
GENERAL NOTICES • ALGEMENE KENNISGEWINGS

DEPARTMENT OF TRANSPORT**NOTICE 753 OF 2015****PUBLICATION FOR COMMENTS: SOUTH AFRICAN MARITIME AND
AERONAUTICAL SEARCH AND RESCUE REGULATIONS (SASAR), 2016**

The Minister of Transport hereby intends to make regulations under section 23 of the South African Maritime and Aeronautical Search and Rescue Act, 2002 (Act No. 44 of 2002). Interested persons are requested to submit written comments and inputs within 30 days from the date of publication of this Notice in the Gazette.

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SOUTH AFRICAN MARITIME AND AERONAUTICAL SEARCH AND RESCUE (SASAR) REGULATIONS, 2016

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 the Regulations

PART 1

INTRODUCTION

1. Definitions

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 coordinator**” means a person who coordinates the involvement of multiple aircraft in search and rescue operations;

“**alert phase**” means a situation in which apprehension exists about the safety of an aircraft or marine 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-ordination centre or rescue subcentre;

“ARCC” means an aeronautical rescue co-ordination centre;

“Cospas-Sarsat system” means a satellite system designated to detect distress beacons transmitting in the 406 MHz frequency band;

“craft” means any air or sea-surface vehicle, or submersible, of any kind or size;

“distress phase” means a situation in which there is reasonable certainty that a vessel or other craft, including an aircraft or a person, is threatened by grave and imminent danger and requires immediate assistance;

“emergency locator transmitter (ELT)” means an aeronautical radio distress beacon for alerting and transmitting homing signals;

“emergency phase” is a generic term meaning uncertainty phase, alert phase or distress phase, as the case may be;

“emergency position indicating radio beacon” means a device, usually carried aboard marine craft, that transmits a signal that alerts search and rescue authorities and enables rescue units to locate the scene of the distress;

“Global Maritime Distress and Safety System” 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” means a person designated as the official who exercises authority over operations at a port, as provided by the National Ports Act, 2005 (Act No. 12 of 2005);

“joint rescue co-ordination centre (JRCC)” means a rescue co-ordination centre responsible for both aeronautical and maritime search and rescue operations;

“MRCC” means a maritime rescue co-ordination centre;

“national search and rescue plan” means a comprehensive policy guideline on how search and rescue services will be organized, provided and managed within the search and rescue region;

“on-scene coordinator (OSC)” means a person designated to coordinate search and rescue operations within a specified area;

“operator” means a person, organization or enterprise engaged in or offering to engage in an operation;

“personal locator beacon” means a personal radio distress beacon for alerting and transmitting homing signals;

“pilot-in-command” means the pilot designated by the operator or, in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight;

“RCC chief” means one or more persons in an administration with overall responsibility for establishing and providing operational search and rescue services and ensuring that planning for those services is properly coordinated;

“rescue” means an operation to retrieve persons in distress, provide for their initial medical and other needs, and deliver them to a place of safety;

“SAR mission co-ordinator” means an official temporarily assigned to co-ordinate response to an actual or apparent distress situation;

“Search mission coordinator (SMC)” means an official assigned to coordinate the response to an actual or apparent distress situation;

“search” means an operation, normally coordinated by a rescue-coordination centre or rescue subcentre and using the available personnel and facilities, to locate persons in distress;

“search and rescue facilities” means any mobile resource, including designated search and rescue units, used to conduct search and rescue operations;

“search and rescue operational plan” means a detailed plan forming the basis of search and rescue operations;

“search and rescue service” means a service that provides distress monitoring, communication, coordination, and search and rescue functions, and initial medical assistance or medical evacuation, by means of public and private resources, including co-operating aircraft, vessels and other craft and installations;

“search and rescue unit” means a unit composed of trained personnel and provided with equipment suitable for the expeditious conduct of search and rescue operations;

“search and rescue region (SRR)” means a region as defined in section 1 of the Act;

“search and rescue sub-region” means a specified area within SRR associated with a Rescue Sub-centre(SRS);

“uncertainty phase” means a situation in which doubt exists about the safety of an aircraft or marine vessel, and of the person or persons on board.

2. Preamble

(1) These Regulations —

- (a) establish the general provisions governing the rights and obligations of aviation and maritime search and rescue service providers and other parties planning for or participating in maritime and aeronautical search and rescue operations;
- (b) are issued pursuant to South Africa’s obligations to ensure the enforcement of accepted international standards and recommended practices by organisations providing aviation and maritime search and rescue services within its designated search and rescue region as amended from time to time and published by the Minister in the *Gazette* in terms of the Act;
- (c) will determine the type and degree of search and rescue services to be provided within the South African Search and Rescue Regions in accordance with SASAR's mandate in terms of the Act, the SASAR Constitution, the SASAR policy manual, relevant international search and rescue conventions and guidelines, and these regulations.

