

# CONNECTING THE SEARCH AND RESCUE SECTOR



### BEACON REGISTRATION UPGRADE

The Rescue Coordination Centre New Zealand's (RCCNZ) new national distress beacon registration system is due to go live mid-2018. The new online system will make it easier for beacon owners to register their information and update their details.

Beacon numbers in New Zealand continue to grow with approximately 72,000 registered nationwide. The increase has been seen across a wide range of outdoor activities and is attributed to beacons becoming cheaper and smaller – as well as the publicity from SAR agencies encouraging beacon use.

Each year RCCNZ responds to around 850 SAR incidents and distress beacons are involved approximately 75% of the time.

Beacon owners are legally required to register their beacon, and are strongly encouraged to supply 24 hour emergency contacts as well as details about their aircraft, watercraft or vehicles – where appropriate. RCCNZ's Deputy Manager Planning, Georgia Gerraty says the information gathered helps SAR responders better understand what they may face when responding to beacon activation. Despite that legal requirement, around 30% of responses are for unregistered beacons or those with out of date information.

All current beacon registrations will be moved into the new system and owners will be asked via email to verify their account details. "The portal is designed to be a user-friendly system to promote beacon use, registration and correct disposal." For those who do not have access to email or internet there is a workaround, although Georgia says the preference is that everybody uses the 'MyBeacons' portal.

Georgia is the project manager for the distress beacon's portal redevelopment. She says that when a beacon is activated it is crucial the information registered is accurate.

"Search and rescue is time and resource-intensive. To help SAR find people faster it is important that we have the most up to date and accurate information possible."



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Georgia says the old beacon registration system was form-based and was often seen as cumbersome and time consuming. Further, registering a beacon, updating information and deregistering were not seen as important by many owners.

The new online registration system will make these tasks easier, making registering normal and routine behaviour. RCCNZ is also talking to beacon wholesalers and retailers as well as those in the search and rescue sector to promote the message to register beacons.

As well as streamlining new registrations and updating current registrations, the new system will be future-proofed and enable business improvements. "We've improved both the usability and functionality of the system, as well as our ability to pull statistical information that will drive safety programmes from it," says Georgia. "We're working together with the SAR sector to build a better picture of what is happening, and how we can all work together to save lives."

The new 'MyBeacons' portal will use the existing website address: www.beacons.org.nz.

### SURFILIEF SAVING - NEW TECH FOR BUSY TIMES

It has been a busy summer for those involved in Surf Life Saving New Zealand (SLSNZ). Life Saving Services and Education Manager Allan Mundy says the statistics from October to December show lifeguards performing 16,000 preventative actions and close to 170 rescues.

With this number of interventions, SLSNZ is always on the lookout for solutions that keep swimmers and volunteers safe. One new piece of technology that is currently under assessment by lifeguards around the country is Seabob – an electric underwater scooter that can take a rescuer to a patient without the effort normally associated with a board rescue or tube swimmer



"If you had to perform five or six rescues back to back using a board or a tube, you are starting to think about your own safety. If you are performing multiple rescues with this – there's no problem."

Allan says the Seabob was introduced to Surf Life Saving (SLS) managers at a conference in Australia in 2016. "We were blown away by the ease with which you could get through the surf."

Seabob has a battery powered jet propulsion unit weighing around 35kg and a battery life of just under an hour.

There are two handles on the unit, which are held when the Seabob is moving, and another two handles where patients can hold on. "It's a little bit like operating a motorised boogie board. Everything you do to turn your board, you do with this."

Allan says one of the key advantages is that it reduces the risk of lifeguard fatigue. "If you had to perform five or six rescues back to back using a board or a tube, you are starting to think about your own safety. If you are performing multiple rescues with this - there's no problem."

Another advantage is that there is a very small safety risk operating the unit. "It doesn't scoot along at high speed and it is neutrally buoyant – so it won't be caught up in a wave and swept ashore. It is basically idiot proof, and unlike a rescue board, you can't fall off this."

Allan sees the units being added to the equipment in the ATV beach patrols - filling a niche that is currently open and fixing the problem of lifeguard fatigue.

He says there is only one unit currently in New Zealand and it's being tested by SLS groups all around the country. "My job is to get technology, put it in front of my lifeguards and get them to tell me what they think. That's what I've been doing."

The feedback so far has been positive. The only issue for SLSNZ is price - with each unit currently costing around \$40,000.



