# GENERAL NOTICE

#### **NOTICE 1790 OF 2006**

# **DEPARTMENT OF TRANSPORT**

# PUBLICATION FOR PUBLIC COMMENTS: SOUTH AFRICAN SEARCH AND RESCUE (SASAR) REGULATIONS, 2006.

The Minister of Transport has, under section 23 of the South African Maritime and Aeronautical Search and Rescue Act, 2002(Act No.44 of 2002), made the regulations in the schedule for public comments. Interested persons are invited to submit written comments on the regulations by not later than 11 January 2007 Submission should be posted to the Director – General for the attention of Mr. Patrick Modiba

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# DEPARTMENT OF TRANSPORT

No. R..... .....2006 SOUTH AFRICAN MARITIME AND AERONAUTICAL SEARCH AND RESCUE, ACT 2002 (ACT No. 44 OF 2002) SOUTH AFRICAN SEARCH AND RESCUE (SASAR) REGULATIONS, 2006 The Minister of Transport has, under section 23 of the South African Maritime and Aeronautical Search and Rescue Act, 2002 (Act No. 44 of 2002, made the regulations in the Schedule. **SCHEDULE** Arrangement of regulations Regulation No. PART 1 **INTRODUCTORY** 1. Title and commencement 2. Object of regulations Interpretation 3. Application PART 2 SEARCH AND RESCUE GOVERNANCE, CO-ORDINATION AND OVERSIGHT (INSTITUTIONAL ARRANGEMENTS) 5. **Executive Committee** 6. **Management Committee** 7. Aeronautical and Maritime Subcommittees 8. Meeting procedures Rescue Co-ordination Centres and Sub-centres 9. PART 3 SEARCH AND RESCUE ACTION 10. Search and rescue plan 11. Alerting post **12.** Search and Rescue regions 13. Emergency phases 14. Communication Equipment and frequencies PART 4 GENERAL REQUIREMENTS 15. Information on emergency and survival equipment carried on board the aircraft 16. Survival Equipment

# PART 5 SPECIAL REQUIREMENTS

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- 18. Cancellation of SAR
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- 20. Closing, suspending, reopening and reporting on SAR Operations

# PART 1 INTRODUCTORY

#### Title and commencement

1. These regulations shall be called the South African Search and Rescue (SASAR) Regulations, 2006, and come into effect on 1 April **2007.** 

### **Object of regulations**

2. The object of these regulations is to augment and expand on the provisions of the Act and to provide for other matters expedient for the effective implementation of the Act.

#### Interpretation

3. (1) In these regulations any word or expression given a meaning in the Act has the meaning so given and, unless the context indicates otherwise-

Aircraft co-ordinator (ACO) means a person who co-ordinates the involvement of multiple

aircraft in SAR operations.

Alert Phase means a situation wherein apprehension exists as to the safety

of an aircraft or vessel and its occupants.

**Alerting Post** means any facility intended to serve **as** an intermediary

between a person reporting an emergency and a

rescue co-ordinating centre or rescue sub-centre.

**Area control centre (ACC)** means an air traffic control facility primarily responsible for

providing ATC services to IFR aircraft in controlled areas

under its jurisdiction.

Captain means a Master of ship or pilot-in-command of an aircraft,

commanding officer of a warship or an operator of

any other vessels.

Coast earth station (CES) means an Inmarsat shore-based station linking ship earth

station with terrestrial communication networks.

**Commissioner** means the Commissioner for Civil Aviation

Cospas-Sarsat system means a satellite system designed to detect distress

beacons transmitting on the frequencies 121.5 MHz

and 406 MHz.

Craft means any air sea-surface vehicle, or submersible of any kind

or size

Department means the Department of Transport in the national sphere of

government.

Digital Selective Calling (DSC) means a technique using digital codes, which enables a

radio station to establish contact with, and transfer

information another station or group of stations.

Distress Phase means a situation wherein there is reasonable certainty that

an aircraft or vessel and its occupants are threatened by grave and imminent danger and

require immediate assistance.

Ditching means forced landing of **an** aircraft on water.

Emergency Locator Transmitter (ELT)

means a transmitter located in **an** aircraft, which emits emergency signals when the forces exerted upon the aircraft

exceed a certain criterion; or may be manually activated.

