

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 15623 - L2 Version 2
Chandra X-Ray Center

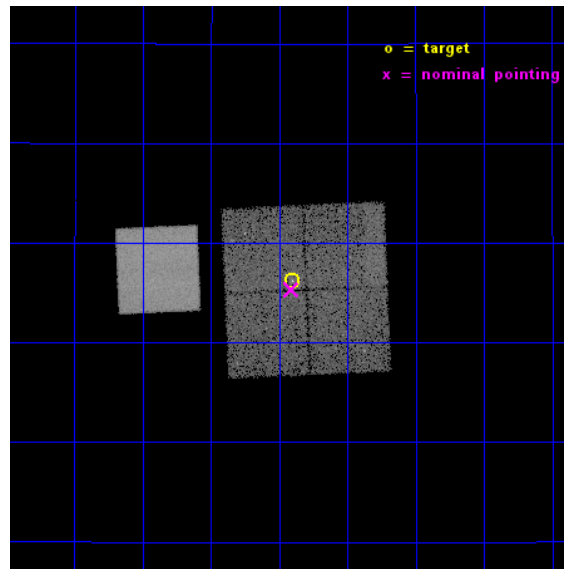
L2 Processing Date : Dec 2 2014

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1 Front

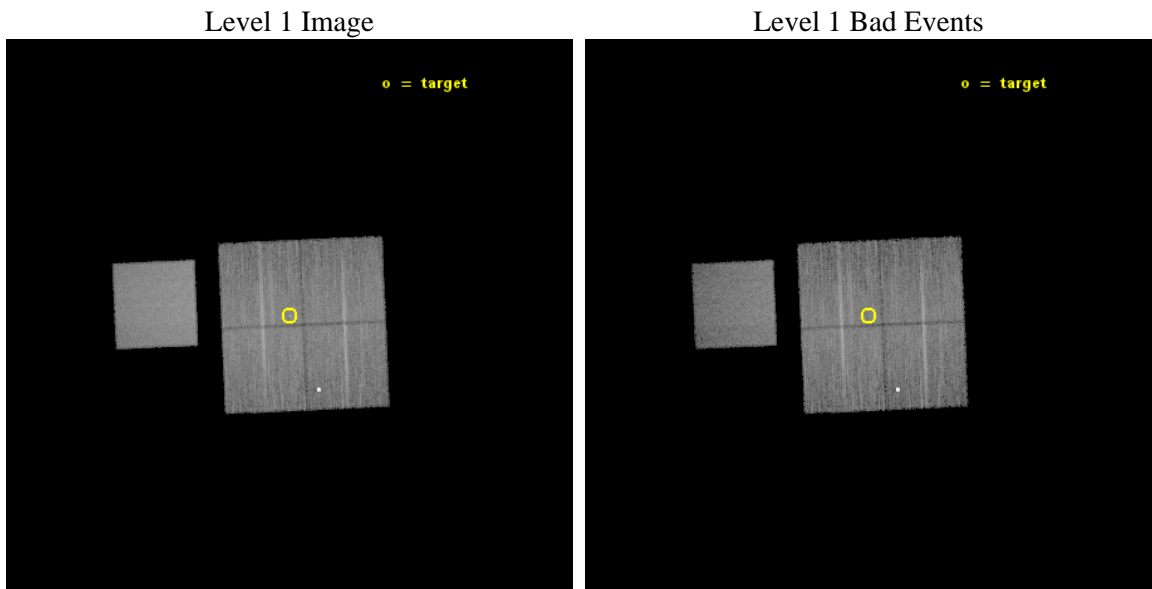
seq_num	501823	Sequence number
obs_id	15623	Observation id
title	A Legacy Study of the Relativistic Shocks of PWNe	Proposal title
observer	Prof. Roger Romani	Principal investigator
object	PSR J0633+1746	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	98.475833	Observer's specified target RA [deg]
dec_targ	17.77025	Observer's specified target Dec [deg]
ra_nom	98.477686222464	Nominal RA [deg]
dec_nom	17.755770542542	Nominal Dec [deg]
roll_nom	267.50813052928	Nominal Roll [deg]
revision	2	Processing version of data
ontime	24068.400185108	Sum of GTIs [s]
livetime	23753.928817791	Livetime [s]
ontime0	24068.400185108	Sum of GTIs [s]
ontime1	24068.400185108	Sum of GTIs [s]
ontime2	24068.400185108	Sum of GTIs [s]
ontime3	24068.400185108	Sum of GTIs [s]
ontime7	24068.400185108	Sum of GTIs [s]
l2events	112034	Number of level 2 events



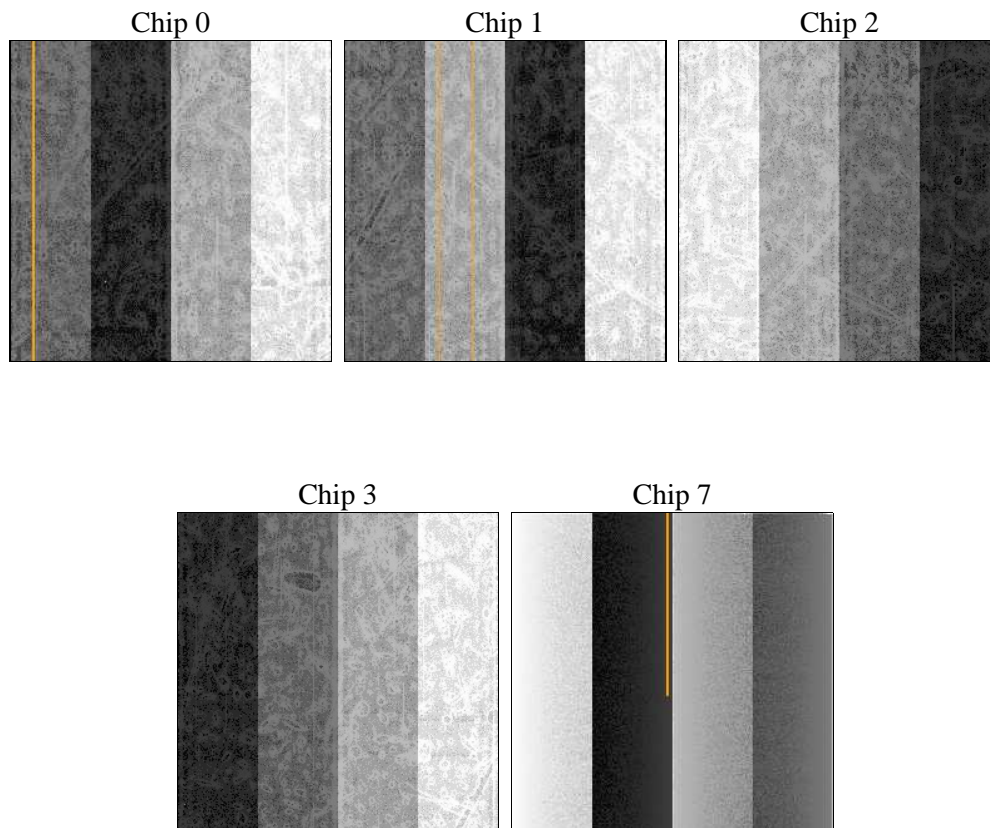
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	24000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	24068.400185108	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	24068.400185108	Sum of GTIs [s]
date	2014-12-02T07:26:03	Date and time of file creation	ontime1	24068.400185108	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	24068.400185108	Sum of GTIs [s]
			ontime3	24068.400185108	Sum of GTIs [s]
			ontime7	24068.400185108	Sum of GTIs [s]
			l1events	611671	Number of level 1 events

