

V&V Reference Report

L2 ASCDS Version : 7.6.9

Observation 4284 - L2 Version 001
Chandra X-Ray Center

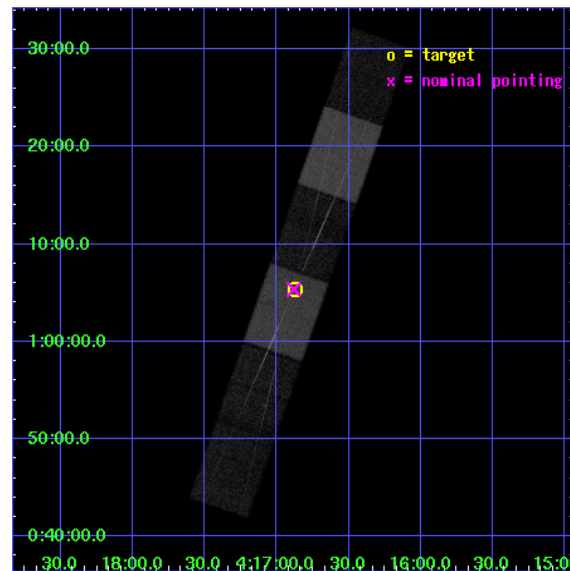
L2 Processing Date : Oct 16 2006

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1 Front

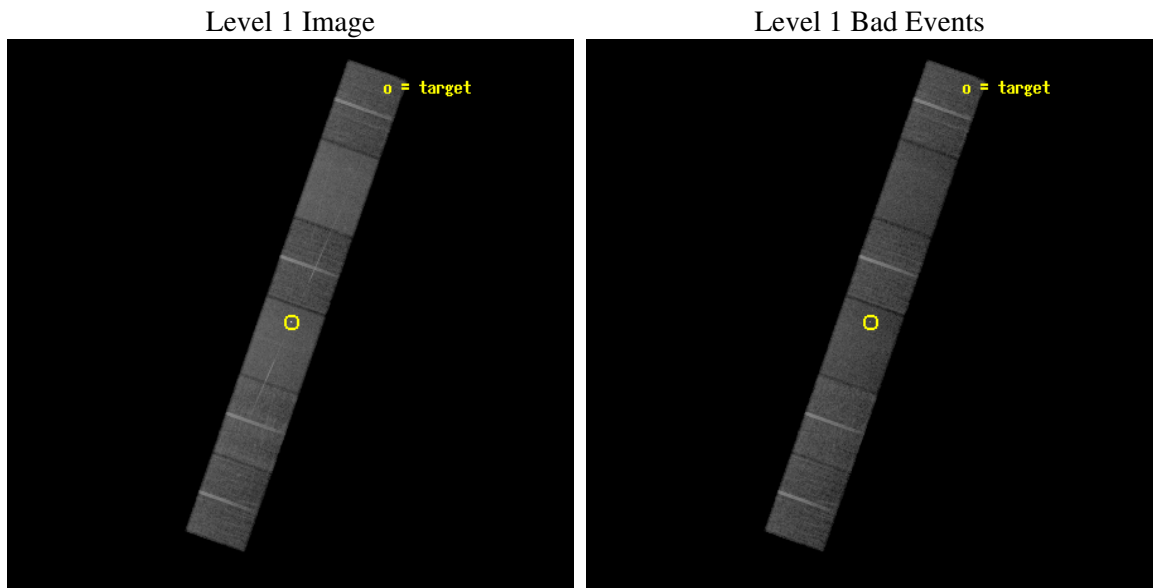
seq_num	700408
obs_id	4284
title	PROBING THE INTERGALACTIC MEDIUM AT LOW REDSHIFT
observer	Prof. Claude Canizares
object	1H 0414+009
dtcycle	0
cycle	P
ra_targ	64.218333
dec_targ	1.09
ra_nom	64.220399227052
dec_nom	1.0891711325287
roll_nom	109.26669335579
revision	2
ontime	37040.0
livetime	36441.771872934
ontime4	37040.0
ontime5	37040.0
ontime6	37040.0
ontime7	37040.0
ontime8	37040.0
ontime9	37037.459009826
l2events	243627



2 OBI

2.1 OBI

2.1.1 Images

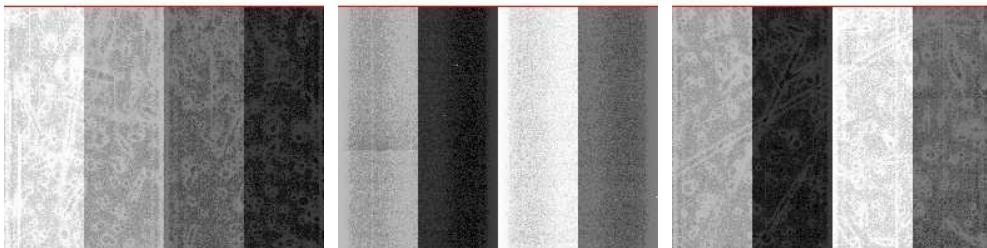


2.1.2 Bias

Chip 4

Chip 5

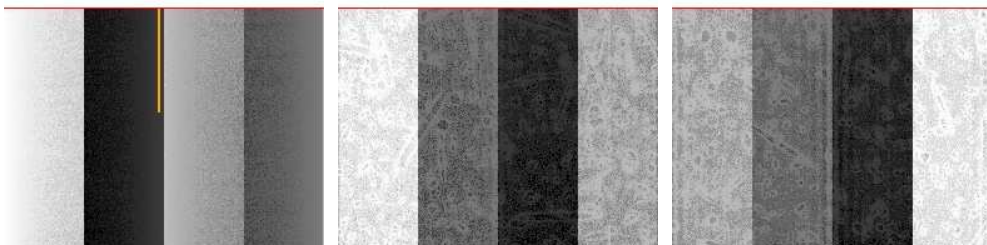
Chip 6



Chip 7

Chip 8

Chip 9



2.1.3 Parameters

obi_num	0
ascdsver	7.6.9
caldsver	3.2.3
date	2006-09-30T07:29:55
revision	2

sched_exp_time	36900.000000
ontime	37378.237507701
ontime4	37378.237477809
ontime5	37378.237507701
ontime6	37378.237477809
ontime7	37378.237507701
ontime8	37378.237477809
ontime9	37375.696487635
l1events	1094127

2.1.4 Events

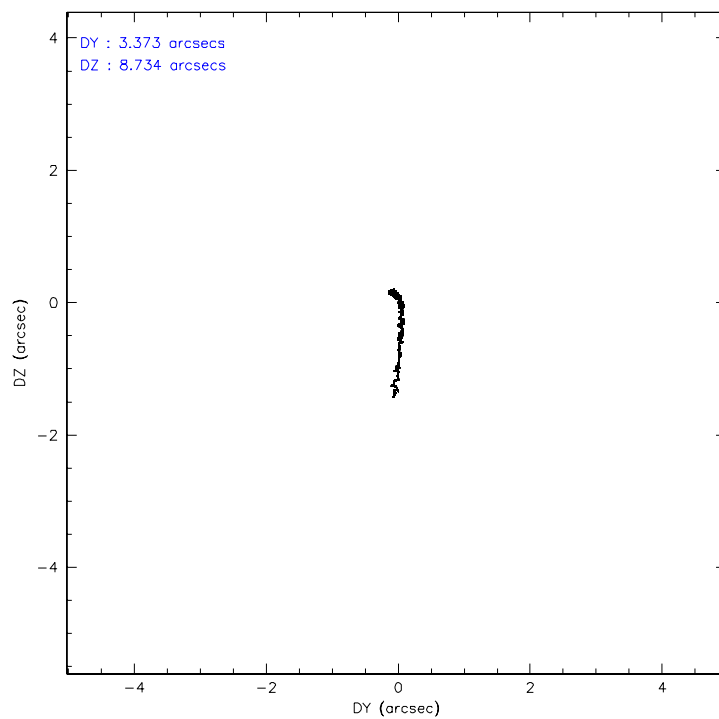
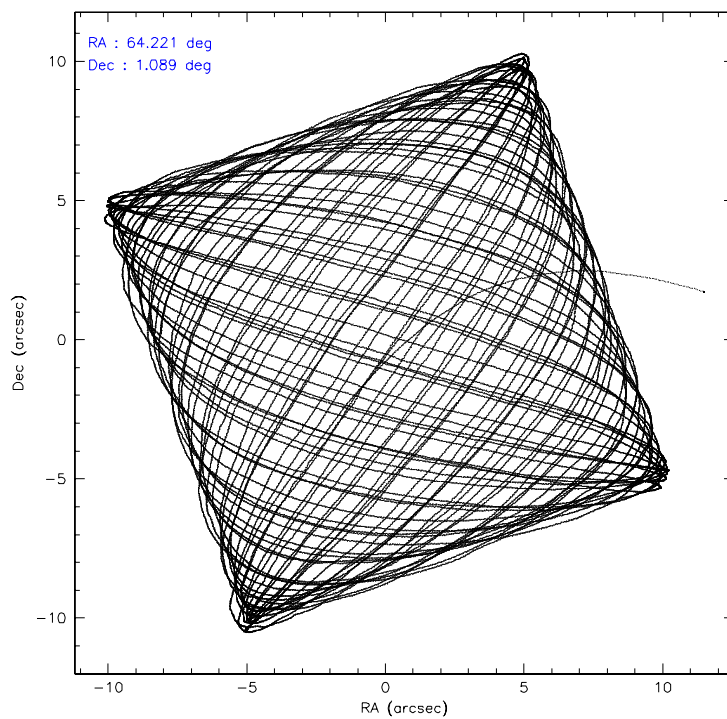
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	166285	216021	158990	207559	193574	151698
rejected events	147166	122498	137369	123657	152342	132703
rejected %	88%	56%	86%	59%	78%	87%

