

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 13467 - L2 Version 2
Chandra X-Ray Center

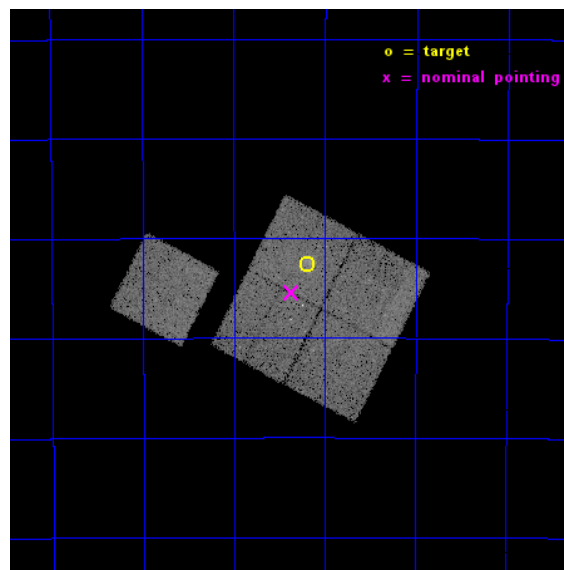
L2 Processing Date : Nov 30 2014

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1 Front

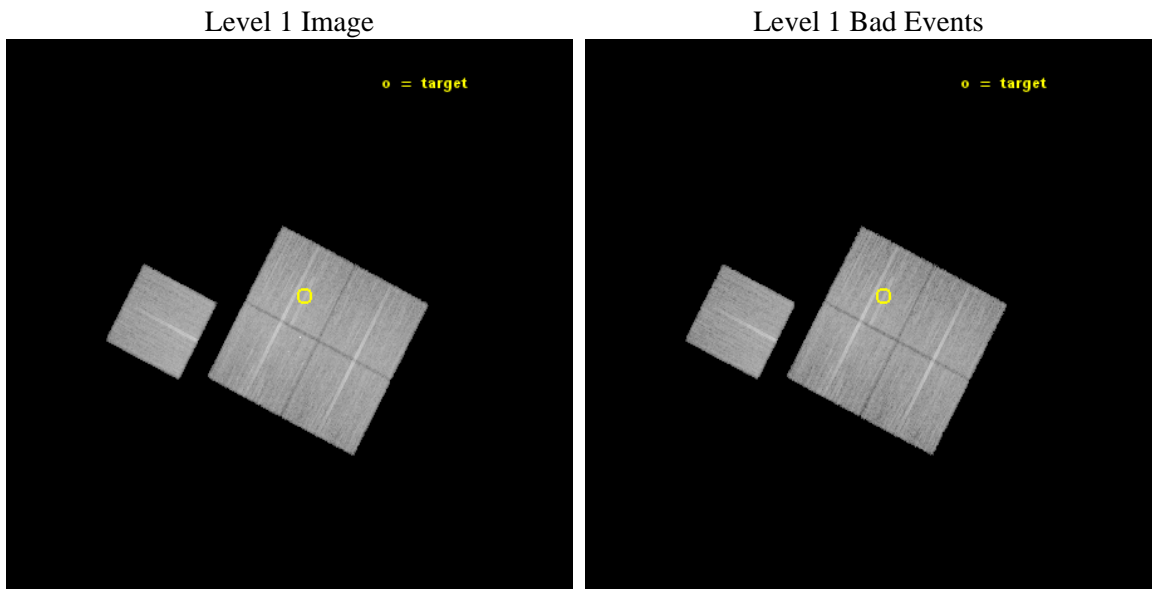
seq_num	801108	Sequence number
obs_id	13467	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg ² from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ0142-5032	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	25.549583	Observer's specified target RA [deg]
dec_targ	-50.543389	Observer's specified target Dec [deg]
ra_nom	25.592029186483	Nominal RA [deg]
dec_nom	-50.590651943885	Nominal Dec [deg]
roll_nom	297.38123736301	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29481.000226736	Sum of GTIs [s]
livetime	29095.809255177	Livetime [s]
ontime0	29481.000226736	Sum of GTIs [s]
ontime1	29477.859216511	Sum of GTIs [s]
ontime2	29477.859226406	Sum of GTIs [s]
ontime3	29481.000226736	Sum of GTIs [s]
ontime6	29477.859226465	Sum of GTIs [s]
l2events	80722	Number of level 2 events



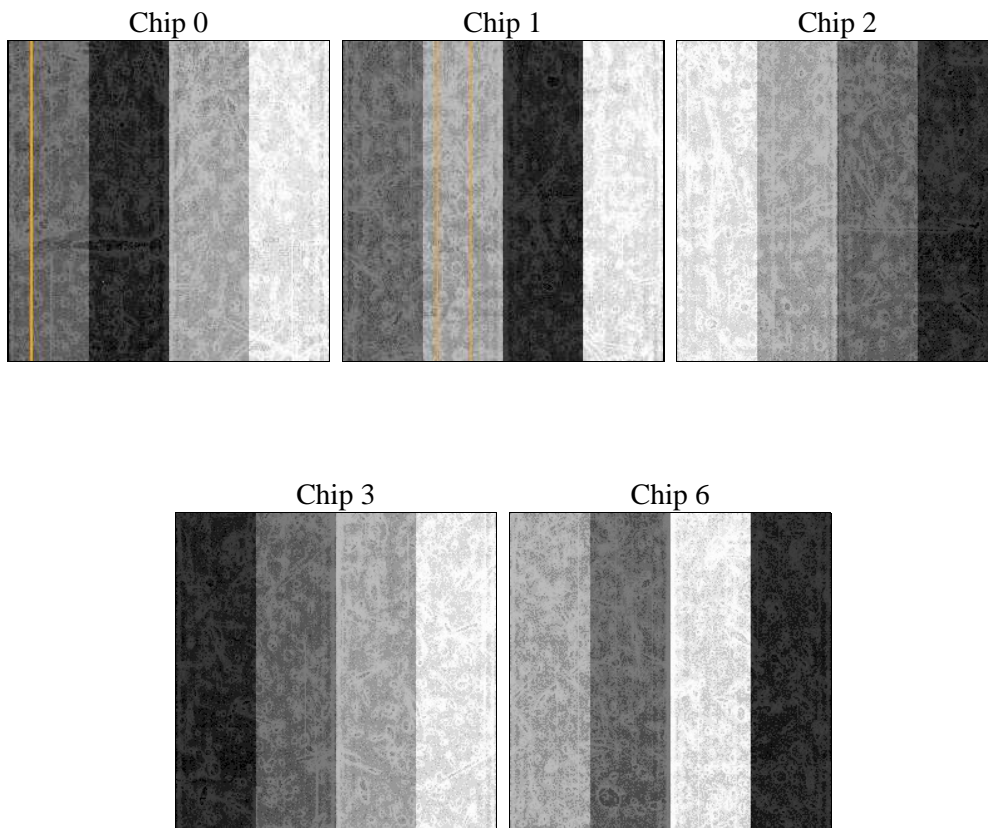
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29400.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	29481.000226736	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	29481.000226736	Sum of GTIs [s]
date	2014-12-01T01:14:15	Date and time of file creation	ontime1	29477.859216511	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	29477.859226406	Sum of GTIs [s]
			ontime3	29481.000226736	Sum of GTIs [s]
			ontime6	29477.859226465	Sum of GTIs [s]
			l1events	767565	Number of level 1 events

