

V&V Reference Report

L2 ASCDS Version : 10.5

Observation 18877 - L2 Version 2
Chandra X-Ray Center

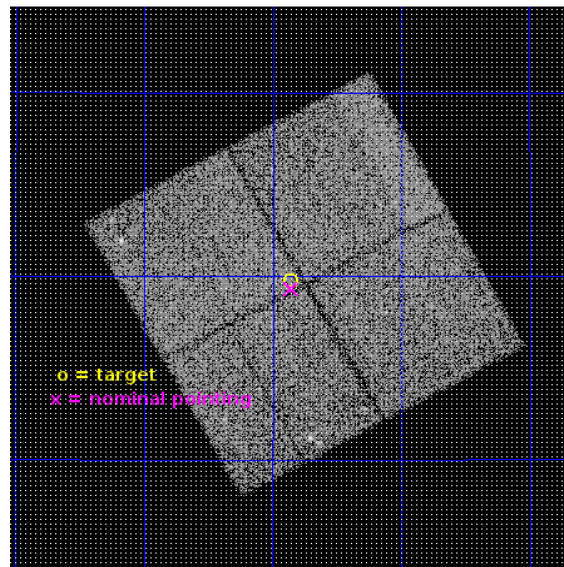
L2 Processing Date : Jun 30 2016

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1 Front

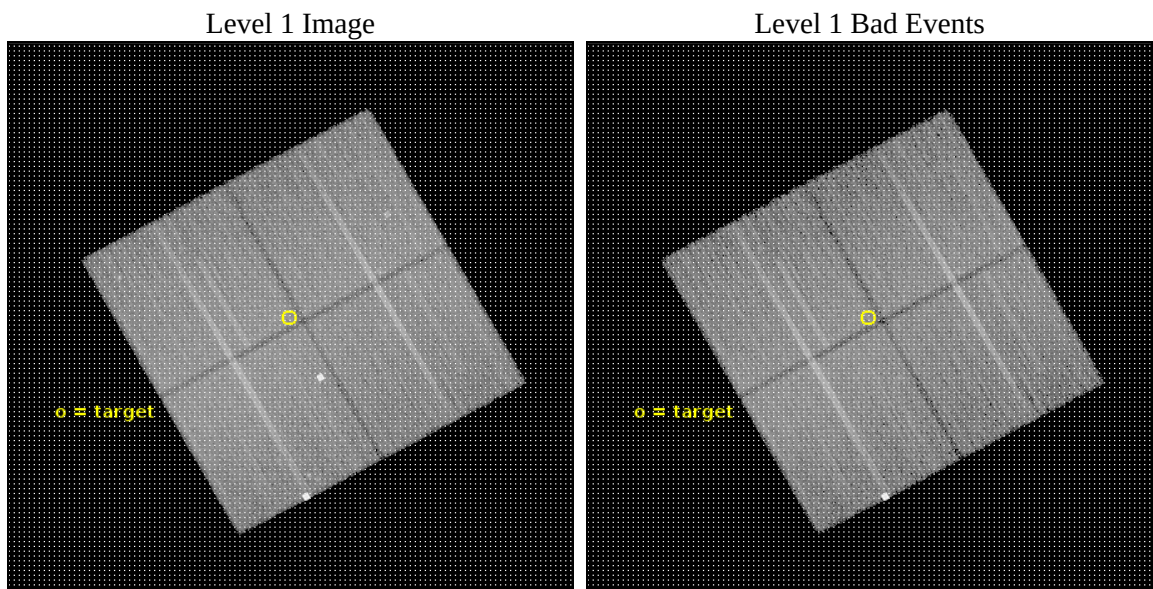
seq_num	801501	Sequence number
obs_id	18877	Observation id
title	Chandra mapping of the cosmic web converging on the virialization region of Abell 1795	Proposal title
observer	Dr Alexey Vikhlinin	Principal investigator
object	Abell 1795 outskirts	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	207.60765	Observer's specified target RA [deg]
dec_targ	26.162058	Observer's specified target Dec [deg]
ra_nom	207.60674412289	Nominal RA [deg]
dec_nom	26.155332516258	Nominal Dec [deg]
roll_nom	241.20908573835	Nominal Roll [deg]
revision	2	Processing version of data
ontime	41839.803202748	Sum of GTIs [s]
livetime	41293.135371889	Livetime [s]
ontime0	41833.398102522	Sum of GTIs [s]
ontime1	41836.580132723	Sum of GTIs [s]
ontime2	41836.621142507	Sum of GTIs [s]
ontime3	41839.803202748	Sum of GTIs [s]
l2events	98565	Number of level 2 events



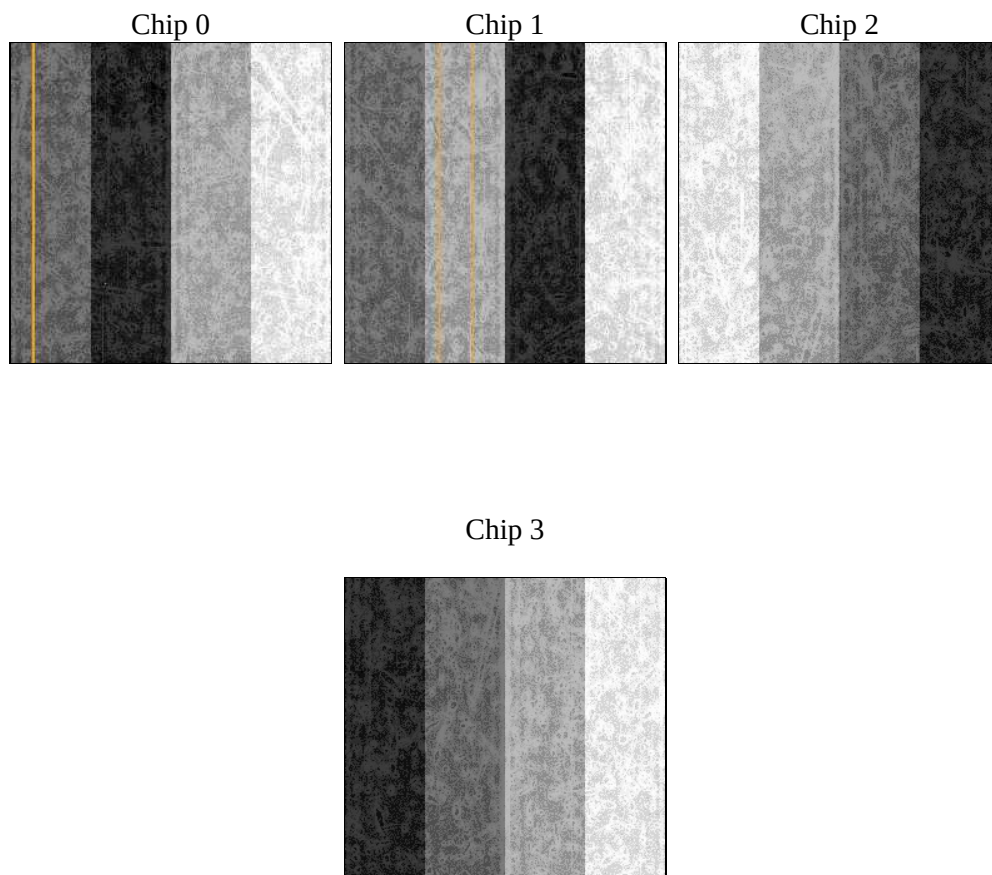
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	41766.329000	[s] Scheduled observation exposure time
ascdsver	10.5	Processing system revision	ontime	41839.803202748	Sum of GTIs [s]
caldbver	4.7.2	 	ontime0	41833.398102522	Sum of GTIs [s]
date	2016-06-30T23:09:03	Date and time of file creation	ontime1	41836.580132723	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	41836.621142507	Sum of GTIs [s]
			ontime3	41839.803202748	Sum of GTIs [s]
			l1events	1054915	Number of level 1 events

