
NZLSAR News

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Deployment of a new repeater

Below is an article by Terry Waghorn, a CSC, AREC and active Wellington Land SAR Organisation member. It is in two parts, the first being of a technical nature. The second is his response and the outcomes from recognising the "magpie" attractions of the repeater and the very public area of the lookout that it was used in. Terry felt it unwise to leave it unattended and therefore decided to physically guard it, despite the location and it was a very dark night. This I felt was a very brave thing to do. For those who don't know the scene, the lookout is situated just above a four lane road through a saddle of a gorse and bush covered ridge dividing the Hutt Valley and Wainuiomata. The latter is a dormitory suburb for the greater Wellington urban area, a place where such a simple thing as a wrongly placed bin resulted in a fatal stabbing, the discovery place of the lady with the high voice and the tiger slippers by that well known TV interviewer, need I say more. The second part is Terry's reply to me when I commented on his action, which emphasises the point that nobody ever said being a SAR volunteer would be easy. It does show, if nothing else, it is often very different to one's usual activities. JPT

Ten new SAR ES-band portable repeaters have been deployed around the country with the strategic intention that one always be available to an operation within a couple of hours. While this has not quite been achieved, the NZLSAR Communications Subcommittee will be submitting another budget proposal to the Police in the near future to further this aim. The issue so far has been to Auckland Services, Hamilton, Rotorua, Palmerston North, Wellington, Nelson, Canterbury, Greymouth, Dunedin and Invercargill.

Within 30 minutes after its delivery to Wellington the brand new repeater was pressed into service. Here are a few comments:

1. It is VERY portable - leaving it unattended in a location with easy public access would invite loss of the equipment!
2. It is VERY easy to set up - even I managed it with no training and only two minutes familiarisation.

3. It can be carried readily by one person - I would not choose to carry it on a 5 day expedition (the shape is rather ugly in the pack!) but man-packing it on top of a pack, carrying the aerial in one hand, is very practical.

4. Deployment was rapid once on site. I set up the aerial initially on the side of the repeater, and noted traffic immediately started using it, while I laid out the full aerial and erected it without needing to interrupt traffic.

5. Battery state was "as delivered" plus 30 minutes on the charger, and it was in service from 1800 Monday through to 0300 Tuesday with no sign of battery problems.

6. There is an appreciable temperature rise with heavy traffic - it would be wise to find a shady spot for the box as it would really heat up in the sun.

Nice gear! And it certainly proved effective in resolving a coverage problem from the existing fixed repeater for this operation.

Finally - the operation had a successful conclusion. The missing person was a runner, dressed only in shorts, singlet and gym shoes (which he had lost) and this was his second night out with temperatures below 10C. The search area was thick, steep bush. He was contacted just before midnight by voice and it took the better part of three hours to get to him, make a patient assessment (lots of cuts and scratches) and complete the rescue by stretcher carry about 0300. In discussion with one of the rescuers he was "over the moon" at how it had all gone. A fortnight previously the Wellington SAR Organisation had had a SAR Test which included both day and night assessments. Many of the aspects of that test were repeated, in this case for real and with a feeling that the training was being put to good use.

As for guarding the repeater on the Wainuiomata Hill Road summit lookout - it was a VERY interesting experience. Lots of cars stopped but no one came up the track to the lookout until at dusk a canoodling couple appeared and promptly disappeared again - I think they were not looking for a third. Then a bus load of singing footballers (?) stopped nearby and I kept a very low profile hoping they wouldn't see me - fortunately they were too boozed to see far and after pissing into the bushes and singing a few bawdy

verses their bus did a U turn (I wouldn't try that in a car even) and they headed off back to Lower Hutt.

Highlight of the evening was a visit by five young persons just before midnight who came right up to where I was on the lookout, and stood about for quite some time. They exchanged a few words with me and I explained what was I was doing, but they seemed preoccupied. Then, right on midnight they put a cloth over the sundial on the lookout and proceeded to conduct a brief communion service. Then I noticed a hubbub developing as if there were about 20 people talking - the five of them were walking around, ducking under the repeater aerial guy-ropes chanting and calling out, sometimes chanting together sometimes separately. They created a hell of a din. I had originally feared they might be troublemakers but I began to fear for them if they attracted attention with the racket they were making - singing, speaking in tongues, shouting Yes Lord, Alleluia, and all kinds of incantations. It went on without a break until 1:15. AMAZING!! Then they gradually quietened down and went off back to their vehicles. Silence returned and I was able to concentrate on the closing stages of the rescue. At 0300 I was stood down, packed up the repeater and joined the teams at Wainuiomata Police Station for a much needed cup of soup (courtesy of Red Cross) and a debrief. Home to bed at 0400.

