

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 9336 - L2 Version 4
Chandra X-Ray Center

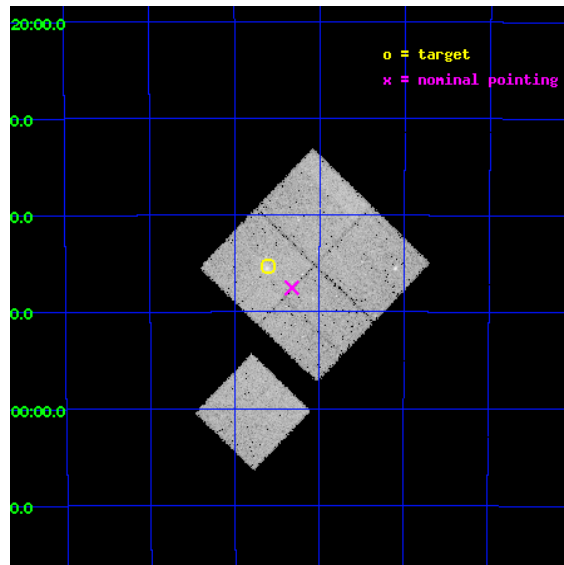
L2 Processing Date : Jun 6 2012

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1 Front

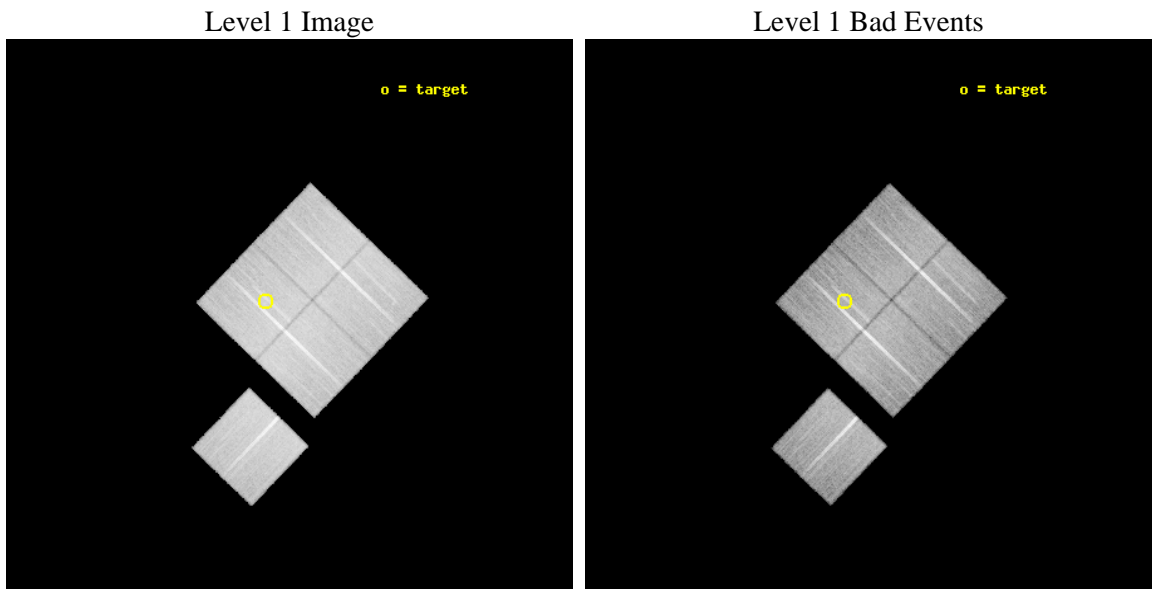
seq_num	800673	Sequence number
obs_id	9336	Observation id
title	Chandra Observations of SZ-selected Galaxy Clusters Detected by the South Pole Telescope	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	SPT-CL0547-5345	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	86.65	Observer's specified target RA [deg]
dec_targ	-53.756	Observer's specified target Dec [deg]
ra_nom	86.581465329711	Nominal RA [deg]
dec_nom	-53.792350313077	Nominal Dec [deg]
roll_nom	223.9104691387	Nominal Roll [deg]
revision	4	Processing version of data
ontime	28538.559249103	Sum of GTIs [s]
livetime	28165.681962732	Livetime [s]
ontime0	28538.559249103	Sum of GTIs [s]
ontime1	28538.559229255	Sum of GTIs [s]
ontime2	28535.418288887	Sum of GTIs [s]
ontime3	28538.559249103	Sum of GTIs [s]
ontime6	28538.527899861	Sum of GTIs [s]
l2events	107872	Number of level 2 events



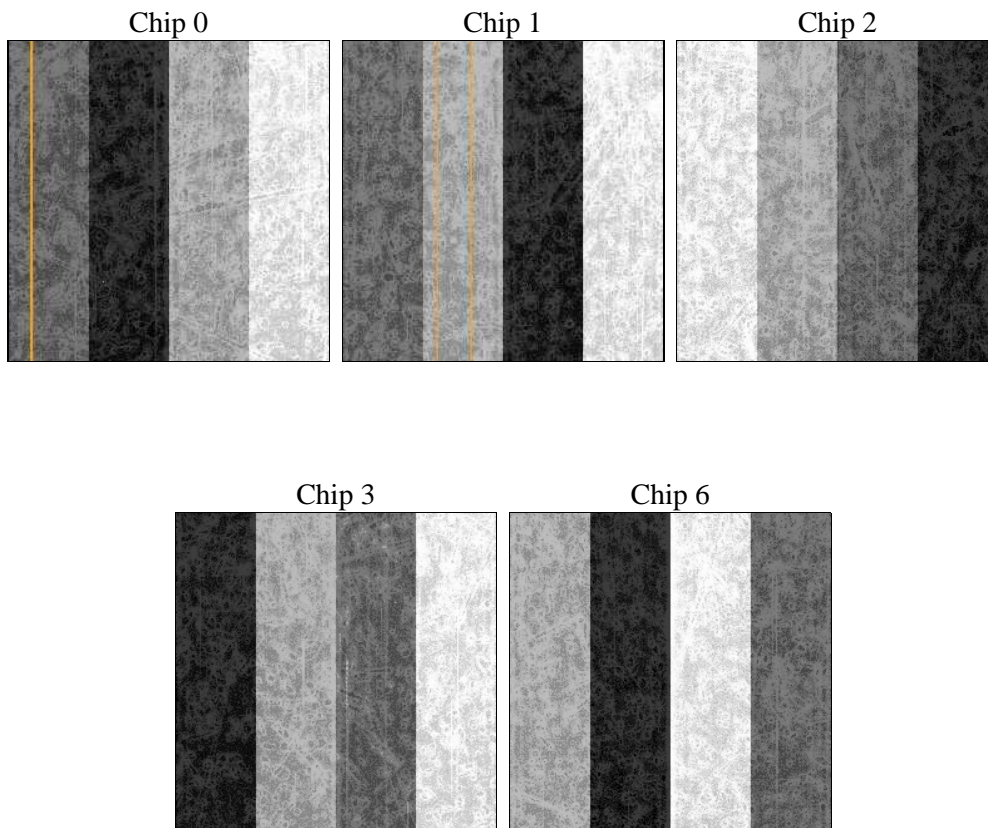
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	28500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	28538.559249103	Sum of GTIs [s]
caldbver	4.4.10	 	ontime0	28538.559249103	Sum of GTIs [s]
date	2012-06-06T21:28:31	Date and time of file creation	ontime1	28538.559229255	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	28535.418288887	Sum of GTIs [s]
			ontime3	28538.559249103	Sum of GTIs [s]
			ontime6	28538.527899861	Sum of GTIs [s]
			l1events	1233310	Number of level 1 events

