

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 13472 - L2 Version 2
Chandra X-Ray Center

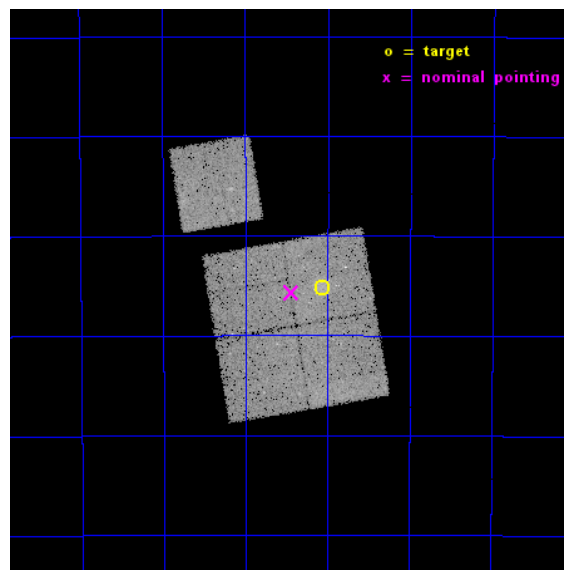
L2 Processing Date : Nov 30 2014

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1 Front

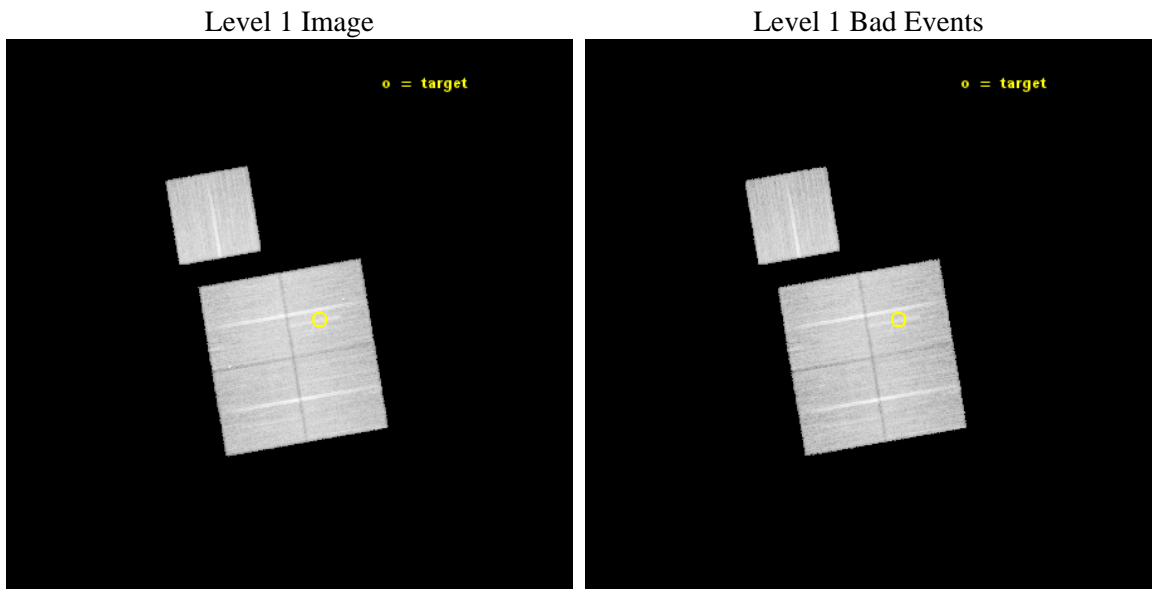
seq_num	801113	Sequence number
obs_id	13472	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg ² from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ0426-5455	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	66.51625	Observer's specified target RA [deg]
dec_targ	-54.921194	Observer's specified target Dec [deg]
ra_nom	66.610156519026	Nominal RA [deg]
dec_nom	-54.92820976572	Nominal Dec [deg]
roll_nom	350.2855352967	Nominal Roll [deg]
revision	2	Processing version of data
ontime	32865.938013852	Sum of GTIs [s]
livetime	32436.520338149	Livetime [s]
ontime0	32868.955894351	Sum of GTIs [s]
ontime1	32865.855883896	Sum of GTIs [s]
ontime2	32872.179004729	Sum of GTIs [s]
ontime3	32865.938013852	Sum of GTIs [s]
ontime6	32868.914844334	Sum of GTIs [s]
l2events	86349	Number of level 2 events



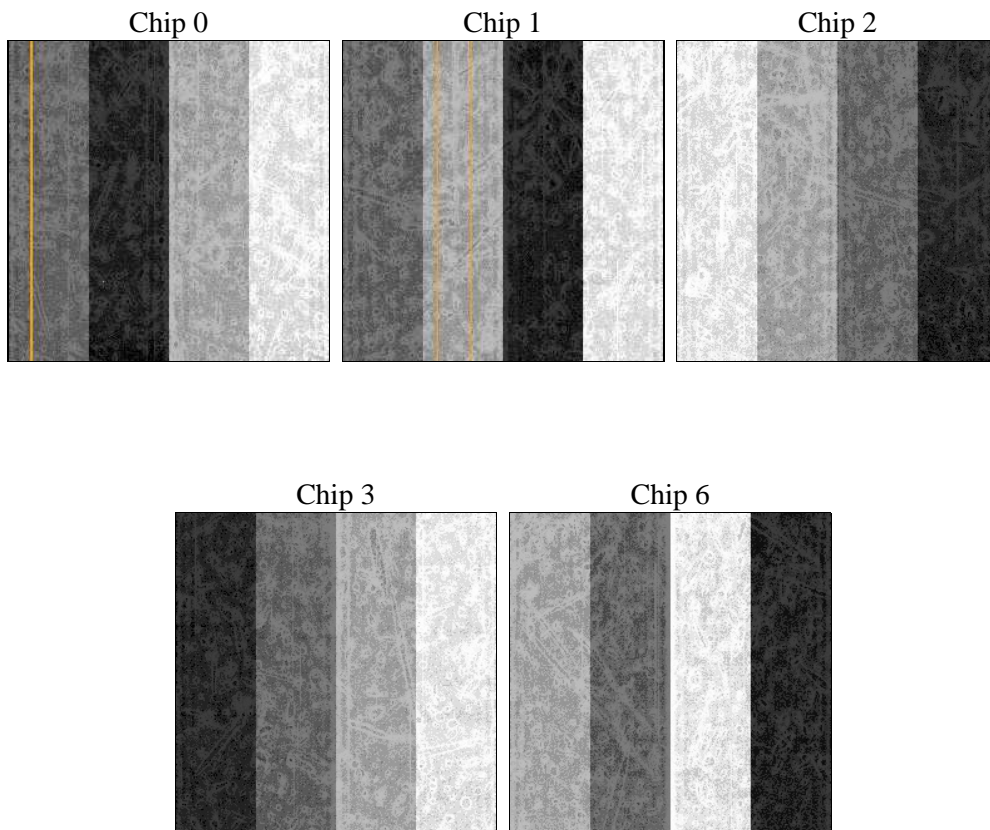
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	32792.933000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	32865.938013852	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	32868.955894351	Sum of GTIs [s]
date	2014-11-30T12:34:52	Date and time of file creation	ontime1	32865.855883896	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	32872.179004729	Sum of GTIs [s]
			ontime3	32865.938013852	Sum of GTIs [s]
			ontime6	32868.914844334	Sum of GTIs [s]
			l1events	828668	Number of level 1 events

