

V&V Reference Report

L2 ASCDS Version : 7.6.7.1

Observation 6142 - L2 Version 003
Chandra X-Ray Center

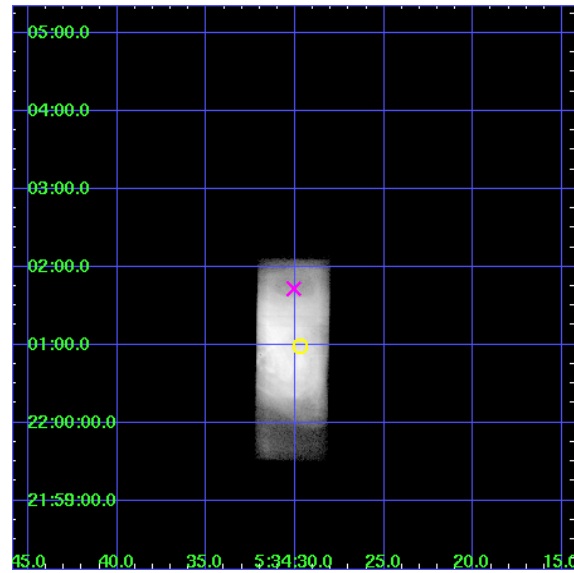
L2 Processing Date : Apr 4 2006

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Parameters	4
2.1.3	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
3	Gratings	17
3.1	HEG Arm	17
3.2	MEG Arm	19
A	Summary	21
A.1	Status	21
A.2	Comments	21

1 Front

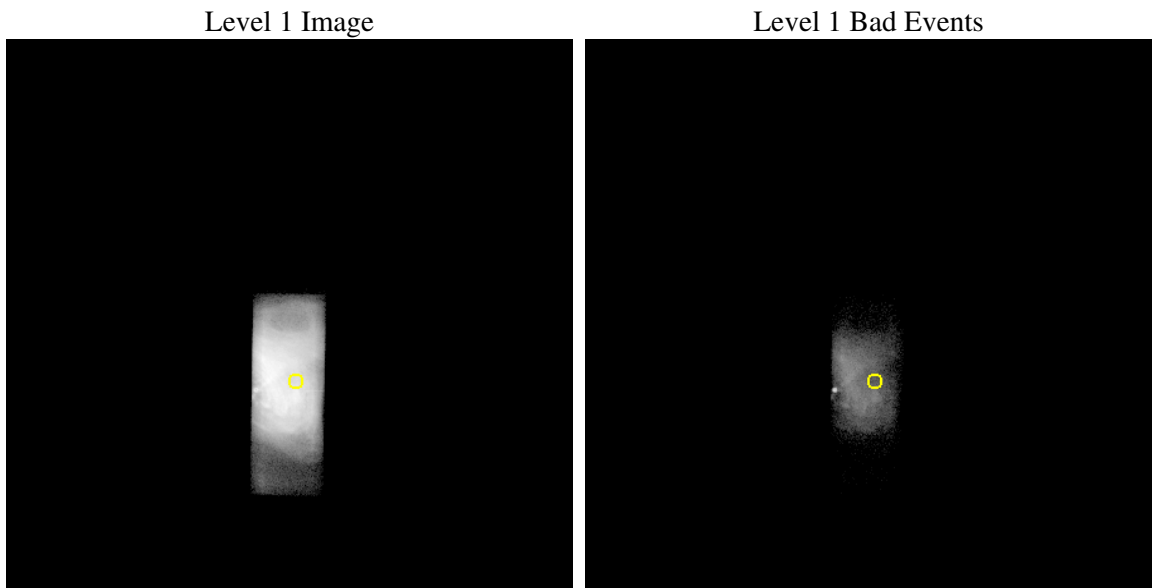
seq_num	500595
obs_id	6142
title	Monitoring of the Relativistic Magnetohydrodynamic Shock in the Crab Nebula
observer	Dr Koji Mori
object	The Crab Nebula
dtcycle	0
cycle	P
ra_targ	83.62375
dec_targ	22.016472
ra_nom	83.625363411782
dec_nom	22.028843220106
roll_nom	90.838085820205
revision	3
ontime	10146.60040319
liveltime	8925.5809317291
ontime7	10146.60040319
l2events	2452218



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	0
ascdsver	7.6.7.1
caldbver	3.2.1
date	2006-04-04T20:08:00
revision	3

sched_exp_time	10000.000000
ontime	11765.446543038
ontime7	11765.446543038
l1events	2612922

2.1.3 Events

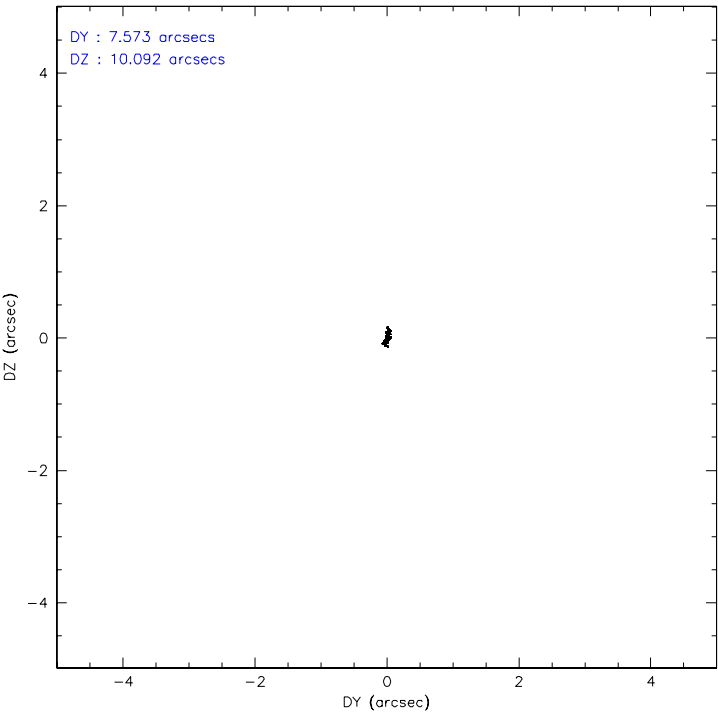
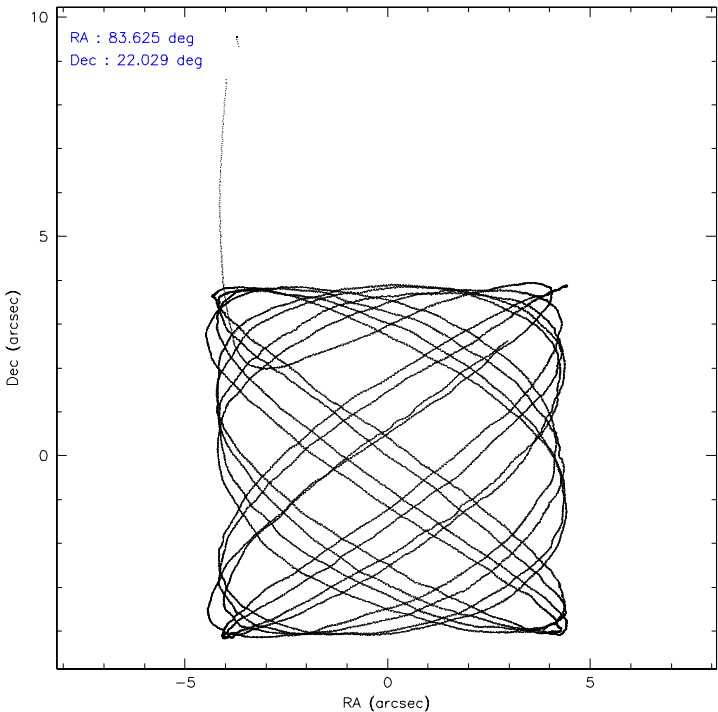
	ccd 7
level 1 events	2612922
rejected events	129771
rejected %	4%

