Breakthrough tool provides SAR sector evidence

"There are two kinds of statistics, the kind you look up and the kind you make up."

(Death of a Doxy 1966)

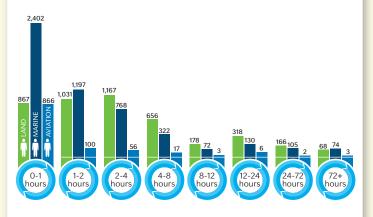
While the NZSAR Secretariat has never made up statistics, it hasn't been easy to look up statistics about search and rescue activity throughout the New Zealand Search and Rescue Region over the last six years. The systems used by Police and RCCNZ were designed to capture data about search and rescue incidents, but they were not set up for exporting that information in a simple manner.

That is about to change. NZSAR has now completed the first step in the data store and information tool project, which will enable evidence-based decision-making for the SAR sector.

Providing a good set of SAR data for the last four years (2010/11 – 2013/14), which is stored on a relational database in the Ministry of Transport, it is also a data analysis tool that allows NZSAR to turn the data into useful information for the sector.

NZSAR Secretariat's Carl van der Meulen has been managing this project. He says the data analysis tool is based on Power Pivot for Excel, "so it allows us to make quick and easy queries from the stored relational data and display them as either tables or graphs. A query about how long it has taken to resolve SAR incidents over the last four years is a great example of how it will be useful," he says. The graph below includes data from both Category I and Category II incidents and shows how the duration is significantly different if they are land, marine, or aviation incidents.

Almost 1 in 3 land incidents and 1 in 7 marine incidents but only 1 in 30 aviation incidents last longer than 4 hours. This has implications for training, as a land incident is more likely to transition from initial response actions to formal search actions, and also for response capacity – particularly for volunteers as it is more likely that volunteers responding to a land incident will need to sacrifice more of their time than for a marine incident.



Incident Length 2010/11 - 2013/14



This example, above, shows the locations of all land incidents over the last four years that involved overseas tourists. This has been provided to the Mountain Safety Council to assist in identifying areas where prevention messaging should be targeted at visitors to New Zealand.

Carl says the Secretariat is just beginning the next step in the SAR data project – the establishment of a national SAR data standard. "This will ensure there is consistency both around the country and across the sector in our reporting of SAR incidents."



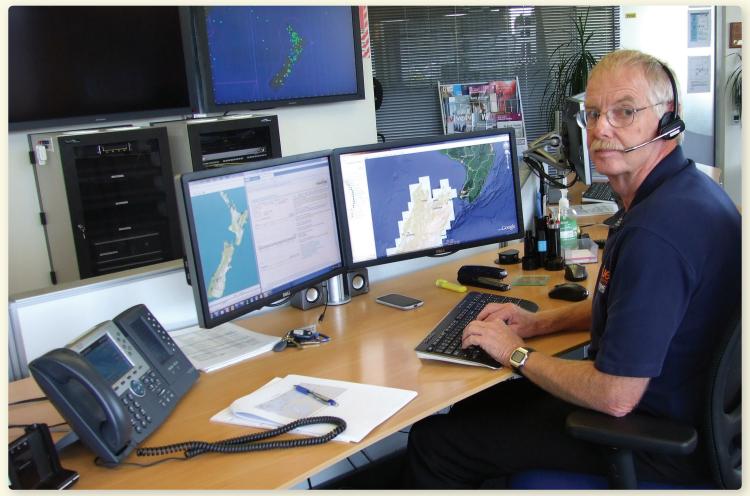








O SAR IN ACTION



RCCNZ SARO and Watch Leader John Dickson

The Coordinators

One thing is guaranteed when a SAR coordinator turns up for work – every day will be different. No emergency call, beacon alert, or incident is ever the same.

The coordinators are employed by New Zealand's two coordinating authorities: the NZ Police and the Rescue Coordination Centre New Zealand (RCCNZ). NZ Police are in charge of Category I incidents (see sidebox), sworn police officers are appointed as SAR coordinators based on experience. In some districts they are full-time, some part-time, while in others the role is just a portfolio held on top of normal duties.

RCCNZ, which is responsible for Category II incidents (see sidebox), sits within Maritime New Zealand and runs all its search and rescue operations out of its coordination centre in Avalon. It is staffed by a team of Search and Rescue Officers (SAROs) who are trained to international aviation and maritime SAR standards and have a wide range of experience in aviation, marine and land search and rescue.

