No 27: June 2014

Connecting the Search and Rescue Sector

2013 NZSAR Awards



Associate Minister for Transport, Hon Michael Woodhouse with all the 2013 NZSAR Award recipients.

Strong relationships between SAR organisations were highlighted at this year's NZSAR Awards ceremony, held again at Parliament in May. A number of joint awards were given to organisations and individuals who worked together during SAR operations. The new Support category also illustrates cases where cooperation has led to effective training and prevention programmes.

The Associate Minister for Transport, Hon Michael Woodhouse, made mention of New Zealand's contribution to the international search for Malaysia Airlines flight MH370 during his presentation of the Awards – articulating how the event has drawn the world's attention to the importance of collective search and rescue work.

"This tragedy has focused all our minds on how difficult it can be to find people who are lost, valuing the strong relationships we have with search and rescue organisations both in New Zealand and around the world."

Antarctica New Zealand's GM Operations Graeme Ayres accepted the joint award they received with the United States Antarctic Program for their response to the Twin Otter Air Accident in the Queen Alexandra Range last January. He expressed his pride at receiving the award and paid tribute to their strong relationship.

"This response demonstrates the benefits of collaboration between our two programmes and our continued commitment to safety of personnel working in Antarctica." One Gold Award and seven Certificates of Achievement (including two in the new Support category) were presented.

The NZSAR Gold Award for Operational Activity for a very significant contribution to search and rescue in the New Zealand Search and Rescue Region during 2013 was award to Marius Bron, Jonathan Hattrell, Richard Bottomley and Sam Innes – from South Westland Alpine Cliff Rescue, for the Explorer Glacier rescue on 7 March 2013.



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This rescue of Sabine Hellenbrandt was conducted in extreme conditions: poor visibility, at altitude, and in steep glacial terrain. The team chose to carry out the operation at a calculated personal risk. If they had not done so, Sabine would not likely have survived the night.

Five NZSAR Certificates of Achievement for Operational Activity for an important contribution to search and rescue in the New Zealand Search and Rescue Region during 2013 were awarded to:

Antarctica New Zealand and the United States Antarctic Program, for the response to the Twin Otter Air Accident in the Queen Alexandra Range on 23 January 2013.

JASART members were ferried to the remote 13,000ft high crash site by helicopter, where they worked tirelessly in the extreme environmental conditions to assess the terrain and access the crashed aircraft. While the team was unable to return the remains of the lives lost, this operation demonstrated the strong relationship that exists between the United States Antarctic Program and Antarctica New Zealand to support a unified SAR response on the ice.

Sunset Beach Surf Life Saving Club, for the rescue of ten rock fishermen on 1 April 2013.

The mobile lifeguard patrol saw that the fishermen were stranded by the incoming tide on a rocky outcrop 60 metres from the shoreline. It took the patrol about half an hour to bring all ten men to the small beach, many of them in various stages of hypothermia. All the lifeguards involved in this rescue displayed great skill in a dangerous situation and potentially saved ten people from drowning.

Peter, Katherine and Matthew Craig – from the Whakatane Surf Life Saving Club, for the rescue of two divers at Otarawairere Bay on 10 August 2013.

The divers who had become trapped by the rising tide as they made their way home were rescued by the Craig family after a Coastguard crew was unable to reach them. Peter and Matthew went out in an IRB with a borrowed spotlight, while Katherine coordinated their activity from the shore.

The NZSAR Council and Secretariat congratulates all our 2013 winners. A more detailed summary of these awards can be found at www.nzsar.org.nz

Do you know an organisation, a group, or an individual who you think should be acknowledged for their contribution to search and rescue? There are now two categories – Operational activity and Support activity. Matthew swam 50 metres in the dark, in rough seas, to reach the divers. If rescuers had waited for the tide to go out, it is likely that the first man would have died.

Ruapehu Alpine Rescue Organisation, 3 Squadron RNZAF, Taranaki Alpine Cliff Rescue and Taranaki LandSAR, for their efforts during Operation Labour on Mt Taranaki, 26-29 October 2013.