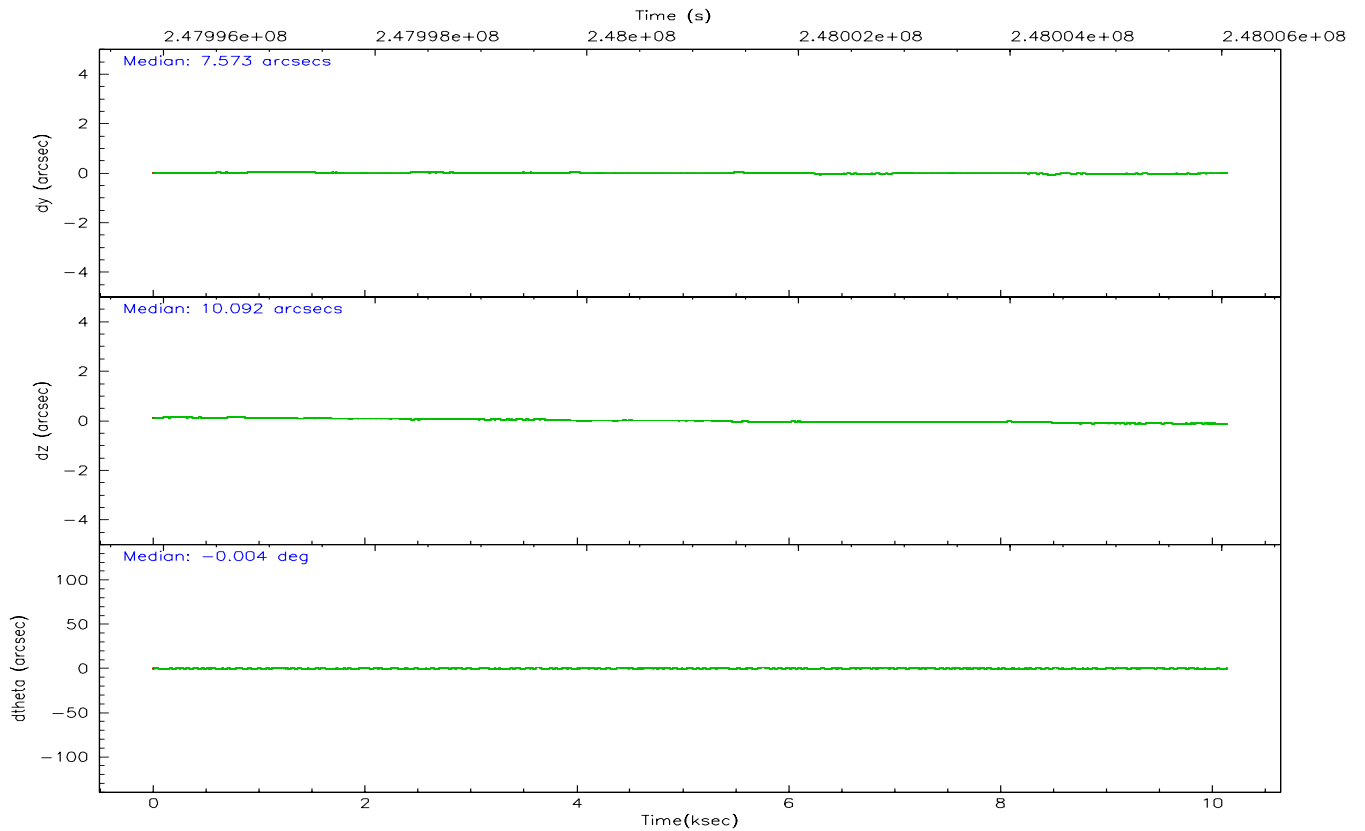
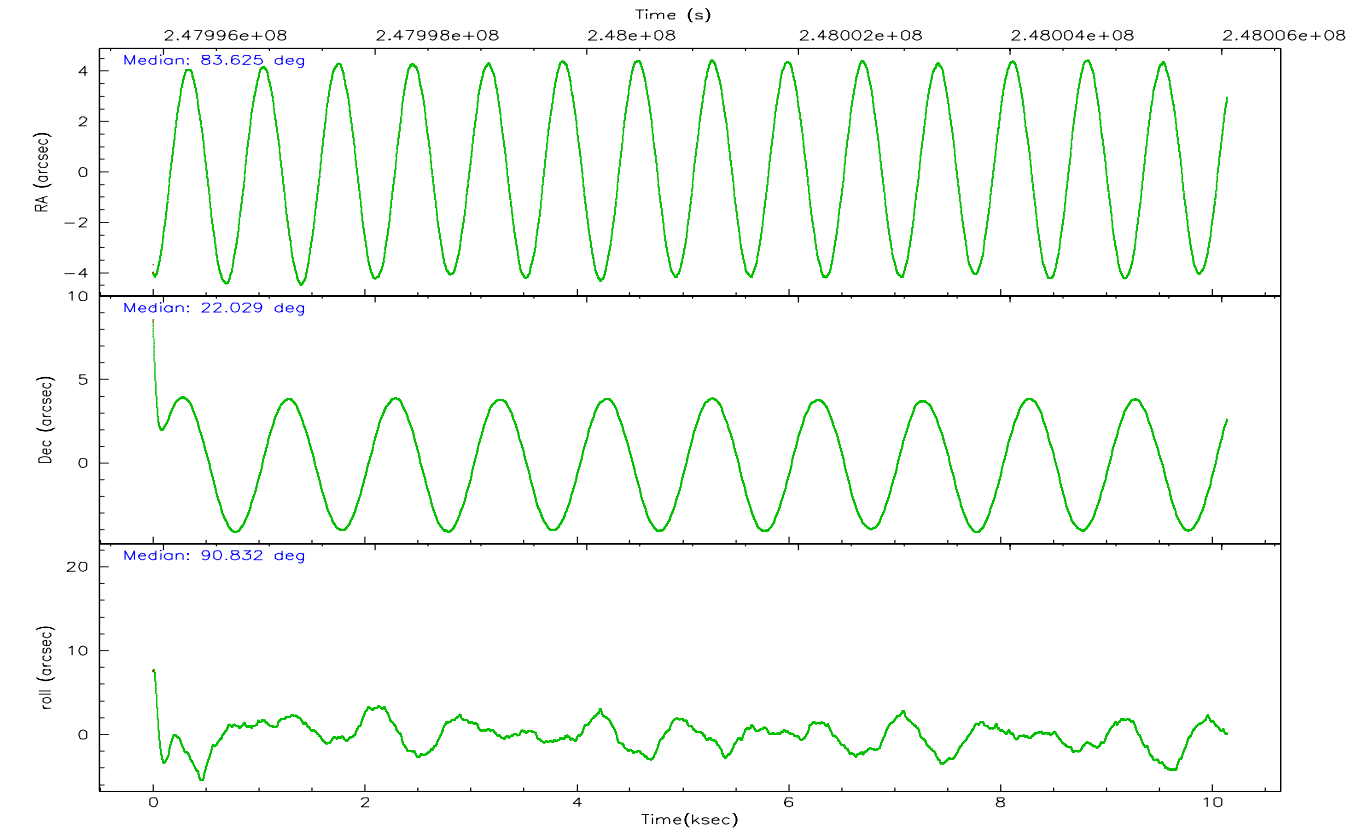
	ccd 7
grade 0 events	512880
	19%
grade 1 events	9167
	0%
grade 2 events	647870
	24%
grade 3 events	287979
	11%
grade 4 events	276802
	10%
grade 5 events	37520
	1%
grade 6 events	798693
	30%
grade 7 events	42011
	1%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	GRADED	GRADED	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	CUSTOM	CUSTOM
Pointing RA	83.640784	83.62536341178212	Subarray start row	127	127
Pointing Dec	22.005662	22.02884322010632	Subarray row count	101	101
Pointing Roll	90.675664	90.83808582020524	Alternating exposures requested	N	N
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Primary exposure time	0.000000	0.3
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-182.132523	-182.1370004450064			
SIM translation stage offset (mm)	-8	-7.995522138001405			
Observation start time	247996047.184000	247994282.58444			
Observation start date	2005-11-10T07:46:23	2005-11-10T07:18:02			
Observation end time	248006047.184000	248007757.23506			
Observation end date	2005-11-10T10:33:03	2005-11-10T11:02:37			
Read mode	TIMED	TIMED			

