

# Exercise Evaluation Report

## SAREX Toutouwai

**Location:** Akatarawa Forest Park, Wellington Police District

**Date:** 13<sup>th</sup> -15<sup>th</sup> November 2020

**Report version:** v1

**Evaluator(s):** *Nick Coyne, NZ LandSAR*

*Final*

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## Executive Summary

The purpose of this SAREX was to give a measure of capability for a SAR response while familiarising personnel with the Akatarawa Forest Park and environs.

Opportunities were made for LandSAR field team competency assessment, practice of site processing involving deceased subjects, experience the influence of fatigue on performance as well as testing some logistical functions concerning information and communication technology. Parallel to the SAREX plan was a VHF radio repeater and link trial conducted by a PNHQ project team.

The SAREX was well designed and executed by a capable team. The purpose of the SAREX and in broad terms its objectives were met.

A number of recommendations have been made some of which would have been self-evident to the planning team.

Comment is also made on training teams to measure search effort and to enable multi team 'in field' coordination.

## 1. Recommendations

1. Review the evidence collection 'tools' for in field competency assessment. This review should focus on all weather usability and user convenience
2. Build participant confidence in the process that involves a self-assessment component
3. Ensure briefings prior to and on exercises/ training give a consistent transfer of information and uniform intended outcomes
4. Maintain a training emphasis on team leadership
5. Identify the system breakdown for recording radio live tracking identification during the equipment allocation to field teams
6. When exercising close to suburban areas and using helicopters consider wider community notification, cut off times for tasks and/or less intrusive flight paths.

## 2. Introduction

The Wellington Police District annual land based SAREX for 2020 was situated in the Akatarawa Forest Park with the control point and assembly area at Karapoti Park on the northern outskirts of Upper Hutt. It was a full scale exercise that involved the Police, AREC, RNZAF, the Wellington and Wairarapa LandSAR groups and supporting agencies.

The SAREX was based on three scenarios that provided opportunity for field team competency assessment, familiarity with a large forested recreational area close to Wellington city and radio/ satellite link communication trials.

Only the operations and logistical functions of an IMT were implemented during the SAREX. The plan had been previously formatted by a team that included the acting Police SAR coordinator and Wellington LandSAR committee members.

There were six stated objectives:

- 1) To provide an evidence gathering opportunity against LandSAR competencies for those in the Field Team Leader's and Team Member roles
- 2) To provide opportunity for field team members to self-assess operational performance and gain awareness of effectiveness over time
- 3) To provide opportunity for field team members to practice relevant standard operating procedures eg. locating a deceased person/s
- 4) To utilise SAR track to monitor field team movements and manage equipment allocations
- 5) To test new VHF radio repeater models for performance and coverage
- 6) To test satellite wifi communication from a control point in Akatarawa Forest.

The overall aim of the exercise was to give a measure of capability in terms of field personnel, communication links and SAR Track management software for SAR responses.

## 3. Background

### 3.1 Background to the Exercise

The exercise area has a vulnerability to likely medical events and missing recreational users. This vulnerability is similar across all the Regional Parks in the Wellington area.

The exercise design was to provide opportunity to assess the team leader and member competencies. This is consistent with the previous three years where an objective has related to competency assessment. The organisers also felt a despondent scenario that required site management fitted well with a training need.

The group undertake regular monthly trainings that more recently focused not only on the above but a team leader briefing on the procedure for gathering and recording competency evidence.

In 2019 and 2020 the Taupo Police and their SAR committee used a 'drill/ functional' exercise that also enabled assessment against the LandSAR competencies. An observer from Wellington attended the 2020 SAREX. LandSAR Training planned this event and provided the evidence gatherers and assessors.

The key difference between the Taupo and Wellington SAREX's is the way the evidence was gathered and assessed. Parallel to this LandSAR is currently reviewing their competency assessment process.

Further to the above background Police National HQ are undertaking a radio repeater trial that was incorporated into this SAREX.

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

The exercise was conducted between Friday 13th to Sunday 15th November, 2020 and was principally located within the Akatarawa Forest Park (administered by Wellington Regional Council). The staging area and control point was outside this area at 1373 Akatarawa Road (Karapoti Park- administered by Upper Hutt City Council Parks and Reserves).

It was organised by personnel within the Wellington Police and the Wellington LandSAR group.

