

Nov 12 (in test directory) MJA, JL, TG

.0001 $\bar{\nu} = 1320$ gas cell (some H_2O , some C_2H_2). Line has blue wing.
.0002 moved K mirror (from 2V to 1.96V) and compensated w/ echelon parab. fwhm = 4.6
.0003 moved 2 turns out on dispersion prealigned focuser fwhm = 4.7
.0004 moved 2 turns out " " " " " "

.0005 moved slit by -.025 Volts

!?
.0011 slit -.15V from nominal. Filter matches FWHM = 4.0
.0012 slit +.15V FWHM = 3.9
.0013 slit -.017V from nominal (halfway between light gaps) FWHM = 3.8

Nov 16

Tube	Slit	it	V _{det}
1001	2n Se on 530 cm ⁻¹ (350 μm slit)	it = 1s	V _{ref} = 3.125
2		0.11 x 9	V _{det} = -4.0
3		"	V _{det} = -3.6
4		it = 1s x 1	V _{det} = -3.8
5		it = 1s x 1	V _{det} = -4.0
6		it = 0.11 x 9	V _{det} = -4.0
7		"	V _{det} = -4.2
8		it = 1s x 1	V _{det} = -4.2
9		"	V _{det} = -4.2
10		it = 0.11s x 9	V _{det} = -4.4
11		"	V _{det} = -4.4
12		it = 1s x 1	V _{det} = -4.6
13		"	V _{det} = -4.6
14		it = 0.11s x 9	V _{det} = -4.6
15	(120 μm slit)	"	V _{det} = -4.6
16	probably a (w) slit w/ overlapping orders	it = 1s x 1	V _{det} = -4.8
17		it = 4s x 1	V _{det} = -4.8
18		it = 4s x 1	V _{det} = -4.8
19		it = 1s x 1	V _{det} = -4.8
20		it = 0.11s x 9	V _{det} = -4.8
21		"	V _{det} = -4.8
22		it = 1s x 1	V _{det} = -4.8
23		it = 4s x 1	V _{det} = -4.8
24		"	V _{det} = -4.8
25		it = 1s x 1	V _{det} = -4.8

pumped = 3.9 (low signal)

tilted in order most like June

Nov 16 (cont)

Tube	Slit	it	V _{det}
1026	120 μm slit	it = 0.11 x 9	v _{det} = -4.4
27		"	v _{det} = -4.2
28		it = 1s x 1	v _{det} = -4.0
29		it = 4s x 1	v _{det} = -4.0
30		"	v _{det} = -4.0
31		it = 1s x 1	v _{det} = -3.8
32		it = 0.11 x 9	v _{det} = -3.8
33		"	v _{det} = -3.8
34		it = 1s x 1	v _{det} = -3.6
35		it = 4s x 1	v _{det} = -3.6
36		"	v _{det} = -3.6
37		it = 1s x 1	v _{det} = -3.6
38		it = 0.11 x 9	v _{det} = -3.6
39	350 μm slit, dried mode	it = 0.11 x 9	v _{det} = -3.8
40		0.3 x 3	v _{det} = -3.8
41		"	v _{det} = -3.8
42		0.11 x 9	v _{det} = -4.0
43		"	v _{det} = -4.0
44		0.3 x 3	v _{det} = -4.2
45	saturated	"	v _{det} = -4.2
46		0.11 x 9	v _{det} = -4.4
47		"	v _{det} = -4.4
48		"	v _{det} = -4.6

UT 13 Nov 01 (14 Nov UT) Matt, John, Tommy

bpag .1001 Beta Peg. Nod image 10" nod cameramode
bpag .1002 " Spectro mode some guiding to peak up
.1003 " " Low on slit

Fort. 1004 Fortuna asteroid 19 pair 9 cloud
.1005 pair 2 cloud
.1006
.1007

Vesta .1008 Vesta asteroid 4 cloudy evening (decent data) cloud pair 8
.1009 moved 1/2" west to test flat fielding
.1010 moved 1/2" east clouds

Titan .1011 just positive beam clouds We see it!!!
.1012 moved 2" west clouds 90 west 145 S guide star
.1013 This one is pretty crappy calibrated guiding
.1014 due to clouds flux won't be very well
.1015

Vesta .1016 armassa 1,188 clouds everywhere 1-4 or 6 pretty good ¹⁰⁰E 170 S
.1017 got much better