**Emergency Position Indicating** 

Radio Beacon

means a beacon, which emits an emergency, signal and

enables those executing a search to locate its source.

Flight Information

Region

means airspace of defined dimensions within which flight information service and alerting services are provided.

Global Maritime Distress and Safety Systems (GMDSS)

means a global communications service based upon automated systems, both satellite-based and terrestrial, to provide distress alerting and promulgation of maritime safety information for

mariners.

Harbour Master mean a person designated as the official to exercise authority

over operations at a port.

Minister means the Minister of Transport in the national sphere of

government.

On-scene

Commander

means an official designated by the SMC for controlling a

specific SAR mission at the scene of an SAR incident.

Personal Locator

Beacon

means an emergency locater beacon small enough to be

carried on a person. It operates on 121.5, 243 or 406 MHZ

and is intended solely for distress signalling.

RCC Chief means an official responsible for ensuring that the

requirements are met to enable SAR operations within a given

geographical area to be co-ordinated.

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**Rescue Co-ordination** 

**Centre** means a unit responsible for promoting efficient organization

of search and rescue services and for co-ordinating the conduct of search and rescue operations within a search and

rescue region.

Rescue

Subcentre means a unit subordinate to a rescue co-ordination centre,

established to complement the latter according to particular

provisions of the responsible authorities.

SAR Plan means a detailed plan formulating the basis of search and

rescue operations

**Search and Rescue** 

Facilities means any mobile resource, including designated search and

rescue units, used to conduct search and rescue operations.

Situation

**Report** means an up-to-date report on a situation in respect of the

progress of search and rescue.

**SAR Mission** 

**Co-ordinator** means an official temporarily assigned to co-ordinate response

to an actual or apparent distress situation.

**Search and Rescue** 

**Region** means an area of defined dimensions, associated with a RCC

within which SAR services are provided.

**Search and Rescue** 

Unit means a unit composed of trained personnel provided with

equipment suitable for the expeditious conduct of SAR

operations.

**Sub-search and Rescue** 

**Region** means an **area** in which a single Rescue Subcentre (RSC) to

execute the co-ordination of search and rescue.

Uncertainty

Phase means a situation wherein uncertainty exists as to the safety

of an aircraft or vessel and its occupants.

# **Application**

4. These regulations apply to all **operators** and/or owners **of** South African registered craft and personnel **and** units deployed during any **SAR** mission or operation.

# PART 2 SEARCH AND RESCUE GOVERNANCE, CO-ORDINATION AND OVERSIGHT (INSTITUTIONAL FRAMEWORK)

#### **Executive Committee**

- 5. (1) An Executive Committee has been established in terms of the Act to govern, co ordinate and oversee the activities of the SASAR Organization.
- (2) In pursuance of the powers and functions referred to in paragraph 4 (1) above, the Executive Committee shall perform the following duties-

- a) Provide a standing forum for co-ordination of administrative and operational SAR matters:
- b) provide an interface with other national and international organizations involved in emergency services;
- c) oversee the SAR plan, develop and maintain the SAR manual;
- d) promote the effective use of all available facilities for SAR
- e) serve as a co-operative forum to exchange information and develop position and policies of interest to more than one party to the **SAR** programme;
- f) promote close co-operation and co-ordination between civilian and military authorities for the provision of effective SAR services; and
- g) improve co-operation among aeronautical and marine SAR components as well as other disaster management agencies (land based infrastructure) for the provision of effective SAR services; and
- h) To determine other ways to enhance the overall effectiveness and efficiency of SAR services within South Africa and to standardize SAR procedures and equipment where practicable.
- (3) The Executive Committee shall consist of all the statutory members of **SASAR** as well as any other person nominated by the Head of **SASAR** or his/her designate and appointed by the Director-General either permanently or on an ad hoc basis.
- The Head of **SASAR** or his/her designate must preside over all meetings of the Executive Committee.

