

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 15547 - L2 Version 2
Chandra X-Ray Center

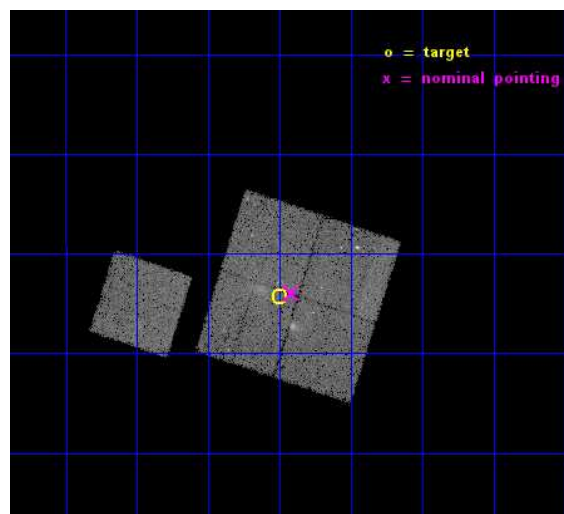
L2 Processing Date : Nov 27 2014

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1 Front

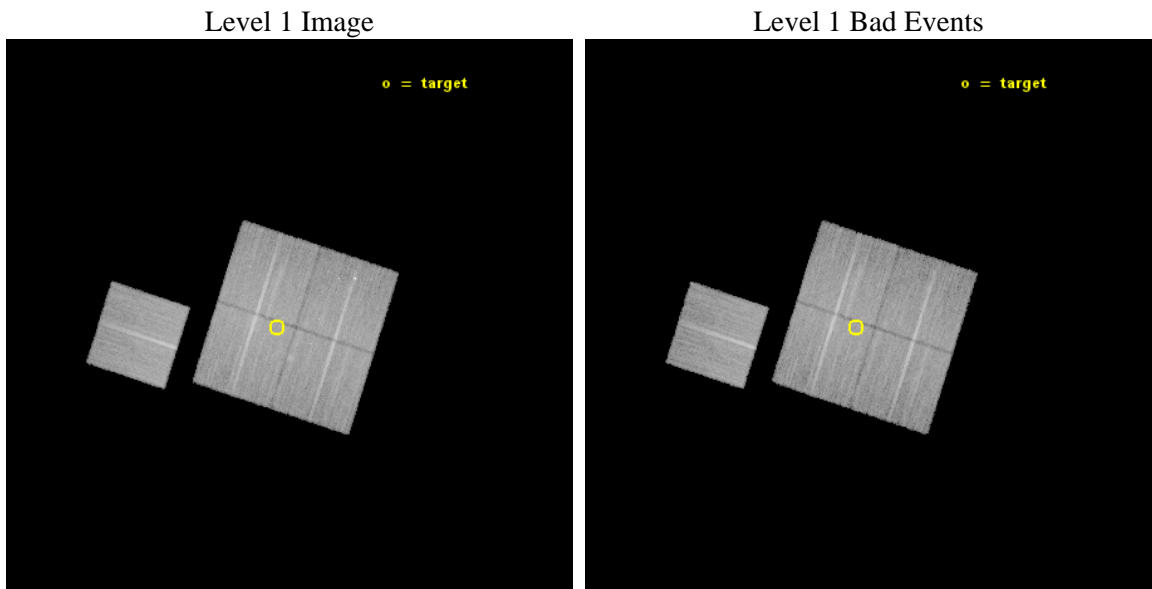
seq_num	801190	Sequence number
obs_id	15547	Observation id
title	Dark and Luminous Matter in the Twin Clusters of Abell 2465	Propos
observer	Prof. Gary Wegner	Principal investigator
object	Abell 2465	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	339.875833	Observer's specified target RA [deg]
dec_targ	-5.739167	Observer's specified target Dec [deg]
ra_nom	339.85445122195	Nominal RA [deg]
dec_nom	-5.7330953462255	Nominal Dec [deg]
roll_nom	288.00655368002	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30079.259201229	Sum of GTIs [s]
livetime	29686.251535736	Livetime [s]
ontime0	30079.259211123	Sum of GTIs [s]
ontime1	30082.400231361	Sum of GTIs [s]
ontime2	30079.259201229	Sum of GTIs [s]
ontime3	30082.400231361	Sum of GTIs [s]
ontime6	30082.400231361	Sum of GTIs [s]
l2events	82969	Number of level 2 events



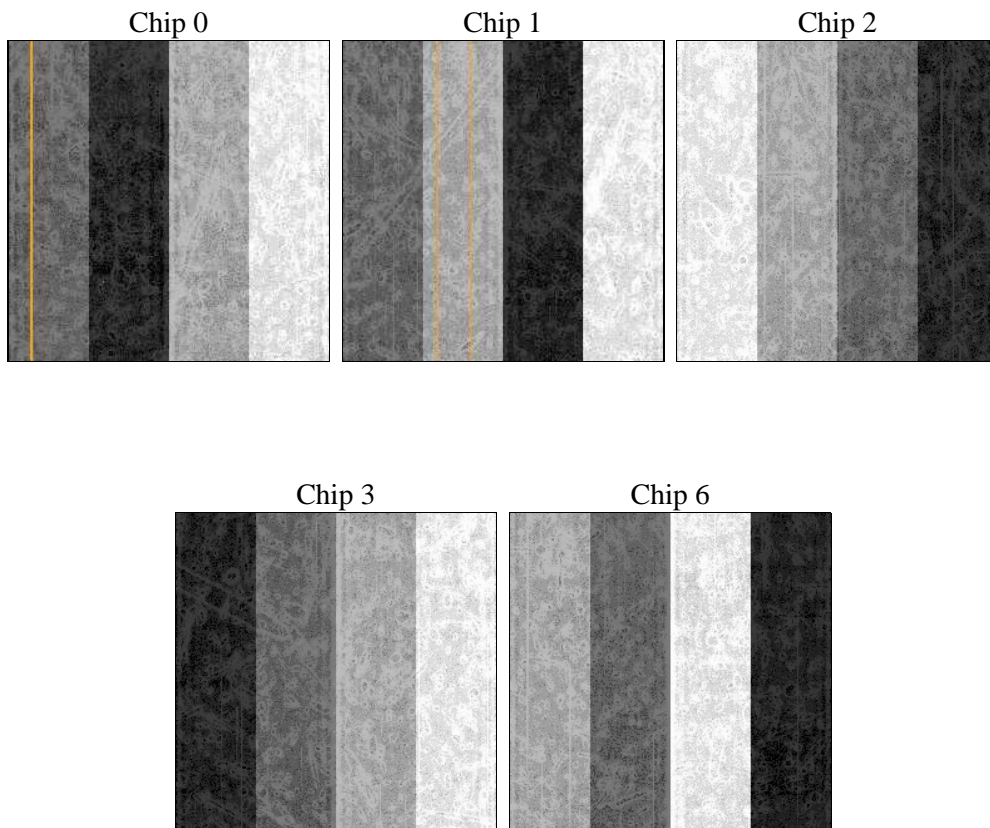
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	30079.259201229	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	30079.259211123	Sum of GTIs [s]
date	2014-11-27T17:18:07	Date and time of file creation	ontime1	30082.400231361	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	30079.259201229	Sum of GTIs [s]
			ontime3	30082.400231361	Sum of GTIs [s]
			ontime6	30082.400231361	Sum of GTIs [s]
			l1events	758215	Number of level 1 events

