

GOP AC Report

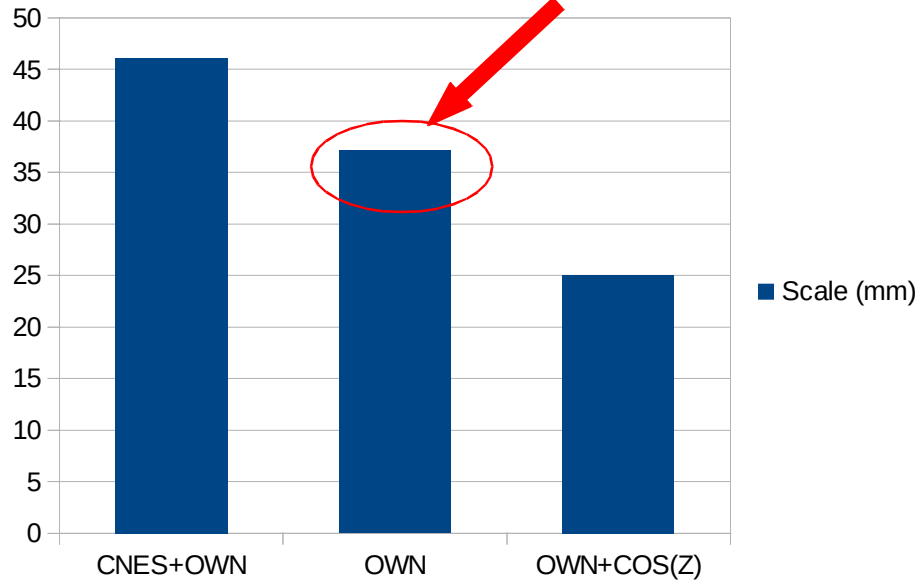
Petr ůt pnek, Geodetic Observatory Pecn

IDS AWG meeting, London 22-23 May 2017

Recent GOP activities

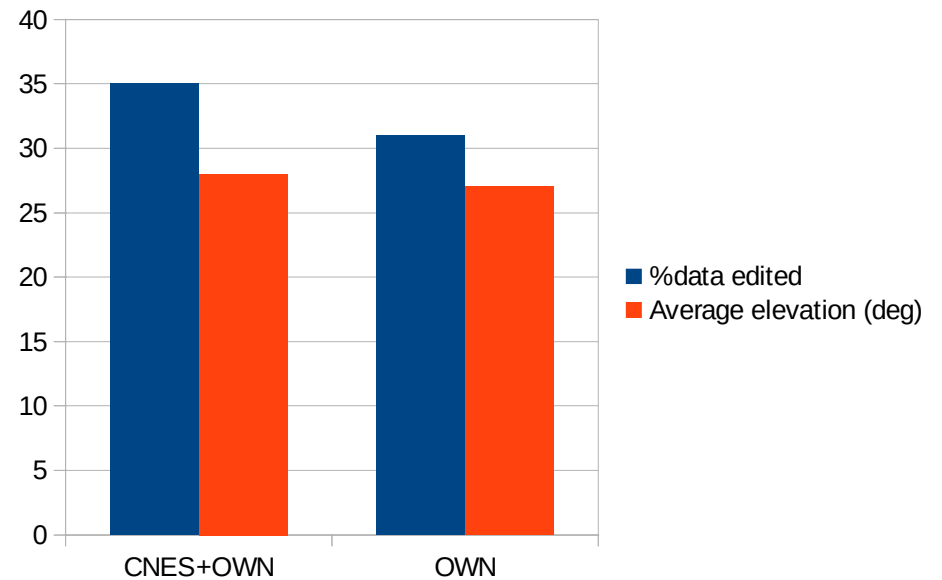
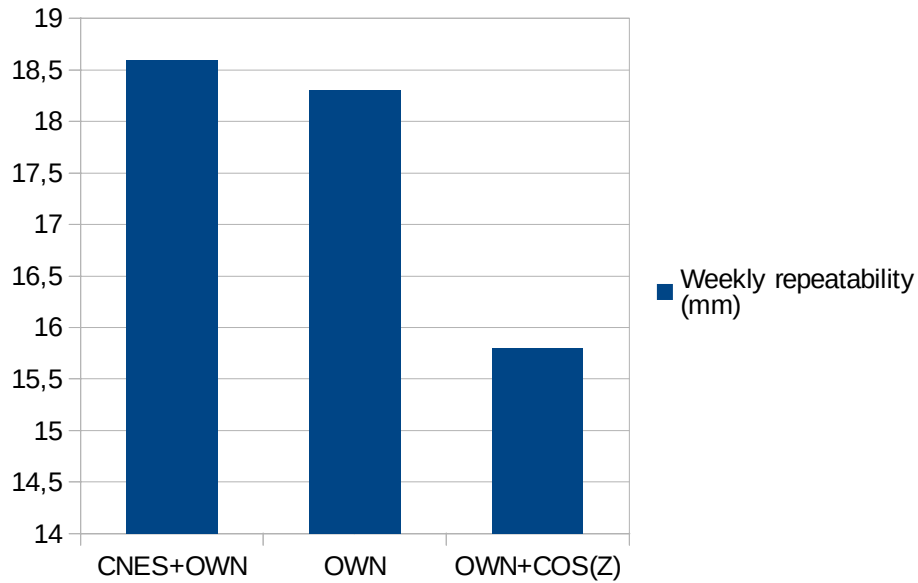
- Routine data processing – data processed until end of 2016
- Running LOD experiments – C_{20} estimation together with LOD (in contrary to some SLR papers not important effect), effect of estimated LOD on the series of the other estimated parameters, correlation analysis. We plan to publish a paper soon
- New series 50 – CNES preprocessing not adjusted and COS(Z) downweighting applied
- RINEX data processing – under development, top priority for second half of 2017, so far we have reading routines, transformation to Bernese internal observation data format, estimation of the onboard clocks from pseudorange measurement

