# SEARCH SEACH RESCUE

# Rapu Whakarauora Aotearoa

Operational Framework for the

New Zealand Search and Rescue Region



March 2021 Third Edition

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# **Approval and Naming Convention**

This third edition of the *Operational Framework for the New Zealand Search and Rescue Region* replaces the second edition, which was in effect from 2011 to 2017.

This edition will come into effect with the endorsement and approval of the NZSAR Council.

The use of 'Operational Framework' or 'Framework' refers to the *Operational Framework for the New Zealand Search and Rescue Region* throughout this document.

## **Version Control**

Minor edits or changes to this Framework are the responsibility of the <u>NZSAR Senior</u> Officials Group.

Any changes that have systemic impacts or implications will require the approval of the NZSAR Council.

The Operational Framework shall be reviewed in the first quarter of each calendar year.

This document is uncontrolled if printed or saved. The current version can be found on the NZSAR website <a href="https://www.nzsar.govt.nz">www.nzsar.govt.nz</a>

Date	Version	Summary of updates
2011	1.0	First edition - Approved by NZSAR Council
8 March 2017	2.0	Second Edition - Approved by NZSAR Council
31 March 2017	2.1	Updated image of NZSRR added
March 2021	3.0	Third Edition - Approved by NZSAR Council

# **GLOSSARY**

# **Terminology and Definitions**

Terminology and definitions used throughout New Zealand's SAR system will be standardised to the extent possible and be as consistent as possible with usage in pertinent international conventions and the IAMSAR Manual.

The following key terms and definitions are used within this Framework.

## **Emergency Phase**

A generic term meaning, as the case may be, uncertainty phase, alert phase, or distress phase.

**Uncertainty Phase:** A situation wherein doubt exists as to the safety of an aircraft or a marine vessel, and of the persons on board.

**Alert Phase:** A situation wherein apprehension exists as to the safety of an aircraft or marine vessel, and of the persons on board.

**Distress Phase:** A situation wherein there is reasonable certainty that a vessel or other craft, including an aircraft or person, is threatened by grave and imminent danger and requires immediate assistance.

## Place of Safety

A place of safety is the location where rescue operations are considered to terminate, and where:

- 1) the survivor's safety or life is no longer threatened; and
- 2) basic human needs (such as food, shelter and medical needs) can be met; and
- 3) transportation arrangements can be made for the survivor's next or final destination.

A place of safety may be on land, or it may be on board a rescue unit or other suitable vessel or facility at sea that can serve as a place of safety until the survivors are disembarked at their next destination.

## Rescue

An operation to retrieve persons in distress, provide for their initial medical or other needs, and deliver them to a place of safety.

#### Search

An operation, normally coordinated by a <u>SAR Coordinating Authority</u>, using available personnel and facilities to locate persons in distress.

## Search and Rescue Facility

Any mobile resource, including designated search and rescue units, used to conduct search and rescue operations.

## **Search and Rescue Operation**

A Search and Rescue Operation (SAROP) is an operation undertaken by a Coordinating Authority to locate and retrieve persons missing or in distress.

The intention of the operation is to save lives, prevent or minimise injuries, and remove persons from situations of peril by locating the persons, providing for initial medical care or other needs, and then delivering them to a place of safety.

## Search and Rescue Point of Contact

A point of contact for SAR, designated by the national administration, that is responsible for receiving distress alert information and providing the information to appropriate SAR authorities.

## Search and Rescue Region

An area of defined dimensions, associated with a rescue coordination centre, within which search and rescue services are provided.

#### Search and Rescue Service

The performance of distress monitoring, communication, coordination, and search and rescue functions, including provision of medical advice, initial medical assistance, or medical evacuation, through the use of public and private resources, including cooperating aircraft, vessels, and other craft and installations.

## Search and Rescue Stage

Typical steps in the orderly progression of SAR missions. These are normally awareness, initial action, planning, operations, and mission conclusion.

**Awareness Stage:** A period during which the SAR system becomes aware of an actual or potential incident.

**Initial Action Stage:** A period during which preliminary action is taken to alert SAR facilities and obtain amplifying information.

**Planning Stage:** A period during a SAR incident when an effective plan of operations is developed.

**Operations Stage:** A period during a SAR incident when SAR facilities proceed to the scene, conduct search, rescue survivors, assist distressed craft, provide emergency care for survivors, and deliver survivors to a suitable facility.

**Conclusion Stage:** A period during a SAR incident when SAR facilities return to their regular location and prepare for another mission.

## Search and Rescue Unit

A unit composed of trained personnel and provided with equipment suitable for the expeditious conduct of search and rescue operations.

# Abbreviations and acronyms

ATA	Antarctic Treaty Area
Cospas-Sarsat	Space System for the Search of Vessels in Distress – Search and Rescue Satellite-Aided Tracking
EAS	Emergency Ambulance Service
IAMSAR	International Aeronautical and Maritime Search and Rescue Manual
ICAO	International Civil Aviation Organization
IMO	International Maritime Organization
MRO	Mass Rescue Operation
NZ	New Zealand
NZSAR	New Zealand Search and Rescue
NZSRR	New Zealand Search and Rescue Region
RCC	Rescue Coordination Centre
RCCNZ	Rescue Coordination Centre New Zealand
SAR	Search and Rescue
SAREX	Search and Rescue Exercise
SAROP	Search and Rescue Operation
SPOC	Search and Rescue Point of Contact
SRR	Search and Rescue Region
SRU	Search and Rescue Unit

# PART 1: SAR POLICY

This section describes the overarching policy for the promulgation of this Framework.

## 1.1 Context

Since April 2003<sup>1</sup>, it has been the policy of the New Zealand Government to provide a *National Search and Rescue Plan* (this Operational Framework) for New Zealand and the <u>New Zealand Search and Rescue Region</u>. This Operational Framework for coordinating search and rescue (SAR) services is designed to meet domestic needs and <u>international</u> commitments.

Implementing guidance for this Operational Framework is provided in the <u>International</u> <u>Aeronautical and Maritime Search and Rescue Manual</u> (IAMSAR Manual), New Zealand's <u>Coordinated Incident Management System</u> (CIMS), <u>New Zealand's SAR Guidelines</u>, and other relevant SAR operational documentation.

# 1.2 Global Concept

The goal of the international community is to provide an effective worldwide SAR system, so that wherever people sail or fly, SAR services will be available if needed. The most effective and practical way to achieve this goal is to develop regional systems associated with each ocean area and continent.

This approach eliminates the need for each State to provide SAR services for its own citizens wherever they travel worldwide. Instead, the globe is divided into search and rescue regions (SRR's), each with associated SAR services which assist anyone in distress within the SRR without regard to nationality or circumstances.

New Zealand is part of the Pacific Ocean area and has developed its SAR system in line with the goal of the global concept for a worldwide SAR system.

## 1.2.1 SAR System Requirements

The basic requirements for developing an effective SAR system include:

- Legislative establishment of the SAR services;
- Arrangements for the use of all available resources, and provision of others if necessary;
- Establishing geographic areas of responsibility with associated RCCs;
- Staffing, training, and other personnel support to manage and operate the system;

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<sup>&</sup>lt;sup>1</sup> CBC Min (03) 2/14

- · Adequate and functioning communications capabilities; and
- Agreements, plans and related documents, to achieve goals and define working relationships.

## 1.3 Purpose

This Operational Framework articulates the national framework for overall development, coordination, and improvement of <u>search and rescue services</u> within the New Zealand Search and Rescue Region.

# 1.4 Guiding Principles

New Zealand's SAR system will deliver effective search and rescue services throughout the NZSRR in line with the following principles.

- No provision of this Operational Framework or any supporting plan is to be construed as an obstruction to prompt and effective action by any agency or individual to assist persons in distress. All actions are to be in the best interest of persons in distress.
- If a distress situation appears to exist or may exist, search, rescue, or similar recovery efforts will be based on the assumption that a distress situation does actually exist until it is known differently.
- It is essential that SAR personnel treat every distress alert as genuine until they know differently.
- Assistance will be provided to any person in distress, regardless of the nationality or status of such person, or the circumstances in which the person is found.
- Unless required for by law or by previous agreement, SAR services provided to persons in danger or distress will be without subsequent cost-recovery from the person(s) assisted.
- In accordance with customary international law, when a nation requests help from another nation to assist person(s) in danger or distress, if such help is provided it will be accomplished voluntarily; New Zealand will neither request nor pay reimbursement costs for such assistance.