The organisations have a very strong and close working relationship. RCCNZ SARO and Watch Leader John Dickson says the relationship is such they regularly consult, particularly for the complex operations. "There are clear boundaries, but when incidents cross those boundaries for a myriad of reasons, it certainly enhances our chances of a successful outcome if we consult with local Police SAR

Unregistered beacon alerts occur about every 2-3 days.

Coordinators – or if they consult with our SAROs. On occasions it has been decided the other would be better coordinating the incident, so we hand it over."

Their practices and processes, while different to accommodate their categories, are embedded in one common approach – gather as much information as possible to effect the best possible outcome.

Police SAR Coordinator for the West Coast, Sergeant Sean Judd, says when a call for help comes there is often a lot of confusion and very little information on offer.

"A lot of work is done from the get go to build a picture of what has happened. The job is very much about getting as much information as we can, as fast as we can, because we have to make big decisions very fast, often with only the basics known or surmised. Do we act, do we wait? We go through all the scenarios, asking 'what if' questions'. So, if a hunter is overdue, 'what if the weather is just too bad?', 'what if the river is up so they are waiting it out?' – that type of thing. We also send out patrol cars to get them looking and asking around because our decision-making is so critical."

Sean says it is easier to do something, "the really hard decisions are when you decide to do nothing."

"We need to make it as painless as possible for volunteers to do a good job."

Sean must also decide very early on whether to call in volunteers.

"Every coordinator is cognisant of wasting volunteers' time. Sometimes it is just impossible to know whether and how long they will be needed, but from my years of experience and feedback from volunteers, it is always best to start the ball rolling. I need to think about the delay in getting them on-scene. These are life and death calls; if we wait because we don't have all the information, and someone has fallen and is badly injured, that delay could cost a life."

The mechanics, from where the operation will be based (the staging site), what will be needed and police internal reporting systems right through to working with the public and media, are all key considerations as the intelligence continues to be collected.



Police SAR coordinators examine search area

John coordinates search and rescue operations from the operations room in Avalon and like Sean, spends his time building a picture from scant information, particularly when they are dealing with an unregistered beacon alert.

"If the beacon is registered we can normally get the information we need from the emergency contacts. We get as much as we can before we start tasking. Most often this is a helicopter, or if that is not possible, we call on Police to gather LandSAR, Alpine Cliff Rescue or Coastquard teams.

"When the beacon is not registered, and we do not get a position from the satellite, we are hamstrung. All we know is that a beacon has been activated somewhere in the world; we don't know where and we don't know who has it. We just have wait until we hopefully get another alert that gives us a position or until we get a missed alert, which means the beacon has been turned off or the satellite hasn't seen it on its next pass."

If an incident starts becoming complex, such as a missing aircraft, John says the impetus goes into gathering more information, incident planning and contingency planning. Sean's role on the longer operations is similar and both say while they have the best overview of the operation, communicating their decisions and keeping an open mind is vital. "We want people to discuss our decisions with us because they may have information we don't, and whilst we try hard, we don't get it right all the time."

John adds that for more complex and longer term SAROPs, RCCNZ is working towards getting SAROs on the ground to improve communication and to better provide for volunteers. "We need to make it as painless as possible for volunteers to do a good job."

Sean agrees, "We all rely heavily on good quality volunteers who have updated training and skills. These people make a real difference to shape of an operation. They are immensely valuable."

John says RCCNZ puts great emphasis into helping SAR volunteers understand how a SAROP is coordinated. "It is really important they get an idea of what is going on behind the scenes, so we go out and about and visit units. We also welcome visitors to Avalon – SAR people, come visit us. You are welcome anytime!"

Who coordinates what?

Two agencies in New Zealand have responsibility for coordinating search and rescue operations throughout the NZ Search and Rescue Region. Their responsibilities are divided into two categories.

Category I, coordinated by NZ Police at the local level, includes land operations, subterranean operations, river, lake and inland waterway operations and close-to-shore marine operations.

Category II, coordinated by RCCNZ at the national and international level, includes major maritime, aviation and land-based incidents involving distress beacons using national and international civil and military resources.