2.1.4 Events

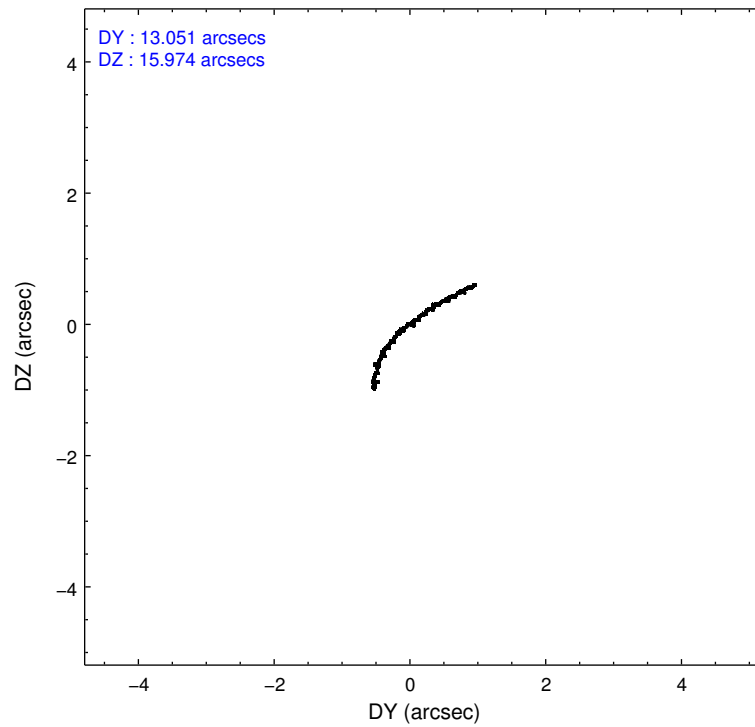
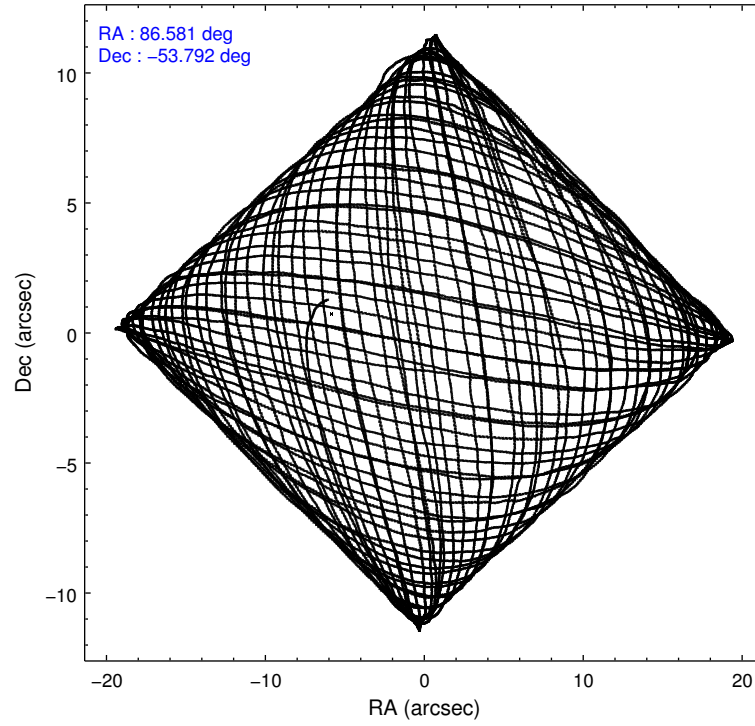
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	238645	237886	260574	246981	249224
rejected events	213012	209033	235749	221926	223446
rejected %	89%	87%	90%	89%	89%

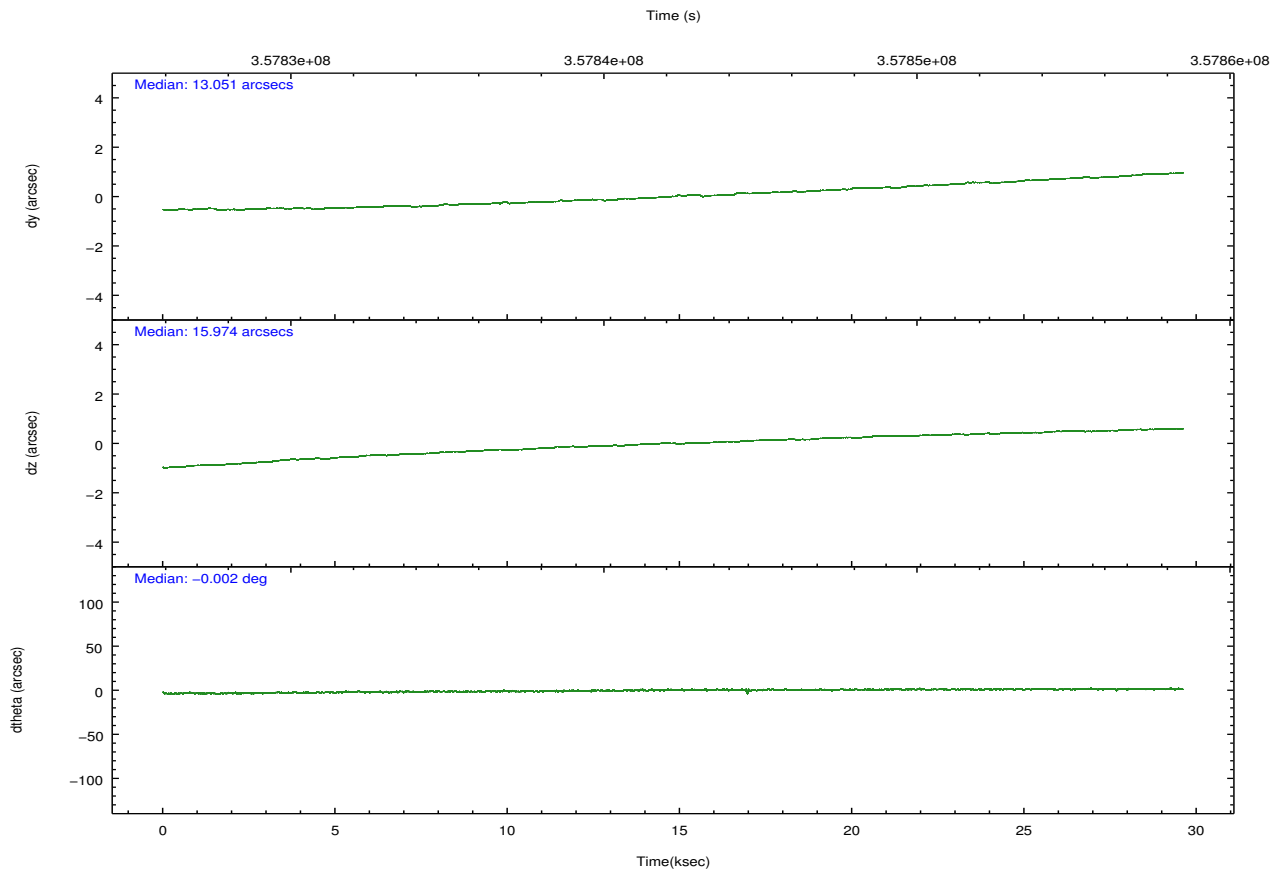
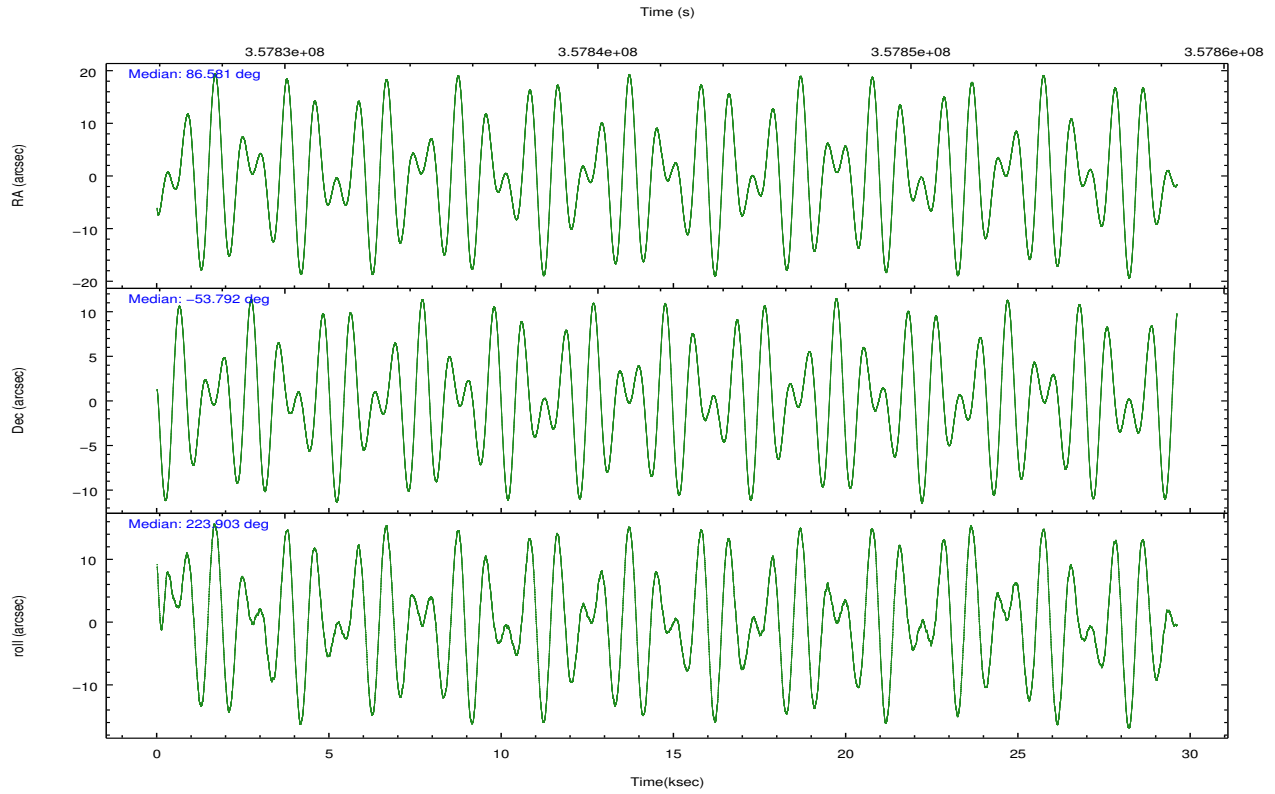
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	8793	10299	8904	9355	8893
	3%	4%	3%	3%	3%
grade 1 events	121	131	141	168	140
	0%	0%	0%	0%	0%
grade 2 events	6431	6776	5982	5387	5807
	2%	2%	2%	2%	2%
grade 3 events	2786	2995	2533	2730	2852
	1%	1%	0%	1%	1%
grade 4 events	2646	2959	2627	2696	2756
	1%	1%	1%	1%	1%
grade 5 events	9107	9755	8503	10384	10161
	3%	4%	3%	4%	4%
grade 6 events	4977	5825	4783	4888	5474
	2%	2%	1%	1%	2%
grade 7 events	203784	199146	227101	211373	213141
	85%	83%	87%	85%	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	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	86.594189	86.58146532971131	CCD I2 on	Y	Y
[deg] Pointing Dec	-53.765879	-53.79235031307718	CCD I3 on	Y	Y
[deg] Pointing Roll	223.712048	223.9104691387039	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	-225.840463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.752	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	357828508.184000	357827118.66497	CCD S5 on	N	N
Observation start date	2009-05-04T12:47:22	2009-05-04T12:25:18	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	357857008.184000	357857937.85401	On-chip summing requested	N	N
Observation end date	2009-05-04T20:42:22	2009-05-04T20:58:57	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



