



transport

Department  
Transport  
REPUBLIC OF SOUTH AFRICA



2021/2022  
ANNUAL REPORT



**SOUTH AFRICAN  
SEARCH AND RESCUE  
ORGANISATION**







**2021/22**  
**SASAR**  
**ANNUAL REPORT**

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# **SECTION A:**

## **GENERAL INFORMATION**



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## **2. FOREWORD ON BEHALF OF THE HEAD OF SASAR**

In terms of Section 22 (1) of the South African Maritime and Aeronautical Search and Rescue Act, 2002, (Act 44 of 2002), as amended. It affords me a great pleasure to provide the Minister with the 2022/2023 South African Search and Rescue (SASAR) Annual Report. The report covers both the administrative and operational activities of the organisation during the period under review.

The former being carried out by officials of the Department of Transport, commonly known as the SASAR Secretariat and the latter by operational structures, mainly the Rescue Co-ordination Centres and Sub-centres as well as voluntary organizations such as the National Sea Rescue Institute (NSRI), collectively forming SASAR.

The underlying purpose of any transport system is to move people and goods efficiently, as cheaply as possible, and safely across or through different modes such as air, land and sea. Search and rescue is a critical component of the overall safety strategy for both the aviation and maritime sectors. With this kind of responsibility, it stands to reason that the organization should be properly capacitated to undertake and deliver on its mandate.

During the year under review, the Department in partnership with the SASAR organisation, continued in its resolve to implement and execute the search and rescue obligations assumed by our government as signatory to the relevant international instruments inter alia, the Safety of Life at Sea (SOLAS) Convention, Annex 12 of the Chicago Convention and the International Convention on Maritime SAR, 1979.

SASAR, through its Executive Committee continued to track progress on the implementation of the new Medium Earth Orbit Search and Rescue (MEOSAR) system, Maritime Safety Information (MSI) and Low Earth Orbit Search and Rescue (LEOSAR) system and made critical interventions to unblock any impediments towards its successful execution. The RCCs and RSCs continued to carry out their mandate with vigour, passion and to the best of its abilities, irrespective of the major challenges they faced relating to the lack of airborne resources to conduct operations.

The Maritime Rescue Co-ordination Centre (MRCC) responded to 197 SAR Incidents of which false alerts were noted at approximately 30% and 188 lives were saved. The Aeronautical Rescue Co-ordination Centre (ARCC) resolved 361 cases at an Initial stage (INCERFA), 186 at an Alert Phase (ALERFA) and 104 at a Distress phase (DETRESFA). We are very grateful to the critical role played by our voluntary organisations and urge them to continue joining hands so that others can live.

In conclusion and on behalf of the entire management of SASAR, I would like to express our sincere gratitude and appreciation to all our existing structures or units as well as stakeholders. Through their dedication and professionalism in supporting SASAR's mandate and operations, they maintained and enhanced the image the South African Search and Rescue Organisation currently enjoys nationally and internationally. We are looking forward to another cooperative year with all the role players.



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**ZAKHELE THWALA**

**HEAD: SASAR ORGANISATION**

### **3. OVERVIEW OF SYSTEM'S ORGANIZATION AND MANAGEMENT**

#### **3.1 Mandate**

3.1.1 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 Organisation (IMO) and International Civil Aviation Organisation (ICAO) Conventions inter alia, the International Convention on Maritime Search and Rescue, 1979 and Annex 12 to the Convention on International Civil Aviation, 1944.

3.1.2 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 organizations 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 organizations and/or individuals is voluntary and dependent on an organization's ability to contribute services or assets for use by SASAR.

### **3.3 Governance and Oversight**

- 3.3.1 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 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, chair the Committee. The Act requires the Executive Committee to meet at least twice a year.
- 3.3.2 The Management Committee, composing of the Heads of the Secretariat, Aeronautical and Maritime Search and Rescue (SAR) Operations and the RCC Chiefs, assist the Executive Committee in its daunting function. This Committee could be regarded as the think tank of the SASAR Organization as it is where SAR issues are analysed, interrogated and recommendations made to the Executive Committee.

### **3.4 Operations**

- 3.4.1 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.
- 3.4.2 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**

4.1.1 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 region. This function is within the purview of the Department of Transport (DOT).

4.1.2 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 (SRRs) or areas of responsibility.

### **4.2 Vision**

The vision of the SASAR Organization 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**

4.4.1 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**

4.5.1 The South African Search and Rescue (SASAR) Organisation 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**

4.6.1 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.

4.6.2 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.

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

- a) Globalization and integration of South Africa's SAR system with other SAR systems in the region and worldwide;
- b) Development and maintenance of a SAR regulatory framework dynamic enough to adapt to changing circumstances, trends and needs;
- c) Enhancement of the profile of the SASAR organization;
- d) 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
- e) 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.

4.6.4 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**

5.2.1 Chapter 2 of the 1979 Maritime SAR Convention deals with the organization 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:

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

## **5.3 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 organization and participation in the meetings of the Programme.

#### **5.4 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.

#### **5.5 Southern African Development Community (SADC) Protocol on Transport, Communications and Meteorology**

5.5.1 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

5.5.2 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 organization with participation by all member states including consideration of available search and rescue capacity and capability, funding requirements and legal, operational and organizational 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 organization. The objective of the SASAR organization 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)**

5.7.1 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.

5.7.2 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. The 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 (JRCC) 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 Comprehensive Maritime Transport Policy (CMTP)**

CMTP Policy Statement 20 on SAR reaffirms that the 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.

## **5.9 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 provide 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 organizations of SASAR and sets clear reporting lines.

## **5.10 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.

## 5.11 Saly Portudal Search and Rescue Declaration

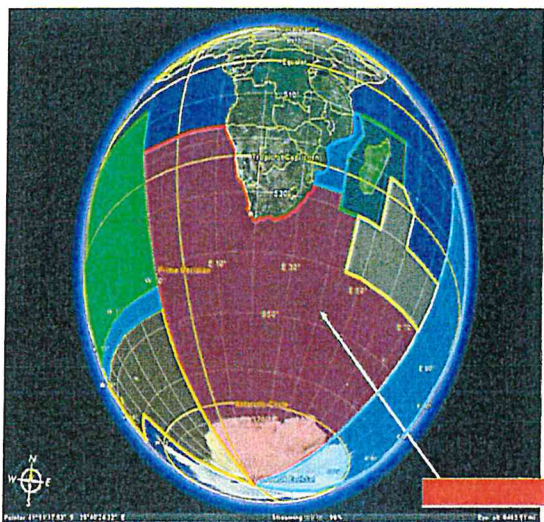
An international conference held under the auspices of ICAO and AFCAC in Saly Portudal, Senegal, in October 2004, developed a Declaration that stated inter alia as its primary conclusion:

“Optimal organization, 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:

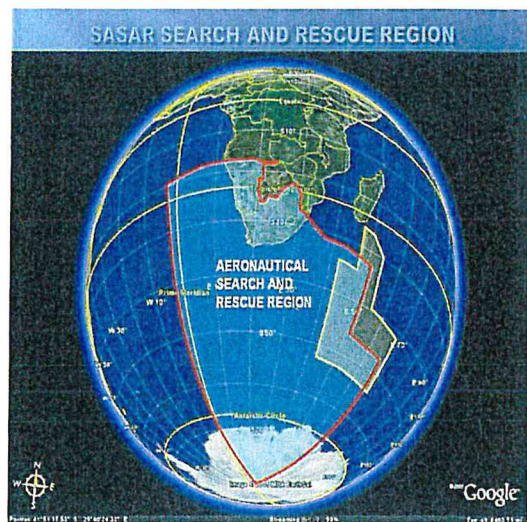
- a) signing and updating domestic and international SAR agreements;
- b) establishing sub-regional SAR provision; and
- c) establishing joint aviation/maritime operational centres, possibly multi-functional”.

## 6. Search and Rescue Regions (SRRs)

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

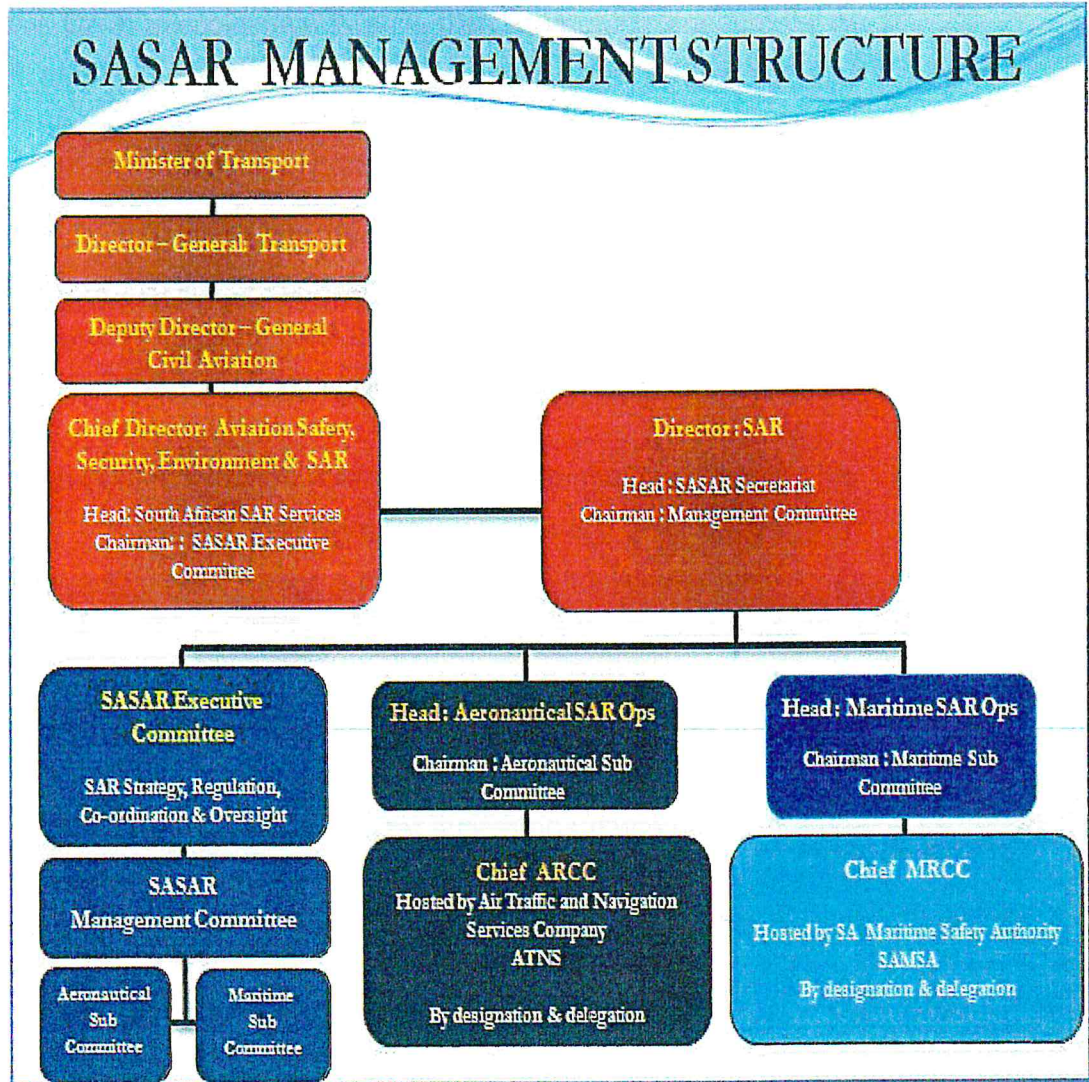


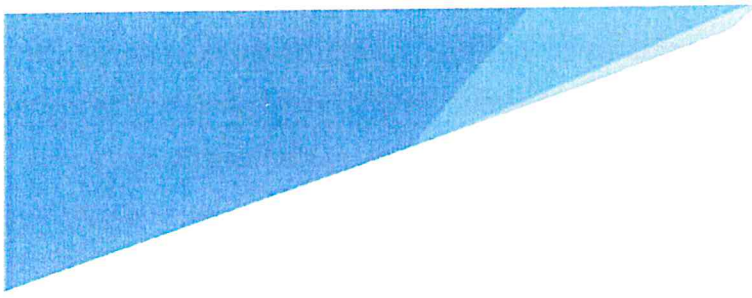
**Maritime SRR**



**Aeronautical SRR**

7. Organizational Structure





# **SECTION B:**

**AMSAR**

**ADMINISTRATIVE**

**PERFORMANCE**

**INFORMATION**

## **1. OVERVIEW OF THE ADMINISTRATIVE COMPONENT OF SASAR**

- 1.1 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 into the DOT being the custodian and champion of search and rescue services in our country.
- 1.2 SAR administration rests with the DOT assisted in this regard by the SASAR Executive and Management Committees. The DOT therefore has the overall responsibility for planning, establishing, organizing, staffing, equipping and managing the search and rescue system or programme.
- 1.3 The above functions are performed by a unit within the DOT, namely, the Directorate: SAR 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 RCCs 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 2021/2022**

- 2.1 The strategic and operational objectives of the administrative component are premised on the broad strategic directives of SASAR as per the document "SAR Vision 2030" and alluded to in paragraph 4.6.3 of Part A of this report.
- 2.2 For the 2021/22 reporting year, the development of the South African Maritime and Search and Rescue Amendment Bill, 2023, that was included in the Departmental Annual Performance Plan (APP), did not yield a positive result. The State Law Advisors advised the Department to repeal the Principal Act due to its enormous amendment and start a new Bill. Other prioritized projects, includes the tracking and monitoring of the implementation of the Cospas-Sarsat MEOSAR capability.



2.3 Note should be taken that projects that find their way into the Departmental APP as well as Business and Operational Plan are not exhaustive as individual units/sub-units of the DOT have additional projects that they are dealing with in a particular year. The activities of this component, including the projects above, are reported on under paragraph 3 hereunder.

### **3. ACHIEVEMENTS AND/OR RESULTS OF THE YEAR**

#### **3.1 SAR Governance, Regulation and Oversight**

##### **3.1.1 Draft South African Maritime and Aeronautical Search and Rescue (AMSAR) Amendment Act, 2023**

3.1.1.1 The South African Aeronautical and Maritime Search and Rescue Act, 2002 (Act No. 44 of 2002) formally established the SASAR organisation to establish measures and develop procedures to deal with aeronautical and maritime accidents/incidents. The Aeronautical and Maritime Search and Rescue (AMSAR) system or programme, as the safety net of the last resort, requires being robust, effective and efficient to deal with aviation and maritime accidents and/or incidents.

3.1.1.2 A robust AMSAR system or programme, both in its regulatory and operational frameworks, is a pre-requisite and therefore a need to revisit our legal and regulatory framework, particularly our principal Act was identified. This need was occasioned mainly by the latest developments in the global AMSAR environment.

3.1.1.3 A review of and reflection on the developments formed the basis and scope of the gap assessment exercise conducted on the founding Act.

3.1.1.4 During the period under review, the State Law Advisers advised the Department to repeal the existing Act due to its enormous amendments and start a new Bill.

### **3.1.2 Search and Rescue (SAR) Documentation Working Group**

3.1.2.1 During the period under review, the SAR Documentation Working Group commenced its work by drafting the AMSAR Bill as per advise by the State Law Advisers. The process of working on the Bill will continue in the 2022/23 reporting year.

### **3.1.3 MOUs with Resource/Signatory Organisations**

3.1.3.1 It is a requirement, in terms of SAR international SARPs, that 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. During the reporting year, negotiations with the South African Police Service (SAPS) were finalized.

### **3.1.4 MSI and COSPAS SARSAT Services Status Reports Telkom**

3.1.4.1 Telkom is contracted to provide Maritime Safety Information (MSI), Global Maritime Distress and Safety Systems (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 Life at Sea (SOLAS) commonly known as the SOLAS Convention.

3.1.4.2 Telkom concluded a 3-year contract with the Department at the end of March 2022. During the reporting year, the Department requested Telkom to consider the extension of 24 months contract to pave way for ATNS to take over the Cospas-Sarsat responsibility. ATNS has not yet finalized the installation of the required antennas as yet, especially the seventh one and therefore requested to be given 18<sup>th</sup> months to finalise the process.

### **3.1.5 Grants for SASAR Voluntary Organisations**

3.1.5.1 SASAR values the contributions being made by individuals and groups to the noble cause of saving lives, particularly when one considers that this

function is still performed as an over and above function and in most cases on a voluntary basis. During the period under review, DoT renewed the Service Level (SLA's) Agreements with 4 voluntary organisations. The NSRI requested additional funding due to most sponsors withdrew their funding due to financial climate, Treasury has increased the grant with approximately 70%.

### **3.2 SAR Strategy, Administration and Co-ordination**

#### **3.2.1 Standing Meetings**

3.2.1.1 Two ordinary SASAR Executive and the Management Committee meetings were held respectively during the period under review. Both meetings were held in September 2021 and March 2022. A wide range of issues were dealt with including policy and legislative amendments, bilateral agreements, MOUs etc.

3.2.1.2 Both Aeronautical Sub-Committee and the Maritime Sub-Committee met twice. The provisions of the SASAR Act regarding the frequency of the meetings were therefore met.

### **3.3 Global Integration and Co-operation (GIC)**

#### **3.3.1 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 DOT or its agencies or a combination of both as expected at these meetings.

<b>EVENT</b>	<b>DATE</b>	<b>VENUE</b>
36 Session: Cospas-Sarsat Joint Committee (JC-36)	8-30 September 2021	Virtual
66 Session: Cospas-Sarsat Open Council (CSC-66OPN)	16-25 March 2022	Virtual

### **3.4 SAR Infrastructural and Institutional Development**

#### **3.4.1 Cospas-Sarsat system evolution: MEOSAR system**

3.4.1.1 The Department appointed Air Traffic and Navigation Services (ATNS) as an Implementing Agent for the operation of a MEOLUT and associated MCC for a period of 5 years beginning 1st Feb 2018. The MEOSAR solution comprises of two major systems, being the Installation of a 6 channel MEOLUT based at Bapsfontein, and an associated MCC based at the OR Tambo Centre.

3.4.1.2 During the reporting year, the Department approved that ATNS integrate a 7th MEOLUT Channel that will also perform the function of a single channel LEOLUT in the short to medium term pending the continuation of the LEOSAR system by COSPAS SARSAT. The procurement processes have been initiated through this request.

3.4.1.2 In October 2021, ATNS successfully passed Site Acceptance Testing of the MEOLUT and the associated MCC and are now in the Warrantee phase to prove the stability and reliability of the system. The next steps would be to conduct the COSPAS SARSAT commissioning process for the MEOLUT and the MCC.