2.1.4 Events

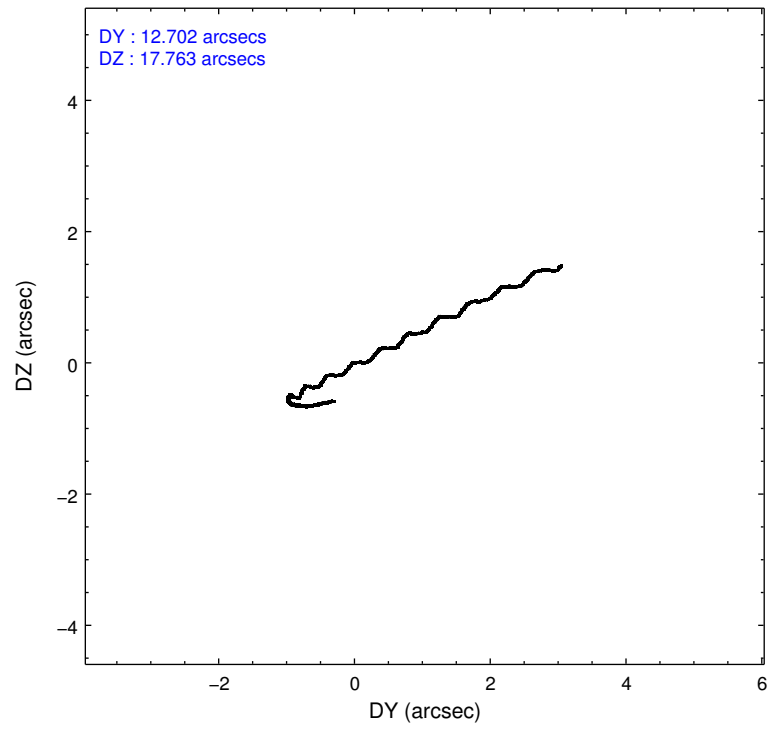
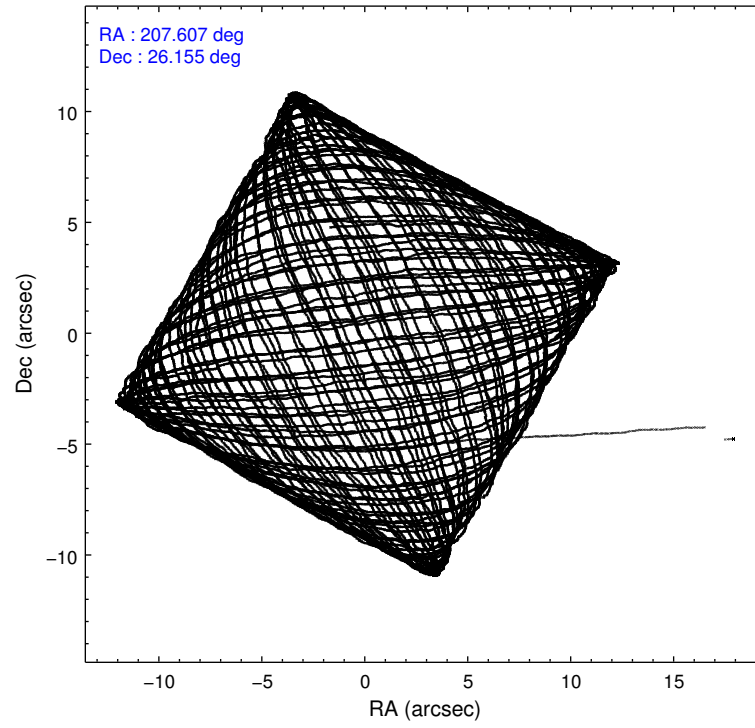
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	244125	248824	297310	264656
rejected events	214922	215372	258586	236705
rejected %	88%	86%	86%	89%

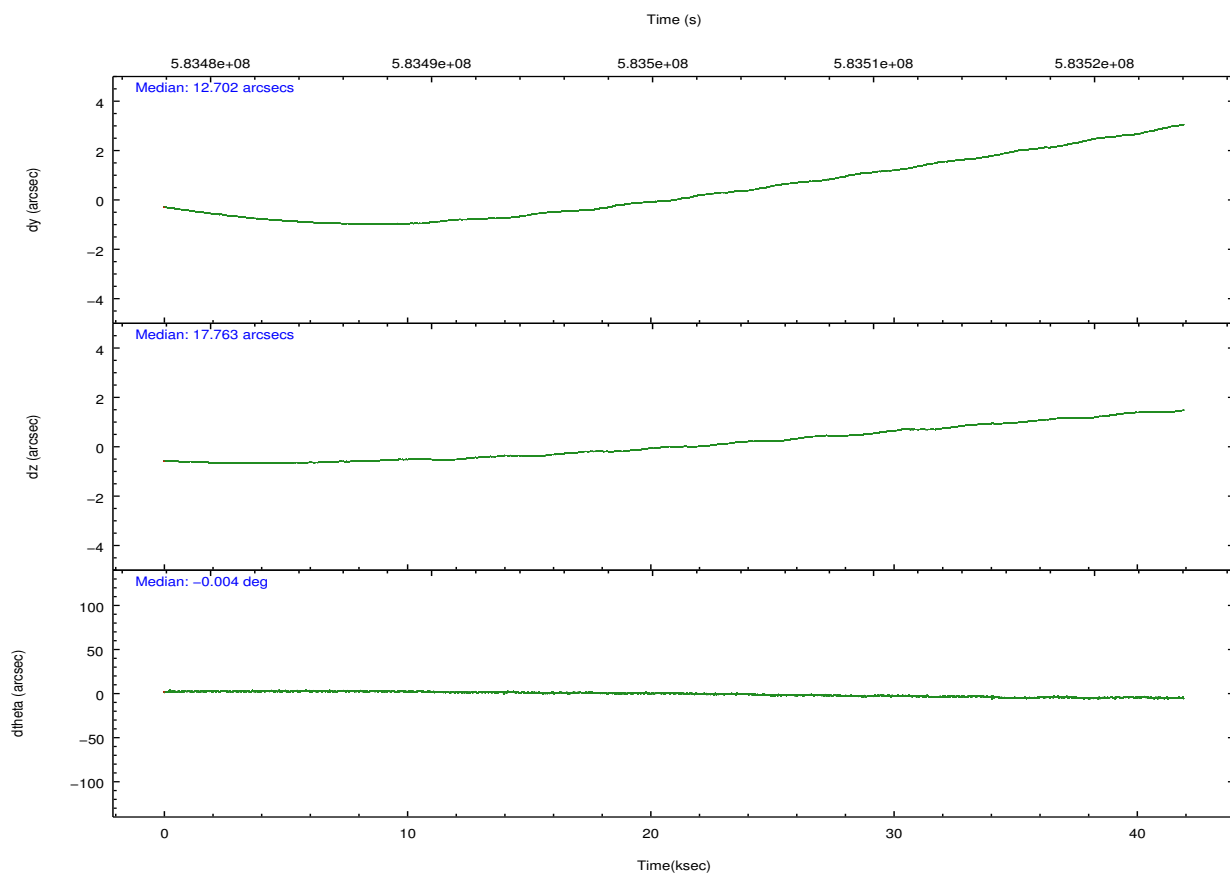
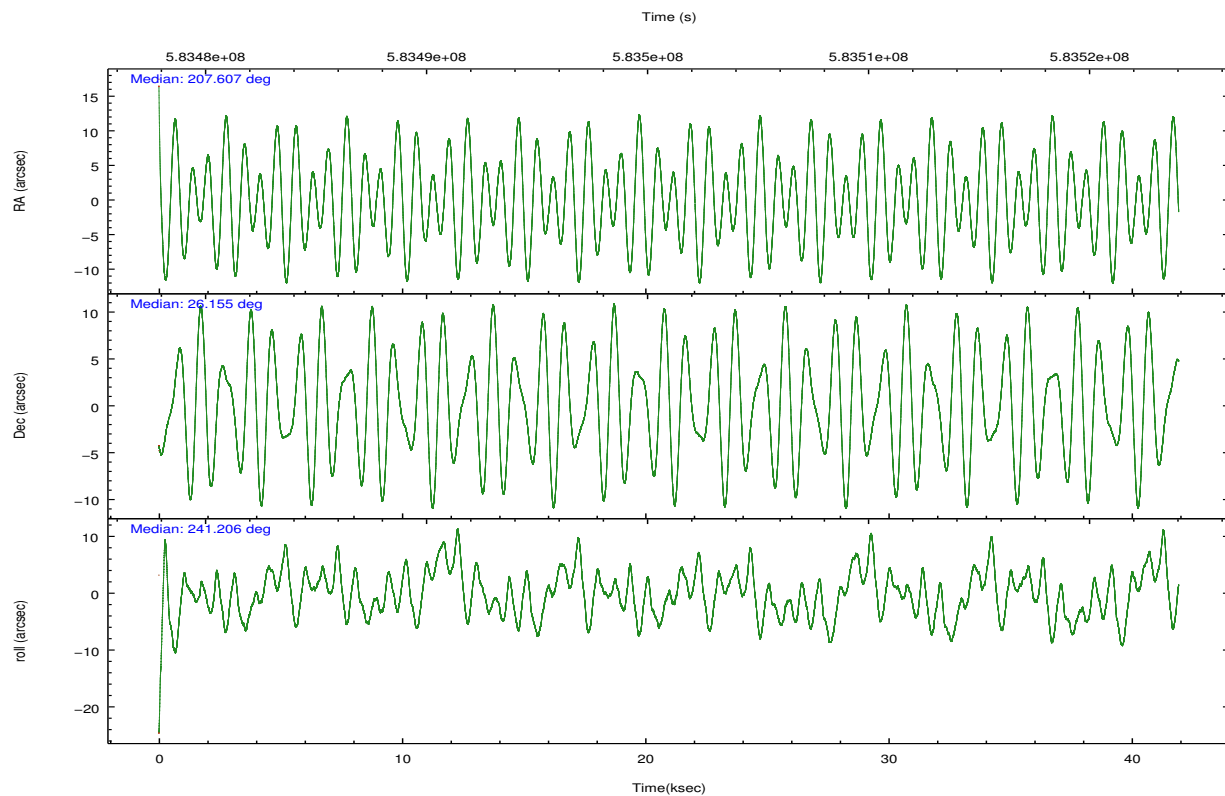
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	9849	11523	20532	10070
	4%	4%	6%	3%
grade 1 events	132	123	13168	140
	0%	0%	4%	0%
grade 2 events	7343	8442	6836	6131
	3%	3%	2%	2%
grade 3 events	3017	3039	2849	2923
	1%	1%	0%	1%
grade 4 events	2845	2940	2946	2876
	1%	1%	0%	1%
grade 5 events	10888	11598	10388	12672
	4%	4%	3%	4%
grade 6 events	6152	7512	5568	5959
	2%	3%	1%	2%
grade 7 events	203899	203647	235023	223885
	83%	81%	79%	84%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	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	207.605984	207.6067441228867	CCD I2 on	Y	Y
[deg] Pointing Dec	26.182923	26.15533251625792	CCD I3 on	Y	Y
[deg] Pointing Roll	241.000736	241.2090857383468	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	N
[mm] SIM translation stage pos	-233.592463	-233.5899487761303	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.002504226799430853	CCD S4 on	N	N
[s] Observation start time (MET)	583480140.184000	583479178.8965	CCD S5 on	N	N
Observation start date	2016-06-28T05:47:52	2016-06-28T05:32:58	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	583521907.184000	583522140.74896	On-chip summing requested	N	N
Observation end date	2016-06-28T17:23:59	2016-06-28T17:29:00	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



