



Connecting the search and rescue sector

Link is a quarterly publication of  
New Zealand Search and Rescue

# NZ's Search and Rescue Guidelines poised to go live

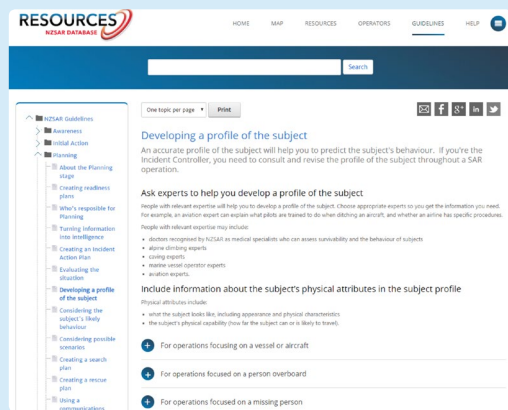
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New Zealand's Search and Rescue Guidelines provide a single repository for the operation of search and rescue.



**New Zealand's first** set of national guidelines for the search and rescue sector will be published this month, after two years in the making.

This new online resource provides a single point of reference and guidance for conducting search and rescue (SAR) operations in New Zealand. They are designed for ease of access from a computer, tablet or smartphone.

NZSAR Secretariat Manager Duncan Ferner says the NZSAR Council recognised the absence of an “agreed, unified and documented doctrinal base” for search and rescue in 2017.

“In response, we’ve developed guidelines that set out broad criteria and principles for search and rescue, rather than detailed operational procedure,” he says.

Key sections are based on the various stages of a search and rescue operation: Awareness; Initial Action; Planning; Operations and Conclusion. Each section is written in plain, easy to follow English – using expanding text and hyperlinks to minimise scrolling.

Project Manager Martin Paget says the content was drawn from a range of existing search and rescue documents, with additional input from subject matter experts within New Zealand’s SAR sector.

“Their support and guidance has been critical in bringing many facets of information together into one valuable resource,” he says.

National SAR Support Programme Co-ordinator Rhett Emery says the new guidelines will complement the project-specific and agency-related guidelines already available on the NZSAR website.

“While they do not prescribe operational procedures, some sections may serve as prompts during an operation,” he says.

“For example, if an Incident Controller is considering suspending an operation, he or she could refer to the relevant section of the guidelines to check that they’re covering all the steps.”

The guidelines are consistent with the Coordinated Incident Management System (CIMS), the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual and the Operational Framework for New Zealand Search and Rescue Region.

It is expected that further material and references will be added to the guidelines as they imbed themselves into SAR operational practice. The guidelines will be maintained through the Forms and Templates Management Group, who will consider updates and additions.

When published, the new guidelines will be available from the NZSAR website: [www.nzsar-resources.govt.nz/guidelines](http://www.nzsar-resources.govt.nz/guidelines)

*NZSAR welcomes your feedback on the new guidelines. Please direct your thoughts to your organisation’s member of the Forms and Templates Group or email [r.emery@nzsar.govt.nz](mailto:r.emery@nzsar.govt.nz).*

## Searching in a sea of white

**New Zealand’s mountainous**, backcountry terrain may be breathtaking, but we know its beauty can come at a price. This winter, some important measures in avalanche preparedness have helped to ensure the safety of visitors to our alpine areas.

## Avalanche advisory signs

With funding from NZSAR, the New Zealand Mountain Safety Council (MSC) erected 62 new avalanche advisory signs throughout the country in July, covering every ski area within the 12 New Zealand Avalanche Advisory (NZAA) regions. The signs offer more information than their predecessors – clearly displaying the latest avalanche danger rating at essential decision-making points. This is also the first time all NZAA Danger Scale signs have a consistent format and standard, as prior to this project up to three variations of signs existed.

Nathan Watson, Partnerships and Insights Manager at the MSC says they collaborated on the content and design of the new signage with a number of industry professionals, site-managers and backcountry users.

“This included, but was not limited to, snow safety officers and mountain managers at ski areas, Department of Conservation staff, heli-ski and mountain guides,” he says.

“We wanted to ensure that anyone accessing the backcountry from these popular locations could easily understand the warnings and make an informed decision as to whether or not they continue. Feedback has been very positive so far.”

## Avalanche SAR collaboration

The latest information and techniques in avalanche SAR were exchanged among 40-50 participants at a recent NZSAR workshop, hosted by the Mountain Safety Council.

