GOP AC Report

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IDS AWG meeting in Greenbelt, NASA, 15-16 October 2015
Recent work

• Merging of the DORIS-Bernese and Bernese 5.2 (testing stage)
  ➢ consistency with official Bernese version
  ➢ measured satellite attitude

• Implementations of the RINEX data processing
  ➢ Computation of PHC-COM correction
  ➢ Reconstruction of Doppler measurement
  ➢ Onboard clock modeling
  ➢ Phase processing?

• Changes in SRP estimation
GOP SRP estimation strategy

• Iterative process
  • first iteration
    - SRP estimated per day
    - 1-rev harmonics not adjusted
    - Drag estimated once per day

• second iteration
  - SRP estimated with constraints 0.0001(almost fixed)
  - 1-rev harmonics adjusted in along track
  - Drag estimated each 0.5 hour for „low“ satellites

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Periods of SRP estimation strategy failure

• Saral and Cryosat approx. April-May 2014
• Saral only approx. April-May 2015
• systematic behavior of the SRP time series
  ➢ no problem when long-term value of SRP fixed

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SRP estimation strategy failure – conclusions:

• change of GOP SRP strategy
  ➢ fixed SRP
  ➢ all satellites/ selected satellites ?
  ➢ all periods/ selected periods ?

• Could the SRP estimation problem indicate some abnormality?