



CONNECTING THE SEARCH AND RESCUE SECTOR



NZDF hosted the 8 August NZSAR Consultative Committee at RNZAF Air Movements and provided members with a tour of the P-3K2 Orion and NH 90



Fire and Emergency New Zealand (FENZ) has formally joined the NZSAR Council, attending its first Council meeting in June this year.

FENZ Chief Executive Rhys Jones (above) says there are very clear benefits in joining the Council and playing a part in the strategic leadership of the sector.

He adds all the organisations involved in search and rescue share common interests and common goals, and the flow of information that he sees occurring at the Council level will be of benefit to the wider SAR community.

FENZ JOINS SAR COUNCIL

Last year the urban and rural fire services combined to form Fire and Emergency New Zealand. The aim was to create a future-focused organisation that better meets the changing demand of New Zealand communities.

Rhys notes that with the recent unification of fire services, there has been a reinforced appreciation of the organisation's search and rescue role. His organisation now includes those who were part of the rural firefighting response, and who were already part of the pool of SAR volunteers.

"The Council is all about the coordination and leadership of the sector in its widest possible sense, but we all share a focus on the people needing our services."

NZSAR Secretariat Manager Duncan Ferner says FENZ members have enormous skills and capacity that have always been an important part of search

and rescue in New Zealand. "Having them join the Council signals a more formal and structured way of engaging with each other so we are clear about the resources we can share."

He adds that having such a significant organisation formally become part of the NZSAR Council builds on an already good relationship that has existed in an informal way, and helps make clear each organisation's responsibility.

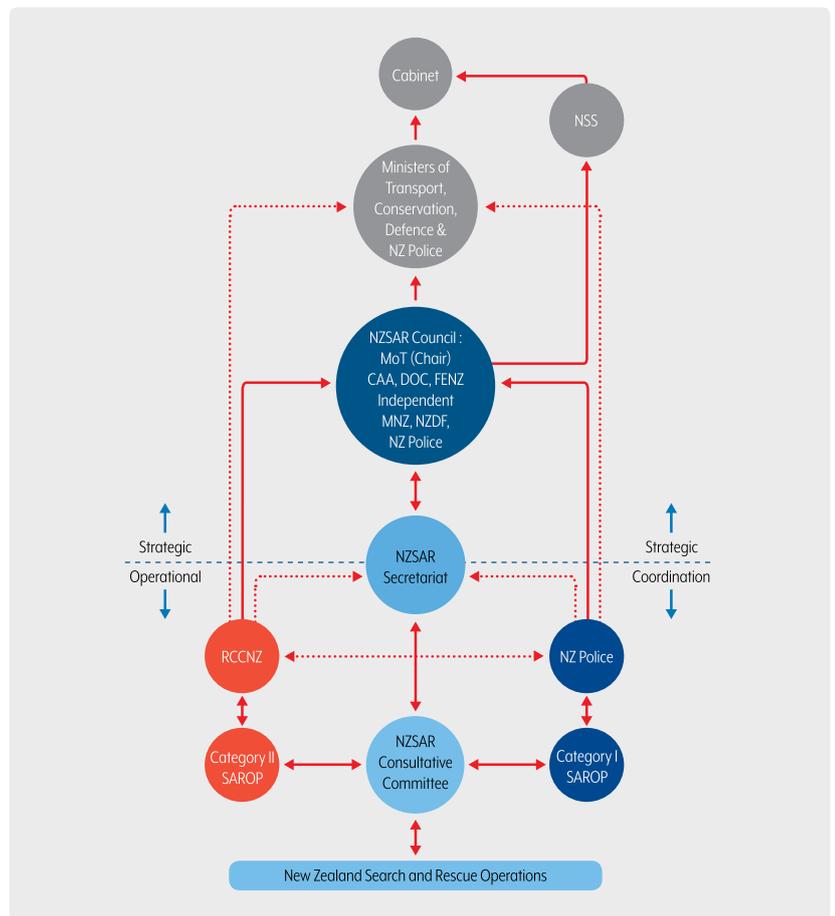
The NZSAR Council was formed in April 2003 following a Cabinet decision to establish strategic governance for the New Zealand Search and Rescue Sector, having identified a need for a central body responsible for oversight of New Zealand's SAR activities. The Council was given the clear mandate by government to look at SAR issues from a collective, national perspective. Membership of the Council now includes the Ministry of Transport, Civil Aviation Authority, the

Department of Conservation, Maritime New Zealand, New Zealand Police, New Zealand Defence Force, FENZ and, since 2016, an independent Council member representing non-government SAR organisations.

