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DEPARTMENT OF TRANSPORT

NO. R. 604 **30 MAY 2016**

SOUTH AFRICAN MARITIME AND AERONAUTICAL SEARCH AND RESCUE ACT, 2002

(ACT NO. 44 OF 2002, AS AMENDED BY ACT NO.5 OF 2013)

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) , as amended, made the regulations in the Schedule.

MS DIPUO PETERS, MP

MINISTER OF TRANSPORT

DATE: 28/04/2016

SCHEDULE

Arrangement of the Regulations

PART 1

INTRODUCTORY

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 co-ordinator" (ACO) means a person or team who co-ordinates the involvement of multiple aircraft in SAR operations in support of the SAR mission co-ordinator and on scene co-ordinator;

"alert phase" means a situation wherein apprehension exists as to 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 sub-centre;

"ARCC" means aeronautical rescue co-ordination 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;

"cospas-sarsat system" means a satellite system designed to detect distress beacons transmitting on the frequencies 406 MHz;

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

"director" means the Director for Civil Aviation;

"distress phase" means a situation wherein there is reasonable certainty that a vessel or other craft, including an aircraft or a person, is threatened by grave and imminent danger and require immediate assistance;

"ditching" means forced landing of an aircraft on water;

"emergency Locator Transmitter (ELT)" means an aeronautical radio distress beacon for alerting and transmitting homing signals;

"emergency phase" means a generic term meaning , as the case may be, uncertainty phase, alert phase or distress phase;

"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;

"Flight Information Centre (FIC)" means a unit established for flight information and alerting services;

"flight information region" means airspace of defined dimensions within which flight information service and alerting services are provided;

"global maritime distress and safety system (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" means a person designated as the official to exercise authority over operations at a port as defined in section 1 of the National Ports Act, 2005 (Act No. 12 of 2005);

"Joint Rescue Co-ordination Centre (JRCC)" means a rescue coordination centre responsible for both aeronautical and maritime search and rescue incidents;

"MRCC" means maritime rescue co-ordination centre;

"**national SAR plan**" means comprehensive policy guideline on how SAR services will be organized, provided and managed within the search and rescue region;

"on-scene co-ordinator" means a person designated to co-ordinate SAR operations within a specified area;

"operator" means a person, organization or enterprise engaged in or offering to engage in an aircraft 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" means Rescue Co-ordination Centre as defined in section 1 of the Act;

"RCC Chief" means one or more persons within an administration with overall responsibility for establishing and providing operational SAR services and ensuring that planning for those services is properly co-ordinated;
"RSC" means rescue Sub-centre as defined in section 1 of the Act.
"SAR" means search and rescue;
"SAR operational plan" means a detailed plan formulating the basis of search and rescue operations;

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

"search and rescue aircraft" means an aircraft provided with specialised equipment suitable for the efficient conduct of search and rescue missions;

"search and rescue facility" means any mobile resource, including designated search and rescue units, used to conduct search and rescue operations;

"search and rescue occurrence" means any event associated with the policy, practices, procedures, training, co-ordination or conduct of SAR operations that could create a hazard to the safety of search and rescue operations or seriously compromise the provision of search and rescue services;

"search and rescue service" means the performance of distress monitoring, communication, co-ordination and search and rescue functions, initial medical assistance or medical evacuation, through the use of public and private resources, including cooperating aircraft, vessels and other craft and installations;

"situation report (SITREP)"means reports from the OSC to the SMC or the SMC to interested agencies to keep them informed on on-scene conditions and mission progress;

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

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

"search and rescue region" means a region as defined in section 1 of the Act.

"search and rescue sub-region" means a specified area within an SRR associated with a Rescue Sub-centre;

"uncertainty phase" means a situation wherein uncertainty exists as to the safety of an aircraft or marine vessel, and of the persons on board.

2. Preamble

(1) These Regulations-

(a) establish general provisions governing the rights and obligations of maritime and aeronautical 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 enforcement of accepted international standards and recommended practices by organisations providing maritime and aeronautical search and rescue services within her designated search and rescue region as amended from time to time and published by the Minister in the Government Gazette in terms of the Act.

(c) will determine the type and degree of maritime and aeronautical search and rescue services to be provided within the South African Search and Rescue Region in accordance with its mandate in terms of the Act, SASAR Constitution, SASAR policy manual, relevant international search and rescue Conventions, guidelines and these regulations.

(2) No person must provide maritime and aeronautical search and rescue services except under the authority of SASAR, and in accordance with the provisions of these regulations.

(3) No person must provide search and rescue co-ordination functions unless appropriately designated and certificated by the Minister and Director General respectively.

(4) No person must provide on-scene SAR co-ordination function unless appointed in that capacity by RCC or RSC.

