Otago Coastal Marine SARex 2021

Exercise Evaluation Report

Location: Otago Harbour, Dunedin, Southern Police District

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Executive Summary

No formal assessor was available on the weekend of the exercise, but even though I set the objectives, I have made my submissions impartially and objectively.

The purpose of this SARex was to give those participating the opportunity to refresh and practice search and rescue skills and knowledge over the duration of the exercise. Five objectives were established to achieve this that could be reasonably be expected to experience in a real operation and test those participating in it.

This was a localised Marine SARex specifically set for the Police and partner groups (including several new to search and rescue) in the Otago Coastal Policing region. The area has a vast coastal line and numerous waterways within it. There is a relatively small number of marine assets available and to operative effectively, all SAR groups need to work closely together in a coordinated manner and achieve the aims of an operation.

There were around 50 participants made up of Police SAR, Surf Life Saving NZ, Coastguard, AREC, Otago Harbour Master some vessels of opportunity and a newly formed initial action dive team. The objectives were outlined and a solid effort made to achieve these. Where an objective was not met, there were learnings to be taken away and responses built upon.

Recommendations

Consider**:**

1. The relationships between local marine SAR assets and groups is very good with a high level of interaction and support for each other. Momentum needs to be kept up in this area, as knowing, training with, sharing skills knowledge and resources and teamwork are all fundamentals for cohesive SAR responses and successful operations.
2. Good systems, training and procedures around the use of SAR track need to continue to be maintained. Updates to the programs software and associated radio equipment need to be regularly checked or audited to ensure components used in the system are operational. This will ensure issues like that experienced with the tracking in this exercise don't occur.
3. Continue to seek out and train new marine assets for use on operations.
4. Ensure you have all the equipment you need to successfully run your forward control point and IMT, eg: laptops and whiteboards. If you don't have it, have your logistics officer get it!

Introduction

The 2021 Otago Coastal MarineSAR exercise was held on the lower Otago Harbour with a forward control point located at the settlement of Otakau. This was a single day exercise and the basic scenario was a group of seven persons have ventured out into the harbour in a small run a bout and capsize in the wash of a larger passing ship. Three mannequins (one of which was GPS tracked) were placed into the harbour channel in the vicinity of Goat Island which acted as the splash point to disperse via the out going tide. Three live patients were placed in locations along the shore line edge of the harbour with the remaining patients weighted down so it sunk to the bottom for the dive team to locate.

The following objectives are to be measured during the exercise:

1. Use of Coastguard as on water coordinator.
   Coastguard by way of MOU are the designated agency to undertake on water coordination. They will be tasked with the coordination of a number of surf life saving assets as well as other vessels of opportunity.

2. Use of Otakau Marae as a forward base.
   The Otakau Marae is a major police partner and key stake holder in the Portobello and surrounding community. They have some very good facilities including internet, parking, catering as well as staff to assist and a direct link to the community.

3. Use of SAR Track in a marine exercise.
   SARTrack is predominantly a land based application, but it has the ability to show live tracking via a tracking radio, AIS and Track Plus. This makes it important tool for use in marine search and has the ability to assist in the formal planning process as well as recording search area coverage for coronial matters.

4. Integration and management of vessels of opportunity.
   We only have a limited number of dedicated search assets. This means there is a need to discover and develop other potential search assets to insure readiness in mass casualty situations.

5. The use of an immediate response initial action dive team.
   We have many marine rescues and recoveries a year, but outside of the National Police Dive Squad, we do not have a high end PADI trained team to assist in operations. This objective is to test out a new partnership with Dive Otago to provide an immediate dive response.

The SARex area is shown in the graphic below.

Background

The Otago Coastal marine search area of responsibility extends from the Waitaki River at the northern boundary, the Catlins at the Southern Point and all inland lakes, rivers and waterways in between.

The area experiences a decent number of emergency marine operations within any given year. Coastguard and Surf Life Saving assets are relied on heavily as are vessels of opportunity to undertake operations. In the event of a fatality where the subject remains underwater, current Police policy states the use of the Police National Dive Squad must be used for the recovery. While the dive squad are thoroughly efficient and professional when on task, due to our geographical location, their deployment often means delays in the recovery of the deceased. In river and ocean settings where tidal flows and swift waters need to be contended with, any delay may be detrimental to the recovery.