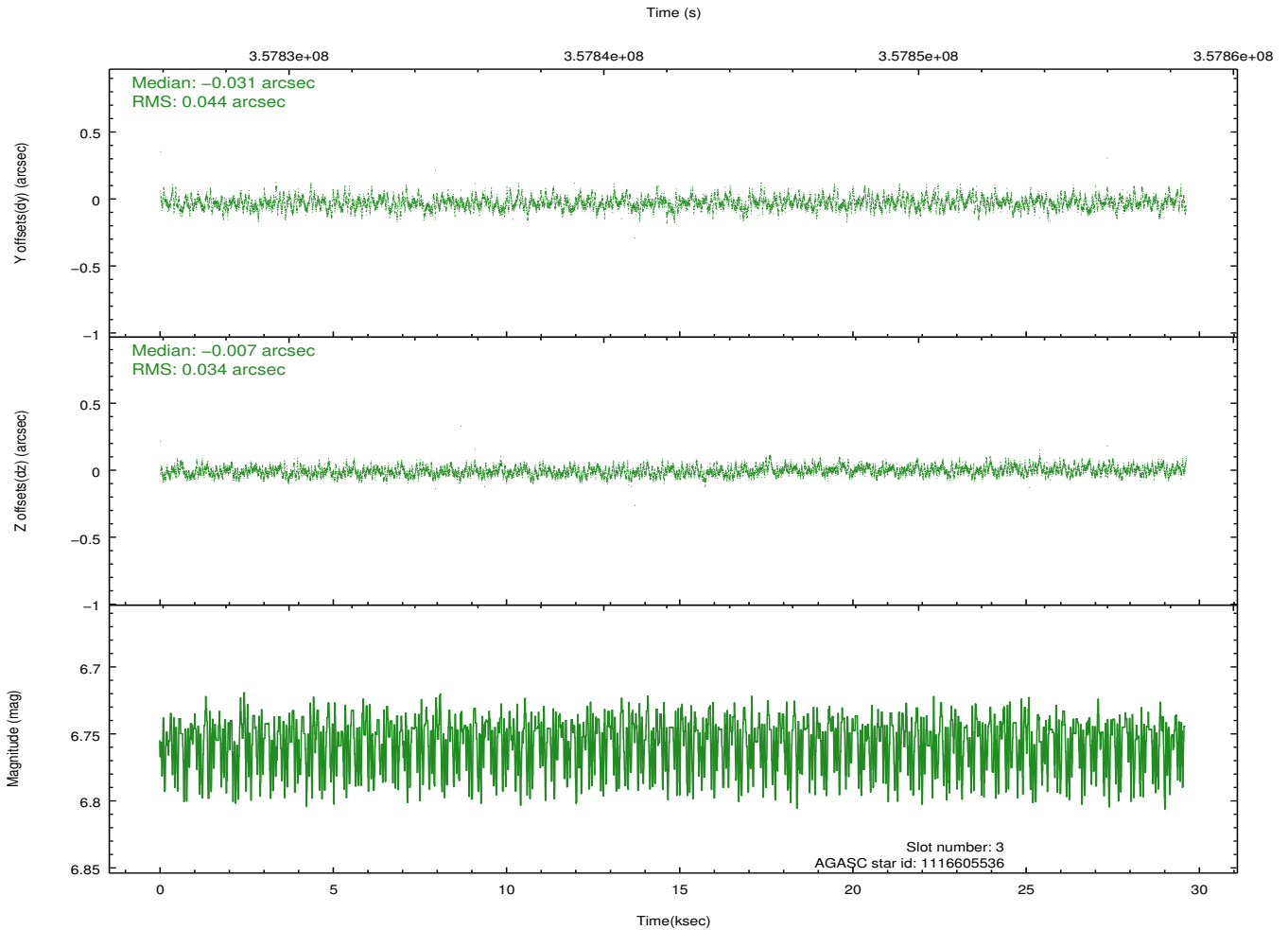
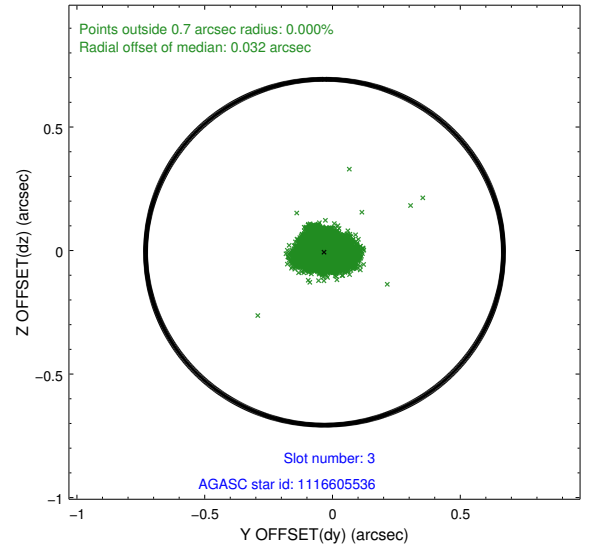
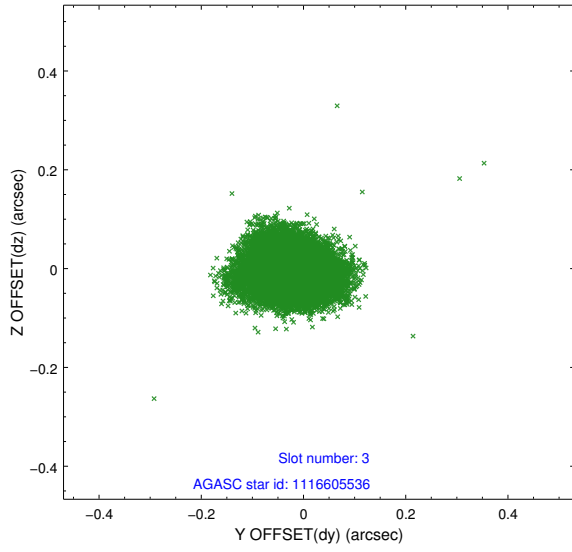


