

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 13487 - L2 Version 2
Chandra X-Ray Center

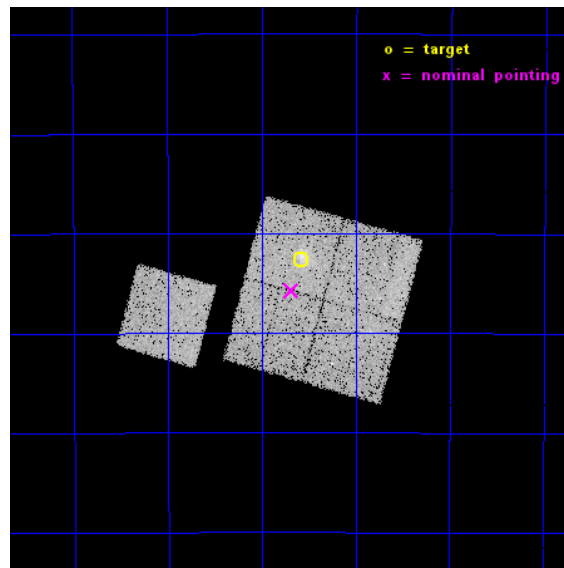
L2 Processing Date : Nov 30 2014

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1 Front

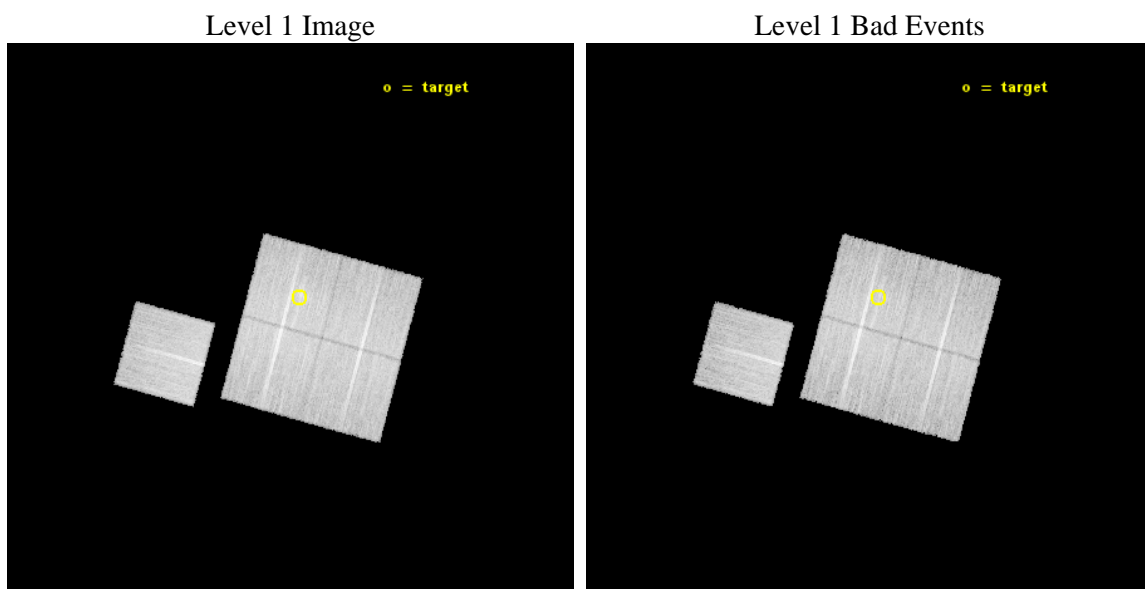
seq_num	801128	Sequence number
obs_id	13487	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg^2 from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ0200-4852	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	30.146667	Observer's specified target RA [deg]
dec_targ	-48.877111	Observer's specified target Dec [deg]
ra_nom	30.171661772145	Nominal RA [deg]
dec_nom	-48.928993449309	Nominal Dec [deg]
roll_nom	285.22752104399	Nominal Roll [deg]
revision	2	Processing version of data
ontime	23783.200182915	Sum of GTIs [s]
livetime	23472.455163588	Livetime [s]
ontime0	23783.200182915	Sum of GTIs [s]
ontime1	23783.200182915	Sum of GTIs [s]
ontime2	23783.200182915	Sum of GTIs [s]
ontime3	23783.200182915	Sum of GTIs [s]
ontime6	23783.200182915	Sum of GTIs [s]
l2events	64250	Number of level 2 events



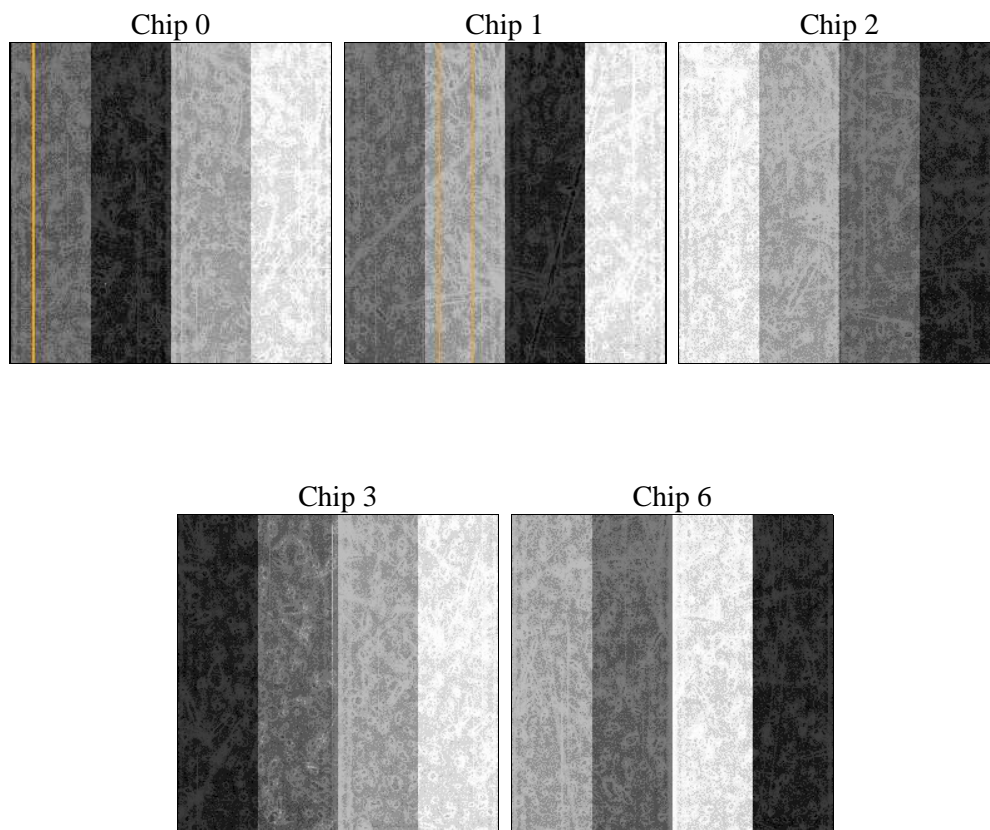
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	23700.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	23783.200182915	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	23783.200182915	Sum of GTIs [s]
date	2014-11-30T22:22:34	Date and time of file creation	ontime1	23783.200182915	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	23783.200182915	Sum of GTIs [s]
			ontime3	23783.200182915	Sum of GTIs [s]
			ontime6	23783.200182915	Sum of GTIs [s]
			l1events	621459	Number of level 1 events