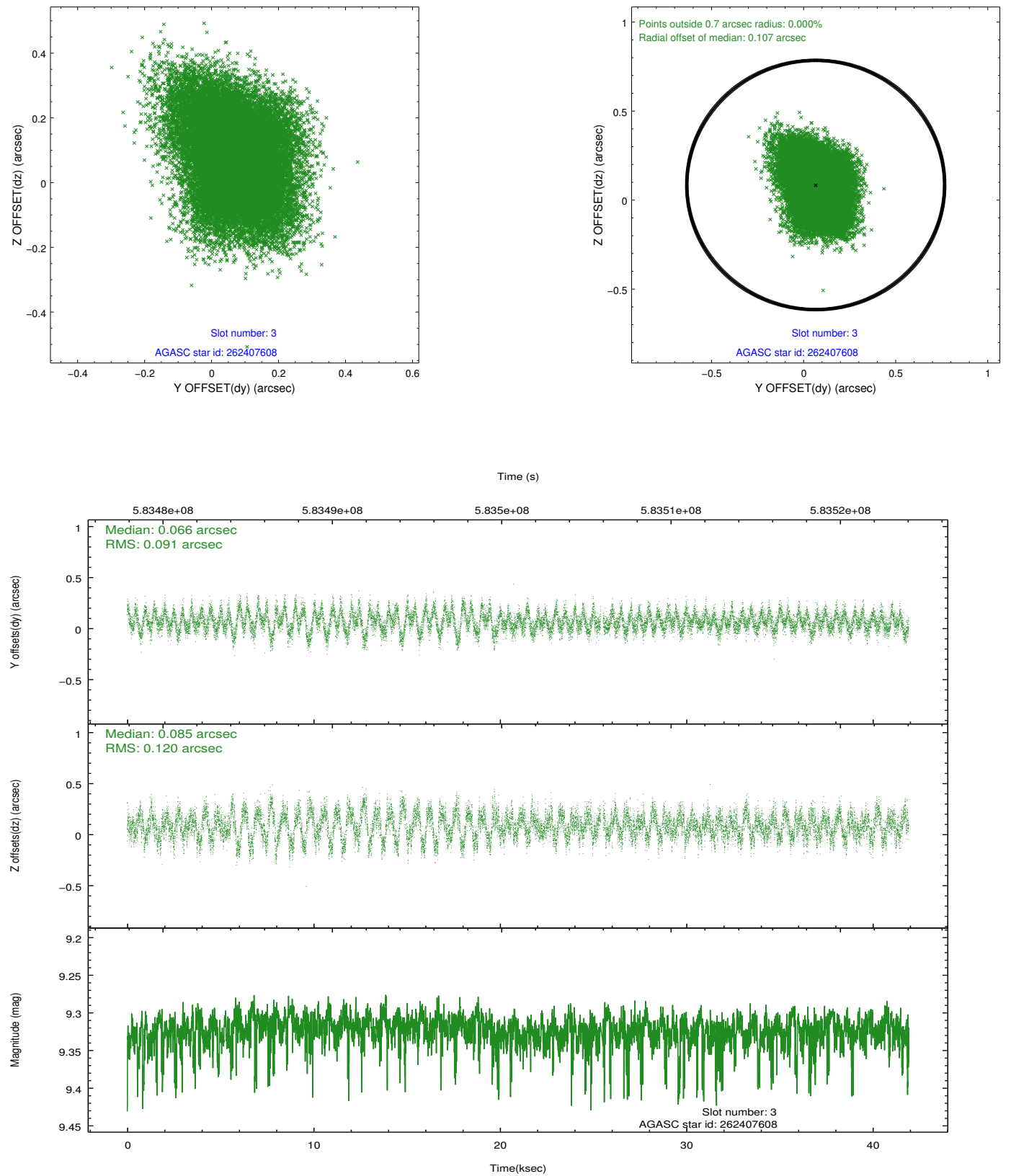


Slot Statistics

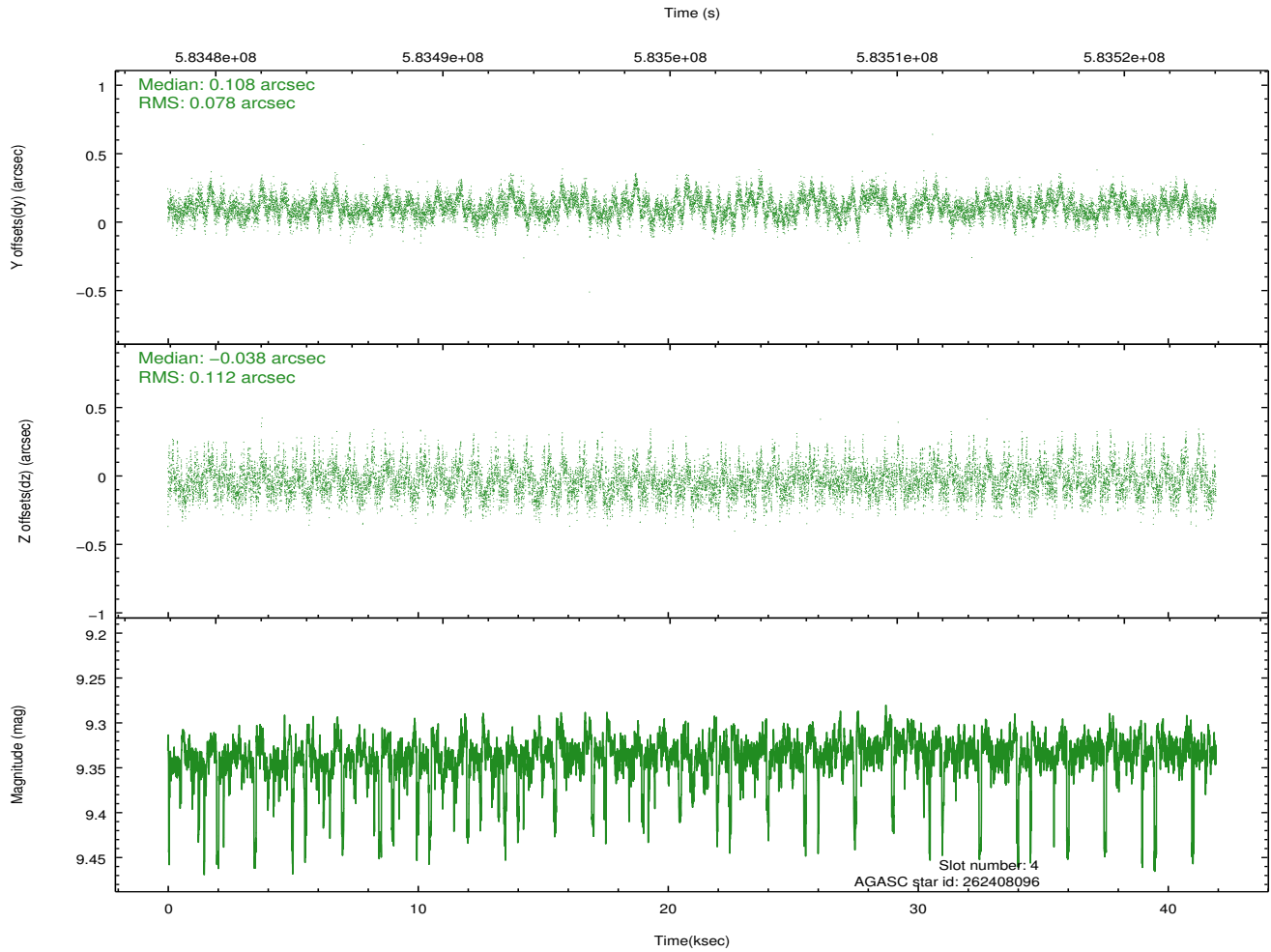
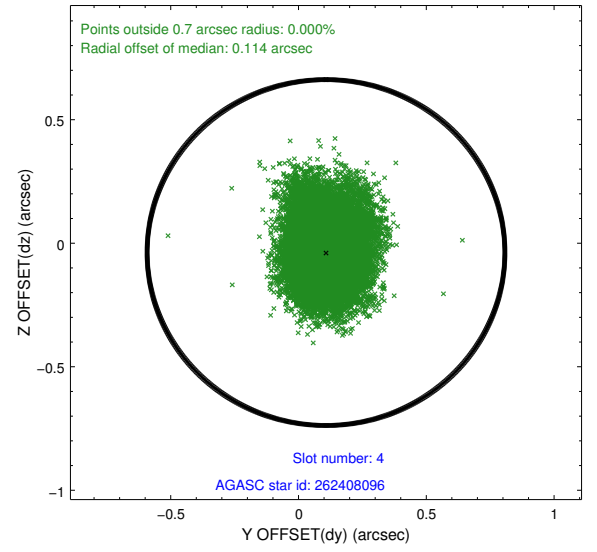
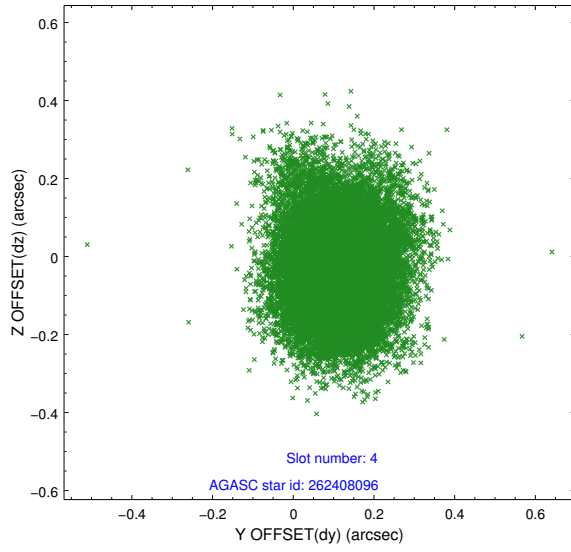
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.24	10226	0.079	-0.039	0.038	0.052	0.000000	0.000000	926.50	-841.53
1	FID		ACIS-I-5	7.26	10225	-0.315	0.052	0.015	0.037	0.000000	0.000000	-1822.05	1055.94
2	FID		ACIS-I-6	7.25	10226	0.140	0.056	0.035	0.056	0.000000	0.000000	392.03	1700.54
3	GUIDE	used	262407608	9.32	20368	0.066	0.085	0.160	0.261	207.378401	26.435507	-439.68	-1082.33
4	GUIDE	used	262408096	9.34	20427	0.108	-0.038	0.143	0.242	207.011678	26.515421	-121.95	-2257.43
5	GUIDE	used	262408936	9.63	20421	-0.108	0.080	0.166	0.264	207.154731	26.726554	-1010.07	-2218.67
6	GUIDE	used	262411960	9.65	20413	0.015	-0.089	0.136	0.221	207.327895	25.881727	1384.58	-262.57
7	GUIDE	used	262414456	9.26	20355	-0.086	-0.034	0.116	0.200	208.043290	26.129682	-519.16	1328.31

