



CONNECTING THE SEARCH AND RESCUE SECTOR



NZ ADOPTS NEW ROPE SYSTEM FOR ALPINE CLIFF RESCUE

A decision made by representatives of New Zealand's seven Alpine Cliff Rescue (ACR) teams will bring us in line with international standards for rope rescue systems.

To date, ACR teams in New Zealand have used a mainline (tensioned) and a belay line (hand tight) for rope rescue operations in high terrain. If the mainline failed, the backup line would catch the load. This system will now be gradually replaced by a thoroughly tested Dual Capability Two Tensioned Rope System - more commonly known as a mirrored rope system - where both lines are on dual tension. Each rope in a mirrored system is capable of being both a mainline and a backup at the same time.

The decision to adopt the new system was made at an NZSAR sponsored workshop for the Alpine Cliff Rescue teams, held in Wanaka in November. This followed a recommendation by the Department of Conservation's ACR team at Aoraki/Mt Cook, who conducted extensive research into the advantages of the new rope system over the status quo.

Andy Tindall, Senior Team Leader Aoraki/Mt Cook Search and Rescue Team, DOC says the mirrored system offers improvements in both safety and efficiency.

"It's such a critical component in alpine rescue, but we now know that our rope is not as strong as we'd like it to be," he says. "Two lines provide better tension than one. Used together,



The mirrored rope system in action at Aoraki/Mt Cook

"It's such a critical component in alpine rescue, but we now know that our rope is not as strong as we'd like it to be."

our ropes now have a charged safety factor and a sheer strength of 20 kilonewtons (or 2,000kg mass)."

"When we've been belay hauling during training scenarios in the past using a dedicated main/belay line, we'd need quite a few people to haul. The two-tension ropes don't bite in to edges so far, making it easier to haul. You don't need as many people on site to help with the hauling, so team efficiency is better as well."

"Using a mainline and a belay line for our rescue system also meant we used two different systems for rigging. With the mirrored system, we now just have one system to understand," says Andy.

Some other advantages of the new rope system include:

- ropes are less prone to cutting on a sharp edge
- the stopping distance of the load (or person being rescued) is reduced should one line fail - compared to that of a loose belay rope (maximum stopping distance is under 1 metre)
- shared loading on the individual anchors
- lowering and/or raising is smoother
- easier safety factor calculations on site
- there is less risk of causing rope-induced rock fall.



The Department of Conservation funded a research trip to British Columbia in Canada, where the mirrored rope system testing took place. Armed with training manuals and supporting documents, the Aoraki/Mt Cook (DOC) SAR team have since provided complimentary training on the new system to five ACR teams throughout New Zealand.

The mirrored rope system was internationally endorsed in 2014 by the International Commission of Alpine Rescue. ●

ACR WORKSHOP



“It was a great opportunity to network and collaborate with other ACR team leaders. Very pleased to reach a decision based on international best practice around the mirrored rope system as well.” – Scott Chamberlain, Taranaki ACR

November’s Alpine Cliff Rescue workshop provided a forum for over 20 people from ACR teams around the country to discuss common issues and exchange ideas.

In addition to adopting the mirrored rope rescue system, the group discussed helicopter longline rescue techniques, training and exercising for mass casualty incidents in alpine/glacial terrain and processes for the wellbeing of team members who respond to traumatic incidents.

There was an update on the International Snow Science Workshop held in Austria in October 2018 and a heads-up that the medical arm of the International Commission for Alpine Rescue is planning to hold a workshop in New Zealand in 2020.

SUPPORT FOR POST-TRAUMATIC STRESS

Have the situations you’ve been involved in as a search and rescue volunteer ever left you feeling overwhelmed, or triggered strong emotions? While this is quite normal after experiencing a traumatic event, sometimes these feelings can be so intense and persistent that you stop functioning. If this sounds familiar, it may be helpful to talk to someone about it.

The New Zealand Search and Rescue sector has processes in place to get support for post-traumatic stress, but each organisation is different. Please seek help by talking to your GP in the first instance – and, if you are unsure what support your organisation offers, ask your manager or colleagues.

