

15 May 2013

Dave Pitchford
Waikato Police SAR Coordinator
Ross Moratti
Waikato Police SAR Squad
HAMILTON

Report for Waikato Police District Land SAREX 2013 “Operation Timber Trail”

Dear Dave and Ross,

Thank you for the opportunity to be involved in the Waikato SAREX 2013 held in the Pureora State Forest.

This report is a summation of our thoughts on the SAREX itself with a second report being written which will contain information on ways to improve the preplanning for operations that may occur on the Timber Trail. The second report is unrelated to the SAREX feedback, but outlines some thoughts which may result in increased success for future SAR operations.

Background

Police and LandSAR Groups in the Waikato District conducted an annual Search and Rescue Exercise (SAREX) over the weekend of 9-10 March 2013. The SAREX was based at Piropiro Flats in Pureora State Forest and centred on the recently opened 84km long mountain bike “Timber Trail”. SARINZ was requested to provide two tutors to assist in teaching and mentoring members that are new to, or being groomed for, an operational role in the Incident Management Team (IMT). Over the course of the SAREX, SARINZ provided a training session to these people, then provided a mentoring role to the IMT for the two scenarios.

The format consisted of round robin training sessions on the Saturday morning for field personnel whilst the IMT were trained, briefed and began planning for a Saturday afternoon exercise. There was a second exercise on Sunday morning.

There were three operational call outs during the SAREX which took priority and required the deployment of some participants; however the overall SAREX plan was maintained.

SAREX Objectives

The SAREX had the following stated objectives which were broadly met:

- Familiarisation with the new, walk/mountain bike ‘Timber Trail’
- To practice and test the treatment and evacuation of an injured mountain biker
- To test the IMT teams ability to manage a missing mountain biker incident and introduce new members into the IMT
- Communication with emphasis on alternative radio’s i.e. HF sets
- Practice safe operation around helicopters

This report is based on observations of individual and team performance and the results have been collated and listed under subject headings followed by recommendations where appropriate. The primary focus of this report is the highlighted objective above as this is where the SARINZ efforts were focussed, however additional points are made in relation to the other objectives and are based on radio traffic, understanding of the scenarios, observations and through discussion with some of the field personnel.

SAREX Personnel

The personnel attending the Waikato SAREX were LandSAR and/or Police from throughout the Waikato Police/SAR region. Senior members of the local SAR group (Waitomo) were involved in the SAREX design and control. The field personnel covered a wide spectrum of experience and training – from those that have attended nearly all available formal training combined with 20+ years' experience to new members with little formal training and experience. All comments and feedback provided in this report should be considered in this context and with generalisations based on the overall performance of those witnessed.

The IMT was made up of new people to SAR planning and incident management. This included Police and LandSAR volunteers. They participated enthusiastically in the time limited training and then applied the principles well in both the Saturday afternoon and Sunday morning exercises.

Recommendations

Leadership

It is encouraging and professional to see the level and quality of leadership displayed by key members of the Police and the local LandSAR volunteers. This applied to the overall leadership displayed by yourselves and the flow on leadership displayed in the SAREX concept and structure, set up, call up, running the SAREX, dealing with the operational requirements and facilitating the training.

Recommendation: The senior members of Waikato Police and Waikato LandSAR groups continue to provide visible and actual leadership in SAREX's.

Excellent Police – Volunteer Relationships

The SARINZ 2012 SAREX report noted the excellent working relationship between the Police and volunteers. This is critical to the successful training and operational performance of any SAR operation and SAREX. A quote from last year's report about the relationship is appropriate, "This cannot be overstated and will pay dividends in the years to come as people are engaged and committed to a good outcome."