2.4 Star Slots

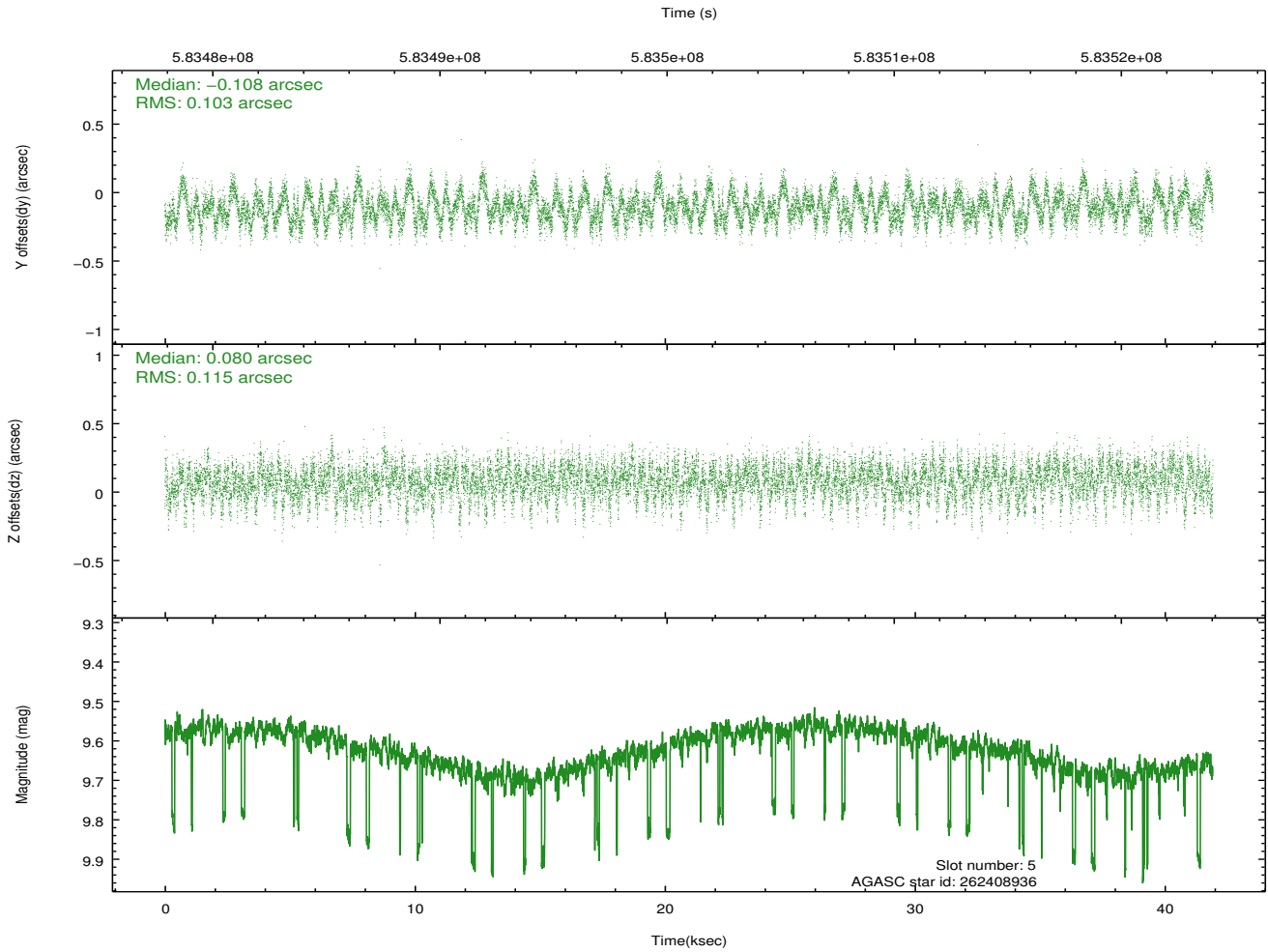
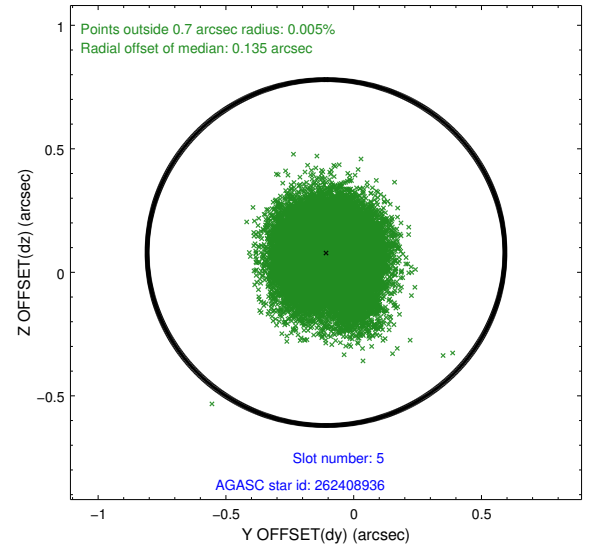
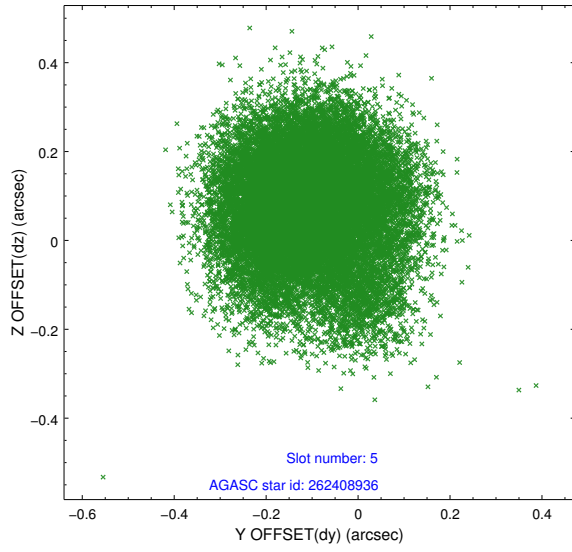