2.1.4 Events

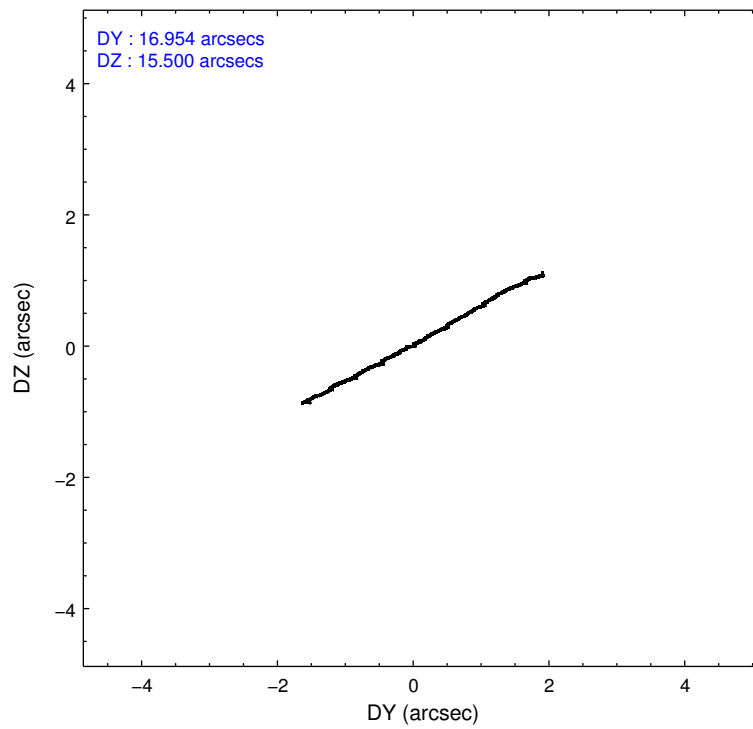
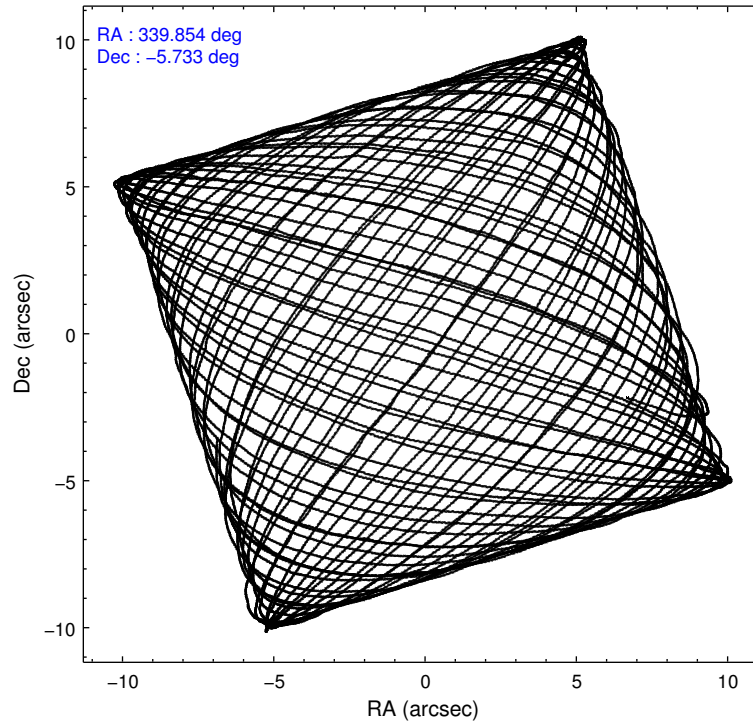
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	142724	144626	159139	154423	157303
rejected events	123406	122288	139227	136759	138323
rejected %	86%	84%	87%	88%	87%

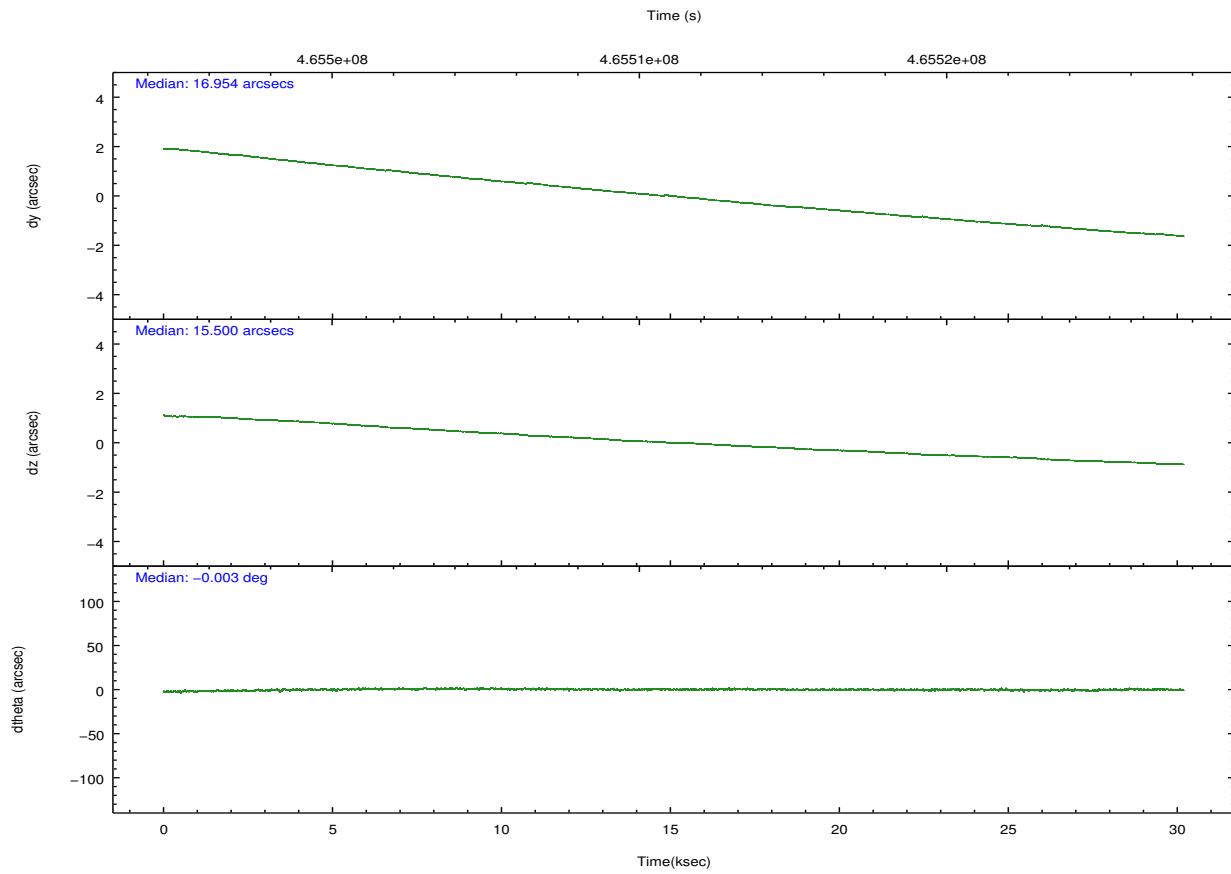
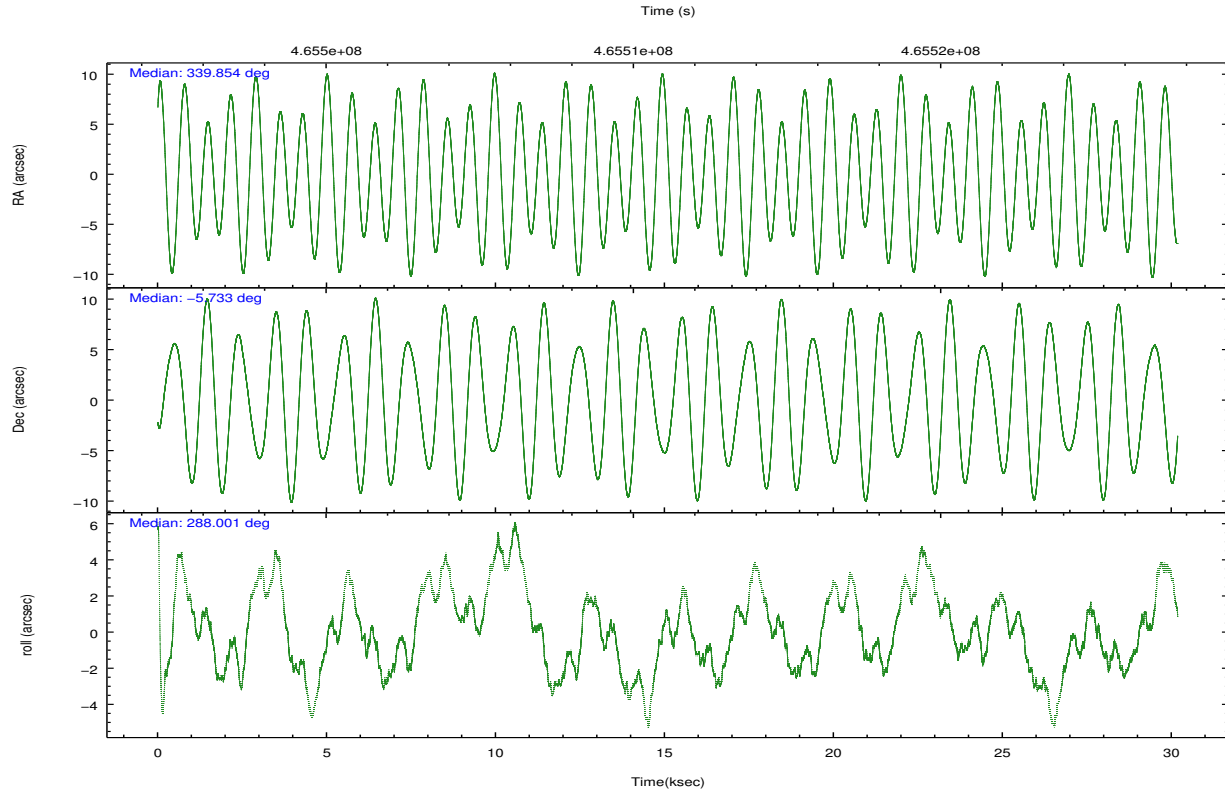
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	7305	8555	7899	6462	6562
	5%	5%	4%	4%	4%
grade 1 events	86	98	109	102	71
	0%	0%	0%	0%	0%
grade 2 events	4581	5212	4457	3910	4250
	3%	3%	2%	2%	2%
grade 3 events	1899	2068	1936	1826	1952
	1%	1%	1%	1%	1%
grade 4 events	1794	2054	2006	1818	1935
	1%	1%	1%	1%	1%
grade 5 events	7434	7621	6793	8145	7652
	5%	5%	4%	5%	4%
grade 6 events	3744	4451	3618	3653	4281
	2%	3%	2%	2%	2%
grade 7 events	115881	114567	132321	128507	130600
	81%	79%	83%	83%	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	339.833836	339.8544512219533	CCD I2 on	Y	Y
[deg] Pointing Dec	-5.714772	-5.733095346225488	CCD I3 on	Y	Y
[deg] Pointing Roll	287.795811	288.0065536800176	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	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	465496223.184000	465494958.90448	CCD S5 on	N	N
Observation start date	2012-10-01T16:29:16	2012-10-01T16:09:18	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	465526223.184000	465527110.0812	On-chip summing requested	N	N
Observation end date	2012-10-02T00:49:16	2012-10-02T01:05:10	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