2.3 Aspect



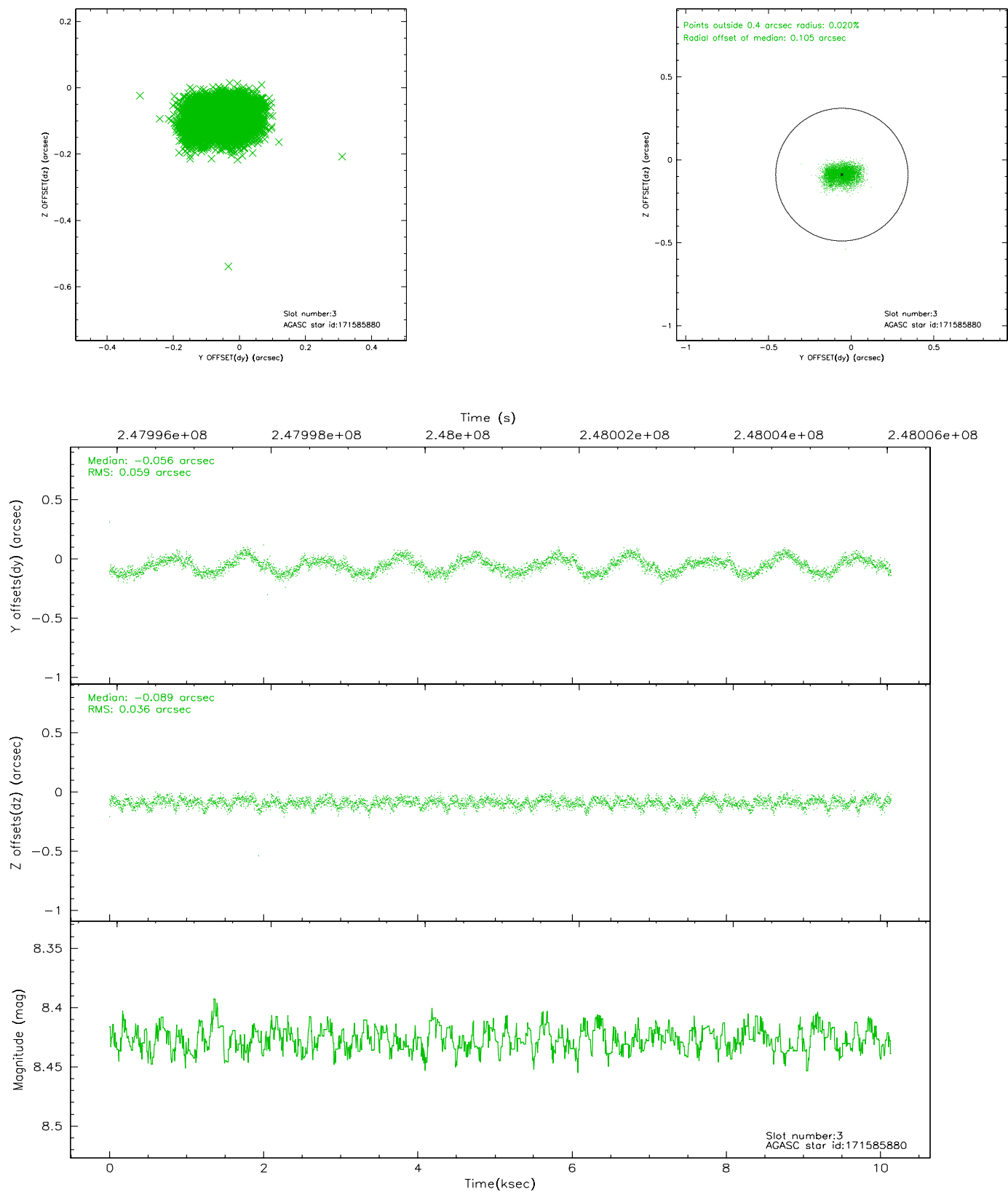


Slot Statistics

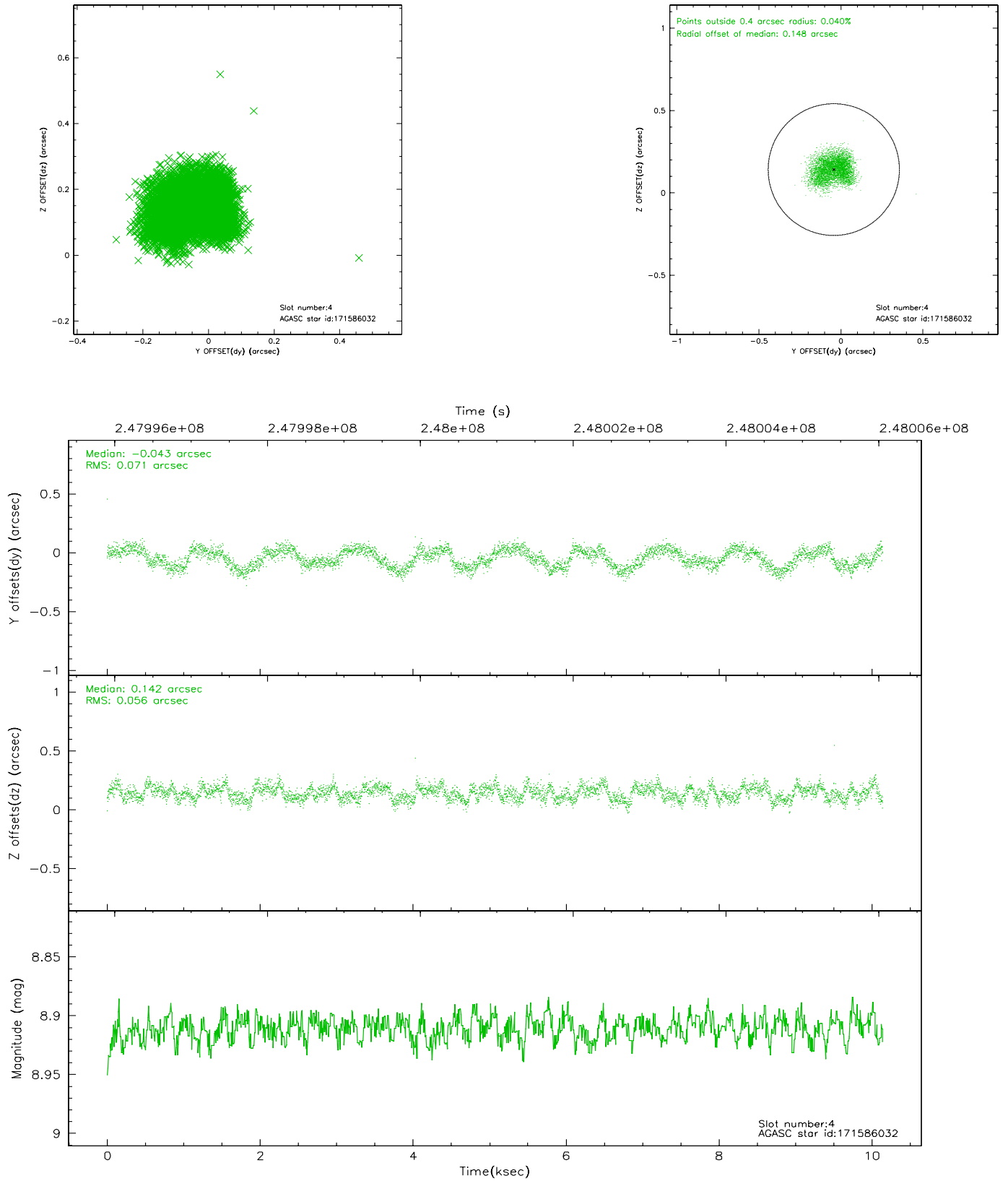
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	2475	-0.060	-0.067	0.006	0.010	0.000000	0.000000	-759.81	-1896.13
1	FID	ACIS-S-4	7.18	2476	0.072	0.047	0.005	0.008	0.000000	0.000000	2153.35	11.86
2	FID	ACIS-S-5	7.23	2476	-0.043	0.028	0.006	0.010	0.000000	0.000000	-1811.98	6.09
3	GUIDE	171585880	8.43	4947	-0.056	-0.089	0.075	0.116	83.676260	22.176319	613.15	-125.43
4	GUIDE	171586032	8.91	4951	-0.043	0.142	0.099	0.146	83.950197	22.083225	268.52	-1035.16
5	GUIDE	171721904	9.19	4946	-0.053	0.019	0.088	0.140	84.272676	22.116922	380.49	-2112.10
6	GUIDE	243941560	8.32	4951	-0.096	0.105	0.068	0.105	83.733264	22.568598	2023.07	-331.27
7	GUIDE	171597832	9.15	4936	0.255	-0.179	0.084	0.133	83.183230	21.366702	-2279.01	1560.69

