

AREC.info is the newsletter of Amateur Radio Emergency Communications, the public service arm of the New Zealand Association of Radio Transmitters. AREC.info is published most months (except January).



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Cover: Daniel Erickson ZL4DE operating from home, supporting Operation Teal Bay hut in late April.



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<https://arec.nz/arec-officers/>

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AREC Regional Manager Roles

We have been successful in securing NZSAR funding for three paid AREC Regional Managers. These are full-time roles that will work closely with members to provide volunteer support and build capability to meet the needs of our partners.



I am pleased to announce the appointment of **Lindsey Ross ZL4KS** to the Regional Manager, South Island position. He starts in this role on the 1st of July.

Lindsey is well known to many South Island AREC members and is looking forward to getting his teeth into this new position with a focus on volunteer management and support.

We are currently recruiting to fill the Upper North Island and Lower North Island positions; you will find an advertisement in this newsletter.

Jill O'Donnell ZL2DBO

Jill was recently awarded a plaque by Taranaki LandSAR recognising 34 years of involvement.

The citation reads "As well as Jill's many years as radio operator in the IMT, she is the group's camp coordinator. She not only volunteers her time and radio skills to Search & Rescue, but also to AREC, NZ Police, Coastguard and Civil Defence. Jill is also the Comms SME for the group. Group members have said that it is always reassuring to have Jill in the radio room with a familiar voice, wherever that happens to be in the Taranaki region."

Well done, Jill!



NZART Conference 2023

Conference is fast approaching and will be in Palmerston North over Kings Birthday. The Saturday programme includes both the NZART AGM followed by the AREC Forum in the afternoon.

Both of these are free to attend (the paid Saturday programme includes catering), and we would welcome you to come along to the AREC forum, even if you aren't staying for the entire weekend.

AREC are holding a discussion on "What Amateur Response to civil emergencies should be" on Sunday afternoon. This is very topical given recent events and has stirred up a lot of interest so should be a very interesting session.

More information on the conference and programme can be found here [NZART Conference 2023 - Palmerston North, New Zealand \(nzart-conference.nz\)](https://nzart-conference.nz)

Te Anau Basin Trail Ride

Stewart Burnby ZL4SGB and Glyn Sanders ZL4GN were both mentioned in an article in the *Te Anau Trader* for their services with providing VHF radio communications in support of the ride. The article said "we can't recommend them enough and wouldn't do our ride event without them", great work guys!

2022 NZSAR Awards

It was pleasing to be present when Southland District AREC Group were presented with a Certificate of Achievement, for their part in the search for a missing trumper near Milford Sound, at the 2022 NZAR Annual Awards. Congratulations to Brendan Sheehy and team, a great effort. (see photo later in this issue).

Until next month, stay safe.

Don, ZL2TYR

Chief Executive Officer, AREC



2022 AREC SURVEY

Don Wallace ZL2TLL, Regional Manager Central

In 2022, NZSAR conducted a survey across its volunteer community, included in that survey was AREC. I would like to let you know the outcome of the survey, how we compared to other NZSAR sector partners, and why we are about to conduct another survey 12-months on.

As most will be aware, NZSAR has a number of partners who have volunteers who are active across the sector. Organisations who are mainly volunteer in nature include LandSAR, Coastguard, National Emergency Management Agency (Civil Defence) Surf Lifesaving and AREC. The high-level results across all of these organisations can be found here [2022 Volunteer Engagement Survey \(nzsar.govt.nz\)](https://www.nzsar.govt.nz/2022-Volunteer-Engagement-Survey)

Response Rate

While on 14% of the wider SAR sector participants responded, there were 188 from AREC. This is over 50% of our membership and I would like to thank everyone who took part. Not only is this a good response, but it also means that the responses are representative of our membership and gives AREC's National team the confidence to use this to drive us forward.

Key takeaways for AREC:

We had a 58% participation rate, this is an excellent result for a volunteer organisation. Our overall score was 68%, so a solid result with members quite positive about AREC

Strengths:

- People are proud to volunteer at AREC
- They know how to keep themselves and others safe
- They are comfortable reporting inappropriate behaviour or a health and safety issue
- People know their role and get satisfaction from helping the community.

This sense of satisfaction and wanting to use existing skills are the key drivers for people volunteering with AREC.

