

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 11743 - L2 Version 3
Chandra X-Ray Center

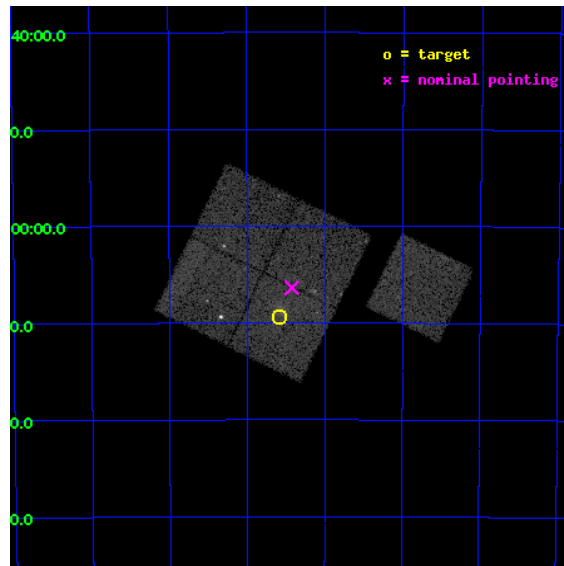
L2 Processing Date : Jul 2 2012

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1 Front

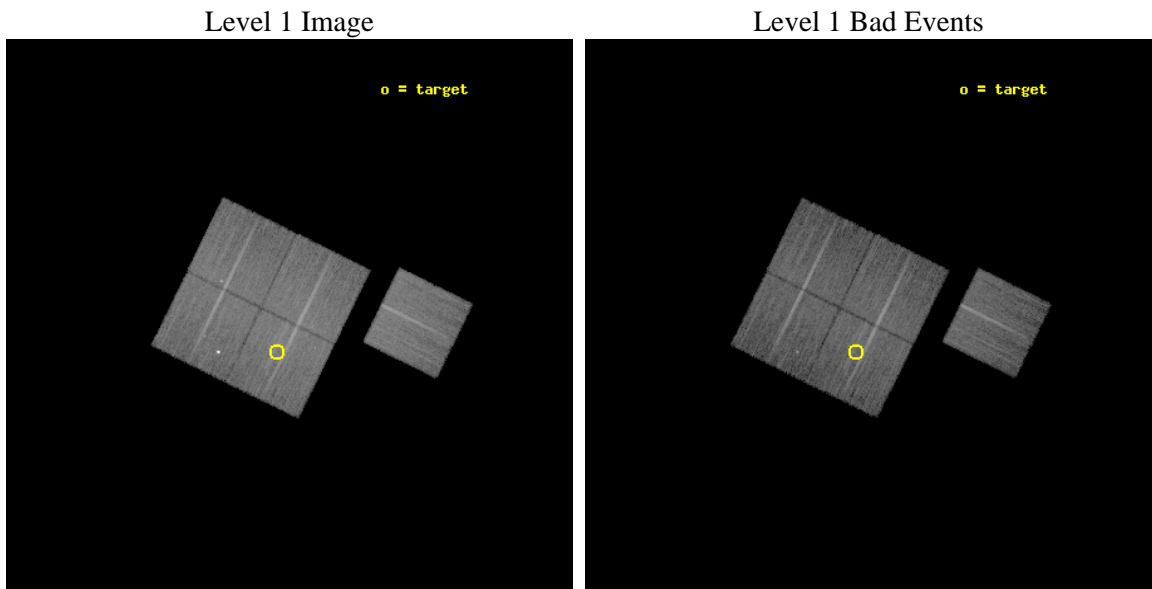
seq_num	800883	Sequence number
obs_id	11743	Observation id
title	Chandra Observations of a Complete Sample of SZE Selected Galaxy Clusters	Proposal title
observer	Dr Joseph Mohr	Principal investigator
object	SPT-CL 0552-5709	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	87.897083	Observer's specified target RA [deg]
dec_targ	-57.156	Observer's specified target Dec [deg]
ra_nom	87.85607870191	Nominal RA [deg]
dec_nom	-57.10632818107	Nominal Dec [deg]
roll_nom	116.17760832937	Nominal Roll [deg]
revision	3	Processing version of data
ontime	16578.800127506	Sum of GTIs [s]
livetime	16362.185898705	Livetime [s]
ontime0	16575.659157217	Sum of GTIs [s]
ontime1	16569.37724638	Sum of GTIs [s]
ontime2	16575.659167111	Sum of GTIs [s]
ontime3	16578.800127506	Sum of GTIs [s]
ontime6	16572.5181669	Sum of GTIs [s]
l2events	67277	Number of level 2 events



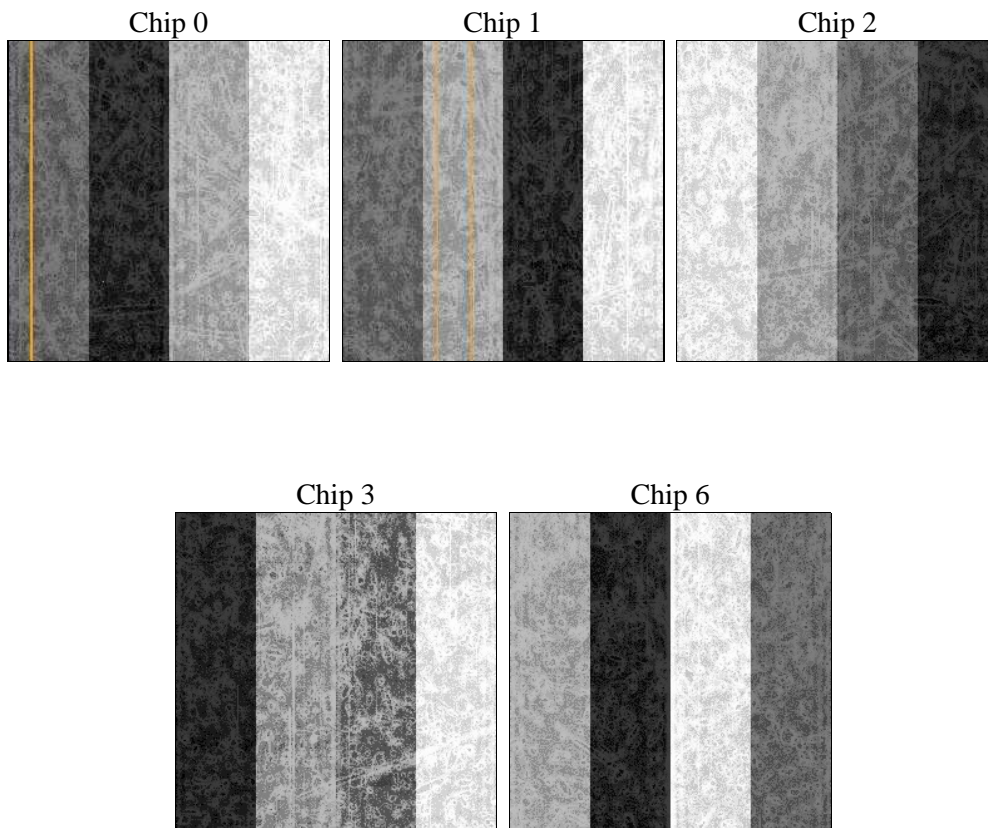
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	16528.963000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	16578.800127506	Sum of GTIs [s]
caldbver	4.5.0	 	ontime0	16575.659157217	Sum of GTIs [s]
date	2012-07-02T13:17:23	Date and time of file creation	ontime1	16569.37724638	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	16575.659167111	Sum of GTIs [s]
			ontime3	16578.800127506	Sum of GTIs [s]
			ontime6	16572.5181669	Sum of GTIs [s]
			l1events	606037	Number of level 1 events

