

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 14693 - L2 Version 2
Chandra X-Ray Center

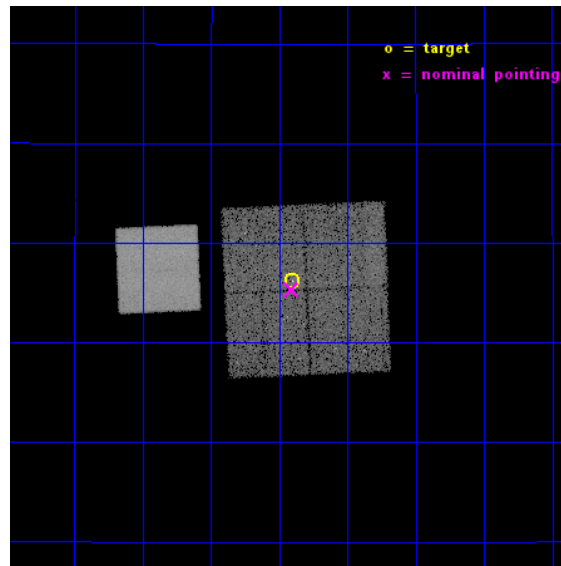
L2 Processing Date : Dec 2 2014

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1 Front

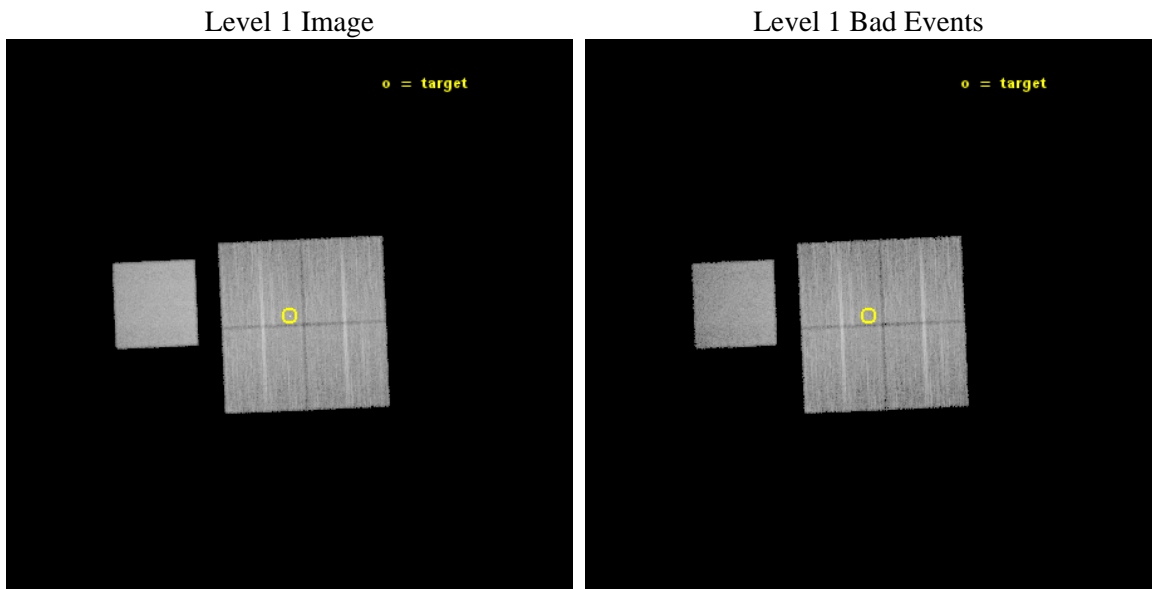
seq_num	501823	Sequence number
obs_id	14693	Observation id
title	A Legacy Study of the Relativistic Shocks of PWNe	Proposal title
observer	Prof. Roger Romani	Principal investigator
object	PSR J0633+1746	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	98.475833	Observer's specified target RA [deg]
dec_targ	17.77025	Observer's specified target Dec [deg]
ra_nom	98.477686934809	Nominal RA [deg]
dec_nom	17.755784402106	Nominal Dec [deg]
roll_nom	267.50813201889	Nominal Roll [deg]
revision	2	Processing version of data
ontime	23063.742096066	Sum of GTIs [s]
livetime	22762.397326301	Livetime [s]
ontime0	23063.618976057	Sum of GTIs [s]
ontime1	23066.80101645	Sum of GTIs [s]
ontime2	23063.701066077	Sum of GTIs [s]
ontime3	23063.742096066	Sum of GTIs [s]
ontime7	23066.92413646	Sum of GTIs [s]
l2events	116805	Number of level 2 events



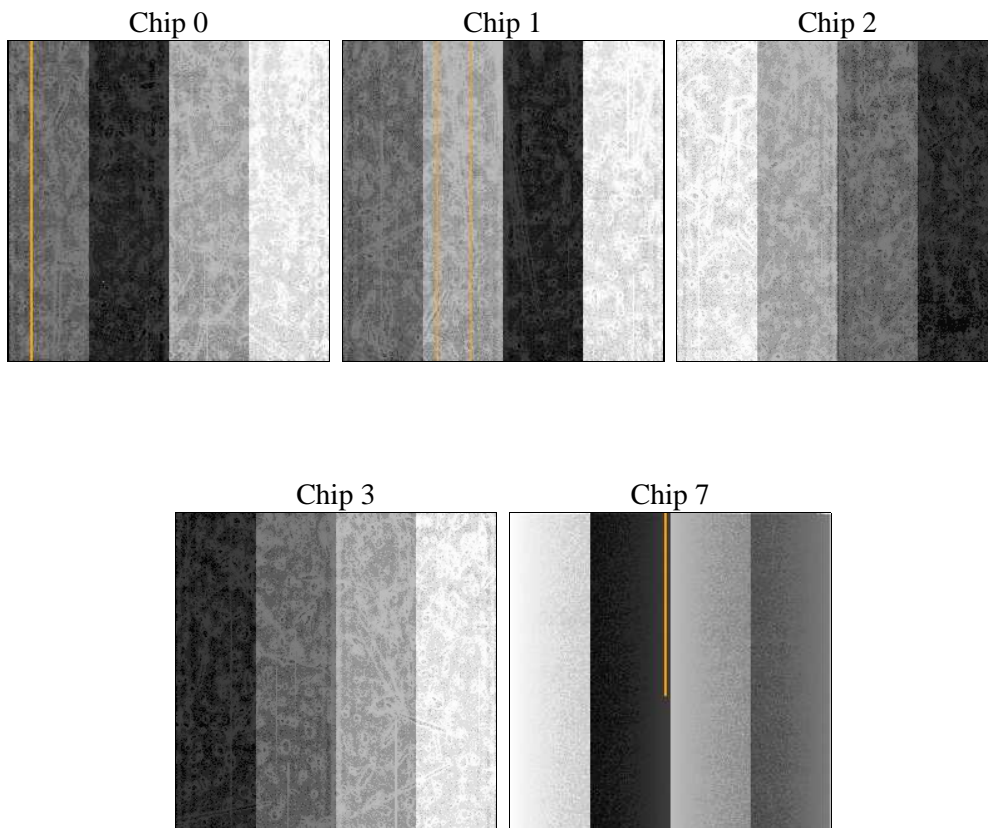
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	23063.742096066	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	23063.618976057	Sum of GTIs [s]
date	2014-12-02T13:59:23	Date and time of file creation	ontime1	23066.80101645	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	23063.701066077	Sum of GTIs [s]
			ontime3	23063.742096066	Sum of GTIs [s]
			ontime7	23066.92413646	Sum of GTIs [s]
			l1events	629685	Number of level 1 events

