

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2336 - L2 Version 3
Chandra X-Ray Center

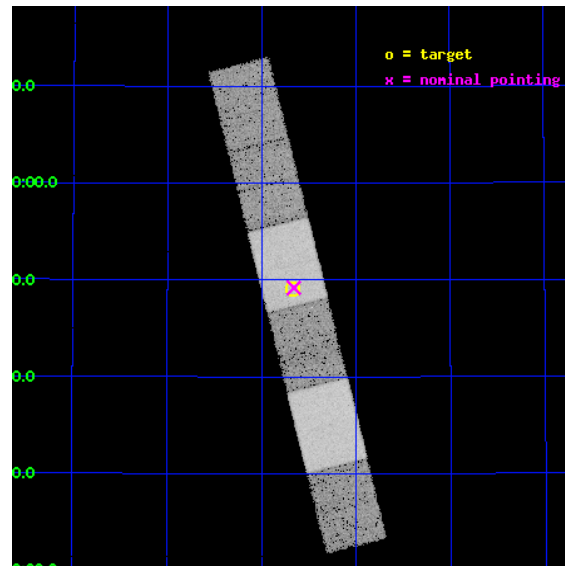
L2 Processing Date : Sep 3 2012

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	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
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
3	Gratings	16
3.1	HEG Arm	16
3.2	MEG Arm	18
A	Summary	20
A.1	Status	20
A.2	Comments	20

1 Front

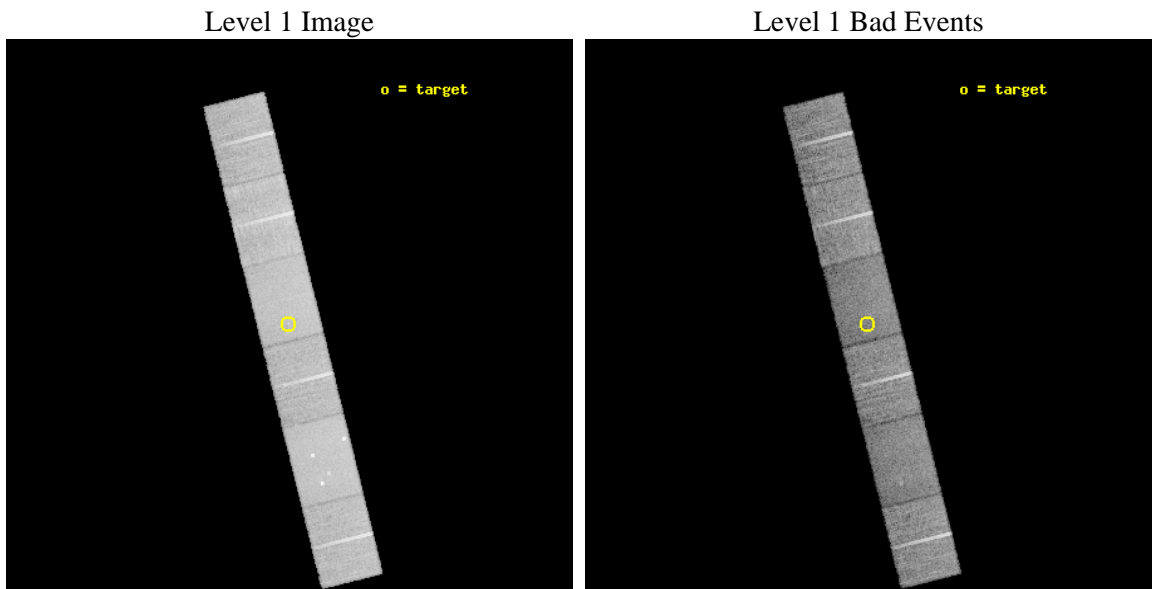
seq_num	300053	Sequence number
obs_id	2336	Observation id
title	THE NATURE OF CLASSICAL SYMBIOTIC OUTBURSTS	Proposal title
observer	Professor Philip Charles	Principal investigator
object	Z ANDROMEDAE	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	353.416667	Observer's specified target RA [deg]
dec_targ	48.818333	Observer's specified target Dec [deg]
ra_nom	353.41460329584	Nominal RA [deg]
dec_nom	48.820065124693	Nominal Dec [deg]
roll_nom	255.98800920573	Nominal Roll [deg]
revision	3	Processing version of data
ontime	19225.0	Sum of GTIs [s]
livetime	18914.499574977	Livetime [s]
ontime4	19222.459009841	Sum of GTIs [s]
ontime5	19225.0	Sum of GTIs [s]
ontime6	19225.0	Sum of GTIs [s]
ontime7	19225.0	Sum of GTIs [s]
ontime8	19222.459009841	Sum of GTIs [s]
ontime9	19225.0	Sum of GTIs [s]
l2events	144664	Number of level 2 events



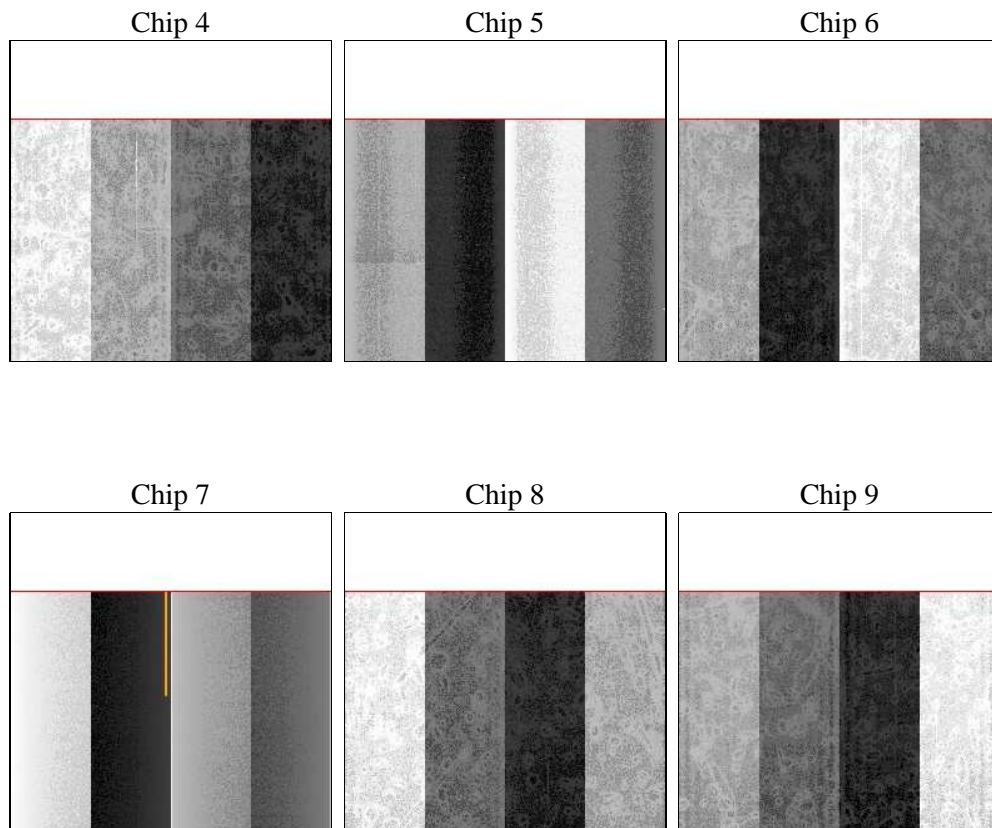
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19100.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	19225.0	Sum of GTIs [s]
caldsver	4.5.1.1	 	ontime4	19222.459009841	Sum of GTIs [s]
date	2012-09-03T15:46:53	Date and time of file creation	ontime5	19225.0	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	19225.0	Sum of GTIs [s]
			ontime7	19225.0	Sum of GTIs [s]
			ontime8	19222.459009841	Sum of GTIs [s]
			ontime9	19225.0	Sum of GTIs [s]
			l1events	668641	Number of level 1 events

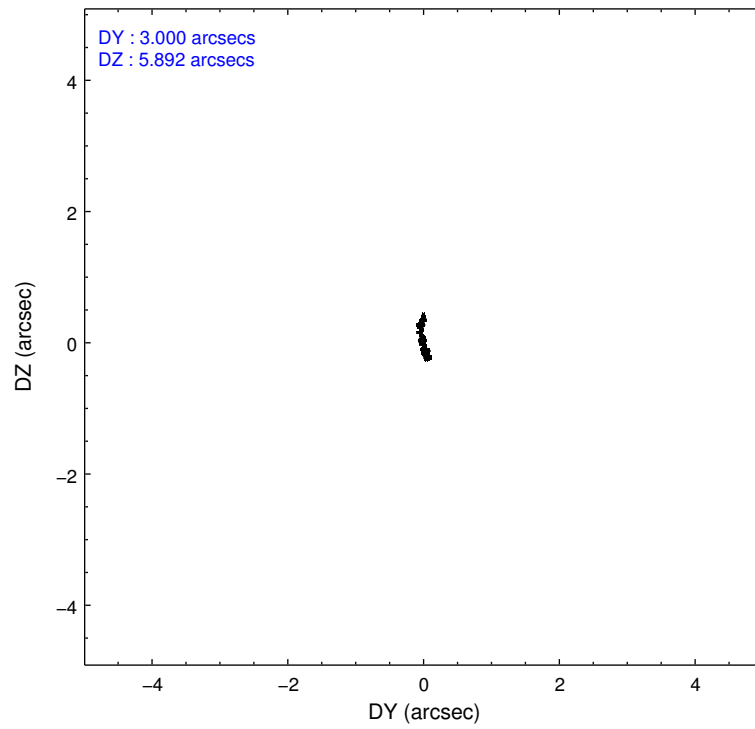
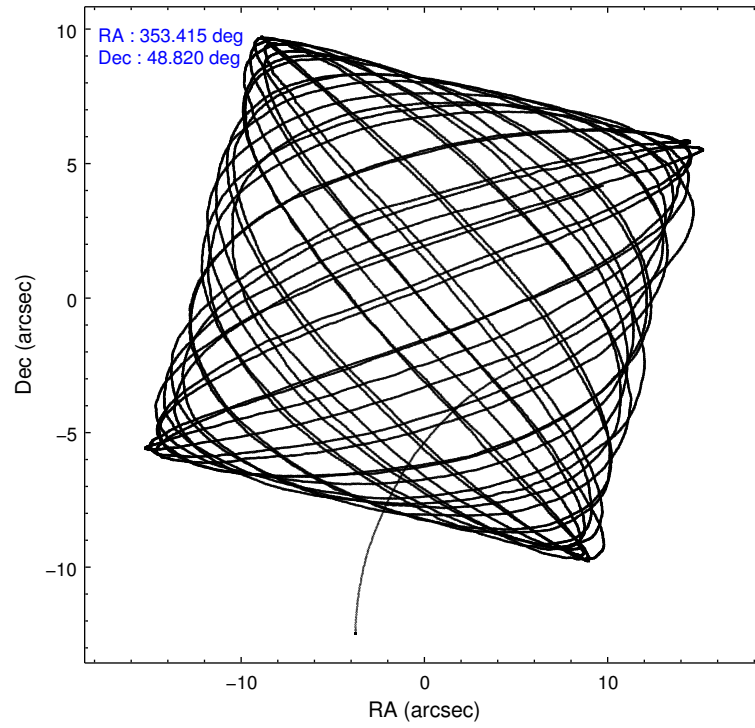
2.1.4 Events

