

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 9582 - L2 Version 3
Chandra X-Ray Center

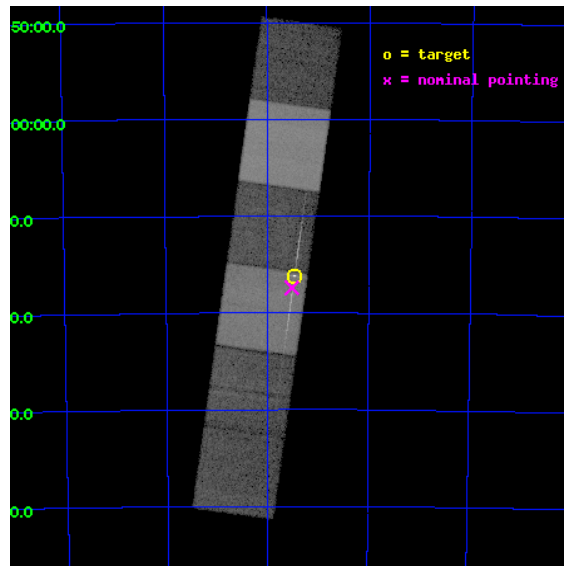
L2 Processing Date : Apr 30 2012

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1 Front

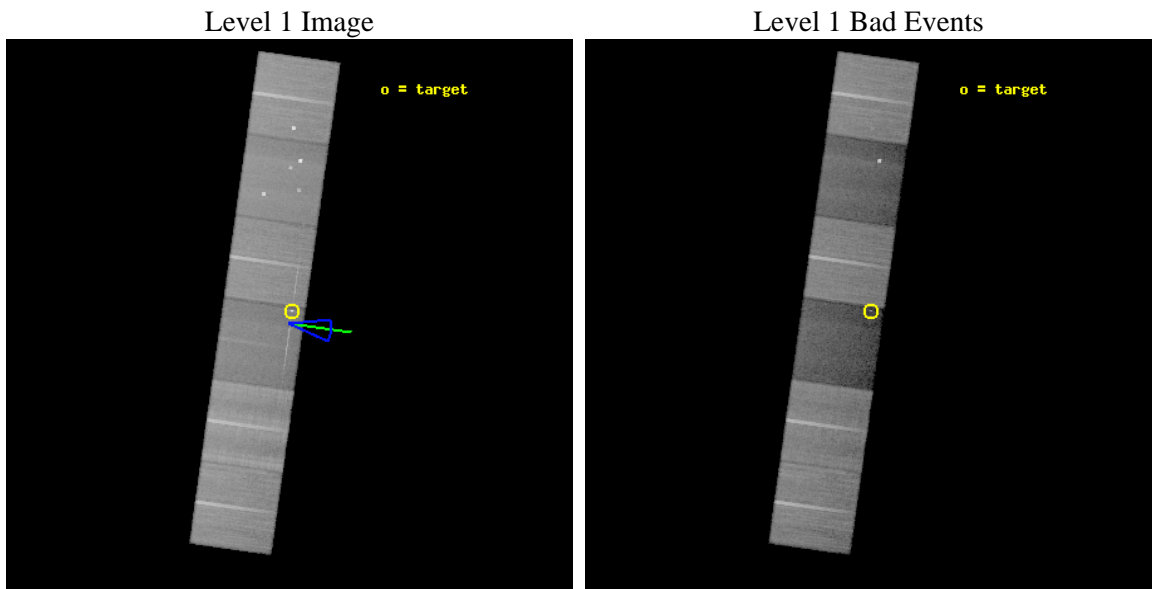
seq_num	500750	Sequence number
obs_id	9582	Observation id
title	SPATIALLY RESOLVED LETG SPECTROMETRY OF SNR1987A	Proposal title
observer	Dr. Richard McCray	Principal investigator
object	SNR1987A	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.866667	Observer's specified target RA [deg]
dec_targ	-69.26975	Observer's specified target Dec [deg]
ra_nom	83.87932408454	Nominal RA [deg]
dec_nom	-69.290212080939	Nominal Dec [deg]
roll_nom	98.068469278453	Nominal Roll [deg]
revision	3	Processing version of data
ontime	44739.199833393	Sum of GTIs [s]
livetime	44172.685146391	Livetime [s]
ontime4	44729.476932466	Sum of GTIs [s]
ontime5	44739.199833393	Sum of GTIs [s]
ontime6	44739.199833393	Sum of GTIs [s]
ontime7	44739.199833393	Sum of GTIs [s]
ontime8	44739.199833393	Sum of GTIs [s]
ontime9	44735.95886308	Sum of GTIs [s]
l2events	367008	Number of level 2 events



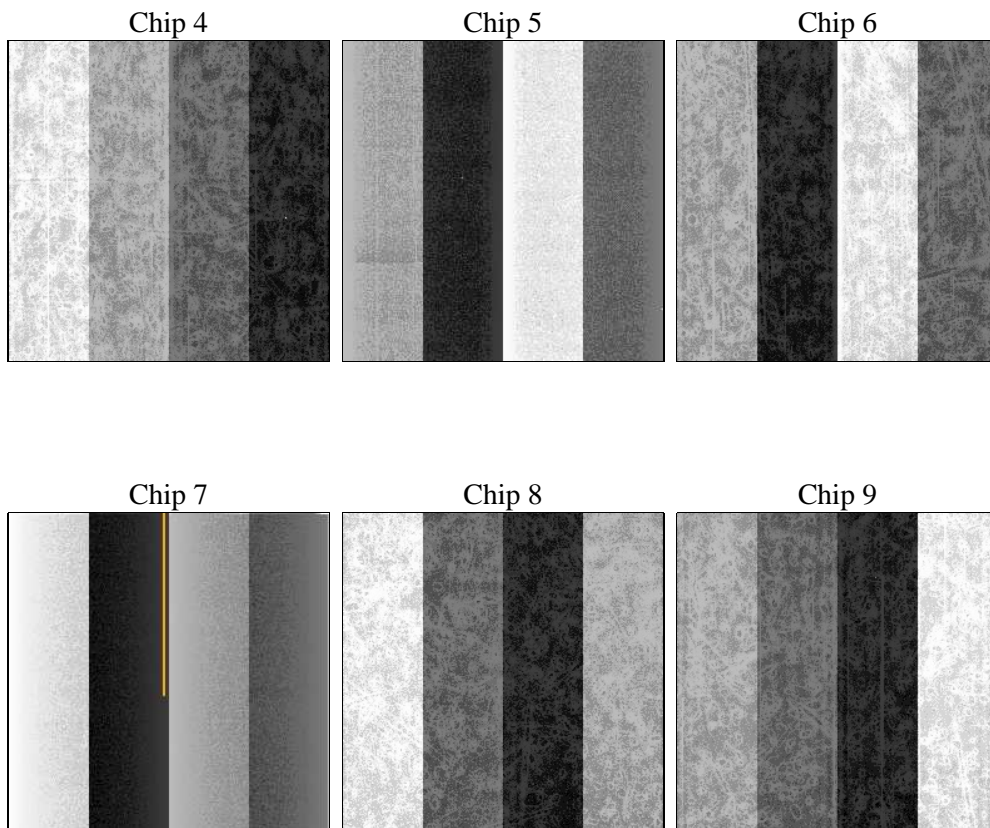
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	44701.284000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	44739.199833393	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	44729.476932466	Sum of GTIs [s]
date	2012-04-30T15:25:40	Date and time of file creation	ontime5	44739.199833393	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	44739.199833393	Sum of GTIs [s]
			ontime7	44739.199833393	Sum of GTIs [s]
			ontime8	44739.199833393	Sum of GTIs [s]
			ontime9	44735.95886308	Sum of GTIs [s]
			l1events	1806856	Number of level 1 events

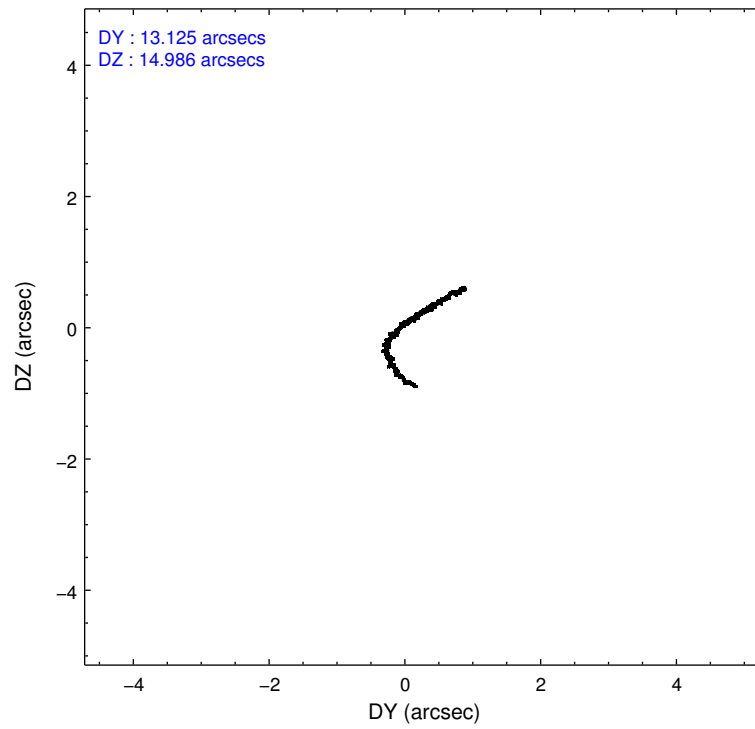
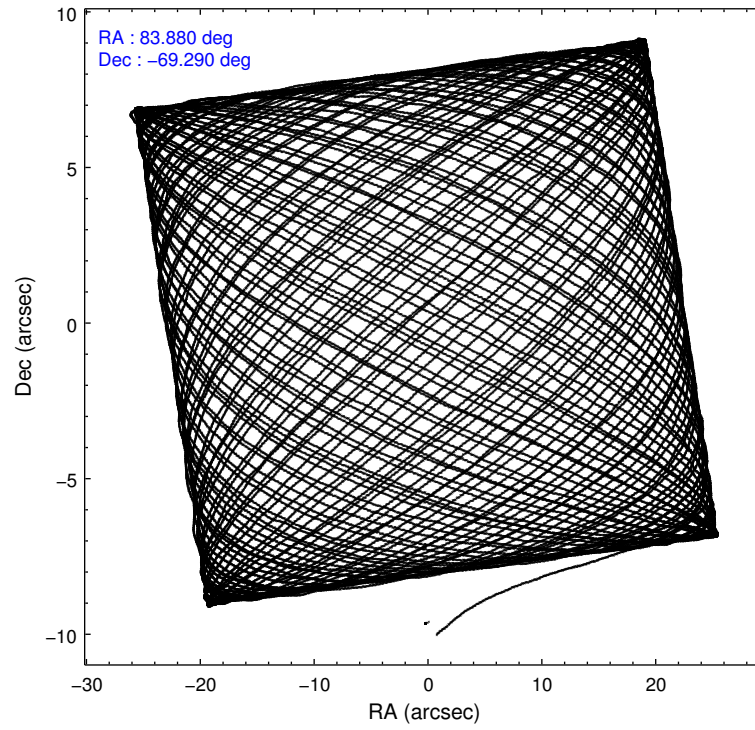
2.1.4 Events

