



CONNECTING THE SEARCH AND RESCUE SECTOR

NEWS



AMBULANCE AIR DESK TRIAL BEGINS

A two-year long trial to centralise the coordination and dispatch of national air ambulance helicopter services is now underway.

The trial, funded by the Ministry of Health and ACC, is the result of collaboration between St John, Wellington Free Ambulance and the Air Rescue Group.

The service is based in the Auckland Clinical Control Centre and takes the form of an Air Desk staffed by two Clinical Support Officers (CSOs) 15 hrs a day, seven days a week.

It will centralise the dispatch and coordination of all emergency air ambulance helicopter resources in the country – and will work closely with the Rescue Coordination Centre and

Police when search and rescue services are required. Air Desk staff will assess all calls to help ensure the right types of helicopters are dispatched to the right situations, carrying the right medical crew based on evaluations of the locations and terrain they're going to, weather conditions and patient requirements.

Rescue Coordination Centre's Operations Manager Paul Craven, says the Air Desk will take a lot of confusion out of coordinating search and rescue incidents, as RCCNZ and Police use the same air assets. "Having a single point of contact where we get to know each other's requirements as well as coordinating what goes where will enable the best use of assets. It's a more efficient and safe system as everyone knows what everyone is doing."

The CSOs are all paramedics trained to intensive care level and the six staff

appointed to the role all have air sector experience.

"That experience is important because we want to ensure that the most appropriate air ambulance services are dispatched at the most appropriate times in order to optimise clinical outcomes for patients in urgent need," says St John Director of Clinical

Operations Norma Lane.

"At times the helicopter closest to an incident may not be the right one, so the Air Desk staff will play a key role in determining which aircraft and available staff are best for the situation at hand."

Paul adds the Air Desk makes it faster and simpler to sort out coordination, and should prevent more than one helicopter turning up. "If the patient sets off a personal locator beacon and calls 111 we are better placed to work out what is required. It is more likely to be patient-centric." ●

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FUNDING BOOST FOR SEARCH AND RESCUE

Increasing our readiness for a Mass Rescue, improving coordination across the SAR sector, managing health & safety and using data more effectively will be the focus of increased funding for SAR agencies.

Transport Minister Simon Bridges announced the funding boost for search and rescue activity just before Christmas. The Government will provide more than \$35.7 million to search and rescue agencies over the next four financial years – an increase of \$8.4 million.

“The need for search and rescue is growing and changing, and challenges aren’t limited to the bush, mountains or water. The number of suburban searches involving people with cognitive impairment, such as dementia or Alzheimer’s, has increased 17 per cent since 2011, to around four per week,” Mr Bridges said.

NZSAR has been working with SLA partners Coastguard New Zealand, LandSAR New Zealand, Surf Life Saving New Zealand, AREC and the New Zealand Mountain Safety Council, as well as the Rescue Coordination Centre New Zealand, to prioritise projects, initiatives and ongoing work that will benefit the sector most.

These include a joint project to capture operational SAR information that can be used to make evidence-based decisions on a wide range of SAR issues. Improved support to wander search and rescue, and enhanced fundraising capability so that agencies have more capacity to raise funds independently. All of these contribute to the NZSAR Council’s vision of a cohesive community of capable people in sustainable organisations, finding and rescuing people in distress, and operating collaboratively within a robust SAR system.

CONNECTING LAND COMMS

Taking a big step forward to ensure more effective and sustainable communications, everyone involved in land search and rescue operations is set to use the same handheld radio to ensure they can talk to each other.

Following a review of the status of radio communications used on land, a technical group with participants from key SAR agencies including NZSAR, Police, LandSAR and AREC along with other agencies such as DOC, RCCNZ, New Zealand Defence Force, Surf Life Saving New Zealand, Coastguard New Zealand and Civil Defence has been established.

This is particularly timely as the world becomes increasingly dominated by cellular communications. The review noted that land-based SAROPs often take place in a remote location and often in bush and forest, where cellular coverage is limited or non-existent.

