

Guiana Margin Plate Reconstructions: Key Calibration from the Atlantic Ocean Basin Tectonic Development

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ABSTRACT

We will describe new plate reconstructions of the NE South American margin and its conjugates. The reconstructions link the tectonic and stratigraphic development of the basins and margins of Atlantic and Proto-Caribbean basins and form a framework in which to understand the evolution of the Guiana margin. A key conclusion is that data and observations far from the Guiana margin provide critical calibration for understanding the Guiana margin and its resources. We will demonstrate that careful use of plate models can maximize the value of sparse data, helping to reconcile apparent inconsistencies.