2.1.4 Events

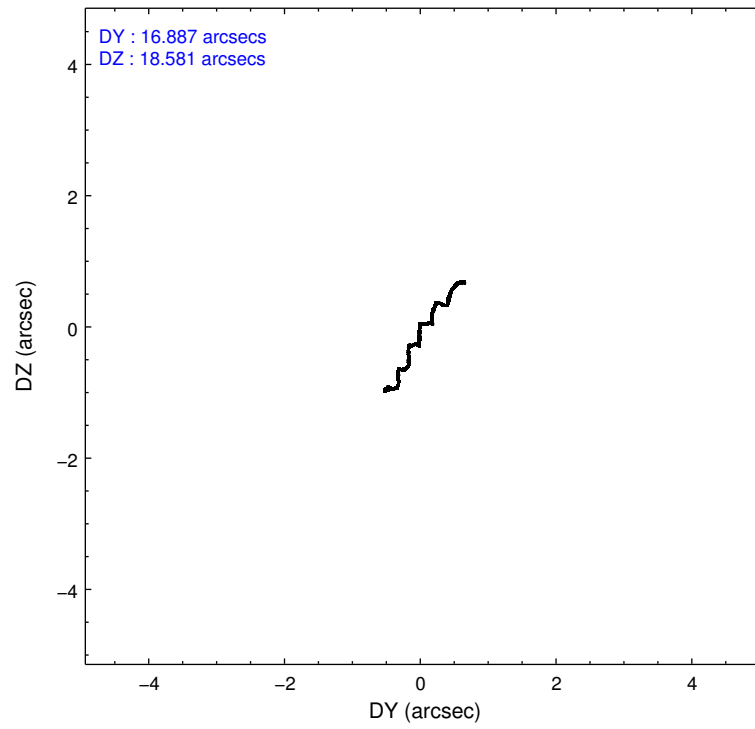
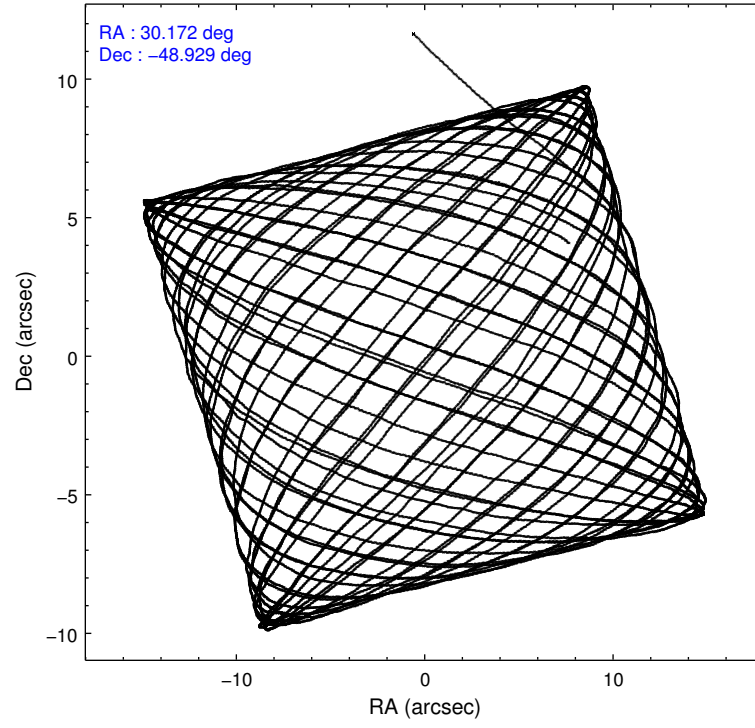
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	117391	119041	130331	128507	126189
rejected events	102723	102411	115950	112908	111363
rejected %	87%	86%	88%	87%	88%

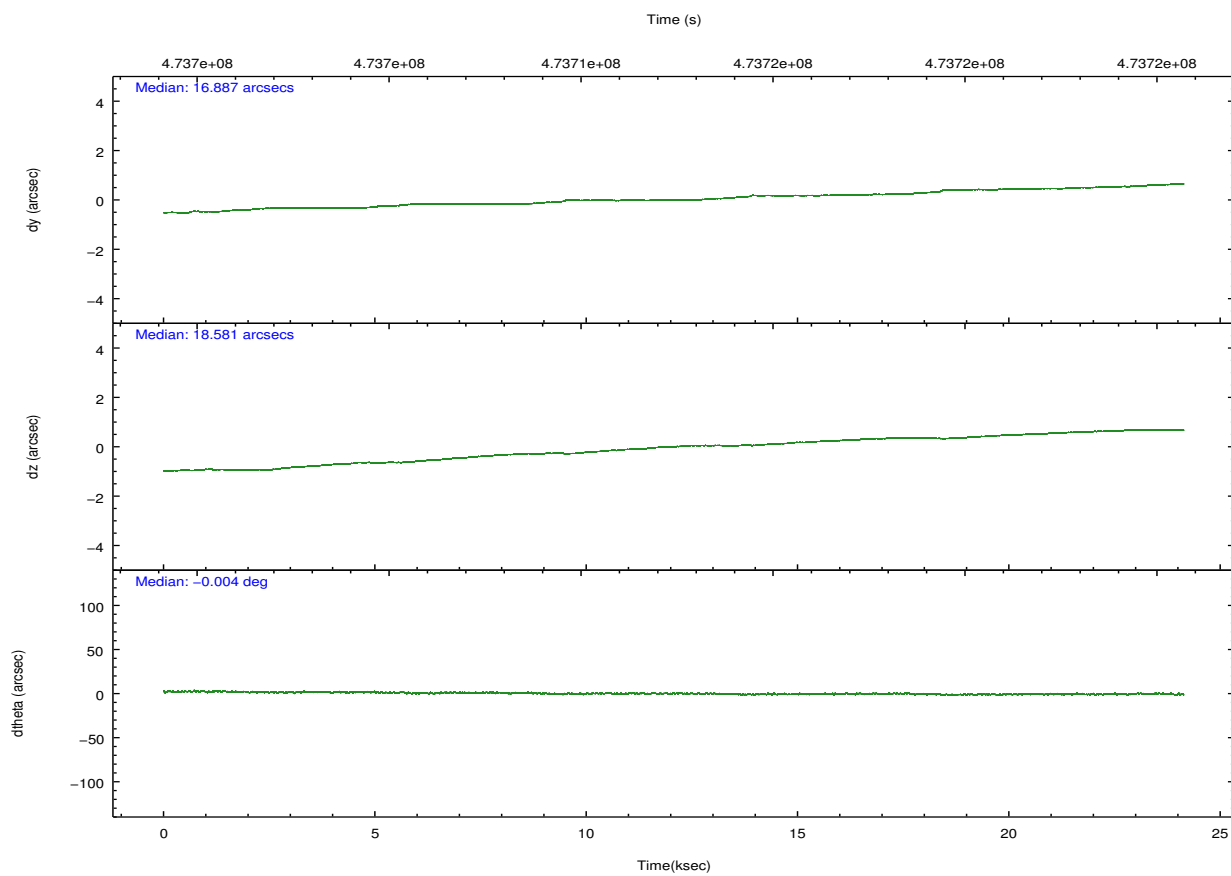
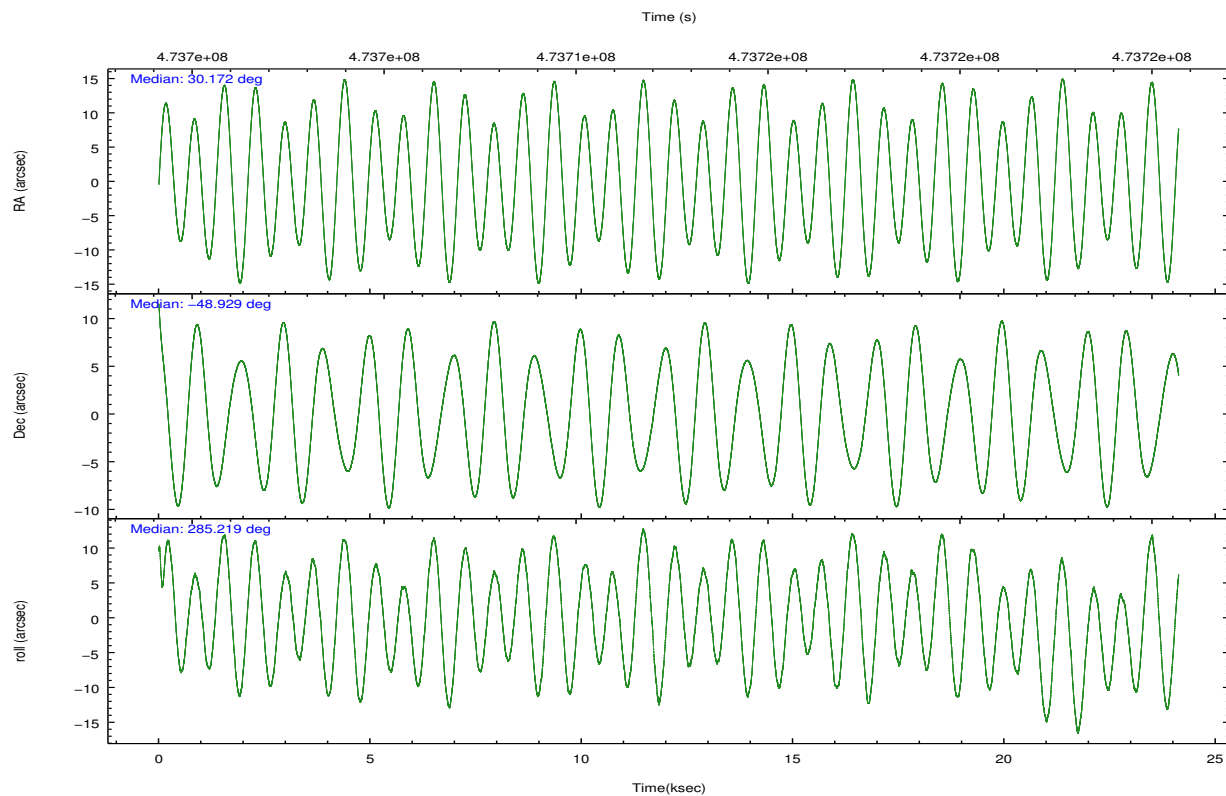
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5022	5773	5047	6118	4945
	4%	4%	3%	4%	3%
grade 1 events	73	65	69	76	58
	0%	0%	0%	0%	0%
grade 2 events	3740	4045	3555	3389	3430
	3%	3%	2%	2%	2%
grade 3 events	1532	1635	1468	1526	1494
	1%	1%	1%	1%	1%
grade 4 events	1441	1688	1588	1582	1508
	1%	1%	1%	1%	1%
grade 5 events	5768	6253	5323	6797	6383
	4%	5%	4%	5%	5%
grade 6 events	2935	3493	2726	2990	3451
	2%	2%	2%	2%	2%
grade 7 events	96880	96089	110555	106029	104920
	82%	80%	84%	82%	83%