2.1.4 Events

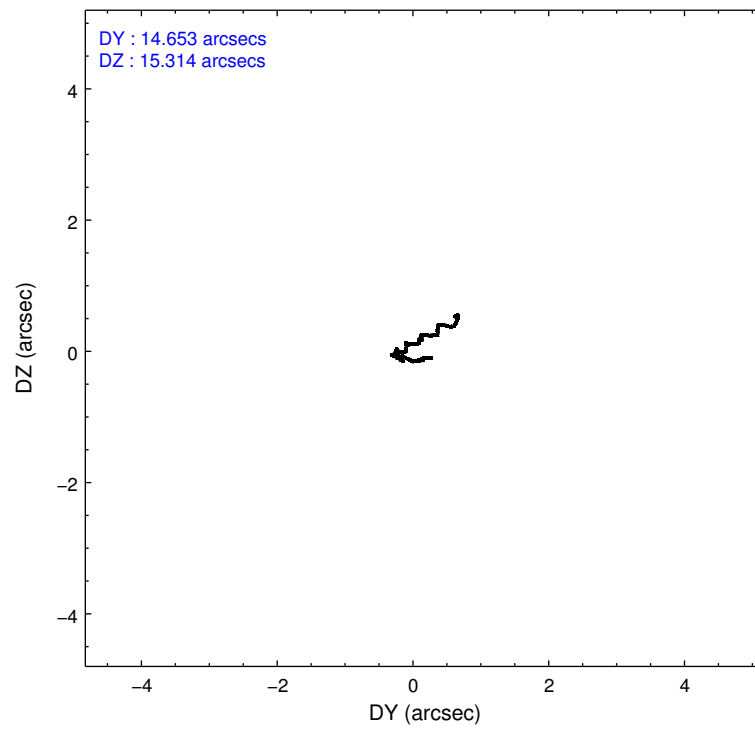
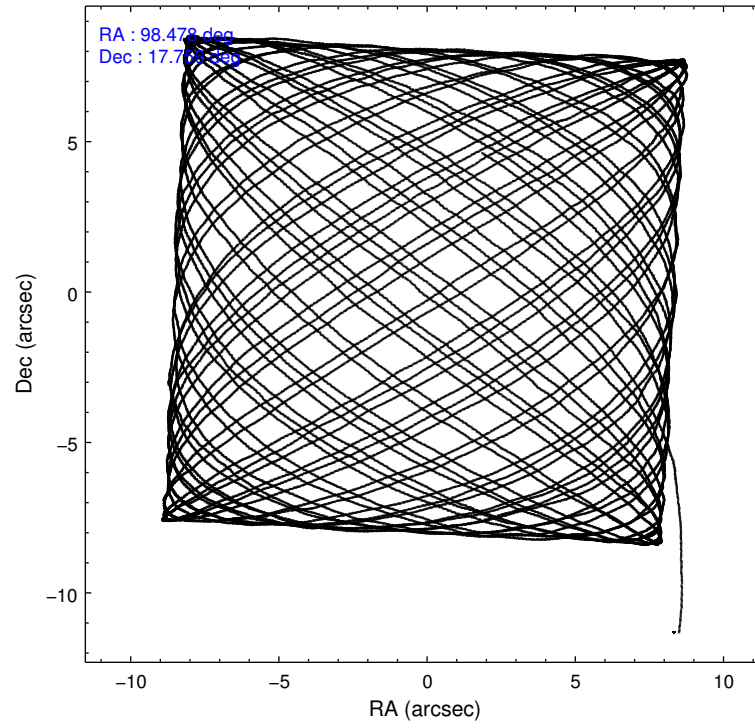
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	120731	107622	116729	111905	154684
rejected events	106904	92401	103202	98258	88116
rejected %	88%	85%	88%	87%	56%

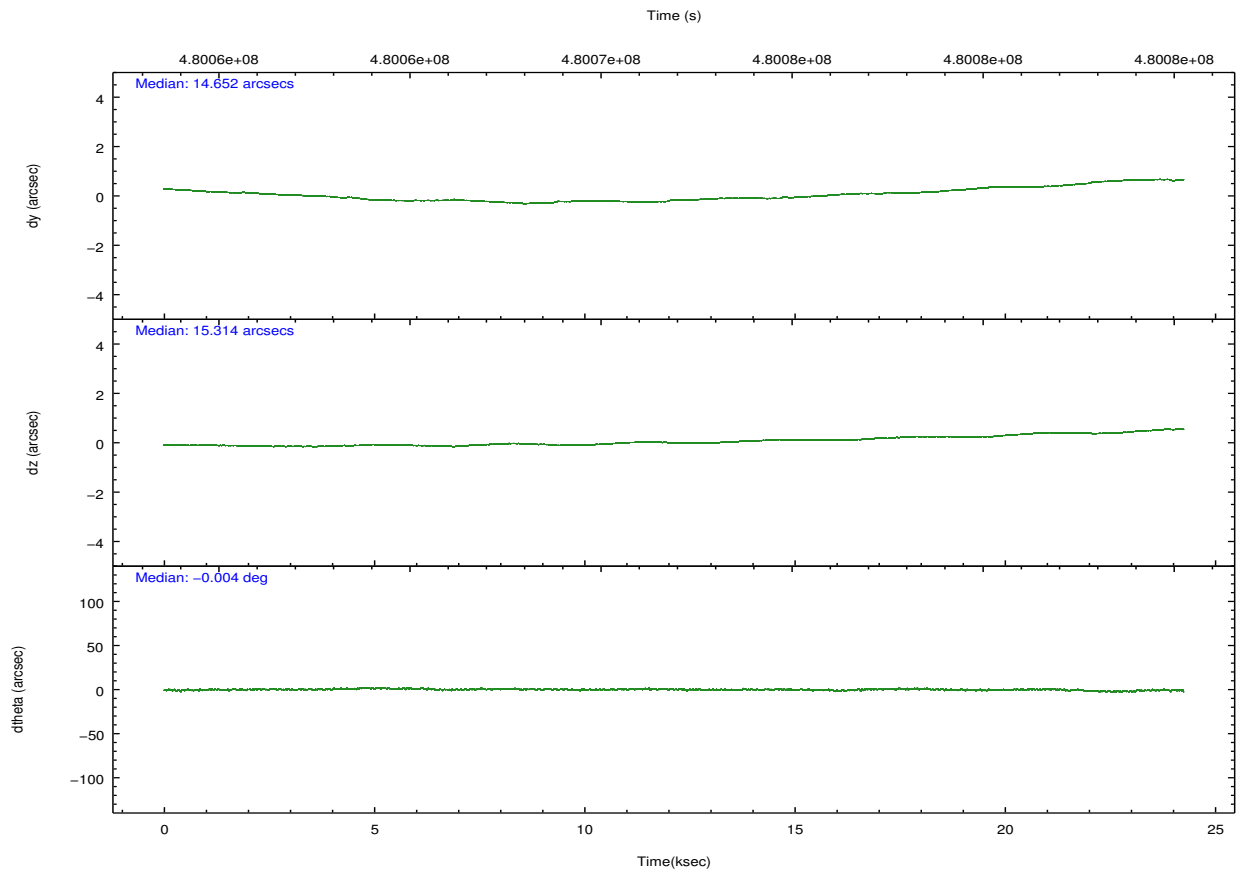
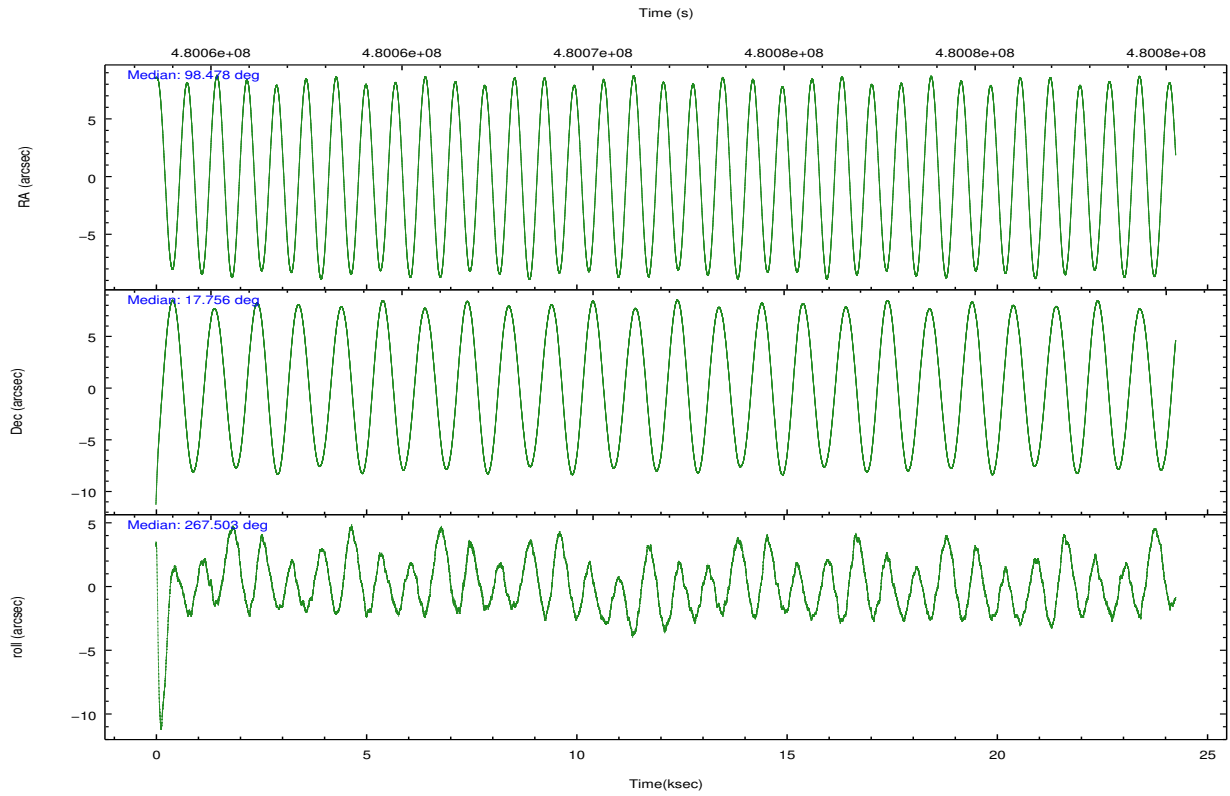
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	4855	5206	4834	5226	5755
	4%	4%	4%	4%	3%
grade 1 events	57	75	82	82	152
	0%	0%	0%	0%	0%
grade 2 events	3389	3789	3208	2885	13421
	2%	3%	2%	2%	8%
grade 3 events	1460	1487	1403	1409	5362
	1%	1%	1%	1%	3%
grade 4 events	1389	1459	1411	1412	5463
	1%	1%	1%	1%	3%
grade 5 events	5180	5656	5167	5832	15631
	4%	5%	4%	5%	10%
grade 6 events	2736	3281	2672	2717	36577
	2%	3%	2%	2%	23%
grade 7 events	101665	86669	97952	92342	72323
	84%	80%	83%	82%	46%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01237	ACIS-01237	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	98.464235	98.47768622246446	CCD I2 on	Y	Y
[deg] Pointing Dec	17.780116	17.75577054254195	CCD I3 on	Y	Y
[deg] Pointing Roll	267.303545	267.5081305292836	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	N	N
[mm] SIM translation stage pos	-231.252463	-231.254149860981	CCD S3 on	O1	Y
[mm] SIM translation stage offset	-2.34	-2.338303141948671	CCD S4 on	N	N
[s] Observation start time (MET)	480060017.184000	480058986.86417	CCD S5 on	N	N
Observation start date	2013-03-19T05:59:10	2013-03-19T05:43:06	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	480084017.184000	480084972.15307	On-chip summing requested	N	N
Observation end date	2013-03-19T12:39:10	2013-03-19T12:56:12	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