2.1.4 Events

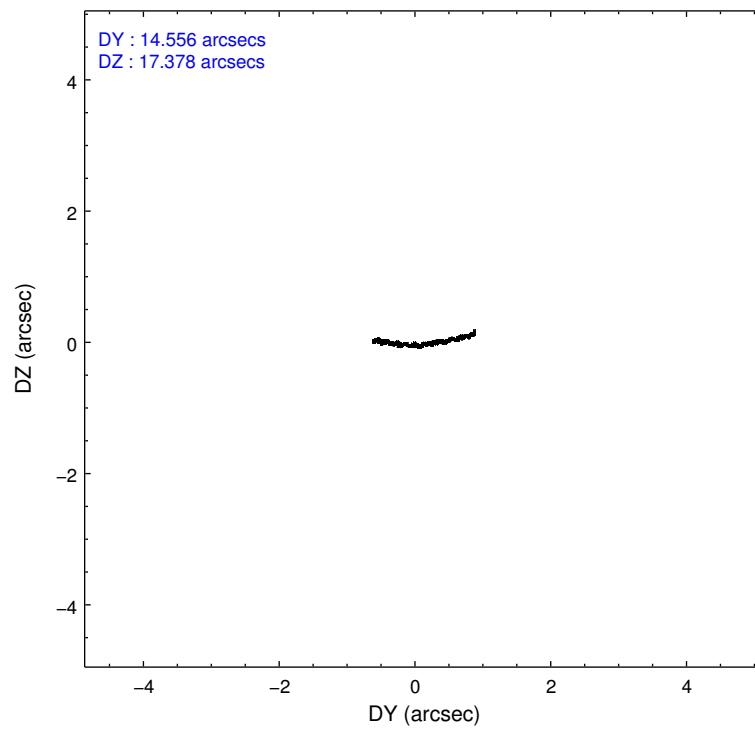
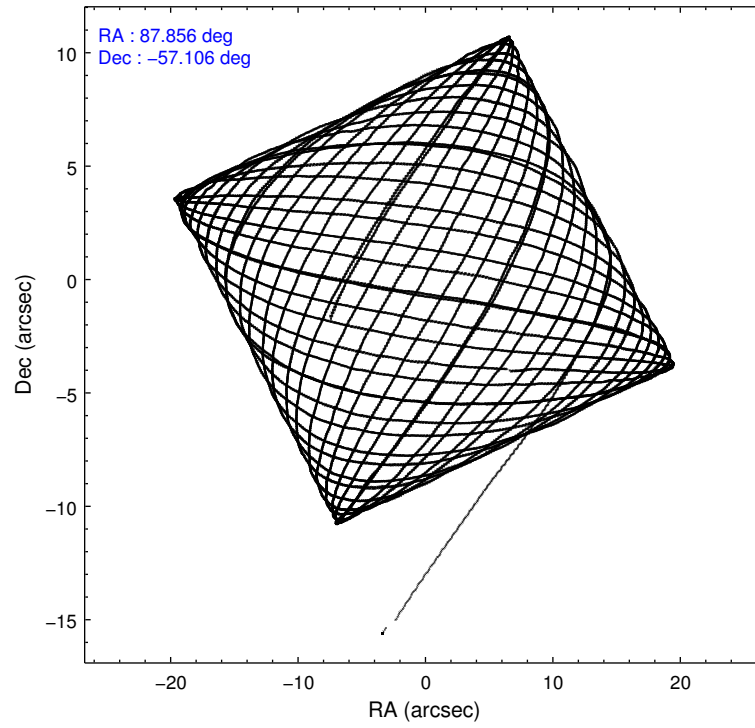
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	114001	121571	126160	123935	120370
rejected events	100306	98451	112264	109281	106723
rejected %	87%	80%	88%	88%	88%

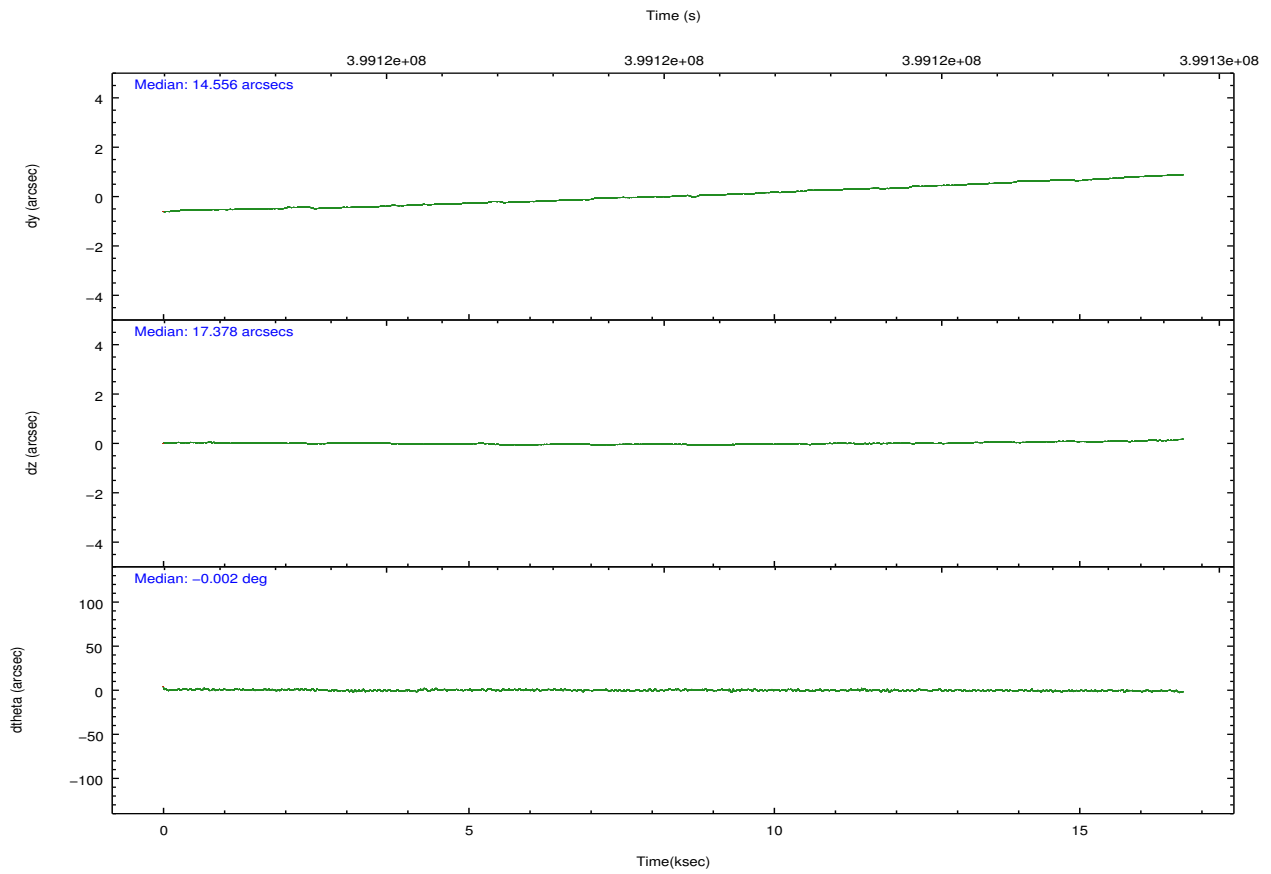
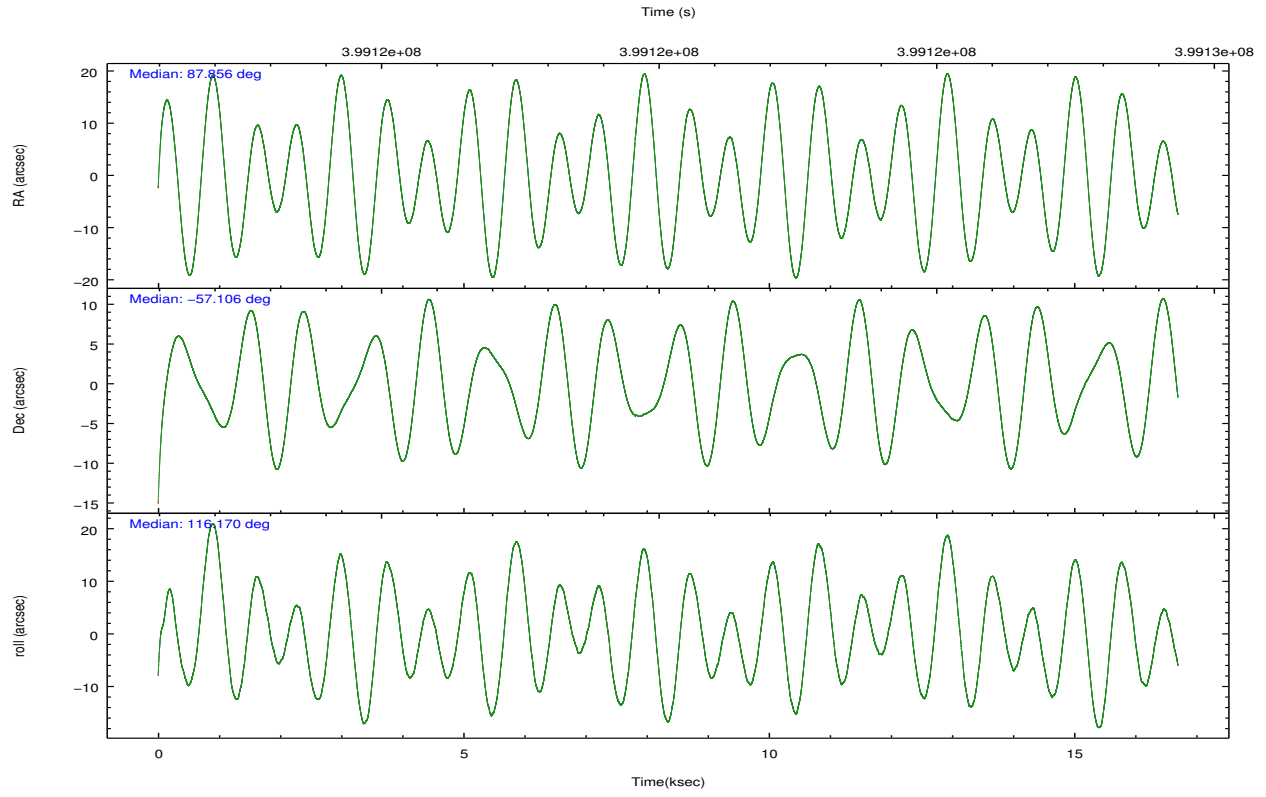
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4923	12250	5406	6043	4774
	4%	10%	4%	4%	3%
grade 1 events	65	191	71	84	68
	0%	0%	0%	0%	0%
grade 2 events	3399	4275	3299	3086	3043
	2%	3%	2%	2%	2%
grade 3 events	1433	1690	1373	1401	1433
	1%	1%	1%	1%	1%
grade 4 events	1352	1672	1332	1463	1408
	1%	1%	1%	1%	1%
grade 5 events	4813	5278	4605	5613	5289
	4%	4%	3%	4%	4%
grade 6 events	2590	3238	2488	2664	2991
	2%	2%	1%	2%	2%
grade 7 events	95426	92977	107586	103581	101364
	83%	76%	85%	83%	84%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	87.898250	87.85607870190992	CCD I2 on	Y	Y
[deg] Pointing Dec	-57.121560	-57.10632818106992	CCD I3 on	Y	Y
[deg] Pointing Roll	116.004334	116.1776083293702	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-225.840463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.752	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	399111968.184000	399110593.7256	CCD S5 on	N	N
Observation start date	2010-08-25T08:25:02	2010-08-25T08:03:13	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	399128497.184000	399128737.25153	On-chip summing requested	N	N
Observation end date	2010-08-25T13:00:31	2010-08-25T13:05:37	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