Your wellbeing is important – the success of our operations ultimately depends on it.



Attendees of the OSC workshop in Queenstown, November 2018

THE ON SCENE CO-ORDINATOR ENIGMA

What exactly is the role of an On Scene Co-ordinator (OSC) during a search and rescue operation? Is it really necessary to have one? In what circumstances should an OSC be used?

This often under-utilised role can be extremely valuable to the co-ordinating authority in a search and rescue operation, especially when multiple resources are needed.

A series of regional workshops sponsored by NZSAR are providing marine search and rescue experts with an opportunity to exchange ideas and gather more information about the requirements of the OSC role. As LINK went to print, two workshops had just been held in Queenstown and Invercargill, with another five planned for Dunedin, Christchurch, Hawkes Bay, Tauranga and Whangarei.

The workshops will be attended by a number of different agencies including Police, Coastguard, Surf Life Saving, Harbourmasters and marine commercial operators. Senior Sergeant John Fookes took part in the Queenstown workshop.

“It was a good course, particularly the mix of theory and practical – it explains ‘who’s who’ and who has the delegation,” he says. “It’s very important having Coastguard and LandSAR people here so they can understand how the whole thing fits together.”

Workshop facilitator John Dickson says although the workshops are marine-focused, the principles of the OSC role are the same for search and rescue operations in any environment.

“It’s intended to be a refresher for some personnel who have already undertaken the SAR Managers Course,” says John. “Other attendees may not have experienced the OSC role, so the aim is to give them a general understanding of it – should they be used in an Incident Management Team.

Coastguard personnel, for example, could be appointed as ‘on the water OSCs’ so it’s important they understand the requirements of the role.”

It is envisaged that attendees will be able to go back to their own squads and pass on the knowledge using the resources provided to them at the workshop and online via the NZSAR website.

So... tell us, what does an OSC do?

The job title really speaks for itself. During a search and rescue operation, an On Scene Co-ordinator is someone who assumes operational co-ordination of delegated SAR assets on scene.

“The co-ordinating authority will decide whether or not an OSC is required,” says John. “Usually this follows an acknowledgment that it would be more efficient to use local expertise to source and task appropriate search and rescue resources for part, or all, of the incident on their behalf.”

The OSC is expected to set up an Incident Management Team and maintain communication with the co-ordinating authority to ensure they both have situational awareness of what is happening on scene.

“It is very frustrating for an incident controller to not be told what is happening at the location of the incident and likewise for the OSC not knowing what decisions the incident controller is making that may impact them,” says John. “Communication is key.”

Training on the OSC role was formerly provided in the Police Districts by RCCNZ, however this has now been incorporated into the SAR Manager’s Course at the Police College. ●

SIMULATED SAILBOATS HELP DETERMINE YACHTIES' ALTERED COURSE

Sailors are quick to divert from their original course and destination, which can pose a real challenge for Search and Rescue controllers. There is a certain art to looking for alternate destinations that might have provided more favourable winds and conditions than the intended voyage.

This month's release of U.S. Coast Guard's Search and Rescue programme, labelled "The Sailboat Voyage Scenario" could be the solution. Ten years in the making, it claims to have the capability to model the pre-distress voyage of cruising mono-hull and multi-hull sailboats.

Mike Hill, Manager of Rescue Co-ordination Centre New Zealand (RCCNZ) is following this new development with interest.

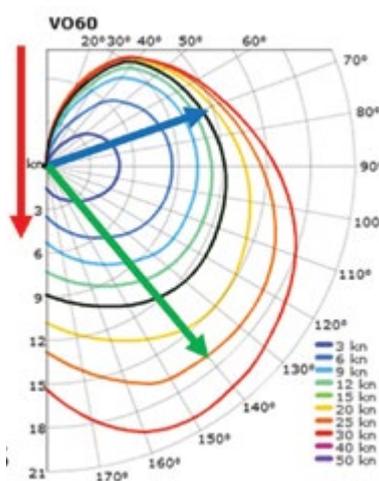
"We anticipate this new Scenario will be incorporated into our SARMAP Drift Modelling programme in the near future," he says.

