

# Exercise Evaluation Report

## Exercise Makarora

**Location:** Makarora

**Date:** 17 – 18 November 2018

**Report version:** V1

**Evaluator(s):** *Jo Holden, NZ Police*

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## **Executive Summary**

Exercise Makarora was developed as a multi-agency search utilising Land and Marine SAR Agencies in an area of poor communications

The key aim of the exercise was to carry out a multi-agency search in a remote area to practice both field teams in the execution of their tasks and the IMT in the command and control of a search.

The IMT and Field teams were tested in a realistic setting where they were able to learn and develop their skills and abilities.

Some improvements can be made to future operations and similar SAR Exercises as outlined in the recommendations.

# 1. Recommendations

More training/practise to develop a workable IAP with SMART objectives – use the Land Search & Rescue Response Guidelines for reference.

Ensure the Information Collection Plan is developed and displayed early in the Operation along with the IAP.

More practise with GSMEAC briefings to ensure all aspects are covered – consider using an Aide-Memoire.

Better understanding of CIMS roles and functions to minimise unnecessary crossover within the roles and mixing up of functions.

Provide more training opportunities for prospective IMT members to complete relevant training, i.e. CIMS4, MTIR – core training & refreshers.

More attention to the organisation of the paperwork – i.e. the SAR file.

Have a backup plan in case of power failure.

If SARTrack is to be used in Wanaka, commitment is required to develop Admin Support people who can quickly become adept at entering and extracting relevant data.

For any SAREX using SARTrack – use experienced Admin Support people who are adept at entering and extracting relevant data. SAREXes are perhaps not the best time to train people unfamiliar with the product, as there is potential to sidetrack people's time away from immediate tasks at hand.

## 2. Introduction

Police Instructions require each District to conduct one Land and one Marine SAREX annually; this was the annual SAREX for the Southland District.

Exercise Makarora was designed to be a real-time exercise with Land and Water elements. It was conducted in the area bounded by the Wilkin River to the north and Boundary Creek to the south. This area has a history of SAR incidents, and has limited Communications.

The SAREX involved 3 interconnected and overlapping phases:

Phase 1. Information gathering and marine search;

Phase 2. Land search undertaken and completed;

Phase 3. Land teams evacuated.

The IMT were expected to develop their action plan for the scenario; resources (Police and LSAR) were to be tasked accordingly. The IMT members were primarily experienced SAR personal, with some new to their designated roles.

The primary IMT was located at Makarora School; the on-lake response was coordinated by a second IMT located at the at the Coastguard base in Wanaka.

Objectives centred on the IMTs leading a Coordinated interagency response from a remote location, and Field Teams operating efficiently and effectively.

The exercise was also used as an opportunity to give Wanaka SAR exposure to SARTrack.

This report records recommendations based on observations and other qualitative evidence. The recommendations and supporting evidence were the outcome of a SAREX and should be read in that context.

## 3. Background

### 3.1 Background to the Exercise

Wanaka SAR has conducted a significant number of Land SAROPs over the past 2 years ranging from beacon activations, rescues and searches. Over the past 5 years there have been several operations involving kayakers as well as marine operations on the Lakes including fatalities. The rivers in particular have been the scene for several drownings.

The SAREX was designed to practice Incident Management, on-water Units and LandSAR Sub-alpine Field teams including river crossings.

### 3.2 Dates, location, organising agency(s), key people

**DATE:** November 17/18

**LOCATIONS:** ICP – Makarora School;  
Search area – Wilkin & Makarora Rivers

**ORGANISING AGENCIES:** NZ Police, LandSAR Wanaka, Coastguard Wanaka Lakes

**KEY PEOPLE:** Sgt Phil Vink, Mike Johnston, Luke Fahed, Paul Sutherland, John Burke, Robyn Brighthouse, Kevin Duke, Glen Sherson, Jonathan Walmisley, Bill Day, Rachael Moore

### 3.3 Participating organisations

- NZ Police – Southern District SAR Squad
- Coastguard Wanaka Lakes
- Lake Hawea Marine Group
- Wanaka LandSAR including IMT, Sub-Alpine and River Rescue personnel
- LandSAR Southern Region Groups
- AREC
- LandSAR dogs
- Wilkin River Jet
- Bill Day (helicopter owner/operator)
- Makarora School
- Makarora Tourist Centre

### 3.4 Exercise aim

To carry out a multi-agency search in a remote area to practice both field teams in the execution of their tasks and the IMT in the command and control of a search.

