2020.11.24
Fred, Isa (Calern) & Norm (CHARA)
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initial config.

B1	B2	B3
E1P1	E2P2	W2P5
S2P5	S1P4	
	W1P2	

UT time - reference telescope underlined

Summary of the night's acquisitions

Program	**Target**	**Config.**	**#calibrated or #pts**	**mean r0 (cm)**
V38	HD27962	W1W2	TC at HA~+01:25 bad cond. - acq. interrupted	5(W1)
V66	HD37202	W1W2	1 at HA~+01:10 prob. bad	
	HD58715	W1W2	1 at HA~-00:15 prob. bad	
	HD58715	E1E2	1 at HA~+00:30 good acq.	6(E1)
	HD37202	E1E2	1 at HA~+02:45	
	HD58715	E1E2	1 at HA~+01:10	pretty average
	HD37202	E1E2	1 at HA~+03:20	conditions
	HD58715	E1E2	1 at HA~+02:00	
	HD37202	E1E2	1 at HA~+04:15	
	HD58715	E1E2	1 at HA~+02:45 & +02:55	

Conclusion :
V66_Wysocki - MR656 -
bet CMi E1E2x4 at -00:30, +01:10, +02:00, +02:50 & W1W2x1 at -00:15 (poor)
zet Tau E1E2x3 at +02:45, +03:20, +04:15 & W1W2x1 at +01:10 (poor)

0:40 arrival to the VEGA control room. At Mount Wilson, clear sky but windy. Gusts above 20 mph, so scopes closed.
Good news concerning the use of E2, W1 scopes, but not yet for CLIMB. Matt is working on that.
02:15 light on Climb in Lab, issue with W1 cameralink, Theo is rebooting.
But guts worse. Stand by. V67 is no more possible.
06:40 wind has dropped. We go to **gam Cas**.
07:10 issue on W1 wfs + lab tt : no lock possible
07:30 "w1 will lock on twfs but dm is not connected. no ao servo or any comms with dm" ==> no choice, we'll see on vega W1 beam...

flux optimization on the detector: more than 3000ph with both beams ==> neutral density 0.3
Flux ratio W2/W1 ~1/2
07:40 Norm:"can't get climb to show the right time" ==> Search of the fringes with VEGA.
09:00 scan between +-6mm : no fringe - not normal
rehome of the carts . scan again between +-10, unsucessful - WI beam too bad ?

We go to HD27962, bright (V~4.2) and slightly resolved target of V38 (UD-vis2~0.7) .

V38- PI Salsi W1W2 MR720

fringes!
09:16 offset-W1 -1020µm
strong flux fluctuation. not good conditions.
Even if target we record.

Vega tracking
09:24 offset-W1 -910µm
HD27962.2020.11.24.09.24 HA+01:25
Flux on Det ~400ph with a flux ratio ~3 r0(W1)~5cm

good tracking.
20blks

we go to the brightest calibrator (V5.2), (UD-vis2~0.8)
09:43 offset-W1 -670µm
HD27459.2020.11.24.09.43 HA+01:50
Flux on Det ~250ph with some bumps of flux.
tracking difficult due to low snr
20blks

Regarding these bad conditions, it is not worth to continue. Choice is made to go to V66 program, hoping that the weather conditions improve along the night. But remains the issue with W1 visible beam.

D_CMR720.2020.11.24.09.55

V66- PI Wysocki W1W2 MR656

10:07 offset-W1 -1200µm
HD37202.2020.11.24.10.07 HA+01:00
Flux on Det ~1300ph fluctuating r0(W1)~5cm
difficult tracking, even impossible.
40blks
so probably differential visibilities too noisy.

10: 43 offset-W1 -2060µm
HD58715.2020.11.24.10.43 HA-00:15
Flux on Det ~1500ph fluctuating r0(W1)~6cm
around blk10 OPD shift of 500 µm. still again at blk 14, seems ok from blk19 but tracking really difficult.
40blks

D_CMR656.2020.11.24.11.02

So we've probably lost more than one hour, sorry for that. We did want to use W1W2 for completing the programs of both Phd-PI, Anthony with prior target at the end of the night and Peter with prior last points on this baseline, and also the Orlagh's prior one. We should not have used W1 at all, since DM was not served.

V66- PI Wysocki E1E2 MR656

Similar flux between both beams.
11:29 offset-E1 2400µm
HD58715.2020.11.24.11.29 HA+00:30
Flux on Det ~1800ph r0(E1)~6cm (mean flux, fluctuation in the order of +-200ph)
good & stable fringe peaks
30 blks

11:54 offset-E1 1430µm
HD37202.2020.11.24.11.54 HA+02:45
Flux on Det ~1600ph r0(E1)~5cm
good & stable peaks
30 blks

12:14 offset-E1 2100µm
HD58715.2020.11.24.12.14 HA+01:10
Flux on Det ~1800ph r0(E1)~5cm
always good
30 blks

12:33 offset-E1 1400µm
HD37202.2020.11.24.12.33 HA+03:20
Flux on Det ~1500ph r0(E1)~5cm
always good
30 blks
just: 2 blks before the end, freeze of the Tracker Gui. After acq., software relaunch OK.

13:00 offset-E1 1950µm
HD58715.2020.11.24.13.00 HA+02:00
Flux on Det ~1800ph r0(E1)~5cm
always good
30 blks

flux has decreased and more fluctuating (probably due to low elevation and delay line more rapid)
13:27 offset-E1 1510µm
HD37202.2020.11.24.13.27 HA+04:15
Flux on Det ~1000ph r0(E1)~4cm
30 blks

13:47 offset-E1 1850µm
HD58715.2020.11.24.13.47 HA+02:45
Flux on Det ~1600ph r0(E1)~4cm
good tracking
20blks

13:58 offset-E1 1350µm
HD58715.2020.11.24.13.58 HA+02:55
20blks
good sequence, nice peaks:
so good look to the VEGA tracker GUI to "finish in style", the last one for me :-(.
VEGA has made his job!
All the best for the next and last run!

D_CMR656.2020.11.24.14.09

to see the evolution of the r0 during the E1E2 acquisitions (only indicative).