Opportunities:

Lower scoring areas included:

- Communication, training, resourcing, effective management and support for volunteers
- Recognition of employers and whānau/families
- Volunteers are quite skewed to an older age group.
- There are some quite negative views from younger people.
- There is some concern that AREC:
 - doesn't want to modernise operations,
 - operates as an 'old boys club' and
 - is slow to change

**“Less than 10% of our members are women,
half of our members are over 68 years old”**

There were 131 comments to the question “If you could choose one thing that you would like to change at AREC, what would it be?” Typical responses included:

- More training and equipment
- More active members to spread the workload
- More involvement with NEMA/Civil Defence in order to get included and called on to help
- Increase the diversity of members
- More paid positions
- Less politics
- Better community recognition of AREC
- AREC independence from NZART

So, what have we done as a result of the survey?

Surveys are a great insight into how people are thinking about AREC. While feedback is encouraged at any time, the structured nature of the survey means we can draw the key themes together to develop an action plan to help us deliver change.

Key things we are putting in place include:

Training

We are starting to populate our learning management system which can be accessed via the AREC Members Hub. There is now a range of material that can be accessed online, most can be completed online or in a group environment. It is important that we have content that allows everyone to learn, regardless of if they can to a formal training session or if they need to do it in their own time.

Over the last six months, we have started to run Teams training sessions and the intention is to do more of these. There is an added advantage of recording the content so it is available afterwards to those who could not attend.

There is still work to do to add content to the training library. We do rely on our membership to develop the technical training which can take time given other commitments.

Volunteer Management

One issue which came through loud and clear in the survey is that we need to do a better job of looking after our volunteers.

Supporting our members, group and district leaders is a real area of focus and you will be aware that NZSAR have provided funding for three paid Regional Managers whose focus will be supporting our members. This will be a real game-changer and a much-needed support for our people.

Diversity

This remains a nut to crack for us, however we are acutely aware that we need a younger and more diverse membership base to ensure AREC has a future. While we are moving the dial, it is slow progress, and we need to find ways to address this.

We also saw that younger members aren't always being heard, and we need to embrace new thinking and ways of doing things. We know that communications technologies are evolving rapidly, and we need to stay relevant if we expect our organisation to survive.

2023 Survey

The 2023 survey is coming. Please take the time to complete it as we are genuinely interested in what you have to say – your feedback helps us to build a better AREC.

Kelvin Peninsula:

Queenstown Emergency Response Group's Container

Jim Davies ZL4JI

The biggest natural disaster likely to strike Queenstown will be the rupturing of the Alpine Fault. In an effort to minimise the fallout from this or any other major disaster Civil Defence Emergency Management has partitioned the Queenstown Lakes District Council area into fifteen Community Response Groups and two Incident Controls reporting through to the Emergency Operation Centre.

This is a short article about the radio equipment of one of these community response groups, Kelvin Peninsula which has been given the call sign 'Kelvin Peninsula CRG' abbreviated to KP by Emergency Management Otago.



Above: Kelvin Peninsula Community Response Group's communications container.

The Kelvin Peninsula Emergency Response Group consists of the administrators who will set up a command centre in a local club house, the communications staff working from the container and the zone coordinators who each check their designated streets and assist those in need within their area. Each of the zone coordinators has a VHF Tait portable through which they can communicate with those in the container.

The KP communication centre is housed inside a twenty-foot insulated container. On the roof of the container is a solar panel and this is coupled into a solar controller to charge a 24-volt battery system. There is also the option of charging the battery through a portable generator that connects into the container via an external mains caravan socket should there be an extended spell of no sunshine weather. Hence there is sufficient power to run lighting, a laptop and radio equipment inside the container.

The radio equipment at the communication centre consists of:

Primary to the EOC and Alternate to the zone coordinators:

- a vhf Tait mobile programmed with the three channels as specified by Civil Defence in their channel list to contact the EOC also further channels including a vhf channel to communicate with the zone coordinators.

Primary to the zone coordinators and Alternate to the EOC:

- a VHF Tait portable programmed with the above channels and used principally to communicate with the zone coordinators.

Within the container both Tait's are connected to individual external aerials, one aerial is permanently attached to a mast on the container and the other one using a magnetic mount normally laid on the container roof during exercises. Since these two antennas are at different heights, they do not interfere with each other.

Contingency

- my dual band radio, this can be attached to either of the above aerials.

Emergency – when all else fails,

- we have the ability to communicate with any Amateur using a hf transceiver (a Yaseu FT-707 donated by Dunedin Branch, ZL4AA) that can be quickly attached to a 7Mhz inverted vee aerial.