2.1.4 Events

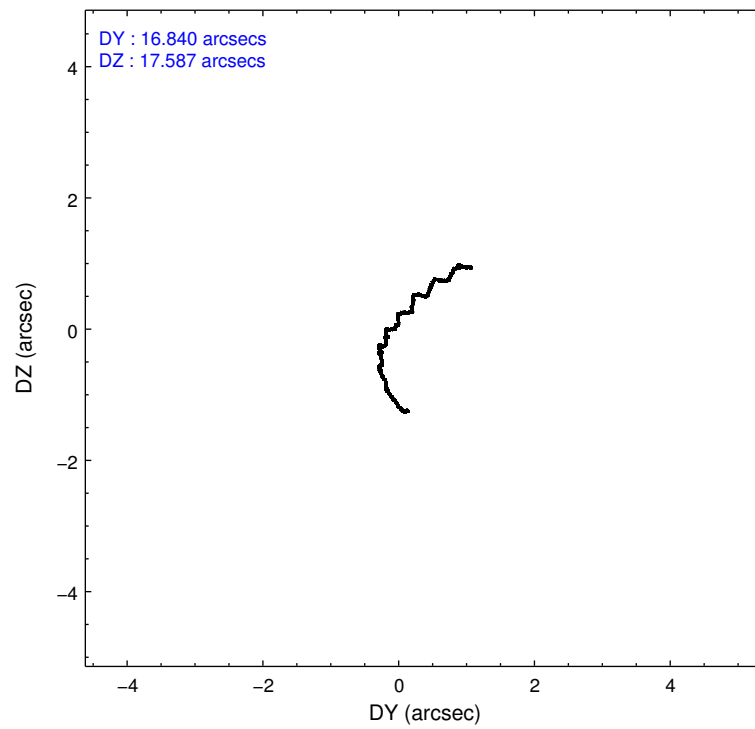
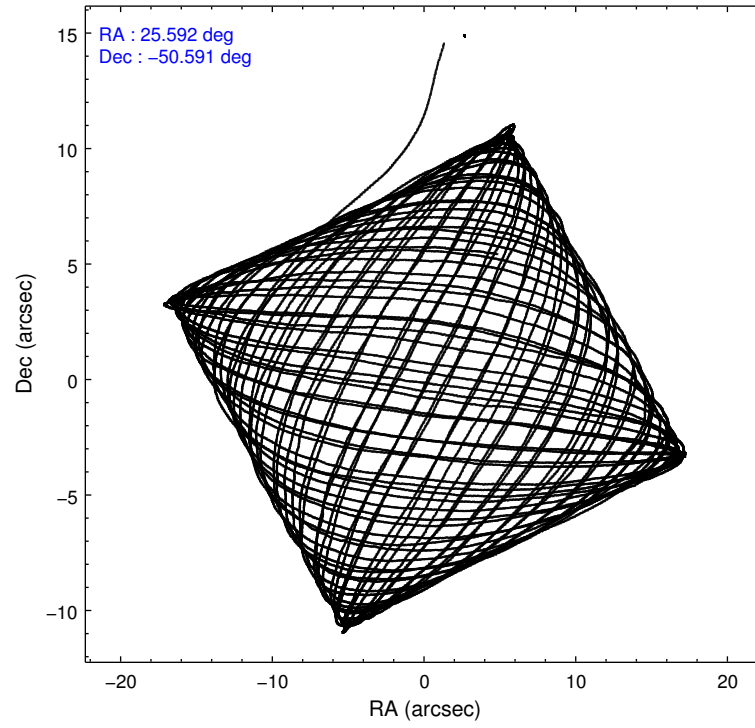
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	143911	148262	158289	158623	158480
rejected events	125535	128110	138974	139854	139672
rejected %	87%	86%	87%	88%	88%

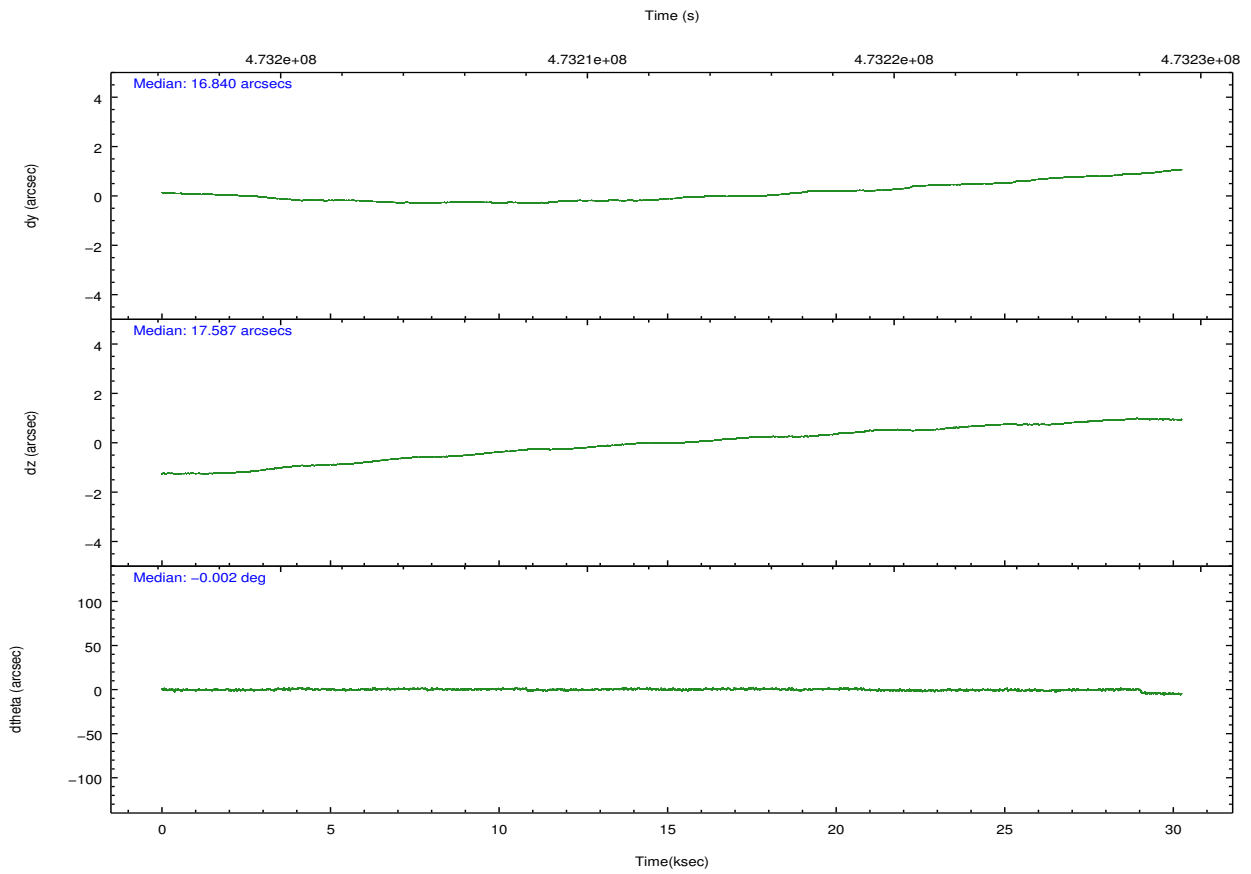
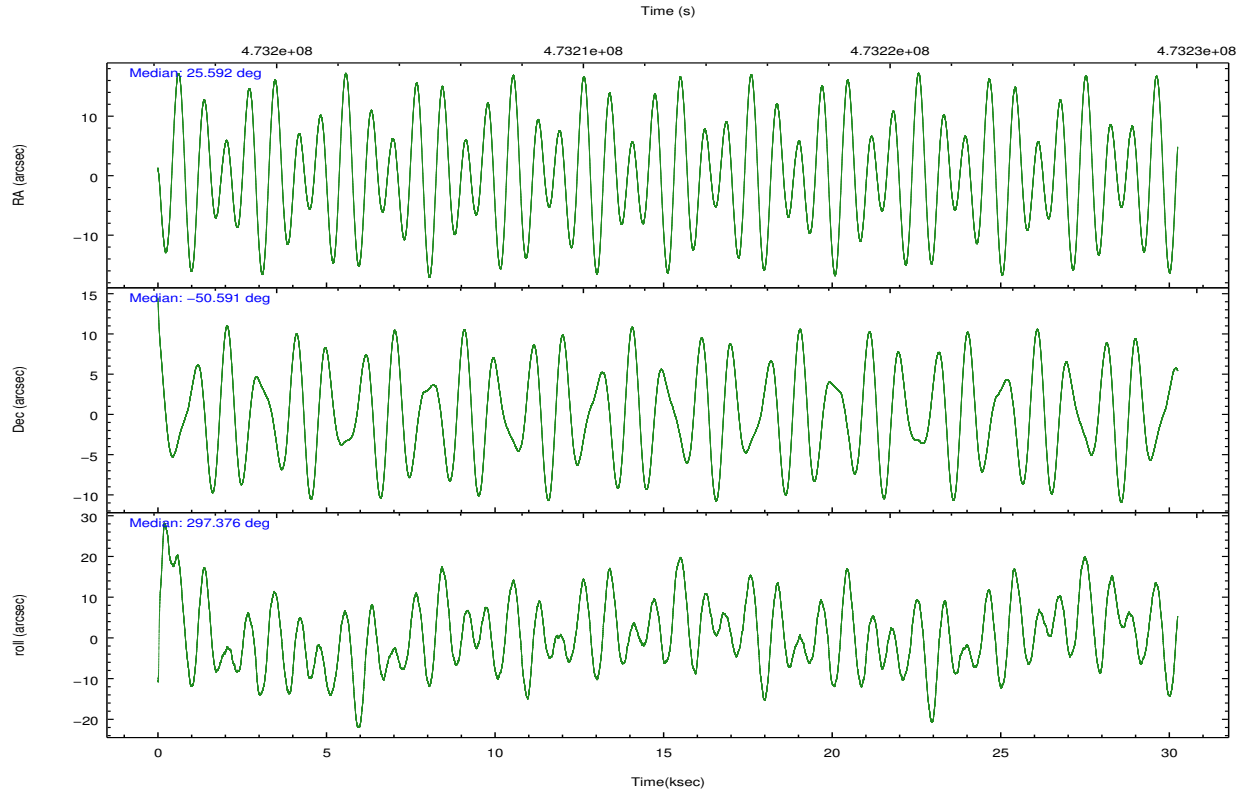
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	6188	7023	7201	7018	6322
	4%	4%	4%	4%	3%
grade 1 events	78	82	110	103	72
	0%	0%	0%	0%	0%
grade 2 events	4561	4763	4584	4154	4251
	3%	3%	2%	2%	2%
grade 3 events	1994	2043	1954	1901	2014
	1%	1%	1%	1%	1%
grade 4 events	1816	2072	1917	1919	1992
	1%	1%	1%	1%	1%
grade 5 events	7266	7827	7043	8507	7952
	5%	5%	4%	5%	5%
grade 6 events	3821	4256	3662	3778	4232
	2%	2%	2%	2%	2%
grade 7 events	118187	120196	131818	131243	131645
	82%	81%	83%	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	25.555499	25.59202918648251	CCD I2 on	Y	Y
[deg] Pointing Dec	-50.575929	-50.59065194388543	CCD I3 on	Y	Y
[deg] Pointing Roll	297.144343	297.3812373630122	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)	473198480.184000	473196757.04353	CCD S5 on	N	N
Observation start date	2012-12-29T20:00:13	2012-12-29T19:32:37	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	473227880.184000	473228631.47024	On-chip summing requested	N	N
Observation end date	2012-12-30T04:10:13	2012-12-30T04:23:51	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