Terry Waghorn
NZLSAR CSC

Bibs and bobs

- The Auckland Land SAR Organisation has NZLSAR cloth badges for sale. They come in two sizes, 33 mm square and 70mm square and are priced each at a not to be repeated, \$2.00 and \$2.50 respectively. To purchase, contact this office or **Roscoe Tait** direct at **09-575-6288**. While "Roscoe Tait cloth badges" does not have the distinctive ring of that well known jeweller, he will definitely smile on bulk orders. Ten small will cost you only \$20 while ten of the large are yours for an incredible \$25. Buy now while stocks last.
- The Field Guide is being reprinted and SAR organisations are invited to contact me in writing for bulk orders. All active SAR participants should have a copy of this publication, so check around amongst your troops to make sure this is so and then put an order in for the required amount. Cost,

provided it is going to active SAR participants, is free and you won't get a better deal than that!

- The Gisborne SAR Organisation in noting the Y2K celebrations on the East Coast and the City Fathers expectation of up to 200,000 national and international visitors to witness the first dawn of the so called new millennium, are doing some strategic pre-planning. If one percent of that 200,000 decides to see the dawn from a high hill and one percent of that group becomes confused as to their whereabouts or has a mishap (and remember it is a time of celebration for which a range of drugs will be ingested) the local SAR resources will be well and truly stretched. Adviser Chris Sharp is contacting a number of quite distant SAR Organisations with a view to have some good networks in place by then. In noting Chris's concern I see the Hawkes Bay Airport Authority

has allowed expenditure of \$700,000 to extend the Gisborne runway by 140m before the end of the year. An Auckland based venture is reported as saying "the extra length will mean we can bring in 214 passengers at a time, more than double what we can now".

- Canterbury SAR have organised their members and have bought a swag of NZLSAR SAR Supporters Shirts. Somebody commented that seeing a number of them together made them look a bit like a pine forest. They also have the NZLSAR Vests which combined make them a very tidy, more professional looking act. Certainly the vests even over our "outdoor clobber" give a far less threatening image to even our more hirsute searchers.
- I am not sure if I have mentioned this previously but Taranaki SAR has a second-hand searchlight for sale. Its companion, placed on a small hill outside New Plymouth, on a fine night but preferably with high cloud can light up the side of Mount Taranaki sufficient that torches are not needed. All genuine enquires to Noel Watson the local "rag and bone" merchant, c/o PO Box 31, Waitara.

- Wellington SAR Organisation is considering taking advantage of the NZLSAR vest distribution policy. They have decided from within their own funds to purchase identifiable vests. With the SWAZI NZLSAR vests being \$24.80 each they are considering purchasing the number required but as Shirts at \$65 and getting the vests. The Shirts they will then on-sell to their members at \$45 or so. The organisation will have then have paid \$25 for the vests and the members will have paid only \$45 for an excellent shirt. Talk about a win-win situation!
- An addition to the NZLSAR webpage at <http://www.nzlsar.org.nz> is a page on search dogs. It includes a section on operational dogs and handlers and this or similar information should be in every Districts SAR Plan. Have a look at http://webnz.co.nz/lynx_downunder/sardogtraining/ or if you do not have this facility contact me and I will send a copy.

John P Tristram
National Field Officer

121.5 Emergency Transmitter. Obsolescence when?

I have recently received an article about this, in a Civil Aviation Authority publication dated October 1998. Although the article states that such ELT's may be obsolete by the year 2005, I am reliably informed that the date has now been pushed out to 2008 - so another 10 years use can be expected from them. The article goes on to say:

"By then the orbiting satellites which detect emergency signals may no longer process transmissions on either 121.5 MHz or 243 MHz, the two frequencies used by most NZ aircraft, marine and personal ELT's. Instead, the satellites would only process transmissions on the 406 MHz emergency frequency.

"The 406 MHz ELT has stronger signal strength than the 121.5 MHz ELT. It gives an accurate coordinate position for the signal, and, if the ELT is programmed to the aircraft's Global Positioning System or has its own GPS unit incorporated, the position will be exact.

