

# Enhanced Safety & GPS Tracking





# Enhanced Safety Features



Developed in Australia, the IMPULSE Wireless tracking platform provides location tracking, man-down protection, Lone worker and duress solutions to enhance worker safety. Features can be layered, and added or changed remotely at any time.

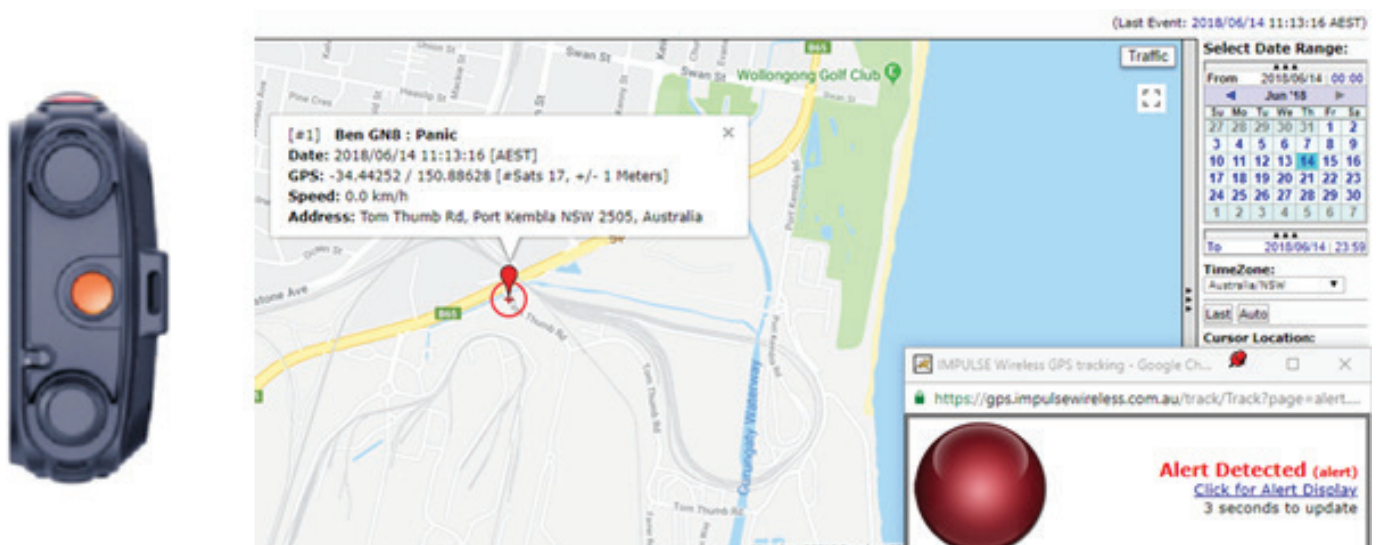
Overview:

**Web Console** - Operators view live tracking, historical data, and are alerted to emergency alarms from field users, by visual and audible alerts, shown below.

**Field devices** - IMPULSE Wireless devices feature large, prominent SOS/duress buttons.

**Alert triggers** - Alerts can be triggered by various safety parameters, including Lone worker, Emergency button press, or Man down.

**Alert response** - SOS and other Alerts can also be sent via email or SMS, and include GPS location with direct clickable links to open a map displaying the location of the user in distress.



**Automated SOS; or manual alarm activated by physical duress button**

**Lone Worker** - Safeguard workers who are working alone. If a user shows no signs of activity for a set period, the radio will initiate an emergency alert. First, it will alert the user. If the user does not acknowledge the alert within the set timeframe, the device will initiate an emergency alert, which includes the user's location.

**Man-down alerts** - The radio will detect a fall, lack of movement, or excessive tilt.

**Configurability** - Any type or combination of types of protection may be configured by the system administrator. For example, some users may need lone worker protection enabled, others may need tilt alarms. Some users may need the ability to turn protection on or off, depending on their duties.

**Automation** - It is also possible to configure "danger zones" where lone worker or man-down protections may be turned on automatically for users who enter these zones, and turn off automatically when they leave these zones, or based on time of day and day of the week or other parameters.