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	30.141852	30.17166177214468	CCD I2 on	Y	Y
[deg] Pointing Dec	-48.909711	-48.9289934493089	CCD I3 on	Y	Y
[deg] Pointing Roll	284.996370	285.2275210439859	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	-225.842463	-225.8458576473255	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.746595355604228	CCD S4 on	N	N
[s] Observation start time (MET)	473700788.184000	473699727.64555	CCD S5 on	N	N
Observation start date	2013-01-04T15:32:01	2013-01-04T15:15:27	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	473724488.184000	473725051.80952	On-chip summing requested	N	N
Observation end date	2013-01-04T22:07:01	2013-01-04T22:17:31	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



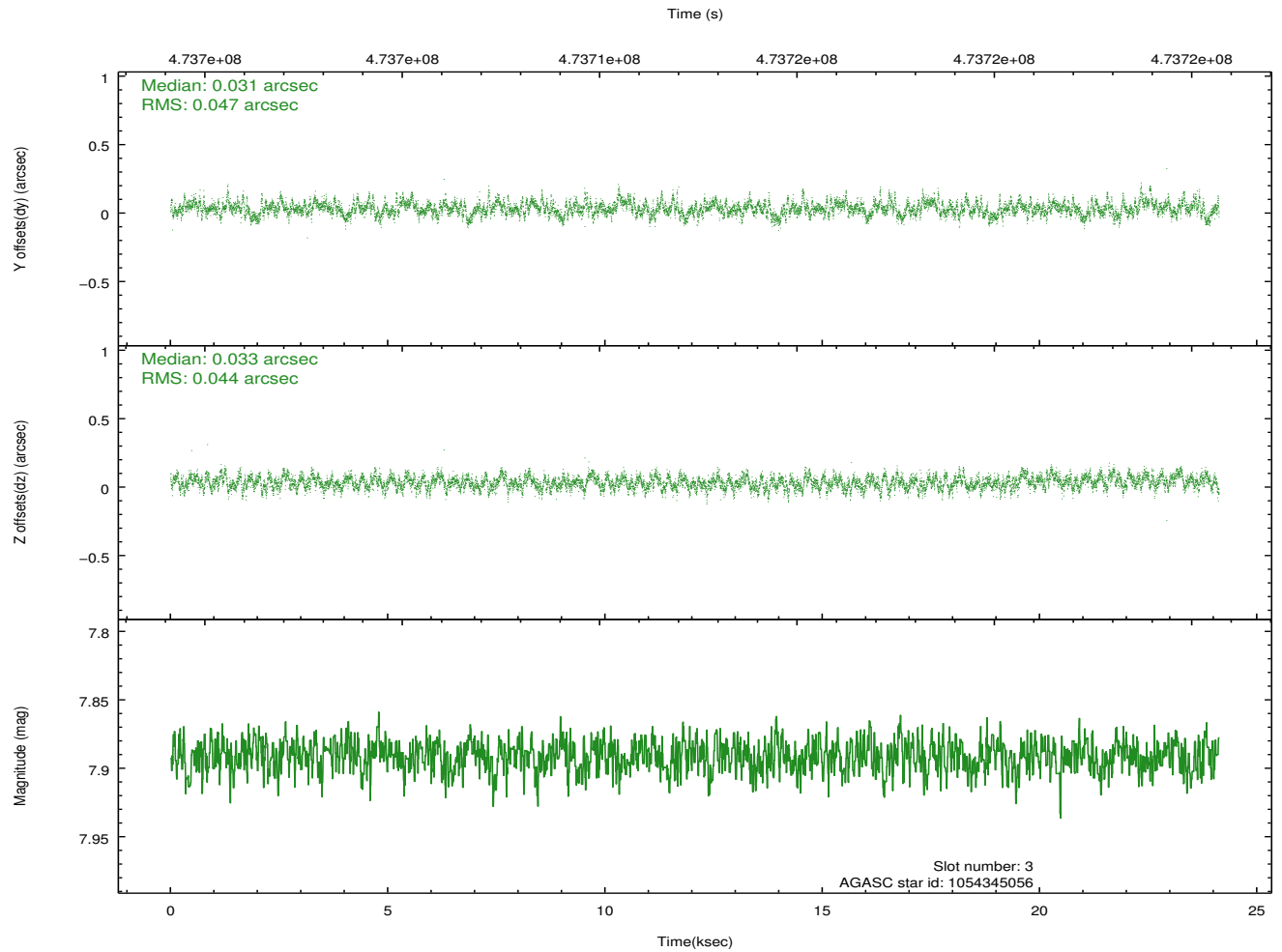
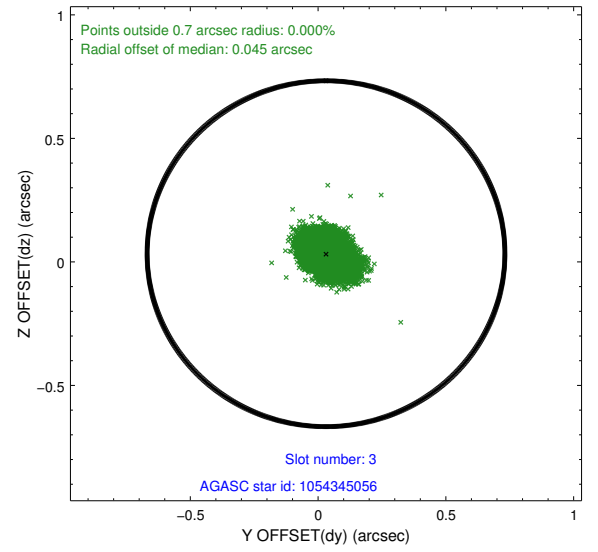
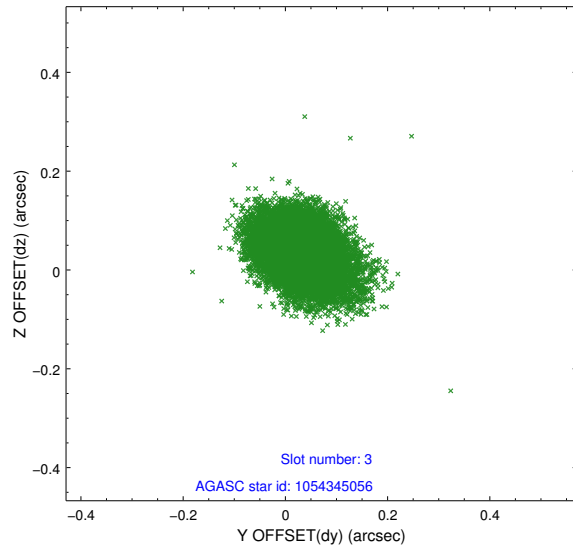