### 3.5 Exercise objectives

- Activate IMT at required level for incident
- Develop an effective SAR Action Plan
- Effectively coordinate a SAR Incident
- IMT Handover provides Seamless Control
- FOB is fully operational
- Search is effective and efficient
- River Awareness is evident

### 3.6 Exercise Scenario

A white-water kayak group consisting of 5 males were dropped into the upper Wilkin river, intending to descend the Wilkin River and camp at Boundary Creek; they had arranged to be picked up from Boundary Creek the following morning by the father of one of the kayakers.

The father arrived at the pickup point at 0630 hrs; the kayakers were not there, and he thought he could see a yellow kayak floating on the lake. He phoned Police from the Makarora Country Café and passed on some information of the overdue kayakers.

Police deployed Coastguard who located the yellow kayak near Boundary Creek, and a blue kayak and one survivor at Craigieburn hut.

The SAREX proper commenced at this point with personnel who were already on site at Makarora.

## 4. Evaluation Methodology

### 4.1 The agreed outcomes of the evaluation activity

A report outlining observations of the SAREX in relation to the stated objectives and the KPIs, and recommendations based on those observations.

#### NOTE:

A separate report relating to the Marine component of the SAREX was prepared by Jonathan WALMISLEY and is included at Appendix 8

### 4.2 Evaluation scope

Observation of the Incident Management Team at the ICP to report on performance that included ability to function, manage communications and achieve the objectives set for this exercise.

I had no involvement in the planning of the SAREX.

### 4.3 Aspects of the exercise observed, what was not observed

#### Observed:

- Exercise management and coordination;
- Interaction between EXCON and SAREX participants;
- Actions of the IMT from 0800hrs Saturday to 1300hrs Sunday;
- Team briefings prior to the deployment of Field Team members;
- Communications between SAR base and Field teams;
- SAREX Hot debrief
- Forward Operations base activities (limited)

#### Not observed:

- Actions of teams in the field
- Use of jetboat for team deployment
- Use of helicopter for team deployment

### 4.4 The process followed in preparing and submitting the report

- Spoke with Sgt VINK some months prior to the SAREX; he forwarded me the relevant documents including the Exercise Instruction.
- Attended the SAREX from immediately prior to activation through to conclusion.
- Attended IMT and partner agency "Hot Debrief" post ENDEX

### 4.5 Other information

## **5. Findings**

### **EXERCISE PLANNING**

The SAREX was planned by a local team led by S/Constable VINK. A written Exercise Directive detailed the intent and expected outcomes of the SAREX.

Comprehensive notes were prepared and disseminated prior to the exercise outlining individual responsibilities, equipment required, team leader briefing, hazards and mitigation and other relevant tasks to be completed.

### **EXERCISE CONDUCT**

The exercise was conducted well with significant emphasis on safety. Separate advisors were appointed to the IMT and Field. There were no accidents or notifiable incidents reported.

Teams were tasked in a timely manner that reflected the pressure of reality.

Welfare of Team members with a long drive home at the end of the exercise was considered and accommodation offered.

An unexpected power cut (car vs power pole) created issues prior to the SAREX and compacted the already tight time frame to get Field Teams deployed. Radio repeater failure also caused comms issues initially. However, all but one team had been deployed before lunch on day 1.

Appropriate use was made of LandSAR members with good local area knowledge.

A River Rescue team member was appointed to the IMT as SME, although this created an issue for the River Rescue team as he was their Team Leader.

Team management was largely handled well; however, the River Rescue team who located the "body" was not managed particularly well – possibly due to Comms issues within SARTrack.

Some communication issues arose between the Marine OSC (Wanaka) and the IC/IMT at the remote ICP (Makarora). Alternative comms resolved the problem..

### **EXERCISE EVALUATION AGAINST OBJECTIVES / KPIs**

(Refer Appendix 7)

## 6. Conclusions

The SAREX was well planned and executed with a significant emphasis on safety. The Aim and Objectives of the SAREX were largely met.

The IMTs worked well under pressure with all teams arriving at once for the Initial Response – which is often appropriate to reality.

Many of the IMT members had not worked together before but quickly gelled and focussed on the tasks at hand.

Mentoring of the less experienced members in the IMT by practised SAR managers was useful to build relevant and applicable IMT knowledge and depth without the urgency of a live SAROP. However, some IMT members struggled initially as they had little to no IMT experience and/or training (MTIR and/or CIMS).

The exercise presented a good training opportunity for all personnel, and a number of learnings from the exercise were identified that can feed into future training

If SARTrack is to be used in Wanaka, commitment is required to develop Admin Support people who can quickly become adept at entering and extracting relevant data.