Above left: Starting from the left you can see two pairs of headphones connected into the Tait Mobile, the 240v ac powered Tait Mobile and a charger for a TP battery in the background. A laptop, which has internet access. The essential notebook and biro for note taking. A time keeping clock for our slot and a Tait Portable connected through to an aerial on the container roof. Behind the TP is 15 metres of loudspeaker cable which also doubles as a 7MHz inverted vee antenna with feed and finally the hf emergency system.

Above right: This RT73 lives in a toolbox with two 7 ampere hour 12v batteries and a smart charger. The charger will charge either battery and the other battery will drive the RT73.

The administration centre is in a community club house sited just 20 metres from the container.

Built into the container's solar controller is a wi-fi router. The radiation area of this router fills the container, we also have an external wi-fi that extends into the club house thus ensuring a broadband link and wi-fi phone usage is available for the administrators.

To complete the link there is a microwave connection from the container into a network operations centre and from here onward into the wider internet.

The Kelvin Peninsula Emergency Response Group meets every quarter, when we exercise the system out by simulating incidents and logging radio communications.

Thinking about AF8 is an interesting pastime and almost impossible to plan for.

Obviously for me, my family comes first and then there are multiple choices depending on different scenarios.

Setting up the container takes about 15 minutes but then we need a crew to run the comms, zone coordinators out checking the residents on the Peninsula and folks at the civil defence EOC to pass the information on to.

Right: Jim Davies ZL4JI with the contingency radio. All his own work, the Retevis 73 is built into a toolbox with twin batteries and a mains charger.

The aerial mast system is built out of one square and several tubular aluminium sections from Mitre 10.



Let's hope that the Alpine Fault sleeps for another 50 years and all the training stays just as an exercise.

The Kelvin Peninsular CRG is a real-life example of a community coming together to build something for the benefit of everyone.

The container project was driven by David Mayhew who is the chair of KPCA and, with the help of the community, was able to bring his vision to life.

- The container was donated by Sir John Davies and was transported, stored and delivered to site by James Contracting
- The outside was stripped down and painted in QLDC colours by a hardy band of painters, a concrete pad was laid by another band of volunteers, and the floor laid and the container fitted out by others
- There was a significant donation from the Edgar Family Trust which was very much appreciated, along with contributions from the Queenstown Lakes District Council and Civil Defence
- The radio gear was bought by Graham (ZL4GDM) and programmed through his company QRS.
- The two generators were donated, and a local sparky fitted the caravan plug and installed the internal mains wiring and lighting.
- Russell Watson ZL4JW supplied the solar equipment and microwave dishes.

Russell and Jim Davies spent just a couple of hours installing these bits “a very minor part in a big project” explained Jim. “There are probably many other people who I haven't mentioned that have spent much more time making the container project happen.”

AREC Supporting the 2023 Tautuku Cup

Lindsey Ross ZL4KS

Southern District Land and Police SAR teams came together on New Zealand's third largest Island, Stewart Island / Rakiura to compete for the Tautuku Cup on the weekend of 13th May.

AREC proudly supported the event with four members from across the district coming together to provide coordination, tracking and assessment of the communication skills of the teams.



It was also a perfect occasion to blood Matchil ZL4AH, who passed the amateur exam some two months earlier.



Southland AREC recently took ownership of the replaced POLSAR repeater.

Being still in excellent order it was pressed into service once again on Observation Rock which would provide good coverage of the required area for the event.

Base for the radio communications was setup in the Oban Fire Station. With a tight round robin schedule AREC was asked to remind the teams to move to the next scenario on the half hour and we had some messages to pass to teams doing first aid to add some reality.

The teams setting up the portable repeater called up for a radio check and were promptly tested on the phonetic alphabet when they were asked to spell their group name accordingly.

Left: Charlie ZL4CB shows Matchil ZL4AH the finer points of setting up the portable repeater.

SAR Track was used to log the communications and after a base radio arrived from the mainland, we were able show the location of the teams on the large television screen.

Meeting new people and building relationships is an important part of these occasions and none more so than catching up with Nic and Conrad from the Rescue Coordination Centre who came down to see how things are done at the coal face. AREC was able to show them SAR Track and how we track the teams.



Right - Matchil finding his feet on the radio with Graham Irvine from Dunedin Land SAR looking on. Barry ZL4MB logging the messages in SAR Track.



