMCC
 - TELEX: 75194 UKMCC G
 - AFTN: EGQPZSZX
 - TELEPHONE: (44-1343) 836015
 - B. RELIABILITY OF DOPPLER POSITION DATA - SUSPECT
 16. REMARKS
 - THIS POSITION 200 KILOMETRES FROM PREVIOUS ALERT
- END OF MESSAGE

SAMPLE 406 MHz Notification of Country of beacon registration (NOCR) ALERT

(LEOSAR - encoded position)

FROM AUMCC
TO RCC AUSTRALIA

1. DISTRESS COSPAS-SARSAT NOTIFICATION OF COUNTRY OF BEACON REGISTRATION ALERT
 2. MSG NO. 16999 UKMCC REF 12345
 3. DETECTED AT 22 FEB 95 1708 UTC BY SARSAT 04
 4. DETECTION FREQUENCY 406.0269 MHZ
 5. COUNTRY OF BEACON REGISTRATION 232/G.BRITAIN
 6. USER CLASS - MARITIME ID MMSI LAST SIX DIGITS 387718
 7. EMERGENCY CODE - NIL
 8. POSITIONS
 - RESOLVED - NIL
 - DOPPLER A - NIL
 - DOPPLER B - NIL
 - ENCODED - 50 24.0N 005 16.0W UPDATE TIME UNKNOWN
 9. ENCODED POSITION PROVIDED BY EXTERNAL DEVICE
 10. NEXT PASS TIMES
 - RESOLVED - NIL
 - DOPPLER A - NIL
 - DOPPLER B - NIL
 - ENCODED - NIL
 11. HEX ID BEEE01D20001401 HOMING SIGNAL 121.5 MHZ
 12. ACTIVATION TYPE - MANUAL
 13. BEACON NUMBER ON AIRCRAFT OR VESSEL NO. 7
 14. OTHER ENCODED INFORMATION
 - A. BEACON MANUFACTURER AND MODEL NUMBER - LITTON/948
 15. OPERATIONAL INFORMATION
 - A. REGISTRATION INFORMATION AT UKMCC
 - TELEX: 75194 UKMCC G
 - AFTN: EGQPZSZX
 - TELEPHONE: (44-1343) 836015
 - B. RELIABILITY OF ENCODED DATA - GOOD
 16. REMARKS - NIL
- END OF MESSAGE

SAMPLE 406 MHz INITIAL ALERT

(GEOSAR - without encoded position)

FROM AUMCC
TO RCC AUSTRALIA

1. DISTRESS COSPAS-SARSAT INITIAL ALERT
 2. MSG NO. 16998 UKMCC REF 12345
 3. DETECTED AT 22 FEB 95 1708 UTC BY GOES 08
 4. DETECTION FREQUENCY 406.0269 MHZ
 5. COUNTRY OF BEACON REGISTRATION 232/G.BRITAIN
 6. USER CLASS - MARITIME ID MMSI LAST SIX DIGITS 387718
 7. EMERGENCY CODE - NIL
 8. POSITIONS
 - RESOLVED - NIL
 - DOPPLER A - NIL
 - DOPPLER B - NIL
 - ENCODED - NIL
 9. ENCODED POSITION PROVIDED BY EXTERNAL DEVICE
 10. NEXT PASS TIMES
 - RESOLVED - NIL
 - DOPPLER A - NIL
 - DOPPLER B - NIL
 - ENCODED - NIL
 11. HEX ID BEEE01D20001401 HOMING SIGNAL 121.5 MHZ
 12. ACTIVATION TYPE - MANUAL
 13. BEACON NUMBER ON AIRCRAFT OR VESSEL NO. 7
 14. OTHER ENCODED INFORMATION
 - A. BEACON MANUFACTURER AND MODEL NUMBER - LITTON/948
 15. OPERATIONAL INFORMATION
 - A. REGISTRATION INFORMATION AT UKMCC
 - TELEX: 75194 UKMCC G
 - AFTN: EGQPZSZX
 - TELEPHONE: (44-1343) 836015
 16. REMARKS - NIL
- END OF MESSAGE