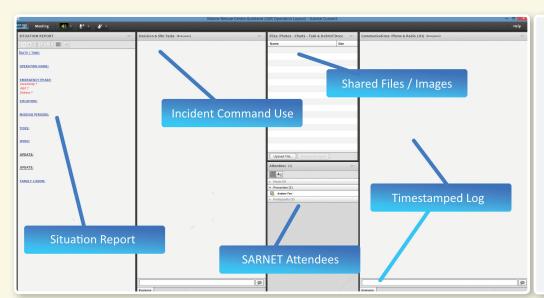
Beacon registrations pass 50 thousand

Another milestone in the effort to take the search out of search and rescue has been passed.

The 50,000th beacon was registered through the Rescue Coordination Centre's website beacons.org.nz.

OSAR INSIGHT

SARNET - more than just a meeting room



What is SARNET?

SARNET is an online shared meeting space – or virtual meeting room – that allows SAR people from across the sector to meet with others in a secure environment. Using video links, people can hold meetings, share images and videos and take notes on screen. It is now also being rolled out as a single location communication tool, where people involved in an operation can have access to a shared SAROP meeting space.

The virtual meeting room SARNET is venturing out into the field. It is now being used during land and marine search operations, providing a single location where anyone involved can access and share communication, logging and tasking information.

The opportunity to trial it during search and rescue operations (SAROPs) has been seized by a number of coordinators around the country including Canterbury Police SAR Coordinator Sergeant Phil Simmonds and the Officer in Charge of Auckland's Maritime Unit Senior Sergeant Martin Paget.

Martin says using SARNET has alleviated one of an incident controller's biggest headaches.

"During a SAROP you have multiple agencies all using their own logs and systems, and most often others involved aren't able to access them. This generates a great risk that things could be missed and misinterpreted. SARNET allows any person with internet access and a web browser to enter the shared area, where all the key information about the SAROP is being held, discussed and disseminated. It removes all risk of misinformation."

Phil explains the real-time aspect is also of great benefit. "We plan and manage SAROPs from our emergency operations room and then run a staging area. SARNET allows us to communicate more effectively between the two.

You can imagine if you have a number of units out in the field and you are trying to run a log, pass taskings onto personnel and gather in the intelligence they have collected, it can be quite involved and take a lot of radio time. But if you put all that information up on SARNET, which is accessed in the field and in the ops room – in real time – you have a much more effective operation."

Phil adds that running an active log that is time stamped gives people a good situational awareness. "Everyone can look at it. They can go back and refer to things that have been said previously giving them an accurate, up to date account.

Coastguard Northern Region Operations Manager Ray Burge has been trialling it alongside the Police Maritime Unit and says he likes the ability to see the logs and the taskings remotely. "From the beginning we can get up to speed with an operation and with people feeding in from various places we get a great overview of what is going on." He says they have been piloting it over the busiest time of their year, which has been helpful.

"It is a tool that people need to keep using so they get used to it. Using it a couple of times a month, or a few exercises, isn't enough. If people get familiar with it SARNET has real potential, particularly for remote areas."

Martin agrees and says they are about to roll out more comprehensive training, noting that it is early days and like any system there are improvements to be made, but it is a tool Police SAR Management are keen to integrate.

"The same system, the same information at the same time for everyone involved in an operation. It ticks so many of the efficiency and effectiveness boxes." ullet

Insights

- SARNET allows SAR people from multiple agencies in different geographical locations to participate in a shared operational picture.
- SARNET enables a single communication operational log, accessible by any person or organisation participating in the operation.
- · SARNET is used to record key decisions and search tasking.
- SARNET allows for a single situation report to be maintained that is available to all with access.
- The real time, time stamped log provides an accurate overview of the operation.
- SARNET is a secure system.
- SARNET uses Adobe Connect ™ as its platform.

Changing Faces



Jo Holden

Sergeant Jo Holden is taking over the reins as NZ Police's National Coordinator: Training and Development Disaster Victim Identification (DVI)/Search and Rescue (SAR). Jo has been a police officer for 19 years, spending the past 11 of those as the Wellington District Coordinator: SAR/DVI.

Jo says specialising in search and rescue is a perfect fit for her. "I have always been interested in SAR. I love the outdoors and have been climbing since I was a teenager. I actually picked up a SAR brochure when I went to the

police introduction evening and then the opportunity came to join the SAR squad about 15 years ago. It is ideal for me – getting out into the bush and doing my job basically in my playground."