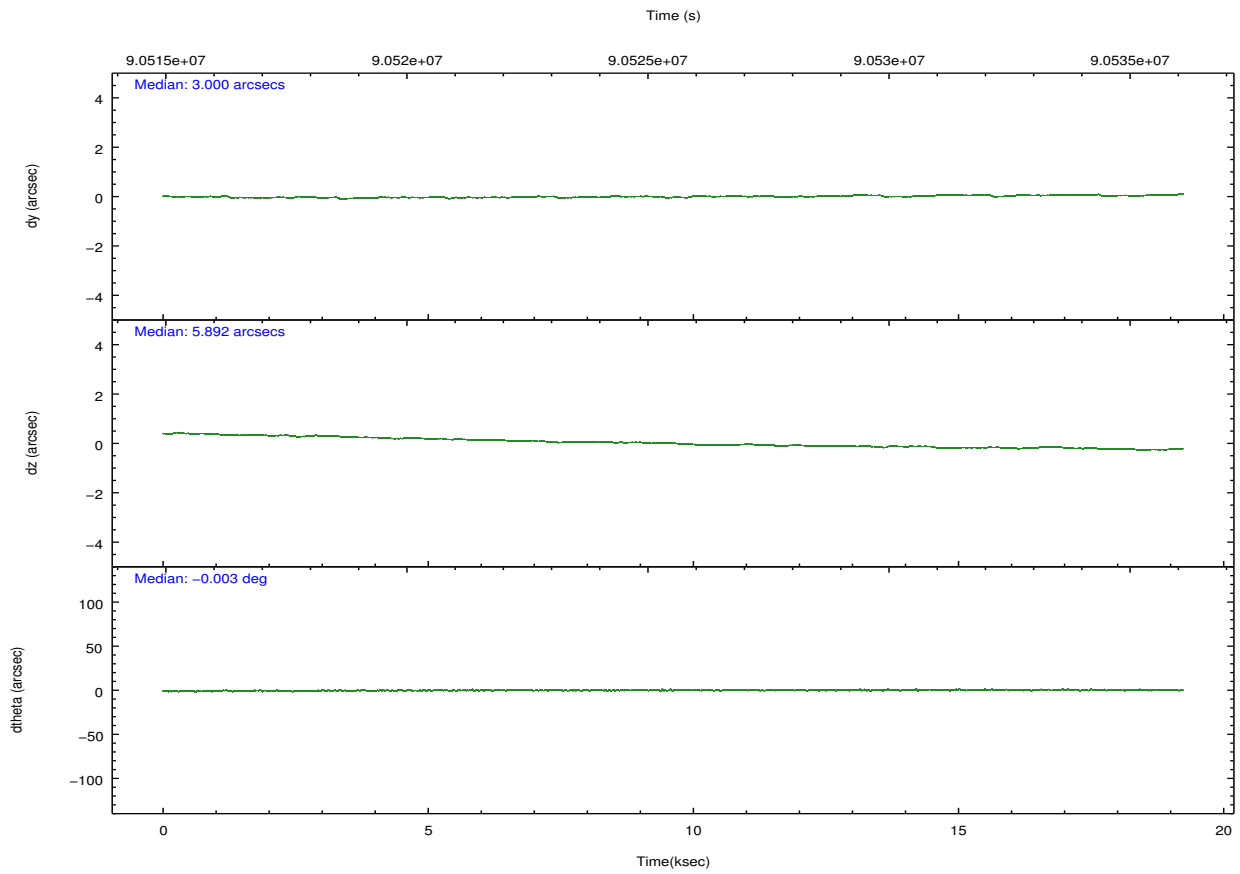
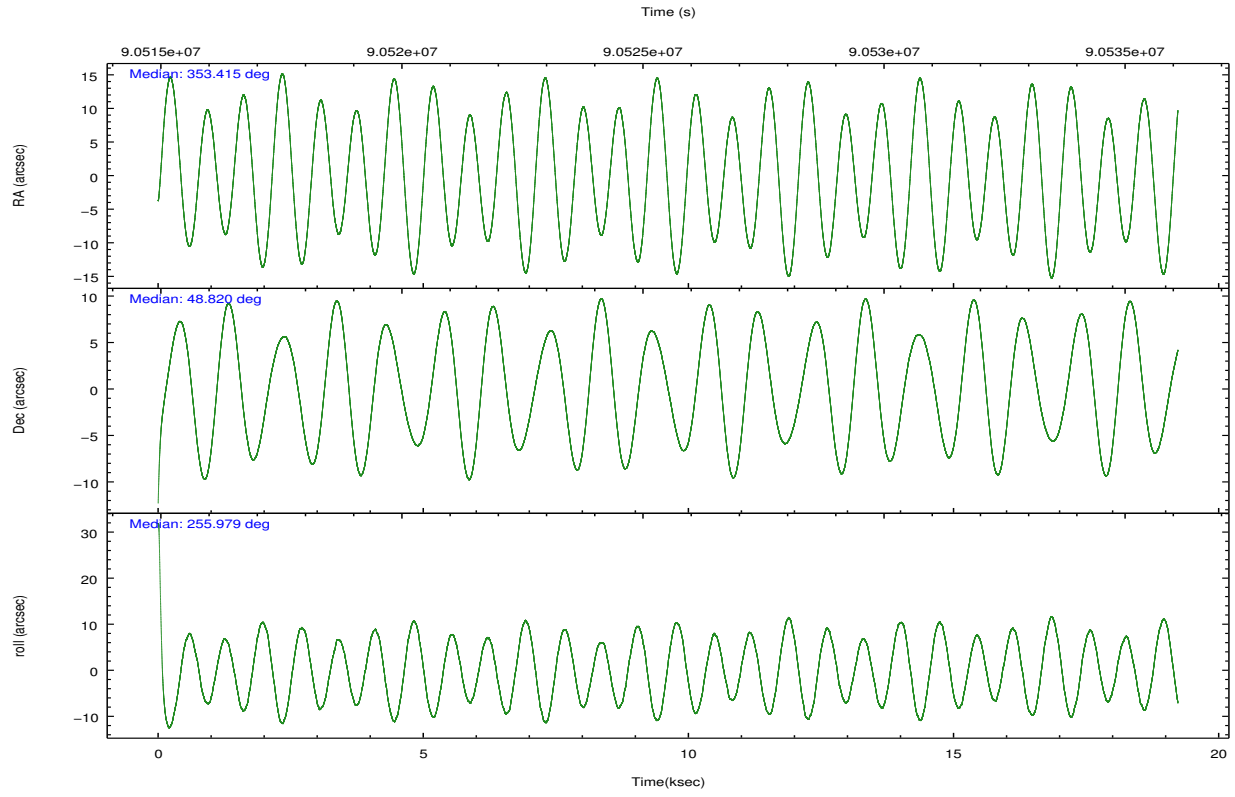
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	104408	130765	96552	118285	123685	94946	grade 0 events	5682	7499	5219	4754	9713	5565
rejected events	91674	71077	84833	69041	96006	82767		5%	5%	5%	4%	7%	5%
rejected %	87%	54%	87%	58%	77%	87%	grade 1 events	43	160	32	104	71	46
								0%	0%	0%	0%	0%	0%
							grade 2 events	3063	18102	2320	10215	5478	2363
								2%	13%	2%	8%	4%	2%
							grade 3 events	1216	2961	1188	4790	3459	1193
								1%	2%	1%	4%	2%	1%
							grade 4 events	1202	2785	1208	4872	3186	1216
								1%	2%	1%	4%	2%	1%
							grade 5 events	3146	9860	3689	10943	4743	3726
								3%	7%	3%	9%	3%	3%
							grade 6 events	2111	31084	2326	26818	6946	2392
								2%	23%	2%	22%	5%	2%
							grade 7 events	87945	58314	80570	55789	90089	78445
								84%	44%	83%	47%	72%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
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
[deg] Pointing RA	353.402835	353.414603295844	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	48.846299	48.8200651246927	Subarray start row	1	1
[deg] Pointing Roll	255.840218	255.9880092057255	Subarray row count	774	774
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	2.5
[mm] SIM translation stage pos	-187.132523	-187.1228876879999			
[mm] SIM translation stage offset	-3	-3.009634895007935			
[s] Observation start time (MET)	90516035.184000	90514666.84152199			
Observation start date	2000-11-13T15:19:31	2000-11-13T14:57:46			
[s] Observation end time (MET)	90535135.184000	90536012.979836			
Observation end date	2000-11-13T20:37:51	2000-11-13T20:53:32			
Read mode	TIMED	TIMED			