The review concluded that two-way High Frequency (HF) and Very High Frequency (VHF) radios remain vital for the conduct of safe SAR operations on land. The review also noted advantages of having radios with built-in GPS for tracking. The working group described earlier is now in the process of defining the characteristics of a common SAR radio for agencies to consider purchasing.

The group is also developing a common VHF channel plan for all SAR radios that will enable them to be programmed with nationally consistent channel names. Plus, it wants to enhance VHF radio coverage across



New Zealand by gaining improved access to networks owned by Police, DOC, regional councils and other agencies.

On top of these other roles, the group will look at future radio communications practices and requirements. It will make any changes deemed necessary to ensure SAR communications are reliable, ubiquitous, and widely available to support the safety and effectiveness of search teams and thus successful land-based SAR operations. ●

PACIFIC SAR COMES TO AUCKLAND

For the first time, New Zealand is hosting the Pacific Regional SAR workshop – a biennial event to build SAR capability across the Pacific. The focus this year will be the Four Pillars of Effective SAR Capability: SAR Governance; SAR Coordination; SAR Response, and SAR Prevention.

This workshop is an opportunity for industry leaders and SAR practitioners from across the region to build relationships, learn from each other, discover new technologies and develop best practice in SAR response.

This 7th Pacific Regional SAR workshop is being hosted by RCCNZ at the Crowne Plaza Hotel in Auckland from May 22-26.

For further information on the workshop, or expressions of interest in attending, contact the RCCNZ Training Manager Kevin Banaghan via Kevin.Banaghan@maritimenz.govt.nz or 04 577 8049. Registrations close 31 March 2017.



“The Marlborough Sounds can get pretty gnarly. Our unique waterway system has remote areas, with weather that often means a helicopter is not an option. Those extremes of weather, plus the ability to do beach landings to pick up patients, were all factors we considered when it was time to replace Picton’s ageing Coastguard vessel.”

As Operations Manager Dave St John explains, about five years ago, Coastguard Picton began to design a bespoke solution – a Marine Ambulance Rescue Vessel (MARV).

“It was initially sketched on the back of a serviette after a conversation about what was needed. There was no such vessel to take ideas from. The design evolved over time, most members of the unit added ideas, and even during the build things were changed and altered.”

Now known as the Bluebridge Rescue, the MARV has a full ambulance bay similar to road ambulances, a bow door with beach loading for a stretcher, walk around decks so a stretcher can be wheeled from front to back, and three engines with a top speed of 55 knots. It can carry patients in a dedicated ambulance bay where they receive skilled medical care at the scene of the incident. The boat is fully offshore capable and is also set up for victim recovery, rescue and towing.

“It pretty much addresses all the needs of the local area in a marine emergency. There are around 600 dwellings in the Queen Charlotte Sound. Most are boat access only, and those with road access have a long drive on less than ideal roads. There is also the 72km Queen Charlotte track that many tourists walk and bike. Boat is the quickest and often the only way to access these areas.”

Coastguard Picton averages 70 callouts per year; 80% of them are medical. Various emergency medical staff have been trained to accompany the Coastguard crew on medivacs.

In its first summer on the water, Bluebridge Rescue has already proved its value. It was involved in the search for the missing diver off Stephen’s Island. The crew were on-scene within an hour of being tasked and able to take over on-scene coordination while conducting a comprehensive search. And it has carried around 30 medivacs – one which saved a life.



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“The very ill patient was in a remote area and, due to extreme weather, a helicopter could not fly. We responded and were able to hold the boat on the jetty in rough seas while the patient was brought down a slippery track in heavy rain. We got him back to Picton, and in another plus, kept him on the same stretcher for transport to hospital, where he had emergency surgery.”

The large ambulance bay on Bluebridge Rescue also has the ability to be used in other roles. This includes transporting search and rescue staff to incidents within the Sounds, and fire fighters to fire scenes with no road access.

“In one situation, we got the firefighters there within four minutes – saving the house from burning down.”