### **3.5 SAR Marketing and Promotion Programme (SARMAPP)**

#### **3.5.1 2020/2021 SASAR Annual Report**

In terms of Section 22 the of the South African Maritime and Aeronautical Search and Rescue Act, 2002, the 2020/21 SASAR Annual Report was presented to the Minister for tabling before Parliament. The annual report was compiled and printed in-house by the SASAR Secretariat.

#### **4. Challenges Experienced or Risks Exposed to during the year**

- 4.1 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 SAR area of responsibility. Endeavours in pursuance of getting the relevant countries to the negotiation table are always a major problem for the Department.
- 4.2 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.
- 4.3 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 some instances yielded positive results whereas in other instances, no results at all.
- 4.4 The Secretariat has doubled its efforts to put the SAR Oversight or Inspectorate unit on a proper footing and these efforts are producing some good results.

## **5. Significant or Noteworthy Events and Projects of the Year**

- 5.1 The finalization of the drafting of the South African Maritime and Aeronautical Search and Rescue Amendment Act, 2023 is another significant milestone that requires acknowledgement as this will make our regulatory framework more robust.



**SECTION C:**

**MARITIME**

**SAR OPERATIONS**

**PERFORMANCE**

**INFORMATION**

## 1. Overview of the Maritime SAR Operations Component of SASAR

The main purpose of the MRCC, as established in Platteklouf, Cape Town is to ensure effective and efficient Maritime SAR coordination and response to vessels and persons in distress anywhere with the South African 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 2021/22

The strategic and operational objectives or activities of the MRCC 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 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 The table below provides a performance report of the MRCC against the initiatives set for the year under review:

Initiative	Measurement	Target	Actual performance
Maintain a National operational SAR coordinating capability	Ensure SAR operations are conducted in an efficient and effective manner.	Respond to every SAR Incident reported to MRCC to ensure that the appropriate actions are speedily taken.	During 2021/22 reporting period, the MRCC responded to 197 SAR Incidents of which false alerts were noted at approximately 30%. 188 lives were saved during the period
		Support vessels with medical distress situations at sea far from land with advice and in certain cases with medical evacuations.	MRCC coordinated the evacuation of 104 sick or injured crew from vessels within our area of responsibility.



	Ensure that Maritime Assistance Service functions efficiently and effectively.	Support vessels at sea with non-distress related matters and keep SAMSA up to date about any unusual activity around the SA coast.	The MRCC assisted with 124 MAS incidents during the year including monitoring towing operations, relaying pollution reports and assisting vessels with other non – SAR related matters
	Ensure ISPS pre-arrival information is verified and passed on to MSCC in accordance with Nationally agreed procedures.	Monitor and verify the reception detail of all pre-arrival reports from vessels visiting SA ports and pass on to MSCC for further action.	The MRCC processed 18451 pre-arrival application messages to the Maritime Security Coordination Centre (MSCC).
	MRCC Cape Town is the custodian of the SA Cospas-Sarsat beacon database.	Ensure Cospas-Sarsat beacon database up to date and available on 24-hour basis.	MRCC is maintaining the national database as at 31 March 2022 of 7578 beacons. Daily updating continues in terms of new registrations as well as verification of existing data.
<b>Develop and implement SAR coordination capability in the region</b>	Ensure sustained SAR co-ordination training courses established at MRCC for National stakeholders.	<ul style="list-style-type: none"> <li>▪ Provide opportunity to SAR Role Players to attend the SAR Introduction Courses;</li> <li>▪ Present one, two-week SAR Planners course for senior SAR stakeholders and MRCC staff.</li> <li>▪ Facilitate additional and ad-hoc SAR Courses.</li> <li>▪ Evaluate SAR courses for future improvement.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Virtual attendance of the Seychelles SAR Training on 11 June 2021.</li> <li>▪ ARCC-MRCC SAREX on 21 October 2021</li> <li>▪ An Introduction to SAR Course was facilitated over the period 13-15 October 2021</li> <li>▪ Maritime SAR workshop for SANAP members heading to Antarctica for the 2021/22 campaign presented online over the period 24-25 November 2021</li> </ul>
	Organise regular workshop sessions and lectures at organisations associated with the maritime environment as well as with search and rescue	Identify target organisations and participate in events and arrange for meetings, Workshops, and SAR Awareness discussions to improve MRCC public image nationally	Although not able to physically participate, MRCC made inputs to the SAMSA small boats safety campaign run on the West Coast during February 2022

Initiative	Measurement	Target	Actual performance
<p>Visit and meet with Harbour Masters to set up SAR training schemes for Port Control staff to ensure that Maritime Sub-RCC's provide proper SAR service in their area of responsibility.</p>	<ul style="list-style-type: none"> <li>▪ Meet and discuss SAR Ops matters with National Chief Harbour Master.</li> <li>▪ Present SAR orientation briefings to all role players in the different SAR regions during visits and SAR Ops meetings when requested via Maritime Sub-committee or secretariat</li> <li>▪ Attend Regional Harbour Master SAR meeting to promote maritime safety in the area</li> </ul>	<p>At least one meeting with Chief Harbour Master per annum.</p> <p>Attend at least one SAR Ops meeting in the 7 Ports acting as RSCs.</p> <p>Satisfy briefing requirements as requested by Maritime Sub-committee or SASAR Secretariat</p>	<p>The following Harbour Masters' SAR Meeting were attended:</p> <ul style="list-style-type: none"> <li>• Virtual attendance of the RSC Cape Town SASAR Meeting on 06 May 2021</li> <li>• Virtual attendance of the RSC Mossel Bay SASAR Meeting on 20 May 2021</li> <li>• Virtual attendance of the RSC Richards Bay SASAR Meeting on 06 September 2021</li> <li>• Participated in the SASAR Maritime Subcommittee meeting on 15<sup>th</sup> September 2021</li> <li>• Virtual attendance of the RSC Saldanha SASAR Meeting on 22 September 2021</li> <li>• Virtual SASAR Exco attended on 6<sup>th</sup> and 7<sup>th</sup> October 2021</li> <li>• Virtual attendance of RSC Durban SASAR Meeting on 20 October 2021</li> <li>• Virtual attendance of the RSC Cape Town SASAR meeting on 04 November 2021</li> <li>• Virtual attendance of the RSC Mossel Bay SASAR meeting on 08 December 2021</li> <li>• Participated in the SASAR Maritime Subcommittee meeting on 16<sup>th</sup> February 2022</li> <li>• Virtual attendance of the SASAR Exco meeting on 28<sup>th</sup> March 2022</li> </ul>

Initiative	Measurement	Target	Actual performance
	Participation in organisations or systems such as IMO and COSPAS-SARSAT.	Attend committee meetings and where applicable task group meetings with aim to implement applicable recommendations and resolutions passed at meetings.	<ul style="list-style-type: none"> <li>Participated in the IMO NCSR Meeting from 19<sup>th</sup> to 23<sup>rd</sup> April 2021</li> <li>Virtual participation IMO EGC Coordinating Panel virtual meeting on 1<sup>st</sup> July 2021</li> <li>Participated in the ICAO/IMO Joint Working group on SAR Harmonisation from 6<sup>th</sup> to 10<sup>th</sup> September 2021</li> <li>Participated in the Global Coast Guard training event hosted by the Japanese Coast Guard virtually from 19<sup>th</sup> to 22<sup>nd</sup> Oct 2021</li> <li>Participated in the 35<sup>th</sup> Session of the Cospas Sarsat Joint Committee over the period 08-30 November 2021</li> <li>Participated in the COSPAS SARSAT Open Council meeting from 16<sup>th</sup> to 25<sup>th</sup> March 2022</li> </ul>

### 3.2 Average Time Spent on Incidents

The average time spent on the SAR incidents for the reporting period was 16 Hours and 09 Minutes

### 3.3 Beacon Registrations

Database is updated daily and checks to verify information is ongoing. The total number of beacons at the close of the period was 7578 beacons

### 3.4 Summary of other activities of the year

## 4. Challenges Experienced or Risks Exposed to during 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 are more and 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**

The following incidents that occurred during the year under review are worth noting.

### **MAY 2021**

#### **01 MAY 2021 PERSON OVERBOARD –RUBBERDUCK**

At 14h35 MRCC Cape Town was advised by Cape Town Radio that S/V PRINCESS EMMA had sighted an unmanned 4 meter rubberduck motoring around in circles approximately 1.1NM North West from Slangkop lighthouse in Cape Town. NSRI Station 26 Kommetjie was activated to search along the shoreline for the missing crew.

While launching the rescue craft NSRI crew noticed splashes in the water where a local 16 year old male who was found swimming ashore.

He was not wearing a lifejacket and had apparently fallen out of the boat. The small boat was recovered and brought to shore. The case was closed

#### **02 MAY 21 COLLISION – RUBBERDUCK SCUDDLE**

At 19h55 Cape Town Radio informed the MRCC that a MAYDAY RELAY had been issued for a rubberduck SCUDDLE with 6 persons onboard which was run over by Fishing vessel FISHON approximately 1.5NM South West from Hangberg near Hout bay in the Western Cape.

NSRI Station 08 Houtbay was activated and launched 02 boats to assist with search and rescue. Charter boats CAP TUNA and FISH TAILS also assisted. Of the six persons in total, two were taken ashore for medical treatment, three were retrieved by Rescue 08 and one person was missing

After an extensive search was conducted of both sea and shoreline, with nothing found, it was decided the SAR efforts would yield no further results and the case was handed over to the SAPS diving unit.

## **21 May 2021 TAKING IN WATER – YACHT MAJIMOTO**

At 09h06 the wife of skipper returned a call to MRCC Cape Town confirming him to be safe after his SAFETrx was activated. The activation was made to bring awareness to a yacht that seemed to be in need of assistance off Morgan's Rock in the East London Area

MRCC investigation found the yacht MAJIMOTO to be in need of assistance due to it having rudder problems and taking in water approximately 02NM from Cape Morgan Light. NSRI 07 from East London had been notified by the Vasco Da Gama race organizers to assist.

The need for assistance quickly deteriorated into Distress due to the adverse weather with winds up to 50kts and swell up to 6m experienced.

Following extensive planning with the SAAF, Joint Tactical Headquarters Eastern Cape, NSRI EOC, NSRI ASR, and East London Port Control a plan was put into action to recover the 05 crew from the yacht.

The recovery plan developed with the SRU involved the crew disembarking into the life raft from where it was towed away from the yacht. The crew would be recovered from the liferaft to the rescue craft. This was necessary due to the weather conditions making things very challenging for the rescue craft to go alongside the casualty vessel.

The crew of NSRI R07 performed admirably in the extreme conditions and executed the operation without incident. None of the crew required medical attention.

By 1841 the much exhausted survivors and crew were reported to be safely back at Port.

The yacht stated to have sunk with the required Navigational Warnings and Notifications done.

## **25 May 2021 OVERDUE – RUBBERDUCK SOOJAA**

At 18h28 the MRCC was notified by SAMSA of an overdue rubberduck SOOJAA with 02 persons onboard off Doringbaai, West Coast, Western Cape. There was no communication equipment reported to be onboard.

MRCC activated NSRI Station 24 Lamberts Bay. Due to thick mist, fog and zero visibility in the area only a shoreline search was carried out.

On 26 May at 0801LT MRCC was informed that the overdue boat had washed ashore with no sign of the fishermen.

After an extensive search between Doringbaai and North of Strandfontein one body was found and one person still missing.

The case was handed over to the SAPS Diving unit to continue the search for the missing person and closed as SAR incident.

## JUNE 2021

### 08 JUNE 21 MEDEVAC – CONTAINER SHIP NAVIOS MAGNOLIA

The Shipping Agent notified MRCC Cape Town at 1651 that three crewmen on board the NAVIOS MAGNOLIA sustained injuries while conducting maintenance. At the time of the report the vessel was 147nm South-East from, and diverting to, Durban.

Two crewmen complained of severe pain while the third crewman seemed had difficulty breathing due to the pain. The EMS Metro Doctor provided MEDICO and possible treatment for the crewmen while the vessel was enroute to Durban.

The agent made arrangements with NSRI Station 5 to embark Medical Personnel as the vessel arrived OPL in the early hours of the morning on 09 Jun. The crewmen were assessed and prepared for a stretcher disembarkation.

One crewman suffered a broken pelvis, one had broken both arms and one crewman only had minor injuries. The disembarkation commenced at 03h40 and all three crewmen were landed ashore at 0612.

Due to the severity of the crewman's condition with the broken pelvis the Netcare helicopter transferred him to Entabeni hospital, and the remaining crew were transferred via ambulance. Once all units had returned to base the case was closed.

### 08 JUNE 21 GROUNDED – YACHT ATLANTIC PRINCESS

At 2014 MRCC Cape Town was advised by Cape Town Radio that S/V ATLANTIC PRINCESS with 03 persons onboard had run aground South from Murray harbour at Robben Island.

NSRI crew approached the area where they had spotted red flares in thick fog and sighted the casualty vessel hard aground. Heavy fog and swell of 5M was reported.

The vessel was towed into Murray harbour by the NSRI who took the 03 survivors to Cape Town Waterfront.

SAMSA duty surveyor was informed of the incident and case closed.

**24 JUNE 21 FIRE ONBOARD – FISHING VESSEL DE YU NO.06**

The Taipei Liaison Office advised MRCC Cape Town at 10h51 that the DE YU NO.06 had caught fire with 15 persons onboard approximately 235nm (North-East) from Durban and required assistance.

MRCC Cape Town requested a MAYDAY RELAY to be issued for vessels in the vicinity to assist. F/V THETIS and M/V STAR LIGA had responded and proceeded to the casualty vessel to render assistance.

RCC Taipei later advised that the sister F/V DE YU NO.16 had all 15 crew onboard with no injuries reported. The DE YU NO 16 remained at the incident scene until the DE YU NO 06 sank on 25 June at 11h13.

The survivors were transferred to the DE YU NO 66 and reported to be taken to Port Louis in Mauritius. Case closed.

**JULY 2021**

**01 JULY 21 PERSON OVERBOARD – FISHING VESSEL HONG JIN NO 707**

MRCC Cape Town was notified at 16h51 by MRCC Korea that the F/V HONG JIN NO 707 had lost a man overboard approximately 265nm West from Cape Town.

Master of vessel HONG JIN NO 707 advised that the crewmember was last seen on 30 June 21 at 14h48 and would backtrack to the last known position and search for 72 hours.

MRCC Cape Town issued a PAN PAN through Maritime Radio Services for vessels in the vicinity to assist.

The search effort was later suspended after no further sightings were reported of the missing crewmember.

**04 JULY 21 PERSON OVERBOARD – BULK CARRIER MINOAN DIGNITY**

At 17h55 MRCC Cape Town was advised by Maritime Radio Services that M/V MINOAN DIGNITY had lost a man overboard approximately 28nm South West from Cape Agulhas. A life ring was thrown to the crewmember who was wearing a yellow shirt and no life jacket. MRCC Cape Town issued a MAYDAY RELAY through Maritime Radio Services for vessels in the vicinity to assist.

M/V STAR TRADER, M/V CLIPPER ISADORA, M/V SELETAR SPIRIT and M/V MAJESTY responded to assist in the search of the missing crewmember whilst NSRI Agulhas was placed on standby. Master of the M/V MAJESTY later confirmed that they had found the life ring with no one inside. The search effort was suspended after no further sightings were reported of the missing crewmember.

## **16 JULY 21 INMARSAT C DISTRESS – GENERAL CARGO ERKUL S**

MRCC GRIS-NEZ advised MRCC Cape Town at 14h33 that they had received an Inmarsat C distress from the vessel "ERKUL S" approximately 737nm South West from Luanda in Angola.

MRCC Cape Town attempted to contact the vessel and to hand over co-ordination to MRCC Angola to no avail. A PAN PAN was then issued through Maritime Radio Services requesting the assistance of other vessels.

M/V STAR CEPHEUS and M/V DAL KALAHARI responded and were diverted to the incident position to establish nature of distress and render assistance where possible.

Master of the M/V STAR CEPHEUS eventually established contact with the Master of M/V ERKUL S who advised that they had an unconscious crewmember onboard with severe pain in his spinal area and required an urgent MEDEVAC.

The master advised shortly thereafter that the ill crewmember had passed away.

All parties were thanked and requested to stand down and case closed.

## **AUGUST 2021**

### **21 AUGUST 2021 MEDEVAC FISHING VESSEL - ARMANA**

The Shore Skipper representing the ARMANA notified MRCC Cape Town at 14h51 of the fishing vessel Skipper that might have suffered a Stroke.

MRCC Cape Town requested MEDICO to be provided to the vessel Skipper by the SASAR appointed Medical Doctors. The MEDICO was facilitated by Telkom Maritime Radio Services whilst the F/V was approximately 120nm East from Mossel Bay.

Following the medical recommendation to have the Skipper evacuated as soon as possible the ARMANA was diverted to St Francis Bay. This delivery location was advised by the MRCC as it allowed for the removing of the crewman 03 hours earlier than initially estimated.

NSRI St Francis Bay was activated through the NSRI Emergency Operations Centre and the Skipper was confirmed at 22/1451 to have been taken to the Humansdorp Hospital by ambulance.





## SEPTEMBER 2021

### 13 SEP 2021 MEDEVAC - BULK CARRIER AQUAVITA SEA

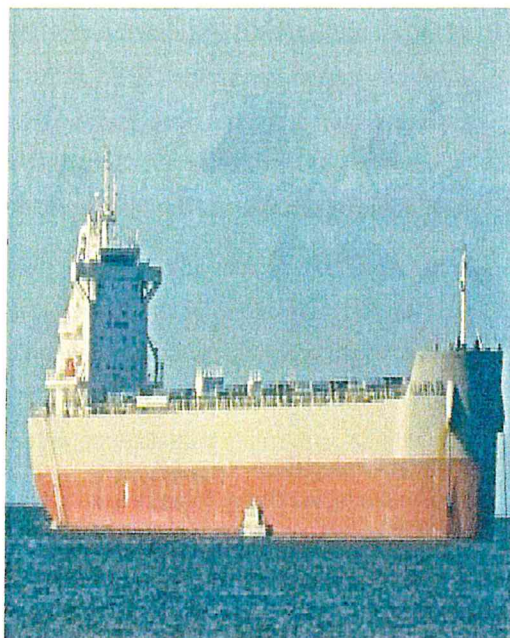
Bulk Carrier AQUAVITA SEA notified MRCC Cape Town at 11h35 by email requesting medical advice for their Captain who was suffering from abdominal pains. The vessel was 900nm West from Cape Town and heading towards Brazil.