2.1.4 Events

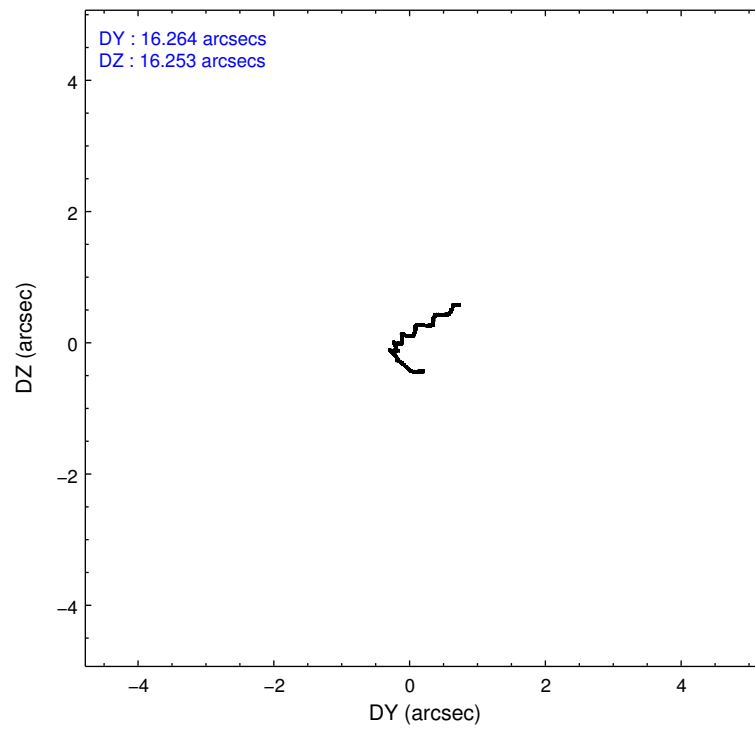
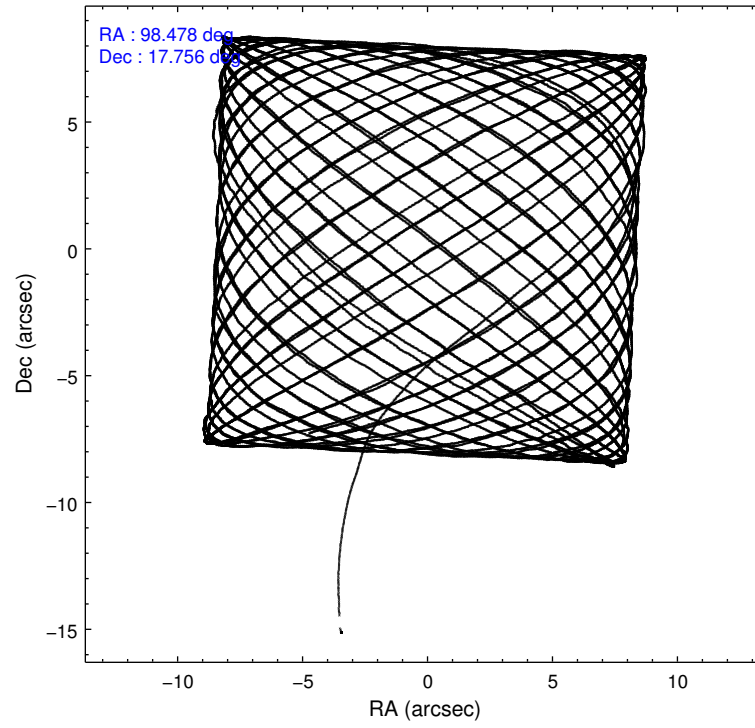
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	110553	115376	118917	121450	163389
rejected events	96450	99935	105302	107397	93130
rejected %	87%	86%	88%	88%	56%

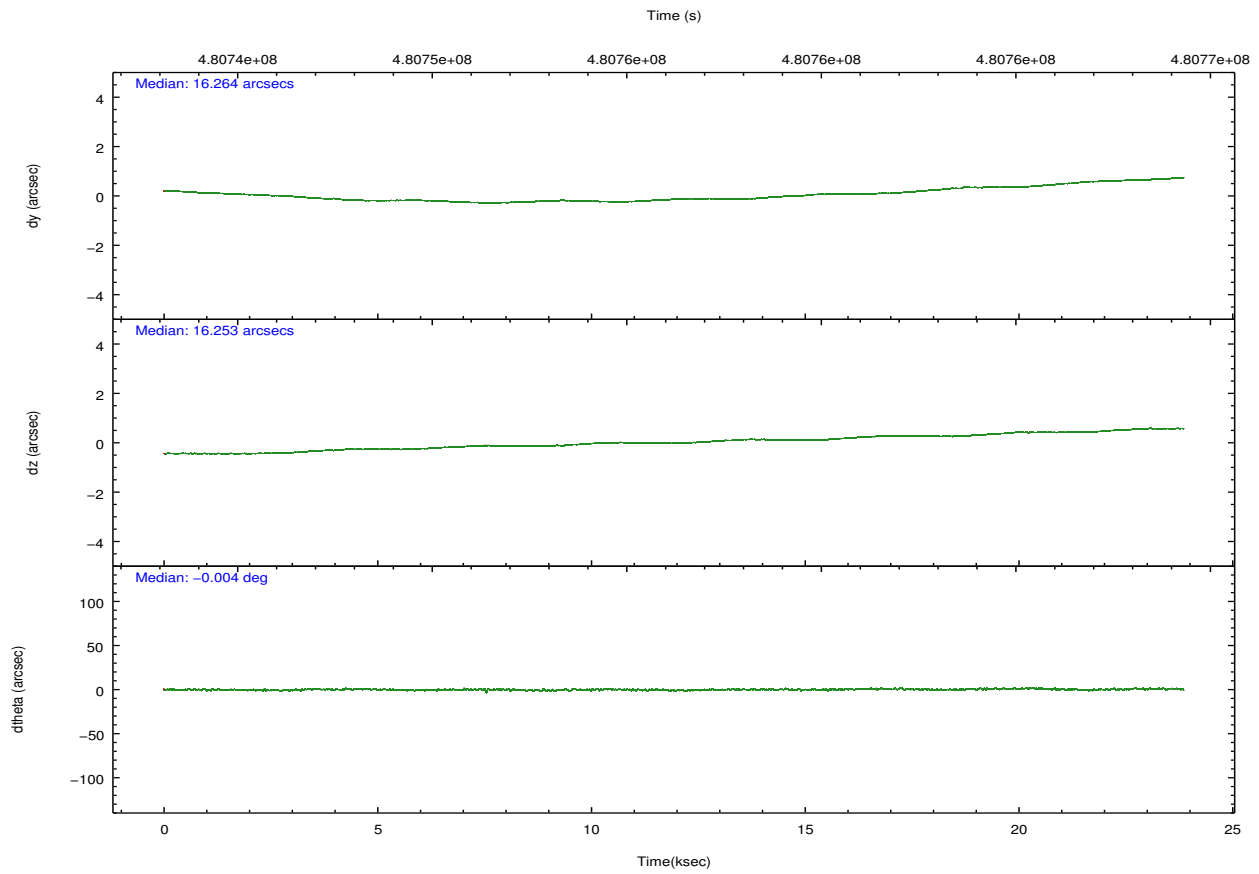
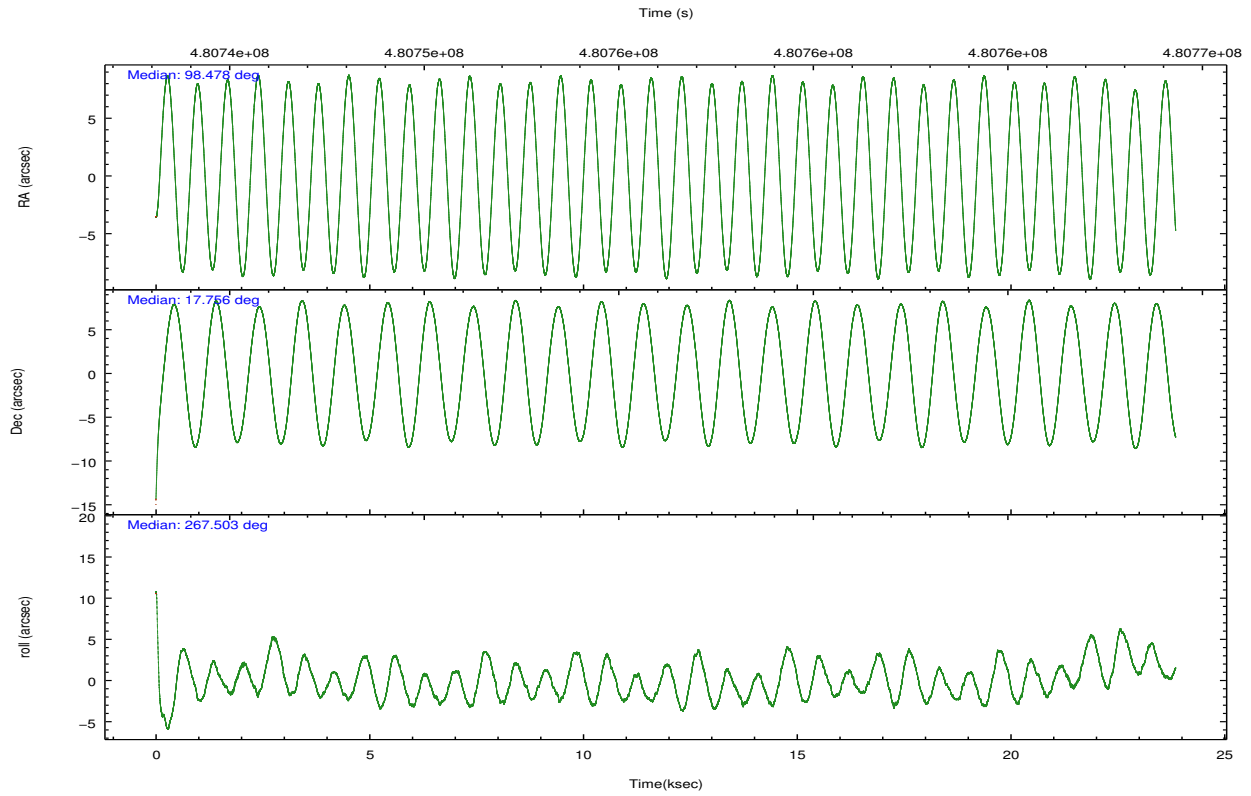
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	4796	5136	5006	5319	5900
	4%	4%	4%	4%	3%
grade 1 events	84	67	69	76	179
	0%	0%	0%	0%	0%
grade 2 events	3413	3812	3161	3009	14419
	3%	3%	2%	2%	8%
grade 3 events	1528	1480	1381	1453	5824
	1%	1%	1%	1%	3%
grade 4 events	1427	1549	1426	1426	5757
	1%	1%	1%	1%	3%
grade 5 events	5414	5742	5103	6281	16232
	4%	4%	4%	5%	9%
grade 6 events	2941	3466	2648	2848	38372
	2%	3%	2%	2%	23%
grade 7 events	90950	94124	100123	101038	76706
	82%	81%	84%	83%	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	98.47768693480938	CCD I2 on	Y	Y
[deg] Pointing Dec	17.780116	17.75578440210552	CCD I3 on	Y	Y
[deg] Pointing Roll	267.303545	267.508132018889	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)	480745140.184000	480743414.76367	CCD S5 on	N	N
Observation start date	2013-03-27T04:17:53	2013-03-27T03:50:14	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	480768140.184000	480768832.20255	On-chip summing requested	N	N
Observation end date	2013-03-27T10:41:13	2013-03-27T10:53:52	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