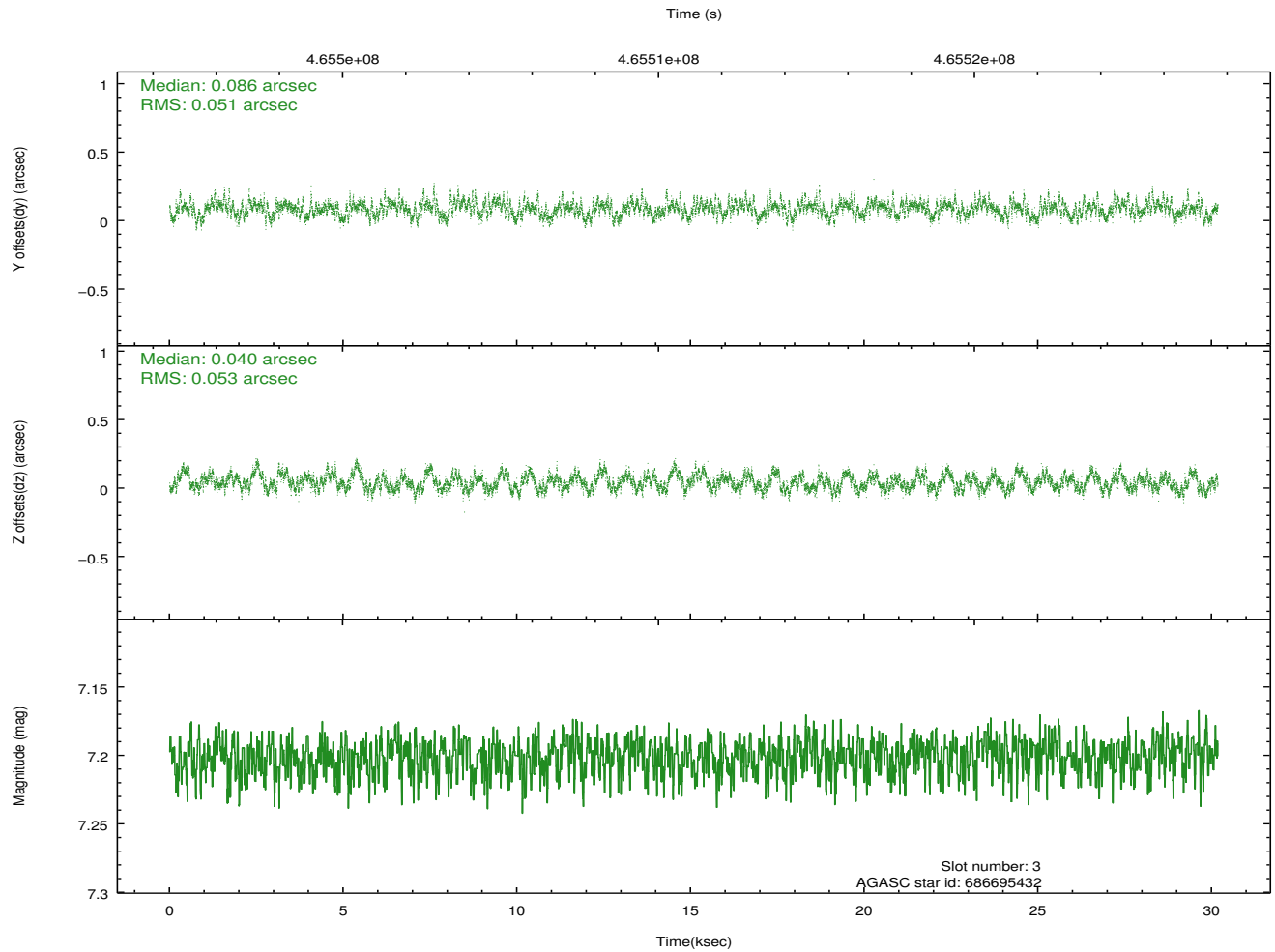
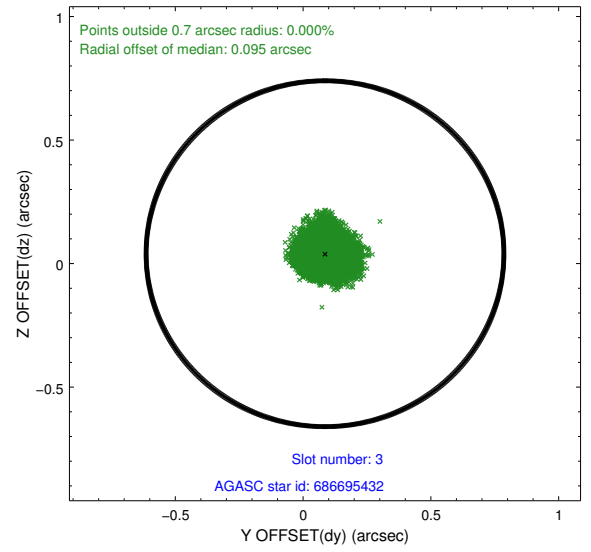
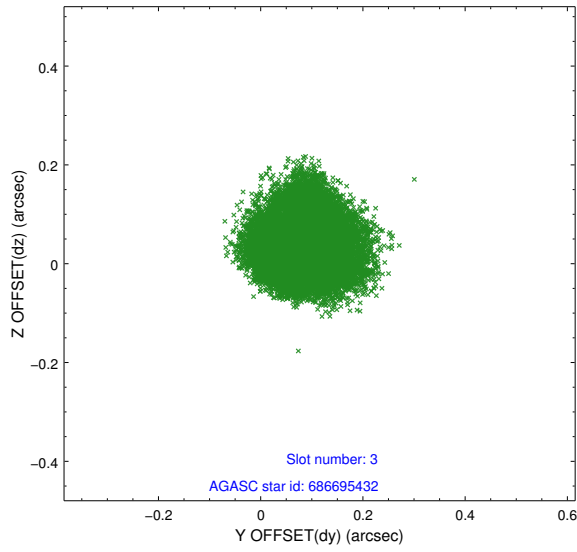
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.08	7361	-0.022	-0.033	0.053	0.076	0.000000	0.000000	922.42	-839.19
1	FID		ACIS-I-4	7.01	7361	0.228	0.059	0.058	0.080	0.000000	0.000000	2142.71	1060.70
2	FID		ACIS-I-5	7.07	7361	-0.300	0.046	0.042	0.057	0.000000	0.000000	-1825.80	1058.56
3	GUIDE	used	686695432	7.20	14721	0.086	0.040	0.080	0.119	339.324536	-6.067444	653.24	-2124.59
4	GUIDE	used	686821872	9.00	14710	0.014	-0.141	0.092	0.145	340.273450	-5.812844	818.16	1390.94
5	GUIDE	used	686822592	8.72	14713	-0.122	-0.034	0.082	0.135	340.352201	-5.655361	364.97	1833.83
6	GUIDE	used	686824768	9.31	14711	0.003	-0.095	0.121	0.185	340.130907	-5.833997	734.78	881.88
7	GUIDE	used	686694672	8.64	14611	0.022	0.228	0.087	0.146	339.082138	-5.602381	-1206.15	-2440.94