Titan .1018 haven't seen it yet - nasty clouds pair 7 moved east .5" reg beam only - maybe 3 saw it pair 12 or 14
.1019 move east 1" pair 4 1" East guide
.1020 just clouds

Check stars out
.1022 bad clouds but cl do see it first half may be usable
.1023 try again pair 7 good 120 way -> just gets better
.1024 pair 7 relatively good
.1025

.1026 much better file, check this out!!!
.1027 data okay but clouds ramping up last half is pretty bad
.1028 not as good effort to reduce
.1029 see some lines but not really worth the
.1030 game over. we loose for now. Clouds 1 TEXES 0
.1031 " 2 " 0

acmi .1032 guided a lot found it really well on pair 8

10.1033 glitch in pair 145 (excluded in reduction) guide star ~~165~~ 160W 190 S
10.1034 bad clouds to pair 7

moved hexapod to pos'n recorded in June: U=0.0149 V=0.0076
Nod East-West 10" -> East need 1.9 nod wait
Focus at -4.05

74 West + 120 South guide star

some guiding

We see it!!!

90 west 145 S guide star

calibrated guiding

1-4 or 6 pretty good ¹⁰⁰E 170 S

reg beam only - maybe 3 saw it pair 12 or 14
pair 7 moved east .5"

first half may be usable
gets better

last half is pretty bad

effort to reduce
Clouds 1 TEXES 0
" 2 " 0

guide star ~~165~~ 160W 190 S

- ✓ 10.1035
- ✓ 10.1036
- ✓ 10.1037
- ✓ 10.1038
- X 10.1039
- X 10.1040
- X 10.1041
- .1042
- .1043

other 7 micron setting
stopped early

- 10.1044
- 10.1045
- 10.1046
- 10.1047
- 10.1048
- .1049
- .1050 new setting
- .1051 good
- ~~.1052 good~~

19 microns focus from -4 → -4.5
14 pair good found it
last few pairs are poor

pair 9 cloud, 10, 12, 13 - crap
2, 4-11, 13-16 (all listed are bad)
maybe a few good ones.
pretty good (well that is relatively speaking)

about first half okay last half terrible

15 Nov 2001 JL, TG, MR, BG, PS
New SO₂ setting at 1350cm⁻¹. Using pinhole.
6/sep. 2001 slit. mostly to set λ for 2001. Both beams close to
. 2002

oct. 2003 $\bar{\nu} = 890$ (mislabelled in header)
. 2004 $\bar{\nu} = 892.7$
. 2005 $\bar{\nu} = 896$. no atm. lines

Vesta. 2006 744.5 C₂H₂ R(5+6) + HCN R(10)
7

ttau. 2008 nada stop + peak found + 3" @ 3
9 on it effect guiding
10 clouds prs 2-8
11 clouds prs 11-15
12
13 good stuff
14
15
16
17 1st deriv
18 some bounce
19 ^ stopped after 15 prs
20
21
22 nsum → 8
23
24
25 cloud near pair 12-16

vesta. 2026 3 garbage
27 clouds pair 3-7 offset guiding
28 clouds pr 4-8
29 good
30

ttau. 2031 bouncing
32 " settling down bit of cloud at 11 0.2%
33 try new nod routine. no better
wired glitch on pr 16
34
35 back to old nod bounce is bad
36 clouds pairs throughout. accum shows signal

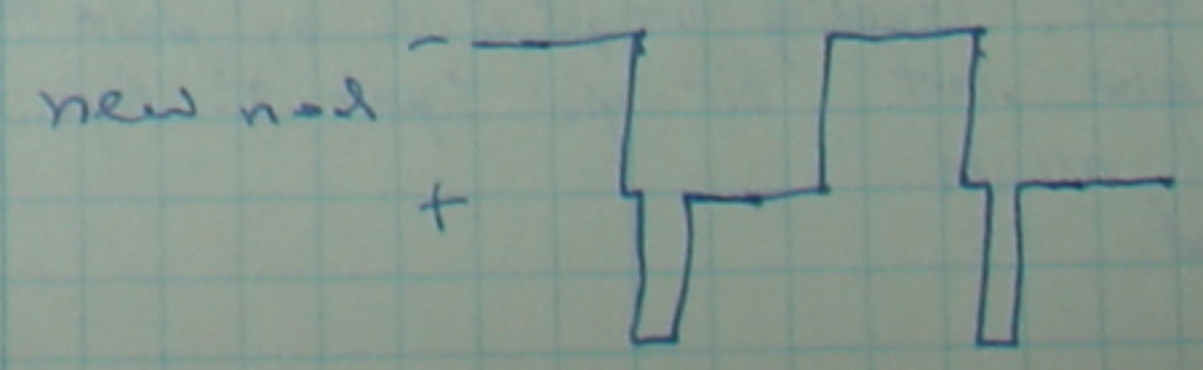
See evidence for 2nd order leaking through. ^{~ pix. 100} Star may not be on.
falling off. focusing after pair 4 (z = -4.0)

