

ANNUAL REPORT 2015-2016

New Zealand Search
and Rescue Council



CHAIR'S REPORT

From the council



Martin Matthews

Almost every day, somewhere in New Zealand's vast Search and Rescue Region, at least one person gets into trouble or goes missing and requires help from our sector. The response often sees ordinary people doing extraordinary things in hazardous environments as they seek to resolve all manner of search and rescue situations. The Council shapes, leads, and coordinates the combined efforts of all SAR organisations to ensure our people are well prepared to provide an efficient, effective and timely search and rescue operation.

A common thread to our success is the 'one SAR' philosophy. This 'high trust' approach sees cooperation and collaboration between organisations, teams and individuals, supported by mutual information sharing, as our standard way of doing business.

The newly created independent NZSAR Council position, representing the non-governmental elements of the SAR sector, is another way of furthering this approach. Dave Comber is the first person to be appointed to this position. He brings extensive practical SAR experience, as well as considerable leadership, managerial and governance experience, to the Council. Dave is working with the NGO SAR agencies, developing effective dialogue that deepens the learning from our individual and collective experiences.

The Council supported a number of projects over the year to augment the work of SAR agencies and to strengthen the wider system we are a part of.

We took a hard look at Health and Safety procedures in the wake of legislative changes. While we are very satisfied at the commitment to Health and Safety across our sector, we seek to further improve by learning from our experiences, refining processes and enhancing monitoring arrangements to ensure that the wellbeing of SAR people is an integral component of all planning and operational activity.

Understanding what we do and why we do it is key to ensuring SAR organisations are efficient and sustainable. Reflecting the size and span of our sector, the Council has authorised various research and development projects. Amongst others, we commissioned the development of an NZ Inc. Recreational Safety Framework that will place greater emphasis on personal preparedness in order to reduce the demand for SAR services in the future. We approved the establishment of a Data Store and SAR Data Standard to provide more robust statistical information and support effective evidenced-based decision-making across the SAR sector. We also supported the Rauora mass rescue exercises, which included a number of people and agencies that we don't often work with, but who would most likely be involved in a mass rescue event. These exercises have served to greatly improve knowledge across a multitude of agencies, and have started to lay a solid foundation for mass rescue preparedness throughout New Zealand.

This will be my last annual report as Chair of the NZSAR Council, as I step down from this role with the end of my term as Secretary for Transport.

As I reflect on nearly eight years as Chair of the Council, the one thing I continue to be struck by is the commitment and expertise of thousands of paid and unpaid SAR professionals who make our SAR system work. One of the highlights for me in this regard has been the annual NZSAR Awards where we have been able to celebrate the significant contributions of at least a few people and organisations. Every year I have been left with an immense sense of respect and admiration for those we have been able to recognise. I know, of course, there are many more people who are making significant contributions that we have not been able to recognise in this way. So, I want to take this opportunity to thank you all for the significant contribution you make by serving your country, fellow citizens and visitors through SAR.

Finally, I want to also acknowledge the work and support provided by the NZSAR Secretariat, led by Duncan. The Secretariat is small and has limited funding, but plays a critical role in supporting the Council and providing the glue that holds much of our system together. I think they do a great job for us all.

Best wishes for the future,
Martin



MANAGER'S REPORT

From the secretariat



Duncan Ferner

So – what is 'One SAR Body'? The term formally originates from an NZSAR Council goal which reads in part *'We seek a collective, cross-sector culture of being **one SAR body** within an integrated SAR sector'*. While it is an inspirational stretch goal, we face some significant challenges in trying to achieve it. From the outside, the SAR sector may be seen as many thousands of dedicated people, most of whom are unpaid volunteers from well over 20 different organisations, using a very wide range of specialist SAR skills as they operate within a vast search and rescue region, achieving amazing things.

That sort of description does not necessarily fit easily with a cross-sector culture of being one SAR body. My view is that we are a sector centred on dedicated people, who choose to make themselves available, with appropriate and current SAR skills – matched with the right equipment. We are known to (and by) the two SAR coordinating authorities and operate in an agreed way: safely, effectively, efficiently, with initiative, and we **always** act in the interests of the lost, missing and injured. We value our relationships, we demonstrate mutual respect and we enjoy each other's company.

This is why it is critical the 'business as usual' (BAU) functions are done consistently well, as they are typically the foundation supporting most of our organisations. Being a Secretariat, our BAU often involves meetings and we manage quite a few of them. Bringing the right people together for agreed purposes, from across the wider SAR sector, ensures we sustain and build our shared cultural values. The regular meetings include NZSAR Council, NZSAR Consultative Committee, SAR Health and Safety, SAR Training Governance Group – and we are involved with or represent the wider SAR sector at many (many) more. Other important BAU tasks include collecting and analysing SAR data, managing the Service Level Agreements, maintaining SAR documentation, running the NZSAR Awards and communicating with the sector.

Over the past year Rhett has arranged the development of a number of courses through the government's Search and Rescue Adult and Community Education – SAR(ACE) arrangements. These courses include: finalising Extended Search Planning (Land), Air Observer, Air Observer Team Leader, and Marine SAR Technical. He's also put a lot of work into SAR(ACE) governance, management, advice and support, which aims to ensure that the training system functions as smoothly and as efficiently as possible. In addition to this, he also manages our support of the Police District SAREXs.

Carl completed New Zealand's Mass Rescue policy, ran a workshop relating to abnormal flight behaviours, and was the initial lead for the seven Rauora Mass Rescue Exercises. The workshop and exercises have gone a long way to improving our overall preparedness should one of these low probability, high consequence events occur in our search and rescue region. Carl has also become a bit of an expert on our combined NZSAR data store and has been plugging away at developing an 'all of SAR' Data Standard.

Over the year we commissioned research into the public's knowledge of SAR prevention measures and attitudes towards active recreation safety, and also of the public's expectations about SAR, which has already proved valuable. Together with the Department of Conservation, we completed the negotiation of a new joint Service Level Agreement with the New Zealand Mountain Safety Council for the continued provision of an avalanche advisory. This is an important safety service for people who venture into areas in the vicinity of the snowline, and for SAR people who may have to rescue them.

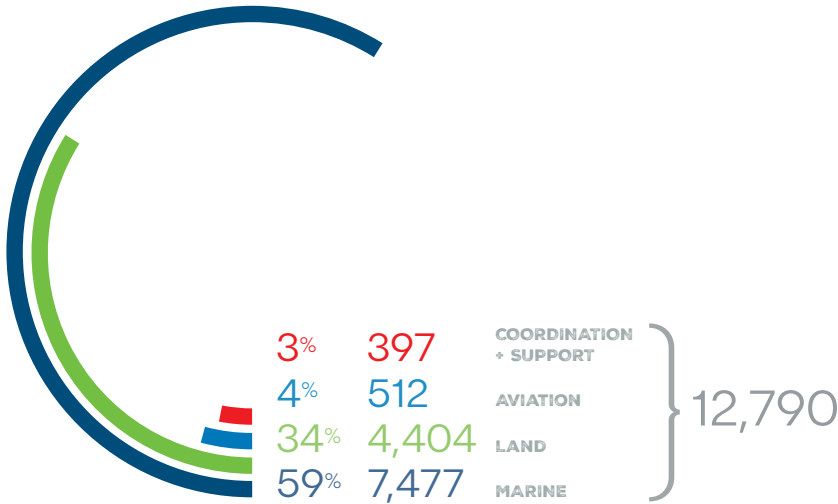
We completed the development of an 'NZ Inc.' Recreational Safety Framework and commenced the development of a framework for radio communications in the land environment as well as one for a SAR-aviation provider engagement. Our SAR prevention work continued with upgrades of the www.adventuresmart.org.nz safety information portal website, recreational safety partnership support, the visitor intentions process and ongoing placement of the three Safety Code brochures at key tourism points around the country.

I'd like to thank Martin for his leadership of the NZSAR Council over the past eight years. While not directly known by many in the sector, Martin has been a great friend of search and rescue. I have certainly appreciated his guidance over the years and insight into how to keep matters on track and get things done.

Duncan Ferner
Secretariat Manager

WHO WE ARE

People in the NZ SAR Sector



There are 12,790 people directly involved in the New Zealand SAR sector. The roles of people in the sector vary quite significantly across the sector. Most people are involved in direct operational roles, such as crewing a marine rescue vessel, searching the bush as part of a team, or flying a search aircraft. Other people are involved in operational roles as members of incident management teams that coordinate a SAR response. And there are also many people involved in support roles, such as providing strategic direction, administrative tasks, training, and carrying out prevention services.



MARINE

- Coastguard NZ
- Dunedin Marine SAR
- Surf Life Saving NZ

People who are active in marine-based SAR. Most of these people are volunteers from Coastguard New Zealand and Surf Life Saving New Zealand.



LAND

- Amateur Radio Emergency Communications
- Antarctica NZ
- Department of Conservation
- LandSAR
 - Alpine Cliff Rescue
 - Cave SAR
 - SAR Dogs
 - Tracking

People who are active in land-based SAR. Most of these people are volunteers from the Amateur Radio Emergency Communications (AREC) and LandSAR New Zealand.



AVIATION

- Coastguard Air Patrol
- Emergency Medical Service Helicopters
- NZ Defence Force

People involved in the aviation segment of the SAR sector. These people provide a great deal of support to a large number of SAR operations across all three modes – land, marine and air.



COORDINATION + SUPPORT

- Antarctic Unified Incident Command
- Maritime Operations Centre
- NZ Police
- RCCNZ
- Organisation Support
- Training

People involved in the coordination of SAR operations, and in providing strategic direction and policy advice for the sector, who are drawn from the Maritime Operations Centre, Maritime New Zealand's Rescue Coordination Centre, NZ Police, and the NZSAR Secretariat; and people involved in providing training and prevention services. Most SAR training is carried out in-house by each of the SAR organisations. The Coastguard Boating Education Service is an example of an organisation that provides preventative education services to the public of New Zealand.

3%
Paid Full Time



2%
Paid Part Time



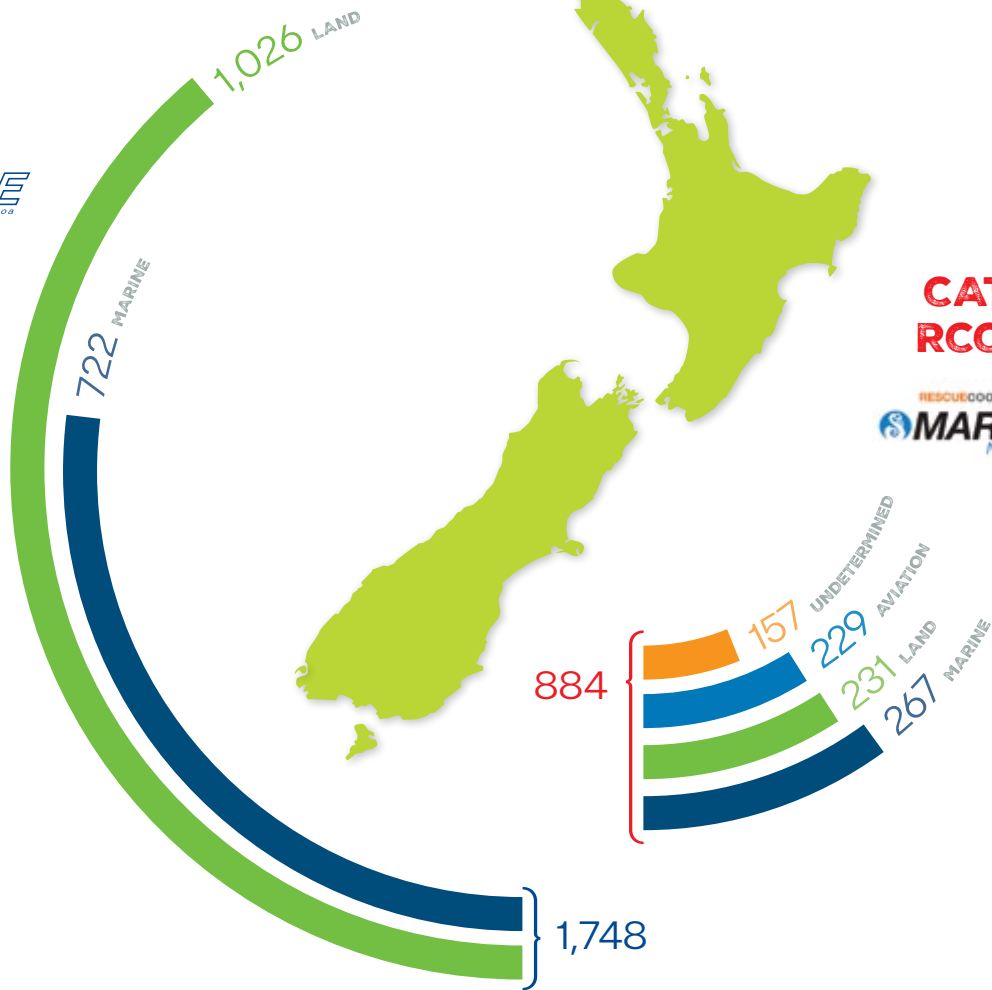
95%
Not Paid

New Zealand has one of the highest rates of volunteer SAR involvement in the world. Volunteers make up 95% of the people who provide the operational SAR response.

