

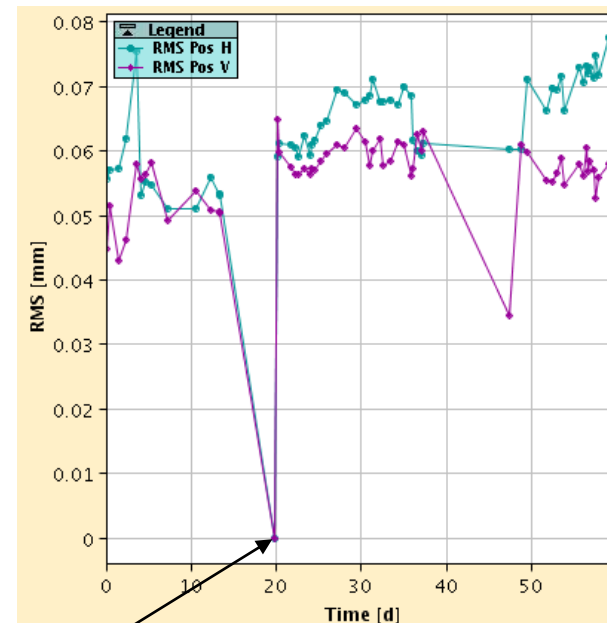
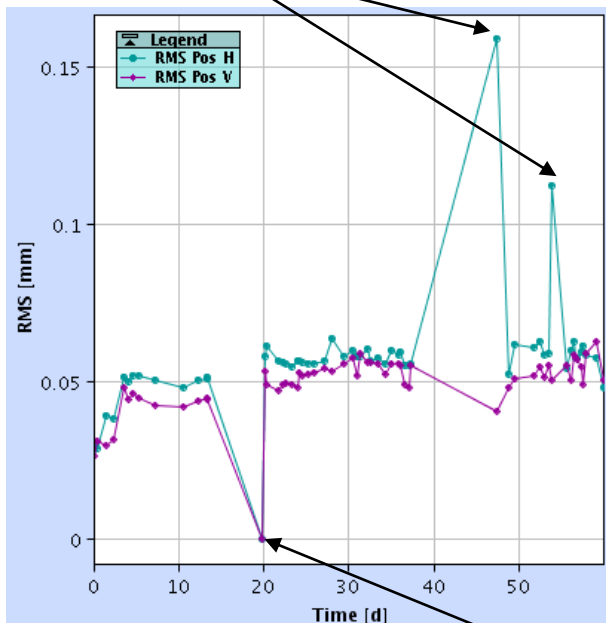
Orbit stability at AFP RPs

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- The global orbit stability / reproducibility in stable beams in 2017 is similar to 2015 & 2016.
 - Long term reproducibility $\sim 50 \mu\text{m}$ rms.

Missing CODs \rightarrow local bumps

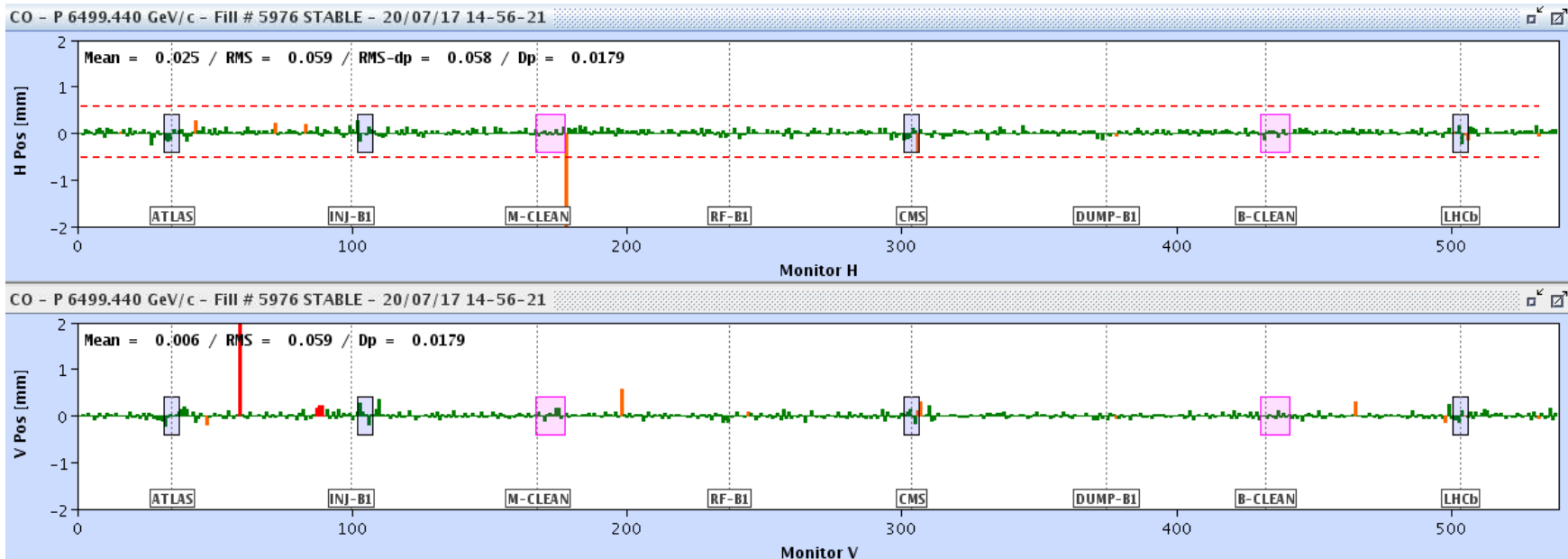


Reference – mid-June



- The local orbit reproducibility in IR1 does not differ significantly from the rest of the ring.
 - Small structure around triplet due to H triplet movement following cryo stop of point 2 on July 17th.

