

Nuit du 2013.05.25
Observateurs : Nicolas, Narges, Chris

CONFIGURATION : E2 E1 W1 + POP3 POP 1 POP 3

UT03 :40
check star : HD110411
we have everything cophased, just a bright star to align
VEGA is ready.
RH is around 45%.
Before Chris align, Nico will need to align VEGA.
e1 seems lost, getting it set.
Locked on check star, aligning VEGA.
UT03 :54 done !... aligning CLIMB
R0 is around 9cm.

CLIMB_B1=0.4
CLIMB_B2=0.8499

OffsetE1=1863
OffsetW1=1476

The fringes are clear. Stable on CLIMB.
check now with VEGA, SB
improving cophasing for 23, sb.
Very bright fringes.
UT04 :12 The fringes are in the good position and they are so clear.

V01 : HD113337
CAL3 :111270
HD113337CAL3E2E1W1.2013.05.25.03.32:

To check alignment since we went about 180 in az.
UT04 :15 aligning CLIMB.
R0 is around 11cm. Fringes on CLIMB. recording VEGA.
The fringes on E1E2 came very quickly, E2W1 abit later.
Peak one is around 75um instead of 100um (closer to aigrette).
After 20 blocs, SNR=4 on peak 2 and 10 on peak 1, we don't have peak3.
We add 10 blocs more to improve the SNR for peak 1 & 2 and to see (if possible peak3).
R0 is around 12cm.
The magnitude of the star 5.9.
After 30 blocs, SNR=5 on peak2, 14 on peak1. We don't have peak 3.

HD113337E2E1W1.2013.05.25.04.35:
R0 is around 13cm.
UT04 :35 fringes on CLIMB are stable.
We have 30 blocs.

The first fringes which seen, are E1E2 and they are so bright. The second peak is for E2W1, they came a bit later and not as bright as E1E2 peak.
After 20 blocs, SNR =10 for peak1 and 3.3 for peak 2 and we don't have peak 3.

V16 : HD118022

CAL4 : HD127167

HD118022CAL4E2E1W1.2013.05.25.04.52:

R0 is increasing till 14cm.

UT04 :54 sb by Nicolas.

We correct the alignment for W1.

We have saved the Pupils.

Going for CLIMB set and fringes.

We have magnitude 6 for 400 photons.

UT05 :03 fringes on CLIMB.

R0 is still 14 cm.

Perfect position for both peaks. Peak1=100 and peak2=-250

After 20 blocs, SNR =12 for peak1 and 3.3 for peak 2 and we see the peak 3.

32 blocs because the observability on the science is short.

SNR=15 on peak 1, 4 on peak 2.

HD118022E2E1W1.2013.05.25.05.20:

R0 is around 13cm.

UT05 :22 fringes on CLIMB

Improve slightly cophasing, Moving the position of second peak to close from Aigrette from -150um to -200um. Done around bloc 5.

32 blocks.

After 30 blocs, SNR=18 peak1 and 5.9 for peak2 and we can see the third peak.

Very nice fringes.

The fringes on CLIMB are stable.

CAL1 :HD 129956

HD118022CAL1E2E1W1.2013.05.25.05.40:

R0 is around 11 cm.

UT05 :38 fringes on CLIMB. They are stable.

32 blocs. This CAL is perfect, better than last one. The fringes are very very bright and beautiful ;)

We have 3 peaks. After 30 blocks, SNR= 17.3 for peak1 and 3.5 for peak2, and we have third peak.

- **The file of calibration : D_R2720.2013.05.25.05.59**

We put density of 2, but 800 of average photons

V01 : HD113337

CAL3 : HD111270

HD113337CAL3E2E1W1.2013.05.25.06.04:

UT06 :04 Chris Ready for alignment on CLIMB.

Sb by Nico. R0 is around 9cm.

UT06 :06 Sb done by Nico.

UT06 :11 Fringes on CLIMB. very stable.