Slot Statistics

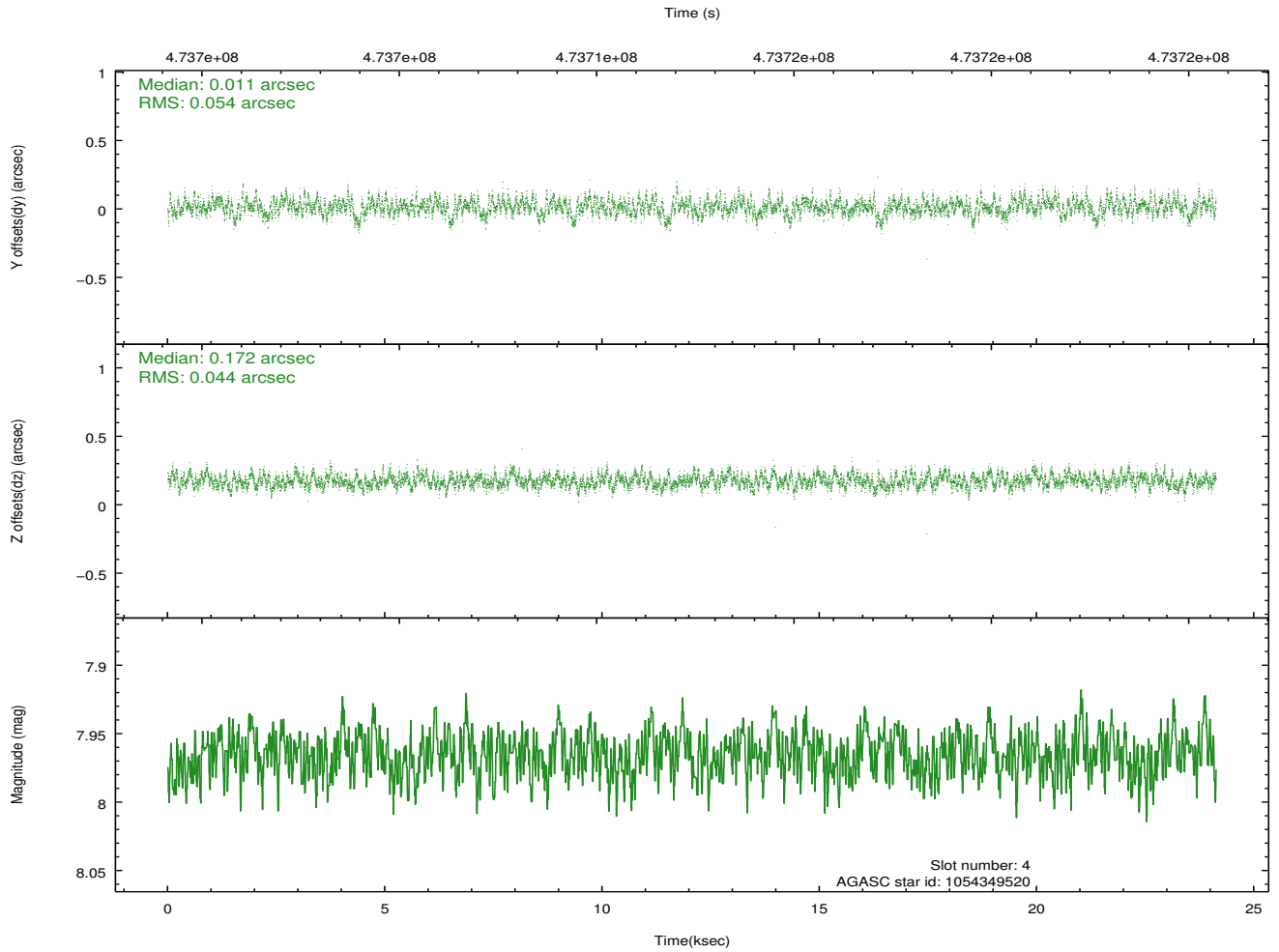
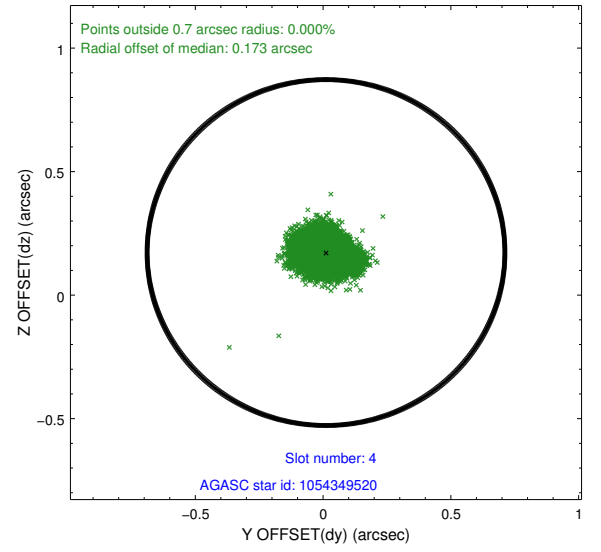
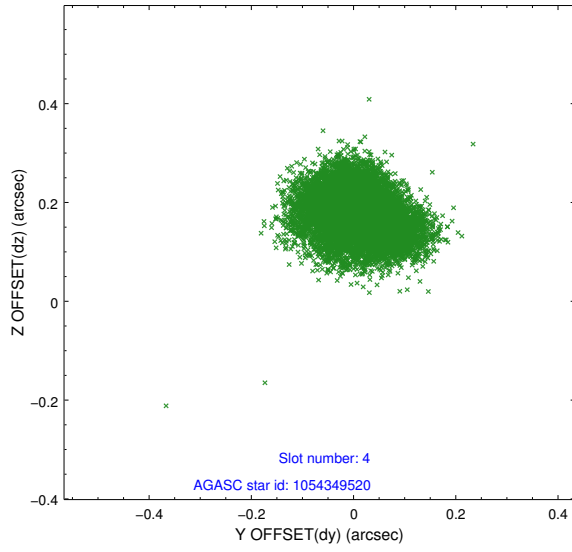
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.08	5885	0.131	-0.086	0.013	0.021	0.000000	0.000000	922.50	-1001.26
1	FID		ACIS-I-5	7.08	5885	-0.289	0.108	0.014	0.021	0.000000	0.000000	-1826.03	896.23
2	FID		ACIS-I-6	7.08	5884	0.066	0.048	0.017	0.024	0.000000	0.000000	387.74	1540.91
3	GUIDE	used	1054345056	7.89	11768	0.031	0.033	0.067	0.112	29.238812	-49.245946	632.86	-2365.97
4	GUIDE	used	1054349520	7.97	11769	0.011	0.172	0.074	0.120	29.921111	-48.613806	-1162.88	-229.51
5	GUIDE	used	1054349544	9.37	11698	0.217	0.043	0.168	0.259	29.330607	-48.627943	-1468.84	-1604.94
6	GUIDE	used	1054480144	8.54	11771	-0.169	-0.104	0.074	0.118	30.587110	-48.903175	252.67	1023.73
7	GUIDE	used	1054483176	8.03	11769	-0.071	-0.149	0.079	0.124	30.763876	-49.491725	2406.42	861.59

