

Assessment of FCI versions of the Severe Convection Products used for WAFC Verification

Abstract

This report looks at the quality of the severe convection composite product used for verification of World Area Forecast Centre (WAFC) forecasts, generated using Meteosat Third Generation (MTG) FCI data and compares it with the equivalent composite generated using Meteosat Second Generation (MSG) SEVIRI data. We find excellent agreement between MSG SEVIRI and MTG FCI for the Brightness Temperature Difference test results and relatively good agreement for the IR Texture test results. Unfortunately, we have found that the LEELA lightning data do not appear to be included correctly with the MTG FCI composites, so further investigation of the SPS code will be required to identify the reason for this, and changes will be required to ensure that the correct lightning data are included in the product in future. The product used for WAFC verification (and which is studied here) has been largely superseded by new severe convection products which will be of critical interest for future WAFC verification studies.