Key people were:

Exercise Controllers: Senior Constable Luke TAUNTON and Detective Constable David NICHOLS

Operations Manager: Claire PETTIGREW

Safety Manager: Jeremy PATERSON

Staging Area Manager: Wynne MORGAN

Local contacts facilitator/4wd movements: Detective Geoff McGHIE

Communications/Repeater Project: Senior Sergeant Pete THEOBALD

### 3.3 Participating organisations

NZ Police, LandSAR (Wellington and Wairarapa), AREC (Amateur Radio Emergency Communications), RNZAF, Wellington Free Ambulance Rescue Squad and the Cross Country Vehicle Club.

### 3.4 Exercise aim

To conduct an exercise in the Akatarawa Forest that measured SAR capability in terms of field personnel, communication links and SAR Track management software for commonly occurring SAR responses.

### 3.5 Exercise objectives

Six broad 'outcome' objectives were established:

- To provide evidence gathering opportunities against LandSAR competencies for those in the Field Team Leader's and Field Team Member roles
- To provide opportunity for field team members to self-assess operational performance and gain awareness of effectiveness over time
- To provide opportunity for field team members to practice relevant standard operating procedures eg. locating a deceased person/s
- To utilise SAR track to monitor field team movements and manage equipment allocations
- To test a new VHF radio repeater model for performance and coverage
- To test satellite Wi-Fi communication from a control point in Akatarawa Forest.

### 3.6 Exercise Scenario

There were three mini scenarios located in different parts of Akatarawa Forest. Eight teams were deployed, with up to three teams completing each scenario at a given time.

The scenarios were:

- a) A missing and injured tramper where teams used search techniques to locate, medically assess, treat and stretcher extract.
- b) A despondant person with an associated parked vehicle that the teams located and processed, determined the direction of travel, then used a search technique to locate the deceased person. Scene management was a critical component of this sceanrio.
- c) A missing hunter where teams used river crossing techniques, sign cutting and following track.

On the Sunday morning all teams located a campsite, processed and collected information.

A helicopter was used for the majority of team movements between scenarios which required a helicopter safety brief and winch training. Teams also moved by foot and 4wd.

## 4. Evaluation Methodology

### 4.1 The agreed outcomes of the evaluation activity

A report with recommendations based on the objectives and their KPIs. See appendix.

### 4.2 Evaluation scope

To measure how well the exercise meet the stated purpose and supporting objectives.

*Excluded from scope:*

*Post SAREX follow up on assessment reporting to group and national databases.*

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

Observed: Initial on site organisation of equipment and briefing for all participants.

The operations function at the control point. Field team deployment, infield activity and assessment procedures for the Saturday scenarios.

Demobilisation and the hot debrief for all personnel.

Not observed: The campsite processing and reporting on the Sunday morning.

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

The planning document was supplied prior to the SAREX from which KPIs were developed. The KPIs were submitted to the planners and agreed they would be used to help give measurement against the objectives and the SAREX purpose. Evidence was collected against these KPI's by interviews, observation, notes taken at the time and photographs.

A review of previous SAREX reports and post SAREX interviews were also undertaken.

A draft report was submitted for comment to the acting Police SAR Coordinator and a committee representative. The final version contains what the evaluator, committee representative and the acting Police SAR Coordinator consider appropriate.

### 4.5 Other information

This report has limited comment on the radio VHF trial due to the commercial sensitivity and the current purchasing process.



## 5. Findings

In a review of the previous three SAREX reports the evaluator found that many of the recommendations relevant to this exercise have been implemented. Teams leaders were briefed to the competencies and evidence collection in previous training, T- cards were used for registration and teams were deployed with minimal waiting. There were enquiries made for having LandSAR assessors present during this SAREX. However there was an unavailability. During the planning phase the Training Manager LandSAR indicated a review of the current assessment process that may give greater latitude for groups. The process followed during and post this exercise explores one option.

### **Comment on meeting the objectives**

*a) There were multiple evidence gathering opportunities against LandSAR competencies for both the Field Team Leader's and Field Team members role during the exercise.*

Competencies that could be covered were identified by the SAREX planners. An evidence collection template was provided to each team member containing all the competencies associated to that role. Individuals were asked to self-assess and evidence noted during and after the SAREX. Team leaders briefed their teams to this and could attest to data validity. Another validity check could occur when an assessor (or similar) reviewed the evidence and noted consistencies verse inconsistencies over all the teams and within a team.

