



## **Magnetostratigraphy and cycle stratigraphy associated with CAMP lavas and the Triassic-Jurassic boundary in eastern North America**

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Earlier magneto- cyclostratigraphic work in the Newark continental rift basin established that the last Triassic geomagnetic polarity reversal (the younger end of the short chron E23r) occurs only  $\sim 40$  k.y. before the Tr-J boundary, which is followed within  $\sim 40$  k.y. by the first CAMP lava. The succeeding normal polarity interval chron E24n extends across the entire 1000 m thickness of CAMP lavas and interbedded sediments, an interval which has been estimated to be about 600 k.y. in duration in this section, but the top of the magnetozone was not found in the preserved overlying sediments. In the nearby Hartford basin, there are more than 2000 m of cyclical sediments of the lower Portland Fm. overlying the CAMP igneous extrusive zone, where the analogous lavas as well as the interbedded sediments we sampled mainly in outcrop are also of uniformly normal polarity that we refer to as chron H24n. What we believe is the first reverse polarity of the Jurassic has been detected about 1000 m above the youngest CAMP lavas; at least two additional reverse polarity zones occur in the succeeding part of the sampled section. Although unusually thick, magnetozone E24n=H24n is approximately 1.6 m.y. long according to the cycle stratigraphy, a duration that is not unusually long in the context of the Late Triassic geomagnetic polarity time scale. An extended Early Jurassic normal polarity bias interval or midichron that appears in some compilations of paleomagnetic data is probably an artifact of dating errors.