guide * 80 ω (1.4 μ)
T = 275
slit tipped so ω improves neg. beam
T_{CSO} ~ .08
clouds dissipating ?

T = 274 (wrong in hd)

T_{CSO} ~ .06

T_{CSO} ~ .04



15 Nov 2001 (cont'd)

17 Nov 2037 bounce but good signal
33

Io ~~io. 2039~~ $\bar{v} = 1345$ 170 w 68 S

acmi. 2039 $\bar{v} = 1350$ 7 microns 1390 cm⁻¹
acmi. 2040

io. 2041 Guiding NS (along slit) at pair 3 pair 11-13 bad

. 2042 nsum \Rightarrow 8 Bed pairs: 3-9, 11-16

2043 nsum \Rightarrow 4 bed sky noise throughout

2044 pair 14 bad bad bounce pair 3 good pairs 8-10, 12, 15?, 16

45 bed sky noise 3, 6, 9 pretty good set

46 sky noise scattered throughout. some bounce, too

47 bounce: 1, 2, 5-5, 8-11 good: 6-7, 12 Guiding after 12

48 Positive beam nearly off slit

50 moved N 0.5". Guiding ~ 5-8 overall, pretty good

51 not very good

52 moved S 0.5" in pair 6. pretty good

53 not so good after ~ pair 12

acmi. 2054 Guiding

2055 cloud ~ pair 6

io. 2056 clouds

2057 clouds(?). A few good pairs

order part.
wrong
↓

io. 2058 19 um guiding first 5

2059 moved 4" S

2060 very nice

61

62 pair 4 has glitch. Jumped 4" W after glitch. got it pass ~14

63 good

64

65

66 low signal at first. Guiding brought it in by pair 4

67 moved 2.5" N before start. Hit Jup. ~ pair 9? Nope. Just a cloud. Good by pair 12

68

Callisto cal. 2069 guiding but good

2070

71

cal. 2072

Jul. 2073

Jul. 2074 at 568 Waverum stopped after 14 pairs

Jul. 2075 west 14" from center

Jul. 2076 west 18 "

Jul. 2077 west 14" "

Jul. 2078 from center 16 north
moved to 19 N on pair 3
22 N pair 4

26 N pair 8

Jul. 2079

16 Nov 2001

MS, CK, TG, JL

bpeg.3001

1127.25 cm⁻¹

bpeg.3002

scan test for flatfield problems
Start RA 23 03 46.73

UT 6:09:11

Dec 28 05 11.3
moved back end dip .3" ~~south~~ North
to crosshair missed by 2.8 West
by

bpeg.3003

RA 23 03 46.8
Dec 28 04 59.4

no autoguide

start 1.5E

end move .8 north
0 ~~east~~ east

bpeg.3004

RA 23 03 46.8
Dec 28 04 59.3

start 1.5E
no autoguide

end move 0.5 North 0 east

bpeg.3005

RA 23 03 46.98
Dec 28 04 59.0

Autoguide

UT in end move 1.9 North 2.3 west

bpeg.3006

RA 23 03 47.12
Dec 28 04 58.6

UT 6:51:08

no autoguide

oet.3007

Mira

aet.3008

eri.3009

2 Eri

.3010

spikes on pair 8

vesta.3011

guiding

.3012

1156 cm⁻¹ (change in wavenumber)

focus is good

Titan .3013

Got it some of the time, but rates are wrong

.3014

bad rates

.3015

good - very good

.3016

very good

.3017

very good

titan. 3018
titan. 3019
titan. 3020

pair 5 lead bounce

Vesta, 3021

Cal. 3022
Cal. 3023
Cal. 3024
Cal. 3025

- Callisto 530 cm⁻¹ focusing
intense guiding (Matt's Driving)
good one

10. 3026
3027

guiding
nsum = 6

3028
29
30

guiding not great

31
32

drifted off near end

33
34

buffer toggle error pr 6
guiding at end

Jan. 3036
3036

Ganymede (Callisto was eclipsed)