Held in Christchurch on 17 June as an add-on to the Southern Hemisphere Alpine Conference, the Avalanche SAR workshop marked ten years’ of New Zealand’s alpine industry professionals and related volunteer agencies coming together to share their knowledge.

Director of Avalanche NZ, Andrew Hobman, has noticed a real improvement across all areas of avalanche response during this time. He presented the key learnings from the NZSAR-funded avalanche SAR exercises over the past decade, which can be read in more detail on the NZSAR website: [www.nzsar.govt.nz/Resources/SAREX-Reports](http://www.nzsar.govt.nz/Resources/SAREX-Reports) “Response plans are being updated annually, the management structures are there and people are generally doing a great job,” he says.

“It’s so important for us to have these opportunities to meet each other and learn together. As we know, SAR personnel can move around and change positions quite regularly. Familiarity has a huge flow on effect for the efficiency of an operation. Avalanche time is life – it’s absolutely a medical emergency. People succumb to asphyxia



One of 62 new avalanche advisory signs across the country, shown here at Queenstown's Coronet Peak.

“Avalanche time is life – it’s absolutely a medical emergency.”

Andrew Hobman, Director of Avalanche NZ

and hypothermia very quickly. If we don’t go out and participate in training before we run our avalanche SAREXs we simply don’t get as good a result.”

As training sessions have been well attended, Andrew says that the personal SAR skills of rescuers and Incident Management Teams have now reached a level where they are able to shift their focus to patient care.

“We’re looking at how to package a hypothermic patient, how to effectively engage with St John and DHB staff and when to call

ahead to the Cardiovascular Intensive Care Unit at Auckland City Hospital – the only centre in NZ to safely rewarm patients from a deep hypothermic state.”

This holistic approach to avalanche SAR has influenced the development of St John’s first ever protocol on hypothermia, which Andrew hails as a big positive.

“Coupled with the fact that we can now evacuate patients off the mountain faster, this better understanding of hypothermia and medical care means we are more likely to save lives,” he says.

## Workshop highlights in brief

### Best practice

Manuel Genswein, one of the world’s leading avalanche experts from Switzerland, led a theory session on avalanche search techniques. Participants put this theory into practice at Hagley Park in the afternoon. The techniques covered included: different types of transceiver searches; RECCO searching; and variations of probe-line searching.

DOC’s Jim Young delivered his presentation “What makes a high performing team?” This included insights from Jim’s recent experience with the mountain rescue team at Mt Rainier, Washington.

### Risk mapping

Participants were asked to consider what factors could compromise an optimum SAR response to an avalanche incident.

Principal Advisor, Visitor Risk at DOC Don Bogie, who facilitated this session, says the feedback was very useful.

“The things that were of most concern were: best practice being ignored; assembling the team; timeliness of response; bureaucracy; span of control; poor resource management and poor decision making.”

Information gathered will be used to inform changes to the national avalanche response guidelines.

### CPR Care

Dr Malin Zachau provided an update on CPR care for hypothermic patients, which included a demonstration of four different types of automatic CPR devices currently available in New Zealand. These devices allow patients to be transported by helicopter or ambulance while undergoing CPR – something that hasn’t been possible due to the requirement that the responder be safely seatbelted in the emergency vehicle.

For more information about these devices, or Dr Zachau’s work in hypothermic care, please visit her website: [drmwildernessmc.wordpress.com](http://drmwildernessmc.wordpress.com)



Onboard a P-3K2 Orion aircraft. Photo courtesy of the New Zealand Defence Force.



## Orion search saves skipper

**It was 1.30am** on 4 June 2019 when an EPIRB (Emergency Position Indicating Radio Beacon) alert sounded at the Rescue Co-ordination Centre. A vessel was in distress approximately 1,450 nautical miles north-east of New Zealand.

Search and Rescue Officer Andrew Parsons was 'on watch' in the Operations Room that night and remembers the incident clearly. The Norwegian-registered EPIRB was connected with a sailing vessel named *SV Albatross*, which had left New Zealand three weeks prior on a solo voyage to Tahiti.

Andrew and his team were quick to contact the Royal New Zealand Air Force, who dispatched a P-3K2 Orion from Whenuapai at 5am to begin the search for the *SV Albatross*.

Air Commodore Tim Walshe, Air Component Commander Joint Forces New Zealand, explains the decision-making behind when to launch an aircraft in response to a search and rescue callout received at night.

