

Connecting the Search and Rescue Sector

news

Learning SAR Lessons

The NZSAR Secretariat has set up a forum for SAR people and organisations to share SAR lessons. Each year there are thousands of search and rescue operations and many thousands of hours dedicated to individual and collective training in preparation for operations. Most of the time we get it right, sometimes we get it wrong, but often we think that we could do better.

Much of what we learn (beyond formal tuition) is from direct experience on operations and exercises. Issues that need to be fixed before we do it next time are often identified through debriefs or discussions with our mates, either during or after the event.

When this information is captured, shared and results in some form of changed procedure, whether this is additional training or something else appropriate, it moves from being a lesson identified to being a lesson learned – at least at the local level. While this has proven to work well locally, it has not allowed us to learn effectively from our peers and their experiences (good and bad) if they are not in our area.

To help SAR lessons that are identified around New Zealand move from that local level to a national one, the NZSAR Secretariat is establishing two ways for the sector to publicise and share information. The NZSAR website (www.nzsar.org.nz) now has a "Lessons Learned" section. We want this to be a forum where issues that have been identified can be posted so that others in the sector can view, consider and perhaps incorporate the solutions into their procedures and training. The Secretariat will also use the Link newsletter to publicise selected "lessons" for the benefit of the wider sector. Lessons are not necessarily stuff-ups; we also need to reinforce success by sharing the things we do well.

For this initiative to work effectively, we need three things:

- Lessons suitable for sharing, or issues of interest to the sector to be posted onto the NZSAR website.
- SAR people to look at this section of the website occasionally, especially before revising procedures or planning a SAREX or any training.
- An open mind to new ideas and different ways of doing things, as well as learning from others.

The Secretariat will manage the system but we also welcome feedback and ideas for improving it.



Identified Lessons

This selection of identified lessons gives the SAR sector an opportunity to learn from the experience and expertise of others.

Survivability. Empirical evidence suggests that a survivor of a similar prior incident has an enhanced chance of surviving again.

Underwater. Care must be taken when making assumptions about the identification of an underwater target without irrefutable evidence of what it is.

Searching from a helicopter with Nitesun and NVG. Searching helicopters may leave their Nitesun on but should keep it directed away from where they are really searching during night operations. This is necessary so that the NVG's are not overwhelmed by too much light.

It also has the benefit of showing the missing person(s) that they are being searched for and members of the public that a search is being conducted, encouraging them to offer information. In a recent helicopter search using this technique, a member of the public was inspired to make contact with the authorities out of concern that the helicopter was searching in the wrong area. This person then directed the helicopter to the location of the individual in distress.

Note that this technique may cause some confusion since it can appear that the helicopter is searching in the wrong place.

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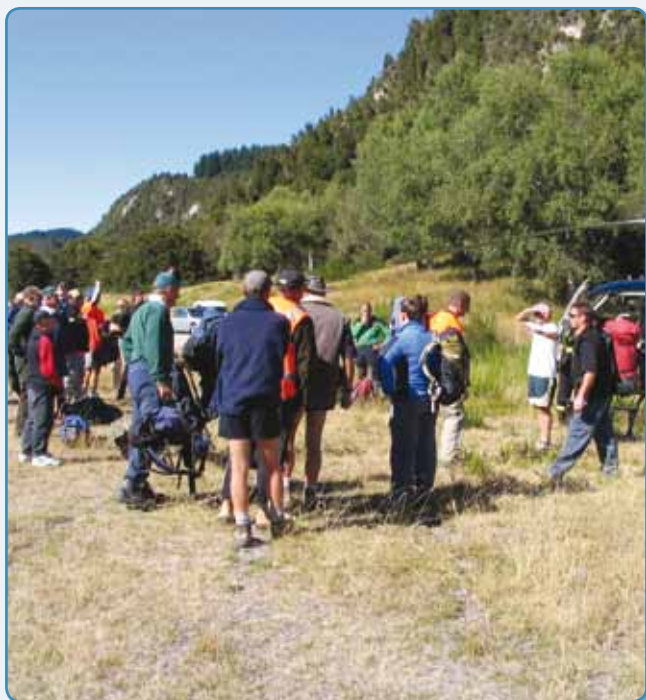
Stop and Listen. There is huge value in regularly stopping search vessels, turning off engines and silencing radios during a search, in order to listen for audible distress calls or whistles. Doing this was the prime factor in a recent successful SAR operation.