The Council is supported in its activities by the NZSAR Consultative Committee, which has the role of informing the decision-making process as well as offering a forum for cross-sector information sharing.

Duncan says the committee does an important job of supporting the Council, but he also sees benefits in the information that flows between the more than 20 organisations that are part of the regular NZSAR Consultative Committee meetings.

“A recent example is; one of the members talked about the need for a volunteer strategy within their organisation which they felt under-resourced to develop. That led to a cross-sector initiative to develop a strategy for all organisations which, given the importance of volunteers for our sector, will be a valuable piece of work that all members will hopefully benefit from.” ●

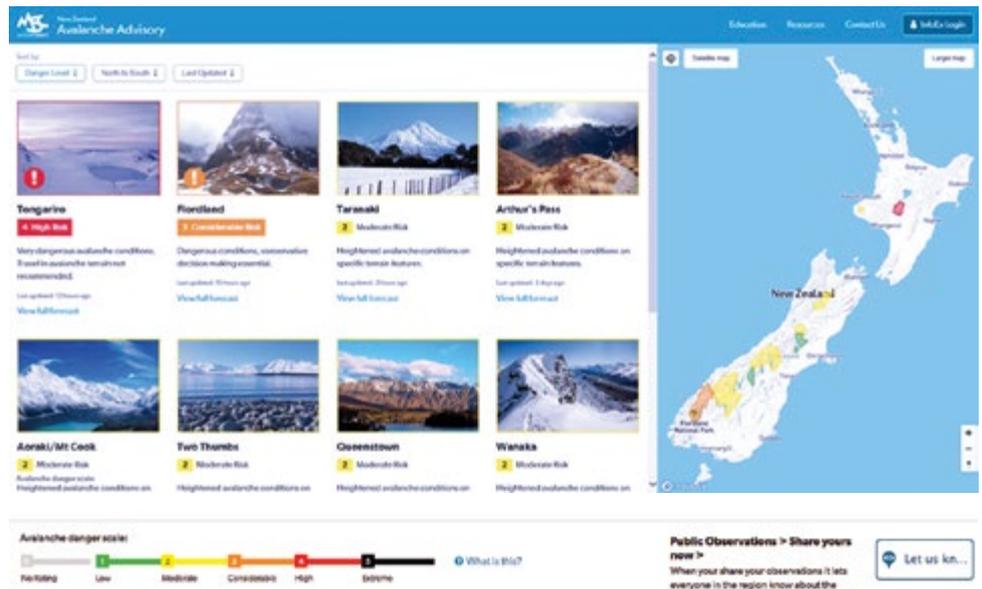


AVALANCHE ADVISORY

New Zealand mountains have a high avalanche hazard and can pose a significant avalanche safety risk to users of the back country. Avalanches involving people are low frequency but high consequence events, which can cause multiple fatalities. They are also more difficult to resolve than they are to prevent, and SAR teams need to be aware of current avalanche risk as they respond to incidents.

The NZSAR Council has a service level agreement with the Mountain Safety Council (MSC) to provide the New Zealand Avalanche Advisory (NZAA), as a prevention tool to help keep back-country users safe from avalanche hazards.

The NZAA website contains coordinated, regular assessments of avalanche hazard, and the provision of avalanche risk and danger ratings for 12 regions (excluding ski fields, where responsibility rests with the ski area management). Regular assessments are



made, and are available online at www.avalanche.net.nz

The MSC has recently redeveloped this website. While the look and feel of the site has changed the fundamental elements remain the same.

Regional forecasts and information can be filtered and rearranged based on three factors: danger level, geographical location, and last updated.

The revamped website also allows users to navigate around the map and see the forecasts dynamically change,

based on which regions they're viewing, plus there is a function which shows regional boundaries. This map can be made full screen and the base layer can be changed from a topographical to a satellite image.

MSC has also rebuilt the free online avalanche course available via www.avalanche.net.nz. This resource will allow people who are new to avalanche education to learn the basics of identifying and avoiding avalanche terrain and danger. ●



Probing line exploring the avalanche debris

AVALANCHE EXERCISE

The proper care and treatment of hypothermic patients was a key focus of a recent exercise involving members of the Canterbury Avalanche Response Group.