"Working closely with the Rescue Co-ordination Centre, we treat it on a case by case basis – balancing issues such as crew rest and better search options in daylight with the need to launch immediately when life is at risk," he says.

Meanwhile, RCCNZ issued a series of mayday relay broadcasts, which were picked up by a container ship in the vicinity.

"The ship's master was happy to assist, so they diverted approximately 180 nautical miles to seek out the stricken vessel," says Andrew.

Air Commodore Walshe says the EPIRB provided the aircraft crew with an accurate location, which facilitated a straight-forward search.

"Thanks to the skipper having all the right aids, the Orion found his vessel around 9am, shortly after arriving at the search area," he says. "He was standing on the stern of his vessel waving his red jacket."

At this stage, the container ship *Olga Maersk* had not arrived at the scene. Conditions were testing – the *SV Albatross* was being buffeted by southwesterly swells of up to 3.5 metres and 20-knot winds.

Using VHF radio, the aircraft crew made contact with the skipper and established that there was no immediate danger of the 13-metre vessel sinking.

"The vessel had suffered a mechanical failure. Steering and engine capabilities were lost and it had drifted off course. The skipper was safe and well but wanted to abandon his sailboat," says Air Commodore Walshe.

With the container ship expected to reach *SV Albatross'* location by mid-afternoon, the Orion crew confirmed a rendezvous with the merchantmen and flew on to Rarotonga to refuel.

Back at the Rescue Co-ordination Centre in Lower Hutt, Andrew and the night watch team had finished their shift and briefed their colleagues who were rostered on the day watch. Communication with the aircraft crew was maintained via satellite phone.

"As we'd also contacted our counterparts in Norway (to determine the details of the EPIRB), they were able to keep in touch with the sailor's family," says Andrew.

At 3.20pm, the *Olga Maersk* reached the stricken vessel and the Orion returned to assist. Air Commodore Walshe says the sheer size of the container ship posed a challenge.

"The seas were getting better towards the rendezvous, which helped the ship gradually pull alongside, positioning the yacht downwind."

Within the hour, the Norwegian skipper was safely evacuated on to the container ship – 15 hours after the emergency beacon was activated. He arrived in Tauranga a few days later.

### What happens to abandoned vessels at sea?

Abandoned vessels are usually left to drift and they will either sink or break up after a while.

In a SAROP like this one, the Maritime Operations Centre issues a navigational warning for NAVAREA XIV, which is broadcast to all ships in New Zealand waters and beyond.

# New edition of CIMS

**From 1 July 2020** the 3<sup>rd</sup> edition of the Coordinated Incident Management System (CIMS) will replace all previous versions of CIMS.

Visit the NZSAR website [www.nzsar.govt.nz](http://www.nzsar.govt.nz) to download the CIMS 3<sup>rd</sup> edition, together with an overview of changes from the 2<sup>nd</sup> edition.

The CIMS 3<sup>rd</sup> edition represents New Zealand's official framework to achieve effective co-ordinated incident management across all responding agencies.

## World Maritime Rescue Congress 2019

**A number of** New Zealand organisations were represented at the World Maritime Rescue Congress (WMRC) in June, including Maritime NZ, Coastguard NZ, Surf Life Saving NZ, Water Safety NZ and NZ Search and Rescue (NZSAR). Run by the International Maritime Rescue Federation (IMRF), this event is attended by hundreds of delegates from all over the world.

Manager of the NZSAR Secretariat Duncan Ferner says New Zealand has had a strong involvement with the IMRF over the years, including a past chief executive (Bruce Reid) and now their newly elected President – Dean Lawrence (opposite).

“These events offer a great opportunity to learn from our international SAR partners and for them to learn from our latest initiatives and thinking,” he says.

WMRC 2019 covered a vast array of topics over three workstreams and several days. There were sessions on SAR in the Pacific, polar SAR, African SAR and SAR in the Mediterranean.

“It's always impressive to see the breadth, scope and differences in how SAR risks and challenges are addressed in these different areas,” says Duncan.

Marine mass rescue operations are a perennial topic and this congress was no different.

“MRO's are always going to be a huge challenge for any jurisdiction, so its appropriate that we keep the focus on their inherent challenges,” says Duncan.

A number of presentations related to the latest advances in SAR technology and equipment, accompanied by a large trade exhibit. Information was also presented on SAR training systems, SAR techniques and processes, SAR case studies and a host of other topics.

