

Current quality check system in the production of GDPs



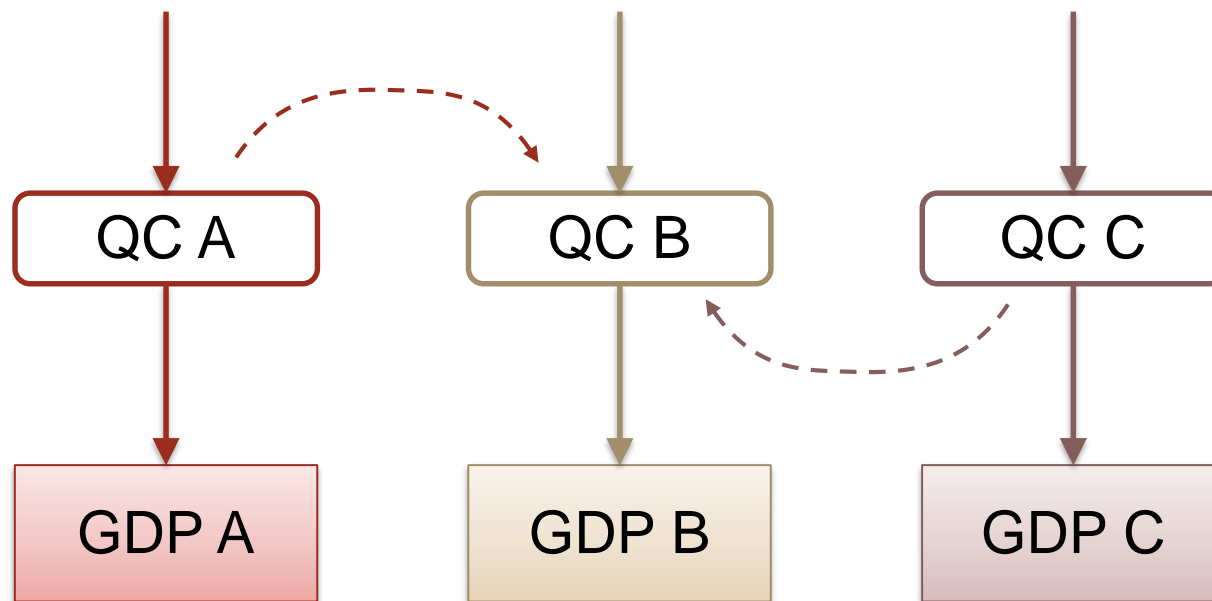
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15th GRUAN Implementation and Coordination Meeting (ICM-15)

Bern, Forum 1, 11 March 2024

- No uniform standard for quality control
- Each developer team of GDPs use own ideas and steps
- If steps are documented in TD → may have an influence on others

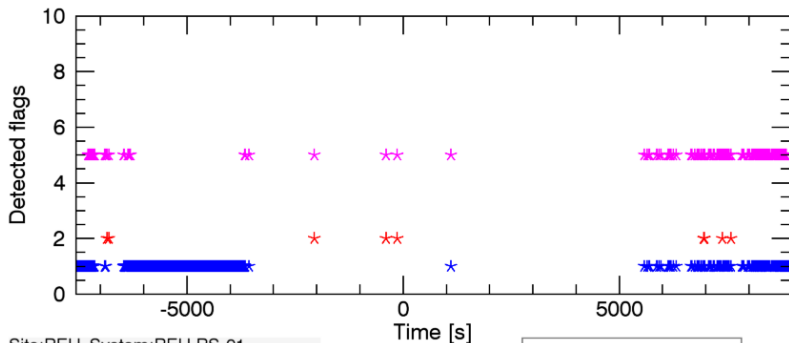
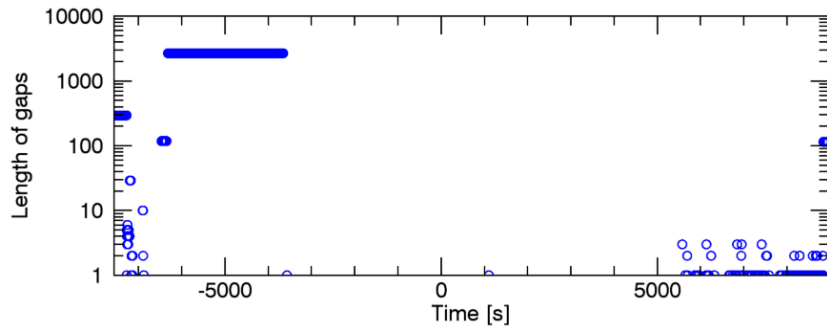
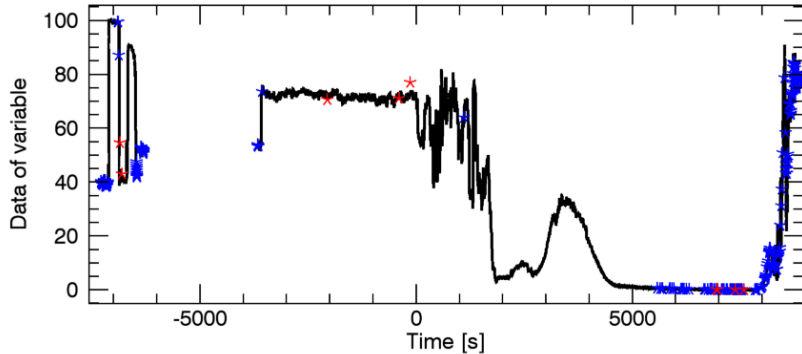