3. Application

(1) These regulations must be applicable to all search and rescue 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) SACD Protocol

PART 2

SAR GOVERNANCE, CO-ORDINATION AND OVERSIGHT

4. National SAR Plan

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

5. SAR resources and facilities

(1) The Department and SASAR must ensure the availability of sufficient accommodation, equipment, and resources to coordinate multiple aeronautical and maritime searches 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 levels of competence relevant to the functions and responsibilities appropriate to a aviation and maritime SAR service and acceptable to the Department.

(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 immediately available to RCCs and RSCs upon request.

6. Collaboration and co-operation with other States and SAR services

(1) SASAR must, under the direction of the Department, seek to establish formal, documented agreements of cooperation with SAR service providers of all contiguous States with a view to:

(a) strengthening SAR cooperation and coordination;

(b) specifying the conditions for entry of each others' SAR Units into their respective territories; and

(c) expediting entry of such SAR Units.

(2) The agreements of cooperation with SAR service providers of contiguous

States must include information concerning SAR services and capabilities including details of SAR Units able to assist in the conduct of SAR operations in their respective SRRs.

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

(4) SASAR must coordinate SAR operations that are proximate to contiguous SRRs with SAR 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 which do not form part of the SAR organization to cooperate fully, as their capacities allow, in the planning and conduct of SAR operations.

(6) SASAR must establish formal, documented agreements of cooperation, that are acceptable to the Department, with air traffic/maritime service providers that clearly define respective responsibilities in providing emergency response services to aircraft and vessels including the exchange of flight plan and operational data, communication services, temporary attribution of staff 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 investigating incidents and accidents.

(8) The Department, in consultation with SASAR must designate a SAR Point of Contact for 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 declaration of a Restricted Area whenever deemed necessary for safe and efficient SAR operations.

(10) The Department in conjunction with SASAR must seek to arrange joint training exercises involving their SAR 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 staff to cooperating entities nationally and Air Traffic Service (ATS) and SAR service providers in contiguous States; and

(b) Attendance at local, regional and international meetings by designated SAR 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.

7. Safety oversight and regulatory system

(1) The Department must designate a person or body of persons to establish a safety oversight and regulatory system which as a minimum:

(a) promote the culture of safety;

(b) Carry out risk evaluations in the SAR programme/system, identify and record risk factors and any 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 as amended;

8. 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 implementation of remedial action necessary to maintain agreed safety performance;

(c) Provides for continuous monitoring and regular assessment of the safety performance; and

(d) Is subject to regular review which has as its objective the improvement in 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.

9. Delegation of Authority (Requisitioning of air and seaborne resources)

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

(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) Deputy Harbour Masters.

PART 3

SAR OPERATIONAL MATTERS, STANDARDS AND PROCEDURES

10. SAR 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 SAR operations within the SRR.

(2) In addition to the plan referred to in (1) above, the authorities designated as RCCs or RSCs must ensure that the RCC Chief or RSC Head develop a comprehensive, detailed and unambiguous SAR 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 whereby a search and rescue operation in the RCCs or

RSCs 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 SAR operations;

(d) arrangements for expeditious access to weather information and other operational information including NOTAM and navigational warning;

(e) the precise area of responsibility pertaining to the RCC or RSC;

(f) the responsibilities and accommodation of staff assigned search and rescue operations;

(g) methods and procedures whereby information is obtained, stored and retrieved for use in a search and rescue operation;

(h) the training and exercising of search and rescue staff; 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 of alerting mobile facilities;
(d) detail the methods of co-ordination 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 national SAR plan.

(6) SAR plans of operation must include details of 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 intercept and escort of aircraft in distress;

(7) RCCs must ensure that their plans of operation are integrated with aerodrome emergency procedures to provide for optimal, coordinated response to aircraft emergencies that may arise in the vicinity of airports, including, for coastal aerodromes, areas of water.

(8) RCCs must ensure that plans of operation are integrated with harbour/port emergency procedures to provide for a co-ordinated response to marine emergencies that may arise within a vicinity of harbours, ports and VTS areas of responsibility.

(9) RCCs must ensure that each SAR unit is cognisant of all parts of the plans of operation necessary for the effective conduct of its tasks or duties.

11. SAR units and facilities

(1) RCCs must:

(a) designate and make formal arrangements for cooperative and appropriate use of public and private SAR Units that are suitably

located, equipped and crewed for search and rescue operations throughout the SRR;

(b) designate and make formal arrangements for cooperative and appropriate use of craft, vehicles and personnel that do not qualify as SAR Units but which may be able to effectively participate in SAR operations;

(c) ensure that arrangements are made for the constant readiness of SAR units and facilities ;and

(d) maintain an accurate and complete database of SAR Units and other SAR facilities and resources within the SRR and make arrangements for the timely advice to the RCC of any change in their readiness or capability.