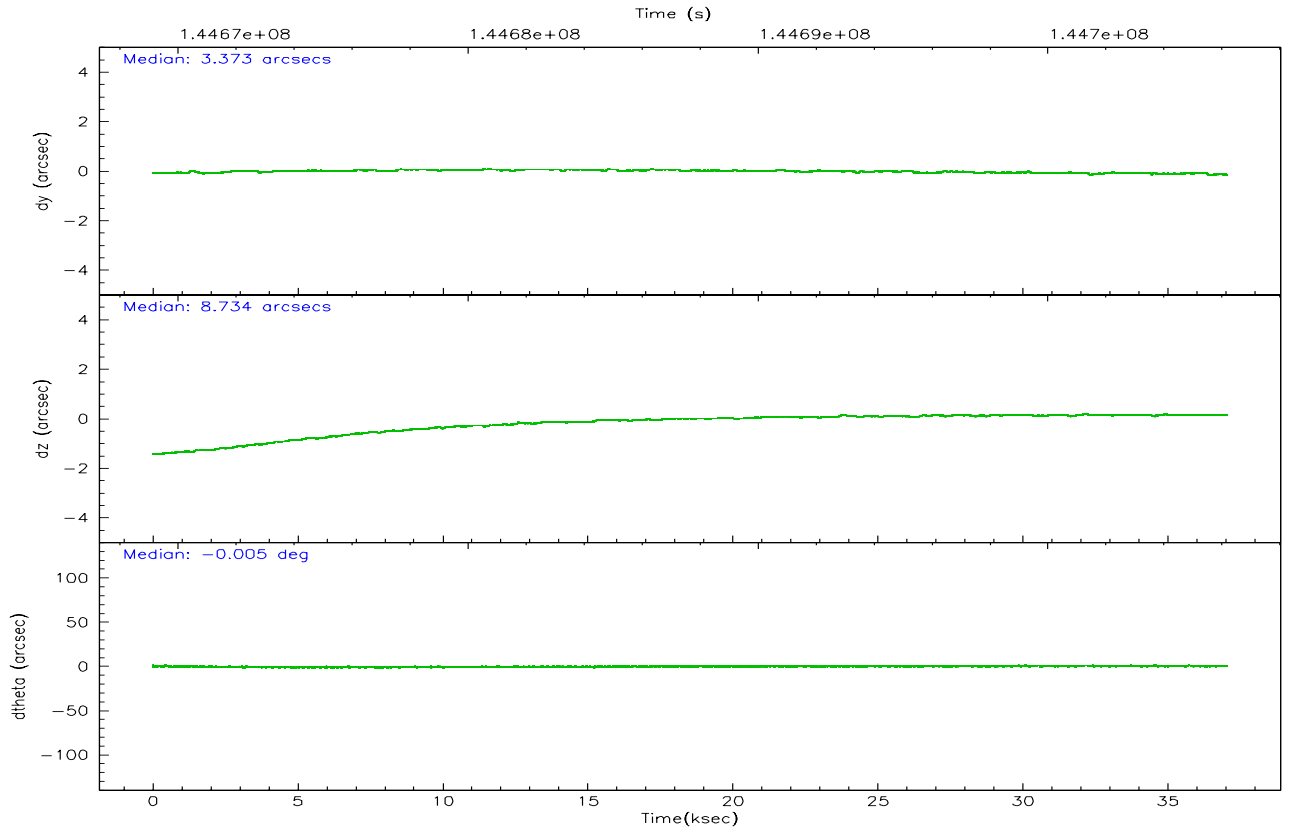
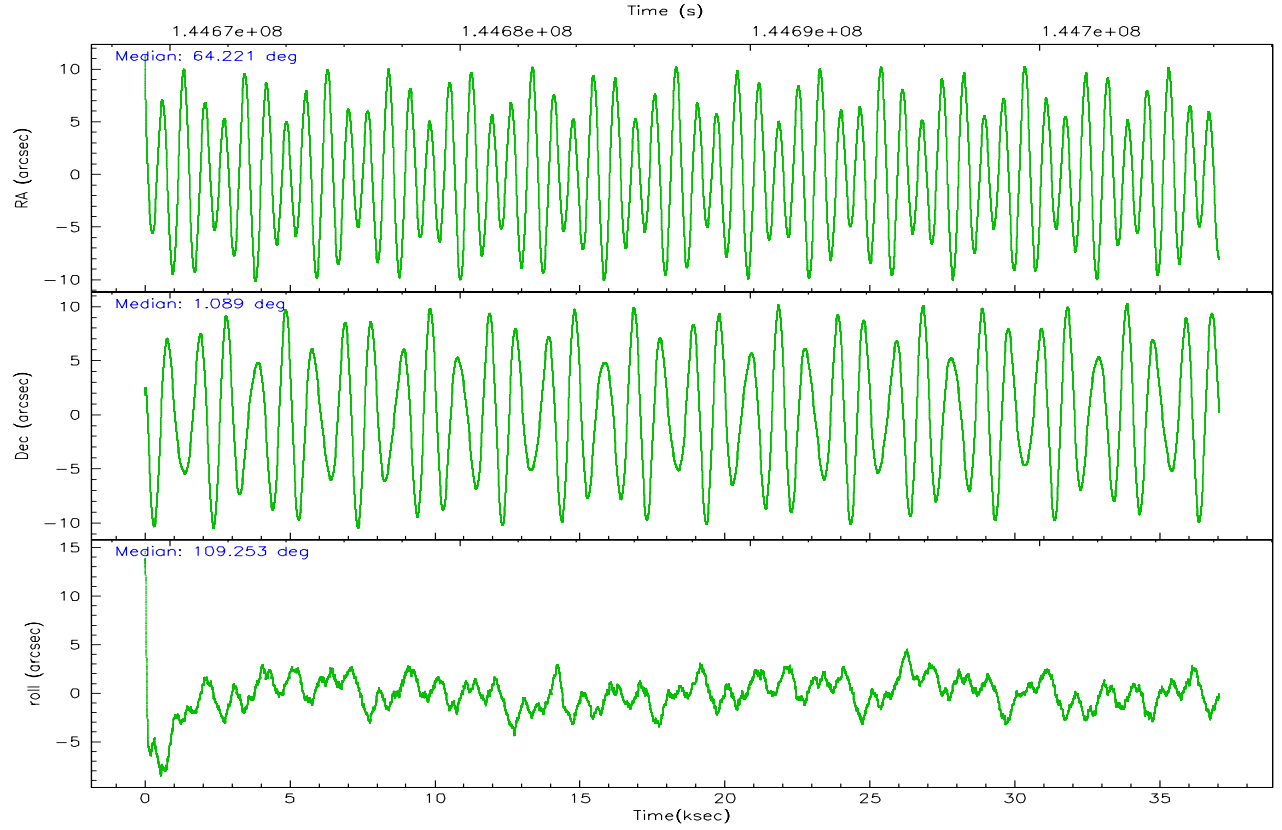
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	8374	4766	9967	6230	14234	8147
	5%	2%	6%	3%	7%	5%
grade 1 events	100	181	81	152	118	62
	0%	0%	0%	0%	0%	0%
grade 2 events	3919	29229	4174	20632	8660	3604
	2%	13%	2%	9%	4%	2%
grade 3 events	2008	2801	2021	5364	4349	2012
	1%	1%	1%	2%	2%	1%
grade 4 events	1962	2663	1993	5247	4032	2000
	1%	1%	1%	2%	2%	1%
grade 5 events	6284	11067	6512	14369	8682	7034
	3%	5%	4%	6%	4%	4%
grade 6 events	3022	55003	3675	47099	10284	3496
	1%	25%	2%	22%	5%	2%
grade 7 events	140616	110311	130567	108466	143215	125343
	84%	51%	82%	52%	73%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	64.241267	64.22039922705166	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	1.071663	1.089171132528741	Subarray start row	1	1
Pointing Roll	109.109666	109.2666933557906	Subarray row count	774	774
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
SIM defocus (mm)	0	0.001444936568705701	Primary exposure time	0.000000	2.5
SIM translation stage pos (mm)	-187.132523	-187.1228876879999			
SIM translation stage offset (mm)	-3	-3.009634895007935			
Observation start time	144669284.184000	144668168.03646			
Observation start date	2002-08-02T09:53:40	2002-08-02T09:36:08			
Observation end time	144706184.184000	144706993.50056			
Observation end date	2002-08-02T20:08:40	2002-08-02T20:23:13			
Read mode	TIMED	TIMED			

