
NZLSAR News

Volume 8 Issue 5

October 2002

CONTENTS

Committee news
Sports Drinks and rehydration
SAR and the weather bomb
Avalanche course report

New books in the library
Region Four news
Conference update

NZLSAR and Committee News

On Saturday 17 August NZLSAR held its Eighth General Meeting combined with a Committee meeting. Superintendent Neville Matthews and Inspector Paul Brennan were both in attendance for all or part of the day. After lunch a NZLSAR Award was

Chairman by Roscoe Tait and a bouquet of flowers was given to Graham's wife who was present. Neville presented Phil Rundle with a Police Volunteer Medallion and a Police Plaque to Roger Barrowclough. A presentation of gifts from NZLSAR was made to Roger Barrowclough who has retired as Region Seven Representative.



Graham Thorp being presented with a NZLSAR Award by incoming Chairman Roscoe Tait

presented to Graham Thorp for his services as

The Annual and Financial Reports were received from the Committee and approved. Copies can be obtained by contacting this office. Elections were held for the Office Bearers positions and the following were selected:-

- Chairman - Roscoe Tait, Auckland
- Deputy Chairman - John Walsh, Auckland.
- Secretary - Paul Dale, Christchurch.
- Treasurer - Phil Rundle, Lower Hutt.
- Specialist Subcommittee Chairman - Tric Moller, Dunedin.

Review Subcommittee. The membership of this Subcommittee which looks at policy and procedures was agreed to be Gerard Prins, Roscoe Tait, Barry Were, Graham Thorp and Brian Holland.

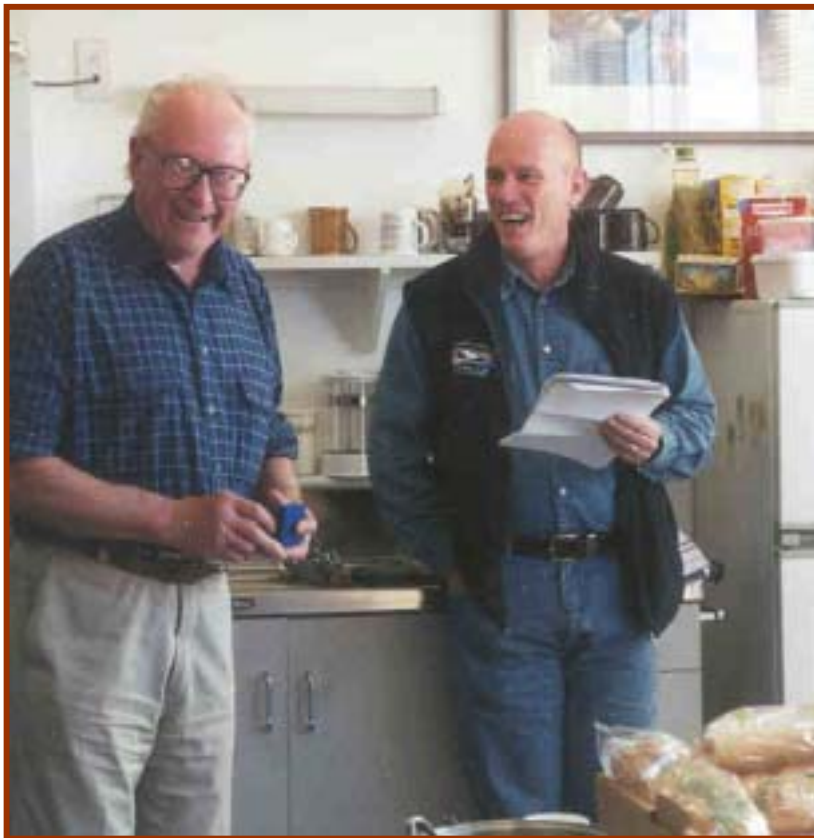
Finance Subcommittee. This Subcommittee which deals with the financial side of the Committee and produces the draft Business Case now consists of Phil Rundle and Roscoe Tait.

Remuneration Subcommittee. This Subcommittee which deals with the NFO

position now has a membership of Paul Dale, Gerard Prins, Phil Rundle, and Roscoe Tait

Amongst the "Matters Arising" contained in minutes of the meeting and with additional comment following further work are these comments:-

Phil Rundle being presented with his Volunteer Medallion by Neville Matthews



Swift Water. A person has been contracted in an attempt to see if kayak accidents are or could become a significant SAR problem. Work including reading and sourcing information has begun and some 50 questionnaires have been sent out to SAR Regions, key personnel and other agencies. It is hoped to have a report ready by the middle of September

Audit. The key dates that Dave Brewer is in New Zealand for the audit are- arrival in Auckland on 29 October, Christchurch for the Conference on 7 November and Wellington on 16 November for the national meeting.

