

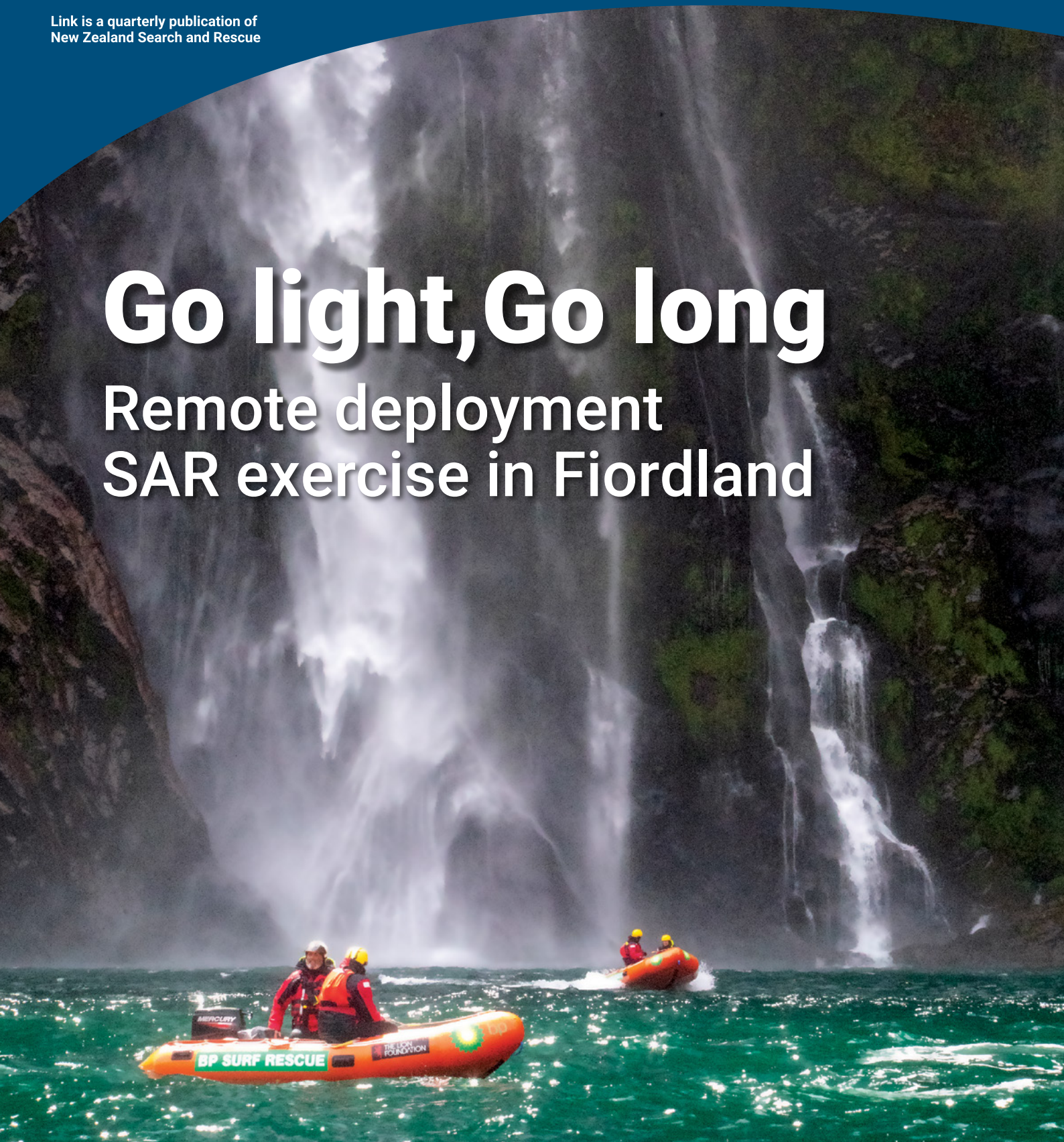


Connecting the search and rescue sector

Link is a quarterly publication of
New Zealand Search and Rescue

Go light, Go long

Remote deployment SAR exercise in Fiordland



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Link magazine is published quarterly by the New Zealand Search and Rescue Secretariat. Editor: Daniel Clearwater

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COVER IMAGE

The Surf Life Saving NZ Otago SAR Team testing their remote deployment capabilities in Fiordland National Park. Courtesy Shell Cobby



The NZSAR Council

An update from the Chair

The New Zealand Search and Rescue Council provides national-level strategic governance, oversight and leadership to the New Zealand SAR system. The Strategic Plan was due for a three-yearly update, so in mid 2024, the Council began a review of its purpose statement and Plan. These updates ensure the Council is clear about its system priorities to enable the sector to continue to assist the lost, missing and injured.

Reviewing the Strategic Plan has been a good opportunity for our search and rescue agencies and organisations to come together, to discuss our common purpose and outcomes for the system, which will in turn drive our priorities and work programme.

At the NZSAR Secretariat, Andy Greig has accepted the role of Secretariat Lead and is focussed on delivering the core business outputs of the Council. The Council thanks all the staff from across the sector who have contributed to the review and to the Council's work.

Audrey Sonerson
NZSAR Council Chair

Helicopter organisations recognised

International accolade for Cyclone Gabrielle response.

Royal New Zealand Air Force's No. 3 Squadron, Rotorforce New Zealand, and Helicopters Hawke's Bay were awarded the Salute to Excellence Humanitarian Service Award. The award was made by Vertical Aviation International for their work during Tropical Cyclone Gabrielle, which devastated parts of the East Coast and Hawke's Bay in February 2023.

The three organisations showcased the critical utility of helicopters in disaster response, engaging in lifesaving operations amid record flooding and widespread destruction that isolated many communities, the citation said.

Their operations included complex search and rescue of stranded individuals, transport of essential supplies, and restoration efforts, with the helicopters also facilitating communication where traditional means failed.

The combined efforts of these teams, which continued for eight weeks, were instrumental in saving approximately 400 people in the initial days of the storm, demonstrating extraordinary coordination and bravery in the face of natural disaster.

No. 3 Squadron Commanding Officer Wing Commander Chris Ross says the operation was a true team effort.

"It was an unplanned collaboration between military, civilian general aviation and local rescue helicopter crews, who all displayed extraordinary skill, courage, and flexibility. With the backdrop of destruction, and in the face of difficult conditions the New Zealand Defence Force and civilian organisations came together to save lives and then assist with the recovery efforts."

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LeadSAR programme

Cultivating leadership and governance talents in our volunteers.

The LeadSAR programme is a bespoke training initiative designed to identify and nurture the potential of future leaders within the Land Search and Rescue community.

The 18-month programme provides guidance, support, and leadership insights to participants, ensuring that they are equipped with the knowledge, skills and confidence to lead their Groups effectively. In addition, LeadSAR promotes an understanding of leadership concepts and assists participants in applying those concepts within a practical SAR context.

