

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 9417 - L2 Version 2
Chandra X-Ray Center

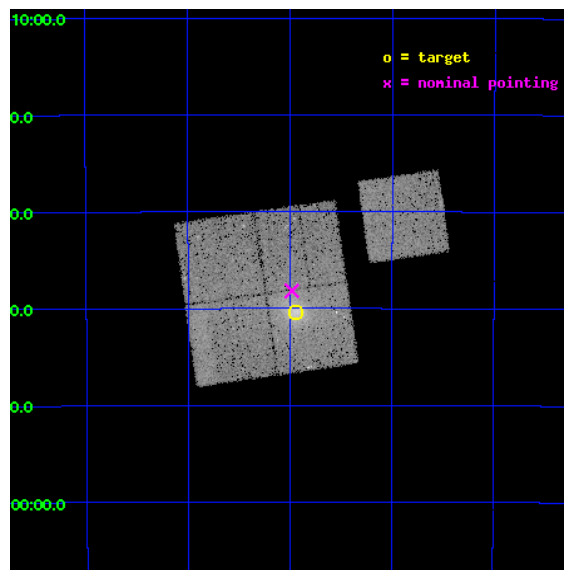
L2 Processing Date : May 21 2012

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1 Front

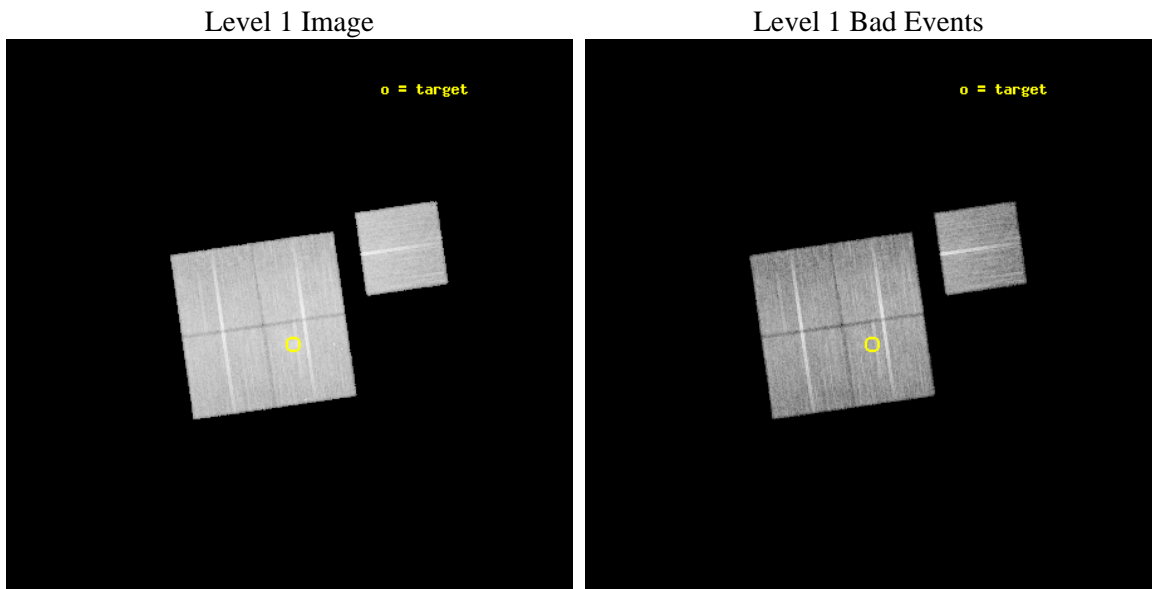
seq_num	800753	Sequence number
obs_id	9417	Observation id
title	LoCuSS: Cluster Mass Comparison with Chandra and HST -- Observational Discrepancy or Agreement in the New Millennium?	Proposal title
observer	Dr Graham Smith	Principal investigator
object	RXCJ0449.9-4440	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	72.485292	Observer's specified target RA [deg]
dec_targ	-44.673361	Observer's specified target Dec [deg]
ra_nom	72.495457969981	Nominal RA [deg]
dec_nom	-44.636327620382	Nominal Dec [deg]
roll_nom	81.815831859974	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20060.100154281	Sum of GTIs [s]
livetime	19798.000177734	Livetime [s]
ontime0	20056.95915401	Sum of GTIs [s]
ontime1	20060.100154281	Sum of GTIs [s]
ontime2	20060.100154281	Sum of GTIs [s]
ontime3	20060.100154281	Sum of GTIs [s]
ontime6	20060.100154281	Sum of GTIs [s]
l2events	82334	Number of level 2 events



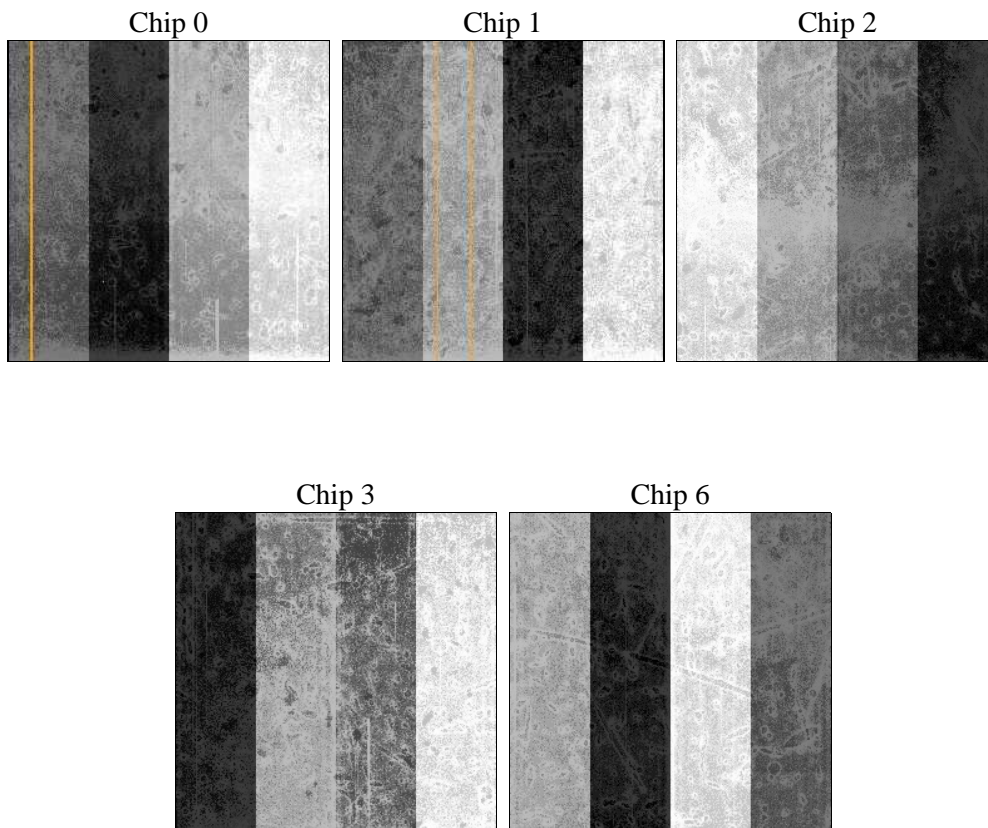
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.985000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	20060.100154281	Sum of GTIs [s]
caldbver	4.4.9	 	ontime0	20056.95915401	Sum of GTIs [s]
date	2012-05-21T21:00:25	Date and time of file creation	ontime1	20060.100154281	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	20060.100154281	Sum of GTIs [s]
			ontime3	20060.100154281	Sum of GTIs [s]
			ontime6	20060.100154281	Sum of GTIs [s]
			l1events	882553	Number of level 1 events