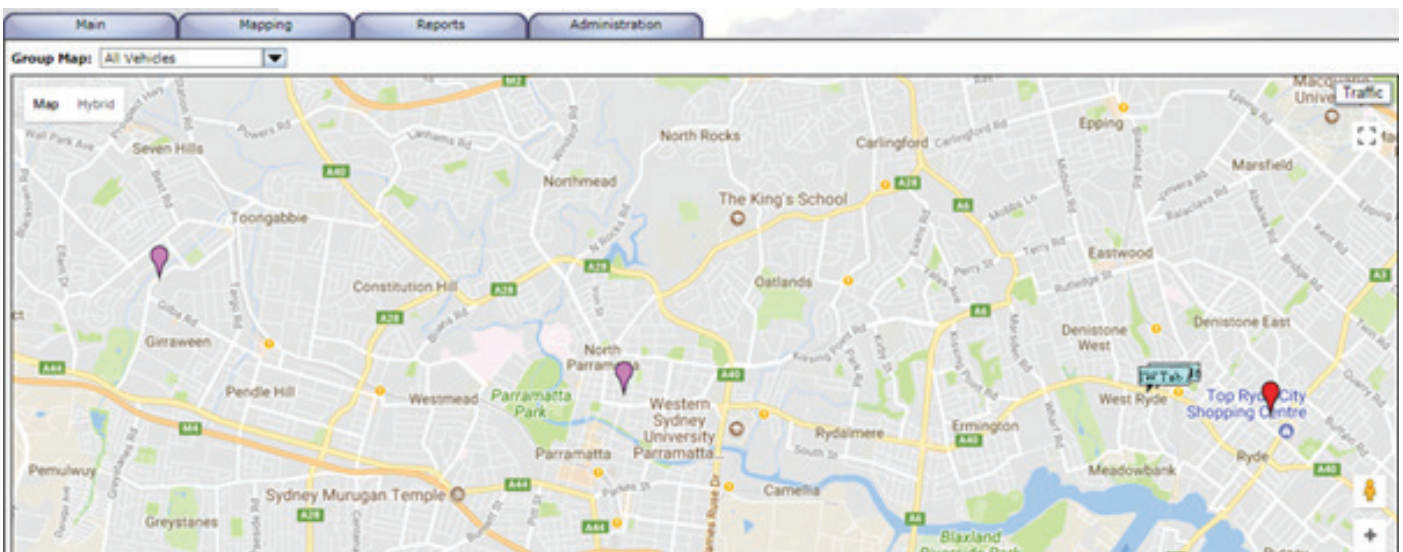
# Enhanced GPS Tracking



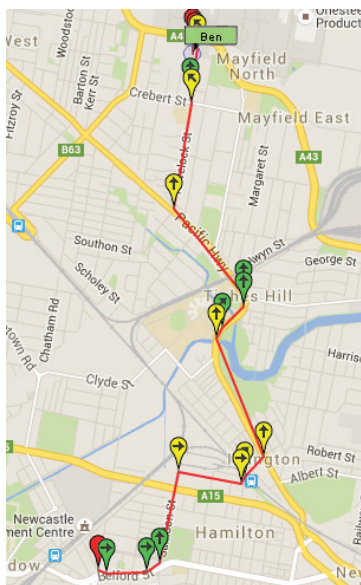
## Real-time location with Turn by turn tracking

IMPULSE Wireless GPS Tracking provides high accuracy turn-by-turn tracking. GPS location updates are sent when a vehicle changes direction or track. When moving in a straight line, GPS location updates are sent at maximum intervals (typically 2 minute GPS updates will reduce map clutter while maintaining high resolution accuracy with turn-by-turn).

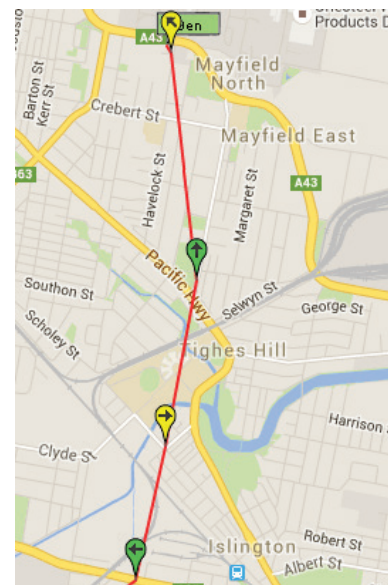
Live GPS "fleet map" shows current location with selectable icons or labels. All Google layers including Traffic and Satellite are available.