The Sailboat Voyage Scenario was supported by a contract with US-Sailing, which provided a database of some 4000 sailboat polars, so it can access many makes and models of sailboats. Alternatively, the Search and Rescue controller can enter generic data. The programme uses the winds and the currents from the Environmental Data Server to sail 1000 simulated sailboats, varying the routes and also the sailboats' speed and ability to head into the wind.

"This capability is opening up a whole new approach, since the sailing vessel particles are interacting with their on-scene conditions, which impacts their behaviour," says Mike. "So it could potentially extend to power vessels,

SV POLARS: TO THE WIND

How fast a sailboat can sail, relative to wind speed and direction



Symmetric left and right:
Max speed = hull speed

Examples:

Blue arrow: 10kts@070°
in 15kt winds

Green arrow: 16kts@140°
in 25kt winds

sea-kayakers, and active swimmers (such as scuba divers). It could also be used to search for the overdue sailboat itself."

"RCCNZ has had several high profile incidents in the past where yachts have been reported missing and this new module will assist the Search & Rescue Officers to make informed decisions during an incident."

The Sailboat Voyage Scenario is the brainchild of Art Allen, Oceanographer for USCG, who has run models of sailing vessel voyages off-line for several years. The scenario has already been used in Search and Rescue operations for RCC Miami and RCC Norfolk and has proved its worth by locating the sailing vessel in some cases. ●

FATIGUE MANAGEMENT

FATIGUE: It affects us all at some point – but how best is fatigue managed in a search and rescue context?

As volunteers, are we putting our best foot forward if we are already worn out from a long day at work before starting a search and rescue operation? How do controllers detect fatigue and address it when most of us adopt the antipodean 'she'll be right' attitude?

Questions like these prompted some interesting discussions at the NZSAR Fatigue Management workshop held in Wellington on 1 October. Key outcomes from this workshop have fed into the development of guidance on fatigue management, which is expected to be published in February 2019.

Symptoms of fatigue

Changes in mood:

- Feeling sleepier
- Irritable
- Withdrawn
- No motivation
- Feeling emotional

Physical signs:

- Head nodding
- Eyes closing
- Yawning
- Blurred vision

Changes in functioning:

- Slower reaction times
- Poorer coordination
- More haphazard performance
- Harder to pay attention
- Slower thinking
- Fixation
- Less creative problem solving
- Poor memory
- Making errors

NZSAR has commissioned Health and Safety expert Helen Parkes from Cosman Parkes to prepare three pieces of guidance – each tailored for different groups.

"The first is a general awareness piece for volunteers," says Helen. "We look at what is fatigue and why it's an issue in the sector. The second piece is targeted at people responsible for leading Search and Rescue operations and the third provides guidance for agencies looking to provide their own training on fatigue management."

This 3-tier format reflects some of the recommendations made by participants in the workshop, including a strong preference that guidance should be simple, accessible and cover all levels within an organisation. Once completed, the guidance will be available for download on the NZSAR website.

Keynote speakers also covered the roles that nutrition, mental and physical health and workplace culture can play in fatigue.

Look out for more detail in the next issue of LINK.

OPERATION MANGATAWAI



On Sunday 13 August 2017, two young men of interest to Police were reported lost in thick bush near the Mangatawai stream, Kaimanawa Forest Park.

The on-call Police Search and Rescue Co-ordinator was notified at 9.43am. An Incident Control point was established in Taupo and an assessment made of the situation. As the two missing men were known to Police as gang associates, it was concluded that it may not be safe to deploy civilian searchers into the area.

A starting point for the search area was provided by Probable Caller Location (PCL) handset data, recorded from one of three calls to 111 by the lost men. A trained search team comprising sworn Police officers, a Police SAR qualified dog and handler were deployed into the bush area by helicopter. During the search and appeals, voices were heard, however no verbal or direct contact was ever made.