Rescuers spent almost 36 hours battling the most horrific weather conditions many of them had ever operated in, trying to reach a pair of climbers stuck on Mount Taranaki. They knew where the climbers were, but the conditions were such they were unable to reach them in time to save them. The fact that all the rescuers returned safe and well was testament to the hard, but sound, decisions being made on the mountain.

John Goldswain, Colin Larsen, Michael Hall, David Huntley – from Life Flight Trust, for the rescue of crew from the *Sea Wanderer* in the Cook Strait on 6 January 2013.

The 40ft twin masted sloop was battling extremely rough seas in the Cook Strait; it had rolled a number of times on to its side, and the crew felt they needed to abandon it. The wind and sea conditions were at the limits of the helicopter's performance, making the rescue difficult and arduous. The helicopter crew spent an hour on-scene in terrible conditions to rescue the three crew members.

The 2013 NZSAR Awards sees a new category which recognises the efforts of the 'backroom' teams, individuals and programmes that provide all levels of support contributing to effective and efficient search and rescue practice in New Zealand.

Two NZSAR Certificates of Achievement for Support Activity for an important contribution to search and rescue in the New Zealand Search and Rescue Region, either during 2013 or over an extended period, were awarded to: Chris Astle, Nicola Hockley and Rachel McKenzie – from Coastguard Canterbury, for their efforts in developing training material for Coastguard New Zealand.

Over the past three years, using the latest techniques in adult learning, the three volunteers have either developed or redeveloped the major training resources for the marine SAR sector. Collaboration is another key aspect of this project because the results of their work will make a major difference to the competency of volunteers and staff, not only within Coastguard but also across the whole marine SAR sector.

Surf Life Saving New Zealand, for the Coastal Risk Management project at Hot Water Beach.

To reduce the incidence of drowning on the coast, Surf Life Saving New Zealand developed a coastal risk management strategy that provides a framework for evidence-based drowning and injury prevention initiatives. A range of key people at local and national levels were engaged to collectively implement the plan between 2010 and 2013. An independent evaluation concluded that the programme was a cost effective way of informing best practice decision-making on the coastline, while reducing drowning and injury.

All the details about the NZSAR Awards and information about these two categories, plus the simple nomination process, can be found on our website: www.nzsar.org.nz/awards.

The 2014 NZSAR Award nominations close 31 January 2015.

O SAR IN ACTION

Kiwis play vital role in international SAR incidents

Two tragic events making headlines around the world recently have highlighted the role New Zealanders play in international search and rescue.

The first involved the disappearance of Malaysia Airlines flight MH370 while en route from Kuala Lumpur to Beijing on the 8th of March. What has become the largest and most expensive multinational search and rescue effort began in the Gulf of Thailand and the South China Sea. By the 18th of March the focus had moved as the Australian Maritime Safety Authority (AMSA) led the search in the southern part of the Indian Ocean.

The New Zealand Defence Force (NZDF) offered assistance, which was gratefully accepted, sending a P3K2 Orion from 5 Squadron, which was initially located in Malaysia before moving to Perth. Here's some of the numbers:

- They were away for 53 days.
- They flew 285 hours 100 of those being search hours.
- They covered 1.55 million square kilometres, including both radar and visual searches. This is the equivalent of searching the entire area of New Zealand six times over.
- The total Air Task Group numbers exceeded 600, including Defence personnel from China, Japan, South Korea, Malaysia, United States and, of course, Australia.
- New Zealand's contribution cost was \$1.2 million.

Sixty-nine personnel were involved, including aircrew, maintenance crew, air liaison officers and suppliers, and they were rotated every two-three weeks. The sole RNZAF Orion involved in the search had an excellent sortie completion rate, dropping just one flight over the entire seven weeks of searching. The Squadron certainly played its part, completing approximately 10% of all search hours provided in the international search effort.



Blackbox transponder - similar to what the crews were searching for.

One of the crew, Flight Lieutenant Sean Rogers, says the size and scale of the MH370 operation makes it vastly different from anything he had experienced in his 15 years with 5 Squadron.