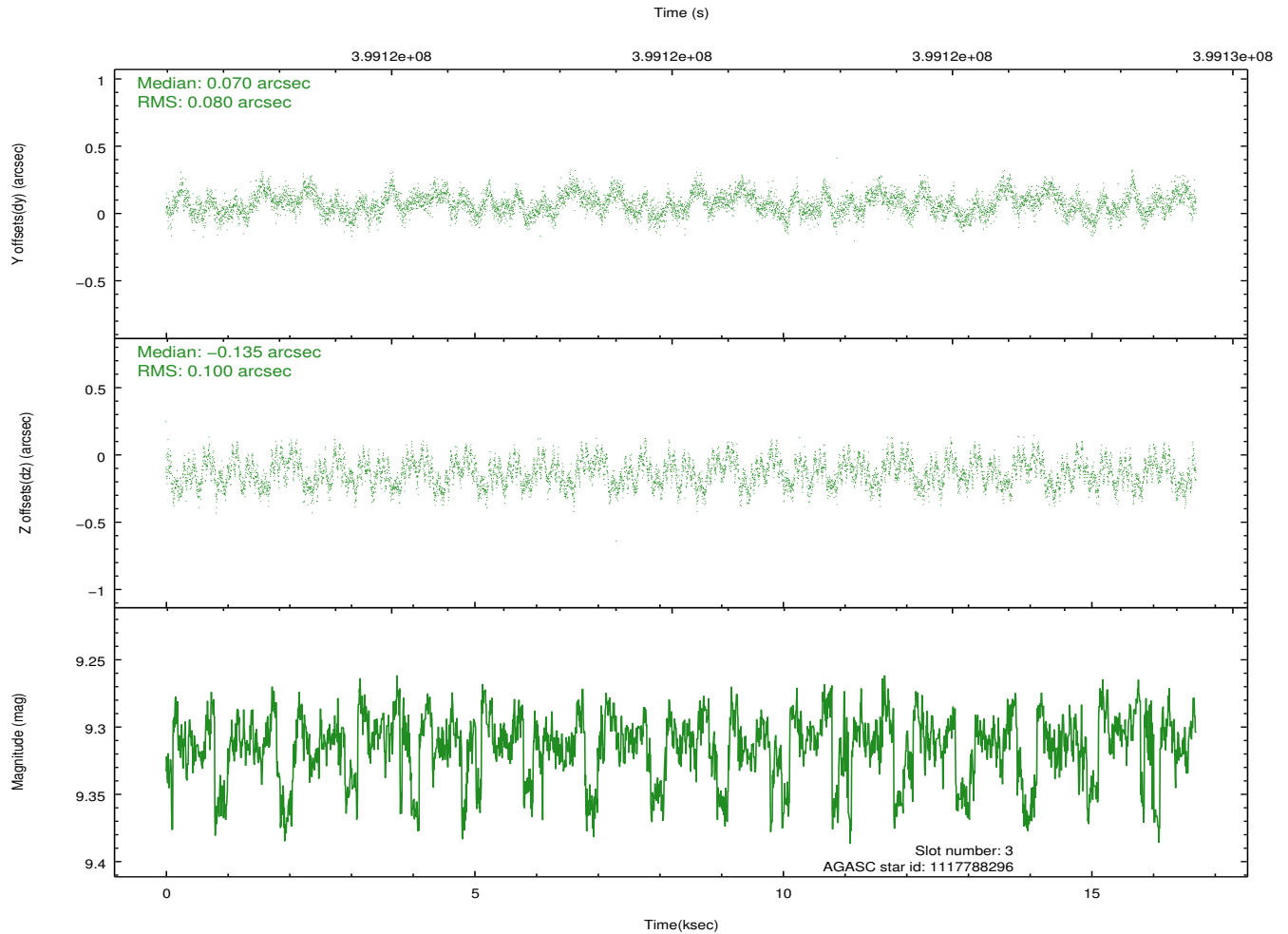
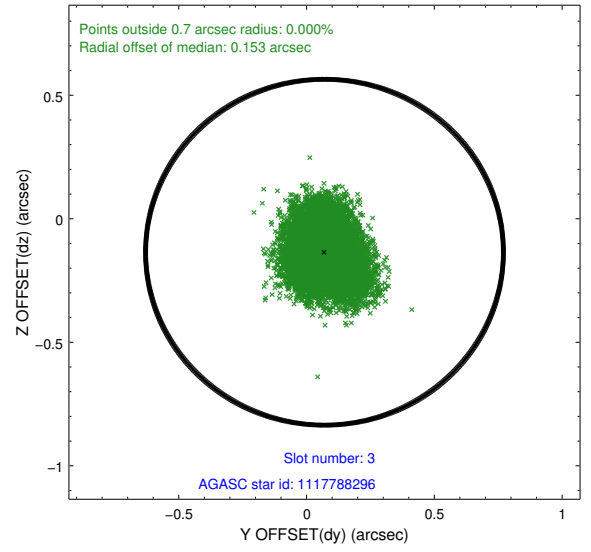
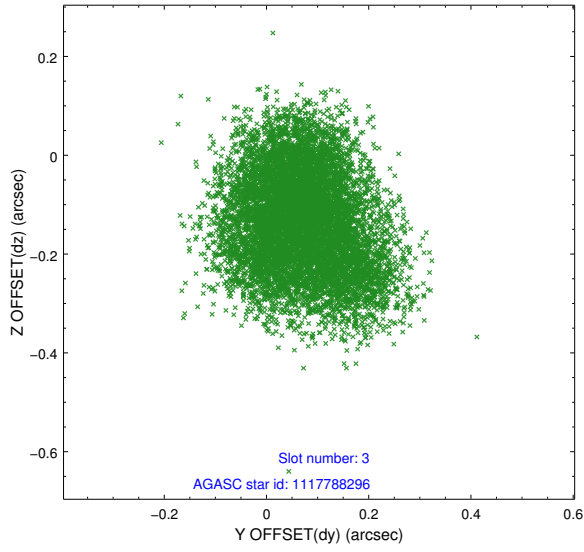


