

2 Dome flats

92-02-26

Cursory analysis

On frame 7418, 12th mag star
on radial profile

peak ~~12, 000~~

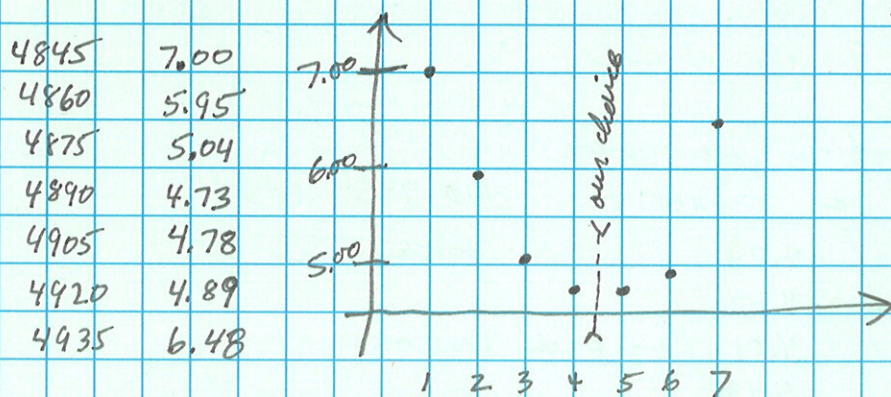
	Center col	row	instr. Rmag	Flux	sky	N	Rmag	ellip	PA
	669.14	310.52	16.13	351574	6858	80	4.73	0.092	82.2
Now P ₁	677.55	631.54	17.03	154263	6617	79	4.86	FWHM: 5.33	peak: 11963.93
								@ 0.22/pixel	

0.037
80.1
peak 4660.37
FWHM 5.79

tried line plots, and gray scale,
but no charon was evident

look at focus frame

telescope was moving south. ($\Rightarrow$ image moving north)



Note that the 10 sec. focus exposures give smaller images. Let's take
a look at the FWHM for all the 12th mag stars in frame 7418
(oct. exp.)

7418	ellip.	7418	60 sec exp.
Image #1	5.49 0.170	5.37 0.165	
#2	5.88 0.184	5.16 0.091	
#3	5.28 0.132	5.18 0.185	
#4	5.45 0.123	5.49 0.222	
#5	5.33 0.092		
#6	5.63 0.158		
#7	5.78 0.207		
#8	5.62 0.200		

ellipticity due to "wind shake"

Telescope commanded to move N 10"
star trails on flats gives EW

Feb 27

Based on C007418.fits

MOVE BASE POS'N 20" N

4 exp. per frame

10" of S. motion between each.

Track on Pluto rate

5 B readouts in ~35 min - about 7 min per readout.

Flat 7427 sthng @ 688,493 dark spot in dome flat

for 92 Feb 25 # 7381	min = 32763	max = 36122	$\Delta = 3359 = 11\%$	} using 6000 for bias
Dome flat				
sky flat 92 Feb 25 # 7424	8541	9033	492 = 16%	
dome " " # 7427	32645	35936	3291 = 11%	

V dome flat 92 Feb 25 # 7384 30350 33441 3091 = 11%

observing 1992 Feb 27 UT

15 34 59.35 -03 52 06.9 +20" N =

Focus 4930 +

last night 4897

		time	R	FWHM	C007454.fits
1	4880 4870	13:42:00		4.24	encand. on
2	4885	13:42:38		4.42	
3	4900	13:43:03		4.01	← pick this one
4	4915	13:43:26		4.13	
5	4930	13:43:56		4.97	← NO.
6	4945	13:44:20		4.70	
7	4960	13:44:43		4.41	

← These should be
Not saved. Pointing check only.

C007455	1	13:57:05	
2	14:05:05		
	2	14:06:13.5	10" S
	3	14:07:24	10" S
	4	14:08:40	10" S

dome off during exposures

done on to update after exposures

FEB 27

13

3	UT	7456 #1	14 12 54.5		
		2	14 14 09.5	$10''$ S	SIDEREAL TRACKING RATE
		3	14 15 09.5	$10''$ S	
		4	14 16 18	$10''$ S	

switch to Pluto tracking rate

4	UT	7457	1	14 20 47		Pluto tracking rate
			2	14 21 55.5	that's 21 55.5	$10''$ S
			3	14 23 01.5		$10''$ S
			4	14 24 08		$10''$ S And

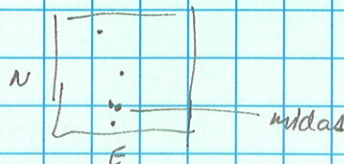
5	UT	7458	1	14 29 23	15 35 00.91	-3 50 45.1	
			2	14 30 33	"	-3 50 55.1	offset $10''$ S
			3	14 31 39	"	-3 51 05.0	"
			4	14 32 47.5	"	-3 51 15.0	"

Back to sidereal. Activate dome

15^h 14^m 25.6^s +9° 21' 44" 1950 MidasMidas frames - track on sidereal. Start times 60s apart. Using offset guider
Midas moves to the SE.

6	7459	1	14 37 07	Midas, start time 60s apart to
		2	14 38 07	get a double midas

B ~ 14.4 mag of midas

So go S $120''$ E $220''$

7	7460	1	14 43 30	Midas
		2	14 44 30	
		3	14 45 30	
		4	14 46 30	

where's midas?