2.1.4 Events

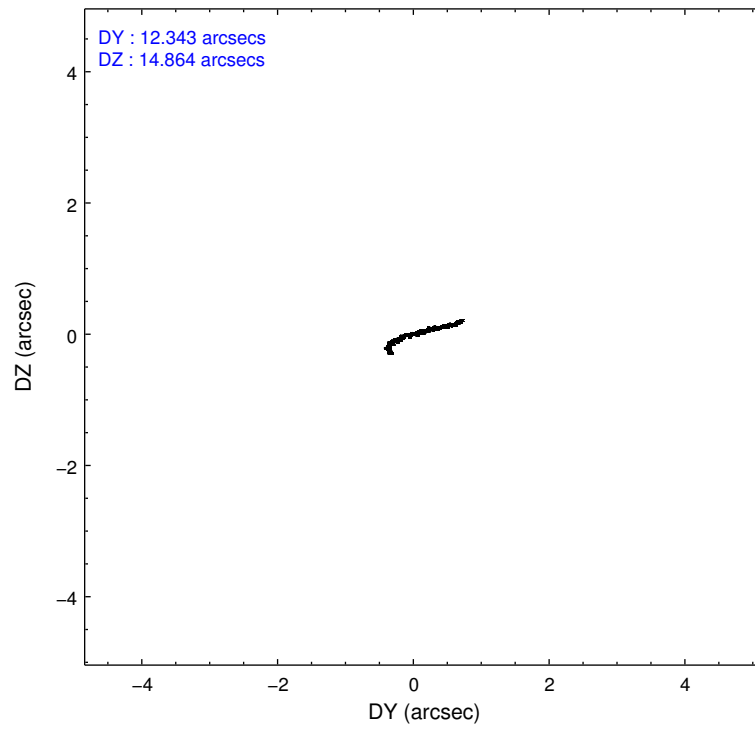
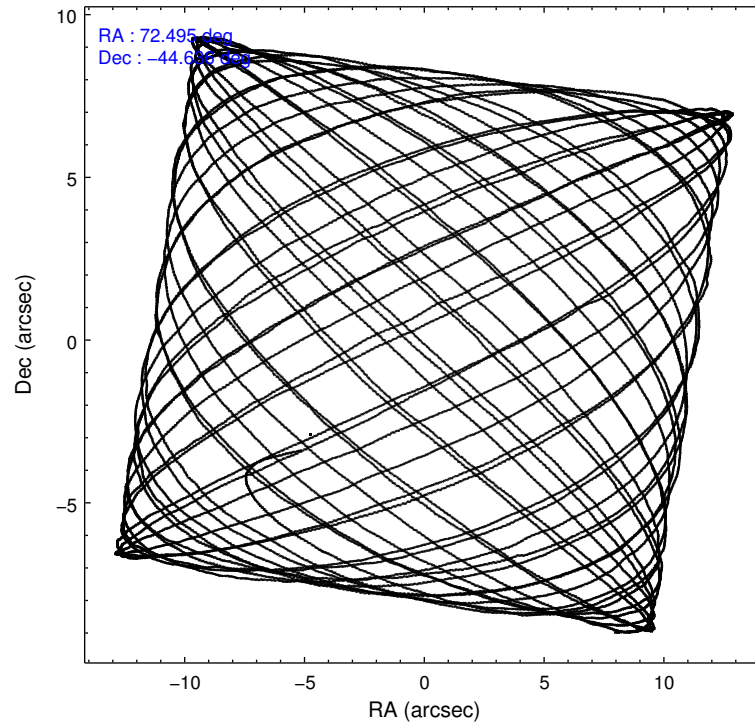
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	166381	171478	186872	190227	167595
rejected events	149156	151897	169607	164268	150186
rejected %	89%	88%	90%	86%	89%

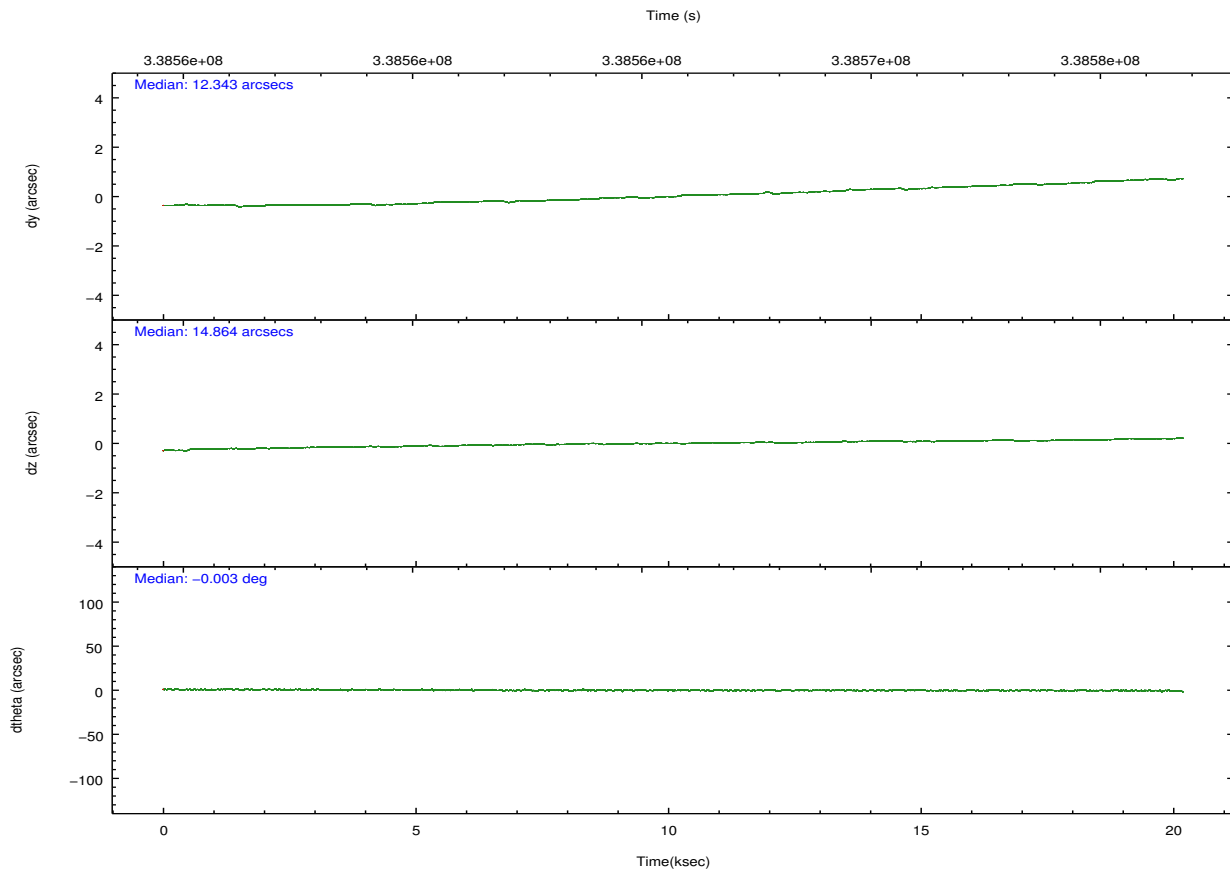
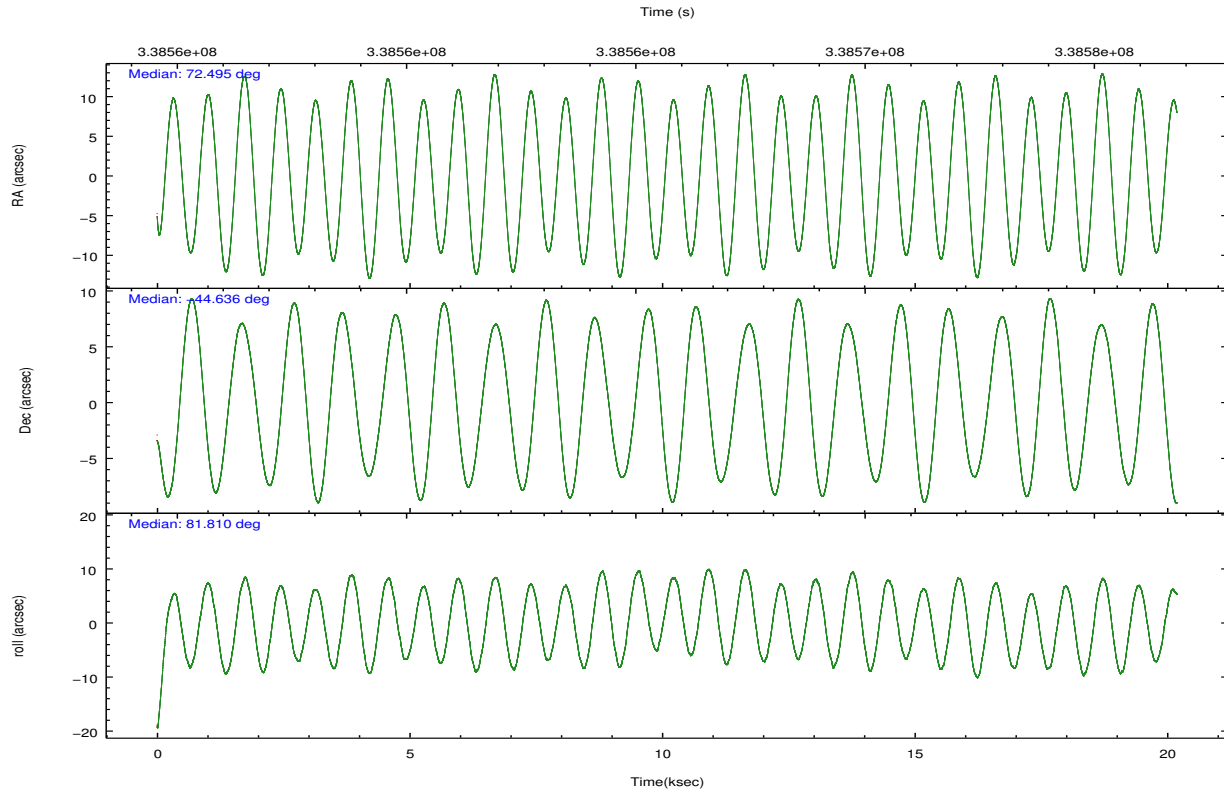
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	6142	7342	6401	13789	5941
	3%	4%	3%	7%	3%
grade 1 events	90	75	104	132	77
	0%	0%	0%	0%	0%
grade 2 events	4216	4419	4228	4617	3904
	2%	2%	2%	2%	2%
grade 3 events	1905	1950	1798	2073	1884
	1%	1%	0%	1%	1%
grade 4 events	1727	2014	1799	2069	1841
	1%	1%	0%	1%	1%
grade 5 events	5997	6808	5527	7296	6815
	3%	3%	2%	3%	4%
grade 6 events	3235	3860	3039	3414	3841
	1%	2%	1%	1%	2%
grade 7 events	143069	145010	163976	156837	143292
	85%	84%	87%	82%	85%

