

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 13482 - L2 Version 2
Chandra X-Ray Center

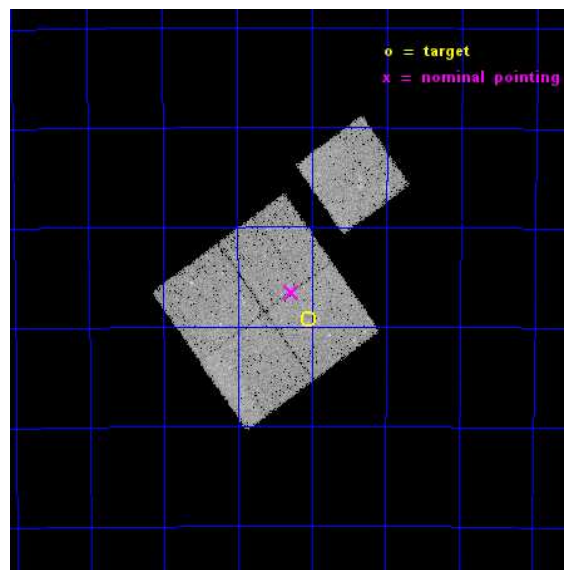
L2 Processing Date : Nov 28 2014

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

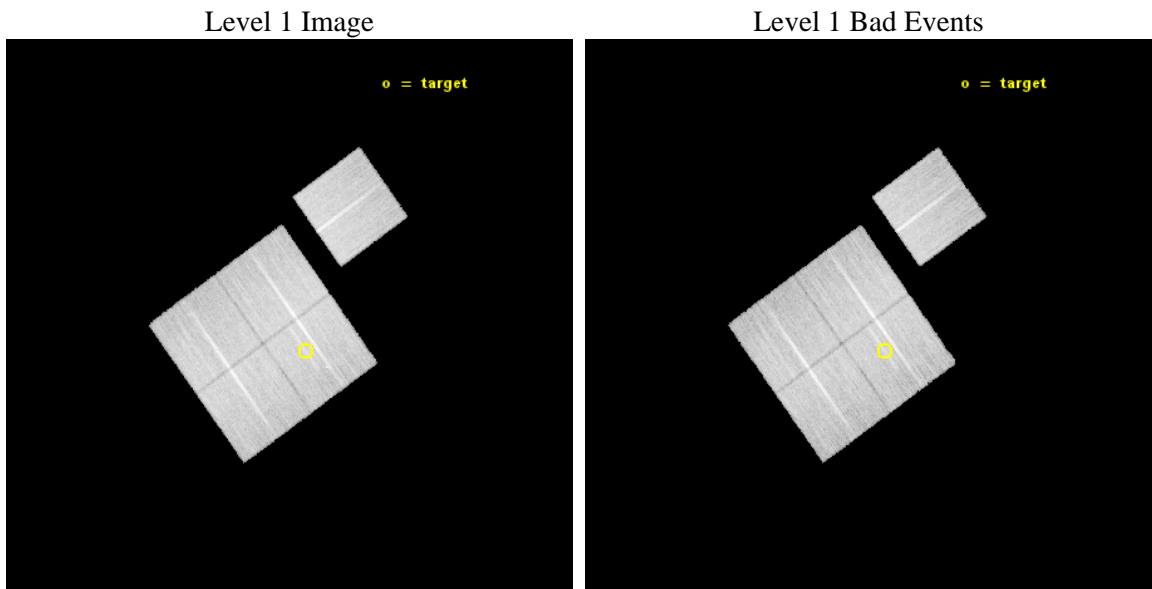
seq_num	801123	Sequence number
obs_id	13482	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg ² from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ0446-5849	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	71.510833	Observer's specified target RA [deg]
dec_targ	-58.8215	Observer's specified target Dec [deg]
ra_nom	71.568704363889	Nominal RA [deg]
dec_nom	-58.776066086942	Nominal Dec [deg]
roll_nom	54.258177589664	Nominal Roll [deg]
revision	2	Processing version of data
ontime	33380.759286404	Sum of GTIs [s]
livetime	32944.615091769	Livetime [s]
ontime0	33383.900256753	Sum of GTIs [s]
ontime1	33383.900256753	Sum of GTIs [s]
ontime2	33377.618355632	Sum of GTIs [s]
ontime3	33380.759286404	Sum of GTIs [s]
ontime6	33383.885565281	Sum of GTIs [s]
l2events	84821	Number of level 2 events



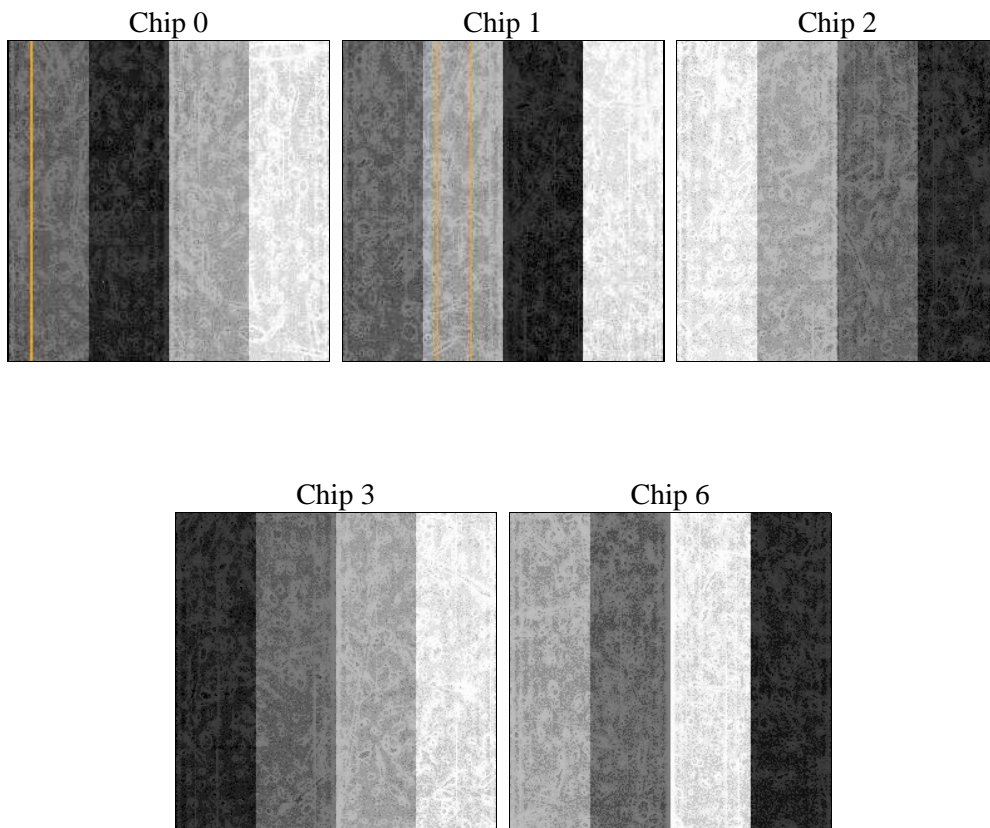
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	33300.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	33380.759286404	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	33383.900256753	Sum of GTIs [s]
date	2014-11-28T10:20:19	Date and time of file creation	ontime1	33383.900256753	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	33377.618355632	Sum of GTIs [s]
			ontime3	33380.759286404	Sum of GTIs [s]
			ontime6	33383.885565281	Sum of GTIs [s]
			l1events	809286	Number of level 1 events