2.4.1 Slot 3



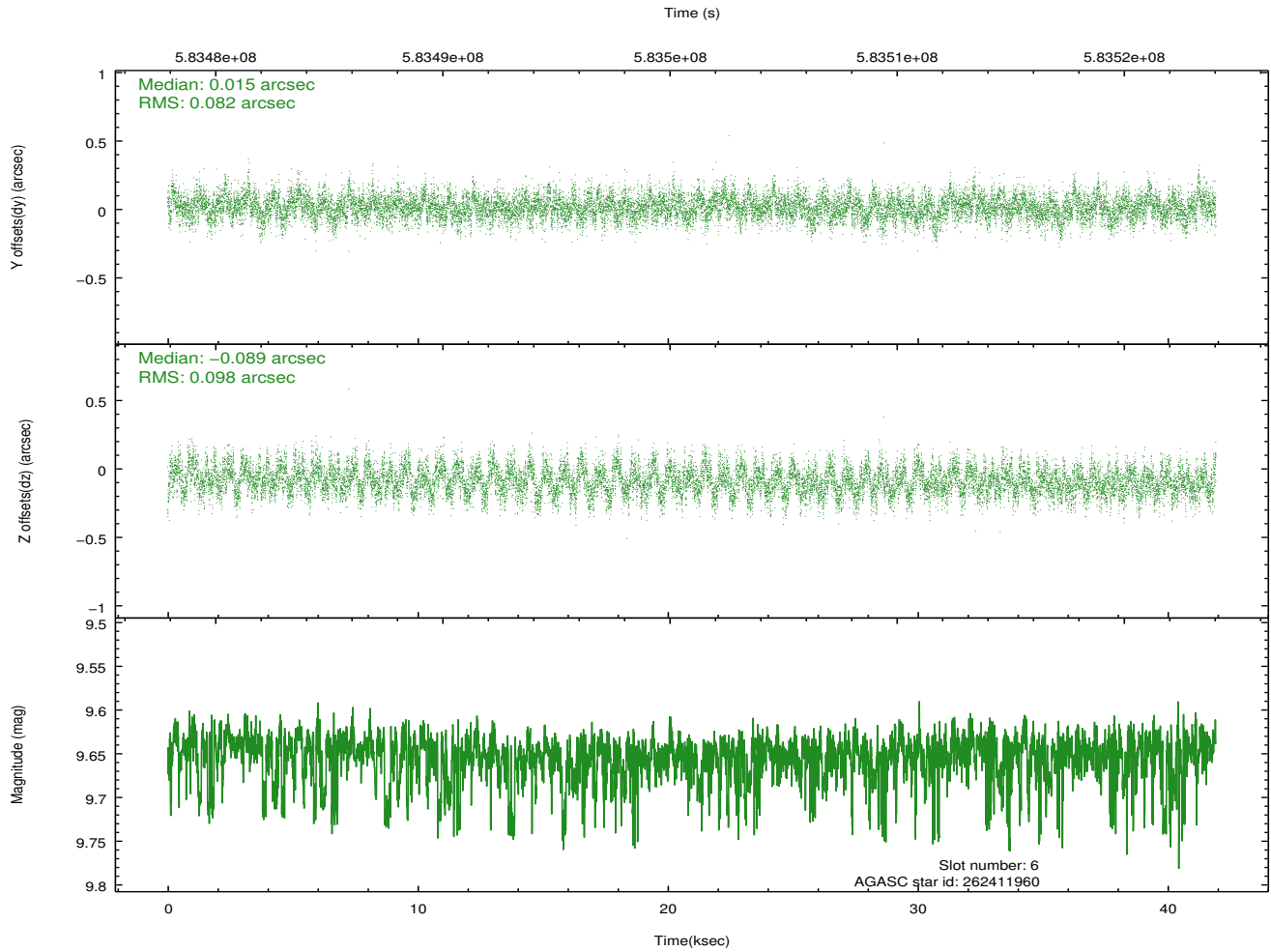
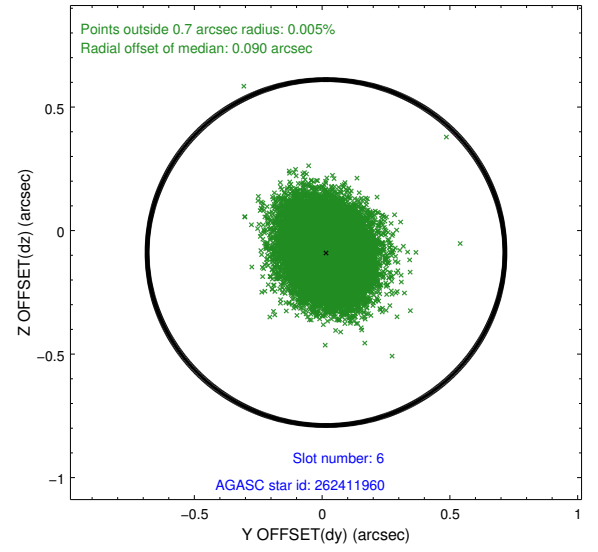
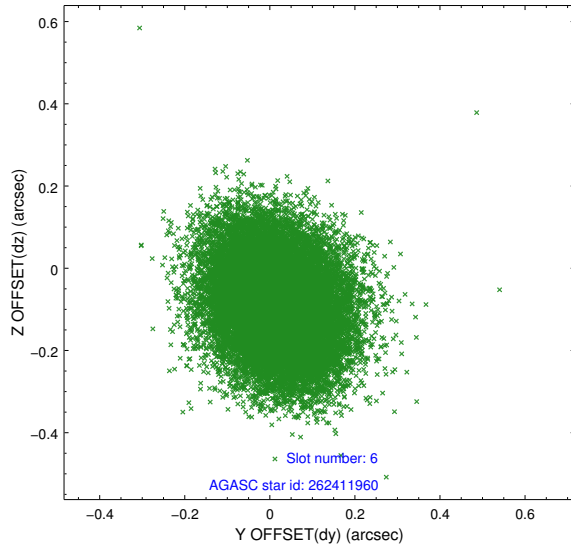
2.4.2 Slot 4



