From moderate earthquakes to continuous aseismic slip, a variety of ways to release strain along the Chaman fault (Pakistan, Afghanistan).

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Surface fault slip can be continuously monitored at fine spatial resolution from space using InSAR. Based on 5 years of observations (2014-2019), we describe and interpret the InSAR time series of deformation around the Chaman fault, a major strike-slip fault along the boundary between the Indian and Eurasian plates. Aseismic slip was observed on two >100 km long segments, reaching a maximum of 1 cm/yr. In between, a fault segment delimited by a restraining and releasing bend in the fault trace hosted three $M_b$ 4.2, $M_w$ 5.1 and $M_w$ 5.6 earthquakes in our observation period. These earthquakes were followed by significant postseismic slip with characteristic duration between 1.5 to 3 years. Postseismic to coseismic surface slip ratios reach at least 0.6-1.2. In addition, aseismic slip was observed in close spatio-temporal relationship with those earthquakes. Finally, we argue that we detect numerous micro-slip events of $M_w$<3, although with large uncertainty. We provide an extensive description of the various modes of slip along this plate boundary fault and discuss the mechanical implications of such entangled behavior.