transport

Department:
Transport
REPUBLIC OF SOUTH AFRICA

SOUTH AFRICAN SEARCH AND RESCUE ORGANISATION

ANNUAL REPORT 2017/18

Joining hands so that others may live

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SECTION A:

GENERAL INFORMATION

1. SASAR's CONTACT DETAILS

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2. FOREWORD BY THE HEAD OF SASAR

Mr Levers Mabaso

Acting Chief Director: Aviation Safety, Security, Environment and Search and Rescue

This report focuses on the activities of the South African Search and Rescue (SASAR) Organisation for the period 1 April 2017 to 31 March 2018. The report covers both the administrative and operational activities of the organisation during the period under review. The administrative activities are carried out by officials of the Department of Transport, commonly known as the SASAR Secretariat and operations by operational structures, mainly the Rescue Co-ordination Centres and Sub-centres as well as voluntary organisations such as the National Sea Rescue Institute (NSRI), collectively forming SASAR.

As part of the global SAR system, the domestic aviation and maritime search and rescue (AMSAR) environment is susceptible to trends and developments in the international search and rescue fraternity. They dictate SASAR's modus operandi and require to be taken into cognizance in our strategic, business and operational plans, procedures and processes in order to deal with the challenges posed thereby. SASAR therefore needs to be pro-active in identifying trends and developments affecting the AMSAR system, be effective and efficient in responding to these trends and also involve all relevant stakeholders in the development and adoption of processes, policies and prescripts in reaction to these trends and developments.

The adoption of the LOME Declaration on the improvement of SAR services in Africa by the African Ministers responsible for Civil Aviation at a High Level Conference held from 10-12 April 2017 in Lome, Togo, is an interesting and significant development in that it renewed the commitment by Ministers to address the deficiencies/findings in the SAR field identified over the past years by International Civil Aviation Organization (ICAO) technical experts and auditors. This however, will have some policy, legislative, financial, organisational and personnel implications on the part of countries in the African countries, including South Africa. It will be comforting to note that South Africa has made tremendous progress over the years in implementing the high level measures identified by the Declaration to be undertaken for the improvement of the provision of SAR services in Africa. The creation of a Joint Rescue Co-ordination Centre is an area that is outstanding and requires priority in the next reporting period.

The hosting of the ICAO technical assistance mission and its subsequent minimum findings and recommendations only serve to validate the tremendous progress made by South Africa in implementing ICAO international Standards and Recommended Practices (SARPs). In line with the recommendations made by this mission, the creation, capacitating of and making the SAR inspectorate unit functional is another area that deserves priority. This process has been earmarked for expediting in the 2018/19 reporting year.

The SASAR Executive Committee continued to perform its function of co-ordination, governance and oversight of the SASAR organisation. Two SASAR Executive and Management meetings were held, where a host of issues and challenges were discussed and solutions sought. The finalization of the drafting and endorsement process of emergency beacon regulations and amendments to the AMSAR regulations are considered significant milestones and achievements in our endeavours to strengthen our regulatory regime and comply with international SARPs.

The expediting of the procurement process of the MEOSAR system deserves acknowledgement. To facilitate the immediate transfer of Medium Earth Orbiting Search and Rescue (MEOSAR) project to Air Traffic and Navigation Services (ATNS), an interim Memorandum of Understanding (MOU) was signed. The MOU sought to enable ATNS to commence with the procurement and installation processes required for the provision of this solution.

SASAR, through its established centres and sub-centres, has continued to carry out their SAR operation's co-ordinating mandate with vigour, passion and to the best of its abilities. The Maritime Rescue Co-ordination Centre (MRCC) responded to 462 distress alerts and saved 218 lives. The Aeronautical Rescue Co-ordination Centre (ARCC) resolved 280 cases at an initial stage (INCERFA), 137 at an alert phase (ALERFA) and 38 at a distress phase (DISTRESA).

The major role played by our voluntary organisation is commendable and in line with our motto of joining hands so that others can live. The NSRI, in particular, is involved in approximately 97% of all minor sea operations on the South African coast and during the period under review, they assisted and rescued 68 persons. The Department acknowledge and applaud the selflessness displayed by SASAR member organisations all these years, in particular voluntary organisations.

Our sincere thanks to all the management personnel of SASAR for their contributions in ensuring that the organisation is kept intact and afloat this year and hope that they will continue to display the same commitment and dedication in years to come. We would also like to thank and commend all our units including voluntary organisations and all other role players for their consistent commitment to achieving our goals. Their unyielding support is an asset to SASAR, the aviation and maritime industry and the transport fraternity as a whole.

LEVERS MABASO

HEAD: SASAR

3. OVERVIEW OF SYSTEM'S ORGANISATION AND MANAGEMENT

3.1 Mandate

The South African Search and Rescue (SASAR) Organisation is a statutory organ established in terms of the South African Maritime and Aeronautical Search and Rescue Act 2002 (Act 44 of 2002). Its mandate is to ensure a co-ordinated and effective maritime and aeronautical search and rescue service within the South African search and rescue regions. The search and rescue service is provided in terms of the obligations accepted by South Africa after her signing and ratification of relevant International Maritime Organization (IMO) and ICAO Conventions *inter alia*, the International Convention on Maritime Search and Rescue, 1979 and the Convention on International Civil Aviation, 1944.

SASAR is charged with the responsibility to search for, assist and where appropriate effect a rescue operation to survivors of aeronautical and maritime accidents or incidents. SASAR is further charged with co-ordinating the evacuation of a seriously injured or ill person from a vessel at sea where the person's condition is such that he or she must obtain medical treatment sooner than that vessel would be able to get him or her to a suitable medical facility.

3.2 Composition

SASAR is composed of representatives of government departments, agencies, business and voluntary organisations capable of availing resources for use for search and rescue purposes. Mandatory members are clearly spelled out under Section 5.1 of the Act. Membership of other organisations and/or individuals is voluntary and dependent on that individual and/or organisation's ability to contribute services or assets for use by SASAR.

3.3 Governance and Oversight

The Executive Committee is the governing and decision making organ of SASAR. It also has a role of overseeing the entire search and rescue system/programme to ensure its effectiveness, efficiency and compliance with national and international standards and best practices. The Committee is chaired by the Head of the South African Search and Rescue Services, who is normally an employee of the Department with search and rescue part of his portfolio. The Act requires the Executive Committee to meet at least twice a year.

The Management Committee, composing of the Heads of the Secretariat, Aeronautical and Maritime SAR Operations and the RCC Chiefs, assists the Executive Committee in its daunting function. This Committee could be regarded as the think tank of the SASAR Organisation as it is where SAR issues are analysed, interrogated and recommendations made to the Executive Committee.

3.4 Operations

Two Sub-Committees have been established at an operational level to deal with operational and technical issues and make recommendation to the Management Executive Committees. The Sub-Committees must meet at least once a year in terms of the Act.

SAR Operations are discharged through two Rescue Co-ordination Centres, one for aeronautical and the other for maritime, stationed in Johannesburg and Cape Town respectively. In addition, Rescue Sub-Centres (RSCS) and secondary RSCs have been established throughout the country to assist in this function, with the national ports, air traffic service units and NSRI Stations designated for this purpose by the Minister in the appropriate Government Gazette.

4. STRATEGIC OVERVIEW

4.1 Purpose

The purpose of SASAR from an administrative management perspective is to create an enabling environment for the provision of a search and rescue function within South Africa and Southern African region in co-operation with neighbouring countries and those countries whose search and rescue border on South Africa's search and rescue regions. This function is within the purview of the Department.

The purpose of SASAR from an operational management perspective is to ensure a co-ordinated effective, efficient and economical maritime and aeronautical search and rescue service within the South African Search and Rescue Regions or areas of responsibility.

4.2 Vision

The vision of the SASAR Organisation is "of a search and rescue system that best address all distress situations involving aviators and mariners plying their trade in South Africa's designated search and rescue regions irrespective of their origin, colour, creed and religion."

4.3 Mission

Through facilitation, co-ordination, co-operation, regulation and enforcement, provide South Africa and the Southern Africa region with a search and rescue capability, which is internationally recognized and acclaimed."

4.4 Values

SASAR subscribes to the National Government's Batho Pele (People first) Principles, namely:

- Regular consultation with clients and stakeholders
- Set service standards
- Increase access to service
- Ensure higher levels of courtesy
- Provide more and improved information on service
- Increase openness and transparency on services
- Remedy failures and mistakes; and
- Give the best possible value for money.

4.5 Functions

SASAR must within its means and capabilities co-ordinate its resources to:

(a) Search for, assist and, where appropriate, effect a rescue operation for;

(i) Survivors of aircraft crashes or forced landings;
(ii) The crew and passengers of vessels in distress;
(iii) Survivors of maritime accidents or incidents; and
(iv) Survivors of any military aircraft or vessel accident or incident if such aircraft or vessel is not engaged in an act of war; and
(v) Co-ordinate the evacuation of a seriously injured or ill person from a vessel at sea where the person's condition is such that he or she must obtain medical treatment sooner than that vessel would be able to get him or her to a suitable medical facility.

4.6 Strategic Objectives

International trends and developments dictate SASAR's modus operandi and require to be taken into cognizance in its strategy formulation processes in order to deal with the challenges posed thereby. SASAR therefore needs to be pro-active in identifying trends and developments affecting search and rescue system, be effective and efficient in responding to these trends and also involve all relevant stakeholders in the development and adoption of processes, policies and prescripts in reaction to these trends and developments.

The strategic imperatives or directions employed by SASAR's strategic document dubbed ***"SAR Agenda 2030"*** are therefore informed by developments, standards and best practices employed by the international SAR community to improve and enhance SAR systems throughout the world in an endeavour to realize the global SAR concept philosophy.

The strategic directions/objectives of SASAR are broadly categorized under the following:

- Globalization and integration of South Africa's SAR system with other SAR systems in the region and worldwide;
- Development and maintenance of a SAR regulatory framework dynamic enough to adapt to changing circumstances, trends and needs;
- Enhancement of the profile of the SASAR Organisation;
- Development and maintenance of a SAR infrastructural and institutional framework that would ensure the provision of an effective and efficient SAR service to South Africa and the region; and
- Development, maintenance and implementation of an effective and efficient SAR regime/programme that would include measures for the prevention of, mitigation of and response to SAR casualties in South Africa as well as the region.

The above strategic objectives are incrementally implemented through annual performance, business and operational plans that are developed by the various implementing agencies/structures of SASAR.

5. LEGISLATIVE AND OTHER MANDATES

SASAR obtains its mandate from national, regional and international legal instruments including acts, regulations, protocols, conventions, policies, conference resolutions and other guidance material. The following instruments are worth citing:

5.1 Convention on International Civil Aviation

Chapter 2 of Annex 12 to the Convention on International Civil Aviation stipulates how search and rescue services should be organized. Paragraph 2.1.1 provides that Contracting States shall, individually or in co-operation with other States, arrange for the establishment and prompt provision of search and rescue services within their territories to ensure that assistance is rendered to persons in distress. Such services shall be provided on a 24-hour basis.

5.2 International Convention on Maritime Search and Rescue, 1979

Chapter 2 of the 1979 Maritime SAR Convention deals with the organisation and co-ordination of search and rescue services. Article 2.1.2 provides that Parties shall, either individually or, if appropriate, in co-operation with other States, establish the following basic elements of a search and rescue service:

- legal framework,
- assignment of a responsible authority;
- organisation of available resources;
- communication facilities;
- co-ordination and operational functions; and
- processes to improve the service, including planning, domestic and international co-operative relationships and training.

5.3 International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual

The primary purpose of the three volumes of the IAMSAR Manual is to assist States in meeting their own search and rescue needs and obligations. The manuals provide guidelines for a common aviation and maritime approach to organizing SAR services. States are encouraged to develop and improve their SAR services, co-operate with neighbouring States and to consider their SAR services as part of a global system.

5.4 International Cospas-Sarsat Programme Agreement

South Africa became a signatory to the International Cospas-Sarsat Programme Agreement as a ground segment provider effective from 1 September 2000. South Africa, through her association with the International Cospas-Sarsat Programme Agreement assumed certain responsibilities which must be fulfilled. These include, inter alia, the installation and running of the requisite ground segment equipment, implementation of SARPs developed by the Cospas-Sarsat organisation and participation in the meetings of the Programme.

5.5 Southern Africa Development Communities (SADC) Protocol on Transport, Communications and Meteorology

The SADC Protocol on Transport, Communications and Meteorology is the blueprint for co-operation among SADC member countries in the areas of transport, communications and meteorology. Chapter 8, article 8.5(1) provides that SADC members shall apply international standards and recommended practices of the IMO and to participate as a region in the formulation of new standards and practices in respect of search and rescue

With specific reference to search and rescue, SADC Member States have through Article 8.5(4) undertaken to take steps necessary to develop their search and rescue capacity on a regional basis by inter alia, the investigation of options to develop a regional search and rescue organisation with participation by all Member States including consideration of available search and rescue capacity and capability, funding requirements and legal, operational and organisational requirements."

5.6 South African Maritime and Aeronautical Search and Rescue Act, 2002 (Act 44 of 2002)

The above Act incorporates the International Conventions referred to in the preceding paragraph into South African law and establishes the SASAR Organisation. The objective of the SASAR Organisation in terms of Section 4 (2) thereof, is to ensure a co-ordinated and effective maritime and aeronautical search and rescue services within the South African search and rescue region.

5.7 National Civil Aviation Policy (NCAP)

Policy Statement 37 (PS:37) on search and rescue stipulates that the Department of Transport (DOT) should remain responsible for ensuring the provision of aeronautical and maritime search and rescue services, including the financial responsibility for services in terms of the South African Maritime and Aeronautical Search and Rescue Act. It also states that SASAR should retain the mandate of co-ordinating an effective and efficient provision of maritime and aeronautical SAR services within the South African Search and Rescue Regions. It further stipulates that the DOT in conjunction with SASAR should endeavour to implement appropriate emerging technologies that would enhance and promote search and rescue communication and system's efficiency. NCAP also states that the DOT should lead and pursue the regional integration of SAR services within the Southern Africa region; pursue the establishment of a Joint Rescue Co-ordination Centre to conduct and co-ordinate both aeronautical and maritime search and rescue operations and ensure the development of a SAR safety management system (SMS) and the establishment of a SAR Regulatory and Oversight capacity to carry out safety oversight tasks and regulatory functions over SASAR, as the service provider of SAR services.

5.8 SASAR Policy Manual (National SAR Plan)

The manual serves as a standard reference document for use by all authorities involved one way or the other with search and rescue services in South Africa and provides guidelines on methods of co-ordination through which search and rescue operations are to be conducted. The manual also spells out or define the responsibilities of all the member organisations of SASAR and sets clear reporting lines.

5.9 2000 IMO Florence Conference on Search and Rescue and Global Maritime Distress and Safety System (GMDSS)

The 2000 IMO Florence Conference on Search and Rescue and GMDSS, sought to establish regional maritime SAR arrangements in Africa and invited all African coastal States to agree to the establishment of sub-regional RCCs. South Africa was identified as one of the five countries to host a regional MRCC. In pursuance of these resolutions, a multilateral agreement on the co-ordination of maritime search and rescue services was concluded and signed by 5 countries out of the 6 identified for this purpose in February 2007. The countries that signed the multilateral agreement are the Comoros, Madagascar, Mozambique, Namibia and South Africa. Angola still has to consider signing the Agreement. The Agreement requires implementation and monitoring.