#### **Management Committee**

- **6.** (1) A Management Committee is hereby established on an advisory capacity to the Executive Committee on any matter that may have policy and financial Implications **as** well **as** to deal with urgent day-to-day administrative matters that needs to be sanctioned by the Executive Committee.
  - (2) The functions and duties of the Management Committee shall be:
    - a) to assess emerging technologies and other environmental changes and advise the.
       Executive Committee accordingly;
    - to advise the Executive Committee on the appropriateness and necessity for developed SAR plans, legislation, policies, rules, treaties or agreements;
    - c) to ensure a seamless administration of the SAR Programme;
    - d) to ensure that the limited search and rescue resources are used in the most economic, efficient and effective way;
    - to ensure that **SAR** operations are conducted in accordance with laid down standards and recommended practices **as** reflected the **SASAR** Manual and **as** considered the norm in terms of International Conventions; and
    - f) to take decisions on operational and administrative issues that may not impact on search and rescue policy, and does not necessarily need the approval of the Executive Committee.
  - (3) The Management Committee must be composed of **as** follows:
    - a) Head of SASAR or his designate;
    - b) Head of Aeronautical SAR Operations;
    - c) Head of Maritime SAR Operations;
    - d) MRCC Chief; and
    - e) **ARCC** Chief.

- (4) A designated official of the Department of Transport must preside over the Management Committee's entire meetings.
- (5) The Management Committee must meet at least four times per annum.

#### **Aeronautical and Maritime Sub-committees**

- 7. (1) The two Sub-committees has been created in accordance with section 2 of the Act to advise the Executive and Management Committees on technical and operational aspects that impacts on SAR policy and recommend changes where necessary.
  - (2) In performing the functions contemplated in paragraph 6 (1) above the Sub-committees
    - a) Assess emerging technologies and other environmental changes and make recommendations to the Management Committee and the Executive Committee accordingly;
    - b) develop and review aeronautical and maritime SAR plans;
    - c) ensure the smooth running of the Aeronautical and Maritime Rescue Co-ordination Centre and Rescue Sub-centres and advise the Management and Executive Committee on any matter that may hamper the smooth running of these Centres;
    - d) ensure that the limited search and rescue resources are used in the most economic, efficient and effective way;
    - e) ensure that SAR operations are conducted in accordance with laid down standards and recommended practices **as** reflected in the SASAR Manuals and **as** considered the norm in terms of International Conventions; and
    - f) take decisions on operational issues that may not impact on search and rescue policy, and does not necessarily need the approval of the Management Committee and the Executive Committee.
  - (3) The Heads of Aeronautical and Maritime SAR Operations must chair the Aeronautical and Maritime Sub-committees respectively.

### Meeting procedures

must-

**8.** All the meetings of SASAR Committees and Sub-committees must be convened and run in accordance with the procedures and protocols as contemplated and outlined in the SASAR Constitution.

#### Management and running of Rescue Co-ordination Centres or Rescue Sub-Centre

- **9.** (1) The RCC Chief must be in charge of the management and daily running of a Rescue Co-ordination Centre
  - (2) The RCC Chief must ensure that-
    - (a) the RCC is established and properly staffed either through voluntary or permanent staff;
    - (b) persons designated and on call or standby act as Search Mission Co-ordnators (SMC's) when required or appointed;
    - (c) SMCs are appointed for specific search and rescue operations;
    - (d) The RCC conforms to the SASAR procedures that have been established;
    - (e) The RCC establishes close liaison with the persons in charge of facilities available to the RCC by holding operational meetings;
    - A communication network is established for the conduct of search and rescue operation within the area of responsibility of the respective RCC;