Recommendation – As per 2012 report: Every effort should be made to maintain activities between volunteers and Police including:

- Joint exercises
- Joint sharing of eating, accommodation and tasks
- Having a positive attitude

SAREX Format

The format was excellent and informal feedback from attendees deemed the format popular with the provision of refresher/skills training on Saturday morning followed by an exercise to implement the systems that afternoon and again on Sunday. The involvement of the RNZAF Iroquois meant most, if not all, personnel were involved in the safety briefing, loading and unloading, flying, observing and winching both in training and in the scenarios. This format is well recognised as the best form of contextual learning which meant specific needs and objectives were targeted resulting in a marked improvement in performance on the Sunday exercise. Whilst incorporating the use of Iroquois can be problematic it is a draw card for volunteers.

The IMT training consisted of teaching some key reflex tasking concepts and tools in one and a half hours. The obvious time limitations did not distract from the rapid uptake and application by the participants in the subsequent scenarios.

Recommendations

The format (mix of training and scenario) should be retained and fine-tuned with the following suggestions.

- The IMT training or refresher session on Saturday morning needed to be longer than 90 minutes.

- The mentor system is maintained so that participants have the freedom to apply and experience IMT functions with positive support and guidance.
- One mentor is sufficient for an IMT with 4-5 personnel. If there is a second mentor then consideration could be given to running a second scenario to double the number of people exposed to IMT experience. Note that the second scenario does not have to resources deployed in the field as this can be simulated.
- The Sunday exercise has the same people filling the IMT positions so that they can build on the experience and lessons learnt from the previous day. This provides a supportive learning and progressive environment.
- If shadow IMT personnel are used then consideration could be given to them taking a lead role on a case-by-case basis.
- Consideration to running to small IMT's (2-4 ppl) with limited field resources would ensure more hands-on learning and more closely resemble operational reality in the Initial Response phase.

Scenarios

The scenarios were very well run and reflected reality of what is likely to happen on the Timber Trail. It was a smart move to utilise the experience of local LandSAR volunteers in this role.

The overall scenarios were kept on track albeit a little sidetracked by the concurrent operational requirements. The exercise was kept on track and only tweaked when necessary to highlight certain objectives and learning's.

Recommendation

- Maintain realistic and well set up scenarios.
- Consider two concurrent scenarios to maximise the use of field teams and IMT personnel.

Debriefs

The debriefs were conducted in a constructive way with team members being encouraged to articulate their thoughts within their respective team (field or IMT functional areas) and then to speak to everyone at the overall debrief.

The IMT debriefs occurred at the end of each scenario and were small, brief, focussed and productive. The success of the Sunday scenario is in no doubt a reflection of the value of the Saturday evening debrief.

Recommendations – as per the 2012 report.

- Groups debriefing amongst themselves and then presenting their most important or key points to the main group for everyone's benefit
- The ability to 'self-assess' performance AND the opportunity to be able to put into practice the learning in a timely fashion
- Firm but fair control of the process

CIMS

The IMT instruction and scenarios were based on utilising the New Zealand Coordinated Incident Management System (CIMS). As part of the reflex phase there was good use made of the Incident Action Plan (IAP) as the foundation planning document.

The use of "sectors" was taught and utilised as part of the scenarios which made span of control issues relatively seamless. This was integrated with sector lists, sector meeting and briefing areas.

Recommendations

- Continued use of the one page IAP as a standard for reflex tasking by Waikato SAR
- CIMS 4 training for Police SAR personnel and all volunteers with a current or future IMT involvement
- Paper exercises/SAREX using this format on a regular basis
- Use of a one-day IMTEX to cement learning

Subject Profile

The format used to summarise information on the subjects was useful and important as the subjects are vital components of any SAR action. The format could be enhanced which would assist the IMT and field personnel.

Recommendations

- Consider the use of bike rider specific profiles.

Tracking Training

The main users of this bike trail are likely to be bikers. Therefore the use of trackers will be a key factor in working out direction of travel, ageing, condition and profile of the riders.

Recommendation

- That there is tracking training provided for field teams in general and the Hamilton Tracking Team in particular. SARINZ can deliver this training.