2.1.4 Events

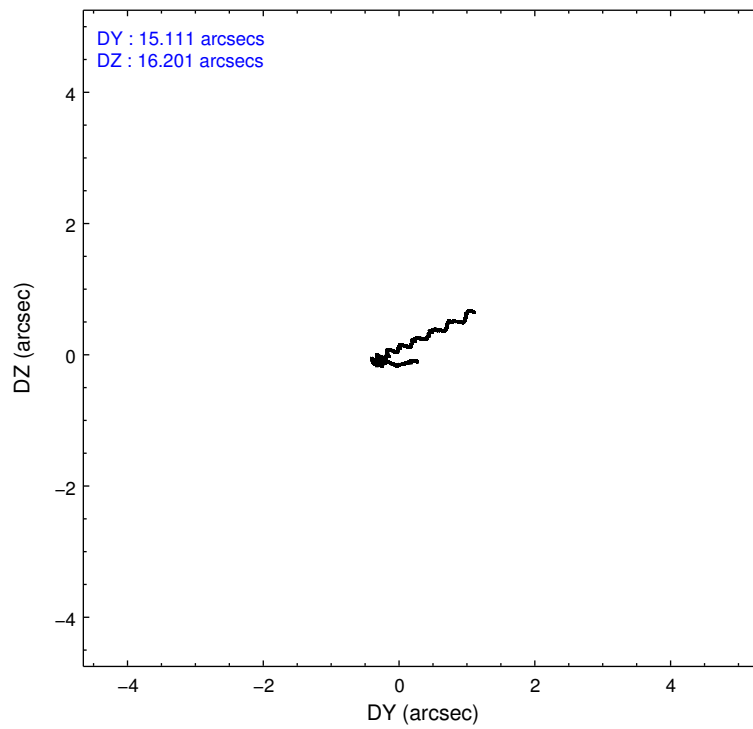
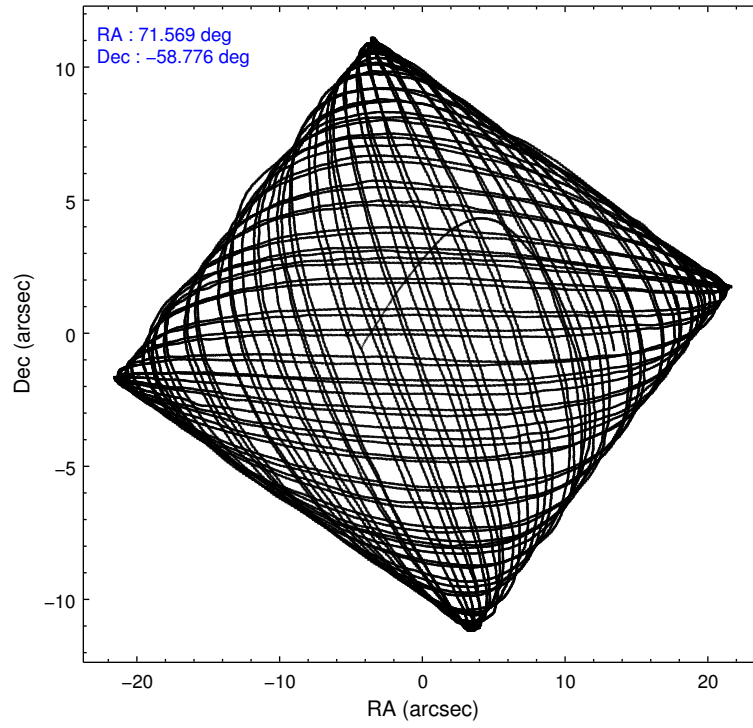
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	152098	158196	166298	166929	165765
rejected events	132352	136276	147043	147611	145625
rejected %	87%	86%	88%	88%	87%

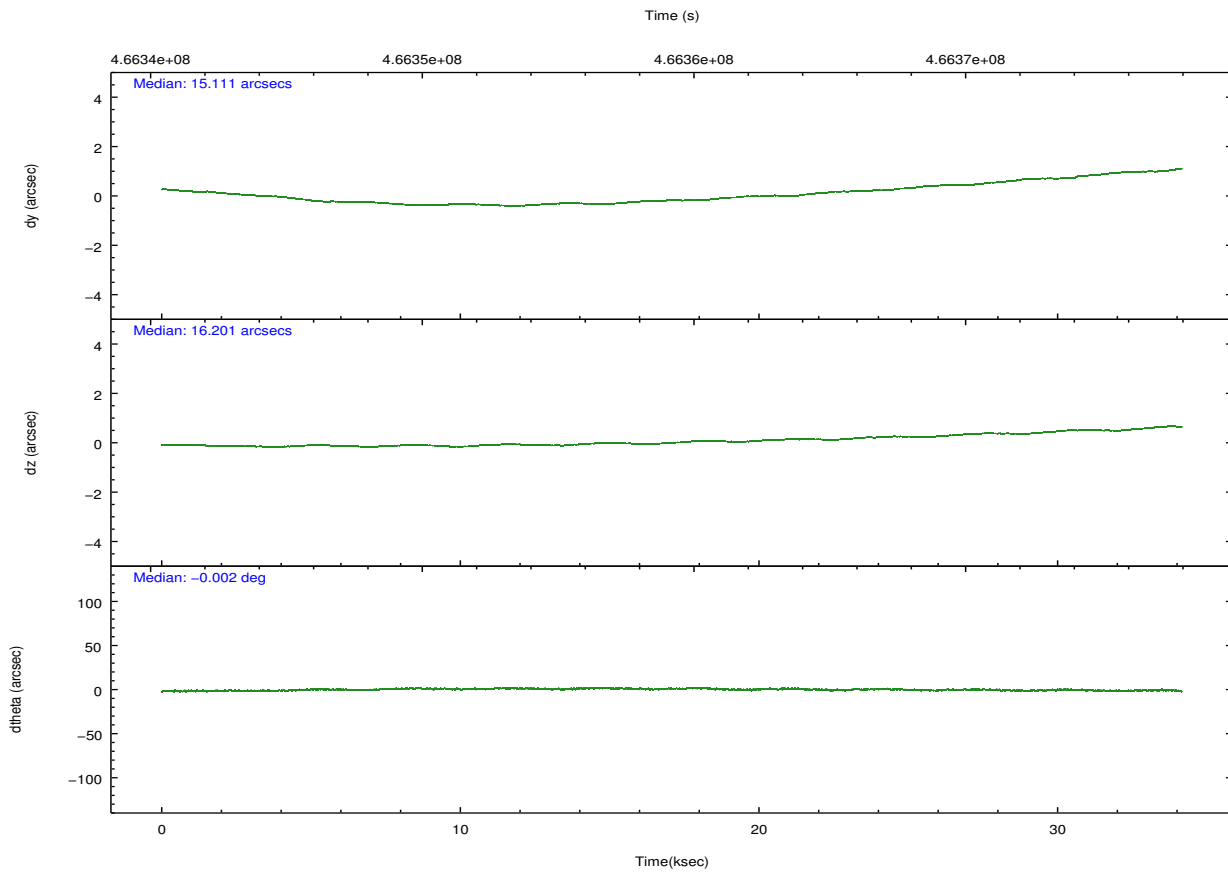
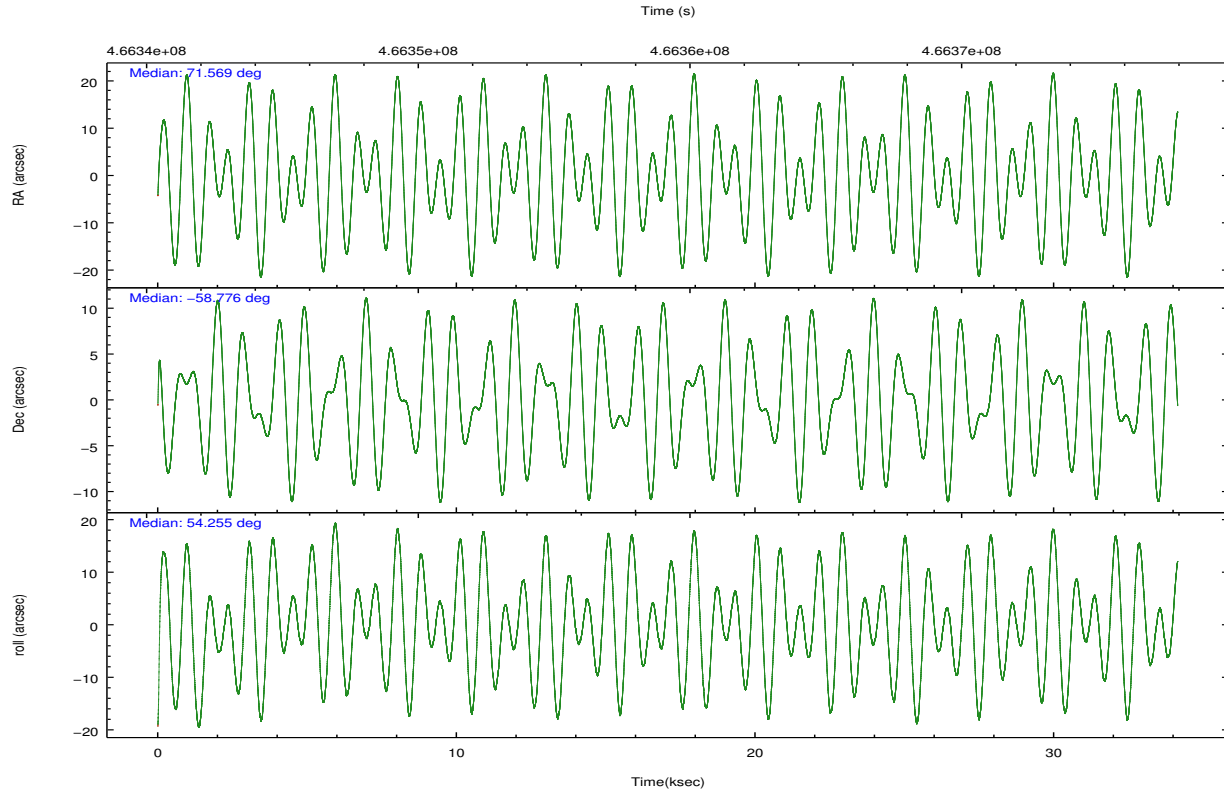
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	6837	7548	6743	7072	7024
	4%	4%	4%	4%	4%
grade 1 events	84	88	100	98	85
	0%	0%	0%	0%	0%
grade 2 events	4851	5335	4754	4157	4551
	3%	3%	2%	2%	2%
grade 3 events	2137	2185	1949	2102	2135
	1%	1%	1%	1%	1%
grade 4 events	1872	2196	1965	2033	2051
	1%	1%	1%	1%	1%
grade 5 events	7705	8205	7437	8689	8318
	5%	5%	4%	5%	5%
grade 6 events	4052	4658	3846	3957	4387
	2%	2%	2%	2%	2%
grade 7 events	124560	127981	139504	138821	137214
	81%	80%	83%	83%	82%

