

V&V Reference Report

L2 ASCDS Version : 10

Observation 15551 - L2 Version 2
Chandra X-Ray Center

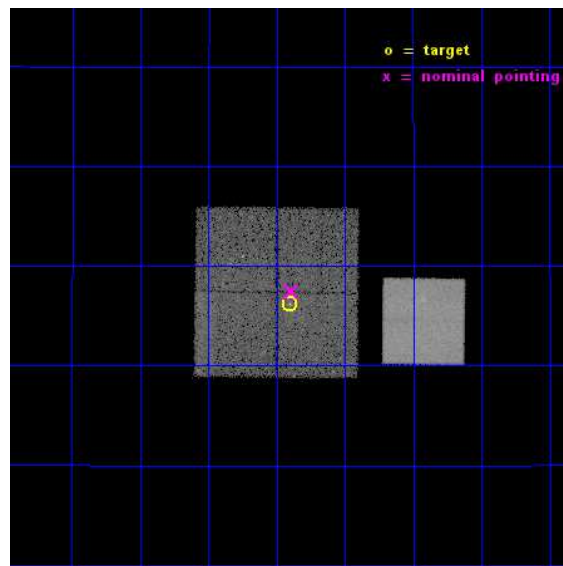
L2 Processing Date : Dec 6 2014

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1 Front

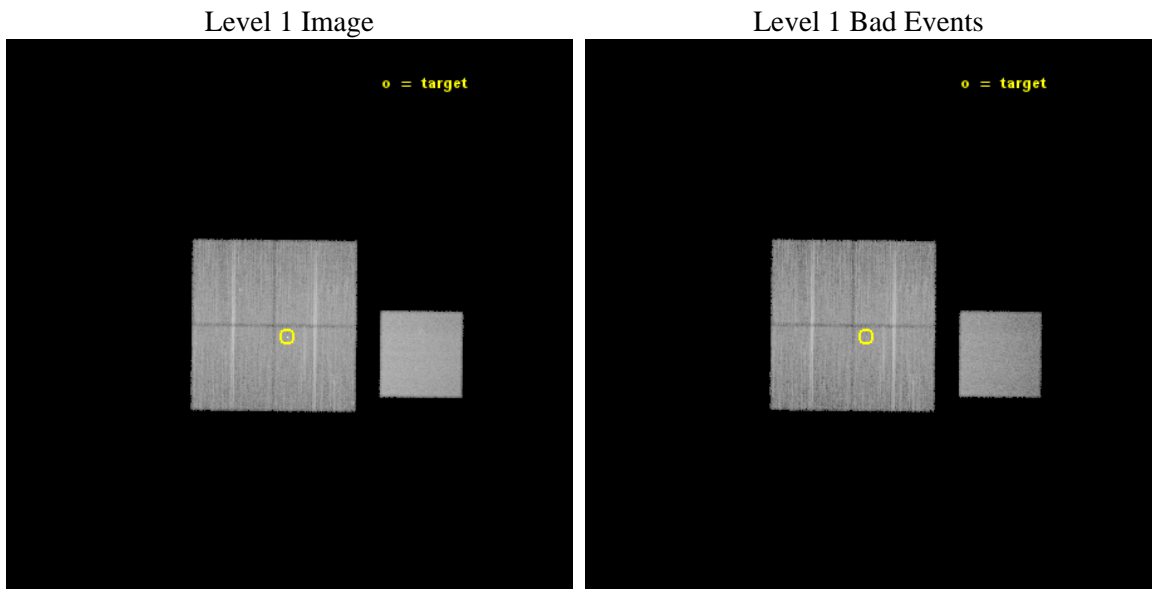
seq_num	501823	Sequence number
obs_id	15551	Observation id
title	A Legacy Study of the Relativistic Shocks of PWNe	Proposal title
observer	Prof. Roger Romani	Principal investigator
object	PSR J0633+1746	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	98.475833	Observer's specified target RA [deg]