3. Application

- (1) These regulations apply to all search and rescue service providers as designated by the Minister in terms of the Act and in accordance with the following International

Conventions and guidelines:

- (a) Annex 12 – *Search and Rescue* to the Convention on International Civil Aviation;
- (b) The International Aeronautical and Maritime Search and Rescue (IAMSAR) manual (ICAO Doc. 9731-AN/9580);
- (c) ICAO Basic Air Navigation Plan – [region] and Facilities and Services Implementation Document (Doc. 9708);
- (d) The International Convention on Safety of Life at Sea, 1974;
- (e) The International Convention on Maritime Search and Rescue, 1979;
- (f) Article 98 of the United Nations Convention on the Law of Sea, 1982;
- (g) ICAO Safety Oversight Manual (Doc. 9734);
- (h) Safety Management System Manual;
- (i) SADC Protocol.

PART 2

SEARCH AND RESCUE GOVERNANCE, COORDINATION AND OVERSIGHT

4. Powers, functions and composition of executive committee

- (1) The Executive Committee established in terms of the Act must govern, coordinate and oversee the activities of SASAR and is ultimately responsible and accountable to the Minister or his or her designate.
- (2) Pursuant to the powers and functions referred to in subregulation (1), the Executive Committee must perform the following duties:

- (a) provide a standing national forum that can develop and recommend national strategies and search and rescue policy for government consideration;
 - (b) provide a standing national forum for the coordination of administrative and operational search and rescue matters;
 - (c) provide an interface with other national, regional and international organizations involved with emergency services;
 - (d) oversee the search and rescue operational plan for South Africa, and develop and maintain a national search and rescue manual;
 - (e) promote the effective use of all available facilities for search and rescue;
 - (f) serve as a cooperative forum to exchange information and develop positions and policies of interest to more than one party to the plan;
 - (g) promote close cooperation and coordination among civilian and military authorities and organizations for the provision of effective search and rescue services;
 - (h) improve cooperation among aeronautical, maritime and land search and rescue communities for the provision of effective search and rescue services; and
 - (i) determine other ways to enhance the overall effectiveness and efficiency of search and rescue services within South Africa and to standardise SASAR procedures and equipment, where practicable.
- (3) The Executive Committee must consist of all the statutory members of SASAR as well as any other person nominated and approved by the Executive Committee and appointed by the Director-General, either permanently or on an ad-hoc basis.
- (4) Each member of SASAR must appoint a representative or designate an alternate to attend to the activities of SASAR.

- (5) The Head of SASAR or his or her designate must preside over all meetings of the Executive Committee.

5. Powers, functions and composition of management committee

- (1) The Management Committee must advise the Executive Committee on any matter that may have policy and financial implications, and deal with urgent day-to-day administration matters that need to be sanctioned by the Executive Committee.

- (2) The Management Committee must perform the following functions and duties:–

- (a) assess emerging technologies and other environmental changes and advise the Executive Committee accordingly;
- (b) advise the Executive Committee on the appropriateness of and necessity for the developed search and rescue plans, legislation, policies, regulations, rules, treaties or agreements;
- (c) ensure the seamless administration of the search and rescue programme;
- (d) ensure that the limited search and rescue resources are used in the most economical, efficient and effective way;
- (e) ensure that search and rescue operations are conducted in accordance with laid-down standards and recommended practices as reflected in the SASAR policy manual and as is considered the norm in terms of international conventions; and
- (f) take decisions about any operational and administrative issues that may not impact on search and rescue policy, and do not necessarily need the approval of the Executive Committee.

- (3) The Management Committee must be composed as follows:

- (a) Head of the SASAR Secretariat or his or her designate;
- (b) Head of Aeronautical SASAR Operations;

- (c) Head of Maritime SASAR Operations;
 - (d) MRCC Chief; and
 - (e) ARCC Chief.
- (4) The Head of the SASAR Secretariat or his or her designate must preside over the Management Committee's meetings.
- (5) The Management Committee must meet at least twice per annum.
- (6) The Management Committee may convene ad-hoc meetings as deemed necessary by the Head of SASAR.

6. Aeronautical and maritime subcommittees

- (1) The aeronautical and maritime subcommittees established in accordance with section 5 of the Act must advise the Executive Committee and the Management Committee on the technical and operational aspects that impact on search and rescue policy, and recommend changes where necessary.
- (2) In performing the functions contemplated in subregulation (1), the subcommittees must –
- (a) assess emerging technologies and other environmental changes and make recommendations to the Management Committee and Executive Committee accordingly;
 - (b) develop and review aeronautical and maritime search and rescue operational plans;
 - (c) ensure the smooth running of the ARCC, MRCC and RSCs and advise the Management Committee 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 economical, efficient and effective way;
 - (e) ensure that search and rescue operations are conducted in accordance with laid-down standards and recommended practices as reflected in the SASAR policy and manuals and as is considered the norm in terms of international conventions; and
 - (f) take decisions about operational issues that may not impact on search and rescue policy, and do not necessarily need the approval of the Management and Executive Committees.
- (3) The Heads of Aeronautical and Maritime search and rescue Operations, or their designates, must chair the aeronautical and maritime subcommittees, respectively.
- (4) The aeronautical and maritime subcommittees may convene ad-hoc meetings as deemed necessary at the discretion of the Heads of Aeronautical and Maritime SASAR Operations, respectively.