10. 3037
3038

going into eclipse. guiding
flux dropped. Pair 14 has spike.
guiding

39
40

41
42

weak at beginning

43

weak last half

~~thisbe~~

~~this. 3044~~

Vesta vesta. 3044

too faint ± 200 at 19 um

Jan. 3045

3046
3047

44

nsum = 6

wind effects pair 3 + one earlier - forgot to shift to base
close on pair 5

Proton

acmi. 3049

$\nu = 811.56 \text{ cm}^{-1}$

.3050

.3051

.3052

acma. 3053

.3054

.3055

acma. 3056

11.27 cm^{-1}

acmi. 3057

3058

Cellisto cal. 3059

$\bar{\nu} = 530 \text{ cm}^{-1}$

60

61

62

I₀ io. 3063

64

65

66

67

68

69

70

71

72

17 Nov 2001 UT

Matt, John, Tommy, Claudia + Paul

Fortune

v = 763.5 echelon slightly blue focusing
 nsum = 8
 w3. 4005 w3 IRS 5 focusing
 some bounce pair 8
 glitch in flat (black?)
 scan mode SE ON - 0.3
 scan
 753.5 cm⁻¹ change went to E-W slit
 scan orders nearly overlap. Between
 something weird happened before scan 5 (Bounce)
 scan BN + KL
 move 1.3 E 1.05 to put C on T
 more 0.7 E 0.65 + 1.2 E 0.2 S
 move 1" E to center on DIC
 move 1/8" S to recenter
 8 scans / flat BP v. near edge
 DIC right on
 BP on scan belt
 negative x shift?
 falling off again exp. toward ed
 branch 4 scans
 8 scans
 gratig shift before last scan
 trashed frame near very beginning 2 scans
 bump w after scan #1. x d jump to scan 3
 x d wandering. try Ia instead.

good by pair 13

scans 4 and 5 changed focus (4.05 → 4.2); Between 7 & 8 focus (4.2 → 4.1)

start 32.5 W 67" N
 ← start here
 32.5 W start 32 W 66 N .003"/s E rate
 See gratig drift + occas. vial bounce
 33 W starting to drift
 back to .001 E rate drifted w
 back to .002 E
 33.5 nominal rates but still drifting E
 lednt drift
 no drift
 + other weirdness
 no comparison object (except BN)

17 Nov (cont'd)

Cal. 4035 ⁴⁰³⁴ stopped at pair 4 SO₂ 530 cm⁻¹

Cal. 4036 it was good

Cal. 4037

Cal. 4038

Cal. 4039

Cal. 4040

20. 4041

20. 4042

43

44

45

46

47

48

49

50 some guiding in middle

51 moved echelon a bit - new setting

52 overguided on pairs really good after pair 14

53

54

55 some bounce (2nd deriv.)

56

57 some bounce (2nd deriv.)

58

Cal. 4059

Cal. 4060

18 Nov 2001 UT

Looking at tub
 280 K tub. 5001 530 cm⁻¹ 350 μm slit
 280 K tub. 5002 587 cm⁻¹ only 1 frame! Don't use.
 3
 4 garbage
 5 496 cm⁻¹ UT 5:26:21 Really widely
 6 750 cm⁻¹ 250 μm slit

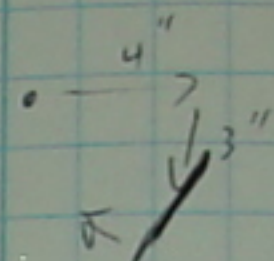
P Peg bpeg. 5007 763.5 cm⁻¹ orders nearly overlap
 Fortuna for. 5008 scan 37° E of N slit (0.5" steps)
 .5009 moved 1.2 W + 0.9 N before start of scan
 10 cutting down scan: 13 points 2.4 E 1.2 S start → too small
 11 increased scan 17 points 3.2 E 1.8 S
 12 looks good
 13
 14 shortened slit length
 15