2.4 Star Slots

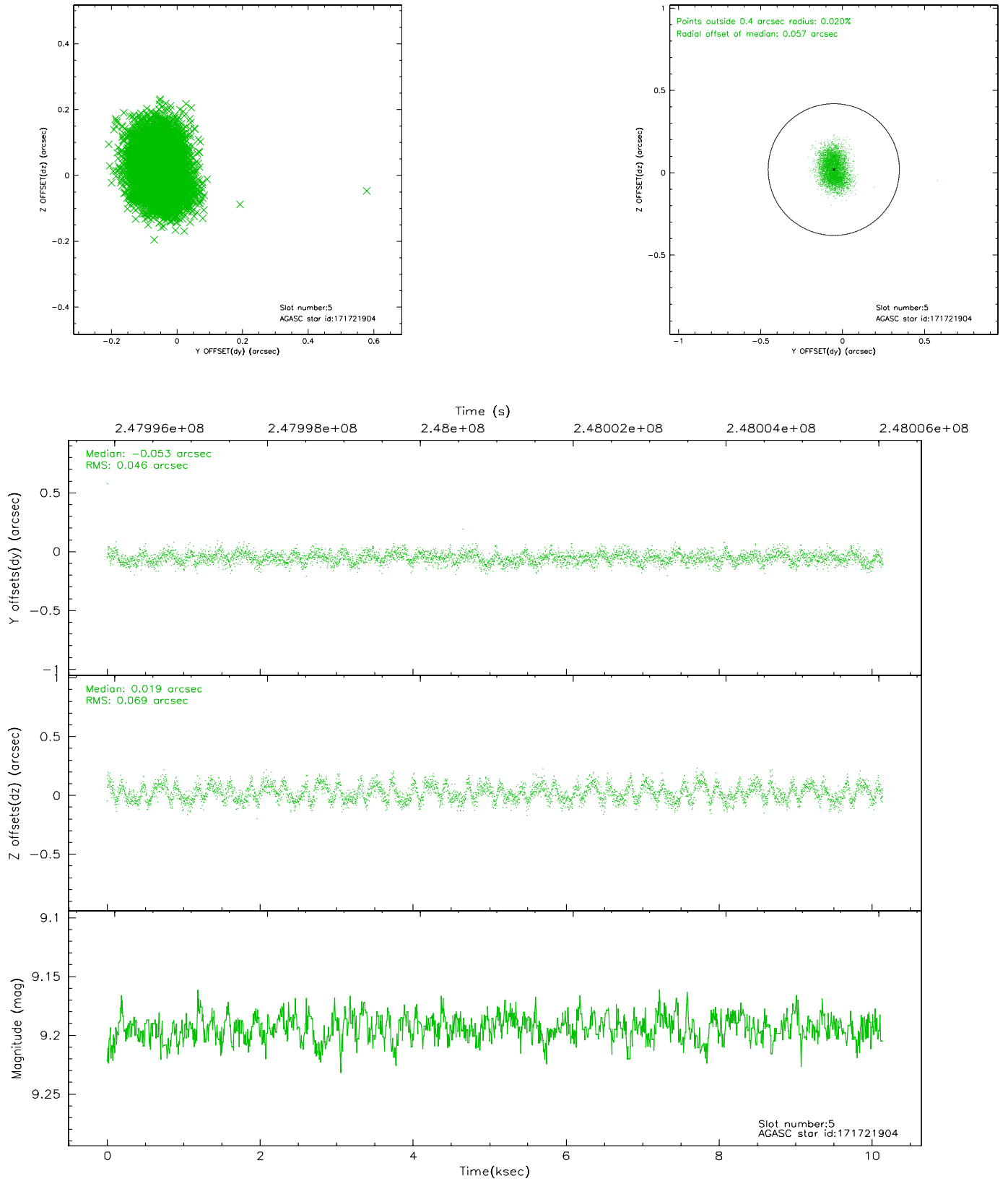
2.4.1 Slot 3



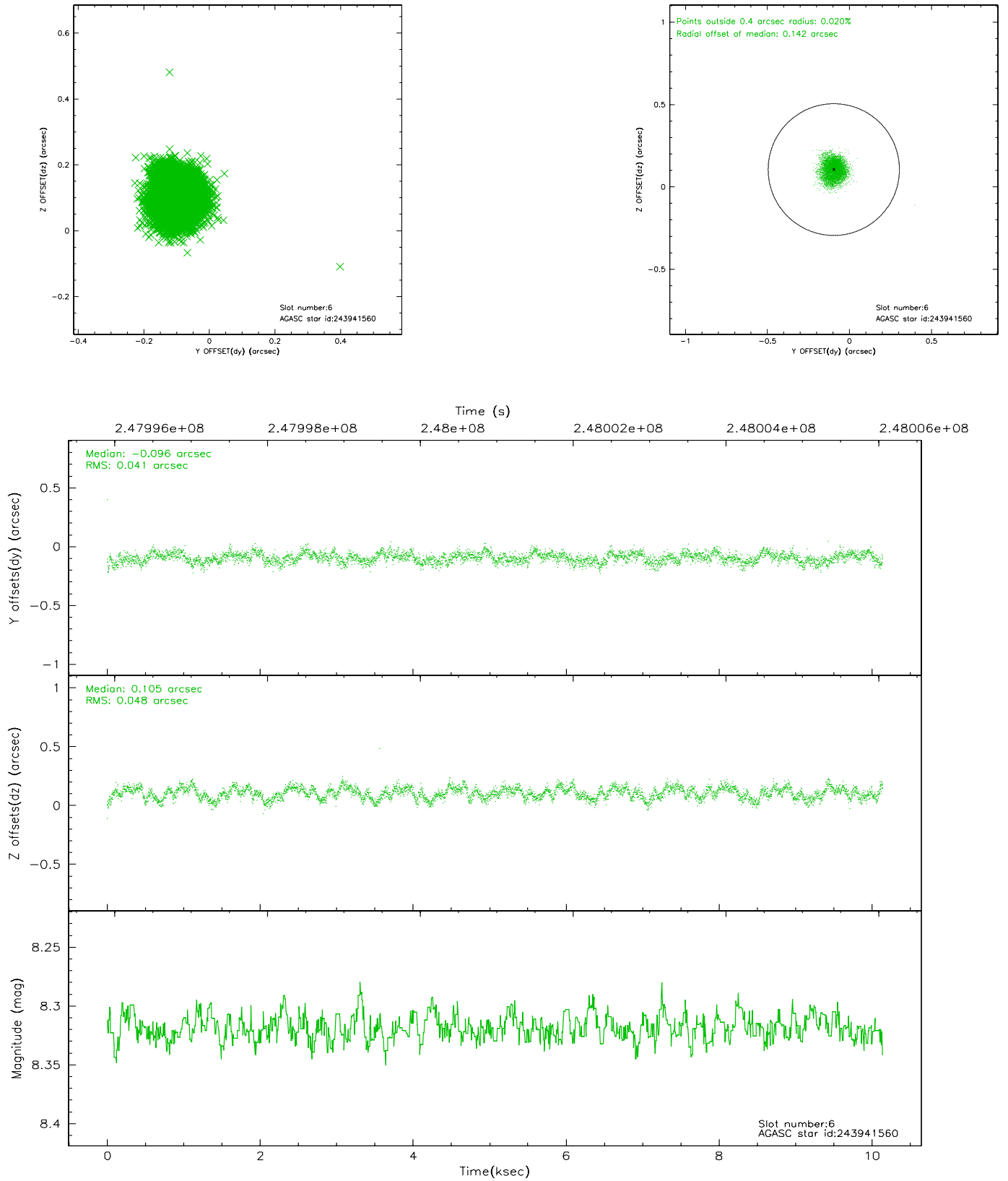
2.4.2 Slot 4



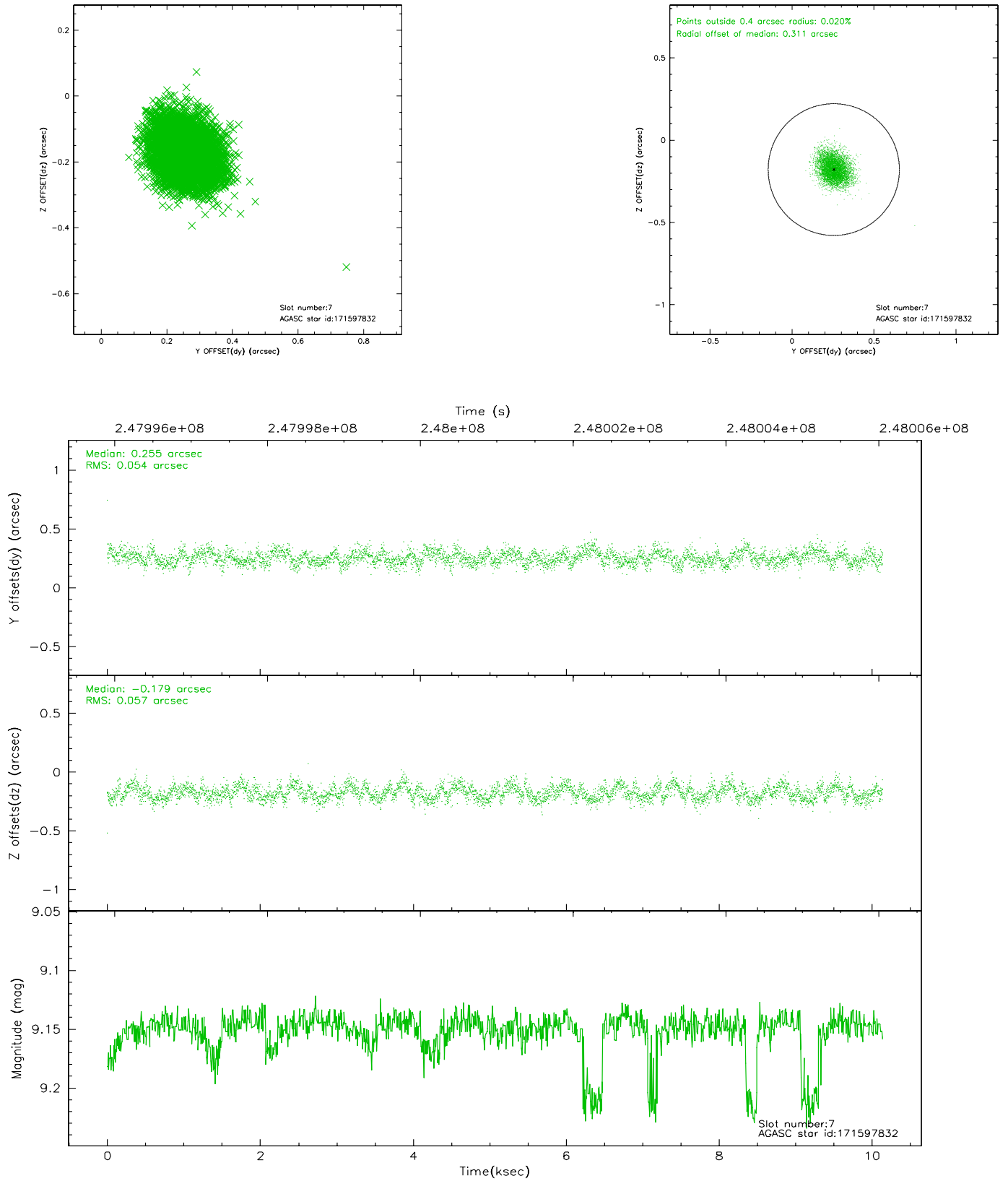
2.4.3 Slot 5



2.4.4 Slot 6

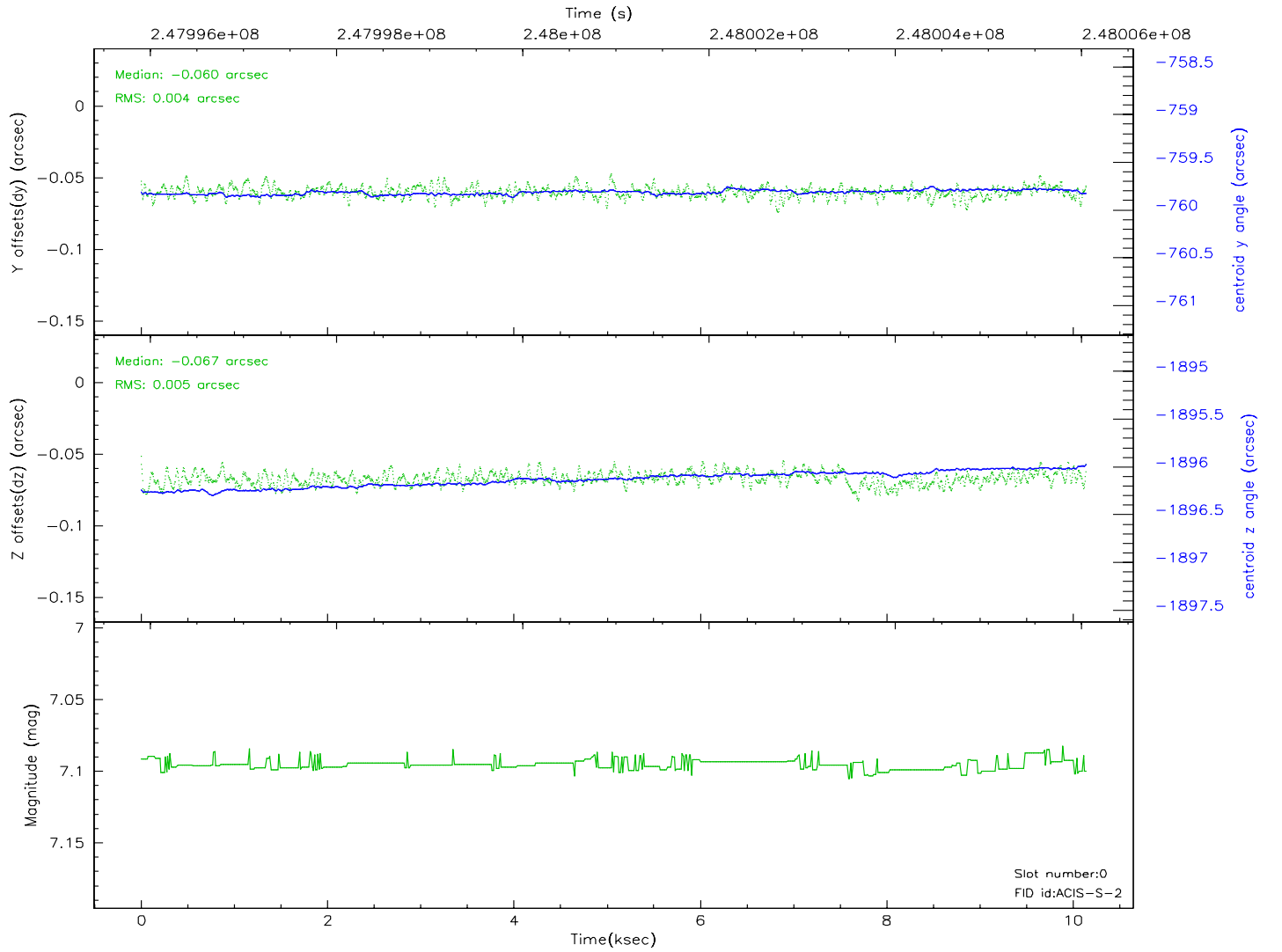