2.3 Aspect



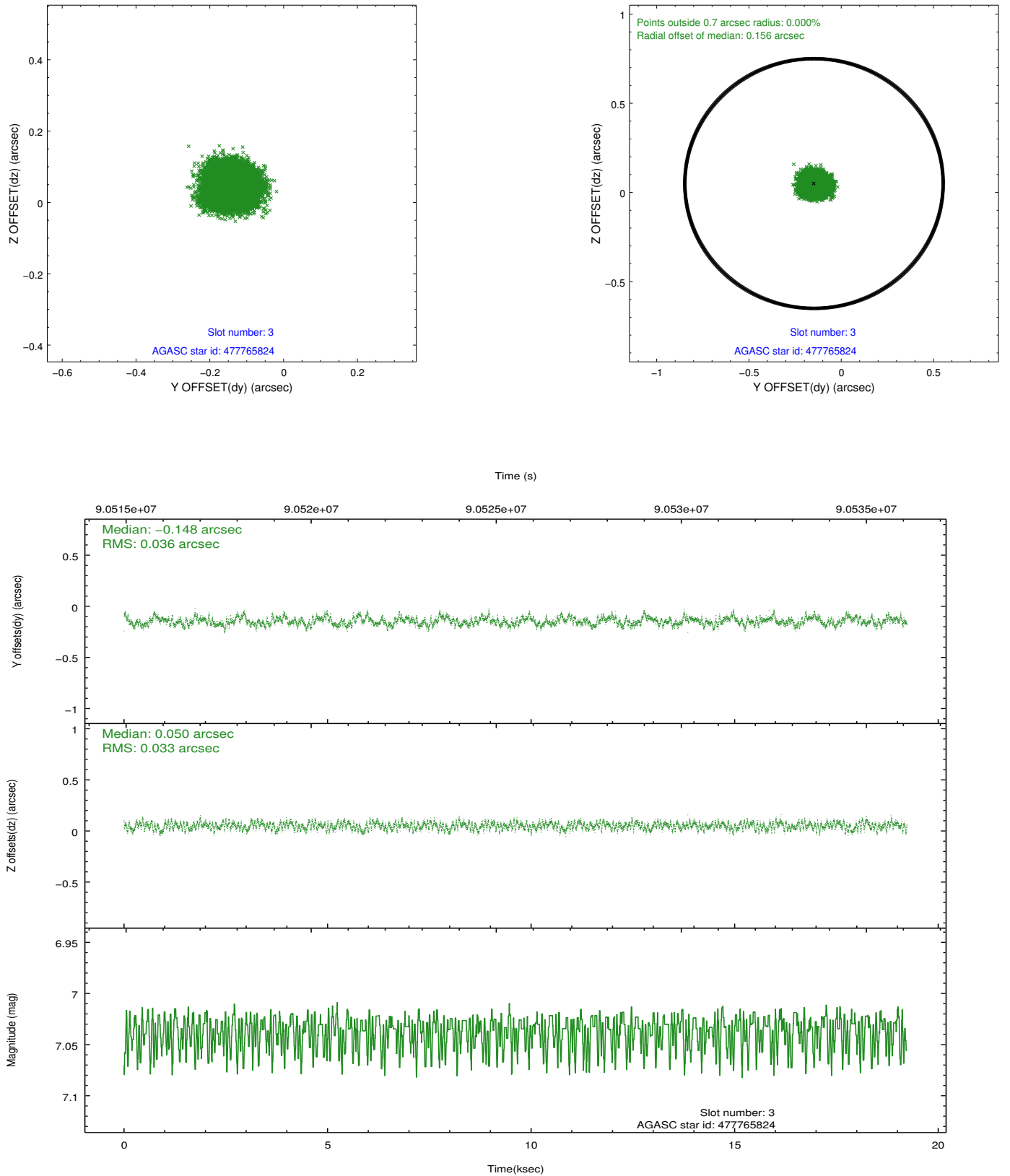


Slot Statistics

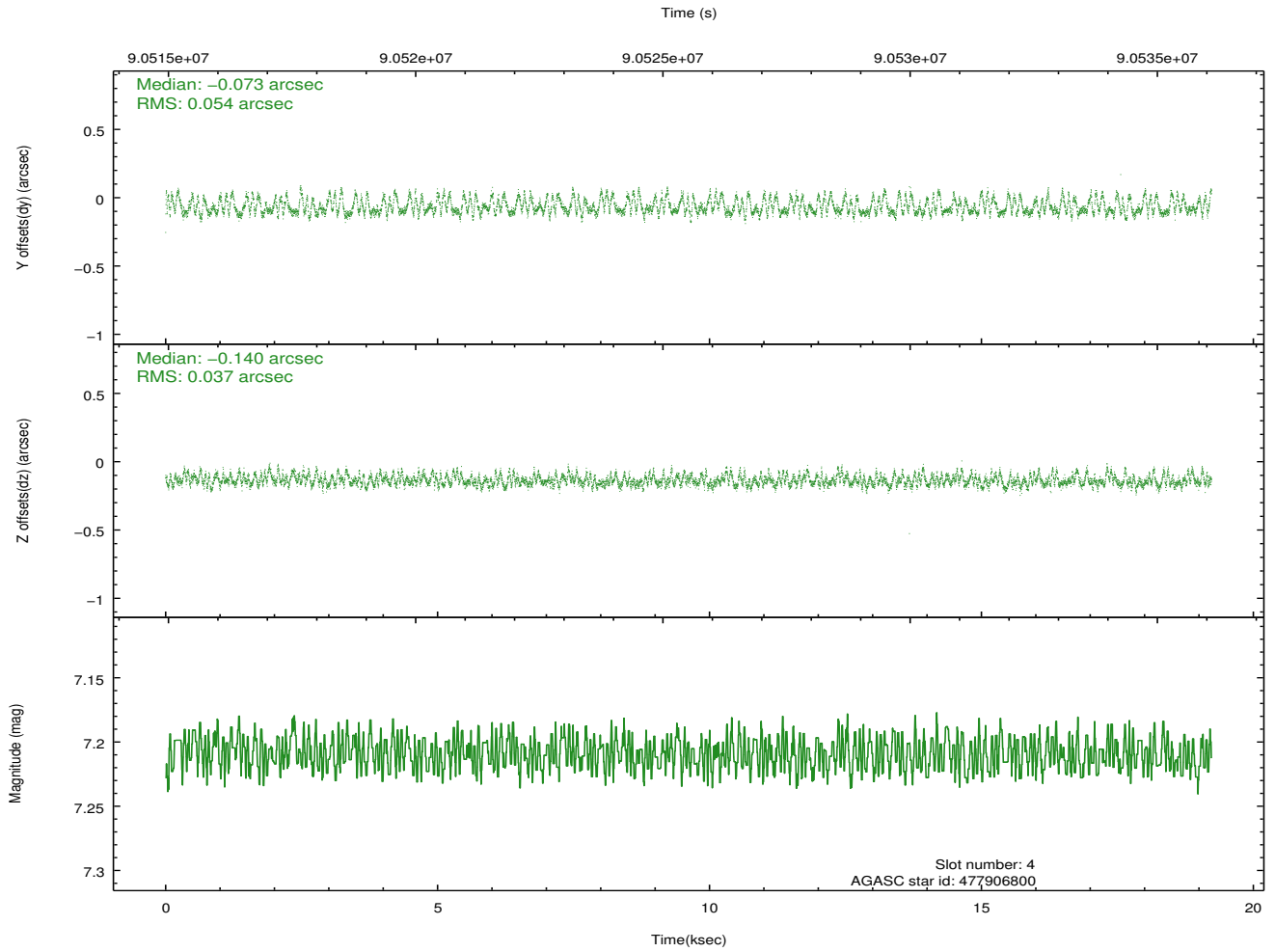
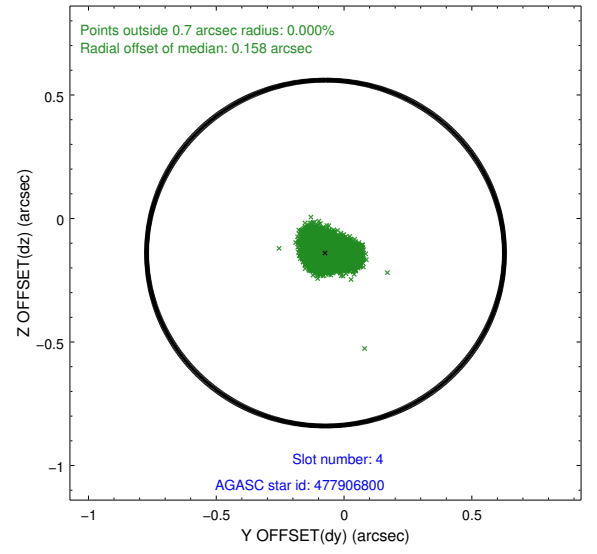
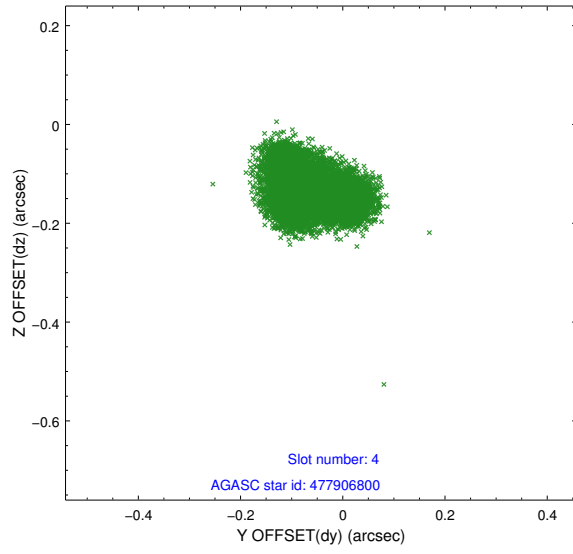
	status	id	mag	n_pts	med_dy	med_dz	drl
	FID	ACIS-S-2	7.10	4690	-0.013	-0.050	0.007
	FID	ACIS-S-4	7.20	4690	-0.026	0.019	0.006
	FID	ACIS-S-5	7.23	4690	0.008	0.039	0.007
	GUIDE	477765824	7.04	9380	-0.148	0.050	0.052
	GUIDE	477906800	7.21	9379	-0.073	-0.140	0.071
	GUIDE	477239168	8.44	9380	0.225	-0.042	0.075
	GUIDE	477762672	8.27	9380	-0.017	0.130	0.078
0.0000.0000.0000.0000000.00000000.000.00							