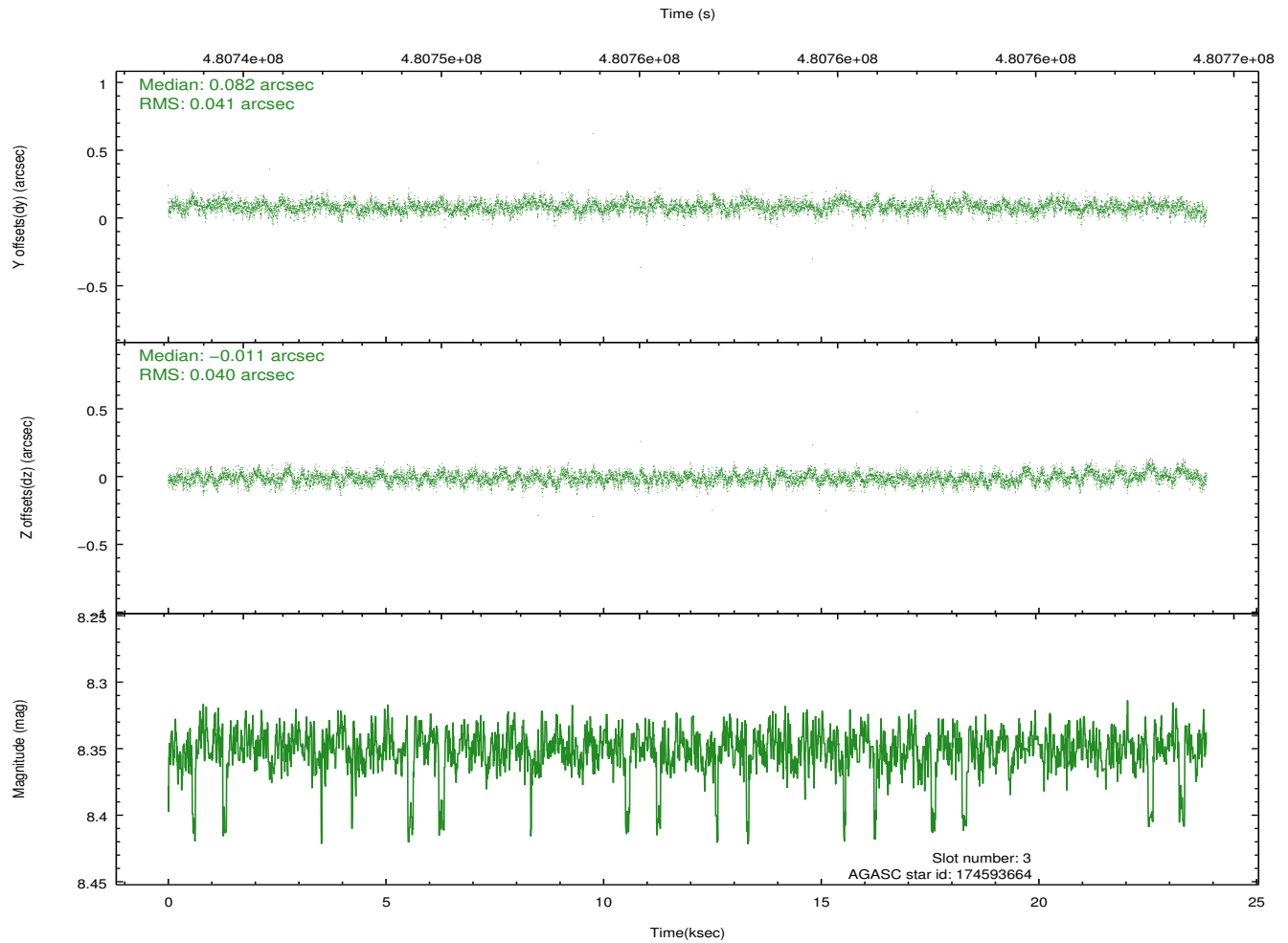
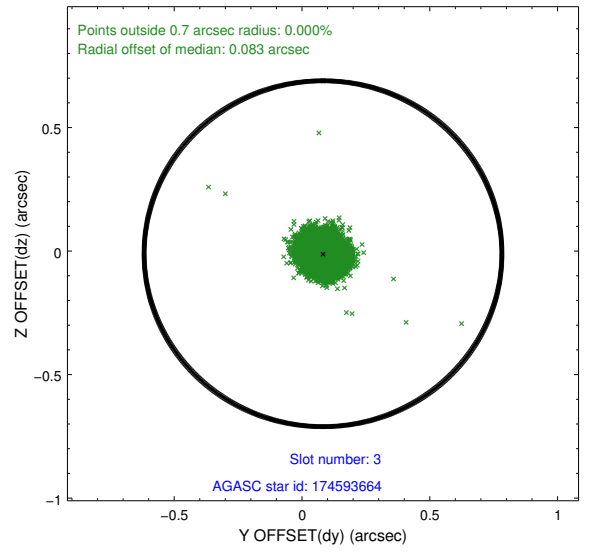
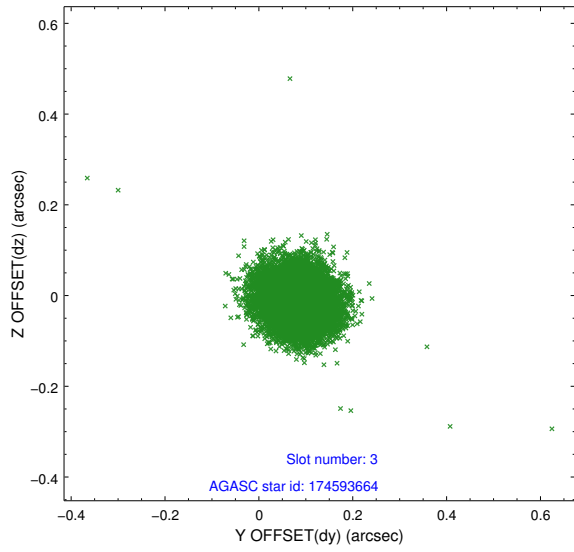