"A 121.5 MHz ELT provides only an approximate position. Its accuracy varies depending on the angle

and position of the ELT's aerial relative to the horizon, its signal strength, its position in relation to hills and valleys, and whether the satellite passed directly overhead or off to one side. Rescuers must spend valuable time establishing the source of the signal. They contact other aircraft and operators in the area to establish whether the signal can be heard and whether aircraft or vessels are overdue. This research is effective but relies on a large network of organisations and individuals and takes precious time.

"Search and rescue relies on beacon compatibility with the COSPAS-SARSAT system to maintain coverage throughout NZ. Without compatibility, ELT detection is reduced to chance reception by overflying aircraft.

"The change to the 406 MHz emergency frequency affects every kind of ELT, including hand-held Personal Locator Beacons.

"Unlike the 121.5 ELT, the 406 ELT can also be detected by the high-orbiting communications satellites at the Earth's equator. This detection can be

immediate, rather than dependent on the timing of the low-orbiting satellites as they pass overhead.

"As the 406 ELT signal is not suitable for direction finding, each 406 ELT also transmits a signal on 121.5 MHz. This signal can not be detected by satellite but it

allows search aircraft to localise and home in on ELTs."

Inspector John Meads
Coordinator: SAR/RCC
Police National HQ

Committee news

The NZLSAR Committee met on Saturday 14 November starting at 0830 and finishing its business by 1600 hours. Topics covered included:-

- Graham Thorp as Chairman made a special welcome to - Dave Barker from Region Three, who as a result of a change to the Constitution is the Regional Representative while Graham is Chairman; Don Bogie who has taken over the role of Specialist Committee Chairman following the resignation of Murray Cullen; and Paul Brennan who was standing in for Police Representative John Meads who was at a bowls tournament.
- A letter from Mr R Gibson requesting support in his quest to get funding from Lotteries Grants Board to run a series of search dog training courses was discussed at length. It was agreed that NZLSAR are a coordinating agency rather than being involved in training at entry level. NZLSAR are looking for a national body with internationally recognised standards rather than a club system therefore the Committee declined to endorse the scheme at this time. It was considered that search dogs are a specialist responsibility and it should become part of the responsibilities of the specialist sub committee. In recognising the huge and unrealised potential of search dogs and handlers, the NFO was instructed to attend a search dog training and assessment course being held in Dunedin shortly after the meeting. More on this in the next News.
- A letter has been sent to Police outlining some of the problems Committee members see at the various levels in the organisation and a meeting has been requested. Regions are being asked to document difficulties and a group of Committee members are to meet early in the New Year to consider these replies. This information will enable a delegation of NZLSAR members to speak at a proposed meeting with authority when discussing the problems and possible solutions to them.
- A final budget allocation was made and NZLSAR is now set to have \$135,500 worth of work done with \$56,100 of this being in the training area. NZLSAR has another separate fund for anticipated expenditure on publications, reprinting the Field Guide, the Work Book which is close to printing and the Cave SAR Book, which is being drafted.
- Paul Brennan, in the Police report, mentioned the imminent publication of the Coordinated Incident Management System (CIMS) manual. This manual is the result of a collaborative effort by representatives from a wide range of emergency management organisations. CIMS modern management principles are now used by organisations for small and large incidents. It is intended by NZLSAR to bring to its members those parts applicable to our activities.
- Don Bogie discussed a comprehensive ACR Review report which had been circulated. This paper focused particularly on ACR teams, training and the best use of resources. It highlighted areas of concern and gave recommendations to improve and make safer the "service delivery". It was resolved that the NZLSAR Committee approve in principle the recommendations made in the accompanying report on Alpine Rescue, and appoint a working group to begin the first stage of the implementation of the recommendations.
- A SWAZI Vest Distribution Policy was considered and approved. In several parts, a relevant section for any SAR organisation considering making a bulk purchase is:- **Any SAR group that contacts SWAZI direct with a bulk order of NZLSAR SAR Supporters Shirts automatically receive the equivalent number of vests which they will distribute as they see fit.**
- The annual meeting schedule was agreed to. The Committee meetings for 1999 are **13 March, 21 August** (including the AGM) and **13 November**. Consideration is to be given to holding at least one meeting outside Wellington and this idea is being explored. Items for inclusion in the agendas

should be in my hand **four weeks** prior to the meeting and for the AGM, **six weeks**.

- **NZLSAR Awards** were approved for **Kenneth James Burrows** and **Gordon Hasell**. Both persons individually have an excess of 30 years involvement in search and rescue and have made an outstanding

contribution. The Committee had pleasure in agreeing this be recognised with the presentation of the Award.

