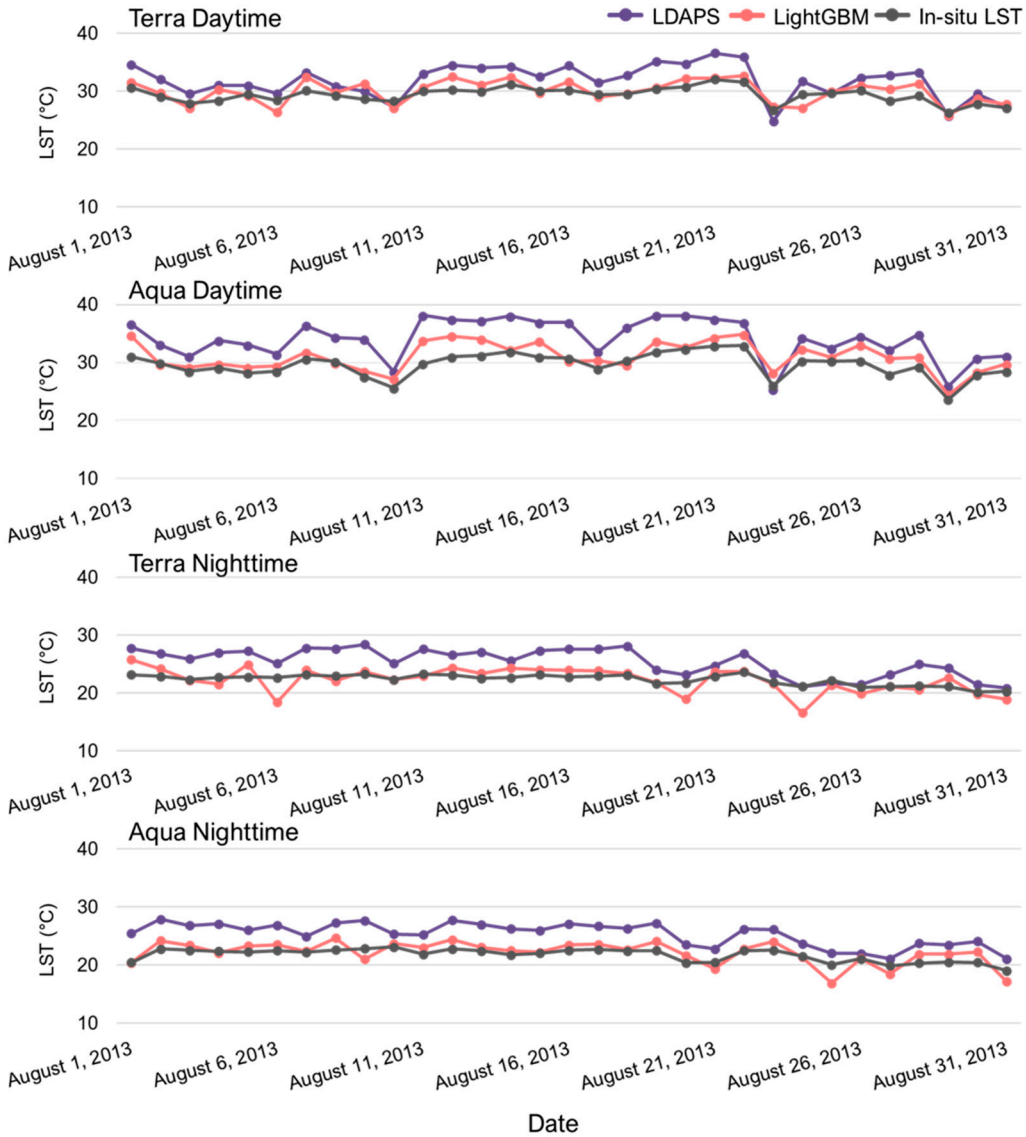

Figure S1. Time-series of the LST estimated by the LDAPS and LightGBM models, and bias-corrected in situ LST at station 8 for four MODIS view times during August 2013.