The National Coordinator has the nationwide overview of training and strategic requirements for SAR and DVI. Jo says she is looking forward to taking her operational and tactical experience to the strategic level.

"I want to get some more synergy amongst the districts. Coming from an operational background and knowing the nuances and challenges that SAR personnel face I am hoping to create a credible two-way interface between what is happening on the front line and the decisions being made at a strategic level."

Jo has a strong connection with the volunteers, and greatly admires their competence.

"The trained SAR volunteers are such a vital component of successful outcomes. Their commitment is impressive; these clever, busy people continue to give their precious time to look for people who need our help." •



Mike Hill

The Rescue Coordination Centre New Zealand (RCCNZ) has appointed Mike Hill as their new Manager, a role that includes Safety Services. Mike spent 26 years serving with the NZ Police, the last few years as an Inspector running the Hutt Valley Area. Prior to taking up this role he was the District Manager: Prevention for the Wellington

Mike brings a strong connection with emergency management and interagency partnerships and collaboration. So much so, he is presently completing a thesis on a joint emergency management response planning process.

"A whole lot of the dots join up in terms of interest, background and experience in this role. The relationships, connections and the wider reputation, not only of RCCNZ but the SAR family – or one SAR body – is very important. Because, as a coordinating agency, everything we do is delivered through others so the reputation of all of us is vital."

As well as implementing the recent RCCNZ restructure, which now includes safety services such as marine and maritime radio and all of the aids to navigation, Mike wants to take a closer look at CIMS to make sure RCCNZ's processes are robust enough to withstand external scrutiny.

Mike is also looking forward to getting out around the country, "meeting people, watching and putting my boots on because the expectation is that we are all joined up. We all exist in the best interests of the lost or injured and their families."

Two other vacant deputy manager positions within RCCNZ & Safety Services have also recently been filled. Nicholas Drew-Crawshaw will take up the position of Deputy Manager: Planning. Carolyn Mckenzie is the new Deputy Manager: Training.

Skills to coordinate volunteer EM ACE training

The Skills Organisation has been contracted by the Tertiary Education Commission (TEC) to coordinate the new Volunteer Emergency Management Adult and Community Education (EM ACE) fund.

In a similar manner to our SAR (ACE) arrangements, the Skills Organisation will be responsible for advising TEC on how funding for training should be allocated for volunteer emergency management and volunteer firefighting personnel.

SAR (ACE) is coordinated collectively for the SAR sector by the SAR Training Governance Group and is funded by TEC. Now in its third year, SAR (ACE) is proving to be a very successful model, providing high quality 'fees free' SAR training for SAR people based on operational needs. It also enables the sector to manage who receives what training while allowing our people to receive training without necessarily signing on for a full qualification.

The Skills Organisation is presently having introductory meetings with stakeholders in the Emergency Management Volunteer sector. It is then intended that the Skills Organisation will hold a stakeholder forum to understand the training requirements of the sector, and obtain sector agreement, before firming up its recommendations to TEC about who and how emergency management volunteer training will be delivered. The SAR sector will work closely with the Skills Organisation to identify opportunities between the EM and SAR (ACE) arrangements.

The Skills Organisation has experience in training and course management. It works alongside a number of New Zealand industries to help people gain the skills they need for development and success in their workplace. •

Duncan's desk



This issue of Link explores a few aspects of the 'backroom' work that goes on within the SAR sector. This important facet is a central part of our SAR system, enabling and supporting successful SAR operations. When we look at our SAR structure as a whole, it is crucial that all parts of the system connect and synchronise to ensure that our operations in the field, on the water and in the air are well coordinated, efficient

and intelligently targeted to ensure we get the best possible outcomes – helping those in need of our services.

The two coordinating authorities, NZ Police and RCCNZ, have a tough and occasionally thankless task. It is sometimes said that 'success has many fathers, but failure is an orphan'. This can be observed in SAR on those rare occasions when we are unable to locate a missing person or rescue someone in distress. The SAR in Action article on pages 2 and 3 provides a bit of an insight into their role and how they work together. It's also worth reflecting that we are perhaps lucky in New Zealand to have only two SAR coordinating authorities. In other SAR regions, there can be many more – especially in those counties with federal governmental arrangements.