The evidence collection template was found by users to be less than convenient in the field because of size and would have been inappropriate in wet weather. The recording did however enable post assessment administration. From interviews in the field other tools for evidence collection were suggested such as using a phone App and photos. For field teams having an effective and efficient way to record evidence is important as time was taken up with not the tasks but maintaining energy levels, hydration and body warmth.

Some teams felt the process around evidence collection for Team Leaders was unclear and not all participants were comfortable with robustness in the process (i.e. self- assessment).

*b) There was opportunity for field team members to self-assess operational performance and gain awareness of effectiveness over time*

During this SAREX Field Team Leaders were asked to discuss with their team on how fatigue may affect performance. Planning documents indicated 'camp establishment' times at 2315hr on the Friday and 2100hr on the Saturday. As the planners wanted field teams to be aware of fatigue and its effects teams were subjected to extended hours. Other factors that would have contributed to fatigue were walking on forestry roadways, changing weather conditions, being tasked and retasked (including being helicopter winched for relocation), establishing and disestablishing camps as well as having to maintain personal well-being and energy levels.

Post SAREX enquiry established teams discussed fatigue from different perspectives ranging from managing the team during the SAREX e.g. using the 'Take Five' procedure prior to new tasks to a more formal instructional approach that covered areas such as how energy levels can affect navigation (e.g. transposition of numbers in grid references) and search effectiveness.

The evaluator feels the focus could have been more uniform across the teams with a more consistent and desired result e.g. a discussion on the 'what if's' and impact on operational performance and search effectiveness.

In the field it was observed that team leaders used effective strategies such as monitoring members and using open communication within the team to help mitigate fatigue outcomes. An example of risk mitigation used was where an individual member was unsure of the carabiner operation used in winching equipment. The most alert and capable team member was the last to be winched that enabled help for those most at risk. Another example of team awareness on effectiveness was given with teams requesting an earlier stand down period on the Saturday night than had been planned due to fatigue.

Land SAR has provided an advisory on fatigue (Safety Advisory 2) that is based on research in the civilian, military and SAR sectors and could be used for further discussion.

*c) There was opportunity for field team members to practice relevant standard operating procedures eg. locating a deceased person/s*

The scenario concerning practicing standard operating procedures around deceased persons had four components: sign cut and vehicle analysis, obtaining direction of travel, body discovery and maintaining site integrity. The briefing observed prior to the teams being deployed principally concerned the mental health of individuals doing the current task. This was to pre-empt stress for those sensitive to the situation and was exemplary.

There was variability in how teams went about the task and time taken. Key differences were around leadership, allocation of roles and site recording. There were useful learning opportunities with Police led debriefs that were sensitive, practical and often related to personal experiences. The evaluator felt there could have been further discussion on the effects, resources and support available for individuals in a post 'body discovery' events.

Similar variability in team performance relating, but not entirely, to leadership was also noted in the tracking scenario. More complete information about the age of sign (there was recent contamination in the area) would have helped as well a brief subject profile from the site monitors. The radio message as recorded by the teams did not contain any time as to when the hunters went missing.

*d) There was partial success in utilising SAR track to monitor field team movements and manage equipment allocations.*

Field teams were to be live tracked but there appeared to be a breakdown at the allocation interface where the radio (live tracking) ID was not correlated to team numbers. A scanning device was used to record allocation and may have resulted in this oversight.

However

- Some teams were live tracked at times
- Field team locations were clearly identified on electronic mapping
- SAR track was used for recording tasks.

The SARTrack operators had limited exposure to this software but ample background knowledge to work effectively.

*e) There was a limited test for the new VHF radio repeater models for performance and coverage*

Currently the Police in collaboration with AREC are investigating alternative purchasing options to replace the aging stock of VHF repeaters and links. This SAREX was seen as an opportunity to field test. A repeater and link were located so signal could be received at the Control Point. There was some equipment failure that meant all radio traffic needed to be rerouted via a fixed repeater of known coverage and reliability. One positive outcome was personnel became familiar with the infield deployment of the equipment.

This trial impacted on helicopter deployment for the Friday. The NH90 was still being tasked at 2230. This caused some complaint from the neighbouring residents who suggested notification using a variety of media eg Facebook (a letter drop had taken place in some of the affected area) and more civil flying times.