Like the underwater scooter, Rescue Water Craft (RWC) started off in the recreational space as jet skis, but have since found a place in the surf life saving arena. Allan Mundy says there are 10 being used nationally and they have been effective in a number of rescues.

The RWC are currently deployed on patrol, extending the lifeguard's reach beyond the usual patrolling area – covering long stretches of beach where there are often great distances between surf clubs. "On beaches like Mt Maunganui, Waihi and the bays around Auckland we just don't have the cover we'd like, but the RWC gives us that."

The other advantage is the speed with which these craft can respond in an emergency. Allan says in some time trial work carried out at Papamoa, RWC have been able to respond in half the time of an IRB. "In an aquatic environment time is critical."

He says SLSNZ has been very careful rolling the RWC out around the regions to make sure training and implementation have been done exactly right. Allan also acknowledges that the craft have sometimes been synonymous with 'hooning' behaviour by the public. "It's all about appropriate speed – you only go flat-out when you are saving a life." He says they are also careful to differentiate the SLSNZ RWC from those owned by the recreational boating public. "We bling them up with red and yellow so there is no doubt it is a life saving asset – that's the key."

#### **Digital Radio Project**

One of the challenges facing SLSNZ in a busy season is the huge amount of information that needs to be recorded and stored. The organisation agreed on a new digital mobile radio communications system in 2015, which is being rolled out around the country, enabling all regions to communicate and exchange voice and data with one another in real time.

Allan adds that the other benefit of going digital is giving visibility of the SLS assets via their new handheld devices. "I can see all the lifeguards – if they've got their handsets on, they pop up on my map. It adds another level of safety." Each handset is also equipped with an emergency call button.

To date, roughly 30% of the country is covered by the new network. Allan says the Capital's coast is almost complete, covering the south coast of Wellington as far as Palmerston North. SLSNZ are currently waiting on extra funding to complete the eastern region – which will cover the Coromandel all the way to Gisborne. The next regions to be included in the network will be Taranaki and Hawke's Bay.

It is hoped that the network will be complete in three years' time. "It is a high priority for us and we've spent a lot of money on it. We have been really lucky with the grants and support we've had to get this underway."

#### **AVIATION FNGAGEMENT**

The Aviation Engagement Framework project is nearing completion with a good level of participation and some interesting feedback from aviation providers.

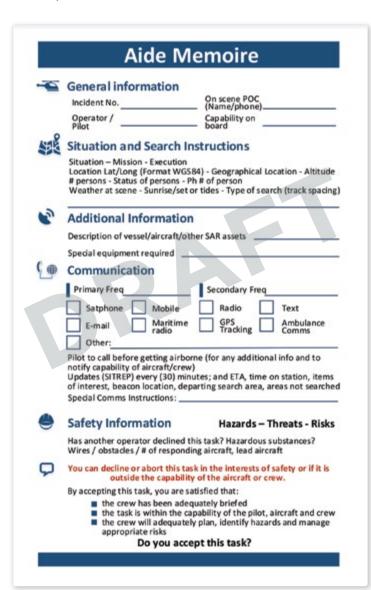
The Framework was developed to address the challenges with the relationships between the providers, coordinating authorities and NZSAR. A 2016 report identified some key areas to be addressed, including inconsistent approaches to search and rescue operations and some gaps in assurance.

Implementing the framework was one of NZSAR Assurance Coordinator Steve Ross's assignments when he joined NZSAR last year.

He says the project has had a good response to both a national survey and a series of site visits carried out around the country.

Steve says that while not everyone has been visited, most aviation providers have had an opportunity to have their say through the survey.

One of the questions asked in the survey was: "What are your top three aviation risks?" – and that question sparked a lot of interest among aviation providers keen to find out the response of their peers.





NZSAR's Steve Ross with Stuart Farquhar during a site visit to Garden City Helicopters in Christchurch

The top hazards identified by those surveyed are:

- 1. Weather
- 2. Night Vision Goggle operations
- 3. Boat and night winching
- 4. Inexperienced SAR volunteers (in aviation)
- 5. Wires

An area of concern to emerge is the appropriate training of volunteers and specialist rescue teams. There are different ideas on how often and to what level the training should be undertaken. There are also concerns about the extent to which the level of training delivered is often determined by funding.

Resolving the issue of inconsistent tasking procedures was also a directive of the aviation engagement project. This is being addressed by standardising the information provided by the tasking authority to the aviation provider. A tasking/debrief form and an aide memoir (draft example to the left) is currently being developed.