2.1.4 Events

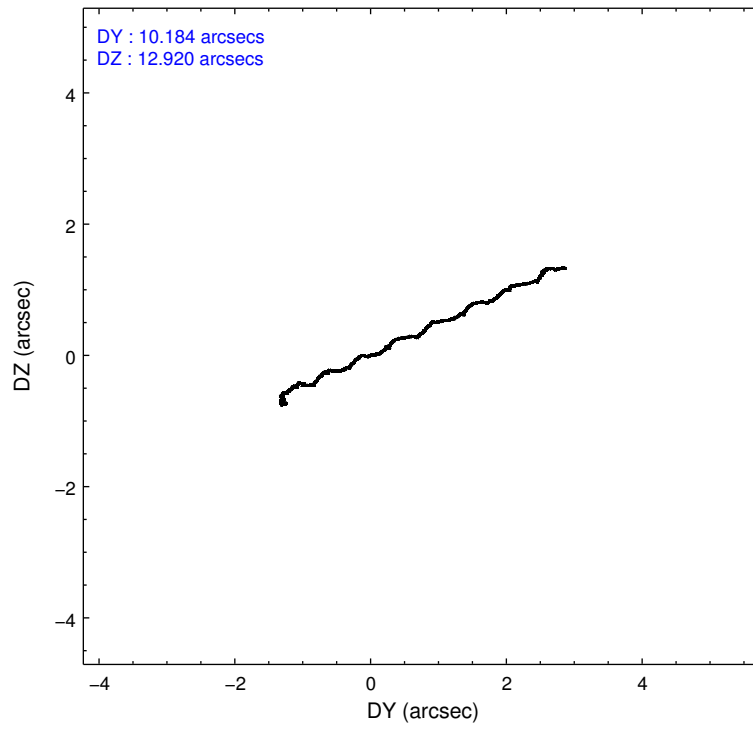
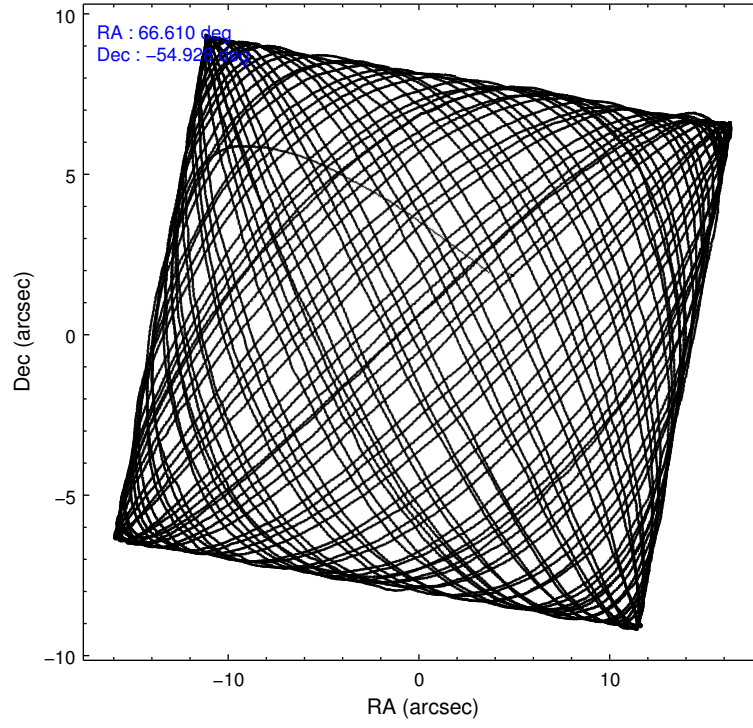
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	153207	158984	174611	167598	174268
rejected events	133389	137013	155080	147153	154081
rejected %	87%	86%	88%	87%	88%

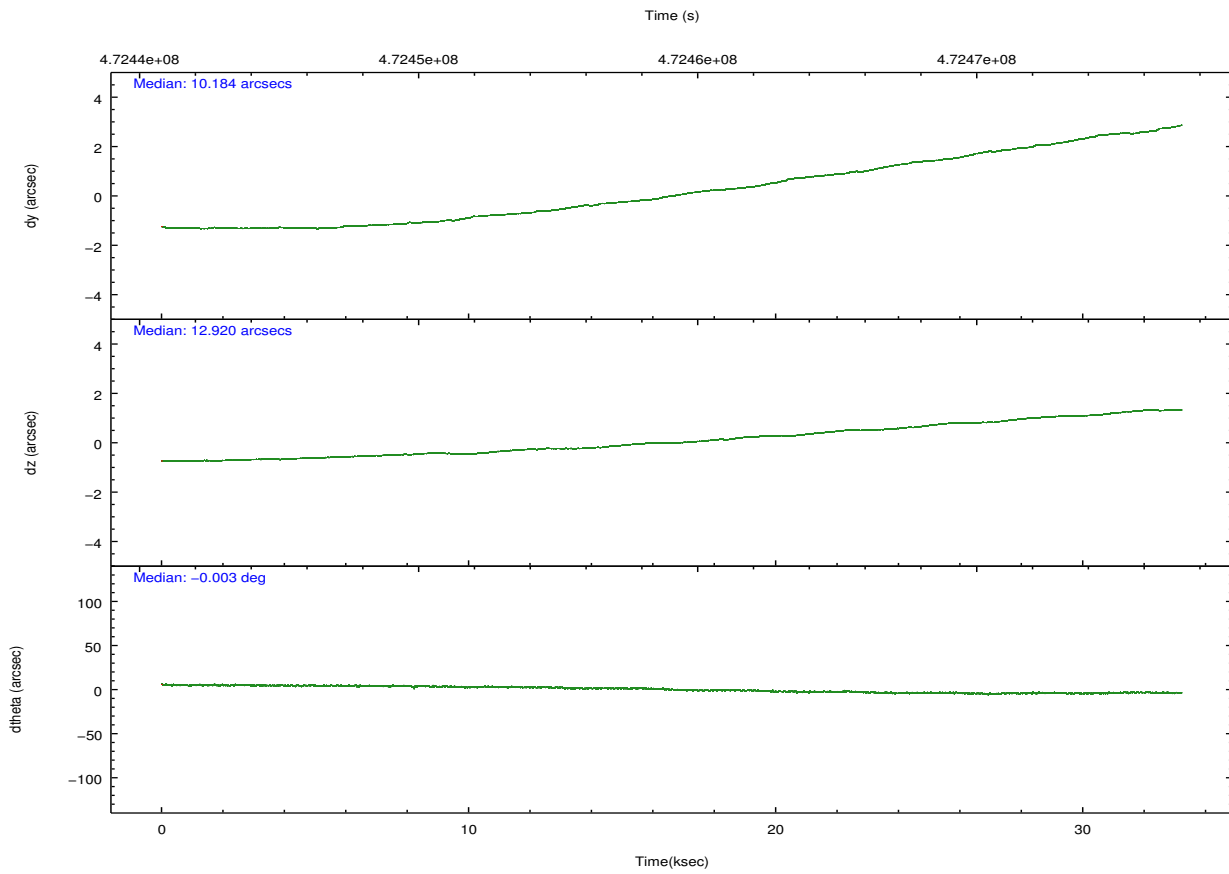
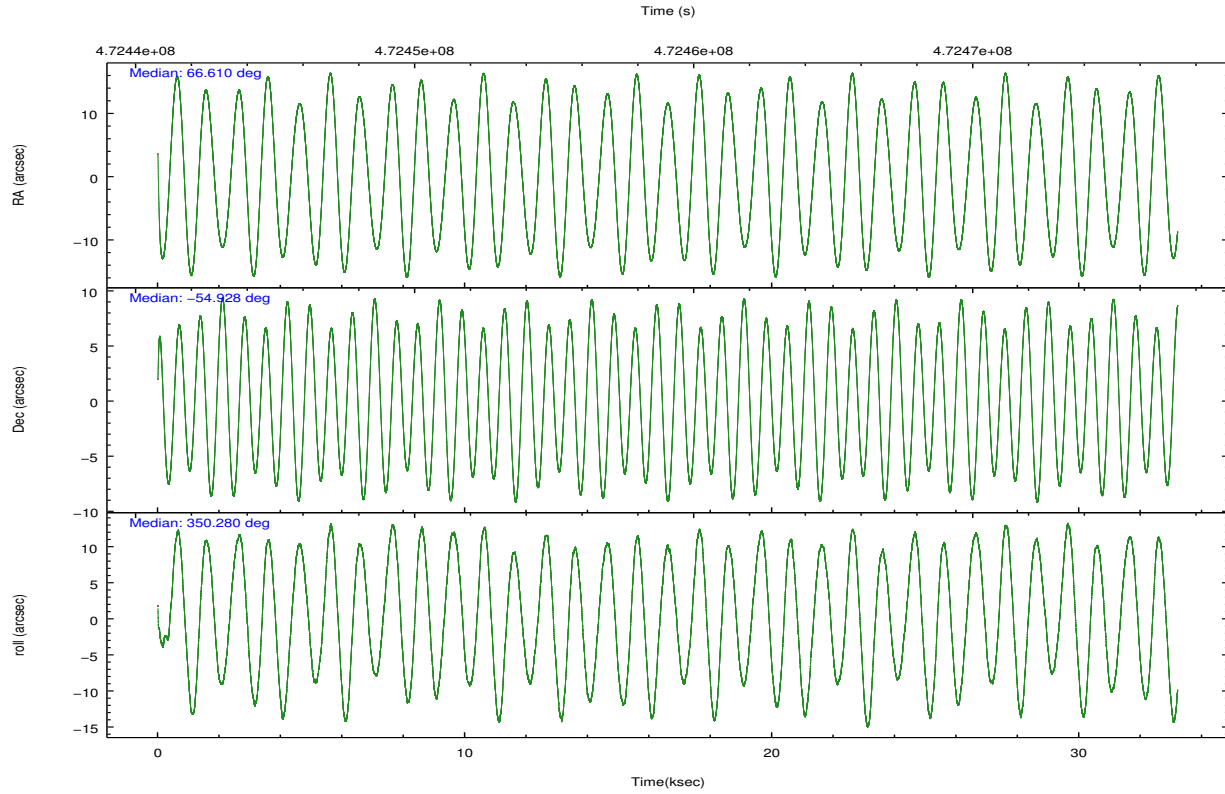
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	6875	7595	7053	7863	6766
	4%	4%	4%	4%	3%
grade 1 events	99	85	90	104	76
	0%	0%	0%	0%	0%
grade 2 events	4945	5259	4678	4311	4536
	3%	3%	2%	2%	2%
grade 3 events	2050	2139	2001	2051	2079
	1%	1%	1%	1%	1%
grade 4 events	1924	2128	1910	2127	2111
	1%	1%	1%	1%	1%
grade 5 events	7844	8374	7344	8823	8474
	5%	5%	4%	5%	4%
grade 6 events	4031	4855	3894	4096	4698
	2%	3%	2%	2%	2%
grade 7 events	125439	128549	147641	138223	145528
	81%	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	66.565346	66.61015651902594	CCD I2 on	Y	Y
[deg] Pointing Dec	-54.937829	-54.92820976572029	CCD I3 on	Y	Y
[deg] Pointing Roll	350.040168	350.2855352967026	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	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	472442894.184000	472441695.36543	CCD S5 on	N	N
Observation start date	2012-12-21T02:07:07	2012-12-21T01:48:15	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	472475687.184000	472475921.65478	On-chip summing requested	N	N
Observation end date	2012-12-21T11:13:40	2012-12-21T11:18:41	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