5.10 Saly Portudal Search and Rescue Declaration

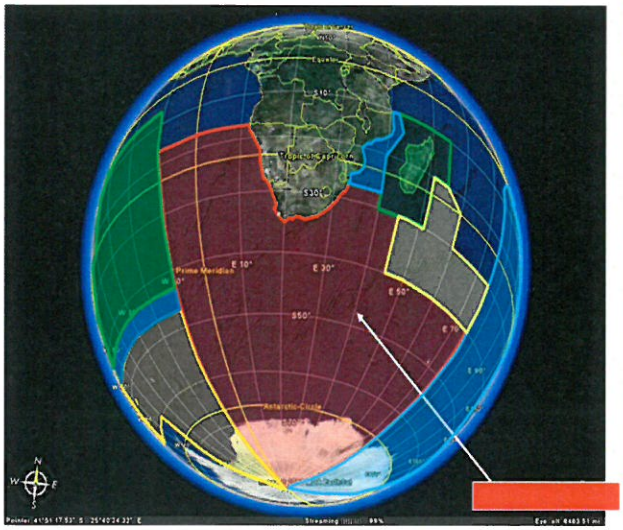
An international conference held under the auspices of ICAO and African Civil Aviation Committee (AFCAC) in Saly Portudal, Senegal, in October 2004, developed a Declaration that stated inter alia as its primary conclusion:

"Optimal organisation, management and regulation of SAR services has a profound and positive effect on the cost and the efficiency of SAR service provision and that in particular, the extent of required resources can be reduced if the following principles are applied:

a) signing and updating domestic and international SAR agreements;
b) establishing sub-regional SAR provision; and
c) establishing joint aviation/maritime operational centres, possibly multi-functional.

6. SEARCH AND RESCUE REGIONS (SRRs)

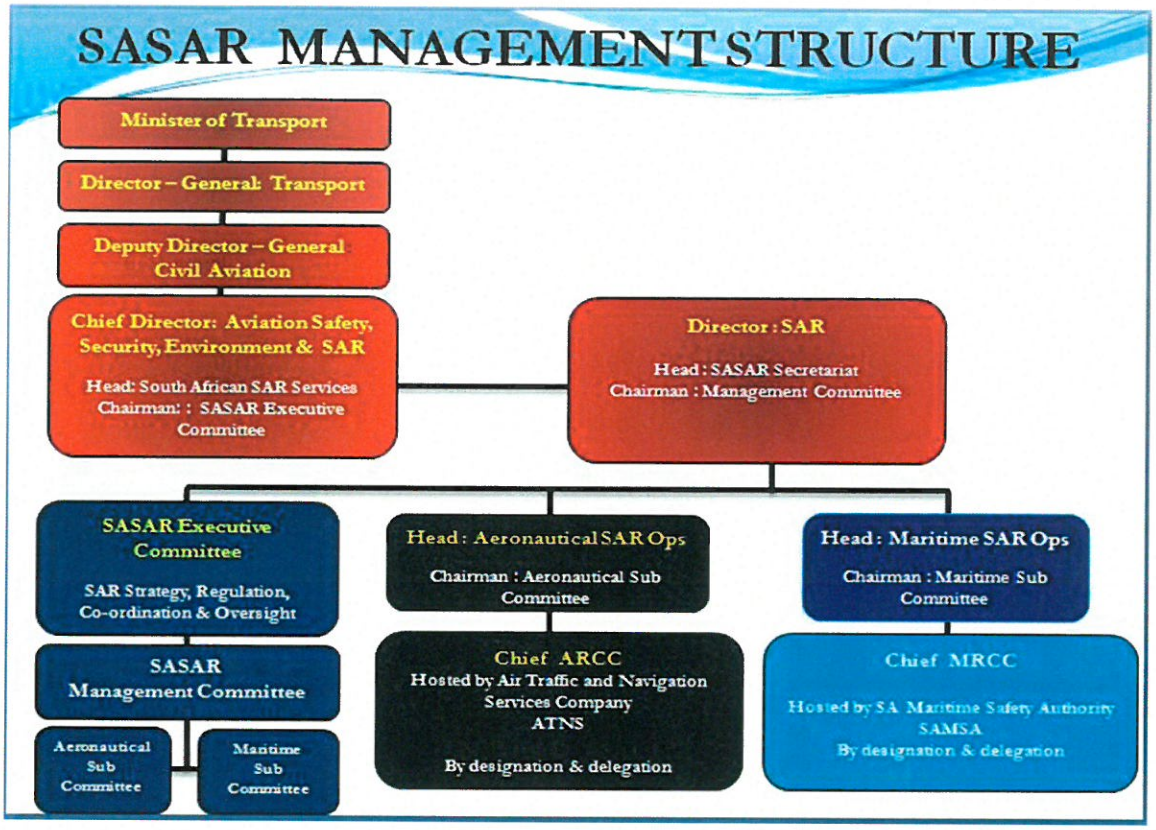
South Africa's search and rescue regions correspond with what is prescribed by the ICAO and IMO and includes the independent states situated therein. The following is the diagrammatical representation of SASAR's Search and Rescue Regions (SRRs).



Maritime SRR

Aeronautical SRR

7. ORGANISATIONAL STRUCTURE



SECTION B:

AMSAR ADMINISTRATIVE PERFORMANCE INFORMATION

1. OVERVIEW OF THE ADMINISTRATIVE COMPONENT OF SASAR

The primary responsibility and accountability in search and rescue rests with the government as signatory to the relevant international search and rescue conventions. This translates to the Department of Transport being the custodian and champion of search and rescue services in our country.

SAR administration rests with the Department assisted in this regard by the SASAR Executive and Management Committees. The Department therefore has the overall responsibility for planning, establishing, organizing, staffing, equipping and managing the search and rescue system or programme.

The above functions are performed by a unit within the Department, namely, the Directorate: Search and Rescue and known by the national SAR community as the SASAR Secretariat. In the performance of its administrative functions, the unit always taps on the technical and operational expertise of SASAR's member organisations, in particular, the RCC's management corps. This is done through the assembling and establishment of Working Groups (WGs) to deal with specific issues that require the development of policies, legislative amendments, agreements, infrastructure etc. as a solution.

2. STRATEGIC AND OPERATIONAL OBJECTIVES FOR 2017/2018

The strategic and operational objectives of the administrative component are informed by the following broad strategic directives of SASAR:

- Globalization and integration of South Africa's SAR system with other SAR systems in the region and worldwide;
- Development and maintenance of a SAR regulatory framework dynamic enough to adapt to changing circumstances, trends and needs;
- Enhancement of the profile of the SASAR Organisation; and
- Development and maintenance of a SAR infrastructural and institutional framework that would ensure the provision of an effective and efficient SAR service to South Africa and the region.

For the 2017/18 financial year, the project on the establishment of the Cospas-Sarsat MEOSAR capability was prioritized for implementation and inclusion in the Departmental Business and Operational Plan. The annual target was the signing of a Service Level Agreement with the preferred service provider. It must be emphasized that projects that find their way into the Departmental Annual Performance Plan (APP) as well as Business and Operational Plan are not exhaustive as individual units/sub-units of the Department have additional projects that they are dealing with in a particular year. This project, amongst others, is reported on under paragraph 3.6 below.

3. ACHIEVEMENTS AND/OR RESULTS OF THE YEAR

3.1 SAR Governance, Regulation and Oversight

3.1.1 Draft South African Emergency Beacon Regulations, 2019

The Sub-Committee on Search and Rescue Communications finalized the drafting of the emergency beacon regulations. These regulations will be promulgated in terms of Section 23 of the South African Maritime and Aeronautical Search and Rescue Act, 2002 (Act 44 of 2002).

The regulations seek to establish requirements and procedures for registration and deregistration of emergency beacons used in the aviation and maritime environment, in line with international SARPs.

The draft regulations will be submitted for endorsement by the SASAR Executive Committee at its 52nd session to be held from 12-13 April 2018 where-after, they will be processed for promulgation by the Minister in 2019.

3.1.2 Amendment of the South African Aeronautical and Maritime Search and Rescue (AMSAR) Regulations

The drafting and amendment of the South African Aeronautical and Maritime Search and Rescue (AMSAR) Regulations, was finalized by the WG on SAR Documentation during the year under review. This followed gaps identified during the Department's interaction with ICAO auditors and the ICAO Compliance Specialists at SACAA, in the 2016 version of the regulations.

The draft amendment seeks to address the gaps referred to above and exhaustively transpose Annex 12 to the Chicago Convention into national law. The draft regulations also seek to establish operational and technical requirements as well as procedures relating to the implementation of the AMSAR system.

The draft AMSAR regulations will be submitted for endorsement by the SASAR Executive Committee at its 52nd session to be held from 12-13 April 2018 where-after, they will be processed for promulgation by the Minister in 2019.

3.1.3 Implementation/Action Plan: SAR Act and Regulations

The WG on SAR Documentation, at its session held in July 2017, developed an Implementation/Action Plan to implement certain parts of the principal Act and regulations where implementation was still lacking or incomplete. The plan was adopted by the SASAR Executive Committee at its 51st session held on 21-23 September 2017 for implementation by relevant structures and sub-structures of SASAR. The action plan provided inter alia for the drafting of roles and responsibilities of additional SASAR member organisations, revision of plans of operations, development of the SASAR asset register, designation of SAR units etc. Implementation of the plan has already commenced with the RCCs and RSCs revising their operational and training plans to align them with the requirements of the Act and regulations.

3.1.4 Revision of the SASAR Policy Manual (National SAR Plan)

The WG on SAR Documentation commenced work on the revision of the SASAR Policy Manual. During the period under review, the first two Chapters of the manual were reviewed and amended and this work will continue in the 2018/19 reporting year.

The definition and drafting of the roles and responsibilities of the outstanding 11 SASAR Member Organisations were also prioritized in lieu of the urgent need to negotiate and conclude MOUs. Most of these institutions became mandatory members of SASAR following the enactment of the South African Maritime and Aeronautical Search and Rescue Amendment Act, 2013 (Act No. 5 of 2013).

The proposed roles and responsibilities of Airline Association of Southern Africa (AASA), Airports Company South Africa (ACSA), Department of Co-operative Governance and Traditional Affairs (DCoG), Department of International Relations and Cooperation (DIRCO), Department of Home Affairs (DHA), Department of Health (DOH), Independent Communications Authority of South Africa (ICASA), South African Airways (SAA), South African Civil Aviation Authority (SACAA), South African Weather Service (SAWS) and Sports and Recreation South Africa (SRSA) were finalised and will be submitted for approval during the 52nd session of the SASAR Executive Committee scheduled for April 2018. Once approved, they will also be incorporated in the national SAR Plan.

3.1.5 MOUs with Resource/Signatory Organisations

It is a requirement in terms of SAR international SARPs that domestically, formal agreements between administering, co-ordinating and providing agencies of a SAR system should be concluded. This requirement was transposed into a standard through its incorporation into the national regulations.

Paragraph 11(1)(a) of the SAR Regulations, 2016, requires RCCs to 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 SRRs. Paragraph 11(1)(b) requires similar formal arrangements to be concluded with entities not designated as SAR units but may be able to effectively participate in SAR Operations.

The Executive Committee at its 49th session approved the model MOU to be used for the above purpose and directed the Secretariat to commence with a process of negotiating MOUs with resource/signatory organisations. The objective of these MOUs is primarily to outline the division of responsibilities between the Parties as component organisations contributing to the provision of AMSAR services as well as to formalize working relationships between Parties in as far as they relate to the performance of AMSAR services.

During the reporting year under review, an MOU was signed with the ATNS and draft MOUs were forwarded to TNPA, DCOG, SAPS and DOD, whose responsibilities were clearly defined in the SASAR Policy Manual. A meeting to finalize an MOU was also held with the SANDF.

3.1.6 Lome Declaration on the improvement of SAR Services in Africa

A High Level Conference on the improvement of SAR services in Africa was held from 10-12 April 2017 in Lome, Togo under the auspices of AFCAC in collaboration with ICAO. South Africa was represented by the Head of Aeronautical SAR Operations and the ARCC Chief.

The main objective of the High Level Conference was to sensitize decision makers in African States on the need to among others, establish or maintain effective SAR services, provide an opportunity for the co-ordination of SAR Letters of Agreements (LOAs) between the States and encourage more multilateral agreements.

The conference culminated into the adoption of the Lome "*Declaration on the Improvement of SAR Services in Africa*" which incorporated the adoption of High Level Measures to be undertaken and an Action Plan. 8 High Level Measures to be implemented immediately by Sates in an effort to improve SAR services in Africa were identified. In addition, an Action Plan consisting of 28 actions to be undertaken by ICAO, IMO, AFCAC and States in this regard were also adopted by the conference.

The measures identified include the establishment of a legal framework for SAR funding; the conclusion of bilateral and multilateral agreements between States; the development and implementation of training and SAR Exercises programmes and plans and the establishments of Joint Rescue Co-ordination Centres.

The SASAR Executive Committee reviewed the above Declaration at its 51st session held on 21-23 September 2017 and acknowledged the need for all States in the African continent to immediately implement the High Level Measures identified by the Conference in an endeavor to improve the provision of SAR services in Africa. The WG on SAR Documentation is in the process of developing an implementation plan for all outstanding actions on the part of South Africa.

3.2 SAR Strategy, Administration and Co-ordination

3.2.1 Standing Meetings

Two ordinary SASAR Executive and Management Committee meetings were held during the period under review. A wide range of issues were dealt with including policy and legislative amendments. Both Aeronautical Sub-Committee and the Maritime Sub-Committee met once. The provision of the SASAR Act regarding the frequency of meetings was therefore met by the Executive Committee.

Non-compliance with the requirements of the Act with regard to the regularity of Sub-Committee meetings were brought to the attention of senior management of the operational components of SASAR to redress. A commitment was made by these components to remedy the situation.

3.3 Towards A Regional Integration System (TRIS)

3.3.1 4th Session of the Sub-regional Maritime SAR Co-ordinating Committee for the Southern Africa Maritime SAR Region (SAMSRR 4)

The 4th session of the SAMSRR and SAR training course took place on 3-4 April and 5-7 April 2017 respectively, under the sponsorship of the International Maritime Rescue Federation (IMRF). This was a spin-off from South Africa's association with the IMRF as a member. The meeting was attended by representatives from South Africa, Namibia, Mozambique, Comoros, Madagascar, all Parties to the Multilateral Agreement on the Co-ordination of Maritime SAR Services signed on 12 January 2007. The IMRF was also present at the meeting. Madagascar presided over the meeting.

As per the tradition, each country gave a status report of their SAR Services which also highlighted challenges being faced in the rendering of SAR services. Having noted that 4 out of the 5 Parties, have deposited their instrument of ratification with South Africa as a Depository State as required by the Agreement, South Africa was therefore requested to register the Agreement with relevant bodies. This would enable the Agreement to be in full force and effect as the majority of the Parties have fulfilled the requirements thereof.

Amongst other issues included on the agenda of the SAMSRR 4 were discussions on other possible SAR funding models, expediting entry of SAR units into each other's territory during SAR operations, sharing of statistical data and introduction of a regional annual report. With regard to SAR funding models, it was agreed that the upkeep, operational and maintenance of SAR resources or SAR centres is the sole responsibility of each State and consequently, each Party was encouraged to explore sustainable funding tools or models. SAMSRR 4 also agreed to the hosting of a SAR webpage within the IMRF domain, sharing of statistical data and introduction of a regional annual report and identification of training needs by each Party for onward transmission to the IMRF for possible funding.

SAR Co-ordination training was conducted over 3 days under the facilitation of the IMRF and was attended by 23 people. The participants were taken through the IAMSAR Manuals Volume I to III.