For more information from the World Maritime Rescue Congress 2019, please visit the IMRF website: [www.international-maritime-rescue.org/](http://www.international-maritime-rescue.org/)

## Kiwi to chair IMRF board



**Coastguard New Zealand's** Dean Lawrence has been elected the new chair of the International Maritime Rescue Federation (IMRF) board.

Dean was appointed to the position by the IMRF's new board of trustees at the organisation's Quadrennial General Meeting held in Vancouver recently. He also sits on the boards of Coastguard New Zealand and Water Safety New Zealand.

Past President of Royal New Zealand Coastguard, Dean has just completed his first four year term on the IMRF board. He says he is looking forward to the next term in this role.

“To be supported by the membership for re- election was gratifying but to be also honoured with the role of chairman is rather special,” he says.

The IMRF aims to develop and improve maritime search and rescue capacity worldwide.

**SARdonyx**  
JOINT SEARCH AND RESCUE OPERATIONAL INFORMATION SYSTEM

## Volunteer data on SARdonyx

**One of the benefits** of the new SARdonyx system is to provide consistent information on the use of resources during SAR operations (SAROPS).

We want to make sure that volunteer effort and time is not overlooked. Information on the number of volunteers involved in a SAROP and how many hours they have worked is often captured at the club, group or unit level in voluntary organisations.

At the end of each SAROP, please confirm that the SAR Incident Controller has the correct information so we can be sure the data entered into SARdonyx is an accurate reflection of volunteer input.

# Professional development at ANZSAR

**Networking and learning** alongside search and rescue peers were highlights of this year's Australian and New Zealand Search and Rescue (ANZSAR) Conference for Senior Constables Conrad Smith and Barry Shepherd.

Conrad and Barry co-presented on "The Tongariro Alpine Crossing – a SAR hotspot" at the Conference, which was held in the Gold Coast on 14 June. They spoke about the importance of their partnerships with the Department of Conservation and local Iwi, readiness plans and relationships with LandSAR – for the busiest search and rescue track in New Zealand.

This presentation complemented others' on multi-agency collaboration, communication, critical skills, leadership and decision-making while considering resilience, health and the wellbeing of SAR personnel. Presenters shared lessons learned and how these lessons have changed their approach to search and rescue co-ordination.

"It was a great opportunity to network with our friends in Australia and discuss SAR-related issues and advancements common to both our countries," says Conrad.

Chief Executive of Volunteering New Zealand Dr Katie Bruce presented on the recent NZSAR Volunteering Study. Further New Zealand presentations were provided by Rhett Emery (NZSAR) and Steve Campbell (YSAR).

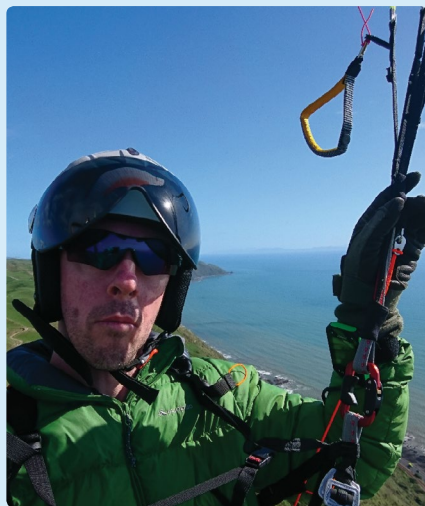


From left : Senior Constables Barry Shepherd and Conrad Smith delivering their presentation at ANZSAR

New Zealand delegates included the Rescue Co-ordination Centre NZ, Fire and Emergency NZ, government departments and SAR agencies. National SAR Support Programme Co-ordinator Rhett Emery says NZSAR would like to see even more New Zealand SAR sector participation in the annual event.

"The ANZSAR Conference had a very interesting programme, with several world class presenters – I would recommend it to anyone contemplating attending in future," says Barry.

Keep an eye out for next year's registration details at [www.sar.anzdm.com.au](http://www.sar.anzdm.com.au) or follow them on Facebook at [www.facebook.com/ANZDES/](http://www.facebook.com/ANZDES/)



## Welcome Jeff

Please join us in welcoming **Jeff Lean** to the New Zealand Search and Rescue (NZSAR) Secretariat. Jeff is our new **Data Analyst and Assurance Co-ordinator**, a position formerly held by **Stephen Ross** who left NZSAR in April.

Jeff is responsible for co-ordinating our information systems (primarily SARdonyx), research and surveys. Analysing the data captured through these channels is an important part of his role – to create fresh insights into the capability, robustness and risks within New Zealand's search and rescue sector.

