

Séminaire lundi le 12 juin 2017 11:00 / Seminar Monday June 12th 2017 11:00h

Sujet/Subject: Have high-resolution precipitation forecasts been getting better?
A historical perspective based on the Fractions Skill Score

Langue/language : Anglais/English

Conférencier/Lecturer: Dr. Marion Mittermaier(UK Met Office)

Résumé/Abstract:

The Fractions Skill Score (FSS) has been used to routinely verify UK precipitation forecasts since early 2008. This seminar will provide an analysis of this time series of scores, spanning 3 version of the Unified Model: 12 km NAE, 4 km UK4 and 1.5 km UKV, looking at differences in skill as a function of validity time, lead time, and time of year. A partitioning of scores based on flow regimes will be presented. Three subjective partitions of 30 Decider regimes are presented to understand how precipitation forecast skill varies with flow type. The impact of changing the resolution of the radar analysis used for evaluation will be assessed. During this period we also began verifying hourly precipitation, so the first long-term statistics of hourly precipitation will be presented. A recent key upgrade to improve low cloud was expected to have a detrimental impact on precipitation. The changes acted to delay the onset of convection, and changed the distribution of showers. By combining FSS with partitioned High Resolution Assessment (HiRA) scores of cloud and cloud base height, it can be shown that low cloud was indeed improved, and that the impact of the changes was non-uniform as a function of time-of-day and lead tim