Steve says the aviation engagement project has also highlighted the dedication and commitment exhibited by aviation providers and volunteers. "They are all dedicated to providing the best service possible - this project has been all about helping them do that."

### PROJECT SARDONYX UPDATE



You may hear more about project SARdonyx (see LINK 41 page 3) over the course of 2018 because this is the year that it will be built and go live. When complete, this system will be the portal where we capture all our operational SAR information and create all our operational reports.

This is the biggest and most complex project ever led by NZSAR, so it will take quite a lot of our time and effort during 2018. To do this, we'll need input from people across the sector.

Over the past few months, the purchasing process was finalised leading to a contract being signed with Beca in late January. The 'rubber hits the road' now with a number of workshops, with building 'sprints' and opportunities for feedback being planned. At points throughout the latter part of the project, live versions of the product will be made available for testing and input by SAR people. If you're asked to help, NZSAR would like to thank you in advance for your frank input – we'll certainly need it to ensure we deliver a great system back to you.

### **FATALITY STUDY**

A common thread throughout the published record of the SAR sector has been stories of success saving lives, rescuing, or assisting people in distress. But until recently, there has been little understanding of the fatalities that the SAR sector responds to each year.

To address that gap in SAR knowledge, NZSAR commissioned Whitireia New Zealand – a Wellington-based institute of technology – to complete a Fatality Study. The institute was asked to review fatality data between April 2010 and July 2017, and the resulting study provides an overview of all the fatalities plus an analysis of the fatalities associated with land, or water-based activities, or wanderers.

SAR fatality data includes people who perished and those not located. Almost 900 records were reviewed, with 431 (49%) fitting the criteria for further analysis. Just over half the records (51%) were considered out of scope for further analysis; these included suicides and body recovery operations, which together account for 42% of all fatalities responded to by the SAR sector.

Of the 194 land-based fatalities, 64% occurred during tramping, hunting, walking, or mountaineering activities. The main contributing factors to the land-based fatalities were falls (31%), drowning (26%), and medical events (24%).

Of the 320 water-related fatalities, 30% occurred as the result of recreational boating, 27% from commercial boating, and 22% from swimming. Drowning is almost always the final result of these fatalities; however, the report shows the main contributing factors are:

- Being swept out to sea
- · Lack of a buoyancy device (lifejacket) if a boat capsizes or a person falls overboard
- Alcohol or drug impairment
- Medical events
- · Jumping into water

There were 11 wanderer-related fatalities, which fall into two distinct groups – young children, and the elderly. Drowning was the main cause of death for 64% of these fatalities, particularly for young children. This reinforces the importance of the Water Safety Code message to *watch out for yourself and others* and to pay close attention to the children you are supervising in or near water.

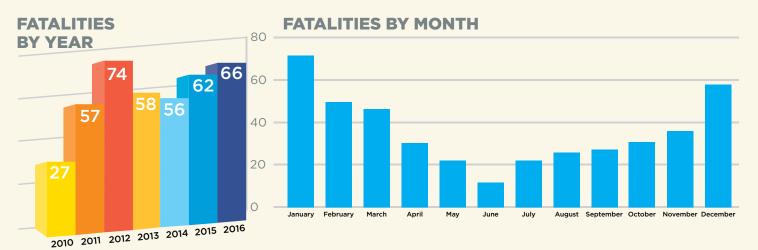
The report contains a series of recommendations which fall into three main categories, the first of which relate to public safety messaging. All the main points are covered by current Safety Codes and are already being promoted by the sector partnerships, including a stress on the importance of buoyancy devices for both water-based and near-water activities.

The next set of recommendations relate to operational responses and have been passed onto the SAR Guidelines project team.

The last set of recommendations relate to areas of further research. Some of these studies are already being conducted by partner organisations Mountain Safety Council and Water Safety New Zealand. The Fatality Study is available on the NZSAR website.

### STATS ATTACK

These graphs show the analysed fatalities occurring by year and by month in the Fatality Study. 30% of fatalities occur in the summer months of December and January.



### O SAR IN ACTION

### WAHINE - RESCUE STORIES

The sinking of the ferry *Wahine* is one of New Zealand's worst modern maritime disasters – with a loss of 53 lives. The 50<sup>th</sup> commemoration of the disaster takes place on 10 April 2018.