# 1.5 Concept of Operations

New Zealand's SAR system delivers effective search and rescue services throughout the NZSRR by providing:

- two coordinating authorities, able to coordinate land, sea, and air SAR operations 24 hours a day, seven days a week;
- appropriately located and trained land, sea, and air search and rescue response agencies and assets, available to conduct SAR operations on request by the coordinating authorities; and

• long-range SAR assets, able to conduct operations throughout the New Zealand Search and Rescue Region and in support of neighbouring SAR regions.

# 1.6 SAR Operations covered by this Plan

This Operational Framework covers the following types of SAR operations:

- Aeronautical SAR (including SAR assistance in the vicinity of airports).
- Land-based SAR within New Zealand and the <u>Antarctic Treaty Area</u> (including SAR operations associated with environments such as remote areas, swift water, caves, mountains, etc.).
- Maritime SAR (involving search and rescue from a water environment).
- Wander SAR (involving SAR operations for persons who suffer from cognitive impairment such as dementia, autism, or young children; often in suburban areas).
- Provision of initial assistance at or near the scene of a distress situation (e.g. initial medical assistance or advice, medical evacuations, provision of needed food or clothing to survivors, etc.).
- Delivery of survivors to a place of safety or where further assistance can be provided, or further transportation arranged if necessary.
- Saving of property when it can be done in conjunction with or for the saving of lives.
- Mass Rescue Operations.
- SAR services as a sub-phase of a Police-led missing persons inquiry.
- SAR services associated with incidents led by other agencies as part of the National Security System (e.g., SAR operations for persons in distress as a result of illegal mass arrivals, or a geological or meteorological (e.g., tsunami or flooding) event).

This Operational Framework does *not* cover operations such as:

- Air ambulance services which did not result from a SAR operation.
- SAR within the territorial limits of other nations in the New Zealand Search and Rescue Region.
- Military operations, such as combat SAR or other types of recovery by military operations to remove military or civilian personnel from harm's way (e.g., noncombatant evacuation operations).
- Salvage operations.
- Assistance in cases of civil disturbance, insurrection, or other emergencies which endanger life or property or disrupt the usual process of government.
- Urban search and rescue (USAR) which involves finding and rescuing people trapped when a structure collapses (e.g., if a single building collapses or as a result of a major landslide or earthquake). In New Zealand USAR comes under the mandate of Fire and Emergency New Zealand.

# PART 2: LEGAL AND NATIONAL FRAMEWORKS

This section provides a brief overview of the International Conventions and Acts of the New Zealand Parliament that provide the mandate for the establishment and provision of search and rescue services within the <u>New Zealand Search and Rescue Region</u>; and how the SAR system fits within New Zealand's wider national security system.

## 2.1 International Conventions

The New Zealand Government has obligations to establish and provide search and rescue services under international conventions to which it is a party. These include the:

- Convention on International Civil Aviation 1944: Annex 12 'SAR Standards and Procedures';
- International Convention for the Safety of Life at Sea (SOLAS) 1974: Chapter V 'Search and Rescue';
- Convention on the High Seas 1958: Article 12;
- International Convention on Maritime Search and Rescue 1979: 'Provision of regional SAR services and RCC';
- United Nations Convention on the Law of the Sea (1982): Article 98 'Duty to render assistance'.

In brief, these conventions impose obligations on the party states to:

- arrange for the establishment and prompt provision of search and rescue services within their Search and Rescue Regions (SRR);
- establish a 'national machinery' for the overall coordination of search and rescue services;
- establish a rescue coordination centre for the relevant search and rescue region, staffed 24 hours a day.

# 2.2 New Zealand Legislation

The New Zealand Government has ensured that its international obligations for the provision of SAR services are implemented by incorporating appropriate requirements into New Zealand legislation.

New Zealand statutes that pertain directly to the provision of SAR services include:

- Civil Aviation Act 1990 -- section 14b
- Maritime Transport Act 1994 -- section 431

The Minister of Transport, through these two statutes, is responsible for the organisation and conduct of particular SAR activities within the NZSRR.

Other New Zealand statutes that relate to the provision of SAR services include:

Policing Act 2008 -- sections 9, 10

Coroners Act 2006 -- section 19

The relevant sections of these Acts, as they apply to the SAR system, can be found at Annex A.

# 2.3 New Zealand's National Security System

"National security" in the New Zealand context encompasses more than the traditional definition of security as solely the preserve of defence, law enforcement and intelligence agencies. National security is the condition which permits the citizens of a state to go about their daily business confidently free from fear and able to make the most of opportunities to advance their way of life. It encompasses the preparedness, protection and preservation of people, and of property and information, both tangible and intangible.

New Zealand takes an "all hazards – all risks" approach to national security, and has done so explicitly since a Cabinet decision to this effect in 2001<sup>2</sup>. This approach acknowledges New Zealand's particular exposure to a variety of hazards as well as traditional security threats, any of which could significantly disrupt the conditions required for a secure and prosperous nation.

The National Security System Handbook<sup>3</sup> outlines seven key objectives that underpin the comprehensive "all hazards" approach that the New Zealand system takes to national security. The provision of SAR services is fundamental to achieving the national objective of **ensuring public safety** — providing for, and mitigating risks to, the safety of citizens and communities (all hazards and threats, whether natural or man-made).

<sup>&</sup>lt;sup>2</sup>POL Min (01) 33/18

<sup>&</sup>lt;sup>3</sup> https://www.dpmc.govt.nz/sites/all/files/dpmc-nss-handbook-aug-2016.pdf

# PART 3: NEW ZEALAND'S SAR SYSTEM

This section describes the structure and machinery of New Zealand's SAR system.

# 3.1 Overview of New Zealand's SAR System

This diagram (figure 1), and the brief explanation of the various components, illustrates the structure of New Zealand's SAR system. Further details about the various components of the SAR system are contained in this part of the Framework.

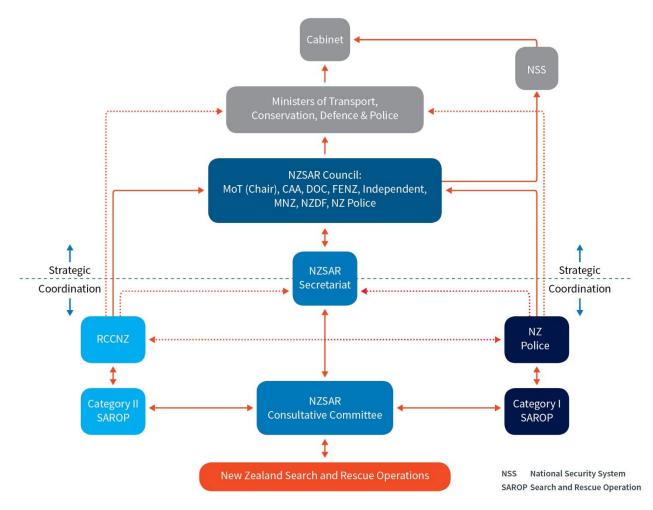


Figure 1 – NZSAR Governance Structure

Cabinet and Ministers have responsibility for national policy relating to SAR in New Zealand.

The **National Security System (NSS)** is made up of a number of components. Flexibility enables the National Security System to respond at an appropriate level, with many events being managed by multi-agency groups of senior officials. In contrast, when national leadership or involvement is required, the high-level planning and strategic response is directed by the Prime Minister and senior members of Cabinet.

The **NZSAR Council** provides national strategic governance to the New Zealand search and rescue sector. In keeping with the Council's high level strategic function, its membership is drawn from the chief executives of the Ministry of Transport (chair), New Zealand Police, New Zealand Defence Force, Maritime NZ, the Civil Aviation Authority, the Department of

Conservation, Fire and Emergency New Zealand, and an independent member representing the non-government sector.

The **NZSAR Secretariat** supports the NZSAR Council and provides strategic coordination for search and rescue in New Zealand through support services, policy advice, and implementation of NZSAR Council decisions.

The **NZSAR Consultative Committee** is a national forum for all New Zealand SAR stakeholders, and facilitates research, reviews, and reports across the SAR sector.

The **Coordinating Authorities** have responsibility for the operational co-ordination of SAR operations. The Coordinating Authorities work in close cooperation and coordinate the activities of the organisations, groups, and individual assets that respond to search and rescue operations.

**Search and Rescue Operations (SAROPs)** are carried out by a range of organisations, groups, and individual assets. Most of the organisations involved in responding to or supporting SAROPs are represented on the NZSAR Consultative Committee.