### SARTRACK OBSERVATIONS:

Bring in experienced Admin Unit staff to set SARTrack up before the SAREX to assist the Initial Response. They can then mentor others in the use of the product. Otherwise too much time can be lost trying to sort out relatively simple tasks by people not familiar with SARTrack.

Familiarity with the Radio log function is essential - keeping on top of radio messages - receiving from and sending to the radio operator.

Consider a backup in case information is “lost”.

## 7. Appendix 1

# Key Performance Indicators

### Activate IMT at required level for incident

KPI	Achieved?	Comments
IC activates IMT in accordance with local procedures	Achieved	Marine assets were activated in accordance with local procedures via a separate IMT at Wanaka. Comprehensive briefing was delivered to IC at Makarora re actions already undertaken. IC (Initial Response) assigned IMT roles to key personnel (who were already assembled).
SAR agencies identified and informed	Achieved	All relevant agencies were on site as part of the SAREX. IC (Initial Response) delivered comprehensive summary of situation, actions undertaken and information available.
Volunteers in IMT given appropriate roles	Partly achieved	CIMS roles were appointed, but some mixing up of functions occurred during the Initial Response – e.g. Logistics was assigned the task to create the IAP. Good use of experienced SMEs with local area knowledge to Ops role. Incoming IC appointed IMT roles appropriately.
Safety is considered	Achieved	The exercise was conducted well with high emphasis on safety of all personnel deployed. A comprehensive Risk Assessment Plan was developed for the SAREX and independent Safety Advisors were appointed. CIMS Safety Advisor position was appointed within the IMT. River SME appointed to IMT due to technical nature of Area of Operation (river levels & debris in lake). Briefings of Team Leaders and Team members stressed risks (incl undercut banks) and the need for safe practises. LandSAR Teams were told there would be no searching of the actual river. EXCON members continually monitored all activities, Safety management & No Duff procedures were communicated to all participants. Jetboat Operator delivered separate briefing to all SAR Teams to be transported by river.

### Develops an effective SAR Action Plan

KPI	Achieved?	Notes
Correct planning processes are followed	Achieved	Marine Planning sequence was followed, based on appropriate SAD/SAC. Marine OSC was appointed. Appropriate Search Urgency Assessment determined - Immediate (persons in water) Appropriate LPB category of missing persons was determined. Operational log commenced. ICs disseminated information to IMT including actions completed so far
The systems, processes and resources used are appropriate for the incident	Achieved	Local callout procedures were not required as a significant number of appropriate personnel were already on site. Information Collection Plan was prepared and Investigation tasks were assigned to fill gaps in information for Initial Response. However, IC Plan was not displayed, or written up onto whiteboard during IR phase. IC Plan was written up and displayed appropriately in subsequent phases, including gaps and actions required to fill the gaps Regular IMT meeting were held, appropriate Sitreps communicated by IC. IC impressed on the IMT the need to stay on task Timelines were used in subsequent Operational periods IC for 2 <sup>nd</sup> Operational period identified need to appoint FLO for deceased person(s)
Threats and risks are embedded in the plan	Achieved	A comprehensive Safety Plan was written. CIMS Safety Advisor position was appointed within the IMT River SME appointed to IMT due to technical nature of Area of Operation (river levels & debris in lake). Independent SAREX Safety Advisors were appointed.
Workable IAP is produced	Partly achieved	Inadequate IAP for Initial Response but completed with mentoring, especially wrt SMART objectives IAPs were appropriate to the development of the scenario.

### Effectively Coordinates a SAR Incident

KPI	Achieved?	Comments
IC is able to delegate	Achieved	Marine operations were delegated to Coastguard Initial Response IC would have benefitted from more delegation, however many of the IMT had little to no IMT experience/training.
Team members understand their roles and keep to them	Partly achieved	Some IMT members struggled initially as they had little to no IMT experience and/or training (MTIR and/or CIMS). Some mixing up of functions occurred during the Initial Response – e.g. Logistics was assigned the task to create the IAP.
Unambiguous tasks are prepared and effectively communicated	Achieved	Appropriate Marine tasks were prepared and communicated to water assets. Taskings were completed appropriately despite time constraints (Teams on site and ready to be deployed by jetboat that was only available for a short time). Verbal tasking of teams was completed in a timely manner; laminated maps were supplied
Action/Radio log captures all decisions and activities	Partly achieved	Marine IMT logged decisions and radio/phone conversations. SARTrack was used to capture logs & information but the lack of power until 0850hrs caused a backlog. There were also some issues with SARTrack evidently dropping some entries Dropbox was used to share documents.
Documents are referenced and controlled	Achieved	Dropbox used to pass information from Wanaka to Makarora. Search File was prepared by the incoming IMT
Debriefs feed into decision making	Partly achieved	Comprehensive debriefs of teams were undertaken at the end of the SAREX but not required for further planning