7. National search and rescue plan

- (1) The Department, in collaboration with SASAR, must develop a detailed national search and rescue Plan on the provision of search and rescue services within the South African search and rescue region.

8. Resources and facilities

- (1) The Department and SASAR must ensure the availability of sufficient accommodation, equipment and resources to coordinate multiple aeronautical and maritime search and rescue operations at any one time.
- (2) SASAR must establish a contingency plan that includes completed arrangements to

secure access to alternative accommodation and resources in order to ensure the ongoing provision of aviation and maritime search and rescue services in the event of primary accommodation or equipment becoming unavailable for any reason.

(3) The organizations or institutions designated in terms of section 11 of the Act must ensure the provision of an RCC or RSC, which must be staffed on a 24-hour basis by a complement of personnel who are trained, qualified, proficient and certified to the levels of competence relevant to the functions and responsibilities appropriate to an aviation and maritime search and rescue service and acceptable to the relevant authority.

(4) The institutions designated as registrars of emergency beacons must ensure that –

- (a) provision is made for a 406 MHz emergency beacon register that is updated whenever necessary; and
- (b) registered emergency beacon information is available to RCCs and RSCs immediately on request.

9. Collaboration and cooperation with other states and search and rescue services

(1) SASAR must, under the direction of the Department, seek to establish formal, documented agreements of cooperation with the search and rescue service providers of all contiguous states with a view to –

- (a) strengthening search and rescue cooperation and coordination;
- (b) specifying the conditions for the entry of each other's search and rescue units into their respective territories; and expediting the entry of such search and rescue units.

(2) The agreements of cooperation with search and rescue service providers of contiguous states must include information concerning search and rescue services and capabilities, such as details of the search and rescue units able to assist in conducting

search and rescue operations in their respective SRRs.

(3) The Department must publish and disseminate all the information necessary for the entry of search and rescue units of other states into its territory or, alternatively, include this information in formal search and rescue agreements.

(4) SASAR must coordinate the search and rescue operations that are proximate to contiguous SRRs with the search and rescue service providers of those states.

(5) The Department must encourage, to the fullest extent possible, operators of all aircraft, vessels and appropriate local services and facilities that do not form part of the search and rescue organization, to cooperate as fully as their capacities allow in planning and conducting of search and rescue operations.

(6) SASAR must establish formal, documented agreements of cooperation, which are acceptable to the Department, with air traffic/maritime service providers that clearly define their respective responsibilities for providing emergency response services to aircraft and vessels, including the exchange of flight plans and operational data, communication services, temporary attribution of personnel and other specialised services as may be deemed necessary from time to time.

(7) SASAR must cooperate, as far as practicable, with all properly accredited authorities and entities that are investigating incidents and accidents.

(8) The Department, in consultation with SASAR, must designate a search and rescue Point of Contact for the receipt of distress alert and location messages and associated data from authorities and users of the Cospas-Sarsat system.

(9) The ARCC must recommend and prepare documentation for the declaration of a restricted area whenever deemed necessary for safe and efficient search and rescue operations.

(10) The Department, in conjunction with SASAR, must seek to arrange joint training exercises involving their search and rescue units and those of other states.

(11) The Department, in consultation with SASAR, must seek to arrange—

- (a) periodic liaison visits for RCC and RSC personnel to cooperating entities nationally and air traffic service (ATS) and search and rescue service providers in contiguous states; and
 - (b) attendance at local, regional and international meetings by designated search and rescue office-bearers.
- (12) SASAR must seek to encourage the closest possible cooperation and coordination with relevant aeronautical, maritime, land-based and military emergency response authorities, including the possibility of establishing a JRCC to coordinate aeronautical and maritime search and rescue operations, when feasible and practical.

10. Safety oversight and regulatory system

- (1) The Department must designate a body to establish a safety oversight and regulatory system, which must, as a minimum, –
 - (a) promote a culture of safety;
 - (b) carry out risk evaluations of the search and rescue programme/system, identify and record any risk factors and safety findings, causal factors and associated corrective actions; and
 - (c) monitor the continued compliance of regulatory provisions with international standards and practices as contemplated in relevant international conventions and guidelines.

11. Safety management system

- (1) SASAR must implement a safety management system which is acceptable to the Minister and which, as a minimum, –
 - (a) identifies safety hazards;

- (b) ensures the taking of the remedial action necessary to maintain the agreed safety performance;
 - (c) provides for continuous monitoring and regular assessment of such safety performance; and
 - (d) is subject to regular review that has as its objective the improvement of the overall performance of the safety management system.
- (2) The safety management system must clearly define to the satisfaction of the Minister the safety accountability of the senior personnel and office-bearers of SASAR.