Insurance. Concern has been raised that SAR volunteers may be declined insurance or have an excess applied. After writing to the Regional Secretaries, an article in the News and other questioning only one instance has emerged. The company concerned has been written to seeking the reason for this.

HSE Amendment Bill. Gerard Prins informed the Committee that Police had spoken to officials from OSH about the Bill and the definition of "volunteer" may be changed.

The Patient Care Standards Audit. It was reported that the drafting of this Standard is progressing well. A meeting of the Medical Group has subsequently made good progress with the document and it is being trialled with an audit of the Dunedin and Auckland SAR Organisations.

Conference. It was reported that a contract with the event organiser has been considered and found satisfactory.

Badges. It was resolved that the NFO purchase 100 of the round badges and that they be sold for \$5 each. If you want one of these badges please contact this office with \$5.

John P Tristram. NZLSAR National Field Officer

Sports Drinks and Rehydration??

I was reading the Tacoma Mountain Rescue unit newsletter recently and came across an article, which I thought was interesting and of relevance both for SAR and our general activities in the outdoors. It is with permission of the author, Andrew P Jenkins, PhD, Central Washington Mountain Rescue that I reprint it below. NFO

Research in exercise physiology indicates that most sports drink formulas are unnecessary for good rehydration for most people under most exercise conditions.

Most sports drinks are hypertonic, meaning they contain too many dissolved ions such as sodium, glucose, etc. The law of osmosis indicates that water will follow the ion concentration; thus if you drink a salty or sugary

solution you may well draw water into the gut rather than facilitate the movement of water out of the gut. The net result is diarrhea, which can cause further dehydration.

All of the research on sports drinks indicates that good, cool water is all most people need under most conditions. If exercise is sustained for more than two hours without any feeding, electrolytes and carbohydrates may be necessary. Under two hours and you are not likely to lose that much in the way of electrolytes.

The problem is that most sport drinks are too salty and sugary for good rehydration because they are marketed to soda pop drinkers. If you feel the electrolytes may be helping your climbing/hiking then try a sports drink but with water (dilute) waaaay down. Best absorption will occur with solutions that are isotonic (less than 1% soluble ions). It wouldn't hurt to put a splash of Gatorade in your water for flavour.

Most hikers/climbers are snacking on high carb, salty snacks (i.e. Powerbars, nuts, gorp) so they do not need to worry about carbohydrates and sodium in their drinks. What you need to worry about is staying hydrated. As you sweat and pressure breath at altitude you dehydrate rapidly. Most of the water loss will come from your blood plasma. As your blood water decreases your blood thickens and your heart works harder to meet your exercise needs. You will also experience a decreased ability to cool yourself and thus the situation perpetuates itself and your performance will continue to drop. A 2% volume loss will result in a 1 degree temperature rise. Add altitude to the equation and your susceptibility to AMS is greatly increased with dehydration. Now you are hot, weak, panting, dizzy and pukey.

What's a climber to do? Drink, drink, drink. My preliminary research on hydration of SAR workers indicates that hard-working SAR personnel may use up to 1 quart per hour.

In the Field. A good rule of thumb is this: Drink enough that you feel the urge to pee about every hour to 90 minutes. Your urine colour and volume is the best indicator of hydration status (in the field). If it is clear and copious you're fine. If it is dark and the volume is low and the urge to pee is infrequent, you're low on water. If you are getting dizzy when moving from a seated to a standing position (head rush) you're probably dehydrated.

The high fructose corn syrup is a marketing ploy to disguise the sugar. The marketers are targeting the product at health conscious people who may fear the term "sugar" and thus perceive fructose as a "natural" and thus safer alternative to sucrose – hooley! The calories are the same (4 per gram). Regardless of whether you consume table sugar (sucrose), milk sugar (lactose) or any other sugar, eg galactose, maltose, etc they all will be broken down into glucose in order to be used for energy.

Be aware of the fluid and glucose loss that occurs when you are CHILLED. Fluid and carbo replacement is as crucial in the cold as it is in the heat but in the cold creeping dehydration and hypoglycaemia are especially pernicious.