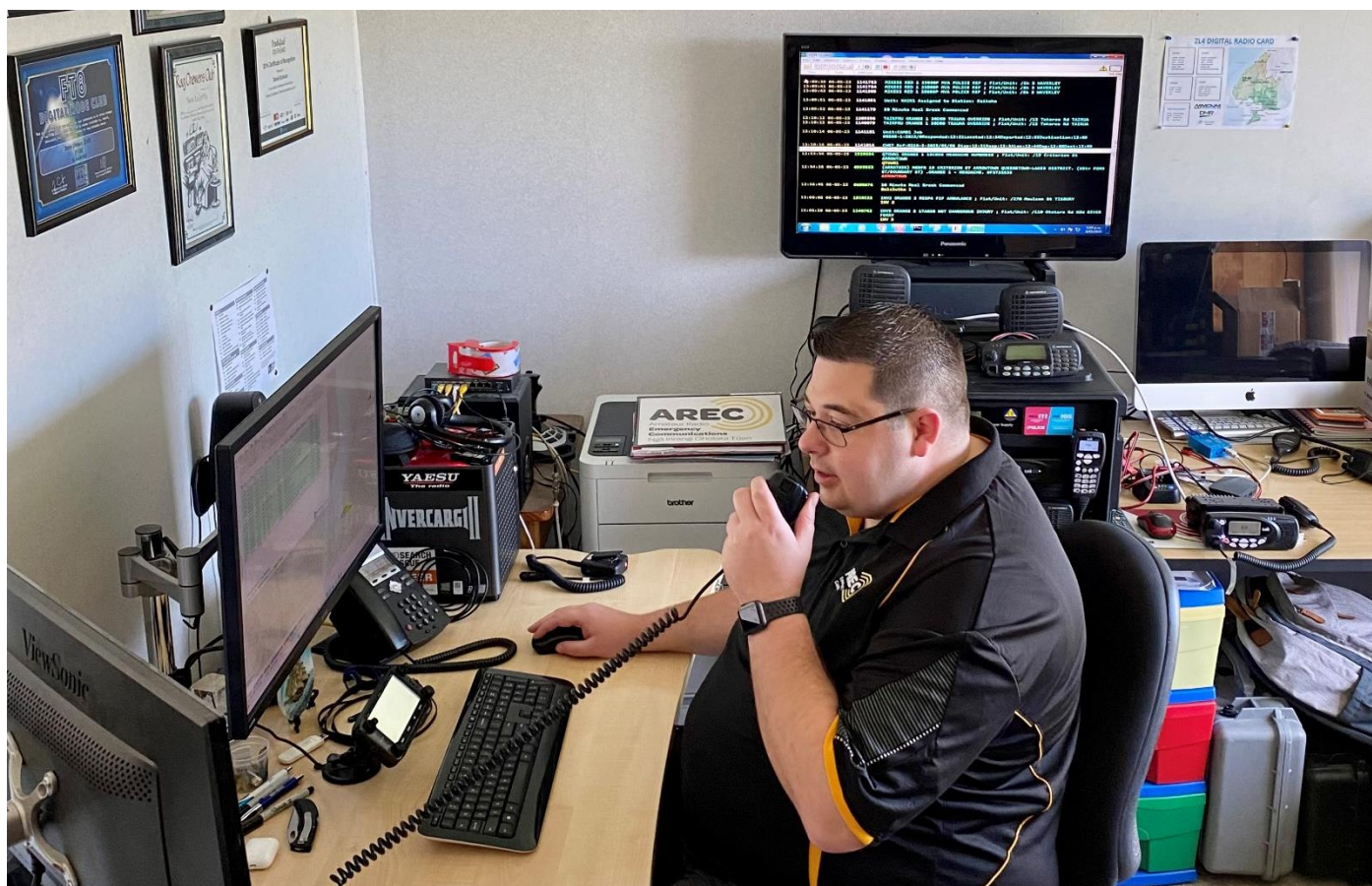
On the Saturday evening we came together for the social where we enjoyed some of the delicacies Stewart Island has to offer, celebrate the winners with the Dunedin Group taking the honours and rounded off the evening with fun quiz.

Left: The AREC Team – Left to right Matchil ZL4AH and Glyn ZL4GN from Southland, Charlie ZL4CB from Dunedin and Barry ZL4MB from Balclutha.

Operation Teal Bay Hut

Daniel Erickson ZL4DE

On Saturday 29th April 2023, at approx. 2000 hours RCC had tasked Southern Lakes Helicopters to investigate a beacon activation near Teal Bay Hut at Lake Hauroko.



After seeing the page, I decided to turn on the radio at home base to monitor the Southern Lakes Helicopters repeater channel. It wasn't long before ZK-IBK arrived on scene and picked up a very weak beacon signal.