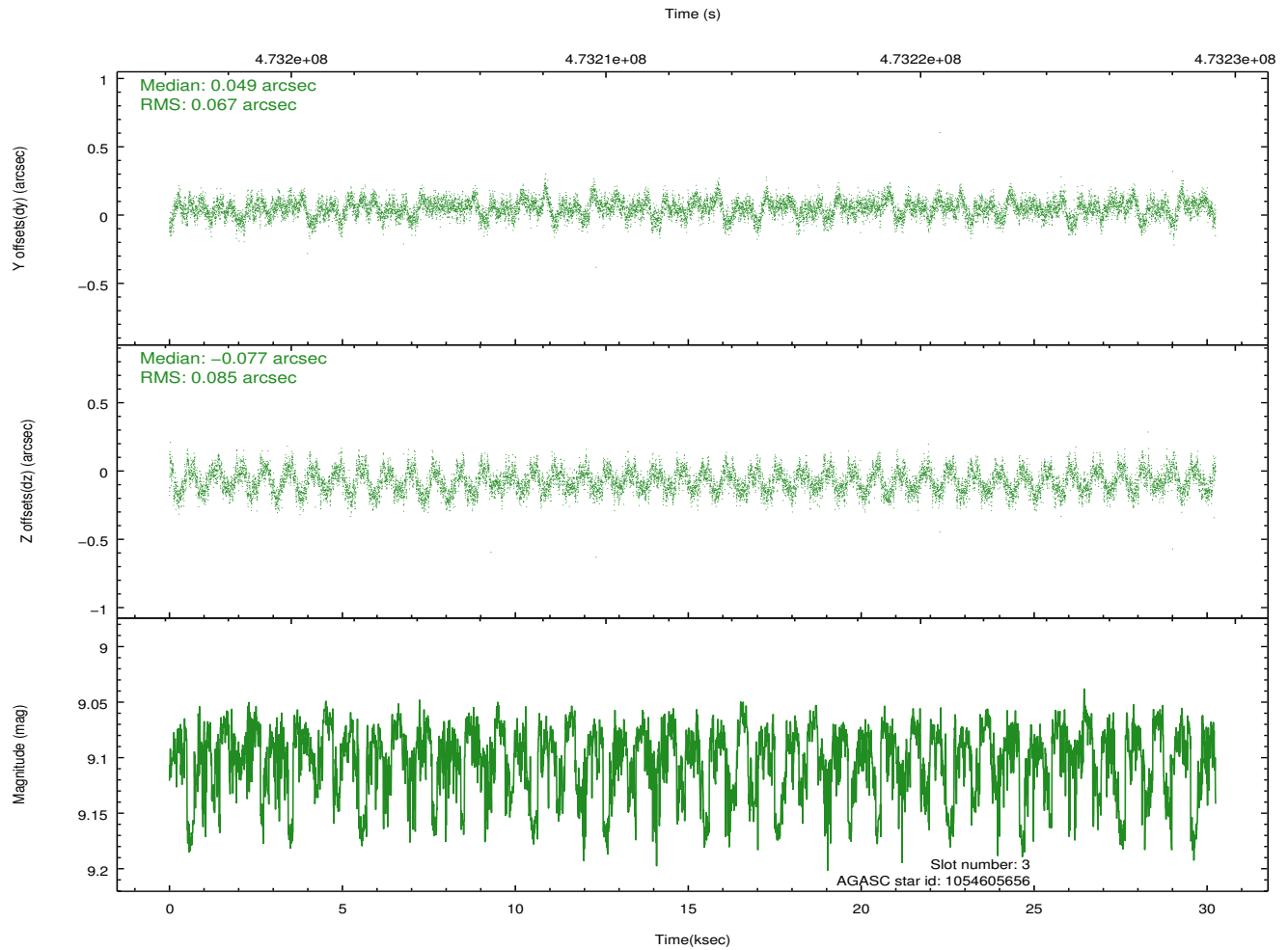
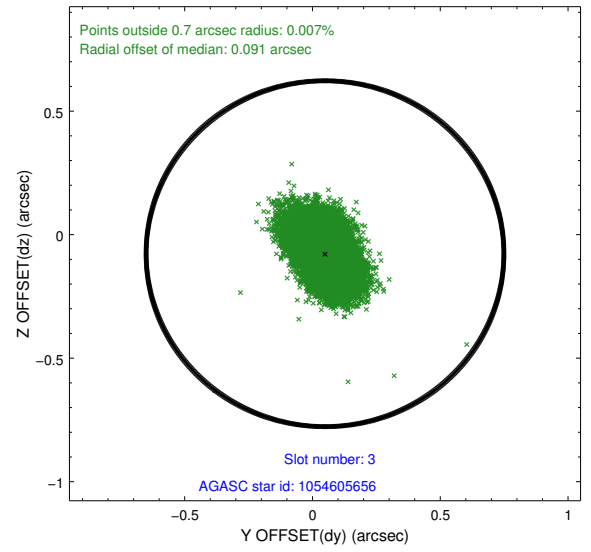
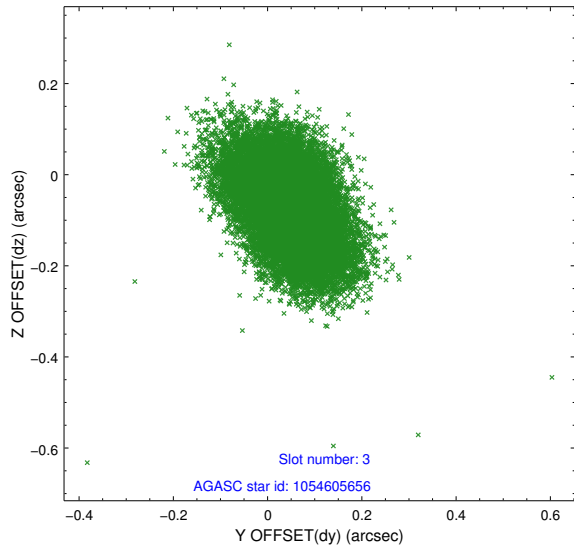
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	7.05	7376	-0.148	-0.049	0.019	0.040	0.000000	0.000000	-772.43	-1005.66
1	FID		ACIS-I-4	6.99	7378	0.240	0.095	0.011	0.020	0.000000	0.000000	2141.95	900.54
2	FID		ACIS-I-5	7.08	7378	-0.192	0.023	0.025	0.036	0.000000	0.000000	-1825.81	897.42
3	GUIDE	used	1054605656	9.10	14712	0.049	-0.077	0.115	0.186	26.062672	-50.099227	-989.02	1823.64
4	GUIDE	used	1054605872	7.70	14753	0.365	0.428	0.088	0.131	25.944914	-50.641262	617.56	683.81
5	GUIDE	used	1054610408	9.73	14701	-0.153	-0.267	0.183	0.296	25.711437	-50.205087	-1023.57	928.82
6	GUIDE	used	1054611936	9.44	14748	-0.031	0.080	0.115	0.183	25.414053	-50.529123	-297.09	-210.74
7	GUIDE	used	1054612008	10.11	14441	-0.242	-0.114	0.356	0.534	25.448653	-50.965805	1138.67	-855.60

