



The African Reference Frame (AFREF) project: a fundamental geodetic tool for Africa

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AFREF

AFREF has as objective the establishment and maintenance of a unified geodetic reference frame for Africa, which will support and facilitate fundamental scientific and technical projects. The installation of observation systems all over Africa will provide important data that can be used in many different scientific fields (e.g., geodynamics, meteorological). Furthermore, AFREF will create an uniform frame that will support development projects, uniform environmental and mapping programmes as well as aid in resolving current and future international boundary disputes. This reference frame will be based on the International Terrestrial Reference Frame (ITRF) and will be realised through the establishment of a network of permanent Global Navigation Satellite System (GNSS) receivers.

In close collaboration with several institutional role players, AFREF is an initiative of the United Nations Economic Commission for Africa (UNECA) Committee on Development Information (CODI). A steering committee is currently responsible for the over-all management and coordination of the implementation of AFREF.

Implementation of AFREF is envisaged to be at national level in collaboration with National Mapping Organizations. Furthermore, many scientific Institutions are contributing for the densification of the network. The current status of the AFREF network will be discussed in detail. Several CORS systems have been installed to support AFREF specifically. In addition, most or all of the IGS stations located in Africa will automatically qualify as AFREF core stations.

Furthermore, we will show examples of interaction between specific projects and AFREF that are contributing for the development of science in Africa.