Know how to use your distress beacon. In February this year, a commercial helicopter with 18 people on board crashed, at night, into the North Sea – a few hundred meters from the oil platform it was heading for. It took nearly 30 minutes before the people were located and subsequently rescued. While their distress beacons alerted the COSPAS–SARSAT system on 406MHz, searching aircraft had great difficulty in picking up 121.5MHz homing signals. Several issues were identified following the incident:

- The passengers all had individual, wrist-mounted, short-range 121.5MHz personal locator transmitters as well as 406 MHz distress beacons. It appears that the wrist transmitters were of a type and make that resulted in suppression of/interference with the PLB signals.
- The crew did not deploy the PLB's aerial correctly which may have limited their transmitting power output.
- No strobe or other light sources were carried or used by the passengers or crew.

For more information about this incident see:

http://www.aair.gov.uk/publications/special_bulletins/s5_2009___eurocopter_as332l2_super_puma__g_redl.cfm



Topo50 Map series launched

The Topo50 Map Series that produced a 1:50,000 scale map series replaced the current Topographic NZMS260 map series was launched on the 23 September 2009.

The new map series will use the New Zealand Geodetic Datum 2000 (NZGD2000) and the New Zealand Transverse Mercator 2000 (NZTM2000) projection. The New National Map Series Technical Fact Sheet (PDF 425KB) provides further details.

Information on Topo50 maps, including how to read them and how to navigate using a map, can also be found in the Topo50 Map Reading Guide or visit www.lin.govt.nz.

AREC sign Service Level Agreement

The NZSAR Council is pleased to announce it has signed a service level agreement (SLA) with the Amateur Radio Emergency Communications (AREC). AREC provides communications for a large number of SAR operations across New Zealand.

This SLA is the fourth NZSAR has signed, the others being: Coastguard NZ, LandSAR NZ and Surf Lifesaving NZ. These agreements are proving to be an extremely valuable factor in strengthening the search and rescue sector.

news continued

NZSAR Plan

The NZSAR Council provides strategic leadership and direction to the many organisations that make up New Zealand's search and rescue sector.

As part of its ongoing commitment towards a more connected and cohesive sector the Council has released The New Zealand Search and Rescue Plan 2009 – 2014.

The Plan gives an overview of our sector and outlines the NZSAR Council's goals for the next five years. These are:

The full NZSAR Plan is on our website www.nzsar.org.nz or you can obtain hard copies from the NZSAR secretariat – Email: D.Ferner@transport.govt.nz or C.VanDerMeulen@transport.govt.nz



NZSAR Council goals

The NZSAR Council adopts these goals in order to lead the combined efforts of New Zealand's search and rescue sector to meet the purpose and vision of this plan.

- **To enhance the effectiveness and efficiency of New Zealand's SAR sector**

With high public expectations of SAR success, and limited resources, it is important that the sector works hard to improve both its effectiveness and efficiency. To realise this, we will continue to improve our understanding of ourselves, our relationship with other SAR agencies, our operations, and the risks to the sector. We will use this information to develop our organisations, improve our ability to work together using common procedures, and reduce the risks facing the sector.

- **To achieve a culture of "one SAR body"**

Search and rescue works best when the sector works together. The sector is diverse, made up of thousands of people performing many different roles in a number of organisations. In order to achieve an effective culture of being "one SAR body", the sector will enhance its internal and external communications and better coordinate its standards, training and activity.

- **To promote continuous improvement**

The NZSAR Council will adapt to the ever changing environment and challenges it faces by making continuous improvements to its organisations, training and operations. This will be achieved through information sharing, showcasing good practices, promoting innovation and effective monitoring of the sector.

- **To maximise the potential of SAR people**

People are at the heart of New Zealand's search and rescue sector. We need a better understanding of who our SAR people are and what they need to succeed. We will support and promote the work our people do as we assist SAR organisations to manage, recruit and retain our SAR people.