To be verified

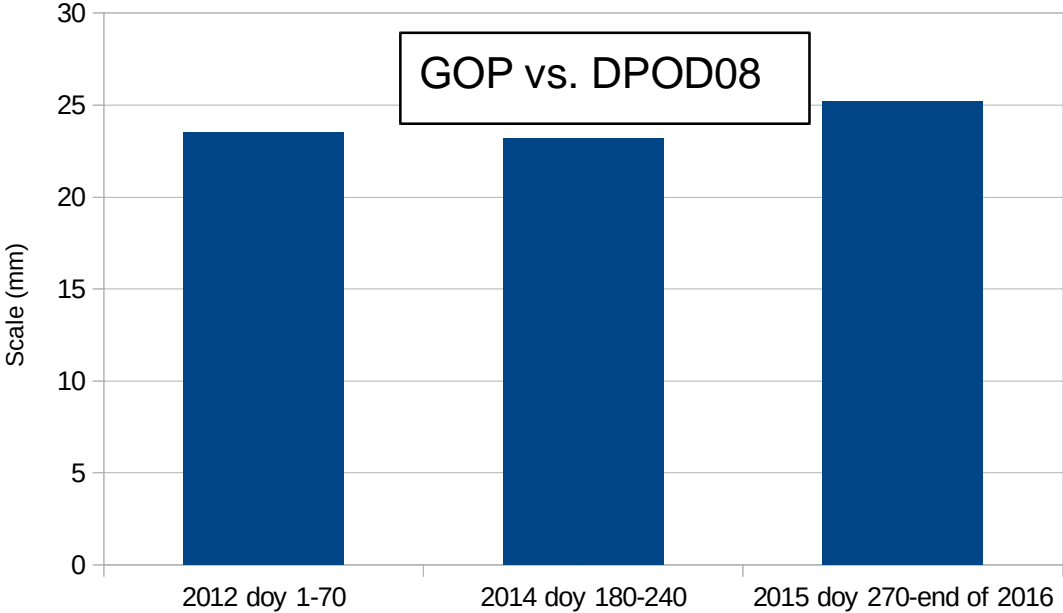
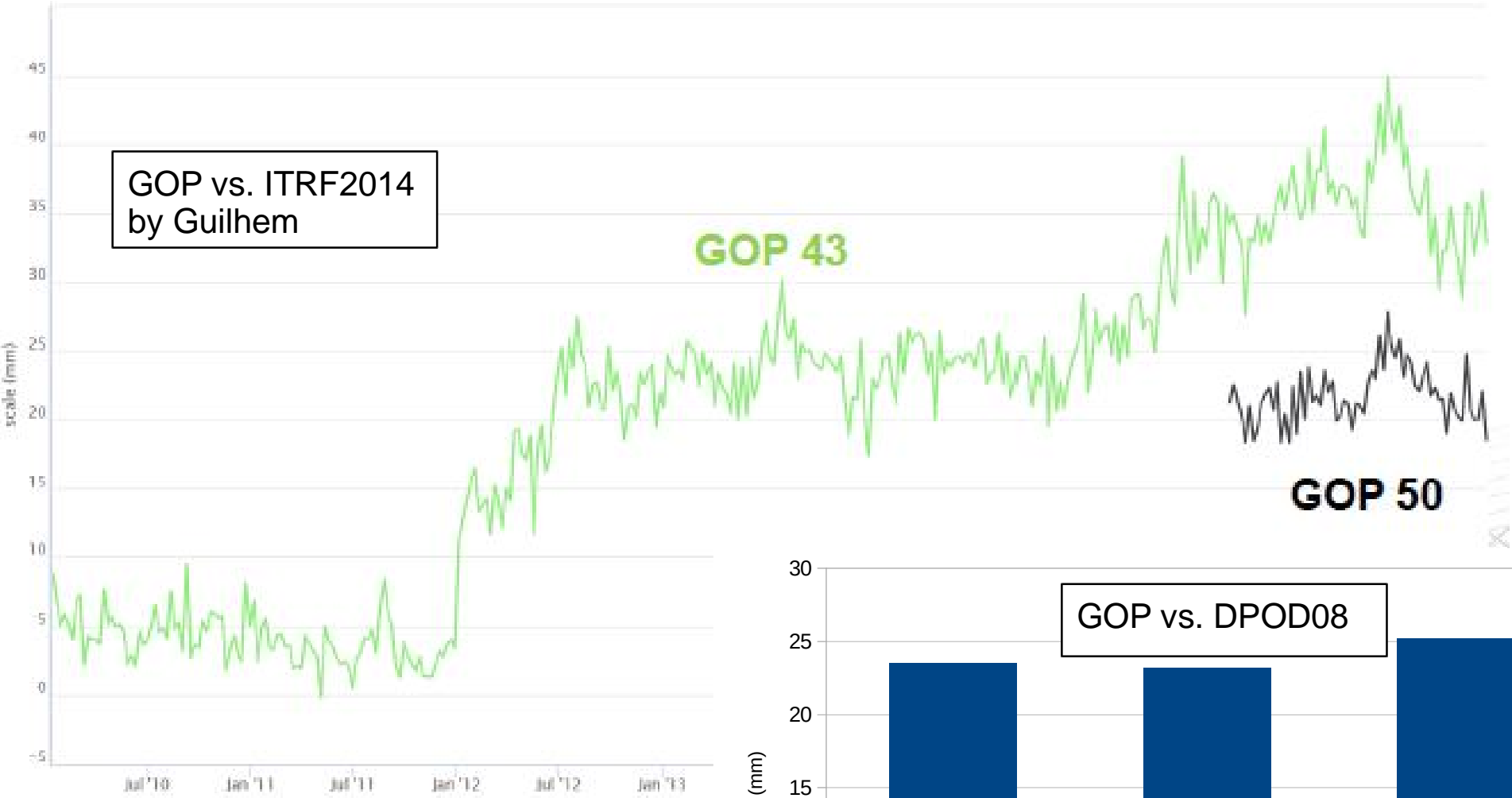


