



Hawkeye

The Road Science Christchurch Laboratory has two high speed data surveying vehicles – (Hawkeye 1000s). Operated by highly skilled technicians, the vehicles survey from Northland to Southland, and everywhere in between.

The Hawkeye survey vehicles use the latest in digital laser technology to accurately and continuously record road and pavement information, such as roughness and texture, and relate this data back to GPS or distance based measurements.

Along with this laser technology, the Hawkeye vehicles have high resolution video cameras that accurately log digital images of roadside assets, minimising the need for physical site visits.

New to the Hawkeye is a GipsiTrac geometry module. We can now record road geometry, in particular horizontal and vertical curvature, grade, camber and superelevation. Road designers can now have access to geometric and stress data in order to back up high-cost treatment selections.

All of this surveying is performed at normal traffic speeds, meaning there is no need for traffic management. This saves time, money and resources. Hawkeye survey vehicles are the solution for collecting road corridor data safe and efficiently.

Benefits:

- High speed data collection reduces costs and decreases data delivery timeframes.
- Data available to inform pre-construction and validate post-construction. Includes roughness (IRI), macrotexture (Sensor Measured, Sand Patch, or MPD) and geometry.
- Visual outputs from dedicated software and high resolution cameras, which allow for office based site analysis and observations.
- All data is linked to chainage and GPS coordinates, simplifying location of data and features.
- Surveying with Hawkeye vehicles means there is no need for sand circles or other outdated techniques, and no need to put people in live traffic lanes.
- **Used in conjunction with the Hawkeye processing toolkit or data viewer, you have the ability to produce and view tables, graphs and reports from collected data.**

Habitat



Rural



Motorway



Residential

Hawkeye Survey Vehicles complies with the following International standards:

- Measuring the Longitudinal Profile: ASTM E950,
- Pavement Roughness: AASHTO PP37; Austroads AGAM-T002,
- Pavement Macrotecture: ASTM E1845; Austroads AGAM-T014; ISO 13473,
- Austroads Repeatability Tests: AGAM-T004, T005

The Hawkeye processing toolkit software ensures that the survey database can be reviewed, edited and processed quickly and efficiently. The data from each module can be compared against other results and exported to pavement and asset management systems.

The Hawkeye data viewer is an office-based program that enables detailed assessment of sites to be completed by providing zoom and measurement tools for reviewing processed surveys.

Using the ProVal software package we are able to calculate roughness from design levels, this allows clients to check whether specifications are achievable. We can also perform simulated rolling straight edge testing with ProVal, using a straight edge of customisable length. Other analyses relating to road profiles are available so get in touch with the Hawkeye specialists below.

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