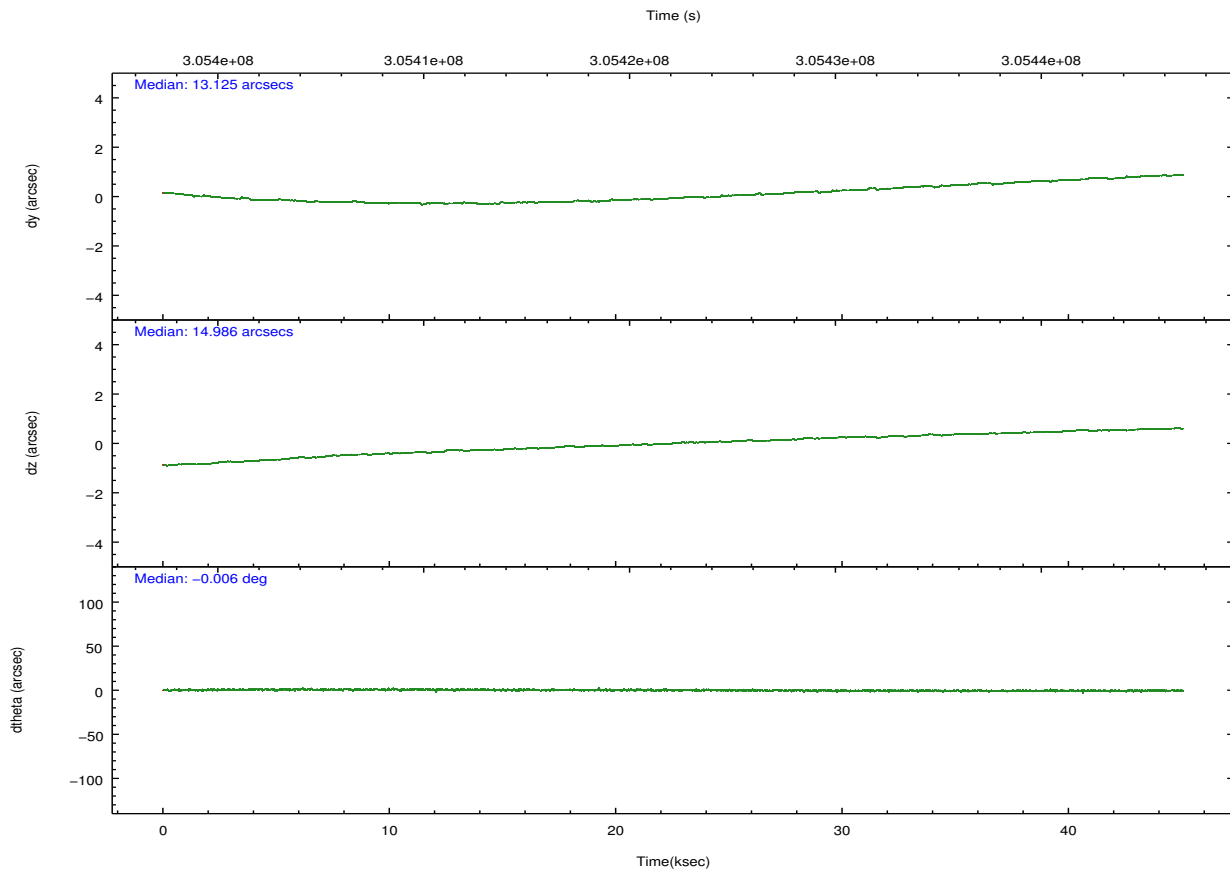
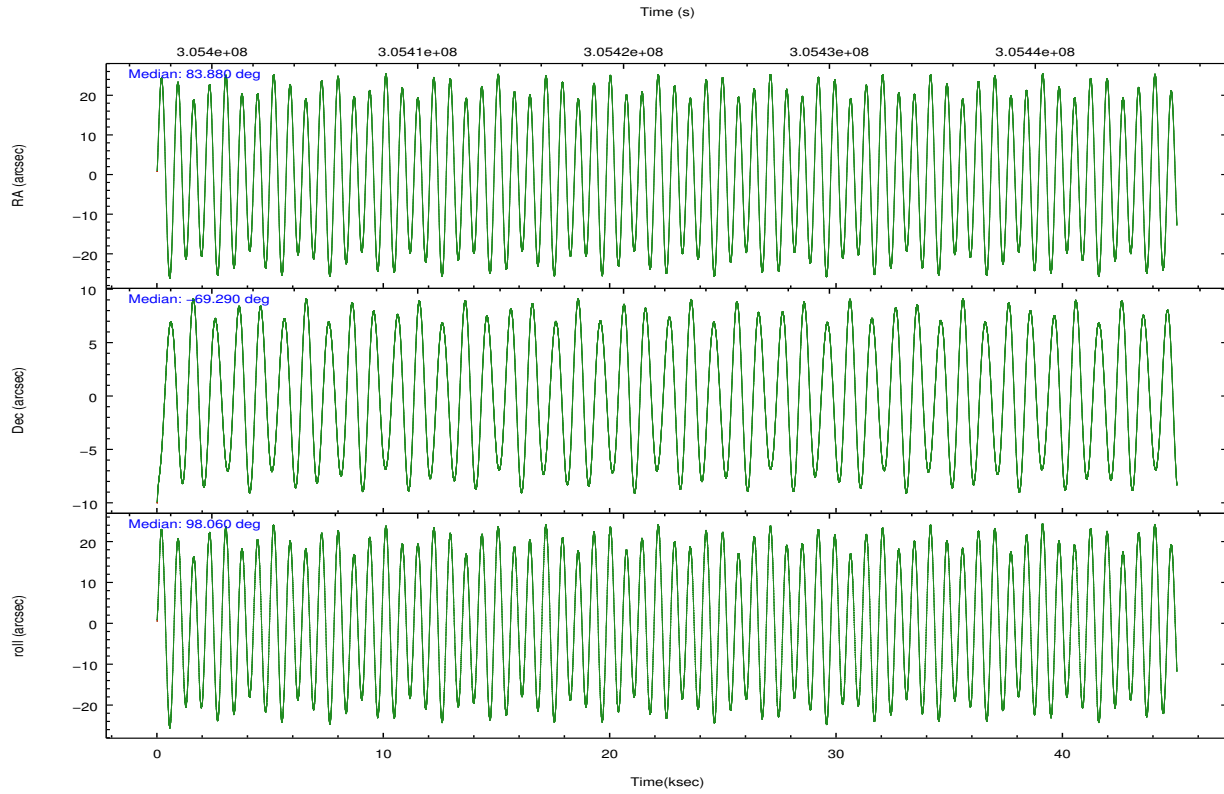
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	368081	283417	308776	195519	361480	289583	grade 0 events	20518	28803	16908	18084	27841	11025
rejected events	330073	110930	274465	75989	267085	261896		5%	10%	5%	9%	7%	3%
rejected %	89%	39%	88%	38%	73%	90%	grade 1 events	371	5521	206	491	353	147
								0%	1%	0%	0%	0%	0%
							grade 2 events	7392	54096	6806	29343	21966	5843
								2%	19%	2%	15%	6%	2%
							grade 3 events	3154	8535	3093	12606	10432	3173
								0%	3%	1%	6%	2%	1%
							grade 4 events	2951	8463	3050	12201	9489	2913
								0%	2%	0%	6%	2%	1%
							grade 5 events	6112	22301	6002	18721	10605	7056
								1%	7%	1%	9%	2%	2%
							grade 6 events	4000	72612	4462	47319	24673	4734
								1%	25%	1%	24%	6%	1%
							grade 7 events	323583	83086	268249	56754	256121	254692
								87%	29%	86%	29%	70%	87%

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	LETG	LETG	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	83.927845	83.87932408454023	CCD I2 on	N	N
[deg] Pointing Dec	-69.311514	-69.29021208093909	CCD I3 on	N	N
[deg] Pointing Roll	97.957228	98.06846927845298	CCD S0 on	O1	Y
[deg] Roll angle	100.000000	100.000000	CCD S1 on	Y	Y
[deg] Roll tolerance	15.000000	15.000000	CCD S2 on	Y	Y
Roll constraint allows 180D rotation	N	N	CCD S3 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S4 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S5 on	O2	Y
[mm] SIM translation stage pos	-182.132523	-182.1344861297048	Number of optional ACIS chips dropped	0	0
[mm] SIM translation stage offset	-8	-7.998036453302973	On-chip summing requested	N	N
[s] Observation start time (MET)	305399942.184000	305398798.87635	Subarray requested	NONE	NONE
Observation start date	2007-09-05T17:17:57	2007-09-05T16:59:58	Alternating exposures requested	N	N
[s] Observation end time (MET)	305444644.184000	305444871.09106	[s] Primary exposure time	0.000000	3.2
Observation end date	2007-09-06T05:42:59	2007-09-06T05:47:51			
Read mode	TIMED	TIMED			