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	72.509960	72.49545796998146	Subarray requested	NONE	NONE
[deg] Pointing Dec	-44.661793	-44.63632762038215	Alternating exposures requested	N	N
[deg] Pointing Roll	81.617340	81.81583185997424	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-227.592463	-227.5933067819097			
[mm] SIM translation stage offset	-6	-5.999146221020027			
[s] Observation start time (MET)	338555766.184000	338554721.77331			
Observation start date	2008-09-23T11:15:01	2008-09-23T10:58:41			
[s] Observation end time (MET)	338575767.184000	338575998.72436			
Observation end date	2008-09-23T16:48:22	2008-09-23T16:53:18			
Read mode	TIMED	TIMED			

2.3 Aspect



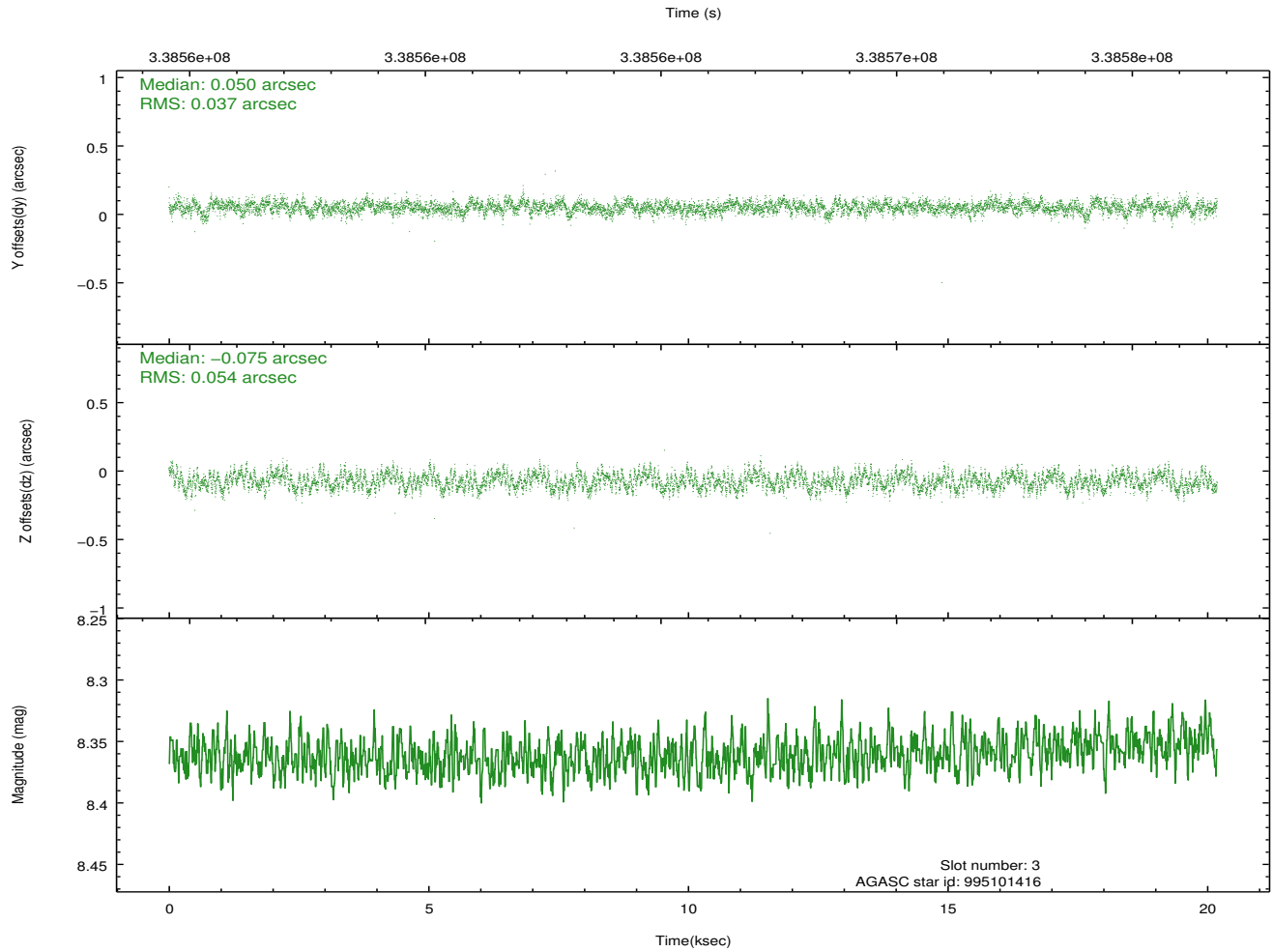
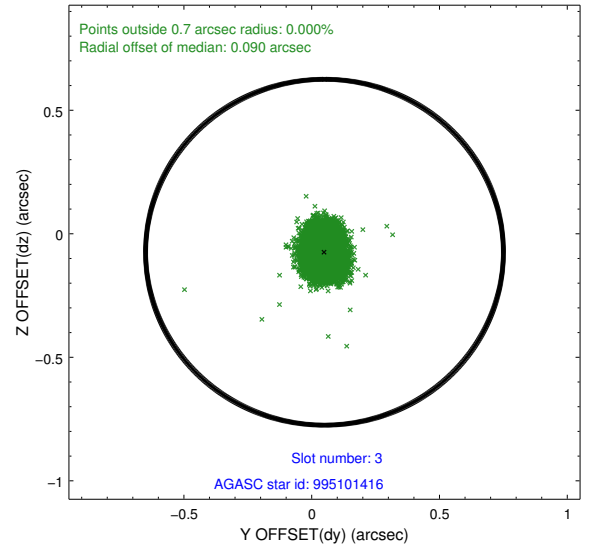
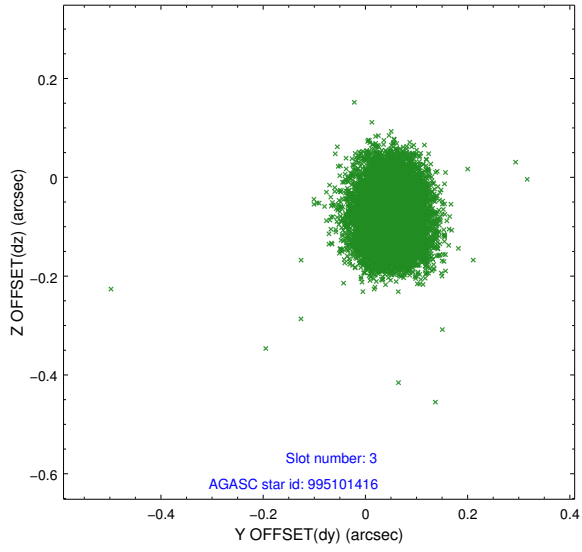