- (g) Where applicable, liaison is established with other search and rescue facilities of neighbouring states to ensure mutual co-operation during combined operations; and
- (h) Liaison is established with other national RCCs to ensure mutual co-operation during combined operations and/or exercises.
- (3) The SMC, must, during SAR operations perform the following duties
  - a) Obtain and evaluate all data on the emergency;
  - b) ascertain the type of emergency equipment carried by the missing or distressed craft;
  - c) remain informed of prevailing environmental conditions;
  - d) if necessary, ascertain movements and location of vessels and alert shipping in likely search areas for rescue, lookout and/or radio watch on appropriate frequencies to facilitate communications with SAR facilities;
  - e) develop the search action plan, (and rescue action plan as appropriate), i.e., allocated search areas;
  - f) plot the area to be searched and decide on the method and facilities to be used;
  - g) designate the OSC, dispatch SAR facilities and designated on-scene communications frequencies;
  - h) inform the **RCC** chief of the search action plan;
  - i) co-ordinate the operation with adjacent RCC's when appropriate;
  - j) arrange briefing and debriefing of SAR personnel;
  - k) evaluate all reports from any source and modify the search action plan as necessary;
  - 1) arrange for the fuelling of aircraft and, for prolonged search, make arrangements for the accommodation of SAR personnel;
  - m) arrange for delivery of supplies to sustain survivors;
  - n) maintain in chronological order an accurate and up-to-date record with a plot, where necessary, of all proceeding;
  - o) issue progress reports;
  - p) recommend to the RCC chief the abandoning or suspending of the search;
  - q) release SAR facilities when assistance is no longer required;
  - r) notify accident investigation authorities;
  - s) if applicable, notify the State of registry of the aircraft in accordance with established arrangements; and
  - t) prepare a final report on the results of the operation.

# PART 3 SEARCH AND RESCUE ACTION

#### Search and Rescue Plan

- **10.** (1) A search and rescue plan is unique to a particular RCC or RSC. Each RCC Chief or RSC Head must ensure that the RCC or RSC concerned develop a comprehensive and detailed SAR plan to ensure that the RCC or RSC functions properly during a search and rescue action.
  - (2) All search and rescue action must be undertaken according to the SAR plan.
- (3) The SAR plan must be unambiguous and the RCC or RSC must be able to carry out the instructions.
- (4) All temporary or permanent RSCs must automatically institute search and rescue operations as defined herein and by local operating procedures until relieved by an RCC.
  - (5) A SAR plan must-

- set out the procedure whereby a search and rescue operation in the RCCs or RSCs area of responsibility should be conducted during different phases of an emergency;
- in respect of facilities available to the RCC or RSC
  - i) state precisely which agencies are responsible for activating facilities;
  - detail the methods of communicating with the various agencies ii) (communication network)
  - detail the methods of alerting mobile facilities iii)
  - detail the methods of co-ordination with the various facilities iv)
  - indicate by whom, and to what extent, any of these facilities can be v) requested to participate in an operation; and
  - describe the facilities available to the RCC or RSC. vi)
- state precisely the area of responsibility appertaining to the RCC or RSC; c)
- state the responsibilities of staff assigned to search and rescue operations; d)
- set out the method and procedure where information is obtained, stored and e) retrieved for use in a search and rescue operation;
- make provision for the training and exercising of search and rescue staff; and f)
- set out a reporting procedure whereby appropriate authorities are informed of g) any hazard to navigation or wreck, consequent to an operation.

#### Alerting post

- 11. (1)The alerting post must alert the RCC's or RSCs of an emergency or a potential emergency
  - Alerts could be received from any source but essentially from: **(2)** 
    - a) the master or person in charge of a vessel;
    - b) the pilot of an aircraft
    - an air traffic service unit; c)
    - a coastal radio station; d)
    - a policeman; e)
    - an ARCC or MRCC of another State; f)
    - the national ARCC or MRCC; h)
    - an office of the watch of a vessel sighting a distress signal; i)
    - a duty officer in a port control tower; j)
    - National Sea Rescue Institute (NSRI) station commander; k)
    - A safety officer of a power boat club; or
    - A member of the public or family member of the casualty.
  - Dedicated alerting posts must be staffed **24** hours a day and are: **(4)** 
    - a) air traffic service units;
    - b) harbour master's offices;
    - c) coastal radio stations;
    - d) South African police stations;
    - e) the MRCC; and
    - ARCC.
  - The following procedure must be followed by an alerting post, on becoming aware of an emergency or potential emergency situation:
    - a) gather as much information about the emergency situation as is possible;

