UT 2020-03-05, Olli, Fred, Denis

V72/Klement S2B1P5-S1B2P4

- UT1h50: arrival at GI2T, opening everything. Some small clouds
- We start the program on bet CMi. Target= HD58715, Cal1=HD58923, Cal2=HD58187.
- Beacon alignment rapidly ok on S1 but more difficult on S2. Some CLIMB issues to start. AO on Tel (including TT) and FLAT on LABAO (but poor seeing at start so difficult to do it). S2 is two times brighter than S1. Fringes easily found.



The CHARA's eggs and beacon!

- UT3h00 we are on the target but NIRO power issue again. New alignment as the beacons could have drifted a lot during the beginning of the night. S2=+2300, BC1=7.93, BC2=4.91.
 HD58715.2020.03.05.03.26. r0 reported as 4cm but nice fringes and excellent tracking by CLIMB. Sky flats have been made on the LABAO as the dome seeing has greatly improved. TELAO running.
- UT3h36 ready to go to cal1. S2=+2280, HD58923.2020.03.05.03.37. Nice tracking, r0 reported as 5cm but nice fringes everywhere.
- D_CMR656.2020.03.05.03.47

V67/Creevey S2B1P5-S1B2P4

- Target1=HD27371, Target2=HD27697, Cal1=HD28355, Cal2=HD29488
- UT3h46: we start with cal1. LABAO run as zwo, which means that the star is kept in the middle of the hole using its light pattern. Connected to the labao servo and used in conjunction with the blue beacon. It's always used with IR and with visual programs that are dimmer than about mag 3-3.5.
 HD28355.2020.03.05.04.04, S2=+2190. Nice tracking by CLIMB, nice fringes on VEGA. We are running in full AO mode (TELAO on star + LABAO on beacon).
- UT4h13 go to target1. Huge fringes on CLIMB. Nice alignment, very nice signal if fringes very well tracked. HD27371.2020.03.05.04.17. S2=+2160. Some photometric fluctuations because of clouds starting to accumulate.
- Ut4h26: goto cal2. HD29488.2020.03.05.04.30, S2=+2210. Good sequence again. R0 reported at 4cm but good tracking, despite some photometric fluctuations due to passing clouds.
- UT4h38: target2. Nice fringes on CLIMB and VEGA, good tracking. Continuing small photometric fluctuations but probably less than before. HD27697.2020.03.05.04.41. S2=+2130.
- UT4h49 cal1. Good tracking again, nice sequence. HD28355.2020.03.05.04.51, S2=+2050. Strong decrease of flux during the last block.
- UT5h00 target1.Nice fringes well tracked but strong decrease of flux just after starting the recording. HD27371.2020.03.05.02. S2=+1990.

- UT5h11 cal1. Tracking not very good for the beginning probably because of flux reduction due to clouds probably. HD28355.2020.03.05.05.13, S2=+1940. At block 9, we changed the sensitivity of CLIMB to improve the tracking. Back at block 12 with a much better tracking. 23 blocks.
- UT5h23 target2. Issue with the VEGA Techcam, rapidly fixed. Nice tracking and nice fringes, flux seems ok. HD27697.2020.03.05.05.28. S2=+1910
- UT5h37 cal2. Fringes ok on VEGA, a little bit fainter on CLIMB but tracking quite ok. HD29488.2020.03.05.05.40, S2=+1910.
- D_CMR720.2020.03.05.05.50

V72/Klement S2B1P5-S1B2P4

- Target= HD58715, Cal1=HD58923, Cal2=HD58187.
- UT5h50: back on bet CMi. Everything ok for the alignment. Excellent fringes on CLIMB and on VEGA. S2=+2240, BC1=7.92, BC2=4.91. HD58715.2020.03.05.05.59. Issue at the end of the controlSrc (entry in logobs will not be correct).



- UT6h17: cal1. Some delay to solve the issue on control software on VEGA. Nice fringes very well tracked on CLIMB and nice peak on VEGA. HD58923.2020.03.05.06.21. S2=+2200.
- Same spectral calibration as for the beginning of the night.

