WHISPER TECHNOLOGIES







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Marborough District Council Deployment

Autonomous Design

Remote Solutions

SCOPE OF WORKS

HISTORY AND KEY REQUIREMENTS

Whisper Technologies was approached by Harbour Master Luke Grogan of Marlborough District Council who had heard that a portable video system incorporating vehicle speed that was in development; a collaboration was initiated to design and develop an appropriate system for use in the maritime industry.

The traditional approach for monitoring vessel speed within the waterways consisted of estimating speed based on visual indicators like comparitive speed to another vessel, wake size and handheld radar guns which are labour intensive and a better method was required to provide evidential data.

The Harbour Masters wanted a system that would actively alert them of speeding vehicles and hold imaging and data, this was expanded on to also include CCTV functionality, location and weather data all bundled up into an autonomous, self monitoring system that was not only going to withstand the harsh environments they would be exposed to but also be easy to deploy and use from the comfort of a remote tablet or phone.

QUICK SPECS

- Dual 6MP imaging sensors with polarising filters for glare reduction
- Fully solid state system with no moving parts
- 7 days CCTV storage (expandable)
- Event alerting
- Remote playback and video exporting capability
- Annual certified 3rd party validation of radar sensor calibration using the same sensors already in use and known within the NZ police for stationary detection of vehicles
- Solar or mains powered with built in battery management
- 30 hours runtime if used standalone
- Easy clip on/off bracket system
- Lightweight around 10Kgs for easy transport and installation
- No requirement for fixed cabling or wireless
- Realtime monitoring with local wifi connectivity
- Vandal alerting
- Wind speed and gust, temperature and humidity reporting



EASE OF USE

Logging into a private portal users can see systems on a map and then drill down to adjust all settings via an easy to use web site. Live video can be viewed and exposure and lighting levels adjusted as well as speed thresholds and sensitivities.





PRESS COVERAGE





ONGOING DEVELOPMENT



Since the systems have been deployed an AI engine has been developed to also count vessels passing through the waterways for trend analysis helping to provide insight on usage over time.

This was able to be retrofitted to the existing systems without effecting system performance

C	Dashboard			
	Boats per day - 30 Days 🗸	Boats per day -	30 Days 💙	Boats per day - 30 Days 💙
2	m	~~~~~~	m	mm
	Boat Count - Yesterday V	Boat Count -	Today 🗸	Boat Count - Today ~
	58	30		37
	✓ 205.26% Increase	✓ 61.04% Decreas	e	✓ 22.92% Decrease
FILE	IMAGE	CONFIDENCE	COUNT	TIMESTAMP 🗘
36864	4	99.18	1	2020-11-03 5:29:54 PM
36862		99.88	1	2020-11-03 5:08:32 PM
36860		98.32	1	2020-11-03 5:03:36 PM
36861		91.19	1	2020-11-03 5:02:58 PM
36853	3	95.4	1	2020-11-03 4:50:40 PM
36852		99.35	1	2020-11-03 4:50:04 PM
36851		99.41	1	2020-11-03 4:47:10 PM

ONGOING DEVELOPMENT



A website is also in development to bring together disparate information systems such as other weather stations, tidal data, AIS tracking etc.. helping to build a 'single pane of glass' portal for use both by MDC staff and the general public.





WHISPER TECHNOLOGIES



web: www.wspr.nz

email: enquiries@wspr.nz

ph: +6421764205