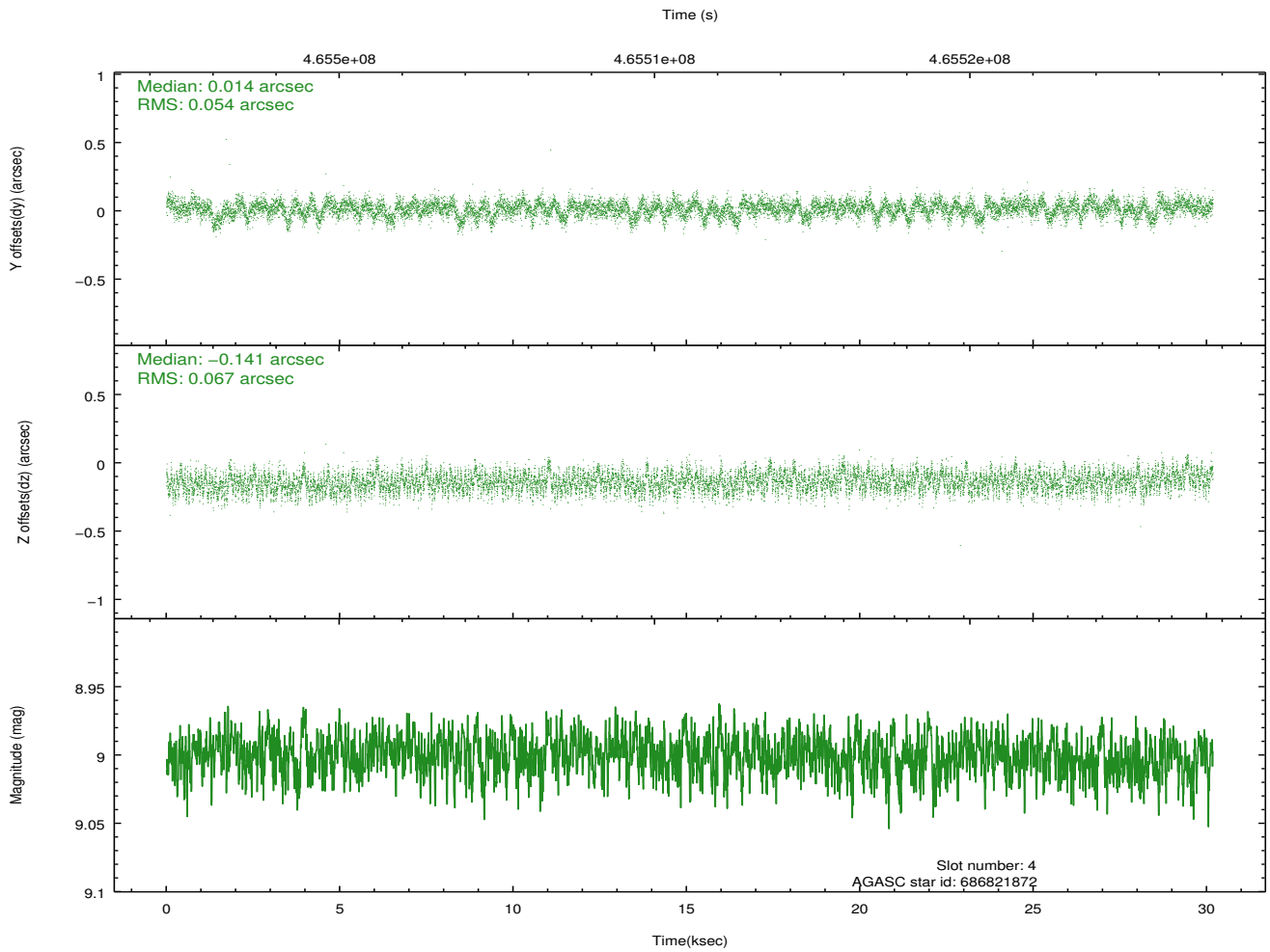
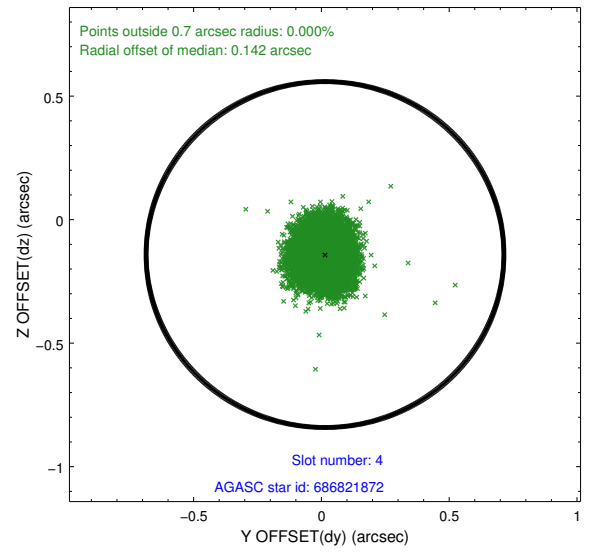
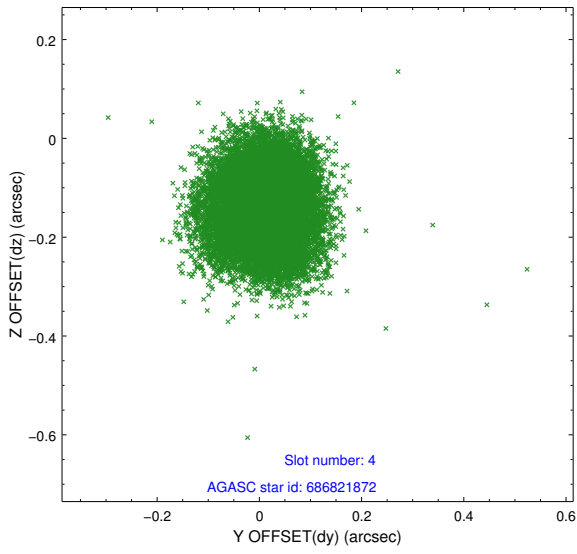
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2.4 Star Slots