WHAT WE DO

SAR incidents in 2015/16

Total: 2,632



Coordinating authorities

Two agencies have responsibility for coordinating Search and Rescue Operations (SAROPs) throughout the New Zealand Search and Rescue Region (NZSRR). The New Zealand Police coordinate Category I SAROPs at the local level; including land, subterranean, river, lake, inland waterway and close-to-shore marine operations.

The Rescue Coordination Centre New Zealand (RCCNZ) coordinate Category II SAROPs at the national level; including operations associated with missing aircraft, aircraft in distress, and off-shore marine operations within the NZSRR. Category II SAROPs typically require the use of national or international resources and may involve coordination with other states.

WHAT WE ACHIEVE

2,028 people were at risk during 2015/16



Where SAR agencies aid a person or people at low risk, but who, if left, would be at risk.

Where, if SAR agencies had not intervened, life would definitely have been lost.

Where SAR agencies locate and rescue a person or people at risk and return them to a safe location.

\$712 million dollars was averted in social costs.

NZSAR estimates that New Zealand averted \$712 million in social costs as a result of the 195 lives that were saved. The social cost of a premature fatality is measured using the Ministry of Transport's Value of Statistical Life formula (VOSL). It includes intangible costs such as emotional costs to family and friends. The intangible benefit-to-cost ratio is estimated to be approximately 30:1 and can in part be attributed to the continual financial efficiency and operational effectiveness of the sector.

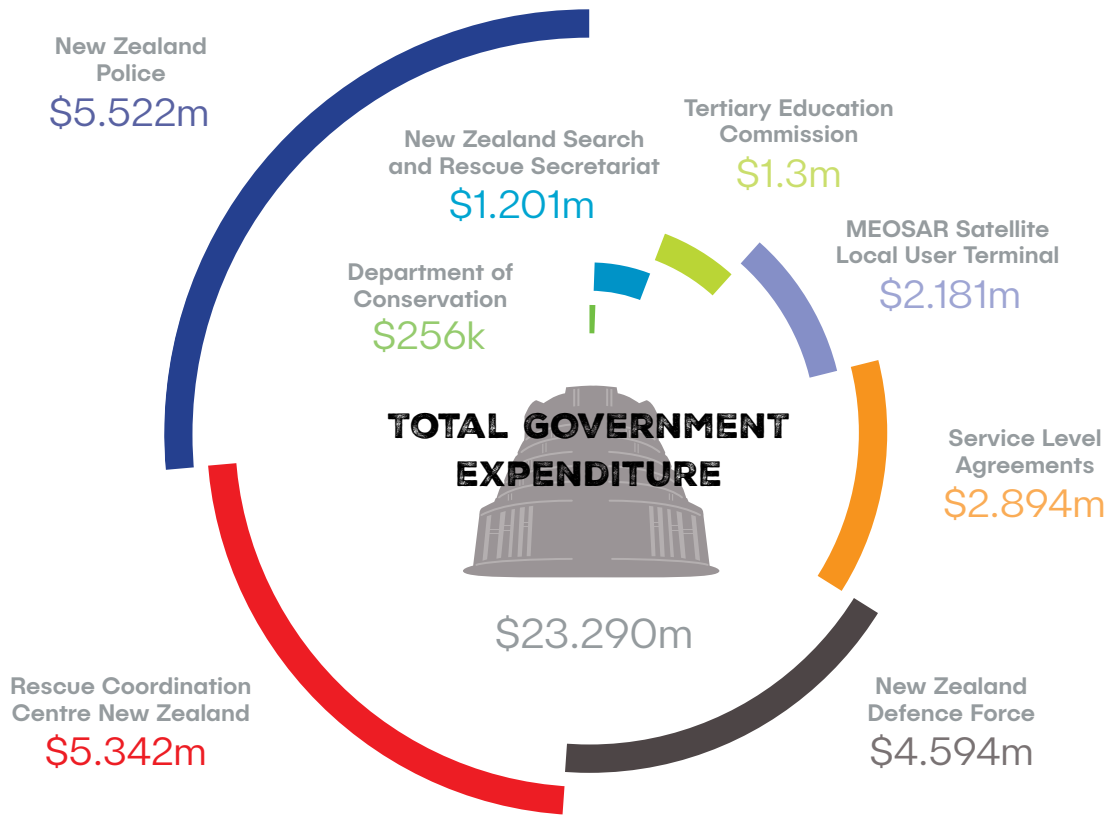
Of the approximate \$23.290m in Government investment, \$5.663m was sourced from the fuel excise

duties paid by recreational boat users. This funded the NZSAR Secretariat, the five Service Level Agreements and some elements of the Rescue Coordination Centre New Zealand's (RCCNZ) activities.

The total cost of SAR to the Government varies year on year, as operational costs change according to the number, length and type of SAR operations. Significant overhead and capital costs are not fully represented, as it is difficult for some organisations to capture this information.

There were a total of 89 fatalities during the year.

Government expenditure on SAR 2015/16



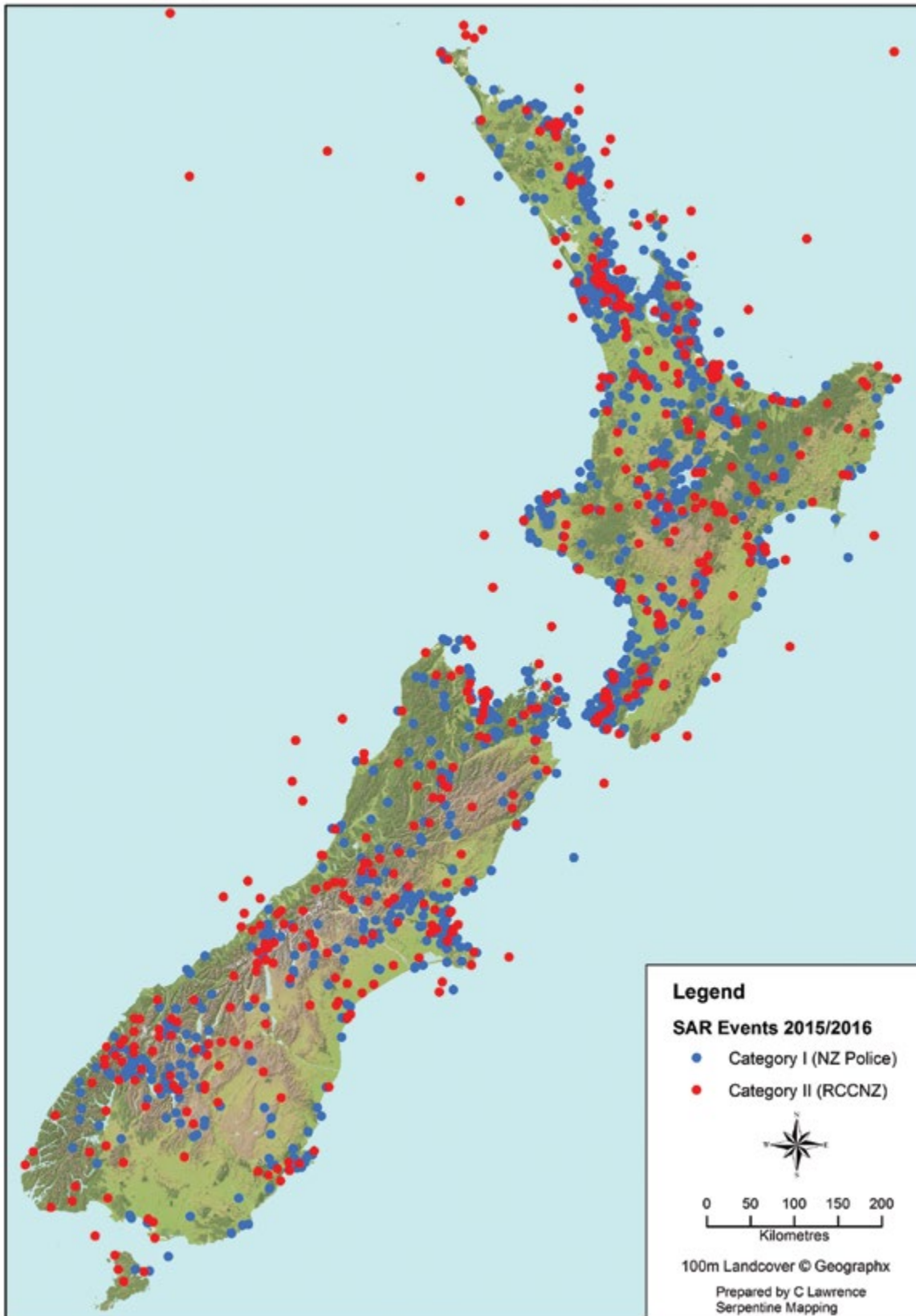
At least one SAR incident occurred every day this year:

3 of the 4 busiest days were public holidays.