2.3 Aspect



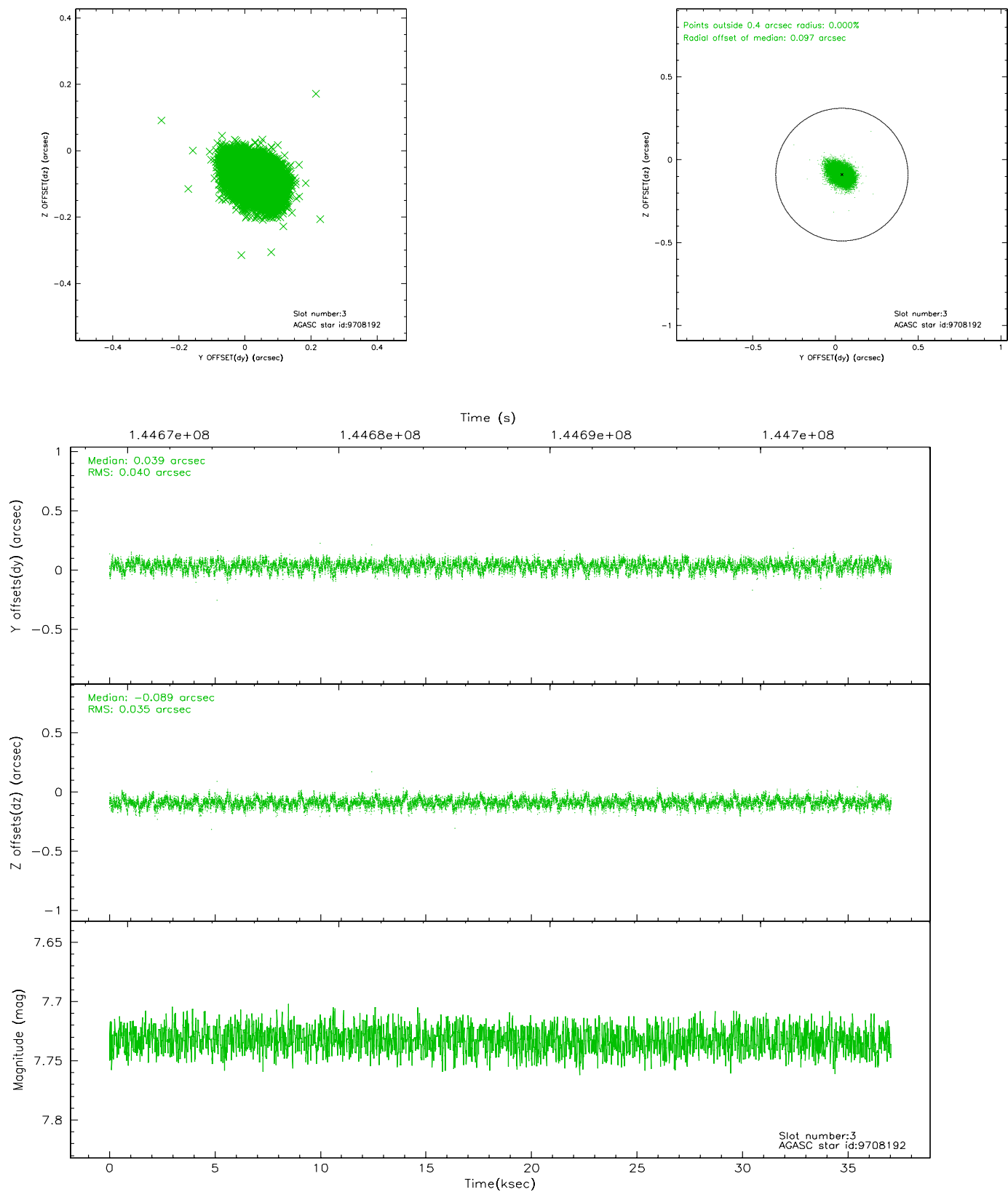


Slot Statistics

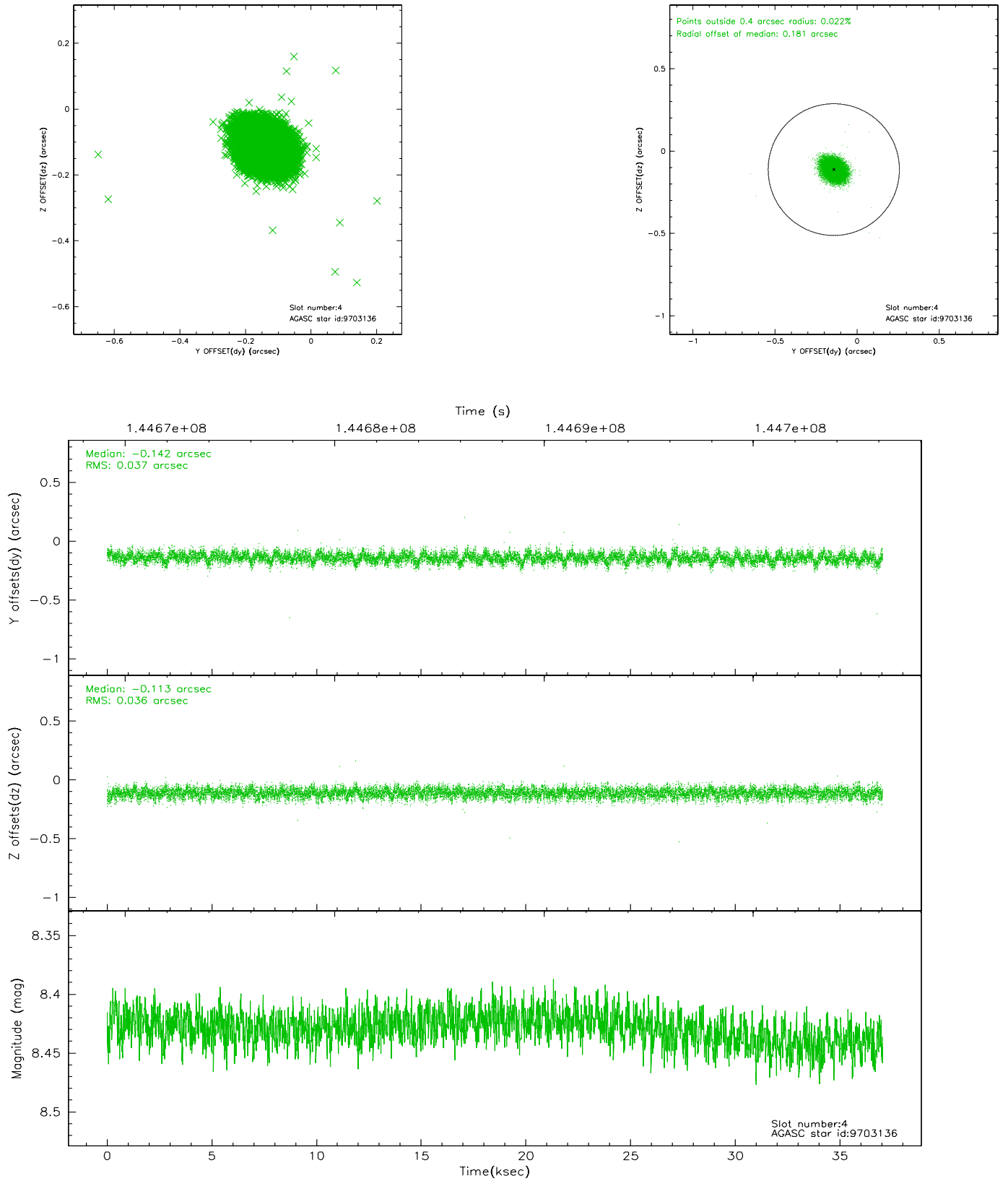
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	9035	-0.040	-0.004	0.009	0.015	0.000000	0.000000	-755.81	-1791.89
1	FID	ACIS-S-4	7.20	9034	-0.014	0.021	0.010	0.016	0.000000	0.000000	2157.44	116.64
2	FID	ACIS-S-5	7.23	9036	0.023	-0.008	0.008	0.012	0.000000	0.000000	-1808.59	110.23
3	GUIDE	9708192	7.73	18067	0.039	-0.089	0.057	0.093	64.027355	0.597797	-1359.17	1286.22
4	GUIDE	9703136	8.43	18068	-0.142	-0.113	0.054	0.089	64.056984	1.240772	792.98	428.11
5	GUIDE	9700112	8.70	18066	-0.022	0.088	0.072	0.115	64.622877	1.272905	236.29	-1534.26
6	GUIDE	9709312	9.12	18069	0.098	0.136	0.078	0.126	64.499854	0.983917	-602.05	-775.63
7	GUIDE	9709912	9.27	18058	0.029	-0.021	0.080	0.130	63.953553	0.846814	-425.16	1243.93