# 3.2 National Security Governance Structures

New Zealand's arrangements for dealing with national security issues is referred to as the "National Security System<sup>4</sup>".

The existence of a structured approach to national security through the National Security System does not override the statutory powers and responsibilities of Ministers or departments. Responsibility for actions and policies remains with the Chief Executive of an agency, statutory officers and the relevant Minister. The aim of approaching national security considerations through the construct of the National Security System is to ensure more effective coordination when agencies work together on complex problems in order to achieve better outcomes.

The National Security System operates at three levels:

- Ministers (Cabinet External Relations and Security Committee): Led by the Prime Minister who also holds the portfolio of "National Security and Intelligence".
- **Chief Executives:** The Officials' Committee for Domestic and External Security Coordination commonly referred to as ODESC is a committee of Chief Executives which manages national security in New Zealand in both its governance and its response mode.
- Senior officials and other officials (Committees, Working Groups and Watch Groups), who work together in formal structures and less formally in pursuit of shared national security objectives.

At the Chief Executive level, the **Hazard Risk Board (HRB)** reports to ODESC. The purpose of the HRB is to build a high performing and resilient National Security System able to manage

<sup>&</sup>lt;sup>4</sup> Refer <u>dpmc.govt.nz/our-programmes/national-security-and-intelligence/national-security/new-zealands-national-security</u>

civil contingencies and hazard risks through appropriate governance, alignment, and prioritisation of investment, policy and activity.

## 3.3 NZSAR Council

The New Zealand Search and Rescue Council was established by Cabinet<sup>5</sup> in April 2003, to provide national level strategic governance and leadership to the New Zealand Search and Rescue (SAR) sector.

The NZSAR Council formally reports to the Government through the National Security System (NSS). This occurs via the Hazard Risk Board (HRB) and/or the Officials' Committee for Domestic and External Security Coordination (Governance) (ODESC (G)). The Council may report to Cabinet via the Minister of Transport.

The NZSAR Council's objectives are to:

- Provide strategic search and rescue policy advice to government.
- Provide strong strategic coordination and leadership for search and rescue (sea, land and air) within New Zealand's search and rescue region.
- Provide a centralised public voice for strategic SAR issues.
- Maintain a New Zealand Search and Rescue strategy including:
  - Vision
  - Mission
  - Values
  - o Goals
  - o Risks
- Maintain New Zealand's Search and Rescue Plan (this Framework).
- Monitor New Zealand's international SAR obligations.
- Monitor search and rescue sector: trends, finances, capabilities, performance, agreements, strategies and goals.
- Approve and monitor SAR Government funding to non-governmental organisations including the Joint Service Level Agreements.
- Approve and monitor the National SAR Support Programme.

The NZSAR Council comprises the Chief Executives (or their designated representative) of seven public organisations, and one independent member representing the non-governmental elements of the SAR sector.

The seven public organisations are:

- Civil Aviation Authority
- Department of Conservation
- Fire and Emergency New Zealand
- Maritime New Zealand

<sup>&</sup>lt;sup>5</sup> CBC Min (03) 2/14

- Ministry of Transport
- New Zealand Defence Force
- New Zealand Police

## 3.4 NZSAR Senior Officials Group

The NZSAR Council is supported by a Senior Officials Group (SOG) representing the seven public organisations, chaired by the NZSAR Secretariat Manager.

The purpose of the NZSAR SOG is to support the NZSAR Council's work programme by:

- Shaping the forward agenda for NZSAR Council meetings.
- Ensuring action items are managed appropriately.

## 3.5 NZSAR Secretariat

The NZSAR Secretariat provides the NZSAR Council with information, support services and advice. The NZSAR Secretariat also provides sector leadership and implements measures to effect strong strategic coordination across New Zealand's search and rescue sector.

The NZSAR Secretariat assists the NZSAR Council achieve its purpose and objectives by:

- Providing information, support services and advice.
- Maintaining key documentation.
- Monitoring New Zealand's domestic and international SAR obligations.
- Developing, maintaining and monitoring Government funding arrangements with non-governmental organisations including the Joint Service Level Agreements.
- Providing assurance to the Council by reporting on SAR sector risks, capabilities, preparedness, finances and service performance.
- Serving as an ideas initiator.
- Converting NZSAR Council policies and principles into actions by developing and delivering the National SAR Support Programme.

The NZSAR Secretariat does not have an operational SAR role, nor does it oversee individual SAR delivery agencies. It is accountable to the NZSAR Council and provides leadership to the NZSAR Consultative Committee which is a forum for all New Zealand based SAR stakeholders.

## 3.6 NZSAR Consultative Committee

The NZSAR Consultative Committee provides a national forum for all New Zealand SAR stakeholders, including voluntary groups.

The NZSAR Consultative Committee's objectives are to:

• Inform the policies and strategic decision making process of the NZSAR Council.

- Share initiatives, processes and knowledge to enhance the measurement, capacity, capability, preparedness, delivery and reduction of SAR in New Zealand.
- Create and strengthen relationships and linkages across participants within the New Zealand SAR Sector.
- Work collectively and collaboratively in order to deliver objectives within the national SAR strategic plan.
- Inform the Council and Secretariat of issues which may impact on the delivery of SAR services, capability or preparedness.
- Provide relevant information to enable the validation and monitoring of national SAR service and financial performance, standards, training, agreements and documentation relevant to all participants in New Zealand SAR.
- To inform and support New Zealand's search and rescue:
  - Vision
  - Mission
  - Values
  - o Goals
  - o Risks
  - o Plan
- Assist in shaping and supporting the National SAR Support Programme.

The NZSAR Consultative Committee, as a collective entity, does not have a role in the coordination or execution of search and rescue operations, though individual members or organisations are likely to have operational roles.

NZSAR Consultative Committee members are: 6

- Amateur Radio Emergency Communications
- Ambulance New Zealand
- Antarctica New Zealand
- Aviation New Zealand
- Civil Aviation Authority
- Coastguard New Zealand
- Department of Conservation
- Fire and Emergency New Zealand
- Kordia Maritime Operations Centre (MOC) Maritime Radio
- LandSAR New Zealand
- Maritime New Zealand
- Ministry of Transport
- National Ambulance Sector Office
- New Zealand Defence Force

<sup>&</sup>lt;sup>6</sup> As at February 2021

- New Zealand Mountain Safety Council
- New Zealand Police
- NZSAR Secretariat (chair)
- Rescue Coordination Centre New Zealand
- Surf Life Saving New Zealand
- Water Safety New Zealand

# 3.7 SAR Coordinating Authorities

A search and rescue <u>Coordinating Authority</u> is the agency or body responsible for the overall conduct of a Search and Rescue Operation. The Coordinating Authority will lead and manage the operation.

New Zealand has two recognised SAR Coordinating Authorities. They are:

- The New Zealand Police
- The Rescue Coordination Centre New Zealand

Special coordination arrangements are made for SAR incidents that occur within Antarctica.

# 3.8 NZSAR Working Groups

From time to time, the NZSAR Council or NZSAR Consultative Committee may establish inter-agency working groups for a specific purpose. Terms of Reference for these working groups are available on the NZSAR website<sup>7</sup>.

The current<sup>8</sup> working groups are:

- NZSAR Guidelines, Forms and Templates Management Group
- NZSAR Strategic Occupational Health, Safety and Wellbeing Committee
- SAR Innovation & Technology Panel
- SAR Training (Land) Governance Group
- SAR Training (Multi-Agency) Governance Group
- SARdonyx Governance Group
- Wander Stakeholder Reference Group

Many smaller *ad hoc* working groups are established on an as-required basis to deal with specific issues or to meet the needs of a segment of the SAR system.

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<sup>&</sup>lt;sup>7</sup> www.nzsar.govt.nz

<sup>&</sup>lt;sup>8</sup> As at February 2021

# **PART 4: INTERNATIONAL SAR**

This section outlines how New Zealand's SAR system fits within the international SAR system with a focus on the Pacific Region.

# 4.1 New Zealand Search and Rescue Region

By international agreements the world is divided into Search and Rescue Regions (SRRs). The New Zealand Search and Rescue Region (NZSRR) covers over thirty million square kilometres of ocean expanses and relatively small, isolated land masses. The NZSRR contains a number of Pacific Islands and part of the Antarctic Treaty Area.

The area of the NZSRR is roughly one twelfth of the world's oceanic surface (figure 2).