"This operation had its own entity, run by AMSA and the Australian Rescue Coordination Centre. They coordinated 14 air assets from nine countries. Basically they had a template they worked from which they adapted daily depending on search requirements, and once we were airborne we followed that template methodically. This is in contrast to our typical SAR operations where we are tasked,

given search areas, background and asset descriptions and then, for the most part, left to our own devices to plan, prepare and execute with oversight from RCCNZ." Sean says with so many aircraft out searching their safety measures were impressive. "We had about half a dozen aircraft flying adjacent to us, so they had an air traffic control aircraft flying above us, constantly gauging and reporting movements to ensure safe practice."

The work days were typically fifteen hours long for the air crew. This included three hours of pre-flight planning and preparation, 11 hours of flying, then an hour of post-mission activity including reporting information to AMSA and the Australian Rescue Coordination Centre. Although long flight times are something the crew train for and are used to, Sean says the distances covered were immense as the search areas were anywhere between 1,000-1,500 nautical miles from Perth. It's the equivalent of flying from Bluff to the edge of Antarctica, searching for one to two hours, then returning. Plus, it could take the aircraft up to five hours to reach the search area.



Flotsam on the sea surface as seen from the air.

"Once we arrived at a search area we were all on 30 minute rotates in 'the seat', as this is where the fatigue sets in. At the speeds the Orion flies, the equivalent of one football field passes the aircraft every second. During this the crew are attempting to identify crash-related objects visually, which is made increasingly difficult by the large amount of flotsam and jetsam floating on the sea surface."

During the search the aircraft slowed to approximately 400kmph, providing observers with the best opportunity to detect any debris from MH370. Any debris located was reported to AMSA and then the Australian Rescue Coordination Centre directed surface assets to the objects for recovery. Individual crew members flew their monthly allocated flying hours in just two weeks. Hence, 5 Squadron operated on a two week crew rotation to maintain this rate of effort.

Although the search operation ended without finding any sign of MH370, the Kiwi Rescue 795 was involved in another successful rescue of a man from his stricken yacht.

"During the last mission, we got called up by air traffic control 40 minutes out of Perth on our way back. We caught sight of the guy as he was about to go into the water and were able to direct a SAR helicopter to his location to pick him up. An excellent result for everyone."

The Defence Force says despite no trace of flight MH370, their involvement strengthened relationships that will provide many long-term benefits for 5 Squadron, NZDF and the wider SAR sector through the strong international ties built up over what was an arduous operation.

"It was important for us to maintain a positive outlook despite the enormity of the task given to us. We treated this search with the same professional approach we take with all SAR missions, while continuing to hold out hope that we might be able to provide answers to the mystery surrounding MH370, and more importantly, to provide peace of mind to the families and friends of those on board."



Mt Khumbu Icefall rescue and recovery operation.

Rescue and recovery from the highest mountain of them all.

It was an event all mountaineers familiar with Mt Everest feared. At 5,800 metres, a serac – or massive piece of ice the size of an average kitchen – sheared off the cliff face on the west shoulder of the Khumbu Icefall. Their fears were realised on the 18th of April when at 6.30 in the morning about 20-30 people, mostly Sherpas, were stuck in a traffic jam waiting for the route to clear and were hit by the falling ice. Sixteen were killed.

New Zealand guides working the climbing season were only too well aware of the danger. One – Dave McKinley – had a narrow escape half an hour lower down the slope, running for his life in 2009. Now he and five other Kiwis, Russell Brice, Dean Staples, Mike Roberts, Caroline Blaikie and Jason Laing were on hand to play a vital role in the subsequent rescue and recovery mission.

Russell Brice, owner of Himalayan Experience, or Himex, coordinated the helicopter rescue in what became a true team effort, bringing people of various nationalities together and putting their exceptional SAR skills and experience to the test while operating at altitude and in very trying conditions.

It was a confusing scene in the immediate aftermath of the avalanche eventually the Sherpa and western team leaders requested Russell take over the coordination of the operation. Mike was on comms and record keeping, Dean was on rescue stand-by and assisting Russell at the helipads, while Dave was assisting with strop management, refueling and site control at the mid-helipad.