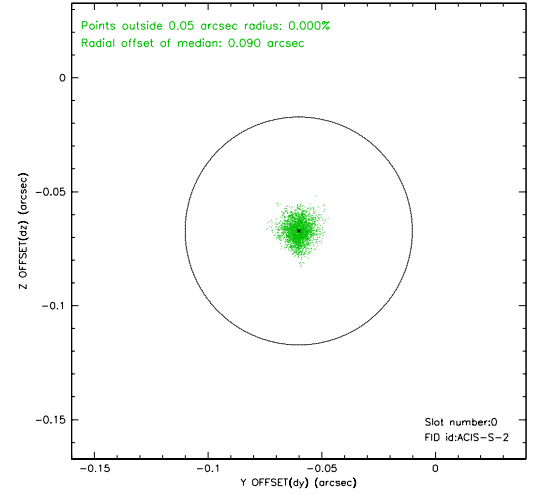
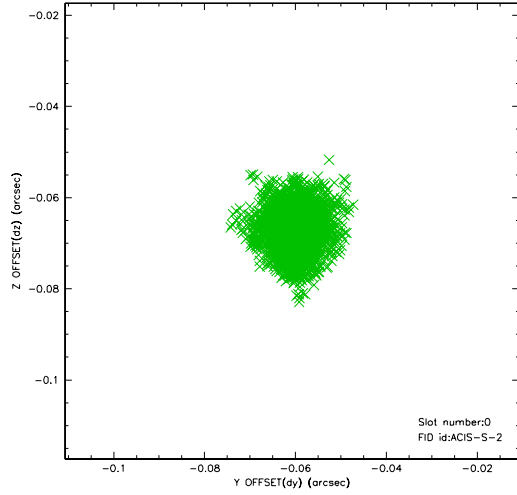


2.4.5 Slot 7

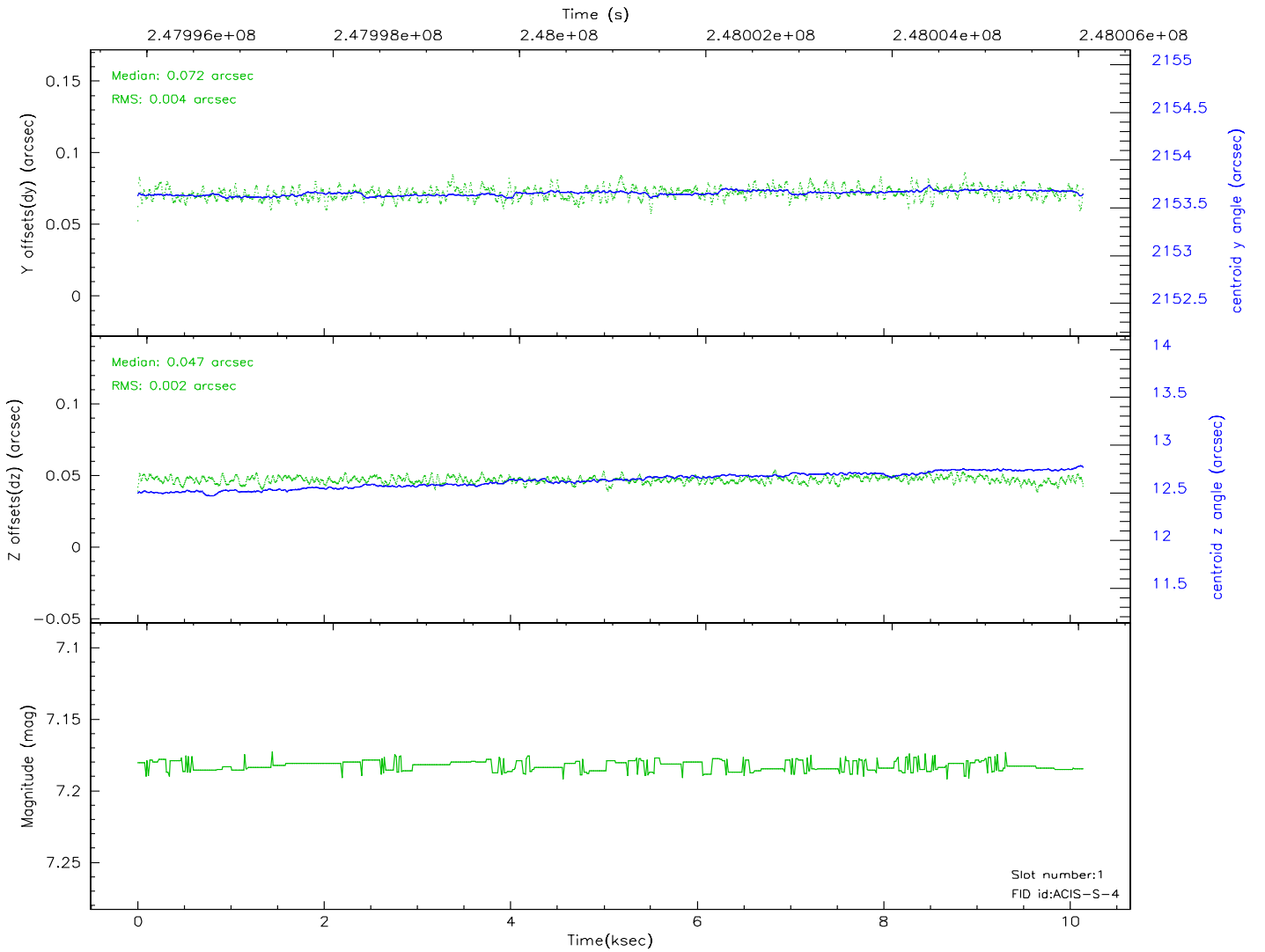
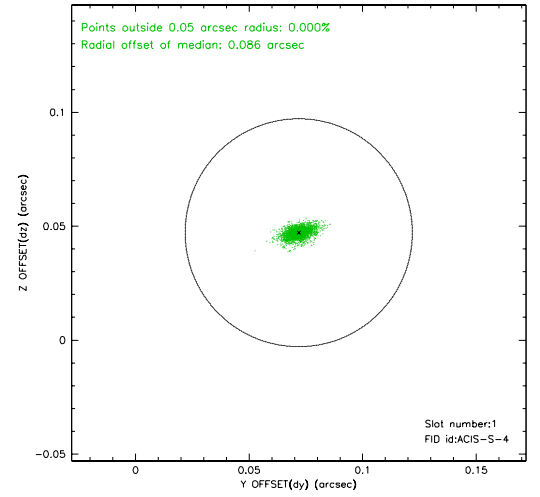
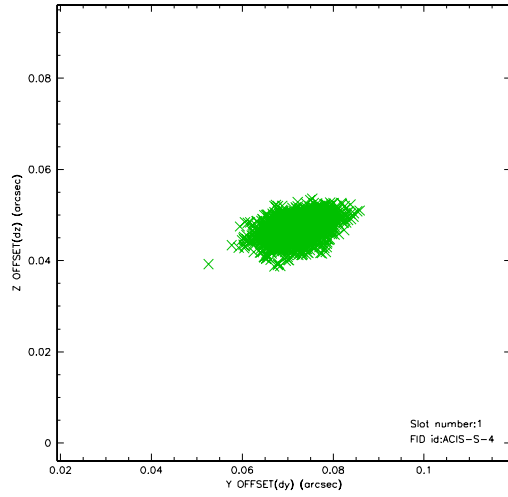