General

The following topics are incorporated as points which the Waikato SAR Committee may wish to consider incorporating into their SAREX as preparation or subsequent follow up.

- Management table top exercises.
- Recommended reading before exercises\training
- Have pre SAREX training packages available

Summary

Thanks for the opportunity to contribute to and be part of the Waikato SAREX in 2013. There are many positive aspects highlighted by the excellent working relationship between the Police and volunteers and the overall SAREX format.

The points raised in the report and attached recommendations are provided as part of the culture of continual improvement. If SARINZ can assist in any way with these recommendations or wish to discuss them further then please feel free to make contact.

Strong leadership was a vital component to the success and SARINZ would like to acknowledge the thinking, initiative and positive approach by the Waikato Police SAR Coordinator, the Police SAR squad, Waitomo Search and Rescue and other senior SAR folk from throughout the region. This set the scene and atmosphere for everyone and led to a well organised, beneficial and enjoyable SAREX.

Kind regards

Tony Wells
Acting General Manager

New Zealand Search and Rescue SAREX Guidelines

(Correct as at 21 April 2010)



Analyse SAREX Need

completed



1: Establish SAREX Planning team (See Appendix A for instructions and Appendix C and D for Examples)	
Constable David PITCHFORD	Brendan DENIZE Waitomo Land SAR
Constable Ross MORATTI	Charlie SMART Waitomo Land SAR
	Tony WELLS SARINZ

2: Identify trends and predictions, response needs and asset assessment (See Appendix B)
<p>TRENDS AND PREDICTIONS:</p> <ul style="list-style-type: none"> • Most outdoor activity expected to remain consistent • New mountain bike tracks are being established in Pureora State Forest • Gazetted around the world as the number 2 trail in the world. • Number of riders expected to increase to 2-3,000 per year plus feature events • Some will be riding in groups and others alone • Both tourists and New Zealand riders. <hr/> <p>RESPONSE NEEDS:</p> <ul style="list-style-type: none"> • Day/night response and all weather capability • Missing mountain biker/s • Injured/fatal mountain biker/s • Westpac/Police helicopter with FLIR and night vision equipment. <hr/> <p>ASSET ASSESSMENT:</p> <ul style="list-style-type: none"> • Nil pre-plan exists • Identification of potential high risk accident sites • Identification of helicopter landing sites and vehicle access points • IMT working in isolated area. • Test communications. • Revision on base SAR knowledge and skills.

3 Summarise need:
<ul style="list-style-type: none"> • The new mountain bike trails are likely to result in moderate to serious injury and or missing incidents per year. • To increase the skills and systems to locate, treat and evacuate missing/injured mountain bikers. • To assess communications within the search area.

4: Specify the purpose of this SAREX:
To practice and test locating, treating and evacuating missing/injured mountain bikers from the Timber Trail.

5: Determine specific SAREX objectives:
i. To test our current ability/recourses

SCENARIO TWO:

This scenario will be based on a missing/ injured solo mountain biker between 2 known points in the northerly section of the trail.

12:	Evaluate plan against training need Field work shops and scenarios meet the training needs		<input type="checkbox"/>
13:	Determine exercise controllers, participants and resources required Waikato Police SAR Squad along with Waitomo SAR Planning team will have the over all control of the SAREX. <u>PARTICIPANTS:</u> <ul style="list-style-type: none"> All seven land SAR groups in the Waikato will be attending Waikato Westpac has been advised and their intention is to attend depending on operational requirements. Air force rescue helo has been requested. 		<input type="checkbox"/>
14:	Confirm and announce exercise date/time and location Friday 8/03/2013 - Sunday 10/03/2013.		<input type="checkbox"/>
15:	Develop detailed events	In attached exercise Plan	<input type="checkbox"/>
16:	Develop exercise safety plan	In attached exercise Plan	<input type="checkbox"/>
17:	Develop exercise 'control rules'	In attached exercise Plan	<input type="checkbox"/>
18:	Appoint exercise monitors (local and external) and define their role		<input type="checkbox"/>
	Const David PITCHFORD and Const Ross MORATTI to monitor overall SAREX	Round robin activities to be run by local experienced SAR members	
	SARINZ to provide overall monitoring SAREX feed back including IMT feed back.		
19:	Confirm multi agency participation Police Land SAR Westpac Air force DOC	YES	<input type="checkbox"/>
20:	Set up SAREX		<input type="checkbox"/>
Conduct			
21:	SAREX to be run under CIMS as it is a police run SAREX.		<input type="checkbox"/>
22:	Monitoring systems/real time feedback processes are in place	YES	<input type="checkbox"/>
23:	Start the exercise		<input type="checkbox"/>