2.4 Star Slots

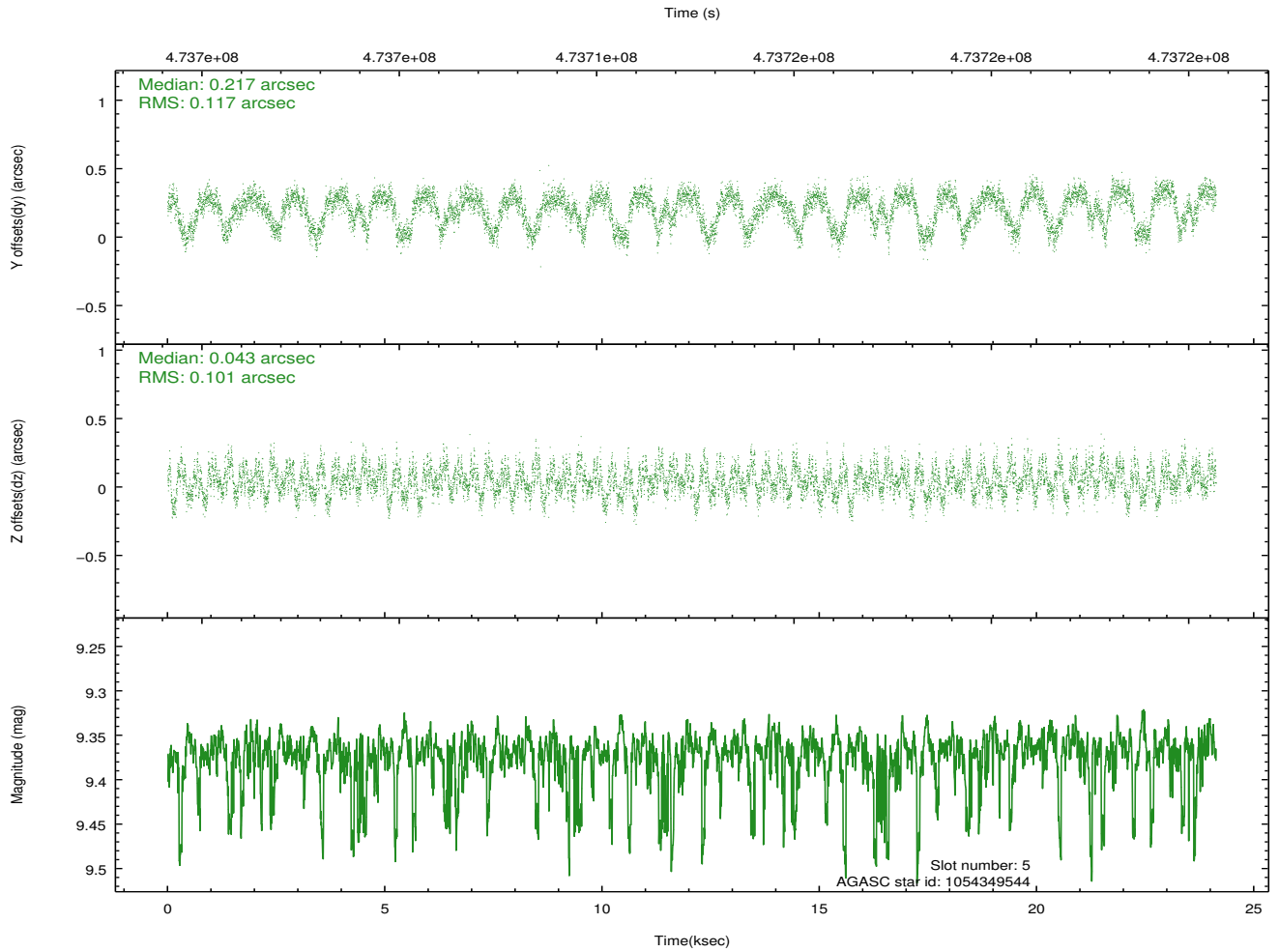
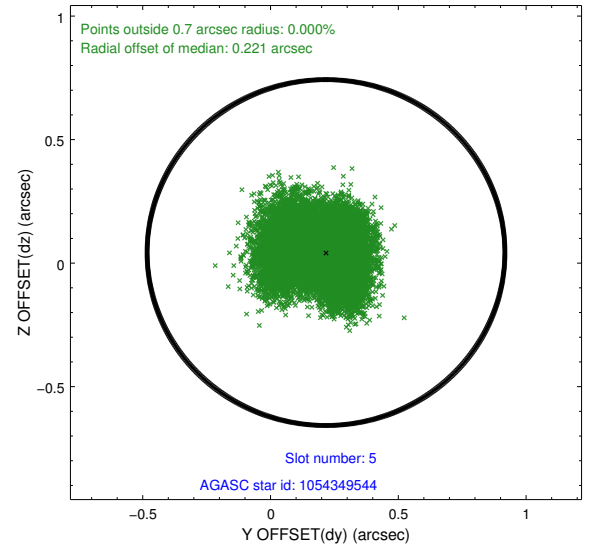
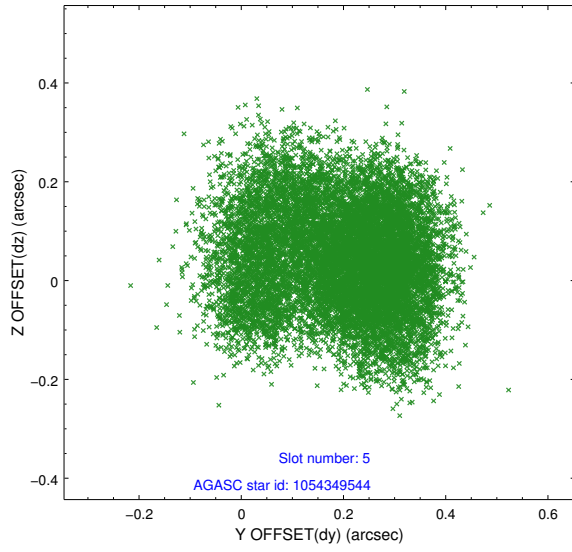
2.4.1 Slot 3