MRCC Cape facilitated MEDICO through the SASAR appointed Medical Doctor who recommended that the Captain should continue taking his medication and evacuation as soon as possible.

During the morning of 14 September 2021 MRCC contacted the vessel during a routine follow-up and was informed that the vessel had diverted to Cape Town for the Captain to be evacuated.

The captain's condition had worsened suddenly. Although MRCC Cape Town issued a MAYDAY through Telkom Maritime Radio Services requesting the urgent assistance of vessels with a Doctor onboard it was cancelled after the Medical Doctor advised that the Captain must be hospitalised and that additional onboard medical care shan't make difference.

On 17 September 2021 a helicopter from Aerios Global Aviation rendezvoused with vessel 100nm West from Cape Town. The Captain was successfully evacuated and then taken to Christiaan Barnard Memorial Hospital. Case Closed.



### 25 SEP 2021 VESSEL TAKING IN WATER - DOLPHIN OF TSITSIKAMA

Telkom Maritime Radio notified MRCC Cape Town 06h10 that craft DOLPHINE OF TSITSIKAMA called 'MAYDAY'.

MRCC Cape Town contacted NSRI station 14 (Plettenberg Bay) and was informed that the boat is a 3.5M with 4-6 POB. The NSRI boat had been at sea involved with training and diverted to the incident location.

Updates provided to MRCC Cape Town established that the craft belonged to the South African National Parks-board (SAN Parks) and had 05 POB.

NSRI Station 14 had rescued all crew and the casualty craft was recovered to its trailer. Case Closed.

**11 OCT 2021 406 MHz DETECTION: Sailing vessel SUNSEEKER**

ASMCC notified MRCC Cape Town at 16h17 of a Distress Alert received from a South African sailing vessel in a position 22NM North from Beira in Mozambique. The beacon owner was identified and attempts were made to try and contact the owners or emergency contact via information extracted from the South African Emergency Beacon Database. MRCC Cape Town had no success in contacting the vessel owner or the nominated emergency contacts.

A MAYDAY broadcast was issued by Durban Radio and MRCC Maputo was informed of the incident for their coordination of the response and to establish communication with the sailing vessel. Further contact was made with Zululand Yacht Club members who confirmed that the vessel had sailed from there on the 5<sup>th</sup> September 2021 and that the owner had contacted them via WhatsApp to request assistance with some spares for the vessel.

At 22h31 MRCC Cape Town received a message from the daughter of the owner advising that the three crew on board are safe and would be spending the night at the Beira Police Station. MRCC Maputo also informed MRCC Cape Town that the crew had been robbed of all their belongings but were safe at the Beira Police station. DIRCO was contacted and requested to assist the owners and a friend who were from the vessel. DIRCO confirmed they would make contact via the SA Embassy in Mozambique. Following confirmation from the owners daughter regarding the safety of those involved and that repatriation plans were being made the case was closed.

**14 OCT 2021 MEDEVAC: Bulk Carrier S'HAIL AL RUWAIS**

An email received from the P&I Club at 16h19 notified MRCC Cape Town of a crewman that was reported to be suffering from a fever and nausea with his condition stated to be worsening. The vessel was 274NM from Cape Town and en-route from West Africa. MRCC Cape Town facilitated the MEDICO through the Metro EMS Doctor who recommended evacuation of the crewman when practical. The Captain was advised to continue with onboard treatment.



During the morning of 15 October 2021, the Master reported that the crewman's condition was unstable and additional symptoms were evident. The Metro EMS Doctor, after additional assessment, recommended the evacuation of the crewman by helicopter as soon as possible. Aerios Global Aviation (AGA) was contracted by the Shipping Agent and the helicopter rendezvoused with the vessel 19NM North West from Cape Town. The crewman was safely disembarked on 15 October at 2012 and taken directly to Christian Barnard Memorial Hospital.

**23 OCT 2021 MAN OVERBOARD: Bulk Carrier STAR PEACE**

MRCC Japan notified MRCC Cape Town at 18h07 via email of a DSC Alert received from STAR PEACE approximately 130NM South West of Cape Town. The vessel reported that they had commenced with the search operation for a crewman.

At the time the incident was reported to have occurred the weather was not favourable with winds blowing at about 30kts and sea swell around 5m. Bulk Carrier OCEAN TIANBAO on hearing the SAR broadcast responded and joined the search at 16h55 but had to abandon the effort due to heavy weather causing high risk to crew and vessel. MRCC Cape Town developed a search area and provided such to the vessel.

Following from more than 12 hours of searching under very challenging conditions it was decided to suspend the SAR efforts. The May Day was downgraded to a PAN message. With no sightings reported and no other information indicating the possibility of finding the sailor the case was closed on the 24<sup>th</sup> October at sunset.

**26 OCT 2021 MEDEVAC: Bulk Carrier CAPTAIN VENIAMIS**

Telkom Maritime Radio Services advised MRCC Cape Town at 20h55 via telephone regarding the Master of the vessel had requested a MEDEVAC of a seriously ill crewman.



Vessel had passed Saldanha Bay enroute to Cape Town. The Master was connected to the Metro EMS doctor who recommended evacuation as soon as possible.

The agent was informed who advised that he was already in contact with AGA Helicopters for helicopter assistance. The helicopter was dispatched and had safely evacuated the crewman at 22h25 and transported him directly to Christiaan Barnard Hospital. Case closed.

**NOVEMBER 2021**

**22 November 2021 MEDEVAC – Fishing Vessel RS ALGOA**

The Captain of the vessel RS ALGOA posed request for assistance with medical advice to MRCC Cape Town at 16h42 relating to a researcher's swollen foot. This request was made when the vessel was approximately 51nm North West from Saldanha. MRCC facilitated MEDICO by the Western Cape EMS Doctors who



recommended urgent MEDEVAC due to suspected Deep Vein Thromboses. MEDEVAC efforts by NSRI Mykonos during the very early hours of the new day were unsuccessful in the prevailing adverse weather. The crewman was successfully extracted on 23 November 2021.

**26 November 2021 MEDEVAC – Bulk Carrier MINERAL CHINA**

At 08h01 the Captain requested assistance from MRCC Cape Town to immediately evacuate an ill crewman suffering from a suspected internal hemorrhage. The vessel was 432nm from Richards Bay.



MRCC Cape Town facilitated the MEDICO provided by a Metro EMS Doctor. Urgent evacuation recommended and continue with onboard treatment was advised.



The SA Airforce provided an Oryx Helicopter flown from Durban accompanied by 03 medical personnel and 03 maritime safety swimmers from the NSRI.

At 27/1300 the helicopter rendezvoused with the vessel approximately 50nm East from Richards Bay from where the crewman was successfully evacuated and transported directly to Entabeni Hospital in Durban. The vessel continued to Richards Bay as the original intended port of call.

**DECEMBER 2021**

**28 December 2021 PERSON OVERBOARD – Ski Boat LOOK SHARP**

MRCC Cape Town was informed by the NSRI Emergency Operations Centre around 20h35 of a person overboard in the St Francis Bay area. The person was reported to have been on board a fishing charter ski boat when he went missing and was not wearing a life jacket. Rescue vessels from both NSRI Stations in St Francis Bay and Jeffreys Bay responded to the incident location 1nm East from ST Francis Bay Local fishing vessel ANGELEY also responded as she was in the area and was requested to keep a sharp eye out for the seafarer. A MAYDAY Broadcast was issued requesting all vessels in the area to keep a lookout for the man missing from the vessel. Following an extensive search the efforts by the NSRI the search was suspended at around 01h00 on the 29th December pending any new updates.

The next morning the NSRI informed that the local flying club was hosting an event and the pilots flying over the area were all asked to keep a lookout while transiting the area for any signs of the missing seafarer. The NSRI vessels again took to the water at around 04h30 to continue the search while the local lifesavers and SAPS members did a shoreline search. After having searched the area at sea and along the coast extensively, the decision to suspend the search was taken and all assets allowed to return to base. The missing man remained lost at sea and the case was handed over to the SAPS for further investigation and possible recovery operation. The SAMSA Principle Officer was notified and MRCC stood down.

## FEBRUARY 2022

### 7 February 2022 - PERSON OVERBOARD – Fishing Vessel BEGONIA

MRCC Cape Town was notified at 12h50 by Walvis Bay Radio of the F/V BEGONIA reporting losing a man overboard approximately 140nm North West from Walvis Bay and 52nm from closest shore. Forecast weather relating to the reported incident location was Wind South West at 10kts and Sea Swell of 1.6 meters. The BEGONIA had commenced with a search after doing a backtrack to the last known position where the person was last seen on 22 February at 10h55. Walvis Bay Radio issued a PAN PAN requesting vessels in the vicinity to assist. The fishing vessels TUNGA and RV MIRABILIS responded to assist in the search for the missing crewmember. A private helicopter from Walvis Bay assisted with the search as contracted by the vessel owners. Search efforts continued until the 9<sup>th</sup> and was concluded at 19h00 with the crewman presumed to have drowned. Necessary notifications were made and the case close

### 8 February - PERSON OVERBOARD – Oil Tanker STREAM ATLANTIC

With a DSC Distress notifying at 21h55 MRCC Cape Town was informed of M/V STREAM ATLANTIC reporting to have had lost a man overboard approximately 145nm South West of St Helena Island.

The weather provided for the reported incident location was Wind South East at 09 knots and Sea Swell up to 1.1 meters with the sea temperature being 24°C.

It was reported that the crewmember was last seen with eye and CCTV camera on February 22 at 19h00. He was not wearing a lifejacket. The vessel did a backtrack to the position where the crewman was last seen and initiated an Expanding Square Search.

A MAYDAY RELAY was issued through St Helena Radio Services on request of MRCC Cape Town to which the M/V PACIFIC EAGLE responded

MRCC Cape Town provided search areas to STREAM ATLANTIC and PACIFIC EAGLE in assistance to the searching for the missing crewmember.

The search effort was suspended after 56 hours and concluded on the 11<sup>th</sup> at 05h00 with the crewman presumed to have drowned. Notifications were sent to relevant parties and case closed.

## MARCH 2022

### March 2022

#### 5 March 2022 – ASL Shanghai – Person overboard

Telkom Maritime Radio Services reported to MRCC Cape Town at 16h19 of a missing person from the vessel and it was presumed the crew member had gone overboard.

The crewman was last reported to be seen just before midday. A search of the vessel was conducted and the



vessel turned around to head on the reciprocal course back to the approximate position as per the reported time of last sighting onboard.

MRCC Cape Town requested a MAYDAY Relay be broadcast requesting vessels to assist with possibly locating the crew member. Search areas were developed in consultation with the master of the vessel and also the other vessels that joined the search efforts through the night

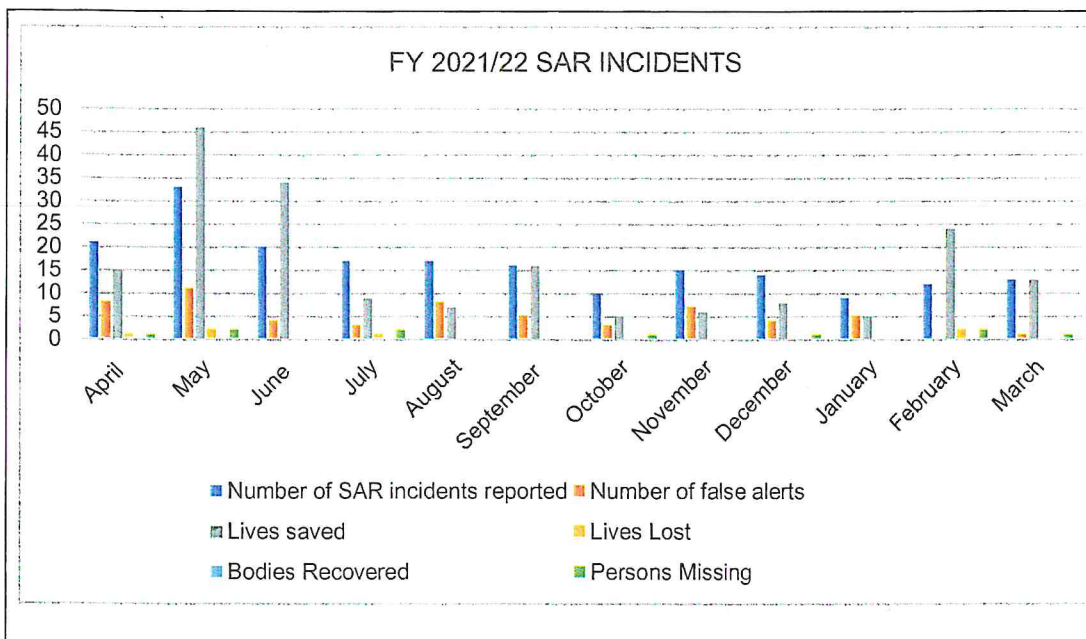
Following extensive efforts by the vessels involved the search was called off at 11h00 on the 6<sup>th</sup> March, the crew member was not found. All the vessels were released and continued on the voyage while broadcasts were cancelled. The case was closed and all relevant parties duly informed.

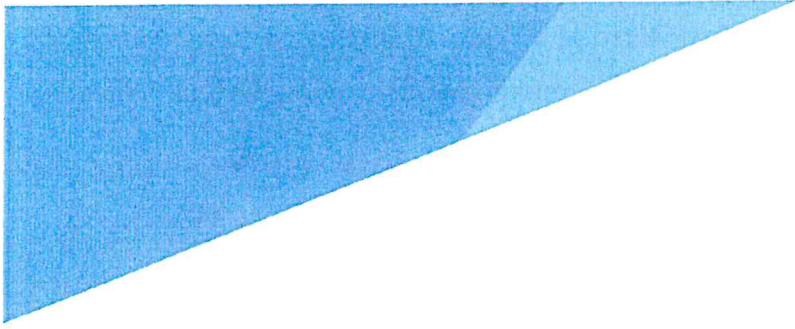
#### 4.4 SAR general comments

High number of medevacs for yet another year but with more countries opening their borders and allowing such operations it has come down from the previous highs. The NSRI has again played a significant role with many of these medevacs. An increase in the number of persons overboard incidents (>200% on previous period) is worth noting. Exact reason for said increase is not clear.

#### 4.5 MRCC MARITIME ASSISTANCE SERVICE (MAS) ACTIVITIES

It has been noted that during the reporting period more vessels have been experiencing engine problems and often this was reported to be related to fuel contamination issues.





## **SECTION D**

# **AERONAUTICAL SAR OPERATIONS PERFORMANCE INFORMATION**

## **1. Overview of the Aeronautical SAR Operations Component of SASAR**

- 1.1 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 SRR under South African jurisdiction.
- 1.2 SASAR has designated an operational facility namely the ARCC at the Johannesburg Area Control Centre at OR Tambo International Airport known as the Johannesburg ARCC, which is primarily responsible for promoting efficient organization of SAR services and is under the control of the ARCC Chief.
- 1.3 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 organizations is a testimony of the dedication of all to ensure effective SAR operations in South Africa.
- 1.4 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 Search and Rescue services without any risk or delays.

## **2. Operational Objectives or Activities for 2021/2022**

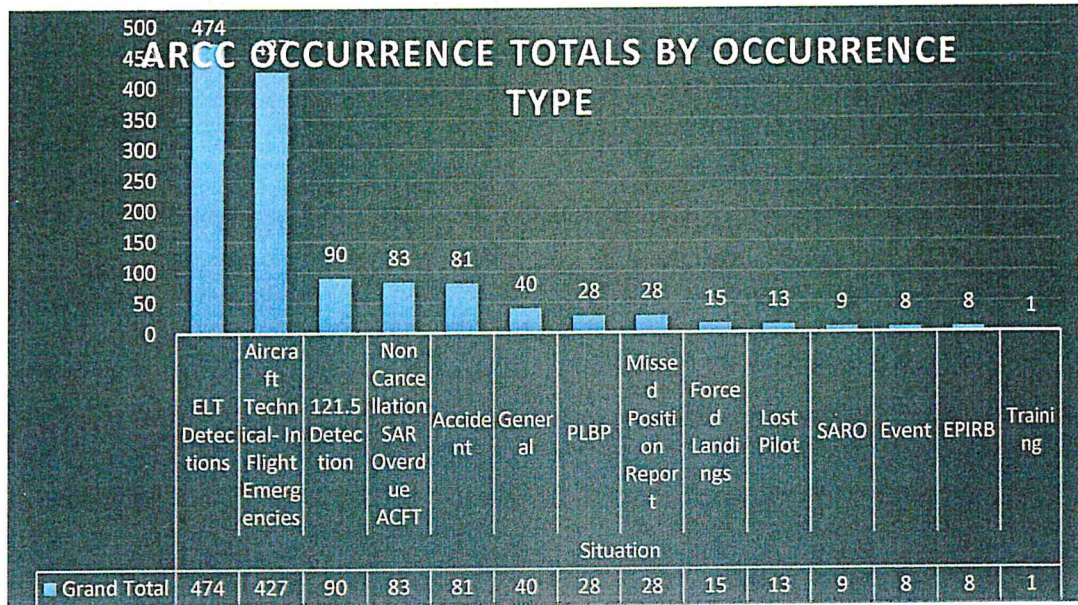
The ARCC recorded occurrences for the following events in the South African SRR, ELT (Emergency Location Transmitters – COSPAS SRSAT program), In-flight emergencies, forced landings, Accidents, PLB (Personal Locator Beacons – COSPAS SRSAT program), non-cancellation of SAR (Search and Rescue) and overdue aircraft. In addition to this the ARCC



forwards distress alerts for the COSPAS SARSAT program to 13 southern African countries and St Helena Island.

During the reporting period, the ARCC recorded 1305 occurrences, averaging over 100 occurrences monthly.