Slot Statistics

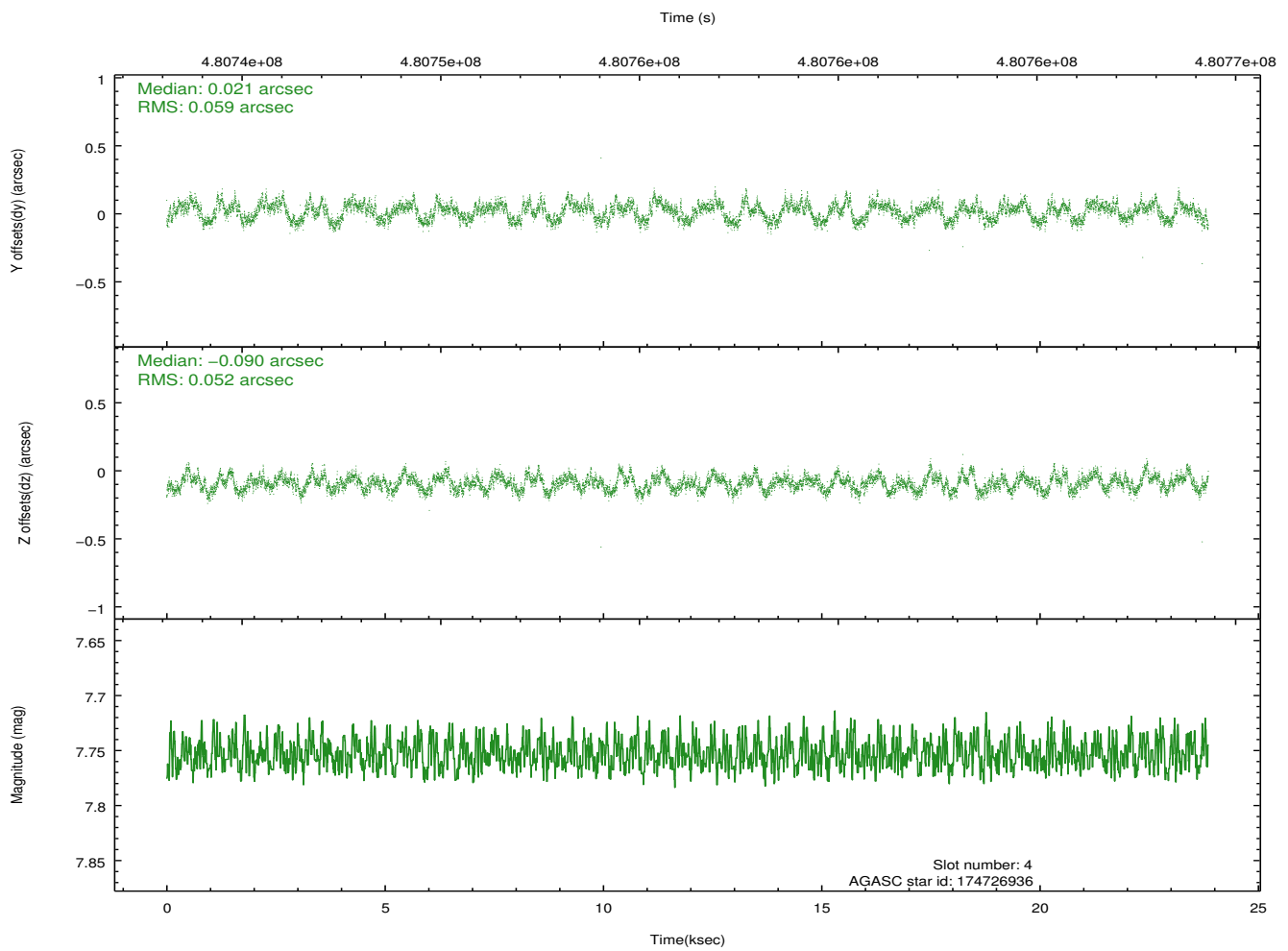
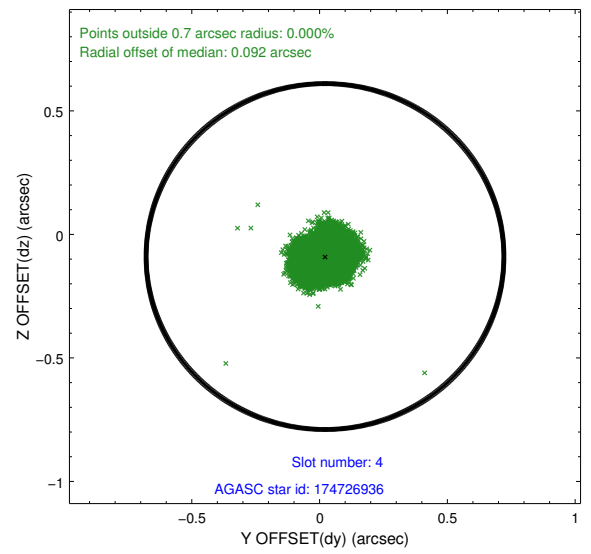
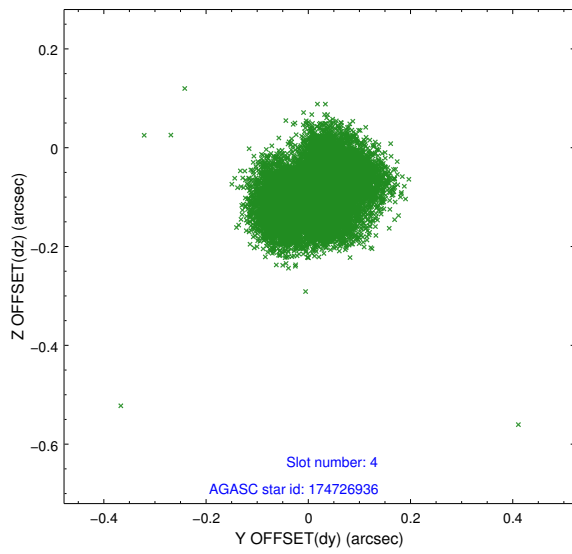
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.12	5819	0.006	-0.036	0.015	0.025	0.000000	0.000000	923.10	-887.84
1	FID		ACIS-I-4	7.06	5819	0.174	0.045	0.016	0.026	0.000000	0.000000	2143.18	1012.31
2	FID		ACIS-I-5	7.10	5819	-0.279	0.061	0.013	0.021	0.000000	0.000000	-1825.09	1009.88
3	GUIDE	used	174593664	8.35	11610	0.082	-0.011	0.060	0.098	97.965949	17.333165	1686.09	-1634.59
4	GUIDE	used	174726936	7.75	11635	0.021	-0.090	0.087	0.126	98.009571	17.665063	486.05	-1538.25
5	GUIDE	used	174730168	8.12	11635	-0.197	0.031	0.081	0.136	98.803227	18.065078	-1078.51	1111.42
6	GUIDE	used	174731792	7.91	11637	0.114	0.017	0.081	0.136	98.964622	17.200033	2003.15	1817.59
7	GUIDE	used	174721496	9.14	11630	-0.017	0.056	0.113	0.177	98.690774	18.351692	-2091.92	676.64