2.4 Star Slots

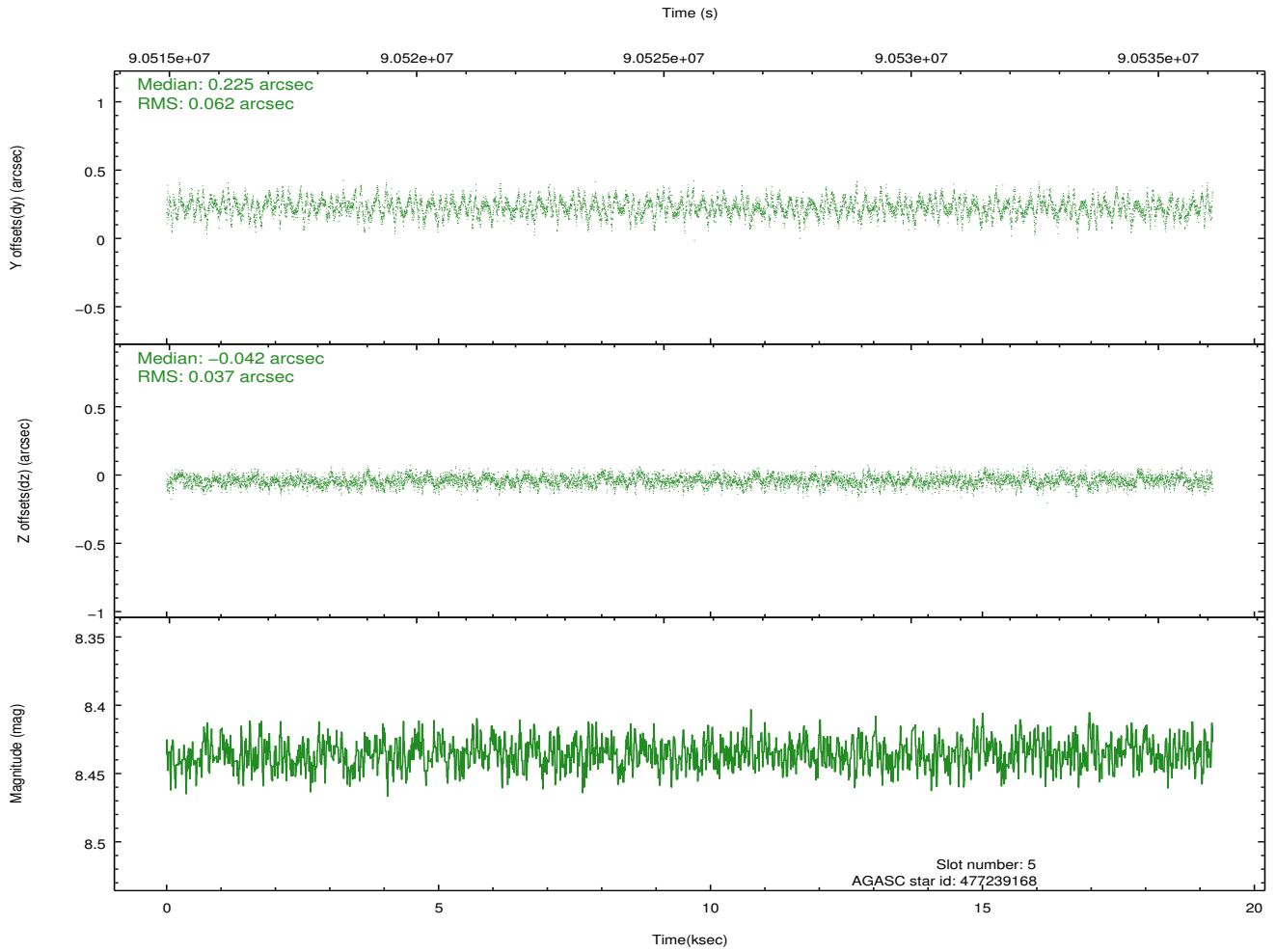
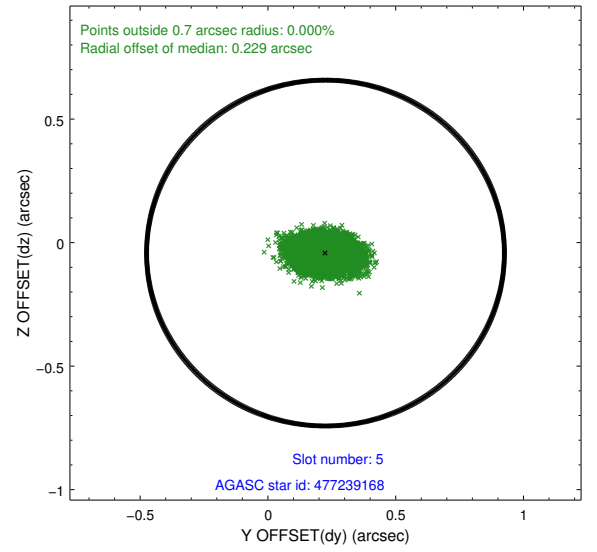
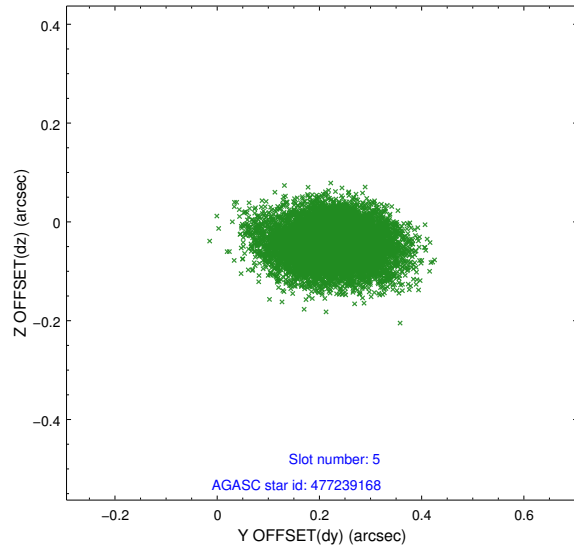
2.4.1 Slot 3