2.4 Star Slots

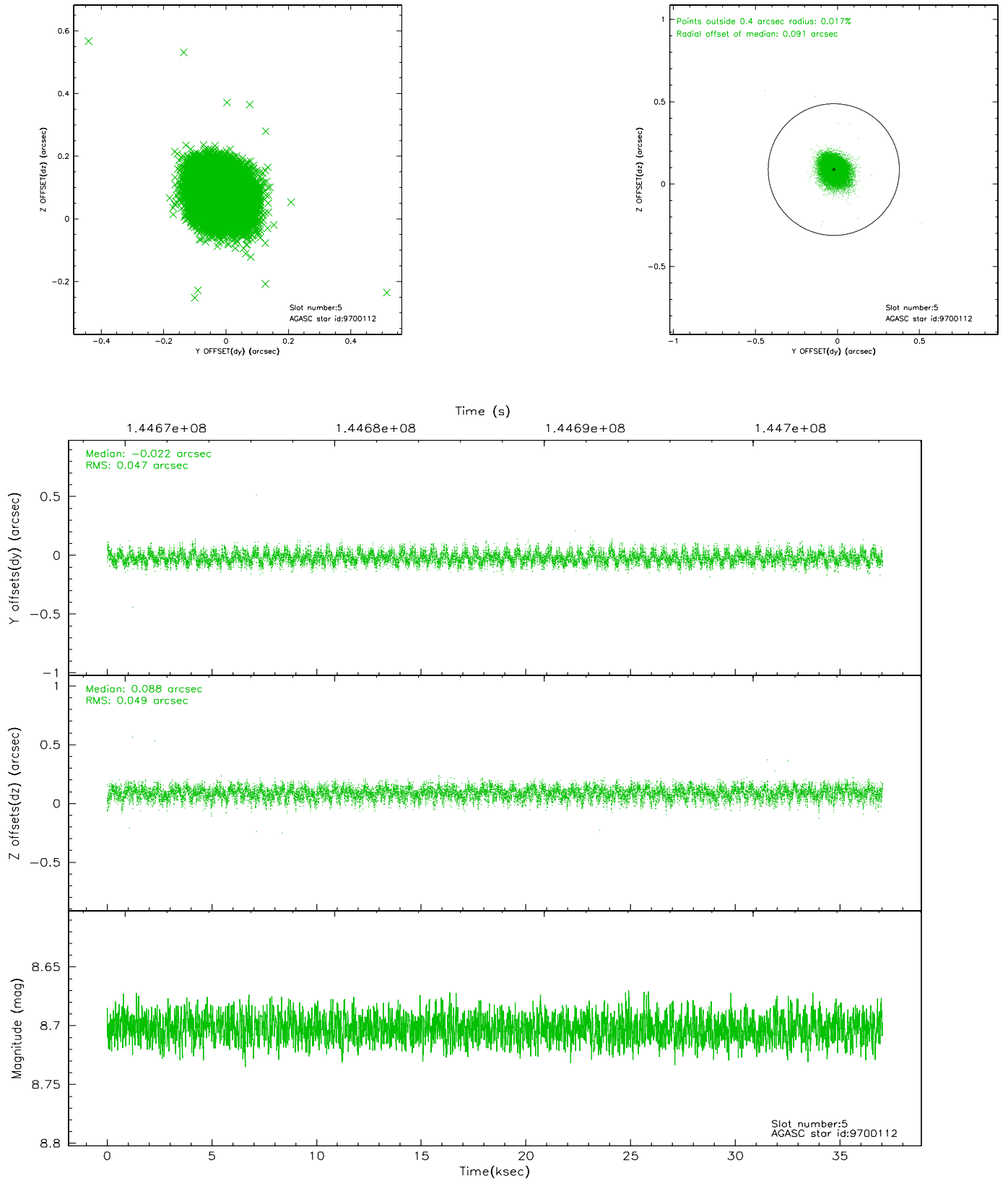
2.4.1 Slot 3



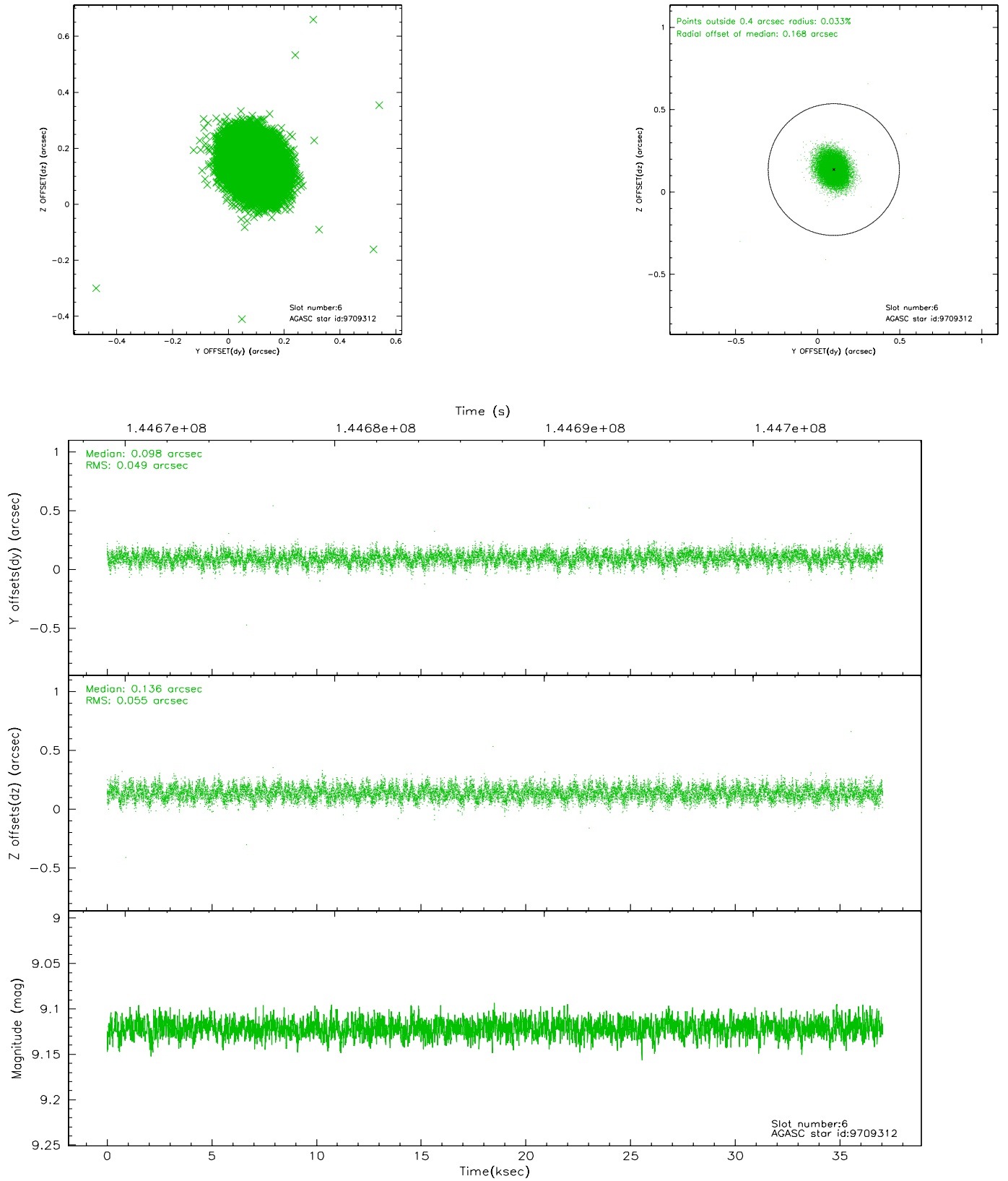
2.4.2 Slot 4



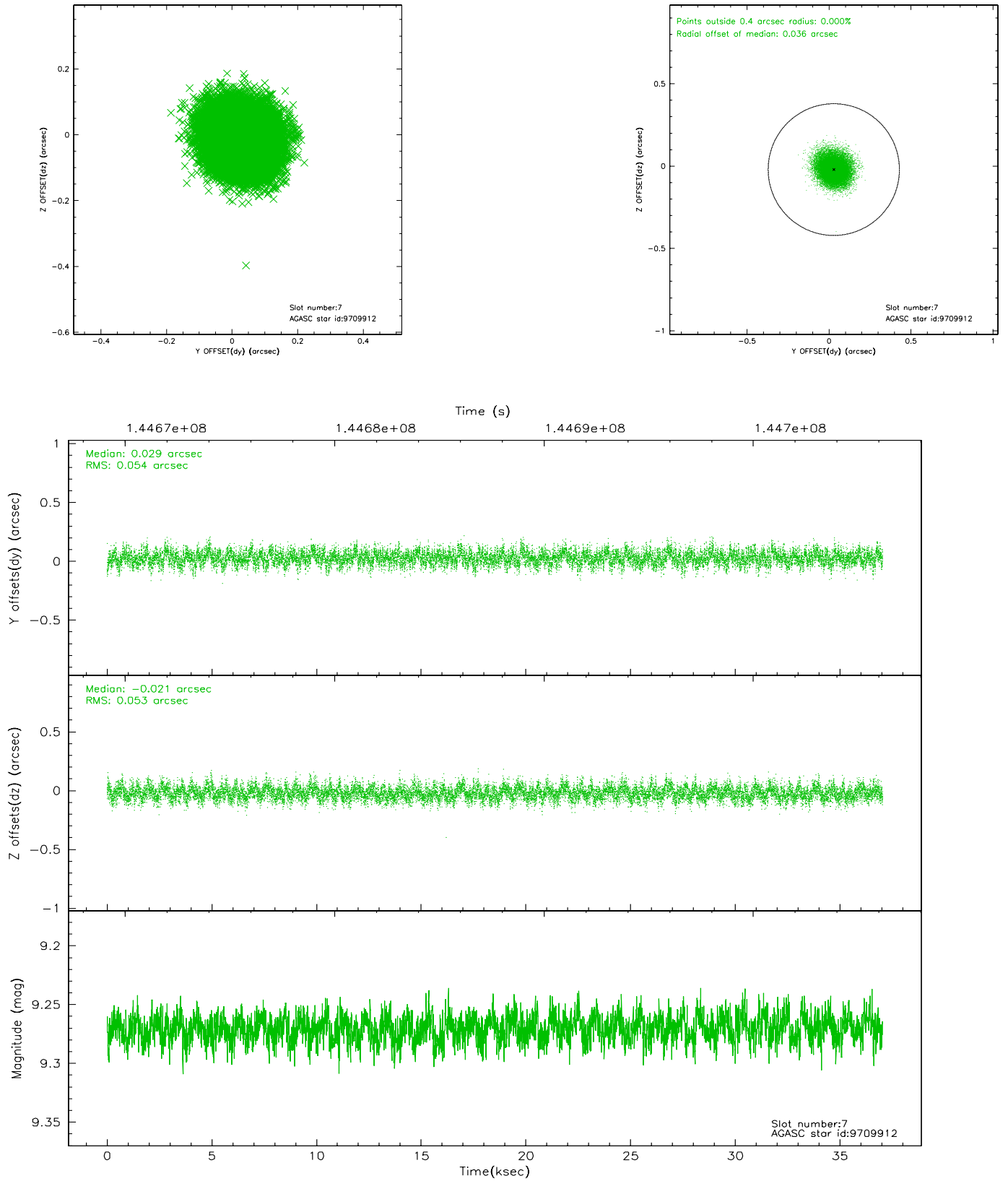