- b) report to the nearest maritime RSC or secondary RSC in the event of a maritime distress or to the nearest **ATSU** in the event of an aeronautical emergency;
- c) after making the initial report in terms of 5(b) above, the alerting post must make an attempt to check the report for authencity and accuracy;
- d) if there is reason to suspect that the message or signal indicating the emergency is a hoax or false alert, declare the message as such;
- e) keep open the channel of communication between itself and the source of the emergency message until the appropriate RCC declares that it is no longer required.
- (6) A dedicated alerting post must attempt to gather the following information on the distressed craft for passing on to the RCC or RSC:
  - a) Distressed craft identification (name or type/call sign
  - b) Position of emergency (latitude/longitude or bearing/distance from known position or last reported position and next reporting position)
  - c) Date/time of position;
  - Nature of emergency (fire, collision, man overboard, disable, overdue, bail-out, crash);
  - e) Craft description, (size, type,hull colour, cabin colour, deck colour, rigging, fuselage colour, tail colour wingtip colour)
  - f) Persons on board;
  - g) Date, time and point of departure, planned route; speed ofadvance, estimated time of arrival (ETA), and point of destination;
  - h) Radio frequencies in use, monitored or scheduled;
  - i) Emergency radio equipment and frequencies, including emergency position indicating beacons;
  - j) On-scene weather and sea conditions;
  - k) Assistance desired, if not obvious;
  - 1) Assistance being received, if any;
  - m) Heading, speed, altitude and fuel;
  - n) Initial reporter (name, telephone or address of person, name/call sign if craft, parent agency)
  - o) Date and time of initial report;
  - p) Possible route deviations;
  - q) Navigation equipment
  - r) Survival equipment
  - s) Other information, sources (friends, relatives, associates, agents and agencies)
  - t) Car/boat trailer licence, description, location if pertinent, and
  - **u)** Any other pertinent information.
- (7) The following data must be gathered in relation to a lost person incident or emergency:
  - a) Name of the missing person;
  - b) Location last seen;
  - c) Date/time last seen
  - d) Known intentions or possible actions of missing person;
  - e) Description of missing person;
  - f) Clothing, footwear and equipment;
  - g) Physical and mental condition;
  - h) Knowledge of area;
  - i) Outdoor experience;
  - j) Weather conditions;
  - k) Action being taken;
  - 1) Assistance desired, if not obvious;

- m) Initial reporter, (name and telephone number or address);
- n) Date and time of initial report;
- Next of kin (name and telephone number or address); and
- p) Any other pertinent information.
- (8) A dedicated alerting post must gather information on existing weather conditions from the person who reported an occurrence by posing questions on the following:
  - a) clear skies or cloudy weather and recent changes;
  - b) cloud ceiling, cloud type and percentage cover;
  - whether rain or snow is falling or has fallen, when the snowfall started and ended;
  - d) whether severe weather conditions such as thunderstorms, hail, ice pellets or freezing rain are occurring or have occurred, and at what times it started and stopped;
  - e) visibility and any factors affecting it such **as** fog, smoke, haze, etc and the time of recent changes;
  - f) the state of the water surface, if applicable; and
  - g) wind direction and velocity and recent changes.

### Search and Rescue regions

- **12.** The Republic is divided into two search and rescue regions:
- (1) The aeronautical region which covers the land area of the sovereign territory of the Republic of South Africa, Swaziland, Lesotho, Namibia and the area defined by the ICAO AFI Plan and published by the Minister of Transport in the relevant Government Gazette; and
- (2) The maritime region which covers the sea area bordering the land area mentioned above, defined in the SASAR Manual and published by the Minister of Transport in the relevant Government Gazette.

#### **Emergency Phases**

13. (1) Three phases of emergency have been established for classifying incidents and determining the actions to be taken for each particular incident and are in order of progression, the following:

a)	Uncertainty phase	INCERFA
b)	Alertphase	ALERFA
c)	Distress phase	DETRESFA

- (2) Upon initial notification, an incident is classified in any one of the three phases but, depending on how the situation develops, it may have to be reclassified.
- (3) An Uncertainty Phase is said to exist when there is knowledge of a situation that may need to be monitored, or to have more information gathered, but does not require dispatching of resources. An Uncertainty Phase is declared and a communication search commenced with when there is doubt regarding the safety of an aircraft, ship, or other craft, or persons on board.
- (4) An Alert Phase exists when an aircraft, ship or other craft, or persons are having some difficulty and may need assistance, but are not in immediate danger. SRU's may be dispatched or other SAR assets diverted to provide assistance if it is believed that conditions might worsen or that SAR assets might not be available or able to provide assistance if conditions did worsen at a later time.
- (5) The Distress Phase exits when there is reasonable certainty that an aircraft, ship on other craft or persons on board is in danger and requires immediate attention. If there is sufficient concern that

for the safety of a craft and the persons aboard to justify search operations, the incident should be classified as in the Distress Phase.