As the ambulance bay is separate, they are able to keep medical and navigation crew apart, providing a safer operating environment.

The whole community got in behind the \$1.1 million fundraising campaign. Dave says because so much went into designing and future proofing the vessel, it will be at least another 20 years before they have to do it again. “In such a short period of time it has proven its value – something we can all be proud of.” ●



Diana Crossan, CEO Wellington Free Ambulance and David Waters CEO Ambulance NZ sign the LOA.

A new Letter of Agreement covers agreed protocols to ensure the most appropriate resource is deployed for the recovery of patients in search and rescue operations.

A mountain biker suffers a serious injury when biking in a rural riverside bush track. He has fallen off the track, is down a steep bank and cannot move. It is early evening. His partner dials 111 and asks for ambulance.

What should happen next is covered in a new set of protocols that have been put in place to make sure the best outcome is achieved for the injured mountain biker and to keep rescuers safe.

The New Zealand Search and Rescue and Emergency Ambulance Services Relationship Agreement was signed in December last year. The agreement describes protocols to ensure the most appropriate organisation coordinates the recovery of a patient following a 111 request for assistance, a beacon notification or mayday, and to alleviate double tasking.

The six parties to the agreement – New Zealand Police; the Rescue Coordination Centre of New Zealand; Ambulance New Zealand; St John Ambulance; Wellington Free Ambulance; and the New Zealand Search and Rescue Secretariat – have agreed on the protocols to determine how resources should be allocated,

plus a set of steps to help decide on a coordinating authority. The protocols aim to improve collaboration between agencies managing patient recovery in search and rescue operations and to ensure the most appropriate authority is managing that rescue.

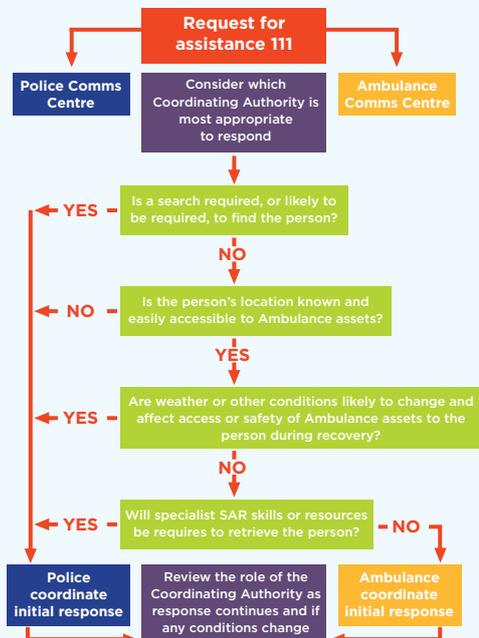
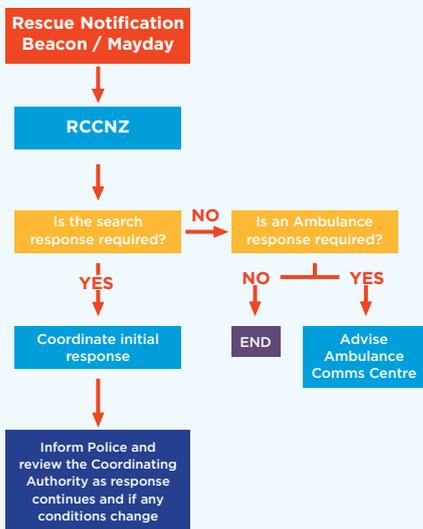
It addresses what can occasionally be a grey area between a medical emergency – and medical emergency that may involve a search and rescue.

Mike Hill, Manager of the Rescue Coordination Centre and Safety Services at Maritime New Zealand, says the overall aim is always to deliver the best response to those in need. He sees the Letter of Agreement as bringing the agencies closer and enhancing the response. “The LOA helps reduce the gaps and clearly outlines the roles and responsibilities of the agencies.”

So how does it work? There is a flow diagram (bottom left) as part of the agreement, which outlines the steps.