2.1 The graph below depicts a monthly overview of the occurrences



## 2.2 Operations Affected

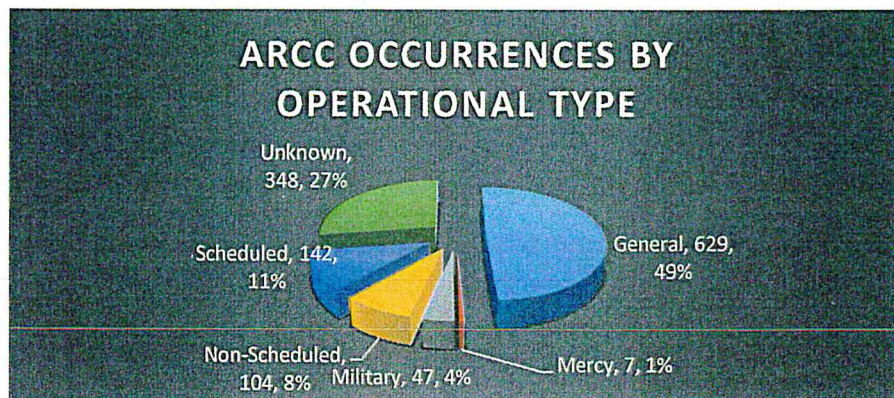
The type of operation being conducted by the aircraft during the occurrence, are all ARCC occurrences whereby the ARCC assisted or where units were placed on standby. General is the combination of General aviation and training flights, and this accounted for 649(49%) of the 1305 occurrences. General operations type accounted for operations where 89% accidents and forced landings occurred. Due to the many ELT events being incorporated, many situations are described as unknown (unknown operations type) as no information was available to categorise the operation. Military include RSA SAPS events.

2.2.1 The graph below depicts ARCC total occurrences expanded by operations type.

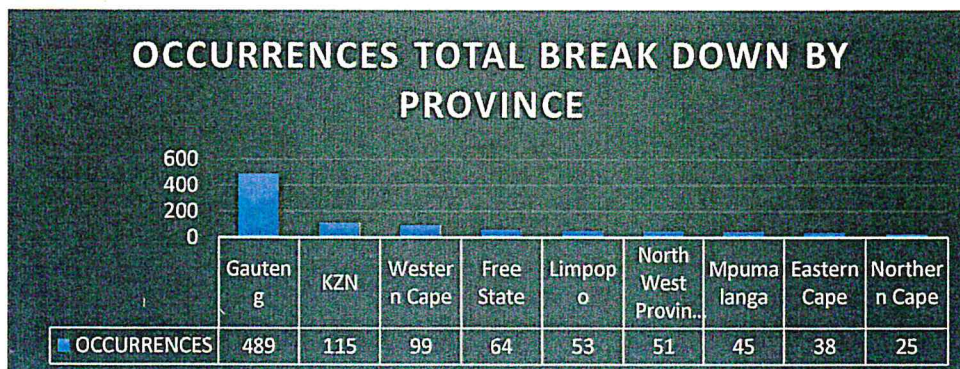
**OPERATIONS TYPE**

	2021- Apr	2021- May	2021- Jun	2021- Jul	2021- Aug	2021- Sep	2021- Oct	2021- Nov	2021- Dec	2022- Jan	2022- Feb	2022- Mar
Unknown	20	18	32	37	34	23	23	36	31	29	39	26
Scheduled	11	12	10	13	12	12	7	14	19	9	11	12
Non-Scheduled	6	9	10	14	8	8	7	16	6	5	7	8
Military	1	1	3	5	10	1	7	5	5	2	1	6
Mercy	1	1	2			1					1	1
General	50	60	73	58	65	58	36	36	34	50	48	

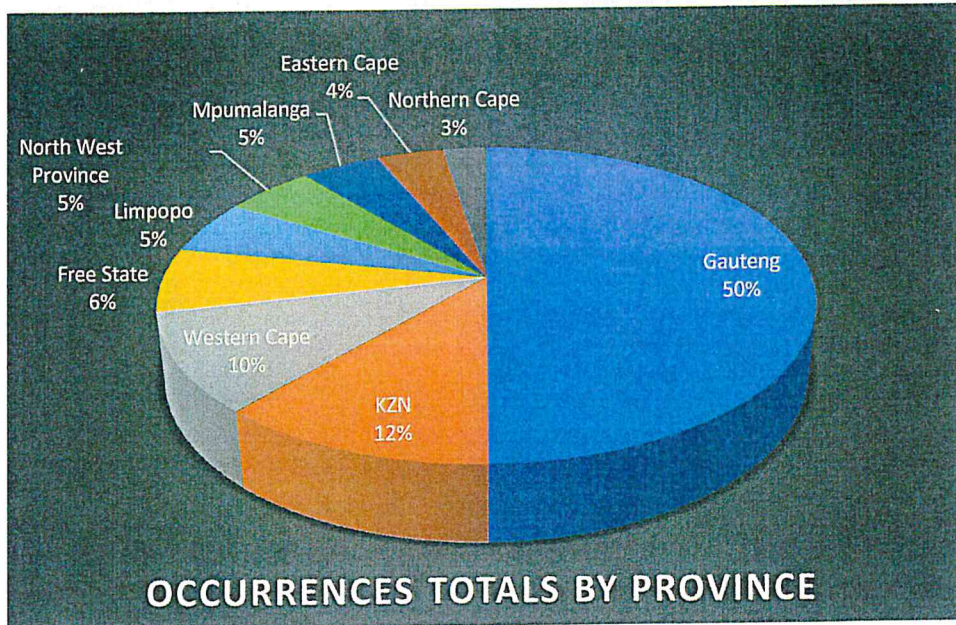
2.2.2 The graphical pie chart below displays ARCC total occurrences expanded by operations type for the period.



2.2.3 The graph below depicts ARCC Occurrences displayed by provinces where occurrence occurred. It is noted that Gauteng continues to be the province experiencing the highest number of occurrences with 489, 50% of all South African occurrences.

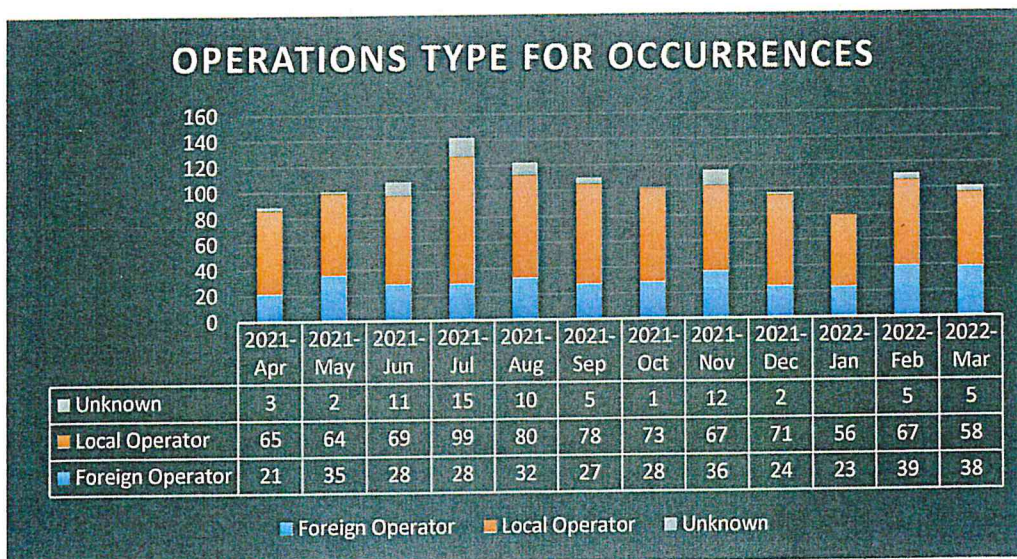


2.2.4 The graphic pie below depicts ARCC occurrences as per percentage by province of occurrence.

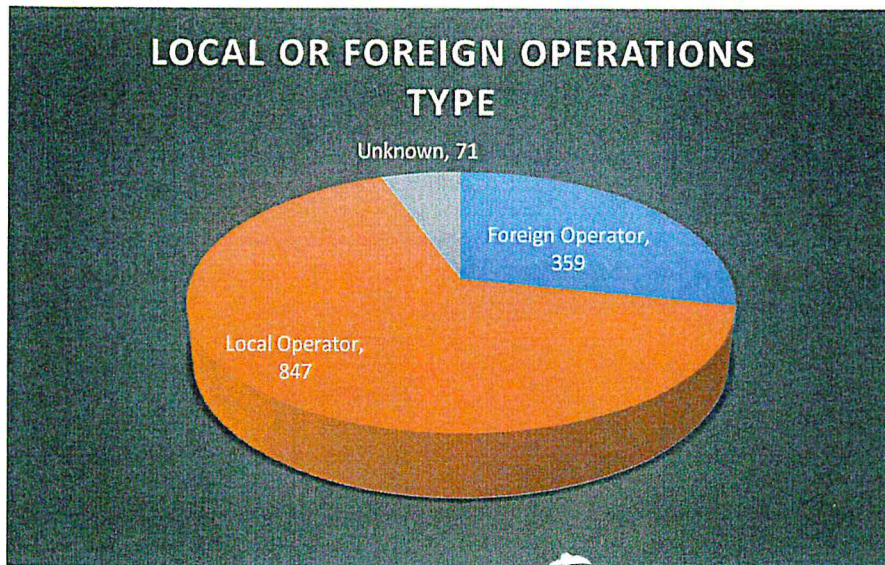


Nationality of operations, Local or Foreign operations are captured for all occurrence types. Of the 1305 Occurrence handles 847 where local operators while 359 were by foreign operators with 71 unknown nationalities. These numbers include ELT detections.

2.2.5 The graph below display ARCC occurrences expanded to depict whether the aircraft is a local or foreign operational flight. This is noted by the country of registration of the aircraft involved.



2.2.6 The Pie Chart below is a representation of the total operations based on local or foreign operator



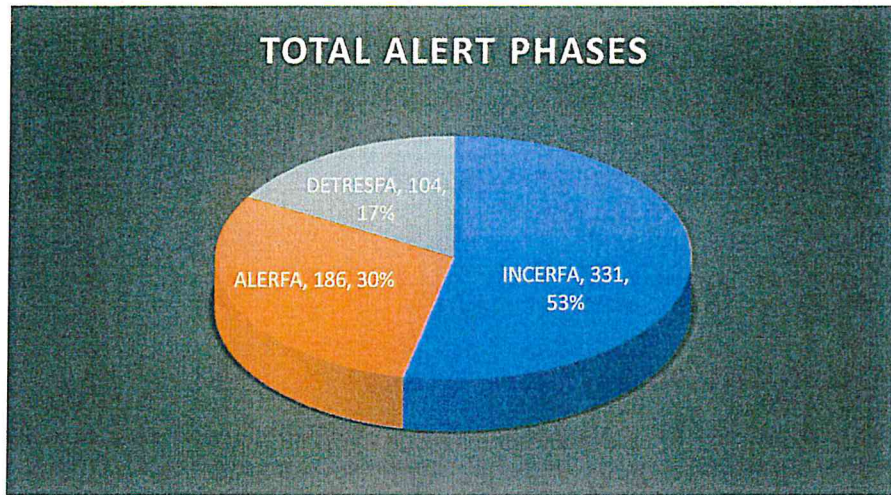
**2.3 SEARCH AND RESCUE PHASES DECLARED AND REPORTED TO THE ARCC BY ALERTING POSTS.**

All inflight emergencies are declared according to the criteria listed in the relevant ICAO and CAA documents. INCERFA (Uncertainty Phase), ALERFA (Alert Phase) and DETRESFA (Distress Phase) are all initiated by ATSU's (Air Traffic Control Units) and the ARCC dependant on who is notified first through the various alerting posts. Crashes and Forced landings are classified under DETRESFA.

2.3.1 The graph below displays all distress alerts are shown by monthly breakdown by month and alert phase



2.3.2 The pie chart below displays a graphical representation of the total alert phases

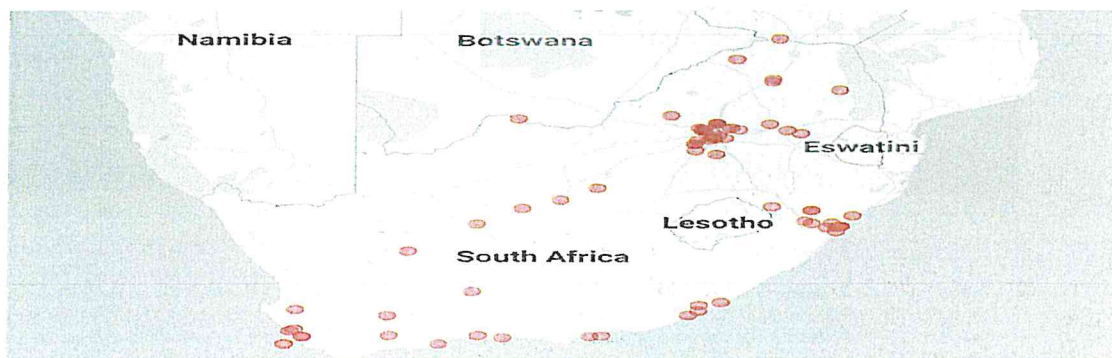


### 2.3 ACCIDENTS MORTALITY

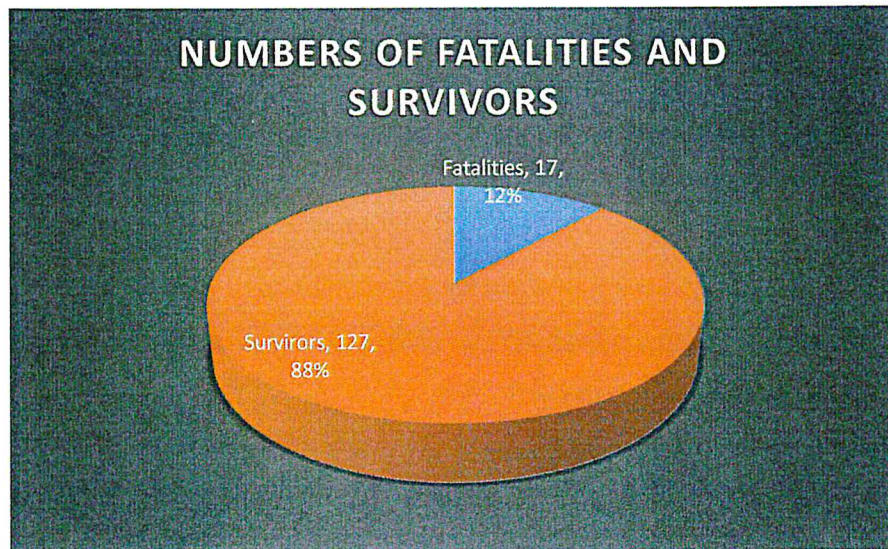
Of the 81 accidents that the ARCC coordinated during the reporting period, 17 lives were lost and 127 lives were assisted. These were accurate at the time of hand over to the SAPS and Accident Incident and Investigation Division (AIID). The high number of accidents around the Gauteng hub are in line with the 489 occurrences reported in the Gauteng province. Gauteng is fortunate to have 3 HEMS (Helicopter Emergency Medical Service) operators and a high number of volunteer members from SARZA, MCSA

MSAR ( Mountain Club of South Africa, SAR) and HAMNET available to assist. Gauteng Provincial EMS and SAPS K9 SAR have played a pivotal role during the containment at accident scenes and the ARCC continues to work and maintain relationships with these organizations.

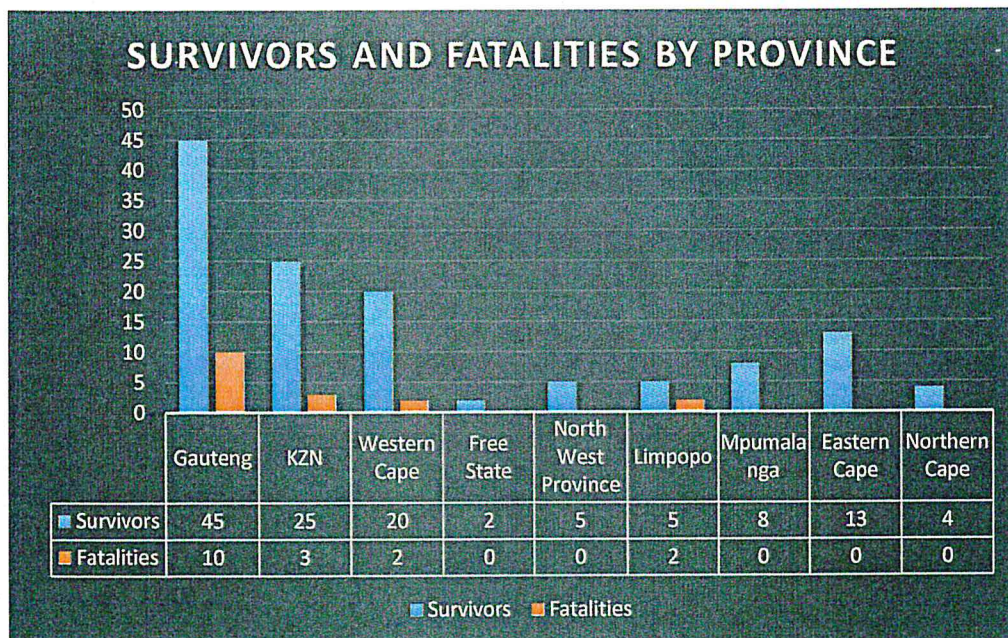
2.3.1 The map below display locations plotted in South Africa during the reporting period



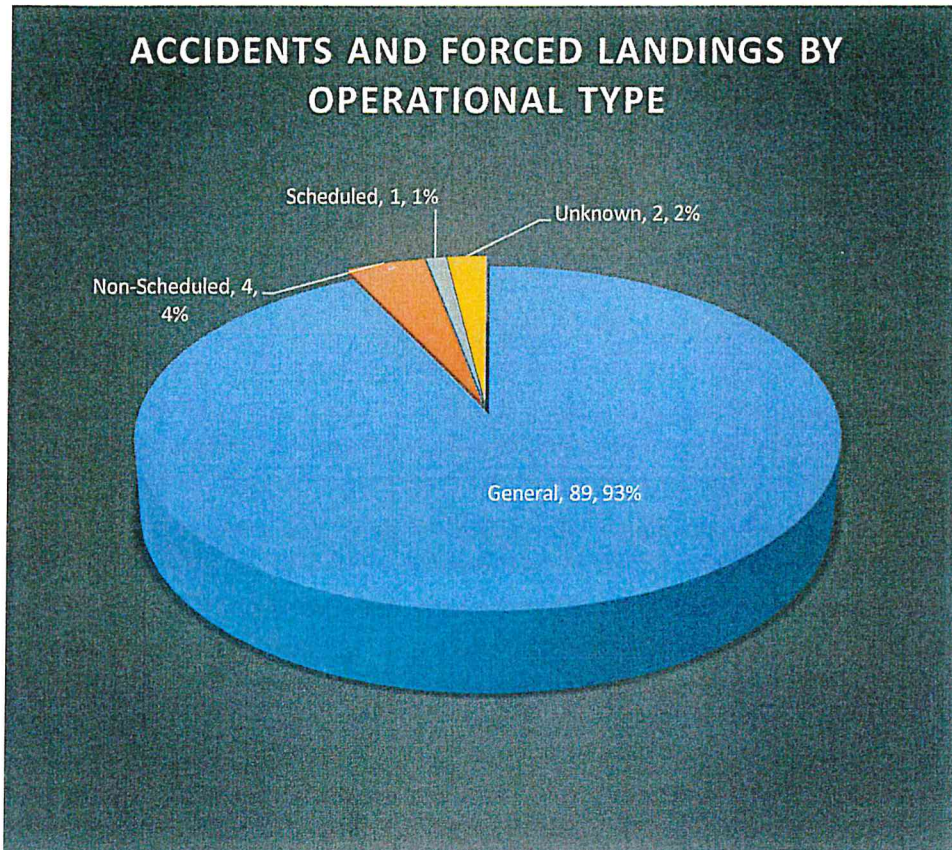
2.3.2 The pie chart below displays recorded number of fatalities and survivors of accidents as reported to the ARCC. These numbers were accurate at the time of hand over to the AIID and SAPS, and updated as and when the information was received from those that were involved.