2.5 FID Slots

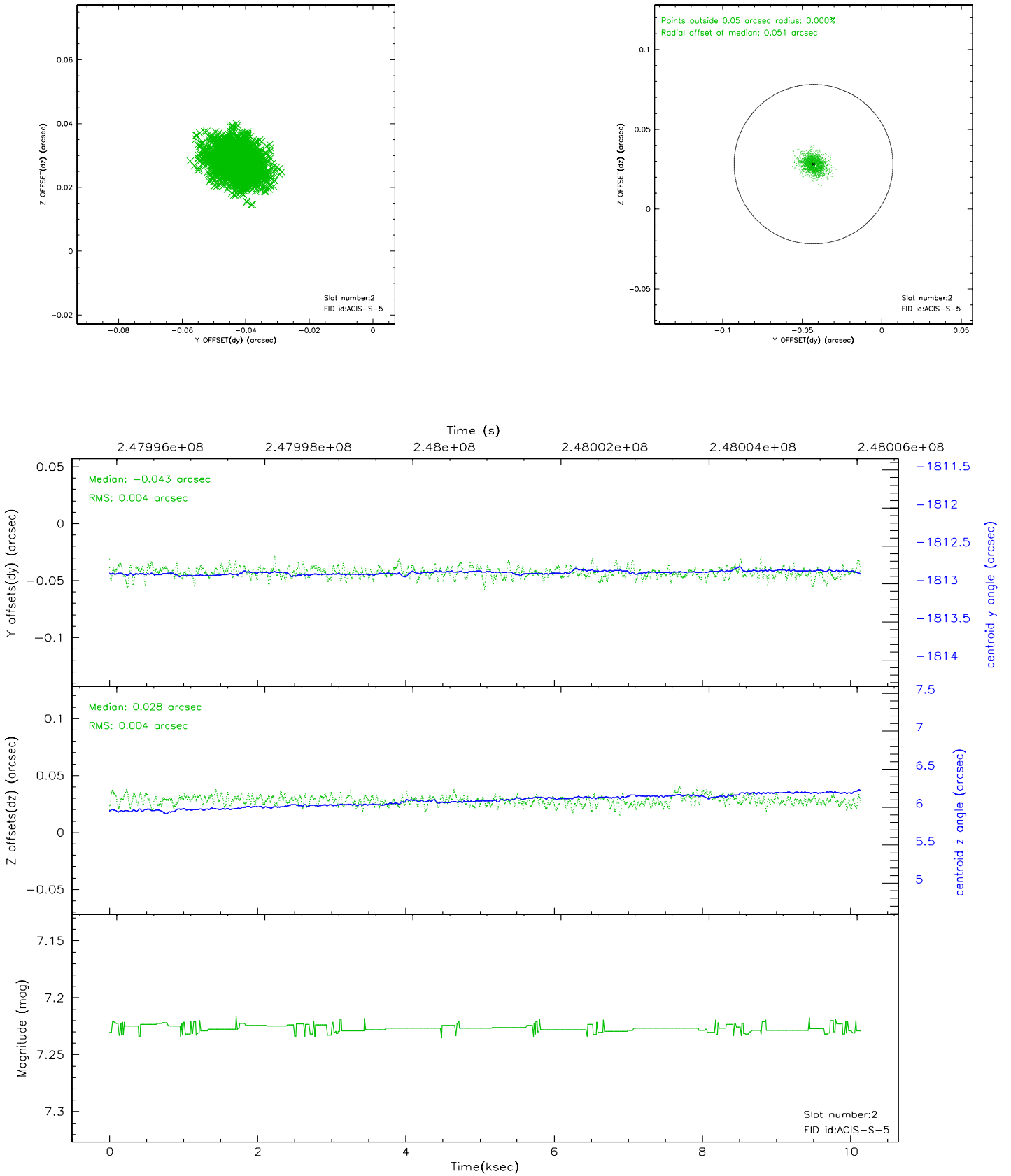
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