Jeff says his first priority is getting up to speed with how search and rescue operations pan out in different environments. Having spent 14 years working in geospatial engineering for the Australian Army, he is no stranger to the risks posed by certain terrains and conditions.

"I helped provide mapping support to conventional military operations in the Middle East as well as disaster relief operations such as floods and cyclones in Australia and the Pacific Islands," he says. "I spent most of 2014 attached to the United Nations Mission in South Sudan, where I developed maps to track criminal activity and military conflicts around the country."

Jeff joins us from the Ministry of Business, Innovation and Employment, where he was Senior Research and Data Analyst for the oil and gas industry. He is familiarising himself with the nature of the data we collect and how this might be used to provide more effective search and rescue capabilities in the future.

"I'm enjoying the challenges of working with a brand new system and applying my skills in such an interesting sector," says Jeff. "There's nothing standard about it."

Whenever time allows, Jeff likes to take to the skies on his paraglider – launching from Paekakariki Hill and landing on nearby beaches. Finding the right conditions to indulge in his favourite sport can be tricky.

"You need just the right amount of wind – anywhere between 9 and 20 km/h is good, but any windier and it gets a bit hairy."

# 10 questions with...

*Robin Andrew, Maritime Operations Centre*

An enormous 12.5% of the earth's total water surface is monitored by New Zealand's Maritime Operations Centre (MOC). This is one of the largest maritime areas of responsibility in the world – and its significance is not lost on Robin Andrew, who has spent over 20 years responding to maritime radio traffic and keeping our boaties safe.

Tucked away in the old Avalon TV Studios in Lower Hutt, the Maritime Operations Centre is staffed 24/7 by a small group of dedicated staff who are charged with our Safety of Life at Sea (SOLAS). They are the first port of call for vessels in distress and relay this information to search and rescue authorities.

## **What is your role at the Maritime Operations Centre?**

I'm Assistant Manager.

## **How long have you worked here?**

22 years!

## **What do you enjoy most about your job?**

I've always liked the sense of achievement with a job well done. A successful outcome is a great feeling - especially with some of the more challenging scenarios we face.

I enjoy working with the diverse people we have in the team, and every day is different. Kordia [the communications company behind our HF and VHF networks] provides a great environment, infrastructure and tools for this job which can't be understated. This definitely helps as we can concentrate on our responsibilities.

## **What is your background?**

In 1987 I joined the Royal New Zealand Navy as a Radio Operator and was posted to many ships in the fleet during my time there.

The Navy provided the temporary infrastructure to continue the Post Office's (Telecom) SOLAS service when the contract was cancelled. I found myself in charge of this service for the brief time we had it and thought at the time that it could be a good career after leaving the Navy. My wife Anita, who was also a radio operator in the Navy, was employed at the new MOC and it wasn't long before I also applied for a role here.

## **Why search and rescue?**

I knew radio theory as I'd been taught in the Navy, and I'd also learned SAR from a military standpoint. I thought I could utilise that knowledge in the new environment.

Apart from training the military mentality out of my makeup (being very serious and abrupt on the radio!), it was a painless transition.

## **How does the maritime radio system work?**

Kordia has an extensive network covering vast stretches of the New Zealand landscape. With Avalon Studios being the transmission arm for TVNZ back in the day, our radio coverage is second to none.



We have 30 VHF (line of sight/short range) radio sites stretching from Cape Reinga to Stewart Island, which includes 2 VHF sites out on the Chatham and Pitt Islands. These sites, along with our long range HF (single side-band radio) site in Taupo are connected by a TCP/IP combination as well as Kordia's HCN (high-capacity network) back into the Maritime Operations Centre. Satellite communications are also available to us.

## **How does this differ from the marine work of RCCNZ?**

As their name implies, the Rescue Co-ordination Centre is responsible for the co-ordination of assets involved in an incident. They have the authority to instruct or delegate any assets to ensure that scenarios are dealt with professionally and effectively. So you could say they are the brains behind an incident.

We are the "ears" and "voice" so to speak. When an incident arises, dependent on its severity, size or scope, the MOC takes all the information available from the parties involved and we report this information to the authorities.

## **Could you describe a typical day in the office?**

I'll check in with the crew – assess any current incidents and see what progress has been made. Some days can be quiet but other times they deal with multiple incidents from break-down tows through to man overboard scenarios.