As you will have seen in the cover story, we now have a greatly increased capacity to explore and understand our own SAR data. Of course, the hard part is turning all this data into meaningful information. Our goal is to be better able to support sound decision-making at all levels within the SAR sector, so this represents a very important first step. You will hear more from Carl on this in the coming months and years.

Search and Rescue Adult and Community Education, or SAR (ACE), also receives a bit of a focus in this issue of Link. The plan is to include a dedicated SAR (ACE) section called SAR ACE Snapshot in the March

and September issues of Link each year so we can keep the sector posted on sector training developments and opportunities.

Sergeant Jo Holden has been recently appointed to the National SAR coordinator position in Police National HQ. Jo replaces Bruce Johnson (Mort), who retired from the NZ Police late last year. Jo comes to this position with a huge amount of practical SAR experience from the Wellington Police District. Also, Mike Hill has been appointed as the Manager of the Rescue Coordination Centre New Zealand (RCCNZ) and Safety Services. Mike joins Maritime NZ after a long career with the NZ Police (see page 5).

It is with considerable sadness that I have to announce the departure of Phil Burgess, our National SAR Support Programme Coordinator, after three (and a bit) years here at the NZSAR Secretariat. For many of you Phil has been the face of NZSAR, as he travelled the nation far and wide attending SAREXs, SAR training events and range of meetings and forums. Phil's commitment to the 'One SAR' vision and his steadfast promotion of our values, such as open and effective communication and learning from our experiences, along with his drive to get us all to cooperate and collaborate, has led to him to have a very significant and very positive impact on our sector. On behalf of the NZSAR Council, I wish Phil and Debbie well on the next stage of their life in Western Australia. Phil's last day with us is 31 March 2015.

As a result of Phil's departure, the position of National SAR Support Programme (NSSP) Coordinator will soon become available.

Please visit www.nzsar.org.nz for the job description – applications close Monday 30 March 2015.

Duncan Ferner NZSAR Secretariat Manager d.ferner@transport.govt.nz



New Year Honours

Congratulations to these SAR people who have been honoured for their contribution to Search and Rescue:

Adrian Peter Dance, for services to Land Search and Rescue, Roxburgh, QSO (Queen's Service Order)

Colin John Hallett, for services to Search and Rescue and outdoor recreation, Te Aroha, QSM (Queen's Service Medal)

Sergeant William John Nicholson, for services to the New Zealand Police and Search and Rescue, Palmerston North, MNZM (Member of the New Zealand Order of Merit)

CALENDAR

SAREXs and SAR training - see:

http://searchandrescuecouncil.org.nz/nzsar-calendar

NZSAR Consultative Committee Meeting 21 April, Wellington

NZSAR Awards, 21 April, Wellington

Helicopter Workshop, 12 - 13 May, Wellington

IMRF Congress, 31 May - 4 June, Bremen, Germany

SAR Managers Course, 15 - 26 June, Police College, Porirua

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.tpp.ac.nz/study-options/emergency-management-searchand-rescue-emsar/search-and-rescue - SAR (ACE) course calendar







Like the Adventuresmart facebook page and contribute to it

SAR ACE SNAPSHOT





Welcome to a new edition to Link – NZSAR, and SAR ACE training provider, Tai Poutini Polytechnic, are throwing the spotlight on the many course and training opportunities open to SAR in our new section – SAR ACE Snapshot. SAR ACE Snapshot will appear in the March and September issues of Link and will canvass the courses on offer, profile the tutors and analyse trends and techniques.

Real weapons and rum

What makes the TPP EMSAR team tick

Delivering nationwide Search and Rescue and Emergency Management training is no small feat.

It involves coordinating with several volunteer and professional agencies throughout New Zealand to put tutors on the ground, often in remote locations, in front of volunteers who have given up their valuable time in order to care for the missing and injured.

And all of this happens out of 'Room 6' at Tai Poutini Polytechnic's (TPP) Greymouth campus. Some call it Global HQ, other's a witches den – so named for the women within who conjure, as if by magic, remarkable feats of logistical and organisational virtuosity.

