

Deformation Modelling to support the Papua New Guinea Geodetic Datum 1994 (PNG94)

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SUMMARY

The Papua New Guinea Geodetic Datum 1994 (PNG94) is the current datum used in PNG. PNG94 (as with GDA94 in Australia) is a realisation of ITRF92 at epoch 1994.0. Unlike Australia, however, PNG has a very complex tectonic setting comprising of several rapidly moving microplates and deforming zones between the Australian and Pacific Plates. This paper describes how this rapid and complex deformation is modelled in the context of PNG94, considering that more than 20 years have elapsed since the realisation of the datum. Impacts of this deformation on different user groups are discussed with a view to a future update of the datum in the future.