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An investigation into potential precursors to the 2001 Gujarat Earthquake, manifested as thermal anomalies

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Many workers have isolated what they claim to be thermal anomalies preceding the 2001 earthquake in the Gujarat region of India and based on initial studies of land-surface temperature data conducted as part of this work, this truly does appear to be the case. However, following the application of a number of statistical techniques to the dataset of a 6-year period of MODIS-acquired imagery, although some potentially unusual behaviour is seen in the region of the earthquake at around the time of the event, the manifestations of this behaviour appear to be well within the "normal" characteristics of the surface as displayed over the 6-year period examined. This fact casts doubt on both the significance of the anomalies seen, and on their association with the earthquake event and indeed, much of the unusual behaviour of the surface actually appears after the earthquake event and not in precursory phases; this further affects any conclusions which can be made relating the behaviour of the surface to this devastating earthquake.