On night fall, the deployed helicopter identified two possible objects of interest, using infra-red videography. Although dark, the decision was made for the search team to redeploy into the area and identify the suspect objects. A thorough search of the area of interest was completed until late into the evening, without success.

That evening weather continued to deteriorate, with sleet and rain coming off Mt Ruapehu and temperatures dropped to near zero degrees.

On Monday 14 August 2017, an Incident Management Team was established. Again, due to the unresolved level of potential risk, only sworn Police were deployed, however a LandSAR team was engaged to search the area near Tree Trunk Gorge Road, where the men had entered the bush.

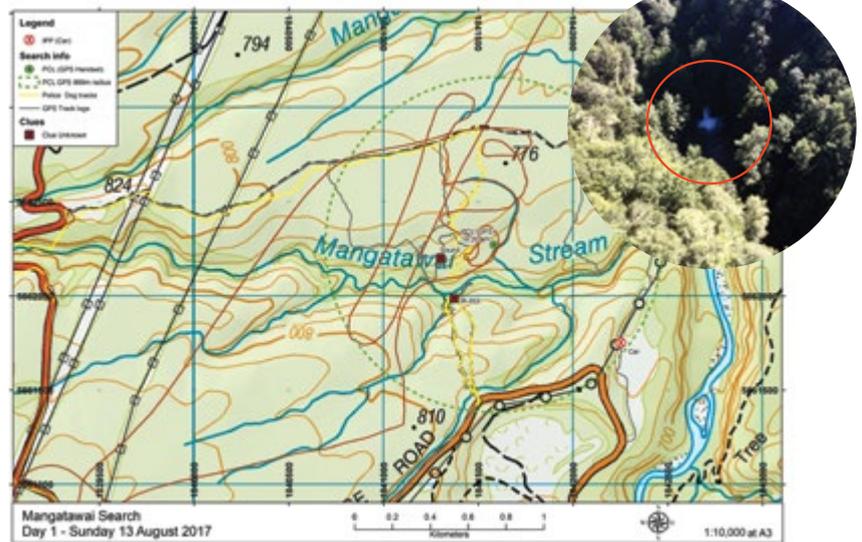
As the search advanced into day three, and the risk to civilians was mitigated, further LandSAR personnel were brought in, bringing the total number of search teams to 11. Day three search teams found a cell phone pouch, fire site, gas cannister, aluminium can, coca cola bottle and discarded

clothing, all later confirmed as belonging to the lost men. In daylight, there was around 3 metres of visibility in the thick bush, but at night that substantially reduced to less than a metre, even when assisted with torch lights. Along the rivers and tributaries, the bush thinned out to high canopy which made walking a little easier. The thick bush was disorientating, and it was very easy to walk in circles if you didn't have a compass or GPS for bearings.

Several members of the New Zealand Defence Force joined the search from day four and were spread across various LandSAR teams. A care package was left in the clue-rich area of the bush. A lot of discarded litter was found, initially thought to be clues of the missing mens' movements. It was later established that this had originated from associates of the missing men, who had been carrying out their own uncoordinated search in the bush.

As the clues diminished, the planning team explored the Mangatawai stream with the use of specialist divers and a review of call chronologies identified the second PCL network GPS location as a priority search location.

A further 25 days passed with Police and search volunteers continuing to deploy varying sized and skilled search teams to carry out detailed searches of the area, until 9 September 2017, when the bodies of the two men were located approximately 2.5 kilometres from the original PCL handset data location.



Inquiries with a hypothermia expert indicated that the men would have been cold when they made their phone calls, but once the sun rose and air temperature warmed, their behaviour indicated they probably decided to walk out rather than waiting for the Police rescue. There is no indication of any attempt by the missing men to contact the ground search teams or the helicopter working the area. Night time temperatures were extremely cold, and supplemented by hunger and exhaustion, hypothermia would have been highly probable after 24 to 36 hours in the open.