2.4 Star Slots

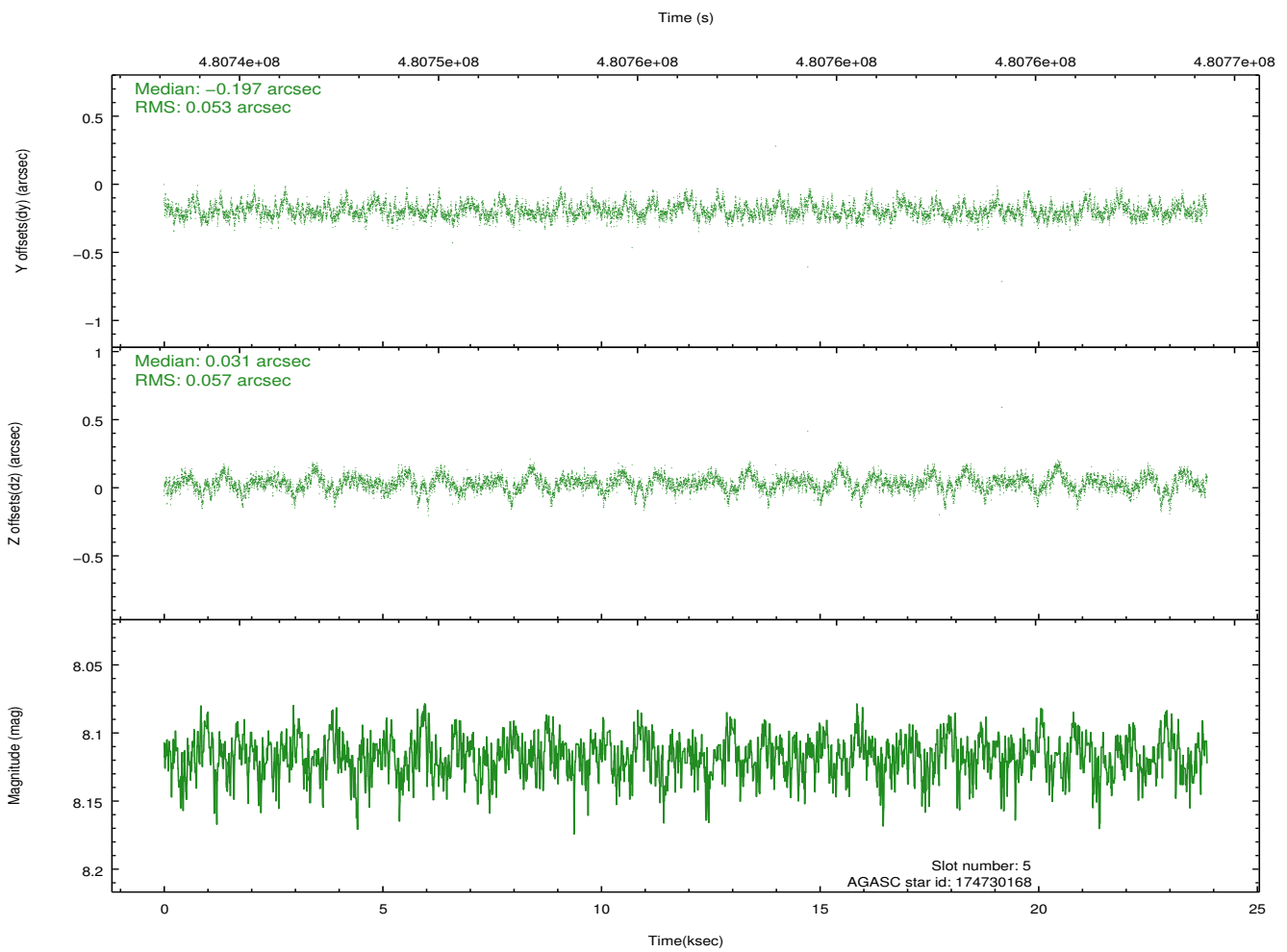
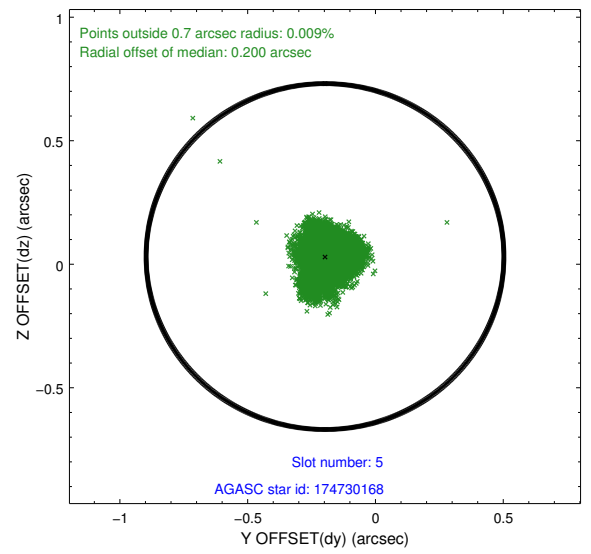
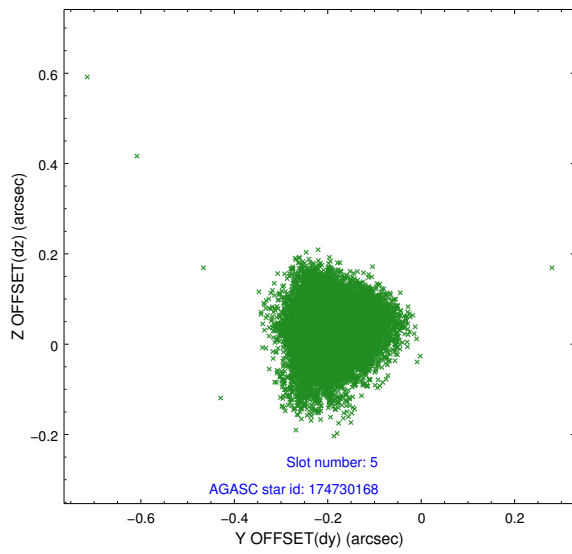
2.4.1 Slot 3