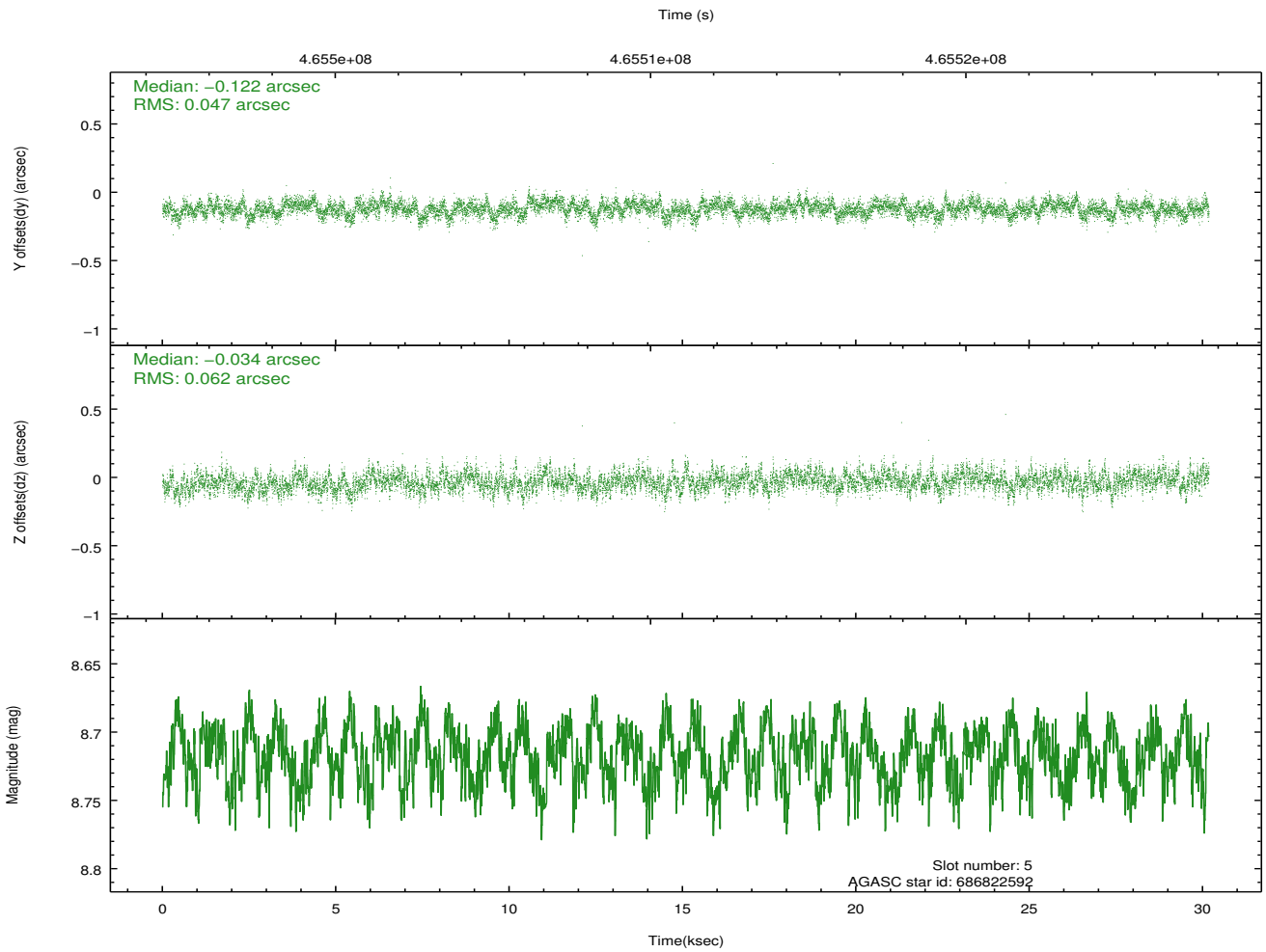
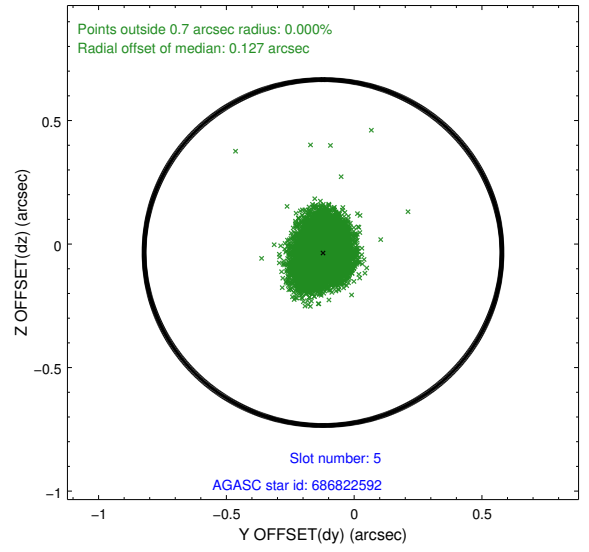
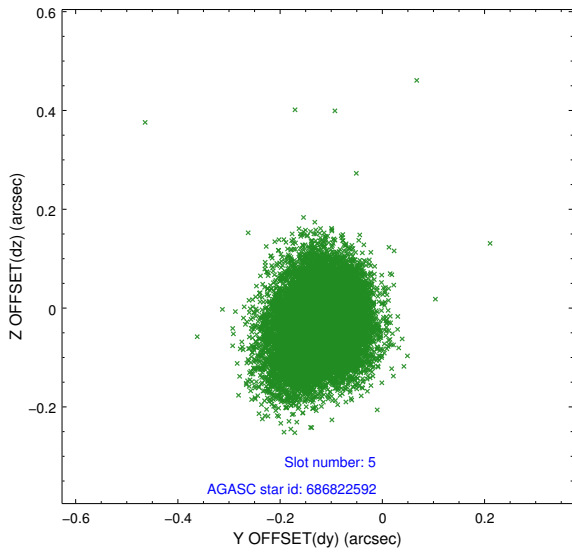
2.4.1 Slot 3



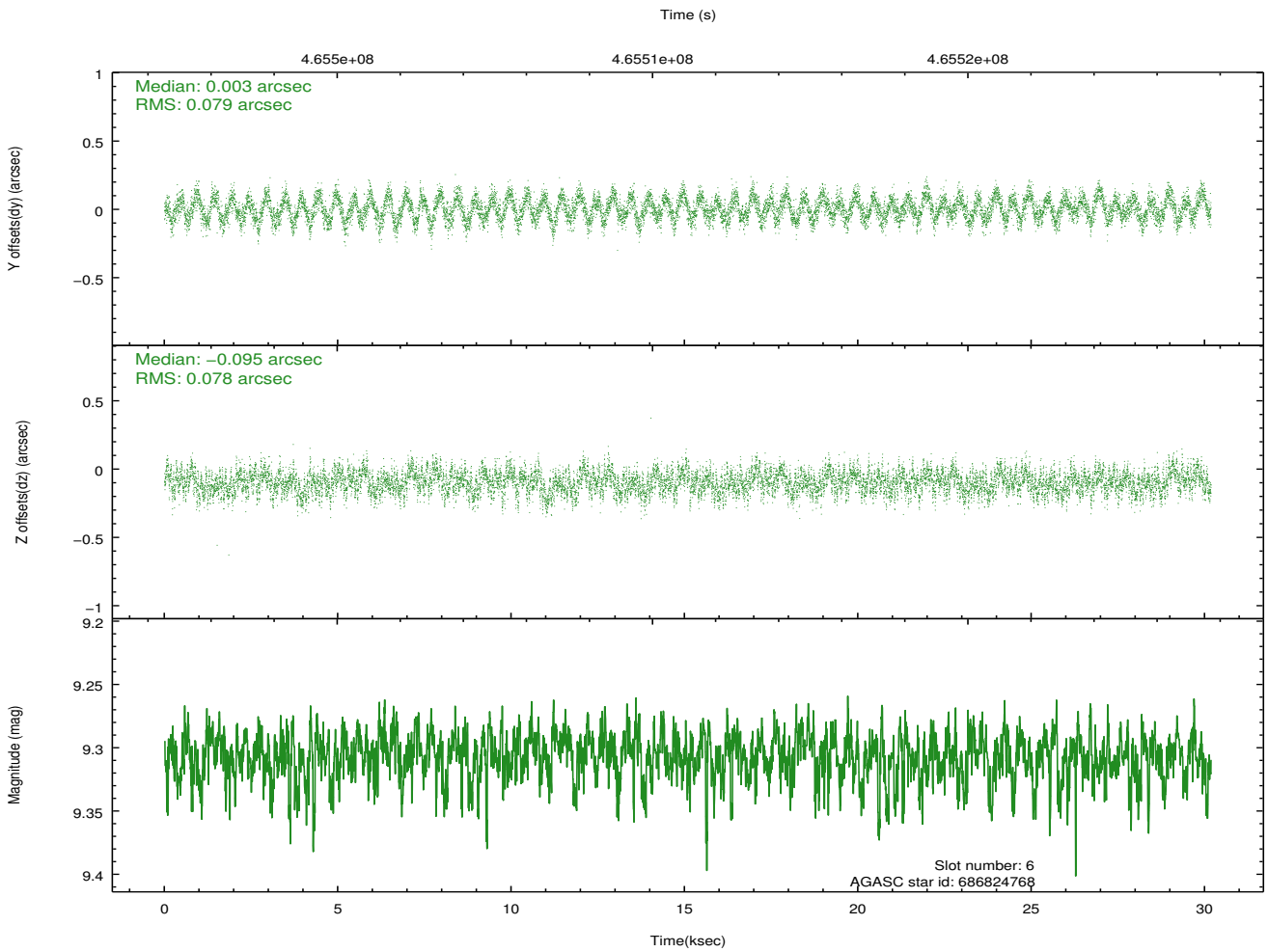
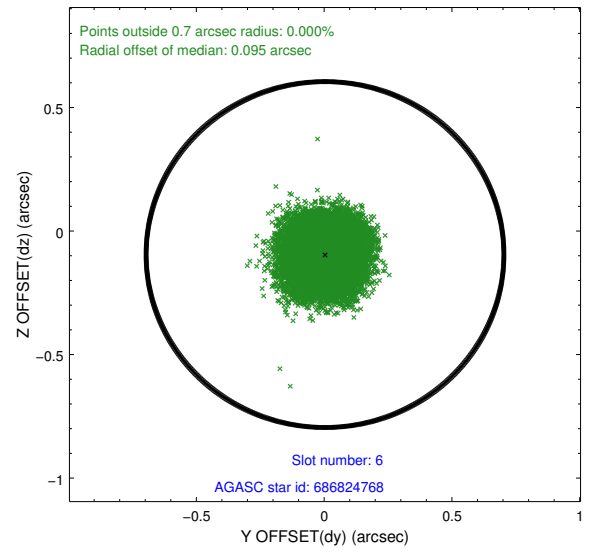
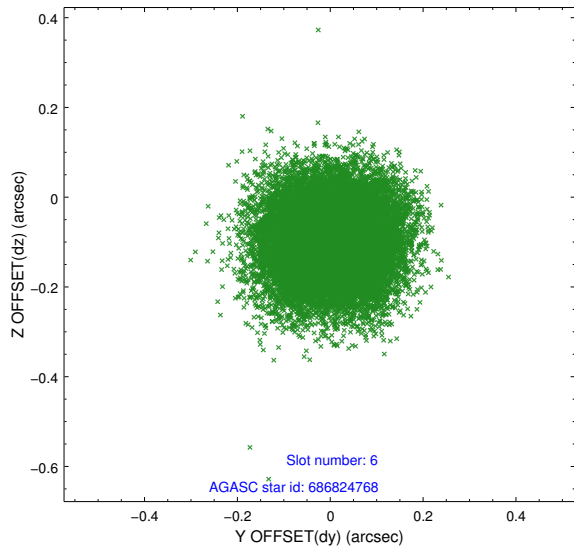
2.4.2 Slot 4



