

Case Study



Keeping St John ambulance personnel safe and visible at major public events.

The Challenge

St John Ambulance service needs to keep track of large numbers of emergency personnel and assets at major public events, to deploy emergency services where and when they are most needed and ensure they are safe and accounted for at all times.

The Solution

With a combination of SPOT Gen3 and inReach satellite devices, integrated with an online mapping portal, Pivotel was able to provide a cost-effective and reliable communications system for St John Ambulance that has proven its worth at major events where safety and security needs have been critical.



They're unobtrusive, they're light. Training was half an hour or less. They were all engaged to use it as they felt that the units were the right units.

Tony Glentworth
TrackMe NZL

The Operational Challenge

The St John Ambulance service in Christchurch identified the risk of losing track of personnel and assets at large scale events and the need for command management to be able to monitor their locations at all times. "We need to look after our people and what we've found, as a dispatcher, you are unable to see where everyone is at any one time," says Brendan McInnes, Emergency Medical Dispatcher for St John Ambulance in Christchurch. "In our backup contingency planning, we asked, how can we communicate, how can we keep an eye on our people and deploy people? Where are they, where are our closest people and who else can we send to back them up?"

Two major events in the Canterbury and Christchurch City area brought with them multiple safety and security risks that needed to be carefully managed. Canterbury Show Week in November 2018 is an agricultural event staged in a large showground, showcasing farm animals and events like wood-chopping and horse jumping. It brings it with a sharp increase in the transient population in a confined area with multiple hazards and risks, including vehicle and livestock movements and amusement rides.

In March 2019, Operation Unity was launched to manage security and emergency services at the National Memorial for the victims of the Christchurch Mosque shootings. A projected 100,000 plus crowd and the attendance by the Prime Ministers of New Zealand and Australia presented major security risks. If an incident did occur, public use of mobile phones would overload cellular coverage in the area and so alternative communications were essential between Commanders, the Emergency Operations Centre and mobile unit.

The Operational Solution

For both events, a range of satellite devices and an integrated tracking system were used to provide reliable communications at all times, and ensure all personnel and assets were constantly visible.

In both cases, 32 devices were deployed to cover the event sites - 30 SPOT Gen3 devices, which are light and portable enough for ambulance teams to carry on their persons, and one Garmin inReach SE and one Garmin inReach Explorer+ for command posts for two-way communication.

Live mapping was shared to event on-site command as well as communication centres and could be opened up to other emergency services if a major incident occurred.

Pivotel was able to provide all devices and training for Operation Unity with three days' notice, including unit set up and system configuration. "It was a matter of just skilling them up on the device, and we knew exactly where they were. They all hit the okay button when we asked them to. They knew we were getting the right people to the right places," says Brendan. "They were all engaged to use it as they felt that the units were the right units."

The Outcome

The Canterbury Show trial proved successful in several ways. "In one instance where a person went missing, we were able to do a grid search and find them a lot quicker," says Brendan. "NZ police were really impressed with that as well. Users were able to interact really quickly and really easily."

When a complaint was made about a St Johns vehicle speeding around the perimeter of the showgrounds, tracking data was able to prove that it wasn't speeding. Minor incidents like falls or injuries were attended to promptly by the nearest available units.

Operation Unity saw another successful implementation of the satellite communications strategy. "It was evident at the briefing that we had, there was a high sense of security," says Brendan. "They were mindful of our officers' safety and wanted to reassure them that we needed to know exactly where they were at any time." Fortunately, the memorial event passed without serious incident but even relatively minor incidents were able to be dealt with quickly and efficiently.

An audit will be carried out of both events but initial feedback indicates the systems worked well, training was quick and simple and engagement levels high. Post-event analysis indicated Emergency Services were extremely pleased with the ease of the system."

The Hardware

SPOT Gen3

Used to track, monitor and provide remote and isolated staff with a means of communication in an emergency situation, ensuring the safety of the worker.



- One-way messaging
- Check-in/leave site
- Scheduled check-in management
- SOS emergency alerts
- Location monitoring

inReach

Used by command posts for two-way communications to monitor and provide remote and isolated staff with a means of communication in an emergency situation.

- Two-way messaging to co-workers and managers to inReach/mobile/email
- Check-in/leave site
- Scheduled check-in management
- SOS/emergency alerts/request help
- Location monitoring



About St John Ambulance Service

In New Zealand, the St John Ambulance Service treats and transports approximately 400,000 people every year.

The St John Ambulance Service has more than 600 operational vehicles and 205 ambulance stations.