- (6) In an aeronautical SAR incident an uncertainty phase is declared by an ATSU:
  - a) In respect of an aircraft for which a flight plan has been filed, when -
    - no communication has been received within a period of 30 minutes after the time it should have been received, or from the time a first unsuccessful attempt was made to establish communication with the aircraft, whichever is the earlier;
    - (ii) the aircraft fails to arrive within 30 minutes of the ETA last notified or estimated, whichever is the later; or
    - (iii) the evaluation of other circumstances, e.g. knowledge that the aircraft is experiencing difficulties, renders it advisable to declare the uncertainty phase;
  - b) In respect of an aircraft for which no flight plan has been filed, when information that the aircraft is overdue or missing is received from any source, e.g. an ATSU, the aircraft operator, relatives of the pilot, or any other person. In such cases the ARCC will be notified and will monitor the progress.
- (7) An alert phase must be declared by an ARCC when
  - a) The attempts made during the uncertainty phase to establish contact with the aircraft or to gain any news from other sources have failed and the aircraft is clearly overdue;
  - An aircraft, which has been cleared to land, has failed to land within 5 minutes
    of the estimated time of landing and communications have not been reestablished with the aircraft;
  - c) Information has been received which indicates that the operating efficiency of the aircraft for which the uncertainty phase was declared or that of another aircraft has become impaired, but not to the extent that a forced landing is likely; and
  - d) There is reason to believe that the operation of an aircraft is being interfered with. In such cases the ARCC will be informed, who in turn, will continue with the alerting of relevant and related organisations and authorities.
- (8) A distress phase must be declared by an ARCC when-
  - Attempts made during the alert phase to establish contact with the aircraft and to gain information through more widespread enquiries have failed and the aircraft is clearly missing and probably in distress;
  - b) the fuel on board is considered exhausted or insufficient for the aircraft to reach safety;
  - c) Information is received which indicates that the operating efficiency of the aircraft has become impaired to the extent that a forced landing is likely;
  - d) Information is received, or it is reasonably certain that the aircraft is about to make or has made a forced landing, or has crashed; and
  - e) a downed aircraft is inadvertently located **as** the result of a sighting or of homing on an ELT transmission.
- (9) In a maritime incident an uncertainty phase exists when an alerting post declares to the MRCC that
  - a) there is doubt regarding the safety of a vessel and/or the persons on board; or

- b) it is overdue and has failed to make its E.T.A.; or
- c) it has failed to make an expected position or safety report.
- (10) An alert phase is declared by an MRCC -
  - when there is apprehension regarding the safety of a vessel or the persons on board;
  - when following the uncertainty phase, attempts to establish contact with the vessel have failed and enquiries addressed to other appropriate sources have been unsuccessful; or
  - c) when information has been received indicating that the operational efficiency of a vessel is impaired but not to the extent that a distress situation is likely.
- (11) A distress phase is declared by an MRCC when
  - a) positive information is received that a vessel or the persons on board are in grave and imminent danger and in need of immediate assistance; or
  - b) following the alert phase, further unsuccessful attempts to establish contact with the vessel and more widespread unsuccessful enquiries point to a probability that the vessel is in distress; or
  - c) information is received which indicates that the operating efficiency of the vessel has been impaired to the extent that a distress situation is likely.
- (12) An **ATS** will usually notify its associated RCC when **an** aircraft is actually or likely in a state of emergency. Such notification to the **ARCC** must contain the following information, if available, as appropriate to the phase of emergency:
  - a) agency and person calling;
  - b) nature of emergency;
  - c) significant information from the flight plan;
  - d) unit which made last contact, time, and frequency used;
  - e) last position repot and how the position was determined;
  - f) colour and distinctive marks of the aircraft in difficulty;
  - g) any action taken by the reporting office;
  - h) number of persons board (POB);
  - i) survival equipment carried; and
  - j) other information.
- (13) The notification from a Coastal Radio Station to the MRCC regarding a maritime craft in distress must contain the following information, if available:
  - a) name and call sign (or ship station identity) of the ship or craft;
  - b) nature of the emergency;
  - c) type of assistance needed;
  - d) time of communication with the ship or craft;
  - e) position or as known position of the ship or craft;
  - f) description of the ship or craft;
  - g) intentions of the ship or craft;
  - h) number of POB if known; and
  - i) other information.
- (14) Notification from any other source should contain any abnormal occurrence they have witnessed or heard about.