W3 IRS 5. w3. 5016 start w/ scan like at start of Fortuna (21 points)
 17 10 scans
 18 near edge of slit, but safe
 19

ataw. 5020 α Tau C₂H₂ R(19-20) 778
 ocef. 5021 Mira (waiting for Drim to come up)
 2
 3
 4

21 9-21 bntel. 5025 BN + KL
 6 switch to 0.6" S, 0.1" E to get BN + IRc 2
 7 looks good
 8
 9
 30 moved telescope 1.4 E 0.6 S at end
 31 as usual moved 0.6" E after 1st scan moved 1" E
 32 moved 1" E before start
 33
 34 back to 8 scans
 35 $\nu = 729 \text{ cm}^{-1}$ a branch of

echelon paraboloid was tipped
 NOT on tip of blaze!
 separated orders!



drifted during setup

was actually image rotation in quicklook
 focus looks off - adjusted after scan 3

looked good

n sum = 3

n sum = 1

start 33.5 W, 65 N or P, C

start 34.5 W, 65 N

needing to go ~1" S after each scan set

sky dark at N of BN still some emission to S end of scan

after last scan (4)

coldest .002 1/3 E rate

start at 35.0 W 66 N

bNKL 5036
bNKL 5037 offset 35 W 65N
bNKL 5038

39
40 guided 0.6" W after scan 6, scan 8 has a jump
41 scan 7 has a jump

iO. 5042

SO₂ 530 cm⁻¹

iO. 5043

44 looks good
45 tweaking south
46 pair two glitch
47
48 pair 4 → really good
49
50 bounce first pair

Cal. 5051

Cal. 5052
53

iO. 5054

pair 4 got good pair 14 a little weird

55

56

57

58

59

60

pair 6 is first good one. ~~Fix~~ Boresight glitch.

61

62

Cal. 5063

good on pair 4

64

65

10.5066

good at pair 5

5067

$\bar{\nu} = 497.5 \text{ cm}^{-1} (?)$ used strong water at 494-2

68

69

70

Cal. 5071

72

Cal. 5073

moved 4 orders blue to calibrate some

Had to move 2" W to refind I₀

and counted orders

73.215

lines.

19 Nov 2001 CK, JL, JC, MA, DG

tub. 6001	800 cm ⁻¹	250.5K	
2	850 cm ⁻¹		
3	900 cm ⁻¹		
4	950 cm ⁻¹	order overlap	slit = 80"
5	"	shorter slit length (?)	
6	1000 cm ⁻¹	order overlap	wiggle in intensity
7	"	"	
8	"	shorter slit slit	
9	950 cm ⁻¹	order overlap	
10	950 cm ⁻¹	shorter slit	
11			
1			

bpcy. 6012 $\bar{\nu}$ = 815.3 3" slit

ic10. 6013 started at UT 5.23 used nearby star for offset
 6014 nsum = 6 guide star @ ~116E 115S (S is ?)
 15
 16 moved tele 3.3E 5.3S but was offset guiding
 17 offset guiding
 18 nsum = 8
 19 moved slit 3W
 20
 21
 22

β And band. 6023 Guiding at the end. focus + check boresight

NGC 604_5

1604.6024 offset guiding
 6025
 26
 27
 28 3"E
 29
 30
 31

vesta. 6032 744.5 cm⁻¹ echelon paraboloid tipped.
 33 C₂H₂ R(5)

ttau. 6034 bounce (1st deriv.)

on one order
wiggle still there
"

Dave's guess 0.5" N drift based on guide star position

guide star 130E 139N

19 Nov (cont)

tau. 6035

- 36 bounce
- 37 guiding (losing signal)
- 38 lots of bounce
- 39 bounce drifted off
- 40 some guiding
- 41 on it stopped bouncing
- 42 sk. the to center on it better
- 43
- 44
- 45
- 46
- 47
- 48 bounce
- 49 "
- 50 "
- 51 "
- 52 "
- 53 "
- 54
- 55
- 56
- 57
- 58
- 59
- 60 guiding: 2nd half bad
- 61 never found it
- 62 giving up

still 74+5
C2 the R(5)

aur. 6063

DN bin. 6064

- 5 actually Dec 2
- really for guide star @ 130E 120N
- 6 guiding not great
- 7
- 8

961.6069

6070 (garbage)

6071

72

73

AFBL 961 camera model moved gratiny
 R5 line off array
 good one
 glitch on pair 3 ended after 7 pairs =>
 flat only

Companion 5" W of brighter

software died

19 Nov (continued)

91961.6074	flat only	restarted software
.6075	good one	
.6076		
77	bounce	
78		
79		
80		

919616.6081	5" W ~1" S from A
82	stopped after 12. Not sure if source is there.