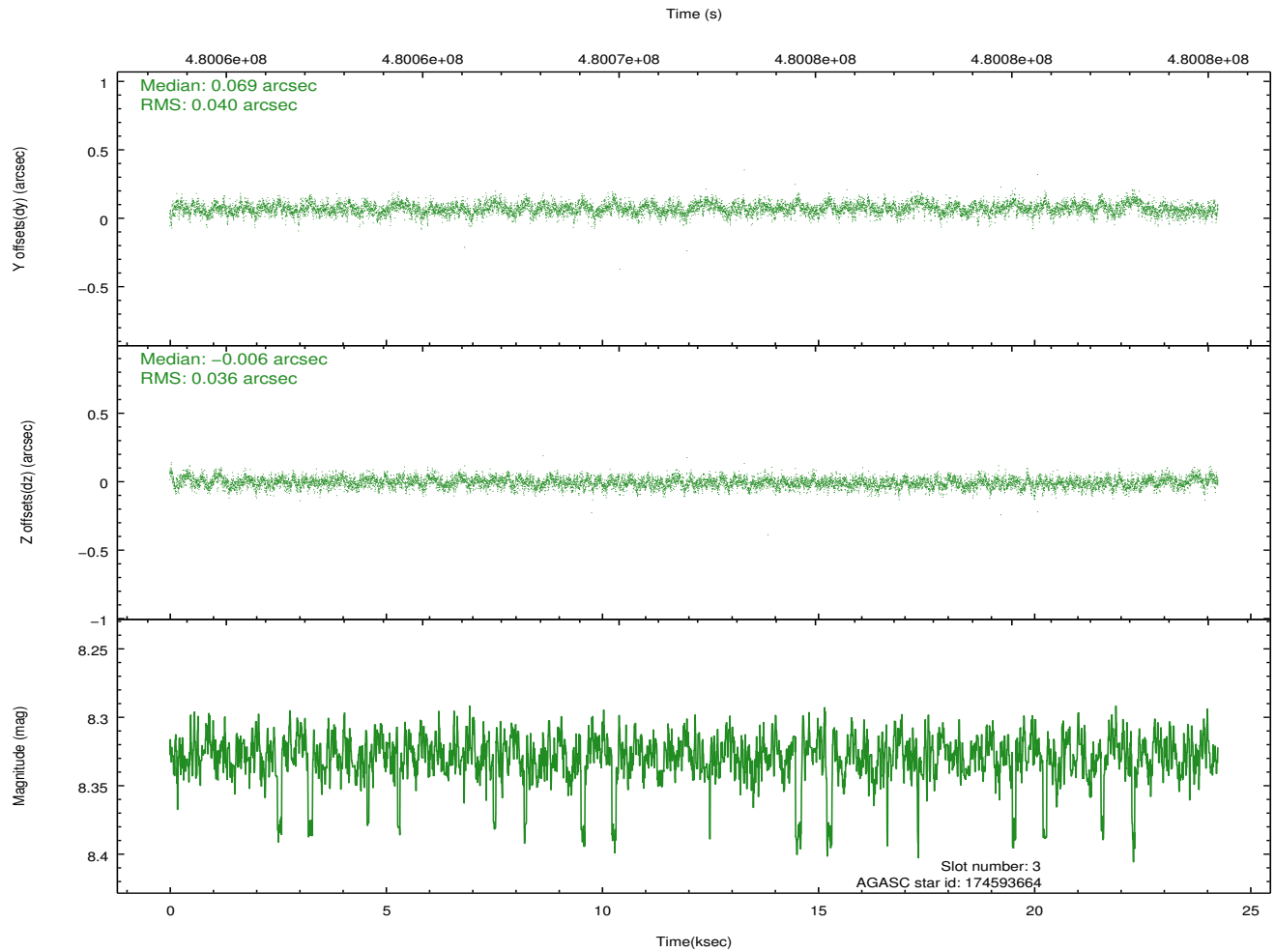
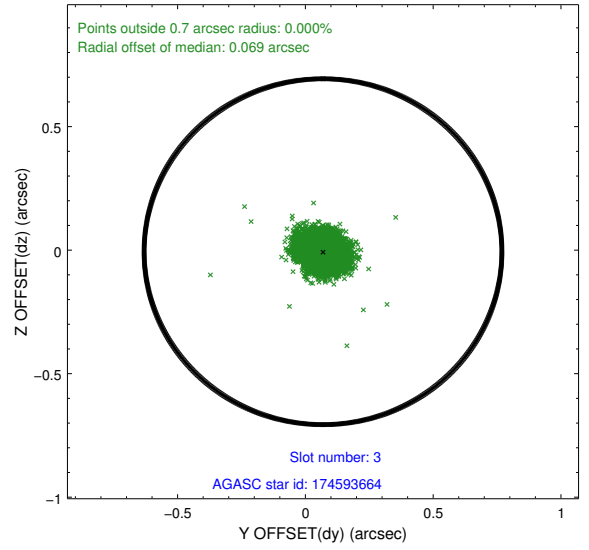
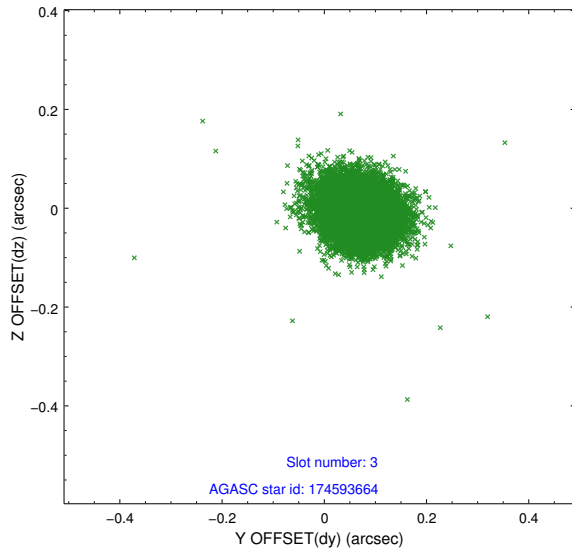
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.09	5916	0.018	-0.031	0.013	0.021	0.000000	0.000000	924.77	-886.92
1	FID		ACIS-I-4	7.02	5916	0.171	0.037	0.015	0.024	0.000000	0.000000	2144.83	1013.22
2	FID		ACIS-I-5	7.08	5916	-0.287	0.065	0.014	0.028	0.000000	0.000000	-1823.44	1010.80
3	GUIDE	used	174593664	8.33	11806	0.069	-0.006	0.057	0.093	97.965949	17.333165	1686.03	-1634.59
4	GUIDE	used	174726936	7.75	11832	0.006	-0.094	0.074	0.113	98.009571	17.665063	485.99	-1538.26
5	GUIDE	used	174730168	8.12	11830	-0.196	0.037	0.076	0.123	98.803227	18.065078	-1078.56	1111.42
6	GUIDE	used	174731792	7.91	11832	0.136	0.033	0.084	0.139	98.964622	17.200033	2003.12	1817.60
7	GUIDE	used	174721496	9.15	11822	-0.017	0.033	0.095	0.150	98.690774	18.351692	-2091.97	676.60