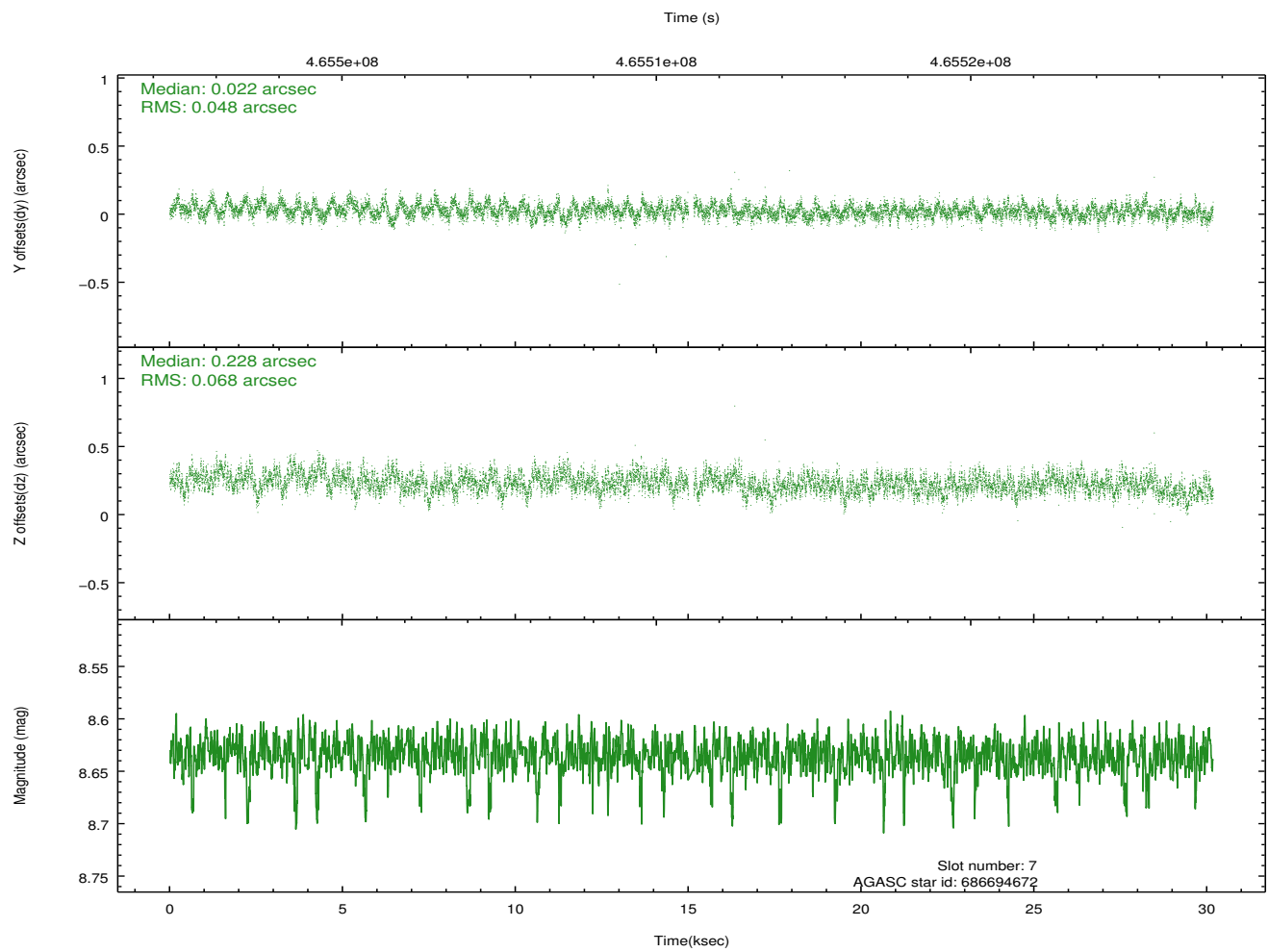
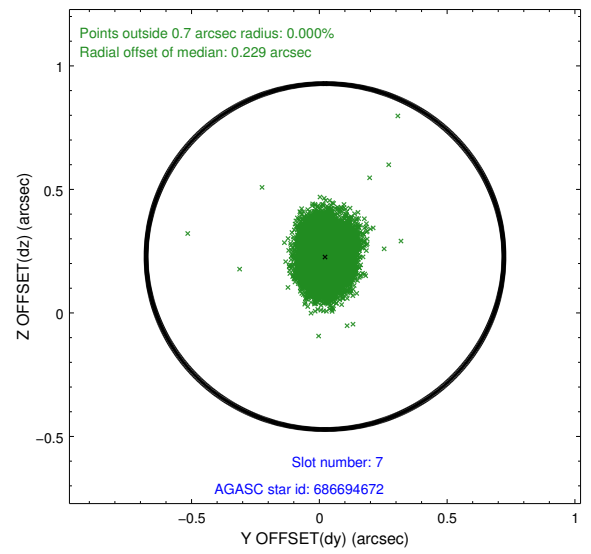
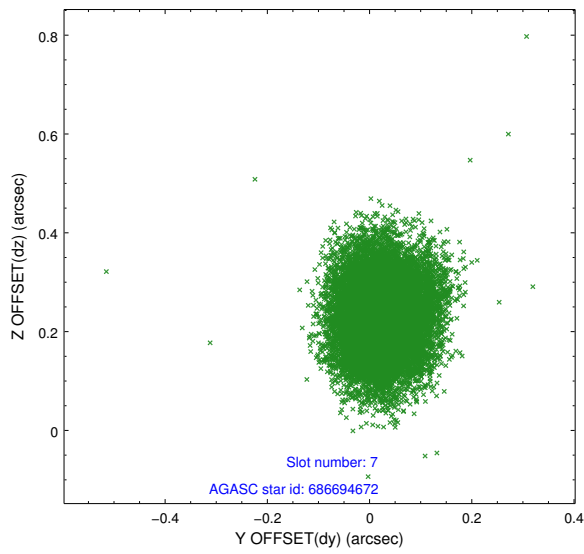
2.4.3 Slot 5



