Regional Cooperation for
Limited Area Modeling in Central Europe

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OPLACE status report 2015

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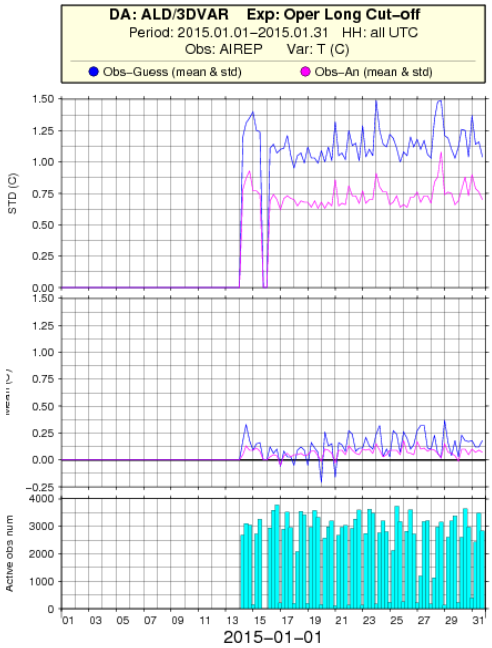
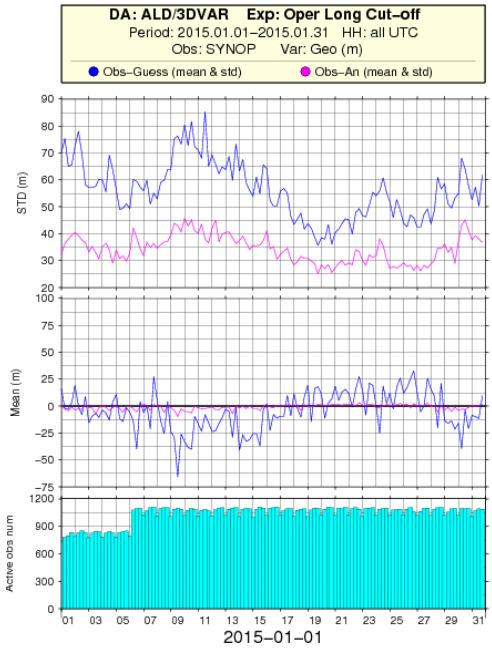
OPLACE status 2015

- no new data type added
- bug-fixies for SYNOP, AMDAR and WP implemented





- OPLACE reliability improved and system monitoring enhanced
- user feedbacks are important and appreciated

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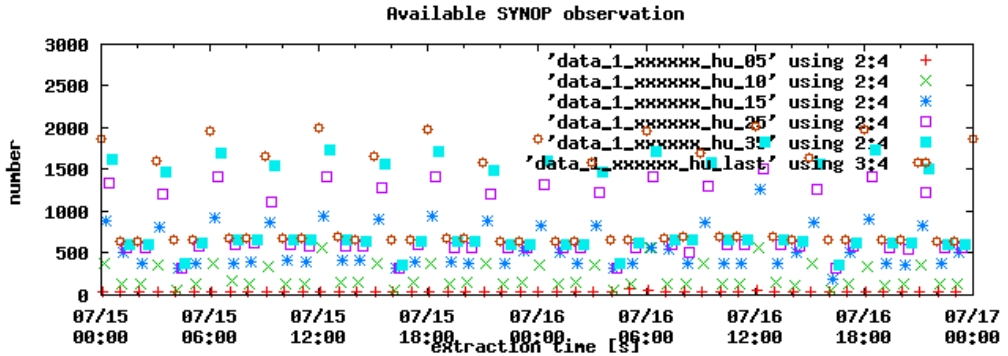
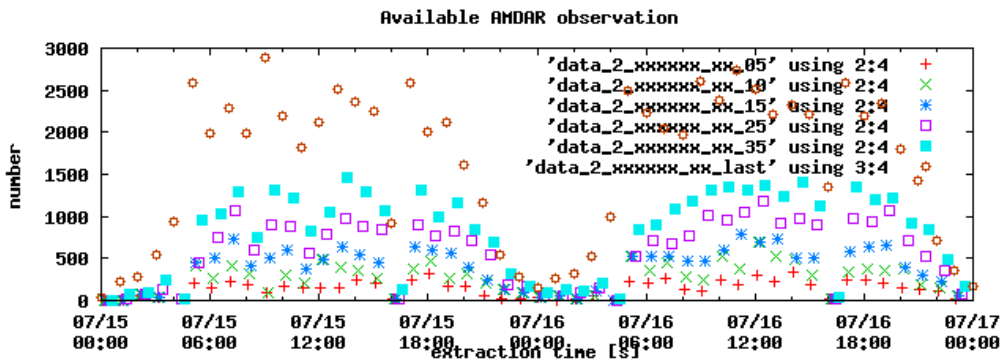
- improvement of observation availability for 1H RUC and/or nowcasting applications
  - compromise between number of data and short cut-off time
  - only SYNOP and AMDAR were considered