Slot Statistics

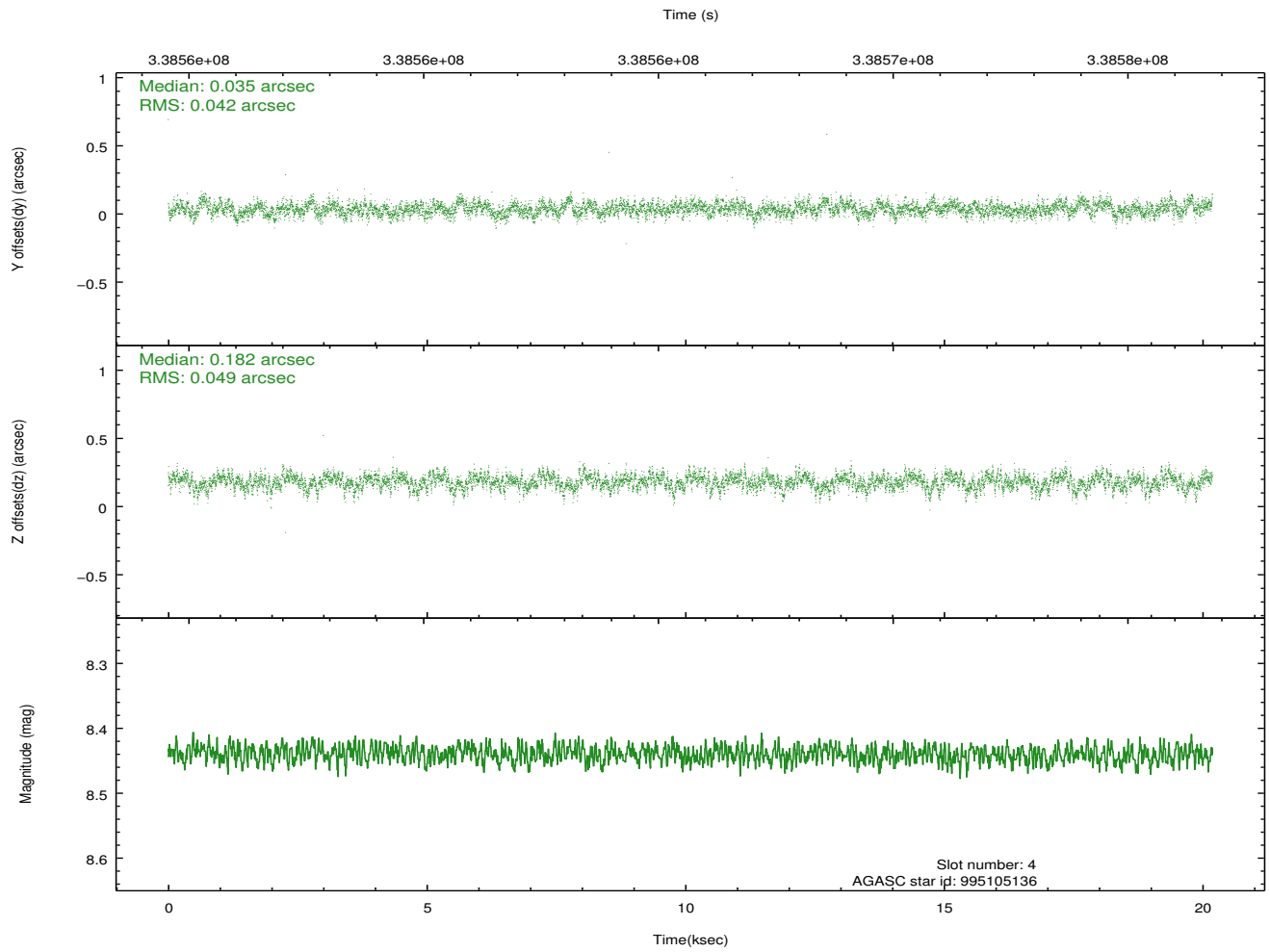
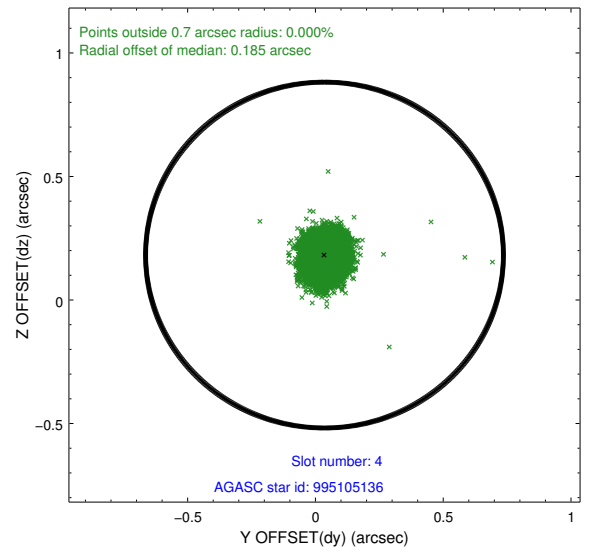
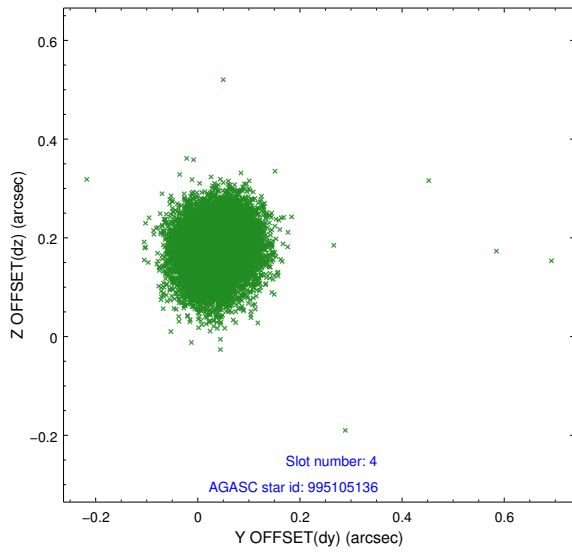
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	6.99	4925	0.069	-0.023	0.008	0.014	0.000000	0.000000	927.10	-961.59
1	FID	ACIS-I-5	6.98	4925	-0.216	0.073	0.009	0.017	0.000000	0.000000	-1821.22	935.84
2	FID	ACIS-I-6	7.00	4925	0.054	0.020	0.010	0.019	0.000000	0.000000	392.39	1580.53
3	GUIDE	995101416	8.36	9844	0.050	-0.075	0.070	0.112	71.916731	-44.268583	1171.82	1718.77
4	GUIDE	995105136	8.44	9842	0.035	0.182	0.068	0.110	73.265135	-44.564168	621.83	-1865.82
5	GUIDE	995110304	6.64	9848	-0.230	-0.163	0.054	0.092	72.140775	-43.979976	2286.97	1303.63
6	GUIDE	1058675984	8.99	9845	0.150	0.154	0.083	0.135	72.809427	-45.046360	-1259.25	-955.43
7	GUIDE	1058676568	8.31	9842	-0.009	-0.099	0.071	0.110	72.416789	-45.005807	-1259.81	53.77

