UERRA

WP9 Overarching

Lessons learned

WP7 Outreach and dissemination

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Management Support Team

Overarching coordination WP9

WP9 telephone communication to be resumed

Common lessons learned, D9.3 prepared

Web page under the CLIPC portal

- To be further discussed

Lessons learned so far: Observations

- Observation coverage low or missing for some periods / regions
  - Data polices sometimes prohibitive for DARE
  - Data may exist in nationally but not transferred to MARS@ECMWF
    - International data centres and transfer/ encoding for MARS
    - The transfer of national data to international data centres and to MARS VERY time consuming and/or complex
  - Quality control and bias corrections needed
- Crucial for 2m T/RH and precipitation reanalysis!

Particularities of the Regional Reanalyses

- Version of the model, data assimilation and ensemble system and configuration are not the same as developed or used operationally
  - Either global scales or meso-scale systems
  - (15-25 km or 1-3 km but not 10 km grid size)
  - Model physics (may be more like global)
  - Ensemble system challenging due to limited area but large domain
  - Perturbations need to develop and maintained within this large domain

Lessons for setting up the Reanalyses

- Finding and defining the right model and assimilation configuration
  - Scientific contents
  - Technical output options
  - Use of observations in the system
  - Technical efficiency gains
- Long tests needed to find abnormal behaviour
  - Quality control of the resulting reanalyses fields needed
  - Check unrealistic behaviour
- Check output fields and options for physics so that everything is there that is needed

Lessons for setting up the ensemble Reanalyses

- The ensemble assimilation system is difficult and complex
  - Particularly for newly developed systems
  - Use of observations in the ensemble assimilation
  - Use of lateral boundaries important
  - Technical efficiency gains
- Early trials can show divergence between members and growing in time
- May resort to more proven methods (like ensemble nudging from DWD)

Lessons for Reanalyses

- Model biases exist and may affect reanalyses
  - Affect long term trends
- Computing efforts heavy and supervision needed
- Quality control of the resulting reanalyses fields needed
  - Check unrealistic behaviour
- Check output fields and options for physics so that everything is there that is needed

Lessons for Evaluation

- Model biases exist and may affect reanalyses
  - Affect long term trends
- UERRA reanalyses not available yet
- Lots of work on defining output and archiving parameters
- Resort to preliminary archives (EURO4M and DWD) reanalyses and observational data sets

Lessons for common archive

- Model parameters and definitions differ sometimes or may not exist in all models
- Takes long time to define and agree
- GRIB2 definitions
- The subset to be archived needs to be extracted and efficient archiving system still to be built

UERRA WP 7
Outreach and dissemination

Newsletter written (or compiled) on uerra.eu

Meetings where UERRA scientists participated:

- Copernicus Workshops at ECMWF
- EMS/ECAM
- AGU
- + more

Communication with external climate groups (ECRA) (JPI-Climate?)

African Workshop – will take place 2016

Publications (listed on the web site)

UERRA WP 7
Outreach and dissemination

EU-briefs

- Output or communication from the Project
- Suitable venue?
- GEO Workshop?
- DG GROW WS / REA colocation WS?