I'll also deal with any network or technology issues that may be present and look at rosters, leave, payroll etc – all the corporate stuff that consumes quite a bit of time.

## **Can you tell us about a stand out SAR incident that you were involved with?**

One that springs to mind is the 200ft Korean fishing trawler that didn't quite have the autopilot set correctly and managed to beach itself on Breaksea Island, east of Stewart Island in 1998. I was a newbie in the MOC and had a hard time obtaining information due to the language barrier. The ship sank about two days later after losing a huge amount of fuel.

The Rena off Tauranga; pets being found swimming in the Hauraki Gulf; a few tragic incidents resulting in loss of life that make a mark; and those uplifting examples like the man overboard recently off the East Cape who was very luckily recovered safe and well after 3 hours in the water.

## **How do you relax?**

I love to get out on my motorcycle and ride off-road. I like it for the fitness aspect and it keeps me grounded. Fishing is also great and of course I love hanging out with friends and family too.



## Duncan's desk

**Winter is always** a relatively quiet period for operational search and rescue. A good time for training, refreshing skills, maintaining equipment and all the other tasks we do to keep the system ticking over. But from the non-operational side, it's our busy period when lots of papers are drafted, meetings are held, funding decisions are made, budgets set and work programmes planned.

The new search and rescue skill acquisition training system has been up and running for a few months now and after a slow start, the signs now appear promising. Most courses are well subscribed and are being delivered to satisfactory standards. We still have a long way to go as we work with SAR agencies to update and improve the system, but progress to date has been pleasing.

Funding for the search and rescue system has been a focus of mine for the past few months. Every three years we (the SAR sector) have discussions with the Ministry of Transport around our funding needs for the next three years. This process is rigorous, so it takes quite a bit of time and thought to get it right. We are only half way through at the moment but I'm hopeful that we have presented clear information to the Ministry for them to consider in the coming months.

Sustaining and supporting our SAR volunteers is also a significant piece of work.

The SAR Volunteer Study 2019 (see our website for a copy) prepared by Volunteering New Zealand gives us some very useful and pragmatic recommendations about how we can enhance volunteerism within the sector. We hosted a workshop with key volunteer SAR agencies in late August to discuss how we would tackle the recommendations, what resources we'd need to take them forward and where the responsibilities would lie. This workshop included representatives of other volunteer-centric organisations such as St John, Civil Defence and Fire and Emergency NZ.

As there were a number of them, we've organised the recommendations thematically into workforce planning; governance, management and leadership; skill acquisition and refresher training; culture, diversity and inclusiveness; health and safety; and personal protective equipment.

Finally, I'd like to welcome Jeff Lean to the Secretariat (see story page 6). I'm sure the sector will benefit from the analysis and insights he will be working on. No doubt Jeff will become known to many people in the sector once he settles in.

Stay safe,  
Duncan

## Calendar

SAREXs and SAR training:  
[nzsar.govt.nz/Calendar/Events](http://nzsar.govt.nz/Calendar/Events)

LandSAR AGM – 19 Sept 2019

Coastguard AGM – 19 Sept 2019

Surf Life Saving New Zealand AGM – 21 Sept 2019

Drowning Prevention Summit – 31 Oct 2019

Safer Boating Data – 6 Nov 2019

Safer Boating Forum – 7 Nov 2019

Safer Boating Comms – 8 Nov 2019

## Websites

[www.nzsar.govt.nz](http://www.nzsar.govt.nz)  
Search and Rescue sector resources and information, including a PDF of this newsletter

[www.adventuresmart.nz](http://www.adventuresmart.nz)  
Safety information and tips for people planning outdoor activities

[www.beacons.org.nz](http://www.beacons.org.nz)  
Information about 406 beacons, including where to purchase, rent and register a distress beacon

[www.avalanche.net.nz](http://www.avalanche.net.nz)  
New Zealand Avalanche Advisory

[drmwildernessemc.wordpress.com](http://drmwildernessemc.wordpress.com)  
Dr Malin Zachau CPR Care

[www.international-maritime-rescue.org/](http://www.international-maritime-rescue.org/)  
International Maritime Rescue Federation

[www.sar.anzdmc.com.au](http://www.sar.anzdmc.com.au)  
Australian and New Zealand Search and Rescue (ANZSAR)

**SARdonyx training on START:**  
[www.nzsar.govt.nz/Knowledge-Training/START/SARdonyx](http://www.nzsar.govt.nz/Knowledge-Training/START/SARdonyx)