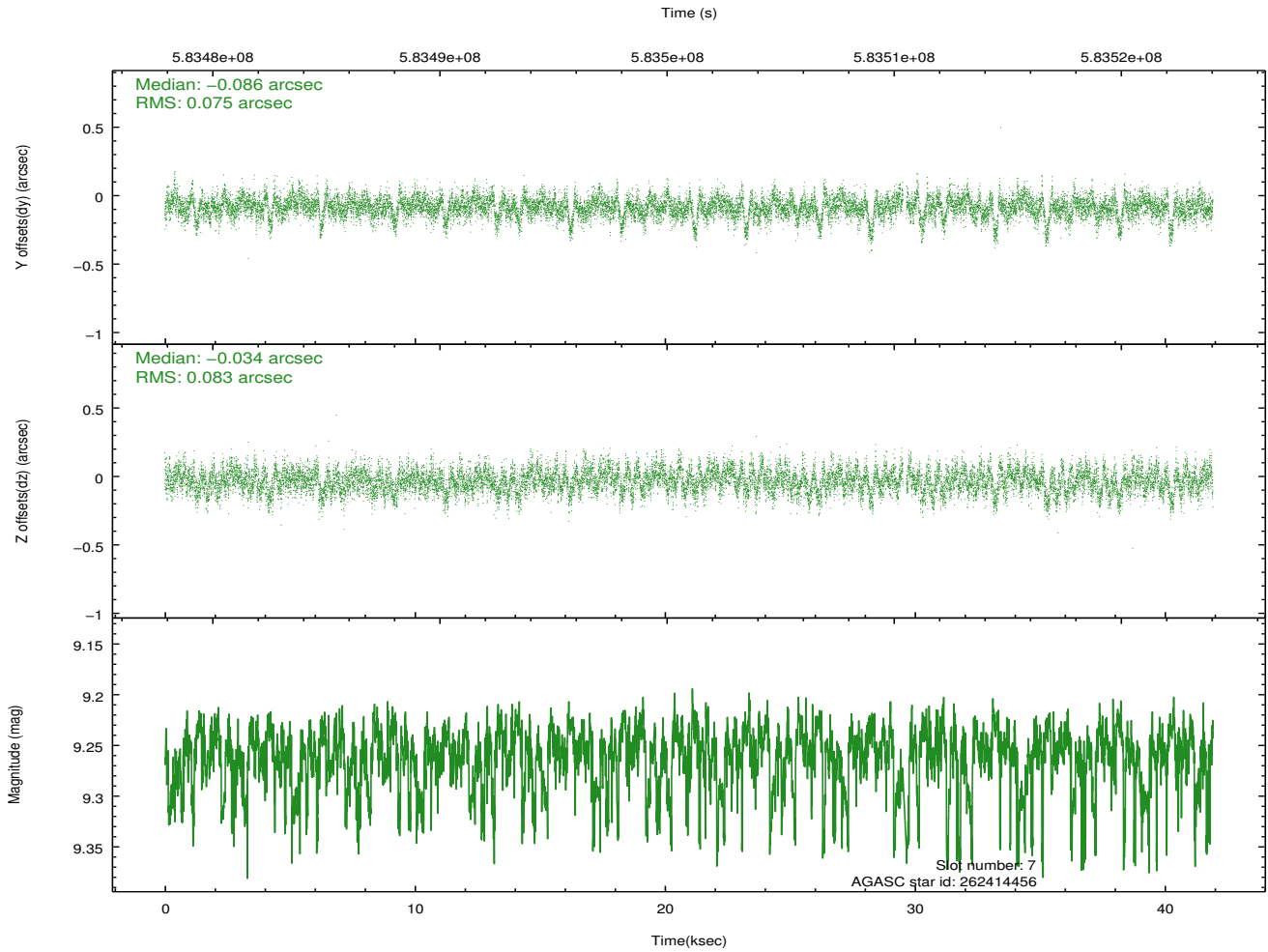
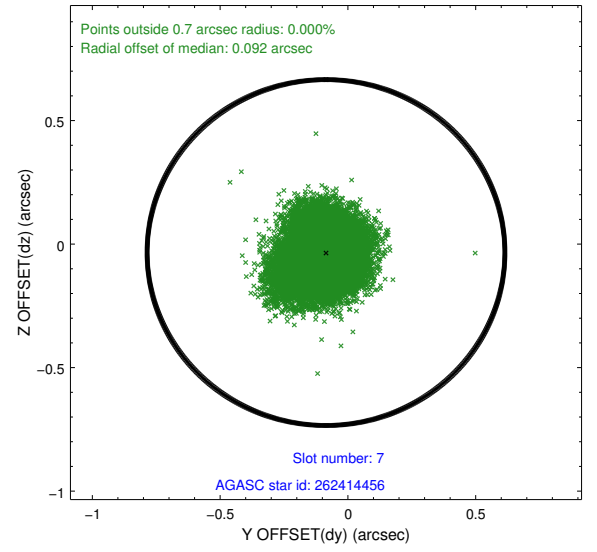
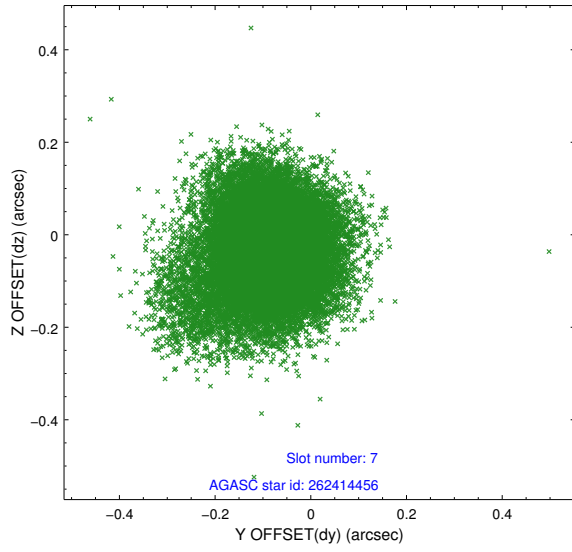
2.4.3 Slot 5