If you or your partner or subject is shivering he/she is likely losing water due to cold diuresis and is apt to run low on glucose due to the constant muscle work of shivering. Cold diuresis occurs when your body shunts blood away from your extremities and pools it near the internal organs to reduce the "radiator effect". Little pressure sensors (baroreceptors) in your great blood vessels pick up on this increased load and tell the kidneys to spill off some of what they think is excess fluid. (Ever notice when you get that "deep chill" in the middle of the night you also have to pee a lot?) When you warm up there's a drop in blood pressure and perfusion because you haven't got the volume to adequately spread around to the previously shunted extremities. So drink when you're hot, drink and eat when you're cold and drink when you are re-warming.

Lastly I'm always asked "Can you drink too much"? Yes you can drink too much and cause water intoxication but it's very hard to do. Your blood becomes too diluted and you may experience cerebral edema. It's rare but it does happen. You need to drink a few gallons in a very short time. Reuters recently reported on a few deaths in the military from recruits drinking too much as a reaction to fears of dehydration. The ASCM maintains a website that contains several easy to read exercise related papers that may be of interest -

<http://www.acsm.org/health+fitness/comment.htm>

Andrew P Jenkins, PhD
Central Washington Mountain Rescue

SAR and the Weather Bomb

On the evening of the 20/21 June 2002 in Thames it rained. And it blew. Not many people on the Coromandel Peninsular slept that night. The power was off and for some of us it was off for 24 hours. Others were without power for two weeks. Without power, petrol pumps could not work. There was no water in the taps. Tankers supplied water for up to two weeks in some areas. The roads in the area were almost impassable and traffic was restricted.



The house moved, the tree didn't

Thames Land SAR were called at 0700 hours to search for the body of a woman who was washed away from the Waiomu Camping Ground in the night. By 1300 the major part of the grounds and foreshore had been searched without success and a call was received from Civil Defence to carry out a welfare check of homes in the Waiomu area.

This involved setting up eight teams of two persons to visit almost every house in the area. Some of the side roads were totally blocked by slips, washed out culverts, downed power lines, and tonnes of deep, sticky silt. Access to some of the properties was almost impossible, even on foot. We were the first contact some of these people had with the outside world. We soon learned that the quiet ones were the worst effected. Notes were taken of names, street numbers, urgent needs and general conditions. These notes were passed to Civil Defence.

On 22nd June, the entire day was spent searching through the considerable amount of debris up the Thames Coast looking for the body of the missing woman. Her body was found by a member of the public late in the day about 12 km from where she disappeared.

The next day was spent continuing with a house-to-house survey of all properties from Tararu, near Thames up the Coast to Te Mata. Because of the conditions, the postal service

was not operating and we were asked to distribute Civil Defence letters to all affected houses in the area. The conditions of properties were marked on residential maps using a system of colour codes.

On 4th July, we were again asked to survey more properties, this time from Te Mata right up through Coromandel to Stony Bay at the

top of the peninsular. This is normally a two and a half hour drive from Thames, but the roads were almost impassable at the top of the peninsular. The survey was completed that day and the maps and notes returned to Civil Defence.

The damage we saw during these duties was horrific. Houses with up to one metre of silt inside. Houses with logs on the floor in the lounge. In one case, a huge log went right through the house. Houses washed off their foundations. Hundreds of properties had to be hosed out and carpets lifted. Furniture, carpets and clothing was stacked out in the streets to be collected for the landfill. Cars and caravans were washed out to sea.

The response from outsiders was incredible. Goods poured into the area. On the first day, a caterer's van from Auckland pulled up and provided hot food to the search teams. Fire Brigade units from a wide area assisted with hosing out basements and houses.



Power and phone lines were disconnected for some time

Some of our members attended a “thank you” barbecue on 25th August, and our group was represented at a major de-brief on 28th August.

This event gave Thames Land SAR an enormous amount of publicity. Hi-viz jackets were worn at all times. Letters of appreciation to Search and Rescue were printed in the local paper. The proceeds of a garage sale of surplus items were largely directed to Thames Land SAR, and we were well reimbursed for our expenses for the above events.

Many of our members suffered damage to their own properties and delayed their own repairs in order to help others who were less fortunate. We are grateful for their response. Our members were rotated as much as possible to spread the work load.

The extent of the storm can be summarised as follows:

- Rainfall in 24 hours 212.5 mm. 110 mm fell in one hour.
- Streams on the peninsular rose 3 to 4 metres in 1½ hours
- Cost of emergency to Thames/Coromandel District Council - \$2.9 million
- Value of insurance claims lodged - \$28 million.
- Number of insurance claims lodged – 14,000 claims (6,000 claims

were lodged at the time of the Edgecumbe quake).

This was a little different to our normal “Search and Rescue” duties. We found that we had to exercise care when dealing with people traumatised by events, property damage or loss of a family member. Perhaps we need more training in this area?