3.3.2 Multilateral Agreement on the co-ordination of aeronautical SAR services

Recalling the SADC Civil Aviation Committee's (CAC's) decision that the SADC Secretariat resuscitate the SADC Search and Rescue WG to review the proposals in the South African paper (SADC/EOM/CAC/2015/6.6A) and submit to it concrete implementable actions, SASAR recommitted itself to pursue this matter vigorously and urged the SA delegation to CAC meetings, which normally includes its Chairperson, to follow this matter up to its conclusion.

The South African paper referred to above highlighted the international and regional Conventions and legal frameworks promoting collaboration between States on search and rescue programmes and activities. It also highlighted initiatives both at international and regional levels promoting collaboration on search and rescue. The paper also proposed the establishment of a SAR WG under the SADC Secretariat to take the process of integration forward.

3.4 Global Integration and Co-operation (GIC)

3.4.1 International meetings

The following were the scheduled programme for standing international events/meetings for the reporting period where South Africa was represented either through officials of the Department or its agencies or a combination of both as expected at these meetings.

EVENT	DATE	VENUE
6th Session RSA/Lesotho JBSARCOM	29 - 30 June 2017	Lesotho
3rd Session RSA/Zimbabwe JBSARCOM	09 - 10 November 2017	Zimbabwe
3rd Session RSA/Botswana JBSARCOM	15 - 16 March 2018	Pretoria
3rd Session RSA/Mozambique JBSARCOM	24 – 27 April 2018	Mozambique
24th Session of the ICAO/IMO Joint Working Group	02 – 06 October 2017	New Zealand, Wellington
31st Session of the Cospas-Sarsat Joint Committee (JC 31)	16 – 27 October 2017	Montreal, Canada
59th Session of the Cospas-Sarsat Council Meeting	05 – 08 February 2018	Montreal, Canada
4th Session of the Sub-Committee on Navigation, Communication and Search and Rescue (NCSR4)	19 – 23 February 2018	London

3.4.2 Technical Assistance Mission: AFI Plan - SAR Organisation

The above technical assistance mission was undertaken in South Africa from 29-31 May April 2017. The objective of the mission was to provide assistance and guidance to South Africa on best practices to be adopted in the establishment of an effective and operational SAR organisation involving appropriate stakeholders, in order to satisfy the requirements of Annex 12 to the Chicago Convention. Four recommendations made by the mission were that South Africa should:

- promulgate appropriate regulations and/or establish mechanism to facilitate availability of additional resources from private entities and the general public, on request, should a major accident occur;
- carry out a complete review of all signed SAR LOAs with adjacent States and to align the contents of the LOAs with those of the newly drafted SAR LOA template developed by the SAR Technical Experts Team, which was adopted by the AFCAC High Level Conference on the Improvement of SAR Services in Africa, held in Lome, Togo from 10-12 April 2017;
- ensure the establishment of an effective safety oversight system for SAR, through capacity building and the implementation of an annual surveillance programme, which should include random inspections; and
- review current signed LOAs with neighbouring States to ensure adequate coverage and co-operation related to both aeronautical and maritime incidents.

3.5 AMSAR Bilateral Programme

3.5.1 Joint Bilateral Search and Rescue Committees (JBSARCOMs)

JBSARCOMs with clear Terms of References have been established with Botswana, France (La Reunion), Lesotho, Mauritius, Mozambique, Namibia and Zimbabwe. The purpose of these Committees is to oversee the implementation of the Agreements, ensure the satisfactory compliance with and amendments to the Agreements between the respective Governments. Joint SAR exercises are also subjects of discussions within these Committees.

During the period under review, JBSARCOM meetings were held with the following countries:

EVENT	DATE	VENUE
6th Session RSA/Lesotho JBSARCOM	29 - 30 June 2017	Lesotho
3rd Session RSA/Zimbabwe JBSARCOM	09 - 10 November 2017	Zimbabwe
3rd Session RSA/Botswana BSARCOM	15 - 16 March 2018	Pretoria
3rd Session RSA/Mozambique JBSARCOM	24 – 27 April 2018	Mozambique

3.6 SAR Infrastructural and Institutional Development

3.6.1 Cospas-Sarsat system evolution: MEOSAR system

This project was prioritized for implementation during this reporting year with an annual target of having an Implementing Agent Agreement (IAA) signed by the end of the financial year. Following National Treasury's approval for the transfer of this responsibility and funding to the ATNS, an interim MOU was compiled and signed to facilitate the immediate transfer of this responsibility to the ATNS. The MOU sought to enable ATNS to commence with the procurement and installation processes required for the provision of this solution, mindful of the fact that the Parties will engage in further negotiations with a view to concluding an Implementing Agent Agreement.

The ATNS submitted a project plan, outlining inter alia, its procurement plans and processes in line with the requirements of the interim MOU. A User Requirement Statement was compiled with inputs from the DOT. An IAA was drafted, negotiated and signed February 2018. In line with the project plan, a tender to appoint a service provider to procure and install the MEOSAR system was issued by the ATNS in November 2017 with a compulsory briefing session and associated site visits to the proposed installation locations undertaken in December 2017. The proposed installation locations are in Bapsfontein and Delmas, owned by the ATNS and were found to be suitable by the prospective bidders.

The adjudication of the tender was completed and what was outstanding was approval from the ATNS Board for a contract to be signed with the preferred bidder. It is expected that the contract will be signed at the latest in early May 2018 of the ensuing reporting year. The installation processes will take 12 months to be completed and the system is anticipated to be operational by May 2019.

3.6.2 Maritime Safety Information (MSI) and Cospas-Sarsat Low Earth Orbit Search and Rescue (LEOSAR) services.

The Department of Transport is obliged under the International Convention of Safety of Life at Sea and its 1978 Protocol as amended, the International Convention on Maritime Search and Rescue, 1979 and the International Cospas-Sarsat Programme Agreement to provide maritime safety information, search and rescue (distress alert) and Cospas-Sarsat services.

In terms of the SOLAS Convention, maritime safety information services must be adequately disseminated for use by mariners in the South African area of responsibility. Maritime safety information consists of radio navigational warnings, meteorological information, watch-keeping, SAFREP, pre-arrival reports and distress communications.

Cospas-Sarsat services are rendered in terms of the International Cospas-Sarsat Programme Agreement, and in the context of this proposal are limited to watch-keeping, 24-hour support and software upgrade in accordance with the specifications laid down by the Cospas-Sarsat Council from time to time and the provision of Cospas-Sarsat data lines and local maintenance.

The above services were rendered by Telkom SA in terms of a contract concluded in 2013. The contract expired at the end of March 2018. The tender to appoint a new service provider was advertised on 16 February 2018 with the closing date of 9 March 2019. The closing date was however extended to 23 March 2018 following a request from prospective bidders who attended the compulsory briefing session which was held on 28 February 2018.

A Bid Evaluation Committee has been assembled to evaluate tenders received and recommend the preferred bidder. This process is underway and it is hoped that this would be completed in the 2018/19 reporting year. To allow for the uninterrupted provision of these services, the current contract with Telkom will be extended on a month to month until a new service provider is appointed.

3.6.3 Establishment of the Joint Rescue Co-ordination Centre (JRCC)

The process of establishing a JRCC is still on track. During the year under review, the proposed JRCC structure was finalized and work on the development of a business case and job descriptions of the JRCC staff was continued with. A meeting to finalize a business case, job descriptions, JRCC's Standards Operating Procedures (SOPs) or processes is scheduled for the 2018/19 reporting year.

3.7 SAR Marketing and Promotion Programme (SARMAPP)

3.7.1 2016/2017 SASAR Annual Report

In terms of Section 22 the of the South African Maritime and Aeronautical Search and Rescue Act, 2002, the Minister tabled the 2016/2017 SASAR Annual Report. The annual report was compiled and printed in-house by the SASAR Secretariat.

4. Challenges experienced in the year

The SASAR Secretariat is primarily responsible for creating an enabling environment for the provision of a search and rescue function in South Africa in co-operation with neighbouring States. This function inter alia entails negotiating and concluding bilateral agreements and MOUs with countries bordering on South Africa's search and rescue area of responsibility. Endeavours in pursuance of getting the relevant countries to the negotiation table are always a major problem for the Department.

The lethargic or lacklustre response on the part of these countries could be attribute to a number of factors including the diversity in national priorities, constitutional requirements, lack of political will due to the humanitarian nature of AMSAR services, budgetary constraints etc. It must be mentioned that this challenge is not confined to our immediate neighbouring countries but is currently a continental challenge, and this gave birth to the adoption of the LOME Declaration referred to in the preceding paragraphs, in recognition of this deficiency and as a means to address it. It must also be mentioned that South Africa has made major strides in finalizing these agreements as out of the 14 countries identified for this purpose, 10 agreements are already in place but some of them need to be reviewed given their age and to align them with a template adopted by the LOME Declaration.

To mitigate this challenge, the SASAR Secretariat explored every possible means available to try and put these agreements in place, including the use of military attaché's; High Commissioners Offices in these countries as well as certain international SAR meetings and events. These extraordinary efforts have in certain instances yielded positive results and in some instances no results at all.

The lack of a SAR Oversight Unit or Inspectorate is still a major challenge. Due to budgetary constraints, the plans to have this unit functional by the end of this reporting year, was adversely affected and this may lead to a significant safety concern against South Africa as it is still recorded as a finding on the part of our country by ICAO and could have negative consequences on South Africa's rating by ICAO. It is also a requirement in terms of international standards and recommended practices that SAR exercises be conducted on a regular basis to ensure that SAR units are always in a state of readiness and the lack of funding has also impacted negatively on this front. Our RCCs conduct desktop exercises as a mitigating strategy but a field exercise needs to be conducted every 3-5 years. The last time South Africa had a field exercise was in 2009 and inability to conduct same since then is attributable to lack of funding. This will lead to a finding against South Africa by ICAO and IMO Auditors.

The lack of dedicated staff to manage and run the aeronautical component of search and rescue operations on a 24/7 basis is another major challenge mindful of the fact that it is a requirement in terms of Annex 12 to the Convention on International Civil Aviation, that these centres be staffed and operated on a 24-hour basis. The Aeronautical Rescue Co-ordination Centre (ARCC) does not meet this requirement as it is only activated when there is an accident or incident. This challenge can only be

addressed fully by the establishment of a JRCC. In the interim, an MOU was signed with the ATNS with one of responsibilities assumed being to ensure that the ARCC is adequately staffed. However, during the period under review, it came to the attention of SASAR that the centre is managed and operated with skeleton staff practically consisting of one person

5. Significant or Noteworthy Events and Projects of the Year

As indicated in the paragraph 3.8 above, securing bilateral meetings with neighbouring countries is quite challenging, and having been able to meet with 4 countries during this period is considered a significant event. During these meetings, the existing bilateral agreements were reviewed and amended to align them with the template adopted by the LOME Declaration and this is quite a significant milestone in this regard.

The finalization of the drafting of the South African Emergency Beacons Regulations, and the amendment of AMSAR Regulations, are other significant milestones that require acknowledgement as these will ensure South Africa's complete compliance with international SARPs as well as enhancing and tightening of its regulatory regime.

The formal appointment of an Implementing Agent through the conclusion and signing of an IAA and the finalization of the procurement processes by the agent are other milestones that require noting and acknowledgement. The embracement and adoption of the LOME Declaration on the improvement of SAR services in the African Continent is a significant initiative that occurred in the period under review.

SECTION C:

MARTIME SAR OPERATIONS PERFORMANCE INFORMATION

1. Overview of the Maritime SAR Operations Component of SASAR

The main purpose of the MRCC, as established in Plattekloof, Cape Town is to ensure effective and efficient maritime SAR coordination and response to vessels and persons in distress anywhere within the South African maritime SRR. The region spans approximately 28 million square kilometres stretching halfway across the Atlantic Ocean and also halfway across the Indian Ocean and all the way down to the South Pole.

2. Strategic and Operational Objectives or Activities for 2017/18

The strategic and operational objectives or activities of the MRCC are guided and primarily contribute to the attainment of the SASAR's strategic goal of developing, maintaining and implementing an effective and efficient SAR regime/programme that would include measures for the prevention of, mitigation of and response to SAR casualties in South Africa as well as the region. The management of the MRCC also plays a pivotal role in assisting the Secretariat in its pursuance of other SASAR's strategic objectives by actively participating in the latter's activities and rendering the necessary technical and operational advice.

3. Achievements and/or Results of the Year

3.1 Maintenance of a national operational SAR coordinating capability.

During the first quarter of 2017/18, the MRCC responded to 462 alerts of which false alerts or inadvertent activations were confirmed at approximately 28.54% of all distress signals. 218 lives were saved during the period through the coordination actions of the MRCC and other SASAR role players.

The MRCC assisted in connecting the vessel to local Telemedical Assistance Services and coordinated the evacuation of 94 Medical Evacuation (MEDEVAC) operations for crew/passengers from vessels offshore to local hospitals. The MRCC proactively monitors towing operations, vessels not under command, pollution reports and vessels aground around the coast. The number of Maritime Assistance Service (MAS) incidents was 163 during the reporting year. The MRCC continued with the maintenance of the national database with approximately 6875 beacons at the end of the period under review.

3.2 Development and implementation of a SAR coordination capability in the region

The SAR Planner Course of 2017 was held over the period 29 May to 09 June 2017 and was attended by 6 persons. The attendees were from the TNPA and the NSRI.

The Introduction to SAR Course for the year 2017-2018 was presented:

- Over the period 22-25 August 2017 and was attended by 16 persons from various SASAR Signatories.
- Over the period 14-17 November 2017 and was attended by 10 persons from various SASAR Signatories.

The last Introduction to SAR Course scheduled for this quarter over the period 13-16 February was cancelled due to lack of response from SASAR Signatory Agencies.

A Search and Rescue Mission Awareness Course was presented a Rescue Sub-Centre (RSC) Richards Bay over the period 27-28 September 2017 and was attended by 15 persons from SASAR Signatories in support of the RSC SAR Mission Co-ordinator (SMC).

3.3 Maintenance of a national oversight of maritime SAR Operational capability

The following Harbour Masters SAR Meeting were attended:

- RSC Durban on 13 July 2017
- RSC Richards Bay on 14 July 2017
- RSC Cape Town on 24 July 2017
- RSC Saldanha on 08 September 2017
- RSC Cape Town on 19 September 2017
- RSC Cape Town on 14 November 2017
- RSC Durban on 06 March
- RSC Richards Bay on 07 March
- RSC Cape Town on 22 March

3.4 Development and implementation of plans to ensure South Africa can act as the lead SAR authority in the sub-region

South Africa completed its inputs into the sub-regional SAR plan and await the inputs from other regional States so that the plan can be adopted and signed off. Three Chapters were allocated to South Africa to compile.

The first chapter dealt with SAR response elements and planning and addressed a variety of issues such as assumption of lead and transfer of responsibility during rescue missions; the role and responsibilities of RCC personnel and national SAR plans. The second chapter spoke to SAR Operations and incorporated the SAR emergency phases, joint SAR operations and medical assistance procedures. The last chapter gave an overview of South Africa's national SAR plan.

South Africa also assisted the Comoros with the drafting of their allotted chapter dealing with SAR communications. The adoption of the plan is expected to take place at the next sub-regional meeting planned for 2018.

3.5 Summary of other activities of the year

The average time spent per incident for the month was 23 Hours and 50 Minutes.