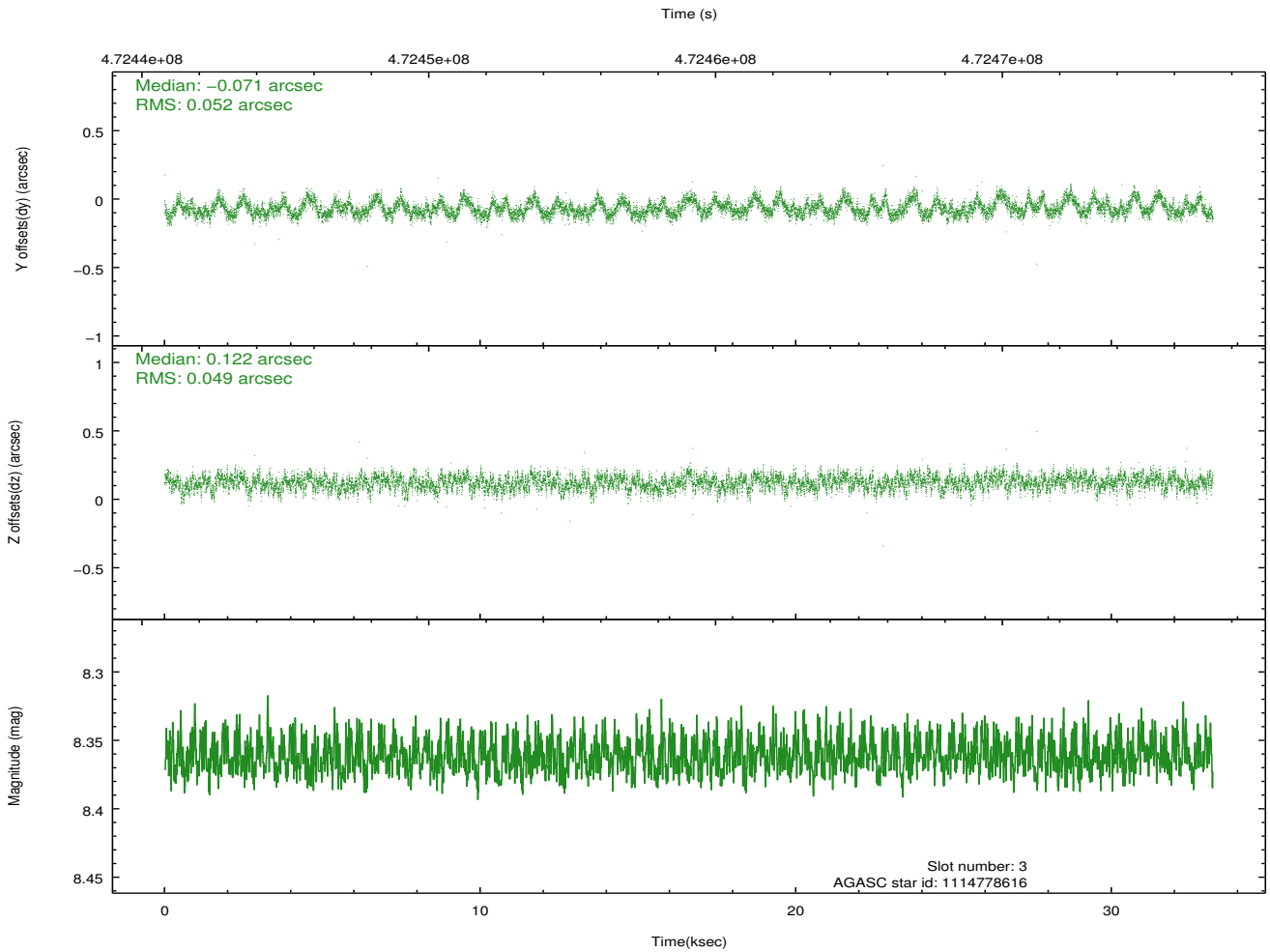
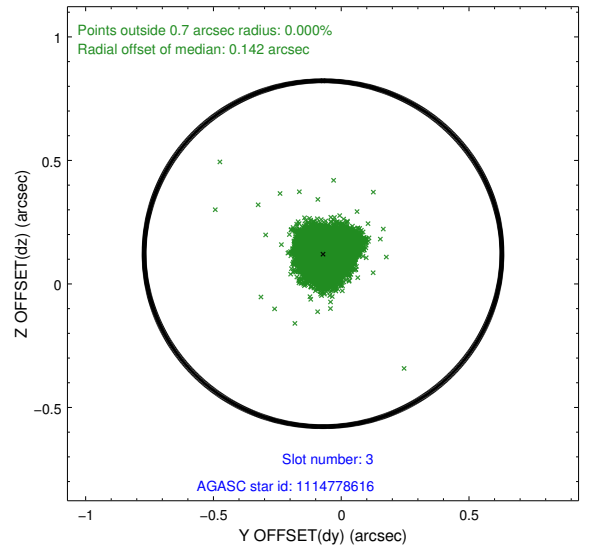
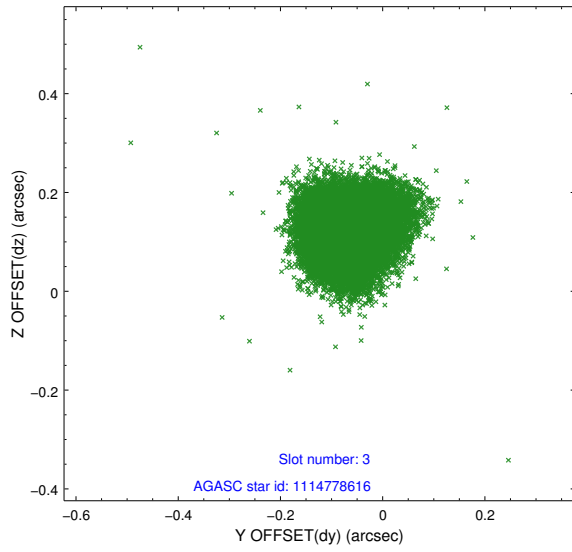
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.18	8100	0.148	-0.103	0.037	0.047	0.000000	0.000000	929.18	-995.76
1	FID		ACIS-I-5	7.16	8101	-0.282	0.125	0.019	0.037	0.000000	0.000000	-1819.36	901.87
2	FID		ACIS-I-6	7.19	8101	0.042	0.060	0.020	0.034	0.000000	0.000000	394.52	1546.41
3	GUIDE	used	1114778616	8.36	16197	-0.071	0.122	0.076	0.120	65.645010	-55.096292	-1765.80	-901.54
4	GUIDE	used	1114779304	9.47	16184	0.004	0.064	0.114	0.181	65.760400	-55.309135	-1390.96	-1610.98
5	GUIDE	used	1114780936	7.50	16200	0.053	0.021	0.060	0.094	66.652400	-55.209777	345.94	-933.32
6	GUIDE	used	1115691720	9.40	16193	0.140	0.023	0.139	0.225	67.499471	-55.519639	2240.33	-1745.94
7	GUIDE	used	1115305400	8.81	16191	-0.129	-0.218	0.085	0.135	67.305588	-54.406899	1199.15	2143.29