Slot Statistics

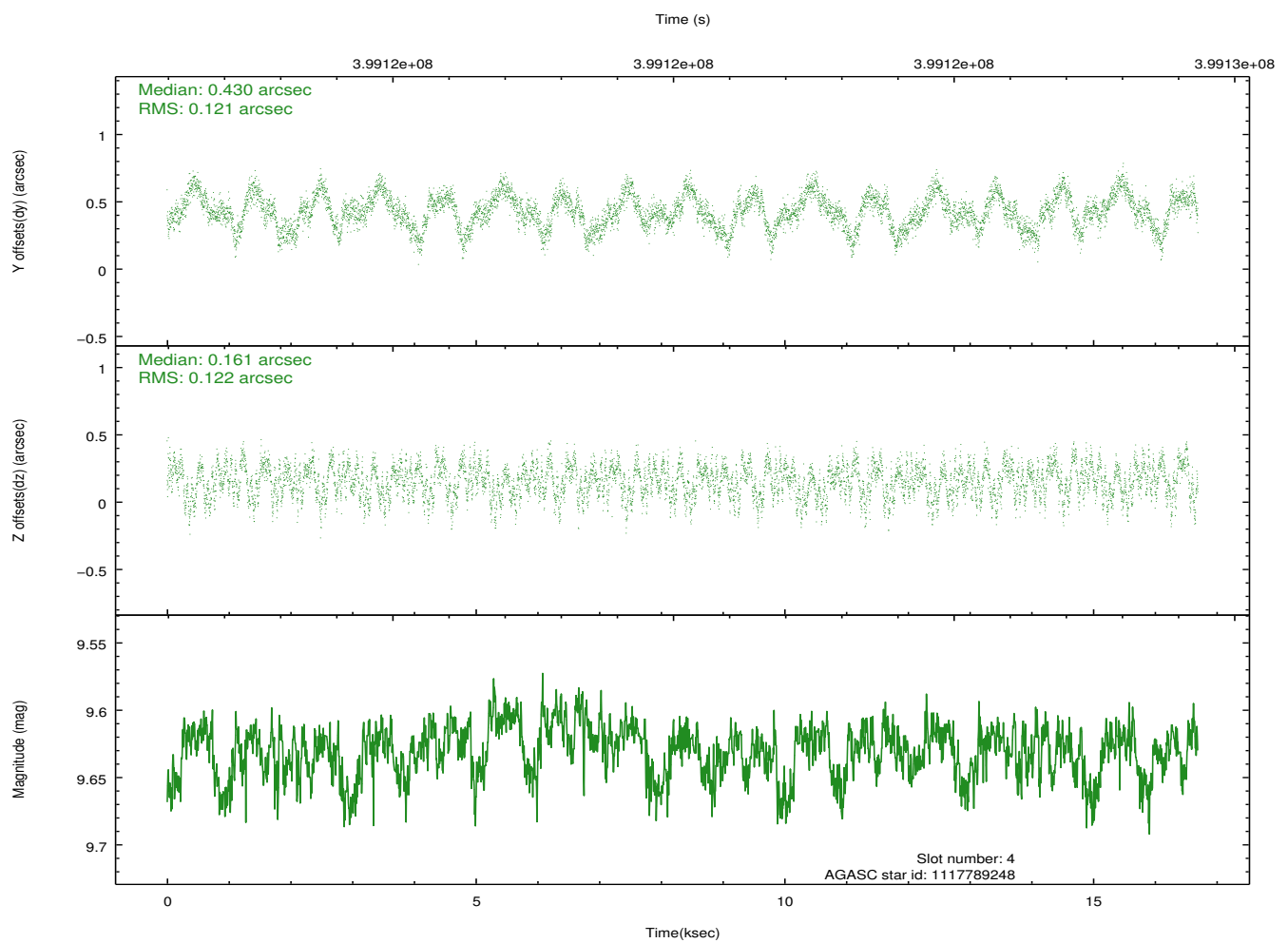
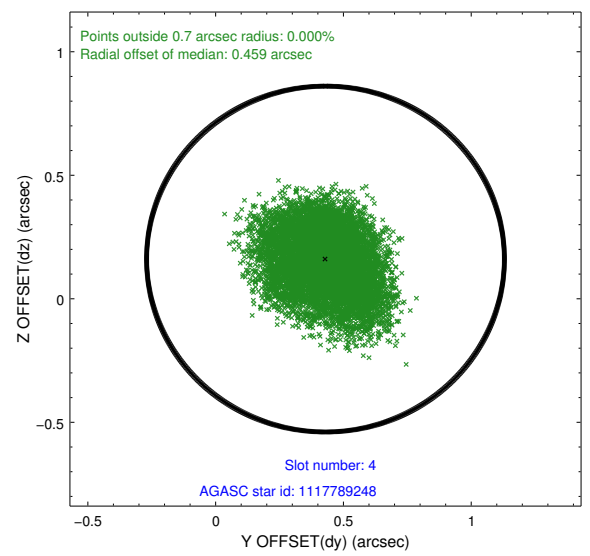
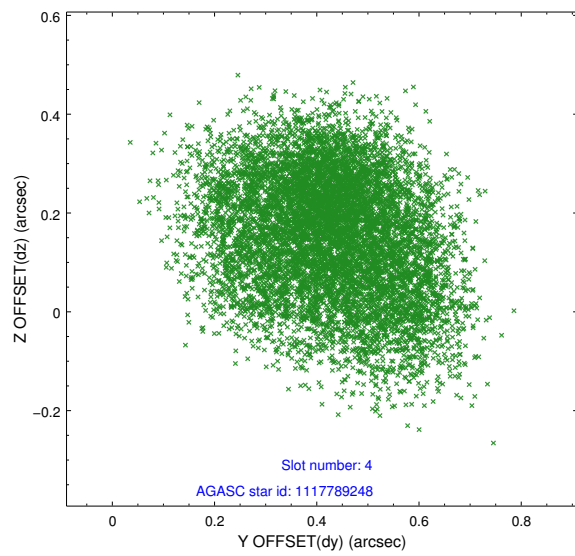
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	6.96	4071	-0.086	-0.046	0.012	0.038	0.000000	0.000000	-769.96	-1005.49
1	FID	ACIS-I-4	6.92	4073	0.145	0.066	0.009	0.017	0.000000	0.000000	2144.19	900.54
2	FID	ACIS-I-5	6.98	4073	-0.159	0.049	0.013	0.030	0.000000	0.000000	-1823.11	897.72
3	GUIDE	1117788296	9.31	8120	0.070	-0.135	0.140	0.212	87.681530	-56.905135	886.81	41.62
4	GUIDE	1117789248	9.63	8137	0.430	0.161	0.187	0.287	89.010774	-57.063627	-782.37	-2040.52
5	GUIDE	1117791864	7.98	8144	-0.170	0.081	0.070	0.117	88.233196	-56.515696	1667.38	-1553.28
6	GUIDE	1117792128	9.11	8108	-0.225	0.043	0.113	0.176	88.506993	-56.554756	1300.06	-1977.62
7	GUIDE	1117792416	8.25	8143	-0.117	-0.139	0.082	0.138	86.907694	-56.816381	1830.57	1278.71