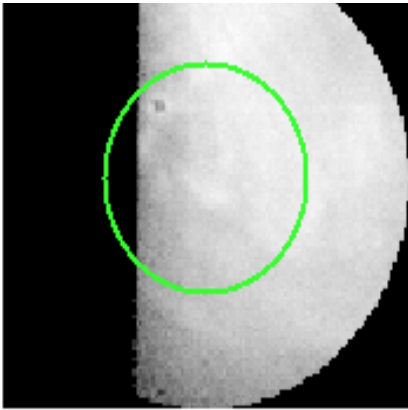


3 Gratings

3.1 HEG Arm



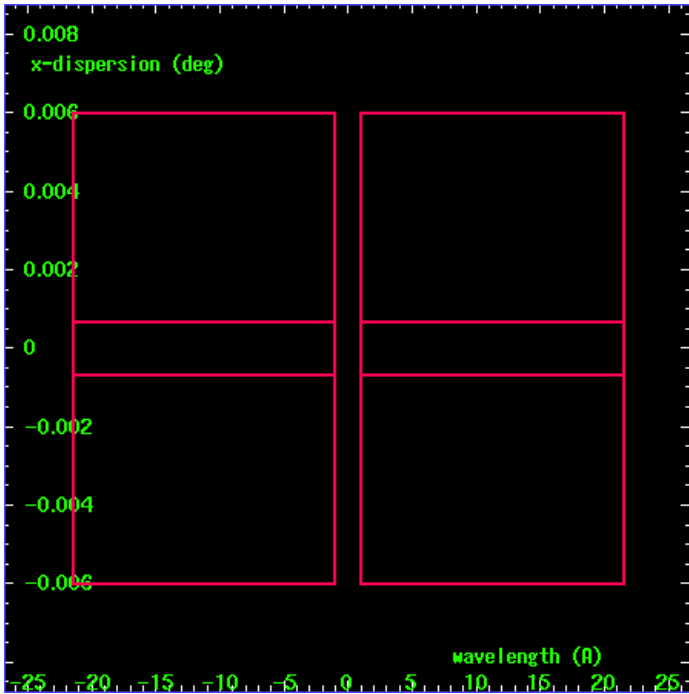
HEG Order Sort 123



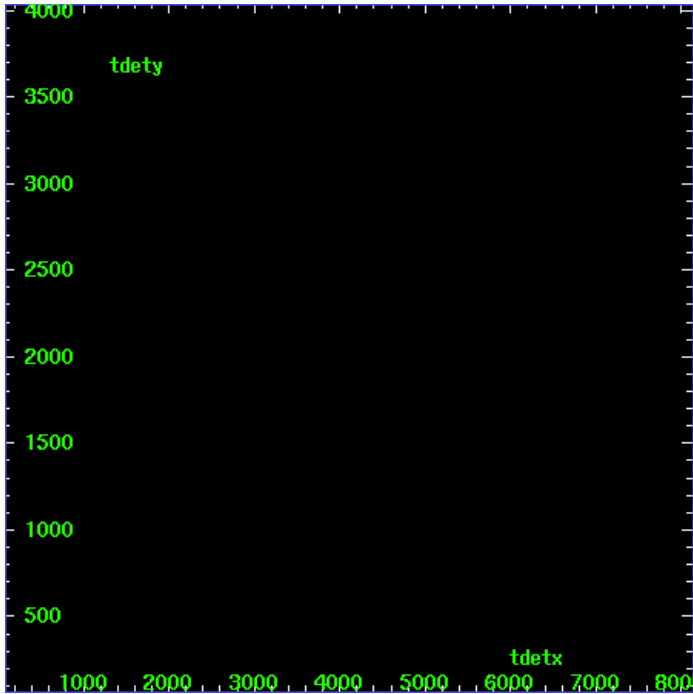
HEG Zero Order



HEG Order Sort ALL

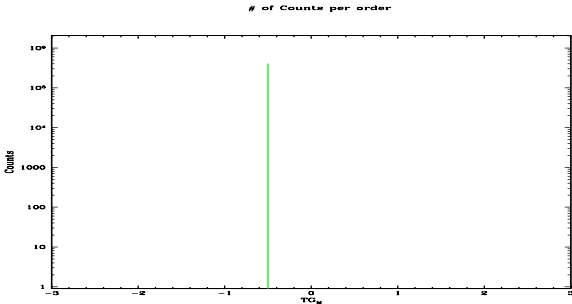


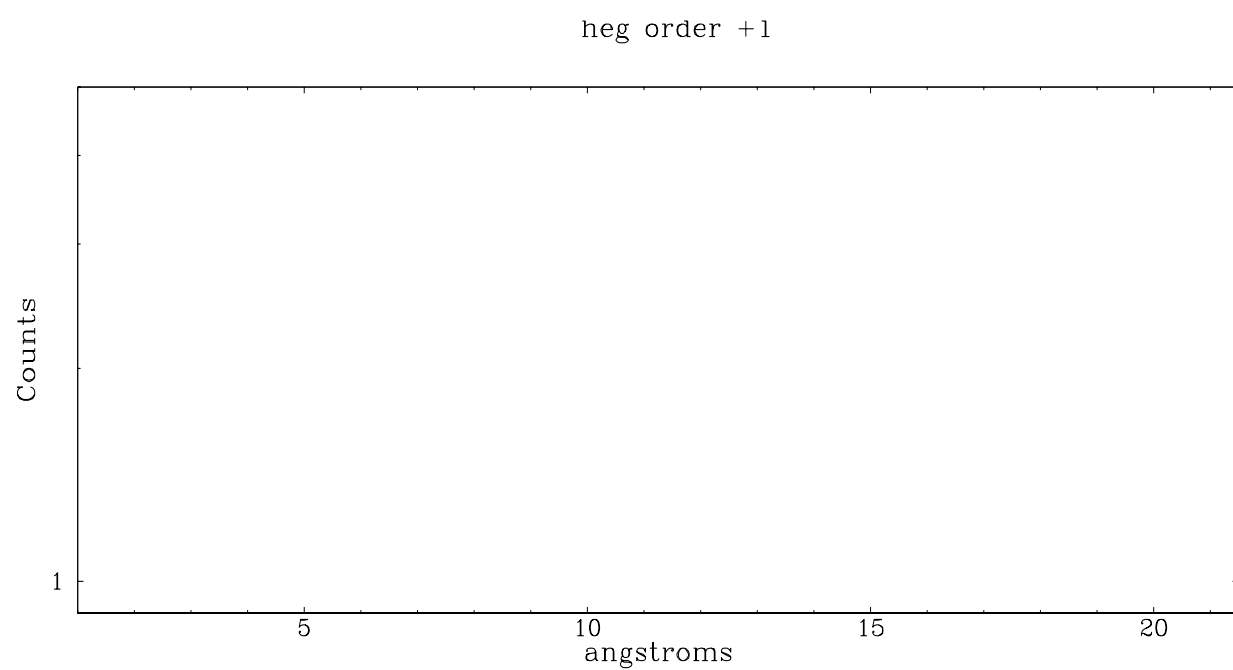
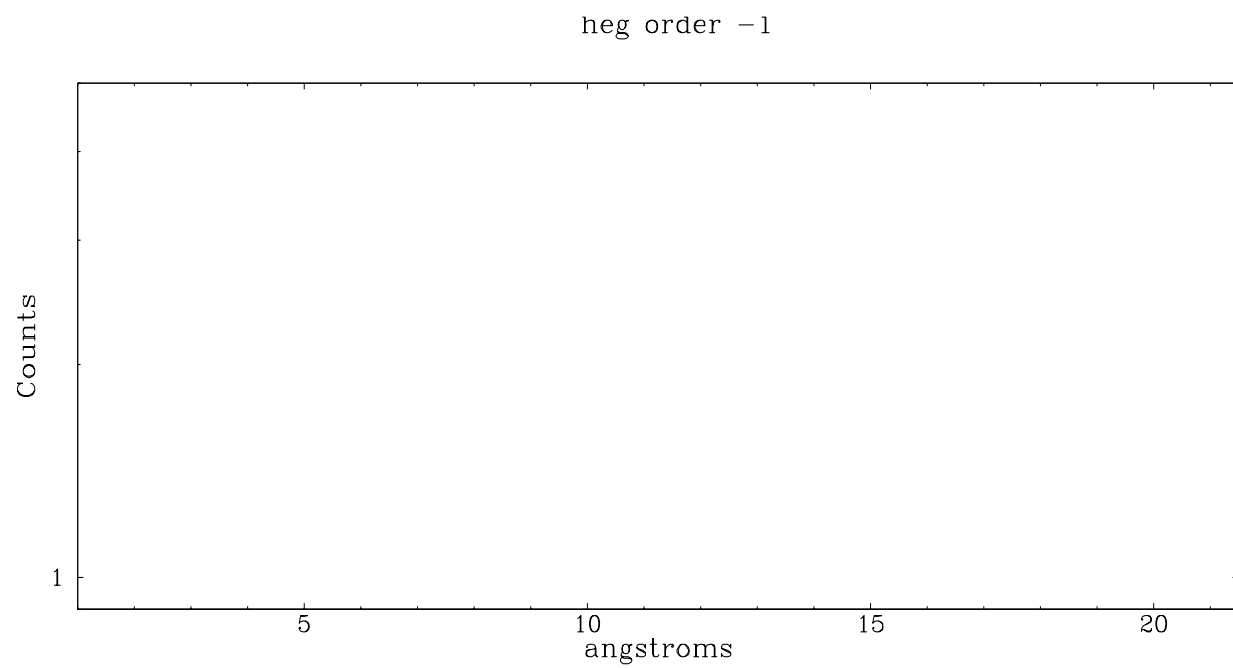
Spot Image HEG



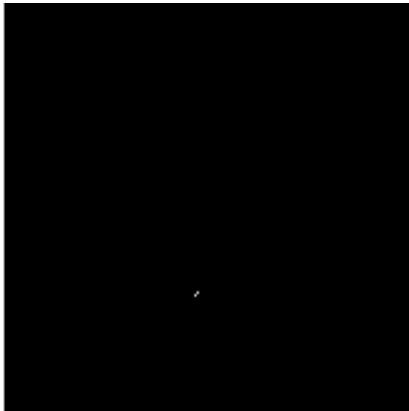
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	0	408544	0	0	0

