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The drift Hystory of Iran from the Ordovician to the Triassic ()

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New Late Ordovician, Permian, and Triassic paleomagnetic data from Iran are presented. These data, in conjunction with data from the literature, provide insights on the drift history of Iran as part of Cimmeria during the Ordovician-Triassic. A robust agreement of paleomagnetic poles of Iran and West Gondwana is observed for the Late Ordovician-earliest Carboniferous, indicating that Iran was part of Gondwana during that time. Data for the Late Permian-early Early Triassic indicate that Iran resided on subequatorial palaeolatitudes, clearly disengaged from the parental Gondwanan margin in the southern hemisphere as the result of the opening of the Neotethys Ocean along the eastern margin of Gondwana during the Permian. Since possibly the late Early Triassic, Iran was located in the northern hemisphere close to the Eurasian margin. This northward drift brought Iran to cover much of the Paleotethys in ~35 Myr at an average plate speed of ~7-8 cm/yr. As a novel

conclusion, we find that timing, rates, and geometry of Cimmerian tectonics are broadly compatible with the transformation of Pangea from an Irvingian B to a Wegenerian A-type configuration with Neo-Tethyan opening taking place contemporaneously essentially in the Permian.

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