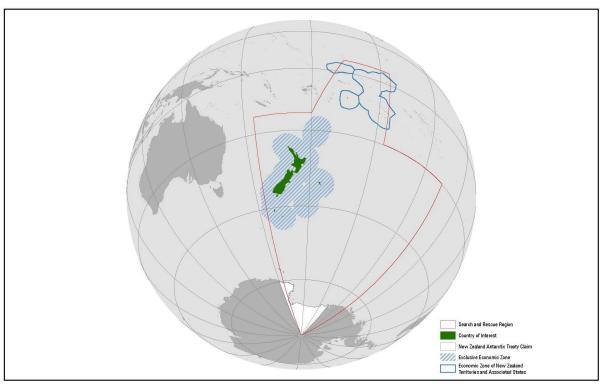


Figure 2 - Map of the New Zealand Search and Rescue Region (NZSRR)

## 4.2 NZSRR Limits

The NZSSR is bounded to the:

- West by meridian 163° 00'E.
- East by meridian 131° 00'W.
- South to the South Pole.
- North by a line joining:
  - o 25° 00'S., 163° 00'E.
  - o 25° 00'S., 180° 00'W.
  - o 05° 00'S., 171° 00'W.

- o 05° 00'S., 157° 00'W.
- o 30° 00'S., 157° 00'W.
- o 30° 00'S., 131° 00'W.

## 4.2.1 Pacific Islands

A significant portion of the NZSRR sits within the South Pacific Ocean, and contains a number of independent States and Territories. Independent States and Territories are responsible for the provision of search and rescue services within their territorial limits.

International law addresses concerns for saving lives and concerns for sovereignty. This is addressed in the International Convention on Maritime Search and Rescue 1979 where it states that "The delimitation of search and rescue regions is not related to and shall not prejudice the delimitation of any boundary between States."

The Independent States and Territories within the NZSRR are:

- American Samoa
- Cook Islands
- Niue
- Norfolk Island (an External Territory of Australia)
- Samoa
- Tokelau
- Tonga

#### 4.2.2 Antarctica

A significant portion of the NZSRR sits within the Antarctic Treaty Area (ATA) as defined by the Antarctic Treaty of 1959 (of which New Zealand is a signatory). The ATA is defined as the area south of 60° South Latitude, including all ice shelves.

## 4.2.3 Neighbouring Search and Rescue Regions

As part of an international system, the NZSRR shares boundaries with other Search and Rescue Regions. In clockwise order from the West, these are:

- Australia SRR
- Fiji SRR
- United States SRR
- Tahiti SRR
- Chile SRR
- New Caledonia SRR

# 4.3 International Support

New Zealand authorities may support SAR operations anywhere in the world, consistent with their expertise, capabilities, and legal authority. This is consistent with the principles of assisting persons in distress without regard to nationality or circumstances, and of using all available resources for SAR. It is in the interest of the safety of New Zealand citizens who travel or live worldwide. It is also consistent with New Zealand's humanitarian goals and the advantages of domestic and international cooperation.

In accordance with international law, New Zealand SAR facilities, in a position to render timely and effective assistance, may enter into or over the territorial seas or archipelagic waters of another state for the purposes of rendering assistance to a person, ship, or aircraft, whose position is reasonably well known, is in danger or distress, and requires emergency assistance.

New Zealand authorities, consistent with their capabilities and legal authority, may support another country's SAR operations in territorial and international waters beyond the limits of the NZSRR.

New Zealand authorities, consistent with their capabilities and legal authority, may conduct SAR support functions with other nations, such as training, exercises, and liaison. Such support functions are to be coordinated with other New Zealand authorities having SAR expertise with respect to the support concerned.

## 4.3.1 Pacific SAR Strategy

The Pacific Search and Rescue (PACSAR) Steering Committee is a collective of search and rescue agencies from five principal nations – Australia, Fiji, France, New Zealand, and the United States of America – that hold responsibility for significant search and rescue regions (SRRs) of the central and south eastern Pacific. Each of these nations is committed to working with other Pacific Island Countries or Territories (PICTs) within or neighbouring their areas of responsibility to build SAR response capability. Collectively, the committee is working to build SAR capability and cooperation across the Pacific to save lives.

The PACSAR steering committee is supported by the Pacific Community (SPC), an international development organisation owned and governed by its 26 members that is committed to enhancing the well-being of Pacific peoples. In addition to the five member countries of the PACSAR steering committee, through SPC membership all other Pacific Island Countries or Territories are members of the PACSAR family.

# 4.4 SAR Agreements

Bilateral or multilateral SAR agreements with international authorities (either within or adjacent to the NZSRR) or international organisations may be of practical value for the effective delivery of SAR services by:

- Helping fulfil New Zealand's domestic and international obligations and needs
- Enabling more effective use of all available SAR resources
- Better integration of New Zealand's SAR services within the global SAR system

Negotiation and conclusion of such agreements should consider matters such as:

- Which authorities of the Governments, agencies, or organisations concerned should be involved with the agreement
- Which types of SAR operations (e.g. aeronautical, maritime, etc.) or SAR support functions should be included within the scope of the agreement
- Consistency with international and domestic SAR principles or policies
- Relevant guidance of the IAMSAR Manual and other pertinent directives

## 4.4.1 SAR Agreement with Fiji

In 1984 the governments of New Zealand and Fiji exchanged letters that constitute an agreement on search and rescue operations<sup>9</sup>.

This agreement remains in effect today.

<sup>&</sup>lt;sup>9</sup> treaties.mfat.govt.nz/search/details/t/2737

# PART 5: SAR COORDINATION

This section outlines how New Zealand's SAR system coordinates the delivery of SAR services.

# 5.1 Category of SAR Operations

There are two categories of SAR operations. These are defined as Category I and Category II (or as Category 1 and Category 2).

**Category I (Category 1).** A SAROP coordinated at the local level; including land operations, subterranean operations, river, lake and inland waterway operations, and close-to-shore marine operations 11.

**Category II (Category 2).** A SAROP coordinated at the national level; including, operations associated with missing aircraft or aircraft in distress, and off-shore marine operations within the New Zealand Search and Rescue Region<sup>12</sup>.

# 5.2 SAR Coordinating Authorities

For any SAROP there can only be one Coordinating Authority who is responsible for the management and coordination of the operation. The current responsibilities are as follows:

- New Zealand Police are the Coordinating Authority for all Category I SAROPs in New Zealand.
- National Antarctic Programme's are the Coordinating Authorities for all Category I SAROPs in Antarctica.
- The Rescue Coordination Centre New Zealand (RCCNZ) is the Coordinating Authority for all Category II SAROPs.

The Coordinating Authority to receive initial notification of an incident that may require a SAROP will undertake the initial classification of the SAROP and assume responsibility until any formal transfer required is agreed.

With the agreement of both Coordinating Authorities any SAROP may be re-categorised at any time and responsibility passed in either direction. 13

<sup>&</sup>lt;sup>10</sup> The nature of 'close-to-shore' will vary according to the availability of local resources and the need to task national assets. Typically such operations will be within NZ Territorial Waters (12 nautical miles).

<sup>&</sup>lt;sup>11</sup> Category I SAROPs typically require the use of local personnel and resources and can be carried out efficiently and effectively at the local level.

<sup>&</sup>lt;sup>12</sup> Category II SAROPs typically require the use of national or international resources and may involve coordination with other States.

<sup>&</sup>lt;sup>13</sup> Typically such re-categorisation would happen no more than once in any SAR operation.

## 5.2.1 Emergency Ambulance Services

Some SAR operations require rescued persons to be transported to a medical facility by one of New Zealand's Emergency Ambulance Services (EAS), which needs to be coordinated between the EAS and the SAR Coordinating Authority. Additionally, increases in mobile phone coverage across New Zealand occasionally allows persons in distress to contact an EAS directly, rather than <u>alerting</u> the SAR system.

To reduce potential confusion about the coordination of these incidents, the SAR Coordinating Authorities and the Emergency Ambulance Services shall maintain a Relationship Letter of Agreement for the purposes of:

- Providing guidance to ascertain if an event should be resolved as a SAR operation or a medical emergency.
- Clarifying roles, responsibilities, and costs.
- Ensuring the most appropriate resource (SAR facility or Ambulance) is tasked by the
  most appropriate agency (SAR Coordinating Authority or EAS) for the recovery of a
  person having a medical event in what may be, or become, a SAR operation.

## 5.2.2 Antarctic SAR Coordination

Within the Antarctic Treaty Area (ATA) of the NZSRR, the coordinating authority will be either RCCNZ or a National Antarctic Programme (NAP).

Antarctica New Zealand and the United States Antarctic Programme have established the NZ/US Unified Incident Command to coordinate SAR operations for their supported activities (Category I SAROPs).

