Night of Nov 20, 2016

Fred, Denis, Elisson, Chris

UT00h45: arrival and setup but Chris will arrive at 5pm (1UT) UT01h38: we slew to the first star of the night

V66 Programme W2POP5B2-W1POP1V3 HD203467 656nm

UT01h40: Alignment ok; fringes ok, offset 1050. But r0 around 5cm UT02h00: fringes ok but clouds + fast piston.BC1=-0.07, BC2=-0.16. We stay in standby. UT02h15: we record **HD203467.2016.11.20.01.43**. Still some photometric fluctuations and piston excursions. Fringes almost on VEGA but r0 aournd 6cm and clouds seem to start disappearing progressively. Photometry is more stable now. CLIMB tracking not so bad. 40 blocks because of the poor conditions. r0 around 7 at the end.

D_R2656.2016.11.20.02.33

V01 Programme W2POP5B2-W1POP1B3 HD219134

UT02h30: We slew to HD1279, the cal4 but clouds all over the sky now. Clear sky around UT03h00. Fringes at 1341. HD219134CAL4.2016.11.20.02.39. Photometric fluctuations generate difficulties for tracking. Clouds back around block 6 unfortunately.

UT03h15: HD219134CAL4.2016.11.20.03.09. Clouds have disappear and we record a new sequence. Fringes almost ok on CLIMB, ok on VEGA.

UT03h25. Target. **HD219134.2016.11.20.03.25.** Nice fringes on CLIMB with reasonable tracking, clear sky. Faint fringes on VEGA. r0 around 8cm. Everything is stable.

UT03h44: go to cal1, HD209419. HD219134CAL1.2016.11.20.03.44. fringes at 980. r0 around 5-6cm. Average tracking. Fringes not seen on VEGA...r0=7cm, tracking average to poor.

UT03h56: target again. **HD219134.2016.11.20.03.57.** Nice CLIMB fringes (star is bright) and good VEGA fringes... HD209419 is maybe a bad calibrator... Tracking is better (more photons). r0=6. Nice collection on VEGA.

UT04h14: back to HD1279. HD219134CAL4.2016.11.20.04.15. fringes 1180. r0=5cm. Nice fringes on VEGA. poor tracking.

V66 Programme W2POP5B2-W1POP1B3 HD203467 656nm

UT04h30: Alignment ok; fringes ok, offset 979. But r0 around 5cm or even below UT04h37: we record **HD203467.2016.11.20.04.38**. Correct tracking. BC1=-0.05, BC2=-0.14. Correct tracking on CLIMB, fringes ok on VEGA. r0 around 7cm. Good data.

V01 Programme W2POP5B2-W1POP1B3 HD219134

UT04h50: We slew to HD1279, the cal4. Fringes at 1070. HD219134CAL4.2016.11.20.04.51. Nice fringes on VEGA, average to good tracking on CLIMB. r0 around 7/8. High SNR fringes on VEGA. UT05h05. Target now. HD219134.2016.11.20.05.06. fringes at 950. r0 6/7cm. Green light everywhere.

UT05h25: we go to HD209419 to try again. **HD219134CAL1.2016.11.20.05.26**. fringes immediately on VEGA so calibrator is doubtful... offset 850. Good tracking, nice fringes on VEGA this time. r0 around 7cm.

UT05:40: target again. HD219134.2016.11.20.05.41. fringes 815. good tracking, good fringes. r0 around 8/9 cm now.

UT05:58. Final point on cal4, NIRO alignment. large could at zenith. Fringes at 910. Nice fringes. Still a little bit of photometric fluctuations but r0 close to 10 now. HD219134CAL4.2016.11.20.05.59. Nice fringes everywhere.

D_R2720.2016.11.20.06.15

V66 Programme W2POP5B2-W1POP1B3 HD203467 656nm

UT06h15: Final point on this star. Alignment ok; fringes ok, offset 660. Clouds again. UT06h18: we record HD203467.2016.11.20.06.20. Correct tracking but photometric fluctuations because of clouds. r0 close to 7/8 now. Poor quality because of clouds. We lose the star around block 12. We stop after 17 blocks. Not sure this will be usable.

V43 Programme S2POP5B1-W2POP5B2 HD43587 700nm

UT06:33: start with the target but S2 is still in the trees. S2 scope was in fact blocked. S2 pupil is fluctuating: sometime large, sometime small. It does not appear well focused which is different from what we get in September. Chris think to a power problem and do a reset of the power. During the reset the pupil appeared as a point. After the recycling, the situation is worst. Pupil is almost always a large spot and then explodes and expand over the whole pupil... strange. We test a second recycling. It works better and after a FLAT we obtain a reasonably good pupil although not completely satisfying (vignetting all over the edge). Clouds... flux back around UT8h00. R0 around 8/9 cm. offset 2800. We go to the cal HD46487.

UT08:00: cal1, HD46487. HD43587CAL1.2016.11.20.06.34. offset=2500, BC1=0.28, BC2=0.19. poor tracking on CLIMB (piston fluctuations). Fringes ok on VEGA. r0=10cm.

UT08:18: target. **HD43587.2016.11.20.08.17.** offset 2800. Low to very low contrast fringes on VEGA. Tracking not excellent, medium quality. Fringes VEGA ok.

UT08h32: cal1 again. HD43587CAL1.2016.11.20.08.33. offset 2300. Nice fringes. clouds at block2. Back at bloc 4. Fluctuations and clouds again at block 6. Done but no star back. We stay here and wait for the light. HD43587CAL1.2016.11.20.08.48. Fringes ok at 2120. Piston fluctuations but flux is stable now.

UT09h00: back to the target. **HD43587.2016.11.20.09.01**. offset 2431. Good fringes everywhere. good to excellent tracking. r0 7/8 cm. Very good data. r0=8/9 at the end.

UT09h14: last point on the cal. **HD43587CAL1.2016.11.20.09.13**. Offset 2013. Nice fringes. r0=9cm. Tracking ok. Very nice fringes on VEGA. but clouds again at block 11. back at 14. lost at 15... We try 40 blocks but the light do not come back. back at 28. lost again at 31. back at the end of 31. Stop after 35 blocks.

D_R2700.2016.11.20.09.33

V43 Programme S2POP5B1-<u>W2POP5B2</u>–W1POP1B3 HD52265 as yesterday.

UH09h35: check star HD53244 first but still clouds. Alignment at 09h50. Clouds again. Almost complete cloud coverage at UT10h05. Back at 10h15. offset W1=1620, offset S2=860. (We are cophased as Fred as set BC1=0.18 and BC2=0.09 found yesterday).

UT10h25: cal1, HD46487. Clouds again. A little light around 10h50...

UT10h55: **HD52265CAL1W2S2W1.2016.11.20.09.41**. We start recording but through the clouds of course. We lose frequently the stars. Total lost at block 5.

End of night, Clouds all the time.