20 Nov 2001

MR, CK, JL, JC, DG

tub. 7001	900 cm ⁻¹	
2	450 cm ⁻¹	
3	1000 cm ⁻¹	wiggle is present
4	1030 cm ⁻¹	wiggle still present
5	1100 cm ⁻¹	wiggle is gone
6	1150 cm ⁻¹	wiggle is back
7	1200 cm ⁻¹	wiggle still present
8	1110 cm ⁻¹	slight filter leak?
9	1150 cm ⁻¹	
10	1190 cm ⁻¹	
11	1260 cm ⁻¹	
12	1260 cm ⁻¹	optilrdrst mode
13	1190 cm ⁻¹	
14	1150 cm ⁻¹	
15	1110 cm ⁻¹	(cvf)
16	1110 cm ⁻¹	? peak of cvf? garbage
17	1110 cm ⁻¹	not cvf
18	1030 cm ⁻¹	
19	1000 cm ⁻¹	
20	950 cm ⁻¹	
21	900 cm ⁻¹	garbage
22	900 cm ⁻¹	
23	850 cm ⁻¹	
24	800 cm ⁻¹	
25	750 cm ⁻¹	
26	garbage	
27	750 cm ⁻¹	1.2 s = it
28	"	it = 1.4 s

} wrong filter position

plate. 7029	$\nu = 1116 \text{ cm}^{-1}$	nod 4" N	} focus -3.4 overlapping orders
30		nod 20" N	
31		22" N	
32	$\nu = 530 \text{ cm}^{-1}$	nod 6" N	} during pair 3, moved is a little order overlap long slit, so overlapping
33		12" N	
34	$\nu = 780 \text{ cm}^{-1}$	nod 5" N	
35		nod 25" N	

WBIRS 5

w3.7036
.7037
38

echelle moved. stopped after 3 pairs

~ 10 pixels between nod + 20 pixels between orders
close to overlapping

orders

20 Nov (continued)

w3b.7039 scan across center using IRS5 as initial point
 40 nsum=1 same position but cut IRS5 (45 points)
 41 north scan
 42 south scan starting on W3A (oops)
 43 south scan, really!

Vesta

vesta.7044 guiding last pair great
 45 good
 46 some guiding
 47
 48 $\bar{v} = 754 \text{ cm}^{-1}$ nearly overlapping orders
 49

KL

irc2, 7050

offset 42.5" W, 50" N of θ, C
 scan 22 x 0.7" E
 4 hr steps at beginning + 2 at end
 scan 2 trashed by mirror

- 51
- 52
- 53
- 54
- 55
- 56
- 57
- 58
- 59
- 60
- 61
- 62
- 63
- 64
- 65
- 66

add 2 steps gratings shifted on scan 2

1246 cm^{-1}

moving + out of focus

BN

- bn.70 69
- 70
- 71
- irc2. 72
- 73
- 74
- 75

16-32 good
 move S betw. 2+3

nsum = 6

echelon shifted to red

not seeing gratings drift
 drifting a bit N
 " " + W

now seeing some gratings drift drift more W now

drifted a bit E gratings more stable

scan 8" E @ 0.4" step
 from 8" S of BN

-35 + 52 center on IR2

focus $z = -26$ (was -3, 9)

-41 + 59 center on BN

-34 + 50
 -36 + 50

inc2.7076

77

move 1" E after scan 2

78

old scan

79

move 1" W after scan 4, bkgnd jump

80

move 1" W after #1 + 1" after #2 bouncing

81

now we're too far W

82

drifting W

83

acmi.7084

85

Prayon

also see next mt.