The first cohort of 10 future leaders began their journey in 2021. Supporting the future leaders were five mentors, and two trainers, who enabled the progression towards joining an organisation's board or committee in a governance role. The second cohort are in their final few months of the programme.

The LeadSAR programme involves rigorous theoretical and practical training. The commitment includes four in-person workshops with hands-on exercises. Regular online seminars with the whole group complements one to one sessions between mentors and future leaders. Conflict management, communication, interpersonal relationships, motivating others, team culture and influence are just some of the topics traversed in the syllabus.

The programme's volunteer mentors provide invaluable guidance and support, helping the future leaders navigate the challenges of leadership. The LeadSAR programme trainers bring a wealth of knowledge and experience to the training sessions, ensuring that the participants receive the best possible education. The mentors and trainers are passionate about developing future leaders and are committed to helping them succeed.

"The LeadSAR programme is a shining example of how volunteer commitment can drive the success of a leadership training initiative. The dedication of the participants, mentors, and trainers to the programme's objectives is genuinely inspiring."

Carl McOnie, Chief Executive New Zealand Land Search and Rescue

The LeadSAR programme is not just about training future leaders; it is about fostering a community of dedicated senior volunteers who are committed to making a difference. The programme's success is a testament to the hard work and dedication of its participants, mentors, and trainers. Their commitment to the programme ensures that the future of Land Search and Rescue leadership is in capable hands.



Elly Arnst from Whanganui Land Search and Rescue is a graduate of the 2021-23 cohort.

"I was already on the committee when I applied for LeadSAR, and by the time the programme began, I had needed to step up to Group Chair. I wanted to be on the programme because I felt that even though I had been on several committees, I had no real leadership or governance experience. The LeadSAR programme taught me about leadership styles, really helped me to understand how I show up as a leader, and provided a lot of support through mentoring and networks."

Since graduating, Elly has implemented strategic plans and succession pathways, to foster the volunteers in her own group so they are better prepared before stepping up to governance roles. Elly has also joined the Land Search and Rescue Inclusivity Advisory Group, contributing to governance at a national level.



Murray Bowden Chairperson – New Zealand Land Search and Rescue Dogs has been a mentor to both cohorts, since 2021 when the programme began.

"As a mentor, it's really rewarding to see people grow through the programme and take on those group leadership roles. Three or four participants from the first cohort are now Group Chair or Deputy Chair. And the mentors learn heaps too! One of the mentors went on to become a Board member for Land Search and Rescue.

The programme provides a forum for sharing ideas with people in similar situations and challenging each other in a positive way. It takes a village to get our people the skills and experience they need. This programme is a fantastic investment in the future of our leaders and our whole organisation."

2025-2026 LeadSAR intake

Land Search and Rescue will be announcing the 2025-2026 LeadSAR programme in the coming months. A notification for applicants will be shared with all Land Search and Rescue volunteers. Anyone interested in applying should complete the application form, contact their Group and Volunteer Support staff member or visit the member portal. <https://portal.landsar.org.nz/membersarea/volunteersupport/leadsar/>

Go light, go long

The Surf Life Saving NZ Otago SAR Team testing their remote deployment capabilities in Fiordland National Park.

In October last year, a flotilla of inflatable rescue boats (IRB) spent two days navigating and searching their way through lakes, rivers, estuaries, ocean and fiords on a training exercise near Milford Sound.

Max Corboy and Brent Matehaere are staff members for Surf Life Saving New Zealand, who also volunteer as coordinators of the Surf Life Saving NZ Otago SAR Team.

“The exercise scenario was based around our initial response to AF8, a major alpine fault earthquake,” says Brent. “But our long-range remote deployment capability is equally applicable to other nationally significant SAR incidents, such as a foundering cruise ship in Fiordland.”

Getting to the exercise area presented some logistical hurdles. “Generally, deployments are done in a single push from home, but here our teams had to prepare all their kit for two days away from base. Tents, sleeping bags and freeze-dry food were bagged up alongside wetsuits, radios and helmets. Space is limited on an IRB, so everyone had to pack light!” says Max. The Otago SAR Team has close ties with local Land Search and Rescue groups, who have assisted with advice on general skills and equipment for multi-day operations.

From the Lower Hollyford Road, the IRBs were transported by helicopter to the shores of Lake Alabaster. Just organising everything into the right number of sling net loads was a challenge, as was re-assembling the parts in a remote location.

Qualified flood boat drivers got to put their skills into practice by navigating the Pyke and Hollyford rivers to a hut on the shores of Lake McKerrow. “After establishing a coordination point at the hut with Starlink capable computers, we sent the teams on a night search exercise,” says Brent. “A dozen GPS locations simulated the last known point of missing people, some washed up on the shore, others floating in the lake.” Crews searched with powerful head torches and hand held spotlights. They also used the Garmin GPSmap 67i units to plan and execute creeping line or expanding box searches. Meanwhile, the satellite tracking function of those units allowed the exercise controllers at the hut to monitor their locations in real time.

“A massive part of this activity was to test the teamwork of our Surf Lifeguards in an unfamiliar environment,” says Max. “At their home beach, they can draw on years of specific local knowledge. In Fiordland, they had to work together to develop a plan on the go. When two of the floating search targets weren’t found, it was great to hear them on the radio, coordinating a new search strategy, and executing it safely together.”



Assembling the IRBs on the shores of Lake Alabaster. Courtesy Shell Cobby

Two officers from the Otago Police SAR squad accompanied the group, providing mentorship and guidance along the way. "It was a fantastic opportunity for relationship building," says Sergeant Matt Sheat. "The exercise confirmed the confidence we have in the capabilities of these volunteers. I'm really impressed at their initiative to train like this, preparing for major incidents beyond the usual day to day responses. They've built a strong capability not just with on-the-water personnel and assets, but also with communications, logistics and other supporting resources."

