

Quality assurance

providing accurate information
for effective network management

As a centre for road infrastructure expertise, ARRB has been developing and offering services for over 30 years. These services have been fundamental in improving road quality in Australia.

ARRB is at the forefront of service provision and is accredited with both ISO 9001:2008 and NATA certification.

ARRB's laser based data collection activities are undertaken to the requirements of NATA, with two laboratories (in Melbourne and Perth) externally audited under NATA accreditation number 14407. Both facilities comply with the requirements of ISO/IEC 17025:2005, with ARRB maintaining the accreditation since May 2000.

In 2008, ARRB established an FWD calibration facility operating under the FHWA FWD Calibration Protocol 2007. ARRB has the ability to calibrate the full range of FWD equipment.

In 2009, the entire scope of ARRB's Services department was externally audited to the requirements of ISO 9001:2008. ARRB's certification number is 14029 and covers the supply of equipment and associated services.



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MATERIALS, PAVEMENT & CONCRETE DESIGN & TESTING | TRANSPORT POLICY, OPERATIONS & ECONOMICS |
INFRASTRUCTURE ASSET MANAGEMENT | EQUIPMENT MANUFACTURE & DATA COLLECTION SERVICES |
SAFE SYSTEMS | ROAD SAFETY | TRAFFIC ENGINEERING | HEAVY VEHICLE TESTING & SIMULATION | PARKING |
LAND TRANSPORT RESOURCES & INFORMATION | KNOWLEDGE TRANSFER & CAPACITY BUILDING |

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About ARRB:

ARRB Group Ltd (ARRB) provides research, consulting and information services to the road and transport industry. ARRB applies research outcomes to develop equipment that collects road and traffic information and software that assists with decision making across road networks. ARRB is the leading provider of road research and best practice workshops in Australia.

Services



Road condition and inventory surveys

Whether your need is for a large-scale network survey, a local road system survey or ride quality test, ARRB's Services department offers quality data collection, using ARRB's own Hawkeye platform.

ARRB has built up extensive network survey experience over its many years of operation. This experience translates into the provision of accurate, reliable and time data, in accordance with national and international standards.

ARRB Group maintains a fleet of over 10 dedicated survey vehicles, with various configurations to meet our clients' requirements, that can be driven anywhere in Australia for various types of data collection.

With trained survey operators located in Melbourne, New South Wales, Queensland and Perth, ARRB Services has people on hand to provide quality data collection assistance for your next project.

ARRB Services is backed by an extensive support team, with over 20 years experience and knowledge in the data collection field.



Services offered

- Automated pavement surface assessments
- Geometry and mapping surveys
- Roadside inventory and asset management
- Road safety assessment
- Airport runway maintenance
- Advisory speed and travel times
- Road construction quality testing



Features

- Multiple vehicle configurations for customised surveying options
- Outputs include longitudinal profile, transverse profile, roughness, rutting, texture, cross-fall, slope, grade and both asset and pavement images
- All types of data collected in a single pass
- Safe and efficient for both urban and highway surveys
- Data is collected on time and within budget
- Trained professionals available for customised visual rating and post survey processing (completed using Hawkeye Processing Toolkit)

Strength testing

ARRB's pavement strength testing services are carried out using a Falling Weight Deflectometer (FWD), which is a non-destructive testing device that provides data on the bearing capacity of road and airport pavements.

Suitable for highways, local roads, railways and airport runways, FWD testing allows for more accurate and rapid measurement of pavement deflection under loads than traditional methods.

The data can assist in applications such as pavement overlay design, pavement condition surveys and in the development and operation of a Pavement Management System (PMS).

A dynamic load is generated by the dropping of a mass, similar to that of a moving vehicle or aircraft wheel loads, from a pre-set height. The magnitude of the load and the pavement response are measured by a load cell and nine geophones.

The FWD is equipped with DGPS, thus providing location information up to an accuracy of 1 metre and all data collected is in accordance with International Standard ASTM D 4694-96 (2003).



Features

- Non-destructive testing of pavements with testing between 7 kN to > 240 kN
- Nine configurable geophone arrangements to suit rigid pavement testing and flexible pavements
- Rigid and articulated pavement testing plates with both 300 mm and 450 mm diameter to suit most applications
- Outputs maximum deflection, curvature, multiple temperature sensor measurement, surface modulus, spatial and linear referencing and other client requirements
- Data is collected on time and within budget
- Post survey analysis undertaken in EFROMD3, ELMOD, ROSY and Excel

Other services

In partnership with our clients and our in-house development team, ARRB's Services department has created a number of specialised vehicles designed to cater for the specific needs of our clients.

All-Terrain Survey Vehicle

The All-Terrain Survey Vehicle (ATSV) is a rugged and efficient system for data collection in areas where a normal sized vehicle cannot access. These include pathways, bike tracks, walkways, fire tracks, logging tracks and single or multi-level car parks.

The size and off-road capabilities of the vehicle allow for quality, automated data collection while utilising the state-of-the-art Hawkeye technologies.

Applications

- Inventory collection and classification
- Inventory condition assessment
- Surface condition assessment with mapping via route geometry and DGPS



Road construction quality testing

ARRB's Services department offers independent assessments of the surface characteristics during the post construction of pavements. Our testing is undertaken in accordance with the prevailing jurisdiction's test method, e.g. VicRoads or RTA with reporting meeting the NATA requirements.

ARRB also routinely undertakes pre and post construction dilapidation surveys related to the creation of major infrastructure so as to provide an independent assessment of the impact on public roads.

Applications

- Post maintenance / construction ride quality testing
- Independent laser and imaging surveys for baseline data for infrastructure projects