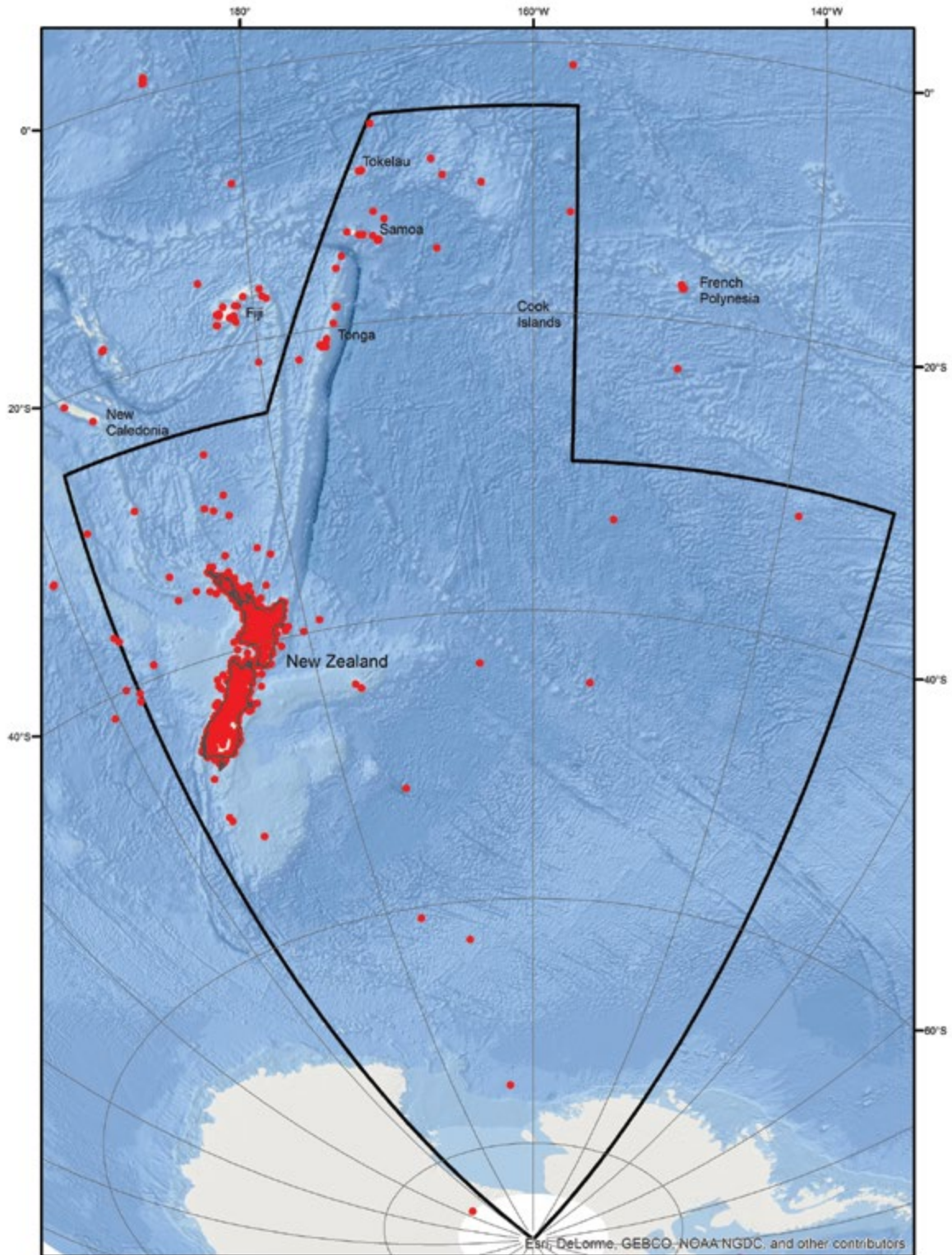
WHERE WE DO IT

Category I and II Search and Rescue Operations 2015/2016



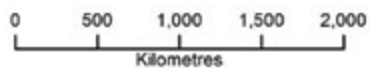


New Zealand Search and Rescue Region



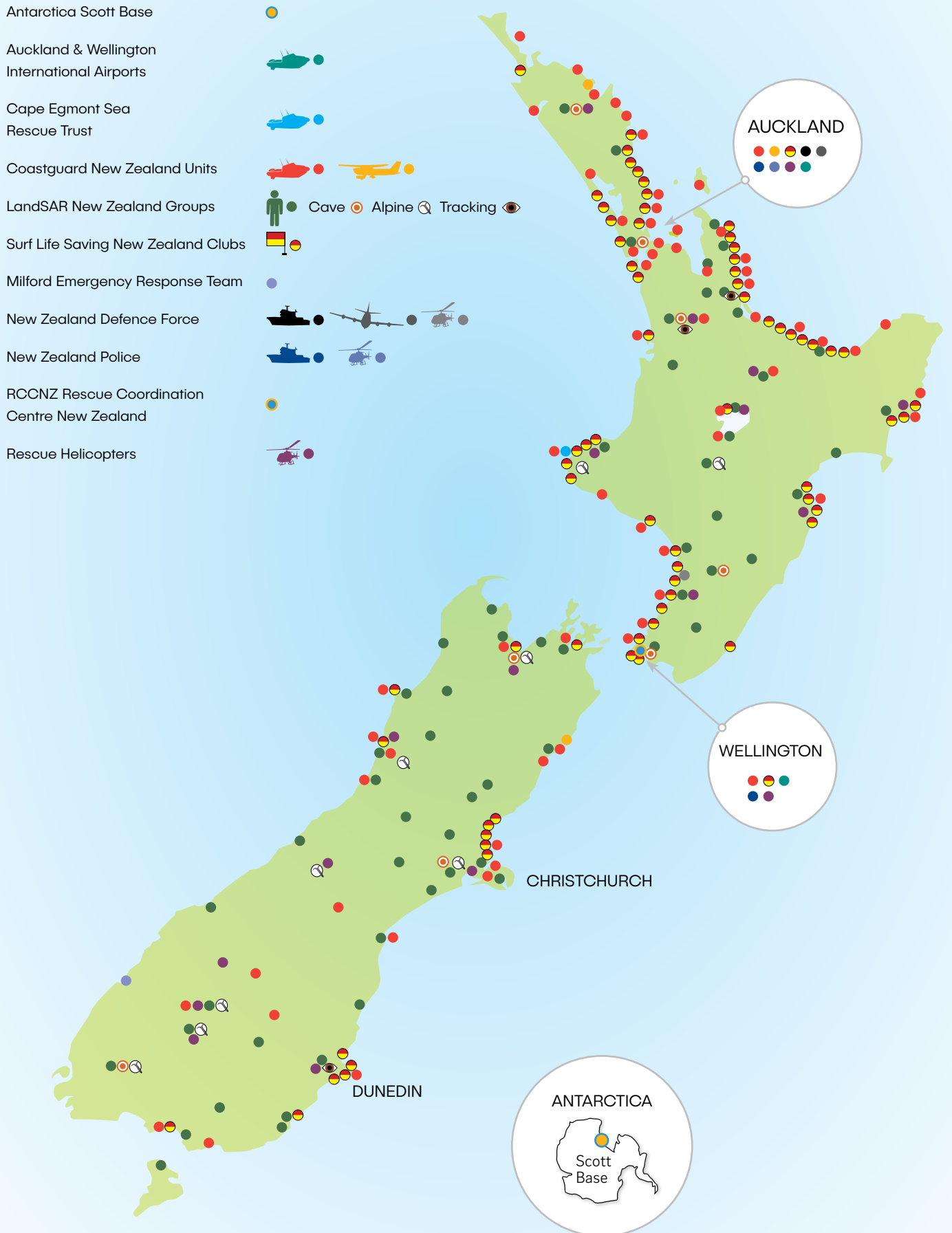
Legend

- SAR Incidents 2015/16
- NZSRR Region



Prepared by
C Lawrence
Serpentine Mapping

WHAT WE USE





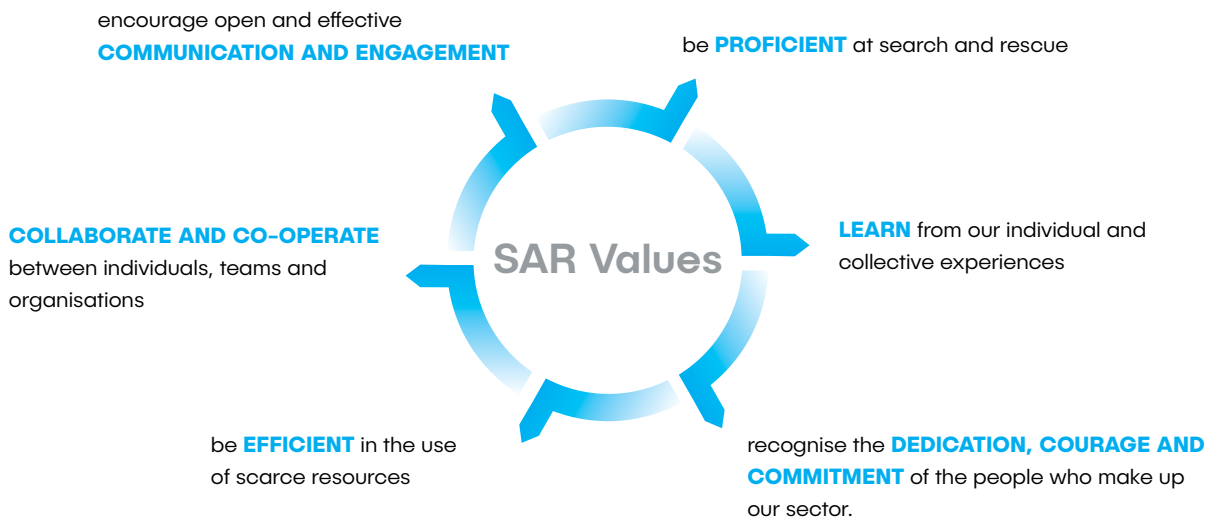
THE STRATEGY

Outcome

NZSAR will ensure New Zealand has effective SAR services for people in distress throughout New Zealand's Search and Rescue Region in order to save lives.

Vision

A cohesive community of capable people in sustainable organisations, finding and rescuing people in distress, and operating collaboratively within a robust SAR system.



NZSAR Council Goals



A robust and integrated SAR system

We seek a collective, cross-sector culture of being 'one SAR body' within an integrated SAR sector. The sector will continually work on improving its effectiveness and efficiency. We will continue to improve our understanding of ourselves, our relationship with other SAR agencies, our operations, external influences and the risks to the sector. We will use this information to improve common SAR practices and procedures to ensure the safe delivery of effective SAR services.



Efficient and sustainable SAR organisations

The sector will further enhance its internal and external organisation and communications. We will be as efficient as possible with secure funding adequate to meet the known SAR need. We will make key decisions based on good quality information. We will also adapt our organisations to meet the changing environment and ensure we are effective at delivering SAR services. We will ensure we are located appropriately, with adequate equipment matched to the identified SAR requirements.



Capable SAR people

We will maximise the potential of our SAR people. We will maintain a good understanding of ourselves and what we need to succeed. We will work to ensure our people have access to adequate training and that we conduct SAR activities safely. We will collectively coordinate our standards, training, exercises and documentation. We will share knowledge without restriction and learn from each other. We will also promote and support SAR innovations, showcasing good practices, and when appropriate, recognise and celebrate our people.



Reduced demand for SAR services

We seek an informed and responsible public. We will collaborate, inform, contribute to, and when required, coordinate or lead public-focused preventative strategies and actions for individuals, groups and organisations. We want to ensure the New Zealand public and guests to our country are appropriately informed and assist them to take personal responsibility for their activities in order to reduce the need for search and rescue services.

SUPPORTING SAR

Promoting Recreational Safety

NZSAR works with a number of SAR agencies, and other organisations with an interest in keeping people safe, to promote consistent recreational activity safety messages to both the New Zealand public and visitors to New Zealand.

The intent is to encourage people to enjoy all the recreational opportunities that New Zealand offers, but to also take responsibility for their own safety. We have collaborated on a number of initiatives from developing safety codes, establishing Boating Safety week and conducting research, through to supporting the AdventureSmart website.



Research

Over the past year we began measuring the public's attitudes and behaviours in an effort to ensure they have the opportunity to thrive and survive no matter what activity they do.

First off the block was the 'Public Knowledge of SAR Prevention Measures and Attitudes Towards Active Recreation Safety' survey that questioned New Zealanders

and international tourists in two separate surveys. It was divided into questions on boating safety, water safety and outdoor safety, as well as general knowledge of active recreational safety. There were a number of key findings; amongst them, confirmation that New Zealanders and international tourists have very different levels of knowledge of, and attitudes towards recreational safety.



These two findings reinforce the vital role SAR people and others, such as tourism operators, play in ensuring visitors have the necessary information (which is often specific to the activity or area you work and play in) to keep themselves safe.