dec_targ	17.77025	Observer's specified target Dec [deg]
ra_nom	98.47312964709	Nominal RA [deg]
dec_nom	17.791281111669	Nominal Dec [deg]
roll_nom	90.609510491321	Nominal Roll [deg]
revision	2	Processing version of data
ontime	31067.46751827	Sum of GTIs [s]
livetime	30661.548183607	Livetime [s]
ontime0	31067.34439832	Sum of GTIs [s]
ontime1	31070.526398659	Sum of GTIs [s]
ontime2	31070.567438662	Sum of GTIs [s]
ontime3	31067.46751827	Sum of GTIs [s]
ontime7	31070.649518669	Sum of GTIs [s]
l2events	145022	Number of level 2 events



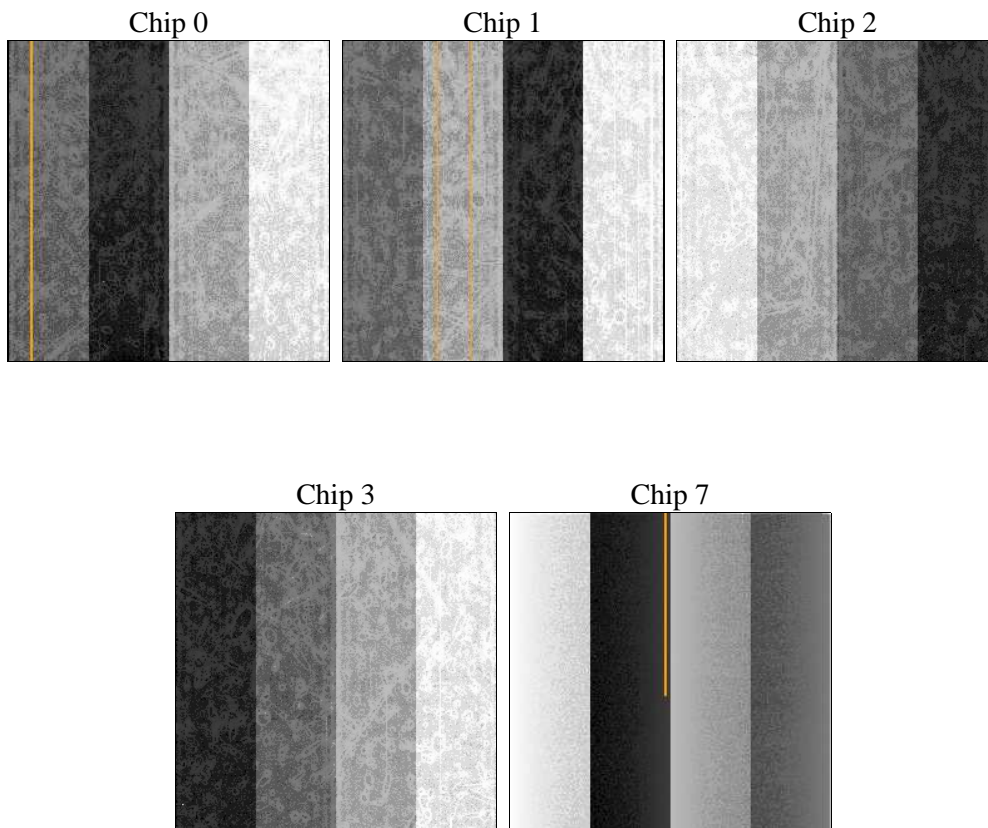