Canterbury Police, local ski field staff, SAR groups and St John all took part in a large-scale avalanche response exercise in the Craigieburn Range in late June.

Dubbed Operation CARE, the exercise simulated seven backcountry skiers being caught in an avalanche near the Mt Cheeseman ski field.

Canterbury Police SAR Coordinator, Senior Constable Paul Beaver, says the purpose of the exercise was to test the Canterbury Avalanche Response Plan and see how well local resources were able to respond to an avalanche event.

Close to 60 people were involved in the exercise in which five of the seven skiers had been buried in an avalanche. The scenario was developed with the assistance of Andrew Hobman of Avalanche New Zealand, who attended the event in an observation and evaluation role.

A special feature of the response plan is that it authorises anyone in the response group to call-in air assets directly – to get an initial response underway – and then call police. Paul says that feature is a reflection of the critical time factors involved in avalanche response.

“Survivability drops to about 20% after 35 minutes, so it is crucial that a response is mounted as soon as possible.”

“Until now there hasn’t been any particular emphasis in these exercises on the care of people once they have been rescued. This year there was a particular focus, not just on the ‘digging up’ part, but also the evacuation and on-going medical treatment stage.”

The majority of those involved in the exercise on the day were responders involved directly in the search area. They included ski field response teams and ski field guides from Mt Hutt, Mt Cheeseman, Mt Olympus and Temple Basin, along with ACR groups from Canterbury and Mt Cook, plus members of Methven LandSAR.

An Incident Management Team (IMT) was based at Christchurch, with a second group at the staging area close to the incident.

Another element of the exercise was the involvement of St John ambulance officers, who dealt with the triage and treatment of patients coming off the hill.

“Until now there hasn’t been any particular emphasis in these exercises on the care of people once they have been rescued. This year there was a particular focus, not just on the ‘digging up’ part, but also the evacuation and on-going medical treatment stage.”

Paul Beaver says an invaluable contribution to the medical aspect of the exercise came from Dr Malin Zachau, who is a hypothermia researcher. He says Dr Zachau was instrumental in liaising with the health professionals engaged in the avalanche response training.

One of things highlighted by the exercise is the vulnerability of severely hypothermic people to cardiac arrest.

Another key lesson was around the communication challenges of operating in the backcountry.

“Communications are a big deal because they have to work regardless of where you are. Without good lines of communication from the site back to the IMT, the operation is going to founder pretty quickly.” ●



Rescuers digging for avalanche survivors

SAR ON ICE

Search and rescue in Antarctica has some unique challenges given its distance from New Zealand, limited resources, and being one of the world's harshest environments in which SAR activities are carried out.

Antarctica New Zealand is the government agency responsible for carrying out New Zealand's activities there, with roles that include supporting science and working to ensure Antarctica's environment continues to be protected.

Last season 341 people went through Scott Base over a period of six months from September to February.

Antarctica New Zealand's General Manager of Operations Simon Trotter says people in his organisation operate in a hazardous environment where the management of safety and risk is critical to achieving the aims of the Antarctic programme.

"A big part of our operation is the planning and the assessment of individual science activities and programmes right through to the appointment of appropriate field staff."

The wider SAR response is built around a plan developed by RCCNZ and the Antarctic partners in the Ross Sea region.

New Zealand is responsible for providing coordinated responses to search and rescue incidents within the New Zealand Search and Rescue Region (NZSRR), which includes the Southern Ocean and the Ross Sea.

RCCNZ and Antarctica New Zealand, along with various other government and non-government organisations, have developed a SAR response plan which was introduced in 2008 and is updated annually. Since 2004, RCCNZ has been involved in 23 SAR operations in the region.

New Zealand, United States, Korea, Italy and China all have a presence in the Ross Sea region and all the nations with research programmes in the area share information about their operations prior to each season, including the operation of aircraft and vessels in the area.

At a local level SAR response is in the hands of the Joint Antarctic Search and Rescue Team (JASART), which is a combination of US and Kiwi specialists that train and work together for land-based search and rescue on the ice. The team undergoes training in the Southern Alps each year in the lead up to the start of the summer season.

Simon says there is no margin for error in the Antarctic environment so all the activities on the ice are managed to minimise risk.