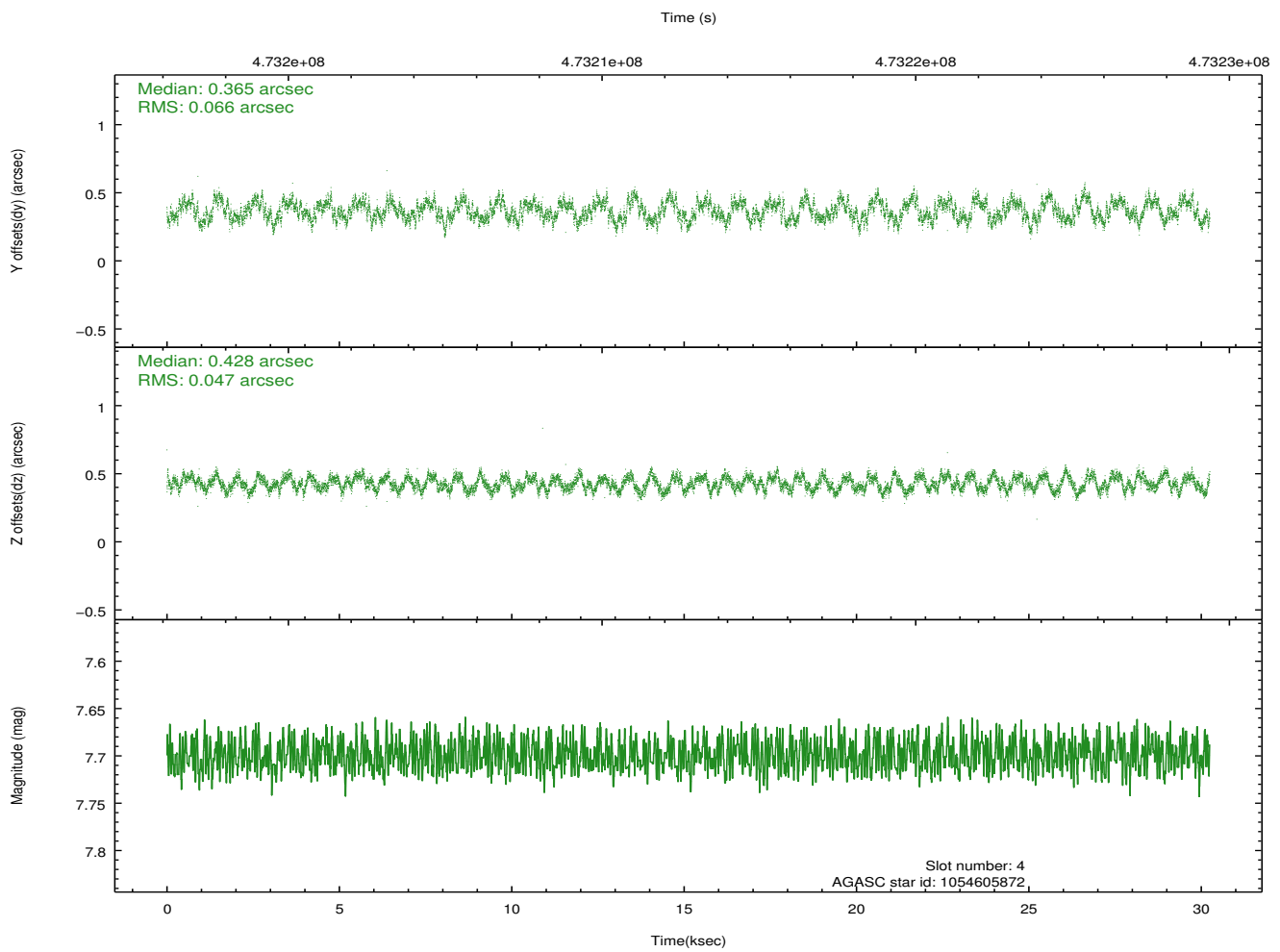
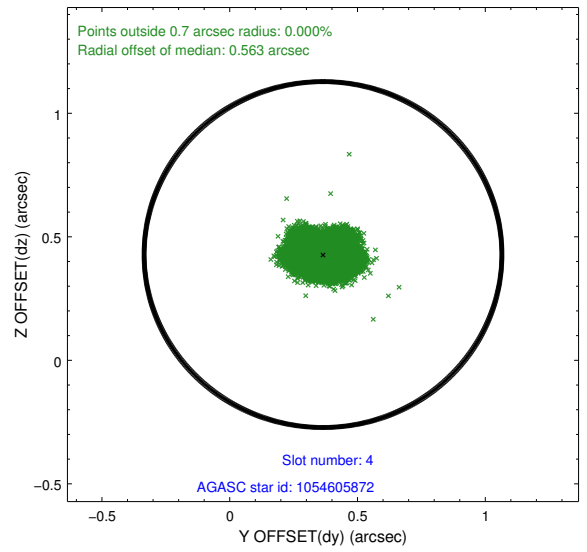
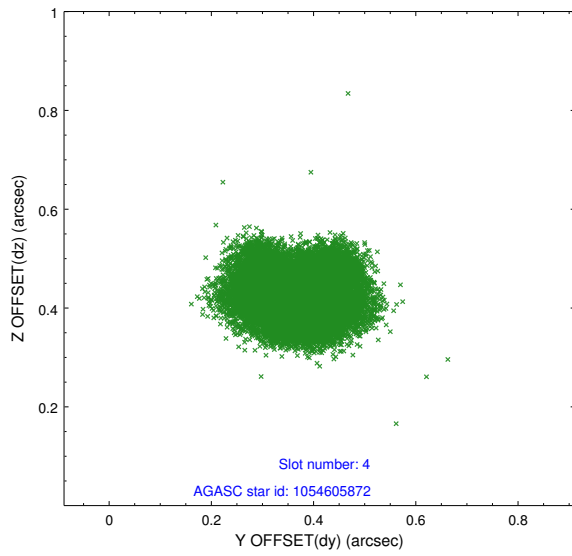
∞

