

## VEGA Observing report 2020-12-16

Norm, Fred&Denis

UT00h45 arrival in the room, contact with Norm. Conditions clear and calm

### V67-HD198809, Creevey, W1P2B2-W2P5B3

- UT01h15: align on HD197989, align on pupils and flux in VEGA but Norm must go to the lab.
- UT01h35: target for alignment and fringes. Fringes CLIMB at 900 $\mu$ m but high piston on the waterfall. Fringes quite faint on VEGA (normal). Small correction. [HD198809.2020.12.16.01.51](#). Position 980, B2=4.68. Poor waterfall. Lost of fringes and star at block 11. Back at 14 but small clouds on AllSky camera. Issues with LDC. Data not usable at all.
- UT02h05: new start always on the target. -420 $\mu$ m, B2=4.60. [HD198809.2020.12.16.02.10](#). (HA=3h) Fringes ok now on VEGA but still some pistons on the CLIMB waterfall and poor contrast. Fringes lost during block 13. Lost again at 17. Really poor tracking and piston. R0 around 5cm. Lost again at the end of the sequence
- UT02h25: move to cal1, HD190993. LDC W1 blocked at +49 but probably ok because of the low elevation. NIRO alignment again, clouds. R0=6cm. Really poor flux on NIRO so hard to align and thus to scan and track. New alignment. But still not flux. We try on cal2 which is higher in the sky, HD196504. We finally decide to abort.
- No spectral calibration and data sent to trash

### V66, Wysocki, W1P2B2-W2P5B3

- UT03h09: slewing to  $\gamma$  Cas. Fringes at -2630. B2=4.67. HA 0h20, [HD5394.2020.12.16.03.25](#). 40 blocks. Fringes jumping in CLIMB (1/3 of the window), Fringes ok on VEGA but quite faint. R0 around 6/7 cm.
- UT03h42: slewing to  $\phi$  Per. [HD10516.2020.12.16.03.58](#). Fringes at -2420, B2=4.67. HA=0h10. R0 around 5cm. 40 blocks. Big jumps on CLIMB, probably residuals of jet streams
- Spectral calibration [D\\_CM656.2020.12.16.04.16](#)

### V38, Salsi HD27962, W1P2B2-W2P5B3

- UT04h15: slewing to cal1 HD27459 for target HD27962. Fringes at 04h40. R0 dropped to 4.5cm. Recording at -3300 and B2=4.72. [HD27459.2020.12.16.04.40](#). 20 blocks. Signal to noise ratio is poor, fringes are jumping a lot on CLIMB.
- UT04h50: slewing to HD27962 [HD27962.2020.12.16.04.57](#). Fringes at -3140, B2=4.73. Chaotic tracking by CLIMB. Fringes very faint on VEGA. R0=4cm now. Big changes in the tracking, better after block 6. 30 blocks to improve the chances of selection. Crash at control at the end so no message to CD.
- UT05h11: slewing to cal2, HD28226. [HD28226.2020.12.16.05.17](#) 30 blocks. -2960. B2=4.71. Fringes ok on VEGA but still intermittent tracking on CLIMB. r0 around 4.5 then 6cm at the end. Not good but better.
- UT05h31: target now. [HD27962.2020.12.16.05.34](#). Fringes at -2650, B2=4.71. Better tracking (1/3 to 1/4 of the CLIMB window). High SNR on VEGA very rapidly.
- UT05h47: to cal1 HD27459 [HD27459.2020.12.16.05.51](#). Offset -2400, B2=4.69. r0 around 7cm now, clear improvement in the tracking and in the quality of fringes on VEGA. Tracking at 1/5 of the CLIMB window.