86

Ne II

100,46

mont2-5.7087

scan through IRS 1

93,25

mont2-4.7088

5"N

drifted 1.5" W

3.7089

10"N

103,25

2.7090

15"N

87,34.5

1.7091

20"N

95,18

m 82.7092

NGB 3034 start 64" E 100" N

89,23

58.0

km 7093

103" N (but can't see star)

118,15

CR-29

sh. from alt 4

shift echelon 61-e

107,15

5

start 56" E 99" N

122,29

6

48 95 5 scans

set star from beginning + pad
then sky from end

borelight must have jumped when bkgnd jumped
borelight wandering all over

sky at beginning, that really at end

scan 0.8 E 0.4 N x 61
from 64" E 100" N of BD x
62 2nd deriv. bounce
V. Bad bounce

21 Nov 2001 MR, JC, CK, DG

Dpeg = 8001 730 cm⁻¹ some north-south guiding
NGC 7538 IRS 1 G Branch (C2Hz)
n7538i.1.8002

- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Some guiding to peak up.
8 Nsums
Guide 2 pixels N on pair 11
pair 1 has ripples. pair 2-3 other times
(pair 8 or earlier - fringing)
pair 2 - really bad fringing, pair 5 - fringing

w3 IRS
w3.8017
18
19
20

Focused before ~~taking data~~ (-2 change)

Vesta

vesta.8021
22
23
24
25
26
27
28
29
30
31

stronger than both of above
bounce: pair 6
bounce: pair 8, 9
2nd bounce: pair 3, 4, 8
scanning offset on slit, throwing away
moved N to center. 1s int time + 2 nsum.
1s int time + 2 framerate → gets every frame
changed focus to 2-4.0 changed to 2-4.1
back to 2-4.

BP

bn. 8032
3
4
5

scan 24 x 0.7" E from 43" W 59" N of @, @
looks like 58" N would be
no. just needs 5 rate before
after going to bench + back

Got it by pair 4.

on first half of pairs. Last pair shows fringing as well

every other at 1.5s framerate
threw away every third.

after 3rd scan. Not as good

grating jump during scan 3+4 humidity jump during 1
grating jumping also + fringing too

kl. 8036
 7
 8
 9
 8040
 41
 42
 43
 44
 45

4 good scans
 8 scans
 take 5 rate back to .001

bn. 8046 nodoff slit 1.5 x 4.5" slit
 1231 cm⁻¹ 6th order

irc2. 8047 scan E
 8 try W this time lacks good
 9 3 this time drifted $\pm .002$ rate
 50 again $\pm .002$ E
 51 tracking good
 52 drifted W $-.001$ E
 53 shift 1" W betw. 1+2
 54
 55 May have been too far W
 56 bump 1" N to betw. 1,2
 57 suddenly got bad gratifying drift
 58 try again after slew W + back
 59 not sure where we were. quit after 4.

acmi. 8060
 1 Procyon toward bottom of slit 200 μ m
 2 toward top (2" N)
 3 centered w/ 150 μ m slit best nearly
 8064 2132 cm⁻¹ 150 μ m slit as good
 5
 6 780 cm⁻¹ star at bottom of slit
 7 1" N from 8066
 8 1" N
 9 1" N
 70 1" N

11" W 49" N start
 sky settling
 gratifying jumping again
 + sky noise returning

for Dec 2+7
 start scan 8" S 8" E of SN = 27 W
 8" W @ 0.4" W 51 N

guided 3" W after scan 1 + 1" W after 4
 gratifying drift seems cured

in leaf
 C₂H₂ 8071
 72
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82

short 730 cm⁻¹
 taking data
 while filling + pumping
 C₂H₂ cell

1318 cm⁻¹
 pump in white taking data
~~1318 cm⁻¹~~

22 Nov 2001 JL, CK, JC, BG, MA

Fortuna fert. 9001 250 μm slit v=815 neg near edge of slit

β Peg bpeg. 9002 550 μm slit nominal flux standard 30" E nod

IC10 ic10mcl. 9003 Black frame may be saturated
.9004 " "
.9005 frame time = 0.225 nframe = 4 → less nodwait
6
7
8
9
10
11
12 the accum looks a little strange. Cloud monitor

β Peg bpeg. 9013 short frametime. re-established bore sight

IC 10 ic10mcl. 9014 pointing star to coordinates
15
16
17 glitch on pair 16 - omit ~2.5 mm H₂O
18
19 was copying files during first pair. No apparent problem
20
21
22

Vesta vsta. 9023 → AV v ~ 586 cm⁻¹, 3" slit, grating bounce

A Tau atau. 9024 25 grating bounce

66 Tau ggtau. 9026 27 (BORESIGHT CHECKED) → 0.9" E, 0.1" S
28
29
30 glitch pair 3
31 τ = 0.100 (BORESIGHT CHECKED)

bounce at low level (2nd deriv)
"
"
"

suggests bore sight shift ~pair 4

on quick look.

