

Exercise Evaluation Report

Operation Franklin

Location: Pukekohe Fire Station – Franklin – Waiuku Forest

Date: 3rd and 4th of May 2024

Report version: Version 1

Evaluator(s): Sunny Peeters – Fire and Emergency New Zealand



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1. Executive Summary

Operation Franklin was a Land based Search and Rescue exercise run in the Waiuku Forest. The intent was to test the capability of the IMT to effectively control a multi-day operation with communication through a remotely located Forward Operation Base. The IMT was set up at the Pukekohe Fire Station and the FOB was located in the Waiuku Dirt Track Club in Wilson Road, situated about 20 minutes drive from the IMT.

The exercise included nearly 60 people and involved Land SAR, AREC and PolSar Ropes Teams and assets.

All of the established objectives were achieved with valuable learnings being extracted around communication, IMT maintenance of situational awareness, effective gear deployment and the use of maps more advanced and fit for purpose.

The exercise was well organized and managed allowing for younger and newer members of the team to practice roles in IMT never before experienced. Though the scope of the report did not cover the IMT itself, the team learnings were valuable for the members.

If the recommendations are implemented and widely applied the effectiveness of future operations and exercises will be improved as will the experience of those in the field and the end user. This only further contributes to the overall success of the exercise.

1. Recommendations

1.1 Communication- Technical issues with GPS/Radio

Run tests in the area around Waiuku Forest to ascertain if the iron sand interferes with radio communications. Seek out solutions to the findings that will overcome or negate radio communication limitations.

Encourage and enable AREC to recommend proactive action/s to improve and optimize radio function where it is clearly an issue for the operation.

1.2 Communication- SARTRACK Delays in information movement

Increase awareness of the systems limitations when it comes to remote operations isolated from the IMT. Implement protocols to ensure passage and actions of information and taskings are closed out and auditable in a timely manner.

1.3 Communication – Situational Awareness

Ensure contingencies are at least available or running alongside sophisticated computerized methods in the event delays or breakdowns result in a loss of current situational awareness.

1.4 Incident Management- IMT and FOB – Gear and Logistics

Ensure gear is stored intentionally to allow rapid deployment of ALL necessary equipment for either remote or co-location IMT/FOB models.

1.5 Field Response- Rope Rescue and Land SAR interaction

Consider regular or routine combined training of the Land SAR team/s with the Ropes Team/s for better alignment of needs in a real-life environment.

1.6 Maps in the Field

Serious consideration must be given to the use of orienteering maps as opposed to topographical maps if continual improvement is a legitimate goal.

2. Introduction

Operation Franklin was a land-based Search and Rescue exercise intended to test the capability and function of an IMT working with a remotely located Forward Operation Base, FOB. The Exercise was organized by the Police and run out of the Pukekohe Fire Station. The area of operation was the Waiuku Forest, the duration of the event extended over two days. AREC, Land SAR and PoSAR rope rescue worked together and made the event a valuable learning opportunity and a very successful exercise.

3. Background

In recent times there have been a number of search operations that have required the establishment of an IMT and a Forward Operation Base to work in separate locations. This has worked with varying degrees of efficiency. The purpose of this exercise is to test and exploit strengths and weaknesses to establish learning and improvement opportunities for future events.

3.1. Background to the Exercise

The exercise has been designed to test the effectiveness of controlling and coordinating a land-based search using a Forward Operation Base located remotely from the IMT. The intent was to probe the effectiveness of the technical communication equipment, the practical efficiency of the IMT and the FOB and the operational impact of a remote set up.

3.2. Dates, location, organizing agency(s), key people.

SAREX Franklin commenced at 0600hrs, 3rd of May 2024 and ran through to 1500hrs, 4th of May. The initial mobilization took place from the SAR Squad Rooms in the city. From there the field teams moved into the Waiuku Forest area while the FOB was established at the end of Wilson Road.