Slot Statistics

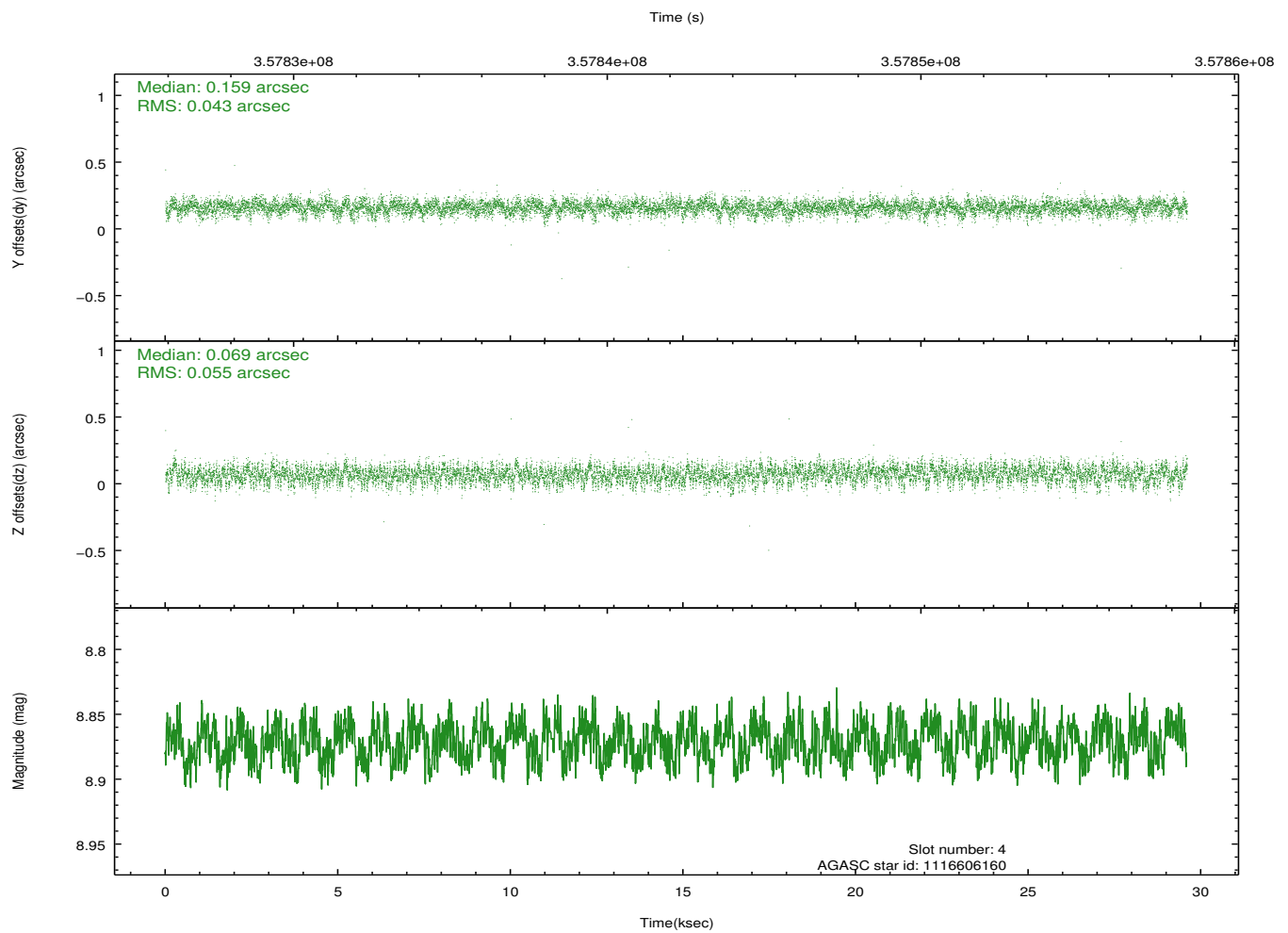
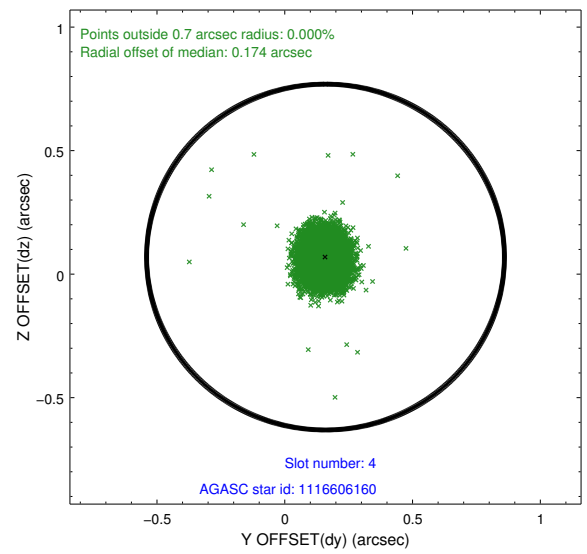
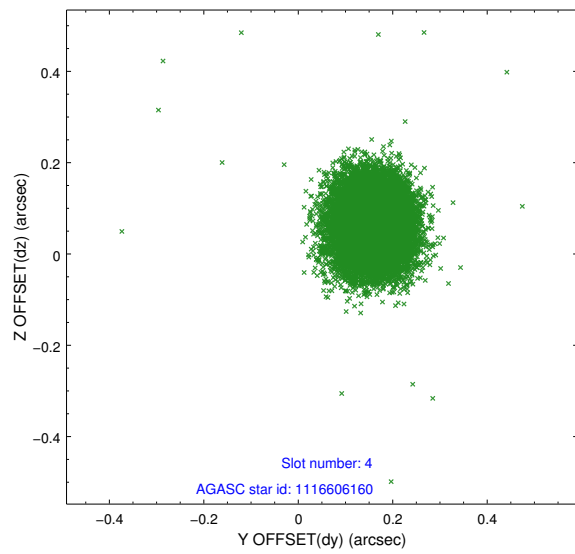
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.00	7220	0.133	-0.101	0.016	0.030	0.000000	0.000000	926.38	-998.72
1	FID	ACIS-I-5	6.98	7220	-0.267	0.112	0.024	0.036	0.000000	0.000000	-1822.07	898.93
2	FID	ACIS-I-6	7.01	7220	0.045	0.066	0.015	0.025	0.000000	0.000000	391.77	1543.47
3	GUIDE	1116605536	6.75	14440	-0.031	-0.007	0.058	0.098	86.616629	-53.219322	-1393.66	-1387.56
4	GUIDE	1116606160	8.87	14430	0.159	0.069	0.073	0.119	86.001781	-53.377531	-42.04	-1885.23
5	GUIDE	1116606912	8.57	14433	-0.072	-0.174	0.072	0.115	86.539686	-54.008936	688.11	552.86
6	GUIDE	1116737688	7.71	14434	-0.040	0.012	0.061	0.104	87.142567	-53.676424	-1064.13	579.88
7	GUIDE	1116738280	8.14	14428	-0.022	0.099	0.077	0.123	87.869951	-53.655711	-2224.25	1612.05