We followed this research up with exploratory research that set out to describe and better understand the

expectations that the New Zealand public have regarding search and rescue.

Called 'Public Expectations and Perceptions of Search and Rescue', the research was based on face to face interviews. When respondents were asked about their responsibility in preventing a SAR operation, they generally listed more than they actually carried out.

For example, although many people thought it was their responsibility to carry a beacon when walking and hiking in New Zealand's wilderness, they were not actually carrying a beacon on the trip they were doing.

Also of interest is that if lost and/or hurt in the bush, the New Zealand public generally expect to be found within two to five hours. This timeframe reduces to within 20 minutes to 1.5 hours of contacting authorities on sea, while people generally expect a SAR response either immediately or within 30 minutes if they are at the beach – even if it is not patrolled.

People don't really have a strong understanding of which organisations undertake SAR, and have even less understanding of the responsibilities of the different SAR organisations. While most understand that much of SAR work is volunteer-based, people overestimate both the amount of government funding SAR gets and the number of paid personnel used in SAR operations.

While providing the starting point for insight into the

public's expectations and perceptions, the report serves as a guide for more detailed quantitative research in key areas, such as the aforementioned disconnect between people's knowledge of what they should do versus what they actually do.

These full surveys make for interesting reading as they canvas a wide and varied range of issues across land, sea and air activities. They can be found in the research section of the NZSAR website nzsar.govt.nz

There is no doubt that recognition of the need for public-focused preventative strategies is growing. Many agencies, both within the SAR sector and others with an interest in keeping people safe, are conducting research, running initiatives and seeking more effective ways to promote safe behaviours. Currently no overarching 'prevention' framework exists to provide all parties with a bird's eye view of the sector in terms of what is being delivered by whom.

As NZSAR's role is to shape and lead combined efforts we are keen to bring cohesion to these efforts.

AdventureSmart

Providing adventurers with advice and tips to keep themselves safe goes some way to reducing the demand for search and rescue services. This is the premise for our involvement with www.adventuresmart.org.nz – New Zealand's go-to online portal for outdoor, water and boating safety information about all adventures in, on or above land and water.

A positive development of the introduction of the Health and Safety at Work Act 2015 is that promoting essential safety messages to Kiwis and international visitors has become more important than ever.

As a result, AdventureSmart's website and brochures are being used by a wider range of sectors than ever before, including corporate, educational and local government as well as tourism and SAR. Housing the highly popular Outdoors Intentions Process, which provides Kiwis and visitors with a helpful tool to tell a trusted contact their plans, AdventureSmart is also the only place you will find the Water, Boating and Outdoor Safety Codes, now in 18 different languages thanks to the recent addition of Portuguese. The new, responsive website also includes a translator feature to convert its content into more than 100 different languages.

AdventureSmart's success relies strongly on the support of its four safety partners: NZSAR, The New Zealand Mountain Safety Council, Water Safety New Zealand and Coastguard New Zealand. This collaboration has ensured that visitors to AdventureSmart are directed to the best and latest safety information available on each of these, and affiliate, websites. NZSAR's focus on international visitors has been supported by Jasons Travel Media, through sponsored advertisements in the company's 2016 travel maps and guides. i-SITES and DOC visitor centres have also continued to support AdventureSmart by displaying its



free, downloadable posters around the country, distributing thousands of brochures, and promoting AdventureSmart on the nationwide 'Great Advice, Great Walks' visitors map.

AdventureSmart has:

- **18** Safety Code languages
- **100+** Website language options
- **30,000+** Website visitors

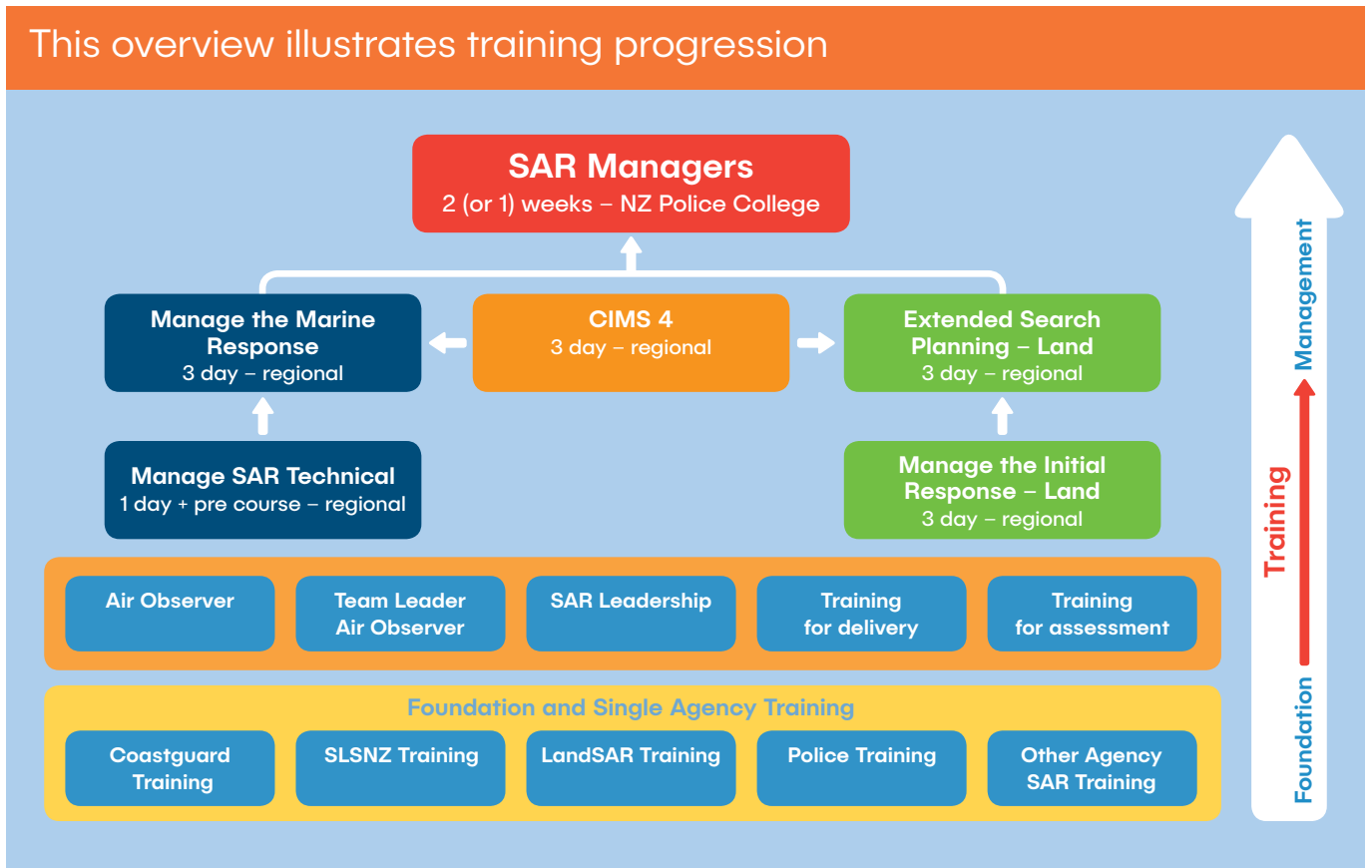
www.adventuresmart.org.nz

TRAINING

With a high level of skill required to carry out search and rescue operations, efficient training is a key component across the SAR sector. Individual SAR agencies determine their training requirements, taking into account what an individual needs as well as what the agency requires from its people to ensure it can effectively respond to operations.

Training across the sector is interconnected and cohesive. Beginning at foundation training and moving through the various stages to management, training enables individuals to develop the skills necessary to progress to the level they choose, right up to roles in the Incident Management Team.

This overview illustrates training progression



95% of independently surveyed students agreed that their last SAR(ACE) course taught them skills that are relevant to their SAR tasks.

SAREXs

Search and Rescue Exercises (SAREXs) are a widely regarded and valued aspect of SAR training. Multi-agency SAREXs provide opportunities for personnel from the various agencies to work alongside each other in an exercise setting. Their evaluation shows them what is working and what can be improved. And so the whole sector can benefit, NZSAR publishes these evaluation reports on our website to allow key insights to be shared at a national level, supporting continuous learning.

SAREXs with NZSAR financial support



4 Marine



7 Land



SAR-NET

The challenge in a multi-agency and time critical operation such as search and rescue is ensuring that all participants are able to maintain a single Common Operating Picture (COP) that is in real-time. SAR-NET allows everyone involved in a Search and Rescue Operation (SAROP) to have this real-time COP regardless of where they are in the world – as long as they have internet access.

Until SAR-NET was adopted it was common for three or more different sets of records to be maintained, including logs during an operation, risking information either getting lost or not shared. Responses could also become fragmented, creating not only operational inefficiencies but also placing both searchers and the victims at risk.

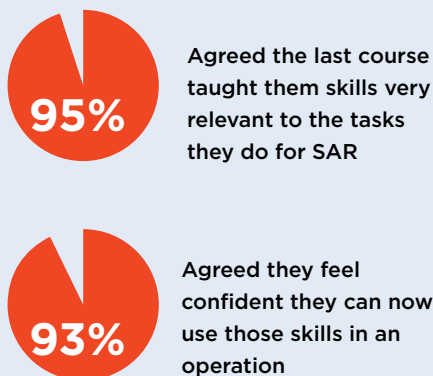
The real benefit of SAR-NET is its simplicity and it does not require much more than a few minutes training in order for it to become a useful tool.

Getting the best out of training

Given that 95% of SAR people are volunteers, it is imperative that they receive maximum benefit when we ask them to give up their time to train. As part of NZSAR's commitment to quality we ran an independent survey of students who attended SAR(ACE) training during 2015. We received responses from 203 people, who rated search and rescue courses highly.

Course content, skills and competencies

In terms of the relevance and appropriateness of course skills and competencies, and the relevance and applicability of course content to SAR activity, the students' feedback is excellent:



Quality of tuition programmes

The results for tutors was outstanding; over 90% of the students rated tutors "excellent" or "good" for their subject knowledge, advice, and easily understood instructions and explanations.

THE TUTORS... rated excellent or good



ON THE COURSE... agree or strongly agree

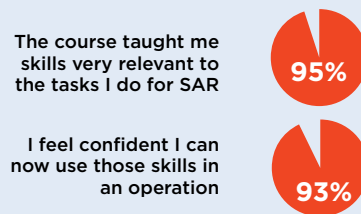


The best thing about SAR training...

Everyone was asked what the best thing is about training in search and rescue. They selected:

- Being ready to assist in operations **88%**
- Learning new skills **82%**
- Learning from experienced tutors **78%**
- Working in a team **74%**
- Gaining confidence **67%**
- Achieving qualifications **31%**

THE SKILLS TAUGHT... agree or strongly agree



The full report can be found at: www.nzsar.govt.nz/publications in the research section.

SAR(ACE) 2015 calendar year



1,341 participants received training



99 courses were held

SERVICE LEVEL AGREEMENTS

The NZSAR Council has five joint Service Level Agreements (SLAs) with Non-Government Organisations. The funding provided through these agreements recognises that there is a need for 'behind the scene' functions, which do not easily attract philanthropic funding in the same way more visible community-based assets do. These include governance and management, research, analysis and involvement in cross agency initiatives.

Here's a note from each organisation explaining how they use their SLA funding.

AREC

Amateur Radio Emergency Communications (AREC) provides communications and operators at the search headquarters for a number of SAR operations. As well as communicating between the search teams and search headquarters, we also provide communications back to a town base if the search is in a very remote area.

Our people, who are all volunteers, are often involved in multi-agency training exercises. We use SLA funding to help them attend, and to provide specialist training and advice as required.