Unless other arrangements have been made it is expected that other National Antarctic Programmes operating within the ATA of the NZSRR will coordinate SAR operations for their own supported activities.

Within the ATA of the NZSRR, the categories of SAR operations are typically:

**Category I (Category 1).** Any SAR response to a National Antarctic Programme supported activity. This would include a response to incidents involving individuals, vehicles, vessels, and aircraft on intra-continental flights.

Category II (Category 2). Any SAROPs associated with:

- Inter-continental aircraft missing or in distress
- Off-shore marine operations
- Satellite emergency beacon or Satellite Emergency Notification Device alerts
- Response to a SAR or medical request from a National Antarctic Programme or Non-Government Organisation.

## 5.2.3 Body Recovery

New Zealand Police have the legal responsibility for all body recovery activities in New Zealand <sup>14</sup> in accordance with the Coroners Act 2006.

During a Category I SAROP New Zealand Police is the Coordinating Authority and will handle body recovery as part of the SAROP.

During a Category II SAROP the Rescue Coordination Centre New Zealand is the Coordinating Authority and will manage all SAROP activity but, where practicable, will defer all matters relating to any subsequent body recovery activity to New Zealand Police.

SAR operations are not conducted solely for the purpose of recovering a body; such operations conducted by NZ Police, even if they utilise SAR facilities, need to be recorded as 'body recovery' operations within the <u>SARdonyx</u> information system.

## 5.3 SAR Manuals and Documentation

The Coordinating Authorities rely on many other agencies and assets to conduct SAR operations. In order for SAR operations to be effective, they are conducted in accordance with established policies, practices, and procedures.

These policies, practices, and procedures are contained across a variety of documentation:

- IAMSAR Manual
- New Zealand Coordinated Incident Management System
- SAR Chapter of the Police Manual
- New Zealand's SAR Guidelines
- SAR Plans of Operation (as the collective name for all individual specific SAR readiness plans, standard operating procedures, and aides-memoir)

## 5.3.1 IAMSAR Manual

The IAMSAR Manual (International Aeronautical and Maritime Search and Rescue Manual) is a joint International Civil Aviation and International Maritime Organisation publication issued under the auspices of the United Nations, is designed to assist jurisdictions meet their own SAR needs, taking account of the obligations they accepted under several international Conventions. While the Manual provides guidelines for a common aviation and maritime approach to organising and providing SAR services, jurisdictions are encouraged to develop (and train for) their SAR services as part of a cooperative global system.

The Manual is made up of three volumes:

- Volume I, Organisation and Administration;
- Volume II, Mission Coordination; and

<sup>&</sup>lt;sup>14</sup> New Zealand means the land and the waters enclosed by the outer limits of the territorial sea of New Zealand (as described in section 3 of the Territorial Sea, Contiguous Zone, and Exclusive Economic Zone Act 1977); and includes the Ross Dependency.

• Volume III, Mobile Facilities.

## 5.3.2 Coordinated Incident Management System

New Zealand's Coordinated Incident Management System (CIMS) is the result of a collaborative effort by New Zealand's emergency management agencies and is endorsed by ODESC.

CIMS establishes a framework of consistent principles, structures, functions, processes and terminology for response and the transition to recovery.

The purpose of CIMS is to enable personnel to respond effectively to incidents through appropriate coordination across functions and organisations – both vertically and horizontally – by:

- establishing common structures, functions and terminology in a framework that is flexible, modular, and scalable so that the framework can be tailored to specific circumstances; and
- providing organisations with a framework that they can use to develop their own CIMS-aligned processes and procedures that support both own-organisation and multi-organisation interoperability, giving due consideration to each organisation's unique responsibilities, resources and legislative authority.

CIMS is reviewed every five years; the CIMS third edition was published by ODESC in August 2019 and is available on the NZSAR website.

## 5.3.3 SAR Chapter of the Police Manual

The SAR Chapter of the Police Manual provides the information, policy, and procedures necessary for Police to carry out their duties during a SAROP. It also contains guidelines for NZ Police interaction with other Government departments and volunteer organisations involved in SAR operations.

## 5.3.4 New Zealand's SAR Guidelines

New Zealand's SAR Guidelines provide an agreed, unified, and documented doctrinal basis for undertaking search and rescue operations within New Zealand.

The Guidelines are available on the NZSAR website<sup>15</sup> and are regularly reviewed and updated by the NZSAR Guidelines, Forms and Templates Management Group.

#### 5.3.5 SAR Readiness Plans

The Coordinating Authorities are responsible for preparing comprehensive readiness plans for the conduct of SAR operations in their respective areas of responsibility. These plans

<sup>&</sup>lt;sup>15</sup> <u>nzsar.govt.nz/nzs-sar/nzs-sar-guidelines-overview</u>

should be based on agreements between the Coordinating Authorities and the providers of SAR facilities or other support for SAR operations.

Plans are intended to be valuable aids for time-critical search planning and SAR coordination processes. The Coordinating Authorities should develop plans that:

- Meet the requirements of applicable international SAR manuals.
- Cover all potential SAR emergency scenarios likely to occur within the NZSRR, or within the Police District or area of the NZSRR relevant to that plan (e.g., Antarctica).
- Are based on identified SAR risks and analysis of SAR trends.
- Are reviewed and updated regularly.
- Are readily available to SAR coordinators in convenient form for quick and easy use.

# **PART 6: SAR RESPONSE**

This section describes how New Zealand's SAR system responds to a search and rescue incident.

## 6.1 SAR Stages

The response to a SAR incident usually proceeds through a sequence of five stages. These stages are groups of activities typically performed by the SAR system in responding to a SAR incident from the time the system becomes aware of the incident, until its response to the incident is concluded.

The response to a particular SAR incident may not require the performance of every stage.

The activities of one stage may overlap the activities of another stage, such that portions of two or more stages are being performed simultaneously.

The five stages are described below.

## 6.1.1 Awareness Stage

Knowledge by any person or agency in the SAR system that an emergency situation exists or may exist.

## 6.1.2 Initial Action Stage

Preliminary action taken to alert SAR facilities and obtain more information. This stage may include evaluation and classification of the information, alerting <u>SAR facilities</u>, communication checks, and, in urgent situations, immediate performance of appropriate activities from other stages.

## 6.1.3 Planning Stage

The development of operational plans, including plans for search, rescue, and delivery of rescued persons to a place of safety.

## 6.1.4 Operations Stage

Dispatching SAR facilities to the scene, conducting searches, rescuing people in distress, providing necessary emergency care to meet initial medical or other needs, and delivering rescued people to a place of safety.

## 6.1.5 Conclusion Stage

Return of <u>SRUs</u> to a location where they can be debriefed, refuelled, replenished, and prepared for other missions; return of other SAR facilities to their normal activities, and completion of all required documentation.

# 6.2 Alerting & Distress Communications

Distress communications includes both distress alerting, and SAR communications. Distress traffic includes all messages relating to immediate assistance required by person, aircraft, or marine craft in distress, including medical assistance. Distress traffic may also include SAR communications and on-scene communications.

Distress calls take absolute priority over all other transmissions.

Distress alerts may arrive at the Coordinating Authorities from a variety of sources. These include (but are not limited to):

- Maritime Operations Centre and/or Coast Radio Stations
- 111 emergency phone system
- Cospas-Sarsat System (distress beacons)
- Inmarsat System
- Air Traffic Services
- Automated Mutual Assistance Vessel Rescue System (AMVER)
- Commercial emergency notification device service providers (SEND devices)
- Fire or Ambulance communication centres
- Vessels, aircraft, or members of the public
- Other Rescue Coordination Centres

Not all of the Coordinating Authorities will have access to all of the methods of receiving distress alerts. The Coordinating Authorities must have clarity regarding which authority is responsible for receiving the different methods of distress alerts, and have processes in place for relaying distress alerts to the appropriate authority as appropriate.

## 6.2.1 SAR Point of Contact

The Rescue Coordination Centre New Zealand (which operates as a joint rescue coordination centre) is the SAR point of contact for the New Zealand Search and Rescue Region, and is responsible for receiving distress alerts from the Cospas-Sarsat system and from commercial emergency notification device service providers (known as SEND Devices).

## 6.2.2 Cospas-Sarsat System

The International Cospas-Sarsat Programme is a satellite-based search and rescue (SAR) distress alert detection and information distribution system, best known for detecting and locating emergency beacons activated by aircraft, ships and backcountry hikers in distress.