- **To support SAR preventative strategies**

The NZSAR Council, together with dedicated specialist organisations and groups, has an important role to play in helping prevent the need for search and rescue responses. The Council will inform, support, contribute to and, when required, coordinate or lead preventative strategies and actions for individuals, groups and organisations that should lessen the likelihood of them needing search and rescue services.

Prevention involves individual, collective and organisational behaviour that minimises the risk of injury or loss of life. SAR organisations are not primarily responsible for preventative strategies, but we must play an active role in initiatives that minimise the need for our services where we can. This may include a mix of information, education, advice, influencing environmental factors, assessing risk, imparting skills, recommending appropriate equipment and regulation.

extract from the NZSAR Plan 2009-2014

SAR in action

Discover more, safely

In the SAR world, the New Zealand Mountain Safety Council is seen as the fence at the top of the cliff. Prevention and safety lie at the heart of their work. As their mantra illustrates, they support people to discover more, safely.

"Discovering the great outdoors can be a profound experience; it challenges us both physically and personally and provides so many of us with amazing experiences and memories. We are truly spoilt for outdoor activity choice and location here in NZ and as we become more knowledgeable, more informed, and more aware, we are able to go further, do more, learn more. We discover more, safely", says Darryl Carpenter, CEO of the Mountain Safety Council (MSC).



SAR people and organisations agree that prevention through education, awareness and information is certainly better than picking up the pieces through search and rescue, and there are many techniques and strategies that can be used.

The experience of a couple tramping in the Tararua Ranges, north of Wellington, demonstrates the importance of preparation. On the third day of a five-day tramp, the woman slipped on a log and fractured her right ankle, half an hour from the nearest hut. Thanks to the simple precaution of carrying a mountain radio, within two hours of police being alerted, the injured woman had been picked up by rescue helicopter and flown to hospital for treatment. To get cellphone coverage would have involved hours of walking. Knowing what equipment to take and making the right decisions ensured their safe return.

Preventative strategies can be as simple as recommending people check the weather, track and hut conditions before they head out, recommending the appropriate equipment, passing on skills and making people aware of best practice or the appropriate regulations. Or, it can be more complex such as developing sector aligned and agreed preventative safety messaging, influencing central and local Government policy development and implementation, or lobbying for greater support and resources for preventative activity in the outdoor sector.

NZSAR has recognised this by adding prevention as one of its strategic goals. (see page 3)

Darryl says *"it is vital to any prevention work that SAR agencies join forces and work together"*.

MSC has agreed to lead some work developing a series of common safety messages for the public.

"Having a consistent set of safety messages that the whole SAR sector can use will lend them real weight and avoid the confusion of sending out mixed messages. That will benefit the SAR agencies, the public and visitors alike. Consistency is a key factor in any prevention strategy."



SAR in action continued

In addition to the development of agreed preventative messages for land-based outdoor activity, Mountain Safety Council is leading a series of outdoor safety initiatives that focus on prevention and building safety awareness, including:

- A review of the visitor intentions system
- The snow safety programmes
- Avalanche monitoring management and public awareness through the MSC avalanche advisory www.avalanche.net.nz
- Community outdoor leader development
- Bush craft and outdoor safety public education
- Hosting and providing support for the National Incident Database www.incidentreport.org.nz
- Research and information gathering into levels of participation and incidents, including gaps and trends, in outdoor safety.

We know prevention works. In 1965 there were 52 non-intentional firearm incidents per year (that's one a week). This year the figure is 12 (that's one a month). Any death is one too many, but the education and awareness programmes of the Mountain Safety Council and NZ Police have been a key factor in significantly reducing harm.

"In the early 2000s, we introduced our snow safety programme and avalanche advisory service. In the last eight years there had been no avalanche fatalities until the tragic death of three people this year. Those three fatalities occurred in unusual weather and snow loading conditions, and when some people accessed loaded terrain despite our snow hazard warnings.

"Prevention is always better than the alternative. Our aim is that through awareness and education more people will enjoy the New Zealand outdoors more often, safely."