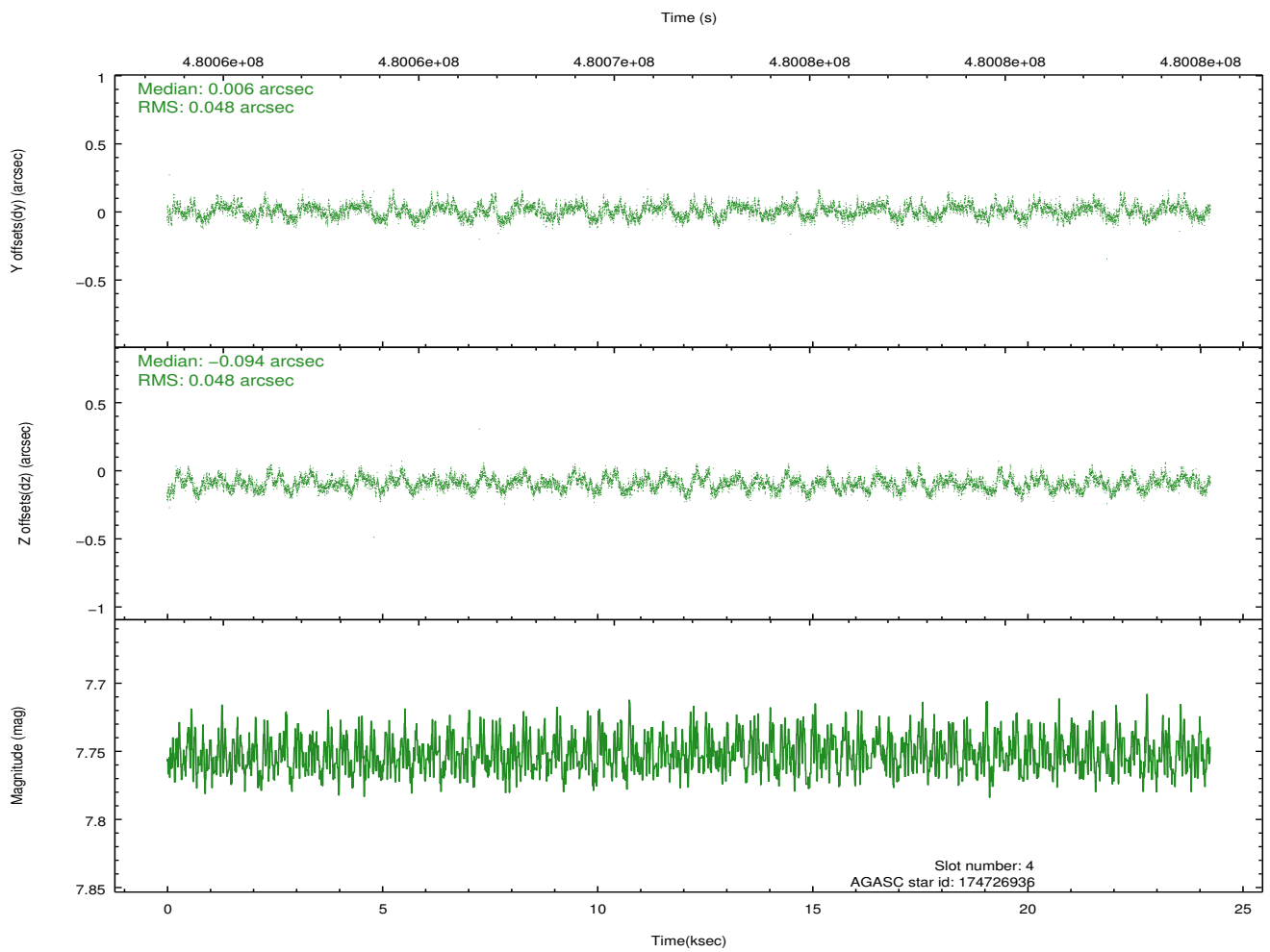
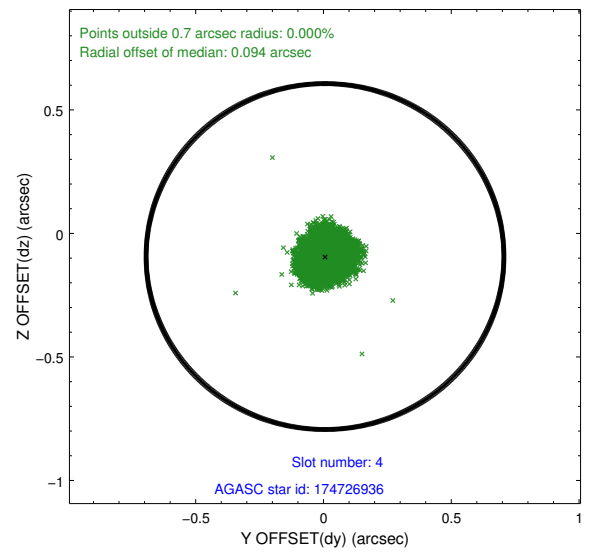
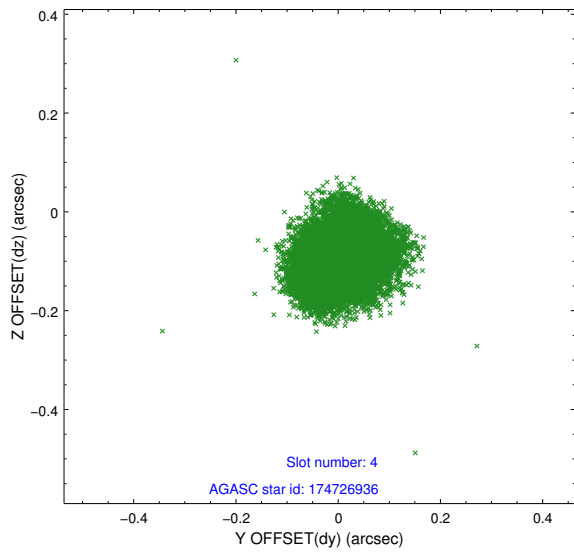
∞