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	31000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	31067.46751827	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	31067.34439832	Sum of GTIs [s]
date	2014-12-06T05:15:51	Date and time of file creation	ontime1	31070.526398659	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	31070.567438662	Sum of GTIs [s]
			ontime3	31067.46751827	Sum of GTIs [s]
			ontime7	31070.649518669	Sum of GTIs [s]
			l1events	757124	Number of level 1 events

2.1.4 Events

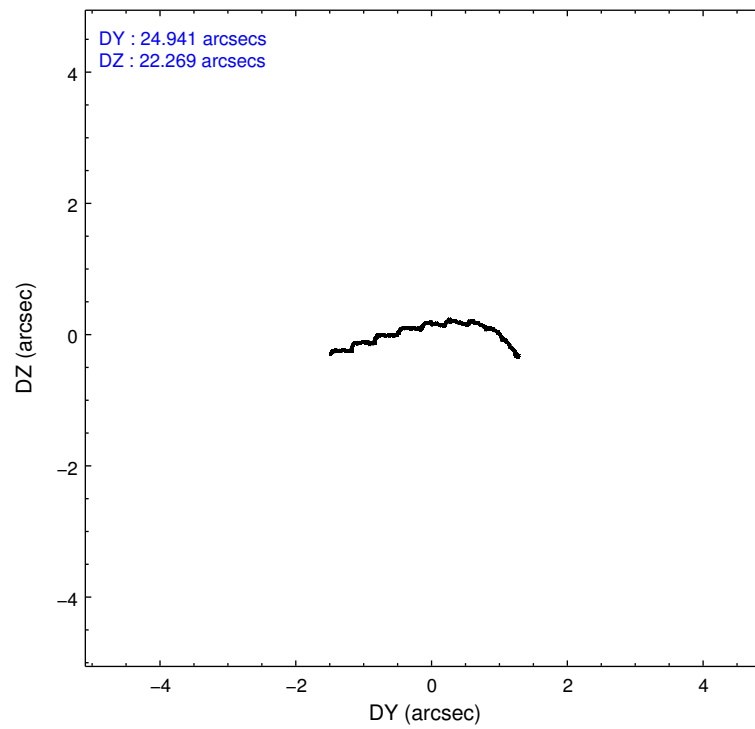
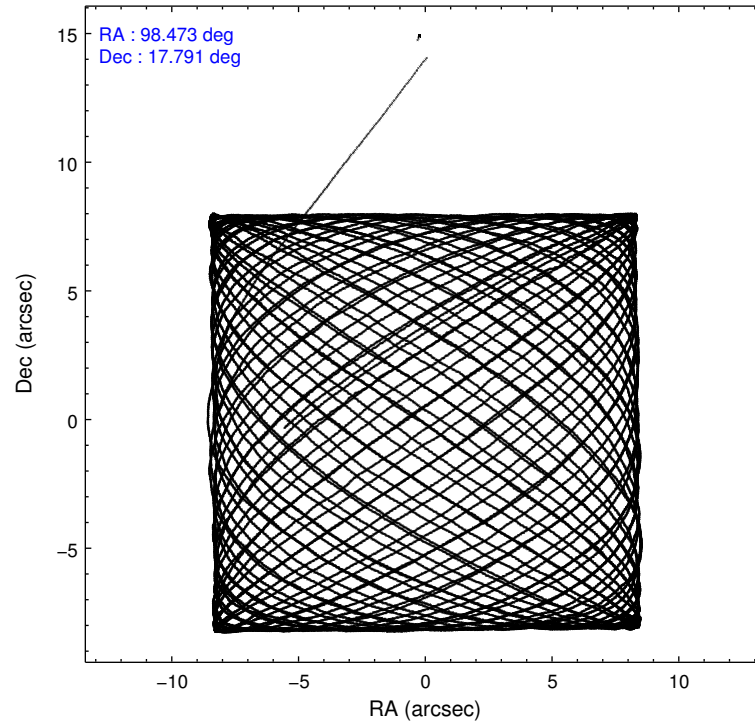