V01/Ligi S1B2P3-W2B3P5

- Target= HD97658, Cal1=HD96738, Cal2=HD107168. AO=HD97603, Check=HD95608
- UT6h30: start of the new configuration (Pop change and new setting). Alignment done easily on S1 and W2 on the AO star. Fringes on the check at UT6h50. S1=-2180, BC2=4.22. Full AO and beacon tracking on S1, Sky Flat LABAO on W2 and AO/TT
- UT6h53: cal1. HD96738.2020.03.05.07.01. S1=-1950. We started the recording but CLIMB has been set in more sensitive mode just after. So correct start with good CLIMB tracking is at block 4. So 23 blocks of recording. Nice fringes on VEGA and correct tracking on CLIMB.
- UT7h11: target. HD97658.2020.03.05.07.16. S1=-1960. Nice fringes on CLIMB with a good tracking. Fringes appear on VEGA and nice peak at the end.
- UT7h33: cal2 now. HD107168.2020.03.05.07.38 S1=-2150. Nice tracking on CLIMB. Good fringes on VEGA. r0 reported as 6.5cm.
- UT7h43: target again. Nice tracking on CLIMB. HD97658.2020.03.05.07.50. S1=-1850. Difficult tracking from time to time on CLIMB.

- UT8h07: cal1 again. Alignment first on the check star. Seeing has decreased. OPLE/CLIMB servers issue again! HD96738.2020.03.05.08.31. S1=-1830. Poorer seeing now, no clouds however. R0 reported as 4cm instead 6cm. Tracking CLIMB is not as good as before. Fringes ok on VEGA.
- UT8h40: target again. But poor seeing, tracking on CLIMB is really bad now. Much less photons on VEGA (50 instead of 100), probably also some thin clouds. HD97658.2020.03.05.08.43. S1=-1830. No fringes on VEGA.
- UT9h00: cal2 again. Some strange things on S1 pupils, shifted by about 20% in the VEGA pupil viewer whereas it looks ok on LABAO-WFS... HD107168.2020.03.05.09.12 S1=-1910.
- D_CMR720.2020.03.05.09.22

V01/Ligi S2B1P5-<u>E2B2P2</u>

- Target= HD97658, Cal1=HD96738, Cal2=HD107168. AO=HD97603, Check=HD95608
- UT9h21: We need a change of configuration with the opening of E2 and a pop change on S2.
- Check star but multiple issues with POWER GUI... telescopes won't move. Finally slew starts a UT10h06... E2 and S2 pupils are ok. NIRO and VEGA alignment. Full AO on both scopes and beacon tracking. Start scanning but OPLE crash. Finally S2=+2190, BC1=7.62, BC2=5.43.
- UT10h40: cal1. HD96738.2020.03.05.10.43. S2=+2300. Quite good tracking on CLIMB, nice fringes on VEGA! Olli's day on nice fringes!
- UT10h52: target. Difficult fringes on CLIMB, flux correct (100photons on VEGA). Probably poor tracking, fringes appear quite well on VEGA. HD97658.2020.03.05.10.55. S2=+2260. Fringes are drifting in CLIMB however. More clouds and less photons after block 14. Beacon alignement around block 30.
- UT11h14: cal2 now. Nice fringes on CLIMB with a correct tracking. Fringes appear easily on VEGA. HD107168.2020.03.05.11.17 S2=+2230. Relatively good signal.
- UT11h26 target again. Better tracking on CLIMB, less clouds and more photons. VEGA fringes ok at block 2, well positioned. HD97658.2020.03.05.11.29. S2=+2200.
- UT11h46 cal2 to close the program. HD107168.2020.03.05.11.57 S2=+2250. Clouds generate difficulties to lock them but after that good tracking and good signal on VEGA.
- D_CMR720.2020.03.05.12.07

V38/Salsi S2P5B1-E2P1B2-<u>W2P5B3</u>

- Target= HD149438, Cal1=HD148605, Cal2=HD146624. AO=HD159876, Check=HD156928
- UT12h06: we change the configuration and POP1 on E2.
- AO Star and then Check star at UT12h19.
- UT12h52 : cophased. Slewing to cal1; S2 = -280 E2 = -2310 BC1 = 7.40 BC2 = 5.24
- HD148605.2020.03.05.13.09 S2 = -650 E2 = -2370. Definitely no real CLIMB tracking but fringes are rather stable on VEGA. Third peak is visible after 2 or 3 blocks of integration.
- 13h25 : Recording target HD149438.2020.03.05.13.25 S2 = -720 E2 = -2320. CLIMB tracking is OK but fringes are transient. Good and stable peaks on VEGA.
- Spectral calibration : D_CMR720.2020.03.05.13.56