

The Water Research Laboratory has a Trimble 5800 Real Time Kinematic Differential GPS (RTK-DGPS) which uses information from satellites to determine horizontal and vertical positions with centimetre accuracy as you survey. This equipment can be used in a wide range of field settings such as beaches, estuaries, ports and plains.



GPS surveying on a four wheel drive quad bike

The system consists of two parts - one GPS fixed on a known survey mark and another GPS that is free to roam and collect the survey data. Mounting the freely-roaming GPS on a four wheel drive quad bike allows surveys to be undertaken rapidly and over large areas (i.e. 10 km's). For smaller areas or those inaccessible with a quad bike, a three wheeled cart or a survey pole can be used.

The RTK-DGPS can also be used along with a survey grade echo sounder to obtain high resolution bathymetric data. This system is mounted on a kayak for shallow water bathymetric surveys over small spatial areas. It can also be mounted on larger vessels for surveys in deeper water or over larger areas.