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	71.563590	71.56870436388908	CCD I2 on	Y	Y
[deg] Pointing Dec	-58.803449	-58.77606608694207	CCD I3 on	Y	Y
[deg] Pointing Roll	54.045126	54.2581775896638	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)	466342966.184000	466341310.16243	CCD S5 on	N	N
Observation start date	2012-10-11T11:41:39	2012-10-11T11:15:10	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	466376266.184000	466376898.16434	On-chip summing requested	N	N
Observation end date	2012-10-11T20:56:39	2012-10-11T21:08:18	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





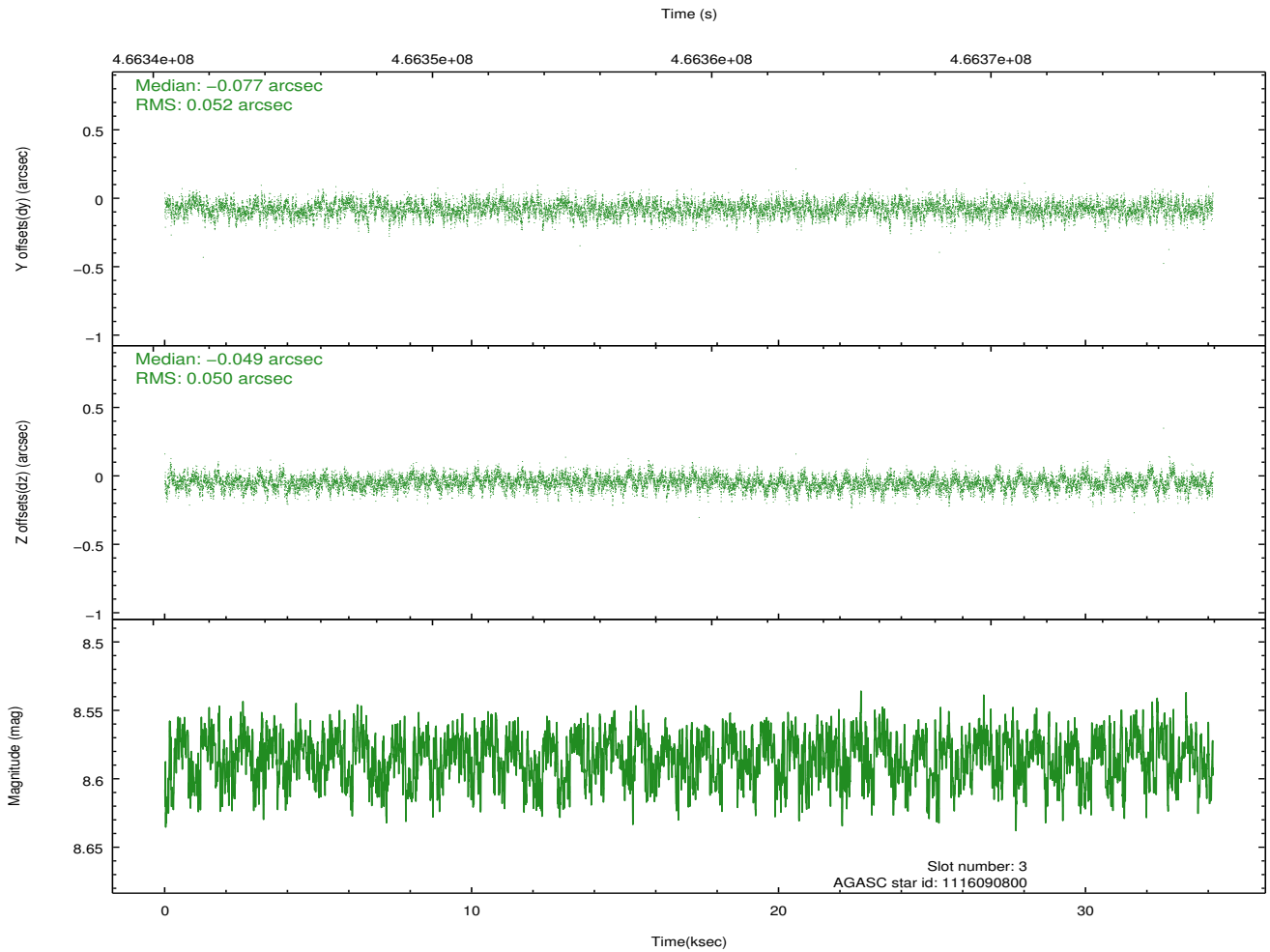
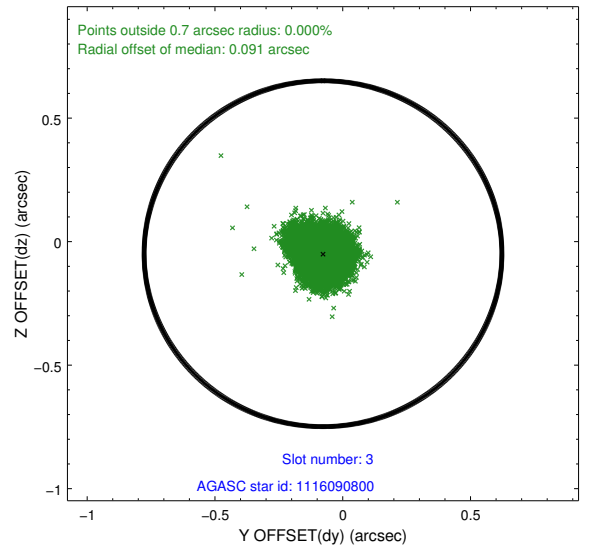
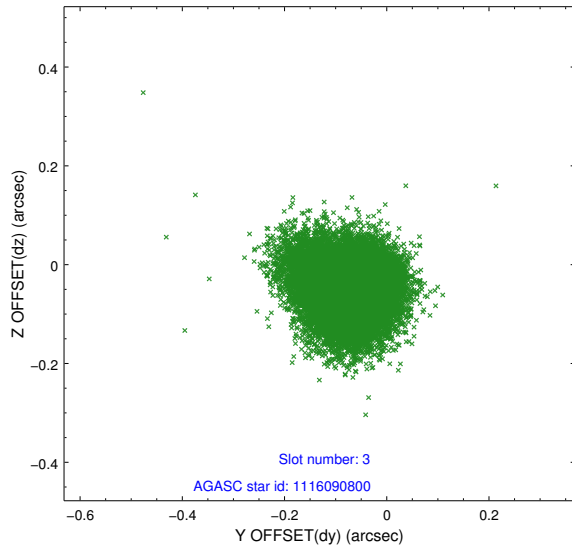
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.11	8329	0.170	-0.135	0.011	0.017	0.000000	0.000000	924.28	-999.14
1	FID		ACIS-I-5	7.11	8326	-0.330	0.127	0.013	0.020	0.000000	0.000000	-1824.32	898.55
2	FID		ACIS-I-6	7.12	8329	0.074	0.078	0.016	0.028	0.000000	0.000000	389.65	1543.08
3	GUIDE	used	1116090800	8.58	16652	-0.077	-0.049	0.076	0.123	70.863529	-58.789564	-731.58	1082.62
4	GUIDE	used	1116210816	7.26	16657	-0.134	0.015	0.062	0.103	72.529065	-58.801160	1053.98	-1459.76
5	GUIDE	used	1116211872	8.56	16652	0.406	0.161	0.080	0.127	71.953188	-58.361371	1719.37	338.06
6	GUIDE	used	1116213288	8.74	16649	-0.041	-0.045	0.083	0.134	71.629957	-59.225093	-1156.16	-990.00
7	GUIDE	used	1116220824	6.70	16652	-0.156	-0.081	0.066	0.109	71.778596	-59.137085	-739.17	-1026.98