MRCC ACTIVITIES

MRCC Incidents	492
MRCC False Alerts	140
Lives Saved	218
Lives Lost	28
Bodies Recovered	4
Persons Missing	20
MRCC 406 MHz	90
MEDEVAC	94

MRCC MAS ACTIVITIES

Towing operations	77
Vessels not under command	82
Vessels aground	4
Oil pollution reports	0

3.6 Technical and Operational Support provided to the Secretariat

The MRCC actively participated and rendered technical and operational support at the following activities/meetings organized by the Secretariat:

7th & 8th sessions of Sub-Committee on SAR Communications held at MRCC: 13-15 June 2017 & 08-09 March 2018, respectively
Working Group on SAR Documentation held in Pretoria: 19-23 June 2017
MEOSAR Project Meeting held in Pretoria : 27 June 2017
ITU/IMO expert working group meeting over the period: 10-14 July 2017
24th session of Joint Work Group (ICAO and IMO) held in New Zealand: 02-06 October 2017
31st session of COSPAS-SARSAT Joint Committee held in Canada: 16-27 October 2017
MEOSAR, MSI and Telkom Contract transgression meeting in Pretoria with the DoT: 15-17 November 2017
NCSR 4 held in London: 19 to 23 February 2018

4. Challenges/Risks experienced in the year

The SAR community faces the ever decreasing access to SAR assets within our SRR. With the budgetary constraints being experienced by our partners and also the increased core activities of these role players, having access to their assets has become much more difficult. As a means to try to

mitigate this risk, the MRCC has undertaken the task of trying to identify assets that could be sourced to assist with SAR, especially from an aviation perspective.

5. Significant or Noteworthy SAR Incidents of the year

5.1 10 April 2017: Taking in water: "STELLAR UNICORN"

Capt Nigel Campbell notified the MRCC Cape Town at 1503 of a Very Large Oil Carrier called "STELLAR UNICORN" that had been manoeuvring suspiciously in RSA water, at approximate 24nm offshore, with a suspected crack in her hull. Upon investigation, the Master confirmed that she had a leak and ingress of water in her number 1 ballast tank and requested permission to anchor off Cape Town for repairs.

After a thorough inspection of the vessel by SAMSA to ensure that she posed no threat to the South African coast, and the salvage tug SA AMANDLA having been mobilised to tow the vessel to safety should it be required, she was granted permission by TNPA Cape Town (Harbour Master) on 10 April to anchor off Green Point for repairs. At 10/2230 Cape Town Port Control informed MRCC Cape Town that the vessel had safely dropped anchor in anchorage area 1 for repairs.

What was interesting to note about this vessel was that she is the sister ship of the "STELLAR DAISY" that sank off the Uruguayan coast on 31 March 2017.

On 25 April 2017, SAMSA again requested the MRCC Cape Town to monitor her until she has left the RSA Exclusive Economic Zone (EEZ), as she had completed her repairs, weighed anchor to continue with her voyage to China.

5.2 01 June 2017: Taking in water: "TWO BOYS"

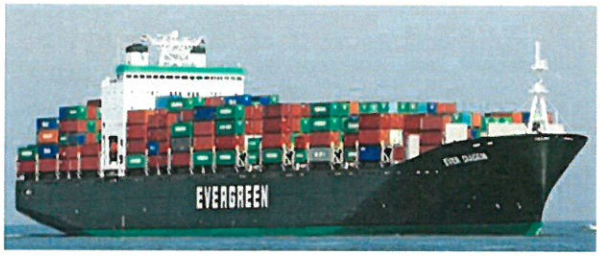
Cape Town Radio advised the MRCC Cape Town at 1844 of the fishing vessel "TWO BOYS" that have reported they are taking on water in a position 128nm south west of Port Nolloth with 13 crewmembers on board. A MAYDAY relay message was broadcasted and the call was answered by the bulk carrier "CIC TRIAS" which was steaming to the distress position and would reached the stricken "TWO BOYS" in approximately one hour to render assistance.

At 1915, the fishing vessel "ADMIRAAL DE RUITER" informed CAPE TOWN RADIO that they heard the call for help and have dropped their fishing gear and is heading to assist the vessel "TWO BOYS" as they were only 26nm away. In adverse weather, battling a swell of 4-5m and a roll of 15-20 degrees, the "CIC TRIAS" sat vigil over the "TWO BOYS" until help arrived. The Master and crew of the "TWO BOYS" tried their utmost best of find the source of the leak and slow down the ingress of water with the one electric water pump at their disposal.

On 02 June at 0053 the "ADMIRAAL DE RUITER" confirmed that they have transferred their water pump to the "TWO BOYS". With the extra pump the crew made fast work of expelling the water and repairing the leak they have ascertained was coming from the shaft. At 0307 SAST on 02 June, the master of the "TWO BOYS" confirmed that they have managed to start their engines and were making their way to Cape Town.

The MRCC Cape Town monitored the vessel via regular radio updates from CAPE TOWN RADIO and on 03 June at 1259 Cape Town Radio reported that both vessel and crew were safely alongside in Cape Town.

5.3 09 July 2017: Vessel on fire: "EVER DIADEM"



Cape Town Radio notified the MRCC Cape Town at 0910 that the Container Ship "EVER DIADEM" had reported the Fishing Vessel, "HSIANG FUH NO6" on fire in position 211nm East of Beira , Mozambique and could see the crew abandoning the vessel to life rafts. Without hesitation, the "EVER DIADEM", who was approximately 5nm away, diverted her course to assist and rescue the crew.

A MAYDAY message was broadcasted and two vessels, the Bulk Carrier "SBI ANTARES" and the Bulk Carrier "HAMPTON BAY", responded to the request for assistance. The Master of the "EVER DIADEM" ensured that all efforts were solely directed at the rescue mission at hand. With the "EVER DIADEM" and the "SBI ANTARES" already on the scene and in the midst of taking the survivors on board, the "HAMPTON BAY" was thanked for her timely response and released to continue with her voyage.

At 1453, the rescue mission was completed. The "EVER DIADEM" had rescued 16 survivors and the "SBI ANTARES" had 14 survivors on board and both vessels were making their way to Durban and set to arrive on 11 July 2017.

Before arrival on 11 July, the Master of the Container Ship "EVER DIADEM" contacted the MRCC Cape Town and reported that one of the survivors on his vessel had sustained burns when the HSIANG FUH NO 6 caught fire and that his condition was worsening and required immediate medical assistance. TheMRCC Cape Town approached the SA Airforce for air support. An Oryx helicopter was provided in urgency and departed from AFB Durban 15 Squadron, accompanied by three Netcare medics, to evacuate the injured crewman and transport him to St Augustines hospital.

5.4 16 July 2017: Red flares: "MAREDON"

Cape Town Radio notified the MRCC Cape Town at 0259 that the Fishing Vessel "SILVER EAGLE" had reported sighting red flares off Cape St Francis light house. The "SILVER EAGLE" was requested to investigate as the first respondent as well as the NSRI Station 21 (St Francis Bay). At 0315, a 406 EPIRB alert was received for the Fishing Vessel "MAREDON" approximately 0.7nm from shore.

The owner of the "MAREDON" could not establish communication with her Master to establish the safety of her 16 crewmen, therefore requesting her sister ship, the Fishing Vessel "MEGLADON" to proceed to the incident position and investigate. At 0413, Cape Town Radio reported that both the "MEGLADON" and "SILVER EAGLE" had a life raft with survivors in sight. However due to the adverse weather conditions, they did not want to attempt a rescue as it could endanger the lives of the crew, and would wait for the NSRI to attempt the rescue.

As the prevailing weather was indicative of landing the life-rafts and survivors ashore, the NSRI Station 21 arranged for personnel to conduct a shore search to retrieve said survivors, rafts, debris, etc. Due to the adverse weather, the SA Airforce was requested to support the search effort with a helicopter capable to hoist survivors should they be found at sea. 15 Squadron Charlie flight BK117 accompanied by the NSRI Station 6 Air Sea Rescue answered the call at first. An extensive shore and air search was conducted by the NSRI Stations 21 (St Francis Bay), 37 (Jeffreys Bay), 36 (Oyster Bay), 6 (Port Elizabeth), SAPS and SAAF.

At 1200, a statement was released confirming that five survivors had been found on Sunset Rock Beach, one survivor had been airlifted to hospital, one survivor had been taken aboard the NSRI vessel and one body had been recovered. A total of eight crewmen were accounted for and eight were still missing.

The NSRI Station 21, SAPS and SAAF continued the search for survivors along the shore on 17 July 2017 with no success. Due to deteriorating weather, the search was suspended at 1755. After the numerous shore searches conducted, detailed deliberation and careful consideration of all the facts, the MRCC Cape Town closed the SAR incident and handed the case to SAPS with eight persons still unaccounted for.

On 19 July 2017, the Fishing Vessel "GAMBIT" retrieved one body and delivered it to the SAPS in St Francis Bay. On 20 July 2017 at 0821 SAST, NSRI Station 6 (Port Elizabeth) advised the MRCC Cape Town that a body had washed ashore on the beach as Sea View. This body was later confirmed as part of the crew of the "MAREDON". A total of ten crewmen were accounted for and six were still missing, by the 20th July 2017.

5.5 20 September 2017: MEDEVAC: "AGIOS FANOURIOUS"

At 1521, on 20 September 2017, the MRCC Cape Town received a telephone call from the Master of the ore carrier "AGIOS FANOURIOUS" advising that he suspected his 2nd Engineer had suffered a stroke and he required immediate assistance. The Master was put in contact with the METRO EMS duty doctor who advised that the crewman be disembarked as soon as possible. The SA Airforce was approached to provide a helicopter for aerial evacuation as soon as the vessel came within range of Durban port.

At 1705 SAST, Cape Town Radio reportedly also received a telephone call from the Master of the "AGIOS FANOURIOUS", advising that a second crewman, the Chief Officer, had been found unconscious and unresponsive and would also require immediate assistance.

At 2031, an Oryx helicopter departed from 15 Squadron (AFB Durban) accompanied by paramedics from Netcare 911 and members of the NSRI air sea rescue, to rendezvous with the vessel at a position 12nm from land. The two sick crewmen were hoisted into the helicopter and transported to St Augustines Hospital after which it landed back at base past midnight on 21 September 2017. The MRCC Cape Town was advised that the two crewmen had unfortunately passed away in hospital.

5.6 18 October 2017: MEDEVAC: "GRAND AMANDA"

At 1730 the NSRI and RSC was alerted by the MRCC of a crewman reported to be critically injured with injuries and fractures to both legs and both thighs on-board the bulk carrier Bulk Carrier "GRAND AMANDA" approximately 189 nm off-shore of the East Coast and re-routing towards East London.

A METRO EMS doctor had provided medical advice to the ship's crew to aid in treating the patient and unfavourable sea conditions and the distance ruled out a helicopter patient evacuation and the ship was then diverted to the nearest Port.

While efforts were underway to arrange a helicopter patient evacuation for first light the following morning the Transnet National Ports Authority (TNPA) Pilot boat had transported Dynamic ambulance services rescue paramedics to the vessel once she was closer to the Port of East London but extremely rough seas and gusting to 50 knot Easterly winds prevented paramedics from boarding the ship.

The NSRI Durban, NSRI Port Elizabeth, NSRI ASR, the TNPA Port Helicopter and the SA Air Force (SAAF) 15 Squadron remained on alert throughout the night in the event weather and sea conditions subsided to allow for a helicopter rescue effort.

A medical kit was able to be transferred aboard the vessel during the night and the NSRI East London made ready again at 0500 on Thursday morning, despite a wind direction change to Westerly winds gusting to 40 knots, to attempt to board the ship at sea but prior to launching it was confirmed that sadly the patient succumbed to his injuries and passed away during the early hours of the morning.

5.7 16 November 2017: 406MHz EPIRB detection: "KINDA MAGIC"

At 0655, the MRCC Cape Town received a 406MHz EPIRB detection from a South African registered sailing vessel "KINDA MAGIC" /ZR6593 in the Mozambique Channel (approx. 95 nautical miles from land). As the position was in Mozambique area, the MRCC Cape Town attempted coordination handover to the MRCC Maputo but was requested to maintain SAR coordination.

The MRCC was able to locate the Crude Oil Tanker "MERSINI" close to the pleasure craft and it was requested to divert to the distress position through Cape Town Radio Maritime Services. At that point, the MRCC had issued a MAYDAY RELAY broadcast and was also informed of reports that the sailing vessel suffered some rudder problems a day before.

At 0843 "MERSINI" advised that they were on scene and at 1106 all 4 of the yachts crew were rescued from their life raft and reported to be in good health. The 4 South African survivors were disembarked in Moroni (Comoros) from where they flew to South Africa on Kenyan Airlines. The "MERSINI" advised that the sailing yacht sank.

5.8 08 December 2017: Sinking: "ELLIS S"

Cape Town Radio notified the MRCC Cape Town at 0049 of Fishing Vessel "ELLIS S" that was sinking in position 38NM South West of Danger Point, in Gansbaai area. There were 22 people on board the Fishing Vessel "ELLIS S". A MAYDAY Relay broadcast was immediately made to request assistance from vessels in the vicinity.

The Rescue Sub-centre Cape Town was informed and requested to assume coordination, and advised to activate NSRI.

Two vessels (Fishing Vessel "FUSCHIA" and Oil Tanker "ARAL SEA") were identified through AIS, and both vessels requested to proceed to the distress position. All 22 people from Fishing Vessel "ELLIS S" were safely rescued at 0250 and transferred on board Fishing Vessel "FUSCHIA".

The NSRI Hermanus launched and transferred all 22 survivors on to their rescue boat at 0738 and took them to Hermanus. All survivors were taken to hospital for medical examination.

5.9 07 March 2018: MEDEVAC: MV "THE WISE"

At 1351, bulk carrier "THE WISE" advised via pre-arrival application procedure that she had a sick crew member with severe chest and back pains. C.I.R.M. Rome had provided MEDICO advice for the master to administer medicine to the sick member. The vessel was 627nm West of Cape Town at the time.

The agent was facilitating for the sick member to be disembarked for medical reasons off Cape Town

The duty EMS METRO doctor recommended MEDEVAC via helicopter as soon as possible The vessel provided ETA 09th 1200 to 100nm rendezvous position with helicopter. The SAAF had no helicopter available for the time vessel would be in range. AGA Helicopters had a helicopter available. The helicopter was dispatched at 09 March 2018 0950 from Cape Town International Airport to rendezvous with the vessel. The helicopter arrived on scene approximately one hour later to disembark the patient.

The patient was transported to Christiaan Barnard Hospital in a stable condition and the helicopter returned to Cape Town international airport at 1230.

5.10 24 March 2018: Fire on board: MV "PHILADELPHIA"

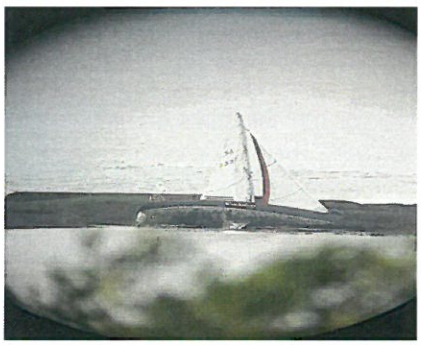
At 2109, the JRCC Stavanger (Norway) advised the MRCC Cape Town of a DSC and Inmarsat-C distress alert received from bulk carrier "PHILADELPHIA". The vessel's position was 207nm South of Port Elizabeth.

The vessel was on fire in the accommodation area and required immediate assistance. The MRCC requested Telkom Maritime Services (Cape Town Radio) to broadcast a Mayday Relay for vessels in the area to assist.

Two merchant vessels responded to the broadcast; bulk carriers "SONGA MOON" and "SANTA BARBARA" proceeded to the distress position. At 2230 the MV "SANTA BARBARA" arrived on scene and informed the MRCC that the fire had been extinguished, but one person was overboard. There were no injuries from the other 19 crew and she was assisting MV "PHILADELPHIA" in the search effort for the man overboard. The MV "PHILADELPHIA" reported that she was drifting Not-Under-Command due to some fire damage but she was assessing the extent of damage on board and did not require to tow. The fire occurred at the forecastle paint store and accommodation. The fire had been started by the man overboard due to his unstable mental state.