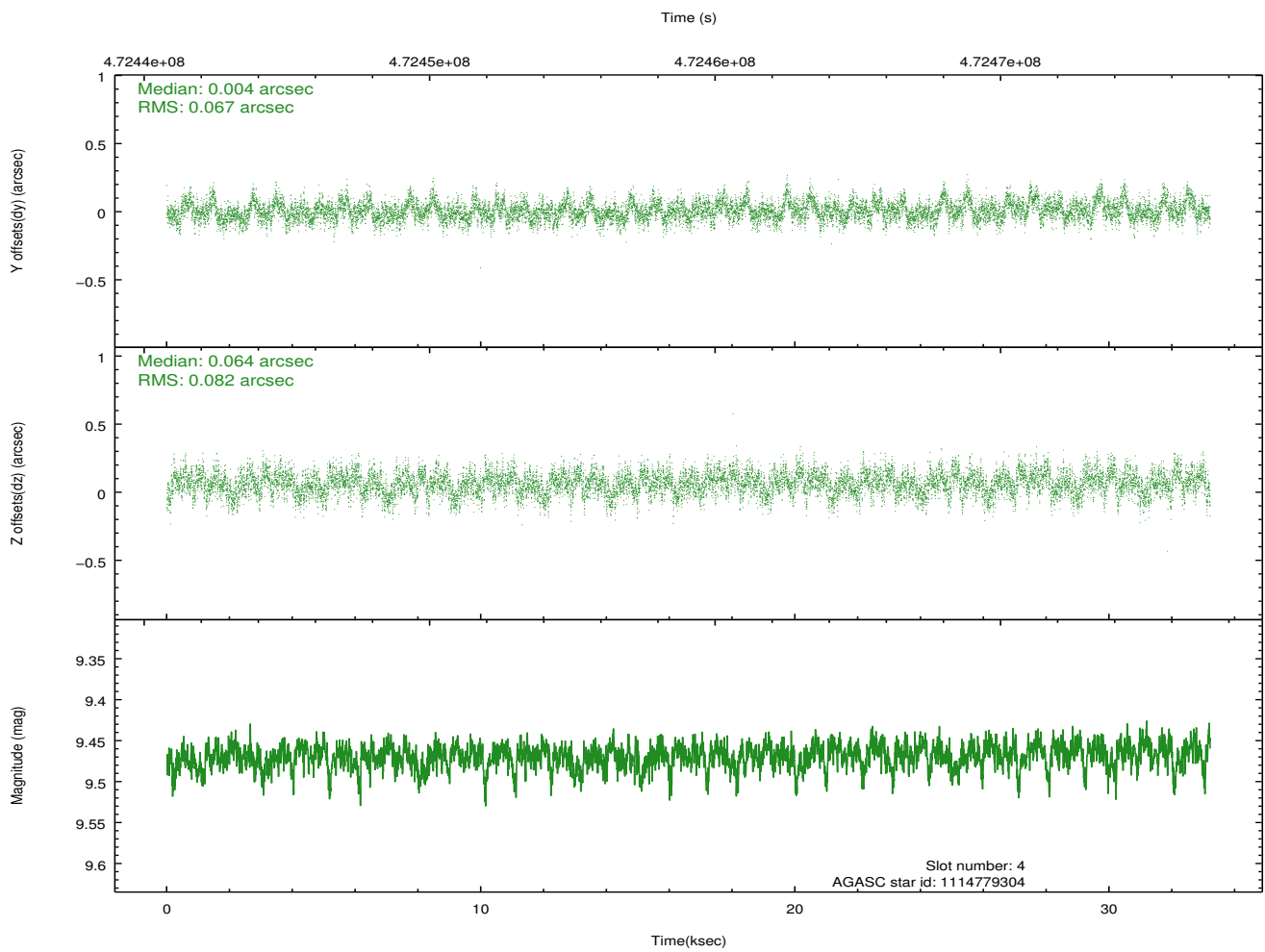
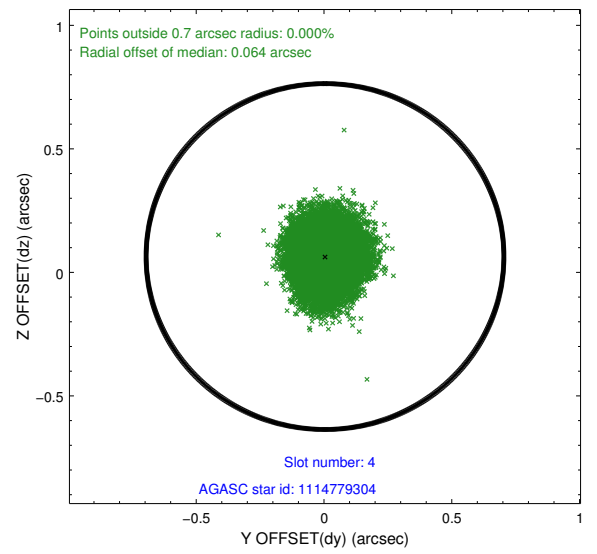
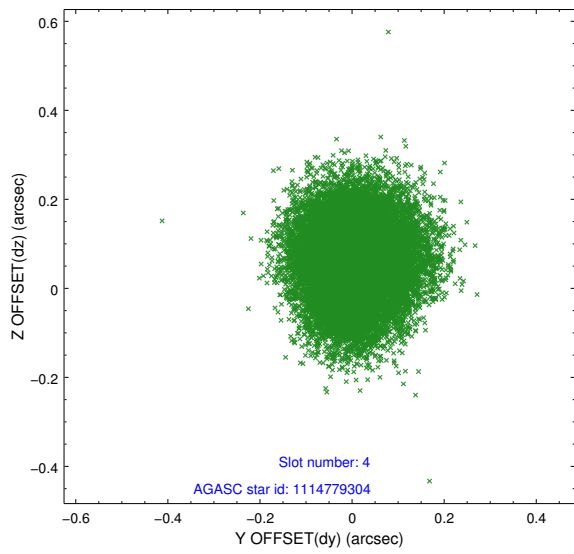
∞