If you would like to know more about MSC's prevention strategies or how to get involved, please contact Darryl Carpenter, CEO, Mountain Safety Council or visit their website:

www.mountainsafety.org.nz.

training update

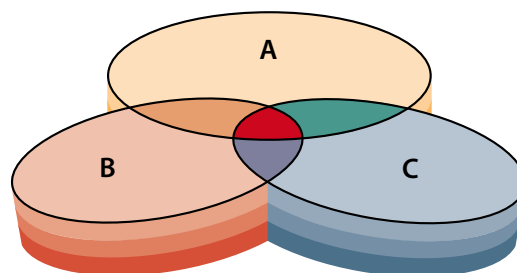
Developing the Core Curriculum

The development of a NZSAR core curriculum is making steady progress, proving the value of working together using the myriad of skills and expertise available throughout the SAR sector.

A core curriculum for the search and rescue sector is one of the key recommendations to come from the NZSAR Council's *Improving Search and Rescue Outcomes Through Interagency Collaboration and Training Report*.¹

The main task of the NZSAR Core Curriculum Working Group is to identify the common activities of SAR organisations. These will become the content of the core curriculum; which managers and trainers will use when making decisions about training, not only for their organisation but also when working with their partner organisations.

The working group is specifically looking for ways in which SAR organisations can work together to share their skills and knowledge with their peers. The key to their work is determining what the organisations have in common; how they can do their job better through improved inter-agency collaboration.



The ovals A, B and C represent separate organisations in the SAR Sector indicating the content of activities each undertake. The red zone represents the field of activities that are common to all organisations, i.e. the core curriculum. The merging colour fields (orange, purple and green) represent activities shared by some (but not all) organisations.

The NZSAR core curriculum will focus on outcomes. It will be used to identify opportunities for training cooperation between agencies in order to improve individual and multi-agency response capability.

¹ Go to www.nzsar.org.nz to view this report



training update continued

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This approach answers the question – ‘What do we want our people to [learn to] do?’ Next we select:

- the key learning areas that are essential for understanding the fundamental SAR roles;
- the authentic learning experiences (going beyond telling and demonstrating);
- the most effective ways of teaching/transferring the essential knowledge, skills, attributes and culture;
- the use of the most engaging and rewarding processes and activities for these learners (both as a group and as individuals); and
- the best ways to record, evaluate, feedback, and reinforce progress towards the goals and intended outcomes.

To make the curriculum relevant and useful to the whole sector, the components (be they key learning areas, topics, modules, programmes or courses) are basic and common across the SAR sector.

Comments about this draft, and advice for future steps, are invited: email Duncan Ferner at D.Ferner@transport.govt.nz

The curriculum working group:

- Ted Preston (facilitator),
- Sherp Tucker (NZ Police Tasman),
- Phil Pollero (Coastguard NZ),
- Ross Gordon (SARINZ),
- Laurie Gallagher (LandSAR NZ),
- Bruce Johnston (NZ Police HQ),
- Rodney Bracefield (Rescue Coordination Centre NZ),
- Ross Browne (LandSAR NZ),
- Nigel Clifford (RCCNZ), and
- Brett Sullivan (Surf Life Saving NZ).

The NZSAR Secretariat and Ted Preston are holding two meetings to discuss NZSAR training and other issues for SAR managers, coordinators and trainers, to be held in:

Christchurch: 7 – 9pm Mon 12 October, Concorde B Room, Sudima Hotel, Christchurch Airport and

Auckland: 7 – 9pm Mon 19 October, Marine Rescue Centre, Mechanics Bay.

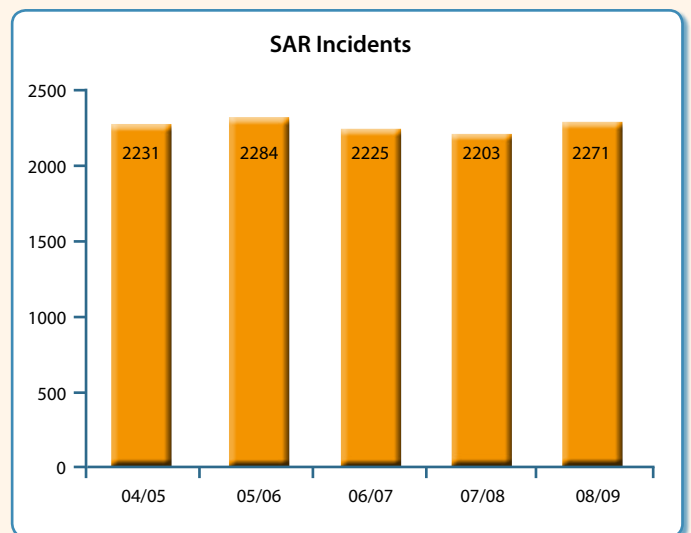
Email: D.Ferner@transport.govt.nz for more details

