

## **HartRAO Space Geodesy involvement throughout the SADC region**

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The Space Geodesy Programme of the Hartebeesthoek Radio Astronomy Observatory (HartRAO) is currently participating in two initiatives which would impact on the space science and technology scene in Africa, in particular in the Southern African Development Community (SADC) region. Firstly, the African Geodetic Reference Frame (AFREF) was conceived as a unified geodetic reference frame for Africa to be the fundamental basis for the national and regional three-dimensional reference networks. This initiative is supported by the International Association of Geodesy (IAG) as well as the United Nations Office for Outer Space Affairs (UNOOSA). AFREF will be realised by a network of Global Navigation Satellite System (GNSS) reference stations. In collaboration with many partners from SADC and beyond, HartRAO is establishing and maintaining a network of reference stations throughout the region, with further expansion envisaged for the near future. Secondly, plans are underway to establish a new fundamental station for space geodesy in southern Africa, named the International Institute for Space Geodesy and Earth Observation (IISGEO). The South African Department of Science and Technology (DST) and many collaborators abroad support this initiative. IISGEO will aim to build capacity in space science and to provide an opportunity for African collaborators, who will otherwise not have access to expensive state-of-the-art geodetic equipment, to participate in this area.