

Using a Real Time CORS - Gold Coast CORS Network

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SUMMARY

The Gold Coast is an area in the South East corner of Queensland, Australia, just to the south of Brisbane, the state capital. The Gold Coast is recognised as a city and has a current population of over 0.5 million people, throughout various suburbs. This city stretches some 56 km along the coast and some 20km inland to the foothills of the Great Dividing Range. The Gold Coast City is governed by the second largest local government in the country; currently this local government, the Gold Coast City council, is the main user of the Gold Coast CORS Network. In late 2008, Leica Geosystems and C. R. Kennedy decided to form a joint venture, SmartNet Aus, in order to provide a GNSS Data service. SmartNet Aus is the entity that provides the end user with the ability to connect to various CORS Networks throughout Australia. In order to prove that the Real-Time system is able to deliver the required in-field positional accuracies and performance, various field tests were undertaken to evaluate the suitability of the network for measuring reliable Real-Time positions. These tests took the form of measuring various positions around the network and recording the Time to Ambiguity Fix, Ambiguity Resolution reliability, RTK availability and RTK accuracy, from at least two different RTK solution types, Single Base and Network RTK. Locations were selected within the network, from close to a single base station, equidistant between base stations, on the edge of the network and outside the network. The paper will tabulate the measurements and derive best practices as how to use a Real-Time CORS Network.

BIOGRAPHICAL NOTES

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