2.4 Star Slots

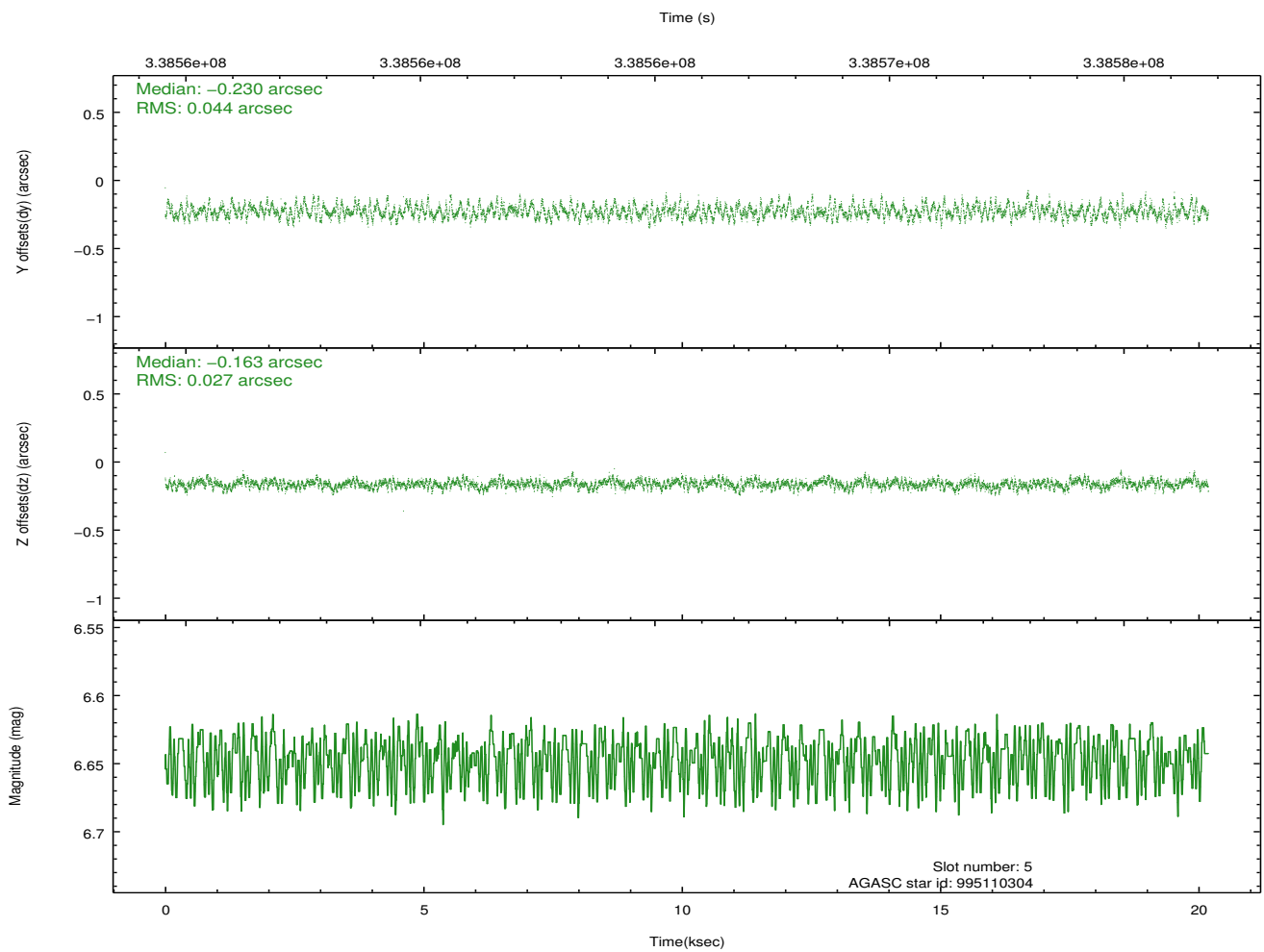
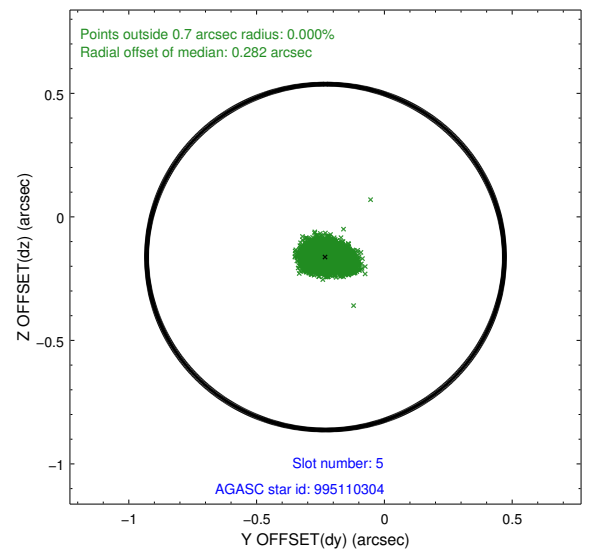
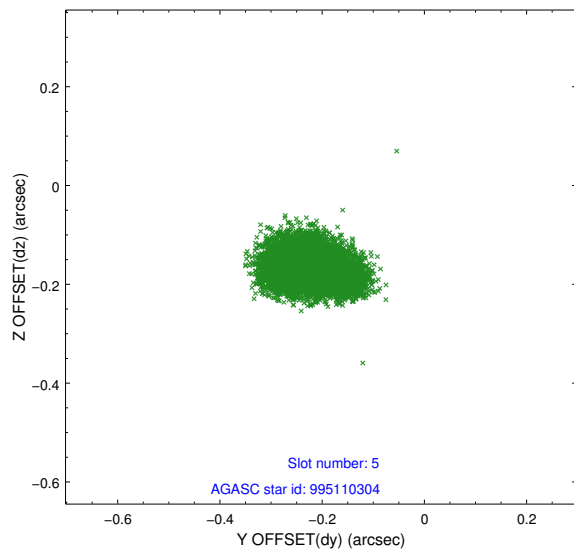
2.4.1 Slot 3



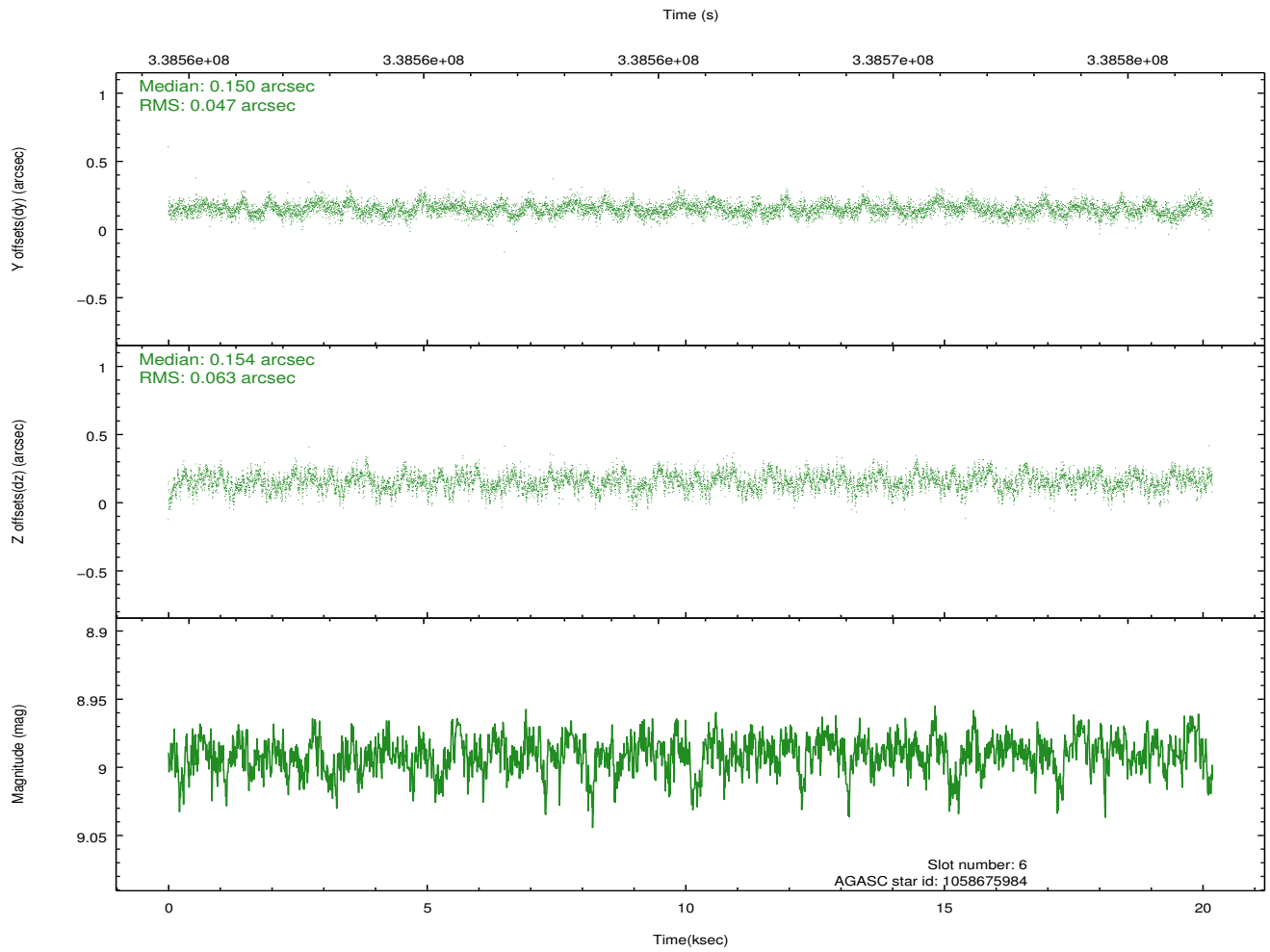
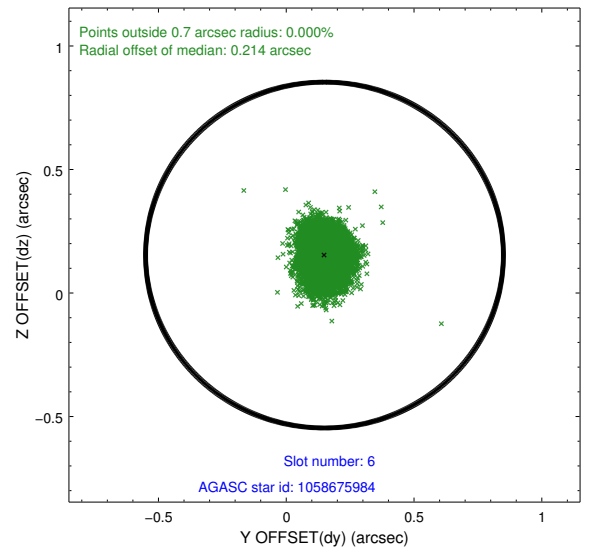
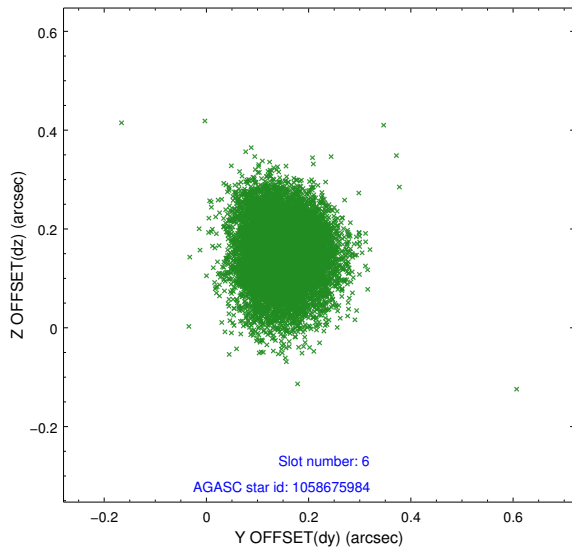
2.4.2 Slot 4