22 Nov 2001

66 Tau ~~ggtau. 9032~~

- 33
- 34
- 35
- 36
- 37
- 38
- 39
- 40

(BORESIGHT CHECKED, 6000)

A Tau ~~atau. 9041~~

~~atau. 9042~~

66 Tau ~~ggtau. 9043~~

- 44
- 45
- 46
- 47
- 48
- 49
- 50
- 51
- 52
- 53
- 54

skynoise + bounce
 $\tau = 0.05$

glitch - pair 5 or earlier

A Tau ~~atau. 9055~~

- 56
- 57
- 58

Checked boresight. Good, Focus good.

350 um slit = 2"

GW Ori ~~gwori. 9059~~

- 60
- 61
- 62
- 63
- 64

Boresight off CE Tau stopped after 5 to calibrate
stopped after 3 to recenter on TV
 $\tau = 0.107$ bounce

quicker

CALLISTO ~~cal. 9065~~
I Zw 18 ~~izw18. 9066~~

- 67
- 68
- 69
- 70
- 71
- 72
- 73
- 74

checked boresight on R LMi

bounce glitch on pair 6

glitch before pair 10

22 Nov 01

J2W 18

13W18 9075

76

77

78

array glitch - pair 8

79

checked sub star

80

array glitch in pair 6

81

82

83

background steadily climbing at end

84

background calmed down

85

86

87

88

89

90

91

23 Nov 01 JL, CK, JC, OG, MA

5 Pp bpeg. 9501

echelon paraboloid tipped

10 10 MCI ic10mcl. 9507

$\tau = 0.077$

04

NSUM = 08

05

06

07

bounce

FOCUS: $z = -4.3$ to $z = -4.4$

08

CHECKING FOCUS, BORESIGHT on R Cas

09

2nd deriv bounce

10

11

12

13

14

15

R Cas reas. 9517

possible bore sight shift on pair 16
pair 2, 7 has optical fringe pattern

0.5" W

star drifted off during integration (not guiding)

E 10 MCI ic10mcl. 9518

bore sight shift ~ pair 12? R Cas was off 0.5" E

19

20

21

22

23

24

25

26

27

28

29

30

near frame 16 (pair 8)

31

6.1" W before pair 18
2nd deriv bounce

32

33

34

had to go 0.7" W

Vesta vesta. 9535

36

bn
~~irc2~~.9537 1231 cm⁻¹ S10 band center
 irc2.9539 7" 5 6" E of BN wier 2

40
 41
 42
 43

1260 cm⁻¹ bn .9545
 46
 47
 48

29.3 W 41N bouncing
 lost IDL and could not tell whether on
~~the~~ ~~the~~ changed to 1260 cm⁻¹
 grab stare mode junk!
 had good!

irc2.9548
 49
 50

bn.9552

} Seed need deconv
 1247 cm⁻¹ on it to 4th
 nothing out H₂ at N end of slit

535.5 cm⁻¹

Callisto cal. 4133
 IZW18 12w18.9554
 12w18.9555
 12w18.9556

57
 58
 59
 60
 61
 62
 63
 64
 64
 65
 66
 67
 68
 69
 70
 71
 72
 73

NNOD = 4
 NSUM = 8
 6-ITCH FRAME 28? PMR 14 OR 15
 Bounce
 "
 "
 "
 "
 "
 "
 "
 "
 "
 "
 17.104 - SPECT INTEGRATION, MOVING PARABOLIN.
 bounce

guide * 130E 150S when on BN (prod. 2)

object.

Izuls izw 18.9574

75

76

77

Juno juno. 9578

79

MARKING POINTING. DEL FINE.

stopped after 8

stopped after 8

U Ma max. 9580

81

faint! bounce

||

2nd deriv

2nd deriv

UP TO 1 1/2" ARCSEL OFF.

TELESCOPE MOVED WEST