"It's not unusual to respond to missed routine radio check-ins or groups returning late to field camps. We can also experience white-out conditions on roads and ski-ways which can involve JASART providing vehicle escorts. Most of these scenarios are resolved within 45 minutes of the missed check in."

Longer-term he says it is likely that the SAR response on the ice will become even more cooperative than it already is.

"More and more, our scientific communities are involved in collaborative projects. That means our field staff will be working with those groups more often too." ●



Photographer Becky Goodsell, JASART training McMurdo Sound, 2014

"A big part of our operation is the planning and the assessment of individual science activities and programmes right through to the appointment of appropriate field staff."



Atmospheric Sciences Laboratory - Scott Base, 2014



Photographer John Mitchell, Scott Base flag pole - wet lab in background, 2004

All images © Antarctica New Zealand Pictorial Collection

NZSAR RESOURCES DATABASE GETS AN UPGRADE

The NZSAR Resources database is set up to assist emergency services and those involved in SAR operations to easily locate a large range of resources plus a list of the capabilities/equipment that may assist in the running of SAR operations.

The database began life as a ring binder with SAR assets listed in a physical file. It was converted into an interactive resource for RCCNZ by former staff member Andrew Tarr back in 2007.

“The idea was an interactive map – turning what was essentially a large phone book into a map-based tool where resource base locations are clear, situational awareness for a SAR coordinator is improved, and selection by capability for tasking is made easier.”

Over time the database has undergone upgrades including the addition of details regarding the capabilities of the assets for a range of tasks.

The most recent upgrade includes a change to the resource icons and a greater level of detail about the assets involved. Instead of a simple split between air, land and sea there are clearer divisions between the types of asset available in each category.

The upgrade has also enabled a visible distinction to easily identify air ambulances among aviation providers. There is now the ability to provide improved auditing of the currency of the information held in the database, so where needed, a follow up can be made with an operator to ensure details are correct and up to date.

Currently there are over 700 resources listed on the New Zealand and South Pacific database provided by approximately 300 operators.

The database is for SAR practitioners and Andrew says there are more than 150 agencies, groups and resource providers with access.

Anyone wishing to include or update information on the database should contact Keith Allen (RCCNZ) via the details on the website.

Access is typically permitted to agencies, groups and resource providers involved in search and rescue. However, anyone wishing to gain access will be considered.

For more information, please visit nzsar-resources.org.nz ●



Images from the updated Resources database website



WELCOME ALANNAH



Alannah Rogers joined NZSAR in June as the new Office Projects Administrator.

Her role is to support the smooth operation of the NZSAR Secretariat team.

Prior to joining NZSAR, Alannah held a range of media and office management roles. Most recently she worked as a personal assistant and office manager in the New Zealand coal mining industry.

Alannah says she has enjoyed joining the tight-knit team at NZSAR and found her new job interesting and rewarding. “It’s great to know that the work we are doing is for the greater good.”

She has recently had the opportunity to visit RCCNZ, Hutt Valley, and says she was amazed at the technology used to locate and rescue people following beacon activations.

Getting first-hand experience of some of the exercises and getting to know others in the SAR sector are aims high on her list over the next few months. “I’m attending my first MRO (Mass Rescue) exercise in October, which I’m really looking forward to.”

Like other newcomers to the NZSAR sector, Alannah has had a few challenges with the large number of acronyms used in the sector. Luckily, she has a number of experienced colleagues to help decipher the tougher ones.

In her spare time Alannah is landscaping a house she and her partner recently built – but her interests are not restricted to the garden.



“I have recently been involved in refurbishing a 1973 Mercedes Benz, transforming a deregistered ‘rust bucket’ to a road-worthy classic.” Alannah points out her role was not just handing over the tools and helping track down replacement parts, “I definitely got grease on my hands!” She also picked up some useful welding and motor repair skills during the three months it took to restore the 45-year-old vehicle.

SAR IN ACTION



Search team members at Dundas Hut

TARARUA NIGHT RESCUE

Two trampers who got into difficulty during treacherous weather conditions in the northern Tarauas in April this year, sparked a rescue response that clocked up over 600 hours for the SAR teams involved.

The trampers activated their beacon mid-morning on a ridge in the northern Tarauas near Dundas Hut.

Strong winds and thick cloud prevented the initial RCCNZ coordinated air response. Later in the day Police tasked a SAR team from Levin, and a helicopter was able to drop a team in the eastern Tarauas, some distance from the area where the beacon was activated.