2.3 Aspect



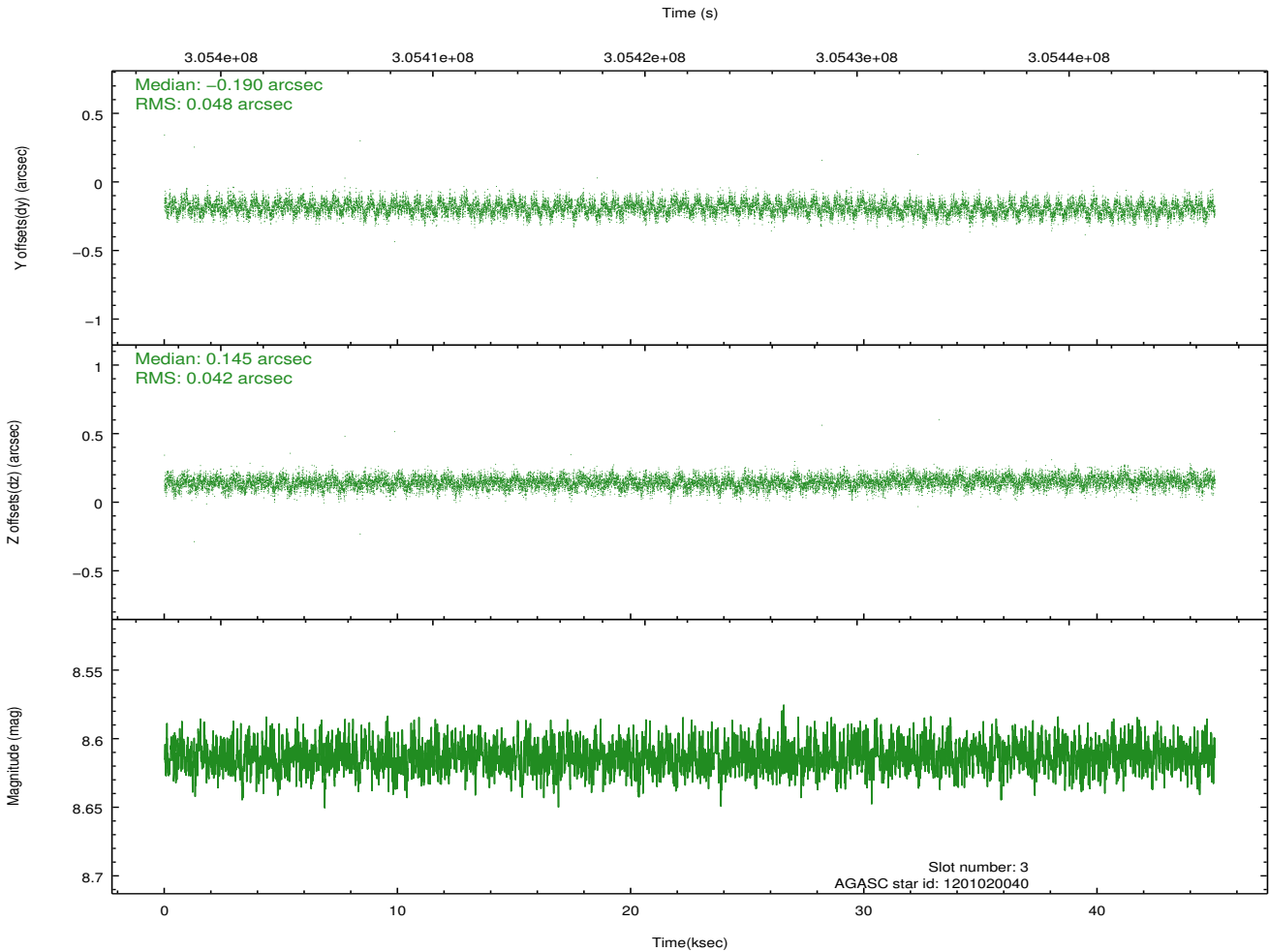
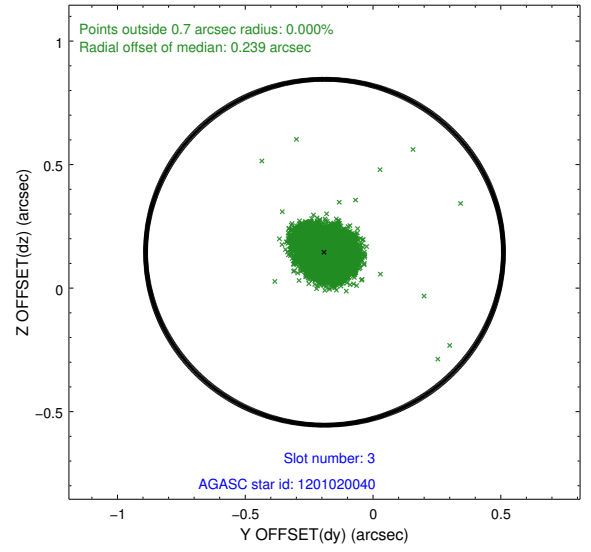
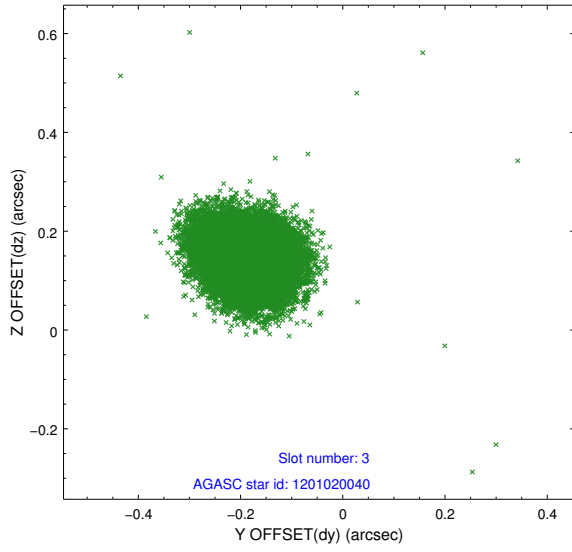


Slot Statistics

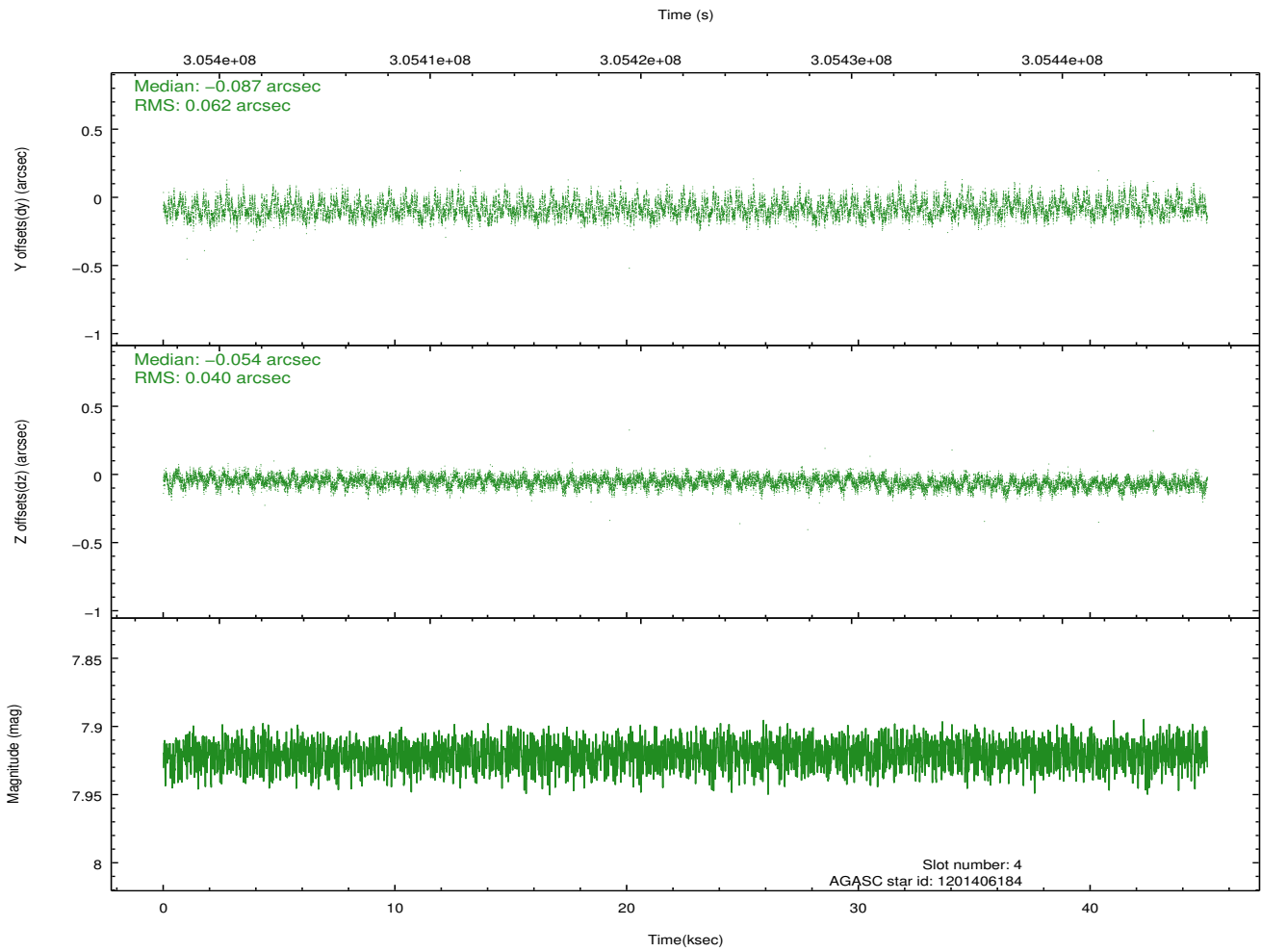
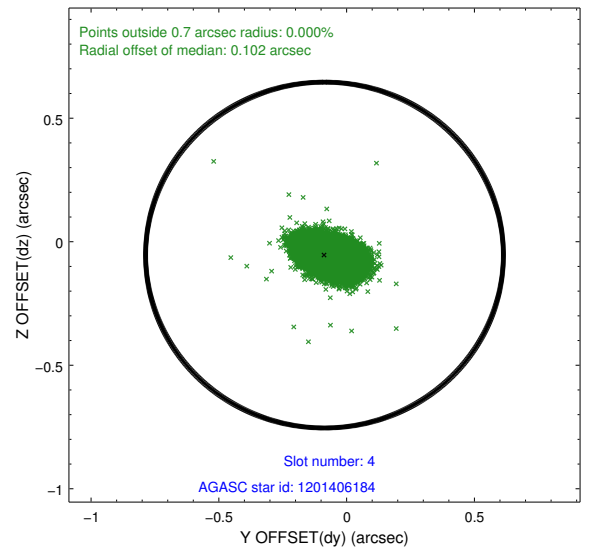
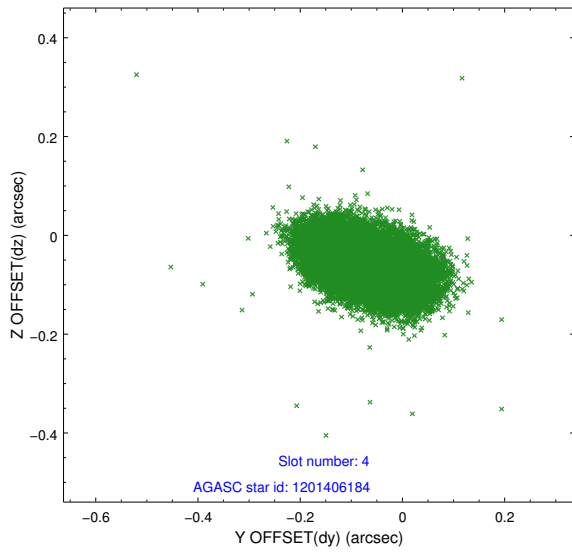
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.17	10986	0.075	0.116	0.012	0.018	0.000000	0.000000	930.55	-1896.59
1	FID	ACIS-S-2	7.08	10988	-0.158	-0.104	0.012	0.032	0.000000	0.000000	-765.59	-1901.40
2	FID	ACIS-S-6	7.39	10986	0.064	-0.005	0.013	0.022	0.000000	0.000000	396.16	644.59
3	GUIDE	1201020040	8.61	21966	-0.190	0.145	0.067	0.108	85.379163	-68.879396	1258.25	-2075.94
4	GUIDE	1201406184	7.92	21966	-0.087	-0.054	0.077	0.131	82.503234	-69.975517	-2144.74	2072.77
5	GUIDE	1201540776	9.57	21951	0.181	0.092	0.104	0.170	85.107945	-69.858480	-2166.25	-1173.98
6	GUIDE	1201410616	9.33	21956	0.176	-0.230	0.102	0.163	82.516808	-69.784406	-1463.23	1976.67
7	GUIDE	1201019672	6.85	21973	-0.081	0.049	0.054	0.094	85.312192	-68.770187	1660.36	-2053.36