They located a person who had a light source, emergency blanket and was moving. However due to dense bush and steep terrain, a winch or landing nearby wasn't possible. The crew of ZK-IBK requested RCC, dispatch a LandSAR team and have them flown into Teal Bay Hut to walk approx. 800mtrs up the track from the hut to rescue the person.

At 2238 hours the SAR Callout went out. Already sitting at my "command centre" I started a new operation in SARTrack, logged into Tracplus, and started logging any radio activity from the helicopter crews. Checked and reported the weather forecast. Then started prepping the comms plan. After a quick call from our AREC group leader Brendan ZL4BDS, we agreed to use the DOC5 repeater in the area. AREC had recently been advised that this repeater was no longer at its usual location at Beatrice Peaks, which provided good coverage at Lake Hauroko. For some unknown reason DOC had moved this repeater to Hump Ridge further south. We knew it would be hit and miss. Due to the fast-paced situation and driving distance from the Invercargill to Lake Hauroko, deploying a portable repeater at this time wasn't practical. Teams would have already been in the area before AREC could get there to deploy this. In hindsight perhaps sending a portable repeater with the Helicopter would have been beneficial or have the teams take in HF radios. Brendan ZL4BDS provided AREC support to the IMT at the Police Station.

The LandSAR teams arrived at Teal Bay hut approx. 0200 hrs via helicopter ZK-IRM. Radio Communications was average on DOC5 but worked okay, no other repeaters were available close by. The teams had left the Floppy Jim antennas back at base, which may have helped just that little bit more. They also had Police InReach Satellite devices, however with the heat of the moment forgot to turn these on. Luckily the helicopter

crew stayed onsite at the hut who had communication via sat phone back to their base to relay anything important.

The LandSAR team managed to locate the person at 0320 hours, after assessment the person fortunately wasn't injured, but was dehydrated, cold, and slightly lost off track. It was also discovered the PLB he was carrying was damaged and had an expired battery. After some warm food and drink, he was assisted back to the hut then flown out to his car.

I continued providing AREC support monitoring and logging comms until 0530 hours once all the teams were enroute back home.

Situations Vacant – AREC Regional Manager(s)

AREC is advertising for two paid Regional Managers (Upper North Island and Lower North Island):

The Regional Manager position is responsible for the leadership and management of the assigned Region (Upper North Island, Lower North Island or South Island), with a strong national focus on helping grow AREC into a more responsive, resilient and capable organisation.

Regional Manager - Managing Volunteers

Providing skilled volunteers, enabling essential communications to support Search & Rescue, Disaster relief and our community.

A generous package including.

- Salary \$90,000 - \$100,000,
- Business vehicle,
- Clothing and travel allowances
- Full time 40 hours per week
- Flexibility of working hours required.
- Travel required.
- Fixed term role starting 1 July 2023 – 30 June 2025. Funding permitting it is expected that the role will continue as a permanent role.

Location

Two home-based positions available. One Upper North Island and one Lower North Island.

About You?

- Do you have a passion for community orientated organisations?
- Do you have a proven track record in similar leadership roles?
- Are you a strategic thinking person?
- Do you love leading volunteers?
- Can you raise the profile of AREC?
- Are you organised?
- Can you make our volunteering experience world class?
- Do you enjoy growing and maintaining relationships?
- Are you willing to travel?
- Do you live in or close to the area of responsibility?
- An understanding of the following would be advantageous.
- Understanding the Amateur Radio community.
- Understanding the Search and Rescue and Civil Defence sectors.

Full job description can be found here: [Regional-Manager-Job-Description-V1.pdf \(arec.nz\)](#)

If you think this job is for you, please send a cover letter telling us what you can bring to AREC and CV to recruitment@arec.nz

Applications close Wednesday 24th May 2023

NZSAR Awards 2022

The New Zealand Search and Rescue Council has established the NZSAR Awards as an annual national award programme to recognise worthy achievements in the field of search and rescue in the New Zealand Search and Rescue Region.

On Tuesday 16 May 2023, the Hon. Kiri Allan, Associate Minister for Transport presented the 2022 New Zealand Search and Rescue Awards at Parliament Buildings.

Southland AREC were awarded a Certificate of Achievement, alongside other SAR partners, for their contribution to the search for a missing tramper near Milford Sound / Piopiotahi between 27-31 March 2022.



Above: AREC CEO Don Roberston, Central Regional Manager Don Wallace, Southland Group Leader Brendan Sheehy and wife Danielle Sheehy, Ross Pedder Wellington District Manager and Lynne Wallace at Parliament.

