

VEGA Observing report 2020-12-19

(VEGA's 509th night with data)

Olli, Fred & Denis

UT00h45 arrival in the room, contact with Olli. Conditions ok, coffee also.

V66, Wysocki, E1P1B1-E2P2B2

- UT1h30: γ Cas. opening of scopes. Issue with periscope. Seeing is quite bad, 5cm. E1 LDC not correctly started. [HD5394.2020.12.19.01.58](#), offset=+1180, B1=6.05, B2=4.91. HA=-0h55. Seeing not really good, fringe tracking ok, fringes VEGA ok. Quite jumpy... bad tracking.
- UT2h15: ϕ Per now. [HD10516.2020.12.19.02.26](#), offset=+1560. Really bad seeing and bad tracking. HA=-1h15. R0 below 4cm. Not really a waterfall on CLMB window. Really poor data unfortunately.
- [D_CM656.2020.12.19.02.45](#)

V27, Mourard, E1P1B1-E2P2B2

- UT2h45 cal, HD 32630. [HD32630.2020.12.19.03.07](#), offset=2390, B1=6.02. Fringes are moving a lot in the CLIMB window but signal ok on VEGA. Fringes lost around blocks 13/14. 25 blocks. Really poor quality.
- UT3h18: ϵ Aur now. [HD31964.2020.12.19.03.26](#). Offset=2140, B1=6.04. HA=-3h30. Expected V^2 at 0.25. Poor quality
- UT3h43: cal again. [HD32630.2020.12.19.03.51](#), offset=2180, B1=6.07. same conditions
- UT3h59: ϵ Aur again. [HD31964.2020.12.19.04.04](#). Offset=2150, B1=6.04, HA=-2h50. Erratic tracking; The CLIMB waterfall 'à la Seurat'. Almost no peak on VEGA detectable after a few blocks. R0 seems below 4 cm now. Small signal in position at the end of the recording.
- UT4h21: cal to conclude this [HD32630.2020.12.19.04.30](#), offset=2010. Probably important to consider a lucky fringing algorithm to process these data!
- [D_CM656.2020.12.19.04.41](#)

V66, Wysocki, E1P1B1-E2P2B2

- UT4h30: ζ Tau. [HD37202.2020.12.19.04.49](#). Offset=+2680, B1=6.03, HA=-2h40. Really poor conditions, hard to keep them in the CLIMB window. Fringes ok on VEGA after long integration but poor SNR.
- Same spectral calibration as before: [D_CM656.2020.12.19.04.41](#)
- UT5h00: we decide to go to standby and wait for improved conditions.
- UT8h00: we restart everything after a crash of zoot. Seeing is better now. Issues to find the fringes, E2 cart stuck at 8.33.
- UT9h00 to UT10h00: Despite many scans (CLIMB, VEGA) no fringes. Manual scan.
- UT10h20: we try now on HD89021 to see if we detect fringes. But really poor seeing.
- UT11h00: Olli identified the issue, CD as a wrong POP configuration.

V38-HD89021, Salsi, W1P2B2-W2P5B3

- UT11h05: switch to W1W2 so opening of W1. We start with Cal1=HD91312. R0 around 5/6 cm. Tracking better than before but not excellent. [HD91312.2020.12.19.11.28](#). Offset=-2940, B2=4.73. Blocks 12-15 without fringes. 25 blocks. Big jumps in the tracking, poor SNR on VEGA.
- UT11h39: target HD89021. [HD89021.2020.12.19.11.56](#). Offset=-2570, B2=4.70. HA=-0h10. Really poor tracking and bad SNR on VEGA. Almost no fringes.
- UT12h10: cal2, HD94334. New alignment of LABAOs. [HD94334.2020.12.19.12.30](#). offset=-2500. Poor tracking, almost no fringes. Fringes is slowly decreasing as if an alignment was not correctly working. W1 it seems. In fact no autoalign was running so flux is slowly decreasing. The beacon drift from the DM is a known issue but it's not usually this rapid.
- UT12h38 target. But negative az and fast so rotation of the scopes around to avoid any issue. Recording 30 blocks. [HD89021.2020.12.19.12.56](#). Offset=-1920, B2=4.66. HA=0h45. Rapid changes in flux because of the transit at high elevation. This generates a misalignment, a loss of flux and then a loss of fringes. For SPICA it means that we will need to desaturate the fast tip/tilt motion on the SPICA-M2 or before (scope/DM, to be analyzed) so that IR drift is also compensated. To be discussed.
- UT13h09: cal1 as the final slew. [HD91312.2020.12.13.19](#). Offset=-1810.
- [D_CM720.2020.12.19.13.30](#)

Bye bye VEGA
Happy New Year to SPICA
Merry Christmas to all of you