2.4 Star Slots

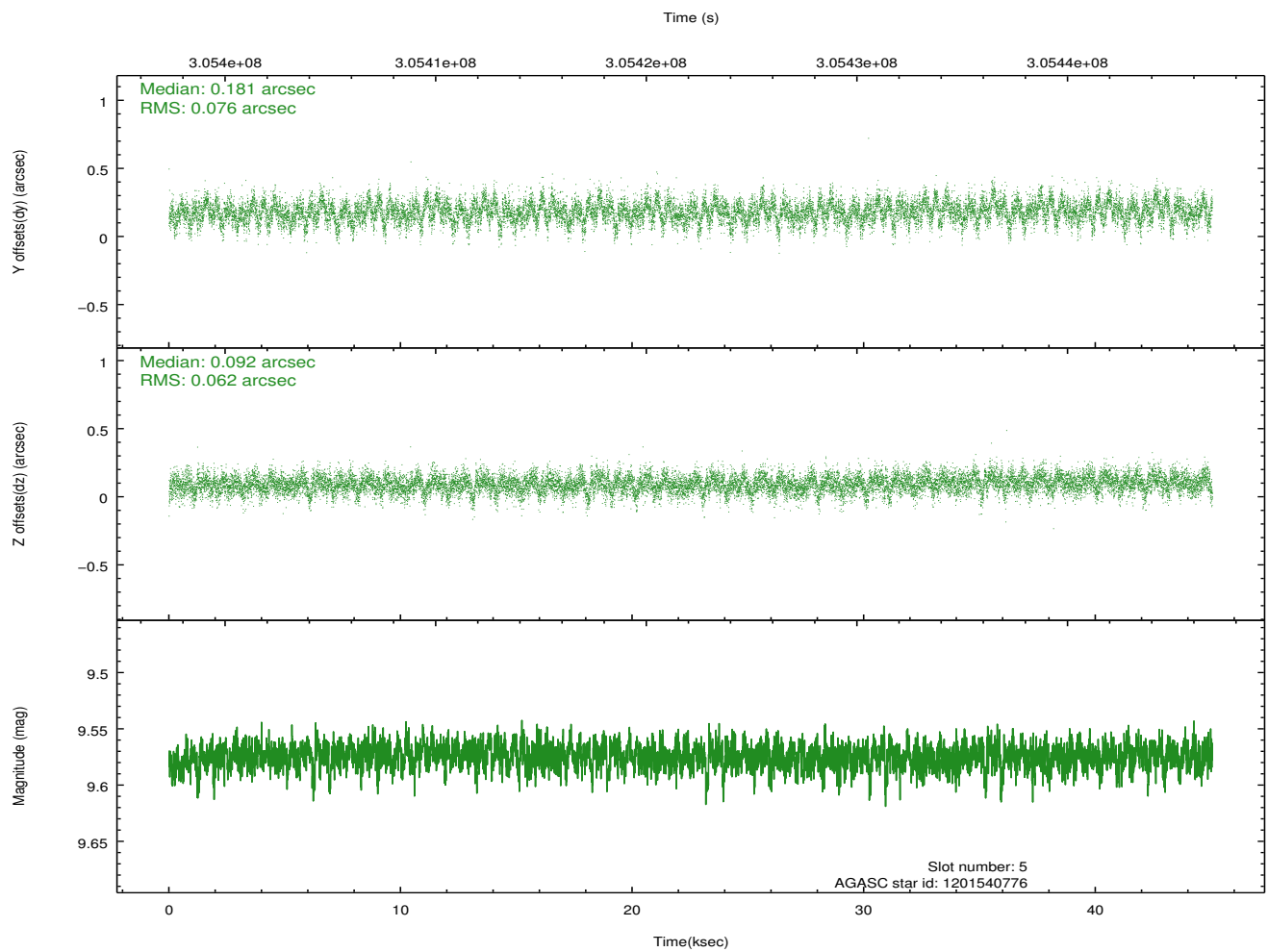
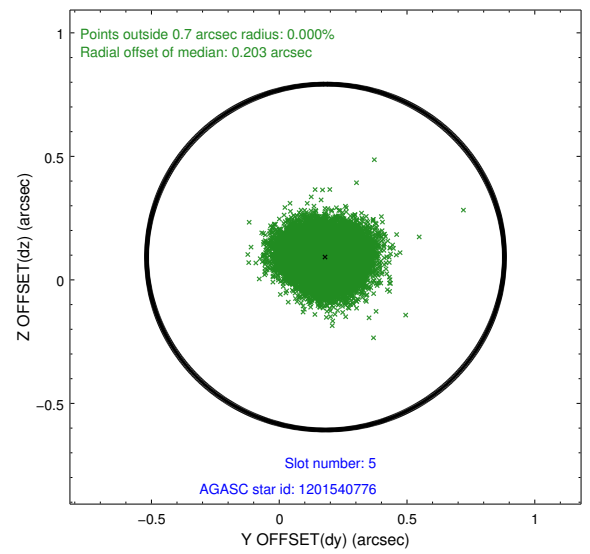
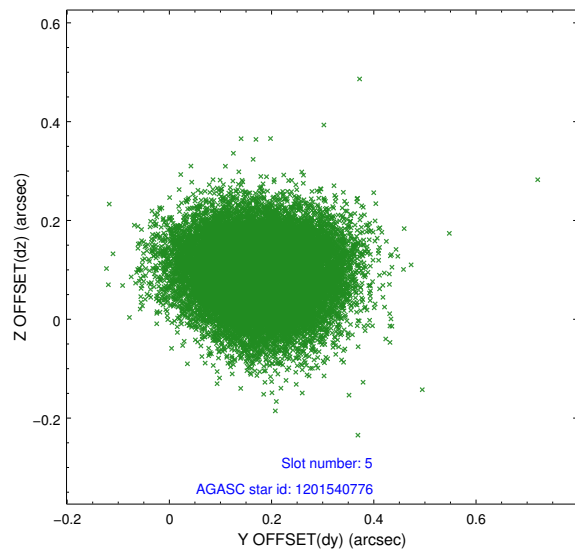
2.4.1 Slot 3