We keep 20 blocs.

Fringes are quite nice. Crash of the tracker.

HD113337E2E1W1.2013.05.25.06.23:

R0 is 10cm. Fringes on CLIMB.

The fringes are so bright.

After 20 blocs, SNR =10.1 for peak1 and 3.2 for peak 2 and we almost have peak 3.

We put only 20 blocks.

CAL4 : HD 110462

HD113337CAL4E2E1W1.2013.05.25.06.36:

R0 is around 11cm.

The fringes are quite bright,

We have E1E2 beam and E2W1 but third is faint.

The fringes on CLIMB is very stable.

R0 is around 12cm.

After 20 blocs, SNR =4.0 for peak1 and 3.8 for peak 2 and we almost have peak 3.

HD113337E2E1W1.2013.05.25.06.47:

R0 is around 12cm.

UT06 :53 Chris is finding the target.

Chris had difficulty the lock of the target (an issue with sockman). Because of that, no time to go on cal again... sorry !

We have fringes in E1E2 and E2W1. The fringes on CLIMB are too stable.

R0 is increasing till 13cm.

The last two blocs are not good.

V54 : HD 158643, 51 OPH

The sequence is the following :

Target (vega Ha , 60 blocs) – **Target** (climb) – **Target** (climb) – **Cal1** (vega, 30 blocs + climb) – **Target** (vega CaII, 40 blocs) – **Target** (climb) - **Cal1** (vega, 16 blocs + climb) – **Cal1** (vega only, 40 blocs).

CAL2 : HD 144844

HD158643CAL2E2E1W1.2013.05.25.06.04:

Full moon. R0 is around 14cm. R0 is increasing till 15cm.
UT07 :12 vega crash of control, restarting
500 photons which the magnitude of CAL3 is 5.6.
having a problem aligning. The problem at least for this star, we are near our faint limit in K with the LDCs in.

Chris can't see any light on the chip at all, no spots or anything.
We go to target. Alignment on CLIMB with Target.

51 Oph

HD158643CAL2E2E1W1.2013.05.25.07.12 :

WARNING : this file correspond to the star 51 Oph. mistake

R0 is around 9cm.

We put 60 blocs for this measurement.

The fringes of target for E1E1 came soon and so bright and E2W1 is visible as well not so bright.

After 20 blocs, SNR =14 for peak1 and 3 for peak 2 and we don't have peak 3.

The fringes are so stable on CLIMB.

R0 is around 12cm.

Veryyyyy nice peaks ☺.

CAL2 in K band is bit too faint for CLIMB.

UT08 :02 closing vega shutter for our spectral calibration.

UT08 :15 Chris is doing calibration (if it's possible).

As soon as the shutter sequence is done, switching (Chris).

CAL2 : HD 171130

HD158643CAL2E2E1W1.2013.05.25.08.22 :

UT08 :25 R0 is around 14cm. Waiting for Chris to find CAL1. Locked.

UT08 :31 Fringes on CLIMB. They are quite stable.

Chris is recording CLIMB.

we can do vega + climb recording. starting record climb, and then we start vega.

R0 is around 14cm.

There are some noise on the fringes on CLIMB but they are centered.

The peak E1E2 are quite bright, the second peak is coming -300 instead of -200.

Now the second peak (E2W1) is quite bright.

After 20 blocs, SNR =8.2 for peak1 and 3.1 for peak 2 and we don't have peak 3 yet.

We have 30 blocs for this CAL.

- **The file of calibration : D_R2656.2013.05.25.08.01**

We put density of 0.3, but 800 of average photons

HD158643E2E1W1.2013.05.25.08.50 :

We put 40 blocs instead of 20. Fringes on CLIMB.

The first peak E1E2 is coming.

The fringes on CLIMB are not so stable. They are moving a bit.

R0 is around 18cm.

After 20 blocs, SNR =3.1 for peak1 and 2.4 for peak 2 but we don't have the second peak yet.

