

## **Log CHARA/VEGA 2018-06-30**

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UT03h05: arrival and setup, is high up to about 70%.

UT04h00: TigerVNC does not work since the arrival.

### **V16 W1POP2B3-S1POP1B2-S2POP2B1**

Target = HD 108662, CAL1 = HD 108725. We use HD 108281 for AO and HD 107966 for checking fringes.

UT04h20: problems with TigerVNC, it is very slow. We are not able to show all 3T cameras. We slew on calibrator 1. Fringes are ok on CLIMB, hard to find on VEGA.

UT04h32: we record on CAL1 with 30 blocks. **HD108765.2018.06.30.03.26**. Offset S2 = -5105 microns, S1 = -6140 microns, CLIMB B1 = 7.299 mm, CLIMB B2 = 4.648. Intense pic on VEGA for W1W2. We see the pic for S1W1. Fringes are ok on CLIMB. Seeing around 9cm.

UT04h45: we slew on the target star now. Recording with 40 blocks.

**HD108662.2018.06.30.04.47**. S2 = -5245 microns, S1 = -6320 microns. Not very stable fringes on CLIMB, but ok at all. SNR S1S2 on VEGA is ~ 7-9, while in S1W1 is ~ 2. Good seeing ~ 10 cm.

UT05h10: we slew on calibrator 1. Recording with 20 blocks.

**HD108765.2018.06.30.05.20**. S2 = -5430 microns, S1 = -6450 microns, B1 = 7.3691, B2 = 4.7187. Bad tracking on CLIMB, fringes are more unstable than in the last records. VEGA fringes are worse too. Seeing ~ 7 cm now.

UT05h33: target. Recording 20 blocks. **HD108662.2018.06.30.05.36**. S2 = -5590 microns, S1 = -6580 microns. Fringes on CLIMB are not great, but it appears improved in comparison to the last record. S1S2 pic VEGA is improved too. We see pics both in S1S2 and S1W1. We tried to request 40 block in the beginning but it was not possible to register that because of central control problem, so we will take a new record of 40 blocks now.

UT05h50: starting record with 40 blocks on the target. **HD108662.2018.06.30.05.51**.

S2 = -5735 microns, S1 = -6715 microns. Fringes quality here should be the same as in the last record. Seeing around 8 cm.

UT06h10: we go to cal1 with 30 blocks. **HD108765.2018.06.30.06.21**. Offset S2 = -6185 microns, S1 = -6985 microns. Seeing ~ 7 cm. Fringes on CLIMB are not stable. We see pics on VEGA, faint pics. Last recordo for this program tonight.

**Spectral calibration: D\_CM720.2018.06.30.06.37**

### **V67 W1POP2B3-W2POP5B2-S2POP2B1**

Target = HD 171384, CAL 1 = HD 171301, LABAO and check star = HD 160762

UT06h36: we slew on HD 171384 for LABAO and checking fringes. LABAO is done and we find nice fringes with the check star.

UT07h11: slew on CAL 1 HD 171301. Norm recommended us to change the calibrator in reason of the distance to the target, we look for a brighter object than the ones that are available in the Aspro list. We will try HD 167965 (V ~ 5.) as CAL2

UT07h21: we have issues with the central control (crash)

UT07h50: Recording CAL2 with 20 blocks. **HD171301.2018.06.30.07.52**. Fringes on CLIMB, we look for that on VEGA but it is hard to find them.

UT08h07: slew on the target. Recording. **HD171384.2018.06.30.08.10**. Offset S2 = -5090 microns, W2 = -4387 microns, B1 = 7.3993 mm, B2 = 5.7388 mm. Fringes on CLIMB, probably a faint pic on VEGA. Seeing around 9 cm.

UT08h20: slew on calibrator 2. Recording. **HD167965..2018.06.30.08.29**. Fringes are unstable on CLIMB. Not sure if there are pics on VEGA.

UT08h39: we will slew again on the check star. There is sometime we do not find fringes on VEGA. The lowest predicted V2 for HD 167965 is about 0.75, we should have found fringes on VEGA. No success.