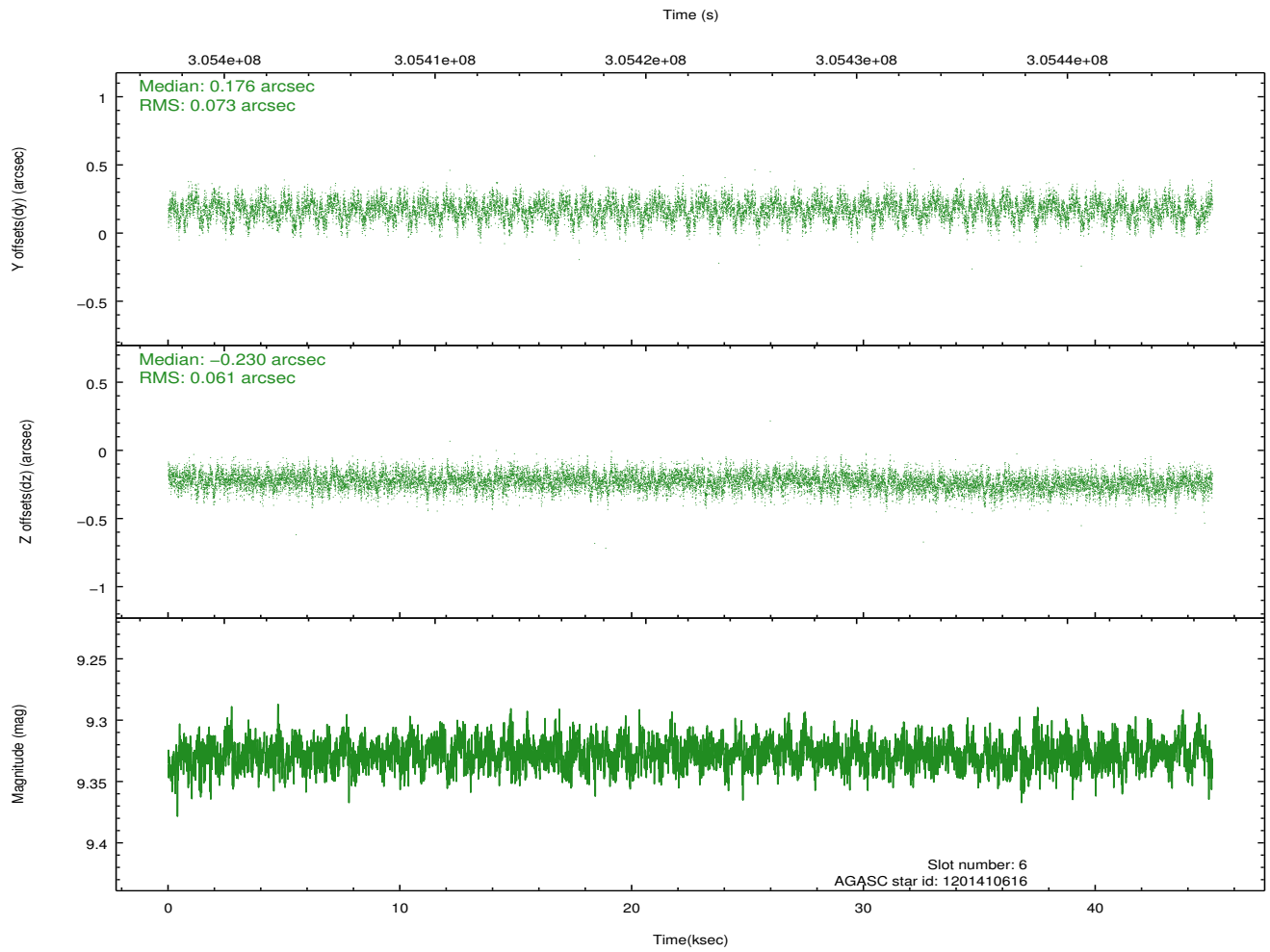
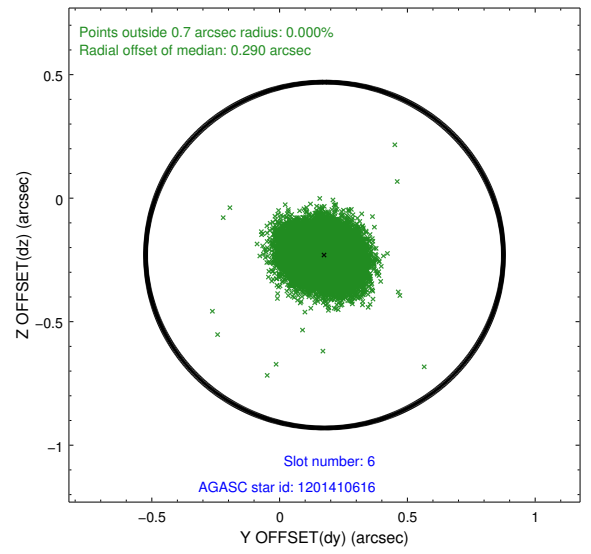
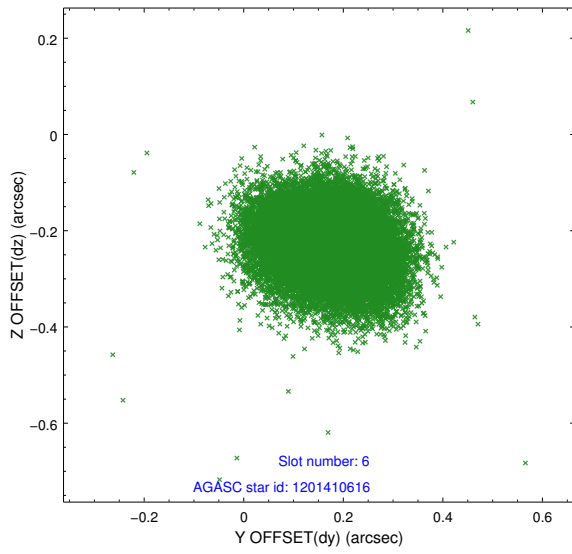
2.4.2 Slot 4



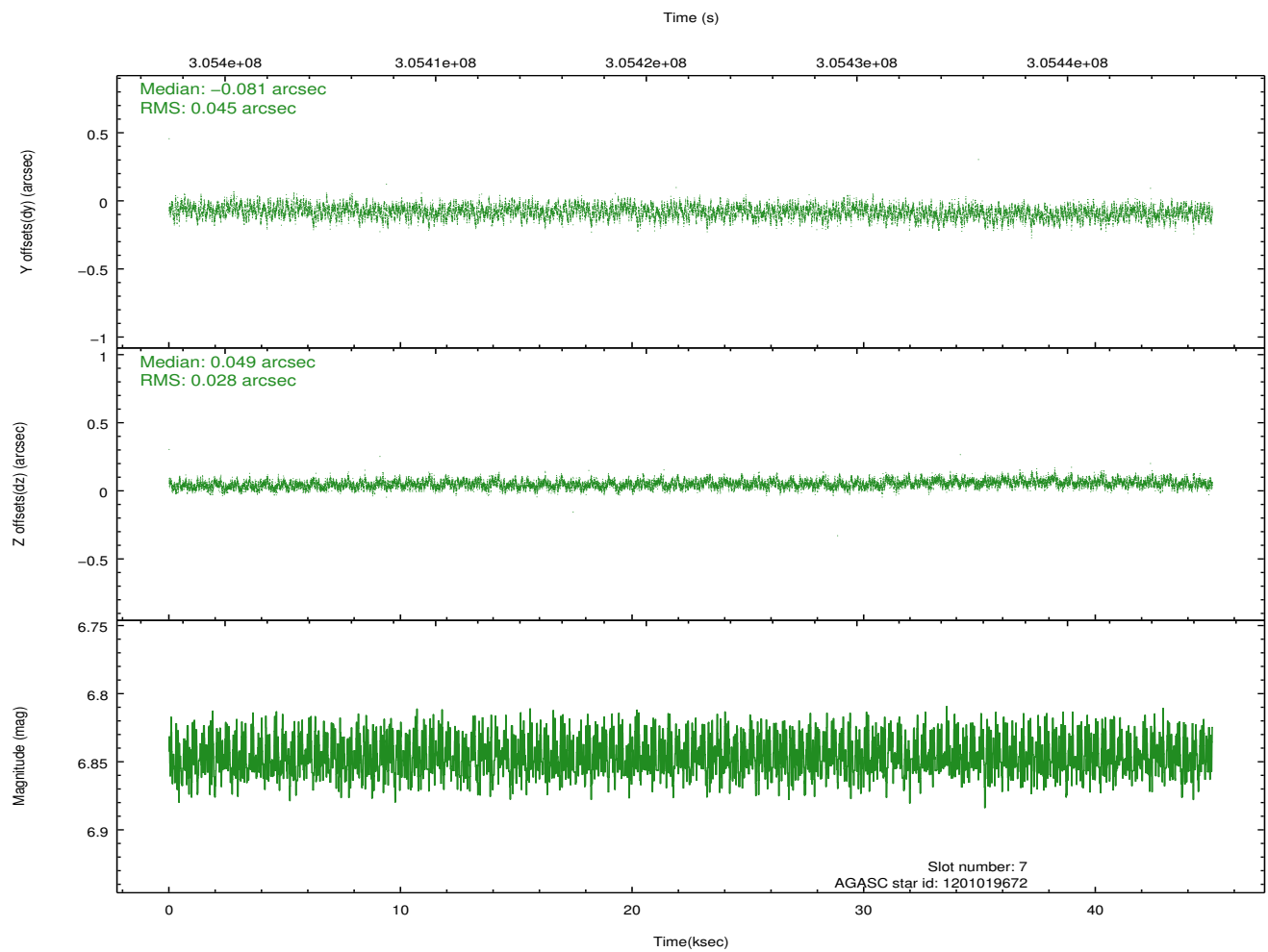
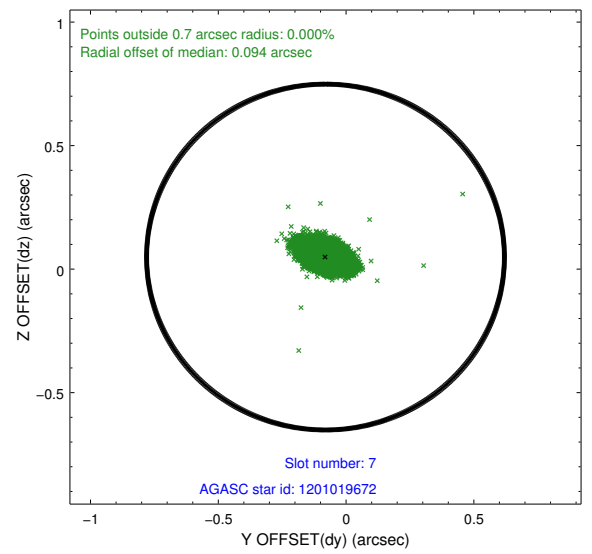
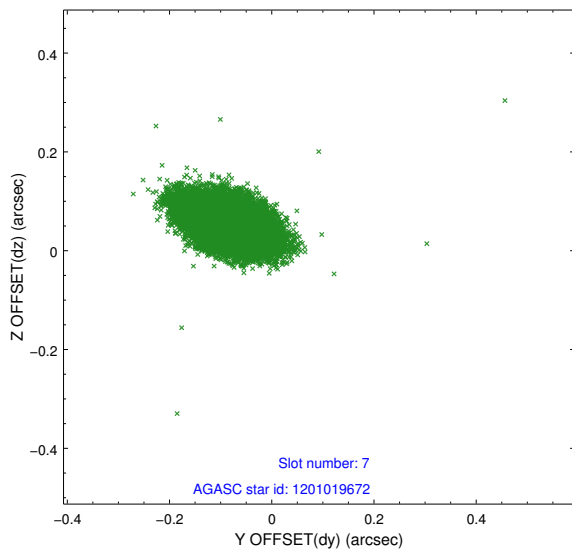
2.4.3 Slot 5