SAMPLE 121.5 MHz INITIAL ALERT

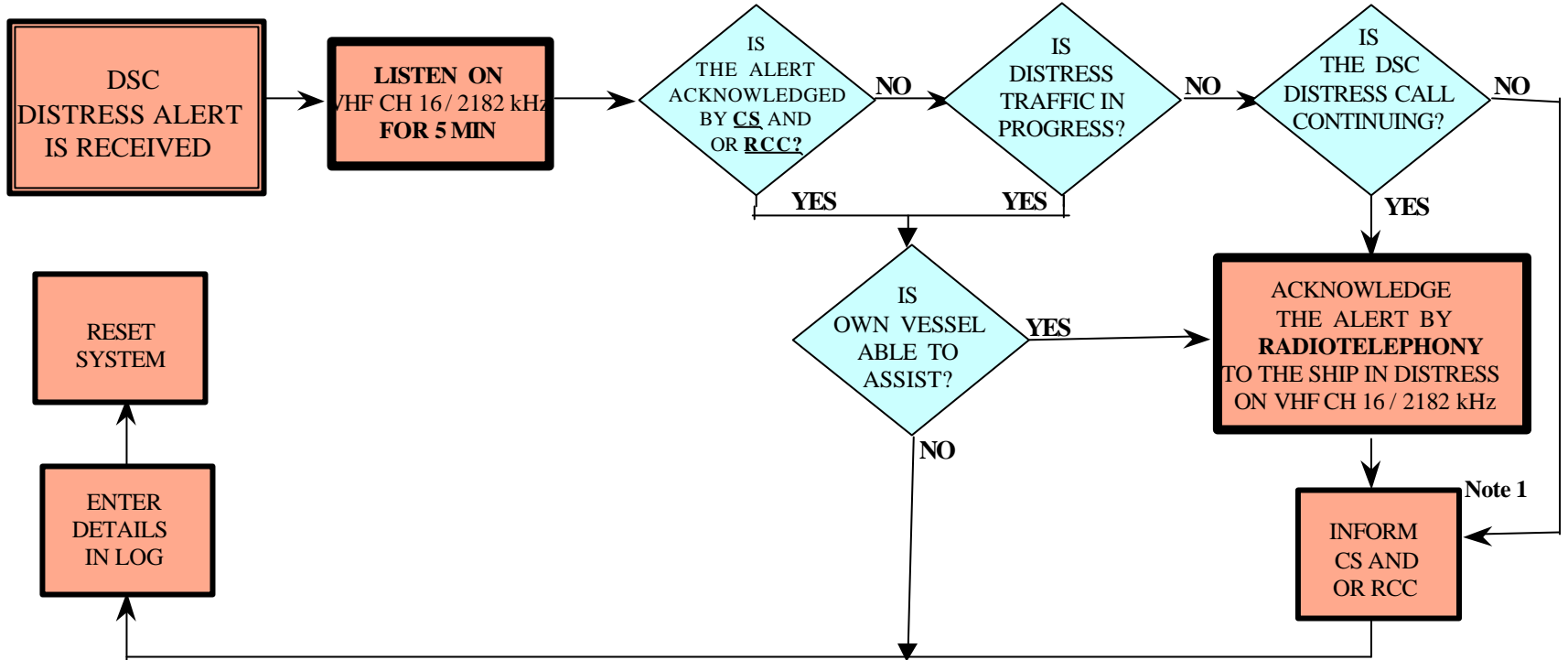
FROM AUMCC
TO RCC AUSTRALIA

1. DISTRESS COSPAS-SARSAT INITIAL ALERT
 2. MSG NO. 18001 UKMCC REF 40007/40008
 3. DETECTED AT 22 FEB 96 1738 UTC BY SARSAT 02
 4. DETECTION FREQUENCY 121.5678 MHz
 5. NIL
 6. NIL
 7. NIL
 8. POSITIONS
 - RESOLVED - NIL
 - DOPPLER A - 56 16.1N 001 18.4W PROB 50
 - DOPPLER B - 54 47.9N 019 37.0W PROB 50
 - ENCODED - NIL
 9. NIL
 10. NEXT PASS TIMES
 - RESOLVED - NIL
 - DOPPLER A - 22 FEB 96 1830 UTC
 - DOPPLER B - 22 FEB 96 1831 UTC
 - ENCODED - NIL
 11. NIL
 12. NIL
 13. NIL
 14. NIL
 15. OPERATIONAL INFORMATION
 - A. DOPPLER TECHNICAL QUALITY - FAIR
 16. REMARKS NIL
- END OF MESSAGE

SECTION 5
Volume III, section 2-Rendering Assistance
Replace diagrams on pages 2-3 with the following:

FLOW DIAGRAM 1

ACTIONS BY SHIPS UPON RECEPTION OF VHF / MF DSC DISTRESS ALERT



Remarks:

NOTE 1 : Appropriate or relevant RCC and/or Coast Station shall be informed accordingly. If further DSC alerts are received from the same source and the ship in distress is beyond doubt in the vicinity, a DSC acknowledgement may, after consultation with an RCC or Coast Station, be sent to terminate the call.