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- - update at +10min: small number of data (a few hundreds maximum)

  - update at +15min: about 1000 for main synoptic times and 500 SYNOPs (roughly half of the total data amount) and during daytime about 500 AMDAR (quarter of the total)

  - later updates (at 20,25,30) further increase number of data and depending on user requests we can add one more update before default +35min
- time schedule enhanced by extra update at "+15min" to improve observation availability for 1H RUC and/or nowcasting applications

- non-LACE countries showed an interest to access OPLACE
  - there are no data with data policy restrictions on OPLACE
  - technically we are ready to fulfill
  - requests from Turkey (not yet finalized) and from Tunisia;
  - Council decision and clarification of conditions is awaited

National data exchange

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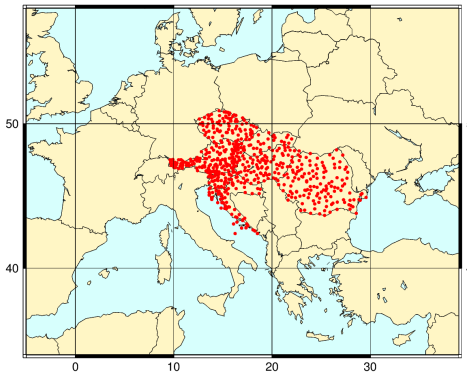
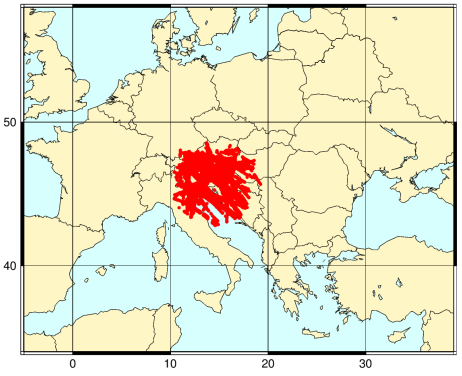
- SYNOP data
- only few drop-outs experienced
- minimal update in number of stations
- ready for operational use



- Mode-S MRAR
- new data type since April 2015
- aircraft temperature and wind from Slovenia

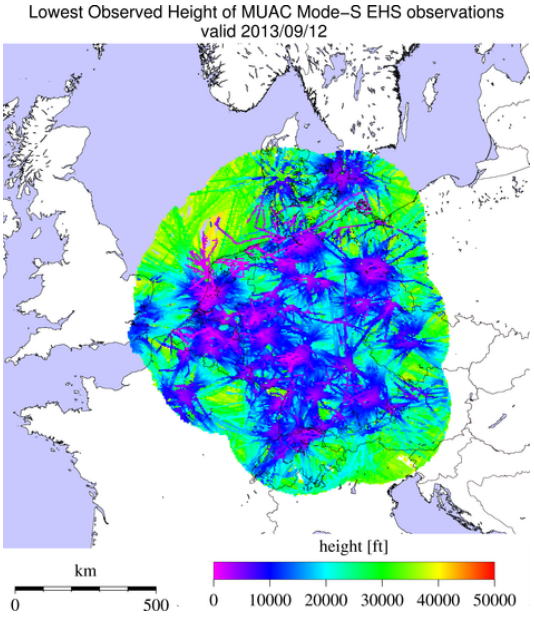


National data exchange

- **All Members are kindly encouraged to explore availability of Mode-S data in their countries.**
- non-LACE Mode-S data availability