- Data availability checks
 - missing data tables; too short measurement
- Raw data checks
 - check “input” data before usage
- Specific checks within processing steps
 - launch detection; protect calculations
- Final quality check of a finally processed variable (T, p, U, ...)
 - value range of variables and uncertainties
- Consistency checks of components
 - uncertainty portions; raw with correction should be equal to corrected

Raw data checks



Check Outliers & NaN of RelativeHumidity



Site:REU, System:REU-RS-01
Date:2019-01-11T17:56:00
B-No:2, DPS-No:0
Sonde:RS41-SGP-REV1, SN:N4120581
Step:15 (PreCheckRelativeHumidity)

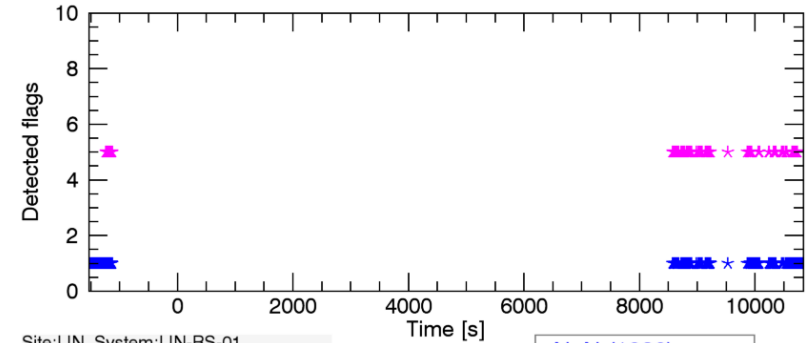
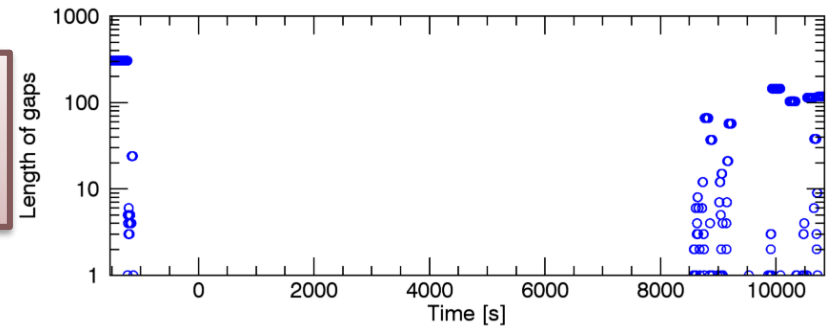
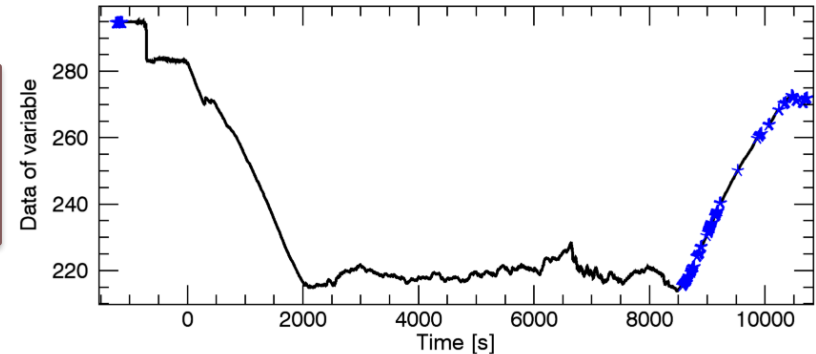
*NaN (3461)
*Outlier (9)
*Interpolated (364)