2.4.3 Slot 5



2.4.4 Slot 6

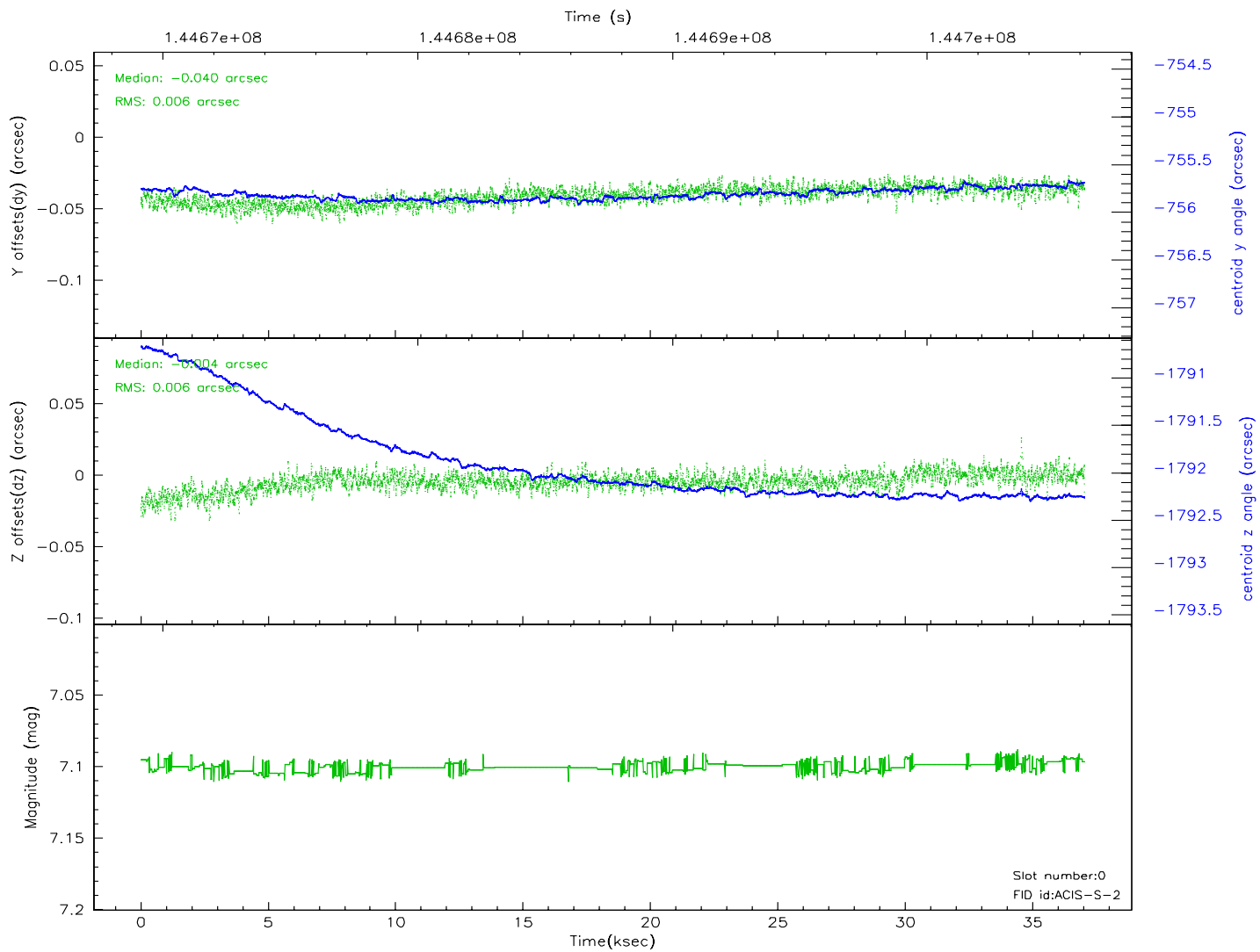
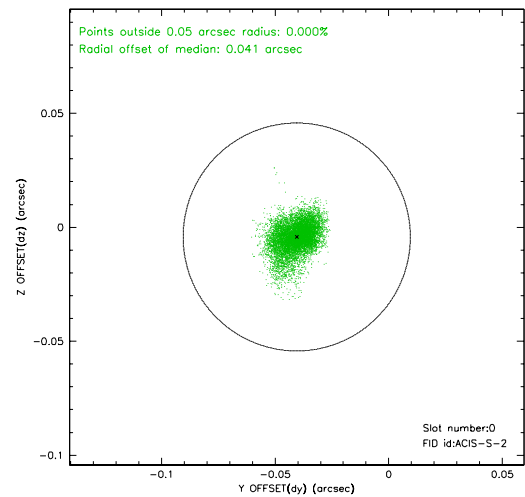
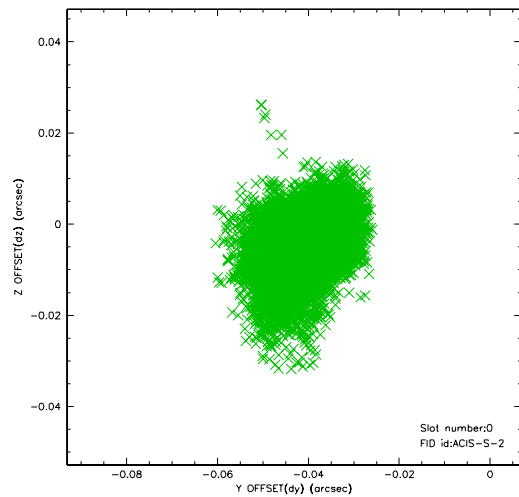