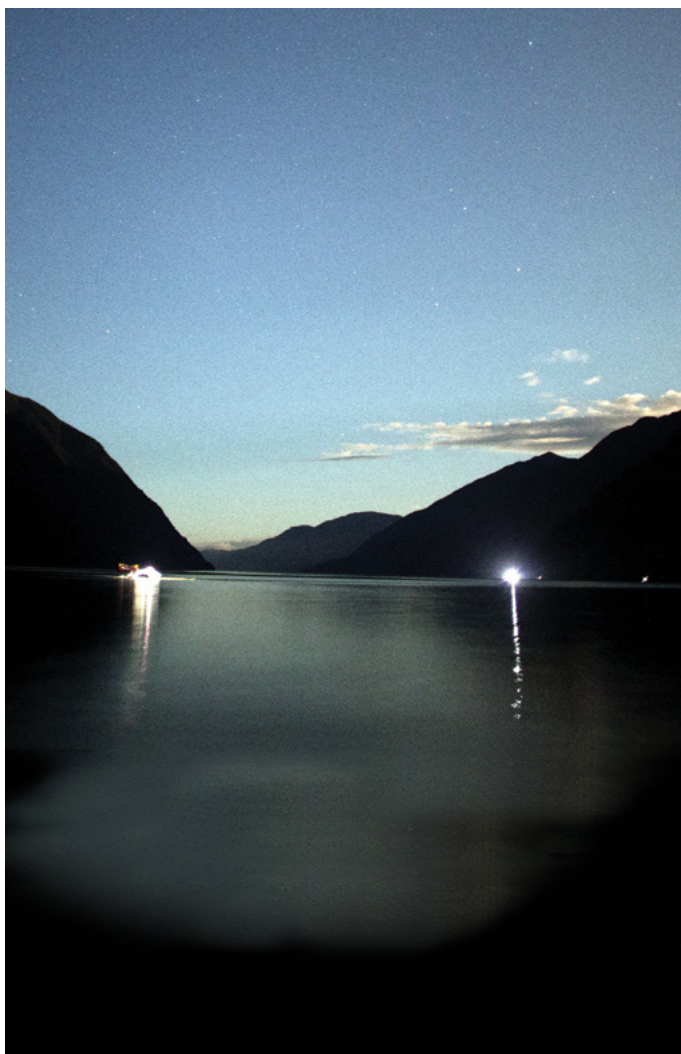
The next morning, with support from an Otago Harbour Master safety vessel, the group navigated the Hollyford River bar, transited into the open sea, then back through the entrance of Milford Sound.

The final activity was in collaboration with large commercial vessels in Milford Sound. Using Stokes basket stretchers, they practised transferring mannequins from the large vessels to the IRB, simulating the transport of patients to shore if jetty infrastructure was destroyed.

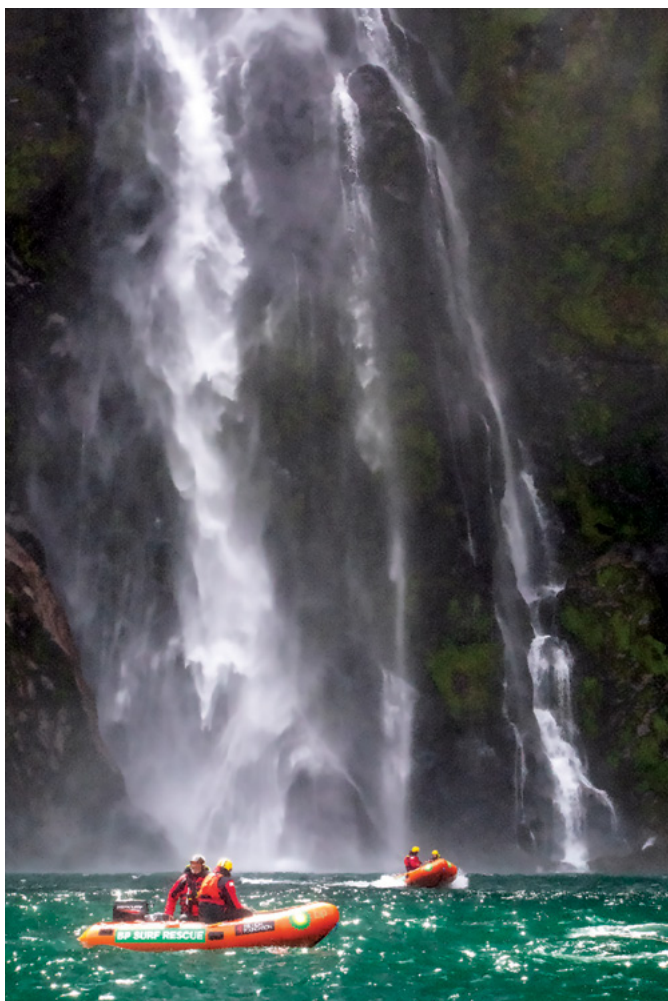
Max and Brent have been organising long-range exercises like this for the past five years, which as well as providing excellent training, seem to be a hit with the volunteers. As Brent recalls, "A lifeguard with 20 years experience told me it was the best thing he's done in Surf."

Fast facts

- 28 Lifeguards
- 2 Police SAR Squad Officers
- 30 Backcountry freeze dry meals
- 420 Litres of fuel
- 97.1 Kilometres travelled per vessel, including search patterns



Night exercises on Lake McKerrow. Courtesy Shell Cobby



The Surf Life Saving NZ Otago SAR Team testing their remote deployment capabilities in Fiordland National Park. Courtesy Shell Cobby

Unpredictable and determined

Insights from a successful search for a highly mobile man in the Whitcombe valley.

On Saturday, 29 June 2024, a man left the Hokitika Gorge car park for an overnight tramp, intending to be home around 5pm the following day. By 10pm on Sunday night, he hadn't returned, so his girlfriend informed the Police.

"Our inquiries gave us significant concerns about the man's wellbeing," said Senior Constable Sarah Cook, who became the incident controller for the SAR operation. "He had little experience tramping on the west coast and had gotten temporarily lost on previous trips. The man did not leave any route intentions, nor did he have a tent, waterproof clothing or a distress beacon. With a heavy rain warning issued for Sunday night, we prepared to deploy search teams early the next morning."

After processing the site of his vehicle for clues, the first field team headed up the true left of the Hokitika River, looking for signs of the man. "Without any detailed intentions to inform our initial response, the potential search area was vast. We wanted to quickly eliminate the possibility that the man was in another valley," says Sarah.

Sources said that the man was stubborn and likely to keep going even if injured. Also, he probably wouldn't think being overdue was a problem. As part of the containment plan, responders posted signs with his name on his car, at the road end of the adjacent Toaroha valley and in all the huts the teams visited. Near Rapid Creek Hut, the Hokitika valley narrowed, and a cableway crossed the river. "At this funneling point, we told our teams to go overboard with the 'Police Emergency' tape and written signs, so there was no chance he'd pass through without knowing we were looking for him."

Although the heavy rain had abated, the rivers were high and low clouds made helicopter access difficult. A second field team was flown to Frew Hut, the most obvious overnight destination for a tramp in the area, tasked to search down the valley towards the car park.

The helicopter then checked huts in the vicinity: Rapid Creek, Serpentine, Frisco, Frew and Frew Saddle. "Further inquiries with the man's employer revealed a comment about 'heading to the bluffs' which we thought could mean Bluff Hut," says Sarah. This assumption was validated when a logbook entry was discovered at Frew Saddle Bivouac dated Sunday 30 June which read "heading to Bluff Hut". At Bluff hut on the same day, another entry read "out Hoki River."

Based on these clues, the team at Frew Hut were redeployed to Bluff Hut. They located footprints and followed them down the track towards the Hokitika River. At the river, they lost the trail. "The team sign-cut [searched more widely for footprints] before heading up to Frisco Hut. Further up the track they found more footprints, but after receiving a verified boot print trace during a helicopter re-supply, the team established the prints by Frisco Hut were not the missing man's.

The track down from Frisco Hut avoids the dangerous white-water gorges of Frisco Canyon. However, the missing man hadn't found that track and instead committed to following the true left riverbank.