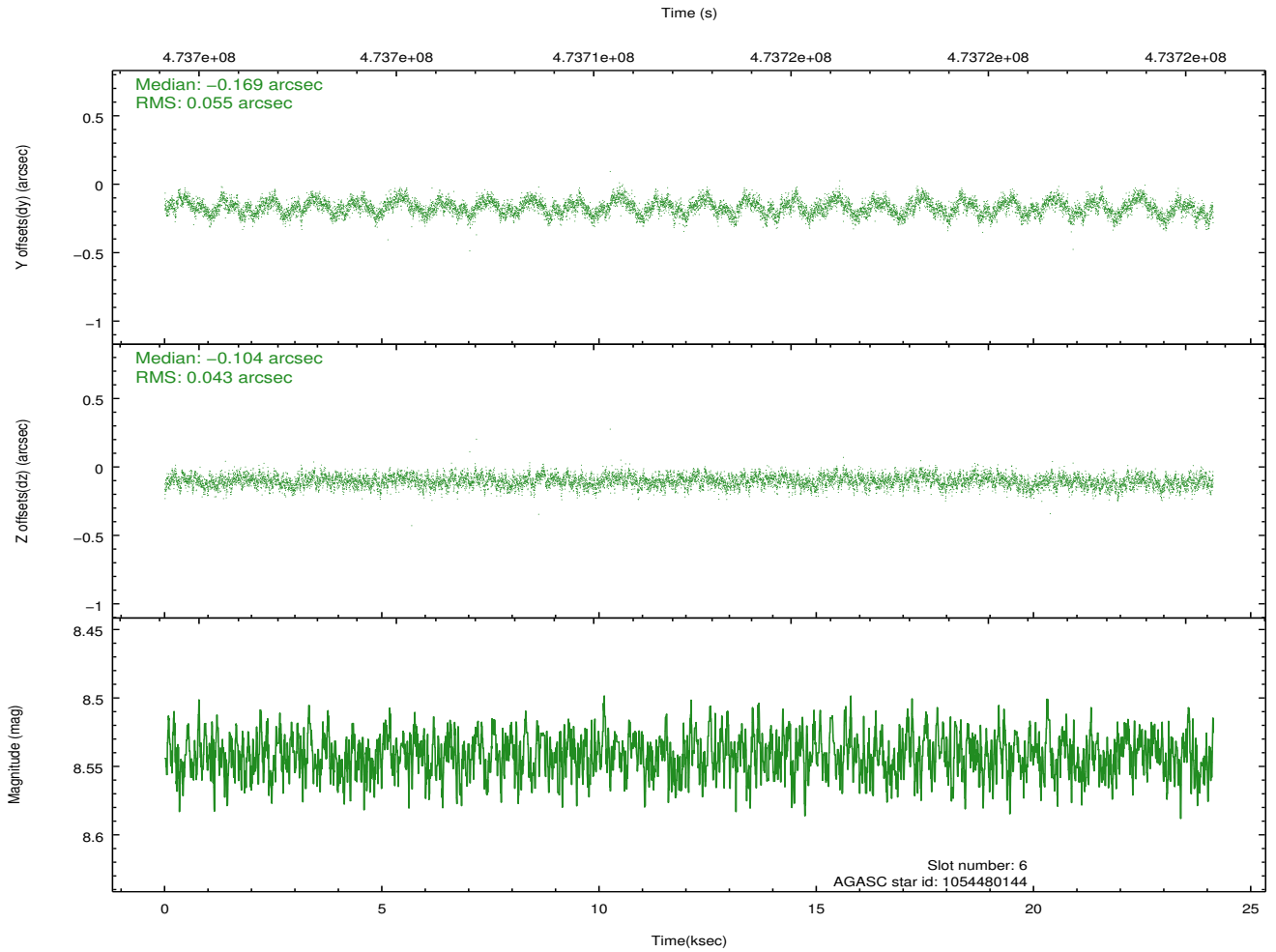
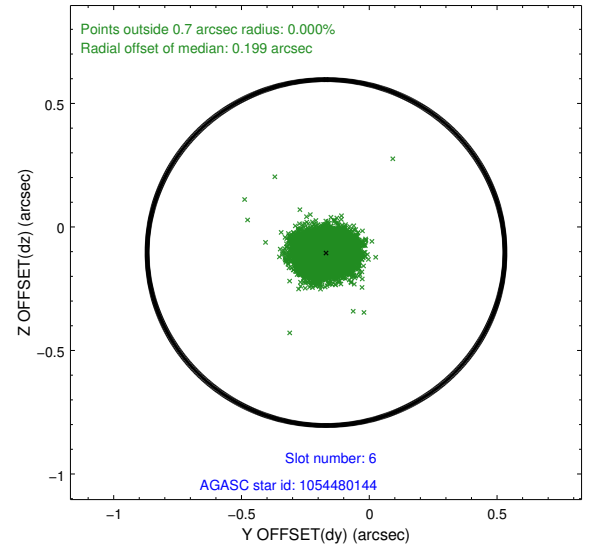
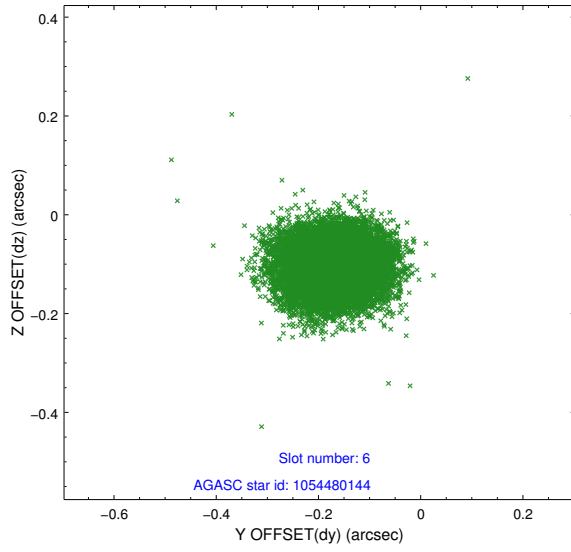
2.4.2 Slot 4