2.4 Star Slots

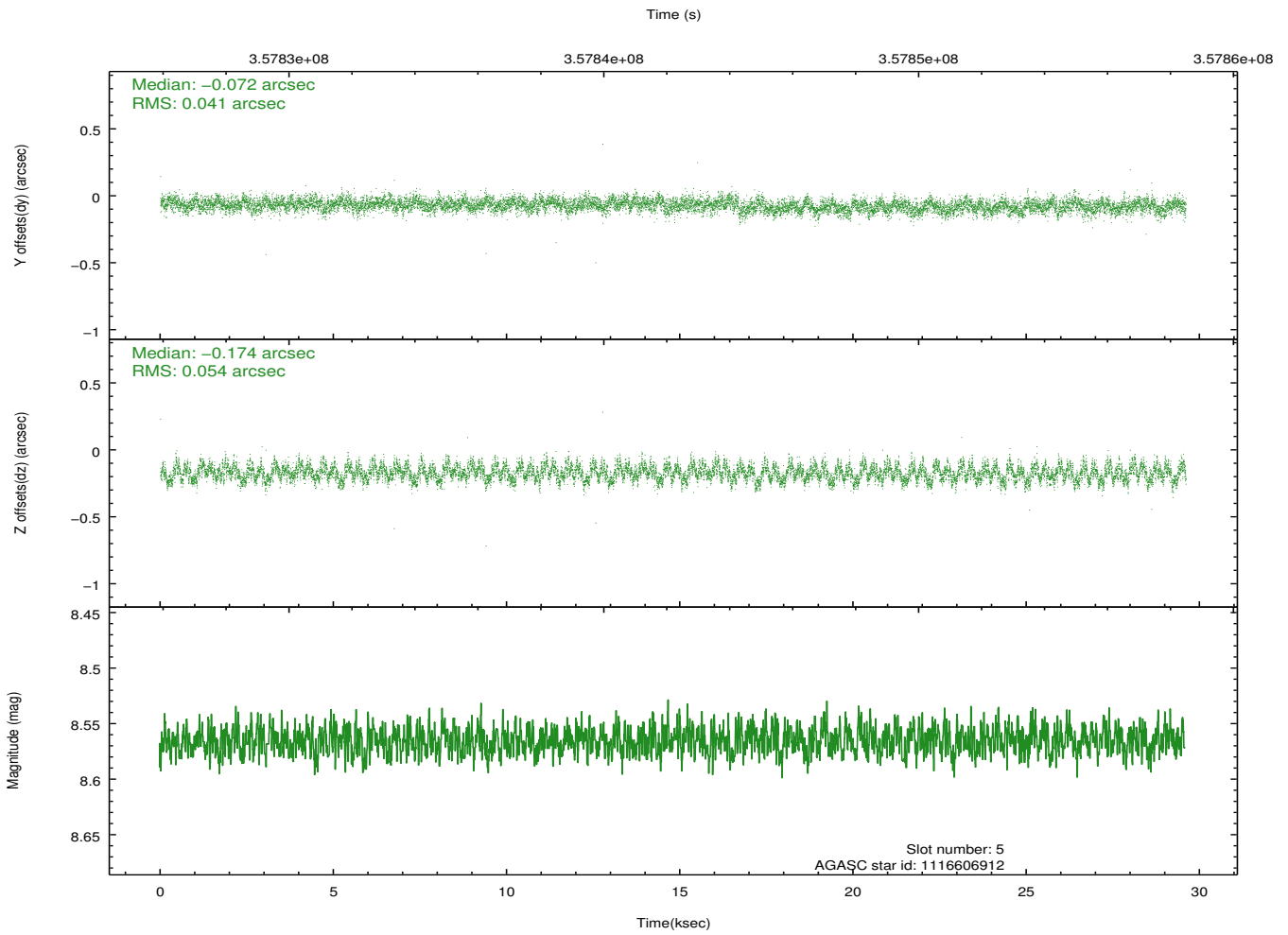
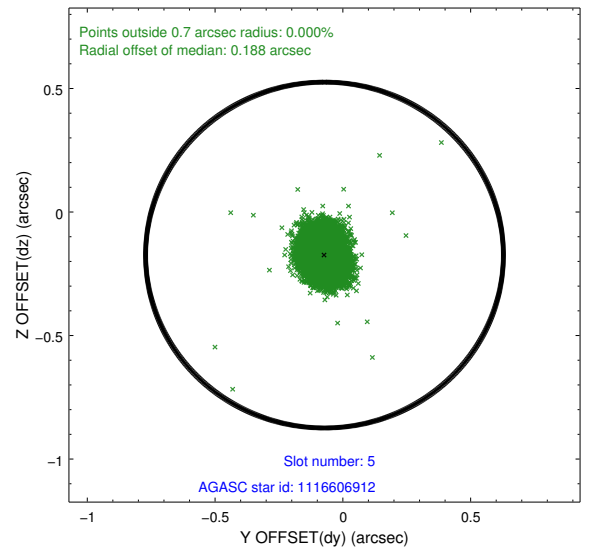
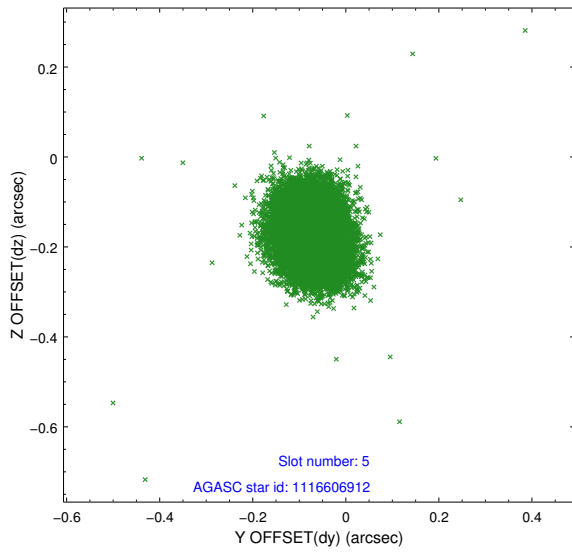
2.4.1 Slot 3



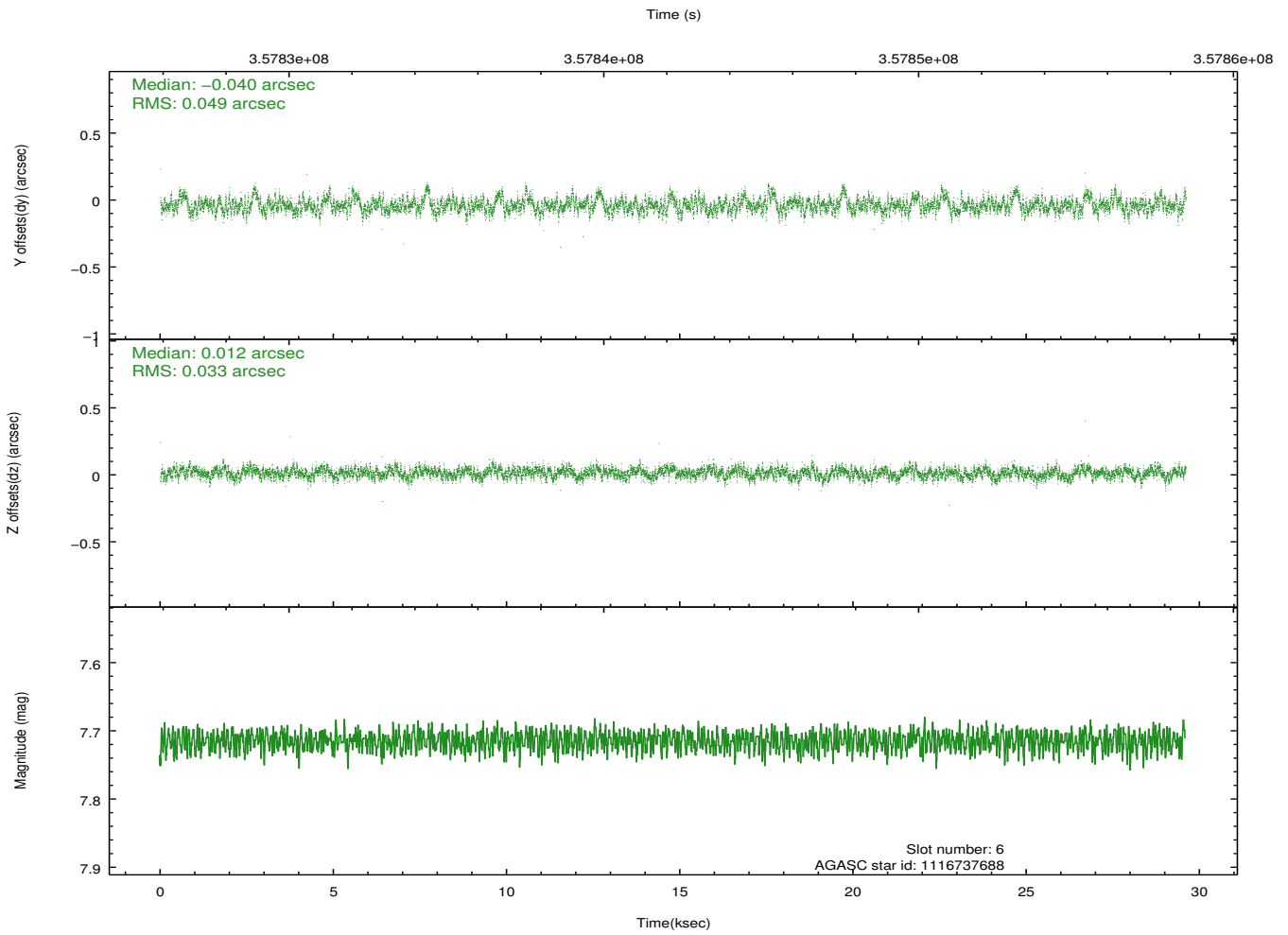
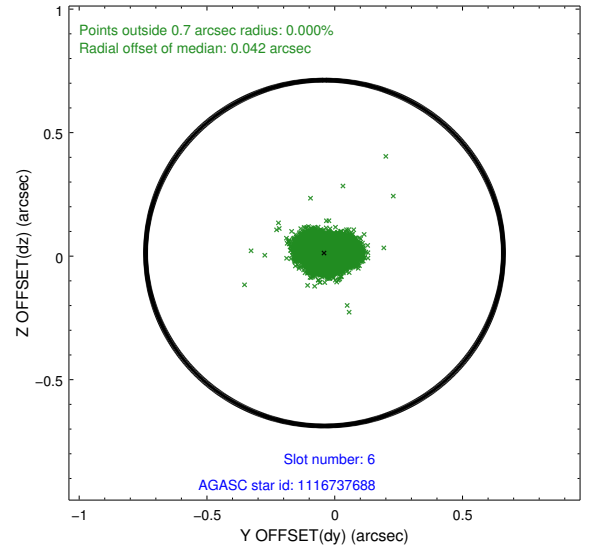
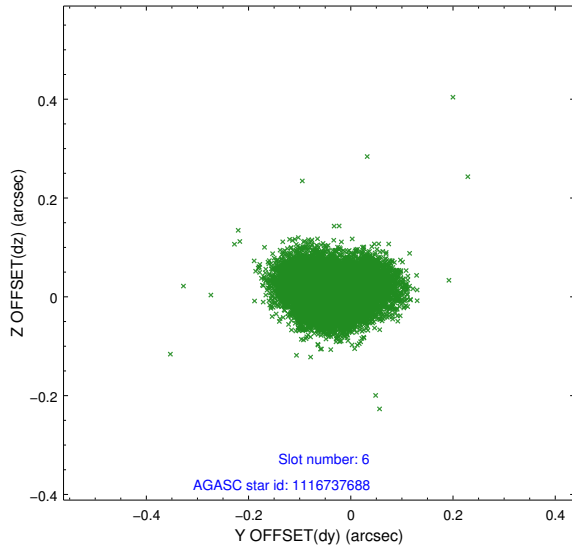
2.4.2 Slot 4