Before dark on Monday, a third team was flown to Serpentine Hut. Meanwhile, the man continued down the riverbank, completely missing Serpentine Hut and the search team staying there. Katie Brennan from Land Search and Rescue Hokitika was in that team, who began their search the following morning. "Travel in the valley was very difficult, but when the route was close to the river, we'd keep an eye on the water as well as the land for signs," says Katie. "The river posed some serious hazards, so we had good discussions on where to draw the line between what was safe for a field team to search, and what was appropriate for river or canyon specialist teams."



Search teams locate the missing man on the true left bank of the Hokitika River. Courtesy Police

As they searched, they spotted something out of place on the far bank, which turned out to be the missing man. "All we wanted was to cross the river and give him food, shelter and dry clothes," says Katie. "But he appeared in reasonable condition, so we decided it wasn't worth a risky crossing, especially with a helicopter nearby." Katie's team directed the man to shingle beach, where the crew from Precision Helicopters recovered him via a tricky hover load.

Sarah was full of praise for the responders. "This was a challenging search in difficult terrain for a very mobile man. We couldn't

have done it without the dedication of the volunteers from Land Search and Rescue Hokitika, Greymouth, Westport and Reefton. Precision Helicopters were also fantastic, with great flying and local knowledge. They also took the initiative to buy some hot pies, which they delivered to teams during tasked flights. The local community rallied around too, with offers of hot food and transport for searchers as they emerged from the hills. Morale was high throughout the operation, which undoubtedly contributed to the effective searching and a successful outcome."

Insights

The importance of profiling the missing person.

Thorough interviews with the missing man's girlfriend, employer and parents built a clear picture of the man's likely behaviours. Repeat interviews revealed additional intelligence, such as the type of shoe the man was wearing, and a vague comment about his intentions. This information informed the search strategy and helped to narrow down the search area.

Good use of local knowledge. Excellent personal knowledge of the area from the local volunteers and the helicopter operator allowed them to operate safely and effectively in the rugged terrain and adverse weather. Ben Nilson from Hokitika Land Search and Rescue gave excellent advice as part of the incident management team and Precision Helicopters were able to get teams in and out very efficiently.

Field teams operated appropriately in the river corridor. Much of the searching was along river-side tracks. Those rivers were steep, rough, running high and full of white-water hazards. Teams understood that the search area should include the river but made sure they remained within the

boundaries of their technical abilities. Teams did not search river features or cross rivers where those actions were more appropriate for river or canyon specialist teams.

Excellent choice of communications strategy. The primary communications method was High Frequency (HF) radio, via the Land Search and Rescue Long Range Digital Radio (LRDR) network. Signals reached a fixed installation in Westport, which were relayed to a laptop computer at the incident control point (ICP) in Hokitika. Teams were able to make contact each hour with the ICP. "The HF was excellent," says Sarah. "Also, in the evenings, field teams could chat with one another to share information and boost morale." The LRDR was a project initially supported by NZSAR, and this successful operational deployment has demonstrated its value and proof of concept.

VHF radios provided some connectivity between nearby teams during the day. InReach satellite notification devices were used, but less effective due to the time delay in sending and receiving messages.



Operational area map. Contains data sourced from the LINZ Data Service licensed for reuse under CC BY 4.0

SAR on ice

Responding to incidents on the coldest, driest and highest slice of New Zealand's Search and Rescue Region.

More than 3,800km south of Christchurch, Scott Base is a tiny refuge for up to 150 people, who conduct New Zealand's Antarctic research programme. Beyond the base, extreme cold, blizzards, shifting sea ice, crevasse fields and high altitudes are but a few of the hazards facing both the scientists and the field staff who have to respond if things go wrong.

Drew Coleman is the Risk Manager at Antarctica New Zealand. With five seasons as a Field Trainer on the ice and time as a Search and Rescue Officer at the Maritime New Zealand Rescue Coordination Centre (RCCNZ), he's had plenty of experience in dealing with these unique challenges.

"Although we're pretty much at sea level at Scott Base, Mt Erebus is a shade higher than Aoraki / Mt Cook and there are often science events happening up there," says Drew. Antarctica often experiences lower air pressures than at higher latitudes, which further degrades helicopter performance. "Just getting to those elevations in a helicopter can sometimes be a challenge, as is conducting a rescue in a high-altitude polar environment."

For responding to incidents within about 100 nautical miles of base, Scott Base is reasonably self-sufficient." However, for deeper field responses, RCCNZ is informed and the Joint Antarctic Search and Rescue Team (JASART) made up of Kiwi and American responders is activated. JASART is composed of specialist field staff from each nation; five to six from Scott Base, plus six to ten from the United States Antarctic Programme base at McMurdo Station. "We train as a Scott Base team and as a JASART team to ensure we have a good team culture and shared understanding."

A remote SAR operation in 2013 illustrated the logistical efforts needed on the ice, and the value of collaborating with the United States Antarctic Programme. "A Twin-Otter fixed wing aircraft

missed a radio check in, and shortly afterwards the aircraft's Emergency Locator Transmitter signal was picked up by RCCNZ," says Drew. The position was roughly 700 kilometres south of Scott Base and nearly 4,000m above sea level in the Central Trans-Antarctic Mountains. The rough terrain meant the location signal was imprecise, and poor weather meant a visual aerial search was out of the question. "We established our unified command with McMurdo Station and prepared to deploy JASART. The plan was to use existing fuel caches and set up temporary caches with smaller fixed wing aircraft. These would allow helicopters to reach an advance base and then conduct operations in the search area.

A United States Air National Guard LC-130 Hercules with ski undercarriage was able to visually locate the missing aircraft when the weather cleared, approximately 200m below the ridge line of Mt Elizabeth. "Our advance base was an old field camp location near the crash site, which had a previously used fixed-wing aircraft skiway for re-supply. We operated there for several days as we conducted the recovery." Drew, his colleagues, the New Zealand and United States Antarctic Programmes were all recognised for this operation with an NZSAR Award.

The extreme conditions demand conservative risk management strategies, with a strong emphasis on SAR prevention. "If it's a multi-day land camp, we'll put the SAR plans in motion if they fail to make daily contact by HF radio. But if it's a team on the sea ice, they have to check in each hour, and we initiate a response if they are only 5 minutes overdue on their radio schedule. Our SAR teams are well trained and exercise frequently. Thankfully true SAR operations are rare, but when they do happen, JASART is ready to respond."



Joint Antarctic Search and Rescue Team (JASART) training with the United States Antarctic Programme Bell 212 Helicopter. "Scott Base has highly experienced SAR Helicopter pilots and trained SAR team members who can also work with the machines from McMurdo Station," says Drew Coleman.



JASART training to lower a patient on steep snow from Castle Rock, simulating a situation where direct helicopter extraction is not possible. Courtesy Drew Coleman

Funding boost for RCCNZ

An additional \$700,000 in baseline funding secures a fifth watch for Maritime New Zealand's Rescue Coordination Centre (RCCNZ).