(2) The Department must provide relevant information on the availability of SAR Units within the SRR to the relevant authority for publication in the *Gazette Aeronautical Information Publication (AIP) and Marine Notice.*

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

(4) RCCs must ensure the availability of trained personnel and necessary personal safety equipment at strategic locations within the SRR for the airborne and surface delivery of life support equipment to accident survivors by SAR Units.

12. Alerting Posts

(1) A designated alerting post must immediately inform the RCC's 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) An air traffic service unit (ATSU);
(b) Harbour master's 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 potential emergency situation:

(a) gather as much information about the emergency situation as is possible;
(b) report to the nearest maritime RCC or RSC in the event of a 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 5(b) above, the alerting post must 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 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.

(4) A designated 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 or time of position;

(d) 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 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 signoff 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, and
(u) any other pertinent information.

(5) A designated alerting post must attempt to 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 attempt to 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) Whether rain or snow is falling or has fallen, when the 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 it started and stopped;
(d) Visibility and any factors affecting it such as fog, smoke, haze, etc. and the time of recent changes;
(e) Description of the water or sea conditions
(f) Wind direction and velocity and recent changes.

13. Reporting system

(1) RCCs must establish a reporting system covering documentation of occurrences during the conduct of SAR operations and exercises.

(2) RCCs must immediately provide evidence of such records to relevant oversight authorities upon request.

14. 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 immediately accessible to its operational and management staff.

(2) The library must at all times have available for reference current editions of documentations as 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 SAR services and provide copies upon request, to the authorities responsible for SAR oversight duties.

15. Record-keeping

RCCs must retain all data relating to every SAR action undertaken by itself and its RSCs in an orderly and easily accessed manner for a period of at least for five years.

16. Competence and Training

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

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

17. Preparatory Information

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

(a) RSCs;

(b) SAR Units;

(c) Locations where supplies of droppable emergency and survival equipment are stored;

(d) Alerting posts;

(e) ATS Units;

(f) Means of communication that can be used in SAR operations;

(g) Addresses (electronic and postal) and telephone numbers of duly authorised operators' representatives; and

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

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

18. Information concerning emergencies

(1) Any member or element of the SAR organization, having reason to believe or has been informed that an aircraft or vessel is experiencing an emergency,

must immediately give all available, relevant information to the relevant RCC.

(2) An RCC, upon receipt of advice that an aircraft or vessel is experiencing 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 situation, the required emergency phase is declared and apply procedures applicable to that phase

19. Procedures during emergency phases

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

(2) In an aeronautical SAR 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 experiencing difficulties, renders 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 will be notified and will 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, which has been cleared to land, has failed to land within 5 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; 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 organizations and authorities.

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

(a) the 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 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 of 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.

(6) In a maritime incident an uncertainty phase must be declared once an alerting post advises the MRCC that –

(a) there is doubt regarding 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; and
(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 regarding the safety of a vessel or the person 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 is 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 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 usually notify its associated RCC when an aircraft is usually 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;
(j) relevant radar and voice recordings and
(k) 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; and
(i) other information.

(11) Notification from any other source should contain any abnormal occurrence they have witnessed or heard about.

20. Procedures at the scene of an emergency

(1) When multiple facilities are engaged in SAR operations on-scene and the RCC designates an On Scene Commander (OSC) or Air Craft Co-ordinator (ACO) to coordinate tactical activity on-scene to improve the safety and efficiency of operations, the OSC or ACO must perform the assigned tasks in full account of the nature of the search target, the type, number and capacity of SAR Units and the environment and keep the RCC fully informed of actions taken and proposed.

(2) When a pilot-in-command observes, that either 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;

(b) determine the position of the aircraft or vessel in distress;

(c) as appropriate, report to the RCC or air traffic services unit as much of the following information as possible:

i. type of aircraft or vessel in distress, its identification and condition;
ii. 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. time of observation expressed in hours and minutes in Coordinated Universal Time (UTC);
iv. number of persons on board;
v. whether the persons have been seen to abandon the aircraft or vessel in distress;
vi. apparent physical condition of the survivors;
vii. on-scene weather conditions;
viii. apparent best ground access route to the distress site; and

(d) act as instructed by the ATS Unit on advice from the RCC.

21. Procedures for authorities in the field

(1) When cooperating SASAR member organizations, vested with functions and responsibilities under the national SAR plan, engage in the field in SAR-related activity being coordinated by the RCC or RSC, they must keep the RCC or RSC informed of instructions given to the units under their direction and relevant developments.

22. Cancellation of SAR filed during submissions of flight plans

(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 any ATSU of their safe landing.

(2) When SAR is cancelled with an ATSU with which the owner or operator did not file his/her SAR action, the owner or operator must disclose his or her original ATSU of SAR action requirement.

(3) Any owner or operator of an aircraft who by an unlawful act or omission fails to cancel SAR as required by sub-regulation (1), must 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 must not be less than the cost spent on resources deployed.