Technology impacts greatly on the work AREC does for search and rescue. Our communications people, who are scattered around the country, must constantly update their knowledge and understanding of the latest equipment, the signalling requirements and digital enhancements.

SLA funding supports us to examine, update and sometimes back new and innovative ways of working effectively in the field. In one such example, Bart Kindt, an AREC radio operator and ICT and communications specialist volunteer, has created free software that shows the live location of land search and rescue teams overlaid on digital topographical maps. Through SLA funding, we paid for him to travel from the South Island to train AREC and LandSAR volunteers in the Wairarapa.



Photo by Brent Wenborn, Genesis Energy

Amongst other SLA funded activities, we engineered a permanent repeater on an AREC frequency for Turangi LandSAR. They now have state of the art equipment, making it possible to communicate where it wasn't before possible for operations in places such as the Tongariro Alpine Crossing.

AREC is committed to supporting cross-agency cooperation. Our volunteers are often the only people within their area working alongside other SAR people, so it is vital that we keep them informed about what each other is doing, and what other agencies are up to, ensuring that a critical cog in any operation – effective communication – is in place.

Coastguard New Zealand

24/7, 365 days a year Coastguard is there to provide marine SAR services to our communities. This wouldn't be possible without the Service Level Agreement between NZSAR and Coastguard, upon which we rely heavily. This funding is integral to Coastguard's existence and we work collaboratively with sector partners to deliver combined objectives such as reducing tragedies and mitigating risk in our environment.

Training is key to preparedness and Coastguard, along with fellow sector partners, regularly attend collaborative SAREX training exercises, helping to ensure a cohesive sector response at the time SAR services are needed the most. These exercises reinforce relationships, clarify understanding, fine-tune and practice skills, and allow for considered evaluation of individuals and teams.



64%

of recreational boated that required SAR support were 5m or less in length.



In the last year, SLA funding has contributed towards a \$480,000 investment to ensure volunteers are highly trained and ready to respond. Adequate funding is vital to ensure Coastguard is equipped to deliver operational excellence in order to save lives, and SLA funding contributes directly towards the necessary costs to provide this service to our communities. Overheads such as SAR equipment, unit running costs, fit for purpose vessels, Health and Safety, and MOSS (Maritime Operator Safety System) are costs that must be covered in order to provide SAR services and the SLA makes this possible.

Many people still do not realise that Coastguard is a not-for-profit organisation, run purely on the good-will and dedication of our volunteers. Coastguard volunteers tirelessly devoted over 300,000 hours to keeping Kiwis safe around our coastline last year – and because of that dedication we've assisted 6,489 people. That's a lot of people who, if it were not for Coastguard volunteers and our partners, may not have been brought home to their families.

LandSAR

LandSAR is a national volunteer organisation, working across suburban, urban, wilderness and rural areas including regional and forest parks, shorelines, rivers and caves.

Although the systems and the infrastructure are not the headline grabbing part of our work, it's vital they are in place to support our volunteers to perform at their best – and this is recognised in the SLA funding we receive.

Because of the diverse nature of our SAR roles, training is widely varied and often specialised. The funding enables us to help develop courses for the whole of sector SAR(ACE) training programme. It allows us to support volunteers to attend training at no cost to themselves, as well as providing a refresher training programme to maintain the skills and knowledge learnt previously.

We are committed to keeping all our members safe and in the last two years we have developed and implemented our own Safety Management System (SMS), the aim of which is to have an accident free record.

As part of our commitment to continuous improvement we've been developing and implementing a role-based competency framework, which includes systems and processes to help us assess our volunteers to ensure they can demonstrate the required skills and knowledge in an operational environment. Although this has been challenging, we are pleased to report that already over 60% of our groups have credentialed assessors and are underway.

There are many passionate, highly skilled and well trained LandSAR volunteers around the country that benefit from these and a number of other projects we run, ultimately with the goal of being ready and capable to respond when the call comes in that someone is in trouble and needs our help.



There were
34 SAROPs
 for Mountain Bikers
 during the year.





226

land incidents
occurred in
alpine terrain.

New Zealand Mountain Safety Council

The Mountain Safety Council (MSC) is a national organisation which encourages safe participation in land-based outdoor activities. Their reach extends to alpine snow sports safety in the 'backcountry'.

MSC has an SLA funded by NZSAR and the Department of Conservation (DOC) to run the New Zealand Avalanche Advisory (NZAA) service, which provides comprehensive information around the risk of avalanche. Aimed at the tramping, mountaineering, skiing and snowboarding

communities across the country, the service has been upgraded over the past year to deliver a more cohesive and sustainable approach. It also helps keep SAR people safe in cases where they may be deployed into this highly dangerous terrain to rescue people.

The NZAA's website www.avalanche.net.nz offers avalanche forecasts from contracted professionals across 12 regions. The forecasts include a danger rating from low (1) to extreme (5) as well as information on the likelihood of occurrence, likely size, and trends. It holds educative resources and an information exchange between organisations and commercial businesses that actively manage avalanche hazards during the winter months, covering technical snow, weather and avalanche aspects. There are also proactive social media posts promoting the NZAA, plus alpine and avalanche related safety messaging. The NZAA has received significant public awareness this year, referencing the site as a critical part of backcountry snow sports trip planning.

A live feed to the NZAA has been embedded in the MetService website to further increase the reach of this vital tool.

To ensure comprehensive coverage, the NZAA also provides backcountry avalanche danger assessment signs. They are located at strategic field positions and have supplementary advisory information. It continues to be a valuable resource for outdoor communities across the country and is proudly supported by NZSAR & DOC.

SLSNZ

Surf Life Saving New Zealand uses NZSAR funding for a wide variety of activities that support our active involvement with NZSAR and the wider SAR sector.

In the back office the money helps fund the national staff who are most involved in building our SAR capability, and the SLSNZ board appointments panel, to make sure the organisation has the best governance.

Closer to the action, it helps us build and maintain the standards of our SAR callout squads and their coverage capability, including support for our National Lifeguard School – for the 'best of the best' lifeguards who are the core members of our SAR callout squads.

It also helps with our patrol audits, ensuring our operations are maintaining the necessary standards, and for IRB maintenance training workshops held across the country, creating internal capability for servicing which reduces costs and helps keep our equipment in top condition.

And right at the 'pointy end' it funds critical incident support (counselling) for lifeguards who experience high-stress situations, as well as the investigations we undertake

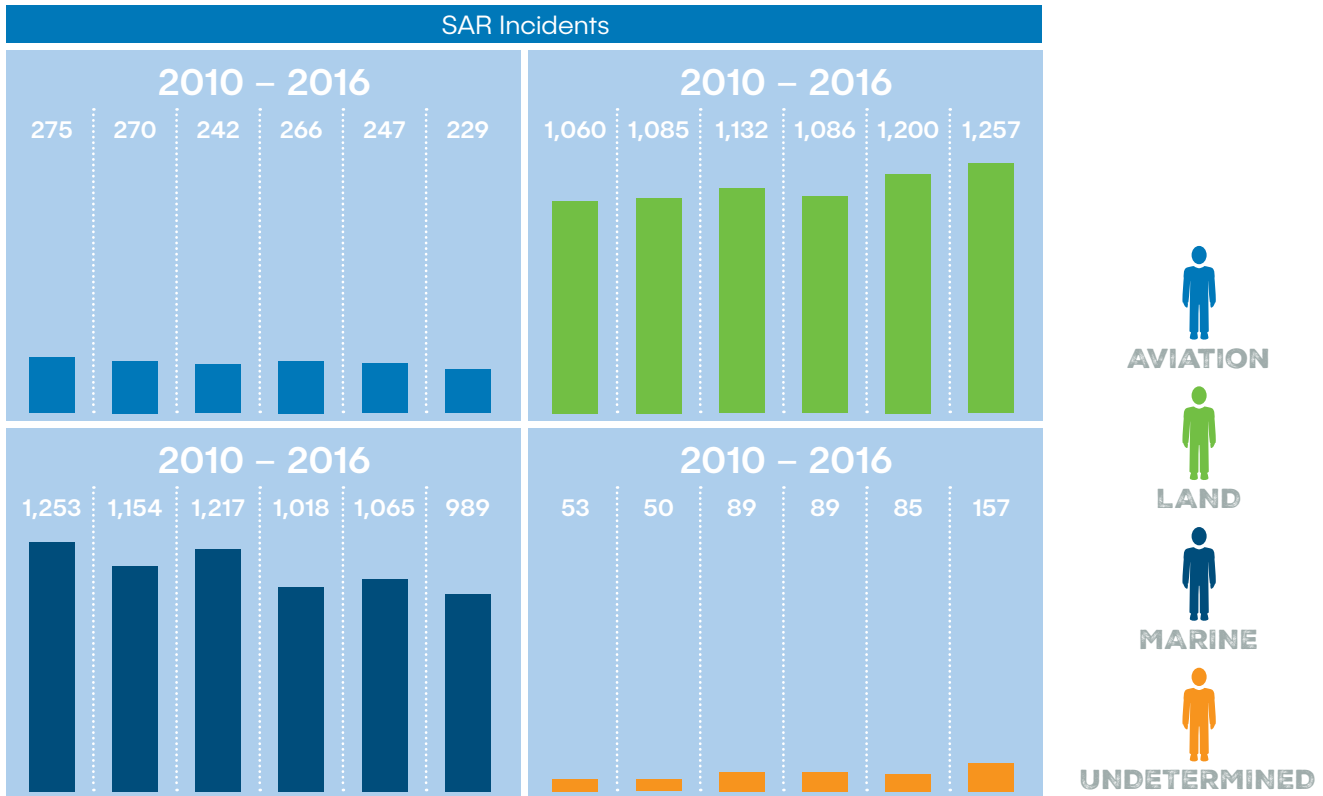


on beach drownings. These are used for Coronial enquiries and to inform our own learnings on how to reduce the risk of drowning in the future.

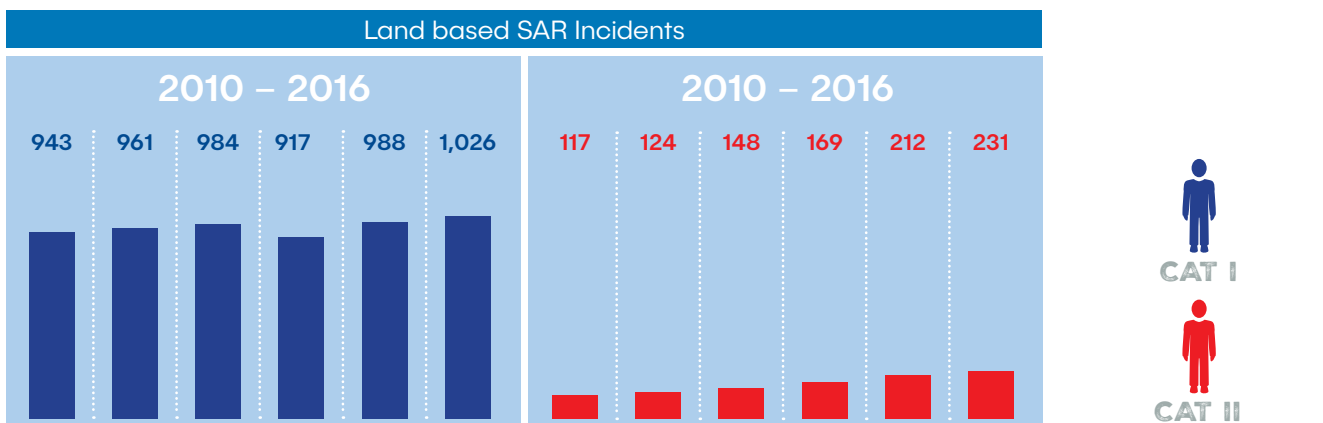
SAR BY NUMBERS

How does our SAR data assist with decision making?