On 5 December 2024, the Government announced the new funding that will provide for additional search and rescue officers. This investment ensures the Rescue Coordination Centre can maintain its 24/7 operations, with the right number of skilled personnel to respond to national and international search and rescue incidents as well as other emergency situations.

RCCNZ uses a 'watch' system, with groups of three to four search and rescue officers on a rotating roster. Previous staffing shortages have led to off-duty officers stepping in to maintain

operations. The funding will raise the full time equivalent staff from 16 to 20, providing for a fifth watch.

Justin Allan, Manager RCCNZ and Safety Services, welcomed the additional funding. "[Our current roster has] two watches on each day, and two on days off. They work 12-hour shifts. This extra watch will allow us to surge up should there be a major incident [resulting in] high demand, as well as covering sickness and annual leave. We will also be better placed to engage and train with our SAR partners on less adhoc basis."

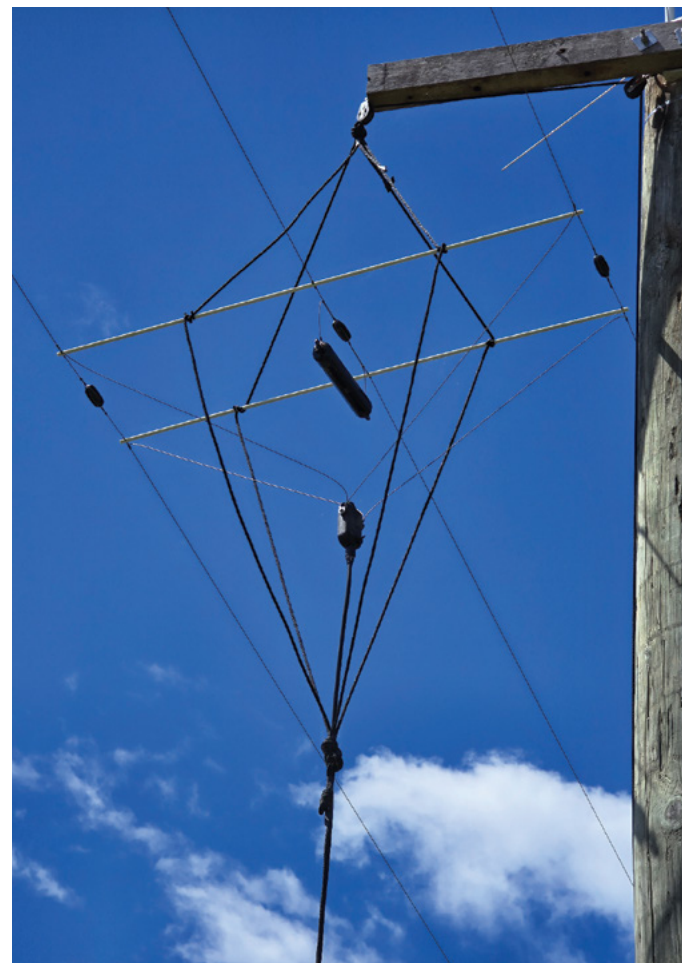
Volunteers advance our long-range radio network

High Frequency (HF) radio can often reach locations that VHF radios cannot, boosting the options for responders to keep in touch with their base. To provide communications, Amateur Radio Emergency Communications (AREC) operates portable HF radio equipment plus three fixed HF radio installations.

Each fixed installation includes a 40-metre-long antenna and a radio transceiver, which links to the internet. This allows the AREC operators anywhere in New Zealand to send and receive signals from any of the installations. "The way HF works means that it isn't necessarily the closest radio to the operation which would give the best signal," says Rob Wallace, a volunteer from the Wellington AREC Group. "Depending on the location of the operation, the time of day or night and atmospheric conditions, we can also choose the best frequency for the situation."

HF radio transmissions are sensitive to electro-magnetic interference from nearby residential or industrial zones. "The project to set up a new fixed installation had progressed, but we needed a suitably remote site," says Rob. "A helpful landowner in the Otaki Gorge heard of our project and offered us a site that was away from interference, which was already equipped with solar power, road access and an internet connection."

After about a year of planning and preparation, a team of volunteers from the Wellington AREC group spent three weekends setting up the radio, network and antenna and commissioning the system. This additional site significantly improves the reach and clarity of HF communications for remote SAR deployments, or when temporary VHF repeaters can't be set up due to poor weather. Rob says "the feedback so far is that it is the best performing AREC HF site in the country."



HF Antennae detail at the Otaki fixed installation. Supplied

Making sense out of chaos

How Coastguard Tautiaki Moana prepares for the worst case scenario whilst getting most value out of volunteer time.

Over the last few years, Coastguard-led regional training exercises have had a shift in design and execution. Jonny Bannister, Regional Manager North for Coastguard has been working on the new model. "Volunteer time is precious! When people give up their time, we want them to feel like it was really worthwhile and they can confidently manage complexity."

"We assessed that training incident management teams (IMT) simultaneously with on-water crews meant compromises for both groups," says Jonny. "There's always a delay between the information coming to the incident managers and responders receiving taskings. Eliminating that delay by using an 'Exercise Control' not an IMT means we can target the skills we want our people to perfect whilst maximising their time on the water."

For a junior crew member on a rescue vessel, it might be the first time they have ever formulated and executed a multi-vessel search. "Exercise Control provides clear and precise tasking information, which removes any anxiety or confusion. This allows crews to hone their skills and confidently get the search underway. Through clever scenario design we then introduce complexity into the tasking, so they know what 'good' looks like."

Repetition and progression are core strategies. For a given exercise spanning an evening and the following day, the same general scenario is completed three times. Firstly, as a simple operation, secondly with setbacks and problems, thirdly as a highly chaotic situation. For example, firstly a set of Coastguard Rescue Vessels conducting search patterns for a missing boat. Secondly when one of the rescue vessels breaks down and needs a tow. Thirdly, where the missing boat is reported on fire and requires the immediate rescue and triage of severely injured occupants.

"Being able to complete the full operation three times, gives immediate opportunity to implement lessons identified," says

Jonny. This gives crews the satisfaction of completing the task more effectively each time. "We create an environment where it's ok to make mistakes, because you'll get another go in a few hours. We go to lengths to encourage our vessel Masters to set a culture that is non-competitive and supportive of errors and learning."

Each iteration follows the full scope of an operation, from activation, mobilisation and tasking through to the final transfer of rescued persons to higher medical aid. To get three full runs, the scenarios are generally narrower in scope. "We found we don't need to make it overly complex to be effective, especially for newer volunteers," says Jonny.

The chaotic phase is another key aspect. "Response plans are helpful in many situations, but we need to be able to adapt to what we see on the day. Giving our people exposure to chaos and complexity, then helping them learn to turn it into order, will pay dividends in larger scale multi-agency incidents in the future."

This formula certainly seems to be a hit with the volunteers. Feedback has been overwhelmingly positive from the 20 regional exercises over the last two years across the country.

"Best weekend I have had at Coastguard."

"Well put together and organised."

