magnetic data from early Cenozoic lavas that record a polarity reversal in Australia—located directly over the most prominent non-axial dipole field source. With these data we hope to better understand how the shallow core field may influence the process of polarity reversal as viewed from Earth’s surface.

Figure 3. (Left) Contoured angular change from 1900 to 2000 of the NAD field Virtual Geomagnetic Poles (VGPs) about the globe. (Right) (i) Transitional north VGPs recorded in lavas on Tahiti (clustered near west Australia) and West Eifel (falling over much of Eurasia), each case spanning ~200,000 years (Big Lost excursion VGPs, which were recorded at both sites 580,000 years ago have open symbols), and (ii) concurrent south VGPs for the years 1900, 1950, and 2000 (indicated on the map by 1, 2, and 3, respectively) NAD field at Tahiti (white squares) and West Eifel (black squares) plotted on the time-averaged surface NAD field (after Hoffman and Singer, 2008; Science).