12. Delegation of authority (requisitioning of air and seaborne resources)

- (1) The authority to requisition and deploy suitably equipped and certified aircraft and vessels for the purposes of any aeronautical or maritime search and rescue operations on behalf of the Minister is delegated to the following persons:

- (a) Head of SASAR;
- (b) Head of Maritime SASAR Operations;
- (c) Head of Aeronautical SASAR Operations;
- (d) ARCC Chief;
- (e) MRCC Chief;
- (f) Search mission coordinators;
- (g) Harbour masters; and
- (h) Deputy harbour masters.

PART 3

SEARCH AND RESCUE OPERATIONAL MATTERS, STANDARDS AND PROCEDURES

13. Search and rescue plans of operation

- (1) The Department, in collaboration with SASAR, must prepare detailed plans with procedures of operation for the safe and effective conduct of search and rescue operations within the SRR.
- (2) In addition to the plans referred to in subregulation (1), the authorities designated as RCCs or RSCs must ensure that the RCC Chief or RSC Head develops a comprehensive, detailed and unambiguous search and rescue plan to ensure that the RCC or RSC functions properly during a search and rescue action.
- (3) The plans of operation must specify, as a minimum, –
 - (a) the structure of functional responsibilities including authority, delegation and lines of reporting;
 - (b) procedures according to which a search and rescue operation in the RCC's or RSC's area of responsibility should be conducted during different phases of an emergency;
 - (c) arrangements for the servicing and re-fuelling of aircraft, vessels and vehicles employed in search and rescue operations;
 - (d) arrangements for expeditious access to weather information and other operational information, including NOTAM and navigational warnings;
 - (e) the precise area of responsibility pertaining to the RCC or RSC;
 - (f) the responsibilities and accommodation of personnel assigned to search and rescue operations;
 - (g) methods and procedures for obtaining, storing and retrieving information for use in search and rescue operations;
 - (h) the training and exercising of search and rescue personnel; and
 - (i) the facilities available to the RCC or RSC.

- (4) In respect of the facilities available to the RCC or RSC, the plan of operation must –
- (a) state precisely which agencies are responsible for activating facilities;
 - (b) detail the methods of communication with the various agencies (communication network);
 - (c) detail the methods for alerting mobile facilities;
 - (d) detail the methods of coordination with various facilities;
 - (e) indicate by whom, and to what extent, any of these facilities can be requested to participate in an operation; and
 - (f) describe the facilities available to the RCC or RSC.
- (5) All search and rescue action must be undertaken according to the search and rescue plan.
- (6) Search and rescue plans of operation must include details of the actions to be taken with respect to –
- (a) the available communication systems and facilities;
 - (b) alerting en-route aircraft and ships at sea;
 - (c) the duties and prerogatives of all participating personnel;
 - (d) the possible redeployment of personnel and equipment that may be necessitated by meteorological or other dynamic conditions;
 - (e) the particular assistance appropriate to distressed aircraft confronted with the need to ditch, including rendezvous with surface craft; and
 - (f) in-flight diversion to and the interception and escorting of aircraft in distress.
- (7) RCCs must ensure that their plans of operation are integrated with aerodrome emergency procedures to provide for an optimal, coordinated response to aircraft emergencies that may arise in the vicinity of airports, including coastal aerodromes and areas of water.

(8) RCCs must ensure that Plans of Operation are integrated with harbour/port emergency procedures to provide for a coordinated response to marine emergencies that may arise in the vicinity of harbours, ports and vessel traffic services (VTS) areas of responsibility.

14. Search and rescue units and facilities

(1) RCCs must –

- (a) designate and make formal arrangements for the co-operative and appropriate use of public and private search and rescue units that are suitably located, equipped and crewed for search and rescue operations throughout the SRR;
- (b) designate and make formal arrangements for the co-operative and appropriate use of craft, vehicles and personnel that do not qualify as search and rescue units but that may be able to participate effectively in search and rescue operations; and
- (c) maintain an accurate and complete database of search and rescue units and other search and rescue facilities and resources within the SRR and make arrangements for providing timely advice to the RCC of any change in their readiness or capability.

(2) The Department must provide relevant information about the availability of search and rescue units within the SRR to the relevant authority for publication by notice in the *Gazette*, *Aeronautical Information Publication* (AIP) and *Marine Notice*.

(3) The Department must ensure the availability of appropriately packed, droppable survival equipment that is securely positioned and maintained at strategic locations throughout the SRR and readily available for rapid loading onto search and rescue units.

(4) RCCs must ensure the availability of trained personnel and the necessary personal

safety equipment at strategic locations within the SRR for the airborne and surface delivery of life support equipment to accident survivors by search and rescue units.