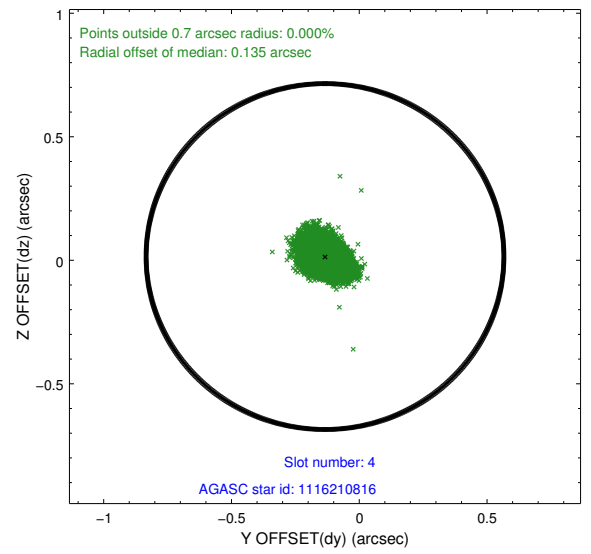
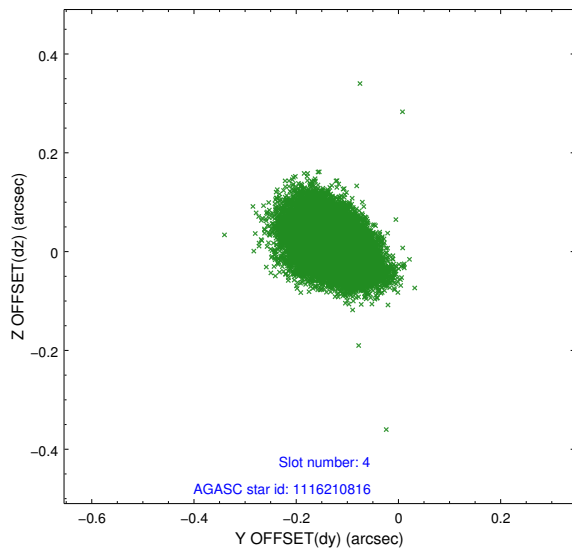
∞

2.4 Star Slots

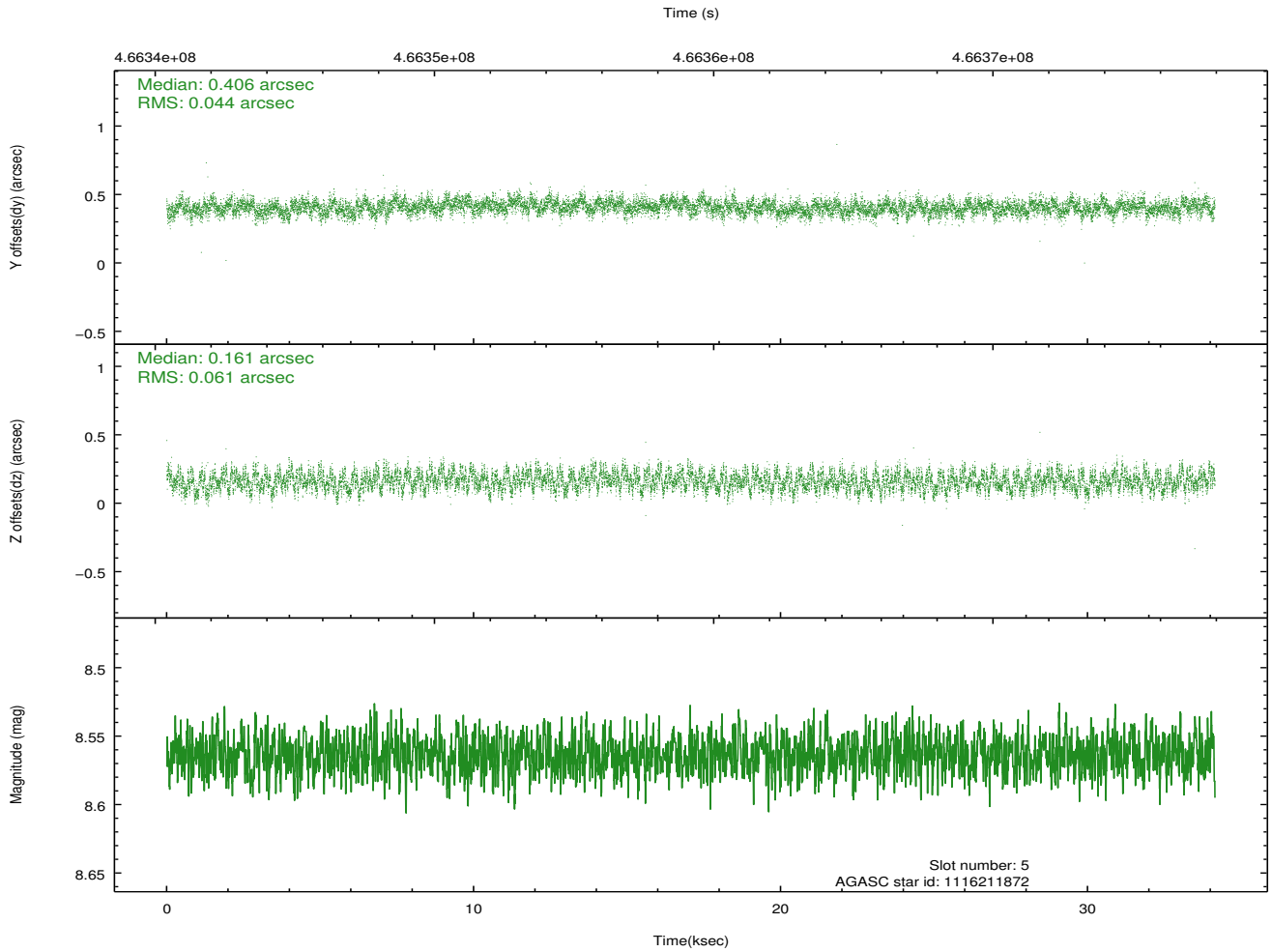
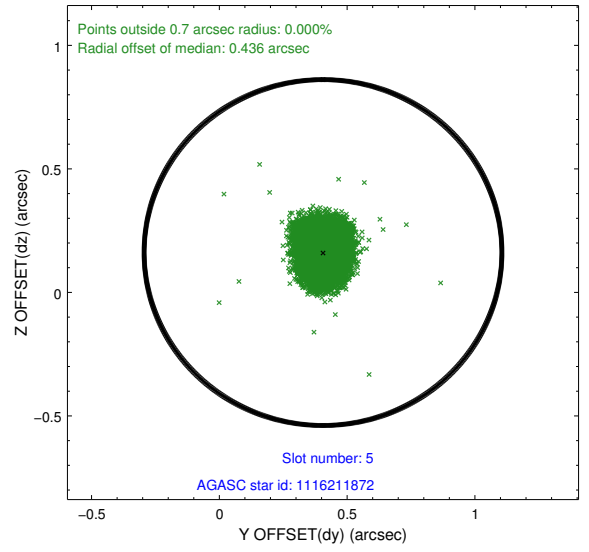
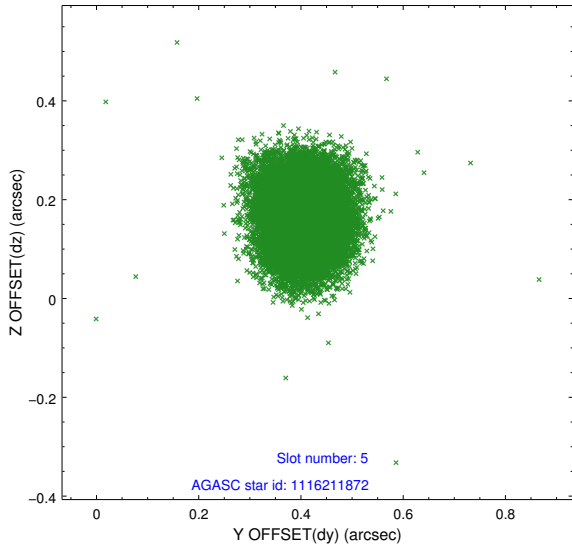
2.4.1 Slot 3



