

WAFC Convective cloud (Cb) verification using satellite data

Executive Summary

Convective cloud (Cb) represents an important hazard to aviation. The World Area Forecast Centres (WAFCs) produce routine forecasts of convective cloud for use by airlines around the world. This report summarises an assessment of operational WAFC Cb forecasts with an objective verification scheme using geostationary satellite data covering the 12-month period January 2024 to December 2024. Verification for the operational 0.25° Cb forecasts is presented for the Cb extent and Cb top height forecast. The verification shows that the 0.25° operational Cb forecasts continue to provide skill and value to the user and provide added skill and value as well as consistency over the single centre forecasts. Verification of the Ensemble Prediction of Oceanic Convective Hazards (EPOCH) probabilistic Cb extent forecasts is also presented, showing the further skill and value that these forecasts give compared to the operational forecasts.