"Volunteers loved the night-time event, great also to have Police alongside to support our work."

Jonny looks forward to taking this concept to the next level. "Volunteers are coming away feeling like they have been challenged, learned heaps and had the opportunity to succeed. That'll ensure they remain motivated and rescue ready when serving our communities on the water. The next step will be to test the format at the multi-agency level."



Coastguard Rescue Vessels from units in Nelson, South Taranaki, Kaikoura, and Marlborough heading out to begin a multi-vessel search during the Marlborough Sounds Regional training exercise. Supplied Coastguard Tautiaki Moana

Rāhui and SAR

Healing place and people through respect and care.

The concept of rāhui is deeply rooted in Māori cultural traditions and tikanga (cultural practice) fostering respect and care for all those involved. In a search and rescue context, rāhui involves the temporary restriction of access to a specific area, often following a significant event such as a death. Led by mana whenua, the placing of a rāhui after an accidental death is a profound expression of respect for the deceased and their whānau (family), while also providing space for healing – for both the land and the people affected.

In SAR, rāhui not only honours the departed but also creates a time for emotional, cultural, and environmental recovery, supporting the well-being of responders, the wider community, and the land. During the rāhui, time is given for the tapu (sacred prohibition) associated with the death to naturally dissipate, allowing the place to heal and become safe to return to. Responders benefit by having a space for reflection and healing.

When the rāhui is lifted, it offers closure and healing to the grieving whānau, the wider community, as well as to the people and resources involved in the SAR operation. Part of the process of lifting a rāhui, for example, provides an important opportunity to share emotions and experiences in a safe space, helping to release the taumaha (emotional burden) among colleagues.

Proper understanding and application of rāhui can significantly benefit everyone involved. However, rāhui is often misunderstood, undervalued, or ignored. Recently, the SAR sector has recognised these shortcomings, and NZSAR has initiated efforts to address them.

The work involves further research and building relationships with iwi to ensure rāhui is properly understood and respected. Initial research by Dr Chanel Meads and Rob Hewitt gathered perspectives from iwi and hapū leaders as well as Māori kaihautū (Māori organisational lead) within various SAR agencies and organisations. The research highlighted key issues and shortcomings in the application of rāhui within SAR, revealing the need to deepen cultural awareness and grow a more holistic understanding of its significance. Rāhui is intrinsically linked to the well-being of both people and place, and when properly understood and respected, it fosters healing and benefits for everyone involved.

A key goal is to foster a deeper understanding of rāhui, so it can be embraced as a tool for support, while also respecting and preserving its cultural significance. Our sector also has a role to play in educating the public about rāhui, ensuring closures are respected and the broader context is understood. This will help to protect the tikanga of rāhui and uphold the benefits it offers to everyone involved.

Working towards this goal, a series of three videos explaining rāhui to different audiences are nearing completion. These videos represent some of the first tangible outcomes of this work and we can expect further resources and initiatives from NZSAR and other sector agencies and organisations in the near future.



A series of three videos explaining rāhui to different audiences are nearing completion.

This image is from the first video, where representatives from the sector explain how rāhui can be applied in a SAR context and fostering shared understanding across different SAR organisations.

The second video is for land managers, such as those within the Department of Conservation, highlighting how rāhui is applied and providing guidance on engaging with iwi around rāhui.

The third video, aimed at the general public, will focus on outdoor recreation, explaining what rāhui is and why it is important to respect it.

Video frame courtesy NZSAR.

Rāhui is much broader than the SAR context that we have discussed here. The article is intended to give a brief insight into rāhui as it applies to our sector. Readers are encouraged to learn more about rāhui, as well as tikanga more broadly. Seek out support from your agency or organisation Kaihautū Māori or consult these resources recommended by Dr Chanel Meads:

Mead, H. M. (2003). *Tikanga Māori, Living by Māori Values*. Wellington: Huia Publishers.

Marsden, M. (2003). *The Woven Universe, Selected Writings of Rev. Māori Marsden*. (T. A. C. Royal, Ed.). Otaki, New Zealand: Estate of Rev. Māori Marsden.

Alumni on operations

Meet two graduates of the Youth Search and Rescue (YSAR) training programme who've made a difference in our sector.

Starting at age 15 or 16, secondary school students enrolled in the YSAR programme are offered three years of training that prepares them to become the search and rescue and emergency management responders of the future. We spoke to two YSAR graduates who've gone on to contribute to the sector, to hear their perspectives on the journey from student to responder.



Katherine Dyer is a Field Team Leader and Secretary for Land Search and Rescue Tauranga

"I saw an article in the newspaper about YSAR starting up here in Tauranga," says Katherine. "I'd always had an interest in tramping and the outdoors growing up, and this seemed a cool way to combine those interests with giving back to the community."

One of the first students in the new YSAR organisation, Katherine joined in 2009, completing the first two years of the programme directly, then the third year at University while she studied Law. "YSAR was the best thing I'd ever done. It was a fantastic way of building confidence as a teenager, with loads of practical skills and nurturing the value of community service."

She and several other graduates were accepted into Land Search and Rescue Tauranga straight after completing the YSAR programme in 2012. "There were some really supportive members in the Tauranga group. We had worked together during training activities, so they saw we took it seriously, had good skills and maturity and would be a worthy team member for the group."

As new members, Katherine and her peers knew they needed to step up and show their commitment, be humble and willing to learn. "We wanted to recognise the experience of existing members, as well as contribute the skills we have to the group." What really helped was open minds and time together. "We soon all realised that everyone has something to offer which can bring the whole team up."

I first met my husband Tom, when we were in YSAR together. We both went on to join Land Search and Rescue Tauranga and it's been great to share the highs and lows of SAR with him.

Cameron Dawson served as a Field Team member for Land Search and Rescue Tauranga and Hamilton.

"I really enjoyed the outdoors and wanted to meet like-minded people, so when I heard about YSAR, I leapt at the opportunity." Cameron completed the three year training programme, then continued to support YSAR Tauranga as an assistant leader for two further years. Meanwhile, he was accepted as a volunteer with Land Search and Rescue Tauranga. "I spent about three years there, continuing my training and participating in a few operations. Then it was time for my OE, and on return I ended up in Auckland for work."

Eventually Cameron and his fiancée moved to Hamilton, to work for the Department of Conservation, as Team Lead, Network and Security. Soon after arriving, he sought out YSAR Waikato and the local Land Search and Rescue branch. "I love volunteering and contributing to something bigger than me, which is all about helping others. It's really satisfying being part of a community of people who'll get up in the middle of the night, put on wet boots, and go looking for someone they've never even met."

Now as a leader at the new YSAR Waikato branch, he's excited about the way YSAR graduates can contribute to the sector. "Our graduates are motivated with a great base of training and experience, that will make them a great contributor to SAR groups around New Zealand. The key, I think, is giving them the opportunity to show their worth. The more time graduates spend with operational volunteers, the more the trust and relationships can develop and the more everyone can see the benefit of involving more young people in the sector."