### IMT Handover provides Seamless Control

KPI	Achieved?	Comments
ICP is fit for role	Achieved	ICP location was predetermined but was adequate (once the power was restored).
IAP and Tasks for next phase prepared	Achieved	Good use of pre-handover meeting for outgoing Initial Response IMT to ensure all points would be covered. Incoming IMT identified need to complete the hard file and have taskings prepared in advance.
Handover is well managed	Achieved	Comprehensive handover briefing completed in GSMEAC format with all IMT members contributing. Staggered handover then completed by individual IMT members – outgoing to incoming.
Briefing covers all aspects	Partly achieved	IC for Initial Response delivered a good GSMEAC briefing, however some bits were missing – e.g. Mission, Admin, Command & Comms.

**FOB is fully operational**

KPI	Achieved?	Comments
FOB activated	Achieved	
FOB management is effective	Achieved	
FOB provides the support required by the IMT	Achieved	No issues identified

## Search is effective and efficient

KPI	Achieved?	Comments
Tasking is appropriate and understood	Achieved	Taskings for LandSAR teams were completed in a timely manner despite time compression (limited timeframe to use the jetboat) Verbal tasking of teams was completed in a timely manner; laminated maps were supplied. Good explanation of other teams working in the same area River Rescue Team felt their technical skills were underutilised and they would have been useful to move teams across the river
Teams are deployed effectively	Partly achieved	Initial taskings were completed efficiently and all teams were out by 1130hrs. There was some delay in re-tasking – one team on standby for 2.5 hours
Teams are equipped to carry out the task	Achieved	Teams were told in advance what gear to bring; no issues identified.
Communication is effective	Achieved	Repeater failure resulted in no comms initially but a backup was sourced and Team Leaders were advised of alternative means of Comms before being deployed. Any comms issues in the field were subsequently remedied by work-around. There were also some issues with Comms between Wanaka and Makarora – refer Appendix 8. Comms Unit at the ICP was established in an area away from the IMT which significantly reduced the noise of radio chatter in the ICP. SARTrack was used for electronic radio messaging to and from the IMT but the need for more familiarity was identified
Tasks are completed using best practice	Achieved	Identified during Team debriefs at the conclusion of the exercise
Teams are withdrawn effectively	Achieved	All teams were back at base by mid-morning on Day 2.
Team members actively take part in Debrief	Achieved	Individual Team debriefs were completed; teams contributed to the Hot debrief
Patient management is effective	Achieved	

**River Awareness is evident**

KPI	Achieved?	Comments
River Safety Briefing is fit for task	Achieved	Comprehensive briefing delivered by SME – emphasised that teams would be working around the river, not in it
Decision making is appropriate to the conditions		Not observed
Actions are carried out safely		Not observed, but no accidents or near misses were reported

## 8. Appendix 2

### REGIONAL SAREx EX MAKARORA 2018 – MARINE DEBRIEF

#### INTRODUCTION

1. The Marine Phase was the introduction to the Exercise and aimed to provide the information for the planning of the Land Phase and to provide an opportunity for Marine assets to exercise together.
2. The Marine assets involved were **Catching up** and **Christine** from Lake Hawea Marine and **Wanaka Lakes Rescue (WLR)** from Coastguard Wanaka Lakes. The Marine IMT comprised two persons, one from Coastguard and one from LandSAR; both part of the joint WSAR IMT.
3. The Scenario started at 7am with a sighting of an empty river kayak in the lake, at which time Coastguard was activated for a measured response and an IMT set up at the Wanaka ICP. An initial search provided the information required for planning the LandSAR phase and this was transmitted to the Makarora IMT by phone and by Drop-box. After consultation the IC requested additional assets be called up and a Search of the Lake be carried out; during which **WLR** was OSC until called away at which time **Catching Up** took on the role. After the search was successfully completed another search was requested. All assets were off the water at 2pm. A debrief of the search was carried out with Derek Shaw (Police) in attendance.

#### OBJECTIVES and KPI

4. Activate IMT at the required level for the incident.
  - a. The Police (Dene) activated the Marine assets in accordance with local procedures. A successful deployment of assets resulted.
  - b. Discussion with IC resulted in a measured response using **WLR**. Based on the available information at the time this was appropriate.
  - c. Within the IMT volunteers took up positions appropriate to their training and experience.