The evaluator was also aware of a disconnect between the SAREX planners and the Repeater Project planners as to the trial purpose, helicopter use duration and likely impact on the overall SAREX aim and logistics.

*f) Satellite Wi-Fi communication from a control point in Akatarawa Forest was tested with an ambiguous result*

Karapoti Park would be considered as a staging area with an IMT located at the Lower Hutt Police Station for a SAROP in that locality. The planning team wanted to explore the possibility of having a full IMT or components remotely. In either case an internet connection would be invaluable to transferring documents etc. IP Star was utilised to explore this possibility. A connection failed to be established. This could have been due to a satellite position low on the horizon or equipment failure (it was suggested a broken cable). Other internet connection technologies are possible including the use of a phone 'hot spot' function if there is reception.

### **Training gaps**

The evaluator was asked to identify any training gaps. There was a variability in team performance often relating to leadership and the quality of in field briefings.

Also teams did not appear to know how to measure their sound line effectiveness or area sound searched.

*Suggested field team training to extend on SAREX experience.*

- How to report sound coverage and effectiveness based on calibration.
- Combining teams with a focus on in field coordination and role delegation.

One team reported a previous sound search along linear features with multiple teams where there was confusion as to who generated the sound and the location. While not identified as a training gap there is an advantage in training teams to coordinate sound and listening periods within a catchment.

Another advantage in combining teams under single leadership (an 'on scene coordinator') is the efficiency and speed of processing a site.

### **Other**

#### *Competencies*

Evidence against a number of competencies not identified in the planning documents would have also been satisfied such as fitness, helicopter familiarity and winch training. The operations manager gave focus for all teams to have helicopter time.

#### *Briefings*

There were three separate briefings at the control point for field teams as they arrived and prior to deployment. A whiteboard was used to display key information. For the majority of time in one of the briefings the NH90 was operating close by. Briefings are to effectively transfer information and a number of teams were unable to hear. Factors peculiar to the NH90 such as loading times and noise generation should be considered not only for landing zones in relation to the control point but also in time taken to do in field tasks. In relation to the briefing there was an opportunity to delay, move to a more sound proofed area, or in the planning phases locate the helicopter landing zone more remotely from the control point.

Using the GSMEAC briefing format suited all the agencies involved.

### **Recording and feedback loops**

In the field, teams debriefed (when time allowed) the prior activity and recorded competency evidence. Teams were also debriefed at the control point that included team performance, leadership, safety, communications and the scenarios. There was also a general debrief where notes were taken. The data collected will be useful as a measure against the SAREX objectives and future training plans. The evaluator felt there could have been a closer connection to the objectives in particular those relating to operational performance and fatigue in the final team debrief. However there is enough on going communication with in the group to capture this information in the near future.

## 6. Conclusions

On this SAREX due to non-availability of assessors the group put in place a modified competency assessment procedure. This procedure may become the norm nationally.

There was ample opportunity for 'in field' competency evidence collection but the recording templates could be redesigned or different tools developed. The self-assessment model as to its robustness was questioned by participants. There are checks and attestations within the system that would increase confidence if explained more fully at a participant level.

The impact of fatigue on operational performance was discussed with the intended focus by some but not all teams. Strategizing on how to have a more uniform outcome would be of benefit. There was management of fatigue and risk within observed field teams for the situations that arose within this SAREX.

The defining factors between field teams for maintaining site integrity and processing efficiency was leadership and role allocation.

While there is an available skill base for operating SARTrack within the group this could be enhanced by specific training in the use of that software.

The aims of the repeater project team and the SAREX planners paralleled but were not totally aligned. Better communication in the planning stages would have avoided some negative community reactions that resulted from this misalignment and late taskings.

On this SAREX an opportunity was missed in establishing satellite communication (and exploring the resultant benefits) because of potential equipment issues with IP Star.

Measuring the effectiveness of sound search and combining teams under one leadership for particular tasks were identified as areas that could be a focus for training. Managing group briefing delivery in an operational circumstance needs some consideration.

The SAREX was well designed and executed by a very capable team. There were multiple feedback loops for gathering data.

This SAREX gave a measure of capability for a SAR response while familiarising personnel with the Akatarawa Forest Park and environs.

