

## Log CHARA/VEGA 2019-08-15

Observers: Fred (VEGA), Nicolas (Report and CoffeeS)  
Norm (Mt Wilson)

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UTC time:

03:00 Starting observing night

**E1 POP1 B1, E2 POP2 B2, W2 POP5 B3 (ref)**

**V52 (N. Nardetto) – SV Vul**

**OPD offset: +150 $\mu$ m (left), -300 $\mu$ m (right)**

**Target = HD187921 (SV Vul at Rmax)**

**Cal1 = HD187811**

**Cal2 = HD185859**

**LABAO = HD176437; check = HD184606**

03:12 after LABAO alignment, now slewing on check star

03:19 CLIMB scan for fringes

03:32 LDC was OFF, re-check of VEGA alignment.

03:33 Fringes on CLIMB. Flux fluctuations on VEGA.

03:44 *“I think I have a problem with dither power. The RPC rack has been changed to a new one and I don't get a green light on my Gui. I will go to the lab to see if it is powered.”*

05:51 *“It was an easy fix. Power was locked for 3 columns of power buttons by one lock on a different column.”*

05:51 Fringes locked on CLIMB. Fringes on VEGA.

05:54 to cal1

05:57 “setting ref to keep LDC's happy”. Locked on cal 1.

Locked on fringes with CLIMB.

### HD187811.2019.08.15.04.00

$$E1 = -1010\mu\text{m}$$

$$E2 = -4190\mu\text{m}$$

$$\text{CLIMB\_B1} = 6.44$$

$$\text{CLIMB\_B2} = 5.33$$

Very nice fringes CLIMB and VEGA. Seeing around 12-13 cm.

### HD187921.2019.08.15.04.13

$$E1 = -920\mu\text{m}$$

$$E2 = -4060\mu\text{m}$$

Very nice fringes. Seeing around 12-13 cm.

*The fringes 2-3 are  $50\mu\text{m}$  from the position.*

### HD185859.2019.08.15.04.31

$$E1 = -820\mu\text{m}$$

$$E2 = -3990\mu\text{m}$$

$$\text{CLIMB\_B1} = 6.48$$

$$\text{CLIMB\_B2} = 5.35$$

Seeing 11.5 cm. CLIMB fringes stable. Weak fringes on VEGA.

### HD187921.2019.08.15.04.46

$$E1 = -730\mu\text{m}$$

$$E2 = -3890\mu\text{m}$$

**VEGA fringes E2W2 are not seen.** Clear on E1E2. We add 10 blocs (30 blocs). At the end, the VEGA E2W2 fringes are hardly seen. Seeing around 10 cm.

### HD187811.2019.08.15.05.03

$$E1 = -620\mu\text{m}$$

$$E2 = -3800\mu\text{m}$$

$$\text{CLIMB\_B1} = 6.50$$

$$\text{CLIMB\_B2} = 5.36$$

Fringes on VEGA are seen on the three baselines.

**HD187921.2019.08.15.05.17**

E1 = -440 $\mu$ m

E2 = -3630 $\mu$ m

30 blocks

Fringes 2-3 are hardly seen on VEGA.

**HD185859.2019.08.15.05.41**

Cophasing not possible. Recording without checking.

E1 = -330 $\mu$ m

E2 = -3580 $\mu$ m

Peak 1-2 seen (E1E2), 1-3 seen (W2E1), but 2-3 is weak (E2W2).

**HD187921.2019.08.15.06.01**

Realignment CLIMB and VEGA

E1 = -40 $\mu$ m

E2 = -3360 $\mu$ m

Done. Fringes are "Bof". R0=8 cm.

**HD187811.2019.08.15.06.24**

E1 = -100 $\mu$ m

E2 = -3310 $\mu$ m

CLIMB\_B1 = 6.54

CLIMB\_B2 = 5.40

**HD187921.2019.08.15.06.36**

E1 = 30 $\mu$ m

E2 = -3180 $\mu$ m

**D\_CMR720.2019.08.15.06.59**

**S2 POP1 B1, S1 POP2 B2, W2 POP5 B3 (ref)**  
**V38 (A. Salsi)**

**OPD offset: +150 $\mu$ m (left), -300 $\mu$ m (right)**

**Target = HD192640**

**cal 1 = HD193369**

**cal 2 = HD191610**

**labao = HD194093**

**check = HD198639**

07:04 S2 is not slewing

07:35 LABAO alignment for CLIMB and VEGA

07:42 To check

07:54 Problem with OPLE. Restart.

Long time to scan...

**HD191610.2019.08.15.08.35**

**Problem with peak 2-3 (W1S1) which is below his usual reference in X. Is it simply spread? Be careful during data reduction.**

S2 = -2410 $\mu$ m

S1 = -4440 $\mu$ m

CLIMB\_B1 = 7.59

CLIMB\_B2 = 4.59

**HD192640.2019.08.15.08.51**

S2 = -2360 $\mu$ m

S1 = -4410 $\mu$ m

**Same behavior. Peak 2-3 below his reference in X.**

**HD193369.2019.08.15.09.06**

S2 = -2270 $\mu$ m

S1 = -4300 $\mu$ m

CLIMB\_B1 = 7.59

CLIMB\_B2 = 4.61

**Fringes are not so nice despite seeing around 11 cm.**

**D\_CMR720.2019.08.15.09.17**

**Target = HD3360**  
**cal1=HD1976**  
**cal2=HD6676**  
**target is fine for LABAO and check**

**HD3360.2019.08.15.09.37**

S2 = -3040 $\mu$ m

S1 = -5180 $\mu$ m

CLIMB\_B1 = 7.58

CLIMB\_B2 = 4.61

Fringes are extremely nice (as usual on this star !). Peak 2-3 is large and slightly shifted which probably explain the behavior of the peak on the previous targets.

**HD6676.2019.08.15.09.51**

S2 = -3000 $\mu$ m

S1 = -5200 $\mu$ m

CLIMB\_B1 = 7.63

CLIMB\_B2 = 4.65

Nice fringes.

**HD3360.2019.08.15.10.03**

S2 = -2280 $\mu$ m

S1 = -4280 $\mu$ m

CLIMB\_B1 = 7.51

CLIMB\_B2 = 4.62

Fringes are very nice.

**HD1976.2019.08.15.10.20**

S2 = -2270 $\mu$ m

S1 = -4990 $\mu$ m

Fringes stable

**D\_CMR720.2019.08.15.10.32**

**S2 POP5 B1, S1 POP4 B2 (ref)**  
**V27 (D. Mourard)**  
**HR mode**

**Target is HD 31964**

**There is no calibrator (HR mode of VEGA)**

**Target is fine for LABAO and Check**

We prefer HR mode as the seeing is particularly high (around 15 cm)

**HD31964.2019.08.15.11.01**

**HR656nm**

S2 = 1480um

CLIMB\_B1 = 7.26

CLIMB\_B2 = 4.62

CLIMB fringes are just perfect. The VEGA fringes are very strong.

60 blocks.

**D\_CHR656.2019.08.15.11.28**

**HD31964.2019.08.15.11.33**

S2 = 1560um

CLIMB\_B1 = 7.26

CLIMB\_B2 = 4.62

60 blocks

**HR770nm**

**D\_CHR770.2019.08.15.12.00**

**HD31964.2019.08.15.12.09**

S2 = 1640um

CLIMB\_B1 = 7.29

CLIMB\_B2 = 4.62

60 blocks

**D\_CHR589.2019.08.15.12.37**