In the case of the injured mountain biker, the ambulance call centre gets additional details from the caller. Following the new protocols agreed in the LOA, it is established that a search is required, that there is no road access, and that terrain and timing pose a risk for a helicopter. Ambulance contact Police Communications and discuss the coordination of the rescue.

Police accept coordination for the search and rescue, arrange a LandSAR team to locate the injured rider, and stretcher him to an ambulance waiting at the nearest road. ●



INSIGHTS

Agreed protocols for call centres to decide who is the best agency to respond

Avoid double tasking and ensure the best outcome for injured party

Clear outline of roles and responsibilities

Improved communication among organisations to enhance the response



TRAINING BETTER EQUIPS SAMOAN SAR

The Samoa Police Maritime Wing were put through their paces during an intensive three-day search and rescue training in January.

As part of their commitment to building SAR capability in the Pacific, the Rescue Coordination Centre's Training Manager Kevin Banaghan and Watch Leader Dave Wilson travelled to Samoa for the training, which focused on search and rescue governance, coordination, response and general maritime safety.

Kevin said the Wing worked very hard throughout the course and achieved some excellent results.

"I am confident that if a person is reported missing or in distress, the Samoa Police Maritime Wing are in a better place to respond to coordinate a response.

"There is still some work to be done around general maritime safety and SAR prevention, but I am sure, given time, Samoa will improve in this area also."

Some of the topics and discussions were around: global SAR systems, SAR technology, search planning, and information gathering.

The course finished with a day-long SAR exercise where all trainees had to work together to solve a complicated SAR incident.

SAVING LIVES OUTSIDE THE FLAGS

Many beaches across the country are not patrolled by lifeguards. The nature of the coastal environment sees high-risk activities such as rock fishing, swimming and surfing occurring in both highly populated and remote locations. These activities claim many lives a year through unintentional drowning.

As part of its plans to expand its services, Surf Life Saving New Zealand (SLSNZ) has been piloting the use of Rescue Water Craft (RWC) - more commonly known as jet skis.

The pilot programme, which was made possible by funding from the Infinity Foundation, has been in place in the Northern Region for a while. After approaching Surf Life Saving Queensland to help it become operational, SLSNZ launched its first craft on the west coast of Auckland 4 years ago, with the aim of providing effective lifesaving capability to 'outside the flags' areas and to diversify service delivery. It emerged that these RWC were proving very useful, so SLSNZ sought further help from their counterpart in Australia to consolidate RWC training and development. Now everyone, whether they are drivers, instructors or examiners, are at the same standard as their Australian peers. SLSNZ has also been working with Maritime New Zealand to operate under special water craft rules.

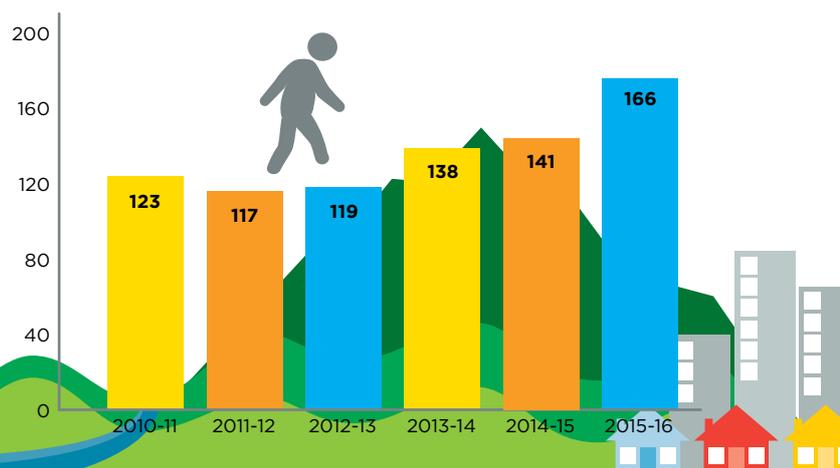
The expansion of support services and, ultimately, RWC to other locations in New Zealand has always been dependent on a reliable needs analysis and funds. The craft is not intended for club flag patrol purposes and is not seen as a replacement or substitute for the IRB. The RWC is a tool to help grow the patrolling, response and search and rescue capacity of SLSNZ, well outside the 80 patrols that already operate.