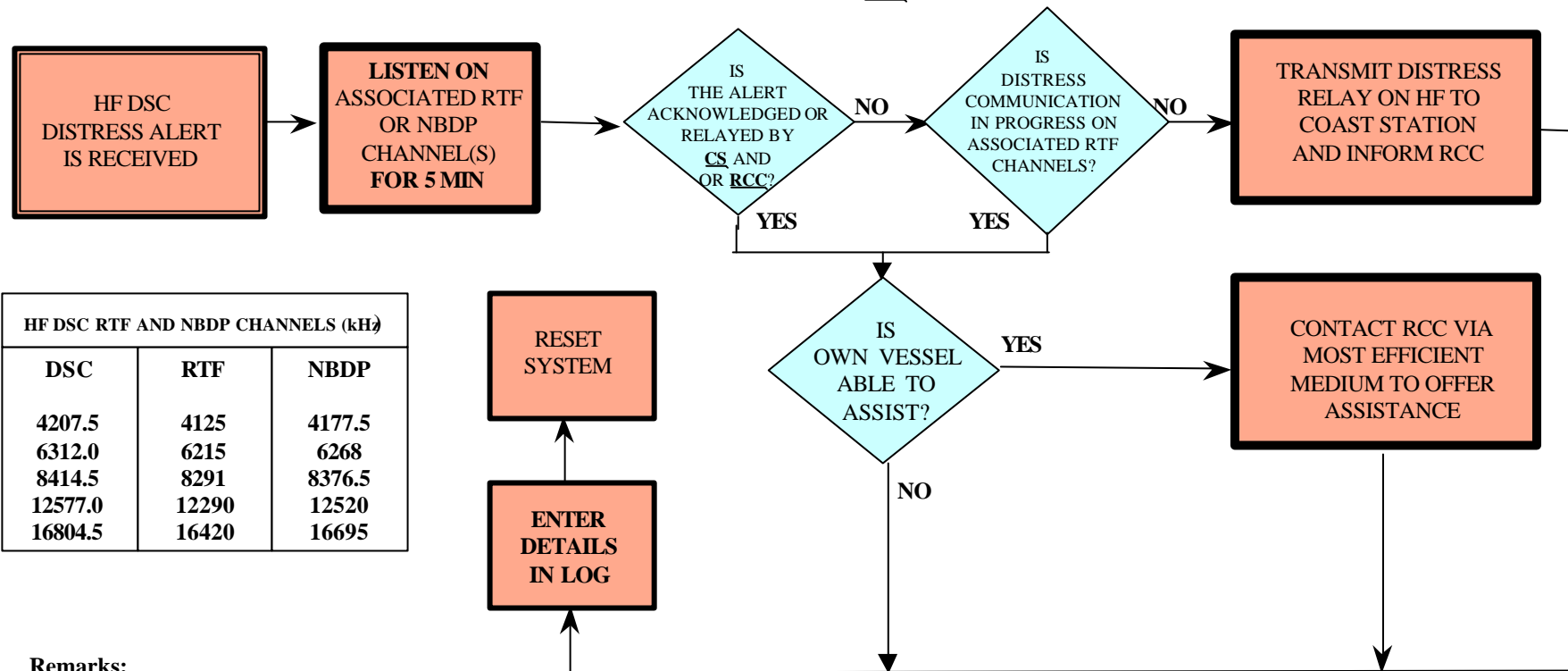
NOTE 2 : In no case is a ship permitted to transmit a DSC distress relay call on receipt of a DSC distress alert on either VHF channel 70 or MF channel 2187.5 kHz.

CS = Coast Station

RCC = Rescue Co-ordination Center

FLOW DIAGRAM 2

ACTIONS BY SHIPS UPON RECEPTION OF HF DSC DISTRESS ALERT



HF DSC RTF AND NBDP CHANNELS (kHz)		
DSC	RTF	NBDP
4207.5	4125	4177.5
6312.0	6215	6268
8414.5	8291	8376.5
12577.0	12290	12520
16804.5	16420	16695

Remarks:

NOTE 1 : If it is clear the ship or persons in distress are not in the vicinity and/or other crafts are better placed to assist, superfluous communications which could interfere with search and rescue activities are to be avoided. Details should be recorded in the appropriate logbook.

NOTE 2 : The ship should establish communications with the station controlling the distress as directed and render such assistance as required and appropriate.

NOTE 3 : Distress relay calls should be initiated manually.

CS = Coast Station

RCC = Rescue Co-ordination Center