Fran Cohen is the SAR Administrator. She is a former possum trapper and business owner who came to TPP by way of a parliamentary secretary role. Fran effortlessly handles LandSAR training needs, Air New Zealand glitches, stroppy tutors and demanding managers from behind an enormous computer screen, while barely breaking a sweat (although the occasional cuss word does emerge).

Angela Turnbull sits alongside her. A former event manager, Angela now runs the Emergency Management programme delivery, which is comprised predominantly of CIMS 4 programmes. Her job has become more complex due to the popularity of the newly revamped CIMS 4 course developed at the end of last year. The increasing demand for these programmes nationwide means that Angela works in a constantly changing environment, dealing with emergency services and local authorities all over New Zealand without skipping a beat.

Dean Arthur puts our rescue programmes on the ground. With 30 years' experience in outdoor and technical rescue education he is sharing a wealth of knowledge. Together with



Angela Turnball, Rae Tailby, Fran Cohen

his team of contract tutors he can be regularly found dangling from ropes, dropping into caves and swimming across rivers from Northland to Bluff, usually with a panting team of wide eyed volunteers in tow.

Circled around these folks are a team of 41 contractors. These people provide the unique blend of skill, commitment and flexibility needed to help us deliver hundreds of training events to thousands of people every year. In 2014, 92% of the people who attended courses rated their experience as a 4 out of 5 or higher – that's a fabulous result.

Presiding over this rabble is Rae Tailby. With experience in the Police and as a volunteer firefighter, a qualified teacher and a mother of four boys (five if you count her husband Mat), there is not much that phases Rae. Known for her forthright manner, she is locally (in)famous for having brought her then soon-to-be-boss to the ground (literally) during a local volunteer firefighting training session when he "got a little too real" with his role in the scenario.



Dean Arthur

TUTOR PROFILE



Gerard Moore being chewed by a dog

Gerard Moore has recently started at Tai Poutini Polytechnic as the first Search and Rescue Lead Tutor – a role which sees him watching over 100 standards based training courses annually.

His search and rescue experience dates back to 1991 when he joined a local Christchurch LandSAR team, volunteering on and off as time permitted until 2012. During that time Gerard completed the full range of field courses and participated in numerous wilderness and suburban searches. Gerard has a passion for training having spent the past 30 years involved in it. He is running a large range of courses including CIMS, technical ropes, water based courses and Pre Hospital Emergency Care. He is also working on the SAR Curriculum Alignment and Development Project that is focussed on ensuring the curriculum is fit for purpose and caters for the training needs of the sector.

Gerard says his aim is to deliver "high quality training to the sector achieved through professional development of instructors and outstanding course design. Volunteers are the life blood of the SAR sector, their training is the heart that keeps things flowing. Our job is to provide the best possible training and support so that they can perform their roles as smoothly and safely as possible."

COURSE PROFILE

Coordinated Incident Management System for SAR

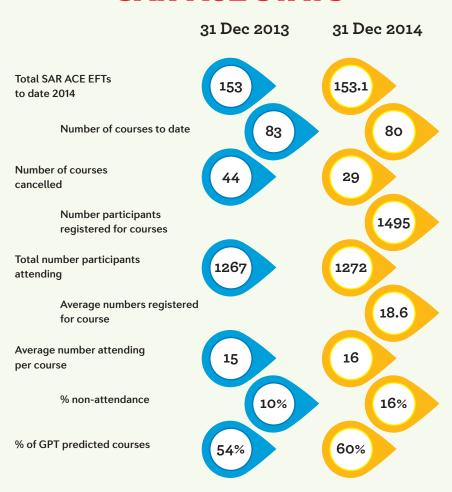


This is a challenging scenario based course suitable for all team members. It is particularly desirable for incident management

members and for team leaders. The two day course covers both CIMS2 and CIMS4 and combines theory with practical training. It enables the student to understand and describe the functions of the Coordinated Incident Management System. The various functions are then applied through a series of scenario based exercises.

Emphasis is placed on team work and the course offers a thorough introduction to the Incident Action Planning process that is at the heart of CIMS.

SAR-ACE STATS



SAR ACE is funding provided by the Tertiary Education Commission, coordinated by NZSAR and delivered by Tai Poutini Polytechnic. It makes training available and achievable for all SAR personnel. Courses are requested by the SAR sector and cover a myriad of disciplines from field skills, leadership and management.