A small group of lifeguards from around New Zealand have been training to provisional driver status over this season, providing the platform for RWCs to be rolled out nationally during the 2017-18 season as required. ●

STATS ATTACK

DEMENTIA-RELATED SAR IS ON THE INCREASE

People who suffer from dementia-related illnesses make up the majority of people who wander as a result of cognitive impairment. Known collectively in the SAR sector as 'Wanderers', this group also includes missing children and people with intellectual impairment. The graph clearly shows there is a trend of increasing wandering due to dementia-related illnesses. There was an 18% increase in 2015-16 compared with the previous year. In 2015-16, 17% of Category 1 land-based SAR incidents were for people with dementia - in 2010-11 this was 13%.



DUNCAN'S DESK



What a crazy summer – the weather has been all over the place! It's too early to say if it has had much of an impact on search and rescue, but it certainly has had an impact on the quality of a lot of holidays.

If you're a person in distress, I imagine that you don't much care who comes to help you – so long as someone with the right skills and equipment does. That's why the letter of agreement between ambulance and search and rescue (see page 4) is important. The letter helps to clarify response and coordinating responsibilities in the sometimes 'grey' area between us. People in distress will use whatever means they have to request assistance – sometimes they call 111 and set off their distress beacon. Our systems and processes need to be aware of that so we don't double task assets – or even worse – task no one

because we presume the other agency is taking responsibility for the incident. The newly established Ambulance Air Desk should also help, from a relationship point of view, as it will be the single and specialised point of contact for air ambulance tasks.

The STWG(L) is now a thing. The acronym stands for SAR Telecommunications Working Group (Land). This group was formed as a follow-on to the 2016 report on SAR communications for the land environment (see story page 2). The core member organisations include LandSAR, AREC, Police and NZSAR. Collectively, we will take a multi-agency approach to telecommunications for land-based SAR. The most pressing issue appears to be retaining a lot of the capability we currently have and use.

Over the past few months we have undertaken a major re-write of the NZSAR Strategy, our Terms of Reference and the Operational Framework for the New Zealand SAR Region. Probably not beach reading, but they are the core documents that describe our SAR system so it's important to keep them updated. We'll post them onto the NZSAR website once they are approved by the Council.

Looking ahead, we have a lot of new initiatives planned for 2017 and the next three years. One project underway

will create a new system to capture operational SAR information. The plan is for this new system to replace the Police P-130s (land and marine) as well as RCCNZ's and LandSAR's operational records. When complete, the system will be able to produce 'all of SAR' information reports for a wide range of SAR issues.

We'll also be working to provide a higher level of assurance of SAR capabilities throughout the country. This will be linked to demonstrated SAR needs and projections of likely requirements. It's important that we maintain a clear and honest picture of ourselves (and our limitations) so that we know where to invest and what we need to change in order to improve. An early example of this 'prediction coming real' can be seen in this issue's Stats Attack (page 5), where we are seeing a substantial and sustained increase in dementia-related wander SAR incidents. It's vital that LandSAR groups and Police adapt themselves to meet increased demand for this type of SAR, and we'll be working with them to achieve that.

We also have a number of other projects in the pipeline which I'll outline in future issues.