This report may help other groups to prepare for a similar emergency. It has become the policy of many local Councils to engage contractors for parks, road maintenance, etc which means that they no longer have access to the outdoors personnel or radio networks they once had. They are most grateful for the services we supplied and have indicated that the information we provided was their most reliable source of vital data. Assistance was provided to people who had no means of communications except through the notes from our visit.

Jim Rowe
Thames SAR

Otago Polytechnic Avalanche Course

*For the last three years the Cromwell Campus of the Otago Polytechnic has offered NZLSAR a scholarship for the Stage 1 avalanche course. This generous offer covered the tuition fees associated with the course. This year Jonathan Carr who is associated with the Wakatipu SAR Organisation was selected as the NZLSAR attendee and below are excerpts from his report to NZLSAR. **John P Tristram NFO***

The Programme.

This course was well run and invaluable as a learning tool for practical experience in the outdoors during the winter and summer snow travel and searching.

The Instructors

Tarn Pilkington, Remarkables Ski area;- Russ Tinsley, Remarkables Ski Patrol and. Kem Johnson, Alpine Guides. All of these instructors

had vast experience in the Outdoors, Snow Safety and Weather conditions. They instructed with confidence and were helpful and informative.

The contents:

- Weather - Very informative, practical and useful.
- Snow analysis - heaps to learn and enjoyable.
- Terrain selection - useful and practical for future use.
- Practical Search Techniques - Transceiver searching - invaluable
- Stability evaluation - important and technical.
- Hazard analysis - practical and essential.
- Avalanche Path Identification - a must for all mountain users.
- Rescue Plans and Techniques - varied and informative.

I especially appreciated and enjoyed the teaching and practical application of the course content, and found all three instructors imparted their knowledge and practical experience with expertise. The outdoor field days provided enormous experience, backed up with practical understanding of our course content in every aspect. With this extra knowledge, and with continued practical experience, I know the benefits to NZ Land SAR will be evident should the need arise.

I very much appreciate the opportunity NZLSAR have given me in being able to participate in this Avalanche 1 Course, and qualification.

Jonathan Carr
Wakatipu SAR

Library news

Several more books have been obtained and the collection is become markedly eclectic. Books on tracking, the manual for the Initial Response Course, traveller's health and one about batteries are now available upon request. A small review of several is as follows.

Batteries in a Portable World by Isador Buchmann. Considering that batteries in SAR drive such aids as radios, repeaters, GPS's, items such as the humble wristwatch or torch and even start the vehicles we move around in suggest they are of great importance. However it is an importance that is not always realised or understood. This book sets out for us "non techno nerds" in a very readable manner a little of the history of batteries, the development of the different types and the care needed to get the optimum usage from them. An ideal read if you want to know more about this vital power source.

Search Management for the Initial Response Incident Commander 2001 by ERI International Inc. This manual will be provided to the attendees at the Initial Response Courses NZLSAR hopes to provide shortly. It is structured around the "Six Steps Process" developed by the International Association of Chiefs of Police and is designed to provide a systematic and logical method whereby those in the CIMS management team are able to make rapid decisions on tactics and the application of resources.

Travelling Well by Dr Deborah Mills. While written primarily for those travelling overseas this book has a number of medical tips quite applicable to longer trips in the NZ outdoors. It has been described by two doctors as "Full of sensible, easy to follow advice" and "Clear, concise, practical" so if you are travelling and want to be more informed on keeping well in both town and country, this is worth a read. I thought the "Flow chart for the treatment of travellers diarrhoea in adults" would have been of great help in dealing with the problems experienced both in the NZ hills and more recently overseas.

READY! The Training of the Search and Rescue Dog by Susan Bulanda. I have had little opportunity to read this and the next book as they both went out straight after being recorded in the library list. However the blurb on the back says, "READY is a well researched and practical resource for training search and rescue dog. Written by an experienced search and rescue person who is also a keen student of animal behaviour.

TACTICAL TRACKING OPERATIONS. An Essential Guide for Military and Police Trackers by David Scott-Donelan. This book claims that the reader will learn how to:- find and follow tracks through woods, deserts, jungles and mountains; assess the age of tracks; relocate the trail after its gone missing and foil every effort to throw off your pursuit. While promising all this and much more, at

the very least it brings in other ideas and ways of looking at the subject of tracking and as such is well worth reading.