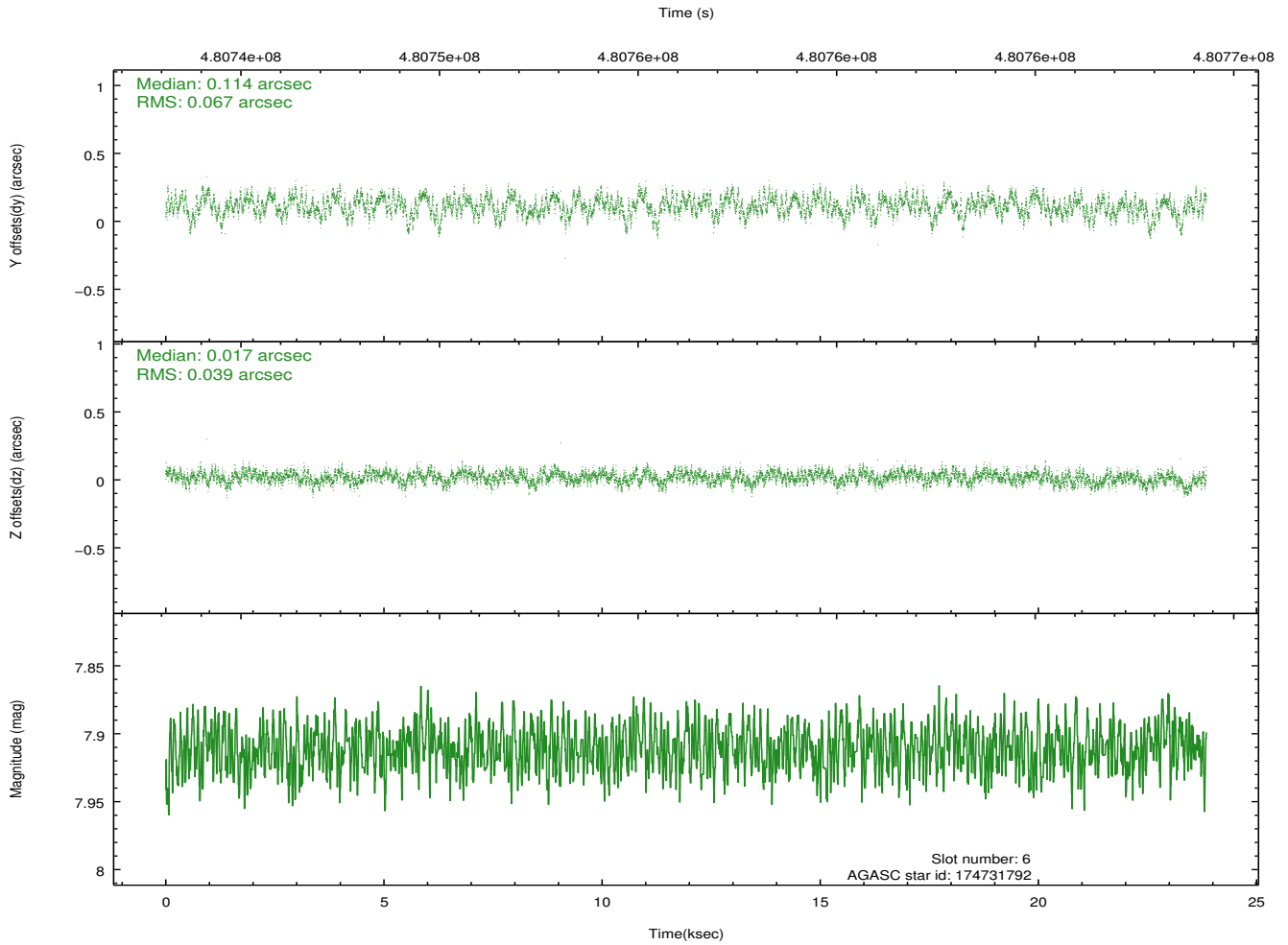
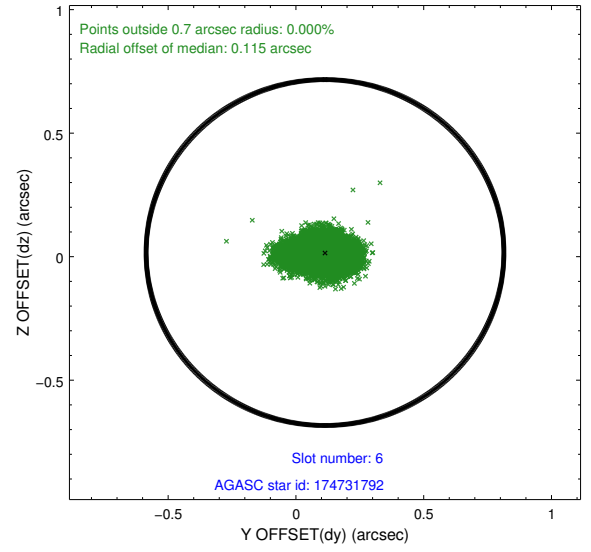
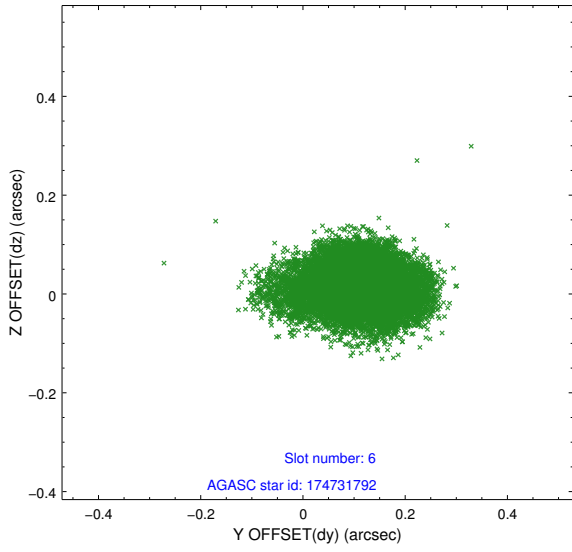
2.4.2 Slot 4



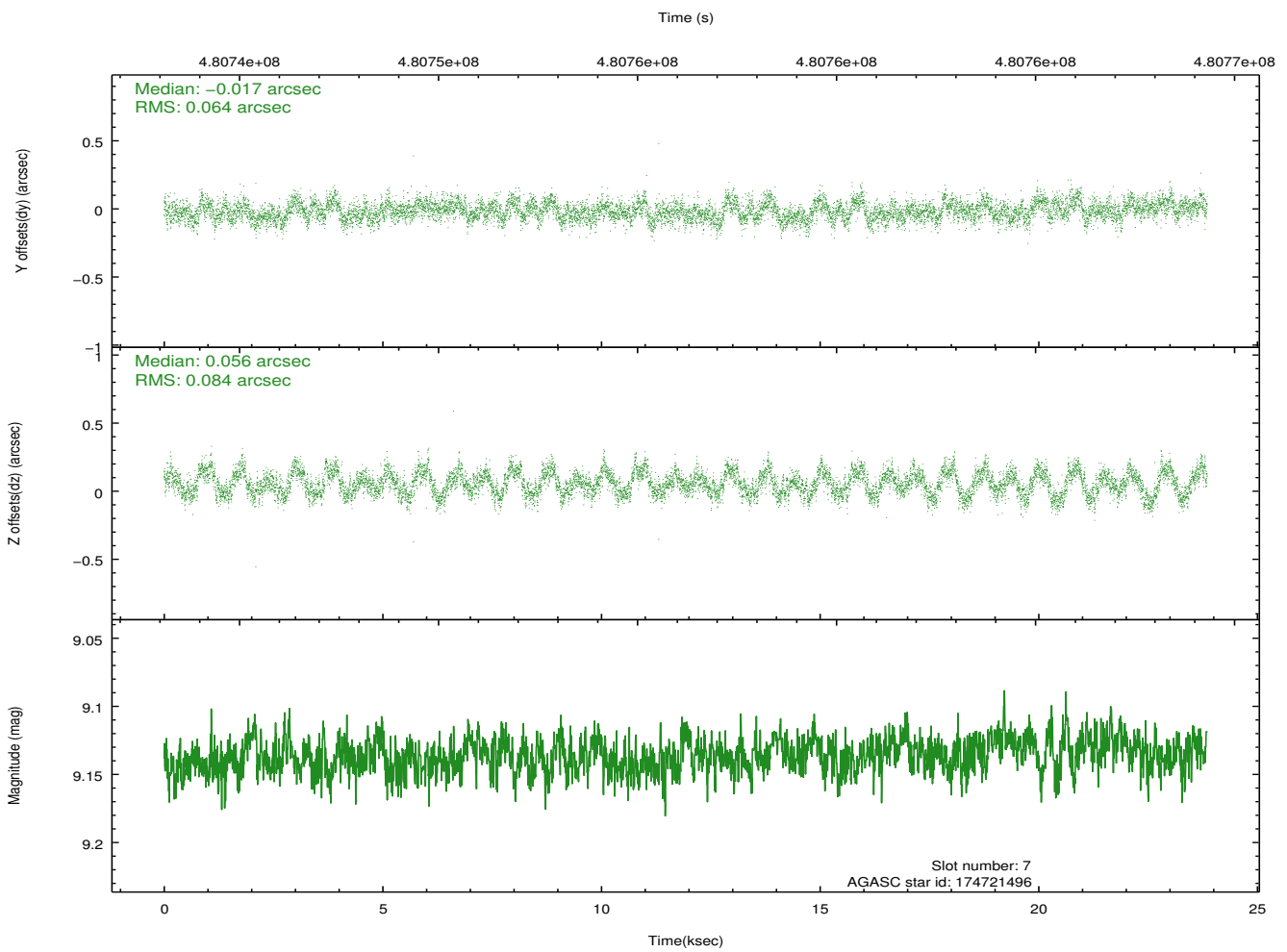
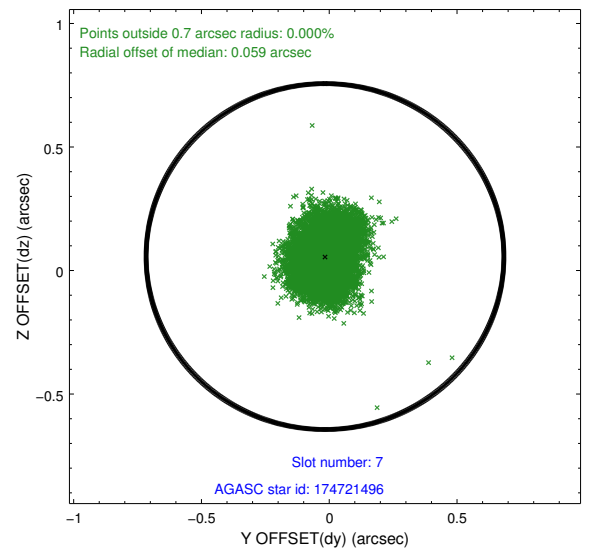
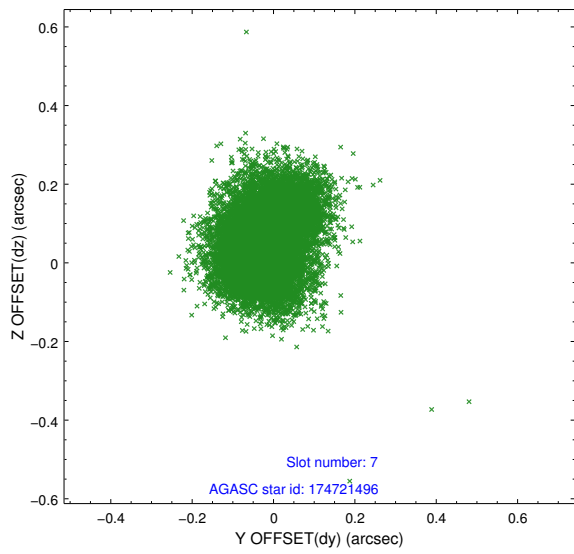
2.4.3 Slot 5