"At around 8.45am Jason and two other helicopters arrived at the scene. One decided that they couldn't land, so Jason and Nepalese chief pilot Siddartha Gurung (from Simrik Air helicopters) began what is certainly the biggest high altitude helicopter assisted rescue operation in the Himalayas ever – if not the world. The Nepalese army aircraft, also played a key role ferrying the injured and the deceased to safety."

Just like Sir Ed's team we banded together and just got on and got the job done.

Dave McKinley, who recently arrived back in New Zealand, says the skills Jason used that day were phenomenal.

"With both skids down landing inside the Khumbu Icefall, Jason landed in the middle and the upper sections in the path of the avalanche. We decided that he would do the sling work as he had more experience. We set up a human rated strop system that Jason had organised from New Zealand (it was a New Zealand "three ring circus" release version made by Lindsay Main of Aspiring Enterprises). His landings recovered two survivors with serious injuries, then he used the long-line in over 15 sorties for both live and, sadly, deceased people."

Jason Laing is very proud of the teamwork that took place on the mountain that day, and pays credit not only to the Kiwis but also others from around the world who all pulled together in what were very trying circumstances. "Just like Sir Ed's team we banded together and just got on and got the job done."

Dave says the "pre thought out" equipment such as the strop system and a custom designed extension for Jason's oxygen supply, which enabled him to leave the cockpit and assist when he could, is a true testament to Jason's commitment: "he paid for all that gear himself".

In the days following, Jason, Dave and another Kiwi, Mark Woodward, returned to the site of the tragedy in the middle of the Khumbu Icefall to gather and extract 200kg of rescue equipment, O² and abandoned Sherpa loads. At C1 (6,100m) Dean and a team of Sherpas were pulling loads out while another team of Sherpas, and Damien Bonegas (from Argentina), worked up at C2 (6,300m). They also continued to search for the three remaining bodies, but it has not been possible to recover them as they were buried too deep.

Training update



We've made a START

We all know it takes time, effort and dedication to become proficient at finding and rescuing people in trouble. SAR people generously give up hours of their time to ensure they have the skills and knowledge they need to save lives. Working together with a number of SAR agencies, NZSAR has developed an online learning management system where people are able to grow or reinforce their SAR knowledge at their own pace – in their own place.

Called START and hosted on NZSAR's website, it contains a series of 'SAR knowledge' modules. You simply click on the module you are interested in, work your way through the material and then take a short quiz at the end to reinforce what you've learnt.

At this time there are only a few modules available – marine search area determination, marine search area coverage and a 406MHz Direction Finder simulator. But the plan is to include a much wider range of SAR material over time. NZSAR is working with all SAR organisations to source training material and/or information that will help SAR people to learn or recall.

START is able to host the full range of electronic files from PowerPoint presentations and PDFs through to videos. For example, we may include a video illustrating how to rig up a long-line to a helicopter, or a slideshow on how the distress beacon system works, or a MS Word document on how to pass a tow line between two vessels.

A few of the modules may be used by some people as pre-course material, but all modules can be accessed by anyone for whatever reason they want. It could be to learn, it could be to revise, to recall or simply for interest. It is important to note that seeing or hearing knowledge does not imply expertise or qualification. To achieve these things, people need formal assessment and recognised experience.

As no one has a mortgage on life saving SAR knowledge, the information contained within START is willingly shared under an Attribution-NonCommercial-Sharealike Creative Commons licence. This means you may share and build upon our work non-commercially, as long you credit NZSAR and license your new creations under the identical terms.



Getting into START is easy. Click on the button on the bottom of the www.nzsar.org.nz website that looks like this...



Create your own login - take a look and have a go.

ID	Training Module	Start Date
MA1000	Marine - Search Area Determination	16/04/2014
TE1000	Technical - 406 Direction Finder	17/04/2014
MA1001	Marine - Search Techniques	30/05/2014

NZSAR Training Coordinator Phil Burgess (p.burgess@transport.govt.nz) would love to hear your suggestions for material you would like to see contained within START.

STATS ATTACK

How we were alerted

This graph shows the various ways that both Police and the Rescue Coordination Centre were alerted to possible distress situations during 2012/13.