2.4 Star Slots

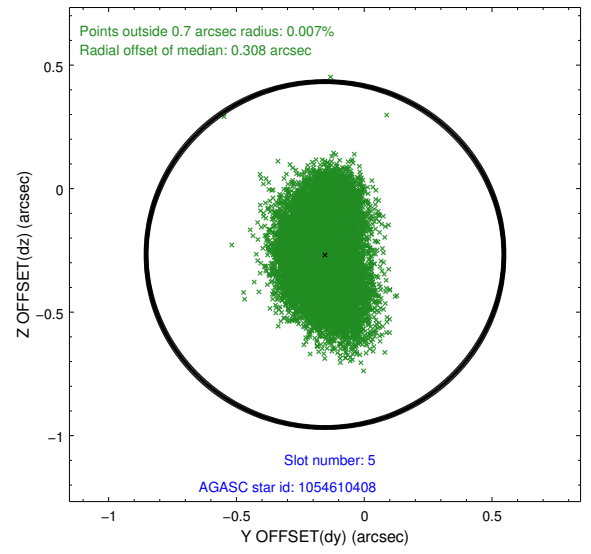
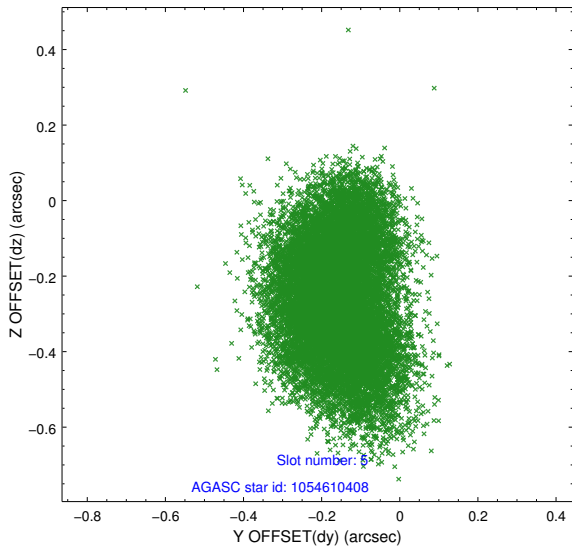
2.4.1 Slot 3



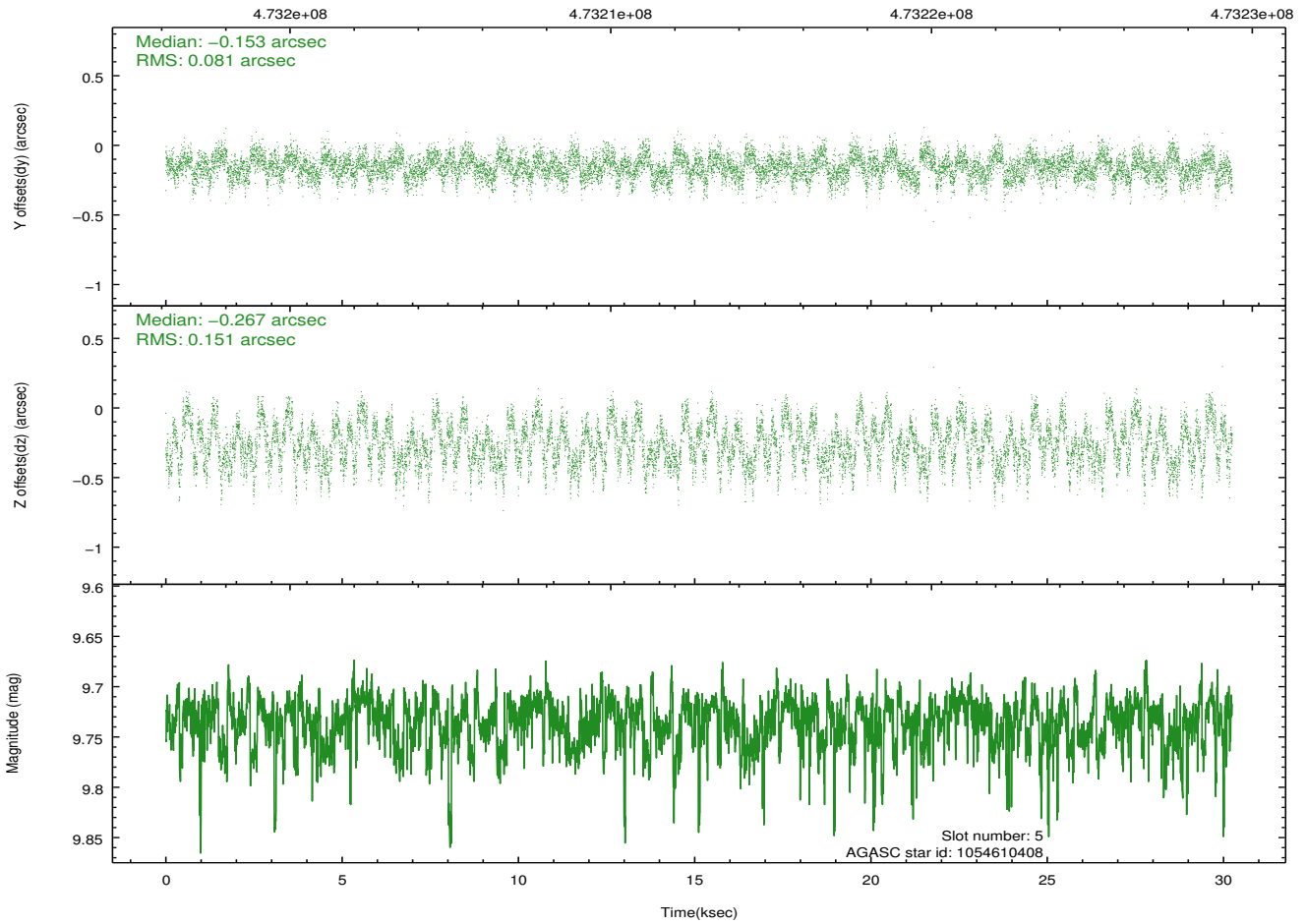
2.4.2 Slot 4



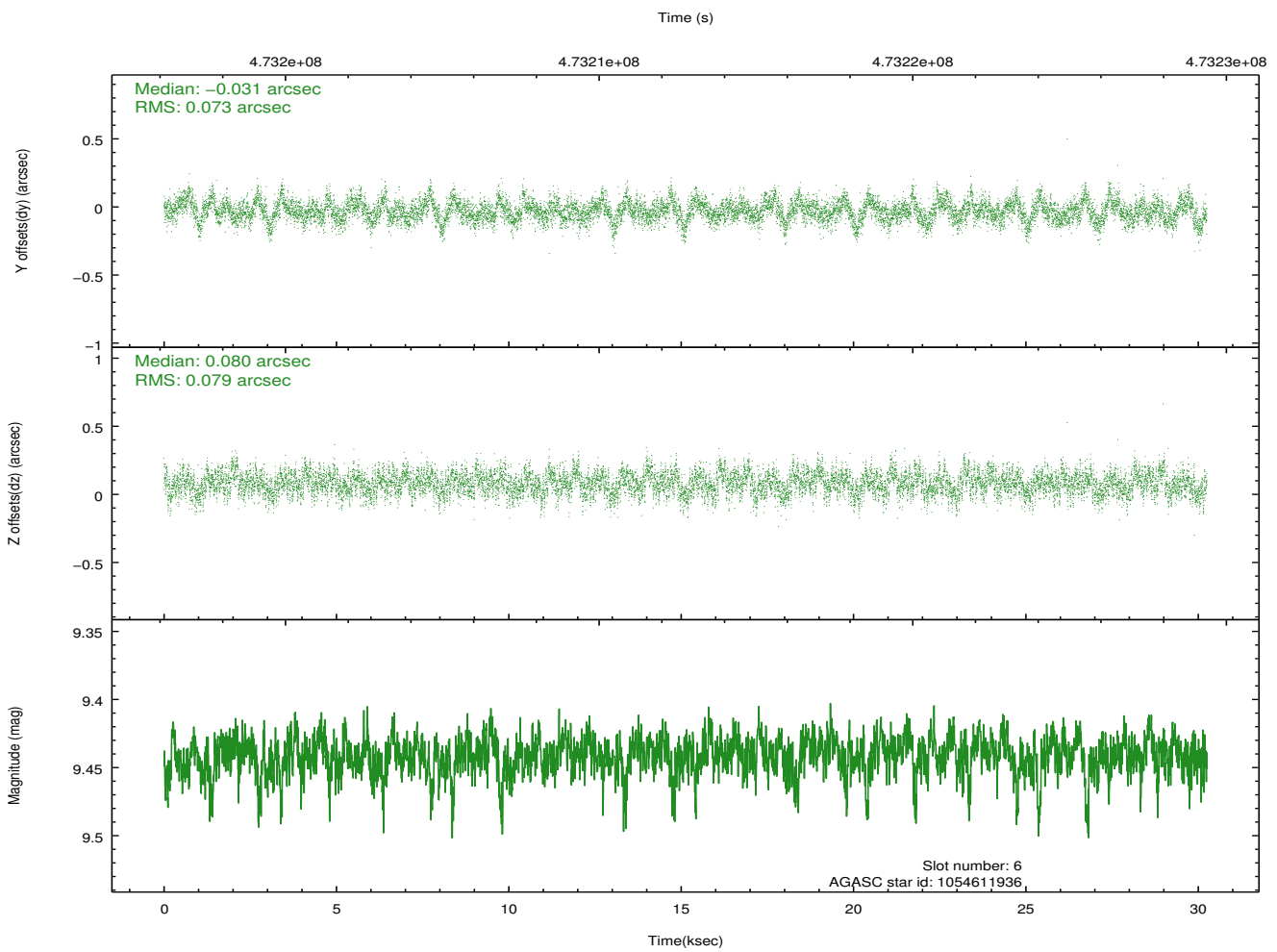
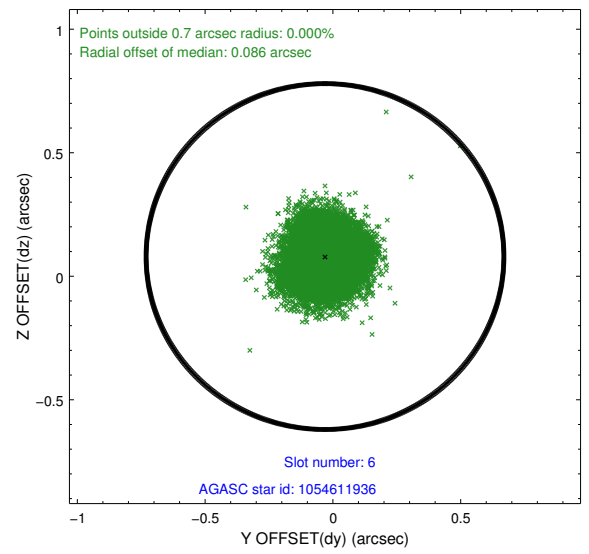
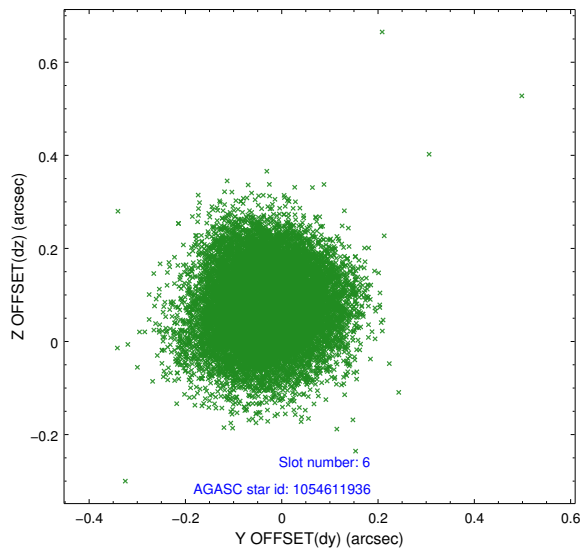
2.4.3 Slot 5