In recent times, we have had rescues / recoveries made by SAR members that while performed to the best of their ability, upon review posed questions around risk elimination and safety, with a particular focus on subterranean activities.

In order to mitigate this and a shortage of marine assets, a recruitment has been undertaken for further support vessels and the establishment of a local call out type dive team that consists of highly trained and experienced divers with top level PADI qualifications with strict operational parameters in place around when and where they will be deployed.

It is important to mention that the dive team is not intended to replace the use or deployment of the Police National Dive Squad, but to supplement them in situations where it is safe for them to deploy for a recovery as an immediate initial action at the earliest possible stage of when the opportunity for the preservation of life exists. Their function is not to undertake extended search phases, this will remain within the scope of the National Dive Squad.

Evaluation Methodology

- The agreed outcome

An evaluation report to be submitted to NZSAR.

- Evaluation scope

To measure how well the exercise meet the stated purpose through its supporting objectives. To give an informed opinion on value given and present alternative ideas on ways to achieve similar outcomes.

- Aspects of the exercise observed and what was not observed.

I was able to get an appreciation of the majority of the exercise, though I was not physically on the water, and assessed those that were, through the quality of their radio communications and information passed combined with their own subjective feedback.

- The process followed in preparing and submitting the report.

I have compiled my report from my own observations of the exercise, information from the post exercise debrief, photographs, evidence collected and notes taken at the time.

Findings

Due to a work put in by key members of the participating groups over the past few years, the relationships amongst those in the marine sector is very strong. The limited number of marine resources in the area is a minor point, as the cohesiveness, skills and knowledge demonstrated combined with a willingness to be involved by interested shows their strength to perform when it matters.

- Outcomes and comments on meeting the objectives.

Objective 1: Use of Coastguard as on water coordinator

Coastguard have current MOU's in place with NZ Police to provide for the role of on water coordinator. With the Dunedin Coastguard having the largest vessel in the exercise, it made perfect sense for them to coordinate the other vessels involved.

After the balloon when up at the beginning of the exercise, Coastguard took the lead and set about getting other vessels from the staging area to get on tasks provided by the IMT. Overall they performed the coordinator well and positioned themselves nicely behind the other assets as they performed sweep widths. The spacing was appropriate for the sea conditions and weather to provide optimum opportunity for detection. They maintained this consistency throughout the exercise.

At times the Coastguard struggled to maintain communications with some assets and would benefit from using a simplex or similar channel for on water communications only between the assets under their control.

Following an inject where a subject was seen floating in the water and then disappeared below the surface, an aspect of tunnel vision crept in and all assets came off task to go to the new location. This was just after two of the mannequin props had recovered in a location close to each other and as they came off task to the new sighting, they subsequently drove past the remaining land based patients that were there to be found.

In a learning to be taken from the exercise, Coastguard need to be in a position to coordinate an asset under control on their current task. When as asset is re tasked for another purpose, Coastguard no longer need to worry about that asset as they should look after themselves for the new task.

Overall the Coastguard performed well and I believe achieved this objected to a very good standard.

Objective 2: Use of Otakau Marae as a forward base.

To date, I can not recall the Marae being used as a forward Incident Control Point. The facility is modern and of a Significant size with two levels of large open plan usable space. It has a strong internet connection, several large tv monitors, ample power points, tables and seating. On the upper level it has a large amenities kitchen for catering purposes. Car parking at the top is limited, but a large car park is located below and only requires a short walk to the main buildings.

The IMT set up the space on the top level well and used laptops to run SARtrack with the screen mirrored on the large screens.

Tables were used to good effect for the layout of charts.

The radio comms operators were located at the western end of the building. They had a good set up for three operators, but this area had the best view out over the harbour and the exercise area. I believe this area would have been better suited for use by either the planning or operations manager as they could see what the tasked assets were doing essentially offering a live time intel source of the response.

While the IMT could have benefited from additional resources such as laptops, I do not feel this is the responsibility of the venue to necessarily provide. These are logistical items that should have been brought with them.

Overall I rate Marae as a facility to run a search from very highly. The IMT functioned well within it. I am satisfied that this objective was successfully achieved.

Objective 3: Use of SAR Track in a marine exercise.