## Tracking comparison - Turn by turn vs 2-minute tracking



Typical IMPULSE GPS turn-by-turn tracking



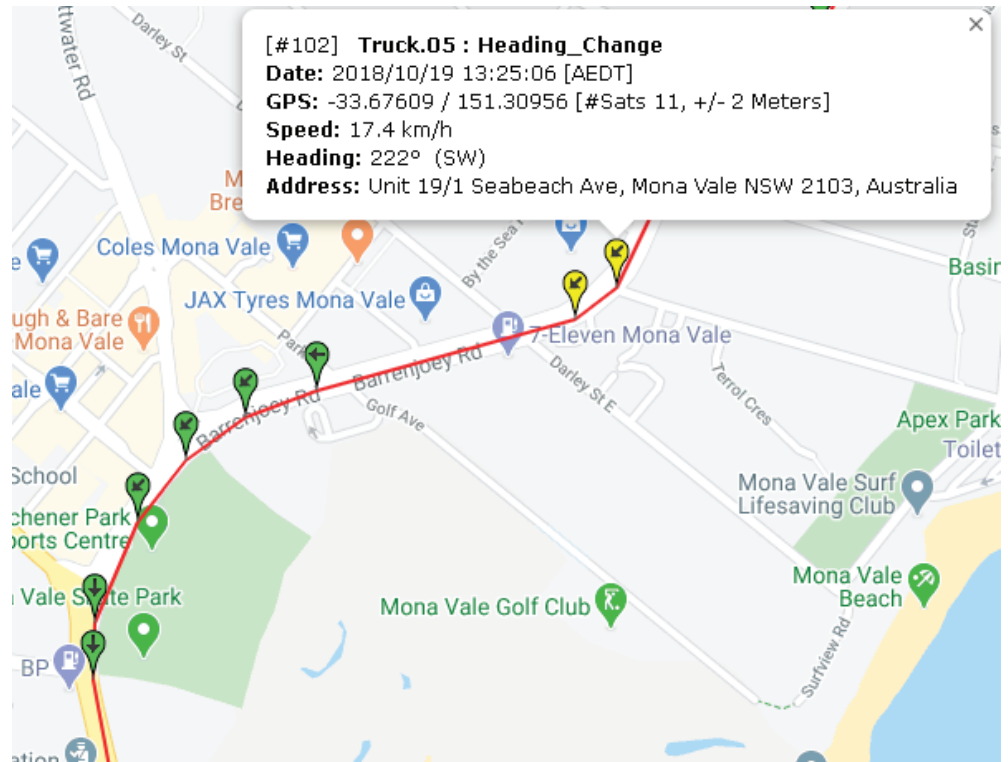
Typical Radio GPS 2-minute tracking

# Enhanced GPS Tracking



## Historical Routes

Routes for individual users can be shown to see the selected user's movements during a specified time interval.





# Enhanced GPS Tracking



## Reports

The system provides various reports including:

- Event detail report – Includes date, time, Status, Lat/Long, speed and address.
- Trip report detail – Based on movement (automated start/stop) status codes or time intervals.
- Driving/Stopped time - Based on ignition on/off status codes or time intervals.
- Geofence reports – users in/out of geofence, entries into a particular area, etc.
- Customised reports available designed to your requirements

Reports may be obtained manually or automatically, see below for an example report.

### Impulse Live GPS

## Driving/Stopped Time Summary [Based on Motion Start/Stop Status Codes]

IW demo 8.1 [device11]

Reports > Performance > Driving/Stopped time summary [based on Motion Start/Stop status codes]

'07/10/2015 00:00:01' through '07/10/2015 23:59:01' [GMT+10:00]