AREC Service Awards



It was my pleasure recently to award a 50-year service medal and certificate to Neville Checketts ZL4OX (left) and a 15-year service award to Daniel Erickson ZL4DE (right).

I took the opportunity to catch up with some members in Te Anau and Queenstown. It was also great to meet Canterbury District members including some from Blenheim while assisting in delivering SARTrack training at Branch 05 clubrooms in Christchurch. I then caught up with members in Greymouth, Blenheim and Nelson while on annual leave in their areas.



Hi Everyone

Wellbeing

From a health perspective I suppose there has been little concern regarding sunburn this summer with a greater emphasis on water related matters. If you have been involved in the various adverse weather and related flooding events please take a moment to pause and reflect how you are feeling. You need to maintain a perspective on things and ensure your mental health is OK.

Remember stress is a normal human response to adverse events, it helps us survive. Prolonged stress is not helpful so watch out for yourself and how you are feeling about things. Ensure you are talking about your experiences with others as it is likely others are feeling the same as you. Remember the old adage, 'a problem shared is a problem solved' so by talking you will help each other get through adversity. If you don't want to share your feelings with those close to you then AREC has EAP Services ready to help talk you through.

Fatigue

Issues with fatigue can be significant. Two years ago an incident occurred when a LandSAR volunteer attended a callout late in the day. After an estimated 30 hours awake time he was still active in the IMT. On the morning of day 2 he went out to recover the last team from the road end. When driving back through a small town he momentarily lost track of what was happening, most likely his brain shut-down for a brief period (micro-sleep) due to fatigue. His vehicle veered off the road and on to the footpath hitting three people – a young woman, her baby, and an older woman. All three ended up in hospital with varying injuries some quite serious requiring significant treatment and operations.

He has pleaded guilty to a serious driving charge in order to spare the victims from having to testify. To date he has appeared in court several times, has a legal bill for \$30,000+, and will most likely lose his licence for an extended period. As he lives semi-rural this will prevent him from visiting his new grandchild and family for the duration of the licence suspension - a significant penalty in itself ignoring the likely fine that will also be applied.

He was a good man trying to do his best to help the community through his LandSAR volunteering and in the end caused a significant injury event that will haunt him for the rest of his days.

As a result of this incident LandSAR developed their fatigue policy. This is now the national SAR guideline that AREC has also adopted as an SOP – see the AREC website [AREC HSW | AREC](#).

In brief, after a maximum of 17 hours awake time members should not drive a vehicle, operate machinery, or carry out tasks that could result in harm. Yes you can continue to operate a radio but you must recognise your limits. How sharp will you really be after 20 hours?

Your minimum stand-down rest period must be 8 hours. Normally that would be sleep time but simply lying down and closing your eyes is usually sufficient. Your brain gets a rest and even a couple of sleep cycles are likely to take place leading to a refreshed capability.

Typically if you wake up at 0600 on the day you get called out your +17 hour time will be 2300. At that point the LandSAR field teams should be stopping for the night anyway. If you have to cover comms until midnight then start your rest you will be ready to go again at 0800 the next morning as the sun comes up. If there are two or more of you, one of you can start their rest period at 2200 and be ready to operate again before 0600 and the other person can finish as required say at 0100 and be ready to restart again at around 0900.

So plan ahead. A call out late in the day places severe limitations on who can do what.

Also you must be especially careful if you drive commercially. You are bound by the Land Transport Rules which are quite restrictive. If you attend a callout on the weekend that is deemed to be work. Remember,

you can only work 70-hours maximum in a 7-day period and must have a 24-hour rest period within each 7-days. Your minimum stand-down between work periods is 10 hours. These requirements are legally binding and over-rule the LandSAR and AREC requirements.

If you require any clarification about fatigue please make contact and we can discuss – HSW@arec.nz.

Helicopter Safety

A new SOP around helicopter safety has been developed and will be available through the AREC Members Hub. For now, the document is attached at the end of this newsletter and I would recommend that anyone who may become involved with helicopter operations read this please.

Incident reporting

If these latest weather events, or any other aspects of AREC activity have stirred up some Health, Safety or Wellbeing issues, please let me know so I can add your observations to the AREC system and/or see if we can adapt or alter AREC processes.

Does AREC need to create any new processes to deal with the hazards posed by flooding? Did you or any other person get injured when responding on behalf of AREC to your local emergency? What about minimum equipment necessary – did you discover any issues with equipment, power, local comms, or long distant comms?

It is only by sharing reports of the things that went well and the observations of what could be improved that we will make a difference.