2.4 Star Slots

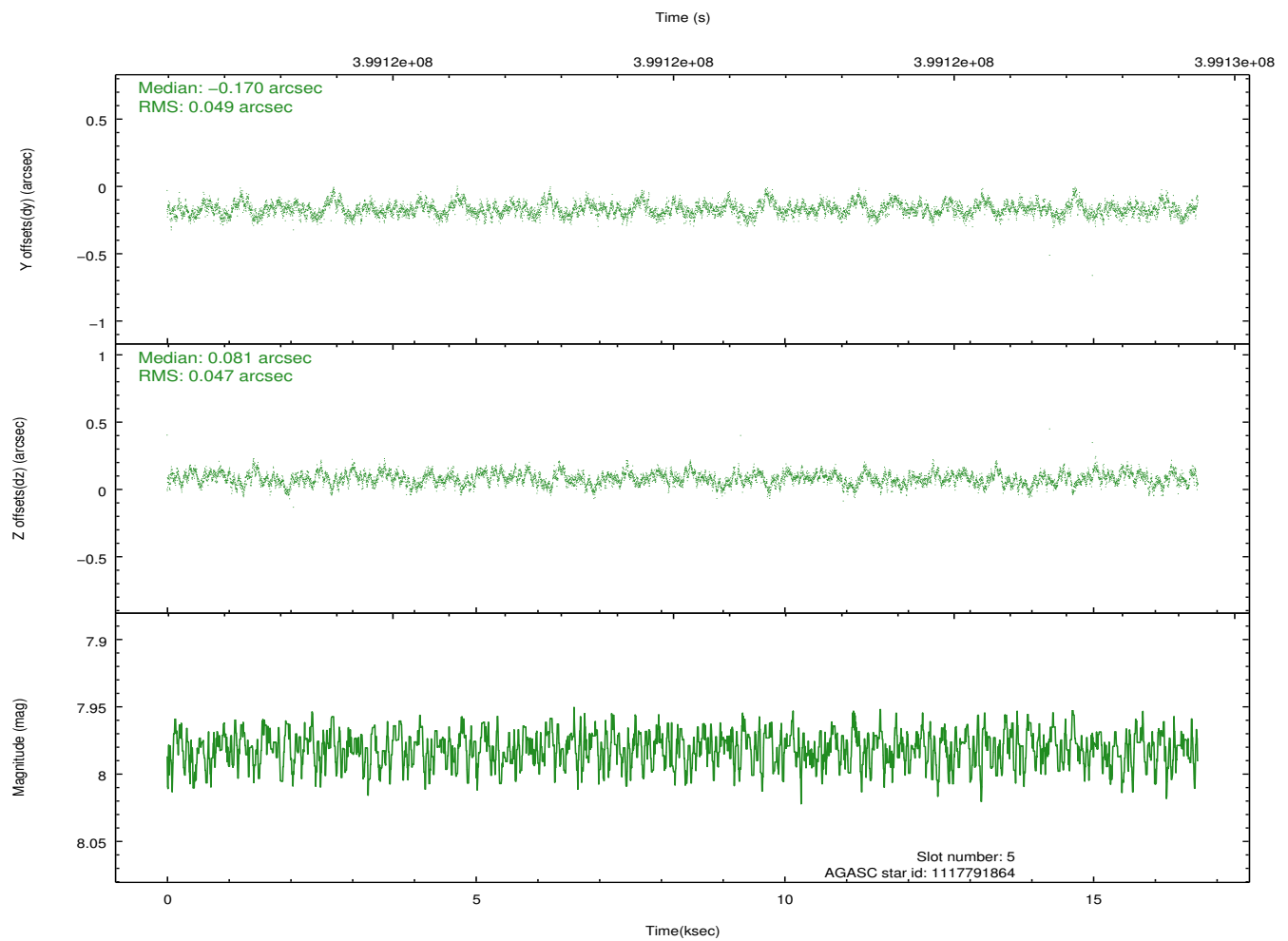
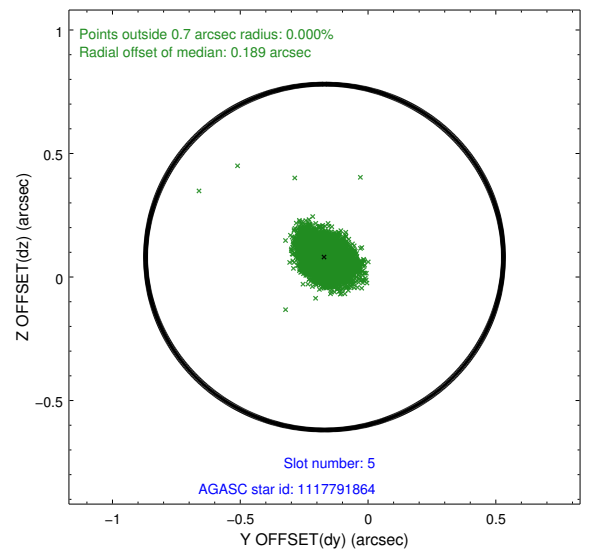
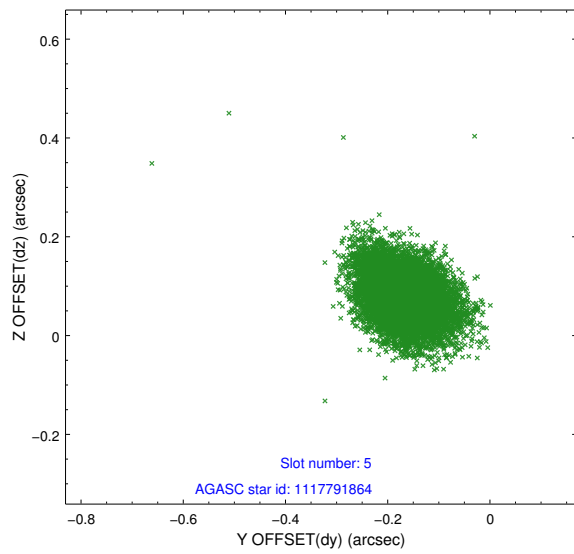
2.4.1 Slot 3