Stay safe
Duncan
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CALENDAR

SAREXs and SAR training see:

nzsar.govt.nz/Calendar/Events

NZSAR Consultative Committee Meeting, 10 May (TBC), Wellington

NZSAR Awards, 10 May (TBC), Wellington

Pacific SAR Forum, 21 – 26 May, Auckland

ANZSAR Conference, 24 May, Jupiters, Gold Coast

LandSAR AGM, 10 June, Wellington

IMRF MRO Conference, 11 – 13 June, Sweden

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

International Maritime Rescue (IMRF): www.international-maritime-rescue.org

FENZ Transition: www.fenzproject.co.nz

Surf Life Saving NZ: www.surflifesaving.org.nz



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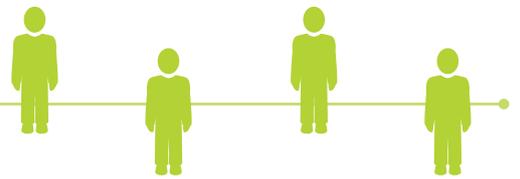
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SAR (ACE) SNAPSHOT



SAR Adult and Community Education (ACE) is funding provided by the Tertiary Education Commission, coordinated by NZSAR and delivered by Tai Poutini Polytechnic. It makes training available and achievable for all SAR personnel. Courses are requested by the SAR sector and cover a myriad of disciplines, field skills, leadership and management.

SAR (ACE) Snapshot appears twice a year in Link. It canvasses the courses on offer, profiles the tutors and analyses trends and techniques.

COURSE PROFILE

Tracking - Core Skills

Gaining an understanding of the basic concept of tracking as it relates to land-based search and rescue operations is the aim of this course. It is suitable for participants who need to operate as part of a field team so they can identify, record and report 'sign' (something foreign to the environment) and obtain a direction of travel (DOT) in wilderness environments.

It also identifies some of the skills necessary for LandSAR personnel to meet their LandSAR field team competencies. Each course we run is tailored to the area in which participants will be searching, as conditions are different across the country.

One technique we use to practice is called the Tracking Pursuit Drill. Participants practice locating, identifying and following sign. This image shows left and right foot strikes identified during this drill. (It's worth noting this is a training drill and therefore not used during an actual search operation.)

'Colour change' is one characteristic of sign that can help searchers identify a print. You can clearly see a total print and where the colour change in soil helps to determine this.

Other characteristics of sign are broken down throughout the course in more detail to help enhance participants' observation skills when tracking.



Tracking Core Skills - 10 Step Tracking Drill.



Tracking - Colour change illustrating sign.

Students on the Wanaka course work through a pine plantation, as this is common in their area. They are taught how to help identify sign when tracking by adjusting their height.

When a track is found, changing their viewing angles to view track details also helps to identify possible sign. This involves repositioning themselves and getting low to the ground to provide a better view of the track.

With their head in this position, their bottom eye scans the ground (to about 30cm away) while the top eye reads up to 1m away. Contours and shadows in the tracks are also much more visible using this technique. In the image below the pine needles 'haystack' so getting low helps to identify a possible print.



Students in Wanaka look at 'haystacking'.

TUTOR PROFILE

Dave Greenberg

"I love the opportunities that being an instructor gives me. I enjoy travelling around New Zealand and meeting up with people that are involved in a sector I am so passionate about."

Dave grew up in New York City and arrived in Wellington, after stints in Buffalo, New York, and Dallas, Texas, for a one year IT contract in 1990. He joined Life Flight as a volunteer helicopter crewperson in 1991. In May 2016, he completed 25 years and nearly 4,000 missions as a crew person on the Wellington-based Westpac Rescue Helicopter.

He says the aerial observation skills he was taught in the early 90s have been an important part of every mission since.

One of his most memorable searches involved looking for a sailor who was missing in high seas off the east coast of the South Island. "We were low on fuel and close to abandoning the search when I spotted a glimpse of something in my peripheral vision. Although I quickly lost sight of the object in the waves we headed there, and sure enough there was the sailor. A few minutes later we had him on board and heading back to Wellington."



Dave Greenberg

For the last couple of years Dave has been a TPP instructor, teaching Coordinated Incident Management System (CIMS) and Aerial Observation courses around New Zealand.

"I love the opportunities that being an instructor gives me. I enjoy travelling around New Zealand and meeting up with people that are involved in a sector I am so passionate about. Staying involved in Emergency Management and SAR is really important to me and I enjoy passing on some of the things I have learned over the years."