completed
√

24: Sustain and control exercise activity

25: Intervention (if required) to keep exercise on track

Debrief

completed



26: Hot debrief immediately after SAREX

- Includes all personnel/agencies, written or verbal
- Preliminary feedback from monitors
- Provide appropriate exercise closure

27: Cold Debrief within appropriate time frame

- Key performance indicators are evaluated
- Internal review and analysis of SAREX systems, performance and processes

28: Monitors analysis and findings completed

29: SAREX report completed

30: Report circulated to participants and agencies

Implement Learning

completed



31: Implement report findings into Pre-plans, SOP's and training and development

32: Ongoing evaluation

33: Develop 'lessons learned' and distribute as appropriate

WAIKATO POLICE DISTRICT LAND SAREX 2013

"OPERATION TIMBER TRAIL"



Exercise Plan

DISTRIBUTION LIST:

Insp KELLY	1
S/Sgt GRACE	1
Sgt SHAW	1
Sgt BELL	1
Land SAR groups	7

Contents

OUTLINE	1
LOCATIONS	2
MAPS IN USE	
EXERCISE LOCATIONS	
KEY PERSONNEL	
LOGISTICS	4
COMMUNICATIONS	5
WITHIN EXERCISE	
EXTERNAL.....	
EMERGENCY AND HAZARD MANAGEMENT PLAN	6
INJURY TO PERSONNEL.....	
HAZARD IDENTIFICATION	
EQUIPMENT/FOOD	7
EQUIPMENT REQUIRED.....	
PROGRAMME	8
FRIDAY 8TH MARCH 2013.....	
SATURDAY 9TH MARCH 2013.....	
SUNDAY 10TH MARCH 2013	

1.0

Outline

Land SAR Groups in the Waikato District will conduct an annual Search and Rescue Exercise (SAREX) over the weekend 9th -10th March 2013. The SAREX will be conducted at PiroPiro flats Pureora State Forest Bennydale. This is the location of the soon to be opened mountain bike Timber Trail which runs from Pureora village in the North down to Öngärue (North of Taumarunui) in the south. It is approximately 34 kms long and is already gazetted around the world as the 2nd best mountain bike trail. The SAREX will be run in the Pureora State forest. The objectives of the exercise are to practice and develop skills in the following activities:

OBJECTIVES:

- Familiarisation with the new, walk/mountain bike Timber Trail.
- To practice and test the treatment and evacuation of an injured mountain biker.
- To test the IMT teams ability to manage a missing mountain biker incident and introduce new members into IMT
- Communication with emphasis on alternative radio's .i.e. HV sets.
- Practice safe operation around helicopters.