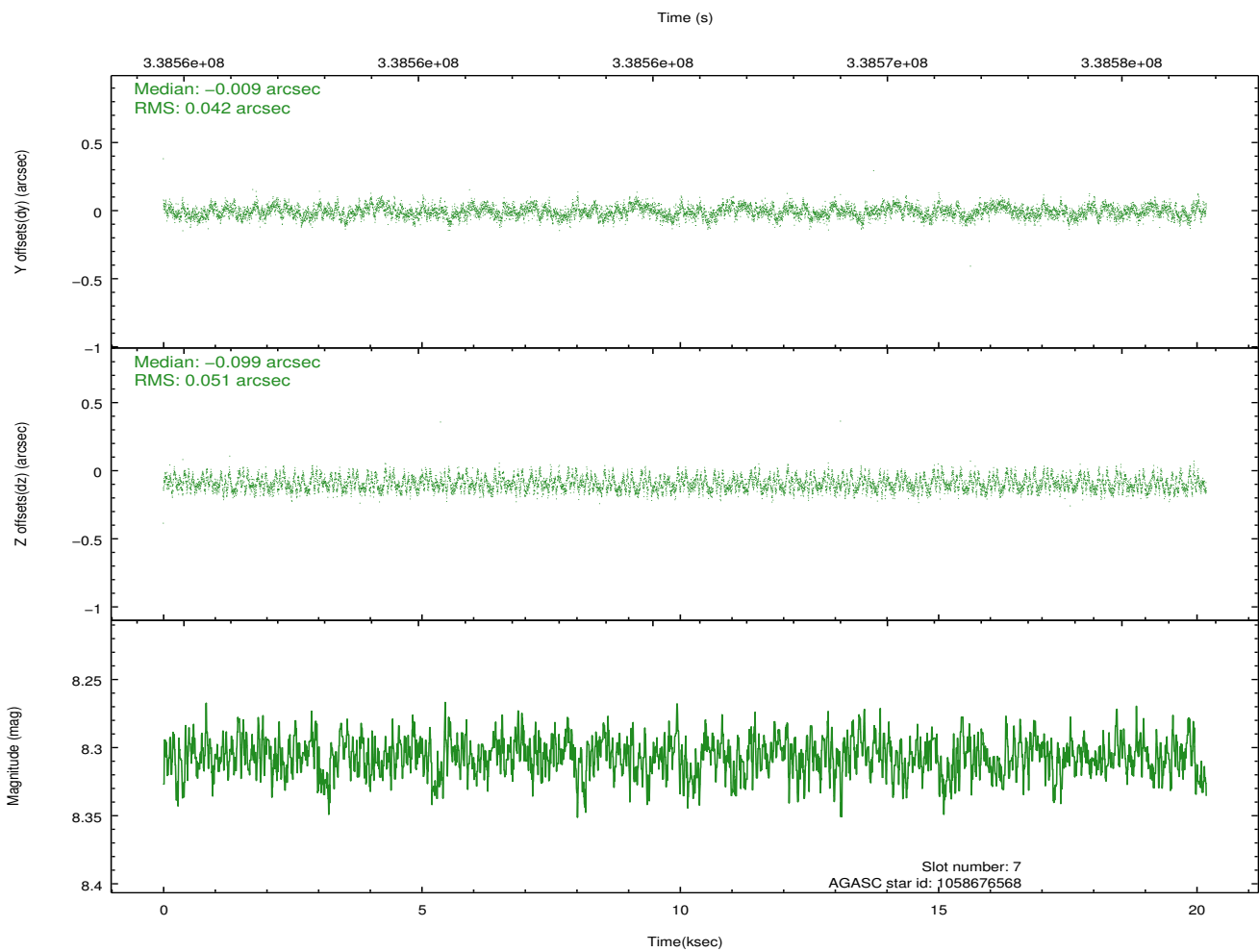
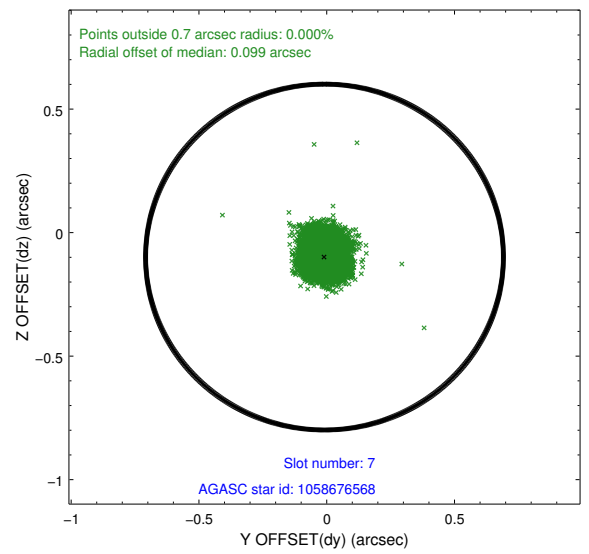
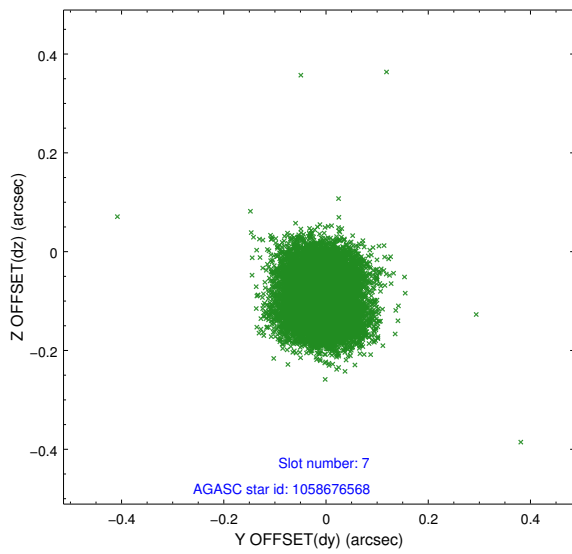
2.4.3 Slot 5