2.4.4 Slot 6

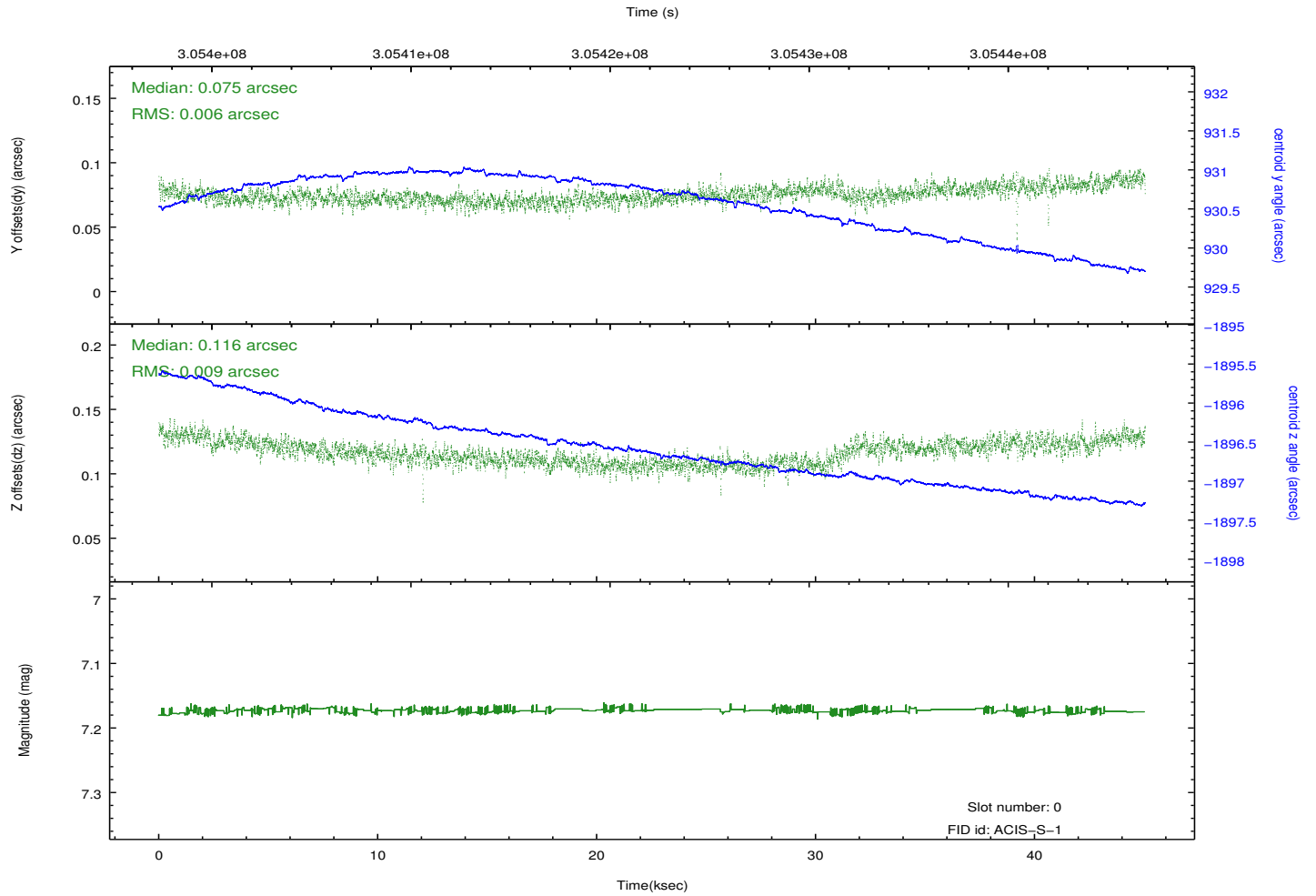
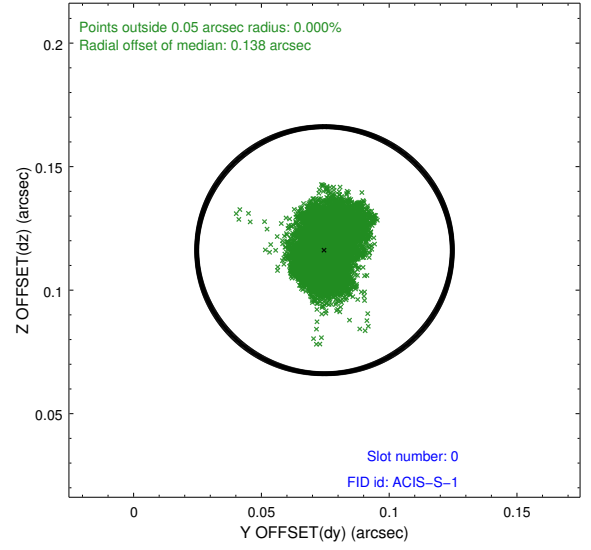
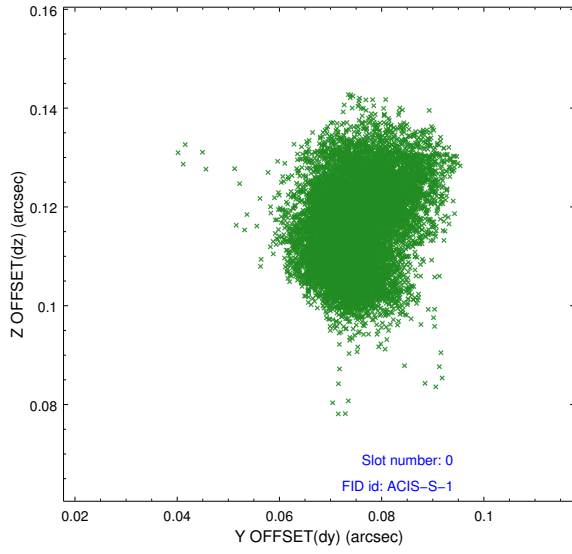


2.4.5 Slot 7

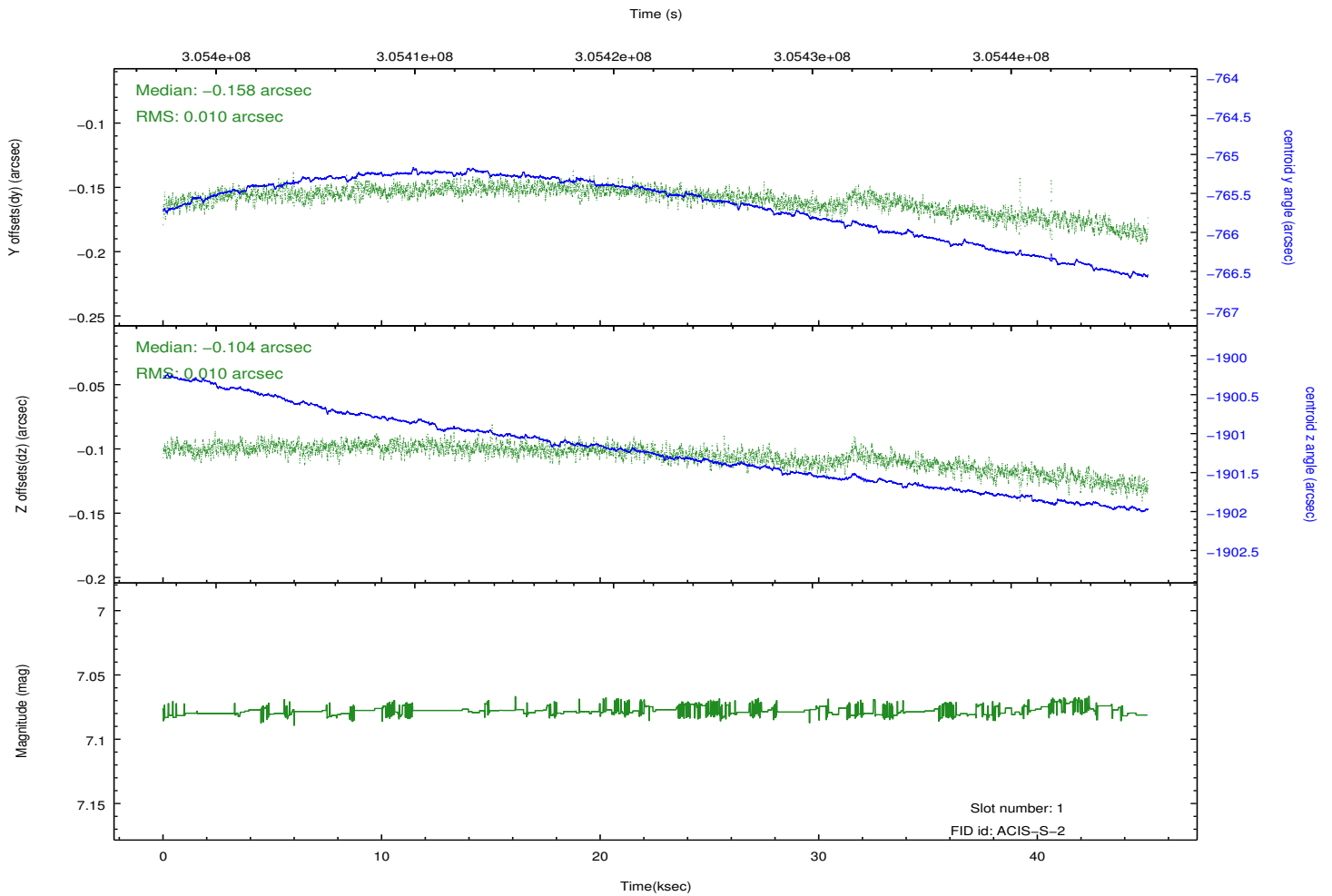
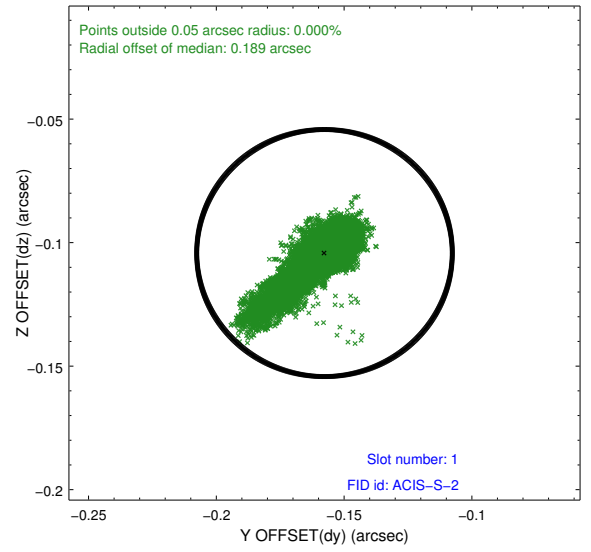
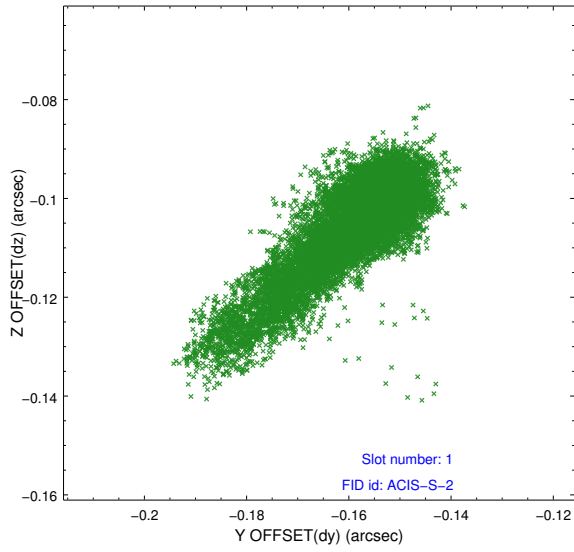