We are in 34 blocs but **still we don't have the second peak. Strange !**

The first peak E1E2 is so bright at the moment.

Done till 40 blocs. Nico starts the vega spectral calibration.

- **The file of calibration : D_R2856.2013.05.25.09.19**

We put density of 2, but 1469 of average photons

CAL2 : HD 171130

HD158643CAL2E2E1W1.2013.05.25.09.31 :

RH is increasing till 60%. R0 is around 17cm.

The number of photons on this cal is low (120). Strange. The best would have been to recheck the flux optimisation, but humidity is rising fast. Just time to record vega+climb... This measurement on CaII (target + cal) should be taken with care (only one peak on target + low flux). Low flux could be due to a bad alignment (probably), the moon which is around (probably not), humidity rising (probably not). Seeing seems stable. We redo alignment. We win 30 photons or so. **The explanation might be 1/ in CaII in absorption we have less flux. On target and cal we got fringes only on peak 1 for this reason. In Ha, Target and the same cal show nice fringes.**

Fringes on CLIMB. quite stable. Chris is recording CLIMB.

Cause of RH and CLIMB measurement, we put only 30 blocs.

Fringes are so faint.

Stop in 16 block.

Note : RH is around 65%. R0 is 17cm.

Nico is doing alignment on VEGA. Alignment done ! still little phones but better than before around 200.

CAL2 : HD 171130

HD158643CAL2E2E1W1.2013.05.25.09.49 :

RH is getting to 80 now. Chris is trying to find fringes on CLIMB.

R0 is around 17cm. The fringes on CLIMB. peak 1 are coming but so faint.

We are in 25 blocs and SNR=2.6 for peak1 and 2 for peak2. We don't have second peak at the moment.

RH is decreasing. At the moment RH is around 65%.

The fringes on CLIMB are not so stable.

We are at 36 blocs and SNR is 2.5 for first peak and 1.9 for second peak. Still no peak 2.

RH still is decreasing. R0 is around 20cm.

We add 5 blocs.

getting fringes on peak 1: the reason is probably that CaII line in absorption is difficult for both target and cal... Should be interesting anyway. Still 5 minutes and we change program.

Humidity seems to stay stable on the border line indeed.

We are in 44 blocs and SNR=3 for peak1 and 2.1 for second peak and no peak 2.

CONFIGURATION : E2 E1+ POP3 POP 1

V12 : HD 163296

cal1 (vega+climb) - **target** (vega) - **target** (climb) - **cal2** (vega + climb) with **target**=HD163296, **cal1**=HD170296 and **cal2**=HD171130

Note : it was not possible to do CLIMB in 3T due to delay. On 2T !

CAL1 : HD 170296

HD163296 CAL1E2E1.2013.05.25.10.30 :

climb recording begins, We start vega after shutter sequence.

R0 is around 18cm. RH is around 65%.

Fringes on CLIMB are quite centered. The peak is very bright.

We put only 10 blocs because SNR is 15 and seeing is very good (20cm) and for saving the time.

We measure CLIMB.

HD163296E2E1.2013.05.25.10.43 :

RH is around 67%. R0 is around 10cm.

He is recording CLIMB. R0 is again increasing till 16cm.

The peak is coming but so faint. The fringes on CLIMB are quite stable.

We have 90 blocs. RH is around 76%. R0 is around 15cm.

At the moment RH is decreasing till 55%.

After 80 blocs SNR is 4.6.

R0 is around 15cm.

CAL2 : HD171130

HD163296 CAL2E2E1.2013.05.25.11.38:

Fringes on CLIMB. We save CLIMB first. Done !

The peak is coming but quite faint. We have 20 blocs. After 12 blocs, SNR=3.3.

R0 is around 15cm. RH is decreasing till 45%. We put 30 blocs instead of 20.

The fringes on CLIMB are centered and stable.

We add 10 blocs.