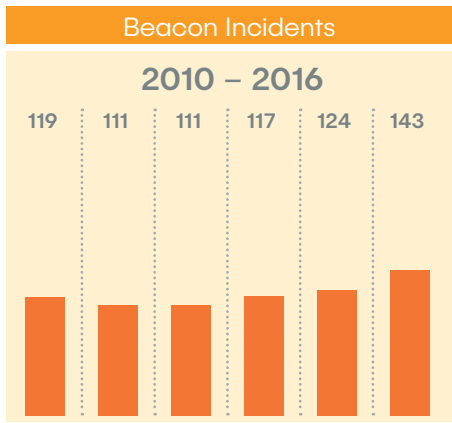
One of the major projects the NZSAR Secretariat has been engaged in over the last year is running the SAR Data Store. This project has collated the individual SAR records from the two Police SAR Incidents data forms, and the RCCNZ SAR Incident data system. By having the data collated into a centralised data store, we can now analyse it to look for nuggets of useful information (some examples are spread throughout this Annual Report), or trends over time – with an example on these two pages.



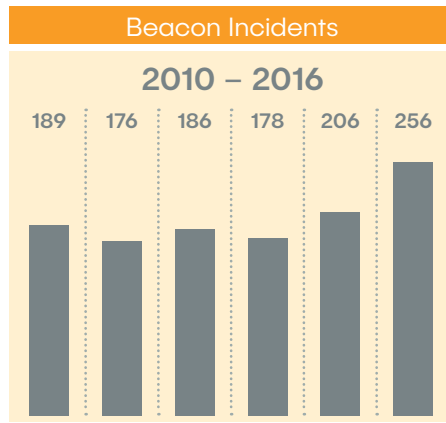
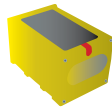
These graphs show the environment where SAR incidents happened over the last six years (years ending 30 June). They indicate an increase in land-based operations.



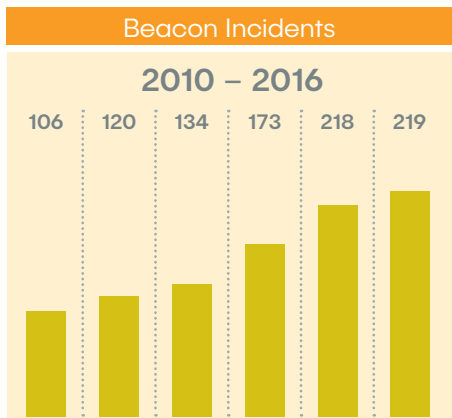
As we drill down into the land incidents, we can see this increase occurs across the two coordinating authorities – Category I (Police) and Category II (RCCNZ).



EMERGENCY LOCATOR TRANSMITTER (ELT)



EMERGENCY POSITION INDICATING RADIO BEACON (EPIRB)

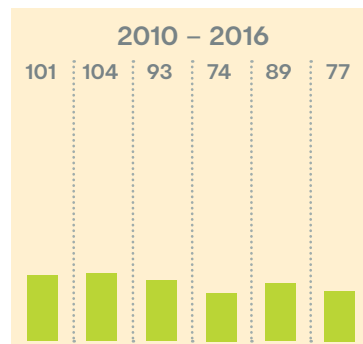
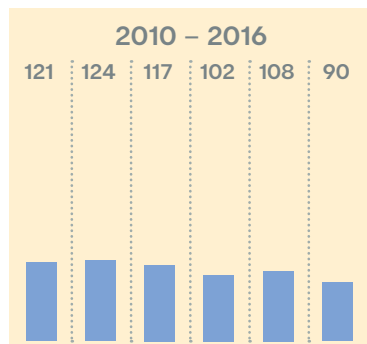
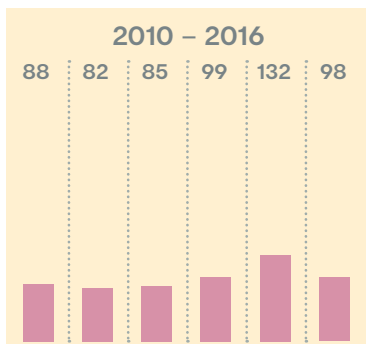
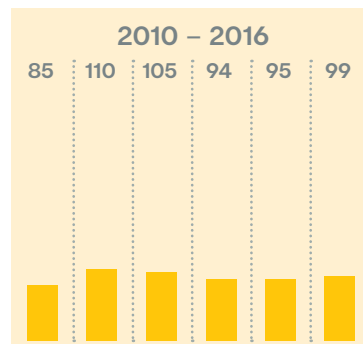
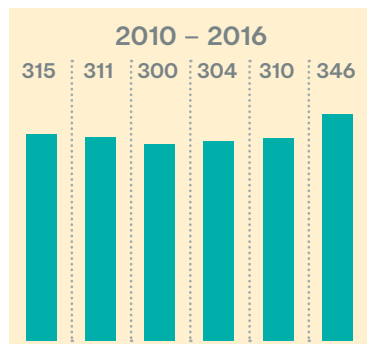
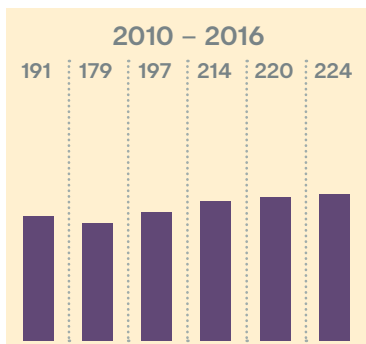


PERSONAL LOCATOR BEACON (PLB)



What we can see is a slow and steady increase in SAR incidents. The upsurge in Category II land-based incidents is driven by the growth of PLBs being registered with RCCNZ. This corresponds to them receiving more of these alerts. However it should be noted this increase is modest when compared to the higher numbers of PLBs now registered. Most of these incidents would have been Category I prior to the prevalence of PLB ownership. So although we would expect to see a decrease in Category I incidents this is not the case – they are also on the rise.

Six main categories of subject behaviour



- WANDERERS
- TRAMPERS/WALKERS
- OUTDOOR SPORTS
- DESPONDENT
- OTHER/WORK
- HUNTING/FISHING

When we look at the Category I land-based incidents we see there is a slow and steady increase in the number of 'wanderers' – categorised as people with dementia related illnesses, autism spectrum disorders, intellectual impairment and missing children. We expect this trend to continue as the New Zealand population ages. LandSAR NZ is leading the implementation of the Wander Framework to respond to the expected growth in this type of land incident.

CELEBRATING SUCCESS

2015 NZSAR Awards



NZSAR Award recipients with Hon Craig Foss, Associate Minister for Transport

“You see yourselves as ordinary people simply doing what needs to be done. In fact, you’re ordinary people doing extraordinary things sometimes at significant personal risk.”

The Hon Craig Foss, Associate Minister for Transport, honoured recipients of the 2015 New Zealand Search and Rescue Awards at Parliament in May, highlighting some of the many traits that befit SAR people and their agencies which are demonstrated in outstanding results year after year.

“The work of your sector is collaborative in nature – organisations coordinate responses and rely on information sharing to prepare for rescue operations. Because you know you can rely on each other, the rest of us know we can rely on you.”

Richard Walker, from LandSAR Nelson, acknowledged the dedication of his peers during his acceptance speech for the Gold Award in Operational Activity.

“It’s a great honour to receive this. It shows the commitment our group puts towards what we do in the field. It also shows the professional level of training that LandSAR provides which enables us to go out and do these jobs.”

Support Activity Gold Award winner Delanie Halton talked about the value of the WanderSearch tracking programme.

“It’s very important across the country, especially for people living with a cognitive impairment who have the potential to wander – it’s just a faster way to find them.”

Gold Award – Operational Activity

The NZSAR Gold Award for Operational Activity is awarded for a very significant contribution to search and rescue in the New Zealand Search and Rescue Region during 2015.

- **Silvano Lorandi**
- **Mika Verheul**
- **Richard John Walker**

From LandSAR Nelson

For the rescue of two people from Robert Ridge, Nelson Lakes National Park on 5 September 2015

Two tourists, insufficiently equipped and inexperienced, were in dire need of rescue. These three volunteers, each highly skilled in alpine conditions, described the situation in one of their hourly reports as “atrocious... it doesn’t get any worse”.

The rescue team used great navigational skills to find the tourists. The professional team work, with excellent role definition, was key to the successful outcome.



Gold Award – Support Activity

The NZSAR Gold Award for Support Activity is awarded for a very significant contribution to search and rescue in the New Zealand Search and Rescue Region over an extended period.



- **Delanie Halton**
From WanderSearch Auckland Charitable Trust

For her services to WanderSearch and the WanderSearch programme in Auckland.

Delanie Halton is the Administrator for WanderSearch Auckland Charitable Trust, involved in applying for and sourcing corporate and private funding. She has helped establish standards and comprehensively researched wanderers to establish patterns and determine wanderers' needs within the community.

She has helped establish the WanderSearch programme at Auckland Hospital, liaises with rest homes, and actively promotes WanderSearch at public talks, promotions and displays.

Delanie also conducts WanderSearch training at SAREXs.

Certificates of Achievement – Operational Activity

The NZSAR Certificates of Achievement for Operational Activity are awarded for an important contribution to search and rescue in the New Zealand Search and Rescue Region during 2015.

- **Clinton Miles**
- **Simon Turner**
From Tekapo Helicopters
- **Coastguard Mackenzie Lakes**
- **LandSAR Mackenzie**
- **Lake Tekapo Volunteer Fire Brigade**

For the rescue of a group of kayakers on Lake Tekapo on 25 September 2015

Around 3.30pm the wind began gusting up to 30 knots, waves rose to around two metres – and eleven kayakers were in trouble. Both water and air temperatures were extremely cold, and two kayakers died.

The operation involved on sea and air search, and the subsequent rescue of hypothermic survivors. These rescuers' quick actions saved three of the kayakers lives and prevented the rest from becoming seriously ill.

- **Emma Milburn and her dog Dart**
From LandSAR Search Dogs

For commitment in the search for a missing person near Balclutha beginning 23 July 2015

Emma Milburn searched for the 79-year-old with her dog Dart for more than 50 hours over five days – the last two when the search had been scaled down – eventually finding his body. They then located another deceased person two weeks later.

Emma was deployed for more than 360 hours on operations in 2015 – almost half of the total operational hours for all Search Dogs handlers nationwide.



- **Jackson Henry Smith**

From Red Beach Surf Life Saving Club

- **Duncan Clarke**

From Piha Surf Life Saving Club

- **Nicholas Tomkins**

From Orewa Surf Life Saving Club

- **Leilani Jesse Fuemana**

Simone Hollier

From United North Piha Surf Life Saving Club

For the rescue of a swimmer on North Piha Beach on 24 November 2015

Five lifeguards from four different units worked together to save the life of a 19-year-old woman missing in rough conditions. Off duty lifeguard, Jackson Smith, was first on the scene.

There is no doubt this patient would not have survived if Jackson and the other lifeguards had not been around the Piha area at the time. The skills that all the lifeguards brought together were a credit to their training.

- **Greenlea Rescue Helicopter**
- **LandSAR Turangi**
- **New Zealand Police SAR**
- **Ruapehu Alpine Rescue Organisation (RARO)**
- **St John Ambulance Taupo**

For the rescue of four injured climbers from Mt Ngauruhoe on 17 June 2015

Falling several hundred metres at different times, four climbers lay injured and scattered down the mountainside.

Eleven sorties were made in challenging conditions, it was treacherous underfoot, but the team managed to expertly rescue the climbers from the ice-covered mountainside, at night.