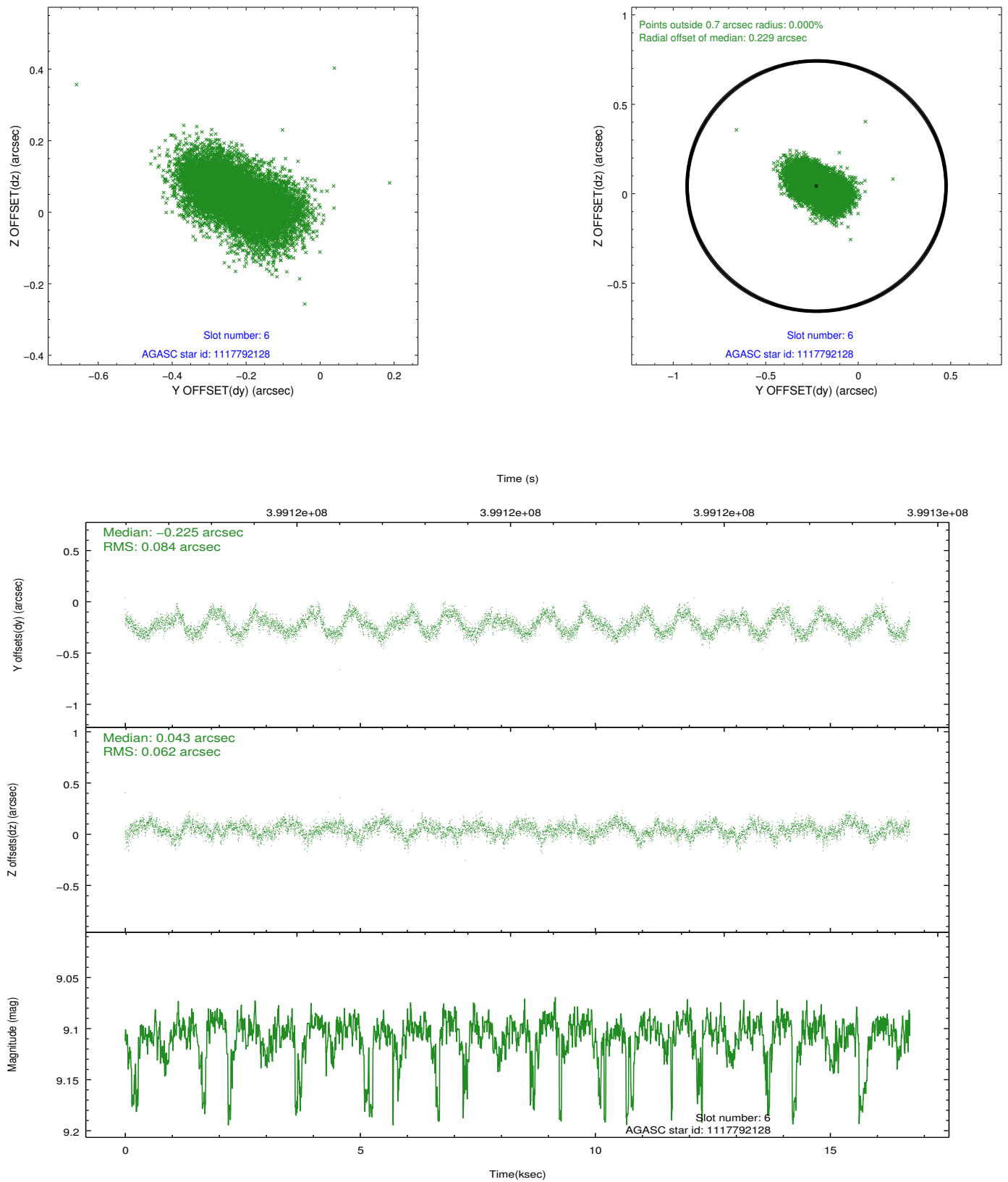
2.4.2 Slot 4



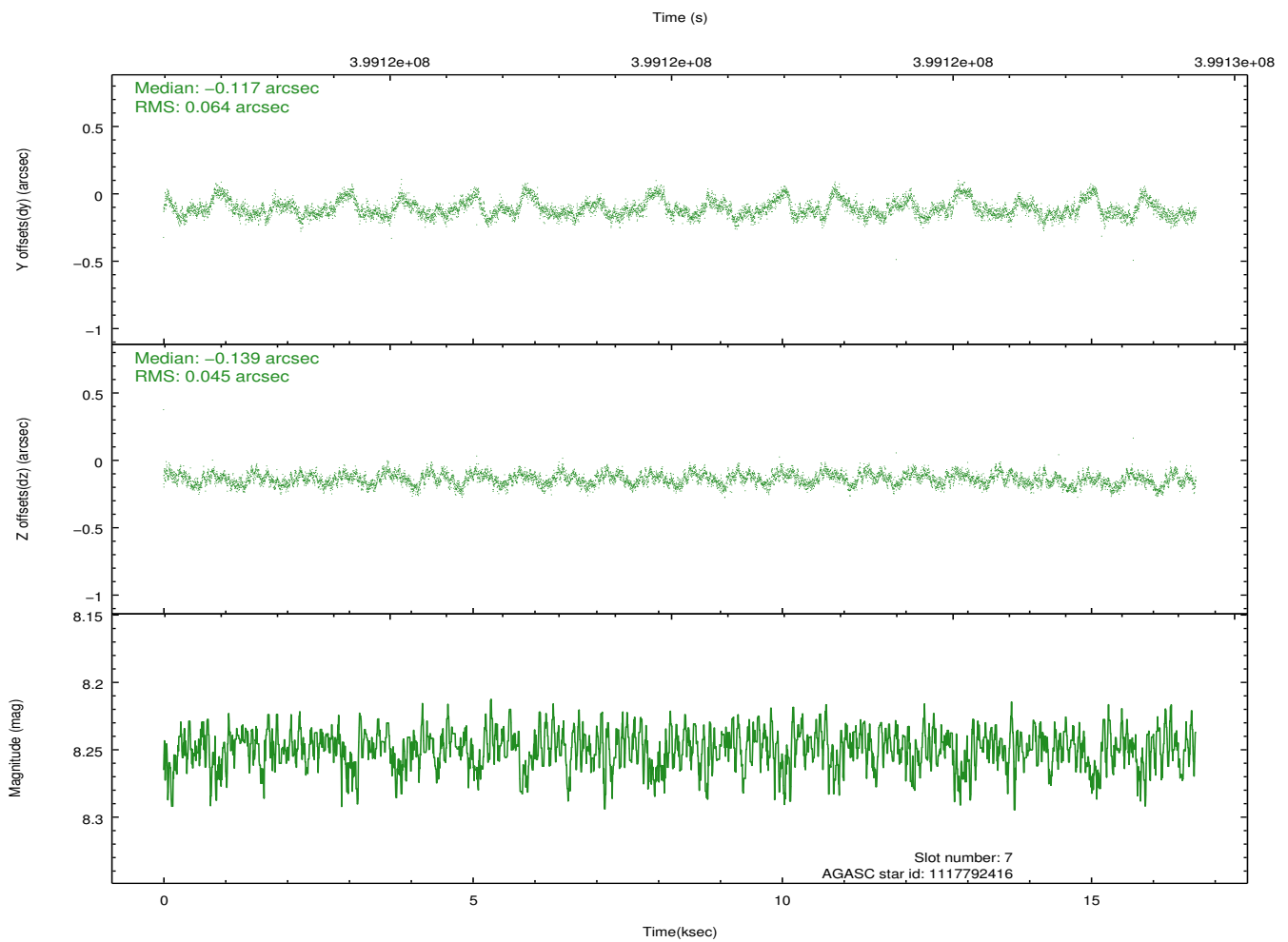
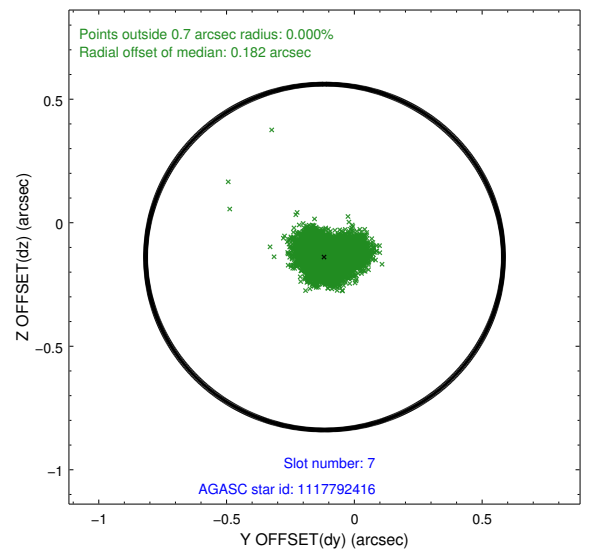
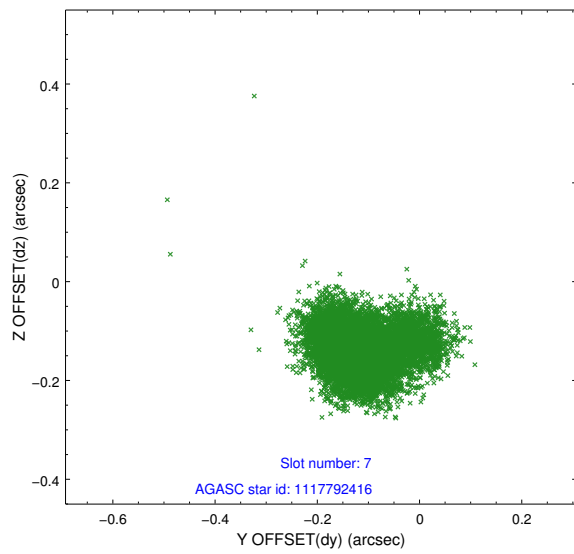
2.4.3 Slot 5



