

Developing Africa One CORS at a Time

Derrick Koome (Kenya), Clement Ogaja (USA) and Eldar Rubinov (Australia)

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SUMMARY

Continuously Operating Reference Station (CORS) networks have been established all over the world in the last two decades. They are used for static applications such as datum establishment, tectonic movement computations, geodynamic monitoring and more. They are also used to disseminate corrections to a variety of users in surveying, agriculture, construction and mapping industries to help them achieve real-time centimetre level positioning. More recently, with the rise of unmanned and robotic applications, CORS networks help in keeping driverless cars in a correct lane on the road, drones in doing vital medical deliveries and many other applications.

Most countries in Europe, Americas and Australasian region have been quick to realise the benefit of CORS and install national reference station networks in their respective countries. However, Africa has been far slower to adopt these technologies. Only a handful of countries have been able to establish and maintain national networks successfully. Most other countries have either none or some level of infrastructure, but it is difficult to know whether it is used and functioning correctly, since no information is publicly available.

The Corsmap project aims to compile and maintain a database of all available CORS infrastructure in Africa and make it available in a form of a web map, which can be openly accessed online. The work is done to promote co-operation between the various African nations and contribute to the African Reference Frame (AFREF) project. This paper summarises the extent of the work completed up-to-date and the outlook for the future.