2.4.5 Slot 7

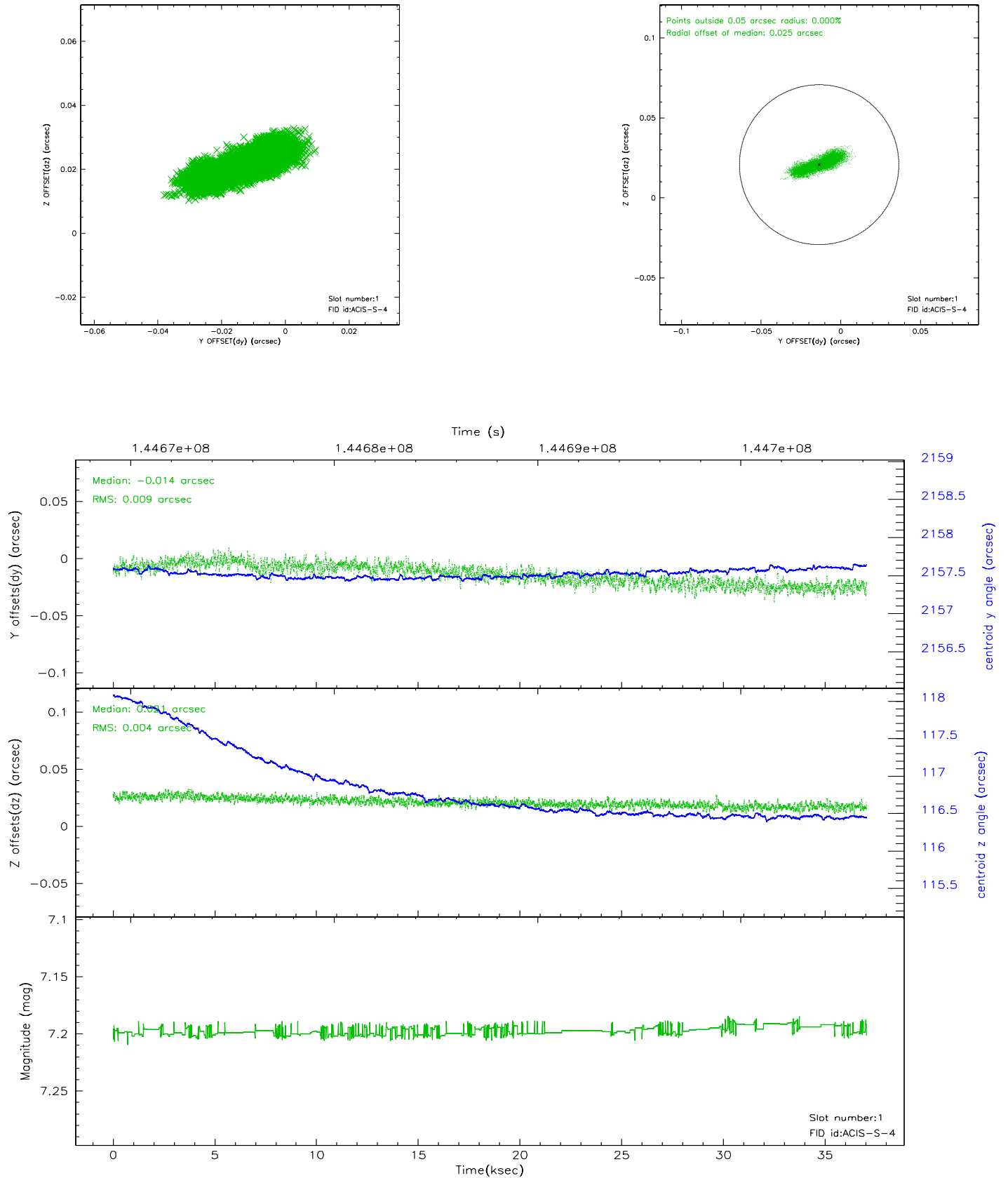


2.5 FID Slots

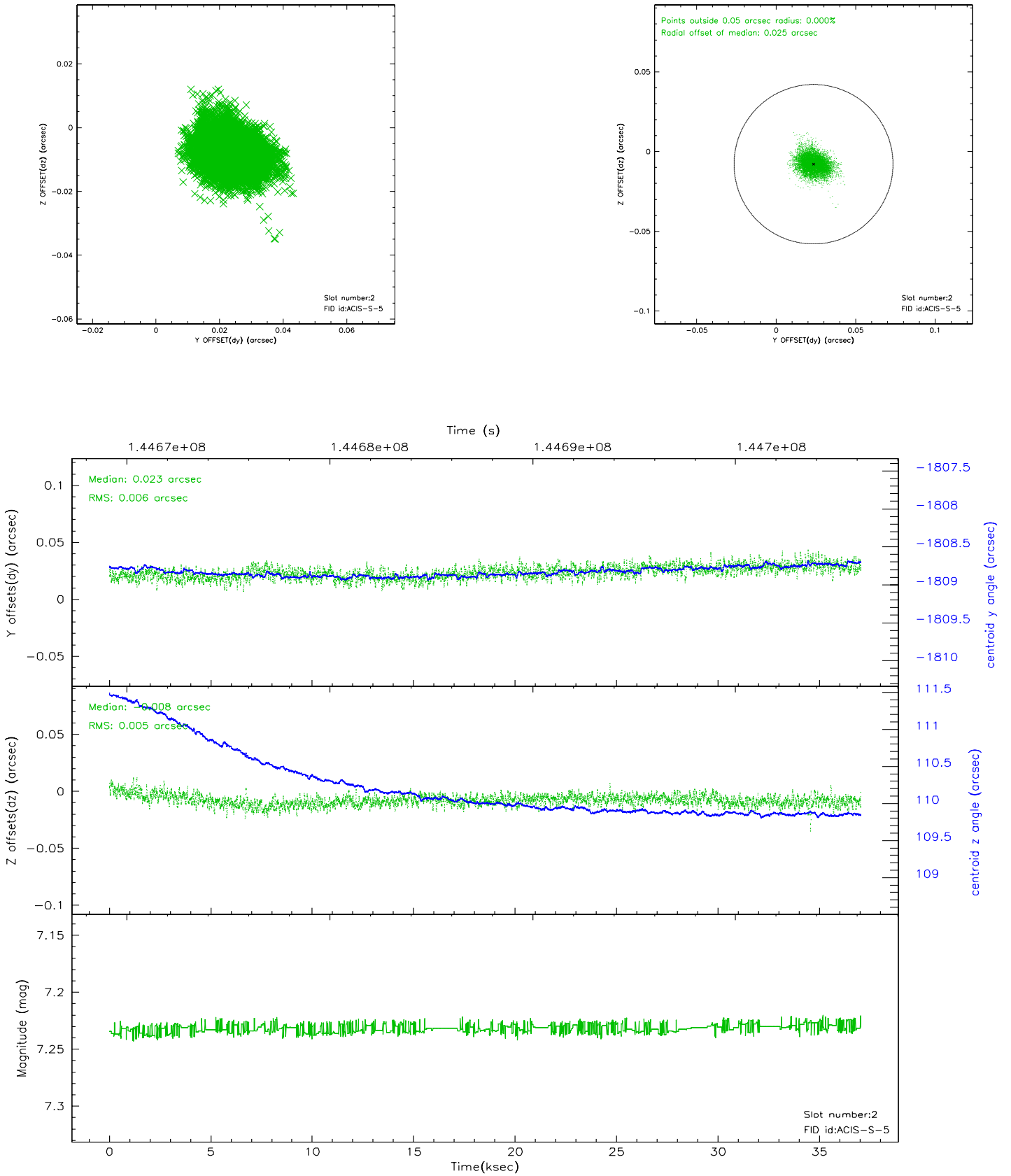
2.5.1 Slot 0



2.5.2 Slot 1

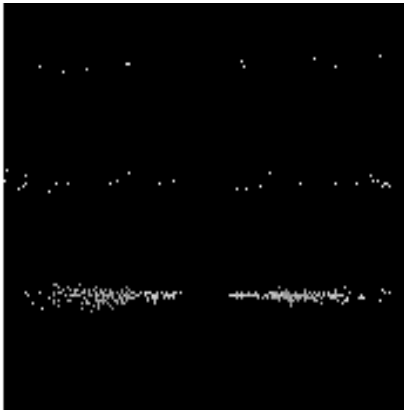


2.5.3 Slot 2

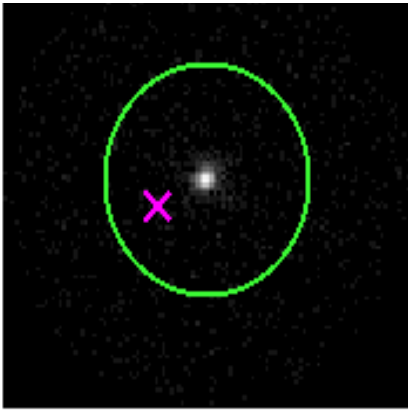


3 Gratings

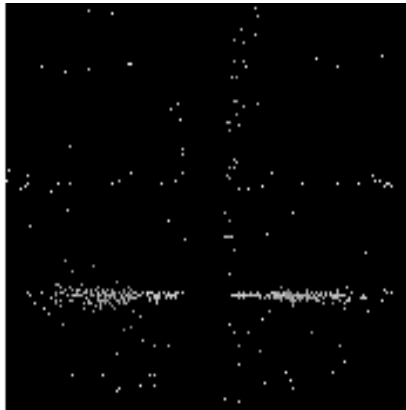
3.1 HEG Arm



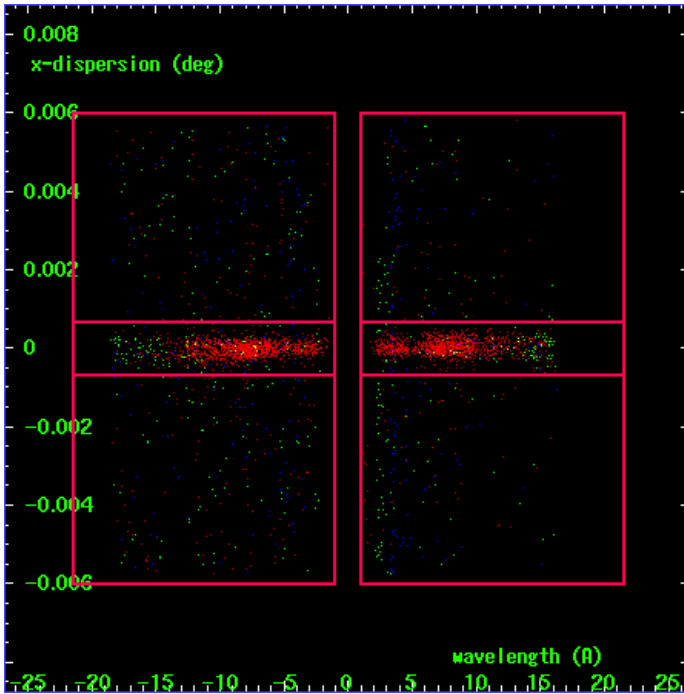