2.4.4 Slot 6

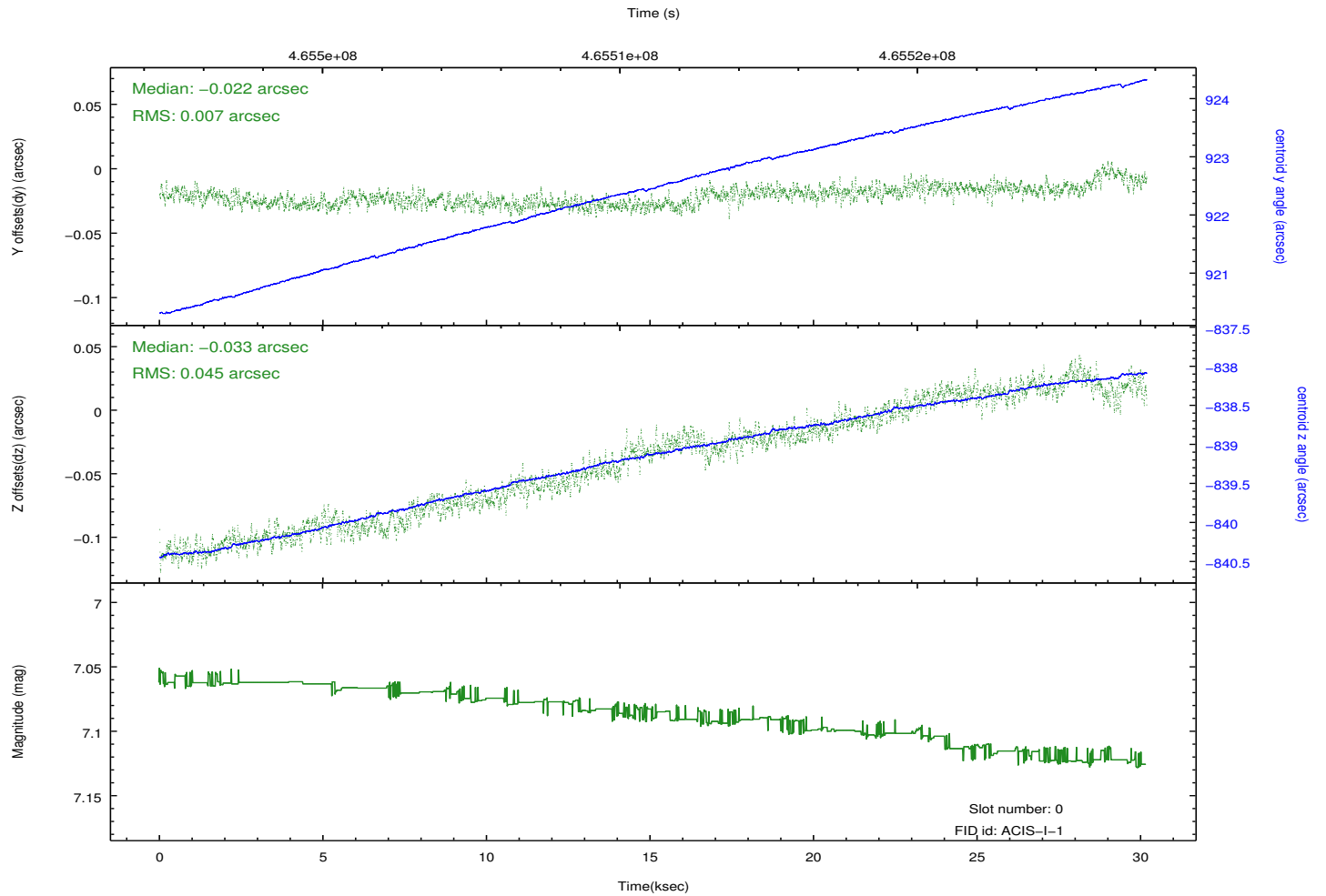
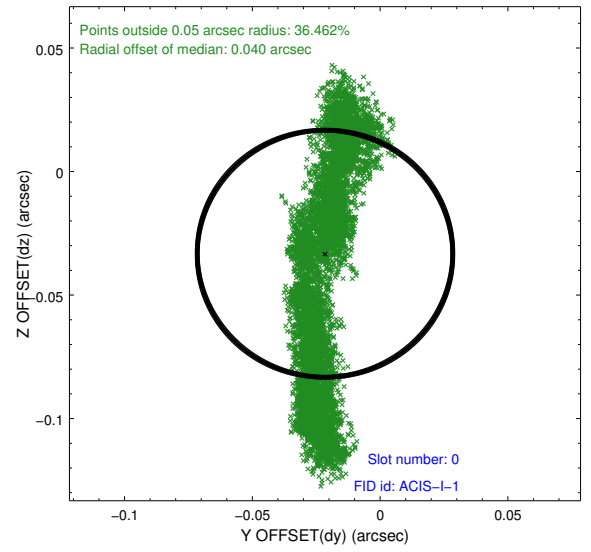
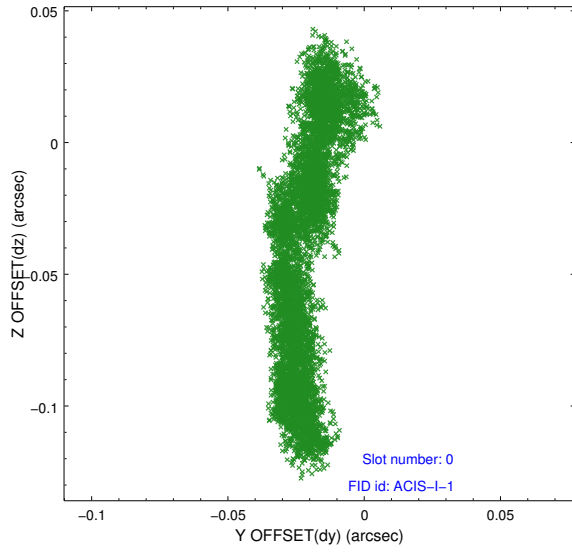


2.4.5 Slot 7

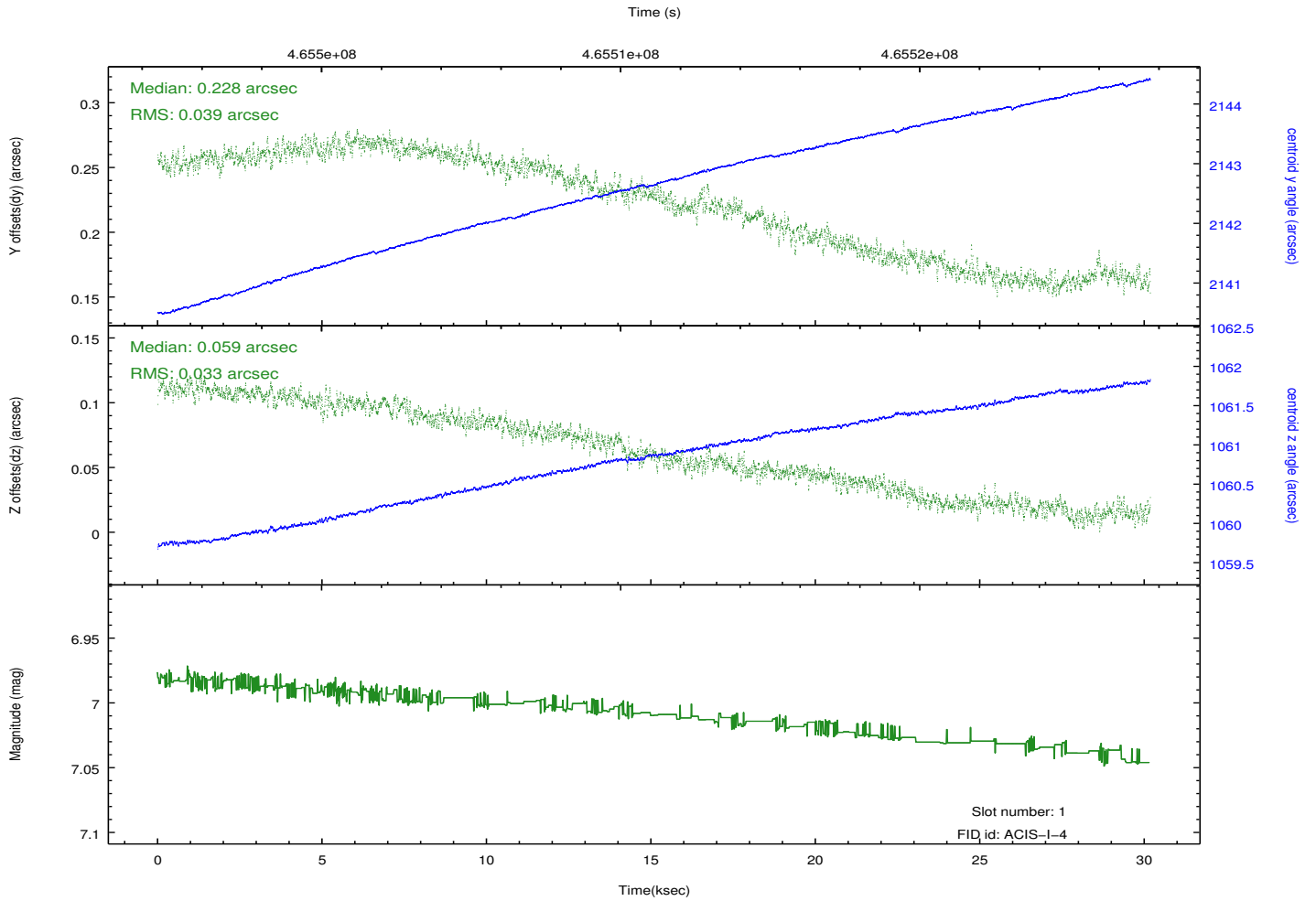
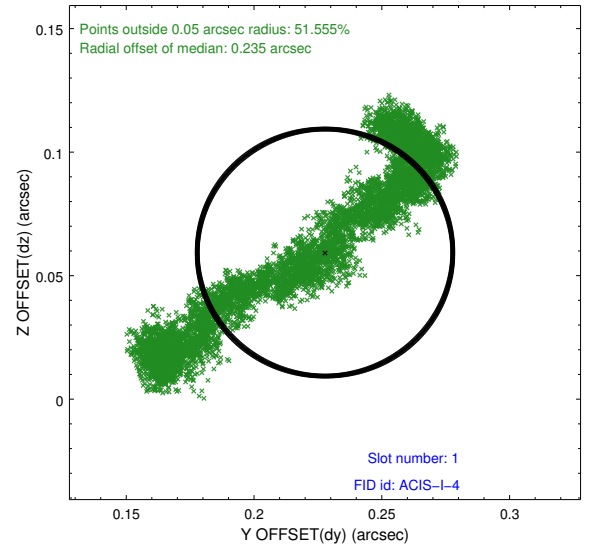
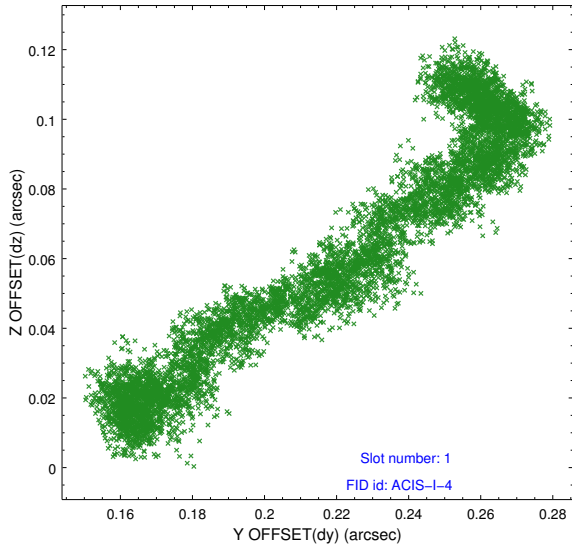