A total of 505-person days were committed to this search and rescue operation, involving 53 Police, 22 NZDF personnel and 157 LandSAR members. ●

REVIEW

The excerpts below were taken from an independent review of this major search and rescue operation, conducted by Win van der Velde, a retired Detective Superintendent of Police. This review is now available on the NZSAR website.

The review found that LandSAR members were dedicated, with individuals bringing varying levels of skill to the search; some having never used handheld GPS units and some being unfamiliar with SARtrack. Some members preferred to use maps, and search using grid referencing and linear features.

Although with differing skills, the search area was completed with thoroughness, identifying several clues left by the missing men, clues left by associates of the missing men, and equipment lost by searchers during their search, but located by other searchers as they moved through the bush and environs. The search area was thoroughly mapped and managed, resulting in the bodies of the missing men being located and returned to their families.

With the benefit of hindsight, the initial areas searched were clue rich environments and provided indications of high likelihood for the men's location. It would have been beneficial to search the travel corridors and linear features which may have resulted in the men being discovered within an earlier timeframe.

The Search and Rescue Operation (SAROP) took place on Tuwharetoa land. Tuwharetoa became actively involved in the operation, assisting with Marae accommodation for associates of the missing men and using Tikanga Maori to bring the various groups together. Tuwharetoa reminded the family and associates they were kaitiaki to the bush, and therefore by disrespecting the bush they also disrespected Tuwharetoa. They highlighted to the family and associates, because of discarding their rubbish, searchers had been distracted from finding the men, as they spent time processing and recovering the refuse. After the SAROP, a karakia was held in the bush area, providing closure for the families.

RECOMMENDATIONS

NZSAR is addressing several key recommendations made in the review by developing comprehensive Search and Rescue Guidelines for New Zealand. This project is expected to be completed by May 2019. Specifically, the Guidelines will include material that takes into account the following Operation Mangatawai recommendations:

- **A Manual of Best Practice is developed for land-based search and rescue operations, and adopted nationally**
- **Family liaison: advisory instructions need to be available for the liaison officer, considering key needs and concerns of the family such as media management, SAR process and Coronial process**
- **Role of Iwi: the Manual of Best Practice should recognise the partnership Iwi share with government agencies, especially as it relates to search and rescue operations**
- **Technology: there is a lack of awareness around the current capability of using telecommunication data during search and rescue operations.**

Visit our website for more information about the recommendations and to read the review in full: www.nzsar.govt.nz

TRAINING ROUNDUP

In 2018, 23 unique Search and Rescue courses were delivered to approximately 1,408 people throughout New Zealand.

The following new courses were offered as part of our ongoing commitment to delivering training that meets the operational requirements of Search and Rescue personnel:

SARTRACK

Training more people to use SARTrack, the incident management system software for land search and rescue in New Zealand, has helped us to establish a core of capable LandSAR people within each police district who can utilise this tool.

The course is delivered regionally to small groups who learn to use the SARTrack functions in practical, hands-on sessions.

STRETCHER MANAGEMENT

This new course replaces the Foundation Rope Rescue course, and covers foundation rope techniques and low angle rope safety techniques. Attendees also learn how to select and use operational knots and equipment, rope safety and hazard management, and stretcher belaying techniques.

While the majority of courses have been delivered by Tai Poutini Polytechnic, 2018 saw the introduction of the Search and Rescue Institute of New Zealand (SARINZ) into course delivery, with two courses this year – CIMS4 and River and Flood Safety.

Training demand for 2019 remains reasonably consistent. The revised funding model will provide more flexibility for the delivery of courses, and more access for Search and Rescue personnel.

	2015	2016	2017	*2018
Number of courses delivered	90	98	103	109
Number of course attendees	1243	1342	1402	1408

**2018 figures are estimates only*

RAUORA II

MAYDAY, MAYDAY, MAYDAY: A cruise ship several kilometres off the New Zealand coast has caught fire and 2,928 distressed passengers and crew are on board. Local search and rescue agencies must mobilise quickly to conduct a Mass Rescue Operation, working together with emergency management agencies as efficiently as possible to save lives.