Detect outlier & missing values

Analyse gaps

Interpolate small gaps & store flags

Check Outliers & NaN of Temperature



Site:LIN, System:LIN-RS-01
Date:2019-04-01T18:00:00
B-No:1, DPS-No:0
Sonde:RS41-SGP-REV2, SN:P3410084
Step:16 (PreCheckTemperature)

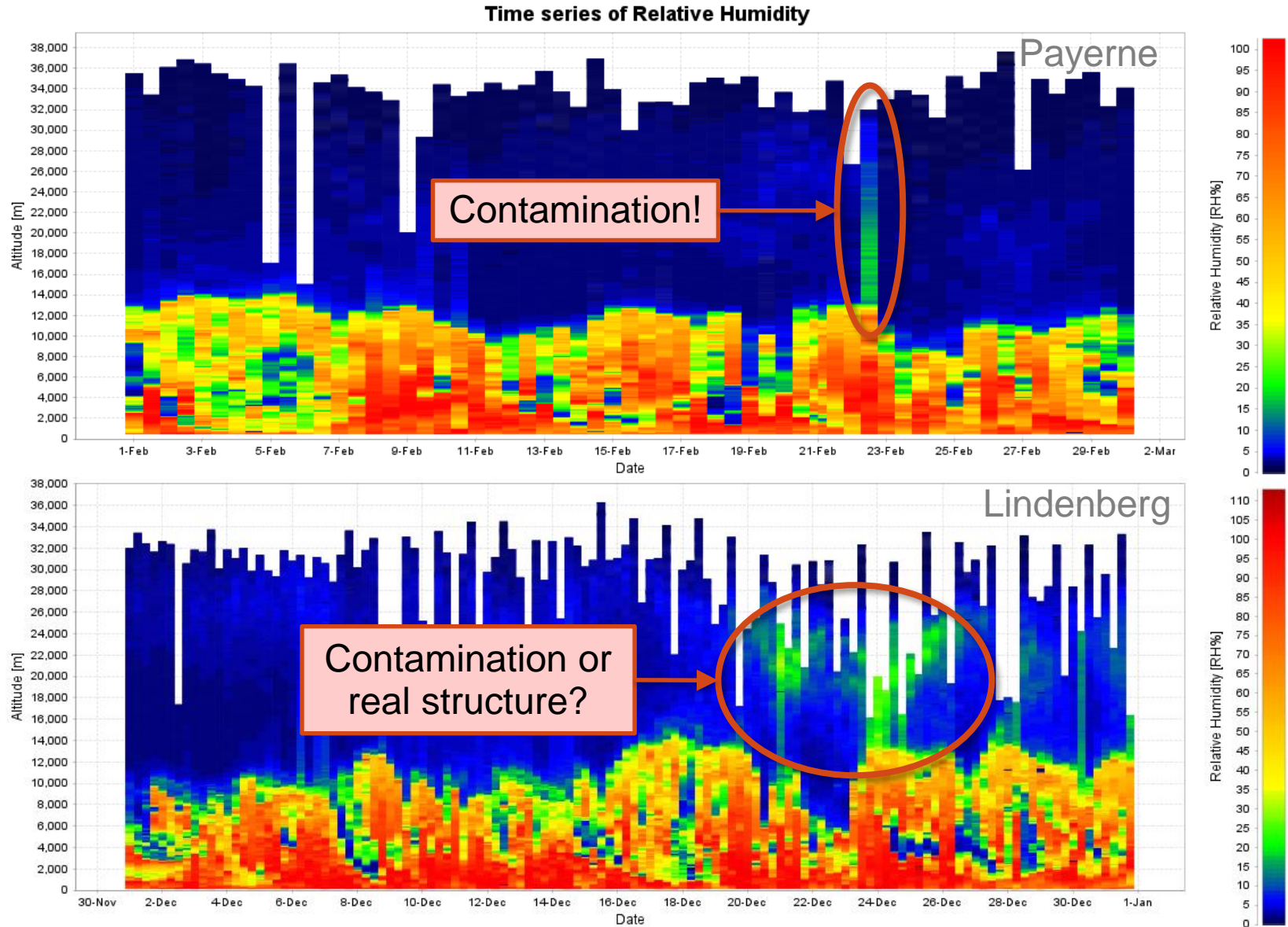
*NaN (1280)
*Interpolated (538)



Assessment: realistic measurement? Deutscher Wetterdienst Wetter und Klima aus einer Hand



Not implemented yet!



- No uniform standard for quality control
- Many specific steps of quality control (raw, in between, final)
- No assessment is made as to whether these are realistic measurements.