2.4.4 Slot 6

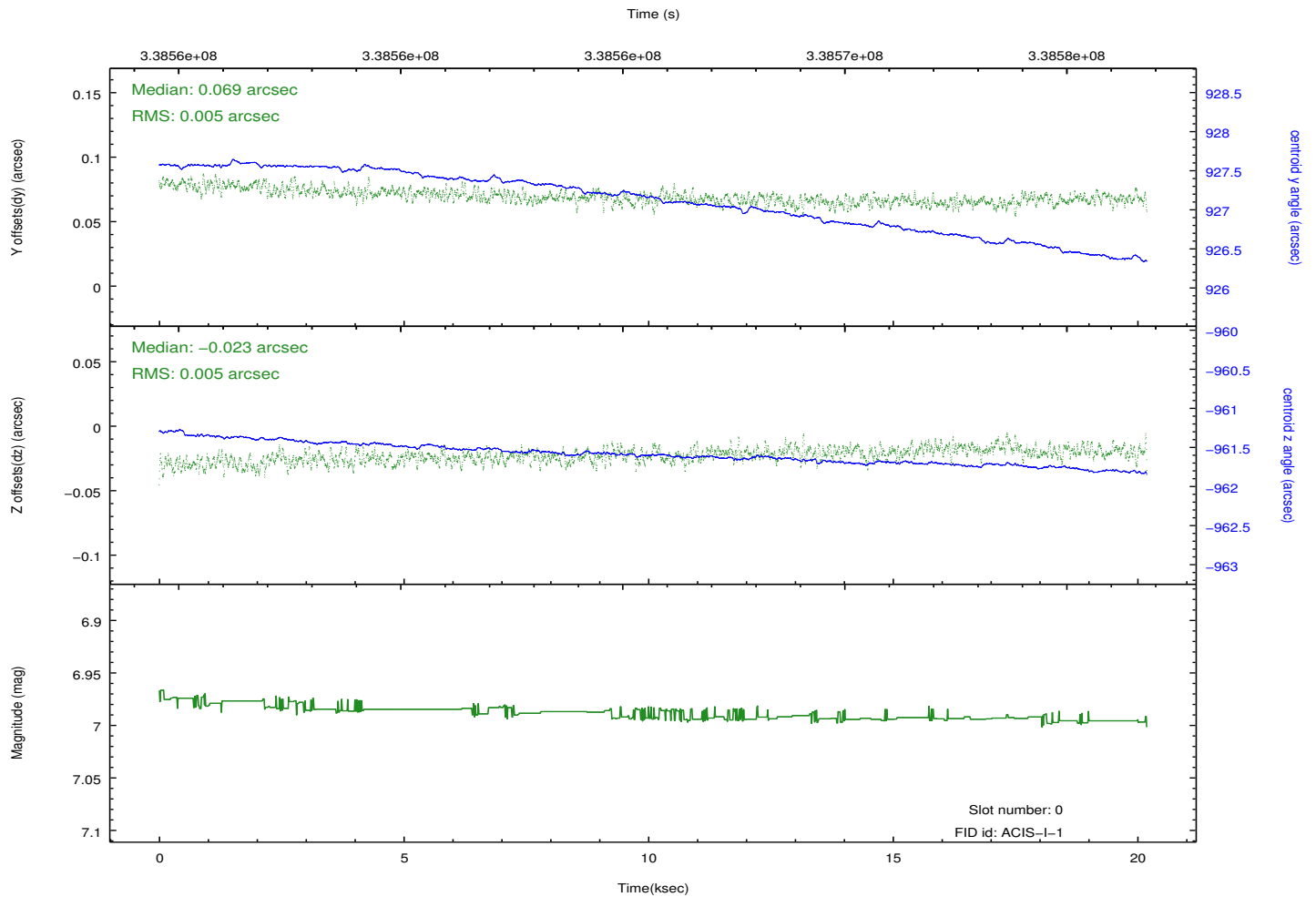
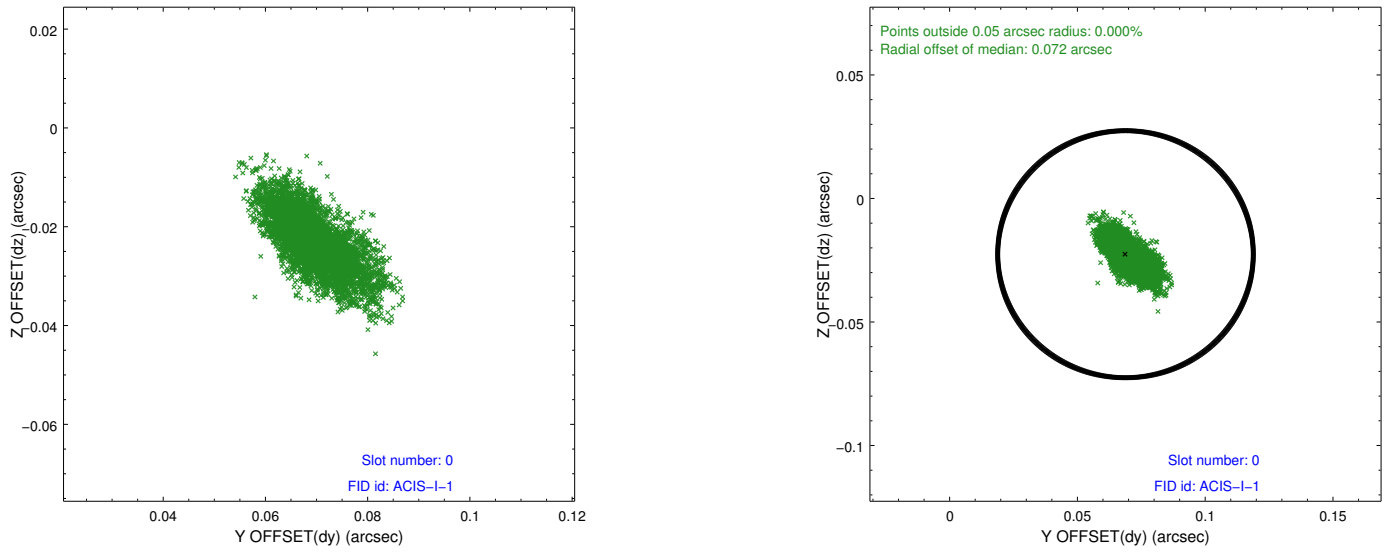


2.4.5 Slot 7

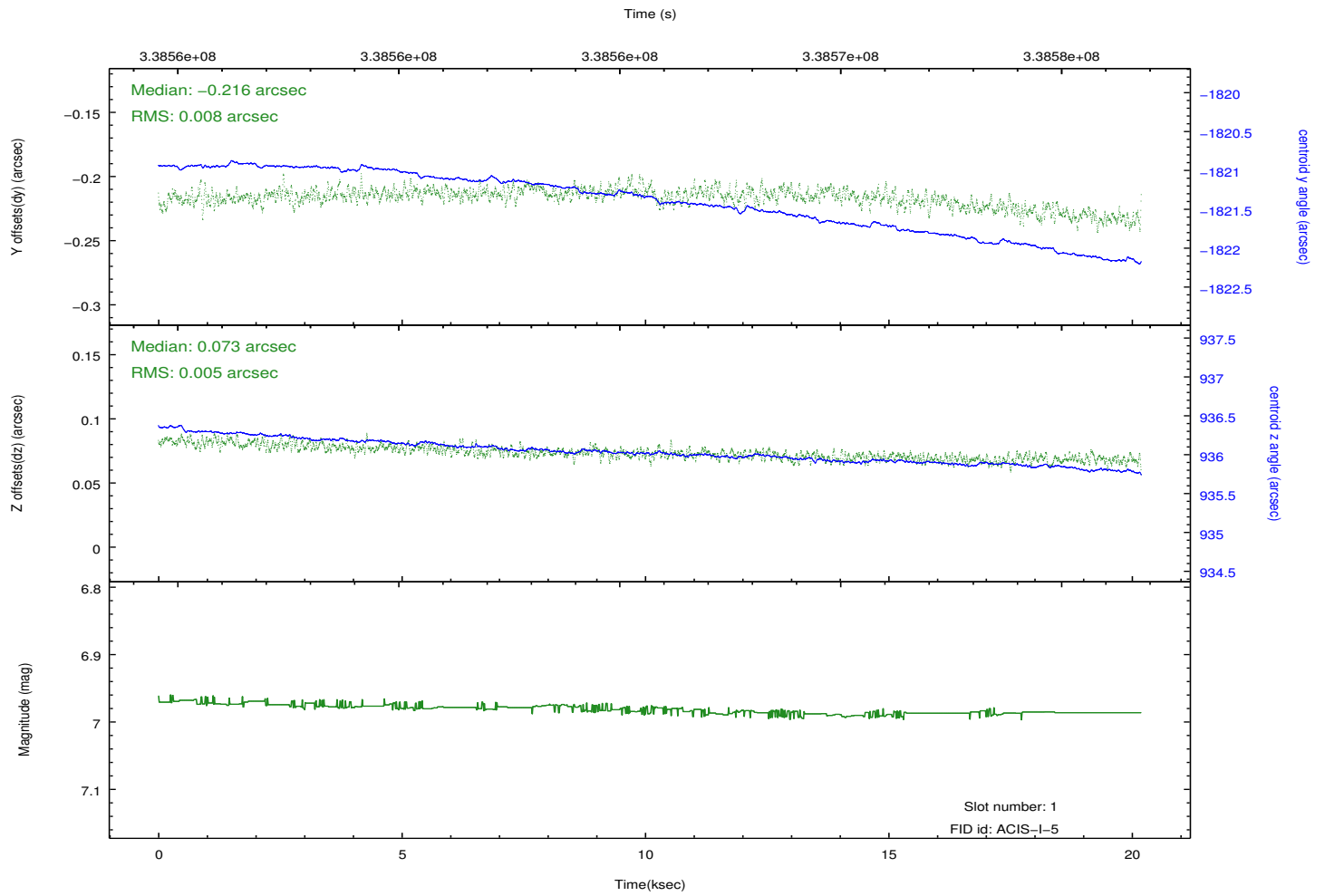
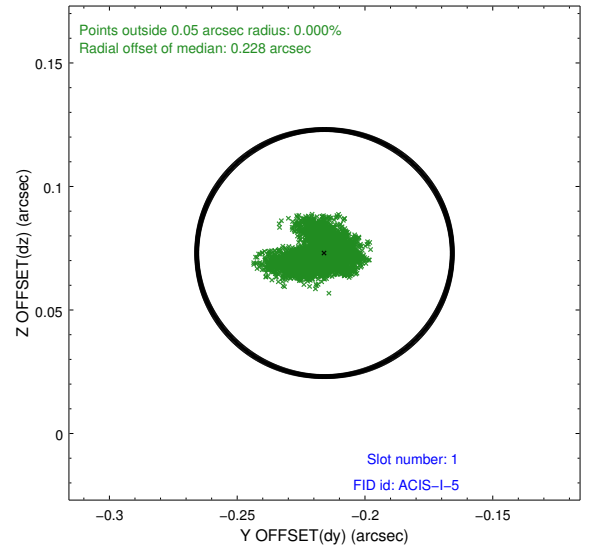
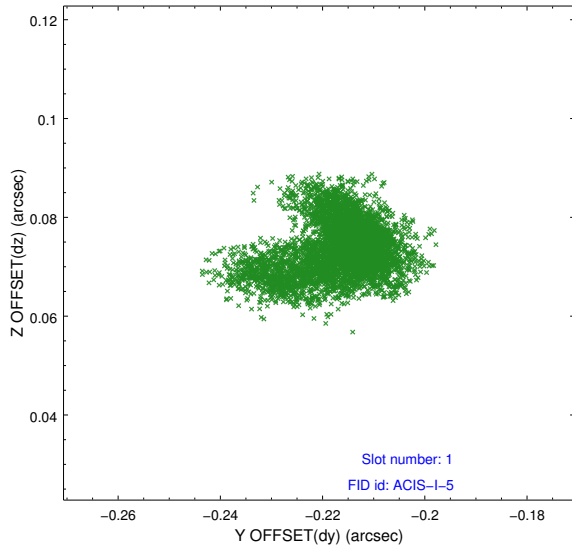