The International Cospas-Sarsat Programme (the Programme) began as a joint effort of Canada, France, the United States, and the former Soviet Union in 1979. It was formally constituted as an intergovernmental organisation in 1988 through the International Cospas-Sarsat Programme Agreement (the Agreement or ICSPA) signed by the four "Parties" to the Agreement: Canada, France, the USA and the former USSR. The Russian Federation replaced the USSR as Party to the Agreement in January 1992.

Including the four Parties to the Agreement, 43 States and 2 organisations (the Participants) are now currently formally associated with the Programme and actively participate in the management and the operation of the Cospas-Sarsat System (the System).

**COSPAS** (КОСПАС) is an acronym for the Russian words "**Co**smicheskaya **S**istema **P**oiska **A**variynyh **S**udov" (Космическая Система Поиска Аварийных Судов), which translates to "Space System for the Search of Vessels in Distress". **SARSAT** is an acronym for **S**earch **A**nd **R**escue **S**atellite-**A**ided **T**racking.

The International Cospas-Sarsat Programme provides accurate, timely, and reliable distress alert and location data to help search and rescue authorities assist persons in distress.

The objective of the Cospas-Sarsat system is to reduce, as far as possible, delays in the provision of distress alerts to SAR services, and the time required to locate a distress and provide assistance, which have a direct impact on the probability of survival of the person in distress at sea or on land.

To achieve this objective, Cospas-Sarsat Participants implement, maintain, co-ordinate and operate a satellite system capable of detecting distress alert transmissions from radio beacons that comply with Cospas-Sarsat specifications and performance standards, and of determining their position anywhere on the globe. The distress alert and location data is provided by Cospas-Sarsat Participants to the responsible SAR services.

Cospas-Sarsat co-operates with the International Civil Aviation Organization, the International Maritime Organization, the International Telecommunication Union and other international organisations to ensure the compatibility of the Cospas-Sarsat distress alerting services with the needs, the standards and the applicable recommendations of the international community.

The Cospas-Sarsat System is comprised of:

- 406 MHz distress radio beacons (ELTs for aviation use, EPIRBs for maritime use, and PLBs for personal use) which transmit signals during distress situations,
- instruments on board satellites which detect the signals transmitted by distress radio beacons,
- ground receiving stations, referred to as Local Users Terminals (LUTs), which receive and process the satellite downlink signal to generate distress alerts, and
- Mission Control Centres (MCCs) which receive alerts produced by LUTs and forward them to Search and Rescue Points of Contacts (SPOCs).

The current operational Cospas-Sarsat System includes three types of satellites:

- satellites in low-altitude Earth orbit (LEO) which form the LEOSAR system,
- satellites in geostationary Earth orbit (GEO) which form the GEOSAR system,

• satellites in medium-altitude Earth orbit (MEO), which form the MEOSAR system currently operating regionally with early operational capability.

New Zealand, via RCCNZ as the agent, is a participant in the international Cospas-Sarsat system and operates an LUT in New Zealand, with alerts forwarded to the MCC operated in partnership with the Australian SAR authorities in Canberra.

#### 6.2.3 False Alerts

False alerts are any alerts received by the SAR system that indicate an actual or potential distress situation, when no such situation actually exists. Causes of false alerts include equipment malfunctions, interference, testing, and inadvertent human error.

A false alert transmitted deliberately is called a hoax.

## 6.2.3.1 Preventing False Alerts

With the advent of more alerting equipment (notably commercial SEND devices) which transmits automatic pre-formatted data messages, a tendency for the number of false alerts received to increase is inevitable.

This will place increasing strain on the SAR system (especially RCCNZ as New Zealand's SPOC), bring increasing risk to SAR personnel, and harm the credibility of alerting systems needed to inform the SAR system when help is needed.

To reduce the number of false alerts received by the SAR system, commercial providers of distress alerting devices and systems are expected to undertake the following.

- Provide clear and precise operating instructions that are easy to understand.
- Ensure that suppliers and/or installation personnel understand how the equipment works and the consequences of transmitting a false alert.
- Ensure that the equipment is designed for distress alerting so that it will be impossible to transmit an alert unintentionally.
- Design test features so that testing equipment will not result in false distress alerts.
- Have an appropriate and fit-for-purpose monitoring system in place on a 24/7 basis to triage commercial alerts before they are transmitted to RCCNZ.

# 6.3 SAR Operations

When the SAR system first becomes aware of an actual or potential SAR incident, the information collected, the planning, and the initial actions taken are often critical to a successful SAR operation.

## 6.3.1 Initial Actions

Any search and rescue unit or facility receiving information of a distress incident shall initially take immediate action if in the position to assist; and shall, without delay, notify the appropriate Coordinating Authority.

## 6.3.2 Conduct of SAR Operations

Unless otherwise required for by international requirements, SAR operations will be coordinated using the <u>CIMS Framework</u>.

## 6.3.3 On-Scene Coordination

When two or more SAR facilities are working together on the same SAR operation, it may be advantageous if one person is assigned to coordinate the activities of all the participating facilities. The Coordinating Authorities may designate an On-Scene Coordinator (OSC) with a clear delegation of tasks, who may be the person in charge of an SRU, ship, or aircraft participating in a search, or be someone at another nearby facility able to handle OSC duties.

The OSC should be the most capable person available, taking into consideration SAR training, communications capabilities, the incident management support available to the OSC to achieve the delegated tasks, and the length of time the OSC can stay in the search area. Frequent changes in the OSC should be avoided.

For large or complex searches, more than one OSC may be assigned by the Coordinating Authority.

When appropriate, an aircraft coordinator (ACO) may also be designated to assist with onscene coordination of SAR aircraft.

## 6.4 SAR Resources

The SAR Coordinating Authorities have access to a range of resources for the effective and efficient conduct of SAR operations, as described below.

#### 6.4.1 SAR Facilities

<u>SAR facilities</u> include designated Search and Rescue Units and other resources which can be used to conduct or support SAR operations. An SRU is a unit composed of trained personnel and provided with equipment suitable for the expeditious and efficient conduct of search and rescue. An SRU can be an air, maritime, or land-based facility.

Facilities selected to be SRUs should be able to reach the scene of distress quickly, and be suitable for one or more of the following operations:

 Providing assistance to prevent or reduce the severity of accidents and the hardship of survivors (e.g. escorting an aircraft, standing by a sinking vessel).

- Conducting a search.
- Delivering supplies and survival equipment to the scene.
- Rescuing survivors.
- Providing food, medical, or other initial needs of survivors.
- Delivering survivors to a place of safety.

## 6.4.2 Search and Rescue Units

Search and Rescue Units (SRUs) may belong to state authorities, or to non-governmental or voluntary organisations. In the latter situation, agreements between the Coordinating Authorities and these organisations should be developed. SRUs do not need to be dedicated solely to SAR operations but do require to have the training and equipment necessary for proficient operations.

The SAR system in New Zealand makes use of designated SRUs, non-governmental and voluntary agency SRUs (including specialised SAR units, which are teams with specialised training and equipment for specific rescue scenarios), and vessels of opportunity.

Designated SRUs include:

- An on-call Royal New Zealand Air Force fixed wing aircraft
- An on-call Royal New Zealand Air Force helicopter
- An on-call Royal New Zealand Navy vessel

Non-governmental and voluntary SAR agencies that the Coordinating Authorities have agreements for the provision of SAR services include (but are not limited to):

- Amateur Radio Emergency Communications (AREC)
- Coastguard New Zealand
- Land Search and Rescue New Zealand (LandSAR NZ)
- Surf Life Saving New Zealand (SLSNZ)
- A number of air ambulance rescue helicopters

## 6.4.3 NZSAR Resource Database

The Coordinating Authorities will maintain up-to-date information concerning search and rescue facilities, units, and available communications relevant to search and rescue operations appropriate to their areas of responsibility.

The Coordinating Authorities have appropriate arrangements to be kept informed of the state of preparedness of search and rescue units.

The SAR Coordinating Authorities can readily access this information via the online NZSAR Resources Database<sup>16</sup>.

<sup>16</sup> https://nzsar-resources.org.nz/

# 6.5 Conclusion of SAR Operations

SAR operations enter the conclusion stage when:

- Information is received that the subject(s) of the SAR incident are no longer in distress;
- The subject(s) who were in distress have been located, and the survivors rescued, and/or bodies have been recovered; or
- During the <u>distress phase</u>, the Coordinating Authorities determine that further search would be to no avail because additional effort cannot appreciably increase the probability of successfully finding any remaining survivors, or because there is no longer any reasonable probability that the distressed persons have survived.