15. Alerting posts

- (1) A designated alerting post must immediately inform the RCCs or RSCs of an emergency or a potential emergency once it becomes aware of it.
- (2) The following organizations or institutions are designated as dedicated alerting posts and must be staffed 24 hours a day:
 - (a) Air traffic service units (ATSUs);
 - (b) Harbour masters' offices;
 - (c) Coastal radio stations;
 - (d) South African police stations;
 - (e) The MRCC; and
 - (f) The ARCC.
- (3) The following procedures must be followed by the alerting post on becoming aware of an emergency or a potential emergency:
 - (a) Gather as much information about the emergency as possible;
 - (b) Report to the nearest maritime RCC or RSC in the event of maritime distress or to the ARCC or nearest ATSU in the event of an aeronautical emergency;
 - (c) After making the initial report in terms of (b) above, make an attempt to check the report for authenticity 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; and
 - (e) Keep the channel of communication between itself and the source of the emergency message open until the appropriate RCC declares that it is no longer required.

(4) A designated alerting post must attempt to gather the following information about 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 or time of position;
- (d) Nature of emergency (fire, collision, person overboard, disabled, 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 of advance, estimated time of arrival (ETA) and point of destination;
- (h) Radio frequency 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;
- (l) Assistance being received, if any;
- (m) Heading, speed, altitude and fuel;
- (n) Initial reporter (name, telephone or address of person, name/call sign of 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 or boat trailer licence, description, location if pertinent;
 - (u) Any other pertinent information.
- (5) A designated alerting post must gather the following information in relation to a lost person involved in a maritime or aviation incident or emergency:
- (a) Name of the missing person;
 - (b) Location last seen;
 - (c) Date or 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;
 - (l) Assistance desired, if not obvious;
 - (m) Initial reporter (name and telephone number or address);
 - (n) Date and time of initial report;
 - (o) Next of kin (name and telephone number or address);
 - (p) Any other pertinent information.
- (6) A designated alerting post must gather information about the existing weather conditions from the person who reported an occurrence by asking questions about the following:
- (a) Clear skies or cloudy weather and recent changes;
 - (b) Whether rain or snow is falling or has fallen, and when the rainfall or snowfall started and ended;

- (c) Whether severe weather conditions such as thunderstorms, hail, ice pellets or freezing rain are occurring or have occurred, and at what times such conditions started and stopped;
- (d) Visibility and any factors affecting it, such as fog, smoke or haze, and the time of recent changes;
- (e) Description of the water or sea conditions;
- (f) Wind direction and velocity, and recent changes.

16. Reporting system

- (1) RCCs must establish a reporting system covering the documentation of occurrences during the conducting of search and rescue operations and exercises.
- (2) RCCs must immediately provide evidence of such records to the relevant oversight authorities upon request.

17. Document library

- (1) RCCs and RSCs must ensure the establishment and maintenance of a document library that contains up-to-date editions of relevant documentation and is immediately accessible to its operational and management personnel.
- (2) The library must at all times have available for reference the current editions of the documentation prescribed by the relevant international bodies.
- (3) RCCs and RSCs must produce, maintain and update master copies of all manuals required for the safe, effective and timely provision of aviation and maritime search and rescue services, and provide copies on request to the authorities responsible for search and rescue oversight duties.

18. Record-keeping

Search and rescue service providers must retain all data relating to every search and rescue action undertaken by an RCC or RSC, in an orderly and easily accessed manner for a period of at least five years.

19. Competence and training

(1) SASAR must ensure that initial and recurrent training of all RCC and, as appropriate, RSC operational and immediate supervisory personnel is conducted according to a syllabus that is acceptable to the Department and oversight authorities:

(2) SASAR must ensure that RCC and, as appropriate, RSC personnel are given regular proficiency training and exercises to maintain their skills, knowledge and attitudes as appropriate to the provision of aviation and maritime search and rescue services.

20. Preparatory information

(1) The Department and SASAR must ensure that RCCs always has immediate access to comprehensive, accurate and up-to-date data concerning the following assets and facilities in the SRR:

- (a) RSCs;
- (b) Search and rescue units;
- (c) Locations where supplies of droppable emergency and survival equipment are stored;
- (d) Alerting posts;
- (e) ATSU's;
- (f) Means of communication that can be used in search and rescue operations;
- (g) Addresses (electronic and postal) and telephone numbers of duly authorised operators' representatives;

- (h) Any other public and private resources, including medical and transportation facilities that are likely to be useful in search and rescue operations.

(2) The Department must publish the information articulated in (1) above by notice in the *Gazette* and by means of printed and electronic media, as appropriate, to ensure wide publicity.

21. Information concerning emergencies

(1) Any authority or element of the search and rescue organization, having reason to believe or having been informed that an aircraft or vessel is undergoing an emergency, must immediately give all available and pertinent information to the relevant RCC.

(2) An RCC, on being advised that an aircraft or vessel is undergoing a state of emergency, must immediately evaluate such information and assess the extent of the measures to be taken.