Effect of data weighting COS(Z) and CNES preprocessing

- **GOP 43: CNES prepro, no weighting**
- **GOP 50: no CNES prepro, weighting**
- **Last quarter of 2016**

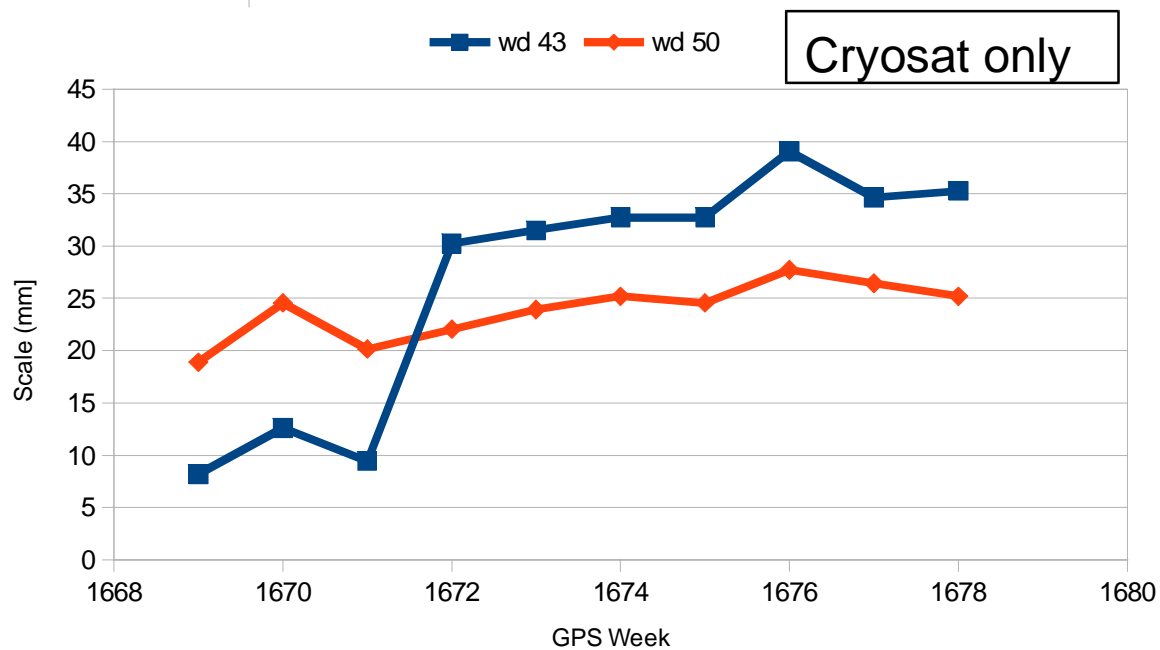
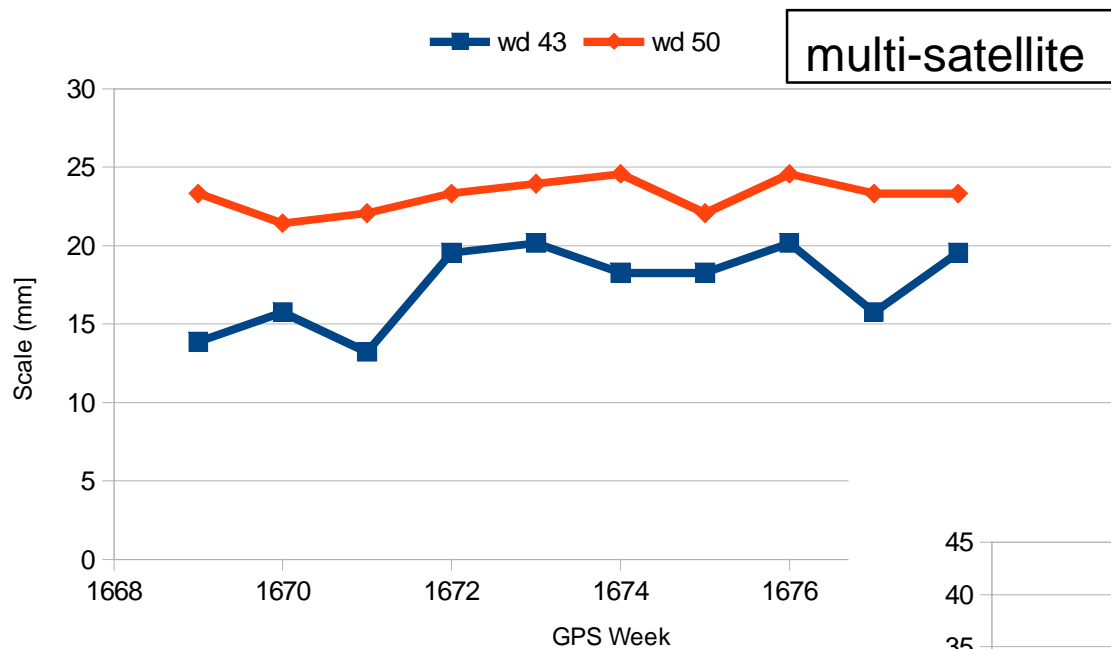


GOP 50 vs GOP 43 Æ Scale



Cryosat -2 scale jump in early 2012

- not present in GOP 50
- scale vs DPOD08



Conclusions

- **Scale increment in 2015 probably not present in GOP 50 solutions**
- **Scale jump of Cryosat not present in GOP 50 solutions (scale jump of Jason-2 to be checked)**
- **Plan to compute GOP 50 solution, GOP 43 solution and mixed serie without CNES preprocessing and without data weighting. Long data series 2011.0-now. To be validated by IDS combination center**
- **Need of joint IDS standards for data editing, data downweighting and elevation cut off? - consistency of individual AC solutions**

Solution	Data downweighting
	https://ids-doris.org/combination/contribution-itr2014.html
grgwd40	For elevation ≤ 20 elevation**2/400 with elevation in degrees
gscwd23	No
gopwd43	No
esawd10	sin(elevation) after 2002
ignwd15	1/sqrt(sin(elevation))
inawd08	1/sin(elevation)

???

