

Observational log CHARA/VEGA 2015-11-30

Observers: Frédéric, Ulrike, and Chris
Instruments: VEGA & CLIMB(tracking)

Configuration:

Telescope	Beam	PoP
E1	B1	P1
S1	B2	P4
W1	B3	P1
S2	B1	P5
E2	B1	P2
W2	B2	P5

Beginning of the observation and general technical notes:

- 00.44 Arrived at the control room. Sky looks clear.
E2 not available this night.
- 02.30 Seeing is ≈ 5 cm.
- 05.57 B1 not available this night (see V01). Note that a similar problem occurred 2015-05-30, see logs of 2015-05-30 and 2015-05-31. Cannot be caused by FRIEND because its control computer is in France at the moment.
- 10.20 Chris goes to the VEGA table to check if he can see anything occulting B1, but finds nothing obvious.
- 11.07 Fred does some further checks of flux on B1. Nothing found.
- 11.29 Seeing is below 5 cm.
- 11.42 Network is very slow, freezing windows off and on. Central control crash.

Programme: V01 (Planet host stars), PI: R. Ligi

- 01.19 Baseline S1E1. Changed starlist file to have S1 on reference beam B2 (must be first entry in line).
- 01.30 Prepared to align on HD202904, but there was no light from E1 on camera. S1 ok.
- 02.10 Tested with brighter object HD206778. Still no light from E1 (photon counts are ok).
- 02.50 Tested if the problem is with B1 by switching to S2.
- 03.05 Flux is no problem, the pupil is seen, but no light on camera. Must be a problem inside VEGA.
- 03.20 Problem cannot be solved now. Aborted this programme and switched to another baseline, without B1 (no E1 or S2).

Programme: V66 (Be survey), PI: A. Meiland

- 03.27 Baseline W2W1.
- 03.27 Co-phasing on HD212076.
- 04.00 **Offsets: CLIMB-B1 -0.26 mm, CLIMB-B2 -0.26 mm** (same for B1 and B2)
- 04.00 Recording HD212076 **HD212076W1W2.2015.11.30.03.57**, 40 blocks, seeing ≈ 6 cm, **W1 offset 1600 μ m**.
- Spec Spectral calibration **D_R2656.2015.11.30.13.33**.

Programme: V67 (Red giants), PIs: D. Huber / O. Creevey

- 04.26 Baseline W2W1.
- 04.26 Aligning on HD26162.
- 04.43 Finding fringes for HD26793 **Offsets: CLIMB-B1 -0.39 mm, CLIMB-B2 -0.39 mm** (same for B1 and B2)

04.?? Recording Cal1 HD26793, but aborted: file name and information was wrong (CAL2 instead of CAL1, because of different order in starlist and aspro files).

05.00 Recording Cal1 HD26793 [HD26162CAL1W1W2.2015.11.30.04.57](#), 40 blocks, **W1 offset 3820 μm .**

05.36 Recording HD26162 [HD26162W1W2.2015.11.30.05.18](#), 40 blocks, no fringes visible on VEGA at first, then visible slightly offset, seeing ≈ 6 cm, **W1 offset 3220 μm .**

06.14 Pointing to Cal2 HD23324, but no fringes are visible. Pointing to Cal1 HD26793.

06.31 Recording Cal1 HD26793 [HD26162CAL1W1W2.2015.11.30.06.17](#), fringes are weak, 40 blocks, **W1 offset 2500 μm .**, **Offsets: CLIMB-B1 -0.35 mm** (same for B1 and B2)

07.09 Recording HD26162 [HD26162W1W2.2015.11.30.06.48](#), 40 blocks, fringes seem to be there (not sure at what position), seeing ≈ 6 cm, **W1 offset 2340 μm .**, **Offsets: CLIMB-B1 -0.41 mm** (same for B1 and B2)

07.39 Dome of W1 is stuck. Chris goes to W1.

08.07 Chris has fixed the dome of W1, but azimuth ≈ 139 degrees has to be avoided.

08.42 Pointed to Cal1 HD26793 and have been trying to find fringes. Now central control has crashed. Restarted.

08.50 Recording Cal1 HD26793 [HD26162CAL1W1W2.2015.11.30.08.42](#), without being sure that fringes are at the right position, 40 blocks, **W1 offset 1700 μm .**, **Offsets: CLIMB-B1 -0.31 mm** (same for B1 and B2). Fringes confirmed at right position after block 10. Noisy data.

09.27 Recording HD26162 [HD26162W1W2.2015.11.30.09.09](#), 40 blocks, uncertain fringes, seeing ≈ 6 cm, **W1 offset 1760 μm .**, **Offsets: CLIMB-B1 -0.35 mm** (same for B1 and B2)

09.54 Recording Cal1 HD26793 [HD26162CAL1W1W2.2015.11.30.09.42](#), weak and unstable fringes, 40 blocks, **W1 offset 1700 μm .**, **Offsets: CLIMB-B1 -0.31 mm** (same for B1 and B2). **Last few blocks have no fringes.**

Spec Spectral calibration [D_R2700.2015.11.30.13.51](#).

Programme: V66 (Be survey), PI: A. Meiland

10.30 Baseline W2W1.

10.30 Recording HD37202 [HD37202W1W2.2015.11.30.10.17](#), 40 blocks, seeing ≈ 5 cm, **W1 offset 1750 μm .**, **Offsets: CLIMB-B1 -0.31 mm** (same for B1 and B2). Central control crashed - restarted.

10.55 Recording HD37202 [HD37202W1W2.2015.11.30.10.48](#), 26 blocks, seeing ≈ 5 cm, **W1 offset 1760 μm .**

Spec Spectral calibration [D_R2656.2015.11.30.13.33](#).

Programme: V50 (Metal-poor benchmark stars), PI: O. Creevey

11.50 Baseline W2W1. Next and last possible target for tonight is HD89962, but its azimuth is now about 140 degrees (to be avoided for W1, see above).

11.58 Aligning on a bright star close to HD89962 but ahead of 140 degrees: HD83809.

12.27 Recording Cal1 HD90994 [HD89962CAL1W1W2.2015.11.30.11.52](#), weak fringes, 20 blocks, **W1 offset 2860 μm .**, **Offsets: CLIMB-B1 -0.36 mm** (same for B1 and B2). Note: different order of Cal1 and Cal2 in starlist and aspro files.

12.47 Recording HD89962 [HD89962W1W2.2015.11.30.12.35](#), 30 blocks, seeing ≈ 6 cm, **W1 offset 2520 μm .** Probable fringe peak seen after 4 blocks. Confirmed after 15 blocks.

13.06 Recording Cal2 HD90882 [HD89962CAL2W1W2.2015.11.30.13.02](#), weak fringes, 3 blocks, stopped because W1 dome stuck, but for now it's only blocking the finder. Continue with Cal2 as long as possible.

13.14 Recording Cal2 HD90882 [HD89962CAL2W1W2.2015.11.30.13.11](#), 20 blocks, **W1 offset 2440 μm .**

13.26 We need to stop here. Chris would need to walk to W1 to fix the dome. Not enough time to take more points when done with the dome.

Spec Spectral calibration D_R2700.2015.11.30.13.51.

End of the observation:

13.41 Spectral calibration:
D_R2656.2015.11.30.13.33
D_R2700.2015.11.30.13.51

13.34 Finished run.

Time is in UT+00.00, red.. science target, blue.. calibrator, green.. spectral calibration, gold.. additional information.