Six St John Ambulance staff were on-site to assist with the patients. Had they not been rescued that night some, if not all, would have died from hypothermia.

Certificates of Achievement – Support Activity

The NZSAR Certificates of Achievement for Support Activity are awarded for an important contribution to search and rescue in the New Zealand Search and Rescue Region, either during 2015 or over an extended period.



- **Shane William Beech**

From Coastguard Maketu

For his commitment and services to search and rescue
Shane founded the Maketu Volunteer Sea Rescue Service and helped establish Coastguard Maketu, where he is still President and a Senior Operational Crew member and Media Officer. He has managed projects to upgrade the unit's vessel and facilities in a community of just over 1000 people.

His continued passion for the betterment of the community carries into his involvement with Youth in Emergency Services (YES).



- **William John Funnell**

For his commitment and services to search and rescue in New Zealand for nearly 50 years

John has been involved in saving thousands of lives and promoting safety within the aviation and SAR sectors. He is a pioneer in using helicopters to rescue people in remote or difficult places.

He helped set up the Philips Search and Rescue Trust and has held senior aviation industry positions. John's knowledge and skills have also significantly assisted the Rescue Coordination Centre New Zealand during searches.

• **Murray Miskelly**

From Coastguard Northland Air Patrol

For his leadership and services to search and rescue Murray has been Northland Air Patrol's Unit President for three terms. An operational pilot, he has been involved in all but one of the callouts this year and participated in all unit activities.

Murray spends considerable time with the non-pilot members teaching them basic operations and was instrumental in transitioning to tablet-based navigation and planning.

He can be credited for the ongoing success of the unit where he motivates members and leads by example.

• **Lynn Stuart**

From Coastguard Wanaka Lakes

For his commitment and services to search and rescue Lynn is the Principle Skipper, covering both Wanaka and Hawea Lakes. His hours of service exemplify his dedication and professionalism.

Lynn runs the new recruits' induction, developing an outstanding relationship that helps ensure all new recruits get maximum support, and stay.

As the Unit Safety Officer, he ensures that the Coastguard vessel and its equipment are fit for purpose, carrying out basic maintenance and repairs.

Lynn took part in the summer community awareness programme, and continues to be involved in unit fundraising activities.

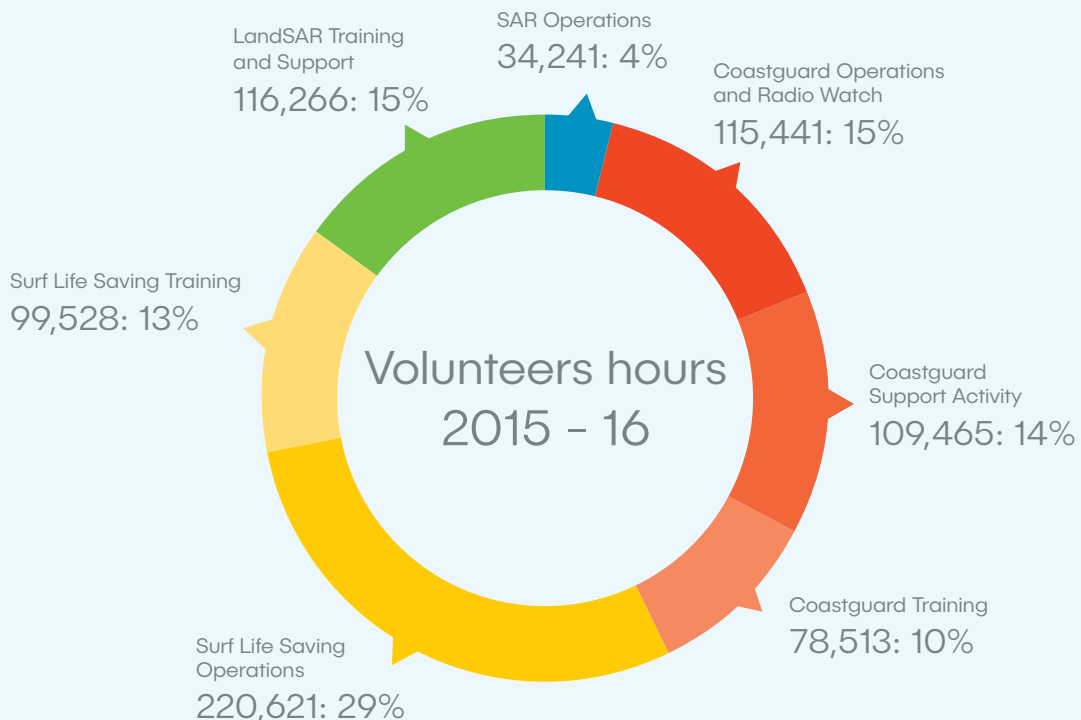
The NZSAR Council and Secretariat congratulates all our 2015 winners.

For the full award citations go to the awards section on the NZSAR website nzsar.govt.nz/awards

Nominate an organisation, a group, or an individual who you think should be acknowledged for their contribution to search and rescue. There are two categories – operational activity and support activity. Visit: www.nzsar.govt.nz/awards for details

VOLUNTEERS

Volunteers provided a total of 774,075 hours of their time supporting the SAR sector. However, only 4.4% of that time is spent directly supporting search and rescue operations. Coastguard and Surf Life Saving volunteers provided 336,062 hours in conducting non-SAR operational activity (patrols and radio watch). 403,772 hours of the volunteers time was spent in training, administration, fund-raising, and other support activities.



MEOSAR

New system set to go

Maritime New Zealand is close to concluding the \$7.2m project to install the new MEOSAR system. The distress beacon system is an international arrangement where an activated distress beacon is detected by satellites. The signal is sent to a Local User Terminal (LUT) and the data is transferred to a Rescue Coordination Centre (RCC), which can then coordinate a rescue.

A brand new LUT has been built midway between Taupo and Rotorua. The MEOSAR (Medium-altitude Earth Orbit Search and Rescue) system uses newer satellites, and will provide greater accuracy and speed of detection than the older system. The MEOSAR satellites will give global coverage of distress beacon signals in 5 minutes, compared with the current 45 minutes.

Maritime New Zealand joined forces with the Australian Maritime Safety Authority on this project, and a similar LUT site has been built in Western Australia. Together these ground stations work cooperatively to achieve overlapping coverage of the two countries' search and rescue regions, providing significant coverage of the wider Pacific, Antarctic and Indian Oceans and land masses.

Signals received by the new site will be sent to a new mission control centre in Canberra, which will then pass them to the appropriate Rescue Coordination Centre. This new joint system for New Zealand and Australia is a key part of the global COSPAS SARSAT system. It offers a high



degree of resilience in the event of a system outage, which would be expensive for either country to achieve alone.

The new MEOSAR system is operational – it is checked regularly and modified. And it's proving its worth already. The MEO data is generally providing alerts up to an hour earlier than the older system, giving SAR teams a head start that could be crucial when dealing with someone in need of medical attention or failing daylight.

Beacon ownership, and use, continues to rise in New Zealand with more than 65,000 beacons currently registered in the database. Distress beacons assist in taking the search out of search and rescue and allow authorities to locate the lost, missing or injured faster.

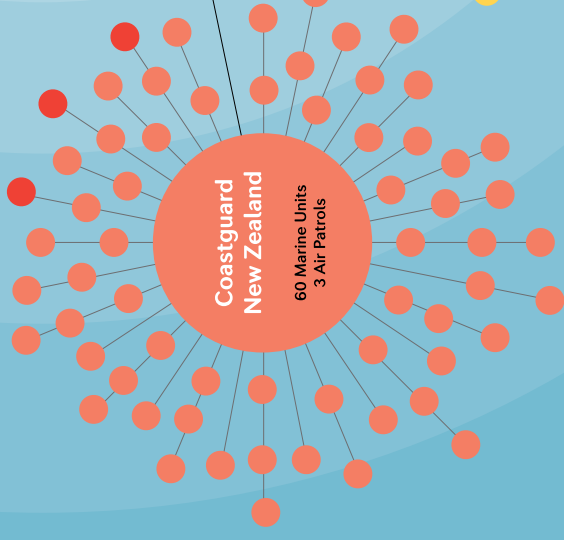
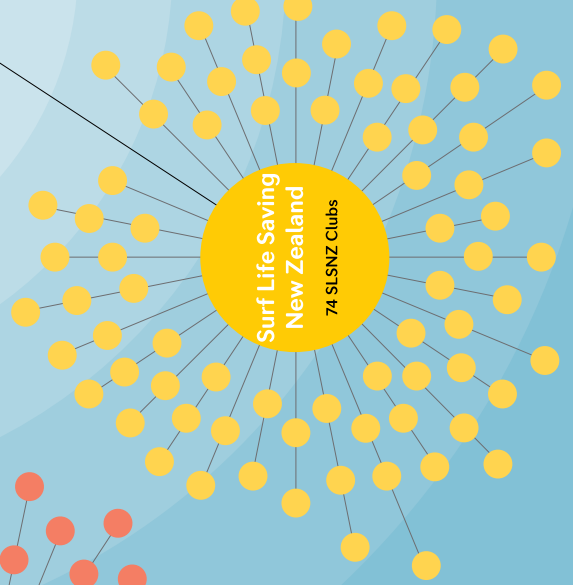
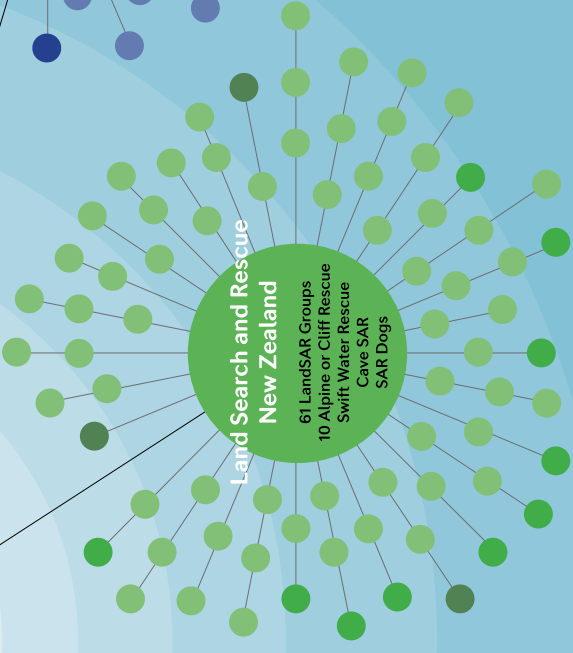
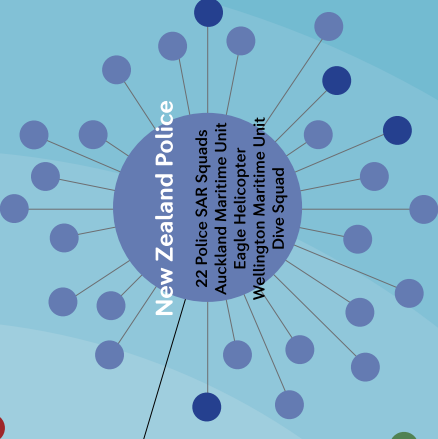
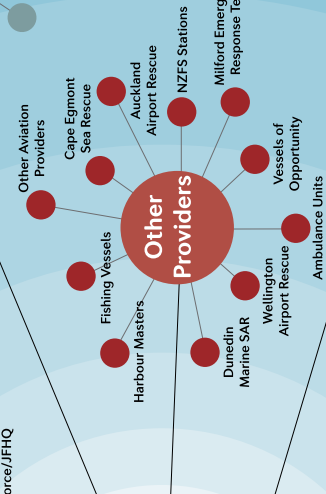
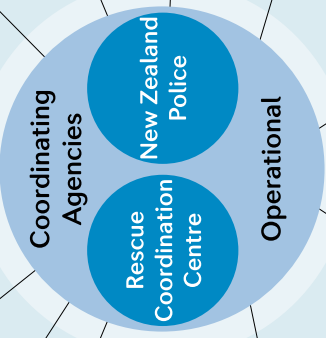
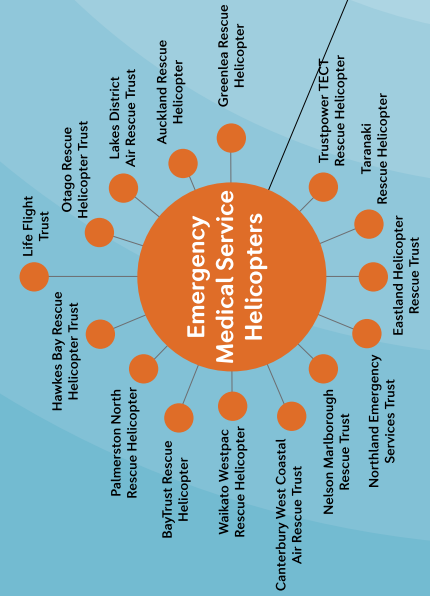
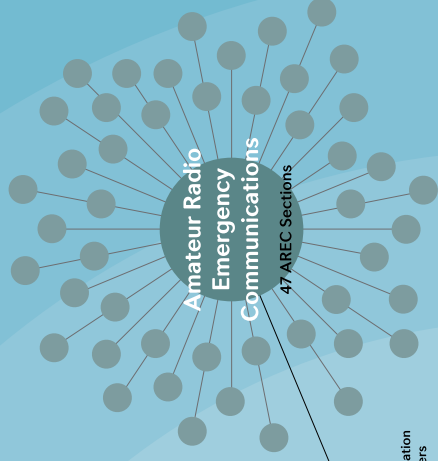
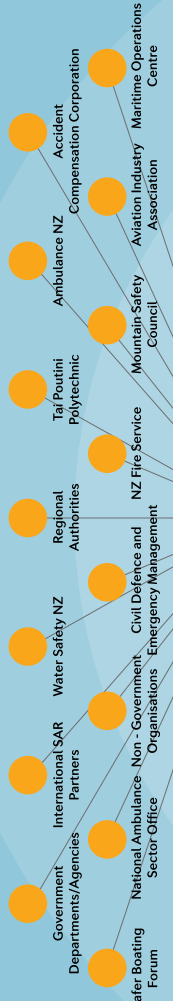
New Zealand will phase out using the LEO (Low-altitude Earth Orbit) satellites towards the end of 2017.