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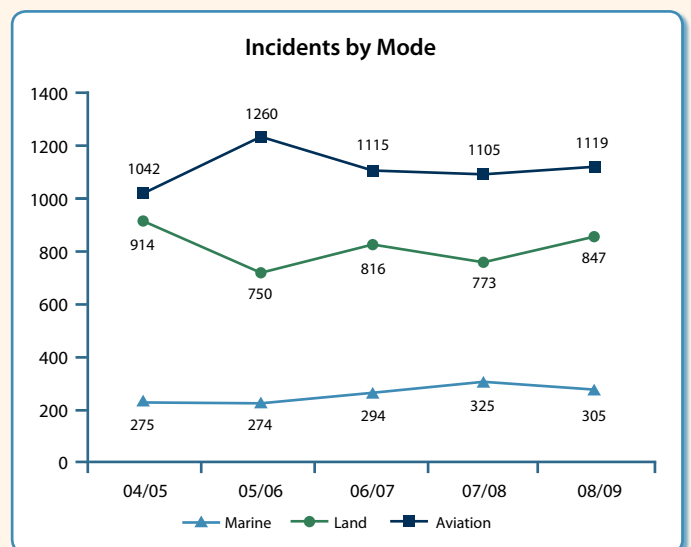
NZSAR Statistics 2008 – 2009

The 2008-2009 year is behind the sector and, as we move into spring, we have a chance to reflect on the past year and prepare for the coming one. The Secretariat has received statistical information from across the sector and is currently putting together the collated annual statistical report to the NZSAR Council. Here is a brief overview of the search and rescue statistics for the year.

The two Coordinating Authorities (Police & RCCNZ) responded to a total of 2,623 incidents during the year. However, of these, 352 were undetermined distress beacon alerts. This means there were 2,271 incidents that required a SAR response during the year, which is an average of 6.2 incidents each day. The total is slightly more than the five year average of 2,243 incidents per year.



Almost half of these incidents occurred in the marine environment; however this last year saw a 10% increase in land-based SAR incidents.





stats attack continued

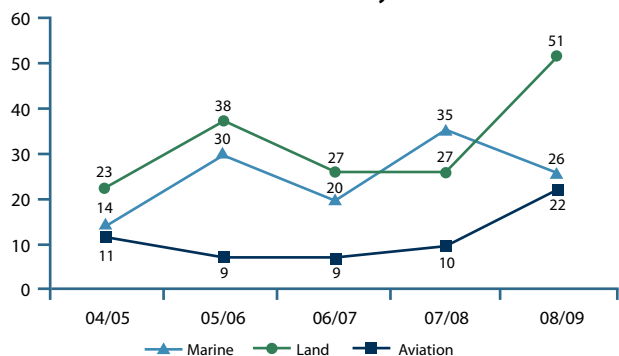
Coastguard New Zealand provided assistance in 612 of the 1,119 marine SAROPs during the year. In doing so, 4,530 Coastguard volunteers provided 8,667 volunteer hours to give assistance to 1,189 members of the public.

LandSAR New Zealand provided assistance in 173 of the 847 land-based SAROPs during the year. In doing so, 1,325 LandSAR volunteers provided 9,420 volunteer hours to give assistance to 330 members of the public.

During the year, the Rescue Coordination Centre received 645 distress beacon alerts. The campaign to make the switch to the 406MHz system over the last four years culminated on 1 Feb 09.

This campaign appears to have also increased the general uptake of beacon ownership, as there has been a steady increase in genuine real beacon alerts received over the last five years. This last year also saw an increase in aviation beacon alerts, along with a dramatic increase in land-based beacon alerts.