2.4 Star Slots

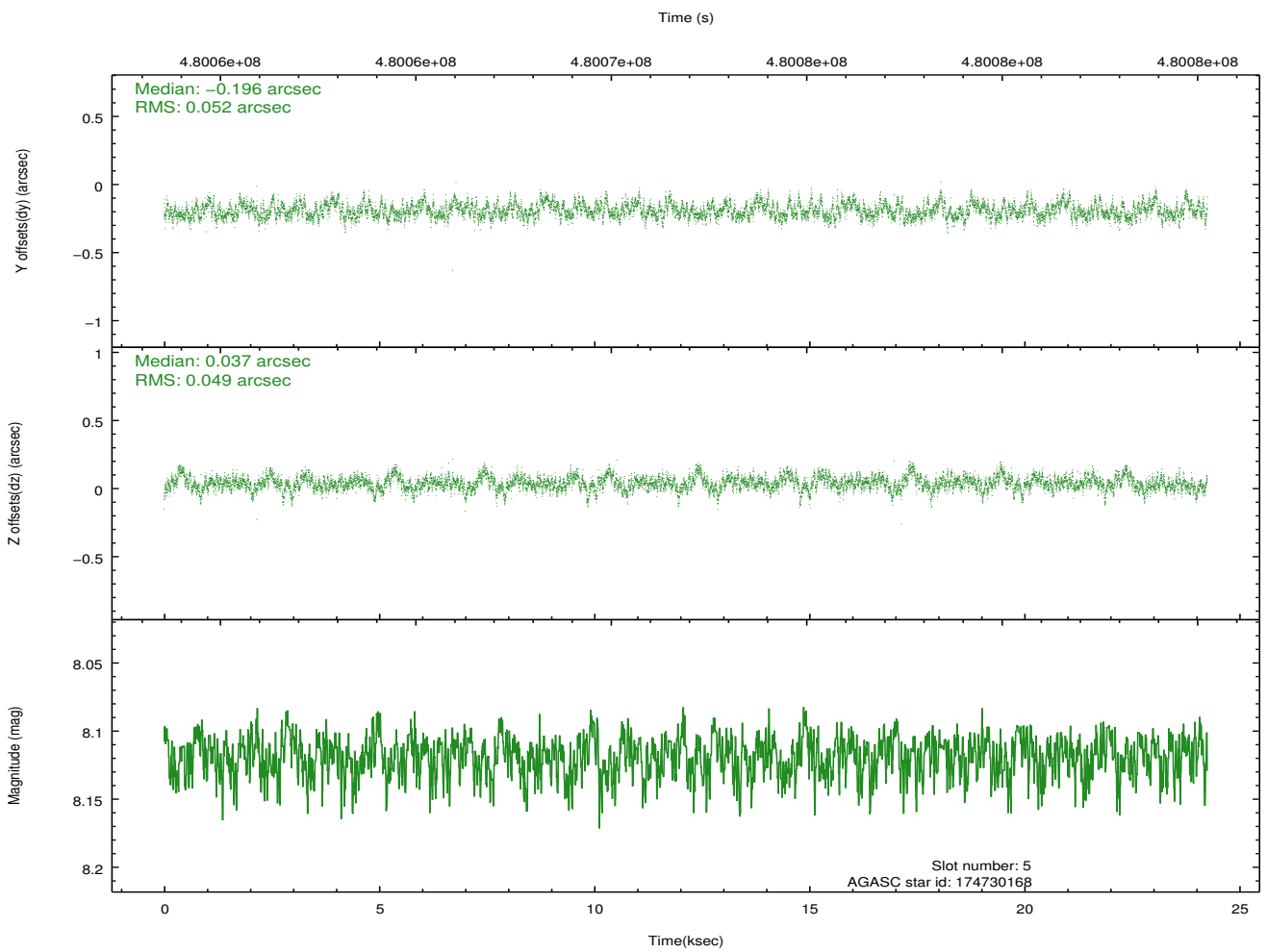
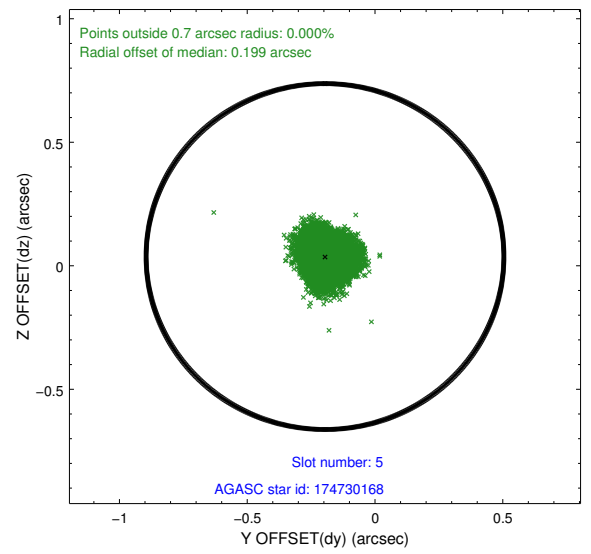
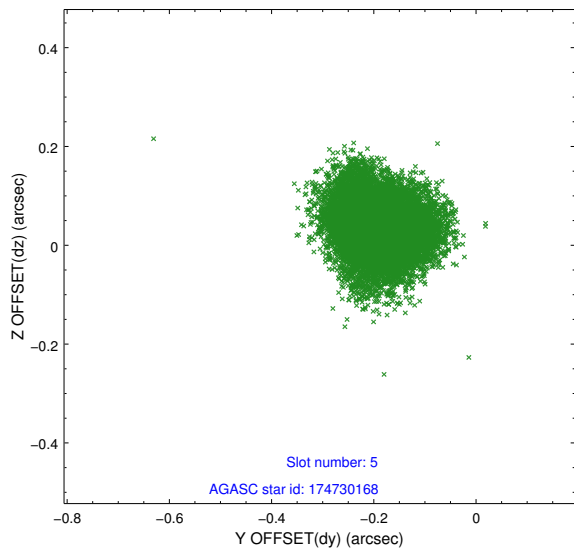
2.4.1 Slot 3