10 April 1968 is etched in the minds of those who were involved in the rescue of survivors from the *Wahine*. The storm that was unleashed on Wellington that morning was building up to a peak with winds gusting to 220km per hour. Houses were literally being blown apart in the exposed parts of the city.

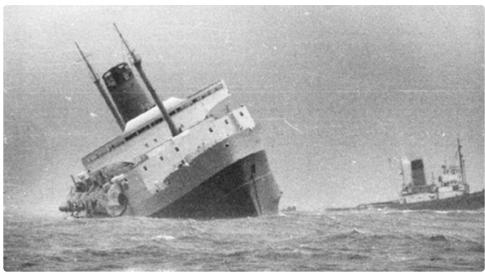
Many involved in the rescue recall confusion about the status of the vessel during the course of the morning as the storm raged through the city. Greg Gilpin was a young police constable based in Taranaki Street on the day of the storm.

"We were aware that the *Wahine* had come in contact with Barrett Reef on its way into Wellington harbour, but we were informed that it was OK and was going to get through."

That confusion was also shared by his more senior colleagues in Lower Hutt. Senior Sergeant Bryan Courtney heard the news about the *Wahine* going aground when he reported for work at 7am that morning. "We assumed it was going to be abandoned and set ourselves up during the morning to respond. We had people on standby at Trentham Military Camp and at the police college, St John and the hospital." Later in the morning he stood people down, only to reactivate them at 1.30pm as he heard a call that people were jumping overboard.

"From a police point of view there was a lot of confusion in the information – or lack of information – coming from the ship." (The subsequent inquiry into the disaster concurred with that assessment, saying channels of communication were completely inadequate.)

Greg Gilpin was sent to assist with survivors at Seatoun beach early in the afternoon. He was on the beach as the Wahine keeled over and settled on its side amid a huge pool of steam as the





Photographic negatives and prints of the Evening Post and Dominion Post newspapers. Ref: EP/1968/1578/24-F. Alexander Turnbull Library, Wellington, New Zealand.

Gerry Cunneen

funnel went under water. Greg and his colleagues, along with a range of volunteers, helped ferry passengers as they arrived in lifeboats – helping them onto buses – where they were taken to the Wellington Railway Station, which was the coordination centre for the survivors

On the other side of the harbour, in the suburb of Eastbourne, the scene was more challenging. Because of an out-going tide and wind direction many of the passengers that left the *Wahine* ended up being scattered along the opposite coast - pushed ashore on an extremely rugged and desolate stretch of rocks.

Senior Sergeant Bryan Courtney was in Eastbourne, in control of the scene from his patrol car parked at Burdan's Gate. "A lot of the passengers were alive when they came ashore but perished when they came in contact with the rocks."

23-year-old constable Gerry Cunneen was also on the Eastbourne coast as survivors and victims started coming ashore. "The seas were huge - just unbelievable. We were out at chest height trying to grab who we could. It was a wonder we didn't drown ourselves with the weight of our uniforms. It was live, in your face action."

Gerry stayed on that coast the whole afternoon and was sent back there in the following days combing the seaweed looking for victims. Forty-three bodies were recovered on 10 April and another four were recovered in the following days.

After assisting survivors on the Seatoun side, Greg Gilpin made his way to the Wellington Railway Station to help process survivors and deal with worried friends and relatives. He did not go home for three days. "I didn't want to leave. You got caught up in it."

Reflecting on the rescue 50 years later Greg, who would subsequently be part of the police team who led the body recovery operation on Mt Erebus, says one of his clear memories is the sense of unreality at the sight of the *Wahine* tipping on its side. "You could see people jumping into the sea. I remember turning to one of my colleagues and saying 'this isn't really happening."

### THE SAR SYSTEM - 50 YEARS SINCE WAHINE

As we prepare to commemorate the 50<sup>th</sup> anniversary of the *Wahine* disaster, and the tragic loss of life that occurred, it is appropriate to pose the question – how has the search and rescue system evolved in the 50 years since that bleak day?

There have been systemic improvements to the command, coordination, and control of search and rescue operations. The SAR system of today looks completely different from the SAR system of 1968. We have two SAR Coordinating Authorities (NZ Police and RCCNZ) with clearly defined coordination responsibilities. More importantly, we have a wide range of search and rescue organisations that operate together as 'One SAR' family when responding to people in distress – whether it's land, sea, or air.