John P Tristram
NFO

Region Four news

The Region recently held its AGM and a number of Office Bearer positions have changed. Stewart Davies who was at one time the Regional Representative as well as Regional Chairman has stood down. Warrick Price of Levin has now picked up the role of Chairman. The Training Officer continues to be Laurie Gallagher and Tony Macklin remains the Regional Representative. The Secretary and Treasurers positions are yet to be confirmed upon their acceptance of taking the roles

The Region recently held their third Regional Seminar which was most successful with 75 senior SAR participants present. Bruce Wilkinson from the Maritime Safety Authority and Ray Parker from the National Rescue Coordination Centre both gave excellent overviews of the role their respective organisations play in marine safety and class III SAR. Laurie Gallagher gave a very good paper on SAR competitions and Ian Watson, a Police Dog Handler and his dog showed how to find an object in a large lecture theatre half full of

nervous observers. After a nice lunch Dr Dick Price a member of the NZLSAR Medical Group drew from his many experiences, including an ascent of Mt Everest, to inform the audience on the medical aspects of the alpine environment, frostbite treatment, nutrition during a SAR operation, medical Standards and the training required. For the last two subjects he was ably assisted by Terry Patterson as Chairman of the Medical Group and Tric Moller who as NZLSAR Specialist Subcommittee Chairman has responsibility for the medical aspects of SAR. Following afternoon tea, Gerard Prins gave a riveting expose on the changes to the governance of SAR at the national level. A debrief and closure by the prime organiser, Stewart Davies, finished off another good day for land search and rescue both from the information gained by the participants and the networking opportunities that events such as this provide.

John P Tristram
NFO

NZLSAR Inaugural National Conference

Planning for the NZLSAR Conference is proceeding well and below is an update on some of the details.

When. 8 - 10 November 2002

Venue. Lincoln University Campus, Christchurch at the corner of Ellesmere Junction Road/Springs Road, Lincoln, approximately 25km from Christchurch.

Registration The registration fee is \$90 for the full program for registrations received before 21st of September. This includes dinner and entertainment on the Saturday night. All Early Bird registrations go into a draw for a Garmin GPS Receiver. We will have 2 Kathmandu Force 10 Jackets to raffle at the Conference, thanks to Kathmandu.

Accommodation. Accommodation is available on campus for \$50 per night for a single room. Some rooms suitable for couples are available.

Keynote Speaker. Dave Brewer, a Canadian SAR practitioner for more than 36 years, is confirmed as an international keynote speaker. He will be giving a presentation on Operational Review.

International Guest Speaker. "Skip" Stoffel of Emergency Response International, USA is confirmed as a guest speaker.

Program

Friday 1800 hours. Registration desk opens, 1900 Cash bar and nibbles, 2000 Informal presentation.

Saturday AM. Opening Keynote Speaker, Speakers, Trade Display

Saturday PM. Speakers, Workshops, 7.30pm
Conference Dinner and Awards
Sunday AM. Speakers, Workshops, 1200
Conference Close

As well as the Keynote presentation, an interesting and varied program is planned to cater to interests of a wide range of SAR enthusiasts. Planned topics include:

- Dog GPS Tracker/GPS and Mapping
- Dog Standards
- GIS and SAR
- Initial Response
- LPB/Profiling
- Mountain Radio
- New Map Projection
- SAR by the Numbers
- SARINZ
- Technical Rescue
- World SAR Scene

Note that these are not all finalised yet, so the final program may vary a little. There will probably be at least two simultaneous sessions.

Unfortunately time does not allow us to repeat sessions, so you will have to choose.

Sponsors

We have been very fortunate to secure a number of sponsors. Major Sponsors are:
GeoSystems - Garmin Dealer; Standard Communications NZ - Garmin Distributor; Christchurch, Kathmandu; Search and Rescue Institute of New Zealand.

We will also have a number of sponsors and other suppliers with displays available for your viewing. Some sponsors have provided products that will be raffled during the Conference weekend, and others will have special pricing available for the Conference.

Information

For any additional information contact the Conference Manager via Email to nzlsar@insync.co.nz

Steve Davis

Conference Coordinator

Editors Comments A big thank you to **Andrew, Jim, Jonathan and Steve** for your articles. To those who proof read and check the spelling and grammar, thank you also. Close off date for the **December News** is **Monday 25 November**. Give it a go, write an article, a photo is doubly welcome. I can scan it and return it. Send your material to **NZLSAR, PO Box 12081, Thorndon, Wellington**. Alternatively email it to tristram.nzlsar@xtra.co.nz Even if you have some thoughts on an article but are diffident in putting pen to paper, feel free to give me a ring on **04-470-7247** and we can talk it through. Regards
John P Tristram, National Field Officer