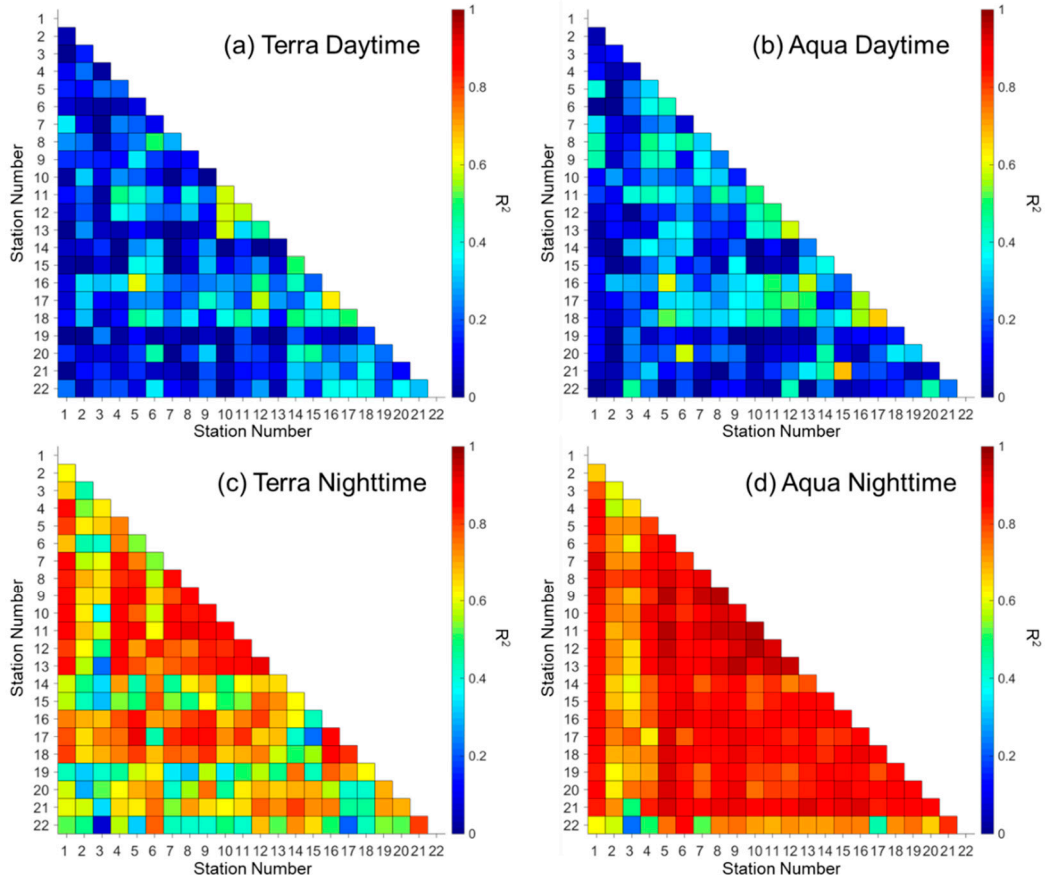

Figure S2. Temporal R^2 between the clear-sky LSTs observed at 22 ASOS stations for four MODIS view times during June-August from 2013 to 2020.

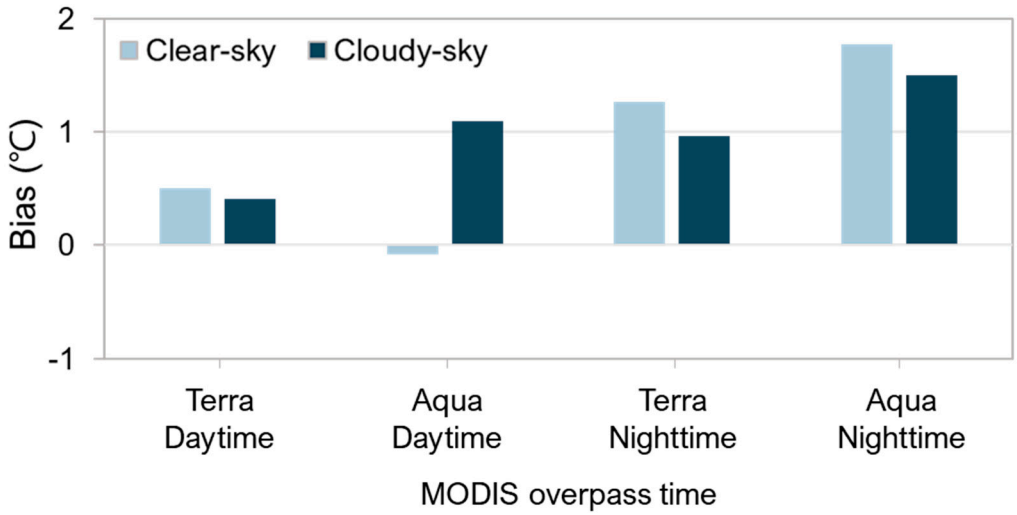

Figure S3. The bias of the LDAPS LST calculated using the 22 bias-corrected in situ observations during June-August from 2013 to 2020 at each MODIS view time.