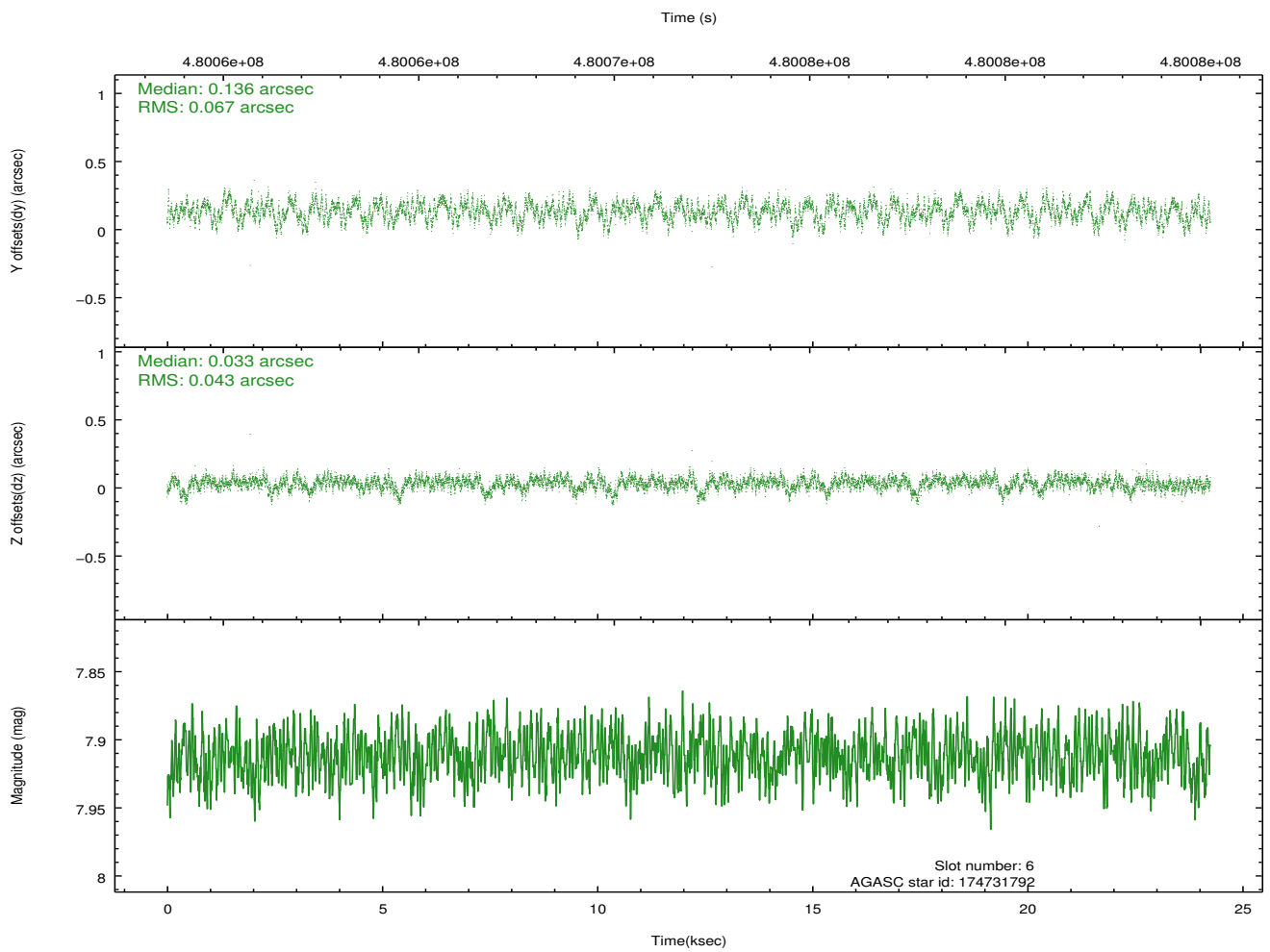
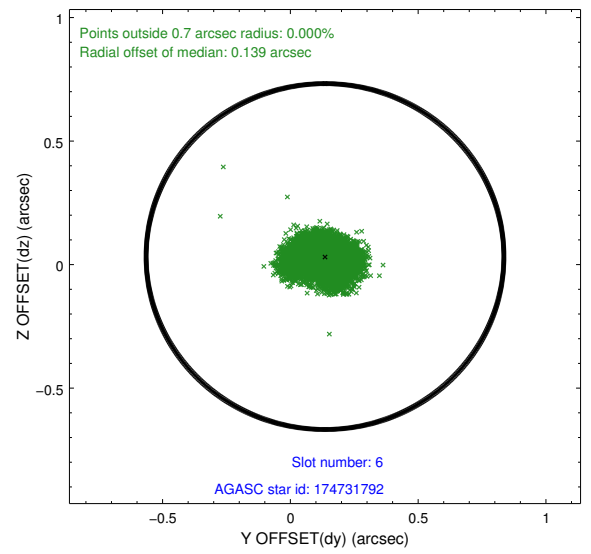
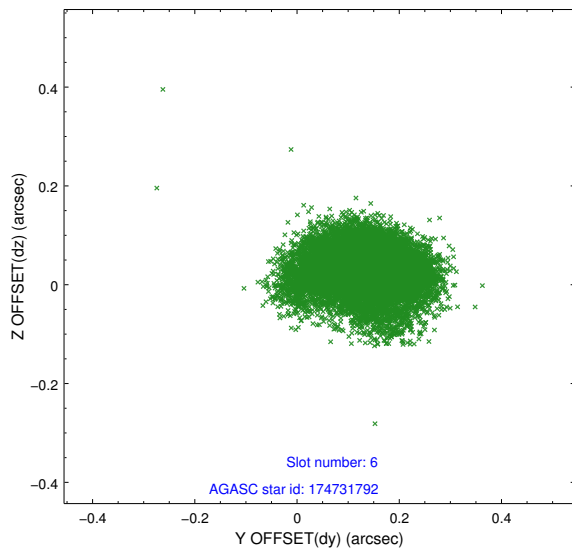
2.4.2 Slot 4



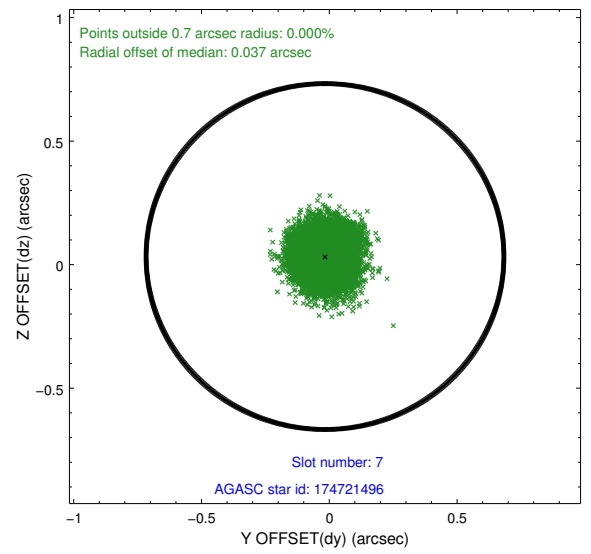
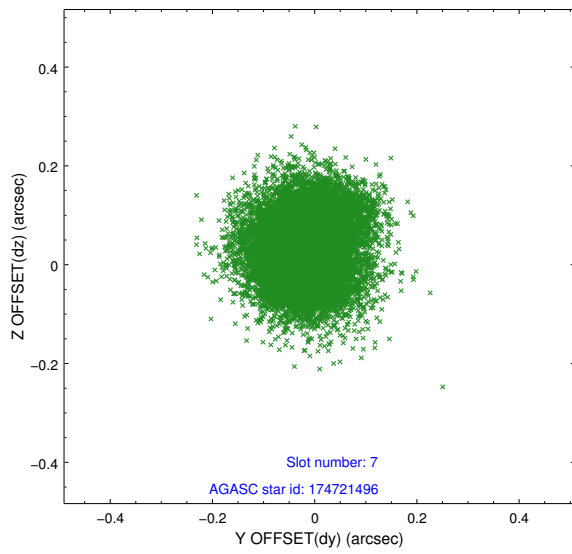
2.4.3 Slot 5