At the local level, the Wellington Coastguard Unit was created in direct response to the tragedy. Initially established as Wellington Sea Rescue in 1969 with 15 volunteers, the unit affiliated with the Royal New Zealand Coastguard Federation in 1991 and now has around 90 active volunteers. A history of the Wellington Volunteer Coastguard is available on the unit's website www.coastguardwellington.org.nz/files/history-orientated.pdf

The tragedy led to improved safety procedures on ships and also prompted the creation of the Life Flight Trust. The nationwide storm – Cyclone Giselle – that led to the *Wahine's* demise also triggered the instigation of mandatory civil defence plans by local authorities.

Importantly, we have improved our readiness to respond to these types of events through planning and exercising. The Wahine tragedy fits the definition of a mass rescue operation, with 'a large number of people in distress, such that the capabilities normally available to the search and rescue authorities were inadequate'.

The NZSAR Council has developed a strategic level mass rescue operations policy, and the two Coordinating Authorities have developed response plans, which are currently being reviewed to ensure they are fit for purpose. Additionally, the *Wahine* tragedy is used as a training scenario at the SAR Managers course each year. The Council is also running a series of mass rescue exercises (Rauora) around the country, with two more happening in March.

A major issue in the Wahine response was the reconciliation of the survivors. In his book, The Wahine Disaster, Max Lambert outlines the challenges facing police in the immediate aftermath of the rescue (see the quote on the right). Reconciliation has been highlighted during the Rauora exercises and has led to the development of an agreed reconciliation process (as reported in our last newsletter), which will be exercised later this year.







Alexander Turnbull Library

Early in the evening police discovered they had names of far more survivors than the total number of passengers and crew who had been on the *Wahine*. There was much duplication of names, different spellings of the same name, different addresses for the same survivor. In the chaos of the afternoon the names of many rescuers had gone on the lists. In a few cases names of the dead were also on the list. No name could be deleted until painstakingly checked out.

Max Lambert, The Wahine Disaster

### **ENVIRONMENTAL SCAN UPDATE**

By 2031, one in five New Zealanders will be aged 65 or over. By 2033, the population of Auckland will be over 2 million. By the end of this year, 90% of us will have smartphones and 78% will be using tablets.

The impact of these and other aspects about the changing nature of our country and its population have been considered as part of the NZSAR Environmental Scan. The scan was commissioned by NZSAR Council as part of its role to provide effective search and rescue services throughout New Zealand's Search and Rescue Region.

The scan has explored the potential effect of trends on the demand for and supply of SAR services - focusing on demography, technology, economy, politics, legislation and environment.

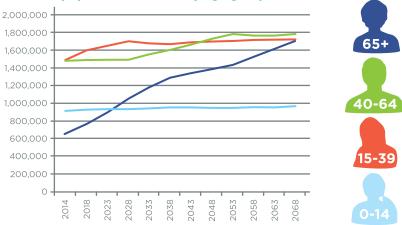
As reported in the December edition of Link, the scan was workshopped at last year's NZSAR Council and Consultative Committee combined meeting. Those at the meeting were asked to consider questions such as what impact an aging population or rapid uptake in personal technology might have on demand for SAR services, and how can we anticipate and plan for these changes.

While underlying or 'normal' demand for SAR services is likely to continue to stay steady (or grow) in the next five years, the scan also identifies a range of sources that might result in higher demand. One area is the increase in wandering activity because of the aging population. Another area highlighted by the scan is the increase in tourist numbers as New Zealand's tourism industry continues to boom. Visitor arrivals to New Zealand are expected to grow 4.8% a year, from 3.5 million in 2016 to an estimated 4.9 million visitors by 2023. The scan suggests that increased visitor numbers may mean a flow-on impact on the search and rescue sector with tourists visiting more remote locations, where search and rescue services are not as well resourced.

The scan also explores a range of internal drivers that may affect the SAR sector's ability to supply an effective and efficient service in the future, and includes questions for reflection.

The scan has been distributed to the SAR sector to help support strategic planning. It will be regularly reviewed and feedback is welcome. This is now published and available on the NZSAR website at: http://nzsar.govt.nz/Publications/Strategic-Docs

#### New Zealand population increase by age group 2014-2068



#### FAREWELL DAVE COMBER

Dave joined the NZSAR Council in 2016 as the inaugural Independent Member, representing the non-government SAR organisations. His last Council meeting was in February this year, where he 'handed over' to lan Coard.

Dave has been involved with search and rescue in Taupo for 35 years and served on the New Zealand LandSAR Board prior to taking his position with NZSAR Council. He brought his wealth of SAR experience and understanding to Council, and also provided this support with his attendance at the Consultative Committee and the Strategic Occupational Health and Safety Committee meetings. Dave was formally thanked for his service at the February Council meeting.