This was the scenario faced by hundreds of participants in NZSAR's ten Rauora II exercises, performed in Police Districts throughout the country over the past two years. The challenges included co-ordinating the search and rescue response on the water between Police and the Rescue Coordination Centre; establishing safe landing areas; triaging survivors and ensuring their welfare needs were met; and reconciling the survivors against the ship's manifest.

The final exercise in this series took place in Hamilton last month – attended by 70 representatives from the sector. It was the first major event to be held in the new, purpose-built Waikato Group Civil Defence Emergency Operations Centre.

Waikato Group Operations Manager for CDEM Andy BuBear says it was a fantastic opportunity to test the new facility.



The final Rauora II exercise underway in Waikato

“It coped well with the large number of staff and partner agencies who were working together, which was very positive and reassuring,” he says.

Area Commander of the Eastern Waikato Police District John Kelly was Controller of the Hamilton exercise. He has been involved in three different Rauora sessions.

“Each one stepped up in its approach,” he says. “They’ve provided a good opportunity to get multiple agencies together and understand key positions and capabilities.”

“Waikato’s open plan layout, with break out offices, made it a lot easier for people to talk to each other. It provided a dynamic environment, which added a sense of realism to the whole experience.”

Rauora II was run as a dynamic simulation, where the scenario could be adjusted to reflect certain decisions made by the incident management team. Facilitators could also adjust the speed and flow of the exercise to ensure participants were not overwhelmed, and to address learning opportunities as they arose.

“The experience brought to the table in Hamilton was high,” says John. “We’ve all come together and practiced as a District in anticipation of events before – such as the Rugby World Cup – but our aim was to spread knowledge and embed those relationships in the Waikato even further. Rauora II was very practical in this respect.”

Senior Advisor at NZSAR Carl van der Meulen, concurs.

“One of the consistent outcomes of Rauora II has been a general strengthening of the relationships between the agencies taking part, which is hugely beneficial for whenever they are called to work together on a response in their District – whether it’s a Mass Rescue Operation or a flooding response,” he says.

He says the biggest challenge for the teams involved in these exercises was to maintain situational awareness, and to ensure a good flow of information between the incident management team and all agencies.

“Most responding agencies have separate IT systems, which doesn’t make it easy to share information at times,” says Carl. “There are also different approaches to how the reconciliation of survivors is processed around the country.”

For the group in Waikato, Rauora II reinforced the need to identify a suitable multi-agency operating platform.

“Sharing information and having the ability to work across multiple agencies with a common operating system is a priority for us and we look forward to working with our partners to address these issues,” says Andy.

Learnings like these will be used by NZSAR to update its framework for Nationally Significant Search and Rescue Operations. It is likely that a third series of exercises will be offered in the future. ●

WHEN SHOULD A RESCUE BE TREATED AS A MASS RESCUE OPERATION (MRO)?