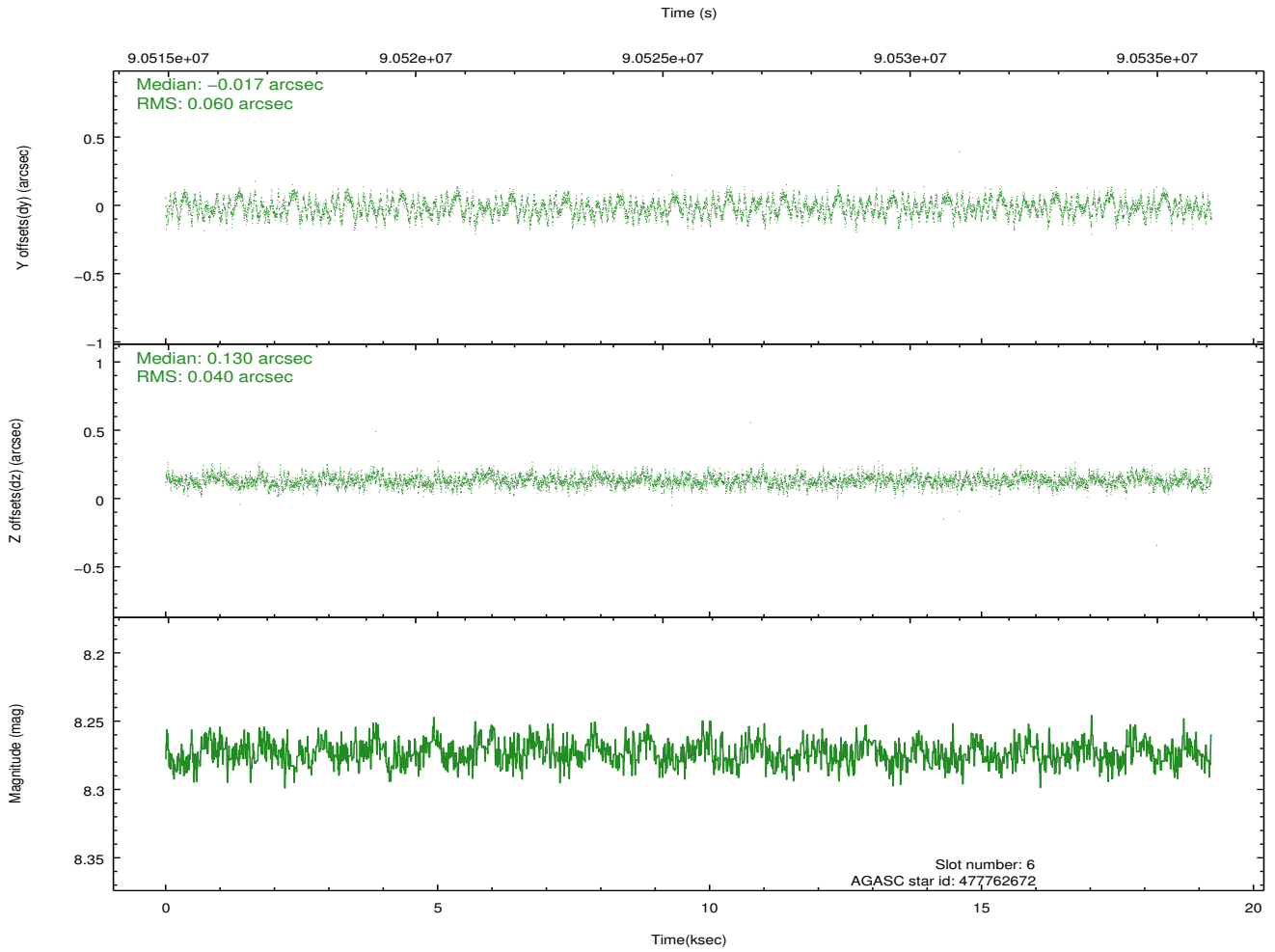
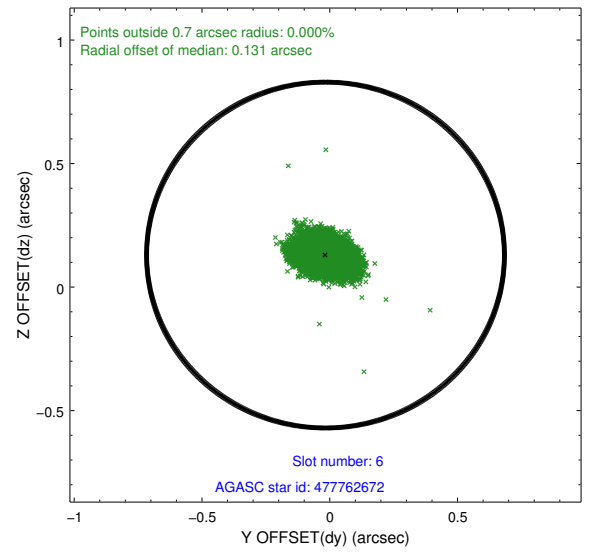
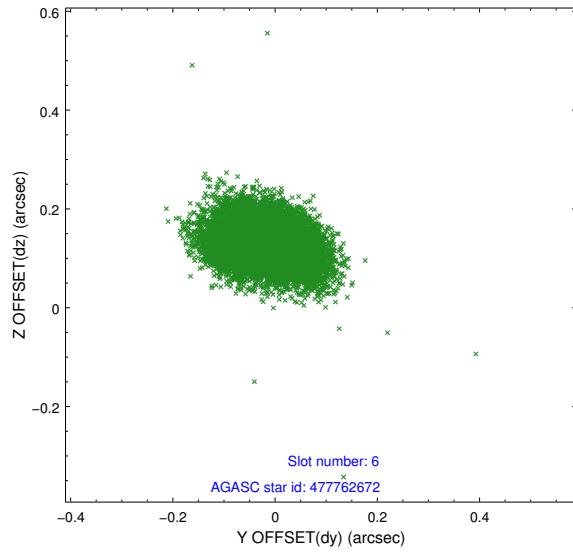
2.4.2 Slot 4