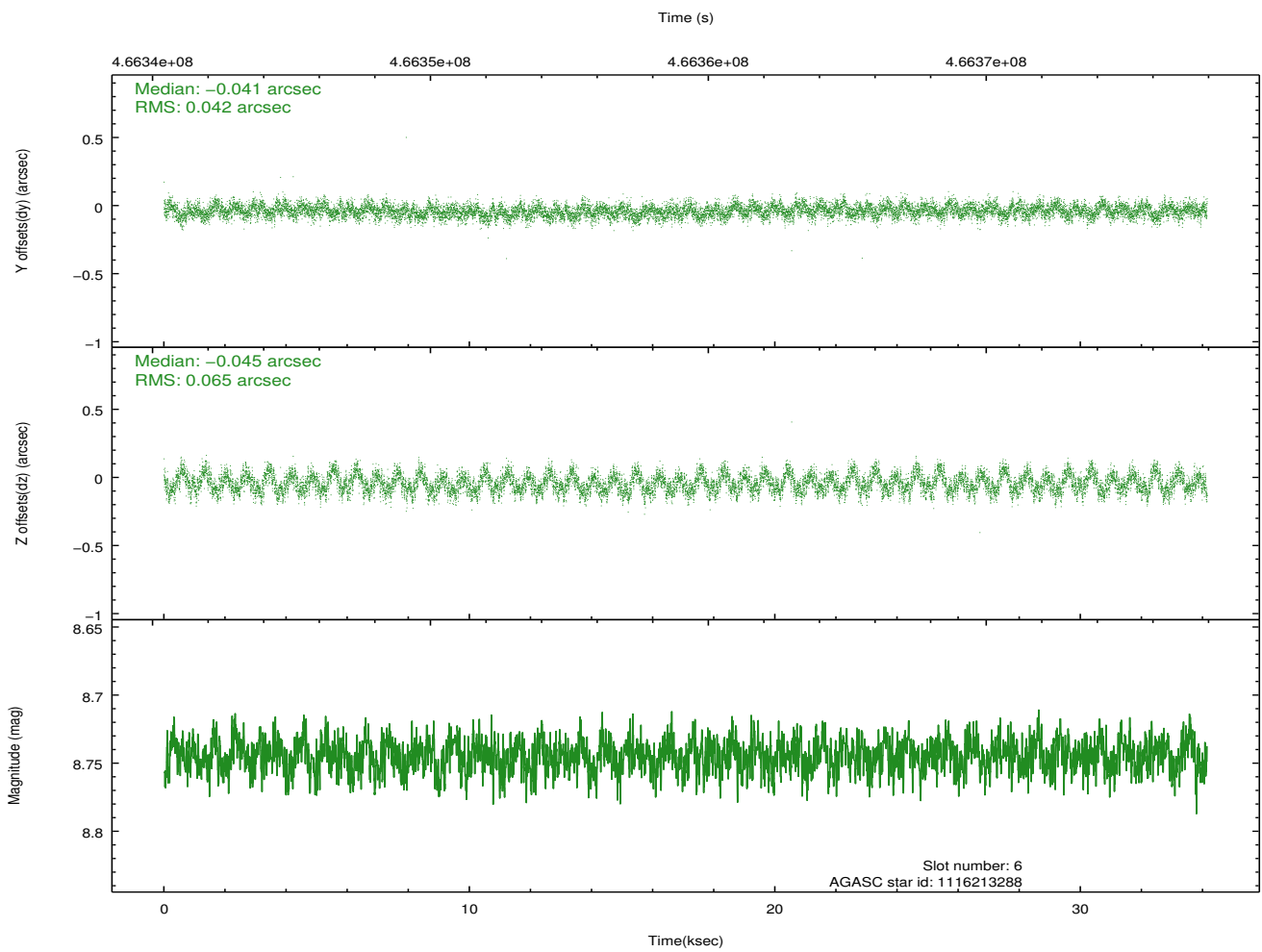
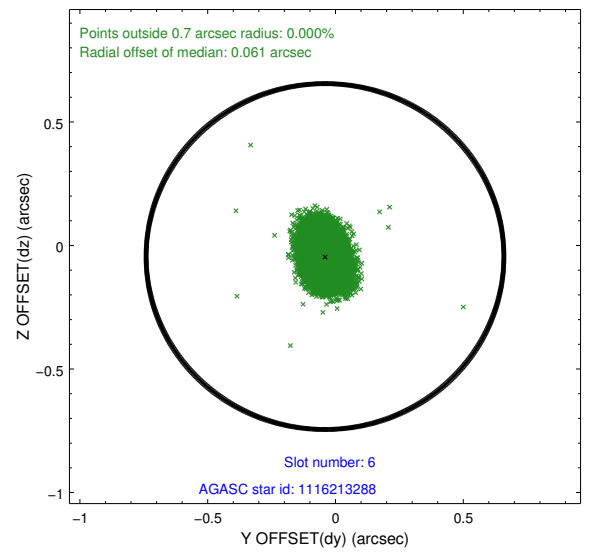
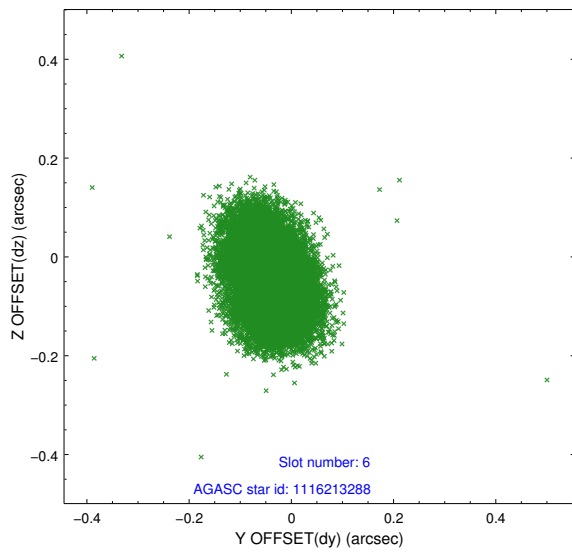
2.4.2 Slot 4