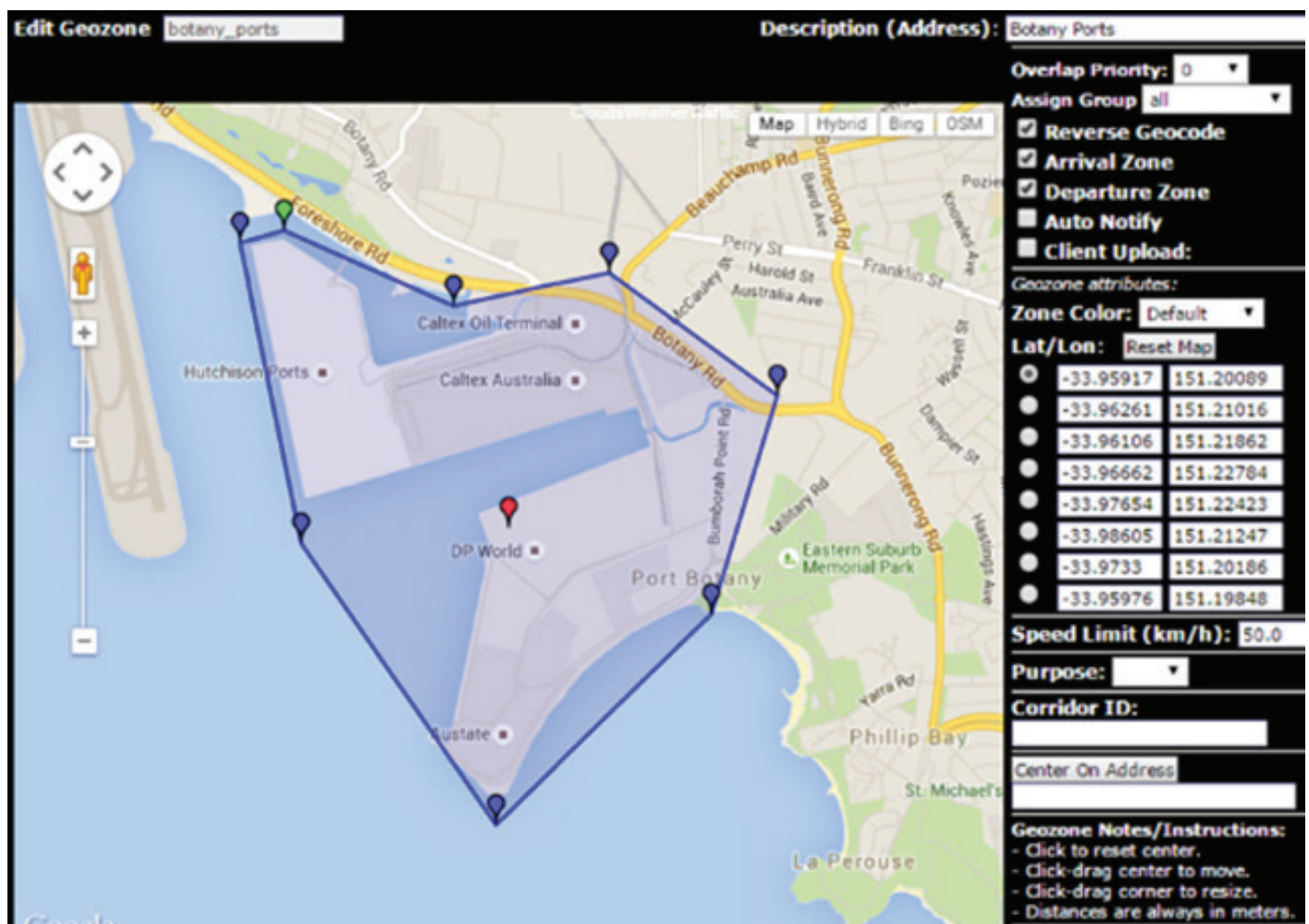
#	Start Date/Time	Driving Elapsed	Driven Km	Stop Date/Time	Lat/Lon	Address	Idle Elapsed	Stopped Elapsed
1	07/10/2015 09:15:59	0:36:50	35.1	07/10/2015 09:52:49	-33.9348/151.0285		0:13:32	0:13:32
2	07/10/2015 10:06:21	0:39:22	19.2	07/10/2015 10:45:43	-33.9540/151.2036		0:11:36	0:11:36
Movement started at this time, and continued for this amount of time and km until this time.								
The stop occurred at this location (which is this address)								
7	07/10/2015 12:31:41	0:11:55	1.6	07/10/2015 12:43:36	-33.9140/151.2113	Base	0:05:23	0:05:23
8	07/10/2015 12:48:59	0:12:07	1.2	07/10/2015 13:01:06	-33.9108/151.2027		0:07:34	0:07:34
9	07/10/2015 13:08:40	0:05:27	0.2	07/10/2015 13:14:07	-33.9124/151.1996		0:13:34	0:13:34
10	07/10/2015 13:27:41	0:15:06	1.5	07/10/2015 13:42:47	-33.9040/151.1980		0:10:14	0:10:14
11	07/10/2015 13:53:01	0:14:11	2.8	07/10/2015 14:07:12	-33.9185/151.1992	Warehouse	0:03:16	0:03:16
12	07/10/2015 14:10:28							
1		3:04:25	74.9				1:50:04	1:50:04
Total time spent moving (and km travelled) for the report period (set in the calendars, eg. a day)								
Total time spent not moving for the report period								

# Enhanced GPS Tracking



## Geofencing

Customised geofences can be used to trigger alerts, actions or for reporting functions. Safety features like Man-Down or Lone Worker can be turned on and off based on a geofence. This automation can enhance workplace safety for users working alone or in isolated areas; and reduce false alarms by automatically turning detection off when not working in areas of isolation.



