

Statement of Heritage Value: John Veal Electronic Distance Measurement Baseline

The John Veal Electronic Distance Measurement (EDM) Baseline, located at Howard Springs, was constructed in 1977-78 by the Northern Territory Government for Surveyors to calibrate their electronic distance measuring instruments. It was built at a time when changes in surveying technology, including the electronic distance measuring instruments, was replacing the old surveyor's Gunter and flat steel band chains. The old chain calibration sites were replaced with EDM Baselines.

The EDM Baseline is an important component of the Territory's surveying history and is still used today. The calibration of electronic distance measuring instruments, including Global Positioning System and Global Navigation Satellite Systems, requires the measurement of distances over a highly precise permanent baseline. The seven pillared EDM Baseline increases the number of observed inter-pillar distance combinations and therefore allows a more reliable determination of the survey instrument accuracy.

Instrument verification is a recognised mechanism for providing legal traceability of its measurements to the National Measurement Standard. Consequently it strengthens the validity of these measurements if questioned in a court of law. The EDM Baseline is important piece of infrastructure that provides a recognised mechanism to ensure surveying measurements are what they claim to be.

The EDM Baseline is named after John Henry Veal, a registered surveyor, who came to Darwin in 1969 to join the Lands and Survey Branch of the NT Administration. From 1973 to 1978 he served as Senior Surveyor Officer in Charge (OIC) Photogrammetry Section. In 1978 he was appointed Senior Surveyor, OIC Surveys Section where he instigated the introduction of new technology. On occasions he acted as Supervising Surveyor and Surveyor General. John Veal made a very significant contribution to the mapping of the Northern Territory and was responsible for the construction of this EDM Baseline.