Organiser	Steve Shaskey	Police
IC	Tessa Bassett (Day 1) Nicole Stratford (Day 2)	Police
Planning	James Prentice (Day 1)	Police
Planning	Paul Graham (Day 2)	Land SAR
Intel	Liz Sampson (Day 1)	Land SAR
Intel	Tessa Bassett (Day 2)	Police
Mentor	Sara Arrow	Police
Comms	Roscoe Tait	Land SAR
Comms	Dave Wilkins	Land SAR
Support	Nick Janiurek	Police
Field Staff	21 Members	PolSAR
Field Staff	24 Members	Land SAR
Field Staff	8 Members	AREC

3.3. Participating organizations

Organized by the New Zealand Police the exercise included and required the support of AREC and Local Land SAR assets.

3.4. Exercise aim

To test the effectiveness of an IMT working in conjunction with a remote Forward Operation Base and identify any areas of improvement.

3.5. Exercise objectives

- The IMT Effectively manage the exercise
- Managing Communication
- Risk Management
- Field Response

3.6. Exercise Scenario

The scenario for the exercise: two friends have gone camping and fishing in the Waiuku Forest / Waikato River area and are overdue. They were dropped off at Waiuku Forest (Ghezzie Road carpark) and were not there to be picked up as planned.

Initial searching will locate a campsite. The plan is for one of the MP (missing person) to be located mid afternoon Friday with injuries (first aid treatable) who will provide information of the 2nd MP who has walked north to find help.

The staff will be stood down for the night (camping in the field) and searching on Saturday will locate the second MP mid to late morning in a location where the Police/LandSAR technical ropes team will be required to assist with recovery. It is anticipated that all staff will be out of the field by 1500hrs on Saturday.

Injects will be actioned as required to ensure the timeline is adhered to, due to the time constraints around the exercise.

4. Evaluation Methodology

4.1. The agreed outcomes of the evaluation activity

To gain an understanding of how an IMT and a remotely located Forward Operation Base works in relation to: Incident management, Managing Communication, Risk Management and Field response.

To highlight opportunities for improvement and streamlining

4.2. Evaluation scope

What was included; what was excluded. Relate back to Objectives.

The scope of the evaluation included the overall effectiveness and operation of the IMT in line with the CIMS model in terms of the roles and responsibilities of key IMT roles as a familiarization exercise for developing new IMT members. It was not intended to evaluate the skill and effectiveness of the IMT members.

A key focus was on the management, passage and recording of information between the IMT, Forward Operation Base and the teams in the field.

Lastly key field skills focusing on search techniques, clue location and communication and stretcher carries.

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

A large portion of the objectives have been observed personally by the evaluator, further clarification has been obtained during interviews and conversations with key players and final support has been sourced through documentation examination and seeking SME advice.

4.4. The process followed in preparing and submitting the report

This report has been prepared in conjunction with the exercise planner. Working together, the objectives were agreed on to identify opportunities for improvement. The SAREX was attended and observed in the relevant facets by the evaluator. Findings and observations were discussed with the organizer ahead of drafting the report. The draft report was then previewed by the organizer and all aspects were transparently portrayed for comment. The final draft was completed and submitted.

4.5. Other information

The evaluator was able to observe the IMT, located at the Pukekohe Fire Station and the Forward Operation Base, located at the end of Wilson Road. The High Angle rope rescue was also observed.

5. Findings

In this SAREX communication systems featured as an issue in three key aspects:

5.1 Communication- Technical issues with GPS/Radio

Radio communication in the area of operation was not working as well as anticipated or as it has done in the past. The Land SAR radio is used for person to person talking but also has a feature that transmits the Grid Reference or GR of the radio/operator. When coupled with SARTRACK this feature can streamline coms and update maps with regular and “to the minute” locations of the team and others in the field. In this case the GPS system was not sending updates and the radio signal in the field between the teams and the FOB was less than optimal. It is important to consider that the search area is located on top of and very close to a large iron sand mine. There was some discussion around the particles and the ground itself may have a diminishing effect on the effectiveness of the hand-held radios and that of the repeater and antennae array set up for more standard operations.

5.2 Communication- SARTRACK Delays in information movement

In this exercise the FOB and the IMT were working remotely from one another. All communication between the field teams and the IMT was relayed through the FOB using SARTRACK. This impacted the IMT in two key ways.

1. There were significant delays in the passage of information to and from the IMT.
2. There appeared to be no robust method to check and confirm that information/taskings had been passed on, updated, and closed out.