(3) AN RCC must ensure that, on being advised that an aircraft or vessel is undergoing an emergency, the required emergency phase is declared.

22. Procedures during emergency phases

(1) Up the declaration of an emergency phase, an RCC must comply with all standard procedures as defined in the relevant international and national guidance materials.

(2) In an aeronautical search and rescue incident involving an aircraft for which a flight plan has been filed, an uncertainty phase must be declared when –

- (a) 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 earlier;

- (b) the aircraft fails to arrive within 30 minutes of the ETA last notified or estimated, whichever is the later; or
- (c) the evaluation of other circumstances, e.g. knowledge that the aircraft is having difficulties, makes it advisable to declare the uncertainty phase.

(3) In respect of an aircraft for which no flight plan has been filed, an uncertainty phase must be declared by the ATSU 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 must be notified and must monitor the progress.

(4) 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;
- (b) an aircraft that has been cleared to land has failed to land within five minutes of the estimated time of landing and communications have not been re-established 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; or
- (d) there is reason to believe that the operation of an aircraft is being interfered with.

In such cases the ARCC must be informed, which must, in turn, continue alerting relevant and related organizations and authorities.

(5) A distress phase must be declared by an ARCC when –

- (a) 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; or
 - (e) a downed aircraft is inadvertently located as a result of a sighting or of homing in on an ELT transmission.
- (6) In a maritime incident, an uncertainty phase must be declared once an alerting post advises the MRCC that –
- (a) there is doubt about the safety of a vessel and/or the persons on board;
 - (b) the vessel is overdue and has failed to make its estimated time of arrival; or
 - (c) the vessel has failed to make an expected position or safety report.
- (7) An alert phase must be declared by an MRCC when –
- (a) there is apprehension about the safety of a vessel or the person or persons on board;
 - (b) 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) information has been received indicating that the operational efficiency of a vessel has become impaired but not to the extent that a distress situation is likely.
- (8) A distress phase must be declared by an MRCC when –

- (a) positive information is received that a vessel or the person or persons on board are in grave and imminent danger and in need of immediate assistance;
- (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.

(9) An ATSU must notify its associated RCC when an aircraft is or probably is in a state of emergency. Such notification to the ARCC must contain the following information, if available, as appropriate to the phase of the emergency:

- (a) Agency and person calling;
- (b) Nature of emergency;
- (c) Significant information from the flight plan;
- (d) Unit which made the last contact, the time and frequency used;
- (e) The last position report and how the position was determined;
- (f) The colour and distinctive marks of the aircraft in difficulty;
- (g) Any action taken by the reporting office;
- (h) The number of persons on board (POB);
- (i) Survival equipment carried;
- (j) Relevant radar and voice recordings;
- (k) Any other information.

(10) 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 last 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;
- (i) Any other information.

(11) Notification from any other source should contain any abnormal occurrence that such source has witnessed or heard about.

23. Procedures at the scene of an emergency

(1) When multiple facilities are engaged in search and rescue operations on-scene and the RCC designates an on-scene coordinator (OSC) or aircraft coordinator to coordinate the tactical activity on-scene to improve the safety and efficiency of operations, the OSC or aircraft coordinator must perform the assigned tasks, taking full account of the nature of the search target, the type, number and capacity of search and rescue units and the environment, and keep the RCC fully informed of the actions proposed and taken.

(2) When a pilot-in-command observes that another aircraft or a vessel is in distress, the pilot must, if possible and unless considered unreasonable or unnecessary, –

- (a) keep the aircraft or vessel in distress in sight until compelled to leave the scene or advised by the RCC that it is no longer necessary to keep such aircraft or vessel in sight;
- (b) determine the position of the aircraft or vessel in distress;
- (c) as appropriate, report to the RCC or ATSU as much of the following information as possible:
 - (i) The type of aircraft or vessel in distress, its identification and condition;

- (ii) The position of the aircraft or vessel, expressed in geographical coordinates or as a bearing and distance from a distinctive landmark or ground radio navigation aid;
 - (iii) The time of observation, expressed in hours and minutes in Coordinated Universal Time (UTC);
 - (iv) The number of persons on board;
 - (v) Whether the persons have been seen to have abandoned the aircraft or vessel in distress;
 - (vi) The apparent physical condition of the survivors;
 - (vii) On-scene weather conditions;
 - (viii) Apparent best land access route to the distress site; and
- (d) act as instructed by the ATSU on advice from the RCC.

24. Procedures for authorities in the field

When cooperating authorities vested with functions and responsibilities under the National search and rescue plan engage in the field in an search and rescue-related activity being coordinated by the RCC or RSC, they must keep the RCC or RSC informed of the instructions given to the units under their direction and of relevant developments.

25. Cancellation of search and rescue filed during submission of flight plans

- (1) Owners or operators of aircraft that filed for search and rescue during the submission of their flight plan must on reaching their destination cancel search and rescue by informing any ATSU of their safe landing.