As always, keep safe, smiling, and available for AREC deployment.

David Wilkins ZL1MR
AREC Health & Safety Advisor



AREC members have a duty of care so we must not place ourselves or others at risk in regard to Hazards. We must always plan what we are about to do.

If any change takes place regarding People, Equipment, Environment, or Process/Task (PEEP) then we need to:

STOP - THINK - PLAN - COMMUNICATE - ACT

Helicopter & Aircraft Safety Considerations

Introduction

Various aviation resources are used in a SAR context in New Zealand.

The primary asset for LandSAR is the helicopter. These can be operated by the military (NH-90 or AW-109), air ambulances (S-76, AW-169, EC145, BK-117), and private operators (AS-350 later version H125, MD500, BK-117 newer version EC145/H145, B-206, and UH-1).

Common safety requirements

Helicopters have two rotors that must be avoided. General safety considerations are common to most aviation assets. A link to a video pointing out general aircraft safety can be found here: [Safety Around Aircraft » NZSAR](#).

The pilot or crewman will always brief passengers prior to a flight; or will ensure that a responsible person has briefed passengers and/or is controlling boarding and disembarkation.

If winching is required then use of the various harnesses, nappies, or collars will be demonstrated and practiced with the passenger often provided with a practice winch activity.

Specific helicopter type requirements

There are two general types of helicopters in regard to safety. Those that have low main rotors and those that have generally high rotor systems.

Both the Sikorsky S-76 and the Leonardo AW-169 types have rotors that are set up to droop at the front. These helicopters must only be approached from the side. If you approach from the front there is a distinct possibility of injury.

Tilt head rotor systems as fitted to the old Huey (UH-1) and the Bell Jet Ranger (B-206) can flap down to the front and sides during start up or shut down. That is why you must never approach any helicopter during startup or shut down.

AREC Member transport in helicopters

There is usually no reason for an AREC member to travel in a helicopter other than as a seated passenger restrained by a seatbelt on a flight from A to B or, A to B to A.


Any flight to or over a remote area must only be undertaken by AREC members who are capable and equipped to walk out from that location and/or self-sufficient to remain on site in the event the helicopter has to leave the location stranding the AREC member.

If winching in to a site is required then the expectation is that the AREC person is trained and capable of walking out from the location. Once winched in it may not be possible for the helicopter to return and extract the member.

Key criteria to consider are:


- Is the requirement for an AREC member to fly to a remote site unavoidable. Is it possible to get a physically more capable and fitter person to do the work?
- Does the member have the necessary equipment and fitness level that ensures they can walk out and/or be self-sufficient for an extended period if they are stranded.
- Has a specific safety plan been created for the work to be completed onsite including considerations regarding transport.
- Has the AREC member received the necessary training and briefing to safely travel?

Typical helicopter safety information




Safety Around Helicopters


APPROACHING OR LEAVING A HELICOPTER




Do not approach without receiving a visual signal from the pilot. Do not leave without a visual or spoken instruction to do so. Stay where the pilot can see you at all times.




On sloping ground always approach or leave on the downslope side for maximum rotor clearance.



If blinded by swirling dust or grit, STOP – crouch lower, or sit down and wait for assistance.




If disembarking while the helicopter is hovering, get out slowly and smoothly when cleared to by the pilot.




Do not approach or leave a helicopter when the engine and rotors are running down or starting up.


Helicopter Safety Zones



The diagram shows a helicopter with four safety zones: a red 'Prohibited' zone behind the tail rotor, a yellow 'Acceptable' zone in front and to the sides, and a green 'Preferred' zone directly in front and behind the rotor disk. Arrows indicate the direction of rotor wash.




Crouch while walking for extra rotor clearance. Always remove hats. Never reach up or chase after anything that blows away.




Carry long objects horizontally below waist level – never upright or on the shoulder.

TAKEOFF, LANDING, AND LOADING OPERATIONS




Clear helipad of loose articles. Secure your gear from the effects of rotor wash.




When transporting personnel, loading staff should ensure that:


- Passengers are briefed on approaching and leaving the helicopter
- They are grouped together and positioned to one side of the landing zone
- They face away from helicopter during takeoff and landing
- Each person looks after their own gear
- They are ready to board in turn as soon as the pilot gives the signal, and they are escorted to the helicopter.




When directing the pilot for landing, stand with back to wind and arms raised.



When directing the pilot by radio, remember they may be too busy to give a reply.