HEG Order Sort 123



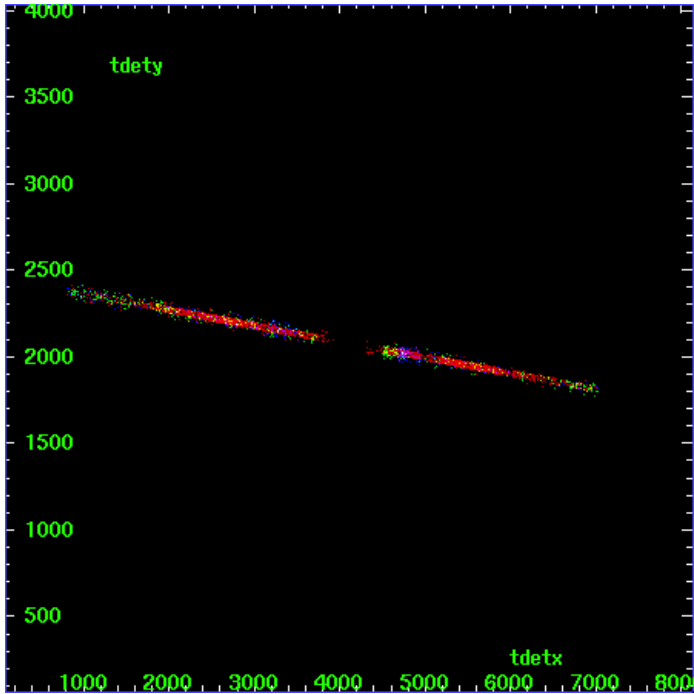
HEG Zero Order



HEG Order Sort ALL

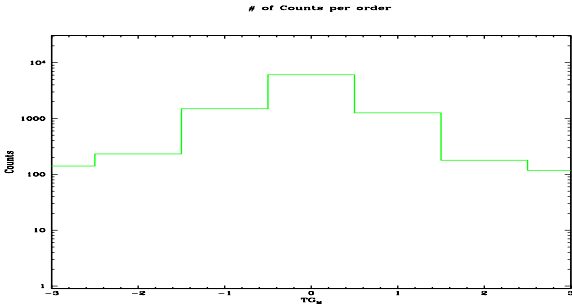


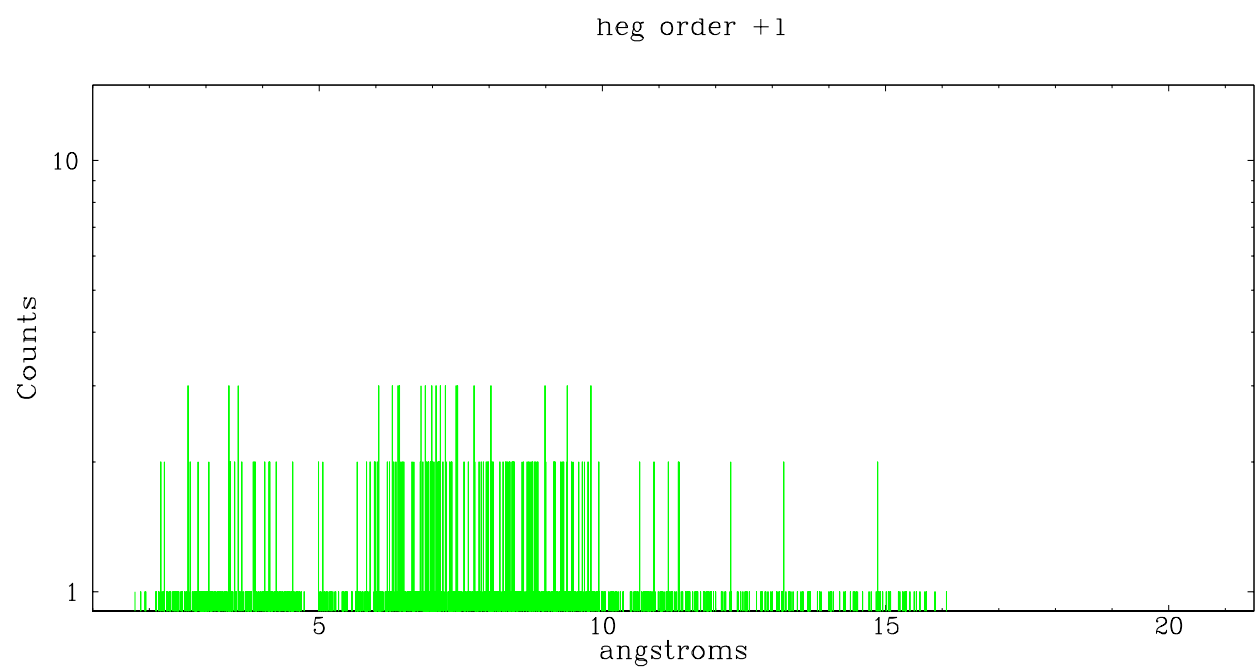
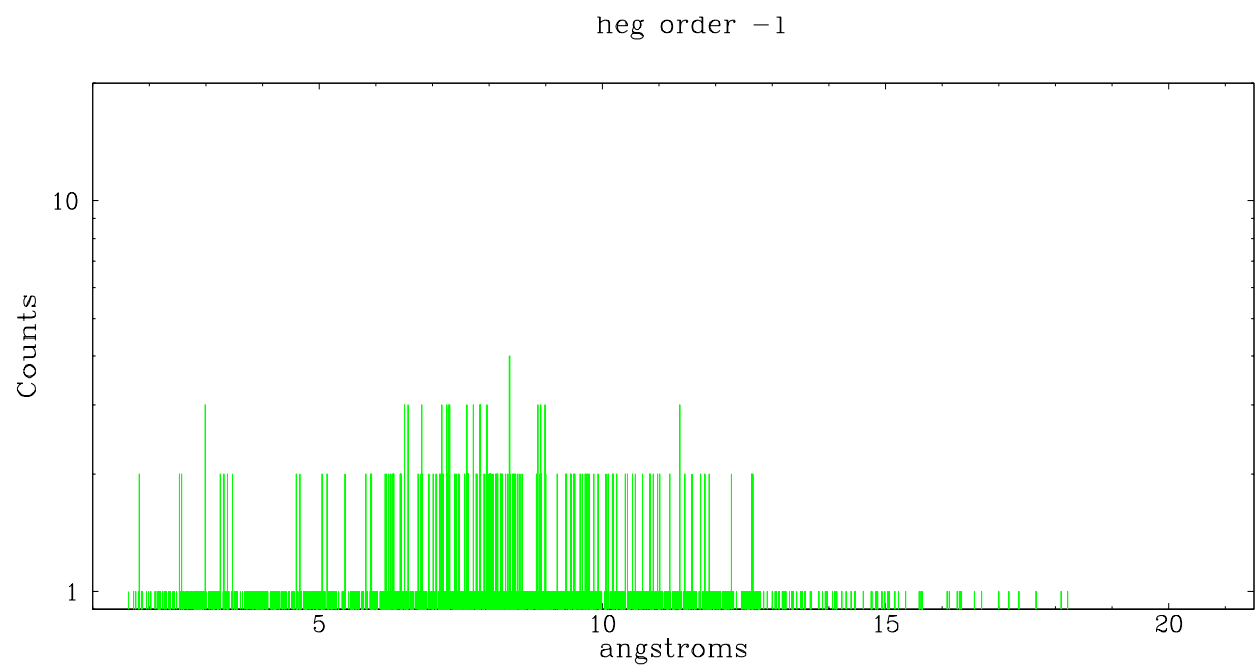
Spot Image HEG



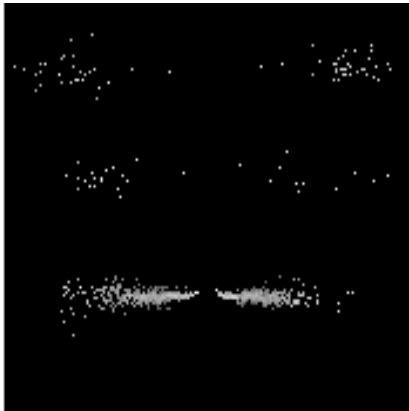
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	141	233	1496	6095	1263	179	118