## 7. Appendix

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### 7.1 Wellington District Annual SAREX Plan

The 2020 Wellington District SAREX (land based) is being hosted by Wellington this year. Responsibility to organise this is shared between Wellington and Wairarapa SAR members, each doing alternate years.

Following is an outline of the 2020 SAREX:

**Dates:** Friday 13<sup>th</sup> to Sunday 15<sup>th</sup> November, 2020

**Location:** Akatarawa Forest (Area of Operations)  
1373 Karapoti Park (Staging Area/IMT)  
1401 Akatarawa Road (LZ for RNZAF helicopter)

**Aim:**

To conduct an exercise in the Akatarawa Forest that gives a measure of SAR capability in terms of field personnel, communication links and SAR Track management software for commonly occurring SAR responses.

**Objectives:**

- To provide an evidence gathering opportunity against LandSAR competencies for those in the Field Team Leader's role
- To provide an evidence gathering opportunity against the LandSAR competencies for those in the Field Team Member role
- To provide opportunity for field team members to self-assess operational performance and gain awareness of effectiveness over time
- To provide opportunity for field team members to practice relevant standard operating procedures eg. locating a deceased person/s
- To utilise SAR track to monitor field team movements and manage equipment allocations
- To test a new VHF radio repeater model for performance and coverage
- To test satellite wifi communication from a control point in Akatarawa Forest

**Exercise Outline:**

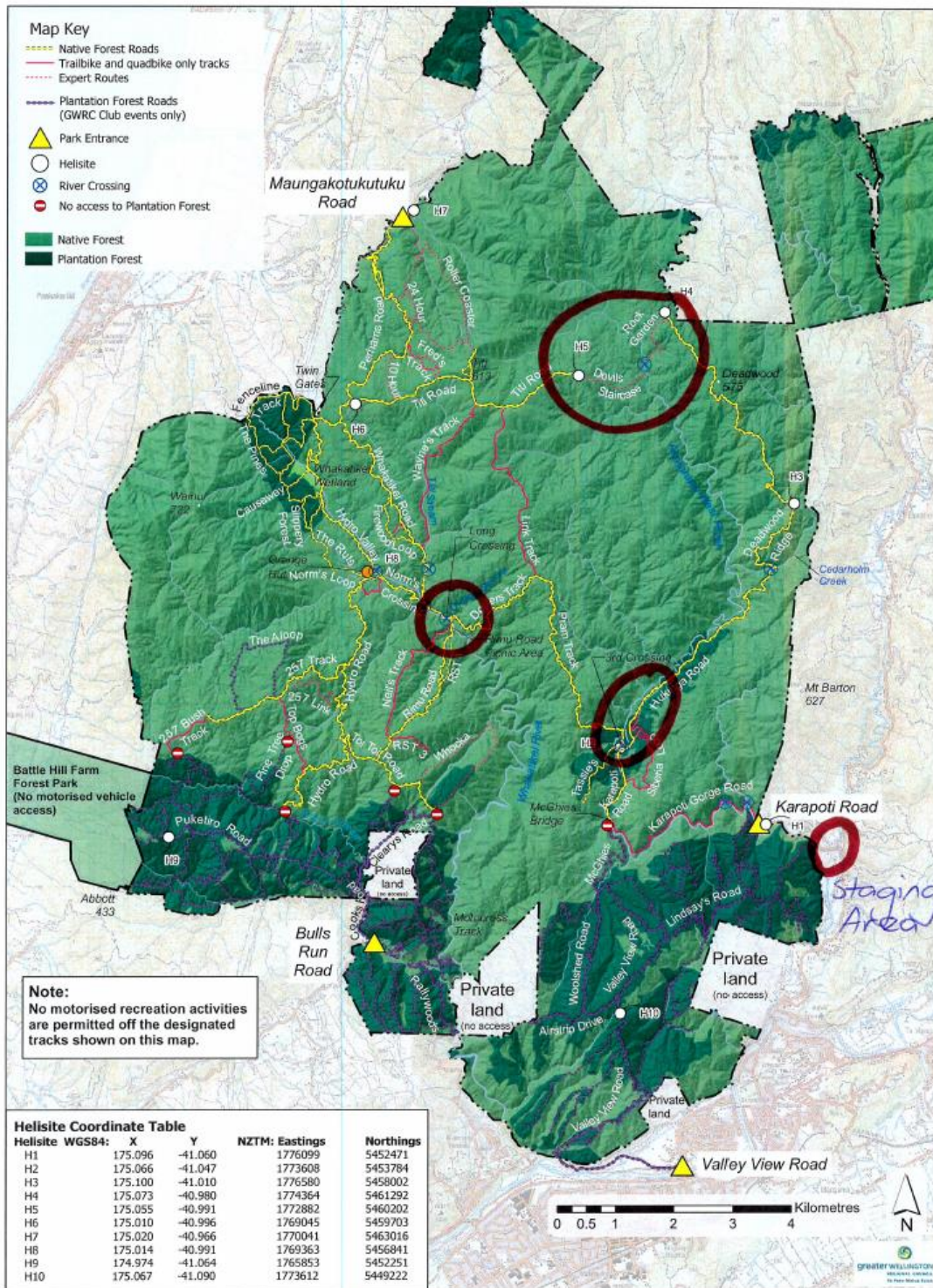
Instead of the one large missing person scenario typical of a SAREX, this one will consist of 3 mini scenarios located in different parts of Akatarawa Forest.