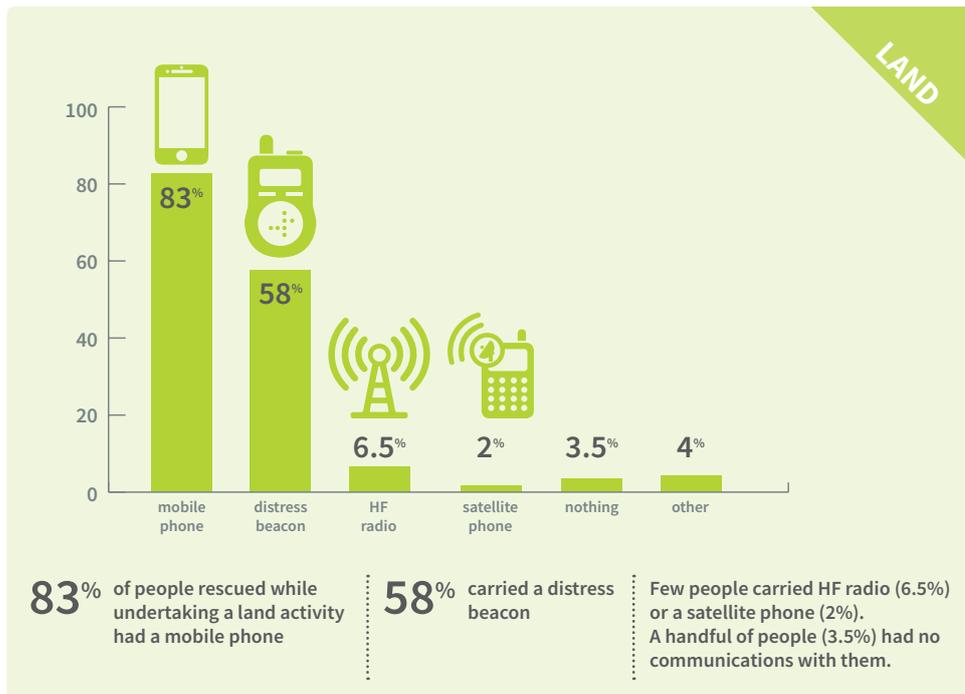
A Mass Rescue Operation is defined as one that involves the need for immediate assistance to large numbers of persons in distress – where capabilities and resources that are normally available to search and rescue authorities are inadequate. Assistance is needed from other emergency management agencies that are not normally involved in search and rescue operations.

STATISTICS

SURVEY OF RESCUED PEOPLE

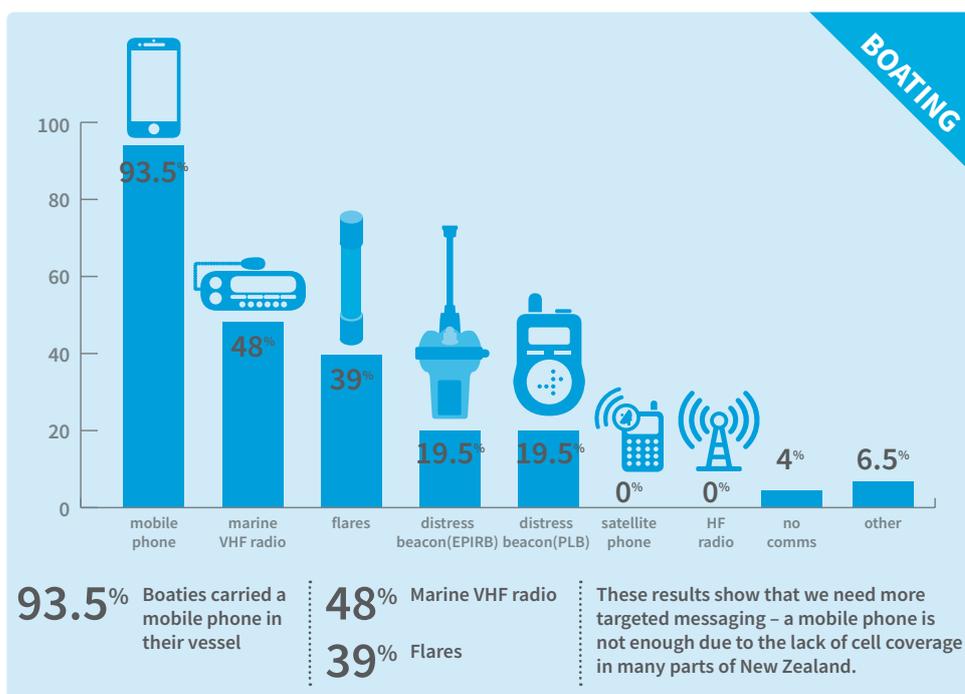
NZSAR has completed a short survey with people who have recently been rescued as part of a search and rescue response – whether on land, in, or on the water. This research was supported by the two co-ordinating authorities: Rescue Co-ordination Centre and NZ Police. The aim was to find out more about the common triggers of search and rescue operations and how prepared people were if they needed to wait for help, or found themselves in trouble.

The survey has helped us better understand prevention messaging, as one example clearly showed. We asked people a question relating to each of the safety code messages – one was around taking appropriate communications.