## Email and SMS alerts

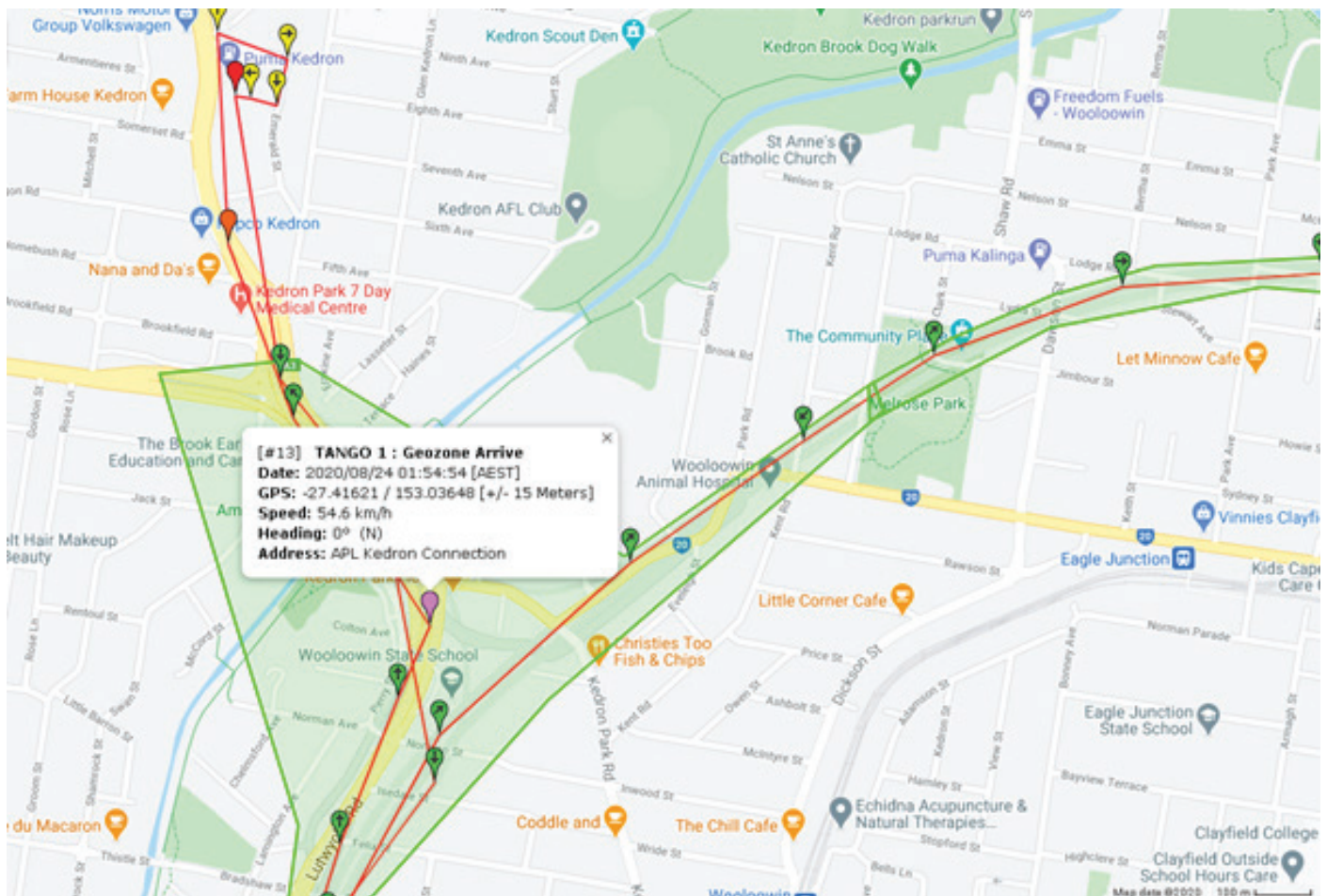
When an alert condition occurs, emails may be sent with the user, the type of alert, their location, and a link to bring up a Google map with their location, to allow instant navigation to the user in distress. SMS alerts may also be sent in the same way (charges apply for SMS functionality).

# Enhanced GPS Tracking



## Underground Tracking

The IMPULSE Wireless tracking solution supports underground tracking via Bluetooth beacons, including Waze beacons already installed in Transurban tunnels. This provides precise location services below ground, and even gives best estimates of speed and direction.



## Customisation and Map overlays

Developed in Australia, the system can be customised to suit the needs of our clients, including map overlays to provide relevant business location tracking requirements.