There also doesn't appear to be a way to check and confirm the history of a particular transaction against who may have actioned it or updated it. This may have ramifications from an audit perspective or if the task faced inevitable scrutiny from judicial or coronial perspective.

5.3 Communication – Situational Awareness

As a result of the above-mentioned communication issues, the IC may experience diminished situational awareness of field teams, search area coverage and field team currency. A dependance on the technology that, when working, reduces duplication of effort, streamlines process, and offers a “live feed” into the area of operations was not available. Without it and without a robust manual system to support the malfunction, situational awareness was compromised.

5.4 Incident Management- IMT and FOB – Gear and Logistics

Although not directly observed by the evaluator the deployment of gear and equipment to the FOB and the IMT in two separate locations resulted in both sites having gear needed by the other site and missing necessary gear the other site had inadvertently transported to the wrong site. Radio communication equipment needed at the FOB was located at the IMT and CIMS vests were located at the FOB. This was easily fixed as the two locations were only a short drive away, however it could cause undue delay if the storage and deployment of gear is not clearly and intentionally marked and stored.

5.5 Field Response- Rope Rescue and Land SAR interaction

The High Angle ropes team were deployed and tested as part of the evaluation and exercise. From start to finish the team worked very proficiently together with minimal delay establishing a safe area to work, setting up the various systems and executing the rescue effectively. The evaluator was able to get a “front seat” view of the rescue as displayed in the photos below. It was observed that the interaction with Land SAR team members and the Ropes Rescue team was excellent under the circumstances, further combined training in both disciplines would add value to the outcome.

5.6 Maps in the Field

There are tangible benefits to be explored by using orienteering maps in place of topographical maps.

1. The key differences are:
2. Orienteering maps are more zoomed in, with the majority being 1:10,000 scale, compared to Topo NZ having 1:25,000 or 1:50,000.
3. Orienteering maps are usually drawn with a 2.5m or 5m contour interval, as opposed to 20m contour interval.
4. Orienteering maps have different symbols and colours to represent the different visibilities and densities of vegetation, compared to Topo NZ which only shows that it's a 'forested' or 'non-forested' area.
5. Orienteering maps show roads all the way down to the smallest mountain bike or walking tracks.
6. Orienteering maps have a much greater number of symbols and colours that represent a wide range of land forms, water features, rock features, and non-natural features such as fences, buildings, walls, water troughs, power lines etc.
7. Orienteering maps are magnetic north, not grid north, so there is no need to apply the magnetic declination. (Above information provided by Renee Beveridge- NZ Police).

Overall, orienteering maps give you visibility as to what the area actually looks like, and how it will impact your ability to get through an area efficiently, both on foot and by vehicle.

How this could be helpful:

1. IMT will have a better appreciation for the area, any areas of interest, which areas can be searched quickly, how best to cut areas up into segments for tasks, and how accessible areas are by vehicle etc. This will help create more appropriate and efficient taskings for search teams by understanding how slow the area may be to process due to the terrain and vegetation. This for example may impact how many teams may be needed for a certain area, or whether the task is needing to be started ASAP due to the estimated time it will take.
2. Search teams will be able to assess how to complete their task more effectively prior to getting to the area.
3. Decrease chances of being disorientated by having a more accurate map.
4. Assessing the safest, quickest, or shortest route to a specific area; this will improve our planning on how best to get to a lost or injured person as well as extracting them.

6. Conclusions

Overall, all the objectives of the exercise were met. The testing of the IMT working with a remote FOB produced satisfactory results and highlighted some very good learnings and opportunities for improvements as outlined in the findings and recommendations.

Though communication was a significant factor in this exercise the objectives were still achieved. Contingencies and manual systems must still be practiced ensuring there is adequate backup if there is key equipment failure.

Taking the learnings out of the exercise forward to tangible improvements will have an impact on positive outcomes going forward. AREC and Land SAR and PoISar teams have become more familiar with each other. Training and development of relationships will result in more effective cooperation in future events improving the experience of those involved and the outcomes for those that need the service on offer.

7. Appendix

<Specifically include evidence to substantiate Findings, Conclusions, Recommendations.
Number the Appendices in order, title or caption each piece of information.>



Orienteering vs Topo
NZ maps - Waiuku Fo

[Orienteering vs Topo NZ maps - Waiuku Forest.pdf](#)