Real Beacon Alerts by Mode



The full NZSAR Statistics Report 2008-2009 will be available on the NZSAR website: www.nzsar.org.nz



website

NZSAR has redeveloped its website

www.nzsar.org.nz has undergone a makeover in an effort to improve your experience and connections with the NZSAR Council and Secretariat.

We've added a number of new features, including:

- An online calendar with dates for SAR training and SAREXs
- A section specifically for SAR people to discuss lessons learned
- All the latest NZSAR publications
- NZSAR reports and relevant documents
- A secure "members only area"
- Links to SAR organisations here and overseas
- An effective search area
- Streamlined navigation

The new site not only better reflects our current priorities but also provides all manner of material, information and resources to help you in your SAR activities, and to grow connections throughout the SAR sector.



Duncan's desk



Spring is here and many SAR organisations are in the process of preparing for the always-busy summer season. The NZSAR Council is pleased to have the four service level agreements (SLAs) in place, three of them for a second year. These agreements have proved invaluable in

improving our mutual relationships, developing understanding and helping to build SAR capacity across the country. The improved flow of information has also meant that the SLA partners are in a better place to make decisions for the benefit of our sector. Hopefully, those of you at the operational end are seeing the advantages of these improvements.

The Secretariat has also been actively involved in planning a series of SAR related workshops. These workshops are intended to address some known issues in a collaborative way to help the whole SAR sector. At this stage, workshops are planned for hoist operators, land communications, SAR and dementia related issues, Marine SAR and Avalanche SAR. The Secretariat is working with the various national SAR organisations, RCCNZ and NZ Police to bring these together.

I recently attended a structured debrief covering selected Marine SAR incidents, run by Senior Sergeant Martin Paget, in Auckland. The incidents discussed had occurred over the previous months and were from around the northern region. It was great to see a wide range of SAR people attend the debrief. Three operations were selected; a summary of the operation was given followed by a wider discussion of each one. Martin moderated the process, ensuring everyone stayed broadly on topic, and kept the evening running smoothly. It was a very effective forum and one worth copying in other places, as there is much to be learned from debriefing selected SAR incidents in a formal manner.

The trick is to get any lessons identified to be shared around the country so that all of us have the opportunity to learn from the experiences of others. The Secretariat is promoting this process through the use of this newsletter and establishing a SAR lessons forum on the www.nzsar.org.nz website. To make the most from this, I would encourage everyone in the sector to participate by sharing your lessons on the website, as well as learning from others.

Duncan Ferner
 NZSAR Secretariat Manager
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calendar

- Topo50 Map series launched: 23 September**
- Coastguard Conference: 25 – 27 September, Christchurch**
- LandSAR AGM: 26 September, Wellington**
- FRSTO Conference: 19 – 20 October, Rotorua**
- Auckland Marine Debrief: 4 November**
- Water Safety Conference: 26 – 27 November, Wellington**
- NZSAR Consultative Committee Meeting: 25 November**
- NZSAR Council Meeting: 9 December**

NZSAR Awards

Do you know of an organisation, group or individual who should be acknowledged by their search and rescue peers?

What about someone who has dedicated hours of their time to your organisation or those involved in a courageous rescue or difficult search – do they deserve national recognition?

The NZSAR Awards celebrate the success and effort of people who work or volunteer their time and skills in the field of search and rescue in New Zealand's Search and Rescue Region.

useful website links

- www.nzsar.org.nz – New Zealand Search and Rescue Council
This newsletter is available as a PDF on this website
- www.beacons.org.nz – 406 beacon information and online registration
- www.mountainsafety.org.nz – New Zealand Mountain Safety Council
- www.police.govt.nz/service/sar/index.html – NZ Police
- www.usar.org.nz/usarwebsite.nsf – Urban Search and Rescue

There are two awards:

1. The NZSAR Gold Award honours the person, group or organisation that has made the most significant contribution to search and rescue.
2. The NZSAR Certificates of Achievement are awarded for an important contribution. More than one NZSAR Certificate can be awarded each year.

These awards are valuable not only for the contribution they acknowledge but also for raising community awareness about the efforts SAR people go to in this often complex and difficult work.

Go to www.nzsar.org.nz. You will find more information about the awards along with details on the simple nominations process.

Nominations for the 2009 awards close on 31 December.