2.3.3 The graph below displays ARCC occurrences plotted against fatalities and injuries by Province.



2.3.4 The pie chart below displays accident and forced landing as plotted against operational type during the occurrence

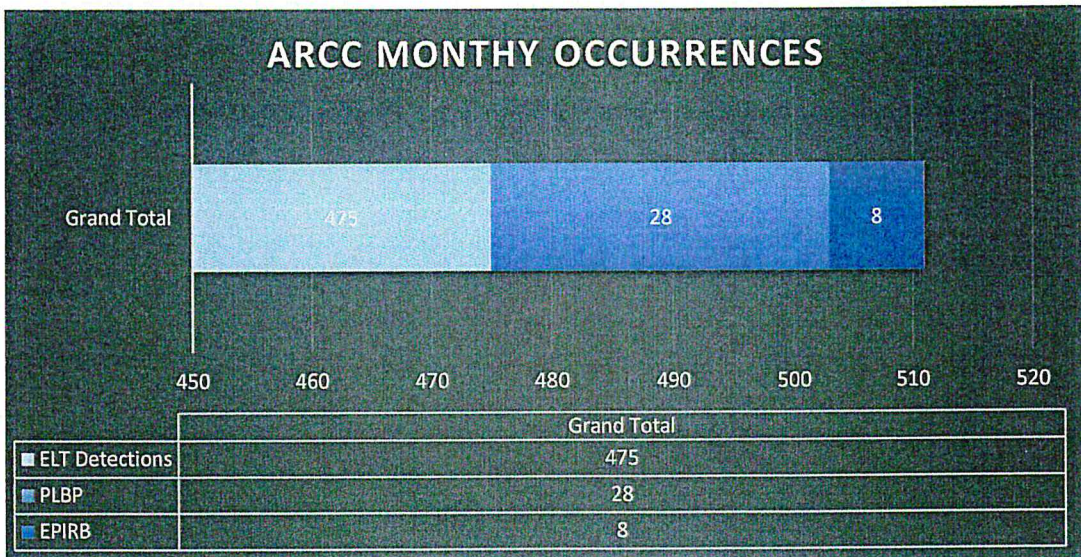


## 2.4 ELT ACTIVITIES

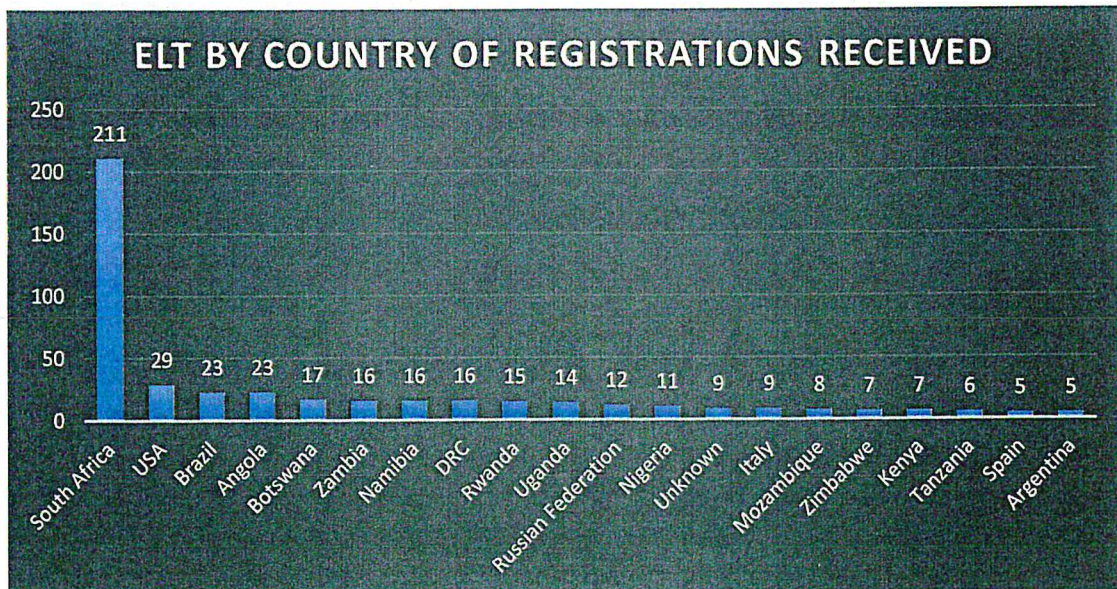
The ARCC responds to ELT detections from the COSPAS SARSAT system, sent from the ASMCC (Telkom – Cape Town radio). These distress detections are actioned in South Africa as well as forwarded to the 14 Countries falling in ASMCC service area. The following information was extracted from the ARCC reports logs for the period.

The ARCC received 511 COSPAS SARSAT detections, 475 ELT (Emergency Locator Transmitters – Carried on aircraft), 28 PLB (Personal Locator Beacons – hand held and sometime coded to aircraft) and 8 EPIRB (EPIRB (Emergency Position Radio Indicating Beacon – Carried on vessels) detections are sent to the land locked countries where the MRCC does not have SPOC contacts).

2.4.1 The graph below depicts COSPAS SARSAT break down by beacon type detected.



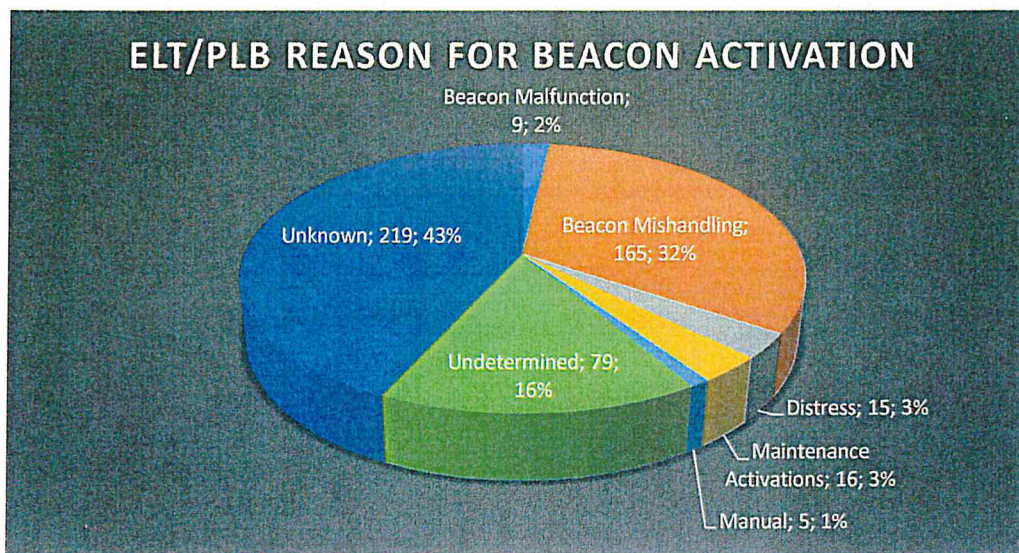
2.4.2 The graph below depicts a graphical depiction of all ELT and PLB detections plotted by Country of beacon registration of Distress Beacon as received.



COSPAS SARSAT requires feedback on reasons for false detection when an ELT/PLB/EPIRB beacon is activated as a result other than being involved in an accident.



2.4.3 The pie chart below depicts a graphical representation of the reasons for distress beacon activation. DISTRESS is an activation caused during an accident. All other activation reasons are logged under false activations according to COSPAS SARSAT system document guidelines. There is a huge drive to reduce the number of false activations worldwide. During the reported period the ARCC noted a 3% DISTRESS rate with 97% false activation rate.



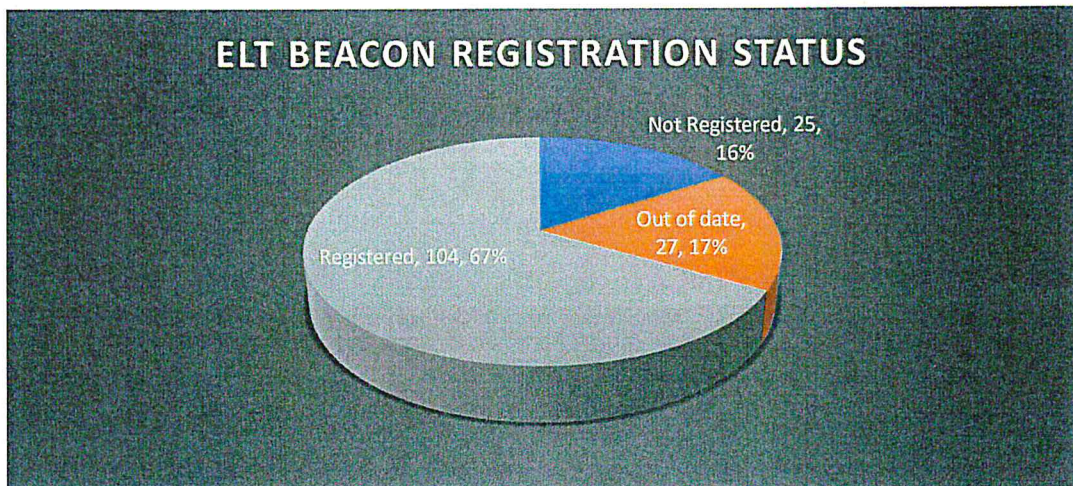
## 2.5 LACK OF SUITABLE LONG RANGE AND EXTRA LONG-RANGE AERIAL RESOURCES TO THE ARCC/MRCC.

The ARCC was tasked on the Long-range Aircraft Task group. The task group met virtually and offline to discuss and provide a working paper for the SASAR Executive Committee detailing recommendations.

## 2.6 ELT DATABASE

The SACAA registers the South Africa ELT's into a database. Of all the RSA beacons detections made, 67% were registered correctly 33% of all beacons were not registered correctly or out of date according to all the databases being used by the ARCC. This results in massive delays in confirming safety and ultimately delayed response times.

2.6.1 The pie chart below depicts the graphical representation of the status of distress alert ELT beacons according to the ARCC registration status for only South Africa registered beacons. On the SACAA ELT EMPIC database is the old ELT database and the MRCC ELT data base.



## 2.6 SEARCH AND RESCUE AWARENESS

During February 2022, the ARCC presented a SAR briefing at FAKR (Krugersdorp Airfield). The main focus was on SAR in aviation and the involvement of the ARCC.

On 22-25 March 2022, the ARCC made a presentation at the ATNS Safety workshop, promoted reporting of events and refresher on Alert phases.

## 3. SAR TRAINING, EXERCISES AND WORKSHOPS

### 3.1 Aeronautical Rescue Coordination Centre (ARCC) and Maritime Rescue Coordination Centre (MRCC) Desktop Exercise, October 2021

During October 2021, the ARCC and MRCC conducted a joint Desktop exercise. The purpose of the exercise was to test the working and coordination between the two RCC's. The exercise involved a missing aircraft that had ditched at sea while attempting to land at a nearby airport. Coordination procedures were focused on and interactions between the RCC's. More lessons were learned and will be applied to future exercises between the two Units.

### **3.2 Operation Cormorant 2.0**

During November 2021, the ARCC took in a SAPS drive SAR simulation at Bonne Accord Dam north of Pretoria, Operation Cormorant 2.0. The simulation involved SAR land, air and water units from across the Province. More new relationships were established, and ties strengthened between the Gauteng SAR units.

### **3.3 Exercise Phoenix**

During February 2022, the ARCC hosted Exercise Phoenix to test all the Gauteng base SASAR volunteer members, the SAPS, Gauteng Emergency Medical Services (EMS), Gauteng Forensic Pathology Services, SACAA AIID, Netcare 911, Rocket HEMS and Bidvest Protea Coin Aviation. The exercise simulated a mid-air collision overhead the FAKT (Kitty Hawk) airfield. The force multiplier from all the agencies showed how Aeronautical SAR in Gauteng is world class.

## **4. Achievements and/or Results of the Year**

### **4.1 Personnel and SAR Unit's training**

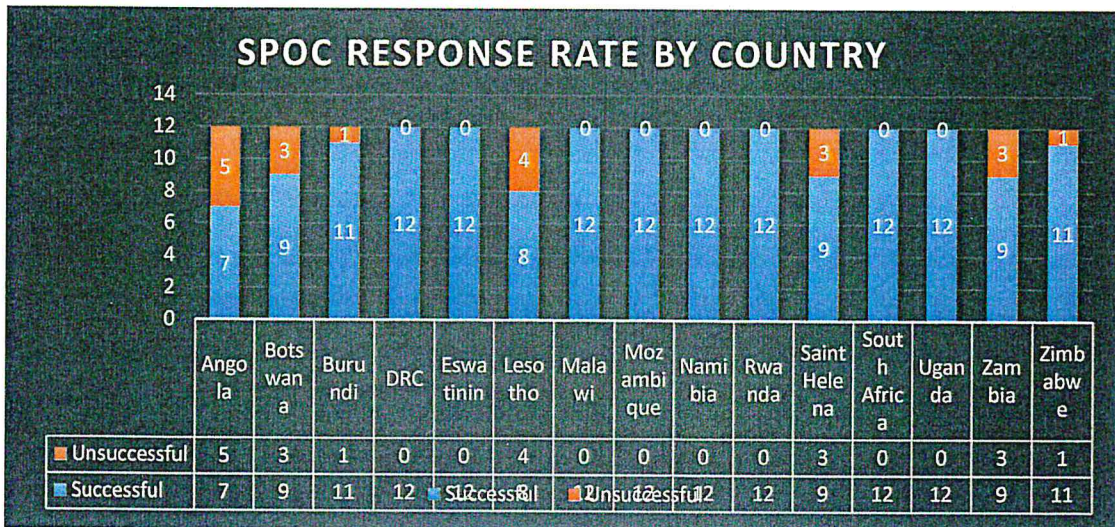
The ARCC is currently staffed by the ARCC Chief, one permanent Search and Rescue Mission Coordinator (SMC), 4 SMC's on rotational roster deployments, 3 ARCC assistant personnel. A further 3 permanent SMC's have been interviewed and awaiting the HR process to be completed to commence their training. Two of these candidates have already served as rotational SMCs previously.

### **4.2 Monthly communication tests**

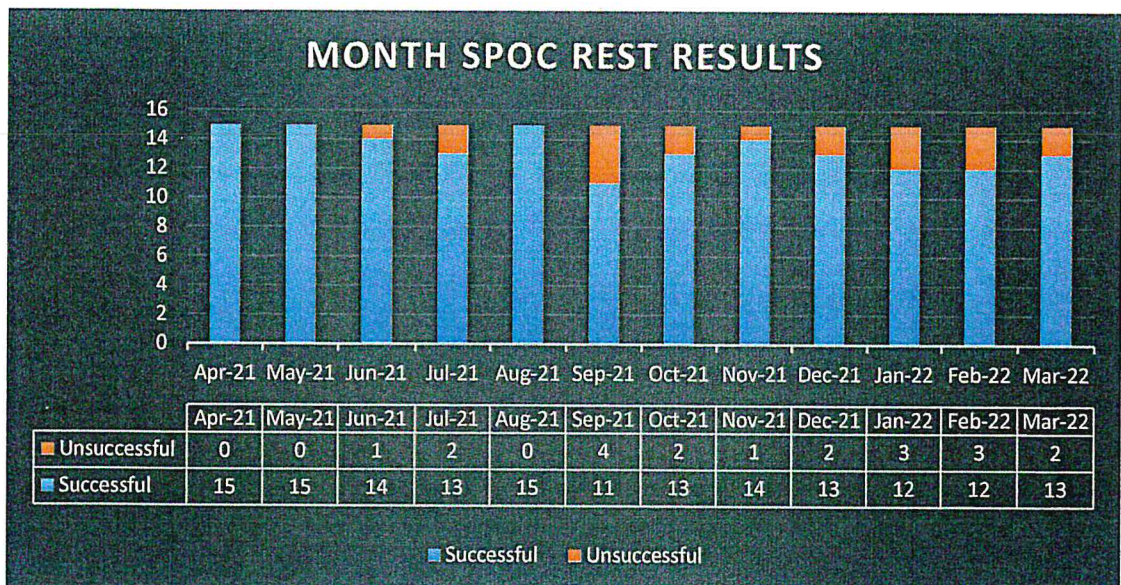
The ARCC endeavours to maintain a 100% SPOC test however the amount of effort going into this is tremendous. The ARCC has had an average 83.3% success rate with SPOC tests during the reported period. The tests are being conducted accurately with a 30minutes window as per COSPAS SRSAT requirements. Some SPOCS are replying outside the 30minute window some by as little as 1 minute, but this is being recorded as a failure. The ARCC is continuously engaging with SPOCS and ensuring contact details are

maintained. The table below shows a breakdown of the reporting period. Tests are conducted on AFTN, WhatsApp.

4.2.1 The graph below is the data extracted from the Monthly SPOC tests conducted by the ARCC to the 14 SPOC countries in South Africa COSPAS SARSAT service area as per response rate.



4.2.2 The graph below is the data extracted from the Monthly SPOC tests conducted by the ARCC to the 14 SPOC countries in our COSPAS SARSAT service area, depicting monthly overall response to test messages



#### **4.3 Initiatives/Projects undertaken or participated in to improve and enhance continental and regional aeronautical SAR systems**

During the reporting period, the ARCC arranged and facilitated training with the Gauteng volunteer SAR units to all the HEMS (Helicopter Emergency Medical Services) in Gauteng. Netcare HEMS, HALO and ROCKET HEMS all provided introduction to their Part 139 operations and training for medical operations.