Electric ferry on fire

Practising Mass Rescue Operations in Auckland's Waitematā Harbour.

In the Auckland region, more than six million commercial ferry passengers are moved each year. Some ferries can carry more than 500 people, presenting a significant challenge in the event of a serious incident. Additionally, most ferries do not create a passenger manifest, making reconciliation of those rescued and unaccounted for even more difficult.

Practising a Mass Rescue Operation under these circumstances was a key objective for Operation Chelsea, the Auckland Maritime search and rescue exercise (SAREX) held on 12 September 2024. Organised and led by the Tāmaki Makaurau Police Maritime Unit, the scenario unfolded with a simulated fire in the batteries of a new electric ferry. Senior Constable Steve Hunt was one of the main exercise organisers. "I was very impressed at the clear instructions and professional actions of the Fullers Ferry crew. The exercise gave us the opportunity to see each other's procedures and capabilities. We're looking at further joint training in the future to improve the outcomes if an incident occurs."

Three helicopters, more than 10 rescue vessels and at least 150 individuals from multiple agencies responded to the simulated incident, which was coordinated from the Marine Rescue Centre at Mechanics Bay. Initially a category one response, it was elevated to category two when it became a Mass Rescue Operation. The Rescue Coordination Centre New Zealand were advised, but incident management remained with Maritime Police for the purposes of this exercise. "Developing and testing our readiness plan is essential to provide the best response during the initial chaos and efficient reconciliation of all personnel once the situation is better under control," says Steve.

Helicopters from Police, Auckland Westpac Rescue and the New Zealand Defence Force were first on the scene, deploying additional life rafts and winching passengers from the water. A casualty clearance point was established at Captain Cook Wharf, which also became the staging point for Hato Hone St John and Fire and Emergency New Zealand. The helicopters then began transporting Special Emergency Response Team (SERT) Paramedics to the ferry.

Fire and Emergency NZ teams deployed to the ferry via the Harbour Master Barge, with extra water pumps to supplement the on-board firefighting equipment.

The toxic fumes meant all personnel needed to abandon ship. Using breathing apparatus, firefighters searched inside the ferry to find two passengers, as well as two simulated deceased persons.

Also, preparations to manage longer-term environmental damage such as oil spills or a sinking vessel were initiated.

Paramedics and Firefighters began triaging patients onboard the ferry, whilst Coastguard crews triaged patients recovered from the water. All patients were handed over at the casualty clearance point for treatment and reconciliation.

Two passengers remained unaccounted for, which sparked wider search tasks for some assets whilst the rescue and reconciliation continued. Surf Lifeguards from across the Auckland region searched the shoreline using Inflatable Rescue Boats. They also searched the land areas adjacent to the water, looking for survivors on tracks and points of shelter.

Senior Sergeant Garry Larson, Officer in Charge Marine Rescue Centre Auckland was very pleased with the exercise and contributions of everyone involved. "This SAREX gave us the opportunity to test processes that came out of lessons identified during similar SAR operations over the last two years. The individuals and agencies did an excellent job, and we were able to narrow down the areas where we can continue improving."



Images courtesy Coastguard and Police

Major rescue platforms:

- NZDF Seasprite Helicopter
- Police Eagle Helicopter
- Auckland Westpac Rescue Helicopter
- Police Maritime Unit Vessel Police 2 and Rescue Water Craft
- Ten Coastguard Rescue Vessels
- Surf Life Saving Inflatable Rescue Boats

Participating agencies

- New Zealand Police
- Coastguard Tautiaki Moana
- Surf Lifesaving New Zealand
- Fullers Ferries
- Hato Hone St John
- Auckland Rescue Helicopter
- New Zealand Defence Force
- Fire and Emergency New Zealand
- Auckland Harbour Master

The exercise evaluation report for Operation Chelsea is available online:
<https://nzsar.govt.nz/training-resources/collective-training/sarex-reports>

New Zealand Search and Rescue Aviation Standard

A consistent approach to improve the safety, efficiency and effectiveness of SAR aviation operations.

Whether to shift responders in and out of the operational area, conduct aerial searches, or recover the missing people, helicopters are an integral part of many SAR operations.

Between July 2020 and mid-February 2025, helicopters were used in:

25 percent of Category I SAR operations, and 89 percent of Category II SAR operations.

The New Zealand SAR Aviation Standard was published in June 2024, providing a common set of expectations (and language) around key operating requirements. The standard emphasises the importance of training, operational readiness, and a shared understanding of capability sets.

“Outlined are the qualifications and currency required for personnel, technical specifications for equipment, and the requirements for coordination and communication during missions,” says Justin Allan, General Manager of Maritime New Zealand’s Rescue Coordination Centre (RCCNZ). “By adhering to these guidelines, we aim to mitigate risk, enhance interoperability among different agencies, and ultimately, improve the outcomes of search and rescue operations.”

Previously, the New Zealand Aeromedical/Air Rescue Service standard covered Emergency Medical Service (EMS) helicopter operators in their contracts with the Accident Compensation Corporation and Te Whatu Ora Health NZ. That standard related to tasks from the Hato Hone St John Air Desk to recover a sick or injured patient from a known location to a suitable medical facility. However, the standard did not specifically cover SAR operations using all types of helicopters.

New Zealand’s aviation resource is relatively scarce, so the SAR Coordinating Authorities assess the job and choose the most appropriate asset, based on capability, distance to the incident and other considerations. However, there was inconsistency about how operator capabilities and currency were described, posing risks to the safety of SAR operations and ambiguity around obligations under the Health and Safety at Work Act 2015.

NZSAR commissioned the ‘Report on the use of aircraft for search and rescue in New Zealand’ in December 2021. The report, plus findings of the Transport Accident Investigation Commission from incidents where aircraft were involved in the response, highlighted the need for more consistency and transparency in the sector. NZSAR began the project to develop a SAR Aviation Standard in 2023, before handing it over to RCCNZ to finalise and administer.

During the development, a range of aviation experts and operators from across the sector were involved. This collaboration ensured the standard was readily applicable by the aircraft operators, as well as benefiting the safety, efficiency, and effectiveness of SAR operations.



EMS helicopters

Generally larger twin-engine machines (such as the BK117/H145), fitted with winches and advanced avionics. Most EMS helicopters can fly by day or night, usually with instrument flight capability, which allows them to reach their destination when bad weather or low cloud covers the route. Crews are often three or more people, including a paramedic with advanced medical equipment. The crews and helicopters are dedicated to EMS and SAR roles and generally don’t do other types of work.

A HeliOtago Airbus H145, on a coastal SAR operation. Supplied



Non-EMS helicopters

Generally smaller, single-engine machines (such as the AS350/H125 Squirrel or Hughes 500) that may use a long-line to deploy or extract people from a scene. They have a crew of one, sometimes two people. Most non-EMS operators are restricted to operations by day. These machines are used in a wide range of commercial operations, with SAR work generating only a fraction of their income.