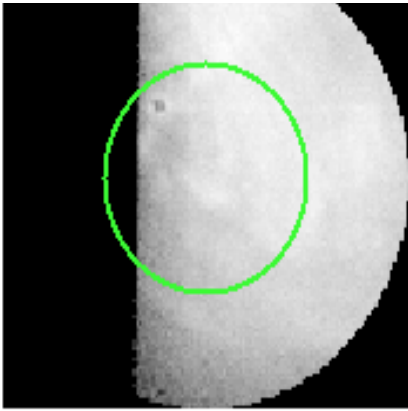




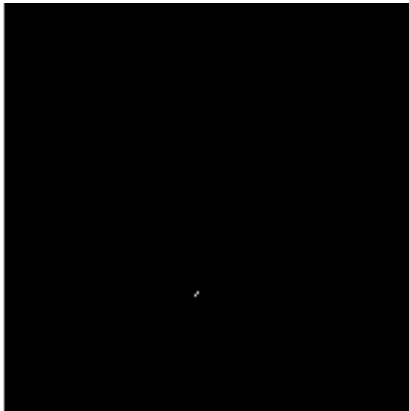
3.2 MEG Arm



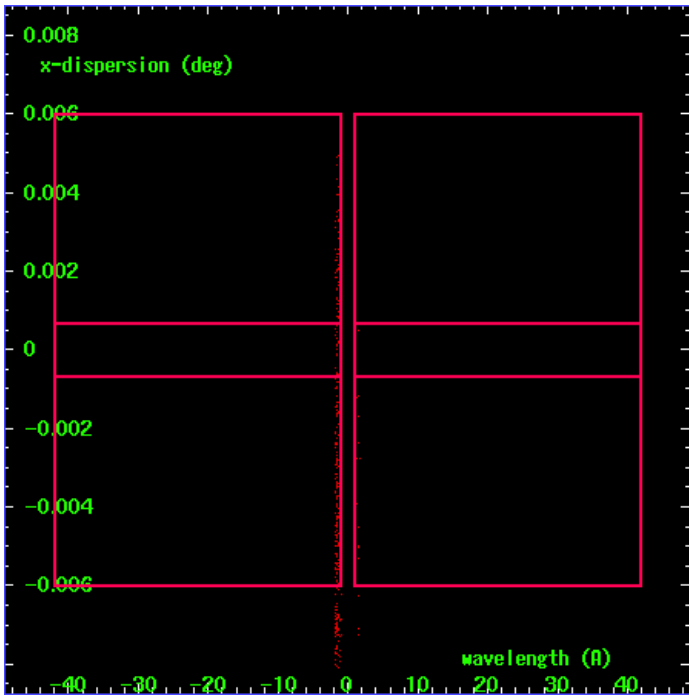
MEG Order Sort 123



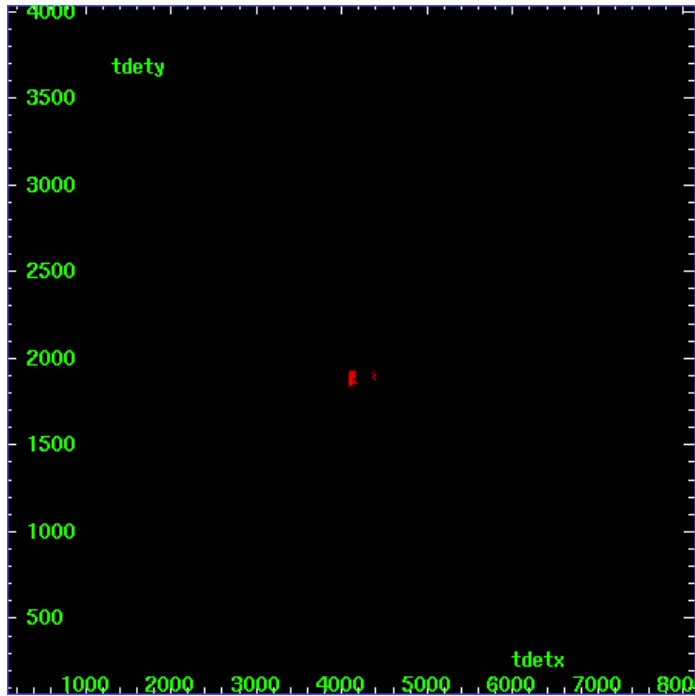
MEG Zero Order



MEG Order Sort ALL

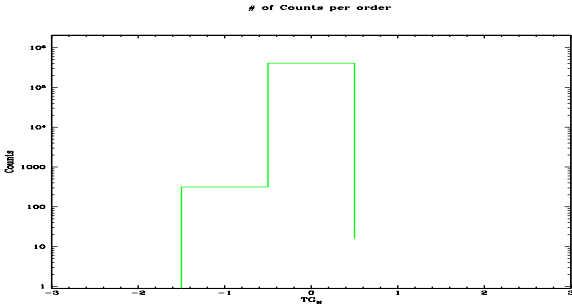


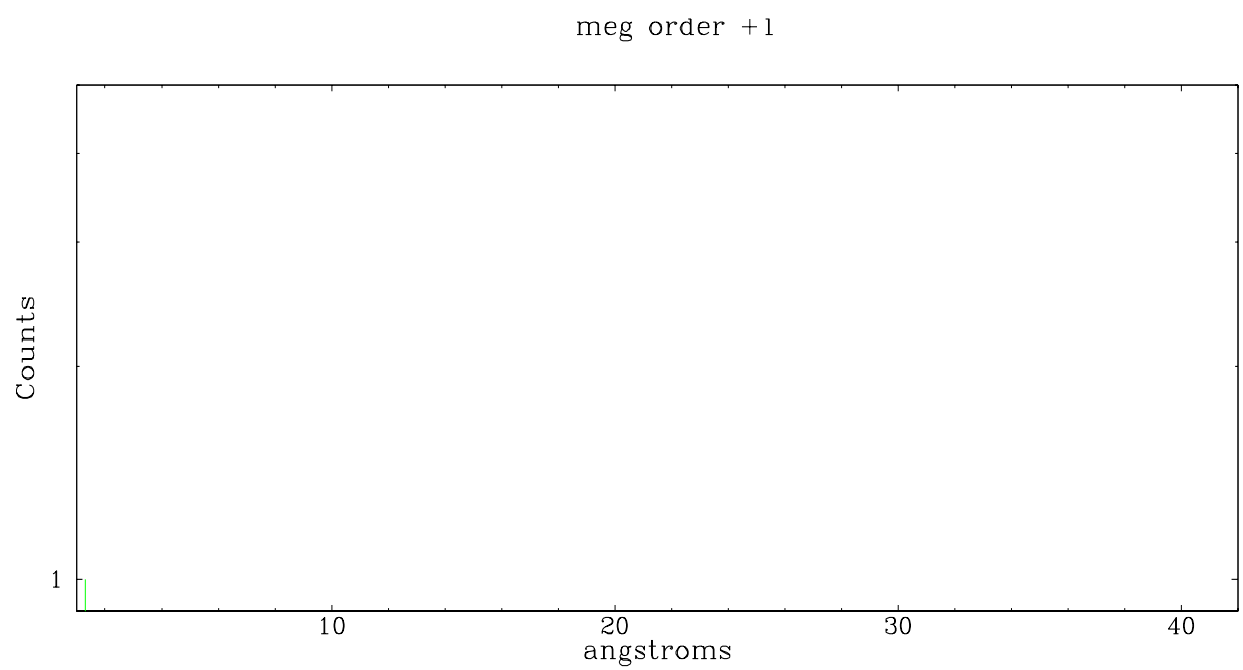
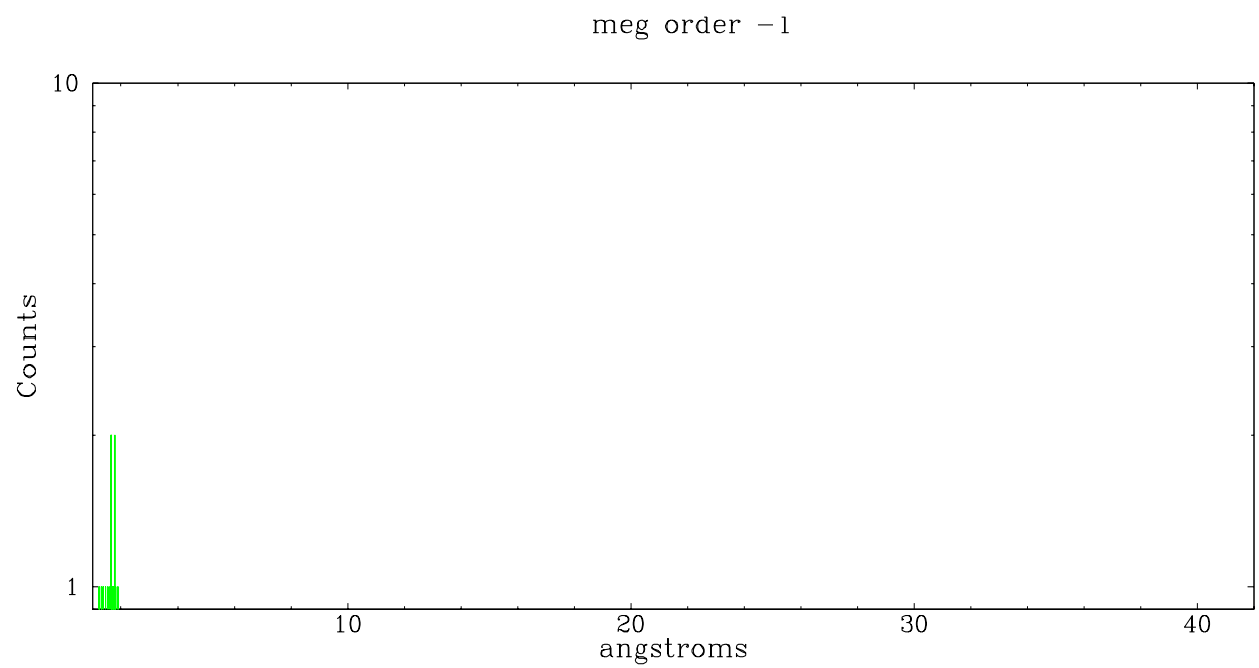
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	316	408544	16	0	0





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.04.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.1466

A.2 Comments

Grating used primarily to reduce pileup. Zeroth order region is not entirely within the subarray used. Aim point offset ~30 arcsec to the west, as requested by the observer. Broad east/west streak in Level 2 data is instrumental.