2.5 FID Slots

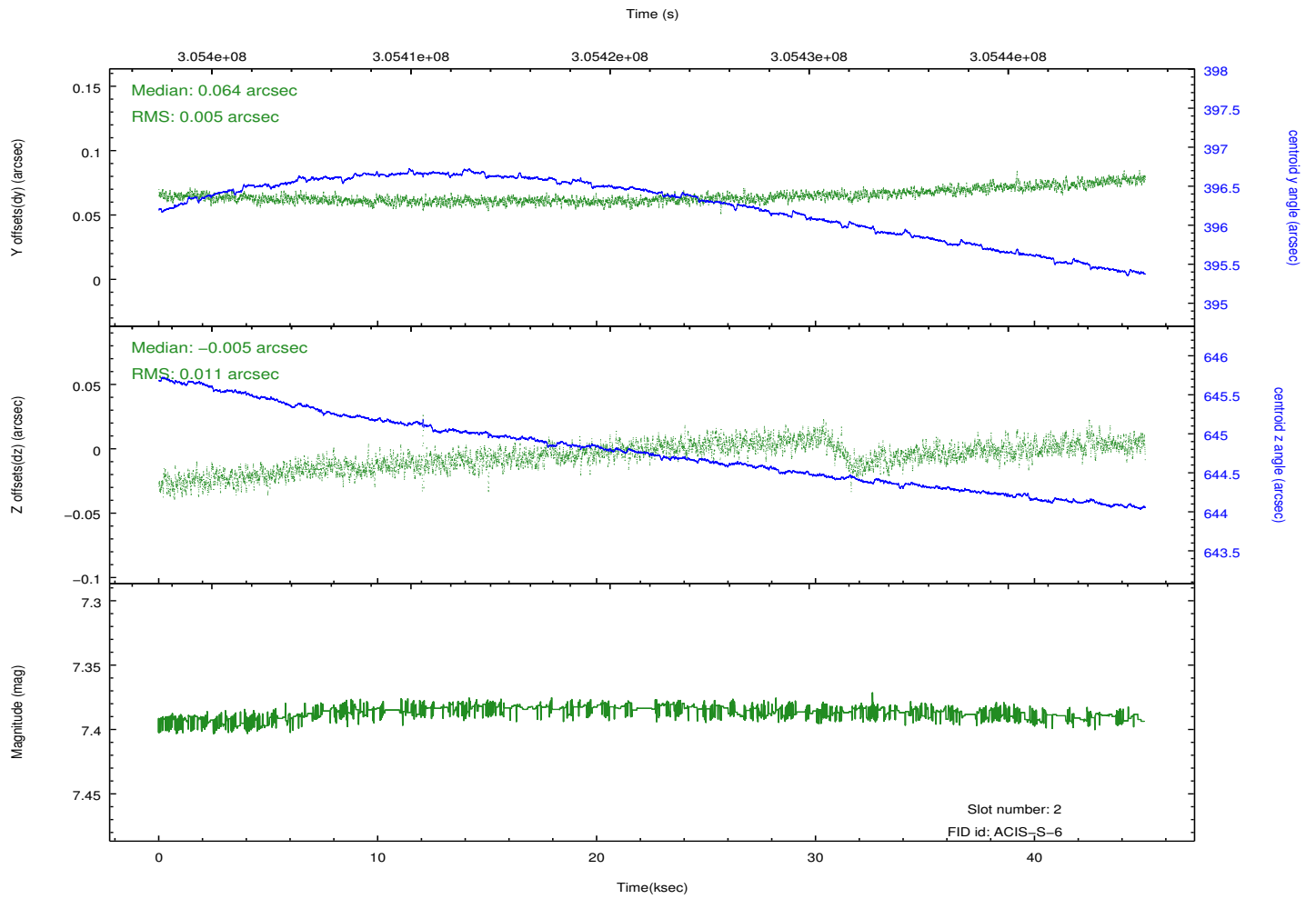
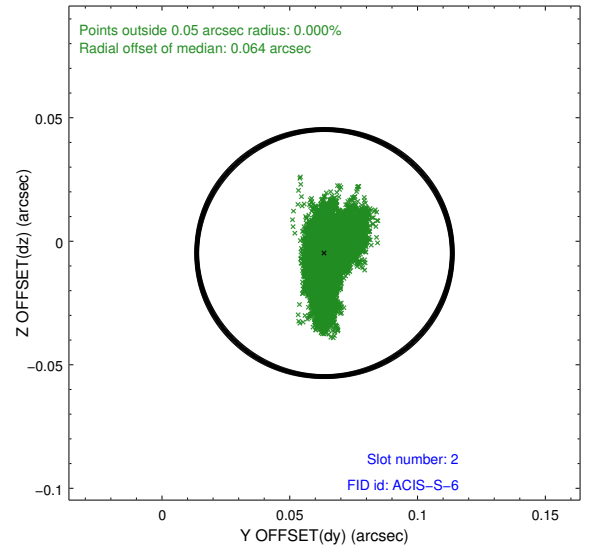
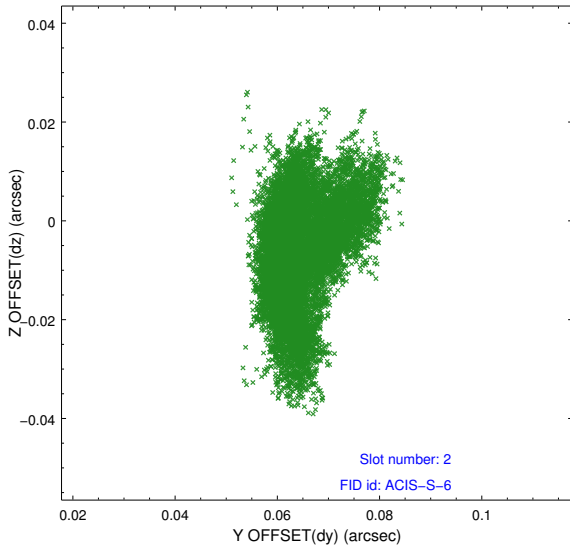
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