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	134188	133568	144700	144674	199994
rejected events	116492	114452	127858	126654	112714
rejected %	86%	85%	88%	87%	56%

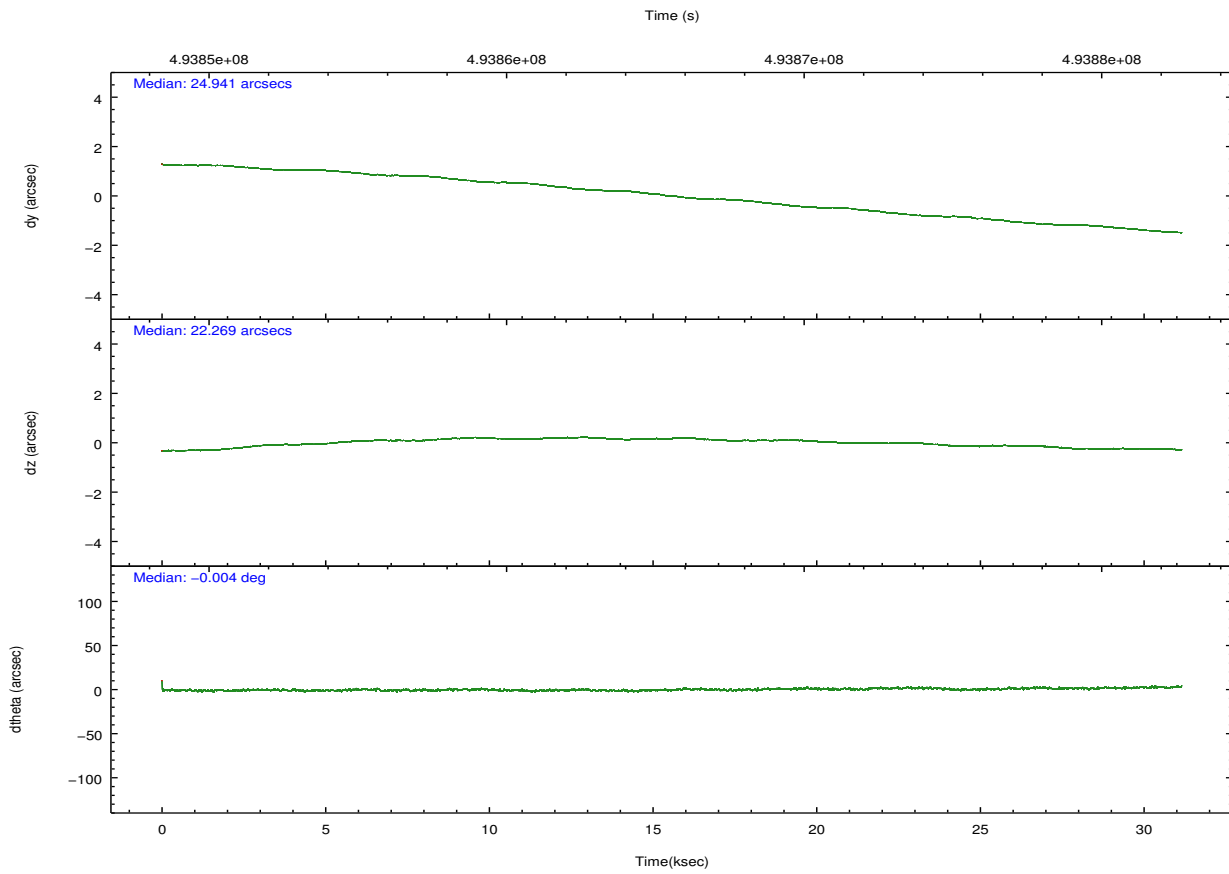
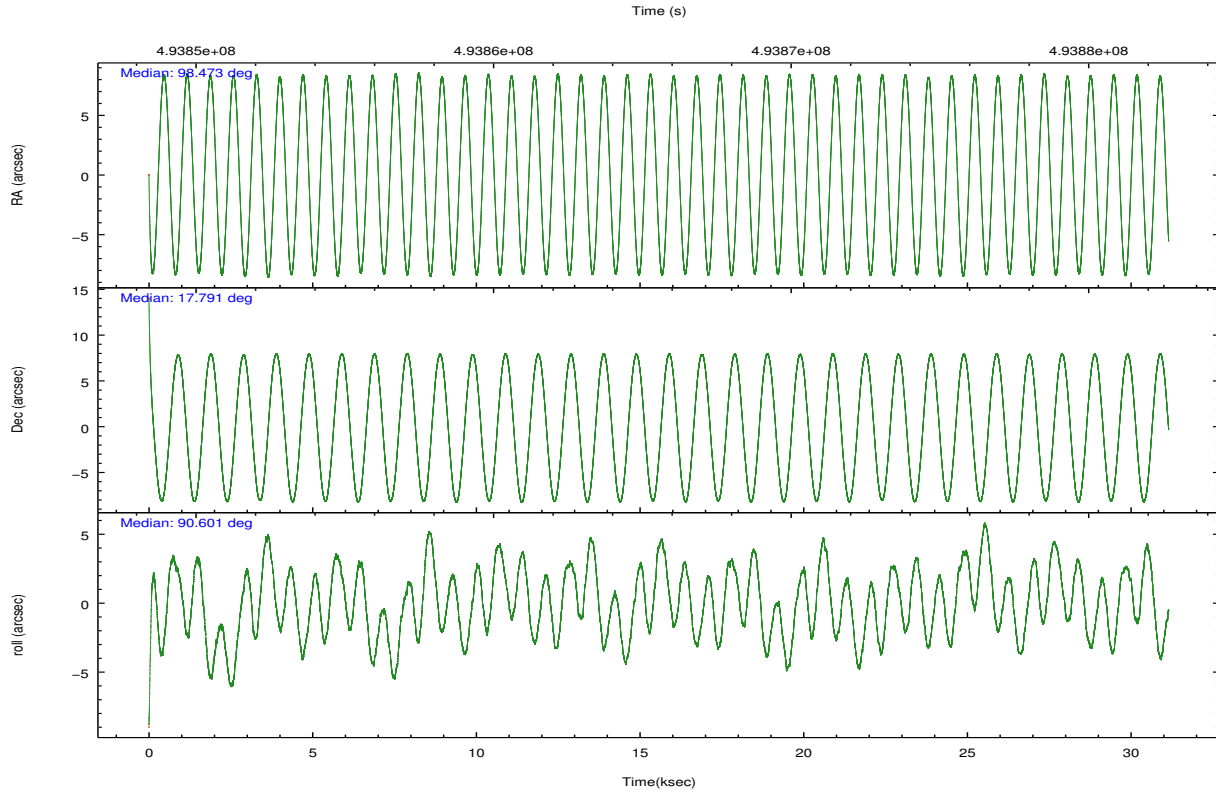
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	6160	6445	6006	7125	7630
	4%	4%	4%	4%	3%
grade 1 events	75	75	66	94	238
	0%	0%	0%	0%	0%
grade 2 events	4433	4691	4073	3690	17722
	3%	3%	2%	2%	8%
grade 3 events	1871	1897	1698	1852	7416
	1%	1%	1%	1%	3%
grade 4 events	1735	1919	1782	1859	7264
	1%	1%	1%	1%	3%
grade 5 events	6837	7498	6393	7861	20694