2.4.3 Slot 5

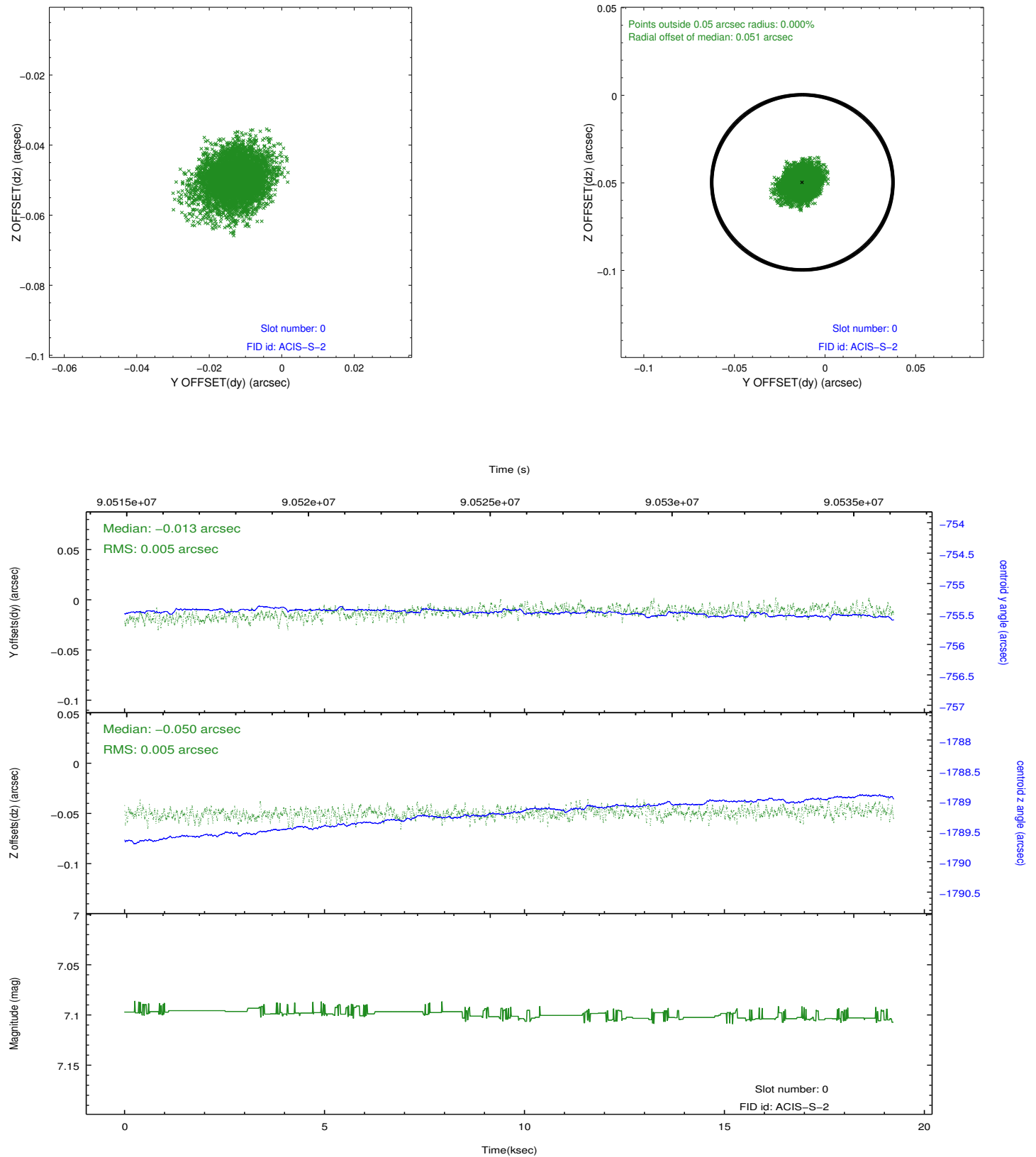


2.4.4 Slot 6

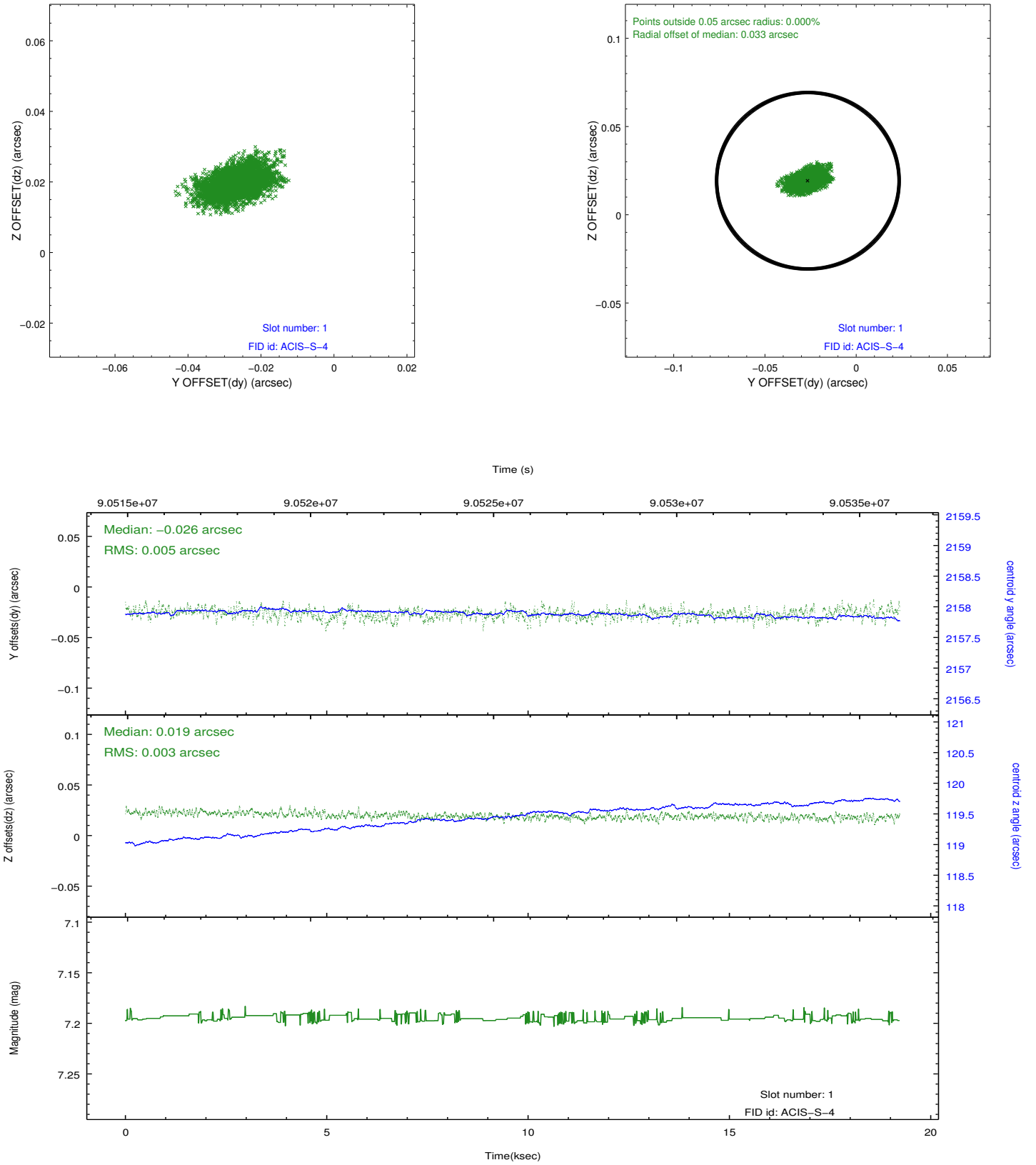


2.5 FID Slots

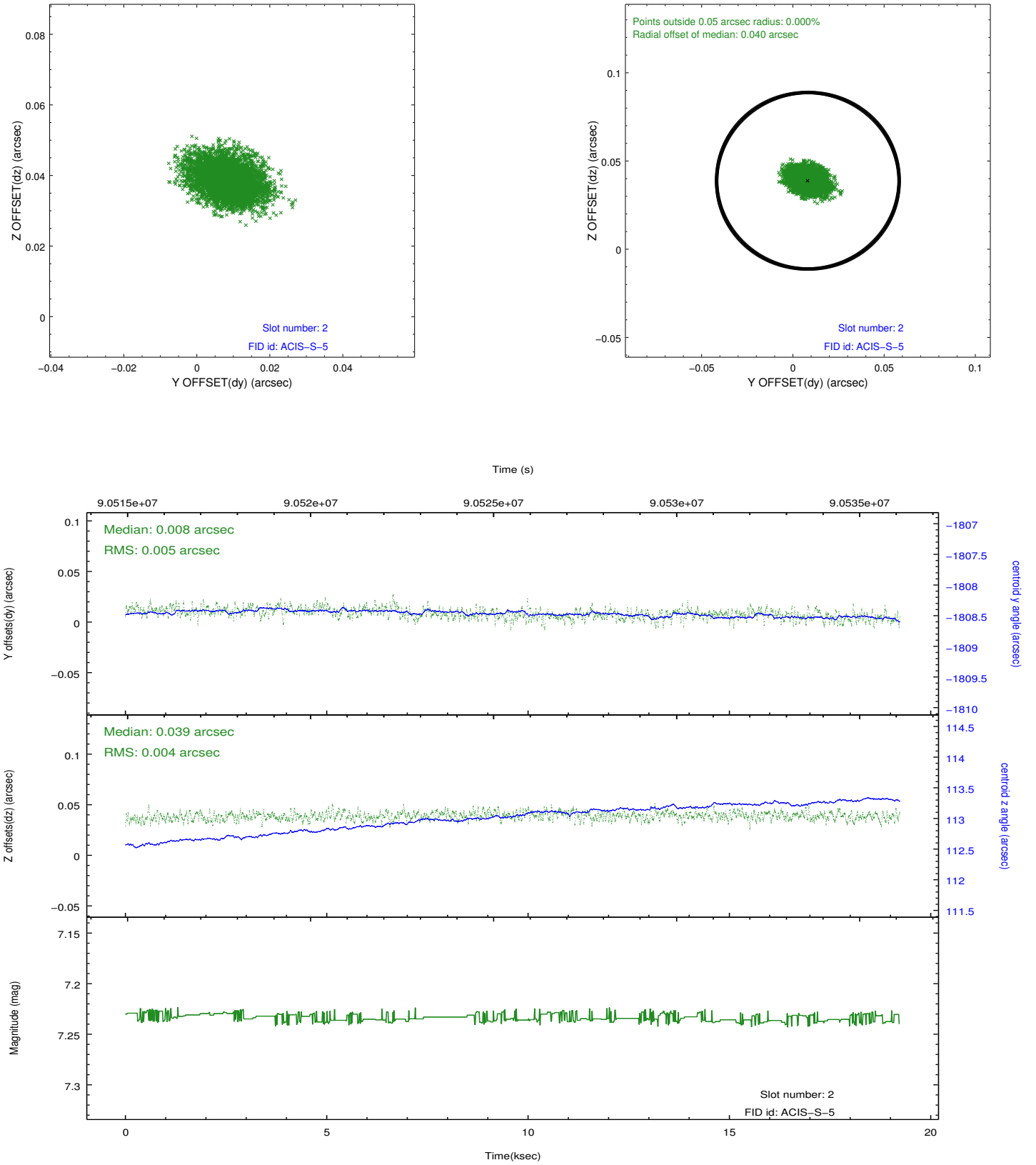
2.5.1 Slot 0



2.5.2 Slot 1

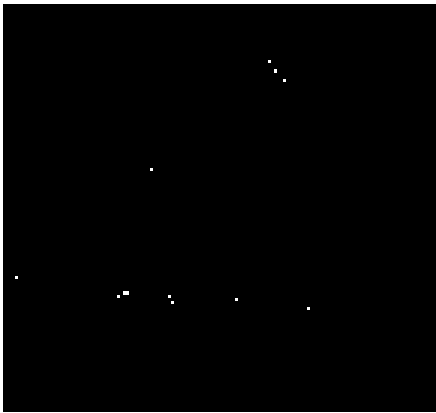


2.5.3 Slot 2

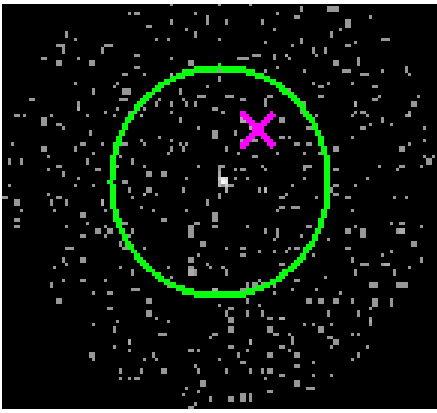


3 Gratings

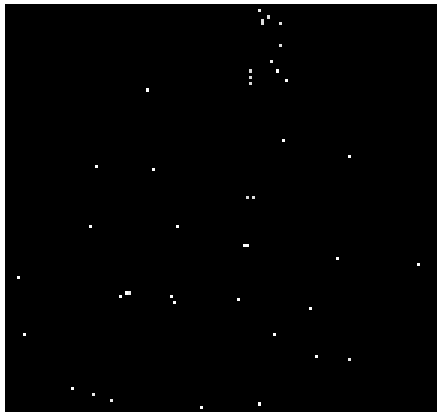
3.1 HEG Arm



