

Status of RAL3 related activities at NCMRWF

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Regional Atmosphere and Land version 3 is operational from 1 October 2022 at NCMRWF (RAL3.0). This was a step change in the improved precipitation patterns and with some tuning improvement in the lightning scheme. From 1 October, Radar Hole fix (#375) was operationalized (after backporting to UM12.0), which showed significant changes in the particle size distribution (PSD) when compared with the more realistic disdrometer observations. However apart from the improved warm rain performance, the cold rain performance was lacking. The Radar Hole fix 2 (#478) was partially addressing the PSD issues and hence was tested separately for a couple of case studies over RAL3.2 configuration at UM13.0 release cycle. Also the package of changes covered by #504.4 was also compared. Finally the plans are for testing RAL3.3 and continue with a comprehensive testing for the coming Monsoon. The results will be presented in the workshop.