The man was seen going overboard without a lifejacket. An extensive search was conducted by all three vessels but the man was not to be found. The MV "PHILADELPHIA" continued searching until 25th 1200 where after she resumed her voyage to China, her radio systems and equipment fully operational.

5.11 29 March 2018: EPIRB detection from sinking yacht: "QUICKSILVER"



At 0434, the MRCC Cape Town received an EPIRB alert from the yacht "QUICKSILVER". The yacht had begun to sink and then drifted and ran aground on the rocks at the Kei river mouth vicinity. All three survivors had abandoned their yacht and were on liferaft waiting for the NSRI East London rescue boat.

The NSRI East London had been activated at 0400 by the wife of the skipper reporting her husband and 2 fellow male crew in distress off the Kei River mouth. The skipper had been able to contact his wife by cellphone before the battery died. Two sea rescue craft were launched and a search commenced. By daybreak an EC Government Health EMS rescue helicopter joined the search and located the life-raft 2.5nm off-shore of Morgan Bay on the Transkei Coast.

The 2 NSRI sea rescue craft were guided to the life-raft by the rescue helicopter and all 3 men were taken safe onboard the sea rescue craft and the life-raft was recovered. Arrangements were made to salvage the yacht. SAMSA (South African Maritime Safety Authority) was informed for further investigation.

SECTION D:

AERONAUTICAL SAR OPERATIONS PERFORMANCE INFORMATION

1. Overview of the Aeronautical SAR Operations Component of SASAR

The ARCC Johannesburg is responsible for coordinating the conduct of the search for and rescue of survivors of aircraft accidents and forced landings and to provide assistance to aircraft reporting in flight emergencies within the aeronautical SRR under South African jurisdiction.

The Minister of Transport has designated an operational facility namely the ARCC at the Johannesburg Area Control Centre at OR Tambo International Airport known as the ARCC Johannesburg, which is primarily responsible for promoting efficient organisation of aeronautical SAR operational services and is under the control of the ARCC Chief. The aeronautical SRR covers the continental area of the sovereign territory of The Republic of South Africa, Namibia, Swaziland and Lesotho and associated flight information regions.

Response to SAR incident includes a variety of other resources which may be called upon to assist with an aeronautical case, including Government Services, ground SAR volunteers, and civilian operators. The readily availability and responses by the crews/voluntary organisations is a testimony of the dedication of all to ensure effective SAR operations in South Africa

South Africa's aviation sector is one of the most advanced elements of the transport industry and one that has coped admirably over the past years. Together with other stakeholders the ARCC directed the necessary efforts and resources towards preparing and delivering SAR services without any risk or delays.

2. Operational Objectives or Activities for 2017/18

Just like the MRCC, the strategic and operational objectives or activities of the ARCC are guided and primarily contribute to the attainment of the SASAR strategic goal of developing, maintaining and implementing an effective and efficient SAR regime/programme that would include measures for the prevention of, mitigation of and response to SAR casualties in South Africa as well as the region. The management of the ARCC also plays a pivotal role in assisting the Secretariat in its pursuance of other SASAR's strategic objectives by actively participating in the latter's activities and rendering the necessary technical and operational advice

3. Achievements and/or Results of the Year

3.1 Personnel and SAR Unit's training

The ARCC trained and accredited a staff complement of 3 as qualified SMC's and 1 SMC Assistants. There are 2 more SMC's and 1 Assistant under training. Training between the voluntary SAR units and the SANDF and SAPS have been maintained throughout the period.

3.2 Monthly communication tests

The ARCC endeavours to maintain a 100% SPOC test by continuing to conduct these tests randomly on a monthly basis, however the amount of effort going into this is tremendous. Non responsive SPOC's are being contacted using E-mail and voice communication as well.

This poses another danger that should be addressed with great urgency. If a SPOC is non-responsive and/or there is a delay in acknowledgement, one should question whether the SPOC will in fact immediately react to a distress report. It is of utmost importance that it is established whether the dedicated SPOC's actually understand what their responsibilities are in terms of distress reporting. Currently only Botswana is completely non-responsive.

3.3 Participation in ICAO Technical Missions

The above initiatives/projects undertaken under the banner on ICAO to improve and enhance continental and regional aeronautical SAR systems. South Africa the in the form of ARCC Chief participated in the ICAO Search and Rescue Project as an ICAO recognised SAR expert and 24 African Countries were assisted in reaching their SAR accountabilities.

3.4 Summary of activities of the year

3.4.1 Potential and real SAR emergency situations

The ARCC attended to the following situations which culminated into or had the potential to turn into real SAR situations:

Item	Apr 17	May 17	Jun 17	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Total
Aircraft Technical Inflight Emergencies	44	77	42	34	12	49	49	57	53	50	58	58	583
Pilot Operational	17	31	14	18	11	24	20	14	9	16	13	16	203
Accidents	1	3	1	1	1	6	3	3	3	1	1	3	27
Emergency/Abnormal	5	11	13	15	3	15	9	10	14	10	8	19	132
SAR	2	0	1	0	0	1	1	1	1	1	1	2	11
Missed Position Reports	4	1	0	2	1	0	1	1	0	2	0	0	12
Total Number of Occurrences Reported to an ATSU													**968**
INCERFA	25	32	25	18	23	7	22	26	37	14	20	31	280
ALERFA	13	16	12	14	9	16	9	11	12	5	11	9	137
DETRESFA	8	10	1	2	5	5	0	1	5	0	0	1	38
TOTAL													**455**

3.4.2 Industry Safety Drive

The ARCC participated in a very successful Industry Safety Campaign and the following Centres were visited.

Rand Airport	Kittyhawk, Pretoria
Bloemfontein	Wonderboom
Bethlehem	Brakpan
Stellenbosch	East London
Morning Star – Cape Town	Port Alfred
Saldanha	Port Elizabeth
Nelspruit	George
Ermelo	Robertson
Middelburg, Mpumalanga	Polokwane
Upington	Tzaneen
Potchefstroom	Hoedspruit
Baberton	Lanseria
Margate	
Pietermaritzburg	
Virginia	
Richardsbay	

In November 2017, the ARCC and the rest of the Safety Campaign Team was awarded a Special Recognition Award at the Aeroclub Annual Awards Evening.

3.5 Technical and Operational Support provided to the Secretariat

The ARCC actively participated and rendered technical and operational support at the RSA/Botswana JBSARCOM; ICAO/IMO JWG; Cospas-Sarsat Joint Committee and NCSR 4 meetings.

4. Challenges/Risks experienced in the year

South Africa faces some of the world's greatest SAR challenges. In addition to the immense land mass, South Africa's area of responsibility for SAR also extends to the South Pole, approximately 3,200 kilometers west into the Atlantic Ocean, and 4,800 kilometers south east into the Indian Ocean. The terrain in South Africa varies widely, from nearly impenetrable forests in the Western Cape to desert terrain in the North West. Temperatures can vary across South Africa depending on the season and geographic location. Geographic and climate extremes are both a cause of SAR incidents and a hindrance to responding to them. Geographically South Africa is a vast country, but it is sparsely populated over large areas of its region. The distribution of Southern Africa's population raises some significant challenges for SAR activities in South Africa, especially in remote regions.

The following challenges are worth mentioning and noting:

- Permanent staffing of the ARCC;
- Availability of dedicated aerial SAR facilities;
- Positioning of air facilities;
- Night SAR capability;
- Certain regions are not accessible by road;
- Training / exercises standard of 4hrs training to every 1 hour operational work;
- Non responsive SPOC's;
- Lack of training/communication relating to SPOC tests and the subsequent responses to distress alerts; and
- Lack of ELT database information.

5. Significant or Noteworthy SAR Incidents of the year (if any)

5.1 President's Trophy Air Race crash

In May 2017, a participant in the President's Trophy Air Race crashed in the Wakkerstroom area with two injured pilots. Both pilots were attended to and airlifted to hospital where they recovered fully.

5.2 Airlink engine failure

In November an Airlink aircraft experienced engine failure on both engines and called MAYDAY enroute from Harare (Zimbabwe). The ARCC immediately arranged for facilities at the closest suitable airport to be available which were declined by the airline. The aircraft was closely monitored until it touched down.

5.3 Microlight aircraft crash

In November 2017, a Microlight aircraft crashed in the mountains near Mokopane. It was established that the accident had one survivor and one fatality. In a risky night operation by highly qualified SAAF Oryx, Limpopo EMS and MCSA SAR crews, the survivor was rescued.

5.4 Drakensberg forced landing

In December inclement weather enroute to KZN forced an aircraft crossing the Drakensberg down and an emergency landing was executed with no injuries. The ARCC assisted in the rescue of the occupants in a SAPS helicopter crashed in the Drakensberg in January 2018.

5.5 Bethlehem forced landing

An aircraft forced landed short of the runway at Bethlehem and the quick response from emergency services tasked, ensured there were minor injuries.

5.6 SAPS aircraft crash – Drakensberg

In January 2018, the ARCC assisted in the rescue of the occupants of a SAPS helicopter down in the Drakensberg. All occupants were saved and no fatalities occurred.

5.7 Engine failure – cargo aircraft

In January 2018 a cargo aircraft inbound to Johannesburg reported engine failure with a possible complete engine shut down. Pilanesberg Airport was opened with full service on standby to accommodate a diversion.

5.8 Savanah aircraft crash

In January 2018, the ARCC was activated when a Savanah aircraft on a test flight did not return. An extensive search operation was conducted and the wreck was located with unfortunate fatalities

5.9 Forced landing – KZN Beach

In January 2018, a student executed a forced landing on a KZN beach. He was rescued with no injuries.

5.10 Forced landing

In February 2018 a forced landing in a cabbage patch resulted in minor injuries and the pilot was rescued.

5.11 Aircraft crash - Oudshoorn

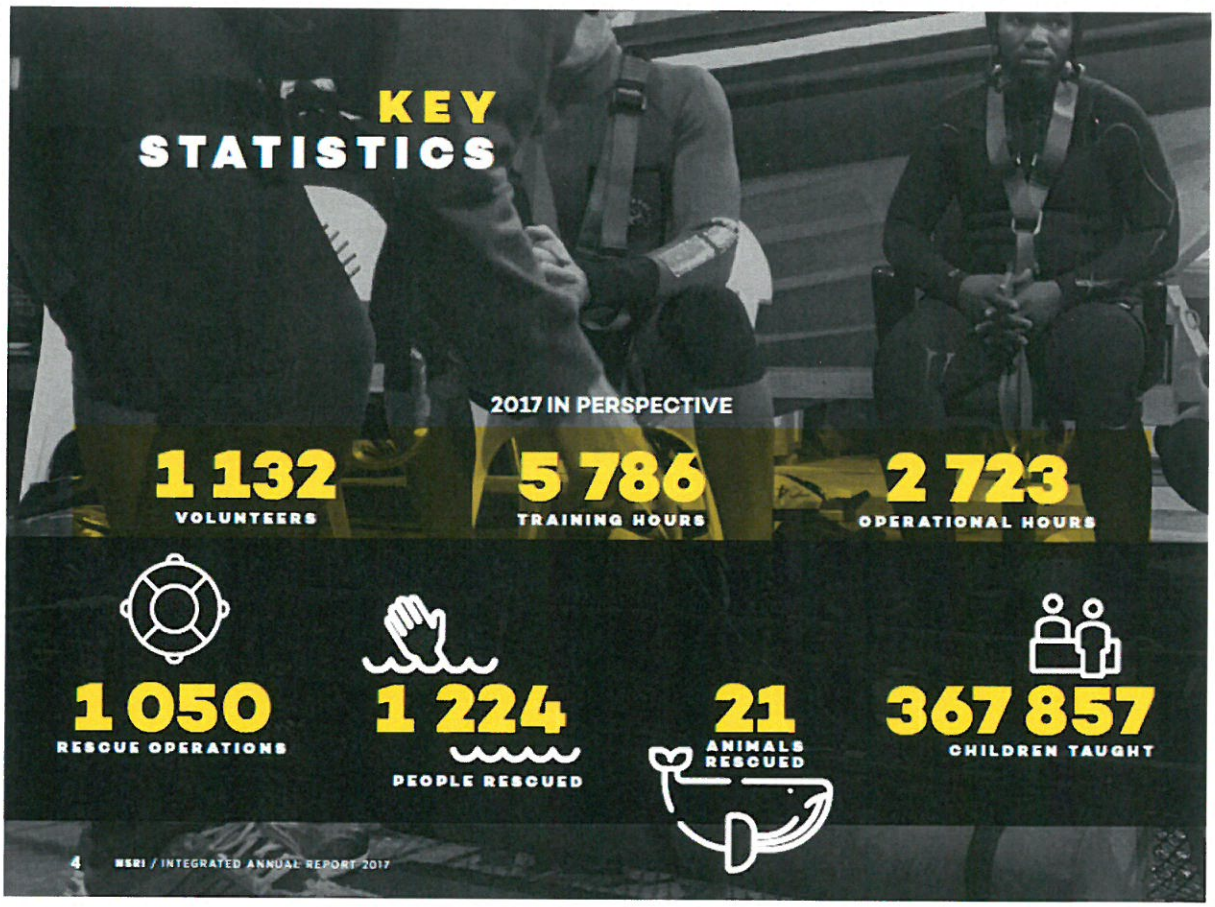
In February 2018 an aircraft was reported missing near Oudshoorn. The wreckage was located by the first SAR Unit airborne and two fatalities was accounted for.

SECTION E:

VOLUNTARY ORGANISATIONS - OPERATIONAL PERFORMANCE INFORMATION

E1: NATIONAL SEA RESCUE INSTITUTE (NSRI)

1. Overview of the NSRI and its Contribution to SASAR's Objectives



1.1 Organisation

The National Sea Rescue Institute (NSRI) is a charity staffed by volunteers which are on call day and night, throughout the year. The volunteers are not paid and the organisation does not charge people we rescue. Its goal is to prevent drowning through education, preventative measures and reactive rescue. Year after year The NSRI updates and improves on its skills and techniques and it continuously investigate new technologies.

The NSRI visits schools around the country, teaching children about water safety, what to do in an emergency and how to do basic hands-on CPR. It has also built an online training centre. Other preventative measure includes educational signage, its signature Pink Rescue Buoys, Lifeguards and active patrols during busy holiday season. We have rescue bases around the coastline and inland dams.

It has a broad support base, with most its donors are private individuals who donate an average of R50 per month.