#### **4.4 Summary of other activities of the year**

The ARCC attended the virtual COSPAS SARSAT Joint Committee (JC35) and the COSPAS SRSAR Open council meetings CSC65 and CSC66.

#### **4.5 Technical and Operational Support provided to the Secretariat**

The ARCC sits on the SAR Documentation and Communications Working Groups and SASAR Executive and Management Committee meetings.

#### **5. Challenges/Risks experienced in the year**

The SACAA hold currently is responsible for populating the ELT database. This database is out of date and requires urgent attention from the SACAA to update the details.

The Provincial awarding of HEMS contracts put many Provinces at risk as they do not have HEMS to airlift patients. This causes massive delays while HEMS are brought in from neighbouring Provinces that results to massive delays. These places lives at risk when immediate responses are not available.

## 6. Significant or Noteworthy SAR Incidents of the year

MAY 2021

The ARCC was activated to a MAYDAY call from an aircraft in the Johannesburg Special Rules Area. The ARCC Tasked the SAPS Airwing and ORRU to assist. A wreckage was located was not that of the reported aircraft experiencing the emergency. SAPS airwing along with 2 ORRU members searched to find the second aircraft, after radar feedback showed what appeared to be a mid-air collision between two C172 aircraft. Four aviators lost their lives as a result of this accident. The SAPS and AIID continue with their investigations. Two foreign nationals were involved. DIRCO and the Saudi Arabian and Indian embassies engaged with SAPS and AIID to assist with the formalities required.



### 3 May 2021

ZS-HBR R44, Umgeni River crashed into the Umgeni River, KZN. SAAF and NSRI were placed on standby however, SAPS on scene confirmed the 2 persons in the helicopter were both fatally injured during the accident and the scene was handed to the SAPS and AIID for investigations.



### 3 May 2021

ARCC was activated by a company gyrocopter, following a crash and rough location of their colleague west of Laingsburg. SAPS was tasked to proceed to the scene. AMS HEMS was activated after the one pilot was found to need medical treatment and airlifted to a treating facility. The other occupant was found fatally injured at the scene. The scene was handed to the SAPS and AIID for further investigations.



### 26 May 2021

ZU-FXE Bushbay was involved in an accident at the Pietersburg Civil Airport, Polokwane. EMS and Fire fighters arrived on scene to find an aircraft accident which was engulfed in flames. The pilot was transported to hospital with severe burn wounds and later airlifted to hospital. The pilot succumbed to his injuries. The scene was handed to the SAPS and AIID for investigation.



### JULY 2021

#### 9 July 2021

ZU-FZZ Sling 2 crashed at the Panorama airfield. ORRU, City of Johannesburg Fire and EMS were activated to the scene. The wreckage was engulfed in flames and the pilot was found deceased in the wreckage. The Scene was handed to SAPS and AIID for further investigation.



#### 26 July 2021

ZU-FCP Microlight was involved in an accident along the Vaal River and crashed into the powerlines. ARCC placed Rocket HEMS on standby. ER24 and Netcare paramedics arrived on scene and activated the Netcare HEMS. The pilot suffered multiple bone breaks and fractures and was airlifted the Milpark. The second occupant was transported to hospital by road. The scene was handed to the SAPS and AIID for further investigation.



## 28 July 2021

ZU-IPZ, ZU-IMX, ULAC hit a powerline and crashed into valley near Hillcrest in KZN. Other aircraft landed near the scene and assisted the pilot to his aircraft. This aircraft then crashed on take-off. The pilot of the first aircraft was transported to hospital with severe burn wounds but later succumbed to his injuries the second pilot suffered minor injuries and was treated on scene.



## OCTOBER 2021

### 9 October 2021

ZU-RDX 162R helicopter crashed at Morning Star airfield. No Injuries reported. ARCC requested ER24 and Cape Town Metro, to attend the scene. ER24 sent an ALS medic to check on the pilot and passenger. The helicopter occupants were cleared, and the scene was handed to the SAPS and AIID for investigation.



### 13 October 2021

ZS-PWH R44 made a forced landing at Springer Bay, on the beach. The ARCC confirmed the accident location near Boggoms Bay. All occupants (1+2) were uninjured, but the helicopter was on the beach and would be underwater soon because of the rising tide. The ARCC assisted in activating assistance to move the aircraft prior to the tide destroying the helicopter. AIID gave permission to move the aircraft. Mossel Bay NSRI, and Eden Metro were contacted to provide assistance. AIID Advised. Helicopter was loaded on a trailer and successfully removed from the beach before the rising tide got to it.





### 28 October 2021

ZS-UKU KR1, crashed 1km south of FAKT(Kitty Hawk). SAPS airwing was dispatched to the scene and HALO HEMS was alerted through EMS groups also alerting the ARCC and remained on standby for deployment. ARCC activated SAPS K9 and SAPS SAR to the scene. AIID informed and was sent coordinates of the scene. Airport manager advised that they had located the accident and the pilot was fatally injured. The scene was handed to the SAPS and AIID for further investigation.



### 30 October 2021

ZSPMT a C182 crashed near FAGM(Rand) and was engulfed in flames. ARFF from FAGM was activated to the scene, AIID notified by Rand Airport ATC. Rocket HEMS put on SBY. ARCC activated SARZA, Gauteng EMS and SAPS. All services arrived on scene. Patients were packaged and transported by road to Union Hospital. The pilot was critically injured and the passenger suffered minor injuries. Rocket HEMS was stood down after confirming both patients were on their way to hospital by ambulances. The scene was handed to the SAPS and AIID for further investigation.



## NOVEMBER 2022

### 10 November 2021

ZU-EWH, Gyrocopter was involved in an accident near Venetia Mine, Limpopo. Local EMS and a trauma Doctor were dispatched to the scene. A request was made for HEMS extrication from the area due to the severity of the injuries. Netcare HEMS was dispatched from Gauteng due to no availability of HEMS services in Limpopo. The pilot was moved to hospital and then transferred by HEMS to Gauteng for specialist care. The pilot sadly passed away from his injuries. The scene was handed to the SAPS and AIID for investigation.



**13 November 2021**

ZS-REH, R44 crashed at R22 at INANDA. The operator had sent out additional aircraft to the location to investigate further. Confirmation was received that the R22 had crashed. The student was treated by EMS and transported to the nearest hospital. The scene was handed to the SAPS and AIID for further investigation.



**26 November 2021**

ZSIGG C421 flying from FAHS (Hoedspruit) to FAGM (Rand Airport). While in the Cruise at F240 the pilot reported a rough running engine possible icing this was followed by a rapid descent. The Pilot advised they would be diverting to FAMB (Middelburg). The ARCC received an ELT detection shortly after the aircraft went off radar. The ARCC was notified that the aircraft had crashed near FAMB. The Aircraft crashed short of the runway at Middelburg, and the pilot in command and one passenger had suffered moderate injuries. NETCARE 911 HEMS was put on standby, after a weather assessment HEMS could not be deployed until conditions improved. Provincial EMS and Legacy EMS were dispatched to the scene and they attended to the accident. The 3 persons on board were treated by EMS and transferred to hospital for further care. The Scene was handed to the SAPS and AIID for further investigation.



**DECEMBER 2019**

**7 December 2021**

ZUEIJ, ULAC crashed near the Bronkhorstspuit dam. ARCC activated a response after confirmation was received from the scene. Netcare 911 and SAPS SAR responded to the scene but sadly the pilot was fatally injured during the accident. SAPS took control of the scene organising Pathology and scene security and handed AIID for investigation.



**8 December 2021**

Gyrocopter crashed on departure at Picketburg. The pilot was critically injured and the ARCC coordinated HEMS transport Milnerton. A bystander was burnt while extracting the pilot and was treated for the wounds sustained. The scene was handed to the SAPS and AIID for investigation.



**11 December 2021**

ZUMDA SLICK3 crashed at the Baragwanath aerobatic event. ER24 responded as they were medics for the event and advised the pilot was fatally injured during the accident. The Scene was handed to the SAPS and AIID for investigation.



**19 December 2021**

ZUFYG RV7 crashed in Plettenburg Bay of a light aircraft that made a distress call and relayed through FAGG (George) ATC. Local Fire services acknowledged responding to an aircraft that had crashed into a suburb. The 2 occupants very injured and transported to hospital for further treatment. The scene was handed to the SAPS and AIID.



**2 February 2022**

ZUKDP Sailplane motorized glider failed to return the previous evening to Worcester airfield, not on a flight plan. The ARCC activated a response utilizing the SAAF, SAPS airwing, SARZA western Cape and the Mountain SAR units Western Cape. The search area was extensive spanning the Langeberg mountain range from Worcester to George. Information gathering narrowed the search area to Heidelberg Western Cape, where a SAPS AS50 helicopter was tasked to search. The SAAF was unable to fly due to inclement weather conditions and icing. The wreckage was located by the SAPS airwing where it was confirmed the pilot was fatally injured during the accident. AMS assisted the SAPS and Forensic teams to secure the remains. DIRCO and the German Consular services were used as the pilot and sole occupant was a German national. The scene was handed to the SAPS and AIID for further investigation.





**SECTION E:**

**VOLUNTARY  
ORGANISATIONS -  
OPERATIONAL  
PERFORMANCE  
INFORMATION**

## **1. NATIONAL SEA RESCUE INSTITUTE (NSRI)**

### **1.1 Overview of the NSRI and its Contribution to SASAR's Objectives**

The NSRI is a registered NPC Company (No 1967/013618/08) and is registered with the Department of Social Development as a Non-Profit Organisation (NPO 002/870). NSRI delivers services including maritime rescue services along the South African coastline (3000km) and on some inland waters (1300k).

The NSRI operates with a mandate from the South African Search and Rescue Organization (SASAR) within the legislative context of the Merchant Shipping Act, the SASAR Act and regulations.

NSRI through the SASAR Act, performs Coastal Rescues through a fleet of 111 rescue craft and the 50 stations act as Sub-Rescue Centres (MRCC and Port Captains are Rescue Centre and Sub Rescue Centres respectively) for the management of incidents along the coastline.

NSRI have an opportunity as an African service to play a greater regional role in the development of Maritime Rescue Services in the SADC countries and as membership of the International Maritime Rescue Federation can be exploited to facilitate the involvement to benefit the region. NSRI's goal is to prevent drowning through education, through preventative measure and through rescue. NSRI is immensely grateful for the support from the Department of Transport and for the passion and enthusiasm for the work NSRI do.

### **1.2 Operational Objectives or Activities for 2021/2022**

The NSRI's value proposition is "whenever you need us, we are here"! To truly live out this promise, NSRI offer the following:

- Drowning Prevention Services
- Rescue Services

## 1.2.1 Drowning Prevention Services

A report published by the World Health Organisation (WHO) in 2021 cited that on average 236 000 deaths transpire every year due to drowning. Furthermore, drowning is reported to be one of the leading causes of death among people aged 1 – 24 years. South Africa has an average of 1 477 drownings per annum – that is approximately four drownings every day. The NSRI's Drowning Prevention team has been focusing on reducing this number by upskilling their team, having people-centred interventions and exploring innovations.

## 1.2.2 Water safety lessons in schools

One of the key interventions recommended by WHO is to aid in the prevention of drownings. One of the ways NSRI do, is by teaching school children water safety skills, safe peer rescue and cardiopulmonary resuscitation (CPR).



These skills are crucial as it equips the children with the ability to potentially save a person's life. In 2021, a year when Covid-19 variants were rampant in South Africa, NSRI experienced many lockdown levels, the team employed innovative solutions to disseminate water safety knowledge. Instructors used the time to improve their teaching methods.

Over **3 000 000** children were taught since the inception of the programme in 2006 - **332 980** in 2021, across **2 835** places of learning in South Africa

In 2021, NSRI team of skilled instructors used various platforms to disseminate information including radio stations, social media and television. They also designed a puzzle to use as part of the training and this was well received.

The feedback from the instructors was that it was amazing to witness how the children lit up when the puzzles were handed to them. They remembered the story that they were told and recognised the names of the characters in the puzzle. The instructors said that it would be useful to have the story translated into other

languages so that teachers who are not confident in English can still tell the story with the same enthusiasm as it was initially presented.

### **1.2.3 Survival swimming**

Only 15% of the South African population are able to swim, the NSRI has identified survival swimming as an important part of the water safety education programmes. Further to this, most disadvantaged communities do not have access to swimming pools and children are not taught to swim. The survival swimming programme aims to resolve this issue. For the first part of 2021, however, Covid-19 made it difficult for NSRI to start the programme. Upon the relaxation of the restrictions, NSRI increased the number of sites where survival swimming is offered to reach as many as possible children and lessons were taught at various locations. A total of 2 113 children were taught survival swimming. Over 3 000 000 children were taught since the inception of the programme in 2006 - 332 980 in 2021, across 2 835 places of learning in South Africa.

### **1.2.4 Pink Rescue Buoys**

In 2021, 200 additional Pink Rescue Buoys (PRB) were deployed throughout South Africa. The total amount of Pink Rescue Buoys deployed since the commencement of this project is 1 023. NSRI launched the Pink Buoys Campaign in 2017. Pink Rescue Buoy project has earned international acclaim with an Innovative award from the International Maritime Organization. It is a simple innovation available on public beaches as a safety device and has now been directly instrumental in saving 99 lives.

### **1.2.5 Beach safety camera project**

The beach safety camera initiative has been successfully implemented at Strand and Blouberg beaches in Cape Town. The camera has assisted in various aspects including:

- Identifying rip current hazards
- Observing dangerous swimming conditions and reporting to lifeguards or NSRI station



- Alerting the necessary response teams in an emergency
- Recording rescue in progress for future learning

The proof of concept provides valuable information for future planning and implementation.

### **1.2.6 Research and advocacy**

This is an area that is being formalised in the Drowning Prevention Department. 2021 focussed on the Rip Current Hazard research project, which is a collaborative initiative between the South African Weather Services, City of Cape Town and NSRI. The information gathered will be used to verify the rip current predictive model. Once the model is verified, the next phase would be to create platforms for coastal users in the Western Cape to be informed about the rip current status. As part of formalising drowning prevention research, a process is underway to develop a monitoring and evaluation framework to aid in the conceptualisation of new initiatives and evaluate all drowning prevention initiatives.

### **1.2.7 Rescue Services**

The major strategic focus in 2021 was to embed the new organizational structures and solidify the operational base. With any new structural implementation, there are learnings and realities to deal with and eliminating departments working in a silo. Energizing the people side of NSRI is the focus for 2022, with a drive to improve communication and engagement of the volunteer base.

### **1.2.8 Emergency Operations Centre (EOC)**

The NSRI's Emergency Operations Centre (EOC) did a fantastic job over the recent festive season and are truly a pillar of support to the operations of the organization. Craig Lambinon, the NSRI spokesperson, continues to be a well-known voice of confidence in the rescue reporting world and his experience and wisdom remain pivotal in supporting stations and the EOC. Casualty and family care, as well as compassion, are intangible aspects of what the NSRI does, and Craig exemplifies this – as do many stations. Maintaining consular communications during and after

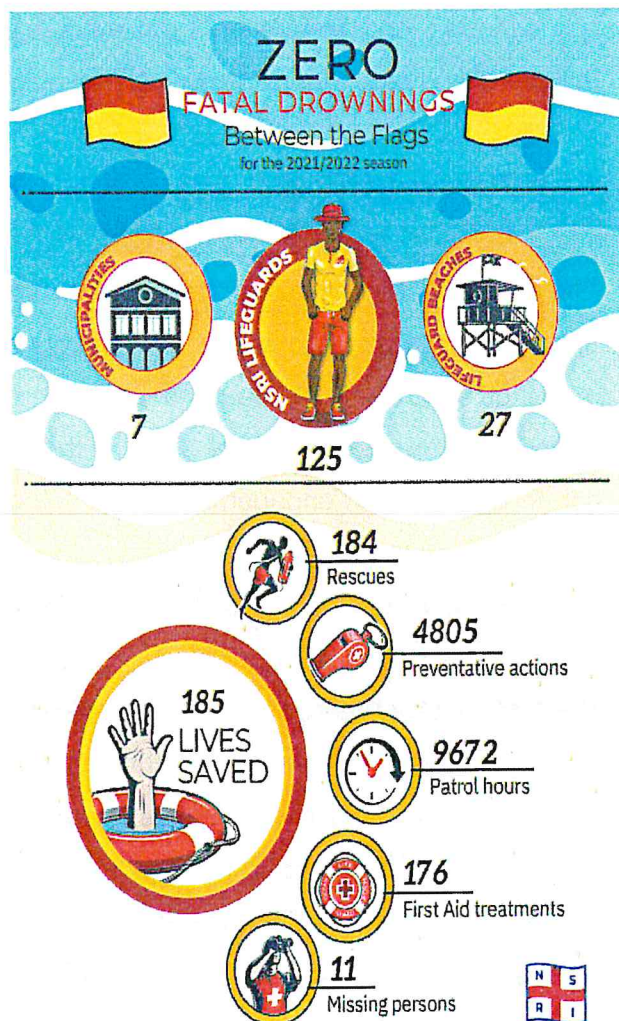
incidents, as well as liaising with other emergency services is critical to our success - it holds things together.

### 1.2.9 Rescues

In 2021, NSRI performed 1025 operations, rescuing 960 individuals, preserving both life and livelihoods, understanding the economic consequences to families and businesses of lives lost. The NSRI has five stations on inland waters and intends to open more. It is often jested as to what these stations do, but they are major players in an inland water safety context. There are many inland water users, and the presence of the NSRI is critical to safe events and safe inland water use. In addition to a boating context, these teams are skilled in swift water rescue and often play a substantial role in responding to inland flooding situations.

### 1.2.10 Lifeguards

Even though NSRI is still experiencing some of the Covid pandemic ramifications, many elements of normality have returned. New ways of working altered operations and change were the new normal for lifeguards and management teams. As a result, skills training and equipment supply were affected and the teams had to work around the clock to ensure that lifeguards had everything they needed to perform their duties. NSRI welcomed back many visitors to the shores while battling the adverse weather and turbulent surf conditions brought upon them by the La Niña weather pattern.



Despite the challenges, that come with changing and adapting NSRI's vision of making South Africa a water safe nation never changed. However, the large influx of visitors to the beaches, together with the adverse weather and swell conditions brought with it a significant increase in incidents on the beaches. The lifeguard service supports the community by providing the highest quality lifeguarding, beach safety and upliftment of local community members in the areas that NSRI serve.