2.0

Locations

Map in Use

Topo50 - BG34 Piropiro

Exercise Locations

Location	Grid Ref.	Comment
Piropiro flats Pureora State Forest	E18 16838 N 57 20993	Exercise location
Piropiro flats Pureora State Forest	E18 16838 N 57 20993	Incident Control Point (ICP)
Piropiro flats Pureora State Forest	E18 16838 N 57 20993	Accommodation

3.0

Key Personnel

Function	Name	Contact Number
Exercise Controller	Constable Ross MORATTI	██████████
Field Team Management	Cont Alastair METHVEN	██████████
Police Personnel	Const Dave PITCHFORD	██████████
Lost Party Liaison	Const Dave PITCHFORD	██████████

4.0

Logistics

Function	Responsibility	Comment
ICP Set Up	Management Team, Base Support + Logistics	To be set up Friday by 16:00hrs
Lost Party Communications	Management Team Base support	To be set up Friday by 16:00hrs
Search Teams Communications VHF Hand held radios UHV sets	Base Support + Logistics	Each land SAR group is to bring their own hand held radios. Base set will be set up by base support.
VHF Repeaters	Base Support + Logistics	Local DOC repeaters with additional link repeater
GPS Receivers	Local SAR Groups	Each land SAR group is to bring their own GPS Units.
Laminated Maps and Photos	IMT	Maps for lost parties, search teams and ICP use
Computers and Printers	MSU	SAR laptops and printer.
First Aid Equipment	TBA	At ICP and carried by individual teams
Accommodation	Individual	All participants will be under their own field accommodation.
Transport	Individual	Transport to and from the exercise venue to be an individual responsibility. Police vehicles will meet transport requirements during the SAREX
Catering	[REDACTED]	All participants will be catered for from Saturday morning until leaving on Sunday including Sunday lunch.
Land Owner Liaison	[REDACTED] (DOC)	Department of Conservation Land

5.0

Communications

Within Exercise

Exercise activities	VHF channel Pureora [REDACTED] Portable repeater 1 [REDACTED] HF Radio [REDACTED] Air to Ground
Lost parties	VHF/HF Radio.

External

IPStat Satellite Communication
Police radio
SAR VHF/HF
Base Cell Phone 0 [REDACTED]

6.0

Emergency and Hazard Management Plan

First Aid facilities will be maintained at the ICP. A register of exercise personnel with First Aid Certificates is held in the Field Headquarters. External assistance will be through normal emergency services.

Injury Related Emergency

Specific Responsibilities

- 1 **The Patients** – The highest priority is the provision of first aid. This includes ensuring that the patients are not exposed to further harm. The senior person at the site will select the most appropriate person to administer the first aid. This decision will be based on skills, experience and currency. This decision making process must not delay the administering of first aid.
- 2 **Other Team Members** - Steps must be taken to ensure the safety of the remaining team members. The activity should continue if the safety and wellbeing of the remaining participants and the patients are not compromised by the accident.
- 3 **Summon Assistance** – At the earliest opportunity contact should be made with base via VHF or cell phone Police SAR phone [REDACTED] advising them of the incident and that it is "NO DUFF". Police will assume control and follow emergency procedures to extract the injured person/s. In the event you are unable to contact base via VHF/HF or cell phone call 111 ask for Police and advise them of the incident.

General

- **The responsibility for the injured persons remains with the SAR IMT and Leaders until the injured persons leave the site, whether by helicopter, ambulance or private car.**

Missing Members Emergency

A situation may be considered to be a missing person emergency where two or more of the following circumstances occur:

- No voice or radio communication with the party for a significant period of time (Time A*)
- No visual contact with the party for a significant period of time
- No Live Tracking data received from the party for a significant period of time
- The party has insufficient experience to resolve a situation without assistance
- One or more members of the party may have a medical condition or is at risk of a medical condition including hypothermia
- A **river crossing** may have been involved – this event has higher priority than the Time A threshold and action will be taken within (Time B*)
- Initial efforts to find the party have failed
 - Efforts to include tracking from LKP plus sign cutting intended and most likely routes
 - Known track traps in the area have been checked
 - Sound and light lines done through the area

* **Time A** – around 4 hours (where the 4 hour time frame excludes what would be normal sleeping hours for the party).