#### **Communication Equipment and Frequencies**

- **14, (1)** Communications must support distress alerting, co-ordination and locating functions by allowing those in distress to alert the SAR system, the SAR system to respond and conduct its mission and survivors to help SAR units respond and conduct a rescue.
- (2) The necessary communications for SAR may include telephones, radio operating on international distress frequencies, long-range terrestrial and satellite system and other equipment depending upon geography, the capabilities of mobile facilities within an area and other factors affecting the ability of persons to contact each other.
- (3) SAR communication equipment must be reliable i.e in a good working conditions at all times and be accessible to all parties involved in a SAR operation.
- **(4)** Distress messages should always have precedence, that is, they must be processed before all other communications.
- (5) Communications must be able to take place reliably and quickly between units in distress and the SAR system, and between components of the SAR system, nationally and internationally.
- (6)SAR operations are likely to require communication between two or more of the following units authorities:
  - a) Air Craft Service Units;
  - b) Search and Rescue aircraft;
  - c) Other vessels at sea;
  - d) Search and Rescue vessels;
  - e) Naval shore authorities;
  - f) Air Force Bases/ Command Post;
  - g) Port authorities:
  - h) Coastal radio stations;
  - i) Rescue Co-ordination Centres;
  - i) Police Station, vessels and vehicles;
  - k) NSRI land stations, land mobile stations and vessels;
  - 1) Lighthouses; and
  - m) Emergency Medical Services
- (7) All who may be involved with SAR must be provided with communication procedures, frequencies and equipment sufficiently compatible to carry out their duties.
  - (8) The following frequencies are available for use by units engaged in SAR operations:
    - a) 3023 kHz (RT)

The International Telecommunication Union allocation 3023 I.T.U Article 38-3, regulation 2980 refers. Used between ship/ships and aircraft.

b) 123,1 MHz (RT) International

Used between aircraft and aircraft/ships.

c) 156, 300MHz (RT) VHF Channel 06 International

Used between ships and ships/aircraft

- (9) In the event where SAR is taking place in controlled or advisory airspace, the published aeronautical frequency must be or monitored for ATC purposes.
  - (10) When a SAR operation is declared, a frequency must be allocated for aircraft/ aircraft communication.
- (11) The frequency 156,0 MHz VHF Channel 0 is allocated by ICASA as a marine "on-scene" frequency for use by certain South Africa SAR units only and not fitted in merchant marine vessels, and therefore its use must be co-ordinated with the MRCC.
  - (12) International Distress Frequencies are the following:
    - a) 2182 kHz (RT) International Marine Emergency
    - b) 121.5 MHz (RT) International Aeronautical Emergency
    - c) 156,8 MHz (RT) International Marine Emergency (VHF Channel 16)
    - d) 243 MHz RT) International Aeronautical Emergency
  - (13) Channel A (29,935 kHz) in the 29MHz land mobile band could be used locally among the small boat fraternity as a distress frequency.
- (14) Search and Rescue aircraft likely to operate in maritime areas should be equipped with 2182 kHz and /or 156,8 MHz (Channel 16) to permit communication with ships when necessary.

# PART 4 GENERAL REQUIREMENTS

Information on emergency and survival equipment carried on board the craft

- **15.** (1) The owner or operator of a craft shall have available for the immediate communication to the rescue co-ordination centres, a list containing information regarding the emergency and survival equipment carried on board the craft.
- (2) The minimum information to be contained in the list **as** contemplated in sub-regulation (1), shall be **as** prescribed in Document SA-CATS-OPS 91 in the case of an aviation craft and in the Merchant Shipping Act and associated regulations in the case of a maritime craft.