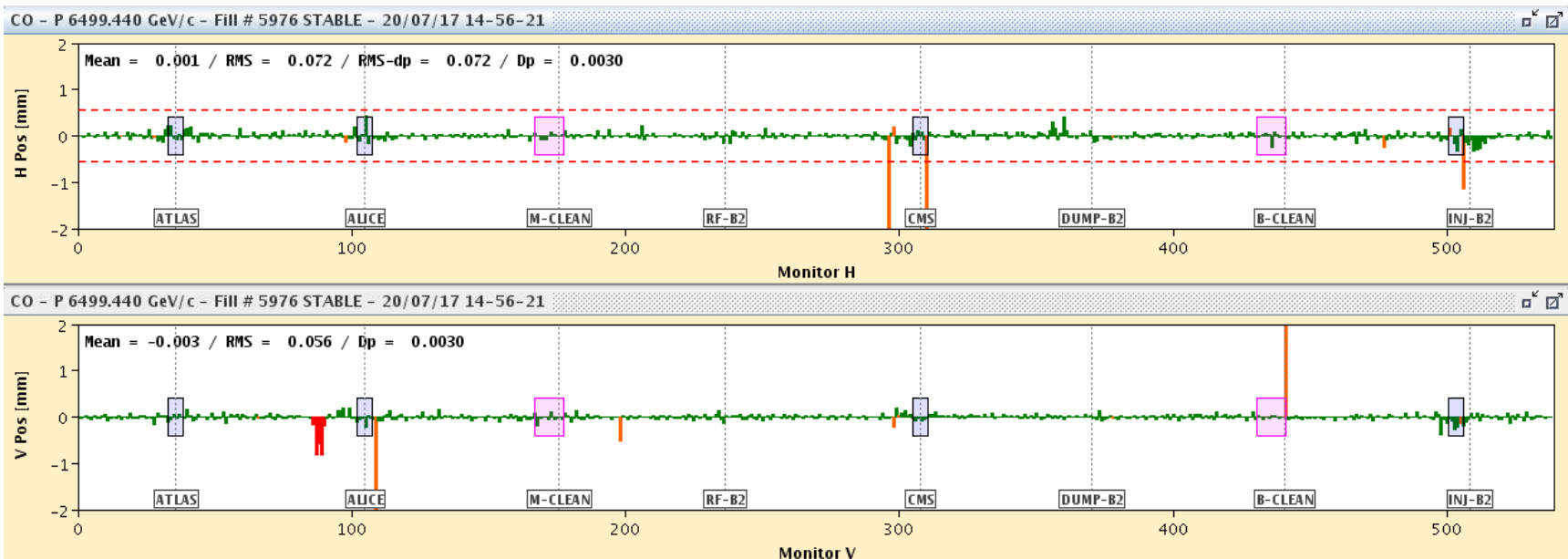
Beam 1 – orbit difference ~now – mid-June





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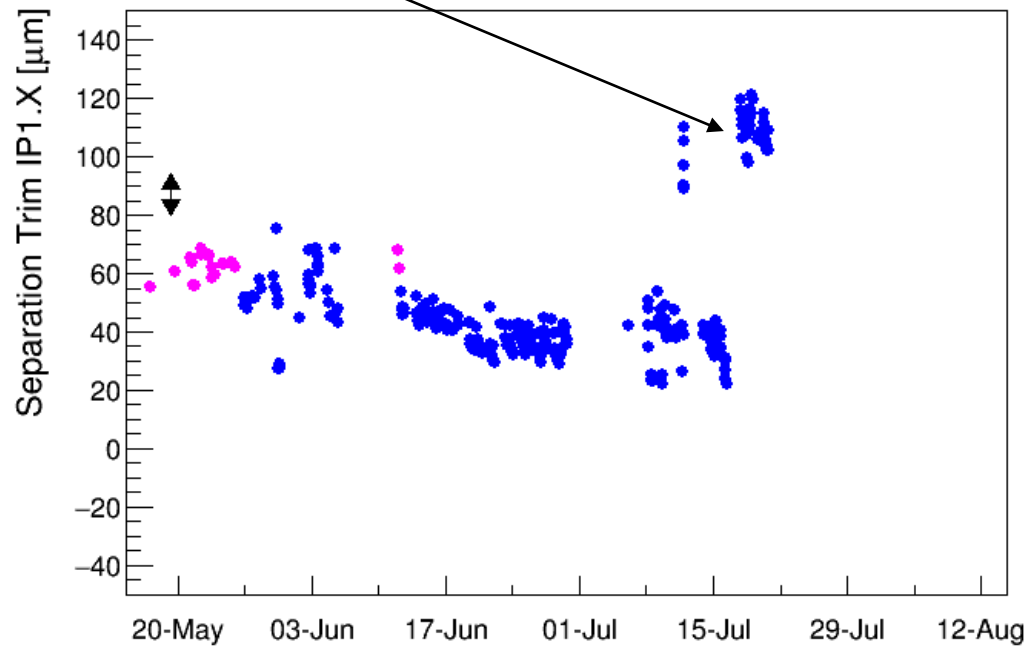
Beam 2 – orbit difference ~now – mid-June





- The cryo stop of July 17th was rather violent, it induced a radial movement on the triplets in R1 and L2 that did not recover.
 - Movement of $\sim 50 \mu\text{m}$ average, peaks of $\sim 120 \mu\text{m}$.
- There is a clear signature on the lumi optimisation trims.
 - Plus local residuals on the orbit.

Separation trim in IR1 horizontal – clear jump on July 17th





- The orbit in IR1 is sufficiently stable (\sim similar to the rest of the ring and to IR5) to justify removing the extra margins from the AFP RP settings.