2.5 FID Slots

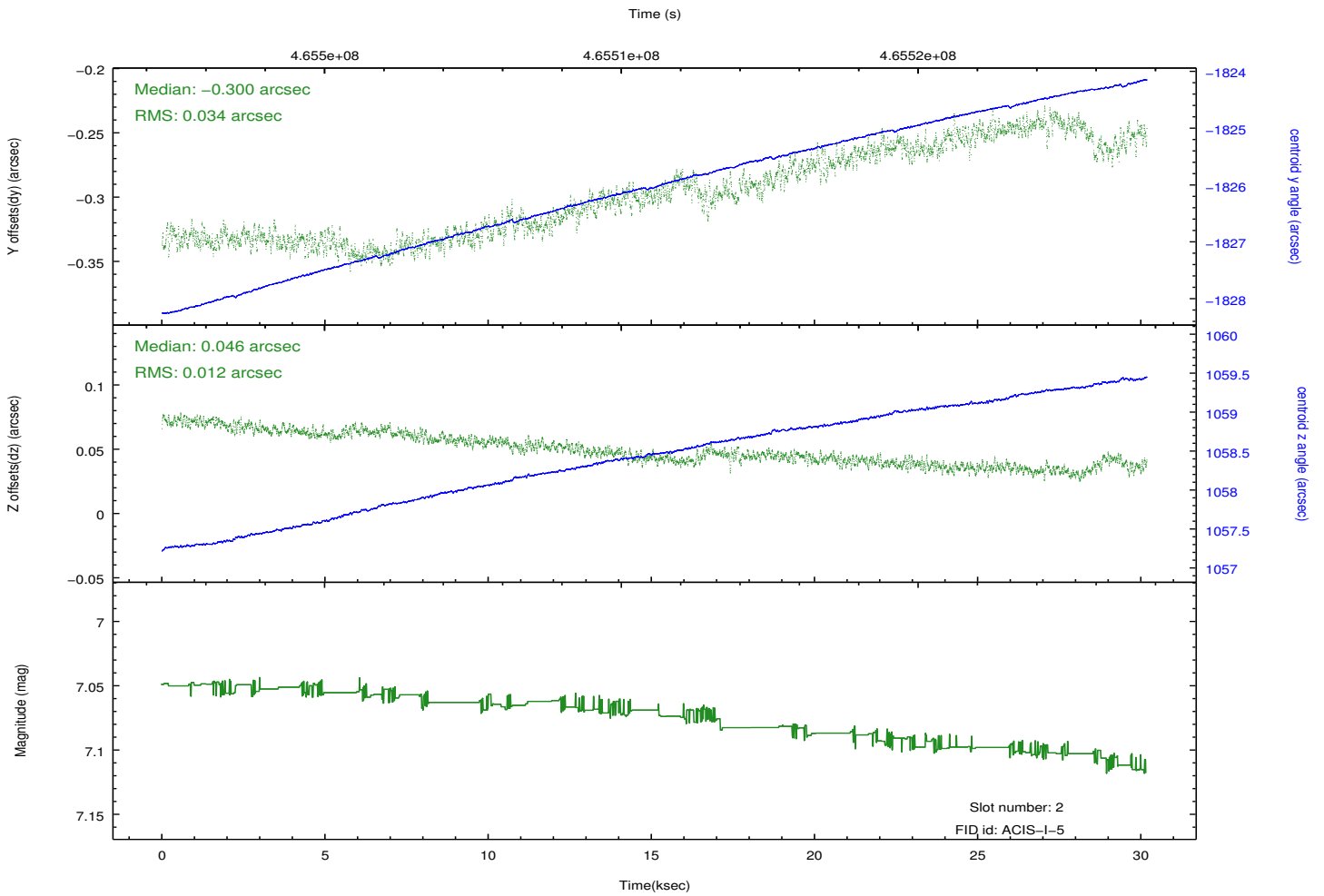
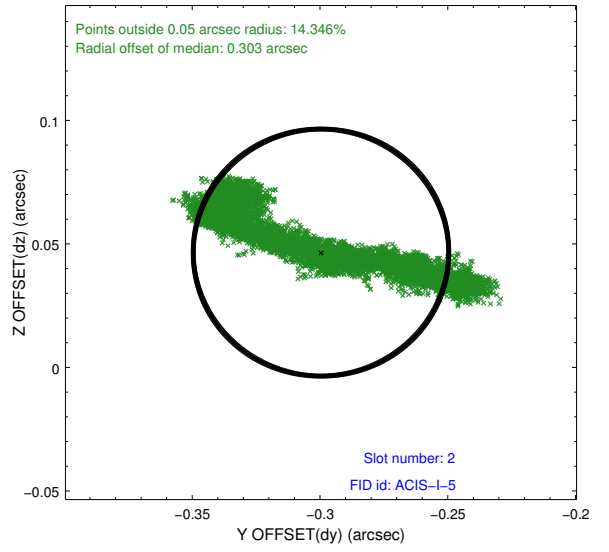
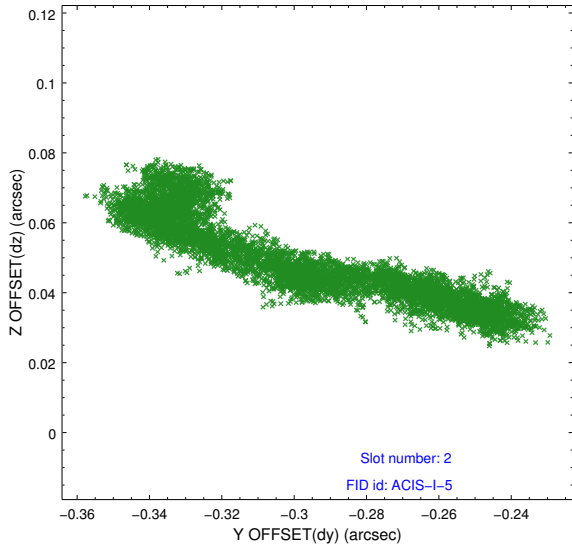
2.5.1 Slot 0



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	30.079259201229

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.