# Survival Equipment

16. No owner or operator of an aircraft shall operate the aircraft over areas where search and rescue would be extremely difficult unless the aircraft is equipped with appropriate survival equipment as contemplated in Part 91.04.29 of the Civil Aviation Regulations and such equipment complies with the conditions, rules, requirements, procedures or standards as prescribed in SA-CATS-OPS 91.

# PART 5 SPECIAL REQUIREMENTS

# **Emergency Locator Beacons**

17. (1) The provisions of **Part 91.04.26** of the Civil Aviation Regulations pertaining to the carriage of emergency locator transmitters shall apply to classes of aircraft referred to therein **as** well **as** aircraft operating in difficult terrains where search and rescue would be especially difficult.

- (2) All emergency position-indicating radio beacon procured by ships of South African nationality shall be registered in terms of and according to the requirements as prescribed by the Merchant Shipping (EPIRB Registration) Regulations, 2002.
- . (3) Owners and operators of classes of aircraft that have been exempted from carrying ELT's in terms of the Civil Aviation Regulations referred to in sub-regulation (1), may at least carry an approved personal locator beacon capable of transmitting on 406 MHz.

#### **Cancellation of SAR**

- **18.** (1) Owners or operators of aircraft that filed for SAR during submission of their flight plan must upon reaching their destination cancel SAR by informing the air traffic centre with which they have requested SAR or the Air Traffic Centre nearest to their destination or the Cape Town or OR Tambo Air Traffic centres of their safe landing.
- (2) When SAR is cancelled with an air traffic center with which the owner or operator did not file his/her flight plan, the owner or operator must disclose his or her air traffic center of filing.
- (3) Any owner or operator of an aircraft that fails to cancel **SAR** as required by subregulation (1) above, shall be guilty of an offence and the Commissioner of Civil Aviation shall after considering the facts brought before him or her, including the type of resources deployed by SASAR as a result of this omission, decide on an appropriate fine for the transgressor.
- While each and every case shall be judged according to its own merits, the fine that shall be imposed by the Commissioner shall not be less that R35 000 in any given circumstances or situation.

#### Deployment or Requisitioning of aircraft and vessels

- **19.** The following persons are delegated with the authority to requisition and deploy aircraft and vessels **for** purposes of any aeronautical or maritime search and rescue operations on behalf of the Minister-
  - (a) The Head of SASAR;
  - **(b)** Head of Maritime SAR Operations;
  - (c) Head of Aeronautical SAR Operations;
  - (d) ARCC Chief;
  - (e) MRCC Chief;
  - (f) Search Mission Co-ordinators;
  - (g) Harbour Masters; and
  - (h) Assistant Harbour Masters.

# Closing, suspending, reopening and reporting on SAR Operations

- 20. (1) SAR operations shall enter the conclusion stage if one or more of the following happens:
  - a) Information is received that the ship, aircraft, other craft, or persons who are the subject of the SAR incident are no longer in distress;
  - b) The ship, aircraft, other craft, or persons for whom SAR facilities are searching have been located and survivors rescued; and
  - During the Distress Phase, the proper authority determines that search has no significant chance of succeeding.
  - (2) The authority to close or suspend a SAR case shall reside with the following officebearers:

- Heads of Aeronautical and Maritime Search and Rescue Operations depending on the type of the SAR case;
- Chiefs of the RCCs b)
- **SMCs**
- Considerations for suspending a search may include: **(3)** 
  - All assigned areas have been thoroughly searched;
  - All reasonable probable locations have been investigated;
  - All reasonable means of obtaining information about the whereabouts of the ship, aircraft, other craft or persons who are the subjects of the search have been exhausted; and
  - All assumptions and calculations used in search planning have been reviewed.
- The Minister may direct that a closed or suspended SAR case be reopened after careful consideration of representations made by any member of the public, group or an institution with an interest in the case.
- Reporting on SAR operations shall be done in a manner and on the forms prescribed in the relevant manual.