  - KNMI was contacted regarding access to Mode-S EHS derived meteorological information from http://mode-s.knmi.nl/data/

  - Data are available for NMHS after signing a Non Disclosure Agreement



COPE and HARMONIE

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COPE

- COPE is expected to provide a new frame-work for observation processing and conversion to ODB;
- very limited progress on COPE due to lack of dedicated resources;
- Stage 2 of the COPE was formally closed and next stage COPE 3 is part of ECMWF's Scalability Programme;
- collaboration on COPE is of an interest for RC LACE;
- only limited resources were identified within RC LACE;
- no concrete contribution has been realized in 2015;

HARMONIE

- work on HARMONIE have not advanced in 2015;
- tasks related to HARMONIE Verification package will be finished in next months

Problems and opportunities

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- OPLACE
  - who uses wind profiler data operationally ?
  - additional OPLACE update request ?
  - any feedback and/or proposal is apreciated
  - non-LACE countries showed an interest to access OPLACE. The request from last year for OPLACE access from Turkey has not been finalized and a new request was received from Tunisia in May 2015. A decision, including clarification of conditions, is awaited from RC LACE Council.
  - Members are kindly invited to explore availability of Mode-S data in their countries.
- TAC2BUFR migration
  - any progress in within RC LACE ?
- HARMONIE
  - who uses a local installation of HARMONIE ?
  - HARMONIE WD on code developments and AROME 4DVAR preliminarily announced by HIRLAM (end 11/2015 or early 12/2015)
- COPE
  - Members are kindly invited to consider a contribution to COPE

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Thank You for Your attention !

Additional slides

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ALADIN/LACE observation handling is closely linked with Meteo France

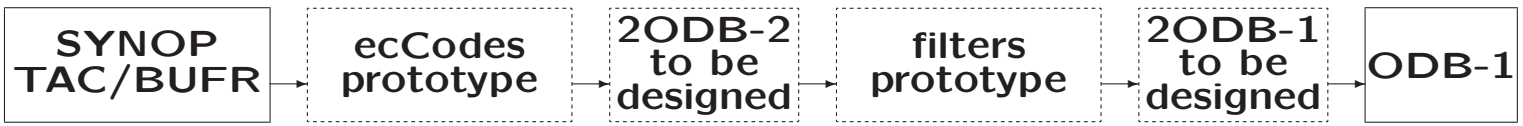
- pre-processing
  - decoding and simple checks
  - conversion to the local database (various data formats)
  - SAF NWC (SEVIRI, AMV)
  - conversion to the suitable input file format for BATOR
- BATOR
  - conversion to ODB-1 format
  - simple QC & filtering
  - obs error, eventually other flags, assignment
  - blacklisting
  - geographical (LAM) selection
  - supported input file formats:
    OBSOUL/ASCII - conventional data (SYNOP, TEMP, ...)
    BUFR - satellite (ATOVS, IASI,...), radar data
    GRIB - SEVIRI radiances

Observation handling

ALADIN/LACE processing chain:

COPE processing chain main components:

- ecCodes: supporting GRIB, BUFR, and try to include ODB,
- Harmonized ODB libraries and interfaces, ideally following ecCodes concepts,
- Simplified filter interfaces, and
- MARS interfaces.



Main features:

- use ODB rather than BUFR format
- conceptually,observation processing can be seen as a sequential application of various transformations on each report in the observation database;
- the idea is to break the complex processing task into smaller, manageable steps that can be chained one after another