NSRI lifeguards provide a service that enhances the beach amenity available to the communities, and the information and statistics provided in this report demonstrate the dedication of the lifeguards and teams that support them, in serving those communities.

These are remarkable figures and demonstrate the impact the lifeguard services have had and continue to have. NSRI lifeguards focus on providing a preventative and proactive service, has an observable positive on incident rates and beach safety.

### **1.3 Achievements and/or Results of the Year**

The NSRI reviewed its brand in 2021. The brand is central to its identity and communities and individuals identifying with it. A brand is much more than a logo, it encompasses a vision, mission, purpose, values, personality traits, tone of voice, reasons to believe, community takeout and core value proposition.

NSRI's reputation is key to soliciting support across a diverse range of stakeholders the pillars of which include its organisational values, its responsiveness, its connection with society and a range of industries and activities, as well as its commitment to open, accurate and honest communication and transparency. This Integrated Report, for example, contains comprehensive disclosure on the activities of the organisation. The visible leadership and behaviour of staff and volunteers, the representation of NSRI brand, the quality of its services, the professionalism of crews and its efforts to communicate through diverse media and languages, all underpin our reputation.

## **1.4 Challenges/Risk Experienced in the Year**

The safety of the NSRI volunteer rescue crew and the people they rescue is priority. NSRI decided to replace ageing fleet of 10m & 12m rescue boats with craft that are well suited to the missions of medical evacuations and mass rescue operations – the 14m Search and Rescue (SAR) ORC.

The biggest challenge is to secure funding from Government and SOE's. Since NSRI lost some of the crucial annual funding from two of these it is a serious challenge to secure the almost R8 million per annum that we have no longer receive when planning for major capital projects.

The ORCs are being built at a South African Company, Two Oceans Marine, in Cape Town so that there is benefit to the local economy and the employment of local people in the boat building and allied industries.

The build cost was to be approximately R19 500 000 in 2021; this will escalate annually depending on inflation and exchange rates. 45% of the build cost is estimated to be imported content and therefore subject to the risk related to currency fluctuation. The cost of the capex program over the next five years is estimated to be R391M which includes modifications to existing bases to accommodate new

## **2. HAMNET**

### **2.1 Overview of HAMNET's Contribution to SASAR's Objectives**

HAMNET's role and responsibilities as a member of SASAR is to continue to provide an auxiliary mode of communications between the role players in the SAR environment as and when required by its partners. The organisation has continued to work side by side with various other organisations such as WSAR, ORRU and MCSA.

HAMNET aims to fill the space referred to as prescribed by SASAR Policy Manual in Chapter 6, paragraphs 1 and 2, as well as assist where possible in the other Paragraphs.

## **2.2 Operational Objectives or Activities for 2022/23**

HAMNET continues to expand their capabilities with digital mode radio protocols for emergency communications. A number of Raspberry Pi modules were deployed nationally so that regions could practice and develop their skills.

HAMNET is also embarking on a project to utilise available satellite technologies to have better communications. Some high-end software defined radios have been purchased and going to be used for this project. The idea is to have these units deployed at disaster management centres throughout the 9 provinces as well as few mobile units which can be quickly deployed to disaster areas. The majority of this project has been and will continue to be funded by the grant funding received.

HAMNET continues to identify strategic partners with whom MoU's need to be established so that the services of the organisation are more readily available. The lack of MoU's does not exclude any agency from requesting the services of HAMNET.

## **2.3 Achievements and/or Results of the Year**

All regions have regular meetings. The major regions of Gauteng and Western Cape hold meetings monthly while some of other regions have meetings on a less regular basis. All regions have radio bulletins ranging from weekly to monthly. The majority of these meetings were moved to virtual platforms and allowed for a wider participation.

With the COVID pandemic starting to slow down as vaccinations ramp up the number of planned events is starting to increase, allowing the members to get out and practice their skills. Events that HAMNET members have participated in have more than doubled from the previous reporting period. The lifting of restrictions has also seen an increase in mountain rescues in the Western Cape. The number of rescues for the year has increased dramatically from 25 and the preceding year to 123 for 2021/22.

HAMNET KZN has twice assisted Telkom's Maritime Services when they experienced equipment issues along the East Coast. HAMNET Gauteng was involved in the ARCC exercise in February 2022 and it was an eye-opening experience working with other rescue agencies.

The pandemic also gave rise to more virtual meetings internationally which meant that South Africa was able to partake in meetings with international member radio organisations. It has become clear that South Africa is well established in capabilities.

#### **2.4 Challenges/Risks experienced in the year**

The pandemic has led to financial strain on many members as well as government agencies and organisations. This continues to be a concern as HAMNET members are usually self-funding in equipment and costs.

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, especial considering most are volunteers are needed at work. Even for community events, it can be a challenge to get a full compliment. HAMNET is trying to mitigate this by recruiting more members and creating a uniformity in training to all of them.

The pandemic changes the approach of the organisation but this has not all been challenging and has created awareness of possible threats to the manner in which objectives are achieved while allowing organisation to adapt to the new environment.

#### **2.5 Significant or Noteworthy SAR Incidents of the year (if any)**

2021 did not see any significant involvement of HAMNET in SASAR events, although the KwaZulu Natal region did assist strategic partners in operating during temporary outages due to equipment failure.

Below are the activities undertaken during the reporting period:

Rescue	123
Event	28
Training	8
Exercise	2
<b>TOTAL</b>	<b>161</b>

### **3. SEARCH AND RESCUE ZA (SARZA)**

#### **3.1 Overview of SARZA's contribution to SASAR's Objectives**

SARZA, formerly known as the Off-Road Rescue Unit, undertook a re-branding and name change exercise in the second half of 2021 and the unit is now known as SARZA. SARZA are volunteer landward based, rough terrain specialists. SARZA have teams based in 6 of the 9 provinces, namely Gauteng, Western Cape, Kwa-Zulu Natal, Limpopo, Free State and Mpumalanga. SARZA's Primary role on Aeronautical Rescue missions is to provide Trooping, Logistics, Incident Command on scene and mobile communications to the rescue efforts.

#### **3.2 Operational Objectives or Activities for 2021**

Within the last year under review SARZA have expanded their capability by adding teams in two provinces that previously were not covered, namely Kwa-Zulu Natal and Free State. All regions have continued to grow in both member numbers as well as capability. This growth has come about due to formalised training and cross training between regions.

#### **3.3 Achievements and/or Results of the Year**

SARZA have undertaken a number of missions that have involved multiple regions working together including the bad weather caused by Cyclone Eloise that brought flooding to parts of Mpumalanga, Limpopo and Gauteng in January of 2021. Sadly, there were a number of aeronautical incidents during 2021, most notably the mid-air collision just South of JHB in April 2021. While not Aeronautical in nature, SARZA participated in the rescue, coordination and transportation of over one thousand patients from the Charlotte Maxeke JHB Hospital fire in April 2021.

SARZA were called on to assist with patient movements during the July '21 unrest, as well as assisting in the clean-up process after the unrest.

In November of 2021 SARZA participated in a Multi-Agency training exercise along with SAPS, GEMS and other agencies, involving a simulated air crash and the rescue and recovery of flight personnel involved. This was held at Bon Accord Dam near the Wonderboom airport. In December 2021, SARZA again held their annual training camp attended by the regions where all core skills were put to the test, ensuring the common standards throughout the country.

### **3.4 Challenges/Risks experienced in the year**

In 2021, the country was still under lockdown due to Covid and the restrictions posed a risk to the organisation not being able to conduct enough training. Fortunately, SARZA managed to keep some training going as well as participating in over 200 Call outs during the year has kept the members involved and well trained. There was great use made of on-line training across the country thereby keeping all regions up to date.

### **3.5 Significant or Noteworthy SAR Incidents of the year (if any).**

The January 2021 flooding response across Mpumalanga, Limpopo and parts of Gauteng, the Mid-Air collision in Gauteng in April 2021 and the Hospital Fire, must be noted as special events within the rescue year.

## **4. MOUNTAIN CLUB OF SOUTH AFRICA (MCSA)**

### **4.1 Overview of the MCSA's Contribution to SASAR's Objectives**

In February 2022, the decision was made to disband the Garden Route team and their assets was distributed through the national committee to the remaining teams as appropriate. Therefore, the Mountain Club of South Africa Search and Rescue (MSAR) now comprises five teams spread throughout the country. Two teams, namely Cape Town and Hottentots Holland are based in the Western Cape. The Eastern Province 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 five 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 South African Search and Rescue (SASAR) to assist in missing or downed aircraft incidents and can be tasked individually or collaboratively.

### **4.2 Operational Objectives or Activities for 2021/22**

The MCSA collates statistics and reports on its activities on a calendar year basis ending in December. Unlike the previous year, the teams were able to adapt and return to more usual training and operational protocols.



Collectively the teams received 400 calls for assistance of which 258 resulted in a team responding. These statistics reflect an unprecedented increase (44% more calls resulting in 35% more operations over the previous year) in mountain related incidents. The majority of these increases occurred in the Cape and Gauteng area of operations. The net result was approximately 3 811 man-hours of rescue work.

The teams continued to support Aeronautical Rescue Coordination Centre (ARCC) and received calls in respect of nine aviation incidents during the year. The majority of these occurring in the Gauteng team area of operation.

### **4.3 Achievements and Results of the Year**

The MCSA continues to be represented on the International Commission for Alpine Rescue (ICAR). MCSA have members on three commissions - medical, terrestrial and flight rescue and this gives the organisation first-hand access to international leaders in the field of mountain rescue and thus the ability to disseminate up to date techniques to our individual teams. Once again, the annual ICAR congress was held virtual in 2021 as it was not possible to hold in person.

Although MCSA have not held a biennial national training since 2019, two smaller joint exercises were held with participation from more than one team. The Cape teams held a joint exercise in the Cederberg and KZN held an aeronautical search and rescue exercise in conjunction with the Aeronautical Rescue Coordination Centre. However, going forward the Gauteng Team has planned to host a national event in August 2022 in the Magaliesberg.

### **4.4 Challenges and Risks experienced in the year**

The team continues to maintain excellent relationships with all the role players involved in mountain search and rescue.

The major challenge faced by the teams was diminished access to air support from the SAAF, both in terms of training, and also for operations. Although the majority of operations attended by the MCSA occur in the Cape peninsula, the Cape Town and Hottentots Holland teams work closely with the provincial wilderness rescue (WSAR) which makes extensive use of the Air Mercy Service helicopter based in CT. Therefore, the reduce access to SAAF air support was felt more in the other three teams.

## **4.5 Significant or Noteworthy SAR Incidents of the Year**

### **4.5.1 Hiker rescued in Gray's Pass, Central Drakensberg (KZN)**

The mountain rescue team from the KZN Section of the MCSA received a call for help from Ezemvelo/KZN Wildlife late in the afternoon of the 9th of April. A privately guided hiking party with a 60-year-old male hiker from the Western Cape had taken a wrong route when descending Gray's Pass.

The subject had fallen and sustained head injuries and was located at approximately 2800m. A joint operation was then set in motion between Ezemvelo KZN Wildlife, the Mountain Club, Westline Aviation and the South African Air Force.

Two experienced rangers, one of whom is a paramedic were soon airlifted to the top of the Drakensberg. They then descended a rough and dangerous gully near the top of the pass as they could see torchlights far below and unfortunately, the patient also began moving down the gully. They carried on descending until midnight but were unable to reach the patient. At first light, they managed to carry on descending and after a short abseil eventually reached the patient and were able to give medical help.

At dawn on Saturday morning, an Oryx helicopter from the South African Air Force's 15 Squadron in Durban flew to the scene with 4 technical rescuers on board. High winds in the gully prevented immediate extraction but after some time the members were winched down to the patient, who was lying in a very narrow gully. After packaging the patient, he was extracted by hoisting and flown to hospital.

### **4.5.2 Complex Technical Rope Rescue - Table Mountain Cape Town**

Volunteer members of the CT and HH MCSA Mountain Rescue Teams, were requested to help in a WSAR search for a missing woman whose bag had been found on Table Mountain. From the location of the bag, the teams were able to locate the woman in only an hour. Unfortunately, the woman had succumbed to her injuries sustained in her fall. A helicopter extraction was not possible due to the overhanging vertical cliffs with large horizontal ledges as well as rope systems posing a hazard. A large team of 24 MCSA and WSAR volunteers rigged a multi-rope system where our patient and two rescuers could be hoisted 120 meters.

## **5. K9 SEARCH AND RESCUE ASSOCIATION OF SOUTHERN AFRICA**

### **5.1 Overview and Contribution to SASAR's Objectives**

The Association currently consists of one active branch: The Western Cape unit, serving the Western Cape, Northern and Eastern Cape and free state. The Gauteng Province currently has an active group training dogs under the guidance of National.

The KZN unit has made fantastic progress and have now joined with START to assist them. The units are available to assist in any of the provinces on request.

K9 Search and Rescue role is to provide trained dog and handler teams for SASAR operations with regard to wilderness searches for missing aircraft, crew and passengers. To this end the organization has 3 qualified air-scenting dog and handler teams, and 3 trailing dog and handler teams and have a further 16 in training. The association has a good partnership with other K9 units both in Gauteng, KZN and Western Cape that can assist them when needed. Gauteng have 10 dogs in training and KZN a further 4. Three Western Cape Qualified dogs are trained to indicate on AVGAS and Jet A1 fuel.

### **5.2 Overview of Activities and Events**

Extensive training has continued through 2021 and the main activities are the weekly training sessions for dogs and handlers. Training Logs are submitted monthly to the National committee from all dogs in training. These weekly training sessions are held in various types of wilderness terrain, including but not limited to, Open, Dense bush and Mountainous areas. The units trailing dogs are training three times/week in urban and wilderness areas they work on specific individual's scent and thus can follow a specific trail even in contaminated areas.

Whenever opportunities arise, joint training sessions are held with other organizations, such as the (MCSA) Mountain Club of SA, (ORRU) Off road Rescue, (SARZA) Search and Rescue South Africa, (WSAR) Wilderness Search and Rescue Western Cape, Cape METRO, K9 Trailing WC and (START) Specialized Tactical Accident Rescue Team. The Association continues to present demonstrations and talks to interested parties. The Association is an Associate Member of the International Rescue Dog Organisation. The IRO is based in Austria and represents numerous Search Dog organisations around the world. Our trailing dogs are members of (INBTI) International bloodhound training institute.

### 5.3 Activities and events attended:

In addition to weekly training, the organizations have attended or participated in special training sessions, demonstrations and public events.

#### 5.3.1 Western Cape

September 2021	K9 First Aid Training
October 2021	INBTI 5-day trailing seminar, EMS practical demo for the students, theory training given to EMS
November 2021	SARZA Webinar, SAPS memorial event with K9 attending
January 2021	Joint exercise with SARZA and K9 Training
February 2021	ARCC exercise

The unit trains every Sunday and one evening/week as a team. In addition, members attend various training activities to keep Radio, Rescue and Wilderness skills current and the unit conducts an annual overnight training session designed to test the unit's wilderness map reading, navigation and 48-hour survival skills.

The WC unit is actively involved with other organizations in WSAR (Wilderness Search and Rescue) and attend as many of the courses and events as possible. These introduce members to the detailed activities of other disciplines within the SAR environment, which enables us to work more cohesively with other teams on call-outs. Among these teams are:

- Western Cape METRO EMS;
- Mountain Club of SA Rescue unit, Winelands and Cape Town cells;
- Off Road Rescue Unit (ORRU);
- SARZA;
- Air Mercy Services;
- HAMNET; and
- Delta search and rescue.

For the past 7 years K9 SARA has been actively involved with the METRO training program in field operations and incident management including providing K9 search training during their annual 48hour student EMS qualifications.

## **5.4 Resources available**

### **5.4.1 Current situation of K9 SARA**

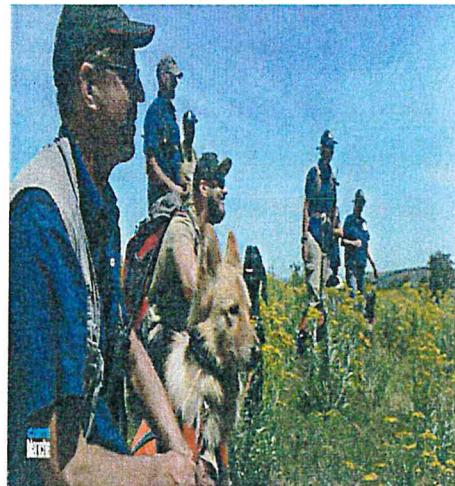
**Western Cape:** Strong unit of 23 members, 3 Qualified air-scent dogs, 2 operational trailing dogs, and a further 16 dogs in different stages of training. 3 dogs trained in AVGAS and Jet fuel detection.

**Gauteng:** Have 10 dogs in training with 7 active members. The trailing unit in Gauteng are available to assist us when needed, they are training under our National INBTI instructor.

**KZN:** Have 4 dogs in training with 2, close to qualification assessment. They have 3 active handlers.

### **5.4.2 Qualified handler and dog teams**

The handlers in K9SARA have a variety of skills and experience in wilderness, urban and disaster 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). Three members of the Western Cape branch are trained as Field Managers for the WSAR organisation. A further 3 as LZ operators. The KZN handlers have had training in rope system, helicopter ground work and high angle training.



### **5.4.3 Trained medical personnel**

Currently K9SARA has 1 Wilderness First Responder and 1 advanced First Responder.



## **6. CALLOUTS AND RESCUES ATTENDED**

Western Cape unit Attended 20 Search and Rescue call outs for lost or missing persons during the reporting period Western Cape assisted with personnel for IC, Comms as well as the use of both air scent, and trailing dogs. Full reports and information available on request. No International call outs were attended by K9 SARA in any official capacity.