23. Termination and suspension of operations

(1) SAR operations must continue, when practicable, until all survivors are

delivered to a place of safety or until all reasonable hope of rescuing survivors has passed.

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

(3) When a SAR 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 promptly informed.

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

(5) Upon evaluation of relevant information that is subsequently received, SAR 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

24. 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:

(a) Associated air traffic services;

(b) Associated rescue sub-centres;

(c) Appropriate direction-finding and position-fixing stations in the SRR;

(d) The appropriate operations centres of SAR 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 SAR Units;

(h) All designated alerting posts;

(i) 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;

(k) All aviation and maritime security and surveillance centres in the SRR.

(l) Hydrographer; and

(m) Navarea.

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

(a) The RCC;

(b) Associated air traffic services;

(c) Associated police forces;

(d) Adjacent rescue sub-centres;

(e) Associated meteorological office or meteorological watch office;

(f) Appropriate designated SAR Units;

(g) Appropriate designated alerting posts; and

(h) Associated aviation and maritime security and surveillance centres in the SRR.

25. Communication frequencies

(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 communication equipment 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 good working condition 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 and/or authorities:

(a) Air Craft Services 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;
(j) Police Station, vessels and vehicles;
(k) NSRI land stations, land mobile stations and vessels; and
(l) Emergency Medical Services
(m) Navarea Co-ordinator
(n) Hydrographer

(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) All communications related to SAR are to be conducted in accordance with the various requirements as stipulated by both International Civil Aviation Organization (ICAO), International Maritime Organization (IMO) and also in terms of the Safety of Life at Sea (SOLAS), Chicago and SAR conventions and also as per the ITU regulation on radio frequency usage as amended from time to time or as directed by Government."

(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.

PART 4
SPECIAL PROVISIONS AND REQUIREMENTS

26. Minimum carriage requirements by 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 SAR distress frequencies;
(b) carry equipment in order to provide adequate and timely assistance to survivors;
(c) be equipped to be able to communicate on the aeronautical and maritime distress and on-scene radio frequencies;
(d) be equipped to be able to communicate with other SAR Units and facilities engaged in SAR 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 SAR operations over maritime areas must:

(a) be equipped to be able to communicate with vessels and to receive signals from Automatic Identification Systems carried by ships and lifeboats in accordance with the Global Maritime and Distress Safety System administered by the International Maritime Organization;
(b) carry a copy of the "International Code of Signals" (IMO Sales Numbers IA994 E) to assist in communication with ships.

(3) Helicopter SAR 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 SAR Units must be equipped with a certified rescue winch.

27. Survival equipment

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

28. Search and rescue signals

(1) Upon observing any of the visual signals given in ICAO documents, 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,
(ii) communications equipment dropped from an aircraft; or

(b) In the event when the means alluded to in 1 (a) above are impracticable, a searching aircraft must indicate whether the signal has been understood by any of:

(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 must indicate that the ground signal is not understood.

(2) When it is necessary for an aircraft to direct a SAR facility to the place where

an aircraft or vessel 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 the 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 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 in which the SAR facility is to be directed.
(d) a repetition of this procedure must have the same meaning.

29. Carriage of Emergency beacons

(1) The provisions of part 91.04.26 of the Civil Aviation Regulations pertaining to the carriage of emergency locator transmitters must apply.

(2) The provisions of the Merchant Shipping Radio Installations Regulations, 2002 as amended relating to the carriage of Emergency Position indicating Radio Beacons (EPIRB's) must apply.

(3) Owners and operators of classes of aircraft and vessels that have been exempted from carrying ELT's and EPIRB's referred to in sub-regulations (1) and (2), may, mindful of the limitations of personal locator beacons, at least carry an approved and registered personal locator beacon capable of transmitting on 406 MHz or a form of flight tracking device approved by the relevant SAR authority.

30. 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 proving up-to date information on shipping resources in the vicinity of a casualty and to limit the area of

search in the event of a SAR mission at sea having to be conducted or carried out.

(2) The ship reporting system should provide up to date information on movements of vessels in order, in the event of a distress incident, to:

(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 rapid identification of vessels which may be called upon to provide assistance;
(c) permit delineation of a search area of limited size in case the position of a person, a vessel or other craft in distress is unknown or uncertain; and
(d) facilitate the provision of urgent medical assistance or advice.

(3) The ship reporting system should satisfy the following requirements:

(a) provision of information, including sailing plans and position reports, which 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; and
(e) use of internationally agreed standard ship reporting format and procedures.

(4) The ship reporting system must as a minimum, incorporate the following types of ship reports:

(a) sailing plan;
(b) position report;
(c) final report; and

(d) dangerous goods report.

31. Short Title and Commencement

These regulations must be called the South African Maritime and Aeronautical Search and Regulations.2016 and must come into operation on a date published in the Gazette.