2.4.4 Slot 6

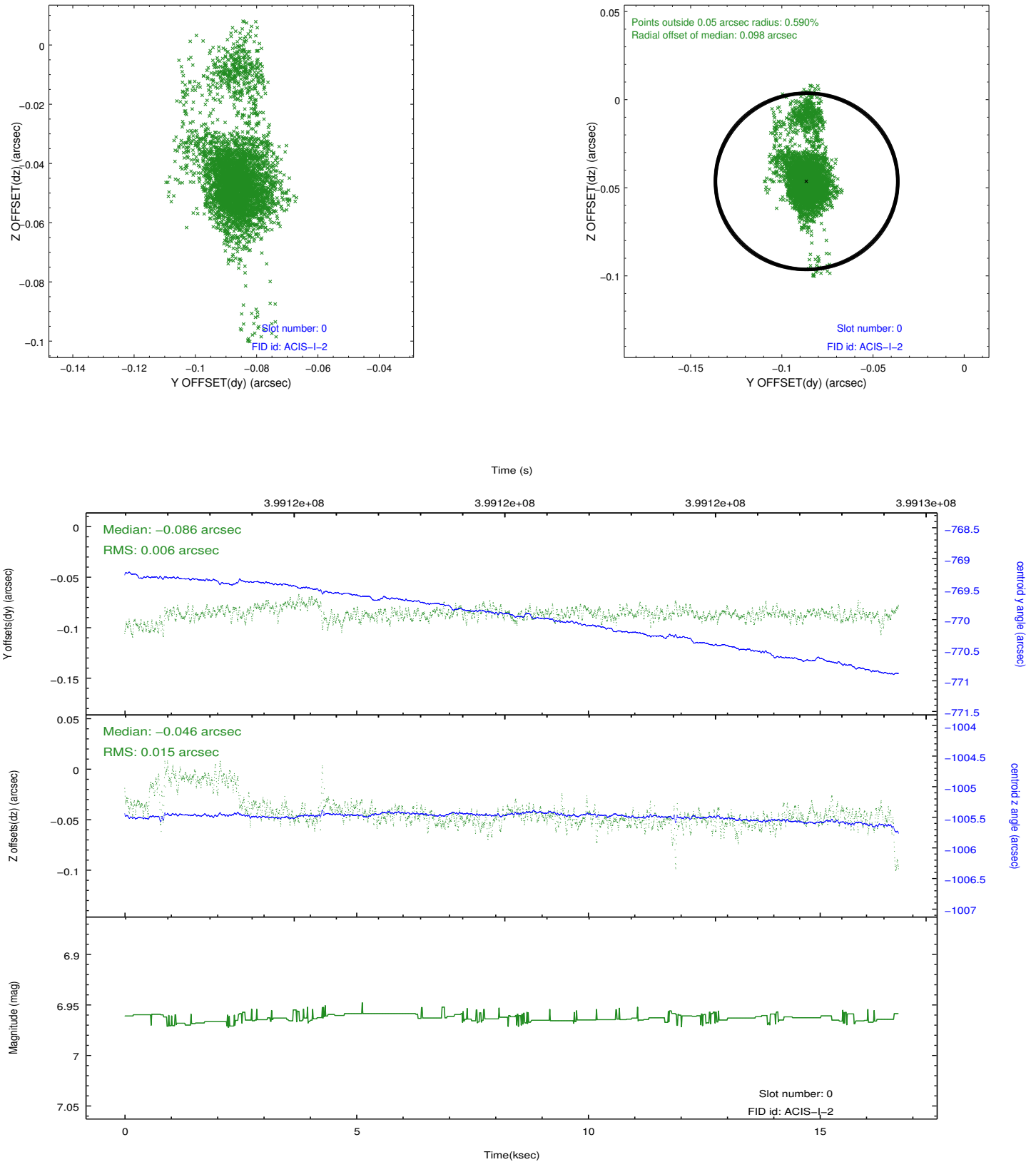


2.4.5 Slot 7

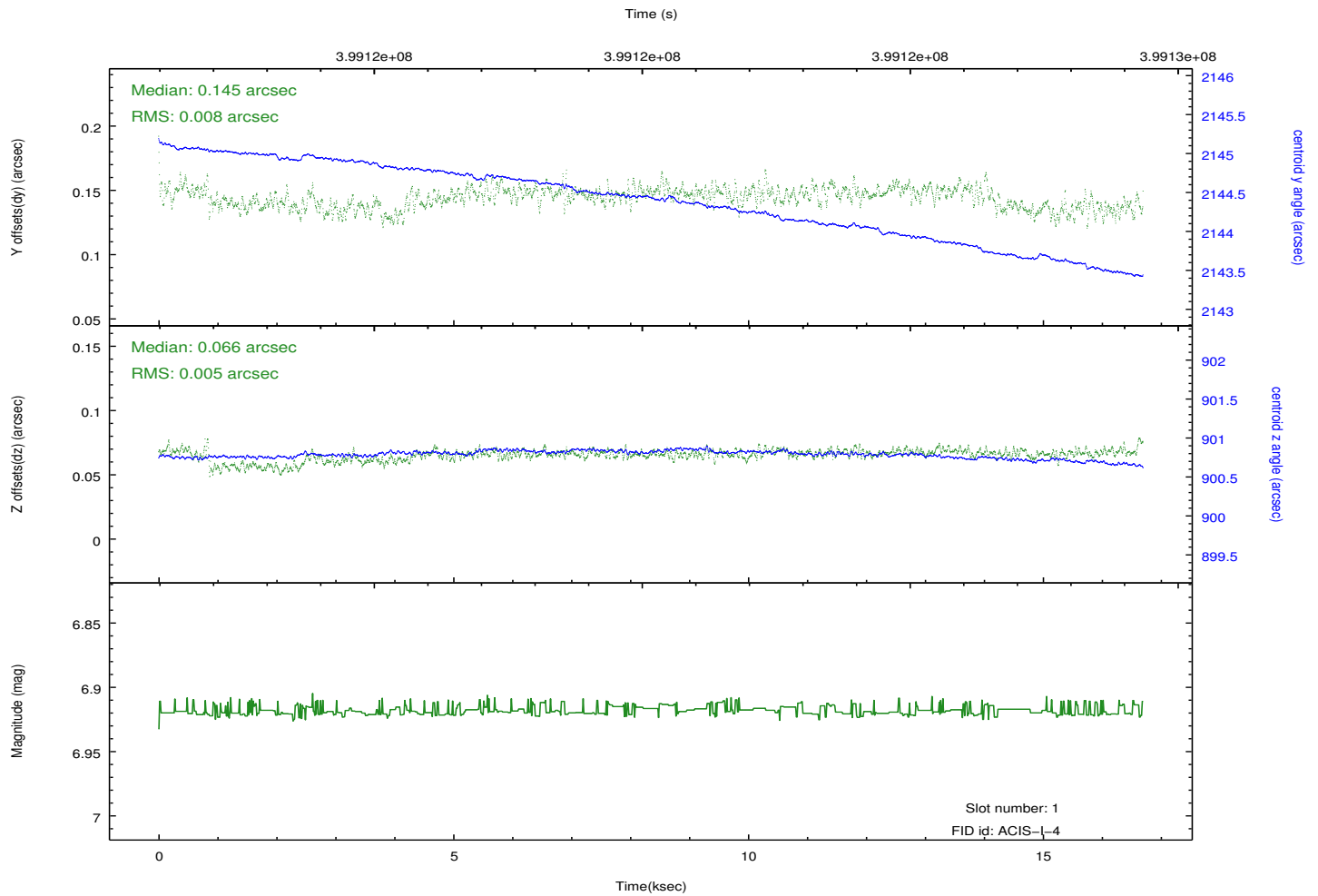
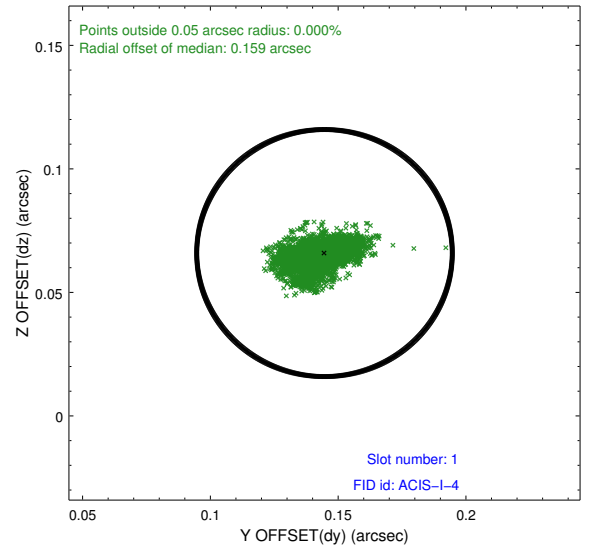
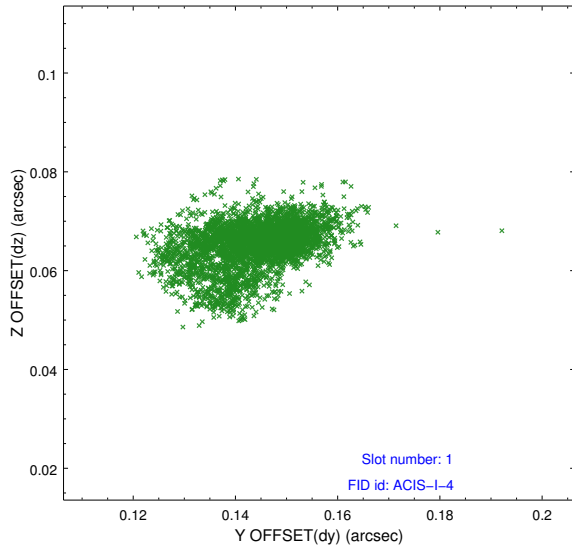