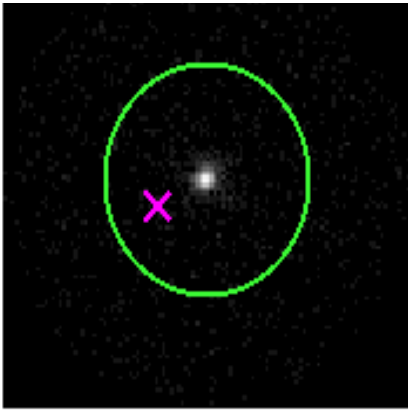




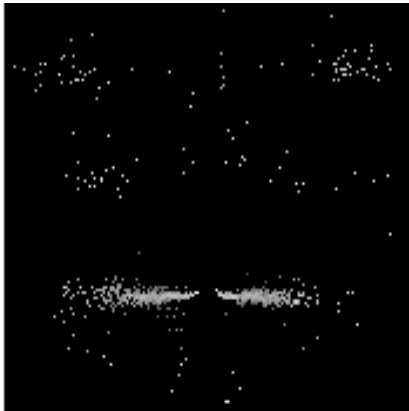
3.2 MEG Arm



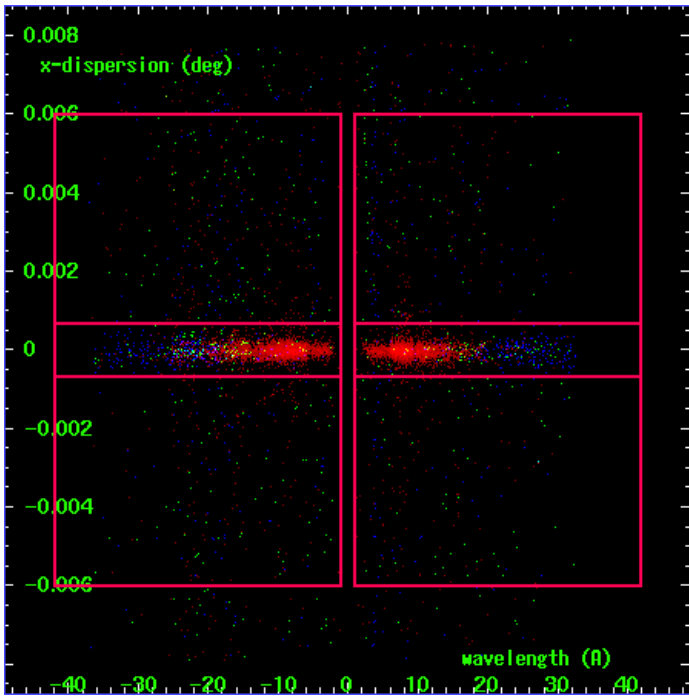
MEG Order Sort 123



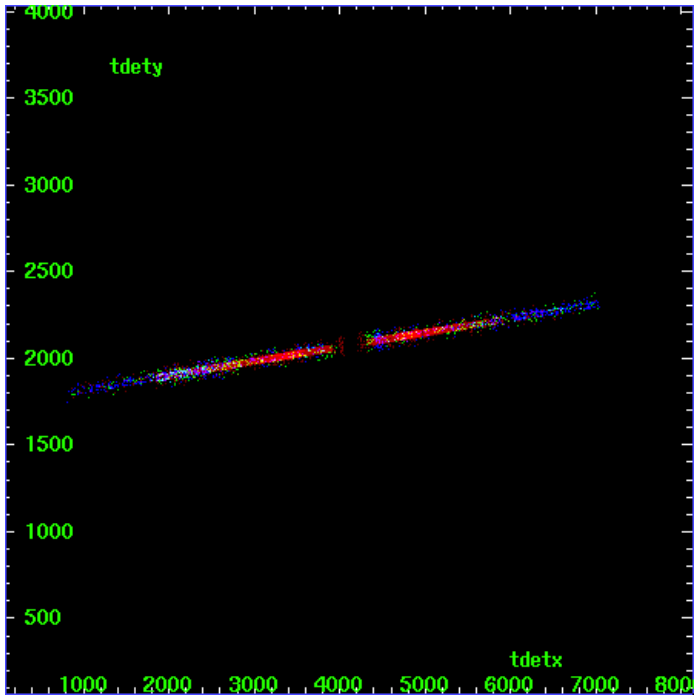
MEG Zero Order



MEG Order Sort ALL

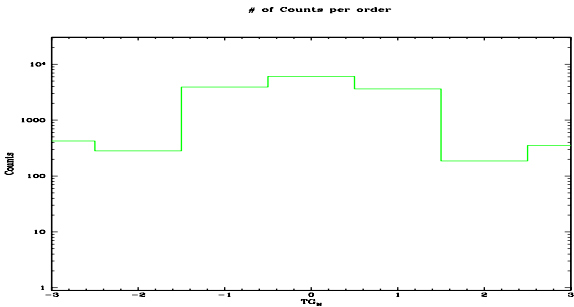


Spot Image MEG

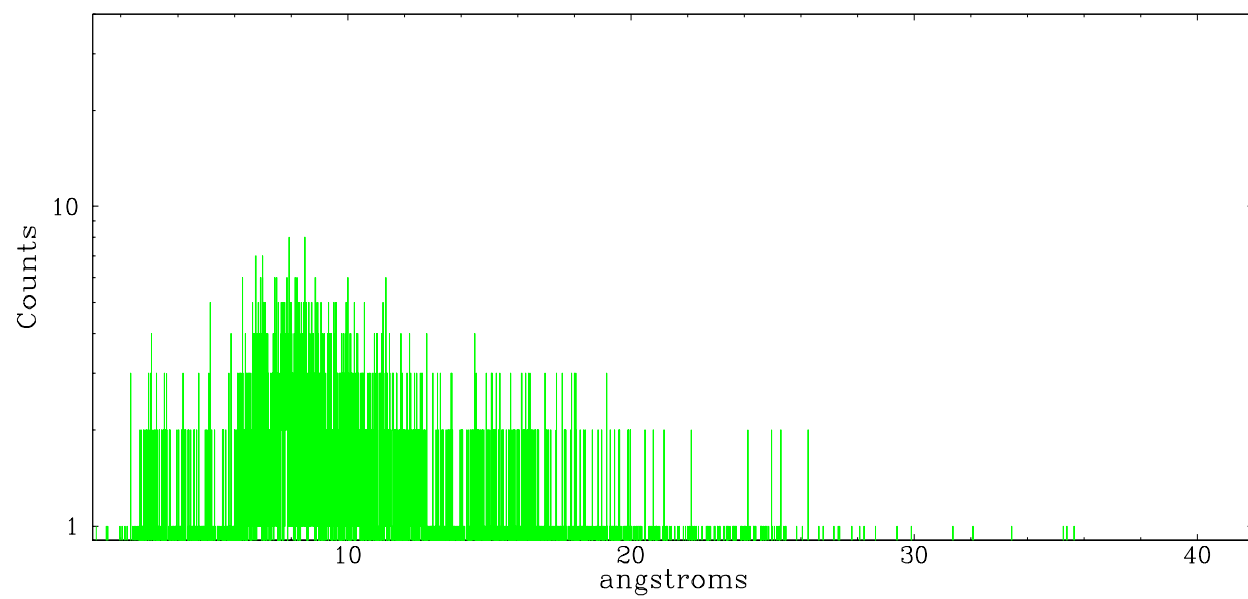


Full Detector MEG

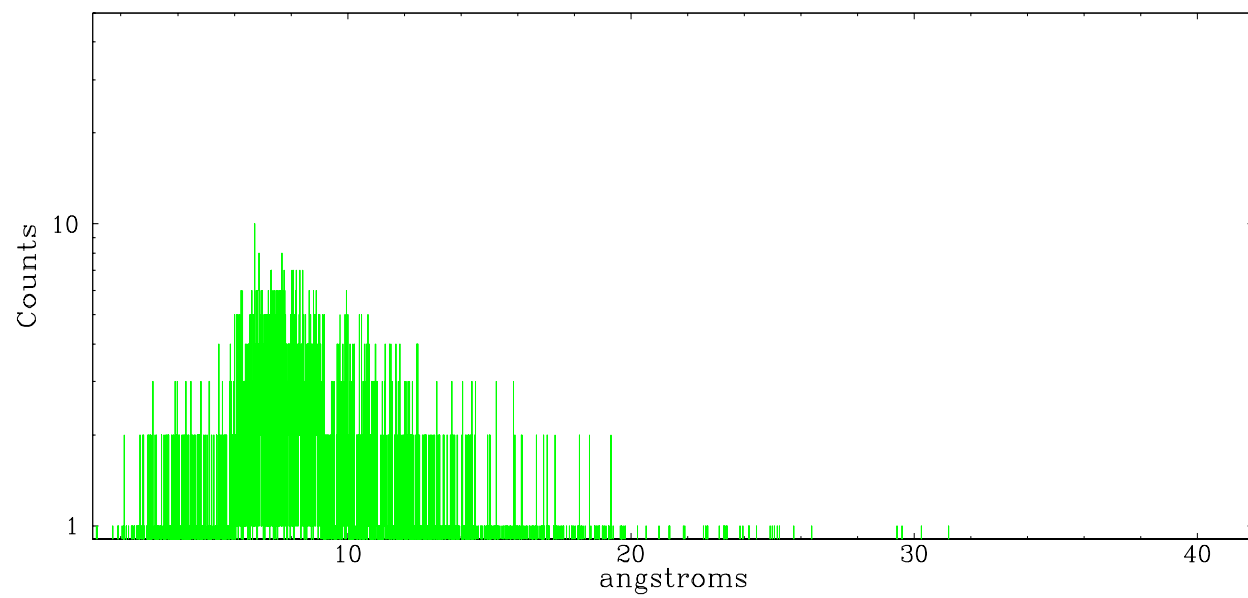
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	425	282	3911	6095	3620	186	353



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.10.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.04

A.2 Comments

Focal plane temperature is warmer than -118.7 C degrees during the first 7 ksec of this observation. The ACIS spectral response calibration for the front-illuminated chips is less accurate at these warmer temperatures than it is at -119.7 C. The back-illuminatd chips are not affected at the focal plane temperatures recorded for this observation. Users whose science objectives depend on the most accurate spectral response (i.e.: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.