IN SUMMARY

- a majority of rescued persons were male New Zealanders, aged 45 to 64
- most rescued persons felt they were reasonably well prepared for their journey, despite needing search and rescue services
- a significant number of rescued persons did not research their trip or leave intentions with somebody about their trip
- most rescued persons felt they were least prepared with information about the area or conditions in the area
- most rescued persons were extremely satisfied with their experience with search and rescue.



NZSAR AWARDS NOMINATIONS FOR NZ SEARCH AND RESCUE AWARDS

It's time to acknowledge and celebrate our people who put so many tireless hours into helping others.

Do you know an organisation, a group, or an individual who you think should be acknowledged for their contribution to search and rescue?

Send in your Nominations for the Annual NZSAR Awards. They can be made for either operational activity or support activity that took place during the last calendar year.

More information and nomination forms are available on our website www.nzsar.govt.nz/awards

Nominations for the 2018 Awards close on 31 January 2019.

DUNCAN'S DESK



local community about safer boating. Our mutual goal is for all Kiwi boaties to come home safely and you are welcome to get involved to make this Old4New campaign the best yet.

Coastguard NZ has also released an impressive new mobile phone App which helps boaties to log their boating intentions. Since its launch in July, the app has already been downloaded by over 7,000 people.



Water Safety New Zealand's winning "Swim Reaper" social media campaign has proved both popular and effective. It is aimed specifically at young Kiwi males aged between 15-34 who make up about a third of all preventable drowning fatalities and drowning injuries. Drowning Prevention Auckland has a range of targeted programmes to reduce drowning and effect behavioural change to keep people safe in, on and around water.

In the land space, the Mountain Safety Council (MSC) has produced a fantastic set of videos to help people plan for a wide variety of popular tramps throughout the country. They include specific videos for The Gertrude Saddle, Tongariro Alpine Crossing,

Mount Taranaki Summit Route, Ben Lomond Track, Kepler Track, Milford Track, Cascade Saddle Route and the Poukirikiri /Travers Saddle, with more to come. These can be found on the MSC's YouTube channel at bit.ly/GetOutdoorsSeries or via the MSC website www.mountainsafety.org.nz.

And we are re-developing the www.AdventureSmart.org.nz website to help people to understand their responsibilities for their own safety. The three safety codes for water, boating and land remain unchanged and they are still available in a wide variety of languages. If all goes well, the updated site will go live mid-December. The new site will work on both mobile devices and computers. It will also still include the intentions process to help people leave their trip intentions with a trusted contact before they head out into the great outdoors.

To get the best from these safety related resources and all the other material already available, please help to get the word out and where to find them. You never know - it could just prevent the need for a search and rescue operation.

Stay safe
Duncan
d.ferner@nzsar.govt.nz

The summer season of SAR is upon us. While we don't know just yet if it's going to be a busy or a quiet one, we can be reasonably certain that a lot of people will be seeking our assistance in some way or another. We also know that a number of those operations could be avoided if only the people needing SAR assistance had taken the right precautions. The good news is that a lot of work has been done during the winter to improve prevention messaging and outreach.

The Maritime NZ led Safer Boating Forum launched its summer campaign with Boating Safety week ahead of Labour weekend. The campaign includes the old for new lifejacket initiative - take a look at www.old4new.nz. Starting 1 December at Whangarei, the Old4New van is touring the country to deliver an affordable lifejacket upgrade to many communities. This is a fantastic opportunity to continue educating your

CALENDAR

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

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

NZSAR Consultative Committee Meeting - 13 February 2019

NZSAR Council Meeting - 27 February 2019

Australian & New Zealand Disaster and Emergency Management Conference, Gold Coast, Australia - 12-13 June 2019
<https://anzdmc.com.au/>

Australian & NZ Search and Rescue Conference: SAR Never Sleeps - Past, Present and Future of Search and Rescue, Gold Coast, Australia - 14 June 2019
<https://sar.anzdmc.com.au>

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>

www.old4new.nz

www.mountainsafety.org.nz



www.beacons.org.nz



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