1.2 Values

THE CORE VALUES OF SEA RESCUE ARE:

ALTRUISM
We love the sea and combine this love with our commitment to help others

FAMILY
We have strong family values as individuals, as stations and as an organisation

CARING
We care about people. The medical care that we provide extends this value to the people we rescue

PRIDE
We are a proud organisation. Proud of the service we deliver, proud of each other and proud to be South African

ACCOUNTABILITY
We are accountable to the people who we serve, for the service that we deliver and to each other for support

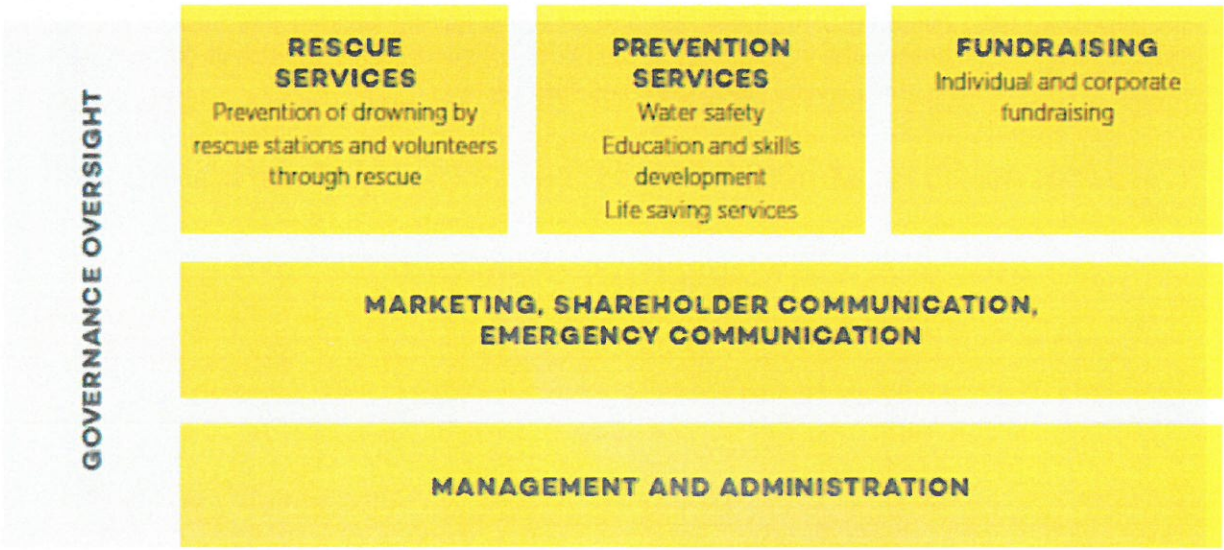
SAFETY
We value the safety of our crews and that of our patients above everything. We don't compromise in ensuring their wellbeing at sea

1.3 NSRI company structure and governance

Sea Rescue's 2017 income of R138756898 million was raised through diverse fundraising activities. With those funds, the NSRI responded to 1050 incidents and saved 1224 lives. Its water safety lessons in schools programme was presented to 376857 children. This programme aims to teach basic water safety, self-recue, peer rescue, how to cope in an emergency situation and age-appropriate hands-on CPR.

1.4 NSRI Business Model

The Sea Rescue business is based on a **strong volunteer model** and incorporates a professional management and fundraising component with 25 full and 19 half day staff, which constitutes only 4% of all the people involved in its efforts. The remainder is made up by its vast volunteer service component



at the rescue stations.

The NSRI's business model capitalises on the efficiency of a **non-profit system** to provide an essential lifesaving service which, because of relatively low incident rates, could not be afforded through a stat or profit model. The non-profit context also ensures that it can deliver services independently and in collaboration with other – without fear, favour or political influence, delivering on the needs of its community. The model provides for community "ownership" and a level of pride and satisfaction in the service delivered. Furthermore, it allows for greater investment in developing human capital and in providing the resources needed, at the best quality, to deliver the service. Funds that would have been deployed in remuneration are directly deployed in delivery programmes, thereby achieving better outcomes.

1.5 NSRI Reliable Partnerships

The NSRI's volunteer service is activated through an emergency call. These calls are received through a wide network of partner organisations, including the Transport National Ports Authority, the National emergency number 112 and a cellular phone application called SafeTRX, a NSRI initiative, monitors a boat's journey and alerts emergency contact nominated by the user should they fail to return to shore on time. Emergency calls are routed to the Maritime Rescue Coordinating Centre in Cape Town, which in turn, dispatches calls through to Station Commanders in the 37 stations. Direct calls to Station Commanders remain the most frequent rout of emergency activation.

The Sea Rescue head office provides financial, logistic and training support to stations, yet the management and operations of each station are conducted autonomously by Station Commanders. These Stations Commanders have delegated authority to make independent emergency decision to ensure immediate response and action to save lives. Station Commanders have the delegated authority to decide on crew safety and may elect not to respond if conditions are deemed to be too dangerous or risky. Likewise, in a rescue vessel, NSRI's coxswains have the absolute decision-making discretion regarding the operational decisions independent of any outside interference.

1.6 Driven by values

Sea Rescue is a value driven organisation and, together with its volunteers and staff, it revisits its values at regular intervals. As a rescue organisation, it deals with people at their most vulnerable, as such it is committed to delivering a quality service with compassion. As a non-profit organisation raising funds, the NSRI pledges to be transparent in its transactions and careful in how it spends the money that has been entrusted to it. It carefully guards its reputation and show commitment to the highest ethical standards.

In dealing with others, it embraces diversity – diversity of gender, race and religion, as well as diversity of thought. It subscribes to a code of ethics and conduct and do not tolerate discrimination, harassment or bullying.

Acceptable behaviour by volunteers and staff is an essential requirement for the successful maintenance of internal relationships. This enables the workforce (both voluntary and paid) to achieve its business objectives, while at the same time creating a pleasant working environment. A disciplinary code is provided to inform its workforce of the rules and behavioural standards and to give management guidance and acceptable behaviour and how it can be addressed fairly.

The NSRI is a volunteer-driven organisation and governance and management structures are there principally to support the volunteers and the service they provide. The company maintains strong governance principles, guided by King IV, and implemented through a Board consisting of six independent non-executive directors, four executive directors and two appointed non-executive directors, being representatives of Airports Company of South Africa (ACSA) and South African Maritime Safety Association (SAMSA) respectively, as well as a company secretary. All non-executive directors, as well as the company secretary, provide their service free of charge.

1.7 Strong oversight

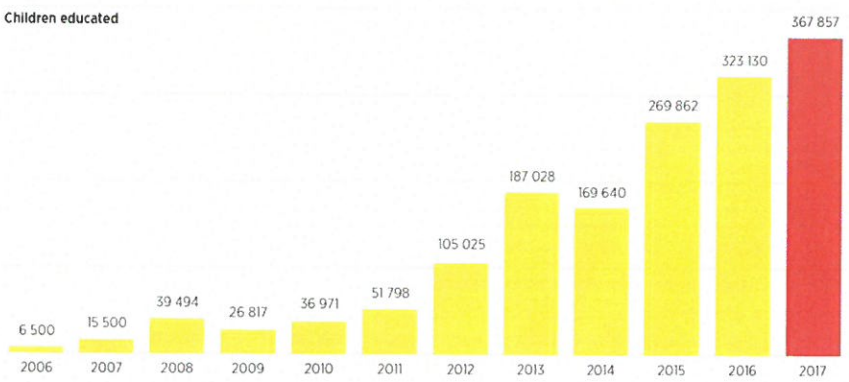
Both the internal and external audit functions are performed by independent service providers. The day-to-day management of the NSRI is executed by a Chief Executives Officer (CEO) and three executive directors, each responsible for Operations, Fundraising and Marketing, and Financial Management respectively. The Board approves the annual budget presented by management and provides the necessary authority for expenditure. Expenditure outside of the approved budget must be approved by the Board.

2. Operational and Rescue Activities and/or Results

2.1 Operations

2.2 Secondary Prevention – Rescue

Every day and some nights, Sea Rescue volunteers set aside their professional or personal lives to selflessly respond to a call to rescue people or animals they have never met and who may never know them. Collectively they directly prevented 1224 fatal drownings this year, an extraordinary achievement reflecting an unwavering commitment to society.



The NSRI is striving to always be seen as a relevant organisation, and even though it continues to make the most impact in communities by providing rescue services, it is finding that it is also able to make a difference in many other ways. One of the methods is to increase the size of its family, by creating a place to serve and learn, for people of all ages and walks of life.

Traditionally, volunteer crew were able to join and begin their training at the age of 16. The NSRI created a junior academy at various stations around the country, to make itself more welcoming to youth organisations by exposing youngsters as young as 12 to the NSRI family. This provides a wonderful opportunity to gain skills such as first aid, navigation, rope work and others in preparation for either joining a NSRI base as a fully-fledged rescue crewperson later on, or as preparation for a water-based career. In addition to the "hard" skills offered, training by mentorship provides personal safety, leadership, and teamwork and communication skills, as valuable life lessons.

The benefits for the young volunteers are enormous and the gain for NSRI is a long-term investment in creating a pipeline of future volunteers, and enabling whole families to join the NSRI. Ultimately, it is about creating passionate supporters of the NSRI, in addition to safer water rescue operations.

3. Challenges and Risk experienced this year

Material issues: Material issues are those that substantially impact on the NSRI's ability to fulfil its mandate of saving lives, as measured in terms of prevention of fatal and non-fatal drowning. Its material issues are identified through a process of reviewing disclosure guidelines, consulting stakeholders, examining the external and internal context of maritime rescue in South Africa, considering discussions at Board Committee meetings, consulting volunteers and volunteer leaders and reviewing the risk environment. The Management and the Board of NSRI consider the information in this report as material to the sustainability of the organisation and the function of drowning prevention and maritime rescue in South Africa.

4. Beneficiaries

DEMOGRAPHIC BREAKDOWN OF BENEFICIARIES

	TOTAL	BLACK	WHITE	FOREIGN	UNKNOWN	ANIMALS
Lives saved	1 224	385	723	67	49	21
Children taught	367 857	366 462	1 395			
Total	369 081	366 847	2 121	67	49	21

CASUALTY TYPE	ADULTS	CHILDREN	TOTAL	OPERATIONS	FATALITIES
Coastal Hikers	11	8	19	19	1
Public Bystanders	98	26	124	131	20
Motor Vehicle Accidents	32	2	34	16	4
Aircraft	6	0	6	6	0
Swimmers	301	54	355	309	88
Divers	10	0	10	8	4
Paddlers	57	8	65	69	1
Recreational Surfers/Kiteboarders	33	2	35	43	1
Yachtsmen	119	6	125	71	1
Dingy Yachtsmen	27	0	27	16	0
Shore Angling	113	1	114	87	9
Recreational Fishermen	83	5	88	69	15
Commercial Fishermen	128	0	128	154	11
Vessel Passengers	77	0	77	39	0
Commercial Mariners	17	0	17	13	0
Total	1112	112	1224	1050	155

OPERATION TYPE	ADULTS	CHILDREN	TOTAL	ANIMALS	OPERATIONS	FATALITIES
Missing Person Search	20	8	28	0	15	4
Person Washed into Water	91	20	111	0	109	22
Drowning in Progress*	177	33	210	0	171	78
Man Over Board	5	0	5	0	4	2
Dead Body Search	13	0	13	0	21	13
People Trapped by Water	19	2	21	0	13	0
SCUBA or Snorkel Diving incident	10	0	10	0	8	4
Shark Bite	2	1	3	0	2	1
Medical Illness and Injury (Blue bottle stings)	89	29	118	2	122	11
Motor Vehicle Accident	37	2	39	0	16	4
Ship Medical Evacuation	66	0	66	0	49	0
Vessel: Equipment/Crew Transfer	2	0	2	0	2	0
Vessel in difficulty: capsize	61	5	66	0	32	12
Vessel in difficulty: taking on water	72	0	72	0	21	0
Vessel in difficulty: grounding / washing ashore	28	0	28	0	17	0
Vessel in difficulty: vessel collision	3	0	3	0	2	0
Vessel in difficulty: engine trouble / loss of steerage	144	8	152	0	124	0
Vessel in difficulty: taking on heavy seas	36	4	40	0	19	0
Missing vessel	3	0	3	0	7	0
Fire Fighting**	221	0	221	0	241	0
Inland Flooding	11	0	11	0	6	3
Aircraft ditching	2	0	2	0	2	0
False Alarm	0	0	0	0	27	0
Animal Entanglement	0	0	0	19	20	1
Total	1112	112	1224	21	1050	155

** Sea Rescue responded to 100 people in rip currents in 2017. We rescued 43 people and 57 drowned before rescue crews could get to them.*
*** 2017 Knysna and Plett fires*

5. Significant or Noteworthy SAR Incidents of the year

5.1 68 people rescued off sinking ferry

Quentin Botha, NSRI Table Bay station commander, said: At 14h18, Friday, 15th September, NSRI Table Bay duty crew were activated by the Transnet National Ports Authority (TNPA) following a Mayday distress call from the Robben Island passenger ferry *Thandi* reporting to be taking water.

The NSRI Table Bay sea rescue craft *Spirit of Day* and *Spirit of Vodacom* were launched to join the Robben Island passenger ferry *Madiba 1* that were already on the scene. NSRI Bakoven launched the sea rescue craft *Rotarian Schipper*, NSRI Hout Bay launched the sea rescue craft *Albie Matthews*, NSRI Melkbosstrand launched the sea rescue craft *Spirit of Brenda*and a private boat, NSRI Headquarters launched the sea rescue craft *Spirit of Round Table,* the Police Sea Borderline launched 2 Police craft and the TNPA Pilot boat "Petrel" responded.

The AMS/EMS Skymed rescue helicopter and the ASR (Air Sea Rescue) and a SAAF (SA Air Force) Oryx helicopter were activated. Skymed was later stood down and the SAAF Oryx remained on alert but was not required to respond. Cape Town Fire and Rescue Services dive unit, WC Government Health

EMS rescue and ambulance, City of Cape Town Disaster Risk Management, ER24 ambulance services and Netcare 911 ambulance services responded. A Police Dive Unit were placed on alert.

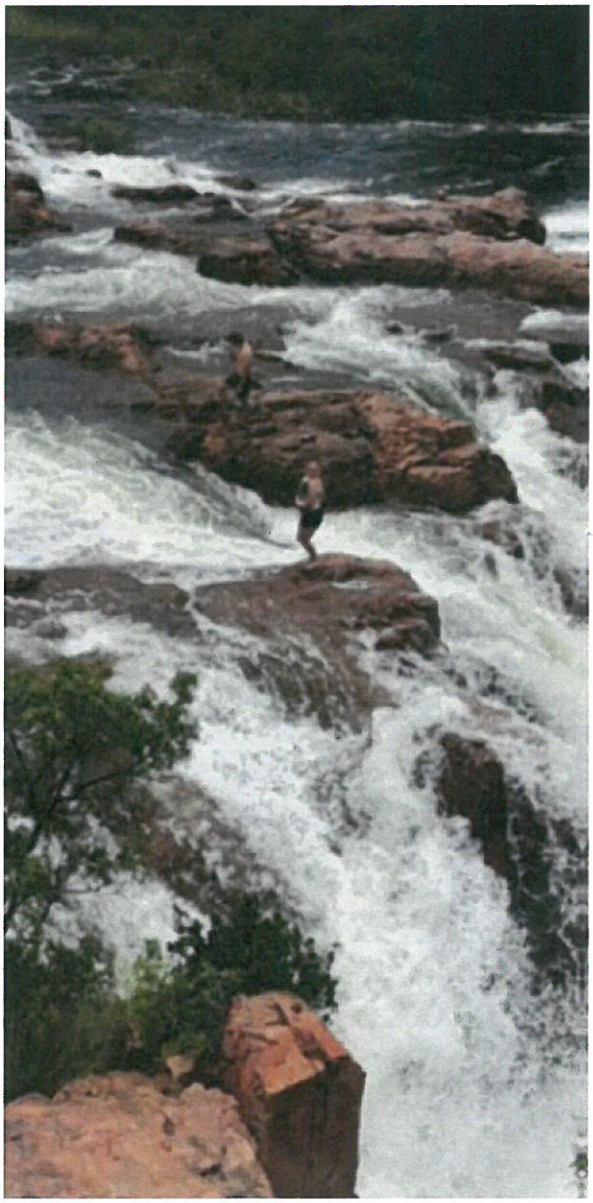
The MRCC was alerted and Telkom Maritime Radio Services assisted with radio communications during the operation. There were reported to be 68 passengers in total which included the 4 crew of the ferry. A JOC (Joint Operations Control) was set up at the Transnet National Ports Authority Control Tower and rescue craft were directed from the NSRI Table Bay rescue base.