- UT06h04: target now. NIRO issue. [HD27962.2020.12.16.06.13](#). Fringes at -2220, B2=4.71. seeing closer to 7cm now. Much better tracking on CLIMB, nice fringes on VEGA.
- UT06h26: slewing to cal2, HD28226. [HD28226.2020.12.16.06.36](#) 30 blocks. 61940, B2=4.68. 7/7.5cm. Nice fringes. Flux drop on block 18 (W2 OFF). Come back just at the end.
- UT06h49: target now. NIRO Align, [HD27962.2020.12.16.06.56](#). Offset=-1590, B2=4.67. Nice fringes, r0 around 8cm now.
- UT07h09: to cal1 HD27459 [HD27459.2020.12.16.07.18](#). Offset -1300, B2=4.66
- Spectral calibration [D\\_CMR720.2020.12.16.07.33](#)

### V66, Wysocki, [W1P2B2-W2P5B3](#)

- UT07h32: slew to  $\gamma$  Cas. [HD5394.2020.12.16.07.56](#). 40 blocks. Offset=-1630, B2=4.61. HA=4h55, r0 around 10cm. Nice fringes. Neutral density 0.3 to avoid any saturation in the emission line.
- UT08h13; slew to  $\phi$  Per, but NIRO issue and then OPLE issue. [HD10516.2020.12.16.08.46](#). Fringes at +2120, B2=4.59. HA=4h55. R0 around 11cm, tracking not excellent. Fringes ok on VEGA.
- UT09h03; slew to  $\zeta$  Tau. [HD37202.2020.12.16.09.28](#). Offset -880, B2=4.65, H=1h50. Nice fringes, r0 around 8cm.
- UT09h45, slew to  $\beta$  CMi. [HD58715.2020.12.16.09.56](#). Offset=-1550, B2=4.68. HA=0h25. Really nice tracking by CLIMB. Nice data on VEGA. R0 around 8/9 cm.
- Spectral calibration [D\\_CMR656.2020.12.16.10.15](#)

### V38, Salsi [HD97633](#), [W1P2B2-W2P5B3](#)

- UT10h15: Start with Cal2, HD95608. [HD95608.2020.12.16.10.34](#) 30 blocks. Offset=-3380, B2=4.73. r0=11/12cm. Nice fringes everywhere. Excellent on VEGA.
- UT10h34: target. [HD97633.2020.12.16.10.53](#). Offset=-3750, B2=4.73. HA=-2h20. Nice fringes. R0 around 11cm. Tracking CLIMB not really good. Some big errors on W1 cart.
- UT11h06: cal1. [HD93702.2020.12.16.11.10](#) Offset=-3250, B2=4.72. r0 around 12cm.
- UT11h25: target. [HD97633.2020.12.16.11.29](#). Offset=-3360, B2=4.72. HA=-1h45. R0 12cm.
- UT11h42: [HD95608.2020.12.16.11.47](#) Offset=-2950, B2=4.71. r0 9cm but really nice fringes. Very good tracking.
- Spectral calibration [D\\_CMR720.2020.12.16.12.02](#)

### V66, Wysocki, [W1P2B2-W2P5B3](#)

- UT12h00; slew to  $\zeta$  Tau. [HD37202.2020.12.16.12.14](#). Offset 0, B2=4.52 (LDC at the limit), H=4h30. Nice fringes, r0 around 10 cm. 34 blocks then out of delay.
- UT12h30, slew to  $\beta$  CMi. [HD58715.2020.12.16.12.38](#). Offset=-100, B2=4.60. HA=3h00. R0 12-15cm.
- Spectral calibration [D\\_CMR656.2020.12.16.12.57](#)

### V38, Salsi [HD97633](#), [W1P2B2-W2P5B3](#)

- UT12h55: Start with Cal2, HD95608. [HD95608.2020.12.16.13.11](#). Offset=-1890, B2=4.68. r0=14cm. 25 blocks, the first 5 are bad (loss of W2). Nice fringes everywhere. High SNR on VEGA.
- UT13h22: target. [HD97633.2020.12.16.13.27](#). Offset=-1800, B2=4.68. HA=0h05. Nice fringes. R0 around 8cm.
- UT13h36: cal1. [HD93702.2020.12.16.13.43](#) Offset=-1230, B2=4.66. Good tracking on CLIMB, nice fringes on VEGA. R0 around 9cm.

- UT13h52. Back to target. [HD97633.2020.12.16.13.56](#). Offset=-1420, B2=4.66, HA=0h35. R0 9cm. Conditions of fringes are very stable, good tracking on CLIMB and good SNR on VEGA.
- UT14h04: Start with Cal2. [HD95608.2020.12.16.14.09](#). Offset=-1210, B2=4.66. Probably a bad NIRO alignment as the tracking on CLIMB is not as good as before. Good SNR on VEGA.
- Spectral calibration [D\\_CMR720.2020.12.16.14.19](#)