9 teams will be deployed into the forest, with 3 teams completing each scenario at a given time. They will generally work independantly of each other, but have opportunity to practice the same skills.

The location of the scenarios are circled on the map below.



# Akatarawa Forest Motorised Recreation Tracks 2016



The scenarios are:

- 3 missing trampers who are injured in the area of Devil's Staircase/Rock Garden
  - Teams to use search techniques to locate the persons
  - Medically assess and treat persons
  - Utilise stretcher to extract one person
- 3 despondant (1X) persons who have parked vehicles in the area of Long Crossing
  - Teams to locate and process vehicles

- Determine direction of travel of despondant
- Use search technique in nearby bush to locate deceased persons (hanging dummies)
- Carry out body discovery process and scene management
- 3 missing hunters in area north of 3<sup>rd</sup> Crossing
  - River crossing techniques to reach start of search area
  - Sign cut section of track to locate human tracks
  - Utilise tracking skills to follow tracks

In addition to the above, towards the end of the exercise all teams will process a different team's campsite. This will not be a scenario as such, but will involve them locating the campsite and gathering what information they can from it.

Weather permitting, insertion and extraction of field teams will be via RNZAF NH90 helicopter. The helicopter will also be used for the majority of team movements between scenarios. Teams will also move by foot and 4wd.

Note: Only persons who have attended the helicopter safety brief and winch training at this SAREX will be permitted to be deployed or moved by that means. If they have previously completed such training, movement by helicopter will be at the discretion of the pilot and/or crew.

Timeline:

Friday 13<sup>th</sup> November

- Staging Area and IMT base established at Karapoiti Park mid/late morning
- 1500hrs, first group of field teams briefed, tasked and equipped. Field teams are arriving in staggered groups at 1500, 1700 and 1900 hrs. The medical scenario excon group will arrive at 1900hrs.
- NH90 safety and winch training conducted
- Field teams deployed. This is likely to occur up to the hours of darkness. The NH90 can insert past this point if necessary using NVG (Night Vision Goggles).
- Field teams transit on foot towards their first scenario for Saturday. They make camp at their discretion.

Helicopter times: 1515hrs arrival. Can fly into hours of darkness if required (Restricted by max. 8hrs crew duty at SAREX)

Saturday 14<sup>th</sup> November

- 0800hrs – scheduled radio check with all field teams
- 0900hrs – 1<sup>st</sup> scenario begins
- 1130hrs – Teams move to 2<sup>nd</sup> scenario
- 1300hrs – 2<sup>nd</sup> scenario begins
- 1530hrs – Teams move to 3<sup>rd</sup> scenario
- 1700hrs – 3<sup>rd</sup> scenario begins
- 1930hrs – Teams move to evening campsite. This will be in the greater area of '3<sup>rd</sup> Crossing' for all teams

Helicopter times: 1030hrs arrival. If arrives slightly later, may depart after extracting role players at approx. 1900-1930hrs (They will be extracted by 4wd if this does not occur)

Sunday 15<sup>th</sup> November

- 0800hrs – Scheduled radio check with all field teams
- 0900hrs – Teams process each other's campsites
- 1000hrs – Extraction of field teams takes begins
- Debriefing of teams to take place upon return to staging area



- 1200hrs – BBQ lunch and group debrief conducted
- 1400hrs – SAREX concluded and all persons depart

Helicopter times: 0900-0930hrs arrival. Will depart after BBQ lunch and group debrief

Also incorporated into this SAREX is the testing of portable radio repeaters. This is part of a national level project involving Police and other agencies. Teams will be required to put these in place on Friday evening/night and then remove them on Sunday. It is possible that some repeaters will be swapped out on Saturday by staff not directly involved in the SAREX. The NH90 and/or 4wd vehicles may be utilised for this while field teams are engaged in the scenario activities.