After hooking up a cargo sling, move forward and to the side to signal the pilot. Ensure the sling is not across the skid. Never ride on the sling.



Fasten and adjust your seat belt on entering the helicopter and leave it fastened until the pilot signals you to get out.

Revised April 2007

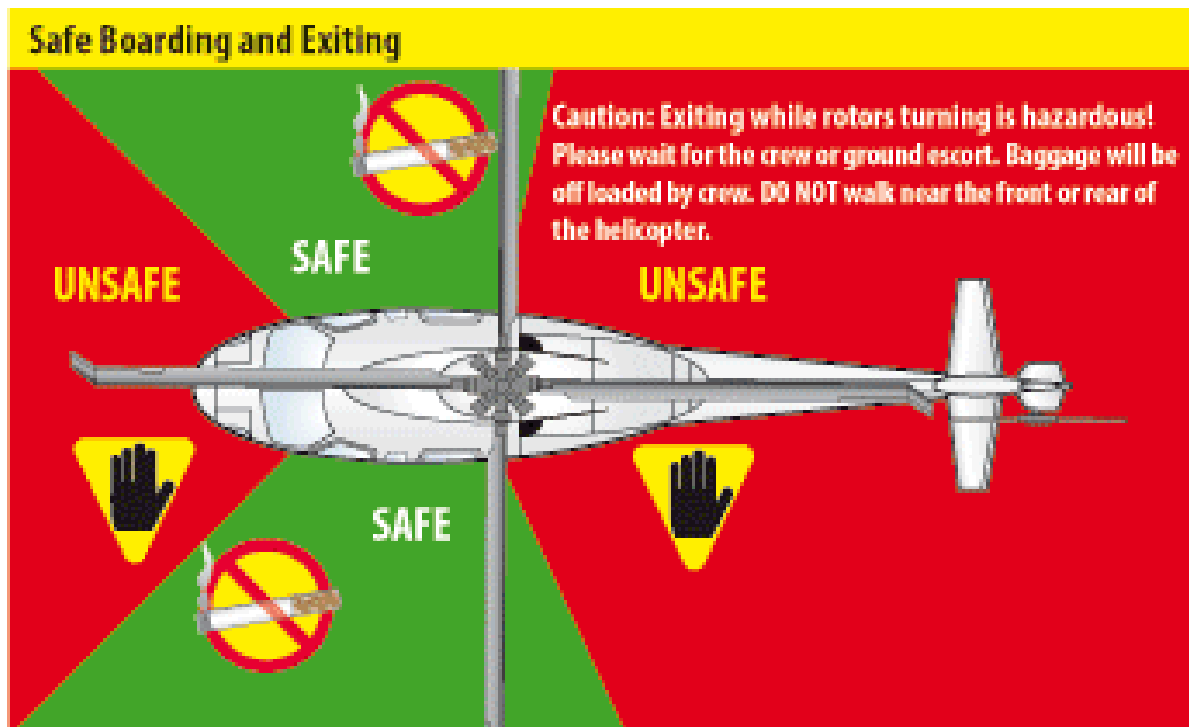
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Low Droop Rotor systems

This picture shows the safety zones around a Sikorsky S-76 helicopter as operated in Northland. They same zones apply to the Leonardo AW-169 operated in Auckland. Also remember, if it is a windy day rotor blades can flap down a long way, especially for a tilting rotor head system as used by the Huey UH-1 and Bell B-206.

If any doubt exists as to which helicopter type you are approaching use the diagram below as it is effective for all helicopter types.



Further information

There are many sources of information regarding safety in and around helicopters.

LandSAR training includes the following module under the IMT competency framework:

Elective 1: Helicopter Safety

This unit of competency should be considered mandatory for any IMT member involved in helicopter operations, including but not limited to: radio repeater deployment, in-field tasking/debriefing.

130.0 Helicopter Safety

Operate safely around helicopters.

130.01 Describes the hazards associated with working around rotary wing aircraft.

Range: may include but not limited to - Aircraft components, manoeuvring, prohibited approach zones.

130.02 Demonstrate safe procedures for loading and unloading personnel.

Range: may include but not limited to - Safe approach, entry, and exit including the loading and unloading of equipment.

130.03 Describe the likely hazards around a landing Site.

Range: may include but not limited to – Vehicles, operating clearances, dust, unsecured items, poor visibility, uneven terrain.

130.04 Explain or demonstrate how to brace for impact and escape from an aircraft in an emergency.

130.05 Explain the use of emergency equipment for helicopters.

Range: Should include emergency beacons, fuel shut off and battery isolation.