Noel Bigwood from Horowhenua LandSAR says the Levin based team started heading towards the men, but had an extremely difficult journey ahead of them with steep terrain and a challenging river crossing. "They had many hours tramping to get to the Dundas Hut before they could start looking for the two men." Due to the weather only a general search area had been identified rather than an exact location for the beacon.



Flt Lt Andrew Stewart – co-pilot of NH90

An NH90 from the Royal New Zealand Air Force's No. 3 Squadron in transit back to Ohakea from search and rescue exercises in the region, was able to provide assistance.

"You can get alpine conditions any time of year in the Tarauas. Without beacons, good gear and a tent we may have had a different result."

In dark, wet and turbulent conditions the NVG equipped helicopter crew were able to pick up and insert the Levin SAR team close to the location of the trampers. Noel says the NH90 crew saved the team at least four or five hours walking.

After dropping the first group off, the NH90 returned to the area with two more SAR teams – a second team from Levin and another team from Masterton – as reinforcements for the initial group. The trampers were found in the early hours of the morning very cold and tired, huddled together in a small tent. The duo were taken to Dundas Hut, where they were assessed by a medic in the team.

Noel says the trampers were well prepared but still got caught out by the weather. "You can get alpine conditions any time of year in the Tarauas. Without beacons, good gear and a tent we may have had a different result."

The SAR crews and the trampers were finally returned the following morning, when a brief lull in the weather allowed Amalgamated Helicopters to evacuate them.

Noel says that the teamwork and dedication of the LandSAR crews came to the fore during the rescue, and the night time insert also reinforced the value of their winch training.

He adds that the NH90 crew showed their skill in being able to pick up and land the LandSAR team in very challenging flying conditions. "In this case I believe those factors saved two lives." ●

DATA TO TARGET SAFETY MESSAGING

Changing people's behaviour is complex. It involves growing an understanding of what motivates positive action.

NZSAR, with an overview across land and water and in line with the SAR Prevention goal, supports and collaborates with partner organisations to provide data and research, and also to enable and lead SAR Prevention campaigns.

Here are some examples of where these organisations are using information to act.



Speed camera gun trialled by the Marlborough Harbourmaster as part of the 'No Excuses' campaign supported by the Safer Boating Forum.

SAFER BOATING

Maritime New Zealand leads the Safer Boating Forum. Results and analysis of specific campaigns and initiatives, complemented by annual research, shape the Forum's activities.

Lindsay Sturt, Chief Advisor of Recreational Boating at Maritime New Zealand, notes that some of the behaviours the Forum is trying to change are stubborn. "Despite extensive education and campaigns over a number of years, we continue to find boaties who carry rather than wear lifejackets and who do not make sure they are carrying a waterproof form of communication."

The four key risk factors targeted by the Forum are:

- failure to wear lifejackets in craft less than 6m in length
- inability to communicate distress or the need for assistance
- venturing out in bad weather and adverse conditions
- alcohol consumption before and during boating.

It is no accident these factors are the basis of the Boating Safety Code, which is heavily promoted by Forum members. Maritime New Zealand is also working with regional councils on an on-water enforcement campaign called 'No Excuses'. This campaign focuses on boat users maintaining safe speeds and carrying and wearing lifejackets. Staff running the 'No Excuses' campaign interact with boaties while they are out on the water and capture observations on boat users' behaviour.

Lindsay says the analysis of both 'No Excuses' and the annual research survey shows that while most boaties are carrying and wearing lifejackets and taking two forms of communication some – particularly older males – are not. "This evidence has informed the public campaigns we will run over this summer, as a continued focus to change these behaviours improves search and rescue outcomes."

WATER SAFETY NEW ZEALAND



WSNZ's Swim Reaper

Data collection, analysis and research is central to Water Safety New Zealand's work in drowning prevention. WSNZ's Drownbase, a database that records every fatal drowning including search and rescue incidents, is a key tool in tracking New Zealand's drowning problem and identifying where there is the greatest risk. Drownbase now also records hospitalisation data, creating another layer of insight.

The data helps to focus WSNZ's safety messaging and campaigns as well as identifying areas for intervention and education.