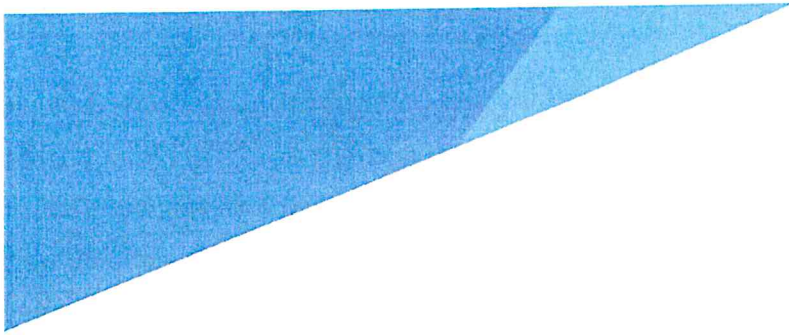
## **7. TRAINING**

### **Western Cape**

The branch trains every Sunday and one-week day. We do two teambuilding events per year and encourage members to attend at least one Navigational Course per year. K9 members do various activities that keep their skills honed for an actual Rescue. The association also try and get actively involved with other organizations in WSAR (Wilderness Search and Rescue) that have training events for their members and invite us. We attend as many of the courses and events that introduce our members to overviews of other disciplines within the SAR environment, which enables us to work more cohesively with other teams when we are on active call-outs. These include METRO, USSR, Helderberg Mountain Club, 4 Wheel Drive Club, EMS and Logistics (Delta). For the past 5 years we have been actively involved with the METRO training program and train with them during their annual 48hr training evaluations.

## **8. THANK YOU**

A thank you to The Department of Transport and the Aeronautical Rescue Co-ordination Centre (ARCC), especially to Mr Gregory Critchley, ARCC Chief, for the support the association receive in enabling the K9 Search and Rescue Association to continue providing this service to the Department of Transport Aeronautical Rescue Co-ordination Centre and SASAR.



# **SECTION F**

## **SAR**

### **COMMUNICATIONS**

#### **PERFORMANCE**

#### **INFORMATION**

## 1. 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 GMDSS and COSPAS-SARSAT Services on behalf of the Department of Transport. These Services are provided in terms of the International SOLAS commonly known 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 Service Agreement relating to the MSI and COSPAS-SARSAT Services.

### 1.2 Summary of Activities

	ROUTINES	DISTRESS	URGENCY	MEDICO	SAFREPS	DSC HF	DSC VHF	SafetyNET	WX F/CASTS	NAV WNGS	NAVTEX	406 BEACONS	AMVERS
Apr-21	100%	2	2	8	2257	9924	255	240	90	60	720	74	1
May-21	100%	3	3	3	2301	10092	280	248	93	62	744	78	0
Jun-21	100%	2	6	6	2860	9235	225	240	90	60	720	62	0
Jul-21	100%	2	3	6	3109	9347	349	248	93	62	744	59	2
Aug-21	100%	0	2	8	2864	8153	261	248	93	62	744	67	1
Sep-21	100%	1	1	7	3037	8905	314	240	90	60	720	70	0
Oct-21	100%	1	2	6	2946	9953	344	240	93	62	744	39	4
Nov-21	100%	1	0	5	2731	9269	284	240	90	60	720	83	4
Dec-21	100%	3	1	8	2919	10102	218	248	93	62	744	59	4
Jan-22	100%	3	0	4	2877	10162	265	248	93	62	744	60	3
Feb-22	100%	6	0	6	2553	9369	255	224	84	56	672	59	0
Mar-22	100%	6	6	8	2824	8761	305	228	93	62	744	77	1
	100%	30	26	75	33308	113272	3358	2912	1095	730	8760	787	20

## 2. COSPAS-SARSAT SERVICES

### 2.1 Summary of Activities

#### SYSTEM OPERATIONS

Number of 406 MHz beacon activations reported to RCCs/SPOCs within the MCC service area

Alert Classifications	EPIRB	ELT	PLB	Sub Total	Total
Distress Alert	2	11	0		13
False Alert					356
Unfiltered processing anomalies					
Operational false alerts (beacon activations)					
Beacon mishandling	13	110	2	125	
Beacon malfunction	10	14	0	24	
Mounting failure	3	1	0	4	
Environmental conditions	2	1	0	3	
Maintenance conditions	1	13	0	14	
Voluntary activation	0	0	0	0	
Unknown	102	75	9	186	
Undetermined	242	246	32		520
<b>Total</b>	<b>375</b>	<b>471</b>	<b>43</b>		<b>889</b>



### 3. Report on Significant Events or Anomalies during Period of Operation

The ASMCC was involved in 13 Distresses in 2021, with 356 False alerts, 520 Undetermined alerts and a total of 889 Alerts recorded for 2021.

The following information provided below indicates the affected persons in an Actual Distress situation and the lives saved.

3.1 These are categorized:

**ELT** (Emergency Locator Transponder) on aircrafts,  
**EPIRB** (Emergency Position Indicating Radio Beacon) on vessels and  
**PLB** (Personal Locator beacon) carried on individuals.

EPIRB	ELT	PLB
2	11	0

Affected persons	Lives saved
24	19

### 4. DISTRESS ALERT

Serial Number:	20210113D11
Frequency:	406.0269
Ship Callsign:	601/SAF
Ship Name:	CB264C7463AEBA1
No. of Crew:	
Position:	27 26.55 031 39.3E
Nature of Distress:	406 MHZ ELT DETECTION
Service:	DIS
Time On:	5:36



A pilot on-board a Piper aircraft PA-46-350P took off from Koedoesberg Game Farm private airstrip on a private flight around the Pongola area in KwaZulu-Natal Province. The pilot reported that the engine stopped shortly after take-off; as a result, he executed a forced landing on a gravel road. On touch down, the undercarriage collapsed, and the aircraft veered off to the right-side of the road. The propeller blades contacted the ground and broke off during the forced landing and the aircraft came to rest on its belly. The pilot sustained serious injuries during the accident.

Serial Number:	20210616D11
Frequency:	406
Ship Callsign:	676/ZAI
Ship Name:	548611955CFFBFF
No. of Crew:	
Position:	02 18.7 S 028 47.8 E
Nature of Distress:	INITIAL 406 ELT ALERT
Service:	DIS
Time On:	9:53



The Let L-410 operated by Kin Avia took off from Bukavu, DR Congo, for a freight flight to Shabunda, DR Congo. 1 passenger and 2 crewmembers were onboard, as well as 1.6 tons of iron roof sheeting. The plane crashed shortly after take-off. All the 3 persons onboard were killed. The plane has been destroyed.

Serial Number:	20210616D14
Frequency:	406
Ship Callsign:	601/SAF
Ship Name:	4B289E91A8FFBFF
No. of Crew:	
Position:	29 41.3 S 030 50.0 E - VIRGINIA AIRFIELD
Nature of Distress:	INITIAL AND UPDATED 406 MHZ ELT #
Service:	DIS
Time On:	13:01



The pilot accompanied by a passenger on-board a Piper PA-46-350P with registration ZS-OIK intended to conduct a private flight from Virginia Aerodrome (FAVG) to Rand Aerodrome (FAGM). During the take-off, the pilot noticed that the engine was not producing enough power. The aircraft overshot the runway and came to a stop on the grass beyond the runway. During the accident, the nose gear collapsed, and the propeller blade struck the ground. The aircraft sustained substantial damage, however, both occupants were unharmed.

Serial Number:	20210904D15
Frequency:	406.0368
Ship Callsign:	659/NAM
Ship Name:	D2664BC163EE2C1
No. of Crew:	
Position:	CONFIRMED - 21 10.8S 016 06.8E
Nature of Distress:	ELT DETECTION
Service:	DIS
Time On:	10:38



The aircraft clipped trees and impacted the terrain during a landing attempt in gusting wind conditions at the Roidina Safari Lodge, Omaruru, Namibia. The sole pilot onboard was seriously injured.

Serial Number:	20210907D15
Frequency:	406
Ship Callsign:	678/ZAM
Ship Name:	D4C640FA62BAA31
No. of Crew:	
Position:	13 48.4 S 029 16.6 E
Nature of Distress:	INITIAL LOCATED ELT ALERT
Service:	DIS
Time On:	11:35



ASMCC made detection of an ELT registration 9J-GRO, detection information was passed on to the necessary SPOC. Following information received, three people on board the aircraft, no fatalities, all occupants were referred to a nearby clinic for assessment. Reason for crash unknown.

Serial Number:	20211008D12
Frequency:	406.0365
Ship Callsign:	659/NAM
Ship Name:	D26648C16278691
No. of Crew:	
Position:	19 42.6S 016.40.2E
Nature of Distress:	ELT EMISSION
Service:	DIS
Time On:	15:49



ASMCC made detection of an ELT registered to V5-MPL, records indicated last operated in 2014, all contact information unanswered and there was no Flight plan for the day. Namibian SPOC tried to contact the owners, a family friend reported there was an accident, pilot was being transported to hospital by ambulance.

Serial Number:	20211011D13
Frequency:	406.0276
Ship Callsign:	601/SAF
Ship Name:	CB28D30C30D34D1
No. of Crew:	
Position:	19 34.9S 035 16.6E
Nature of Distress:	EPIRB DETECTION
Service:	DIS
Time On:	13:18

On the 11<sup>th</sup> October 2021 the ASMCC made detection of an EPIRB registered to MMSI 601088800, ASMCC transmitted the information to the MRCC Cape Town. MRCC Cape Town provided the following update: The daughter of the skipper, confirmed her parents, one other person and their dog are all safe and presently at Beira Police Station. SUNSEEKER was attacked/vandalized and they had to "jump ship", they managed to take their passports but no other belongings.

Serial Number:	20211215D11
Frequency:	406
Ship Callsign:	675/UGA
Ship Name:	D466407763ED631
No. of Crew:	
Position:	01 20.5N 033 28.3E
Nature of Distress:	ELT EMISSION
Service:	DIS
Time On:	5:38

A light aircraft on a training flight crashed into water in Pallisa district, Uganda. The pilot survived the accident.

Serial Number:	20211026D11
Frequency:	406.0245
Ship Callsign:	659/NAM
Ship Name:	D2664BC16258EE1
No. of Crew:	
Position:	26 28.8 S 031 09.1 E
Nature of Distress:	ELT DETECTION
Service:	DIS
Time On:	5:43



ELT Detection received on the 26<sup>th</sup> October 2021 at 0548 UTC, all detection information was reported to the ARCC, and forwarded to the relevant SPOC. It was later reported, A Bell 206L-1 Long Ranger II with 1 occupant.

Serial Number:	20211113D13
Frequency:	406
Ship Callsign:	263/POR
Ship Name:	A0E8C35C40A34D1
No. of Crew:	
Position:	00 48.0 N 008 52.3 E
Nature of Distress:	EPIRB DETECTION
Service:	DIS
Time On:	19:19

ASMCC made detection of an EPIRB for MMSI 263807340. MRCC Cape Town forwarded the information to the relevant RCC, with response from Lisbon MRCC, received the distress alert in the morning confirmed, a vessel had sunk near Figueira da Foz. The people on board have been recovered. No further information received.

Serial Number:	20211115D14
Frequency:	406.0250
Ship Callsign:	659/NAM
Ship Name:	52686A6BF6FFBFF
No. of Crew:	
Position:	22 27.1S 017 00.0E
Nature of Distress:	ELT DISTRESS ALERT
Service:	DIS
Time On:	12:02



The wreckage of the Sling4 aircraft V5-USC that made an emergency landing North of Katutura. The instructor and trainee had minor injuries and were taken to hospital for observation. Aircraft suffered some damage, no further assistance required.

Serial Number: 20211126D13  
 Frequency: 406  
 Ship Callsign: 601/SAF  
 Ship Name: CB264C7462CAEB1  
 No. of Crew:   
 Position: 25 42.0S 029 26.2E  
 Nature of Distress: ELT  
 Service: DIS  
 Time On: 12:13

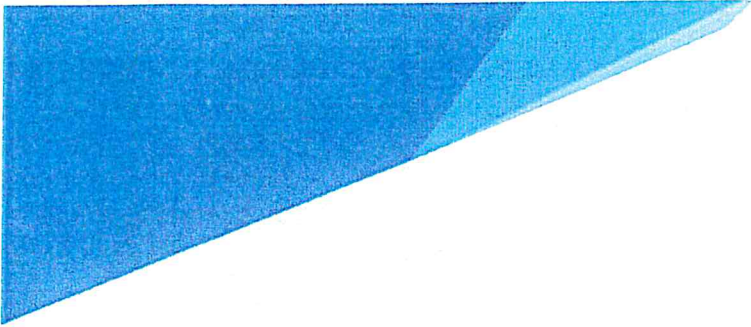


A Cessna 421B Golden Eagle crashed near Middelburg (Transvaal) (FAMB), Mpumalanga. The pilot reported that he experienced a power loss on both engines and decided to navigate the aircraft to Middleburg Aerodrome (FAMB) for an emergency landing. En route to FAMB, both engines stopped, and the pilot executed a forced landing on an open field east of FAMB. The aircraft sustained substantial damages and the pilot sustained minor injuries. The two passengers were uninjured. Post-accident examination of the propeller blades showed that the engines were not producing power prior to the accident.

Serial Number: 20211211D11  
 Frequency: 406.0250  
 Ship Callsign: ZSHXG  
 Ship Name: CB264C74625DEB5  
 No. of Crew: 0  
 Position: 26 02.0S 028 13.0E  
 Nature of Distress: 406MHZ ELT DETECTED  
 Service: DIS  
 Time On: 4:33



The Bell 206 took off uneventfully and during the climb approximately 2 minutes into the flight the pilot received a radio call from the ground crew at the AMO facility informing them about smoke that was coming from the engine compartment. The pilot immediately elected to turn back to the Heliport, during the turn back they noticed the engine chip detector light flashing in the cockpit. Post-accident examination revealed that the engine combustion chamber casing had cracked. The right-hand side engine compartment cowling sustained burn damages. The helicopter skid gears were spread sideways due to hard impact indicating loss of lift. The right skid gear sustained fracture damages.



**SECTION G:**  
**AMSAR**  
**FUNDING**

## 1. SAR Funding

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

## 2. Annual Budget

The annual budget during the year under review was **R75 826 000**. The budget was for the compensation of employees, transfer payments, machinery and equipment, search and rescue projects and meetings. The total expenditure was **R 58 646 000** The Directorate had a surplus of **R17 180 000**.



## LIST OF ACRONYMS

ACFL	Aircraft Crash Forced Landing
ACSA	Airports Company of South Africa
AFCAC	African Civil Aviation Commission
AFI Plan	Aviation Safety in Africa
AFTN	Aeronautical Fixed Telecommunications Network
AFTN	Aeronautical Fixed Communication Network
AIID	Accident and Incident Investigation Division
ALERFA	Alert Phase
AMSAR	Aeronautical and Maritime Search and Rescue
APP	Annual Performance Plan
ARCC	Aeronautical Rescue Co-ordination Centre
ASMCC	South African Mission Control Centre
ASR	Airborne Sea Rescue
ATC	Air Traffic Control
ATNS	Air Traffic and Navigation Services
AUMCC	Australian Mission Control Centre
BCX	Business Connexions
CAC	Civil Aviation Committee
CMPT	Comprehensive Maritime Transport Policy
COMNAP	Council of Managers of National Antarctic Programs
COSPAS	Cosmicheskaya Sistyema Poiska Avariynich Sudov
COVID	Corona Virus Disease
CPR	Cardio Pulmonary Resuscitation
CPUT	Cape Peninsula University of Technology
CSC	COSPAS-SARSAT Council
DISTRESA	Distress Phase
DOT	Department of Transport
ELT	Emergency Locator

ELTP	Emergency Locator Transmission Prosecution
EMR	Electronic Medical Records
EMS	Emergency Medical Service
EOC	Early Operations Capability
EOC	Emergency Operations Centre
EPIRB	Emergency Position Indicating Radio Beacon
EWG	Expert Working Group
EXCO	Executive Committee
FAT	Factory Acceptance Testing
FOC	Full Operational Capability
FRC	Fault Reporting Centre
GIC	Global Integration and Co-operation
GMDSS	Global Maritime Distress and Safety System
IALA	International Association of Lighthouse Authorities
IAMSAR	International Aeronautical and Maritime Search and Rescue
ICAO	International Civil Aviation Organisation
ICVM	ICAO Co-ordinated Validation Mission
IFES	In-Flight Emergency Standby
IMO	International Maritime Organization
INCERFA	Initial Phase
IOC	Initial Operational Capability
JBSARCOM	Joint Bilateral Search and Rescue Committee
JC	Joint Committee
JRCC	Joint Rescue Co-ordination Centre
JWG	Joint Working Committee
LEOSAR	Low Earth Orbit Search and Rescue
LUT	Local User Terminal
MAS	Maritime Assistance Service

MCC	Mission Control Centre
MCSA	Mountain Club of South Africa
MEDEVAC	Medical Evacuation
MEOSAR	Medium Earth Orbit Search and Rescue
MOR	Mandatory Occurrence reports
MOU	Memorandum of Understanding
MRCC	Maritime Rescue Co-ordination Centre
MRO	Maintenance, Repair and Overhaul
MRSC	Maritime Rescue Sub-Centres
MSCC	Maritime Security Coordination Centre
MSI	Maritime Safety Information
NCAP	National Civil Aviation Policy
NCOA	Non Cancellation SAR-Overdue Aircraft
NCSR	Navigation Communications and Search and Rescue
NGOs	Non-Profit Organisation's
NM	Nautical Mile
NSRI	National Sea Rescue Institute
OJT	On the Job Training
ORRU	Off Road Rescue Unit
PLB	Personal Locator Beacon
PLBP	Personal Locator Beacon Prosecution
PPEs	Personal Protective Equipment
QGM	Quadrennial General Meeting
RCC	Rescue Co-ordination Centre
RSC	Rescue Sub-Centre
SAA	South African Airways
SAAF	South African Air Force
SACAA	South African Civil Aviation Authority

SADC	Southern Africa Development Community
SAMAUSAR	South Africa and Mauritius Search and Rescue Committee
SAMSA	South African Maritime Safety Authority
SANDF	South African National Defence Force
SAPS	South Africa Police Service
SAR	Search and Rescue
SARMAPP	SAR Marketing and Promotion Programme
SARPs	Standards and Recommended Practices
SARSAT	Search and Rescue Satellite-Aided Tracking
SASAR	South African Search and Rescue
SAT	Site Acceptance Testing
SLA	Service Level Agreement
SMC	Search Mission Coordinator
SMC	Search Mission Co-ordinators
SMS	Safety Management System
SOLAs	Safety of Lives at Sea
SOLAS	Safety of Life at Sea
SPOCS	Search and Rescue Point of Contacts
SRR	Search and Rescue Regions
SRRs	Search and Rescue Regions
SWPDDR	South west Pacific Data Distribution Region
SWPDDR	South West Pacific Data Distribution Region
TNPA	Transnet National Ports Authority
TRIS	Towards Regional Integration System
USOAP	Universal Safety Oversight Audit Programme
VHF	Very High Frequency
VOIP	Voice Over Internet Protocol
WG	Working Group
WP	Working Paper



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