On arrival on the scene the ferry was found to be listing to one side from water intake from unknown causes and some of the passengers were found to be in life rafts. The remaining crew and passengers were on the deck of the casualty ferry. All passengers and crew of the casualty ferry were transferred by NSRI "Spirit of Day" from the casualty ferry and from life rafts onto the *Madiba 1* and onto NSRI's *Spirit of Vodacom* and brought to the Port of Table Bay where they were assessed by paramedics and only a few passengers were treated for mild hypothermia. One passenger from the ferry *Thandi*, a woman, was transported to hospital by ambulance in a stable condition suffering from back pain. One passenger from the ferry *Madiba 1*, a woman, was transported to hospital by ambulance in a stable condition suffering from anxiety. All passengers and crew are accounted for. As the rescue operation progressed some of the resources were stood down no longer required. SAMSA was alerted and an investigation into the cause of the vessel taking water would be conducted. Efforts were made to recover the ferry.

5.2 Teenager rescued from rapids after dam water sluice gates opened

At 12h25, Tuesday, 19th December, NSRI Witbank Dam duty crew were activated following reports from an NSRI Witbank Dam trainee who was on the scene at the Witbank Dam water falls downstream from the dam water sleuth on the Olifants River in the eMalahleni Nature Reserve where a group of local 7 males and females, aged between 17 and 25, were swimming in the river when the sluice gates were opened causing rapids and catching the group off-guard and trapping a 17 year old female on rocks in the middle of the rapids in the Olifants River.

The NSRI dispatched its swift water rescue team and a Police Dive Unit, Police Search and Rescue team and Legacy Emergency Specialists responded. Once on the scene an NSRI rescue swimmer was posted on rocks near to the female who was reassured and advice given on how to brace against the flowing water – that NSRI rescue swimmer geared up to be prepared to jump in to rescue the teenager if it became necessary – and a rope system was set up in case she may have swept off the rocks and down the waterfalls by the swift water rapids while NSRI rescue swimmers and the Legacy Rescue Specialist team on each side off the river made preparations for a rescue effort.



The Legacy team assisted together with NSRI rescue swimmers to devise a swift water rescue plan in case it became necessary while members were dispatched upstream to the Dam wall where Municipal authorities agreed to shut down the water sluice gates to stem the water flow but allowing us only a short window period in which to execute a rescue operation once water flow subsided before they would be forced to reopen the sleuth to prevent water pressure.

Once water flow subsided NSRI were able to successfully rescue the teenager. The Police team arrived as the female was being rescued and they assisted in the debriefing. The teenager was not injured and no further assistance was required.

Image credits:

Teenager: NSRI Witbank Dam

Thandi Rescue: NSRI Table Bay/Paula Leech

E2. MOUNTAIN CLUB OF SOUTH AFRICA (MCSA)

1. Overview of the MCSA's Contribution to SASAR's Objectives

The Mountain Club of SA Search and Rescue (MSAR) comprises of six teams spread throughout the country. Three teams, namely Cape Town, Hottentots Holland and Garden Route, are based in the Western Cape. The Eastern Cape team is based in Port Elizabeth and East London. The KwaZulu-Natal team is based in Durban, Pietermaritzburg and the Drakensberg, and the Gauteng team in Johannesburg and Pretoria. All six teams are on a 24-hour callout standby basis, 365 days per year, and are trained to manage and execute search and rescue operations in mountainous areas. All teams are available as a resource to SASAR to assist in missing or downed aircraft incidents and can be tasked individually or collaboratively.

2. Operational Objectives or Activities for 2017/18

The MCSA collates statistics and reports on its activities on a calendar year basis ending in December. During 2017 the number of callouts across all types of incidents which were responded to by the MSAR (most of which related to recreational activities in the mountains) decreased slightly compared to 2016. However, it is significant that the number of calls for assistance increased by 50% but resulted in no activation of the teams, the incidents having either resolved themselves or were dealt with by another agency as its expertise was not required. A possible explanation is that the MCSA has developed an awareness program which makes the public more aware of its services.

Collectively the teams received 340 calls for assistance of which 214 resulted in a team responding and this totalled over 4200 man hours of rescue work. The teams continued to support ARCC and received calls in respect of three aviation incidents during the year, two of which resulted in team activation.

3. Achievements and Results of the Year

The MCSA MSAR conducted the biennial training exercise at Sanddrif in the Cedarberg from 1st – 5th November 2017. The exercise involved 125 people making it probably the largest MSAR training exercise ever held in South Africa. The meet was supported by members of all six MCSA teams, the South African Air Force (SAAF), members of the Metro Police and K9 Search and Rescue, as well as the Off Road Rescue Unit and HAMNET. International participation was also introduced at this exercise with participation of a MSAR expert from USA as well as learning opportunities for members from Ugandan and Kenyan guiding companies who are also volunteer rescue team members.

The participants were divided into five teams and each team conducted a single scenario every day of the exercise. The scenarios were deliberately set to be extremely challenging and leadership was rotated amongst the young up-and-coming rescue team members and the more senior members given more of an oversight role. The net result was an excellent training meet where many ideas were shared and difficult challenges solved, as well as the overall cohesion and competence of the national MSAR team being greatly enhanced.

Figure 1 Some of the Participants at NATSAR 2017, Cedarberg

Standardisation of equipment across the teams continues be pursued and those teams that work with SAAF Oryx aircraft are now all equipped with a dedicated safety rig for team members while in the aircraft.

The MCSA was accepted to be represented on the International Commission for Alpine Rescue (ICAR) Terrestrial Technical Commission. This brings the number of commissions on which the MCSA (or MSAR) is represented to three, the others being medical and flight rescue. The MSAR participation on these commissions enables the MCSA to remain abreast of the latest international developments in mountain rescue, which is then disseminated to the individual teams.

4. Challenges and Risks experienced in the year

The team continues to maintain excellent relationships with all the roles players involved in mountain search and rescue and faced no major challenges during the year.

5. Significant or Noteworthy SAR Incidents of the year

In July a major rescue operation was conducted by the Gauteng team at the Haartebeespoort cableway, which had an equipment fault resulting in 15 people stranded in 3 gondolas and over 150 people stranded at the upper cableway station. All were brought to safety.

E3. OFF ROAD RESCUE UNIT (ORRU)

1. Overview of ORRU's Contribution to SASAR's Objectives

ORRU, now in its 28th year of existence as a volunteer organisation, has continued to grow and consolidate its position within the regions that it is represented, namely Gauteng, Mpumalanga, (two teams) Western Cape and Limpopo. We are currently in the process of hopefully re-establishing a presence in the Eastern Cape.

Each one of these regions has teams that provide a land based, SAR capability within their geographic reach and continues to train to ensure that they are ready for any rescue mission including when called by SASAR via the ARCC.

2. Operational Objectives or Activities for 2017/18

ORRU has continued to train members within the regions over the past year. The list of training activities is too numerous to detail but it can be confirmed that all core skills continue to be exercised and more.

The membership in each region has grown, with a consolidation of members within the Western Cape where there were members who had become dormant but remained on the nominal roll. The Training and Membership team in Western Cape have now confirmed who is still keen to belong and train and the team is now working together. Limpopo Province is still a small team but has made valuable contributions within the province and works very closely with the SAPS SAR team in the province.

The Lowveld team based in Mbombela continues to grow and is very involved in all aspects of SAR in their region. The Middleburg team in Mpumalanga is still small but the team is keen and work closely with local SAPS and EMS. Gauteng is by far the biggest resource with over 90 active members.

3. Achievements and/or Results of the Year

During the year under discussion ORRU has amended its constitution to create a National Council made up of the Regional Chairmen and a group of elected members to work together to ensure that ORRU standards are set and maintained across all regions. These new constitutional amendments were also to bring the body in line with good accounting and control standards as required by SARS. SARS have accepted and approved the constitution and its non-profit organisation status has been confirmed with SARS.

Gauteng had an ageing MCP (Mobile Command Post) trailer that was no longer big enough for the requirements of the Gauteng team. This MCP has now been sent to the Limpopo team who are

refurbishing the trailer for their use in Limpopo. The Gauteng team embarked on a new MCP project over two years ago and the new working MCP his now operational and being used. There are still minor modifications to be made to improve workability but the over R250,000 that is has cost has been well spent and the new MCP will serve the needs of the team for many years to come. The Lowveld team are still making use of the MCP also from Gauteng and passed on to that team a few years back.

The finances across ORRU are in good hands and the successful audit confirms that the organisation is financially stable and able to meet the needs going forward. The teams across the country engage in various fund raising activities to ensure that the regions have the required resources to maintain team equipment and training needs.

4. Challenges/Risks experienced in the year

Most challenges or risks identified in the regions are small and do not affect the ongoing SAR capabilities. The teams in the regions have committed members with a strong leadership structure. The long serving members are able to provide the training and skills transfer needed to ensure the ongoing growth in each region.

The diminishing time spent training with the Air Force is of concern, as any rescue mission involving flying is dangerous by its very nature, and the only way to mitigate these risks is by effective and regular training. While ORRU understands the financial and budget constraints of the Air Force, the lack of good regular training with the Air Force, may well lead to safety concerns going forward. In all other core skills ORRU has strived to maintain and improve the readiness of the teams.

5. Significant or Noteworthy SAR Incidents of the year (if any).

ORRU has been involved in over 100 rescue missions across the country in the year under review. These missions vary from lost hikers to injured mountain climbers, to a heart attack in the KNP. ORRU along with the Mountain Club SAR team were involved in the rescue of tourists trapped in the cable car system in Hartebeespoort in July 2017. Sadly, body recoveries have also formed a part of the activities over the years. While there were many rescues none of them should be singled out as different from the others for this period.

E4. HAMNET

1. Overview of Contribution to SASAR's Objectives

Hamnet's role and responsibilities as a member of SASAR is to provide an auxiliary mode of communications between the role players in the SAR. Often in the event of a disaster or mass emergency, cellular and radio networks become compromised limiting or curtailing communications in the rescue. Furthermore, organisations like police, Traffic Department, CPF's, emergency services and the like are unable to talk to each other. Hamnet with its range of frequency are able to provide this much needed facility. This service is often provided away from a regular source of mains power and also in the field and not reliant on fixed infrastructure such as cell towers and the like. In terms of the SASAR Policy Manual, Hamnet aims to fill the space referred to in Chapter 6, paragraphs 1 and 2, as well as assist where possible in the other Paragraphs.

2. Operational Objectives or Activities for 2017/18

Operational objectives pursued by Hamnet for 2017/18 has been to foster better relations with Disaster Management units within respective Provinces. What has been prominent in sub reports from regions is their interaction with Disaster Management units in Gauteng North and South, Western Cape, Kwazulu Natal as well as Northern Cape Disaster Management.

Currently there is an MOU between Gauteng Hamnet and Ekurhuleni Metropolitan Council. The unit has also been involved with the West Rand (Region 3) Disaster Management Advisory Sub-Forum. In December of 2017, there was a severe weather event on the West Rand and was later declared a disaster. The unit attended all meetings and provided assistance where possible.

Other units in the major towns all have close relationships within the Emergency services and police of that area. For instance, Hamnet Western Cape often help to operate the Metro's communications bus which is deployed to emergency scene's such as fires and flooding. Also with respect to the Kwazulu Natal unit, a joint effort with Highway Amateur Radio Club and Hamnet KZN to establish a new VHF repeater site at Mount Moriah (New Germany outside Pinetown) Site operates on 145.7625 and is giving good coverage in the area. Used for events when the 145.625 repeater is in use for bulletins where a number of Hamnet events occur on a Sunday when other repeaters are occupied with club activities.

In an effort to keep members up to date with events/activities the unit has now established a WhatsApp group. They post regular information on accidents, traffic obstructions, accidents, civil unrest and such similar information. This has proved to be very successful.

Hamnet KZN has engaged with Ethekwini Municipal Disaster Management in an effort to formalise their involvement with them and incorporate their members into their volunteer programme. They are hoping to sign a MOU in the near future.

3 Achievements and/or Results of the Year

Hamnet Western Cape assisted with communications and tracking at the Mountain Club of South Africa's National Meet, held in the Cederberg in November 2017. This helps with real world experience of using the tracking equipment as well as forging better working relationships between MCSA and Hamnet.

A number of smaller training sessions were attended throughout the year and were hosted by Wilderness Search & Rescue (WSAR) affiliated organisations.

Hamnet Eastern Cape together with the Mountain Club of South Africa and the South African Air force, undertook a mountain rescue exercise in the Groendal wilderness area just outside Port Elizabeth. This was the second time the exercise was held and took the form of a mountain rescue exercise in the Groendal wilderness area just outside Port Elizabeth. Hamnet provided portable repeaters and radio communications training to the mountain club rescue units. As such, each radio operator was a fundamental member of the rescue party.

Participation in the SARL Hamnet Simulated Emergency Contest held on 05 March 2017. ZS5DCC achieved 2nd place in the Single Operator Base Station category. Hamnet achieved 3rd place in the same contest held on 23rd February 2018 in the Single Operator Portable category.

The following is a summary of Hamnet activities:

- Rescues = 71
- Exercise = 19
- Events = 15
- Training = 2
- Exhibition = 1
- Meeting = 1

Total = 109

4. Challenges/Risks experienced in the year

During the response of the Knysna fires it became apparent that the radio room at the disaster centre in Tygerberg was not well enough equipped to deal with the conditions experienced. Along with this the communications are required to be bi-directional and smaller centres are also not well equipped. Currently they are looking to improve facilities as well as create easily deployable assets to areas affected so that this does not happen again.

Hamnet has always used community events for exercises to train and test personnel out in the field. What is happening is that these events are becoming more of a real life exercise in that more and more people are falling ill or being injured for various reasons such as poor fitness to name one. Hamnet has on two occasions been one of the first responders on scene where a rider has passed away. This has necessitated a push towards more first aid training for the units to offset the above increase in injuries.

Although Hamnet is around 250 to 300 members, this is spread over 9 provinces. Some provinces are bigger than others in members, but one of the key challenges is having enough members reporting to an incident or exercise, especially considering most are volunteers are needed at work. Even for community events, it can be a challenge to get a full compliment.

Unfortunately, Hamnet is not alone in the risks posed by criminal activity, and they have to be mindful when deploying their members to isolated areas when providing communications at events. In order to mitigate the risk, multiple operators are grouped with other volunteers/marshals to provide some degree of the safety in numbers approach. Risk is also posed to isolated equipment high sites with cable theft and vandalism an ever present concern.

5. Significant or Noteworthy SAR Incidents of the year (if any)

There have been no significant SAR Incidents this year as such, however, units have been involved with many rescues, mainly along the South African Coast, including an injured runner in a Durban running event. A drowning in East London, as well as the many rescues off the mountains around Cape Town where tourists unfortunately underestimate the weather and the terrain. By referring to the summary of

activities outlined in paragraph 3 above, it can be seen that Hamnet assisted with 71 rescues, more specifically in the Cape Town area.

E5. K9

1. Overview of Contribution to SASAR's Objectives

K9 Search and Rescue's role is to provide trained dog and handler teams for SASAR operations with regard to wilderness searches for missing airplanes, crew and passengers. To this end the organisation has 9 qualified air-scenting dog and handler teams; and one qualified trailing dog and handler team.

Two new areas of training have been pursued in the past year and the unit has trained one of the qualified air-scenting dogs to recognize and find aviation fuel, burnt aviation fuel and burnt remnants of airplane parts. The unit has also made progress in training dogs for water searches and has had joint training with the NSRI to orientate dogs and handlers to water searches.

2. Operational Objectives or Activities for 2017/18

Extensive training has continued through 2017 and 2018. The main activity of both branches is the weekly training sessions for dogs and handlers, maintaining the current operational capabilities of qualified teams, and training up new recruits. These weekly training sessions are held in wilderness terrain and various wilderness skills are applied.