2.4.4 Slot 6

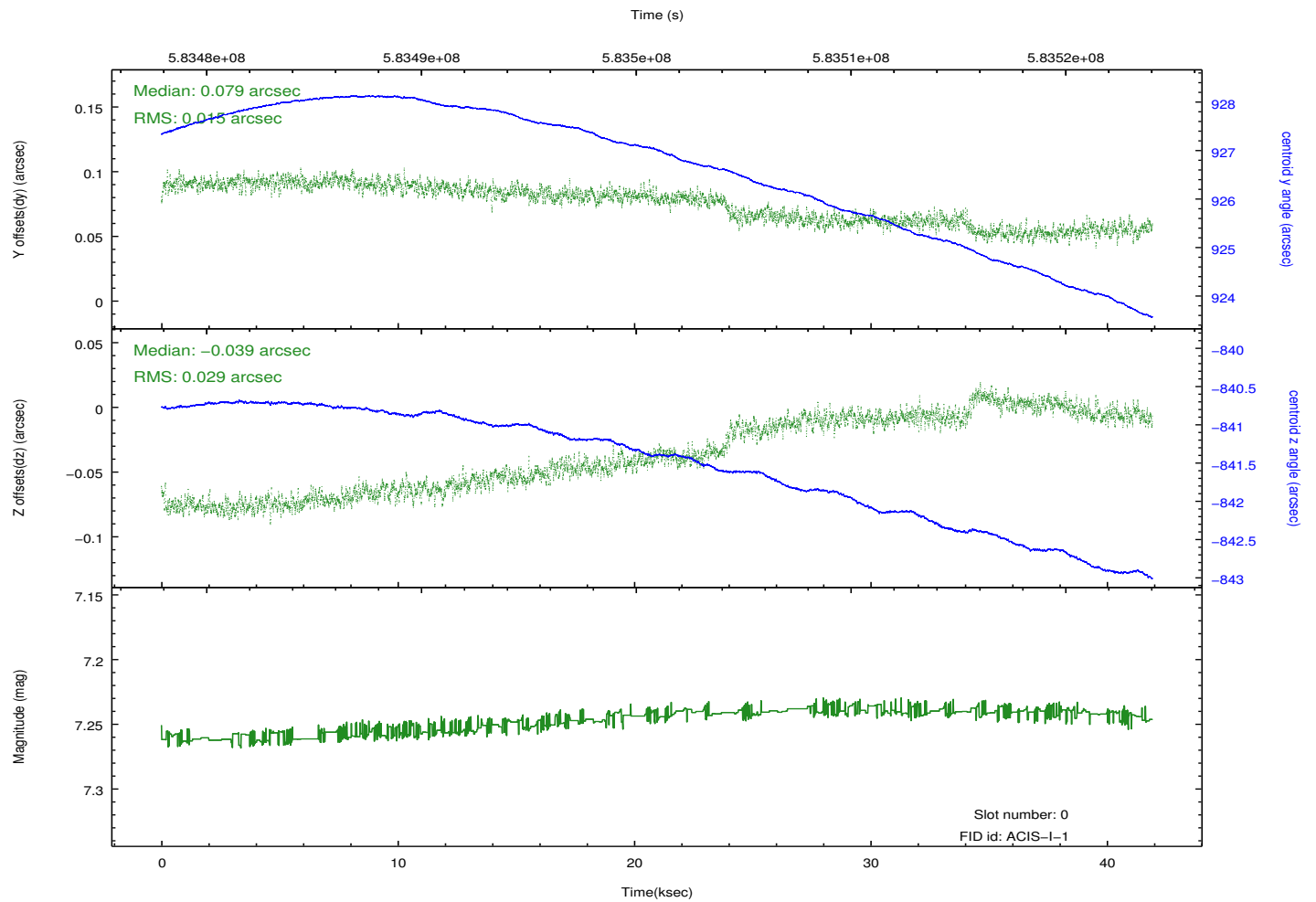
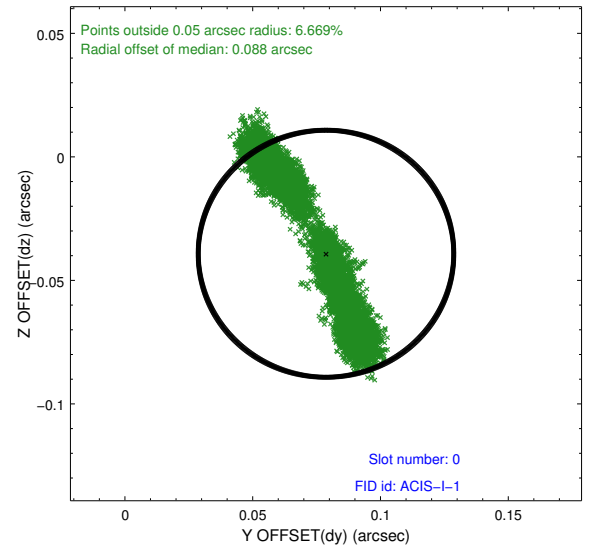
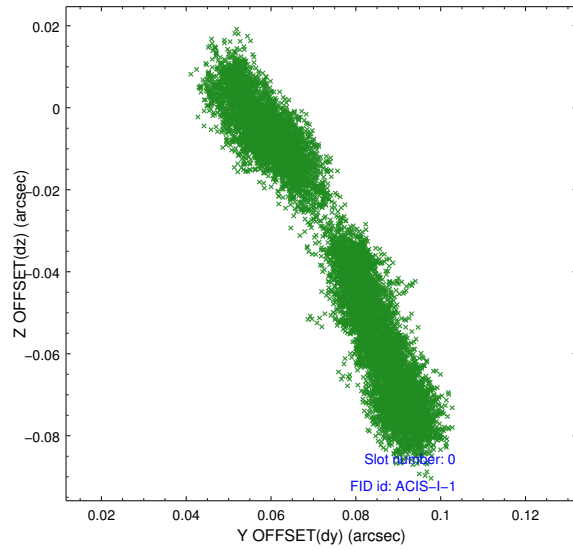


2.4.5 Slot 7

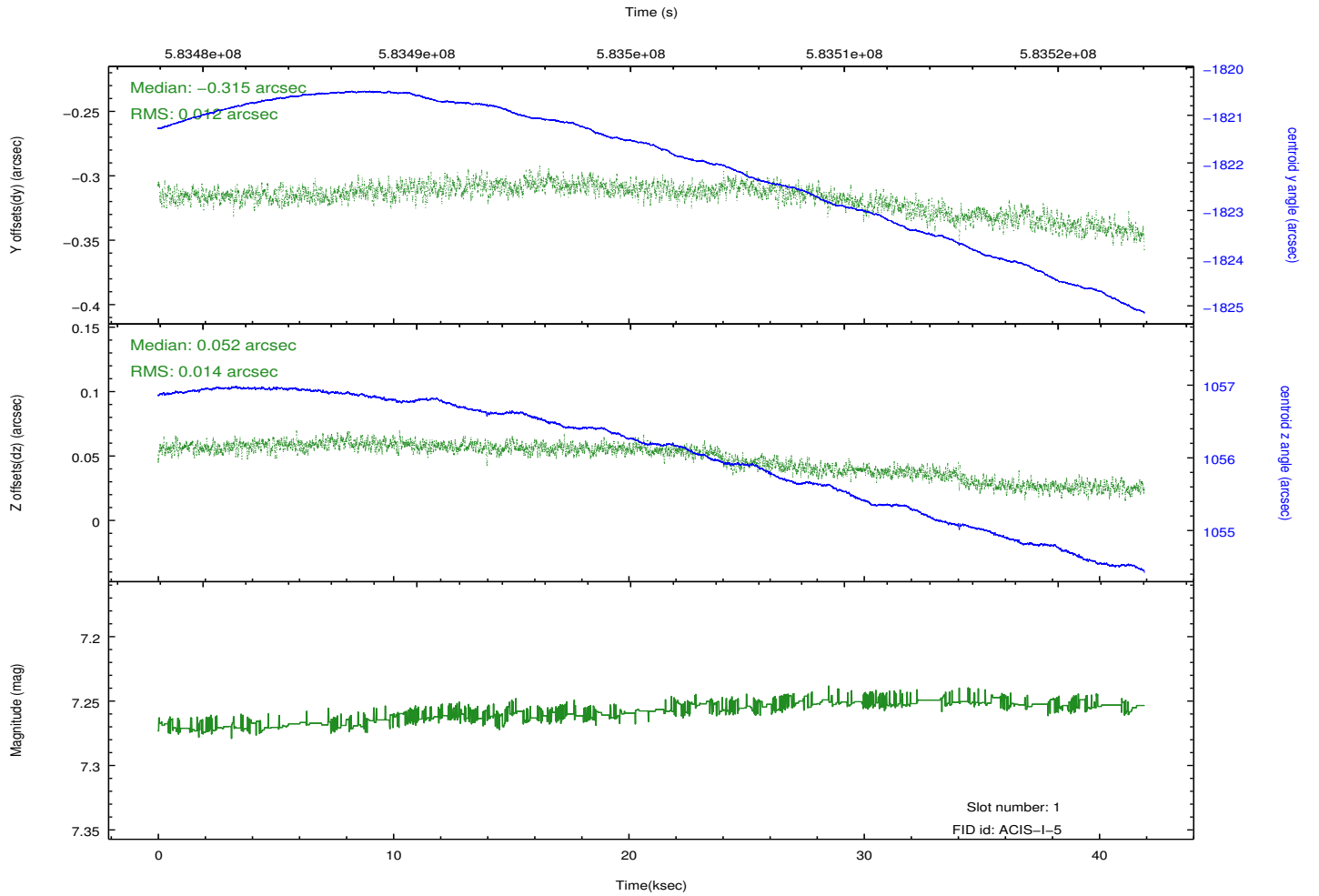
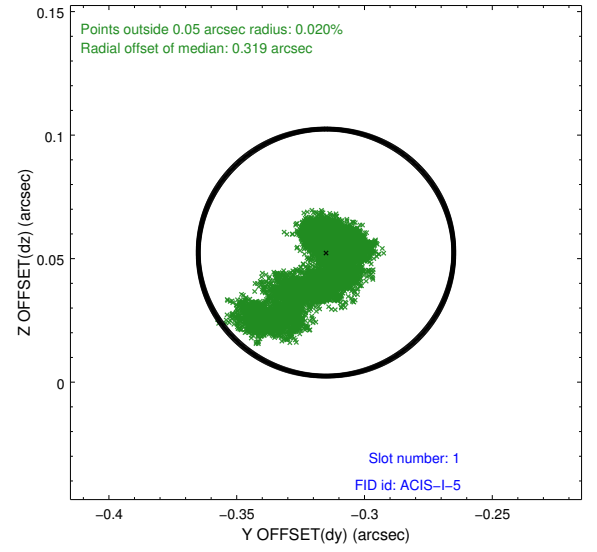
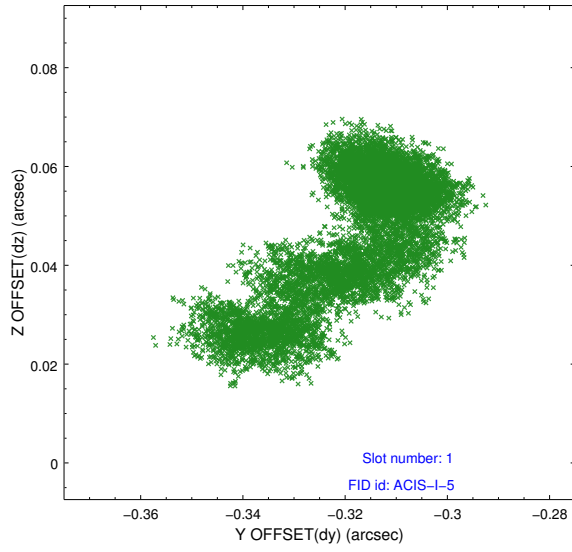