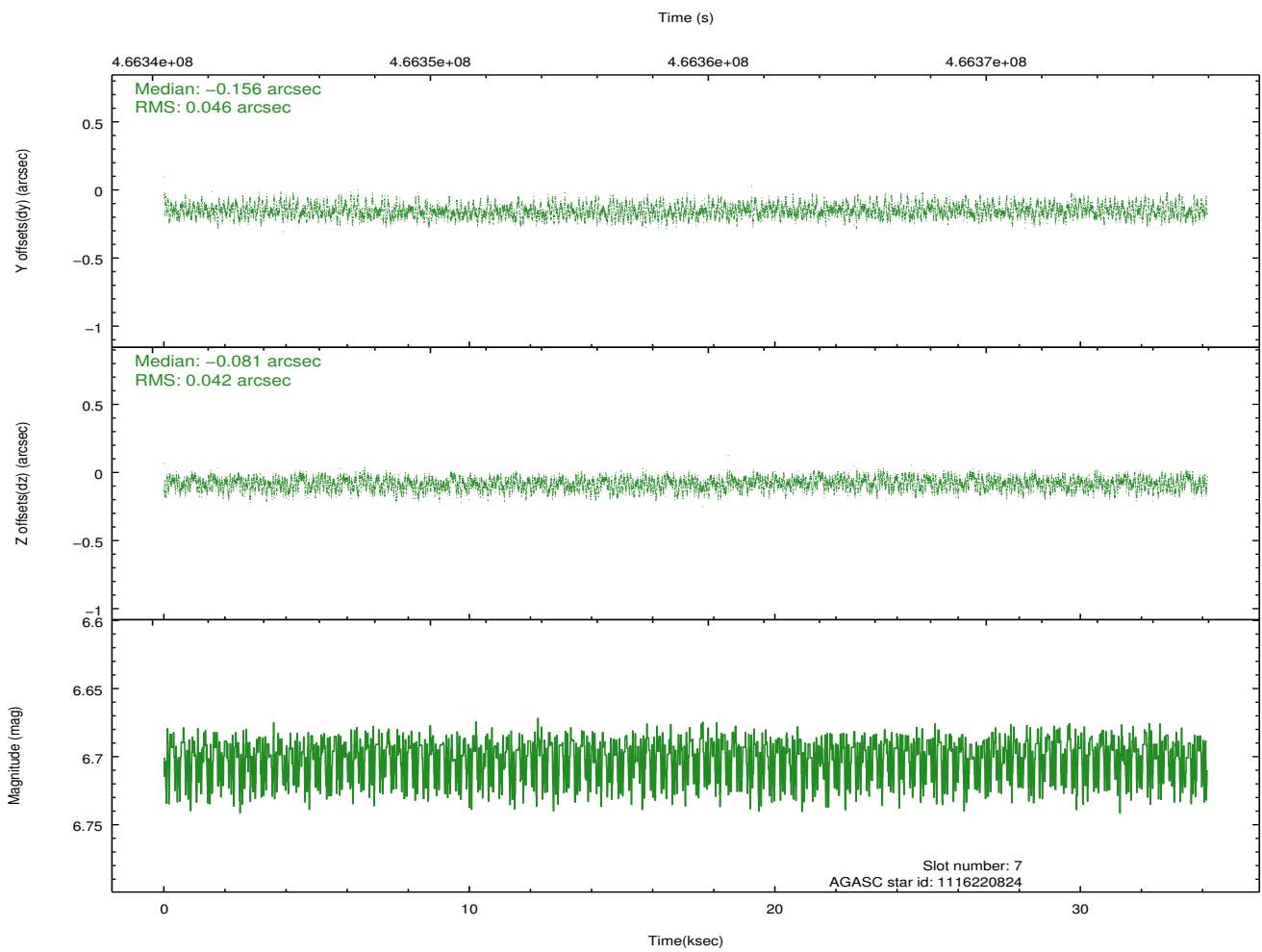
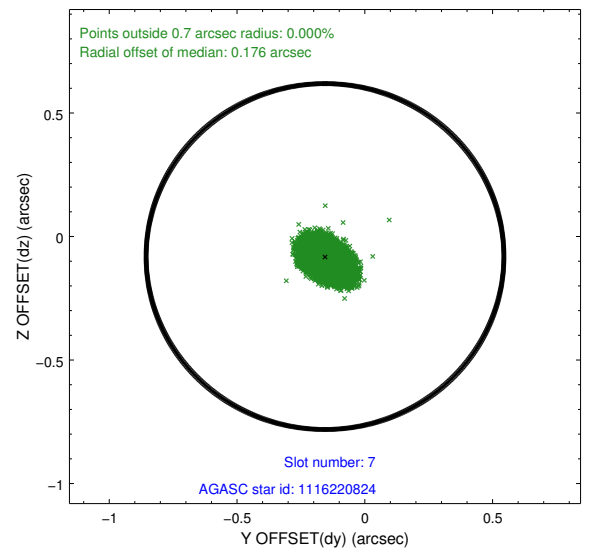
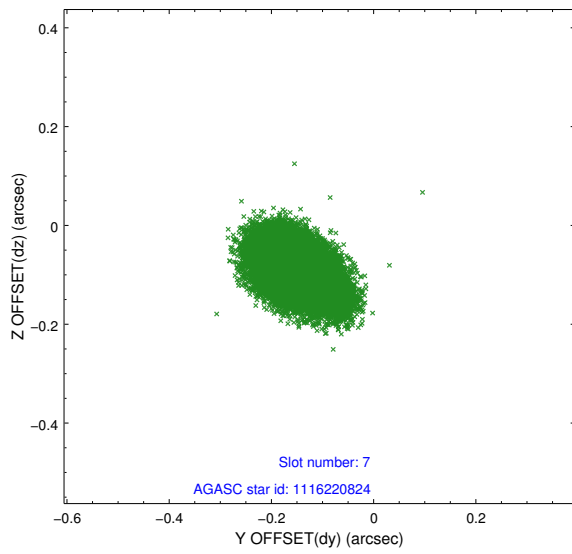
2.4.3 Slot 5