Using a phone was the main way that people alerted the coordinating authorities (58%), which allows for immediate gathering of information about what has happened.

Distress beacons were used for 23% of alerts, which while they can give an alert from areas outside of phone coverage, they do not provide information about what is happening.



Duncan's desk



It's almost the end of the year! Our financial year that is – on June 30. This means it's time for us to tie up a number projects and start cranking out some new ones. The new (financial) year will takes us in a slightly changed direction. The NZSAR Council's newly refreshed strategy and goals will see us focussing much more on providing quality information to support decisionmaking and understanding at all levels

of the sector. One of the projects that we will get underway shortly is the establishment of a sector-wide data standard. Once complete, this document will clearly state what pieces of information the sector wants to collect, what that information looks like, and who is interested in it. That all might sound a bit nerdish but, at a practical level, it should lead to shorter forms, better information and improved access to the stuff we collect.

We have also been updating our joint Service Level Agreements. These agreements between NZSAR, RCCNZ, Police, Coastguard NZ, SLSNZ, LandSAR and AREC are an important component of the SAR system. Collectively, they provide a way for the Council to support the SAR sector financially (\$2.789 million annually). In return, these volunteer agencies provide services such as:

- Expert search and rescue services and advice.
- Trained IMT members.
- Organisational details structure, capabilities and contact lists.
- Participation in joint SAR training exercises.
- Attendance at specialist SAR meetings and forums.
- Nominations for NZSAR Awards.
- Sharing of SAR lessons, etc.
- Live tracking information.

Phil has been busy looking after all things SAR training. Back in April we hosted the annual SAREX planning meeting and from that Phil has put together the plan for all major SAREXs during the 2014/15 training year. We're keeping the SAR ACE training system working as efficiently as we can. Both the Programme Advisory Committee and the Governance Group have met and a variety of tweaks and improvements have been introduced. Although it is relatively new, all the indicators show that this system is delivering high quality, fees-free SAR training, based on identified SAR needs throughout the country.

Carl, along with Chris Wilson from RCCNZ, attended the International Maritime Rescue Federation's Mass Rescue conference in Gothenburg (Sweden) in early June. The conference, which included a simulated mass rescue operation, case studies, plenary discussions, and workshop sessions, confirmed that our approach to mass rescue planning and exercising is in line with international experience and best practice. The key challenges in responding to mass rescue events are multi-agency integration of effort that is efficient and effective, reconciliation of persons in distress, and looking after them until they have reached their place of safety, which could be their homes.

NZSAR has supported a number of SAR exercises over the past few months. The quality and variety of these exercises is very impressive. It's great to see some new innovations such as the 'Rogain' style of SAR exercises. It practises and tests recognised SAR competencies, fitness, team work, ability to perform when fatigued as well as decision making and planning skills. Recently, I was fortunate to be invited to observe 'Operation Collaborate' – a simulation of an avalanche event on Fox Glacier. In practical terms it meant an extremely remote location, at high altitude, in seriously dangerous terrain with impossible time pressures. The skill, effort and dedication from all the people who participated in this exercise was remarkable. As a keen snowboarder, it's heartening to know this type of scenario is practiced. That being said – we hope you all have a safe and enjoyable winter.

NZSAR

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Queen's Birthday Honours

CALENDAR

SAREXs and SAR training - see: http://searchandrescuecouncil.org.nz/nzsar-calendar Wander Symposium: 10 August, Wellington

NZSAR Combined Consultative Committee and Council Meeting: 21 August, Wellington

- Coastguard Conference: 20-21 September, Auckland
- LandSAR Conference: 17-19 October, Hamner Springs

WEBSITES

www.nzsar.org.nz - New Zealand Search and Rescue Council This newsletter is available as a PDF on this website

www.adventuresmart.org.nz - Safety information and tips for the public planning outdoor activities

www.beacons.org.nz - Information about 406 Beacons, including where to purchase, rent and register a distress beacon

www.metservice.com - Comprehensive weather reports

www.nzsar.org.nz/awards - NZSAR Awards nomination form

www.nzdf.mil.nz - New Zealand Defence Force





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