A genuine effort was made to get SARtrack running for this exercise. From the IMT perspective, they had SARtrack up and running and utilising all aspects of it. Tasks were being entered for the radio operators to in turn communicate to the search assets and vice versa. This provided efficient tasking of assets and updates for IMT.

The use of SARtrack was also for real time tracking of the assets on marine assets. Current the software allows for the importation of tracking data via AIS and Track Plus, but typically this is done at the conclusion of the assets taskings and only usable from an IMT planning point of view after it has been uploaded. In an attempt to have real time data for the exercise, each marine asset was given a LandSAR Tait radio to take on board. The sole purpose of this additional radio was tracking and not for communications, so it did not need to be monitored. Its only requirement was to be turned on. This in principle should have sent tracking data back to SARtrack as it does when used in land operations, but a technical glitch occurred and the tracking aspect initially failed. AREC members investigated and determined the glitch was caused by the base radio being used had not been updated with the same recent updates for the hand helds. This radio set was replace and tracking took place after that.

The aspects of SARtrack were running were used to good effect, and with the tracking glitch rectified, this objective was achieved.

Objective 4: Integration and management of vessels of opportunity.

As identified above, there are only a limited number of marine assets available for regular use for operations. Following an active recruiting phase, several new vessels have been identified, one of which is the Otago Harbour Master. For new marine resources, the two vessels fitted in and worked well with the other surf and Coastguard assets and demonstrated a good understanding of search techniques.

One of the new vessels even found one of the mannequins floating in the water which was good to see, though a bit more training one what to do and how to communicate the find is needed.

Overall a good showing and I believe this objective was sufficiently met.

Objective 5: The use of an immediate response initial action dive team.

The use of non-police dive teams remains new territory with regards to SAR deployments in our area. The members for this exercise are a new team put together by local dive school, Dive Otago. All have very good experience and high level PADI dive tickets. They had a high quality to equipment and is regularly tested for function and safety. They were able to produce evidence of this. All had completed a high number of dives (well in the hundreds). They had four divers set to go in the water for the exercise and one diver acting as an out of water coordinator.

Prior to entering the water, they all checked their gear and each other. The off-water coordinator gave a thorough briefing and re-affirmed the terms of their deployment as an initial action team. They discussed and agreed to the method of search technique to be used. The four in water divers split into two dive teams.

On the water, the team deployed from a surf IRB that had been tasked by the IMT to assist and the surf vessel displayed a dive flag to warn others to the divers presence and prior to resurfacing the divers pops a float buoy that rose out of the water by at least 1.5m as a secondary warning system.

The off-water coordinator managed the teams well and maintained radio contact with the surf asset. They demonstrated god systems for communication with those under the water, eg: reeving the boat engine three times for the team to come back to the surface.

When deploying both dive teams were in the same vessel as the same time and with their combined gear and two surf crew already aboard, the vessel looked cramped and possibly on the verge of overloaded. If the sea conditions had been larger, they may have experienced issues due to the load. A better option would have been to report back to the IMT that they needed an additional or larger vessel (both options were available) or deployed the dives in

two trips. This second option would be less ideal, as even though the dive search area was only a short distance form shore, the first divers deployed would be somewhat unprotected without the vessel present with a dive flag.

Overall, this was a very good use of the dive team in the scenario and a very good demonstration of their skill and value to an operation such as this. I feel this objective was met to a high standard.

Conclusions

Even though I planned the exercise, I did not play a role with in it. I feel those in the IMT formulated a very good plan and this was well executed by the search assets that were available. The scenario was a fluid situation, run in real time with subjects to be located both on water and on the land to try steer the teams away from a tunnel focus effect by only searching on water.

After the initial briefing to those involved and as the exercise progressed, several injects were introduced to deliberately cause the IMT to react and rethink their responses to see if they will aligned with their initial action plan.

The exercise aligned with the overarching emphasis on socialising between agencies / groups. This was well received and evident during interaction between groups and sharing of resources, eg: surf members on the Coastguard vessel and mixed representation of those in the IMT.

The exercise concluded with a hot debrief which identified good learning points for all those involved, and a relaxed social session with a cooked BBQ.

All present highlighted the value obtained from the days exercise and their intention to continue to foster the relationships.