## 6.6 Search Suspension

Some SAR operations may require extended searching, and at some point the Coordinating Authority must take the difficult decision to suspend search operations pending the receipt of additional information. That is, the Coordinating Authority must decide that additional search effort will not result in success.

In making this decision, each SAR incident must be considered on its own merits, and care should be taken not to end the search prematurely. The decision to suspend a search involves humanitarian considerations, but there is a limit to the time and effort that can be devoted to each SAR case.

## 6.6.1 Search Review

Prior to suspending search operations, a thorough case review must be made by a suitably qualified and experienced SAR Manager who has had no prior involvement with the search.

The case review should also examine:

- Search decisions for proper assumptions and reasonable planning scenarios;
- Certainty of initial position (or Initial Planning Point) and any drift factors or lost person behaviour (as applicable) used in determining search areas;
- Significant clues and leads re-evaluated;
- Data computations;
- Search plans, to ensure that:
  - All assigned areas were searched;
  - Probability or likelihood of detection is as high as desired;
  - Compensation was made for search degradation caused by weather, navigational, mechanical, or other difficulties;
- Determination about survivability of survivors, considering:
  - Time elapsed since the incident;
  - Environmental conditions;

- Age, experience, and physical condition of potential survivors;
- Survival equipment available;
- Studies or information relating to survival in similar situations.

Determination of survivability should be made by a suitably qualified and experienced medical professional.

## 6.6.2 Decision to Suspend

The decision to suspend operations should be based on an evaluation (as appropriate to the circumstances of the case under review) of:

- The probability or likelihood that there were survivors from the initial incident;
- The probability or likelihood of survival after the incident;
- The probability or likelihood that any survivors were within the computed search area;
- The effectiveness of the search effort.

The reasons for search suspension must be clearly recorded. Considerations for suspending a search include:

- All assigned areas have been thoroughly searched;
- All reasonable probable locations have been investigated;
- All reasonable means of obtaining information about the whereabouts of the subject of the search have been exhausted; and
- All assumptions and calculations used in search planning have been reviewed.

## 6.6.3 Approval to Suspend

After the coordinating authority has decided to suspend a search, and an independent case review has been conducted, the coordinating authority must seek approval of their decision to suspend the search.

As search suspension is a difficult decision involving humanitarian considerations, the approval to suspend resides at executive level, as outlined in the table below.

For instances where the SAR operation involved the activation of the <u>National Security</u> <u>System</u>, then the approver (Police Commissioner for the Police District Commander) must bring the decision to suspend to the relevant level of the NSS for approval to suspend.

Type of Operation	Approver
Any Category 1 search	Police District Commander
Category 2 aeronautical search	Director Civil Aviation Authority
Category 2 land search	Director Maritime New Zealand
Category 2 maritime search	Director Maritime New Zealand
SAROP for an NZDF Asset	Chief of Defence Force

# 6.6.4 Reopening a Suspended Search

If significant new information or clues are developed, reopening of a suspended search should be considered. The decision to reopen a suspended search needs to be balanced against factors such as, the unwarranted use of resources, risk of injury to searchers, possible inability to respond to other emergencies, and providing false hope for relatives.

# 6.7 Contingency

The coordinating authorities should ensure there are established contingency facilities, or if a SAR service is unable to be provided by one of the coordinating authorities, procedures are in place for the temporary delegation of SAR responsibility to another coordinating authority.

Contingency arrangements should be tested periodically, but not less than once every six months for RCCNZ.

# PART 7: NATIONALLY SIGNIFICANT SAR

Occasionally a SAR incident may require a response that is beyond the capacity or capability of New Zealand's SAR system. These are known as a nationally significant SAR incident and may require a coordinated government response by New Zealand's <a href="National Security">National Security</a> System.

# 7.1 Incidents involving the National Security System

In general terms, government is likely to engage through the National Security System if New Zealand's key national security objectives are impacted by risks which could lead to, or cause, a crisis, event, or circumstance that might adversely and systemically affect (inter alia) the **safety** of New Zealanders or people in New Zealand; or New Zealand's **reputation**.

The National Security System takes a particular interest in risks that have (inter alia) unusual features of scale, nature, intensity, or possible consequences.

A National Security System response may be initiated for the management of risks, where any of the following conditions apply:

- Response requirements are unusually demanding of resources;
- There is ambiguity over who has the lead in managing a risk, or there are conflicting views on solutions;
- The initial response is inappropriate or insufficient from a national perspective;
- There are cross-agency implications;
- There is an opportunity for government to contribute to conditions that will enhance overall national security.

The National Security System provides for a coordinated government response in which:

- Risks are identified and managed;
- The response is timely and appropriate;
- National resources are applied effectively;
- Adverse outcomes are minimised;
- Multiple objectives are dealt with together;
- Agencies' activities are coordinated.

# 7.2 Nationally Significant SAR Operations

When a search operation has unusual features of scale, nature, intensity, or possible consequences, it may become a Nationally Significant SAR Operation. There is no formal definition for Nationally Significant SAR Operations. They may not involve the need to provide assistance to a large number of people (as per the MRO definition), however they may still include many of the attributes and challenges as MROs, such as:

- The search may cover an extensive area.
- The search may run for an extended period of time.

- The search may occur in a remote area of the NZSRR.
- There may be significant public interest in the search.
- There may be a requirement for the activation and involvement of the National Security System in search operations with one or more of these unusual features.

## 7.2.1 Mass Rescue Operations

A Mass Rescue Operation (MRO) will almost certainly be the most complex and adversely consequential type of nationally significant SAR operation. As such, there is an expectation in the international SAR system that nations prepare to respond to an MRO incident.

An MRO incident is a low-probability, high-consequence event that will require a response to provide immediate assistance to a large number of people who are in distress. The definition of an MRO is:

For any Category I or II search and rescue (SAR) incident, a mass rescue operation (MRO) is one that involves the need for immediate assistance to large numbers of persons in distress, such that capabilities normally available to search and rescue authorities are inadequate

An MRO incident is a nationally significant SAR operation, which would require the activation and involvement of the National Security System.

# 7.3 Nationally Significant SAR Handbook

The NZSAR Council has directed the NZSAR Secretariat and the SAR Coordinating Authorities to review, update, broaden and combine the existing NZSAR MRO Operational Policy and the National MRO Plan into a single Handbook (or Guide) for nationally significant SAR incidents.

This Handbook will integrate with other national plans and documentation within New Zealand's National Security System.

# PART 8: SUPPORTING SAR SERVICES

This section describes some of the key functions that support the provision of SAR services.

## 8.1 Training

Training is critical to performance and safety. SAR personnel, who are adequately trained, will be more effective in saving people who are in distress, potential distress, or missing; and they will be able to make sound risk assessments to reduce risks to themselves and people they are rescuing.

All personnel who could be involved in a SAR operation need to undertake relevant SAR-specific training to enable them to adequately perform the role(s) they may be called upon to perform. SAR training can be either organisation specific, or of a multi-agency nature.

Organisation specific training is delivered within (or on behalf of) one of the SAR organisations and is usually focussed on teaching specific SAR related skills. Multi-agency training is primarily focussed on SAR incident management.

## 8.2 Exercising

Search and Rescue Exercises (SAREX) are an important inter-agency training activity and one of the most productive forms of experiential training. SAREXs enable SAR personnel to meet, plan, practice, review, and evaluate in an environment where time and stress can be controlled.

There are a wide variety of SAREXs which are used to inform, train, assess, refresh and test individuals, teams, and organisations. SAREXs may also be used to follow on from individual training, evaluate plans, validate operating procedures, and test equipment and to assess future training needs. Common forms of exercise within New Zealand's SAR community include:

- Orientation Exercise
- Drill Exercise
- Tabletop Exercise
- Functional Exercise
- Full Scale Exercise

All SAR organisations are expected to conduct SAREXs as part of their organisation specific training. NZ Police Districts are expected to conduct and fund a minimum of one marine SAREX and one land SAREX per Police District per year in accordance with Police Instructions. These are to be multi-agency exercises. The NZSAR Council requires the NZSAR SAREX Guidelines<sup>17</sup> to be utilised for the analysis, design, conduct and debrief of these SAREXs. The NZSAR Council runs a programme of SAREXs to address specific identified risks.

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<sup>&</sup>lt;sup>17</sup> http://nzsar.govt.nz/Resources/NZSAR-Guidelines

## 8.3 SAR Assurance

In line with international expectation and practice, New Zealand will implement a range of measures relating to SAR System Improvement, Assessment, Safety Management, SAR Management Reviews, and Assurance.