2.4 Star Slots

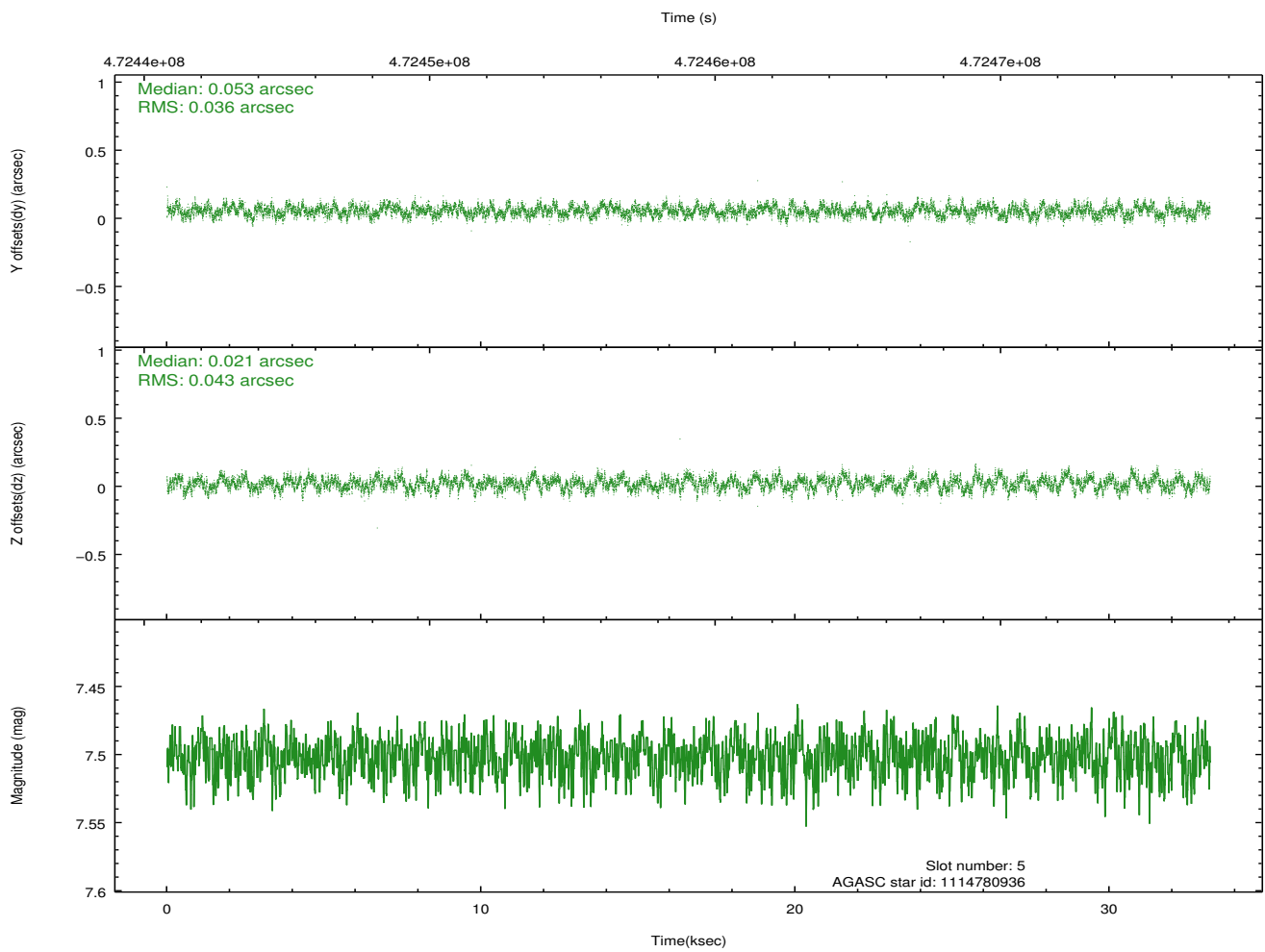
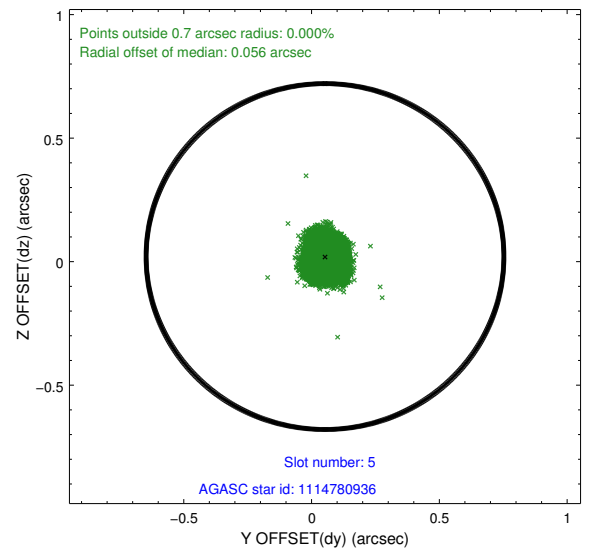
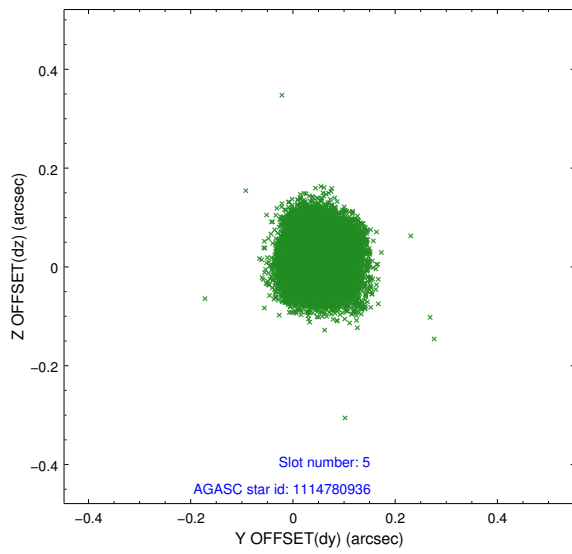
2.4.1 Slot 3



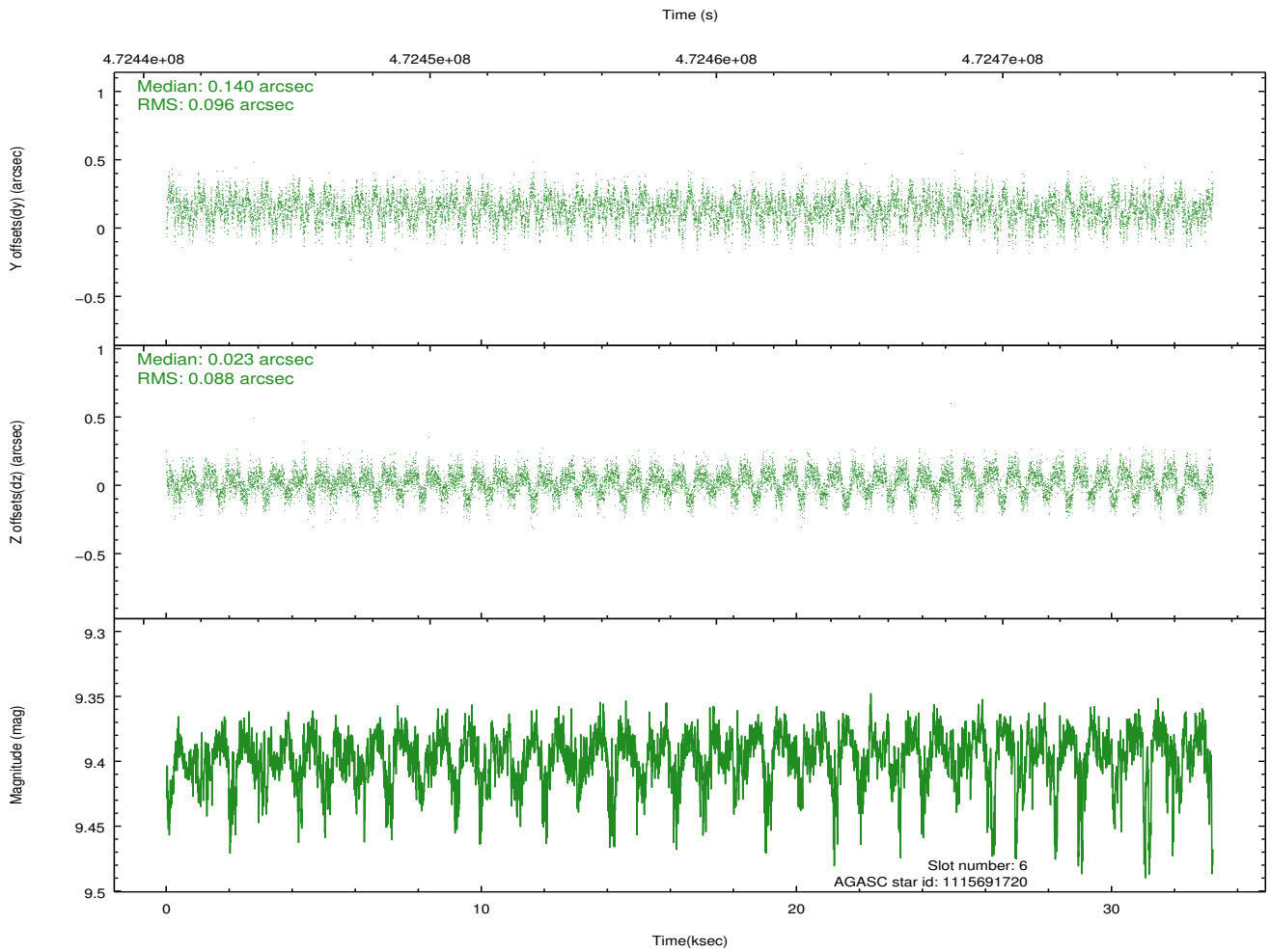
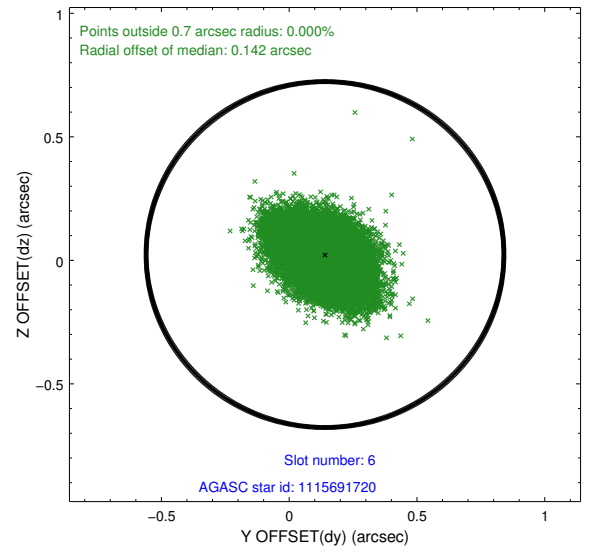
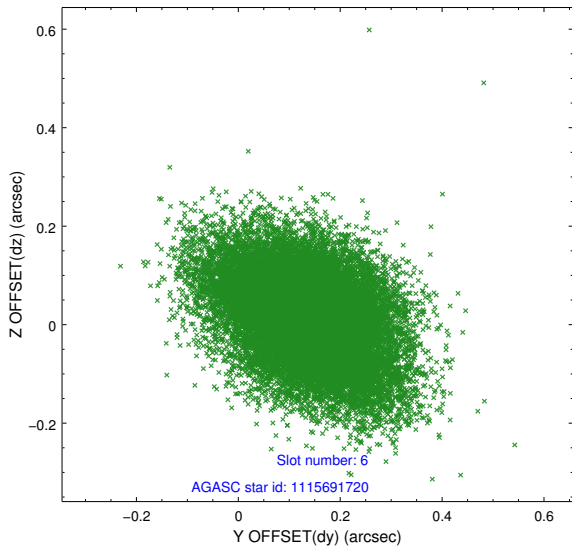
2.4.2 Slot 4