* **Time B** - around 30 minutes

- The times are suggested for planning purposes. Actual times will be determined on the day based on many factors including weather, party experience etc

Specific Responsibilities

- 1 IMT at base, Steps to be taken to ensure that all remaining members are available to assist with a search.
 - a. All relevant equipment has charged batteries and is ready for deployment
 - b. All activities are recorded
 - c. Formal search planning is done by the base IMT including consensus and scenario analysis
- 2 This is to be treated by base IMT as per normal callout procedures.

Hazard Identification

Task hazard identification will be carried out by individuals continuously during the exercise. Existing hazards and the proposed controls are as follows:

Hazard	Risk	Control	Method of Control
Slippery or loose surface roads (Vehicle damage, Injury)	Medium	Minimise	1. Vehicle movement in the exercise area to be restricted to exercise vehicles only 2. Exercise vehicles to be suitable for off road use
Helicopter Operations in Confined Spaces (Injury)	Medium	Minimise	1. To be used only in the event of an emergency 2. All personnel to be trained in helicopter safety
Uneven Ground (Injury)	Medium	Minimise	1. Personnel to wear suitable footwear at all times
Inclement Weather (Exposure)	Medium	Minimise	1. Personnel to be suitably clothed and prepared for cold, wet conditions 2. Exercise teams to be equipped with suitable overnight shelter 3. Individuals to carry sleeping bags and wet weather gear 4. Shelter provided at the Base Camp
Steep and Difficult Country (Injury)	Medium	Minimise	1. Teams to be suitably equipped and led by experienced persons 2. Teams to carry first aid kits
Lost Persons (Exposure)	Low	Minimise	1. Teams will carry GPS and maps of the area 2. Individuals to all carry compasses 3. Area bordered by distinctive geographic features 4. Teams to carry VHF radios
Giardia organism in streams (Sickness)	Low	Minimise	1. Boil all water taken from streams in the area before drinking
Mountain bike riders using track.	High	Minimise	1. Personnel to take care when travelling on marked track.
Hunters	Medium	Minimise	1. All personnel to wear high visibility clothing.

7.0

Equipment/Food

The SAREX officially starts at 8:00hrs on the 9th of March.

All SAR members are to bring their full 24hr kit in the event we are required for a call out. Field staff will only require a day pack for the SAREX.

The exercise will be fully catered from Saturday breakfast, for those who travel the previous day, through to leaving after lunch on Sunday.

Everyone will require their own tents and overnight equipment as we will be camping at the Piropiro flats DOC camping ground, Pureora State Forest.

8.0

Program

Friday 8th February 2013

Time	Event	Comment
08:30hrs	Police, Management Team, Support Personnel and Lost Parties assemble at Hamilton Police Station	Police transport along with Police van
10:00hrs	Depart Station	Travel to Pureora
14:30hrs	ICP set up for occupancy	Available personnel to assist. Generator and computer equipment set up and running, repeaters assembled and tested.
16:00hrs	Work Shop areas set up	Support personnel

Saturday 9th February 2013

Time	Event	Comment
08:00hrs	SAREX participants arrive SIGN IN	Travel to the venue individuals' responsibility
08:30hrs	Welcome, Exercise outline, Safety Briefing	 All exercise personnel Teams to be confirmed on the day
08:45hrs	All field teams deployed on round robin scenarios. IMT sent to ICP to start planning for field teams to arrive	
09:00hrs	Round robin starts	Lunch provided
12:00hrs	Briefing SAREX	Split into search teams to be completed by senior members.
12:30hrs	Deploy participants into SAREX	Use Police vehicles, helicopters to deploy teams in the field.

Sunday 10th March 2013

Time	Event	Comment
08:00hrs	SAREX scenario 2 starts	IMT given second scenario
11:00hrs	Retrieve all Lost Parties and Search Teams to ICP	All
13:00hrs	Debrief + Lunch	All
14:30hrs	Pack up and depart	All