#### **ACHIEVED**

5. Develops an effective SAR Action Plan.
  - a. The Marine Planning sequence was followed, this include an initial tasking, target form, SRU form, IAP for the initial task and a Contingency Plan prepared in case initial search found nothing. This Plan was based on a SAD/SAC determination and was then converted to a tasking. The planning included confirmation with **WLR** in regard to weather, water conditions and search parameters.
  - b. Additional assets were appropriately requested, OSC formally appointed and tasked.
  - c. Safety was considered at all times and discussed with **WLR** on the water
  - d. An IAP was developed which was comprehensive and suitable for the task.

#### **ACHIEVED**

6. Effectively Coordinates a SAR Incident

This was complicated by the IC being at Makarora with a full IMT. At no time was the Wanaka based team advised of the structure of the Makarora IMT nor that command had switched to that IMT. The Marine coordinators continued to work direct to the IC who tasked the coordinator with what they wanted.

- a. The IC clearly delegated to Marine Ops the planning and control of marine assets
- b. The Marine staff clearly understood their roles and responsibilities and kept to them. They worked well together and with minimal stress.
- c. The Marine tasks were well prepared, appropriate to the situation, and effectively communicated to the OSC in spite of communication issues. The importance of a Sat Phone became quite evident.  
It became evident that the Makarora IMT were not fully aware of the tasking issued by the IC. This was resolved.
- d. A combined action and Radio Log was kept
  - i. The Marine IMT kept an accurate log which captured the decisions and radio/phone conversations. The information was passed to Makarora IMT via phone/drop-box where it would seem that the information *was lost in translation*; For example The Orange Kayak: Was reported and logged with WLR position Lat/long and the kayak a distance up the beach (ie the position related to the vessel not the kayak). The Makarora IMT had the Kayak Pin on MapToaster in the middle of the lake at the WLR position – this caused confusion and stress at Makarora. In fact WLR was near the beach; over time the river mouth has changed so the map is no longer accurate, hence the pin in the lake but no cognoscence had been taken that the kayak was up the beach.
  - ii. SARTrack was not initially available in Wanaka, this because the MSU was not aware that Wanaka was part of the exercise. Once advised it became available however crashed repeatedly so was ineffective.
- e. Documents were referenced and logged prior to being put in drop-box.
- f. Debrief of Searches were carried out and information used to inform subsequent action.

#### **ACHIEVED**

**The** exercise had artificial constraints including separation of ICPs which caused some issues but these were resolved. In a developing scenario which starts single agency IMT Managers will have been appointed ; these should be retained as the scenario develops to maintain consistency etc unless the IC appoints two separate teams.

7. Search is Effective and Efficient.
  - a. The taskings were appropriate for the scenario and were understood by the OSC and marine asset skippers (Confirmed at debrief).
    - i. **Catching Up** self tasked/ changed search parameters without reference to IMT ( agreed as not good practice)
    - ii. Confusion on who was carrying out what at one stage caused by lack of feedback from vessels (agreed at debrief that more frequent sitreps are required).
  - b. The deployment of assets went in accordance with local procedures

- c. The exercise was relatively short however highlighted
  - i. Vessels need to be fit for the conditions and capable of operating in those conditions for the length of the operation or upto 6 hours whichever is the shorter. For a formal Lake Search 6 hours should be planned for.
  - ii. Vessel crew need to be appropriate for the task. Minimum 4 for a search to allow for crew rotation and hence reduction of crew fatigue. Individuals to have correct PPE for the conditions.
- d. Communication Black spots, known, resulted in some stress. However all vessels moved to ensure good communications and are commended for this initiative. **WLR** new radio failed and sat-phone had difficulty picking up satellites.
- e. Tasks were completed effectively and where problems arose they were effectively resolved.
  - i. OSC briefing requires to be in depth and should assume minimal knowledge of search by other vessels.
  - ii. OSC must have accurate means to assess time and position
- f. Vessel recovery went well once released from task. Vessels need to report *off-water to IMT*
- g. A full debrief of the tasks was carried out with the crews of all vessels present. Derek Shaw (Police) in attendance. All crews given opportunity to feedback verbally or formally using Marine Debrief Form (in drop-box). The debrief was comprehensive and constructive.
- h. Body Recovery. Carried out using acceptable procedures.

**ACHIEVED**

**SUMMARY**

- 8. The planning and execution of marine tasks were carried out well using Marine SAR best practice. The deployed assets and IMT Marine personnel performed well. Any lessons from the exercise are relatively minor and in no way detract from a great effort and a great result.
- 9. The artificial construct of two ICP showed up issues around the transfer of information. It is vital that all parties actively use all communication avenues available as part of their planning and operations – Drop-Box, radio/telephone, SAR Track. Using one alone led to transposition errors.