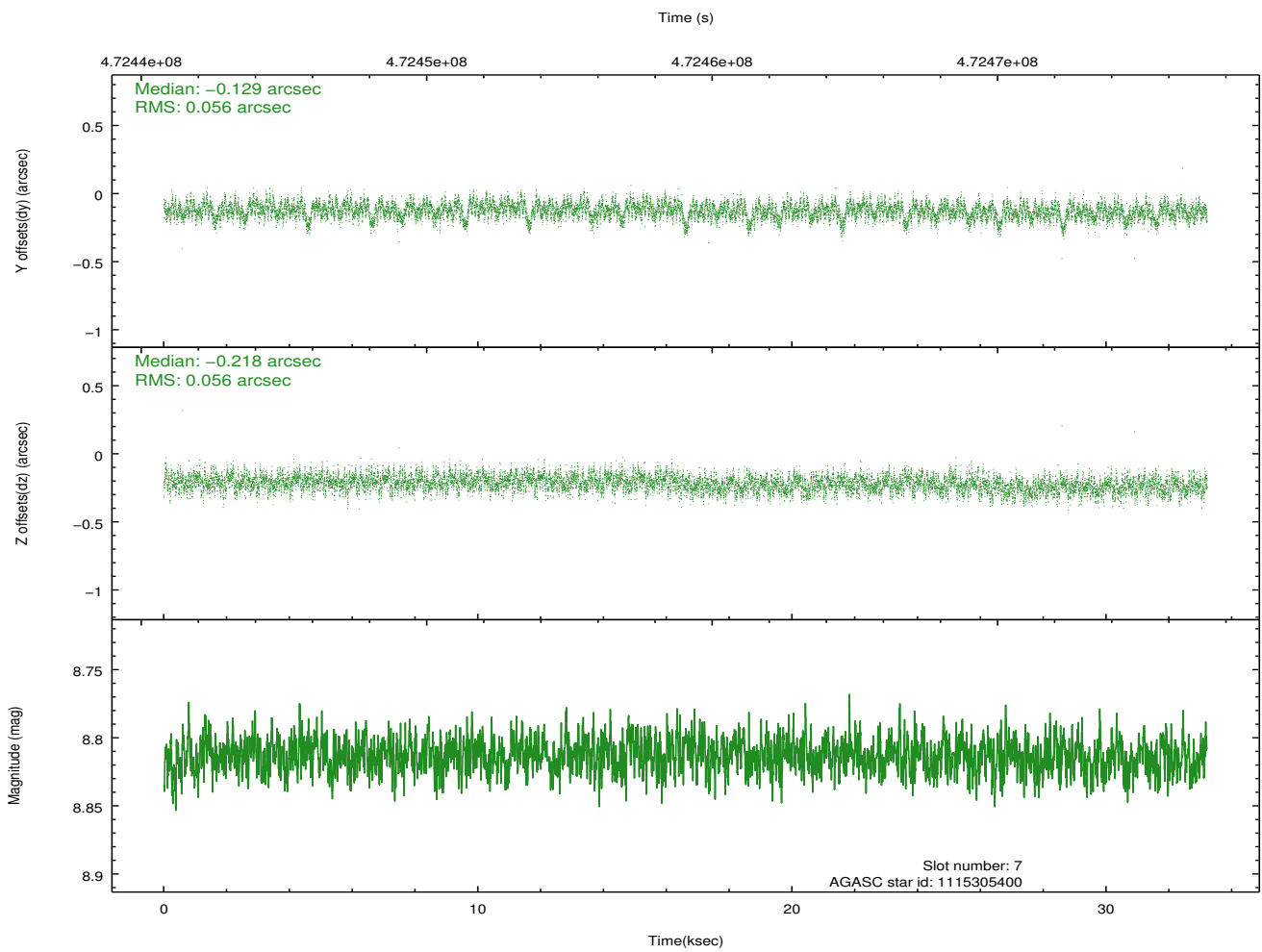
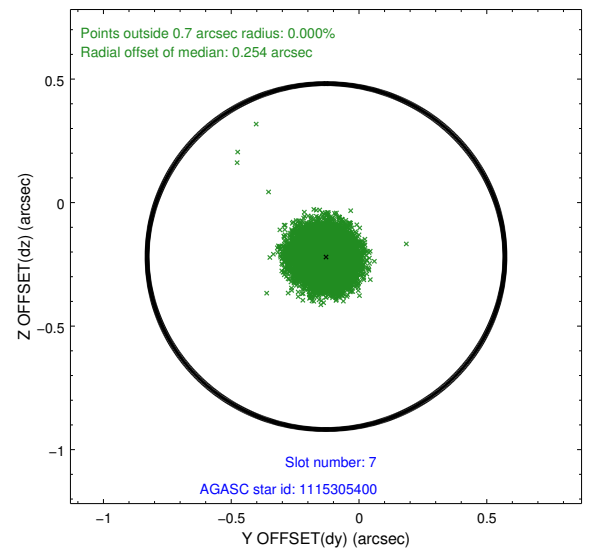
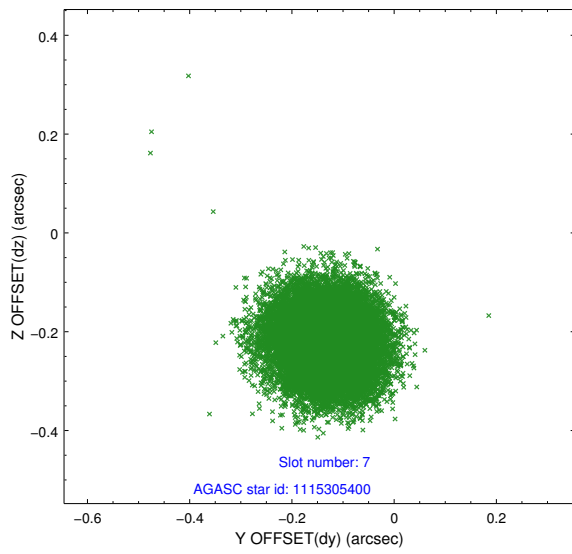
2.4.3 Slot 5



