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Near-real-time detection of potential fog by Himawari-8 geostationary satellite data /
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An algorithm for detecting potential fog using the Himawari-8 geostationary satellite data for the Far Eastern region of Russia is developed with account of foreign experience (Japan Meteorological Agency, Korea Meteorological Administration). A software product was implemented for constructing a map of fog probabilities expressed in percentage. The validation performed for 284 weather stations for 2017-2021 showed that the probability of fog detection (POD) was 0.79, and the probability of false detection (POFD) was 0.03, which is better than the foreign analogs.

Keywords: remote sensing, fog, Himawari-8, reflectance, brightness temperature, WRF-ARW, threshold algorithm

Tab. 3. Fig. 8. Ref. 13.