10 incidents involved incorrectly disposed distress beacons at landfills.

OUR SECTOR

Partners



GOVERNANCE

NZSAR Council

The Council's role is to provide national strategic governance and leadership to New Zealand's search and rescue sector.

In keeping with the Council's high level strategic function, its membership is drawn from the chief executives (or delegated to a person from the senior executive level) of the Ministry of Transport, New Zealand Police, New Zealand Defence Force, Department of Conservation, Maritime New Zealand and the Civil Aviation Authority.

NZSAR Secretariat

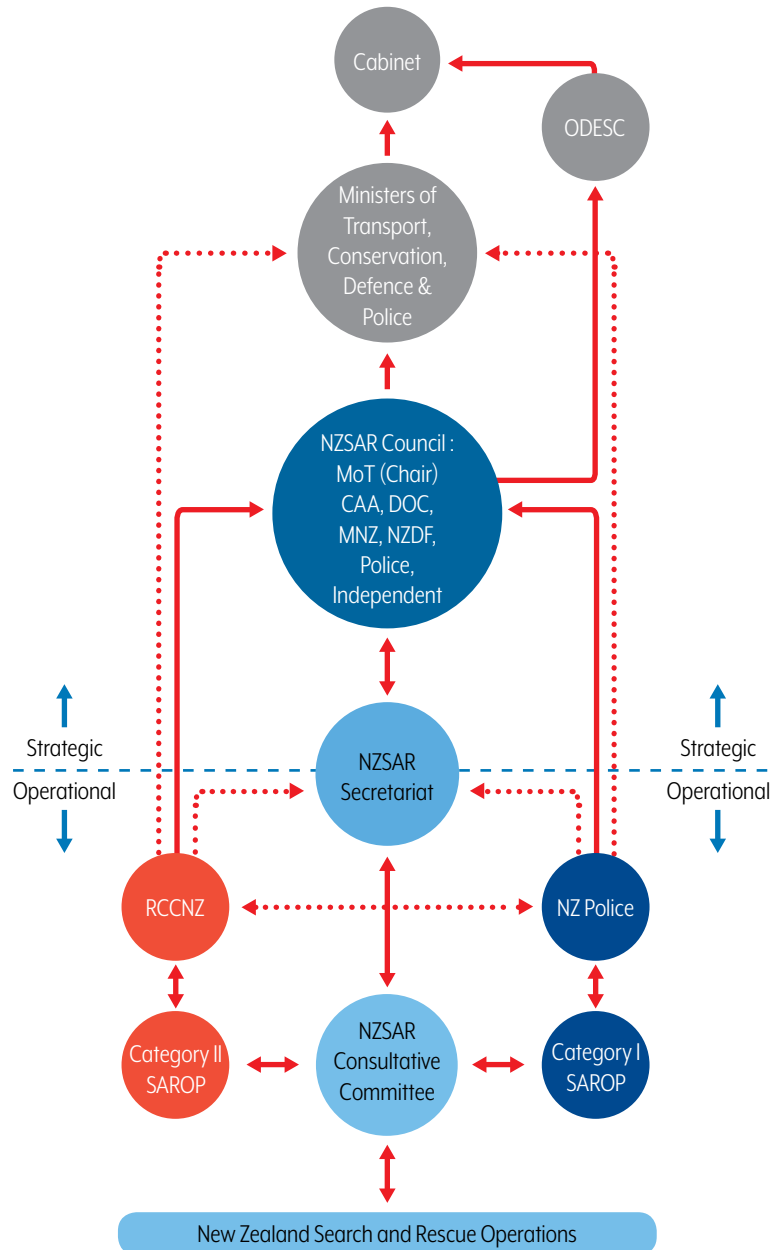
The Council is supported by the NZSAR Secretariat. Its purpose is to provide a national forum for all New Zealand SAR stakeholders including voluntary groups. It provides the Council with support services, policy advice and implements agreed measures to effectively coordinate strategic SAR in New Zealand.

NZSAR Consultative Committee

The Consultative Committee provides advice to the Council and informs the strategic decision making process. Consultative Committee members include:

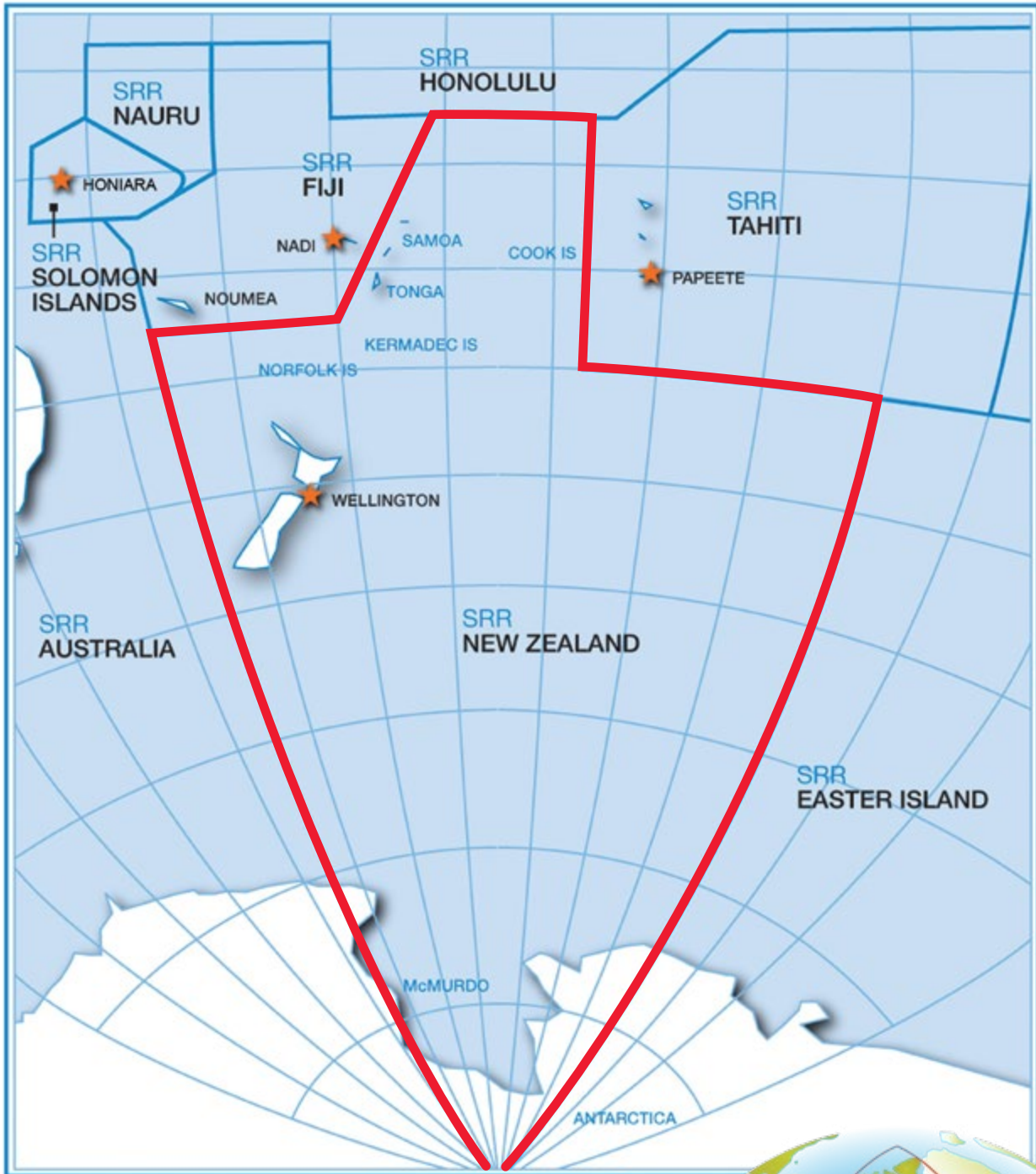
- Amateur Radio Emergency Communications
- Ambulance New Zealand
- Antarctica New Zealand
- Aviation Industry Association
- Civil Aviation Authority
- Coastguard New Zealand
- Department of Conservation
- LandSAR New Zealand
- Maritime New Zealand
- Maritime Operations Centre
- Ministry of Transport
- National Ambulance Sector Office
- New Zealand Defence Force
- New Zealand Fire Service
- 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

The Council, Secretariat and Consultative Committee operate cohesively to ensure their objectives are successfully delivered.



- CAA: Civil Aviation Authority
- DOC: Department of Conservation
- MNZ: Maritime New Zealand
- MoT: Ministry of Transport
- NZDF: New Zealand Defence Force
- ODESC: Officials Committee for Domestic and External Security Coordination
- RCCNZ: Rescue Coordination Centre New Zealand
- SAROP: Search and Rescue Operations

NEW ZEALAND SEARCH AND RESCUE REGION



- ★ Rescue Coordination Centre
- Search and Rescue Region Boundary of SRR



New Zealand Search and Rescue Council
NZSAR Secretariat
1 The Boulevard, Harbour Quays
PO Box 3175, Wellington 6140
www.nzsar.govt.nz
www.adventuresmart.org.nz

In perspective:
NZSRR overlaid on the Americas