2.4.4 Slot 6

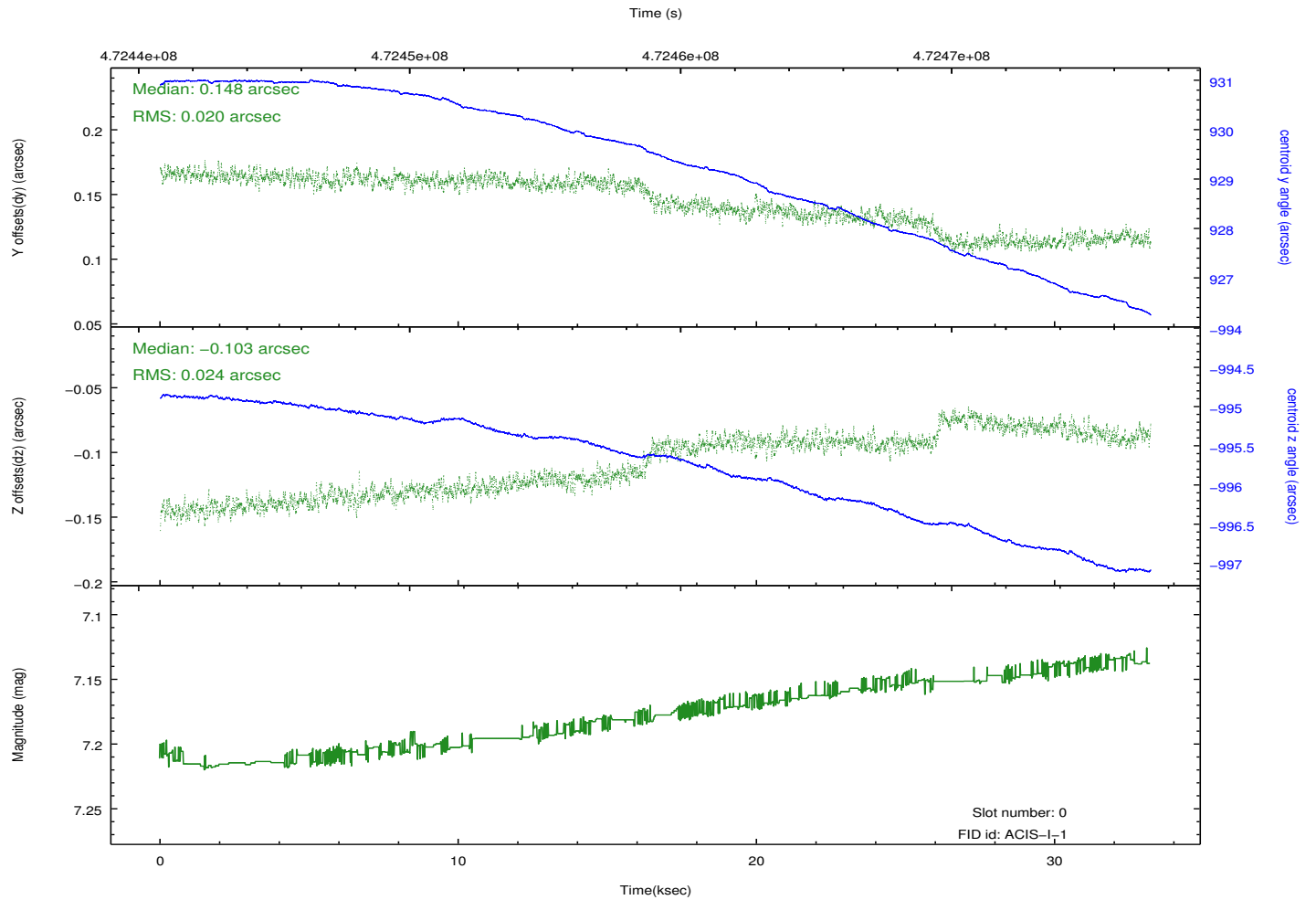
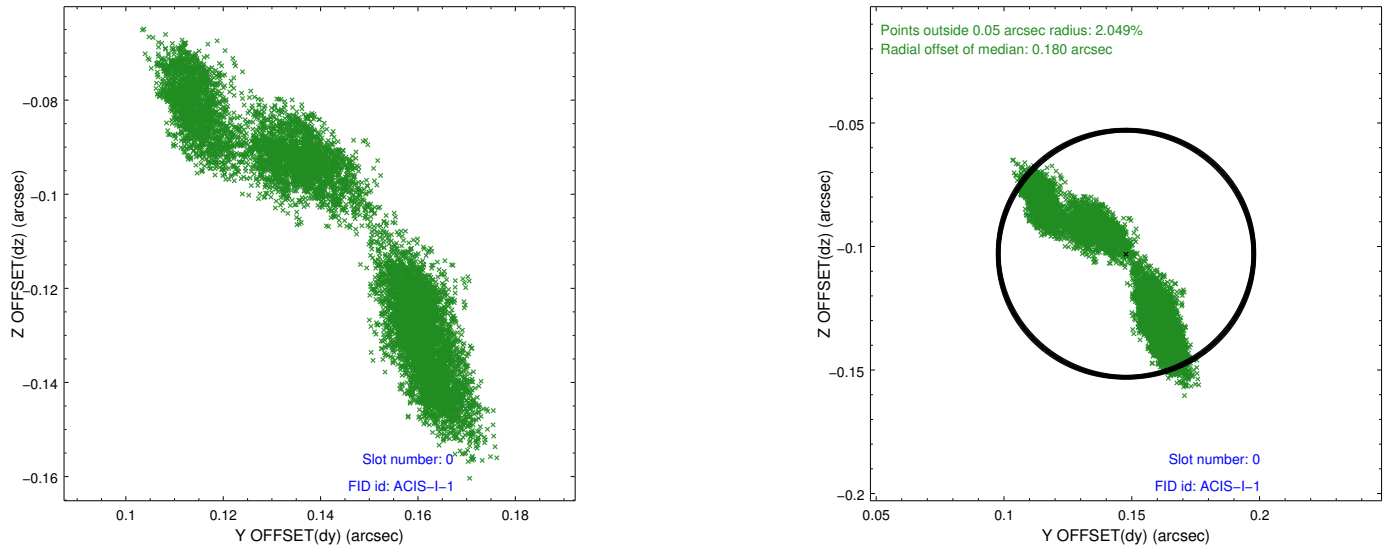


2.4.5 Slot 7

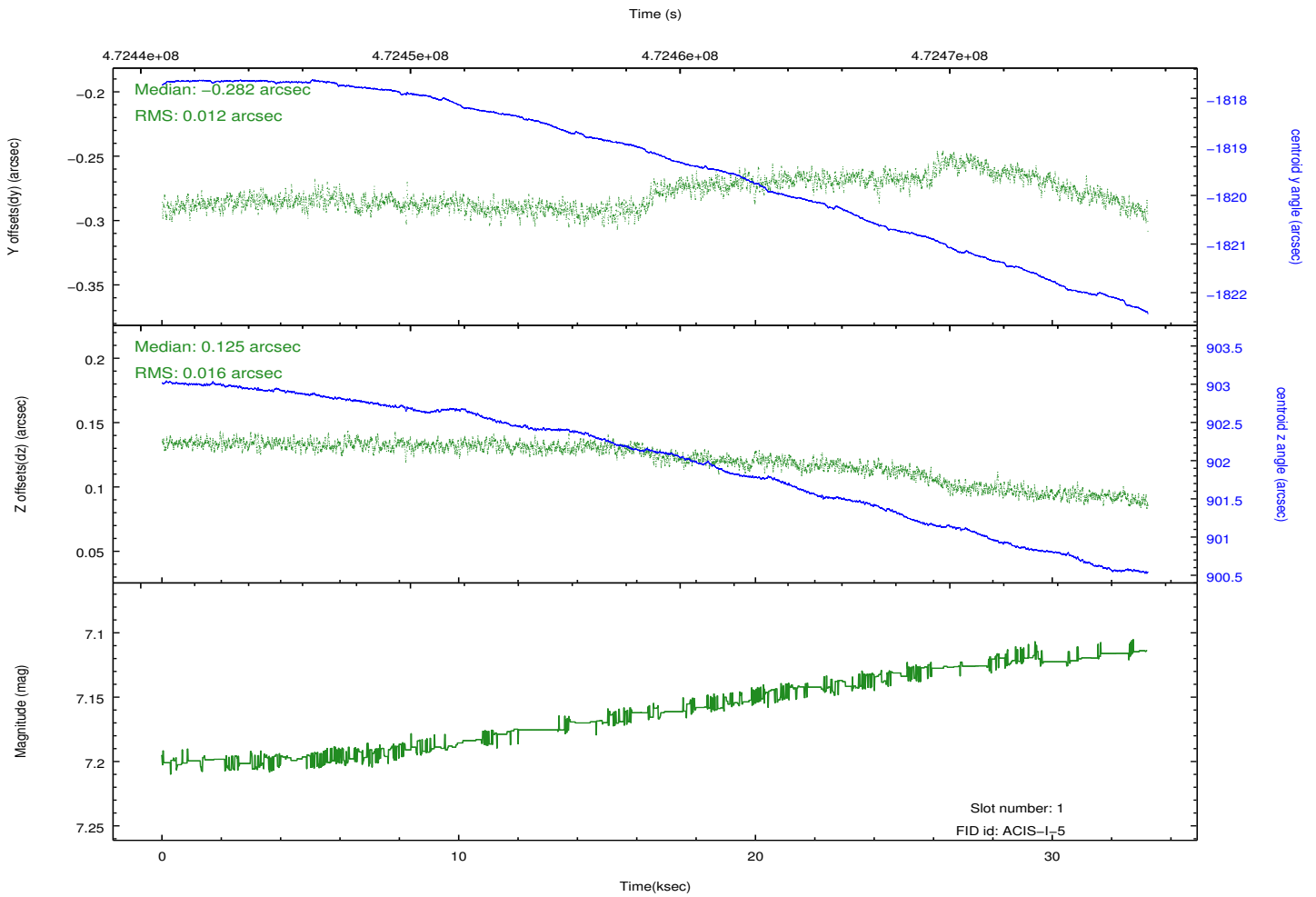
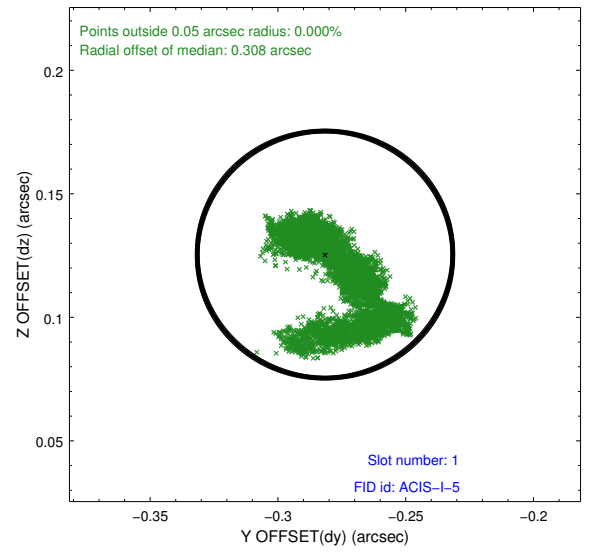
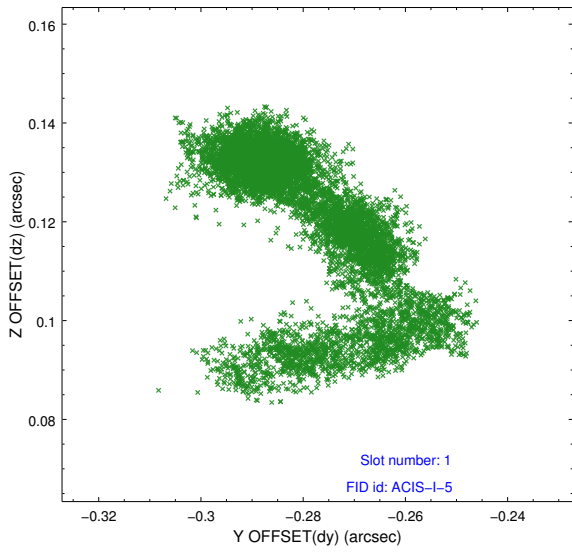