A Squirrel operated by Southern Lakes Helicopters, supporting Department of Conservation SAR at Aoraki Mt Cook. Supplied

Australian Maritime Safety Authority

Providing the AMSA Response Centre and strategic leadership for Australia's SAR service.

The Australian Maritime Safety Authority (AMSA) is an Australian Government agency, with head office located in Canberra. AMSA's Response Centre provides the functional role for Australia's Joint Rescue Coordination Centre (JRCC). AMSA is also Australia's National SAR Coordinating Authority and Chair of Australia's National SAR Council.

Similarly to Maritime New Zealand's Rescue Coordination Centre, AMSA's Response Centre coordinates SAR incidents involving international and domestic civil aircraft, persons on or from a vessel at sea, and manages a broader range of maritime emergency incidents. The AMSA Response Centre also receives electronic distress alerts from satellite and radio devices. When a distress alert is located on land or within three nautical miles of shore, the AMSA Response Centre will generally pass coordination straight to the relevant Australian state or territory Police authority.

The Australian Defence Force is the coordinating authority for incidents involving Defence Force people or assets, and under specific conditions Defence assets can be requested by the AMSA Response Centre under national SAR arrangements.

Australia's search and rescue region covers the Australian continent and large areas of the Indian, Pacific and Southern Oceans as well as the Australian Antarctic territories. This region is nearly 53 million square kilometres (one tenth of the Earth's surface) and borders the search and rescue regions of 10 other countries.

Due to the size of Australia, the varied terrain and number of jurisdictions, the Australian SAR system relies on a collaborative approach, coordinated by the best placed authority, using assets and capabilities available to complete the mission.

The unique challenges of SAR in Australia's vast outback provide good examples of this collaboration. When the AMSA Response Centre receives an alert from outback Australia, the Response Centre will triage the alert, then state or territory police will usually coordinate a response. Depending on the assistance needed, AMSA's Challenger aircraft might be requested to support, by providing situational awareness and/or dropping supplies to help the people survive until rescue arrives.

AMSA also chairs the National Search and Rescue (NATSAR) Council, which is made up of AMSA, the Australian Defence Force, and the eight federal, state and territory Police services.



Bombardier Challenger 406 Aircraft

Since 2016, four of these are contracted to AMSA providing a dedicated long-range search and rescue capability. Based in Perth, Cairns and Melbourne, the Challenger can remain airborne for up to eight hours, with a range of over 5,700 kilometres. They are equipped with radar, electro-optic camera, radio direction finder, maritime visual anomaly detection software and satellite communications. Life-rafts with capacity for up to 200 people, food, water and other supplies can be dropped from the aircraft.

Image courtesy of the Australian Maritime Safety Authority

New Zealand SAR Council and New Zealand Police are invited observers. AMSA also provides the Secretariat function for NATSAR Council. NATSAR Council is a cooperative body that considers SAR arrangements in Australia, and supports national collaboration and consistency.

As close neighbours and friends, New Zealand and Australia frequently share ideas, train together, and collaborate on best practice. Operationally we work together on SAR incidents around the borders of our SAR regions. There are reciprocal arrangements for attendance at respective National SAR Managers courses, attendance at NATSAR Council meetings, and most recently AMSA completed the first cycle of reciprocal benchmarking across the two Rescue Coordination Centres.

	New Zealand	Australia
National-level SAR Coordinating Authority	Maritime New Zealand's Rescue Coordination Centre (RCCNZ)	Joint Rescue Coordination Centre (JRCC)
Search and Rescue Region (approximate size)	30 million square kilometres	53 million square kilometres
Approximate number of distress beacons registered as at 30 June 2024	166,000	860,000
Number of SAR incidents addressed by National Coordinating Authority for the 12 months to 30 June 2024	1,320	5,936
National population (estimated)	5.3 Million at June 24 - Stats New Zealand	27.1 Million at 31 March 2024 - Australian Bureau of Statistics



10 questions with ...

Leah Sinton

Leah Sinton is a volunteer for Coastguard North Shore, New Zealand representative yachtswoman and finalist in the 2024 Coastguard Awards of Excellence.

What got you into competitive sailing?

My parents aren't big sailors: Mum is from inland Germany and Dad grew up away from the coast in New Zealand. But they enjoyed the America's Cup and thought sailing would be a good thing for me to try. I learnt to sail an Optimist at age 12 at the Wakatere Boating Club on the North Shore. I progressed through the classes, eventually representing New Zealand in the 420 class, which is a two-person trapeze and spinnaker racing dinghy.

How did sailing influence your life?

It taught me a lot about resilience! There's not many sports where you can be out alone as a teenager, fully reliant on your skills and knowledge to fix problems in the real world.

There is a really supportive community spirit within yachting, with world class sailors willing to help you out, offer advice and encouragement. The whole experience was really empowering.

What drew you to Coastguard?

As I grew up and advanced through the yacht classes, I transitioned into a paid coaching role. The irregular hours worked with my university studies, but I knew that once I had a full-time job, I wanted something on the water to be involved in. That's when I thought of Coastguard.

What were your expectations before joining up?

We saw Coastguard out on the water when we were racing, but to be honest, I had no real concept of what was actually involved! Seemed like a good idea at the time, and I'm really glad I went and had a go.

And what was it like when you got there?

I was sort of expecting strict hierarchies like I'd experienced in yachting, but it was really different. There were no egos, just a great crew of volunteers who were really welcoming. I was just 19 when I joined and going into a team that was mostly older men felt a little intimidating at first. But I needn't have worried! They all made me feel welcome by just treating me like any other member of the crew. They offered support as I learned the ropes, and took my questions seriously.

Can you tell us about what you do on a week to week basis?

There's a training and maintenance night every Wednesday and weekend 'crew days' on a rostered basis. I manage about one crew day every three to four weeks, which goes nicely with my uni studies. We get on the water about 9.30am, then work through training activities until a call for help comes in. Sometimes late incidents mean late finishes, but it's all part of the role!

What do you like about volunteering for your Unit?

I realised quickly that you get out of it what you put in. I knew that if I wanted to do well and contribute to the unit, I had to really commit. That effort is paying off, and I'm really enjoying assisting boaties who need a hand.

You're the Unit Crew Coordinator, what does that involve?

I'm responsible for supporting applicants from initial assessment through to the start of their training. It's about assessing them and ensuring they know what they're in for! I'm a people person, and I really love assisting others to reach their goals, whether in a yacht or as a Coastguard volunteer.

What does the future hold for you in Coastguard?

I want to become a skipper one day. The Unit has invested so much in me, that I really want to give back by qualifying and being able to get the vessels out on the water. I've done all my courses for the Senior role, and hopefully will get signed out on the practical tests next summer. Then it's about gaining more experience as a crew member before taking on the Skipper's assessments.

What would you say to other young women interested in joining up?

Just give it a go! I'm guilty of overthinking things sometimes, worrying about the 'what if's'. Coastguard is a great organisation to volunteer for, plus you have Unit Crew Coordinators like me who are there to guide you as you give it a go. Come and check it out, you might find you really enjoy it!