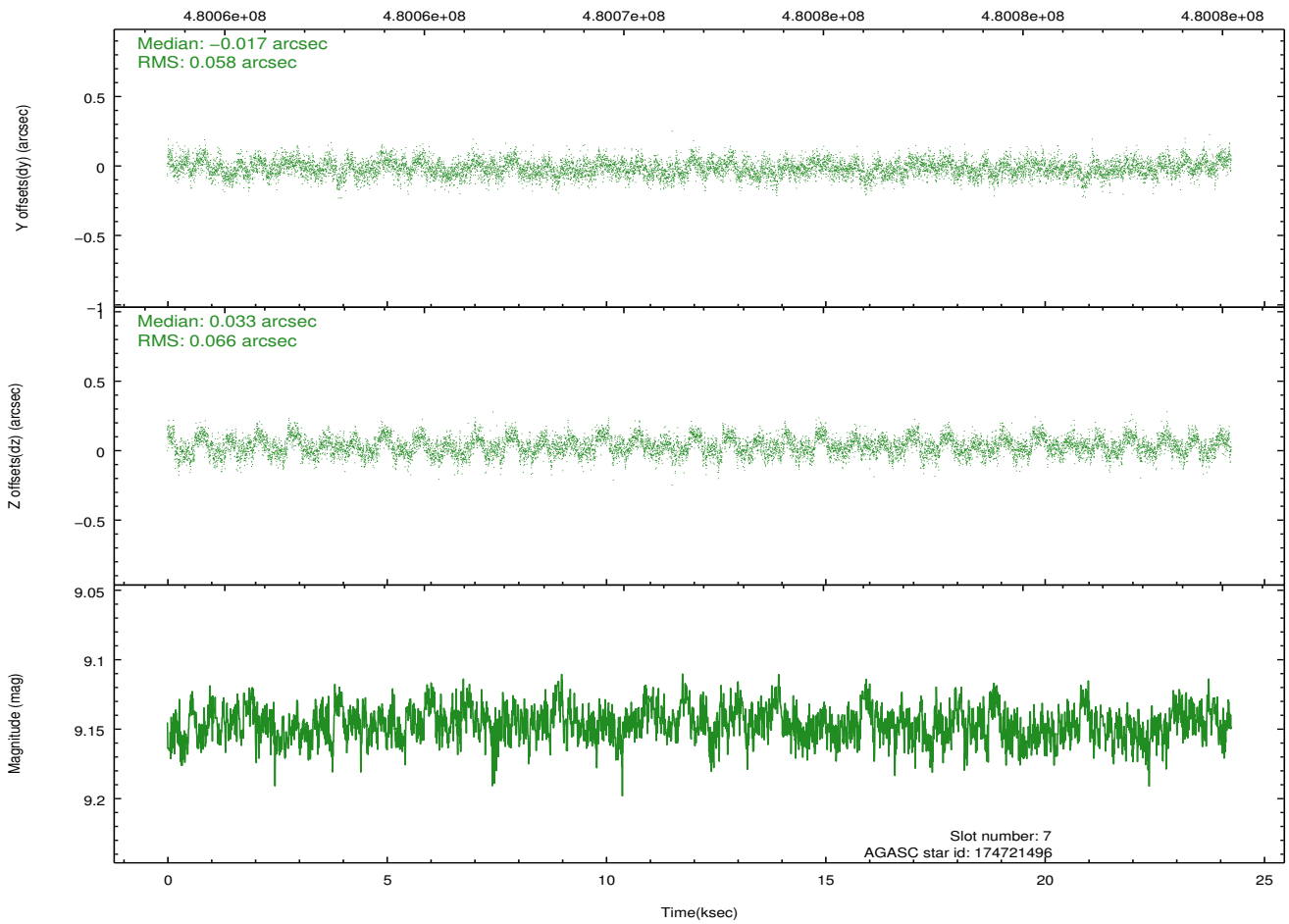
2.4.4 Slot 6



2.4.5 Slot 7

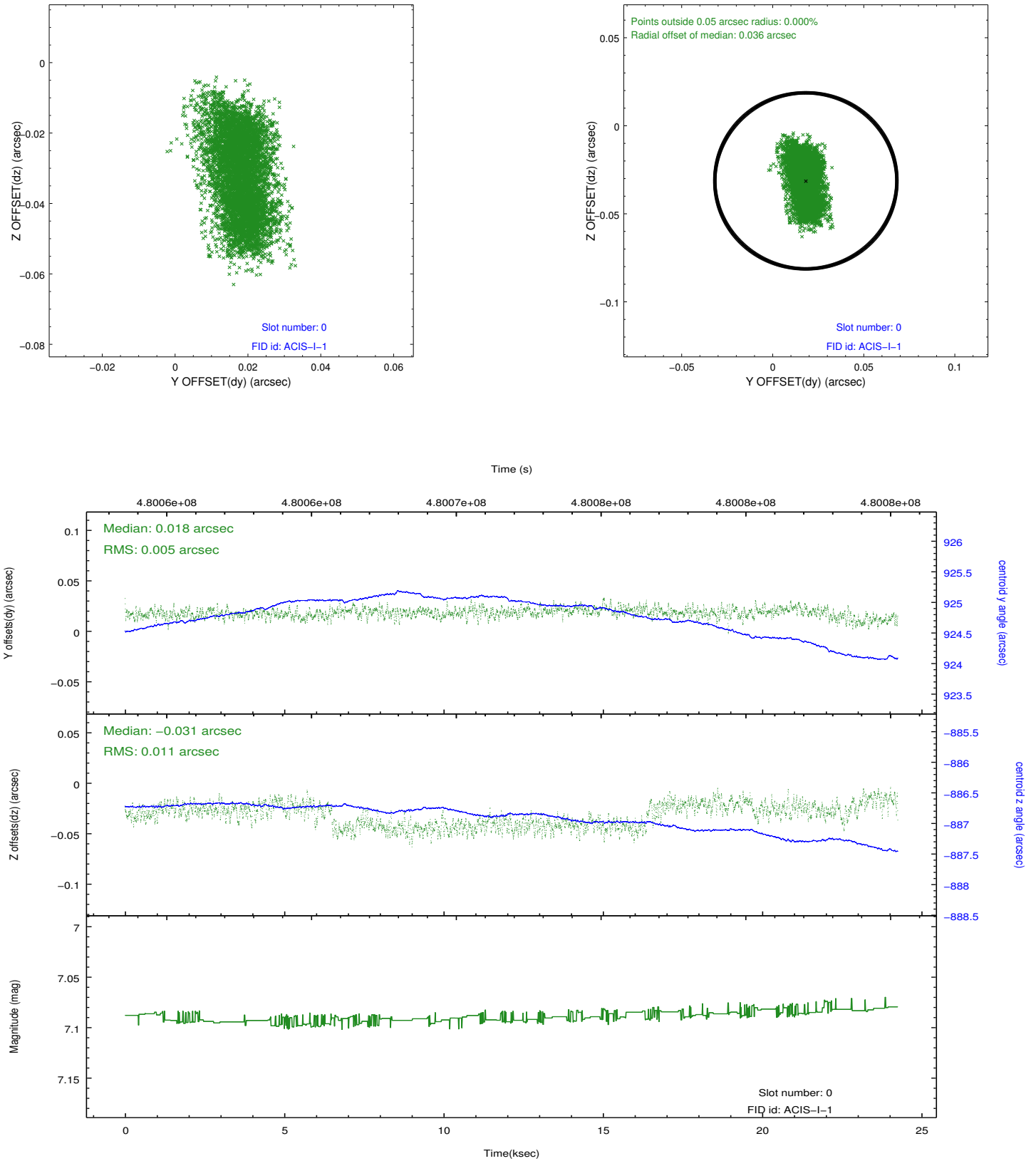


Time (s)

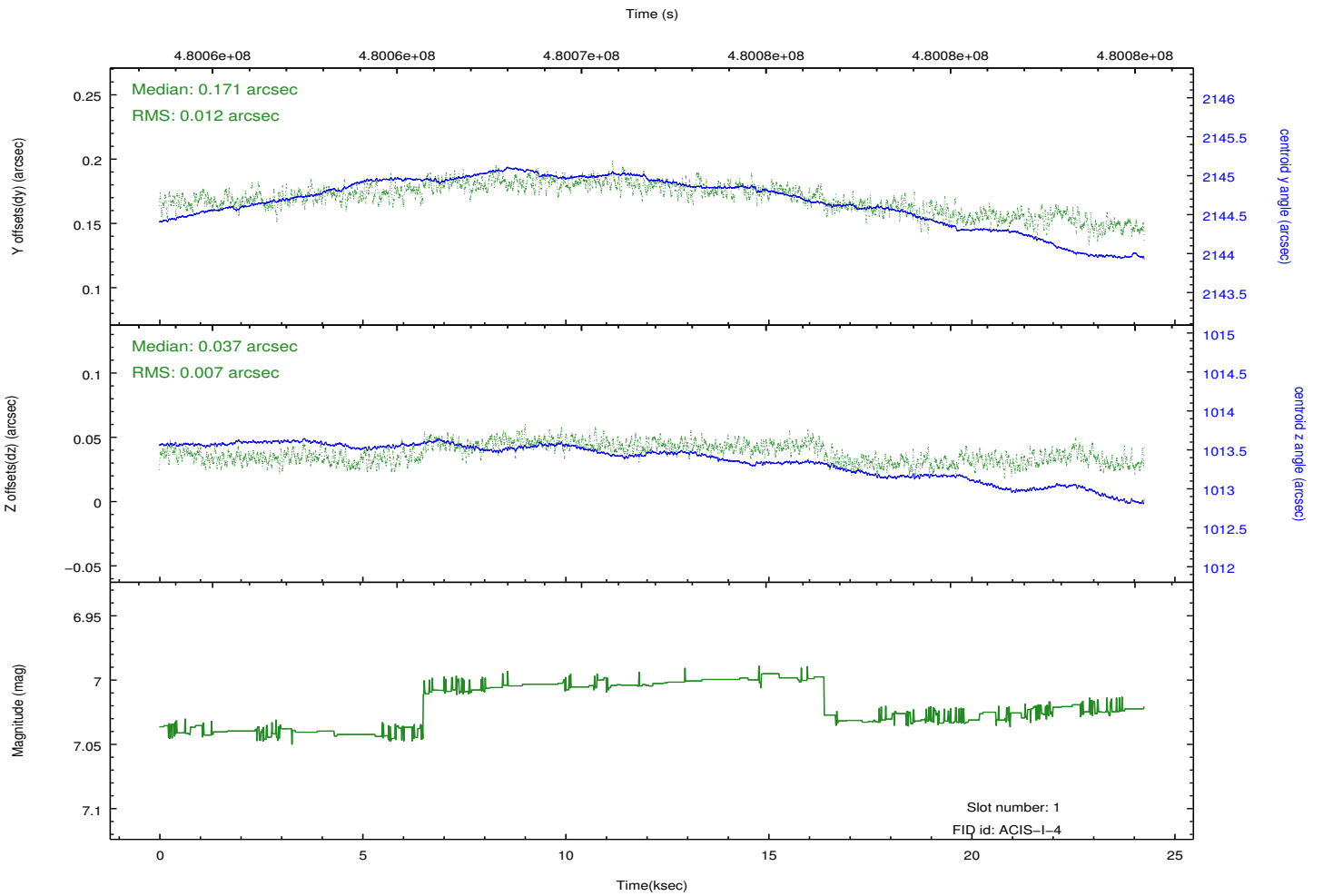
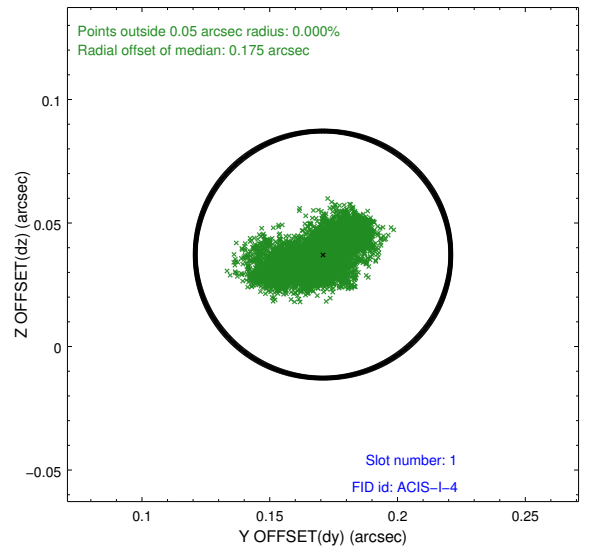
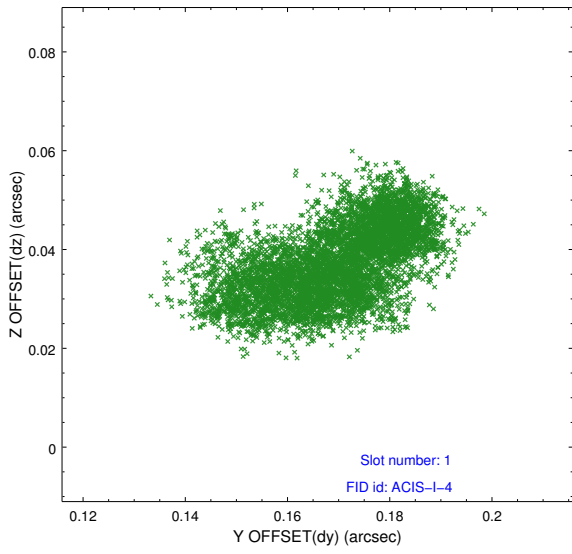