UT08h45: we slew on the target and record 20 blocks. **HD171384.2018.06.30.08.45**. Offset S2 = -5075 microns, W2 = -4475 microns. Not very stable fringes on CLIMB. We see pics on VEGA but they are faint.

UT08h54: CAL1. We abandon CAL2. Recording. **HD171301.2018.06.30.08.59**. S2 = -5020 microns, W2 = -4480 microns. Pics on VEGA are intense. Not very good tracking by CLIMB due to strong piston.

UT09h10: locked on target now. We record it. **HD171384.2018.06.30.09.11**. S2 = -5052 microns, W2 = -4505 microns.

UT09h22: CAL1. **HD171301.2018.06.30.09.25**. S2 = -5030 microns, W2 = -4597 microns. Strong piston on CLIMB. Nice pics on VEGA. Seeing is good ~ 12 cm. Last record tonight for this program.

**Spectral calibration: D\_CMR720.2018.06.30.09.37**

**V01 E1POP1B1-W2POP5B2-W1POP2B3**

Target = HD 206893, CAL1 = HD 202671, CAL2 = HD 210424.

We use HD 204075 for LABAO and HD 205637 as our check star.

UT09h44: locked on HD 204075. LABAO finished. We slew to HD 205637.

UT09h57: we are looking for fringes on the check star. They are found!

UT10h02: alignment on CAL2. CAL1 is at the end of observability. We record on CAL2 with 20 blocks. **HD210424.2018.06.30.10.05**. E1 = -5022 microns, offset W2 = -5057 microns, B1 = 7.4292 mm, B2 = 5.7388 mm. Good fringes on CLIMB and on VEGA. Seeing is about 12 cm.

UT10h19: alignment on target. We will record with 40 blocks for the target.

**HD206893.2018.06.30.10.18**. E1 = -5185 microns, W2 = -5051 microns. Good tracking on CLIMB, good pic (E1W2) on VEGA. The SNR in E1W2 is about 3.3 around block 10. In block 30: SNR E1W2 ~ 5.5 and W3W1 ~ 1.6.

UT10h27: to CAL2. Recording 20 blocks. **HD210424.2018.06.30.10.40**. E1 = -5140 microns, W2 = -4976 microns. Fringes on CLIMB, not very much stable. Bright pics on VEGA, SNR E1W2 ~ 11 and W2W1 ~ 3. Last record for this program tonight.

**Spectral calibration: D\_CMR720.2018.06.30.10.52**

**V01 E1POP1B1-E2POP2E2**

Target = HD 219134, CAL = HD 218376, LABAO and check = HD 3360 (zeta Cas)

UT10h55: slew on HD 3360 for LABAO and for checking fringes. Fringes on CLIMB and on VEGA.

UT11h11: we slew on the calibrator star. We record 20 block.

**HD218376.2018.06.30.11.14**. Offset E1 = -260 microns, CLIMB B1 = 7.6792 mm, CLIMB B2 = 5.6887 mm. Stable fringes on CLIMB, very intense pic on VEGA, SNR VEGA ~ 45.

UT11h25: target with 30 blocks. **HD219134.2018.06.30.11.25**. E1 = -243 microns. Stable and strong fringes on CLIMB. Intense pic on VEGA (SNR ~ 25). Seeing ~ 8 cm. Good record.

UT11h40: CAL. **HD218376.2018.06.30.11.43**. E1 = -293 microns. Same as the last records, good quality fringes.

UT11h55: target. **HD219134.2018.06.30.11.54**. E1 = -258 microns. Seeing ~ 7-8 cm too. SNR on VEGA reaching up to 52-62.

U12h08: CAL. **HD218376.2018.06.30.12.09**. E1 = -285 microns. Seeing ~ 7 cm, quite stable. It was done in the limit of observability. Last point of this program and the end of the night.

**Spectral calibration: D\_CMR720.2018.06.30.12.19**