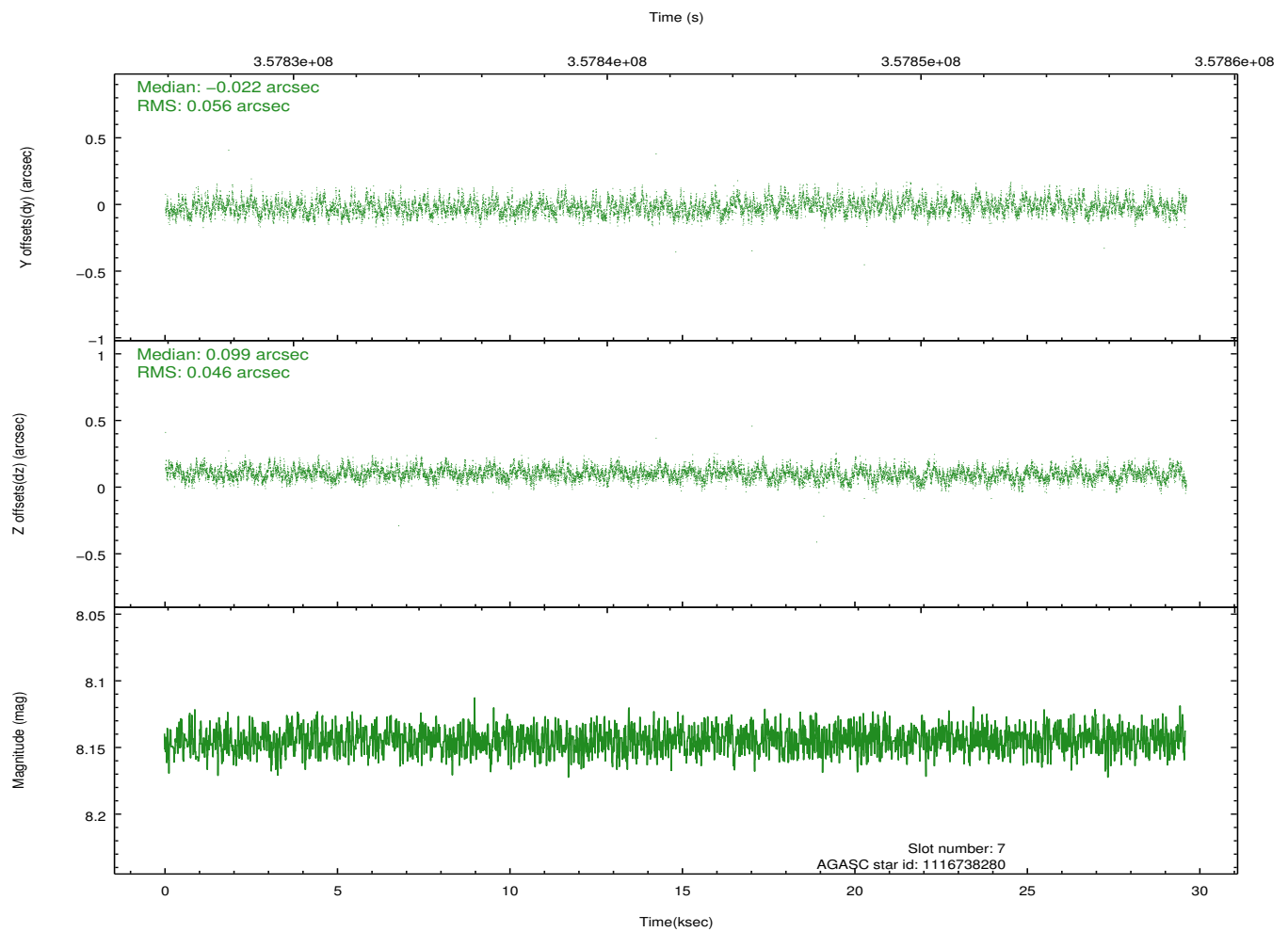
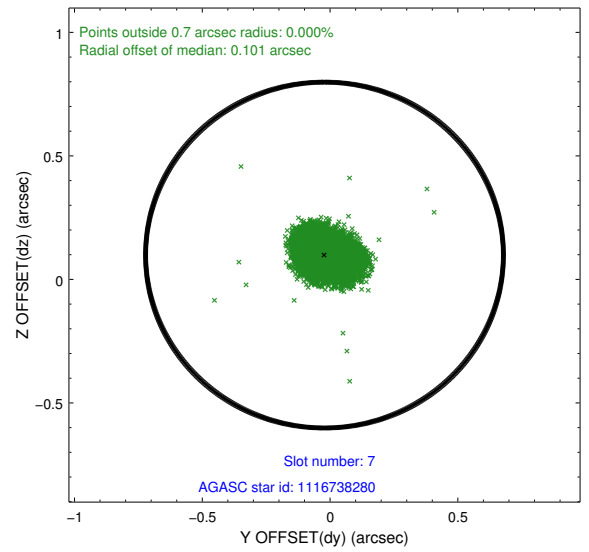
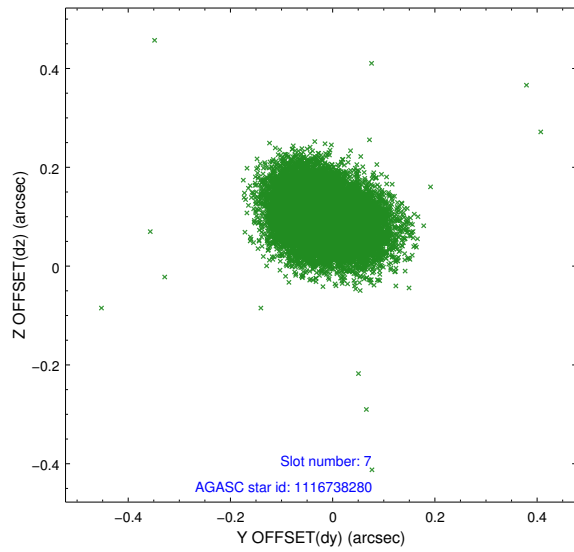
2.4.3 Slot 5