John P Tristram
National Field Officer

SAR Tests and Competitions

In March 1983, Wellington Associated Mountain Clubs held as one of the activities of their sports weekend a SAR Test for the first time. It was organised by Brian Hunt that year and for several afterwards and his initiative is commemorated in the annual presentation of the Hunt Cup to the winning team. In those early days I was content to run my heart out in the Trampers Marathon but felt SAR and competitions was an inappropriate if not silly mix and had nothing to do with that part of the weekend. My excuse was that I was stuffed from the run and had done my bit, the reason being more one of philosophy. However after recently talking to Taranaki and Canterbury people who hold similar competitions and thinking more about it, the concept seems to have merit. Bush Fire Brigades, Surf Life Clubs, Police handlers and their dogs, even brass bands use the competition to raise the level of their respective participants. As somebody said whilst discussing this, even rugby players would never get any better if they "just ran onto the paddock and played with themselves", a thought that seems to have several levels and I was a little taken aback with.

I felt I needed to see what others are doing, so late Saturday 7 November I flew to Christchurch and spent the night at Dave Saunders, a Canterbury Adviser and member of the Training Subcommittee. On Sunday we drove into town, picked up Neil Harris, the originator of the Canterbury SAR Competition and the donor of the **Harris Trophy**. We trundled south in clear skies but cold conditions due to the onshore easterly quite noticeably lowering the temperatures.

Our destination was a branch of the Rakaia River. Now for those who don't know the Rakaia, it belches snow fed out of the eastern side of the Southern Alps, picks up the Mathias and Wilberforce Rivers and forms as it crosses the plain, a mile wide expanse of shingle flats which are in places lupin, gorse etc covered. It has occasional thirty foot sand hills running for some distances parallel to the run of the river which intersperses all this with numerous milky, deep and usually icy braids of swift running water. Not as big as a couple of other rivers in the country, but you need *veerry long legs* to cross it and keep all the bits dry. After

driving down a dusty side road and then through several miles of farm track, which had been specially graded for the event, we arrived at the start place.

I asked to be in a team as an observer and the Deerstalkers took pity on me and said I could go with them. Lean, bronzed, muscular fit types they were and as I am none of these, I wondered what I had let myself in for. The start is a hoot. Each of the thirteen teams entered selects a "runner" and these individuals line up, Neil Harris with an old muzzle loader blasts off and the runners race a hundred yards to a series of bags, select one and return to their teams. The bag is opened, the instructions read and we were informed of a person who had injured themselves and given a grid reference for the accident site some two miles away. Our task was to travel there with a stretcher, find the person, treat the injuries and carry them back, all the while radioing in our position and other relevant information at fifteen minute intervals.

We had a GPS (as did all the other teams) so after entering the GR our direction was clear and we were off at a gallop. With another person carrying the VHF radio we were able to communicate with base "on the trot" albeit with a fair bit of panting and wheezing. The radios used included the new ICOM's which were given a good field test and provided excellent training for the users. After travelling across low lupin and rough grass, a couple of deepish crossings of a small branch of the river, much thrashing through a gorse/blackberry section, we somehow overshot our destination. We were in a half mile tongue of clear shingle which lay parallel to a similar tongue of 30 feet high scrubby bush. The person with the GPS ran in 50 yard bursts until he got the direction and it was at this point that the need for a strong team leader was apparent, as we then lost several minutes as people had disappeared and started "searching on hunches".

Upon getting the party together again, a line was formed in the scrub and after several minutes sweeping through we had our patient. This person, with a minder/judge as a companion, had been dropped in by jetboat (with the other twelve two person combinations) from the other

side to our travel. The patient had then been suitably made up and provided with appropriate props, including a gory looking possum trap. We went through the usual "is the area safe before approaching", ABC's, attending to a nasty gashed hand caused by a the trap, finding the "medic-alert" bracelet, treating for diabetes and continuing the comms contact with base. Finally the patient was loaded onto the stretcher, made secure and we were off. Out onto the long shingle bank and it was interesting looking forward and behind to see other teams pop out of the scrub with their stretcher and also start heading for the base. This year time was not taken into account, which although difficult to score, I don't entirely agree with. However with several teams all jostling to get ahead the race was on and I found it difficult to remain just as an observer, such is the competitive spirit that is engendered.