2.5 FID Slots

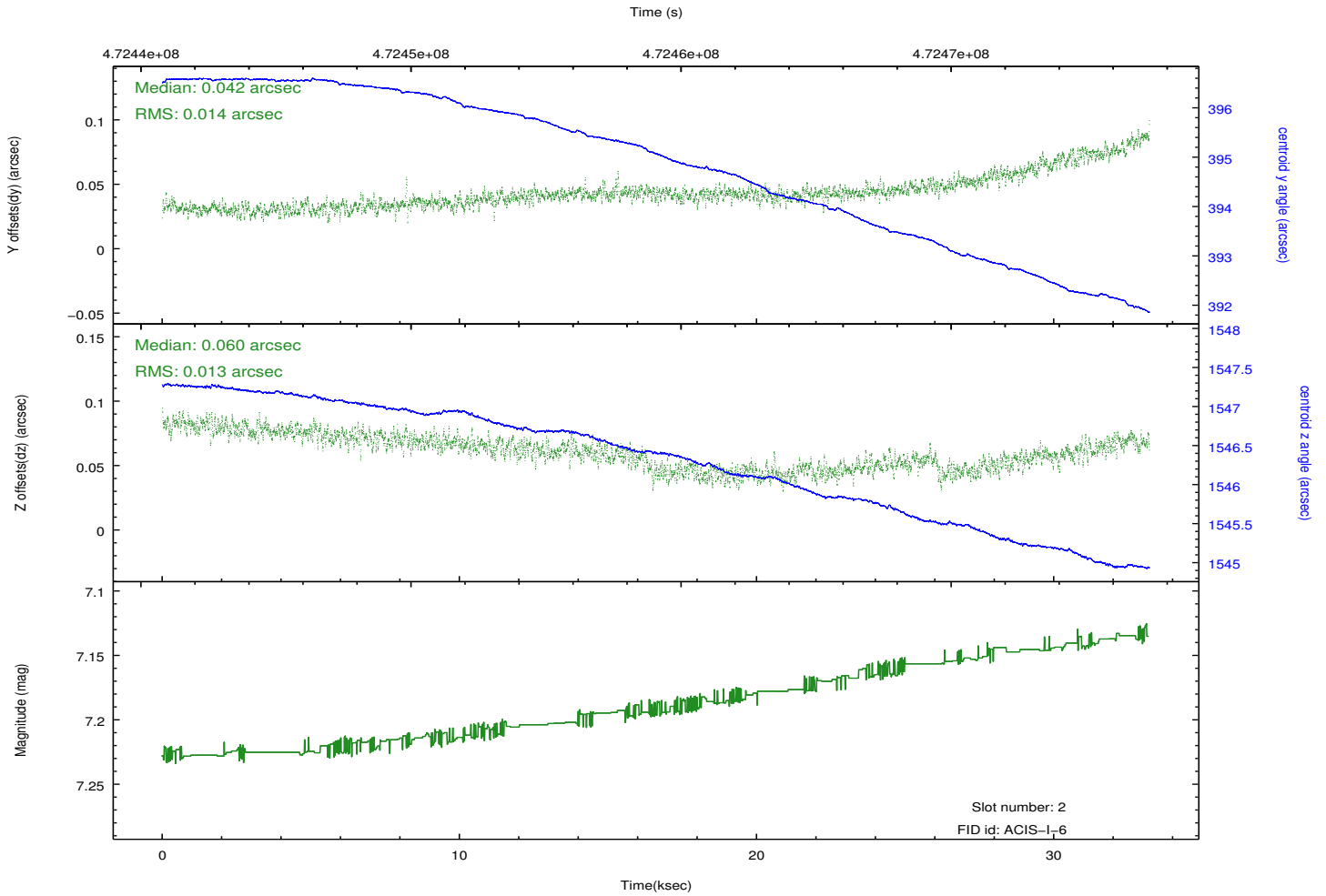
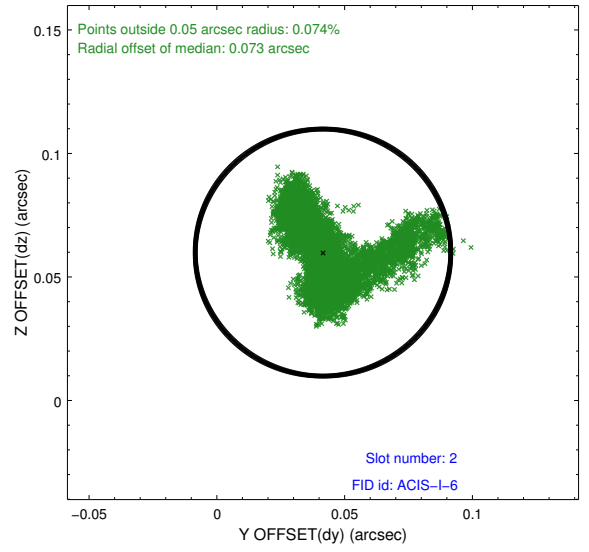
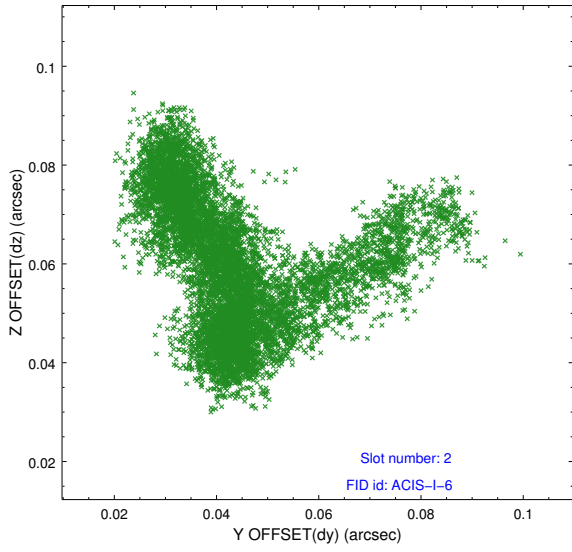
2.5.1 Slot 0



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)	2014.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	32.865938013852

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.