8	7461	1	14 52 55
		2	14 53 55

midas NW corner

Feb 27

UT

9	7462	1	14 57 30	midas pair quad
		2	14 58 30	
		3	14 59 30	
		4	15 00 30	

10	7463	1	15 05 30	midas quad
		2	15 06 30	
		3	15 07 30	
		4	15 08 30	

df → 51 meg avail

du → 19 meg in ring / big Plenty of room

update dome.
dome off.Possible dome ~~and~~ occultation on last frame

11	7464	1	15 14 30	midas quad
		2	15 15 30	
		3	15 16 30	
		4	15 17 30	

Update dome

12	7465	1	15 23 30	dome off
		2	15 24 30	
		3	15 25 30	
		4	15 26 30	

Update dome
dome off

13	7466	1	15 31 30	just made it -"
		2	15 32 30	
		3	15 33 30	
		4	15 34 30	

dome off

14	7467	1	15 39 30
		2	15 40 30
		3	15 41 30
		4	

to B field 15 35 0.91 - 3 50 45.4

Feb 27

P tracking. Dome off

df 40,000 K / 2193.75 per = 18 room for 18 more files on trex.

15	7468	1	15 46 52.5	15 35 01.35	-3 50 36.2
		2	15 48 02	01.23	-3 50 46.6
		3	15 49 09.5	01.23	-3 50 56.2
		4	15 50 15	01.23	-3 50 06.2

Dome on. Incandescents on.

df $\rightarrow$ 26 493 / 2193.75 = 12 room for 12^{more} on halley

I filter

16	7469	1	15 55 42		
		2	15 56 03		
		3	15 56 20		
		4	15 56 36	15 35 01.23	-3 51 06.2

row plot $\rightarrow$ sky about 10000
UT

17	7470	1	15 00 14.5	15 35 01.23	-3 50 36.2
		2	16 00 39.5		-3 50 46.2
		3	16 01 04		-3 50 56.2
		4	16 01 29.5		-3 50 06.2

row plot $\rightarrow$ sky $\sim$ 18000 ~~BT~~

18 7471 flats.

removed data from

ftp halley $\rightarrow$ kepler 7454 - 7464

trex df = 24586 / 2193.75 = room for 11 more.

ftp trex $\rightarrow$ halley so halley has 7454 - 7476 23 framesftp halley $\rightarrow$ kepler so kepler " " " "~~rm c# from~~

check sizes on kepler

rm /img/ big contents on trex now df on trex = 70954.

University of Hawaii Telescopes on Mauna Kea

OBSERVING LOG

Observer(s): Elliot, Tholen, Young

Observing dates: 1992 Feb 27

Page: 1/2

Telescope: 88" "

Operator: J

Program Title: Individual Densities of B + Charon

Instrumentation: TEK

Tape:

BVR1 #3 filter set

Sper exp x
of exposures

Seq.	Frame Numb.	Exp. (Sec.)	UT start Airmass	R.A. Dec (1950)	Object Description filter	Comments	Comments
1	7454	10 x 7	13:42:00 1.227	15 35 2.91 -3 49 45.3	focus frame stepped by 15 B	see log. step focus by +15, X 10" N	
X	7455	60 x 4	13:57:05 1.196	15 35 00.91 -3 49 25.4	Pluto field single exp B	Focus 4900 see log	sidereal tracking NOT SAVED.
2	7455	60 x 4	14:05:05 -03:51.155	15 35 00.91 -03 50 45.3	B field quad exp. B	Focus 4930, see log.	sidereal tracking Successive exposures are offset 10" S
3	7456	60 x 4	14:12:54.5 1.154	15 35 00.91 -3 50 45.3	B field quad exp B		sidereal tracking
4	7457	60 x 4	14:20:47 1.149	15 35 00.91 -3 50 45.3	B field quad exp. B		B tracking rate
5	7458	60 x 4	14:29:23 1.136	15 35 00.91 -3 50 45.1	B field quad exposure B		B tracking rate
6	7459	10 x 2	14:37:07 1.028	15:14:25.61 +9 21 44	Midas pair B		start time 60s apart
7	7460	20 x 4	14 43 30 14 42 1.024	15 14 40.28 09 19 45.3	Midas quad B		Dome on for 1st 2 start times 60s apart
8	7461	20 x 2	14 52 55 1.023	15 14 40.13 9 19 44.7	midas pair B		
9	7462	20 x 4	14:57:30 1.023	15 14 46.06 9 19 45.0	midas quad B		
10	7463	20 x 4	15:05:30 1.023	15 14 40.06 +09 19 45.3	midas quad B		
11	7464	20 x 4	15:14:30 1.018	15 14 39.92 09 19 45.7	midas quad B		
12	7465	20 x 4	15:23:30 1.019	15 14 38.04 09 19 49.7	midas quad B		noticed bad clock drift in time that's entered in header
13	7466	20 x 4	15 31 30 1.021	15 14 39.80 09 19 59.8	midas quad B		
14	7467	20 x 4	15:39:30 1.025	15 14 39.75 09 20 18.9	midas quad B		
15	7468	60 x 4	15:46:52.5 1.096	15 35 01.23 -3 50 36.2	B quad B		
16	7469	10 x 4	15:55:42 1.099	15 35 01.23 -3 50 36.2	B quad I		
17	7470	20 x 4	16:00:14.5 1.099	15 35 01.23 -3 50 36.2	B quad I		
18	7471	0.5	16 07 00		Dome flat I		
19	7472	0.5			Dome flat I		