2.5 FID Slots

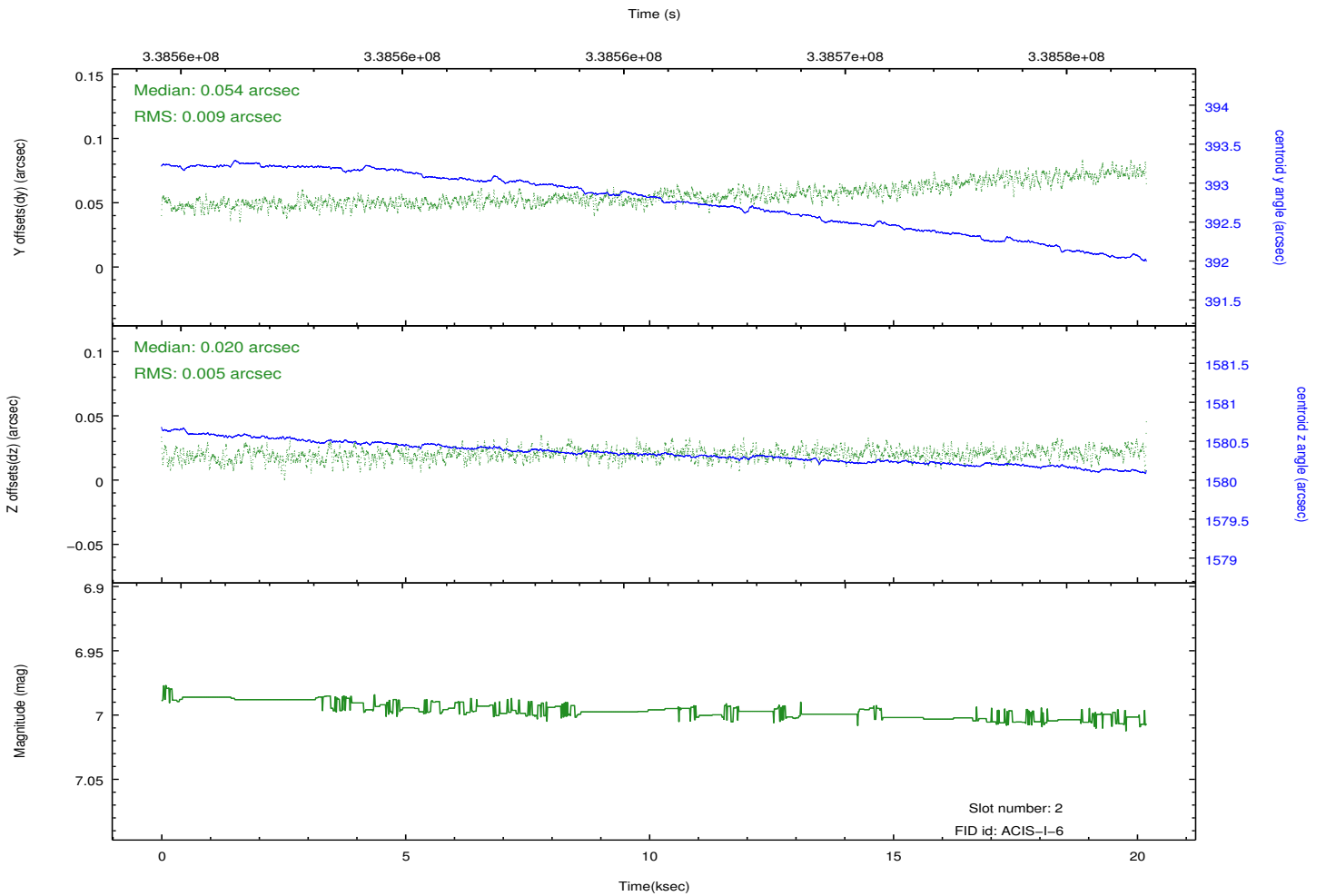
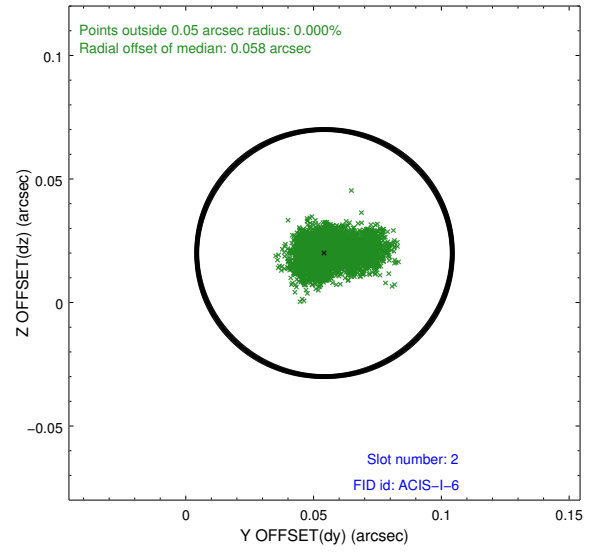
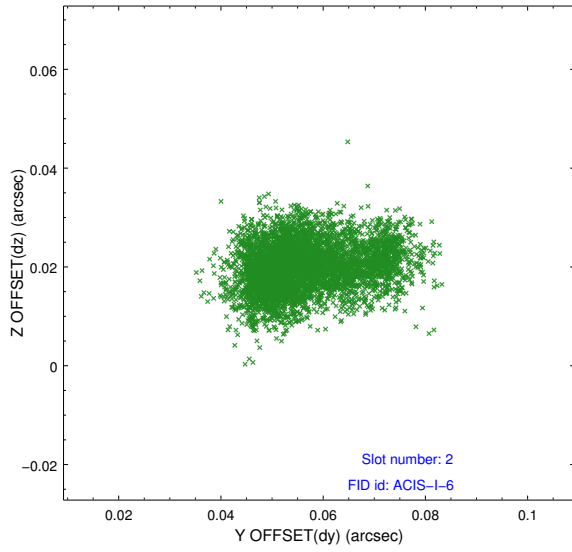
2.5.1 Slot 0



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)	2012.05.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.0601001

A.2 Comments

The bias maps for CCD_IDs = 0, 1, 2, and 3 suffer from anomalously high bias values in an irregularly-shaped area of the bias file, affecting most of the bias files. Pixels in the event data that have been bias-corrected by one of the 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. It has been demonstrated that the anomaly affects only the bias files and not the data. The bias maps for CCD_IDs=0,3 will NOT be recreated to remove this anomaly because the effect is small and we cannot be certain bias replacement is the correct approach.