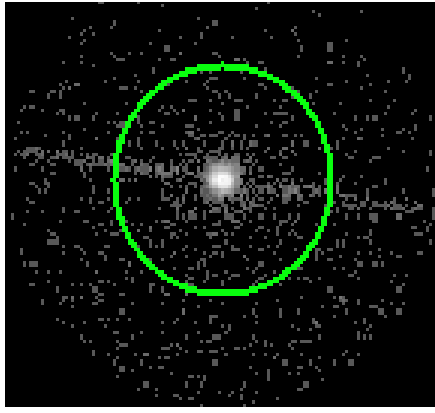


3 Gratings

3.1 LETG Arm



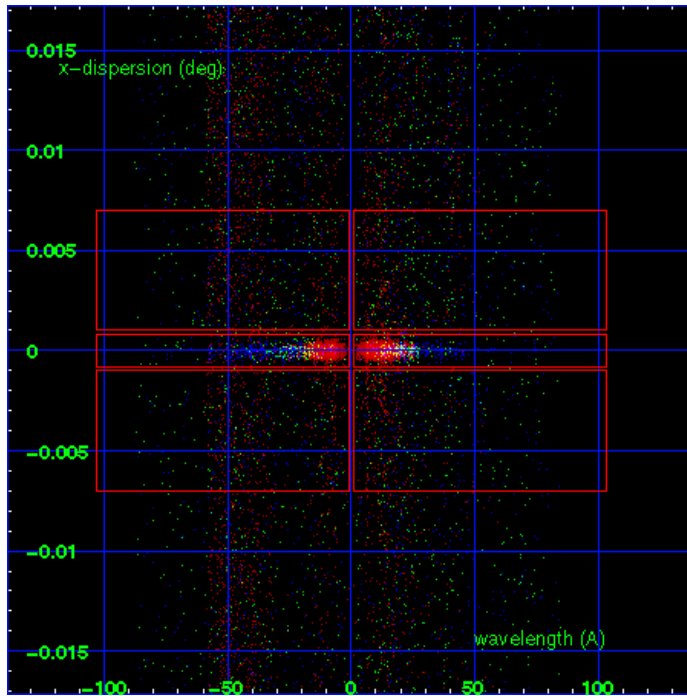
LETG Order Sort 123



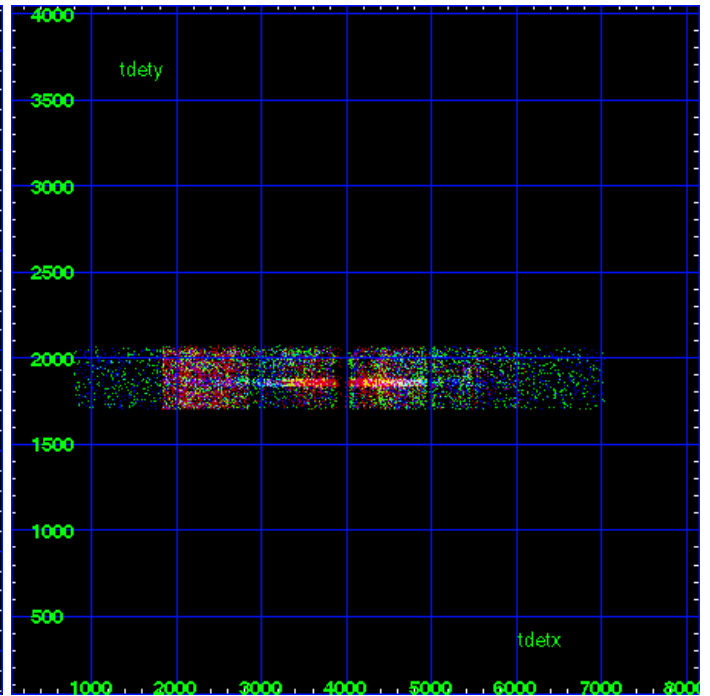
LETG Zero Order



LETG Order Sort ALL

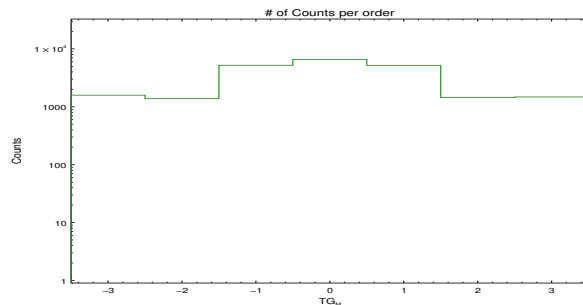


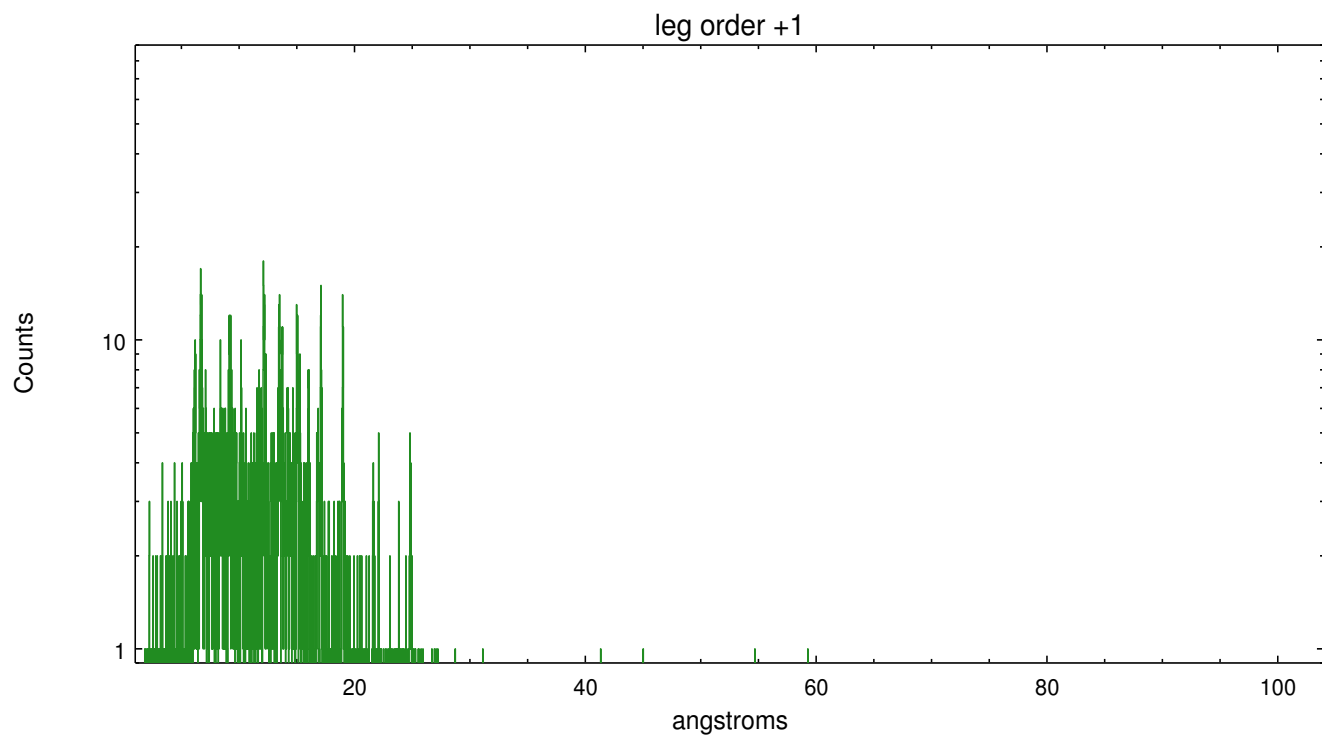
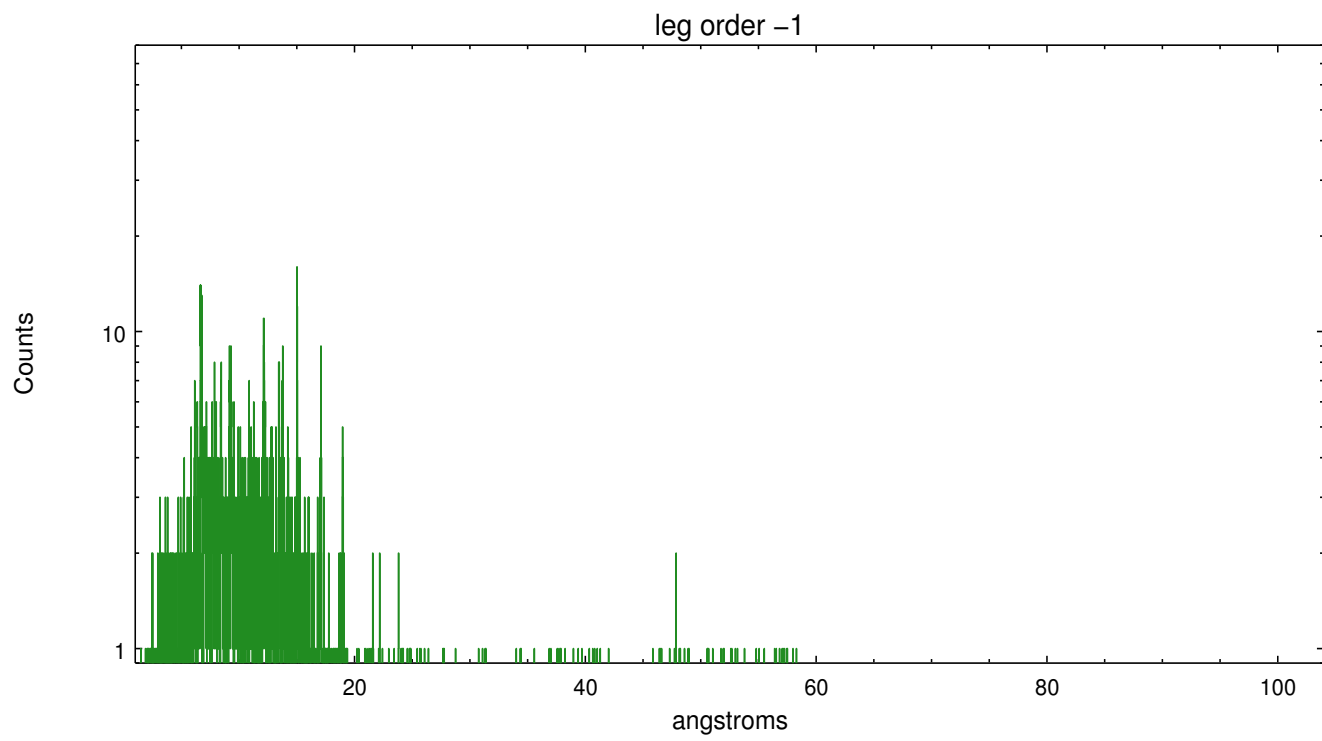
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1586	1398	5212	6556	5170	1446	1479





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.05.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	44.7391998

A.2 Comments

Warning: Extended source, dia ~ 3 arc seconds; nominal extraction includes whole source and could be narrowed to reduce background. Background events dominate below 30A. Extraction is centered in supernova remnant, but is not positioned at the brightest region.

===

Gain and CTI correction are not well calibrated on CCD_ID 5 (ACIS-S1). Default order sorting can clip some regions, particularly longward of 30A (first order). User-specified custom processing parameters may be required in `tg_resolve_events` (`osipfile=None`, `osort_lo`, `osort_hi` ~ 0.5) though this can allow more zeroth order background at short wavelengths.