The units have begun to train trailing dogs which are able to identify a specific individual's scent and follow their trail. While there is at the moment only one dog and handler team qualified, there are a number of new dogs training in this field.

Whenever opportunities arise, joint training sessions are held with other organisations, such as the Mountain Club of SA – Search and Rescue (MSAR), Wilderness Search and Rescue – Western Cape,

Cape METRO and various South African Police and Emergency Management Services in Gauteng and the Western Cape.

Two new areas of training have been pursued in the past year and the unit has trained one of the qualified air-scenting dogs to recognize and find aviation fuel, burnt aviation fuel and burnt remnants of airplane parts. The unit has also made progress in training dogs for water searches and has had joint training with the NSRI to orientate dogs and handlers to water searches.

Western Cape

The branch trains almost every Sunday as a team. In addition members attend various training activities to keep rescue and wilderness skills current and the unit conducts and annual overnight training.

The unit is actively involved with other organisations in WSAR (Wilderness Search and Rescue) and attend as many of the courses and events that introduce members to overviews of other disciplines within the SAR environment, which enables K9 to work more cohesively with other teams when they are on active call-outs.

These include METRO, USSR, Helderberg Mountain Club, 4 Wheel Drive Club, EMS and Logistics (Delta). For the past 3 years K9 SARA has been actively involved with the METRO training program in field operations and incident management including training with them during their annual 48hr training evaluations.

The unit attended a snake aversion training with their dogs in which the dogs are taught to recognize the smell of snakes and leave them alone.

Gauteng

Over 45 regular Sunday morning training sessions took place over this time period – amounting to over 1500 person (and dog) hours of training. While the unit mostly trains in air scenting the last year has seen the addition of a qualified trailing dog and several trailing dogs in training. In addition, the unit has done several sessions of night training and water training including water and boat orientation for handlers and dogs with the NSRI.

The unit continues with wilderness training including both theory, navigation training and four wilderness training weekends being run as well as a training session taking teams up the Hartebeespoort cableway.

3. Achievements and/or Results of the Year

3.1 Resources Available

Qualified dog and handler teams

In summary, there are 10 qualified dog and handler teams nationally. Nine of these are air-scenting dogs and one is a trailing dog. Two of these dog and handler teams are qualified for collapsed structure searches. One of the qualified dogs is trained to scent jet fuel and burnt jet fuel. Several members of the

Western Cape unit are trained in operational and incident management with the Cape Town Metro and WSAR.

3.2 Aeronautical readiness

There has unfortunately been very little helicopter safety training and no flying time by members. Due to extremely limited training availability by SAAF of volunteer organisations all training time in Gauteng has had to be utilized by the most experienced members of MSAR and ORRU.

In the Western Cape 8 handlers have attended helicopter operation briefings with the Air Mercy Service in conjunction with MSAR and the operational protocols set by AMS and MSAR. Facilities and opportunities for helicopter training are restricted due primarily to the use of the AMS helicopter, and lack of opportunities to train with the SAAF.

3.3 Wilderness readiness

All members of the organisation are trained in wilderness search and rescue skills – however levels of experience vary. A number of members have advanced skills in wilderness search and rescue including active membership and involvement in search and rescue organisations such as Mountain Search and Rescue and the Western Cape Wilderness Search and Rescue (WSAR)

3.4 Trained medical personnel

Currently the Gauteng branch has a number of trained medical personnel including a qualified Advanced Life Support Medic and two Intermediate Life Support Medics. Three members of the team have Wilderness First Aid (Level 3) certificates and a further three have First Aid Level 2 qualifications.

4. Challenges/Risks experienced in the year

4.1 Availability of qualified dogs

K9s greatest challenge is the ongoing production of dog and handler teams. They have had several older dogs retire in the past year and two operational dogs have been on limited operational duty due to injuries. The organisation is expecting to qualify an additional 3 dogs before the end of the year, so its operational availability is not expected to be compromised.

4.2 Aeronautical readiness

Helicopter safety orientation and training as well as flying time for handlers and dogs is one of the organisation's biggest challenges. K9 is currently investigating the possibility of some helicopter orientation time with a private company that trains anti-poaching dogs. Other private companies are being approached to donate some helicopter time.

5. Significant or Noteworthy SAR Incidents of the year (if any)

5.1 Callouts and Rescues Attended

The following is a list of callouts, searches and rescues attended by the branches. In total the Association's branches have been directly involved in 8 search operations during the reporting period. Several other stand-by calls were received by the organisation. The Western Cape branch has four members being trained as WSAR managers and several call-outs were attended by these members in this capacity. However, there were no specific callouts, searches and rescues related to AMSAR services.

SECTION F:

SAR COMMUNICATIONS PERFORMANCE INFORMATION

1. MARITIME SAFETY INFORMATION (MSI), WATCH-KEEPING (RADIO) AND COSPAS-SARSAT SERVICES

1.1 Overview of Services Provided

Telkom has been contracted to provide Maritime Safety Information (MSI) Services including Global Maritime Distress and Safety System (GMDSS) and Cospas-Sarsat Services on behalf of the Department of Transport. These services are provided in terms of the International Convention for the Safety of Lives at Sea (SOLAS) commonly known in the maritime circles as the SOLAS Convention. The services include watch-keeping, Cospas-Sarsat and Digital Selective Calling, navigation warnings, meteorological services, SafetyNet services via Inmarsat and Navtex services. In terms of the Master Service Agreement (MSA) relating to the MSI and Cospas-Sarsat Services concluded and signed in 2013, Telkom, in addition to providing the requisite services, had to upgrade the existing MSI and Cospas-Sarsat equipment.

1.2 Current Status Relating to Equipment Upgrading

1.2.1 Cospas Sarsat LUT, MCC and satellite dish

The procurement and installation of all equipment related to the LUT, MCC and Satellite dish has been completed. The system has undergone several upgrades – in fact nine to date to have all the issues experienced resolved. Cospas Sarsat system is currently fully operational. ASMCC was declared FOC (Full Operational Capability) at JC-31 in October 2017 and commissioned at CSC-59 in February of 2018

1.2.2 DSC Installation of new VHF CH70 Equipment

The DSC VHF CH70 equipment installation kicked off in around June 2017 and since then Telkom SA together with the vendor and several other role players have made significant strides towards getting this complete solution completed before the end of March 2018. These included the manufacturing, procurement of all specialized equipment from OEM's, FAT's, importation and licensing of equipment, initial site surveys, of all 32 remote stations along the South African coastline from Alexander Bay on the west to Kosi Bay in the east. The installation of the equipment began early 2017 after extensive site readiness preparations which ran for the best part of two months.

The installation and testing of the switching equipment at CT Radio site has been completed. The installation and testing of the workstations followed and has been completed. The installation and testing of all of the VHF equipment on the West coast and Eastern Cape coast and the coast of KZN have all been completed. Due to acts vandalism and theft of equipment and batteries at one site in Kwaluvundu, the container was moved to a new site as a security measure. The testing and installation of the equipment at this new site is ongoing and may only be completed by end of April. The old equipment is still operational at Mazzepa Bay to cover this gap in the area. The installation of the HF transmitter and receiver equipment at all the HF sites have also been completed.

Following the completion of the equipment upgrade prior to the expiry of the contract save for equipment at Kwaluvundu, SASAR requested the Department to commission SAMSA during the 2018 reporting year to conduct an audit and tests on the newly installed equipment in terms of the provisions of the 2013 Master Service Agreement between the DOT and Telkom.

2. Summary of Activities

MARITIME RADIO OPERATOR PRODUCTIVITY												
2017/18	ROUTINES	DISTRESS	URGENCY	MEDICO	SAFREPS	DSC TESTS	SafetyNET	WX F/CASTS	NAV WNGS	NAVTEX	406 BEACONS	AMVERS
Apr-17	100%	24	14	7	3520	10419	259	90	60	540	73	7
May-17	100%	20	11	10	3937	9695	281	93	62	558	63	56
Jun-17	100%	20	2	11	3853	9664	258	90	60	540	67	14
Jul-17	100%	29	7	9	4048	9939	269	93	62	558	63	27
Aug-17	100%	16	5	18	4274	9269	273	93	62	558	74	43
Sep-17	100%	18	6	6	4223	10286	258	90	60	540	63	42
Oct-17	100%	16	6	10	3686	7576	277	93	62	558	46	9
Nov-17	100%	18	6	17	3570	11557	253	90	60	540	39	16
Dec-17	100%	18	6	18	3645	10587	278	93	62	558	38	12
Jan-18	100%	26	8	15	3692	9909	264	93	62	558	57	24
Feb-18	100%	14	5	18	3363	9083	242	84	56	504	58	15
Mar-18	100%	29	6	11	3551	9971	276	93	62	558	76	20

3. Significant/Noteworthy Incidents

3.1 Cospas-Sarsat detections

3.1.1 Cessna U206G – ZS-ANA

On the 22 January 2017 at 1434 UTC, ASMCC made detection of an ELT registered to call sign ZSANA, Cessna U206G. The detection information was forwarded to the ARCC. After ARCC's investigation, it was established that the aircraft had crashed on take-off at Mokopane base and the pilot was ok. Rescue services were at the scene trying to put out the fire.

3.1.2 Robinson R22 Beta – ZT-RAS

On the 25 February 2017 at 1933UTC, the ASMCC made detection of an Initial Unlocated alert for aircraft Type: Helicopter ROBINSON R22 BETA callsign: ZTRAS. The detection information was forwarded to the ARCC for investigation. At 1950 UTC, the ARCC confirmed and advised the ASMCC, helicopter ZTRAS crashed earlier today close to Port St John.

3.1.3 Aircraft crash - Urara airfield, Virunga, DRC

On the 22nd April 2017 at 0626UTC, the ASMCC made an initial detection of a USA coded ELT. They confirmed position 00 20.8 N 029 41.1 E (Congo) with no beacon registration information available for the detected ELT on Telkom's database. It has been confirmed that the aircraft suffered a crash on 22nd April at Urara airfield, Virunga, DRC. The aircraft had 3 persons on board and the pilot was seriously injured.

3.1.4 REIMS-CESSNA F152 - ZS-SVO

On the 01st June 2017 at 0940 UTC, a 406 ELT was detected for aircraft ZS-SVO registered to a REIMS-CESSNA F152.

It was reported that the aircraft made a very heavy landing at Lanseria. There were no reported casualties.

3.1.5 Training Helicopter – ZT-RAC

On the 14th June 12017 at 1034UTC, the ASMCC received a MEO detection of an ELT registered to ZT-RAC. After investigation, it was confirmed the training helicopter crashed and all crew climbed out safely. No reason for the crash was given.

3.1.6 SAAF Oryx helicopter

The helicopter went down just outside the Huguenot tunnel on the Worcester side. (Supplied, City of Cape Town)

On the 10th December 2017 at 1203UTC, the ASMCC made detection of an ELT registered to SAAF Oryx Helicopter C/S 1236 in Encoded position: 3343.60S 01911.00E

The ARCC determined that this helicopter crashed in the Worcester area and apparently hit some power lines There were apparently 8 persons on-board and no fatalities were reported at the time.

3.1.7 Piper PA-28R-200 Arrow – ZS-SEU

On the 19th December 2017 at 1150UTC, the ASMCC received a MEO detection for an ELT registered to PIPER PA-28R-200 ARROW aircraft call sign ZSSEU.
Position DOA: 2742.8S 02946.7E - Drakensberg - vicinity - Newcastle - Kwazulu Natal

The ASMCC determined that this aircraft has made an emergency landing with 2 persons on-board.

3.1.8 SAPS Airwing aircraft

On the 01st January 2018 at 0807UTC, an ELT registered to the South African Police Service Airwing, based at Durban International Airport, was detected in position 29 00.0S 029 15.9E with expected accuracy and altitude unknown. DOA position was approximately 12km NE of Champagne Castle peak in the Drakensburg Mountains, KwaZulu Natal.

The ARCC reports the helicopter has crashed in the mountains.

3.1.9 9J-HEP

On the 05th March 2018 at 0800UTC, the ASMCC detected an ELT for Zambian registered aircraft 9J-HEP in position 11 40 South 024 30 East. The ARCC informed the ASMCC that the aircraft crashed with 1 fatality.

3.1.10 Yacht Quicksilver

On the 29th March 2018 at 0215UTC, the ASMCC received a detection via MEO and GEO in Position: 3241.13S 02823.33E in the vicinity Kei River. The EPIRB is registered to the Yacht Quicksilver, call sign ZR9735. The MRCC advised that there were 3 survivors in life rafts. Yacht semi-submerged.

Other significant EPIRB detections are reported on under the maritime operations performance report and incorporated in the summary of activities in paragraph 2 above.

SECTION G:

AMSAR

FUNDING

1. SAR Funding

SASAR's activities are funded from public funds and its budget form part of Vote 35, Department of Transport. Other sources may come in a form of sponsorships/donations from the aviation and maritime industry for specific projects or purposes. No sponsorships or donations received during the year under review

2. Statement of Financial Performance

The statement of SASAR's financial performance for the period 01 April 2017 to 31 March 2018 is indicated below:

REVENUE	**2016/2017**	**2017/2018**
Voted Funds	63 446 000.00	61 779 000.00
Transfer and Subsidies	10 609 000.00	15 633 000.00
Satellite Tracking System (earmarked)	100 000 000.00	
TOTAL REVENUE	174 055 000.00	77 412 000.00
EXPENDITURE		
Current		
Compensation of Employees	2 801 230.00	3 156 498.00
Goods and Services	61 575 578.00	58 149 514.00
Financial Trans in Assets & Liabilities	-	-
Transfer Payments	62 238 000.00	15 633 000.00
Provincial & Local Government	-	-
Foreign Governments & International Organizations	482 000.00	403 319.00
Total Current Expenditure	**127 096 230.00**	**77 342 331.00**
Capital		
Machinery and Equipment	89 296.00	80 353.00
Total Capital Expenditure	89 296.00	80 353.00
TOTAL EXPENDITURE	**127 096 230.00**	**77 422 684.00**
NET DEFICIT/SURPLUS	46 869 474.00	-10 684.00

3. Analysis of the Financial Performance Statement

SASAR's total revenue for the 2017/18 financial year amounted to R 64 954 000.00, a decrease from R174 055 000.00 during 2016/2017. The extensive decrease in revenue was because in the 2016/17 an amount of R100 000 000.00 was voted and earmarked for the implementation of the MEOSAR system. Total expenditure decreased from R127 185 526.00 in 2016/17 to R64 457 684.00 in 2017/18 mainly due to the fact that in the 2016/17 financial year, an amount of R52 160 000.00, which was part of the R100 000 000.00 earmarked for the MEOSAR system was transferred to the ATNS SOC Ltd. for initial capital outlay for this project.

It must also be mentioned that the bulk of the expenditure in the 2017/18 financial year (approximately R57 442 294. 60) went to Telkom SOC Ltd for the rendering of Watch-keeping, Maritime Safety Information (MSI) and Cospas-Sarsat services.

Transfer payments for the period under review were slightly higher as compared to 2016/2017 i.e. from R10 00 000.00 to R15 633 000.00. This was as a result of a R5 million increase of the Government Service Fee allocated to SAMSA for operating the MRCC.

Total expenditure on goods and services decreased from 61 575 578.00 to 58 149 514.00.

4 Audit Assignment

As already indicated in the preceding paragraphs, SASAR does not have a separate budget, but its budget is part of the Department's budget. The financial statement above was compiled from information obtained from the financial statements of the Department which are audited in terms of section 188 of the Constitution of the Republic of South Africa, 1996 (Act 108 of 1996) read together with sections 3 and 5 of the Auditor-General Act, 1995 (Act No. 12 of 1995).

Notes

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