WSNZ's Swim Reaper behaviour change campaign is an example of the use of data to target a specific demographic. The data identified the 'at risk' group of young Kiwi males aged 15-34 years who make up 28 per cent of all preventable drowning fatalities and are a high proportion of water-related injuries.

Research by WSNZ shows the campaign is having an impact. It's third annual public attitudes and behaviour survey shows a significant decrease in people getting into trouble in the water due to alcohol, showing off, or peer group pressure.

LAND-BASED RESEARCH

A wide variety of research that supports evidence-based decision-making includes the Mountain Safety Council's recent research project, "A walk in the park?"

Added to this is the research NZSAR conducted during this summer and autumn, where we surveyed a range of people participating in land activities across New Zealand. While response numbers were low, it grew our understanding of how people are behaving and has led to NZSAR working more closely with DOC to measure the impact of initiatives.

Over the next summer DOC will run surveys at a range of sites including where existing prevention initiatives are in place to see if they are influencing visitors.

Recent DOC visitor accident investigations indicate that visitor understanding of the risks involved, and the decision-making around risks, are contributors to accidents. ●

DUNCAN'S DESK



Winter! It's not everyone's cup of tea, but for those of us who love snow, winter is good. Winter is also a time for SAR people to train, maintain equipment, organise things, and generally refresh. We at NZSAR also get a lot done during the winter months as it's the best time to get hold of SAR subject matter experts for a range of projects that need their input.

A good example is Project SARdonyx, which is building our soon-to-be completed Joint SAR Operational Information System. For us, this is a relatively large and complex project that brings multiple organisations, SAR and IT technical expertise together – along with management and governance perspectives. This means

lots of documents, meetings, testing, verification and approvals processes. While that sort of thing may sound like a bit of a chore to most SAR people, we are determined to create a system that works easily and intuitively for the SAR sector.

Another 'behind the scenes' stream of work we are heavily involved in is supporting the governance and leadership of the wider search and rescue sector. For the Secretariat it means (more) meetings, papers, briefings, sharing information and then following up actions based on the decisions taken by the NZSAR Council and Consultative Committee, and other fora we assist or lead. I'm always hugely impressed with the dedication, skill and application that the various SAR sector representatives bring to these meetings.

In recent months we have also been much more involved with Fire and Emergency New Zealand (FENZ) and our Civil Defence partners. The Chief Executive of FENZ has formally joined the NZSAR Council (page 1) and we are pursuing a number of joint initiatives to enhance and strengthen the FENZ-SAR relationship. We've also spent some time with the Ministry of Civil Defence and Emergency Management (MCDEM)

discussing and engaging directly with the various volunteer New Zealand Response Teams. While it is still early days, there appears to be considerable opportunity for improved CDEM-SAR engagement at every level.

1 July marked the beginning of our new financial year and with that we have a renewed work programme and budget. For this financial year, we have stepped up our financial support of police-led search and rescue exercises. Effective exercises that replicate real operations can be expensive so we are very pleased to be able to offer that assistance. A recent example was the Canterbury avalanche SAR exercise (see page 4) which saw SAR teams, ambulance and helicopter crews from around Canterbury practice their skills. We've also had a bit of a change here at the NZSAR Secretariat. While I was sorry that Leanne chose to leave us for another opportunity, I am delighted to welcome Alannah to the team (page 5). We have a lot of other projects going on and we'll update you on them in future issues of LINK.

Stay safe
Duncan
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CALENDAR

SAREXs and SAR training see: nzsar.govt.nz/Calendar/Events

NZSAR Awards – nominations close 31 January 2019
www.nzsar.govt.nz/awards

NZSAR Council Meeting, 18 September 2018

Coastguard Conference: Te Papa Wellington, 12-14 October 2018

Rauora II: Canterbury Police District, 16 October 2018

Rauora II: Waikato Police District, 7 November 2018

Combined NZSAR Council and Consultative Committee, 21 November 2018

WEBSITES

www.nzsar.govt.nz SAR sector resources and information including a PDF of this newsletter

Safety information and tips for the public planning outdoor activities: www.adventuresmart.org.nz

Information about 406 Beacons, including where to purchase, rent and register a distress beacon: www.beacons.org.nz

START – SAR Knowledge Library <https://nzsar.govt.nz/Knowledge-Training/Start>

**<https://safety4sea.com/slowing-africas-silent-killer/>
An article about work being done to lessen the impact of drowning in Africa**



www.beacons.org.nz



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