2.4.4 Slot 6

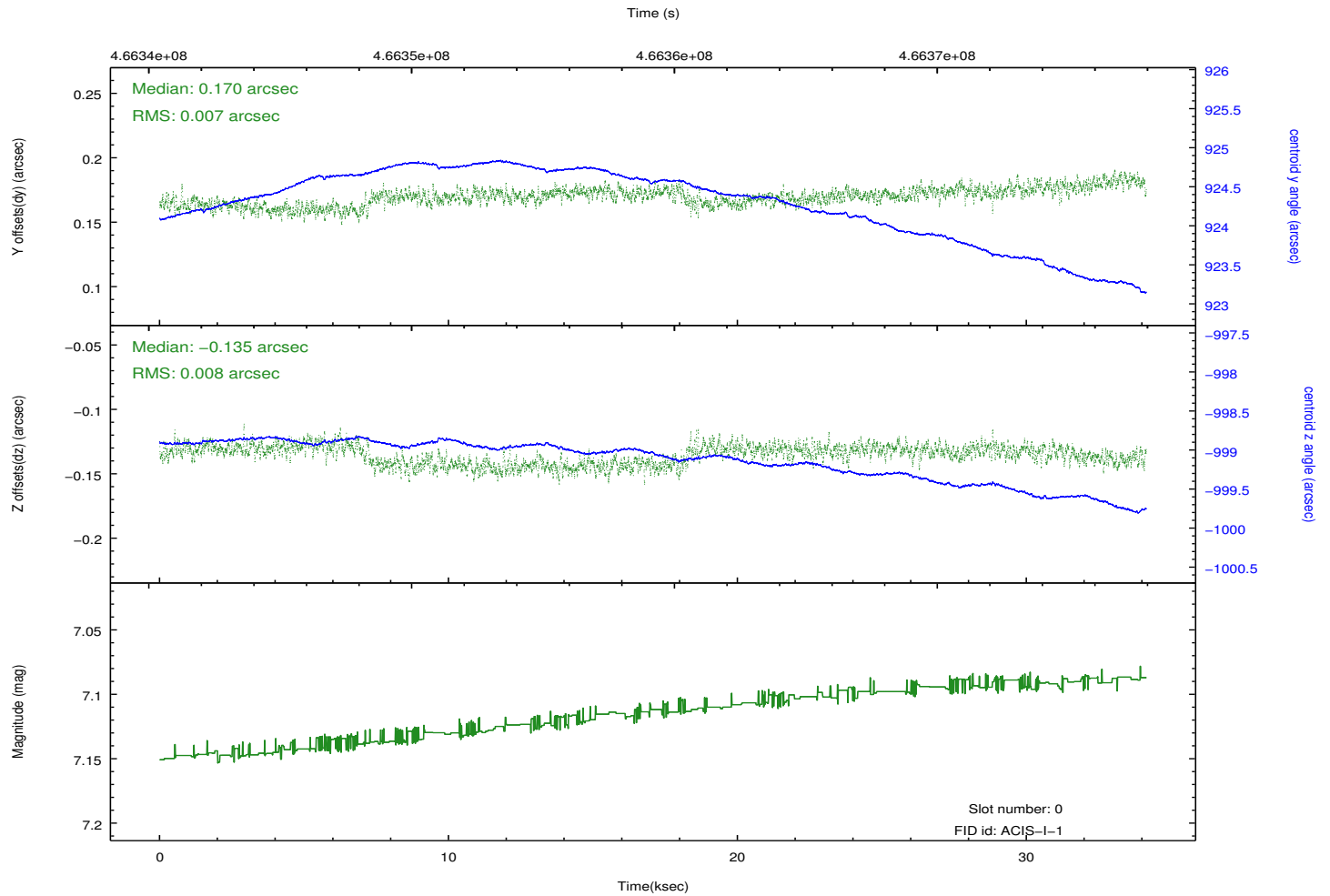
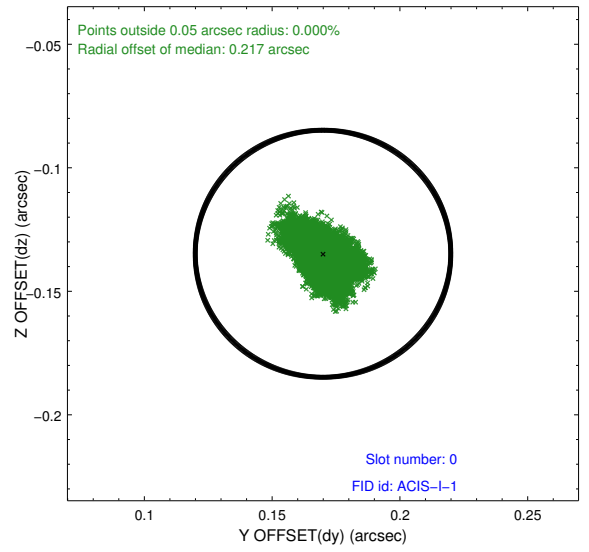
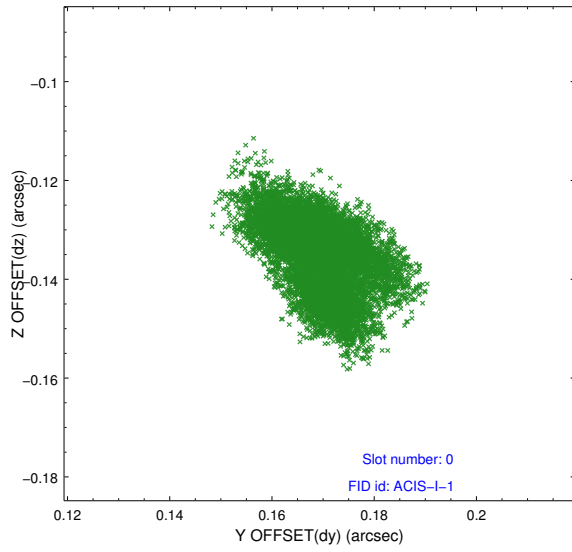


2.4.5 Slot 7

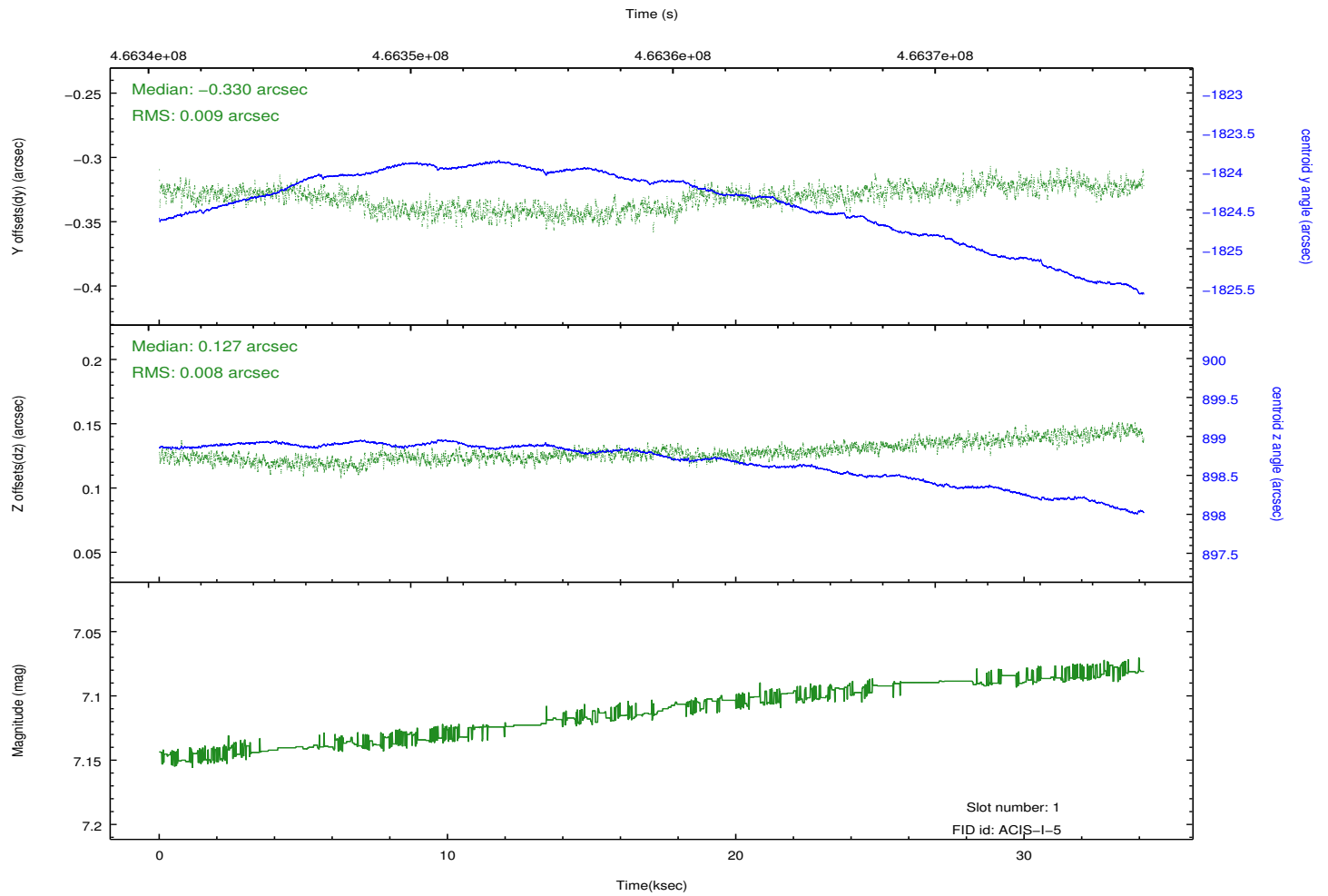
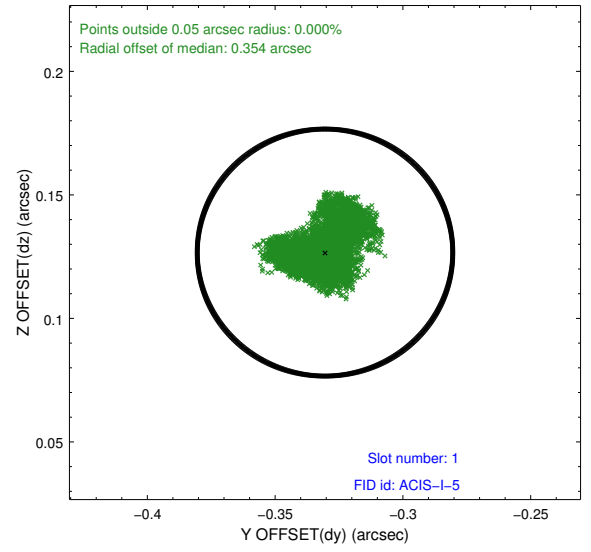
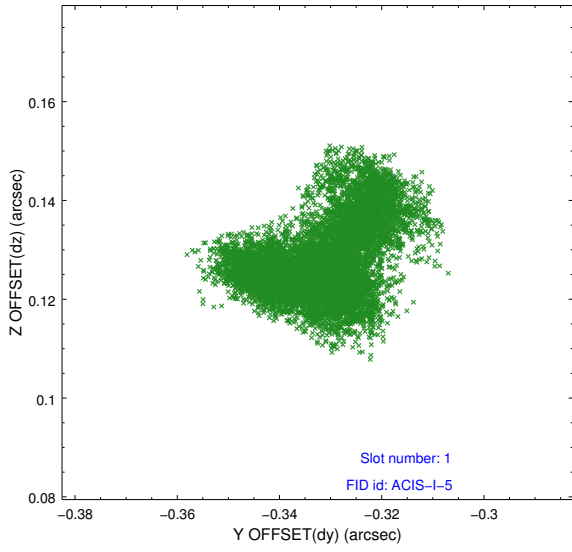