2.5 FID Slots

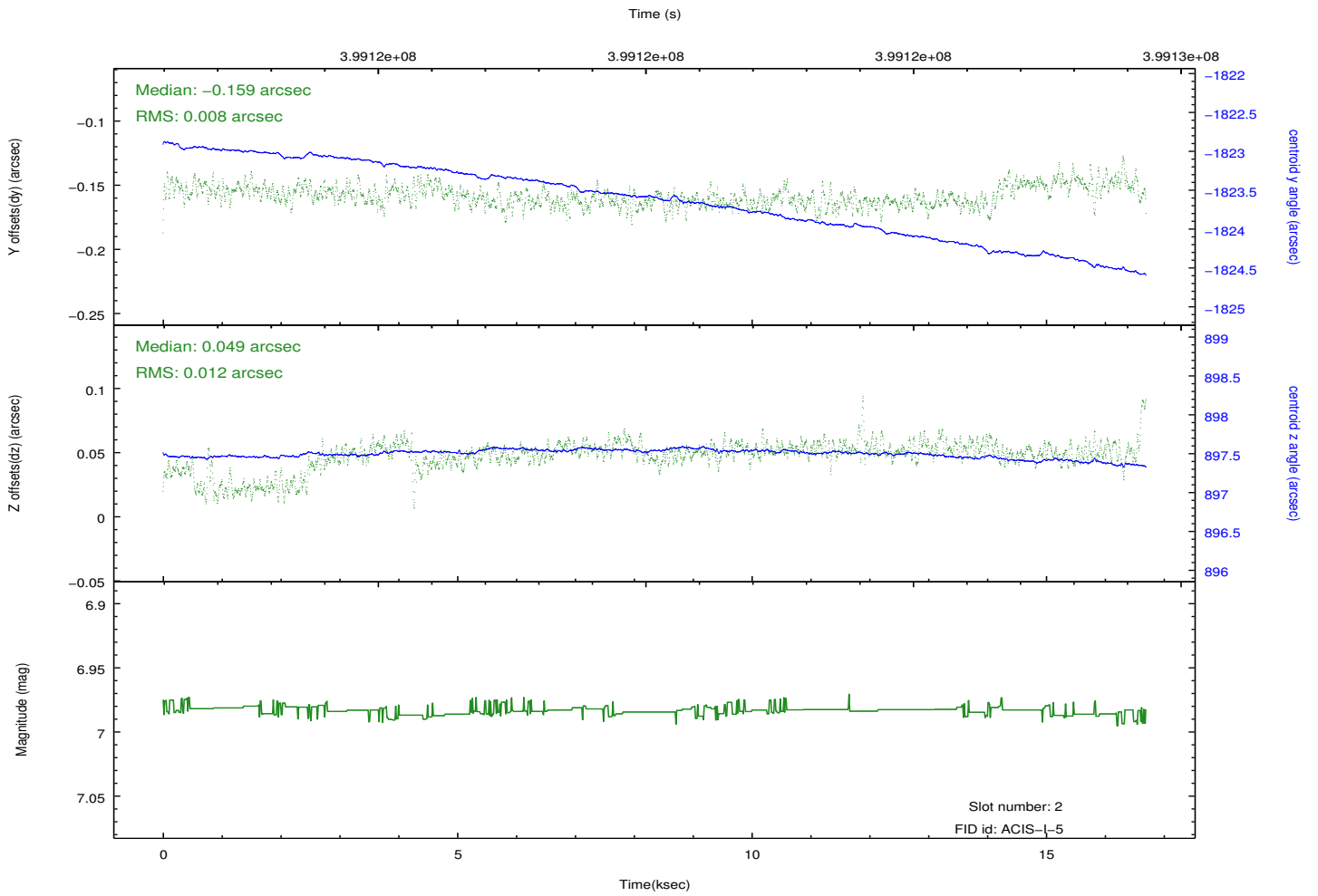
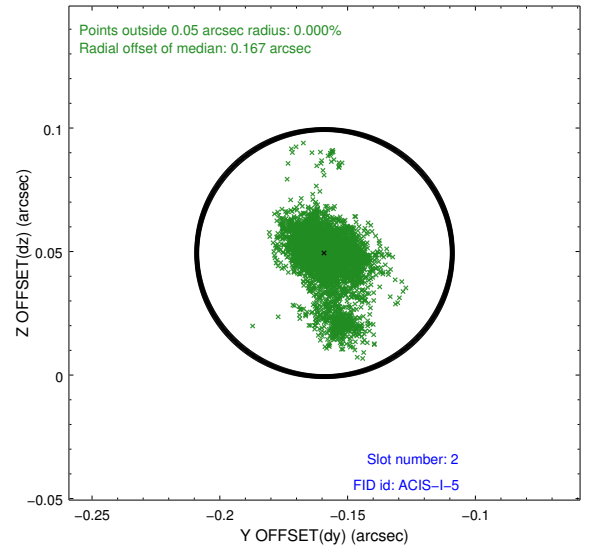
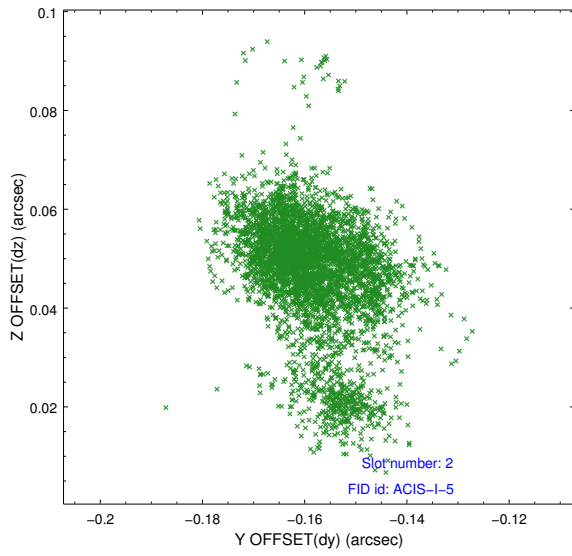
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.07.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.578800127506

A.2 Comments

A spatial region of the original bias map for CCD = 6 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 6 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:
(87.38177, -57.19628), (87.38418, -57.19898), (87.61577, -57.13793), (87.61335, -57.13524)