Seasonality of atmospheric precipitation III: equinoctial rainfall

In the region between the migrational limits of the Inter-Tropical Convergence Zone (the ITCZ), the ITCZ and its rains pass over twice each year, northward in March and southward in September. There are thus two rainy seasons, in the times that are considered spring and fall outside the equatorial zone. In the western Pacific and Eastern Indian oceans, these are also regions of abundant rainfall, at least partly because the Western Pacific Warm Pool is such a great source of rising water vapor. On the other hand, eastern Africa has the dry region of southwestern Asia among its vapor sources, leading to less abundant but still clearly equinoctial rainfall.

Histograms of monthly rainfall at selected continental locations. Histograms of locations of extreme rainfall are excluded to avoid filling the entire figure. Rainfall data are largely from New et al. (1999) as made available at http://sdwebx.worldbank.org/climateportal/index.cfm, with additional data from Wood (1998). The ITCZ is from Chang (1987, in Oliver & Fairbridge), Linacre and Geerts (1997), and Wang (2009). The underlying base map is from the Cartographic Research Lab of the University of Alabama.