2.4.4 Slot 6

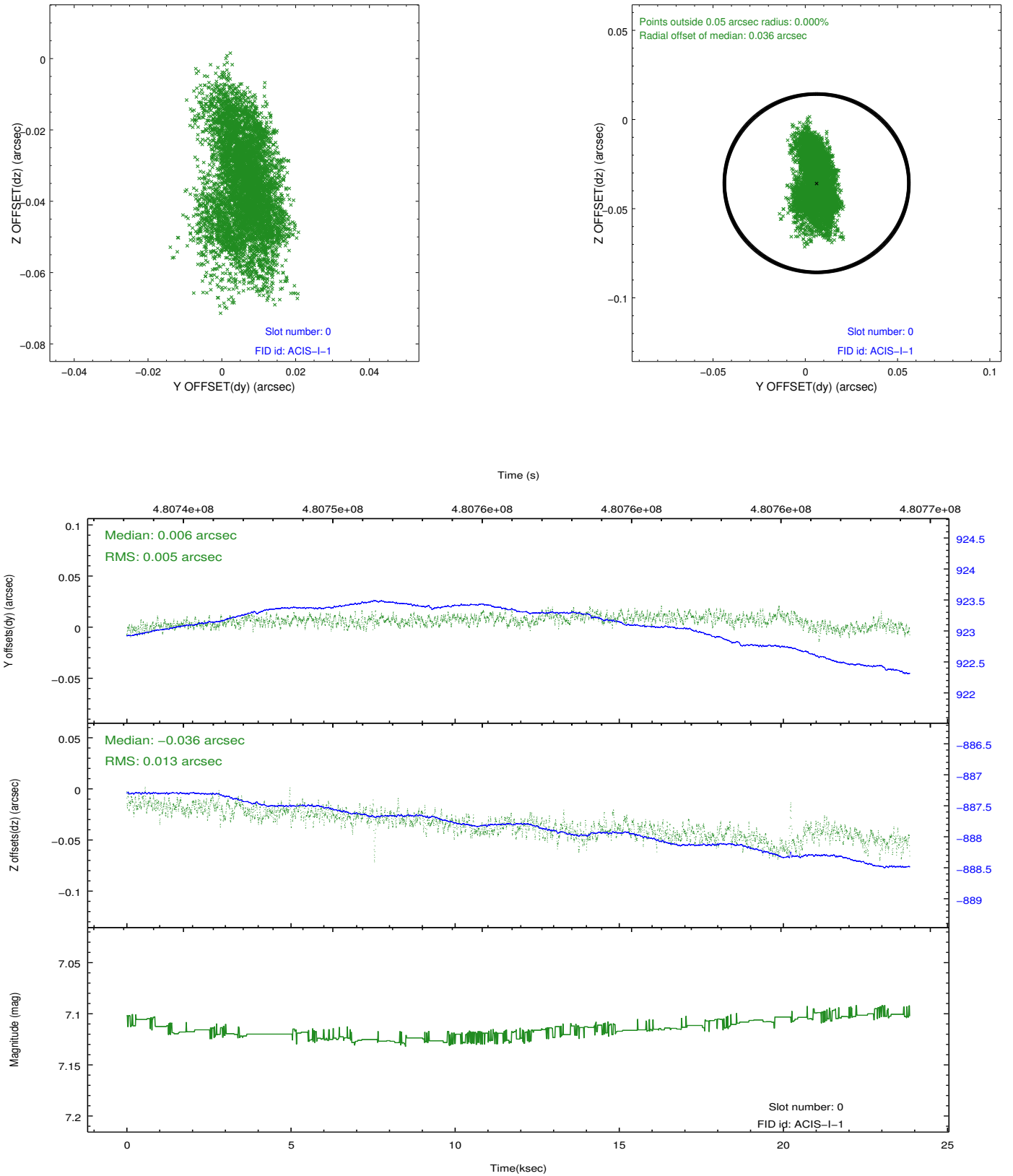


2.4.5 Slot 7

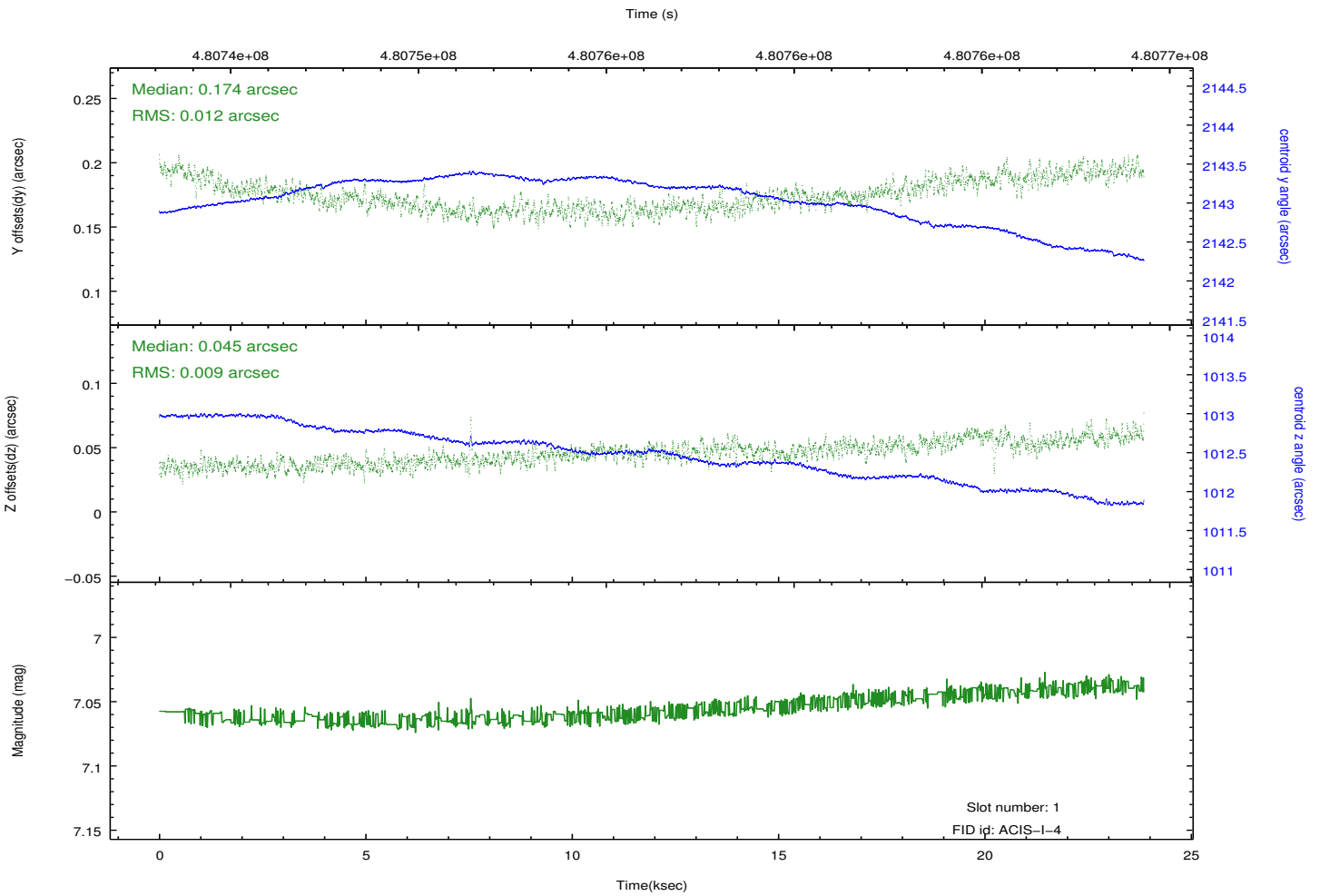
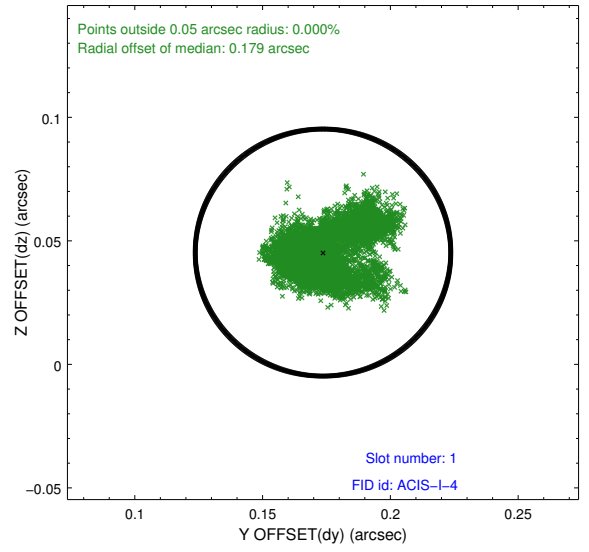
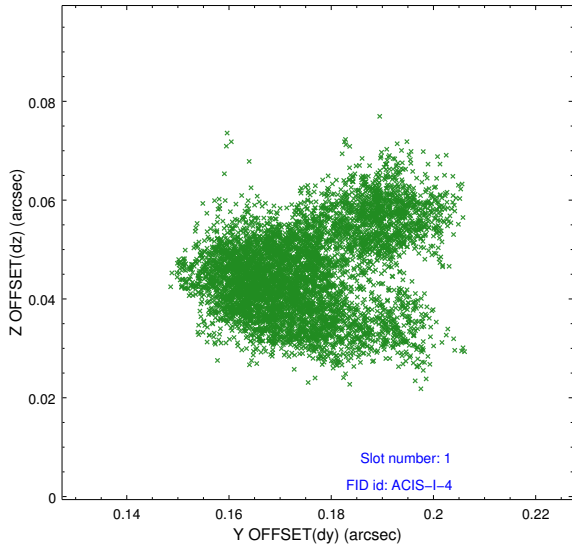