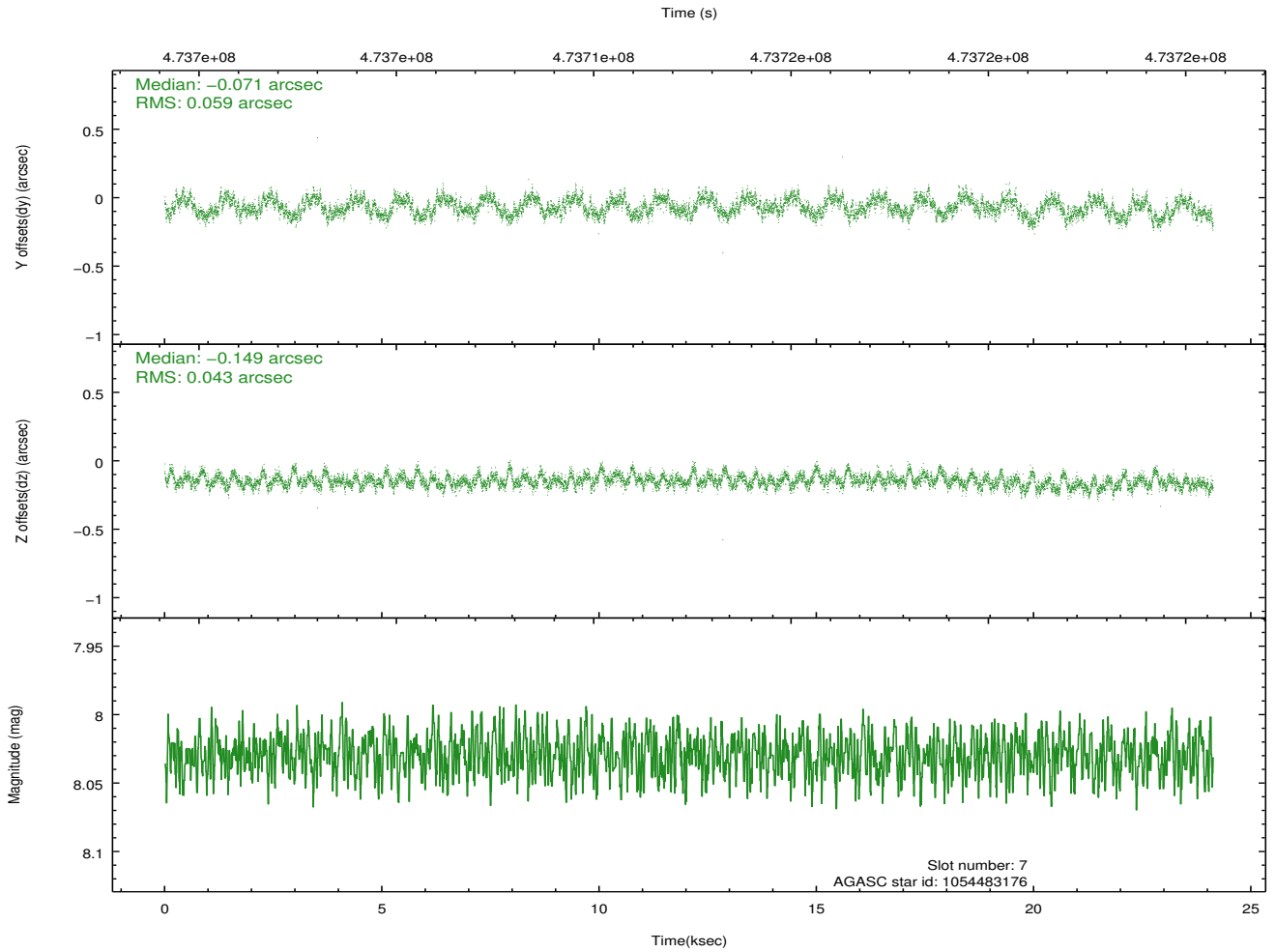
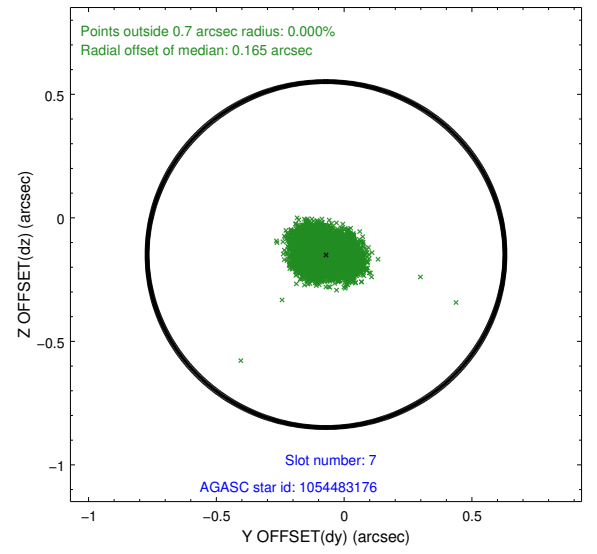
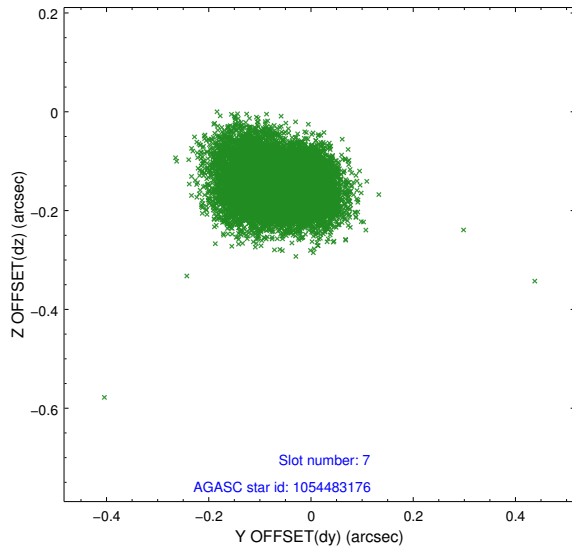
2.4.3 Slot 5