2.4.4 Slot 6

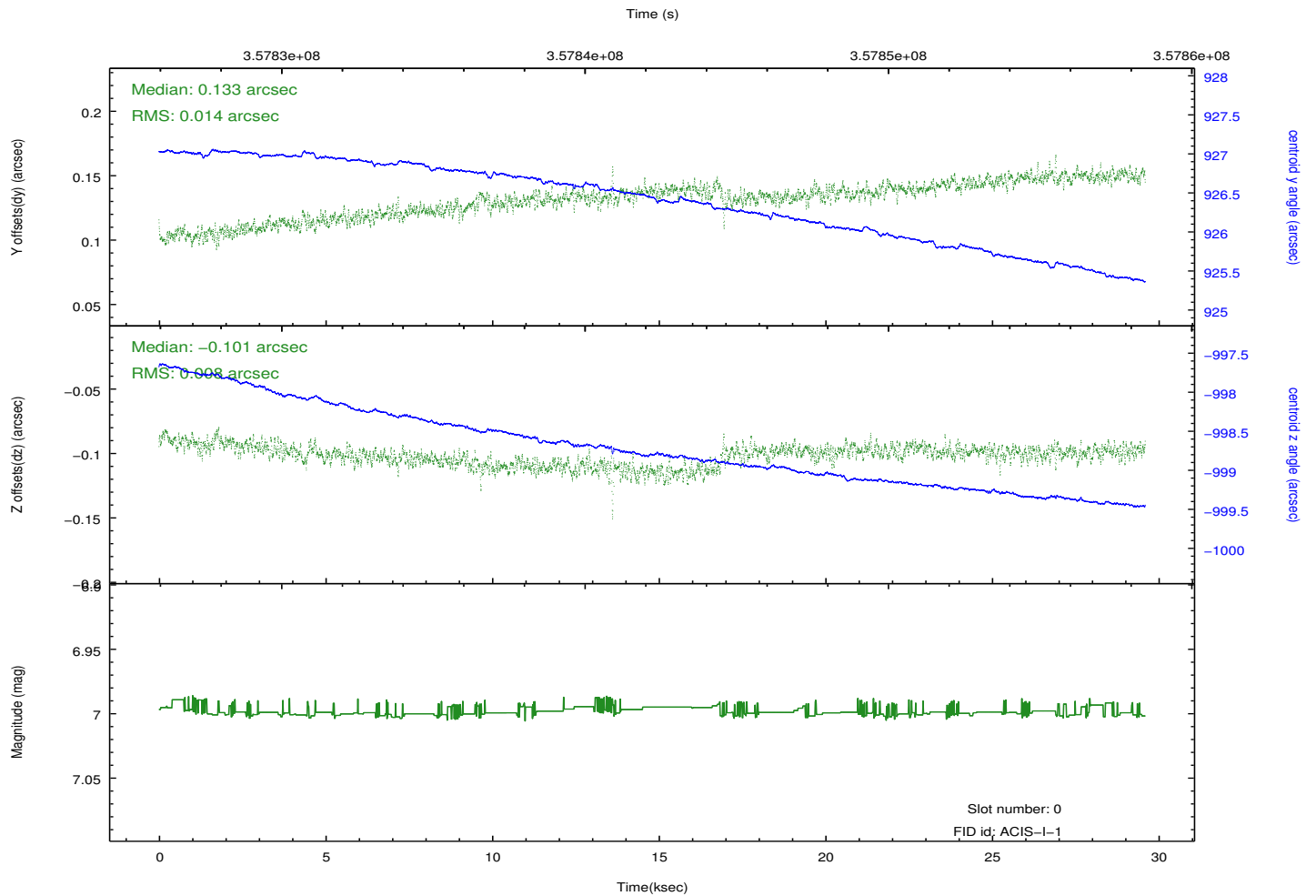
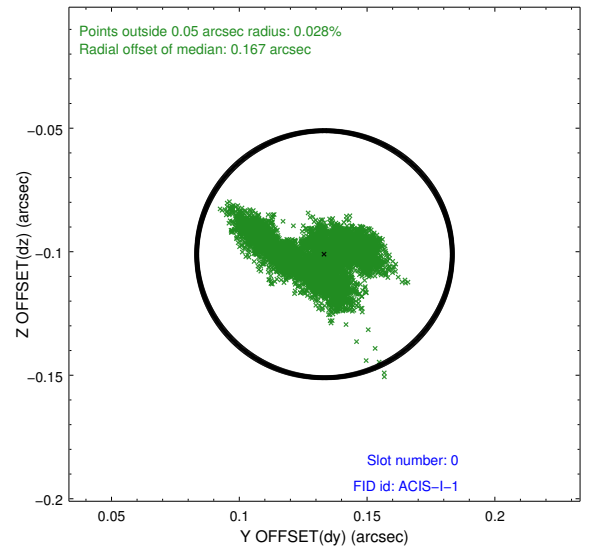
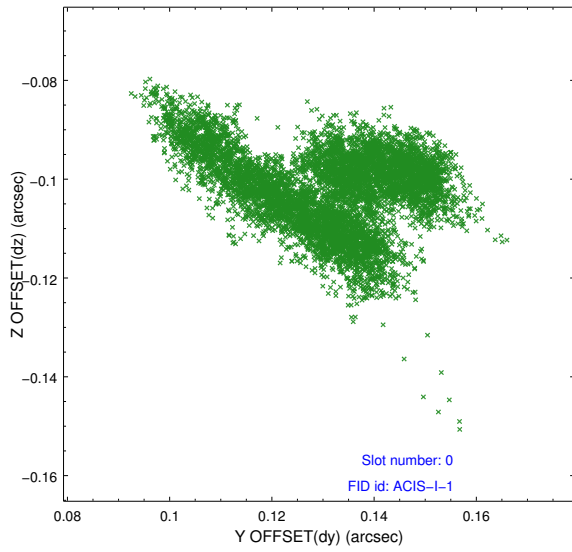