(2) When search and rescue is cancelled with an ATSU with which the owner or operator did not file his or her search and rescue action, the owner or operator must disclose to his or her original ATSU the search and rescue action requirement.

(3) Any owner or operator of an aircraft who by an unlawful act or omission fails to cancel search and rescue as required by subregulation (1), will be guilty of an offence and the Director of Civil Aviation must after considering the facts brought before him or her by the ARCC in conjunction with SASAR, including the type of resources deployed by SASAR as a result of this omission, decide on an appropriate fine for the transgressor.

(4) Though each and every case must be judged on its own merits, the fine imposed by the Director may not be less than the cost spent on the resources deployed.

26. Termination and suspension of operations

(1) Search and rescue operations must continue, when practicable, until all survivors are delivered to a place of safety or until all reasonable hope of rescuing survivors has gone.

(2) The RCC will be responsible for determining when to discontinue search and rescue operations and in taking that decision will take into full account the operational standards and practices as contained in the relevant guiding materials.

(3) When a search and rescue operation has been successful or when the RCC considers that an emergency no longer exists, the emergency phase must be cancelled and any authority, facility or service that has been activated or notified must be informed promptly.

(4) If, for any reason, a search and rescue operation becomes impracticable and the RCC concludes that there is still some prospect of finding survivors, the RCC must temporarily suspend the on-scene activities pending further developments and must promptly inform any authority, facility or service that has been activated or notified.

(5) On evaluating the relevant information that is subsequently received, search and

rescue operations may be resumed when deemed by the RCC to be justified and practicable or instructed by the Minister.

PART 3

SEARCH AND RESCUE COMMUNICATIONS

27. Communication equipment

(1) The organization or institution designated pursuant to these regulations to operate an RCC must ensure that the RCC is capable of rapid and reliable two-way communication with the following:

- (a) Associated air traffic services;
- (b) Associated RSCs;
- (c) Appropriate direction-finding and position-fixing stations in the SRR;
- (d) The appropriate operations centres of search and rescue units in the SRR;
- (e) The MRCCs in the SRR and all ARCCs, MRCCs and JRCCs in adjacent SRRs;
- (f) Designated meteorological offices and meteorological watch offices in the SRR;
- (g) All designated search and rescue units;
- (h) All designated alerting posts;
- (i) All associated police forces;
- (j) The Cospas-Sarsat Mission Control Centre servicing the SRR or the relevant search and rescue points of contact (SPOC), as appropriate; and
- (k) All aviation and maritime security and surveillance centres in the SRR.

(2) The organization or institution designated pursuant to these regulations to operate an RSC within the SRR must ensure that the RSC is capable of rapid and reliable two-way

communication with the following:

- (a) The RCC;
- (b) Associated air traffic services;
- (c) All associated police forces;
- (d) All adjacent RSCs;
- (e) Associated meteorological offices or meteorological watch offices;
- (f) All appropriate designated search and rescue units;
- (g) All appropriate designated alerting posts; and
- (h) All associated aviation and maritime security and surveillance centres in the SRR.

28. Communication frequencies

- (1) Communications must support the distress alerting, coordination and locating functions by allowing those in distress to alert the search and rescue system, the search and rescue system to respond and conduct its mission, and survivors to help search and rescue units respond and conduct a rescue.
- (2) The necessary communication equipment for search and rescue may include telephones, radios operating on international distress frequencies, long-range terrestrial and satellite systems and other equipment, depending upon geography, the capabilities of mobile facilities within an area and other factors affecting the ability of persons to contact one another.
- (3) Search and rescue communication equipment must be reliable, i.e. in good working order at all times, and be accessible to all parties involved in a search and rescue operation.
- (4) Distress messages should always have precedence, i.e. 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 search and rescue system, and between components of the search and rescue system, nationally and internationally.

(6) Search and rescue operations are likely to require communication between two or more of the following units and/or authorities:

- (a) ATSUs;
- (b) Search and rescue aircraft;
- (c) Other vessels at sea;
- (d) Search and rescue vessels;
- (e) Naval shore authorities;
- (f) Air force bases/command posts;
- (g) Port authorities;
- (h) Coastal radio stations;
- (i) RCCs;
- (j) Police stations, vessels and vehicles;
- (k) National Sea Rescue Institute (NSRI) land stations, land mobile stations and vessels; and
- (l) Emergency medical services.

(7) All who may be involved with search and rescue must be provided with communication procedures, frequencies and equipment that are sufficiently compatible to carry out their duties.

(8) All communications related to search and rescue must be conducted in accordance with the various requirements as stipulated by both the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO), and also in terms of the Safety of Life at Sea (SOLAS), the Chicago and SAR Conventions and the ITU regulation on radio frequency usage or as directed by the government.

(9) In the event that search and rescue is taking place in controlled or advisory airspace, the published aeronautical frequency must be used or monitored for air-traffic control purposes.

(10) When a search and rescue operation is declared, a frequency must be allocated for aircraft-to-aircraft communication.