2.5 FID Slots

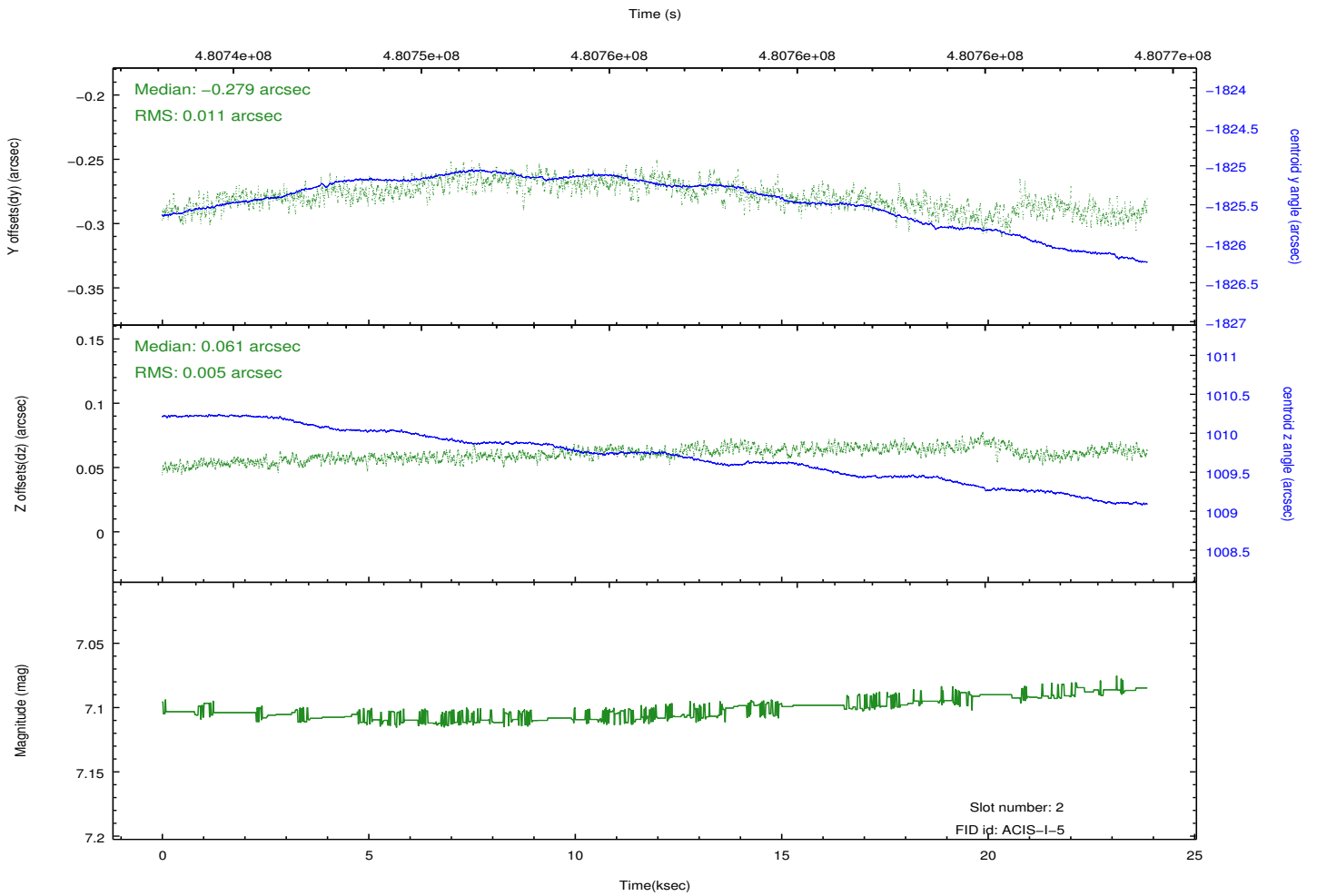
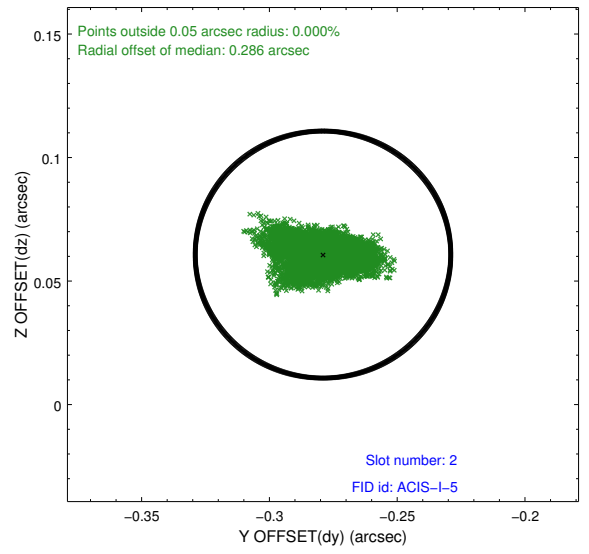
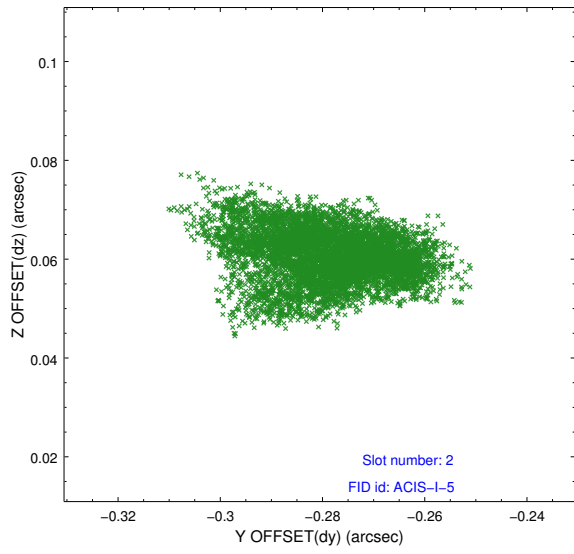
2.5.1 Slot 0



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)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.063742096066

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.