2.4.5 Slot 7

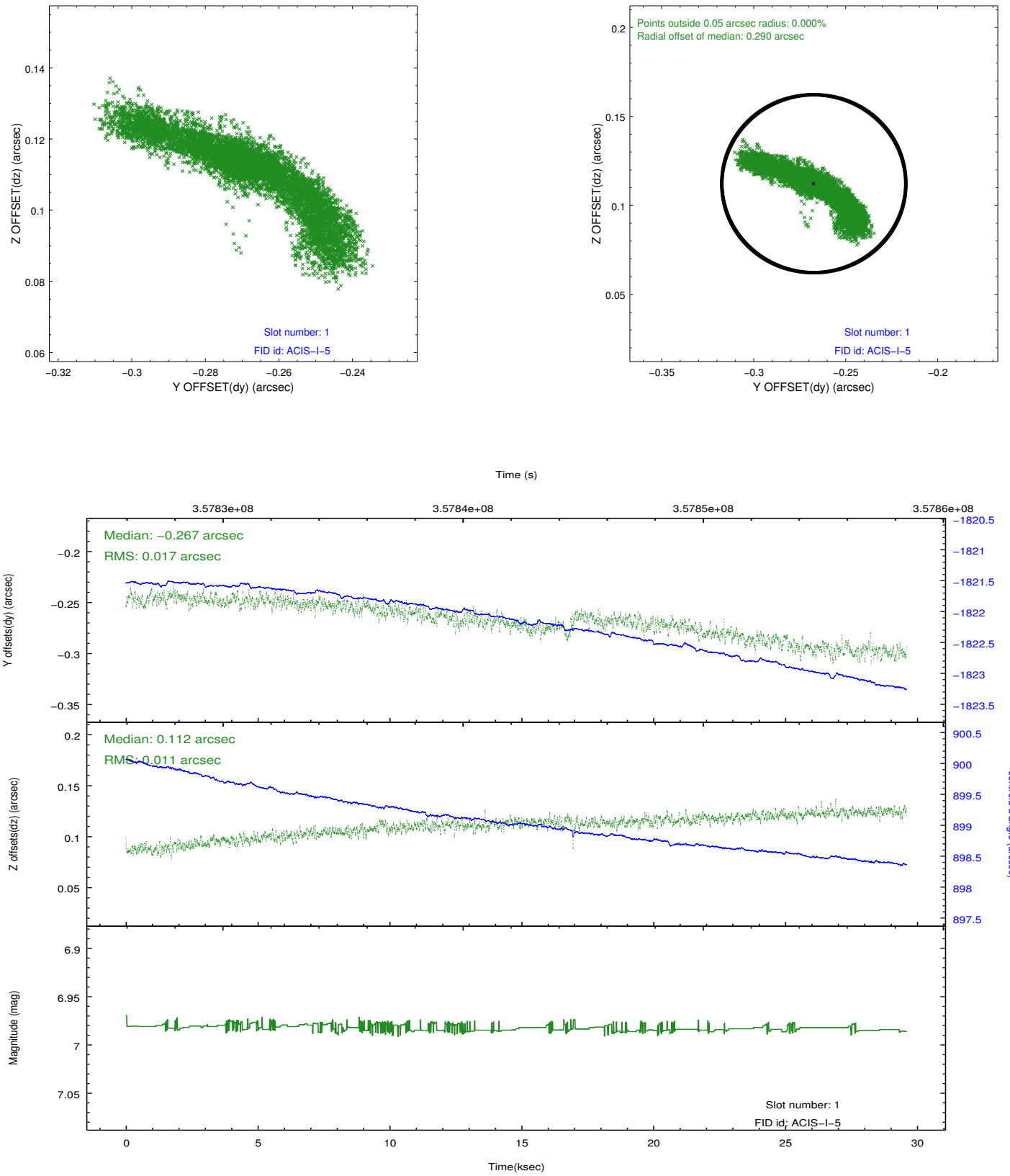


2.5 FID Slots

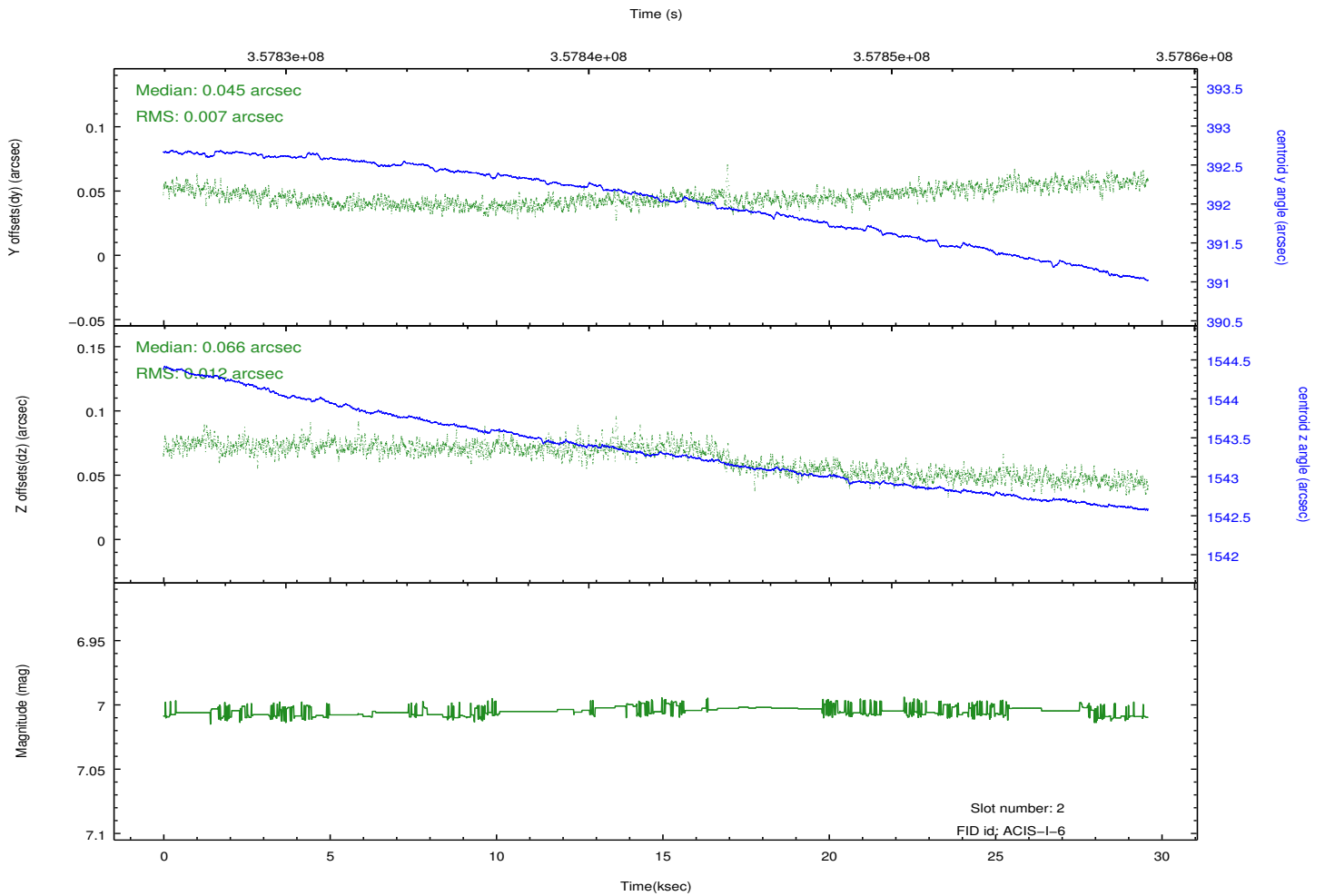
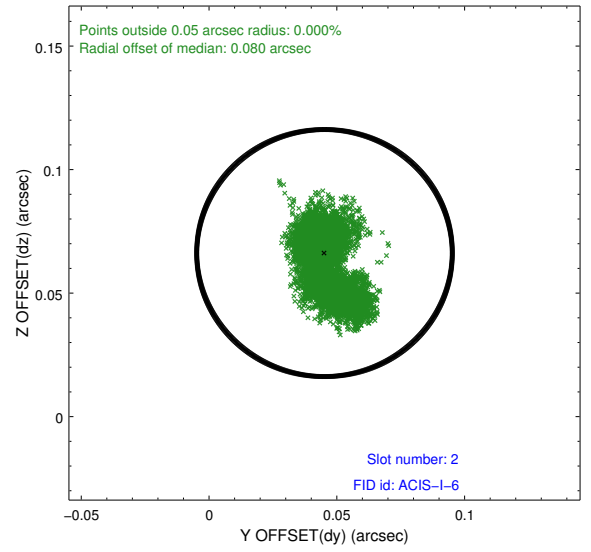
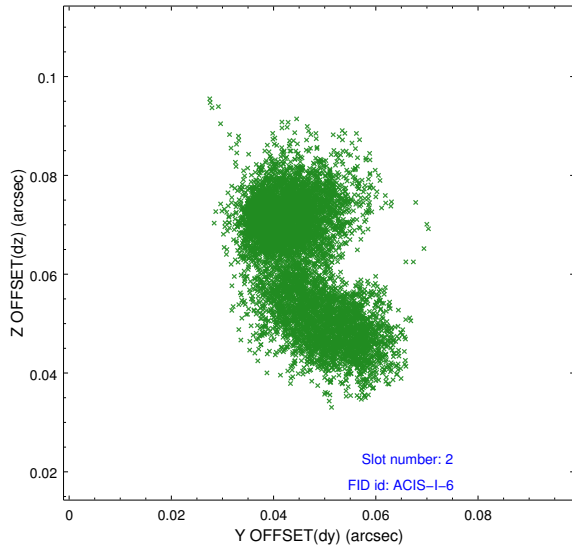
2.5.1 Slot 0



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)	2012.06.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	28.5385592

A.2 Comments

A spatial region of the original bias map for CCD = 1 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original 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. The bias map for CCD = 1 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:
(86.53773, -53.56501), (86.53007, -53.56031), (86.36043, -53.65686), (86.36809, -53.66158)