PART 4

SPECIAL PROVISIONS AND REQUIREMENTS

29. Minimum carriage requirements for search and rescue aircraft

(1) Search and rescue aircraft must –

- (a) carry equipment for promptly locating the site of an accident, including direction-finding equipment with a homing capability for search and rescue distress frequencies;
- (b) carry equipment in order to provide adequate and timely assistance to survivors;
- (c) be equipped to enable communication on the aeronautical and maritime distress and on-scene radio frequencies;
- (d) be equipped to enable communication with other search and rescue units and facilities engaged in search and rescue operations; and
- (e) carry Volume III, “Mobile Facilities”, of the International Aeronautical and Maritime Search and Rescue Manual.

(2) Search and rescue aircraft designated for search and rescue operations over maritime areas must –

- (a) be equipped to enable communication with vessels and to receive signals from the Automatic Identification Systems carried by ships and lifeboats in accordance with the global maritime distress and safety system administered

by the International Maritime Organization;

- (b) carry a copy of the "International Code of Signals" (IMO Sales Number IA994E) to assist in communication with ships.

(3) Helicopter search and rescue units designated for night-time rescue operations must

—

- (a) be equipped with night-vision enhancement devices; and
 - (b) have at least two pilot crews.
- (4) Helicopter search and rescue units must be equipped with a certified rescue winch.

30. Survival equipment

(1) No owner or operator of an aircraft may 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.

(2) Such equipment must comply with the conditions, rules, requirements, procedures or standards as prescribed in SA-CATS-OPS 91.

31. Search and rescue signals

(1) On observing any of the visual signals given in ICAO documents, an aircraft must take action as follows:

- (a) When a ground signal has been displayed, a searching aircraft must indicate whether the signal has been understood by any of the following means:
 - (i) two-way radio communication on equipment that is to hand; or
 - (ii) communication equipment dropped from an aircraft;
- (b) In the event of the means referred to in subregulation (a) being impracticable, a searching aircraft must indicate by any of the following means whether the signal has been understood:

- (i). During the hours of daylight, by rocking the aircraft's wings;
 - (ii) During the hours of darkness, by flashing the aircraft's lights on and off;
or
 - (iii) If not so equipped, by switching its navigation lights on and off.
- (c) A lack of the above signals will indicate that the ground signal is not understood.

(2) When it is necessary for an aircraft to direct a search and rescue facility to the place where an aircraft or vessel is in distress, the aircraft must do so by transmitting precise instructions by any means at its disposal. If no radio communication can be established, the aircraft must, in a safe manner –

- (a) circle the distress aircraft or vessel at least once;
- (b) cross the projected course of the distress aircraft or vessel close ahead at a low altitude, and
 - (i) rock the wings; or
 - (ii) open and close the throttle; or
 - (iii) change the propeller pitch; and
- (c) head in the direction from which the search and rescue facility is to be directed.
- (d) A repetition of this procedure will have the same meaning.

32. Emergency locator beacons

- (1) The provisions of part 91.04.26 of the Civil Aviation Regulations pertaining to the carriage of ELTs apply.
- (2) All emergency position-indicating radio beacons procured by vessels of South African nationality must 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 ELTs in terms of the Civil Aviation Regulations referred to in subregulation (1) may, bearing

in mind the limitations of personal locator beacons, at least carry an approved and registered personal locator beacon capable of transmitting on 406 MHz.

33. Ship reporting system

(1) A ship reporting system must be established in terms of Chapter 5 of the Maritime SAR Convention with the objective of providing up-to-date information about shipping resources in the vicinity of a casualty and to limit the area of search in the event of the need to conduct or carry out a search and rescue mission at sea.

(2) The ship reporting system must provide up-to-date information about the movements of vessels in order to, in the event of a distress incident, –

- (a) reduce the interval between loss of contact with a vessel and initiation of search and rescue operations in cases where no distress signal has been received;
- (b) permit the rapid identification of vessels which may be called upon to provide assistance;
- (c) permit the delineation of a search area of limited size in case the position of a person, a vessel or other craft in distress is not known or uncertain; and
- (d) facilitate the provision of urgent medical assistance or advice.

(3) The ship reporting system must meet the following requirements:

- (a) Provision of information, including sailing plans and position reports, that would make it possible to determine the current and future positions of participating vessels;
- (b) Maintenance of a shipping plot;
- (c) Receipt of reports at appropriate intervals from participating vessels;
- (d) Simplicity in system design and operation;
- (e) Use of the internationally agreed standard ship reporting format and procedures.

(4) The ship reporting system must incorporate the following types of ship reports:

- (a) Sailing plan;
- (b) Position report; and
- (c) Final report.

34. Penalty

No person may provide search and rescue services except under the authority of SASAR and in accordance with the provisions of these regulations.

35. Short title and commencement

These regulations are called the South African Maritime and Aeronautical Search and Rescue Regulations, 2016 published for comments.