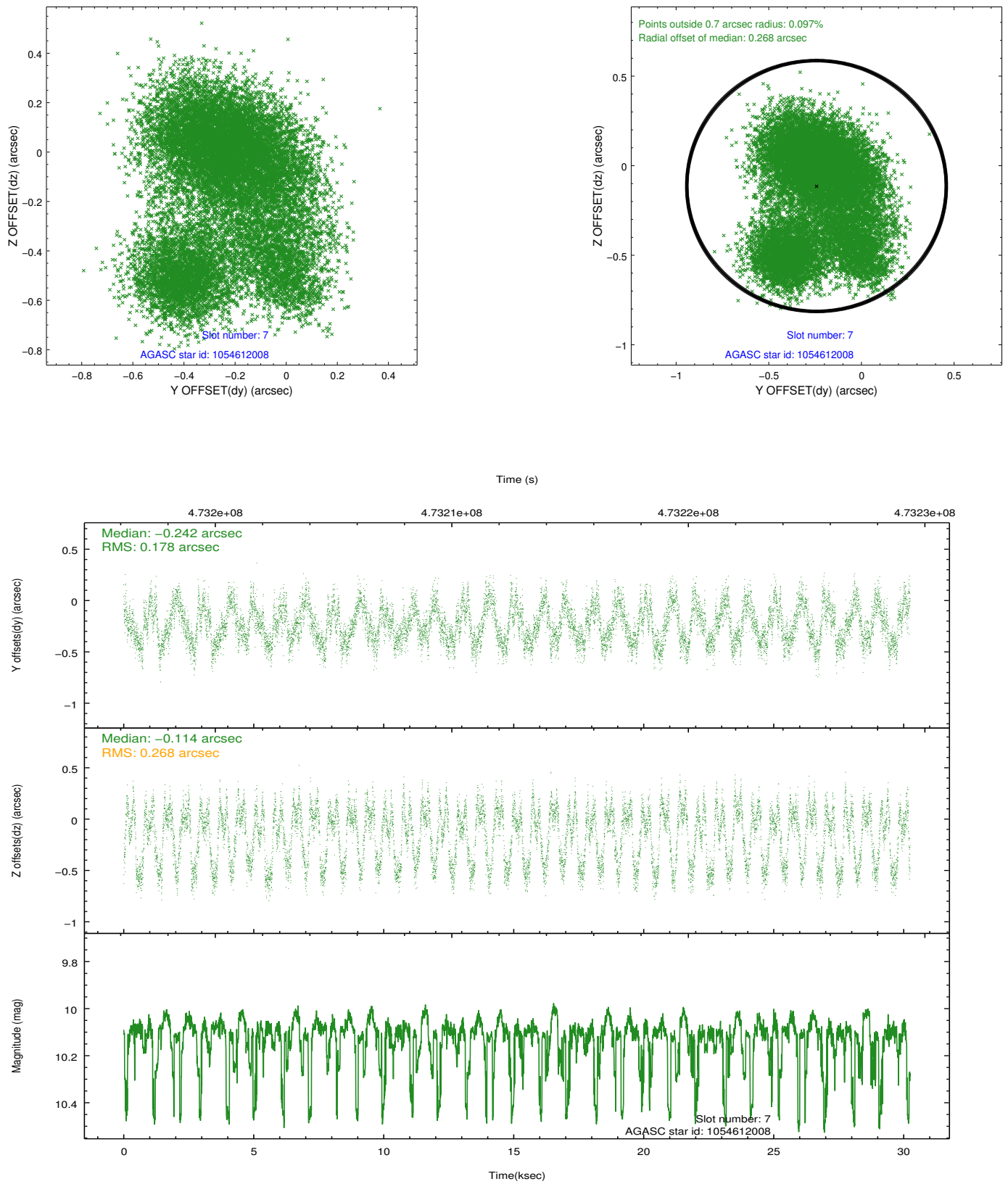
Time (s)