We arrived at the designated crossing spot and after a bit of "testing the waters" we made it across, about chest deep for some. This activity was assessed and marked, as was the passing over of the patient to a medical person. Then a team member was randomly selected and their pack emptied and checked against a list. Next the team had to erect a shelter that could have covered them and the patient. Most had a couple of fly's but one team's effort was so small that when the patient was inside all had to sit up with some on top of each other, which could have led to an indecently friendly but eventually uncomfortable night if that was required.

Then came the observation section, we had not finished yet. We again crossed "our branch", all linked up as per the best MSC river crossing method. Meeting the jet boat and its wash in the middle was not exactly the highlight of the day. Once over we climbed a thirty foot sand bank and found the two courses. One was a rope

line that we were able to walk up and down and had to note the various objects placed in a defined area while the other was a 50 yard walk through with objects again placed randomly.

Back across the river for the final time, watch the last team come in and it was barbecue and beer time. Another aspect for the attendees of these types of events is the opportunity to meet new people and renew old acquaintances. With lots of supporters as well as the competitors there must have been more than 150 people in attendance. So while the judges tallied up the points, everybody passed the time with lots of eating, drinking and good old "social intercourse".

And then the announcement, **third place** was **Hurunui SAR Organisation**, **second place** was **Methven SAR Organisation** and the **winner** was **Christchurch Tramping Club**. I felt crushed, I was sure "my team" was the winner. Certainly if I am ever lost in Canterbury I will feel happy knowing they are among the searchers. And so we pulled down the big marquee, filled in the "dunny holes", packed up the rest of the gear and began the slow bumpy ride through the dry brown paddocks, interspersed with the occasional patches of green, the result of intensive irrigation. And then the hour drive north to the "Garden City". Sunburnt, gritty from the wind blown dust but impressed by the event and its training potential. A good event that tested and measured the performance of the competitors, gave the organisers a chance to exhibit their deviancy, the comms people their radios and then the wrap up with a bit of healthy socialising.

John P Tristram
National Field Officer

Requesting RNZAF Iroquois helicopters for SAR purposes

It has been brought to my notice on one or two occasions in recent months that RNZAF have declined to deploy an Iroquois on a SAR operation when so requested. It must be remembered that this won't happen as of right, just because the Police have requested them. Certain criteria have to be met, and it may be timely to reiterate what the policy is:

1. In June 1997 I issued a memorandum to all District SAR Coordinators (Police) on the subject, which included the wording: "RNZAF helicopters are on standby at two hours notice at Auckland and Christchurch for tasks that are beyond the capability of available civilian helicopters. They are best used for insertion of a large number of search teams or

specialist winching. For a short task, or the initial stages of a search, it is more economical to use readily available civilian helicopters." This policy has since been printed in the 2nd Edition of the Police Manual of Best Practice (dated March 1998).

2. A communication to Police from RNZAF dated September 1997 included the wording: "The commitment to SAR by the RNZAF remains as it has in recent years. However, fiscal restraints have forced a re-evaluation of all areas of Iroquois flying, including SAR. As a result, the Chief of Air Staff has directed that Iroquois SAR support is to be utilised when the task requires the capability that the Iroquois provides. If there is a civilian helicopter that

is capable of achieving the task then that resource is to be utilised in preference to the Iroquois. The RNZAF Iroquois continues to be available for SAR, after due consideration of alternatives, and certainly if safety of life is threatened."

3. In a memorandum dated 18 December 1998 forwarded by me to all District SAR Coordinators (Police), I included the following wording: "At a meeting held earlier today at Police National HQ, representatives from Air Staff, HQ NZ Defence Force, discussed with Police staff from Operations Support Group the level of Iroquois support that can reasonably be expected by Police. They re-affirmed

their commitment to support SAR, but also reminded us of the policy that unless there are good operational reasons for them to be tasked in the first instance, then a local commercial operator should always be looked at first."

So it goes without saying that when Police put a request to Hobsonville or Wigram they need to be sure of what they are asking for, and the way the request is worded. If the above criteria are not met, then everybody's time is wasted.

Inspector John Meads
Police National HQ

Editors Comments

To Terry and John a big thank you for your articles. To those who proof read and check the spelling and grammar, thank you also. Copy for the **April News** is most welcome and the close-off date is **Friday 26 March 1999**. Articles on gear, SAR training or operations are most welcome. Please either mail as neatly hand-written, printed hard copy or on a disc to **NZLSAR, PO Box 12081, Thorndon, Wellington**. Alternatively email it to **tristram.nzlsar@xtra.co.nz** .. Regards **John P Tristram** National Field Officer