**Communications:**

A Comms plan for this exercise is being developed by AREC staff. It will primarily utilise VHF radio. Police cellphones (Vodafone network) function at Karapoti Park (3 signal bars). Although reception can differ between handsets, Spark appears to have coverage there according to it's website. Cellphone coverage is generally very poor to none-existent in the Akatarawa Forest. It should not be relied upon at all.

**Groups and organisations involved:**

NZ Police, LandSAR, AREC (Amateur Radio Emergency Communications), RNZAF, Wellington Free Ambulance Rescue Squad, CCVC (Cross Country Vehicle Club)

**Contingencies:**

Weather/Environment

In the event of adverse weather or environmental conditions, scenarios can be moved to a smaller area which will not require crossing of high flowing rivers. This may shorten the operational day. Use of 4wd's (including Cross Country Vehicle Club) may be more extensively required.

Operational Response

In order for SAR to be able to provide an operational response if required, Senior Constable Luke TAUNTON and Detective Constable David NICHOLS will share the SAREX IC and Wellington on-call SAR role over this period. Sergeant Anthony MATHESON will also be reachable should there be a need for a Wairarapa response.

**Key persons:**

SAREX Organisers/Oversight

Senior Constable Luke TAUNTON (Incident Controller)

Detective Constable David NICHOLS (Incident Controller)

Jeremy PATERSON (Safety Manager)

Claire PETTIGREW (Operations Manager)

Wynne Morgan – (Staging Area Manager – Sat/Sun)

Detective Geoff McGHIE (Local contacts facilitator/4wd movements)

Nicola McLEAN (Staging Area meal facilitator)

John MURPHY (AREC Wellington District Manager)

Helicopter - RNZAF

Pilot

Akatarawa Forest

(Greater Wellington Regional Council Ranger)

Land Owner – 1401 Akatarawa Road

Karapoti Park

(Parks and Reserves Officer – Upper Hutt City Council)

**7.2 SAREX Objectives with KPI's**

Obj. 1	To provide an evidence gathering opportunity against the LandSAR competencies for those in the field team leader's role.
1.1	Assessors / evidence gathers are familiar with the field team leader competencies
1.2	Field team leaders are informed of assessment procedures
1.3	Assessment is conducted within the accepted standards
1.4	Recording enables post assessment administration
Obj. 2	To provide an evidence gathering opportunity against the LandSAR competencies for those in the field team member role.
2.1	Assessors / evidence gathers are familiar with the field team member competencies
2.2	Field team members are informed of assessment procedures
2.3	Assessment is conducted within the accepted standards
2.4	Recording enables post assessment administration
Obj. 3	To provide opportunity for field team members to self-assess operational performance and gain awareness of effectiveness over time.
3.1	Field teams discuss the variables that can effect operational performance over time.
3.2	Field team members are able to describe how operational performance is impacted by a variety of personal and environmental variables
Obj. 4	To provide opportunity for field team members to practice relevant standard operating procedures eg locating a deceased person/s.
4.1	Field team members are aware of appropriate S.O.P.'s
4.2	On location field teams use accepted guidelines and protocols
4.3	Where needed a debrief procedure is used to enhance performance
Obj. 5	To utilise SAR track to monitor field team movements and manage equipment allocations.
5.1	SAR track is utilised at the control point
5.2	Field teams are recorded by live tracking
5.3	Equipment allocations are managed by SARTrack
Obj. 6	To test a new VHF radio repeater model for performance and coverage
6.1	The VHF repeater is deployed
6.2	Repeater is located to optimise coverage
6.3	Coverage is explored for the terrain
6.4	Performance is compared to previous repeater models Post SAREX contact?

Obj. 7	To test satellite wi fi communication from a control point in the Akatarawa Forest Park
7.1	Satellite wi fi communication equipment is deployed
7.2	The satellite link is tested across a range of devices for operational usefulness