2.4.4 Slot 6

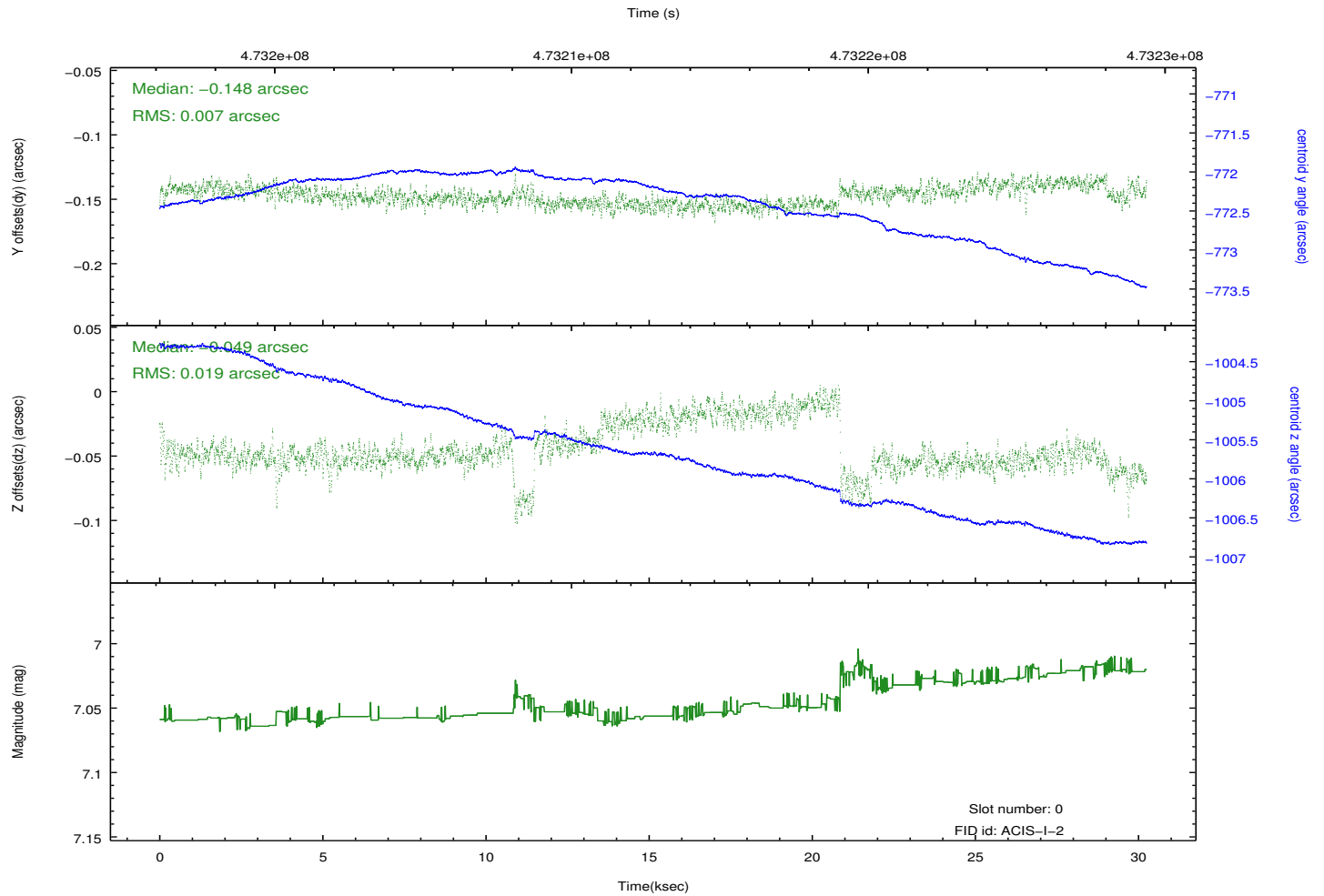
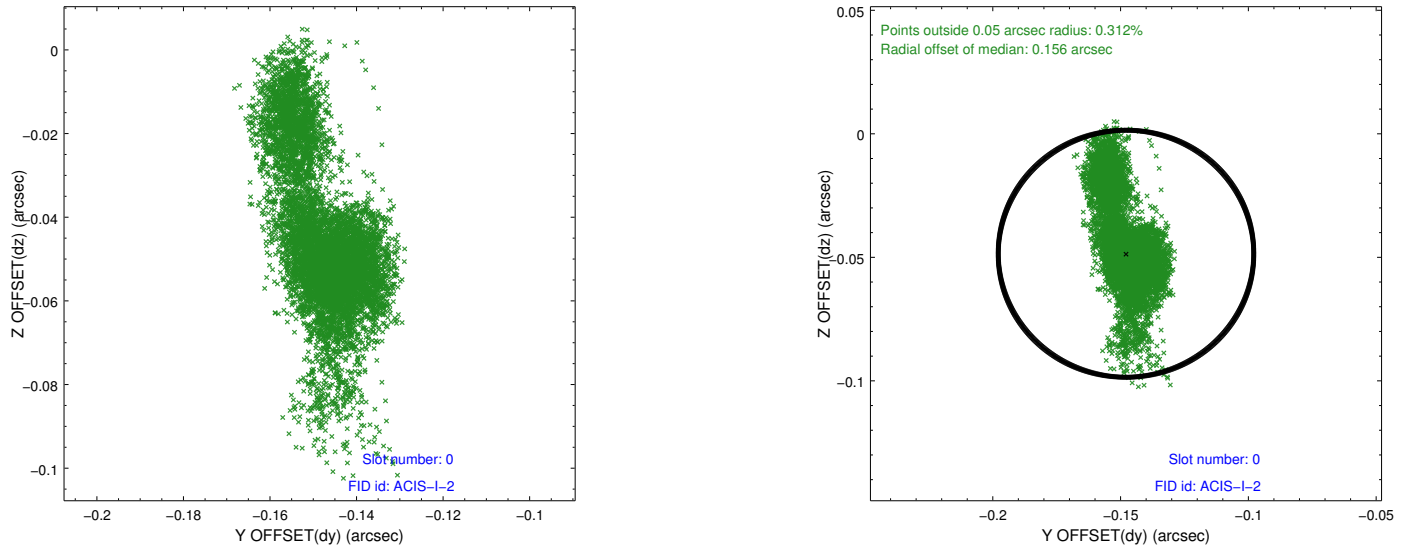


2.4.5 Slot 7

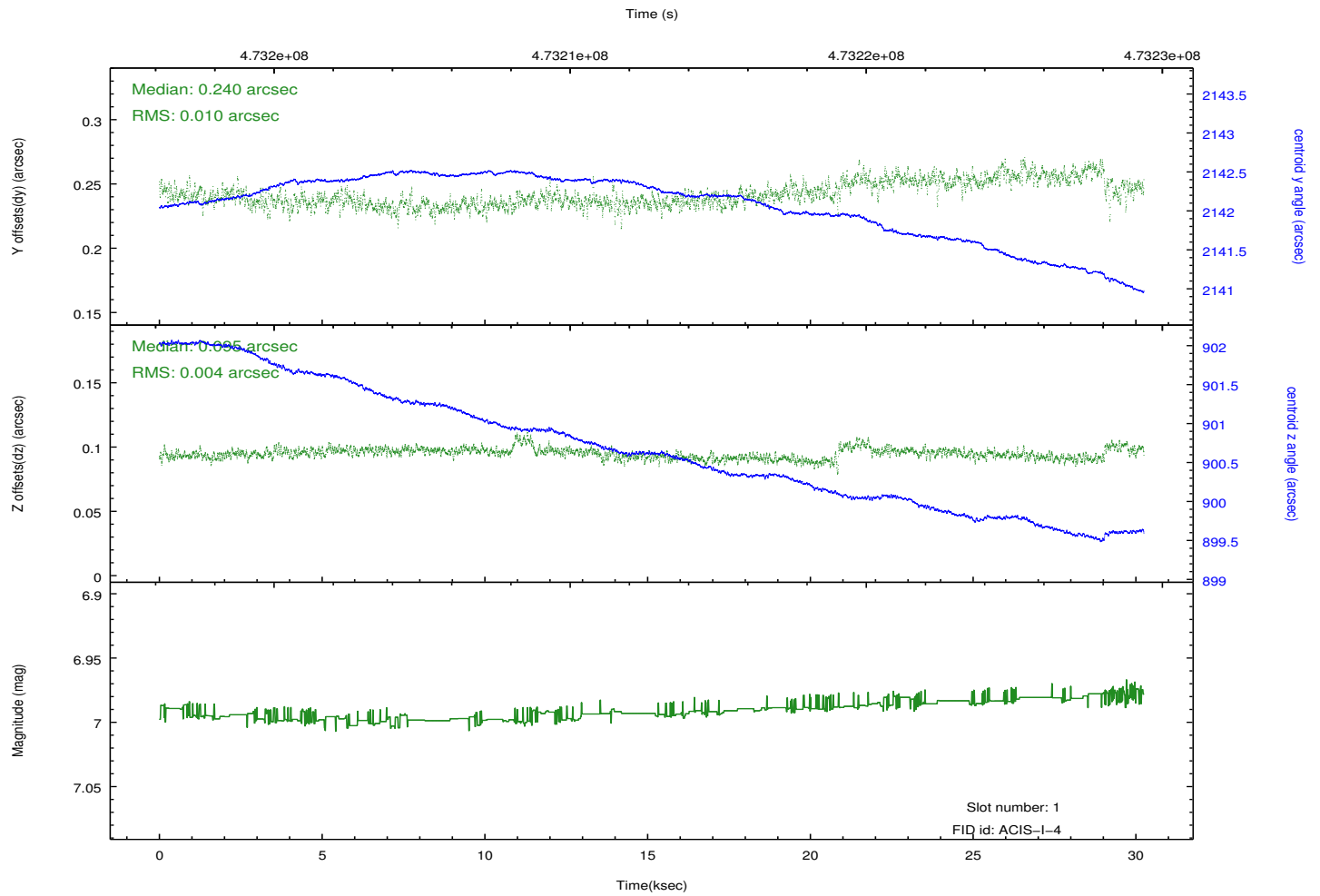
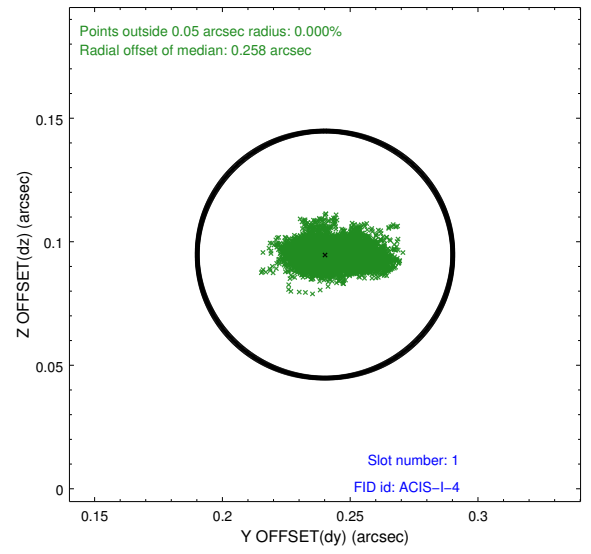
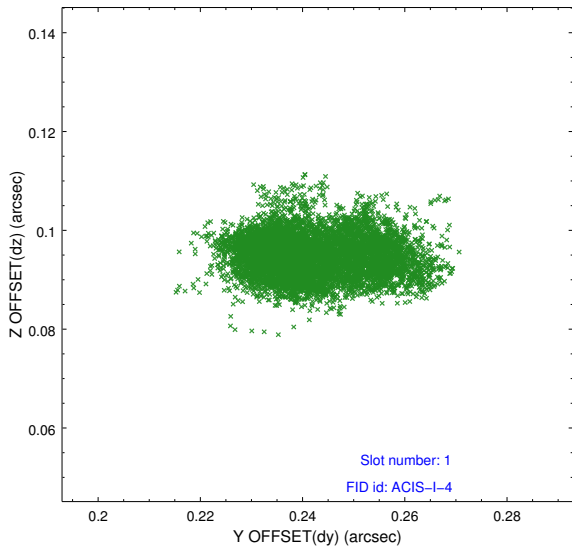