2.5 FID Slots

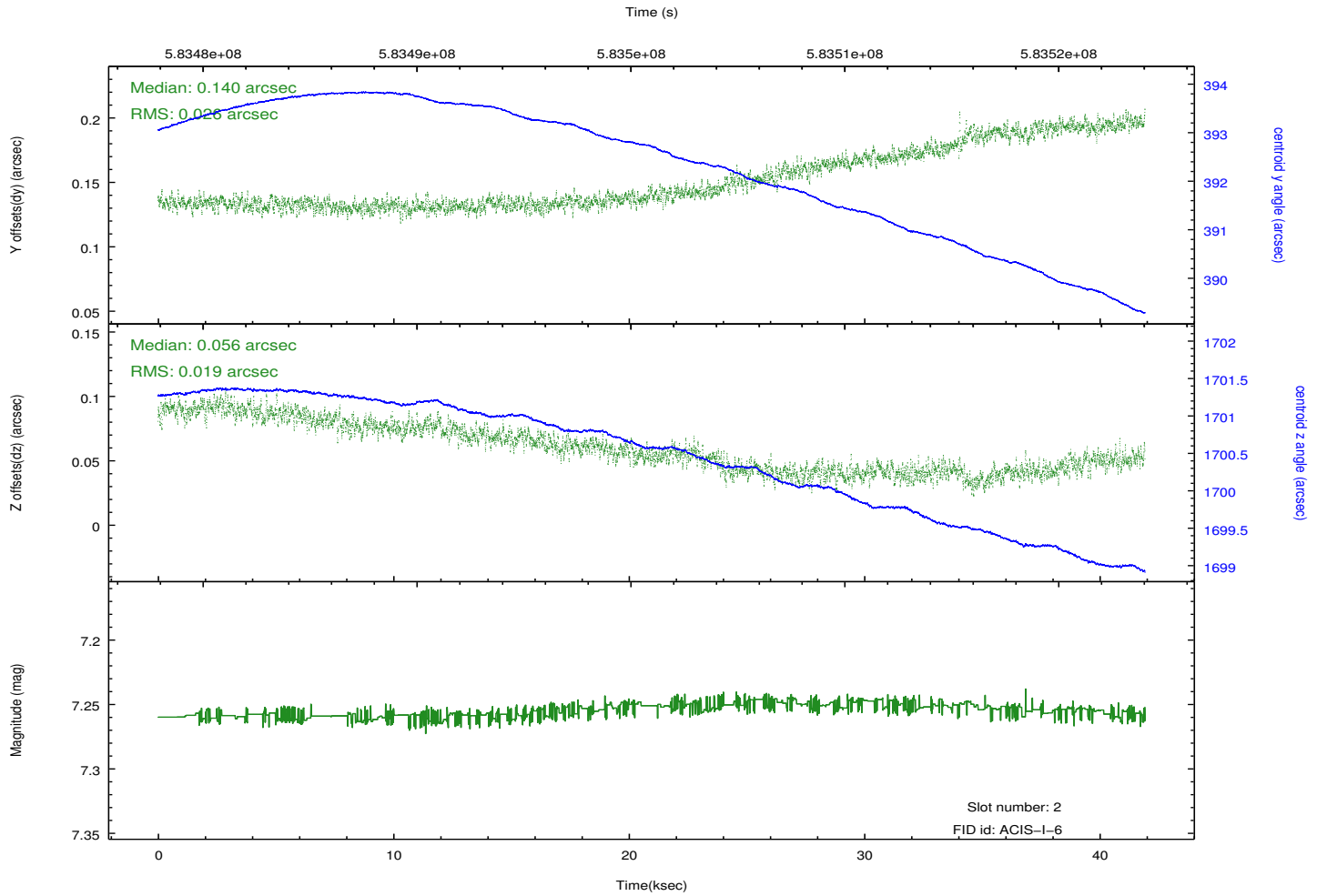
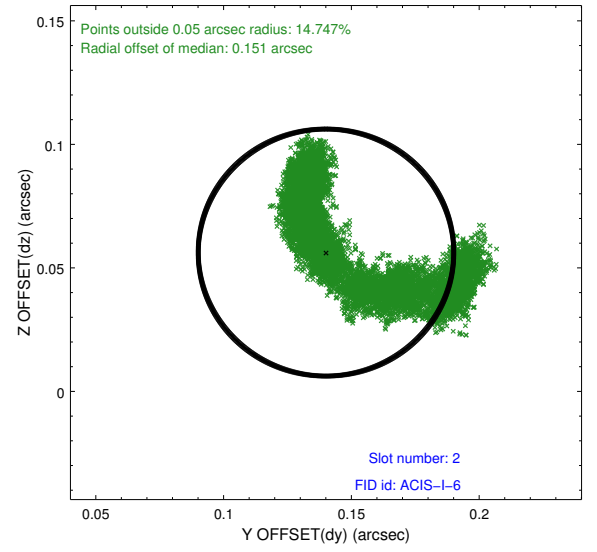
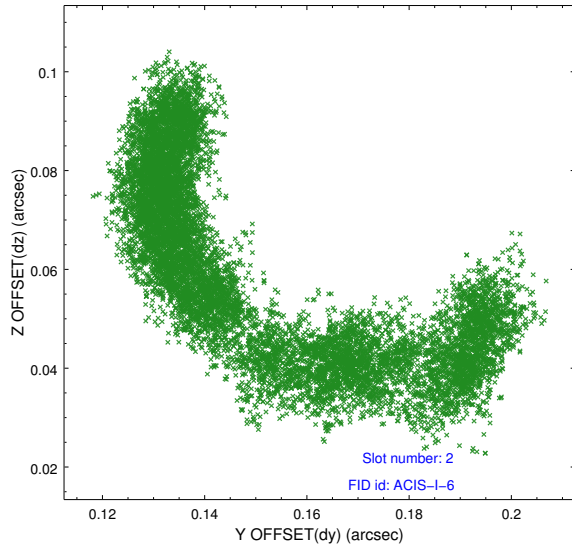
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2016.07.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	41.839803202748

A.2 Comments

One optional chip was dropped.

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: (207.55127, 26.34120), (207.54726, 26.34316), (207.50908, 26.28076), (207.51308, 26.27880).