2.4.4 Slot 6

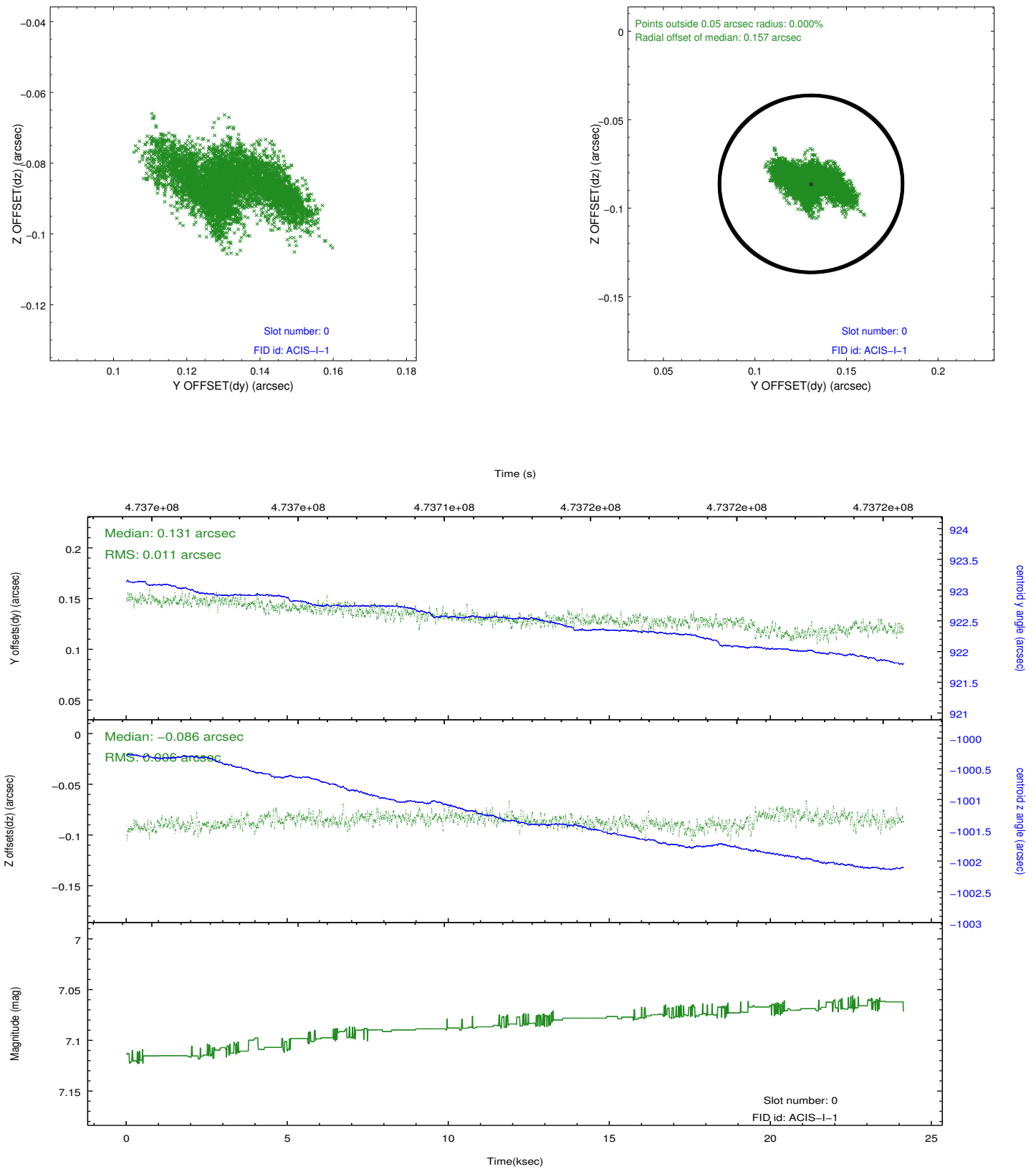


2.4.5 Slot 7

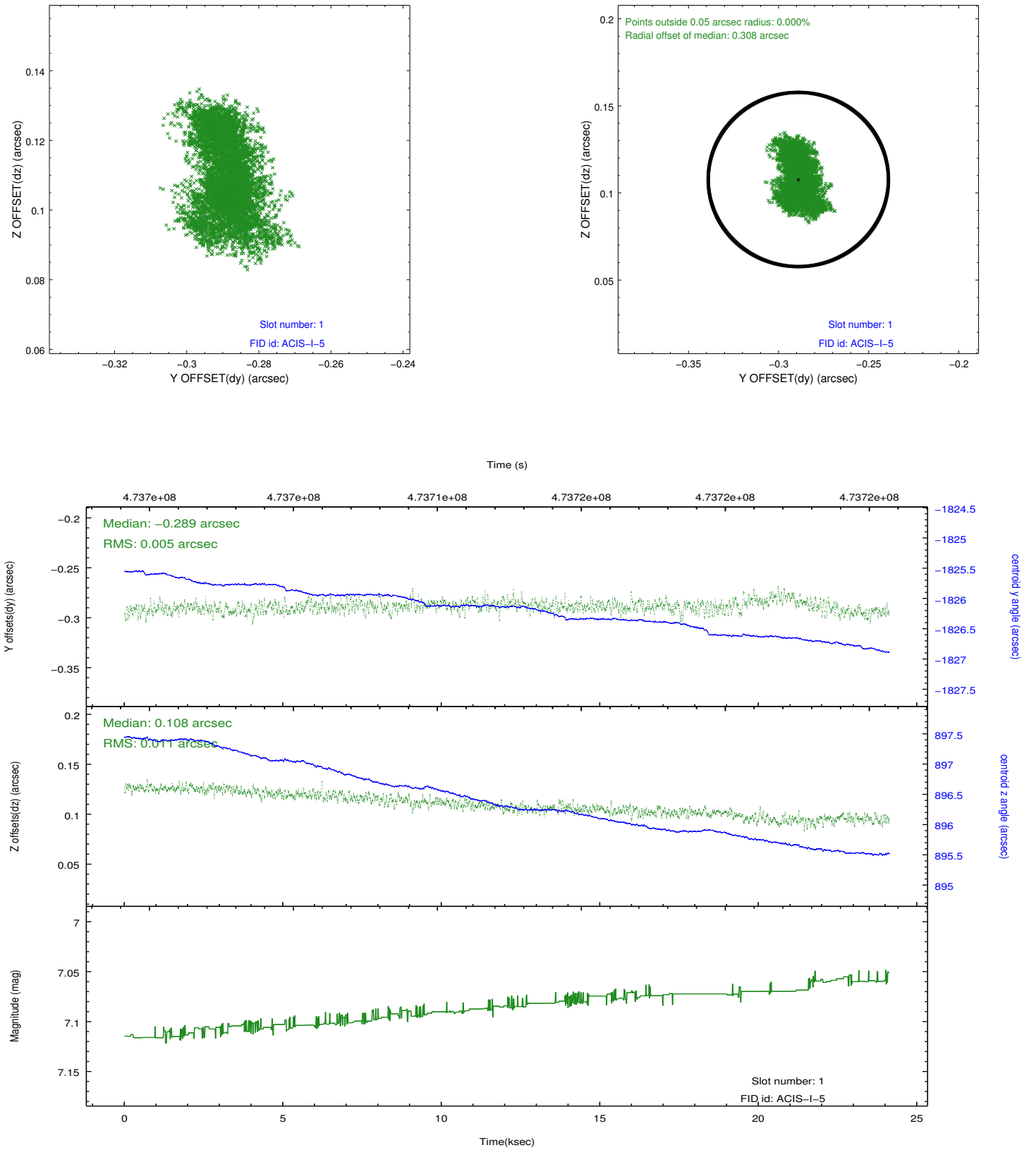


2.5 FID Slots

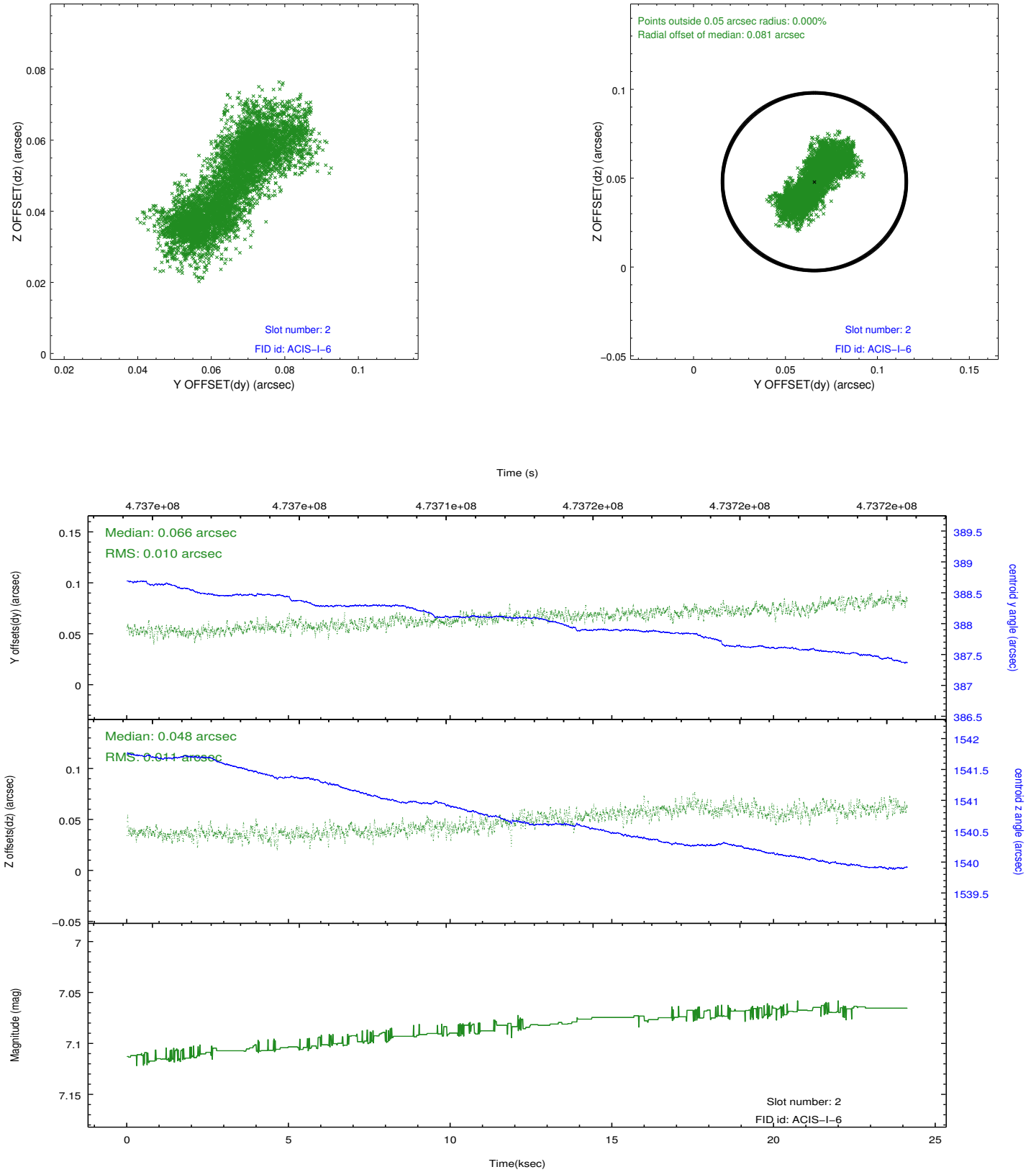
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.783200182915

A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.