Collectively these measures will be known as SAR Assurance and should include the following aspects.

- Provision of performance indicators, including post-incident lessons learned and management reviews.
- Provision of safety indicators, including post-accident/near-miss lessons learned, and health & safety reviews.
- Identification of SAR sector system and operational risks, and the corrective or preventative actions that prevent or minimise risks and the possibility of substandard SAR performance.
- Establishment of internal quality assurance programmes, which will include regular internal audits of the SAR Coordinating Authorities, SAR operations, SAR facilities, and procedures.
- Provision of submissions (as appropriate) to the ICAO/IMO Joint Working Group (JWG) on SAR to share lessons learned and experiences with other States for the continuous improvement of the worldwide SAR system.
- Conduct regular analysis of New Zealand's SAR system to identify any specific gaps in capability against the minimum requirements of relevant international conventions and the Guidelines of the IAMSAR Manual.
- Regular reviews and updates of SAR agreements as appropriate.
- Analysis of SAR operational data to identify trends and areas for improvement.
- Other initiatives as directed by the NZSAR Council to promote system assurance.

## 8.4 SAR Information

The timely and accurate collection of data relating to SAR incidents (whether at the uncertainty, alert, or distress phase) is essential to SAR research and development programmes (as part of SAR Quality Assurance).

The Coordinating Authority that possessed coordinating responsibility at the conclusion or suspension of a SAR incident is responsible for all statistical reporting in relation to that incident.

## 8.4.1 SARdonyx

The NZSAR Secretariat is responsible for managing the SAR information system, and the corresponding SAR Data Standard.

This is known as the SARdonyx system.

## 8.5 SAR Case Studies and Reviews

When used to review and evaluate all aspects of a response to a SAR incident, case studies are one of the most valuable and effective tools for improving SAR system performance.

SAR case studies or reviews will be conducted on a regular basis, even when no problems are apparent. There is almost always room for improvement, especially in large or complex SAR incidents.

Early detection and correction of apparently small problems or potential problems will prevent them from growing into serious deficiencies later.

## 8.5.1 Lessons Framework

Learning lessons leads to improved operational effectiveness, reduced operational risk, and increased cost efficiency. A lessons framework can facilitate learning and improvement resulting in more efficient and effective practices, improved safety, and improved sharing of knowledge.

New Zealand's SAR system has implemented a non-judgemental just culture to encourage learning and maximising the potential for ongoing improvement. The lessons framework utilises the OILL process: Observation; Insight; Lesson Identified; Lesson Learned.

# 8.6 Health & Safety

The <u>Health and Safety at Work Act 2015</u> (HSWA) provides a framework to protect workers and others from harm to their health, safety, and welfare by eliminating or minimising risks arising from work. This encompasses work undertaken by search and rescue personnel (whether paid or volunteer) on behalf of the SAR Coordinating Authorities.

In keeping with the principles and the requirements of the HSWA, the SAR sector has a collaborative and collective approach to health and safety management.

Search and rescue activity often occurs in dangerous situations or locations. The SAR sector is committed to ensuring that SAR personnel conducting SAR activities shall not have their lives placed at unacceptable or unnecessary risk.

The inter-agency Strategic Occupational Health, Safety, and Wellbeing Committee encourages a planned and structured discussion about health and safety management across the sector enabling opportunities for improvement to be identified.

# 8.7 SAR Library

The coordinating authorities are to have access to a SAR Library (electronic or hard copy), and have ready access to the following reference documents as a minimum (as appropriate to the type of SAR the coordinating authority is likely to manage):

- ICAO Annex 12
- IAMSAR Manuals Volumes I, II, III

- International Convention on Maritime SAR
- New Zealand Coordinated Incident Management System 2<sup>nd</sup> edition
- NZSAR Manual on SAR Doctrine
- Nationally Significant SAR Framework
- Other relevant SAR Plans, Standard Operating Procedures, Aides-Mémoire, and other documents

## 8.8 Distress Beacon Register

As the Coordinating Authority responsible for coordinating distress beacon alert procedures, RCCNZ is responsible for managing a reliable distress beacon registration system for New Zealand coded beacons that:

- Provides a readily-accessible mechanism (preferably by internet) to enable distress beacon owners to fulfil their obligations to register distress beacons, and to update their registration details as circumstances change.
- Is available to RCCNZ SAR personnel 24 hours a day, and includes up-to-date registration details for all registered distress beacons.

RCCNZ also provides guidance on the appropriate methods to dispose of old distress beacons.

## 8.9 SAR Prevention

The New Zealand SAR system seeks an informed, responsible, adequately equipped and appropriately skilled public who are able either avoid distress situations or survive them should they occur. A large number of organisations have a role to play with SAR prevention. Collectively, the SAR sector enhances personal responsibility through information, education, regulation, investigation and enforcement.

NZSAR will collaborate with, inform, contribute to partner organisations, and when required coordinate or lead public focussed SAR preventative strategies and actions in order to reduce the frequency and/or the severity of SAR incidents within the NZSRR.

# 8.10 Research and Development

Research and development efforts for SAR often lead to improvements in SAR services. The focus of such efforts usually is to develop data, procedures, or equipment which will make SAR services more effective. Research and development results should be shared to reduce the risk of duplicated efforts and to maximise the benefits of the results.

NZSAR will develop an Innovation and Technology Strategy to oversee New Zealand's SAR research and development efforts.

# **ANNEX A: LEGISLATION**

## Civil Aviation Act 1990

## The Civil Aviation Act 1990 Section 14B Search and Rescue Operations states that:

- (1) The Minister—
  - (a) must establish, maintain, and operate a search and rescue co-ordination centre to co-ordinate and conduct—
    - (i) an aviation search and rescue operation; and
    - (ii) a maritime search and rescue operation; and
    - (iii) any other search and rescue operation that the Minister considers appropriate; and
  - (b) may exercise any powers that may be necessary or desirable—
    - (i) for the effective co-ordination and performance of a search and rescue operation specified in paragraph (a); and
    - (ii) to implement any international convention or agreement relating to search and rescue to which New Zealand is a party; and
  - (c) may appoint persons to, either generally or in any particular case, participate in or co-ordinate a search and rescue operation specified in paragraph (a).
- (2) The Minister may authorise the payment, out of money appropriated for the purpose by Parliament, of an amount that the Minister considers appropriate to—
  - (a) any person who assisted in a search and rescue operation specified in subsection (1)(a) at the request of a person appointed under subsection (1)(c); or
  - (b) the owner of any vehicle, ship, or aircraft used in a search and rescue operation specified in subsection (1)(a) in response to a request by a person appointed under subsection (1)(c).

## Maritime Transport Act 1994

## The Maritime Transport Act 1994 Section 431 (3) Functions of Authority states that:

- (3) The Authority must, if directed by the Minister under <u>section 14C</u> of the Civil Aviation Act 1990, do any or all of the following:
  - (a) maintain and operate the search and rescue co-ordination centre established under <u>section 14B(1)(a)</u> of the Civil Aviation Act 1990:
  - (b) co-ordinate, or participate in the co-ordination of, any search and rescue operation specified in section 14B(1)(a) of the Civil Aviation Act 1990:
  - (c) perform, or participate in the performance of, any search and rescue operation specified in section 14B(1)(a) of the Civil Aviation Act 1990:
  - (d) exercise any or all of the powers of the Minister under section 14B(1)(b) and (c) and section 14B(2) of the Civil Aviation Act 1990.

In addition, **Section 431 (1) (e) Functions of Authority** states that:

- (1) The Authority has the following functions:
  - (e) to ensure the provision of appropriate distress and safety radio communication systems and navigational aids for shipping:

## Policing Act 2008

The **Policing Act 2008** does not specifically refer to Search and Rescue but covers it in **Section 9 Functions of Police** - Clause (h) Emergency Management.

**Section 10 (2) Roles of others acknowledged** states: that it is often appropriate, or necessary, for the Police to perform some of its functions in co-operation with individual citizens, or agencies or bodies other than the Police.

## Coroners Act 2006

The Coroners Act 2006 Section 19A Police responsible for co-ordinating extraction of body states that:

- (1) This section applies to a body if—
  - (a) the responsible coroner has an exclusive right to custody of the body; and
  - (b) the body is in a location from which it can be extracted only with extraordinary effort or the use of special resources.
- (2) The New Zealand Police is responsible, on behalf of the coroner, for co-ordinating the extraction of the body from that location.