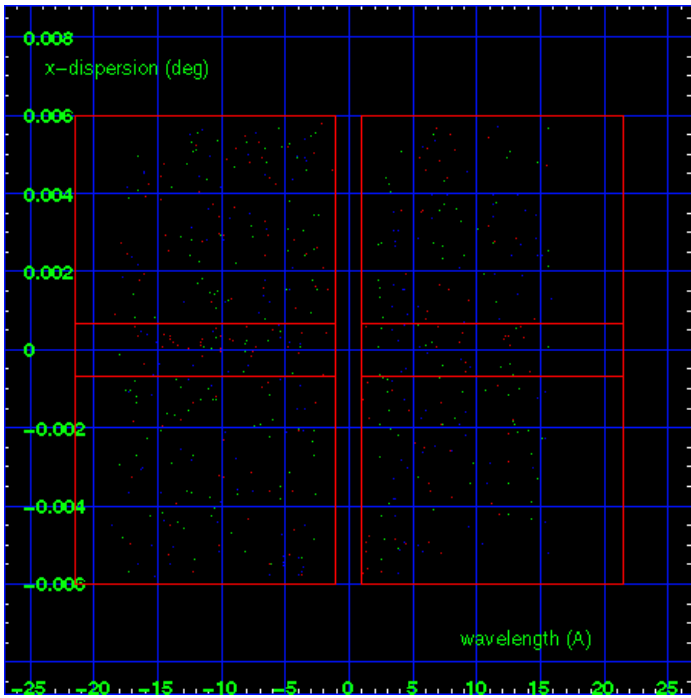
HEG Order Sort 123



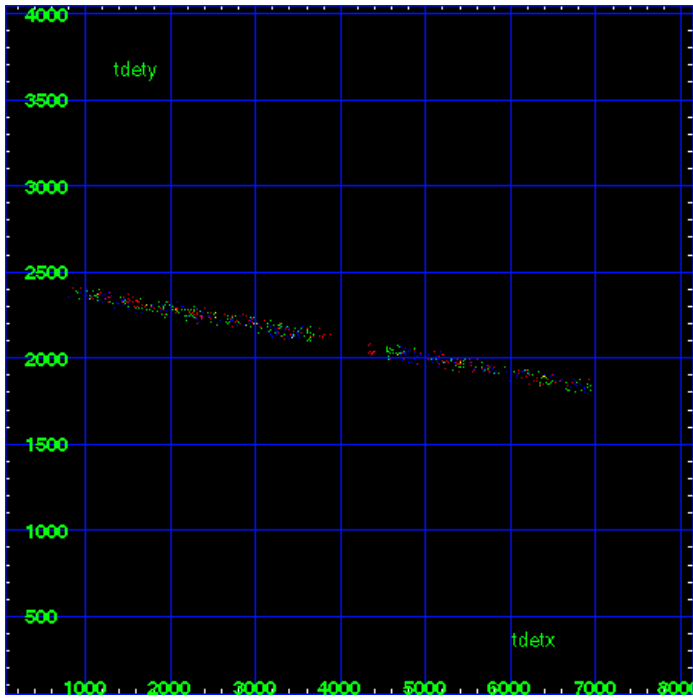
HEG Zero Order



HEG Order Sort ALL

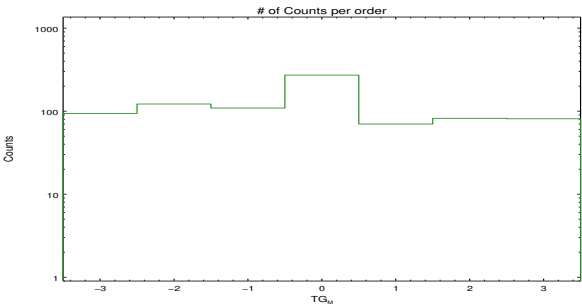


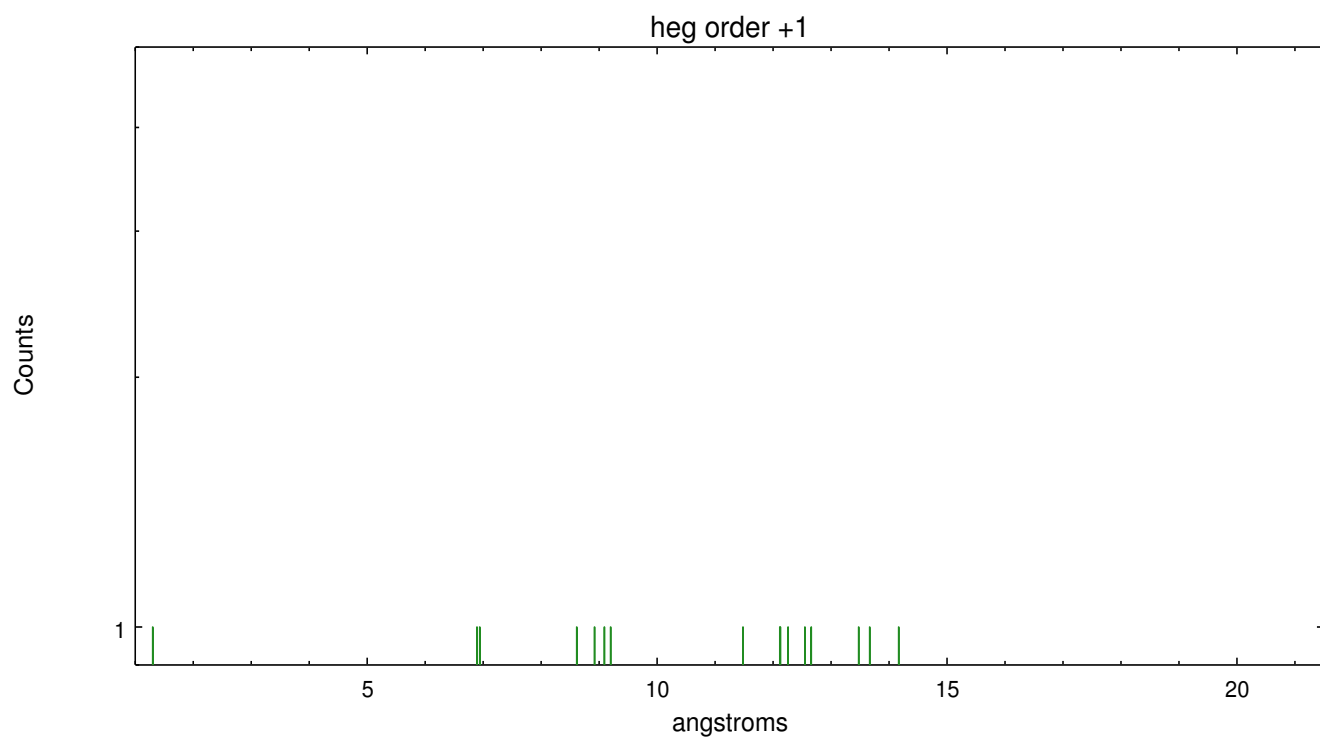
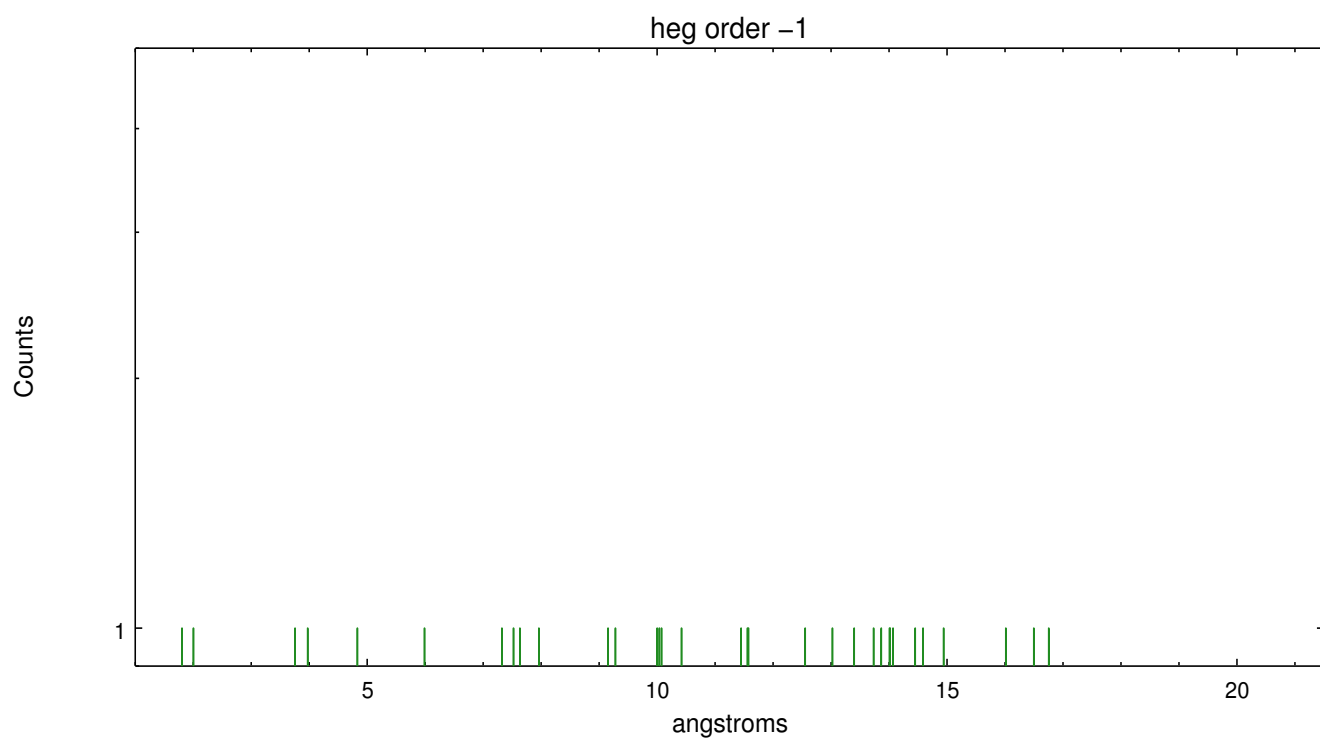
Spot Image HEG



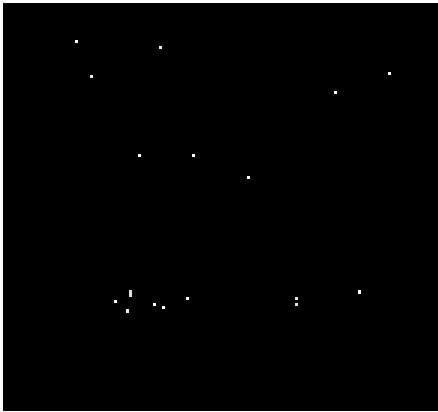
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	94	122	109	272	70	82	81

