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Erratum: High-resolution reconstructions of South America Plate motion relative to Africa, Antarctica and North America: 34 Ma to present

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In Fig. 14 of our 2019 paper, we inadvertently paired the wrong graphic and figure caption together, such that Fig. 15 graphic was paired with the Fig. 14 caption. The amended version of Fig. 14 below corrects the error and replaces the original Fig. 14. The graphic and caption for Fig. 15 in our 2019 paper are both correct. None of the interpretations or conclusions in the original paper were affected by this error.

REFERENCES

- Argus, D.F., Gordon, R.G., Heflin, M.B., Ma, C., Eanes, R., Willis, P., Peltier, W.R. & Owen, S.E., 2010. The angular velocities of the plates and the velocity of Earth's centre from space geodesy, *Geophys. J. Int.*, 180, 913–960.
- Bergman, E.A., 1986. Intraplate earthquakes and the state of stress in oceanic lithosphere, *Tectonophys.*, **132**, 1–35.
- DeMets, C., Gordon, R.G. & Argus, D.F., 2010. Geologically current plate motions, *Geophys. J. Int.*, 181, 1–80.

- Dziewonski, A.M., Chou, T.-A. & Woodhouse, J.H., 1981. Determination of earthquake source parameters from waveform data and regional seismicity, J. geophys. Res., 86, 2825–2852.
- Ekstrom, G., Nettles, M. & Dziewonski, A.M., 2012. The global CMT project 2004-2010: centroid-moment tensors for 13,017 earthquakes, *Phys. Earth planet. Int.*, 200-201, 1–9.
- Muller, R.D., Royer, J.-Y., Cande, S.C., Roest, W.R. & Maschenkov, S., 1999.
 New constraints on the Late Cretaceous/Tertiary plate tectonic evolution of the Caribbean, in *Caribbean Basins*, Sedimentary Basins of the World, Vol. 4, pp. 33–59, ed. Mann, P., Elsevier Science B. V.
- Roest, W.R. & Collette, B.J., 1986. The fifteen-twenty fracture zone and the North American-South American plate boundary, J. Geol. Soc. Lond., 143, 833–844.
- Smith, W.H.F. & Sandwell, D.T., 1997. Global sea floor topography from satellite altimetry and ship depth soundings, *Science*, **277**, 1956–1962.
- Wysession, M.E., Wilson, J., Bartko, L. & Sakata, R., 1995. Intraplate seismicity in the Atlantic ocean basin: a teleseismic catalog, *Bull. seism. Soc. Am.*, 85, 755–774.

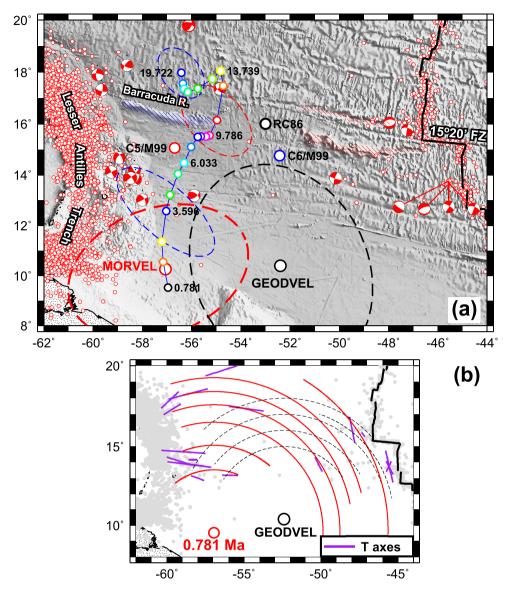


Figure 14. (a) Chron C1n (0.781 Ma) to C6no (19.7 Ma) North America—South America finite rotation poles and representative 95 per cent confidence regions from Table 5 (open coloured circles and previous studies. Poles from Muller *et al.* (1999) from Mid-Atlantic Ridge reconstructions of chrons C5n.1 (C5) and C6 (C6) are labeled 'M99'. The GEODVEL space geodetic and 3.16-Ma-average MORVEL poles and their 95 per cent error ellipses are from Argus *et al.* (2010) and DeMets *et al.* (2010), respectively. Ages in Myr are indicated adjacent to selected poles to illustrate the general pole migration path. Most pole ellipses are omitted for clarity. A clockwise rotation about each pole restores the North America Plate to its past positions relative to South America; anticlockwise rotations around the same poles give the time-averaged forward motion of North America relative to South America. The open blue circle labeled RC86 shows the 7-Myr-to-present pole location estimated from seafloor morphology by Roest & Collette (1986). Focal mechanisms span the period 1964–2017 and are compiled from Bergman (1986) and global centroid-moment tensor solutions (Dziewonski *et al.* 1981; Ekstrom *et al.* 2012). Earthquake epicenters span 1920–1962 (Wysession *et al.* 1995) and 1963–2017 (U.S.G.S.). Seafloor depths are extracted from Version 17 of a global 1-min depth grid (Smith & Sandwell 1997). (b) Small circles around the GEODVEL geodetic and newly determined 0.78-Ma poles (black-dashed and red solid lines, respectively) and tensional axes for the earthquake focal mechanisms from (a).