2.5 FID Slots

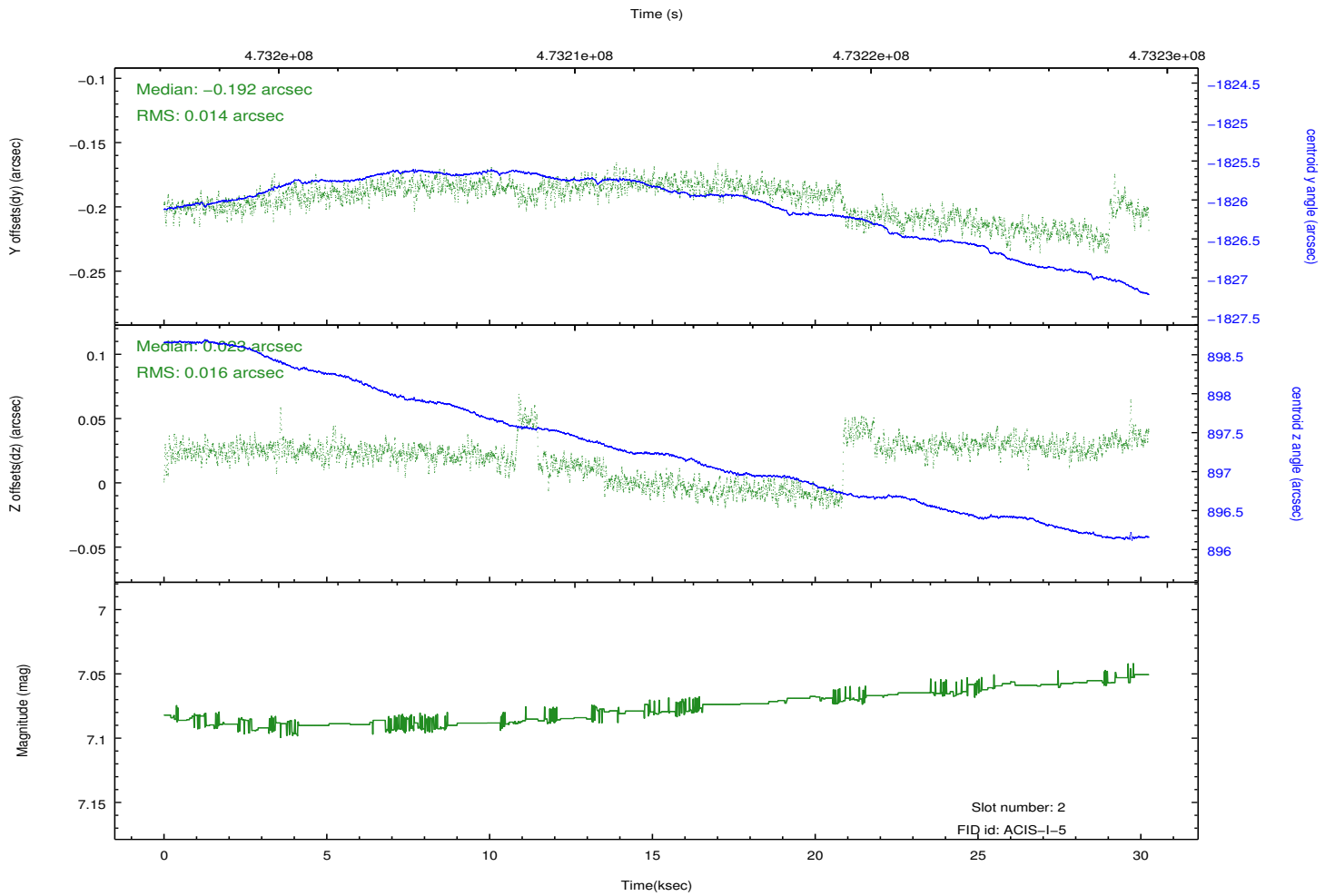
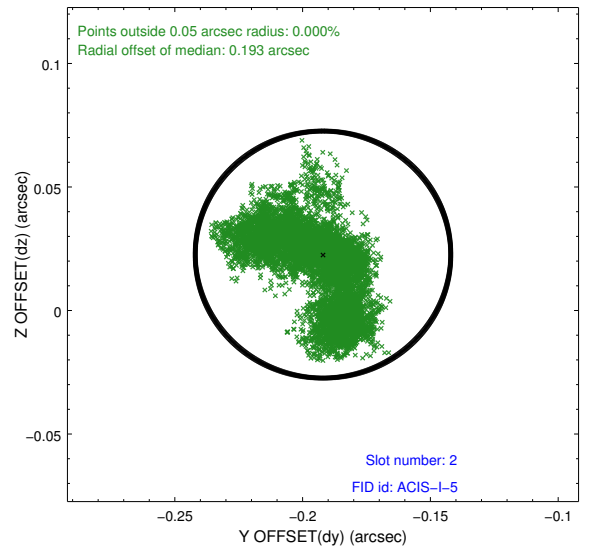
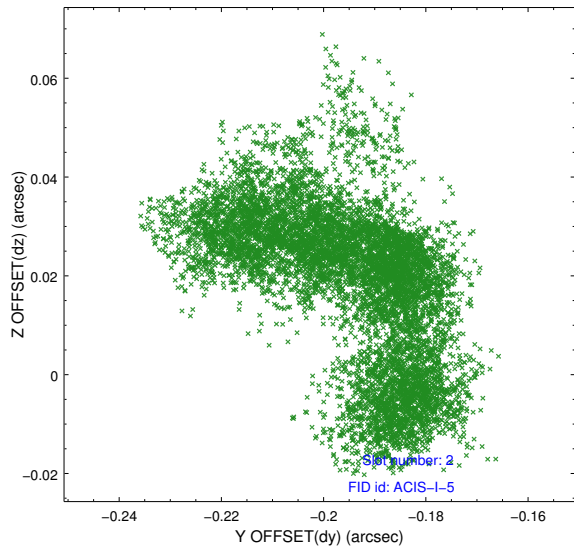
2.5.1 Slot 0



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	29.481000226736

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.