2.5 FID Slots

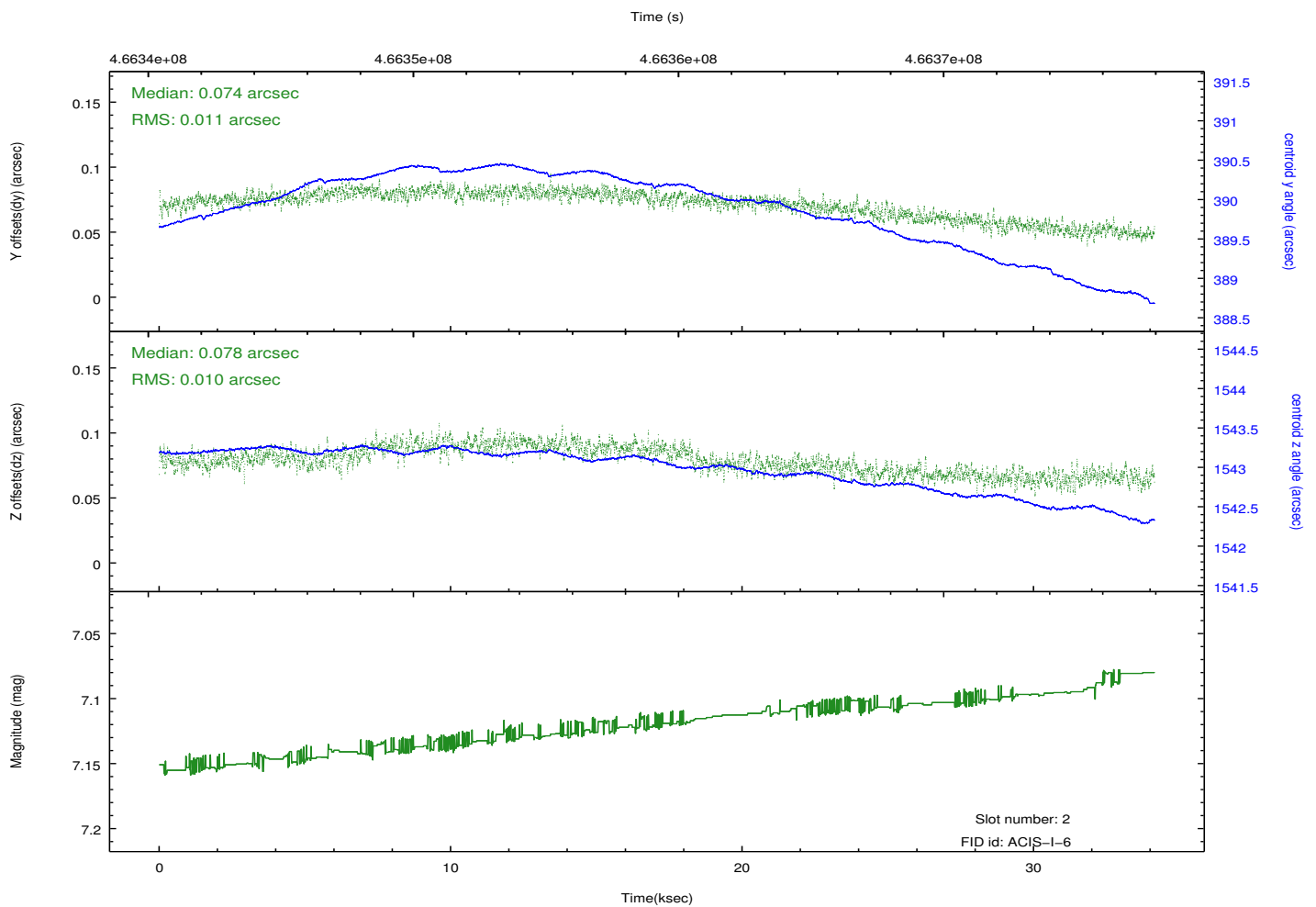
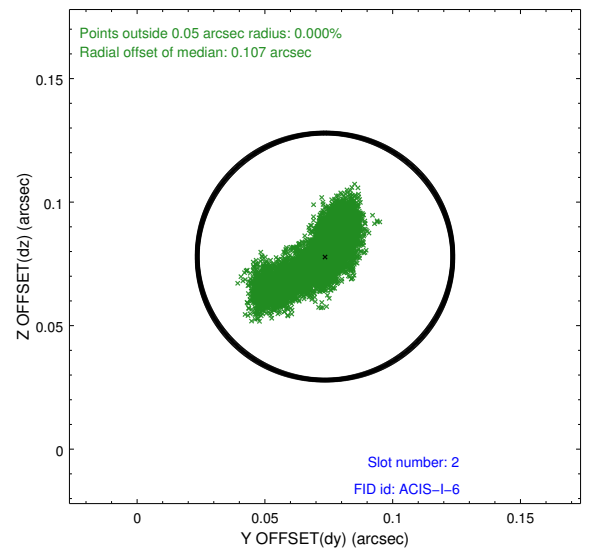
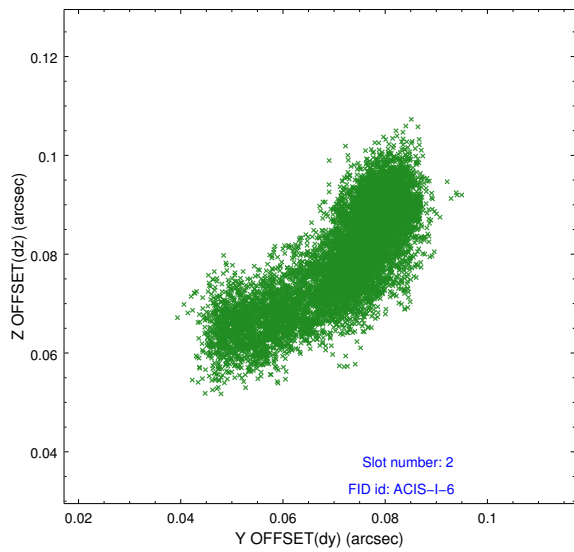
2.5.1 Slot 0



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)	2014.12.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	33.380759286404

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.