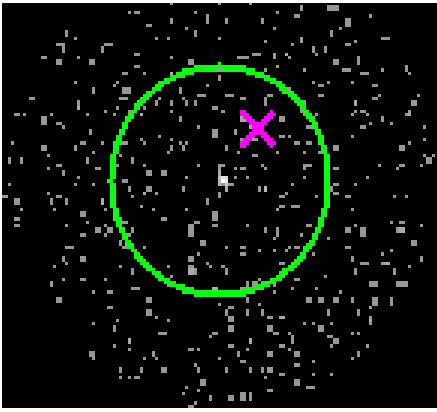




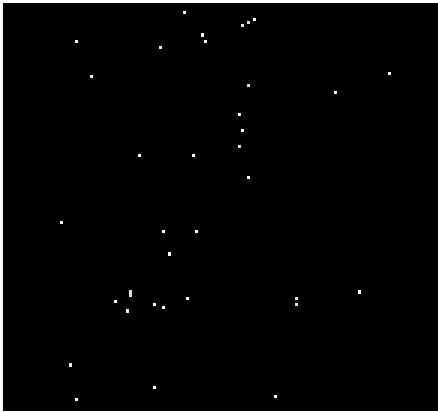
3.2 MEG Arm



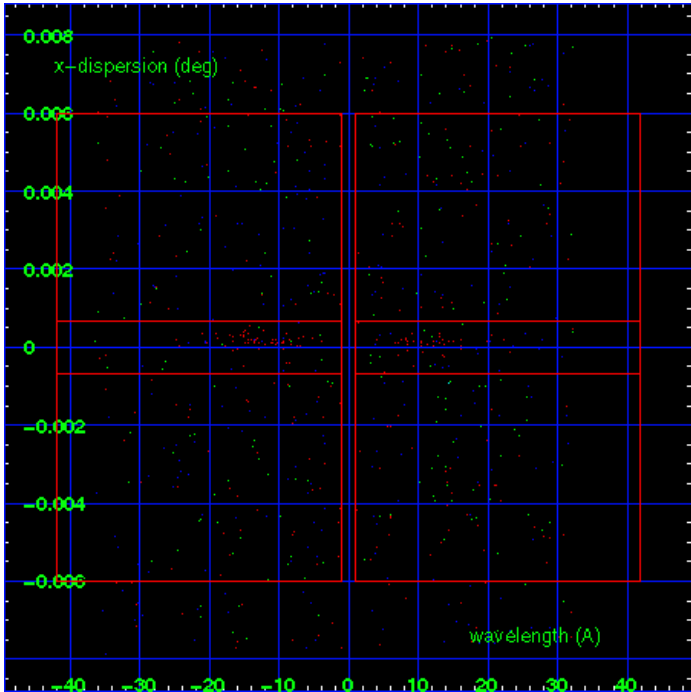
MEG Order Sort 123



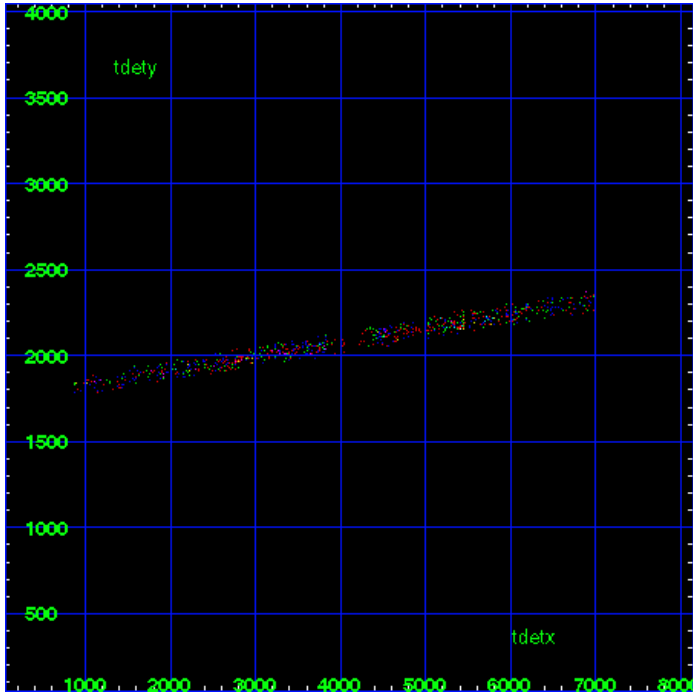
MEG Zero Order



MEG Order Sort ALL

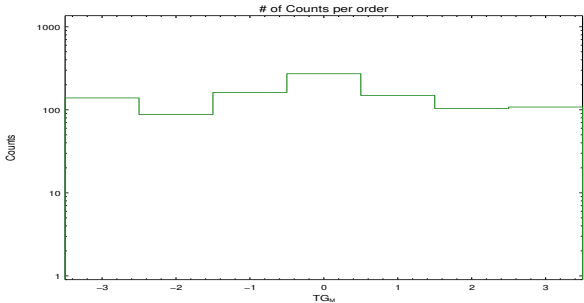


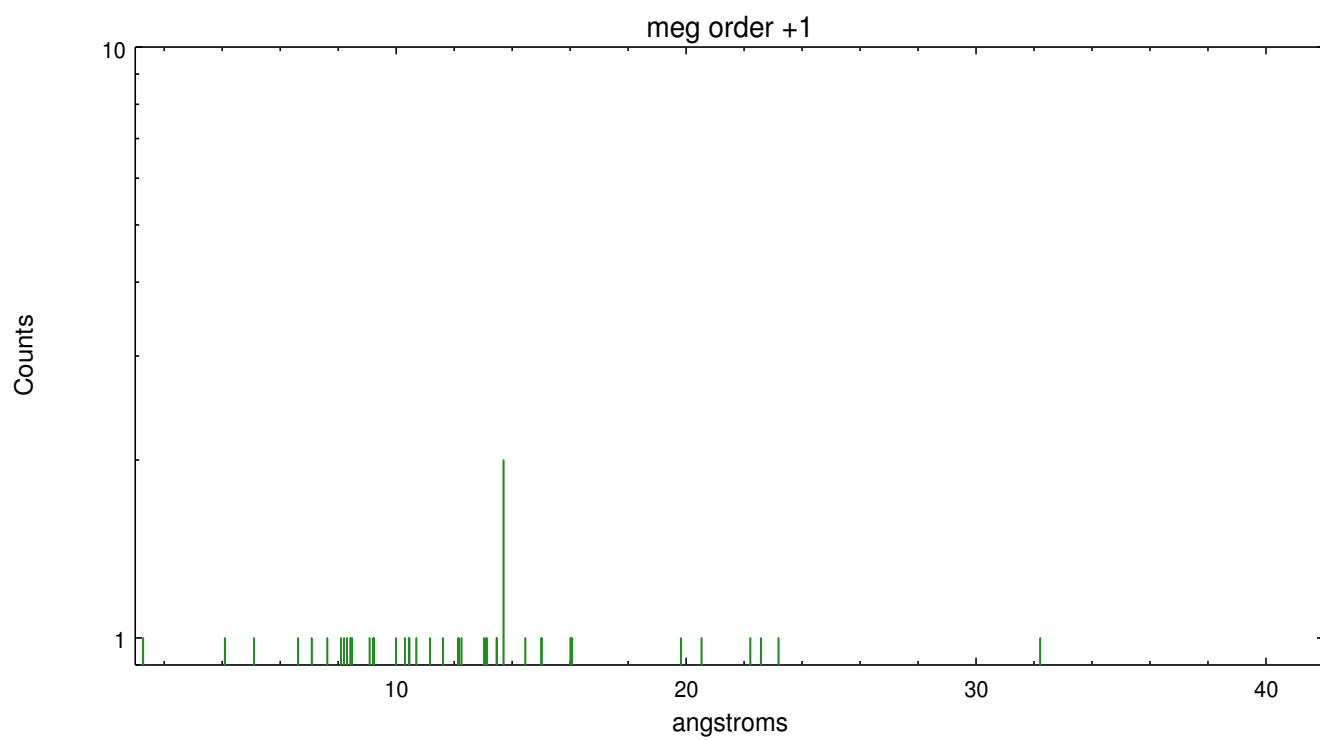
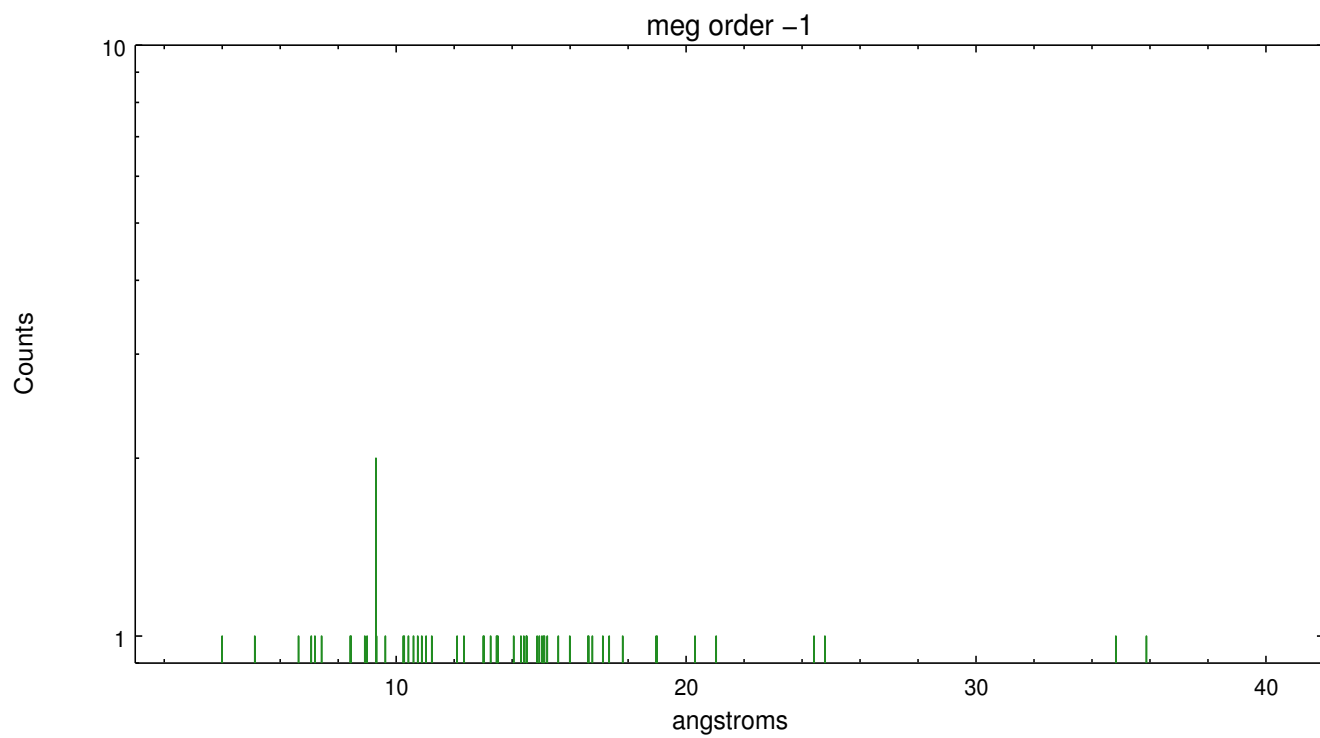
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	139	88	162	272	149	104	108





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.09.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.222

A.2 Comments

Optical photometry of source enabled during the observation. No dispersed X-ray spectrum visible, although the data indicate that first order meg spectrum may be present. Standard software processing technique using the tool tgdetect failed to determine an accurate position for the zeroth order for this observation due to low S/N. The processing software defaulted to the coordinates supplied by the user for the position of the zeroth order for the grating spectral extraction. Wavelength assignments may be improved by running tgdetect with custom parameters to accept a smaller S/N value.