2.5 FID Slots

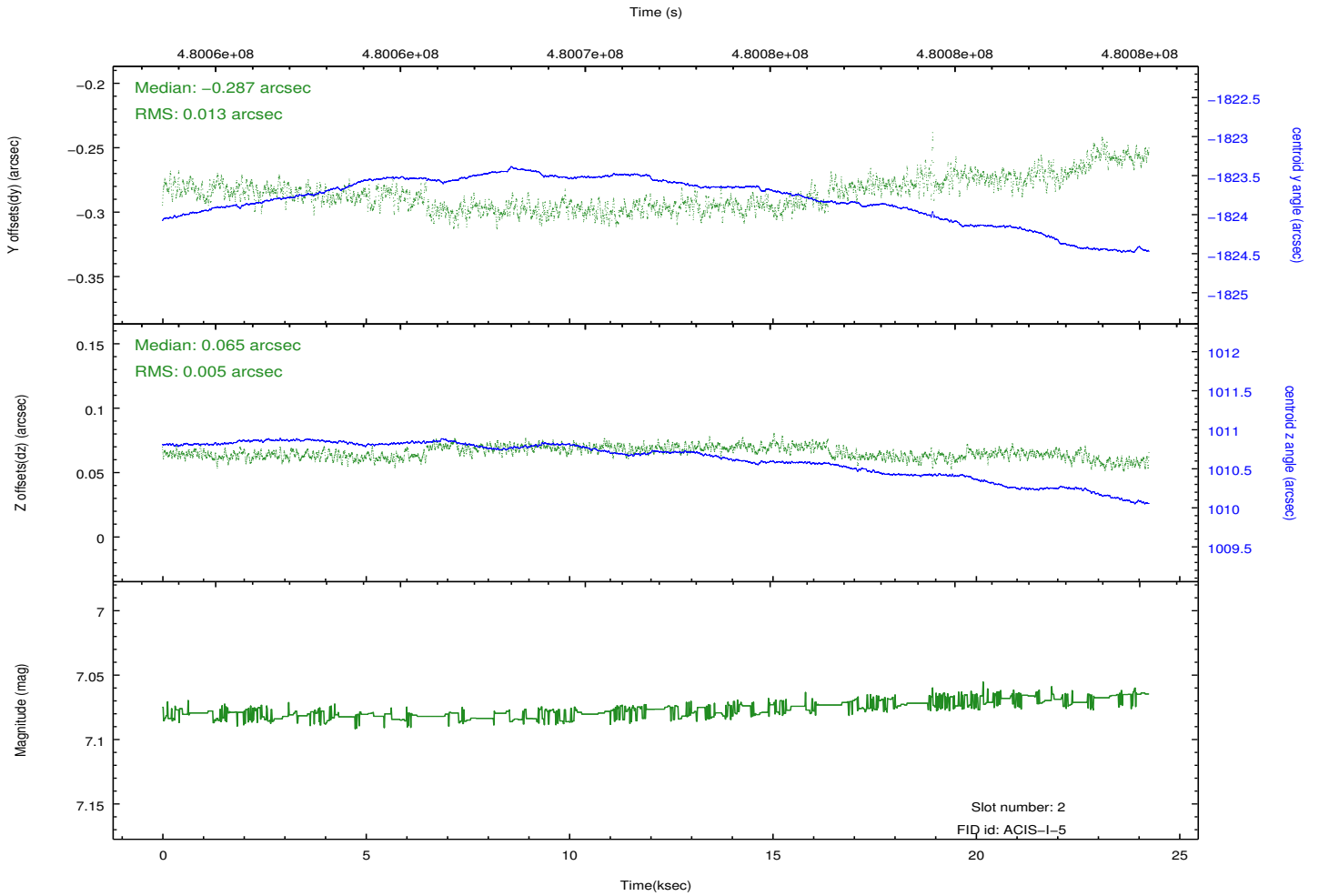
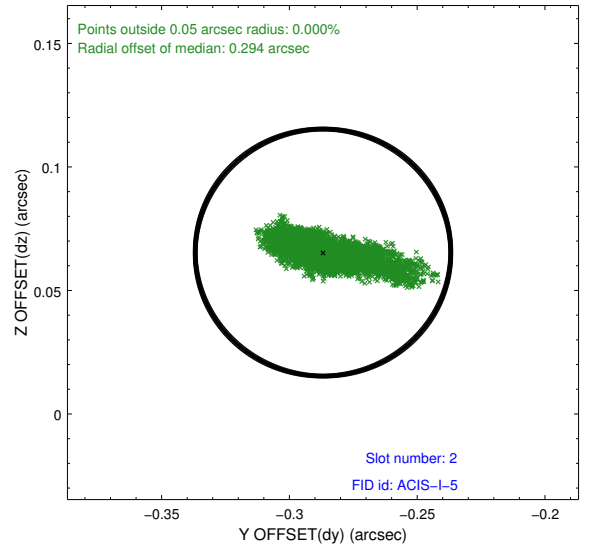
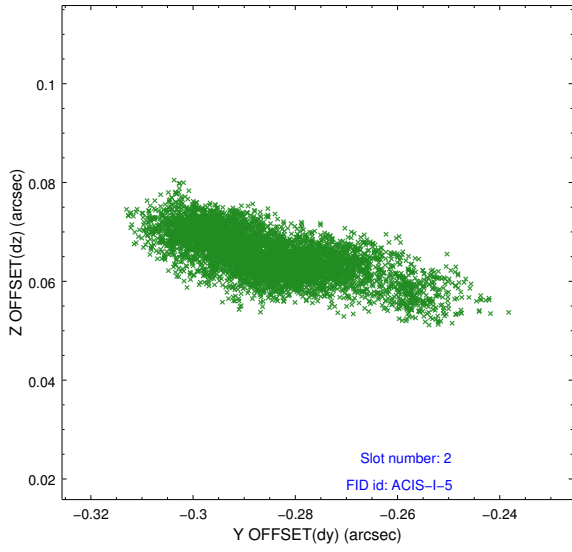
2.5.1 Slot 0



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)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.068400185108

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.