## IAN COARD NEW MEMBER OF NZSAR COUNCIL



lan Coard has joined the NZSAR Council as the non-governmental member, replacing Dave Comber who has retired after two years.

lan has been a Coastguard volunteer for 30 years, based at Riverton in Southland. He has been involved at both a local and national level, serving on the Coastguard New Zealand Board, including a three-year stint as National President from 2007 to 2010.

He has held a number of leadership roles for the Riverton unit, including Board Member, Safety Officer and SAR Coordinator. He is also heavily involved in Coastguard Education as a tutor for Day Skipper, Boatmaster and Marine VHF training.

lan was instrumental in installing NowCasting in Southland – a service which offers weather forecasts and other information such as tide time on a dedicated VHF channel. He continues to lead his unit in a number of risk management, policy and health and safety changes.

lan is the local Harbourmaster and deputy Regional Harbourmaster for Environment Southland. His work with Coastguard was recognised with a Gold Award at the 2016 NZSAR Awards for services to Coastguard and Coastguard Riverton. The citation for his award recognised the great mana he holds within the Coastguard community.

lan says he is looking forward to continuing the good work started by Dave Comber in representing the issues, concerns and interests of the non-governmental elements of the SAR sector.

### **DUNCAN'S DESK**



What a crazy summer! Record temperatures in many places and record rain in others. The volatility and unpredictability of the weather is certainly catching more than a few people out – sometimes tragically. It can be hard for our sector to adapt rapidly to changing circumstances, so it's important for us to make the effort to figure out what our future might look like. The search and rescue Environmental Scan, discussed in Link 41, is intended to help SAR sector leaders think about these things and make future-focussed decisions.

On 10 April this year we will commemorate the 50<sup>th</sup> year since the *Wahine* disaster. Our sector learnt a huge amount from this event, and

it was the genesis of the Wellington Recue Helicopter and the Wellington Coastguard unit. A day-long series of events will commemorate the disaster and include a static display by SAR and other public safety organisations. If you happen to be in Wellington on day, please come down to Shed 6 on the waterfront to take a look at the display. The Council will also hold its annual NZSAR Awards function that evening.

The Secretariat always has a lot of projects on the go. One of our less visible functions is to offer search and rescue advice and perspectives to other government agencies when they request it. As an example, over the summer we've spent quite a bit of time and effort engaging with the Ministry of Health and Ministry of Defence on a variety of matters that needed SAR input. To enable us to do this well, it's important that we stay 'grounded' and well informed of the issues affecting SAR people and their groups, teams and units. We're fortunate to receive a constant stream of advice and thoughts from SAR people up and down the country. We welcome it and thank you for it.

One of the people who has helped us immensely to 'keep it real' over the past two years is Dave Comber, the nongovernmental member of the NZSAR Council. Dave was the first person to hold this position and has (in my opinion) done an outstanding job, both as a member of the NZSAR Council and also in advising the Secretariat on a wide range of SAR issues. Dave retires after two years in the position with our profound gratitude. This behind-thescenes position is an important one and I welcome Ian Coard (see page 7) to the NZSAR Council to follow on from Dave. Ian has vast SAR experience at almost every level of Coastquard New Zealand and remains an active member of the Riverton Coastguard unit. I'm confident lan will add great value to the NZSAR Council and provide the Secretariat with forthright direction and advice.

In this issue of Link, you'll see we have a lot on at the moment. We look forward to working with you all to complete many of these projects.

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

### CALENDAR

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

SAR Technology Workshop - Wellington, 6-7 March

Rauora II MRO SAREX - Wellington District (Wellington) Tuesday 13 March

Wander / Safer Walking Workshop - Saturday 24 March

Rauora II MRO SAREX - Eastern District (Napier) Tuesday 27 March

Safer Boating Forum - Auckland, 5 April

NZSAR Awards - Wellington, 10 April

Wahine 50 Commemoration events - Wellington, 10 April

**ANZSAR Conference - Gold Coast, 23 May** 

### 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

For information on and download of SARtrack software: www.sartrack.co.nz

For information on ICAR: www.alpine-rescue.org

For information on the International Maritime Rescue Federation: www.imrf.org

wahine50.org.nz

www. coast guard.nz/regions/central-region/units/wellington/about-us/our-history/



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