	5%	5%	4%	5%	10%
grade 6 events	3498	4173	3284	3495	47256
	2%	3%	2%	2%	23%
grade 7 events	109579	106870	121398	118698	91774
	81%	80%	83%	82%	45%

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	98.487930	98.47312964708996	CCD I2 on	Y	Y
[deg] Pointing Dec	17.767664	17.79128111166916	CCD I3 on	Y	Y
[deg] Pointing Roll	90.396305	90.6095104913208	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	-231.2566641762826	CCD S3 on	O1	Y
[mm] SIM translation stage offset	-2.34	-2.335788826647132	CCD S4 on	N	N
[s] Observation start time (MET)	493850132.184000	493848819.98788	CCD S5 on	N	N
Observation start date	2013-08-25T20:34:25	2013-08-25T20:13:39	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	493881132.184000	493881725.56468	On-chip summing requested	N	N
Observation end date	2013-08-26T05:11:05	2013-08-26T05:22:05	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





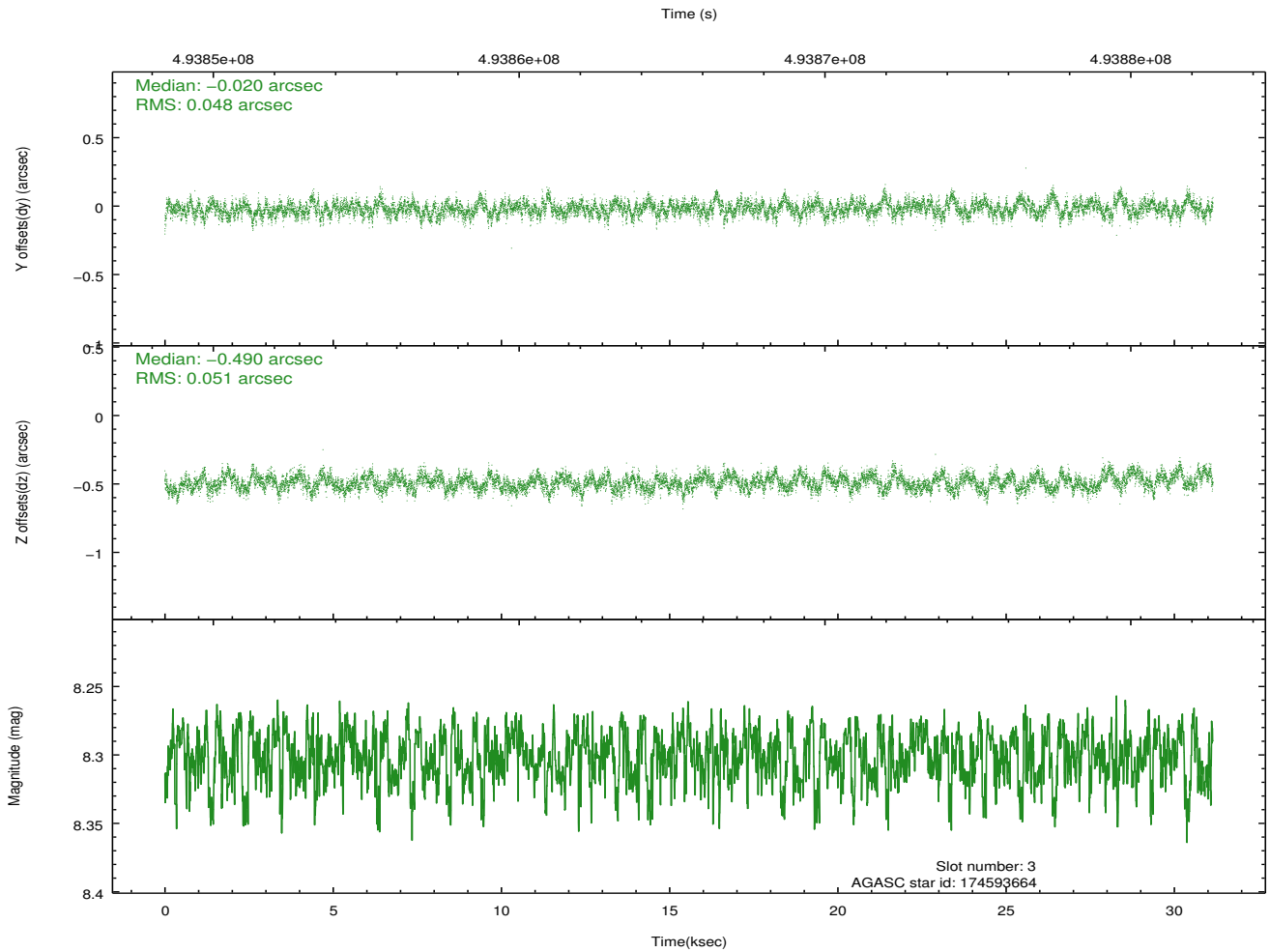
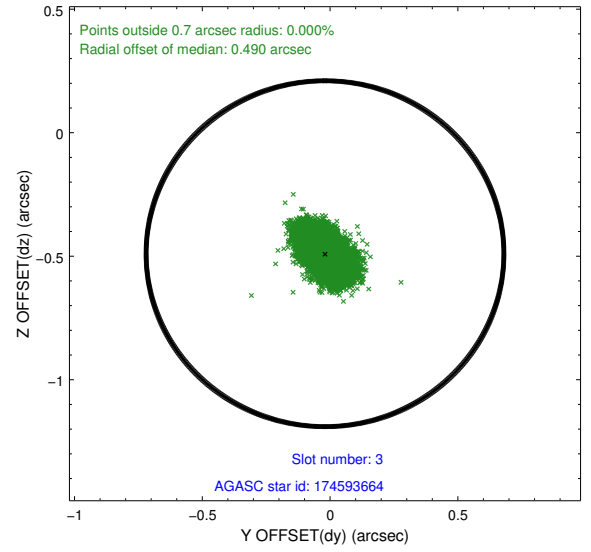
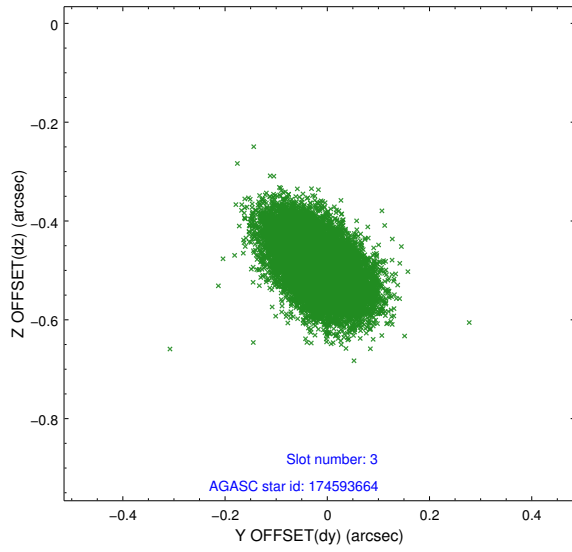
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	7.01	7598	-0.160	-0.068	0.021	0.037	0.000000	0.000000	-780.21	-900.06
1	FID		ACIS-I-4	7.00	7599	0.321	0.107	0.016	0.026	0.000000	0.000000	2134.22	1006.32
2	FID		ACIS-I-5	7.06	7599	-0.262	0.029	0.021	0.030	0.000000	0.000000	-1834.00	1003.73
3	GUIDE	used	174593664	8.30	15193	-0.020	-0.490	0.074	0.123	97.965949	17.333165	-1549.44	1804.28
4	GUIDE	used	174726936	7.74	15193	-0.149	-0.488	0.066	0.106	98.009571	17.665063	-356.52	1643.15
5	GUIDE	used	174730168	8.14	15195	-0.141	-0.049	0.082	0.128	98.803227	18.065078	1062.36	-1086.61
6	GUIDE	used	174731032	8.87	15174	0.218	0.652	0.090	0.147	99.169475	17.388789	-1375.13	-2331.25
7	GUIDE	used	174731792	7.92	15189	0.089	0.374	0.082	0.132	98.964622	17.200033	-2052.54	-1624.89

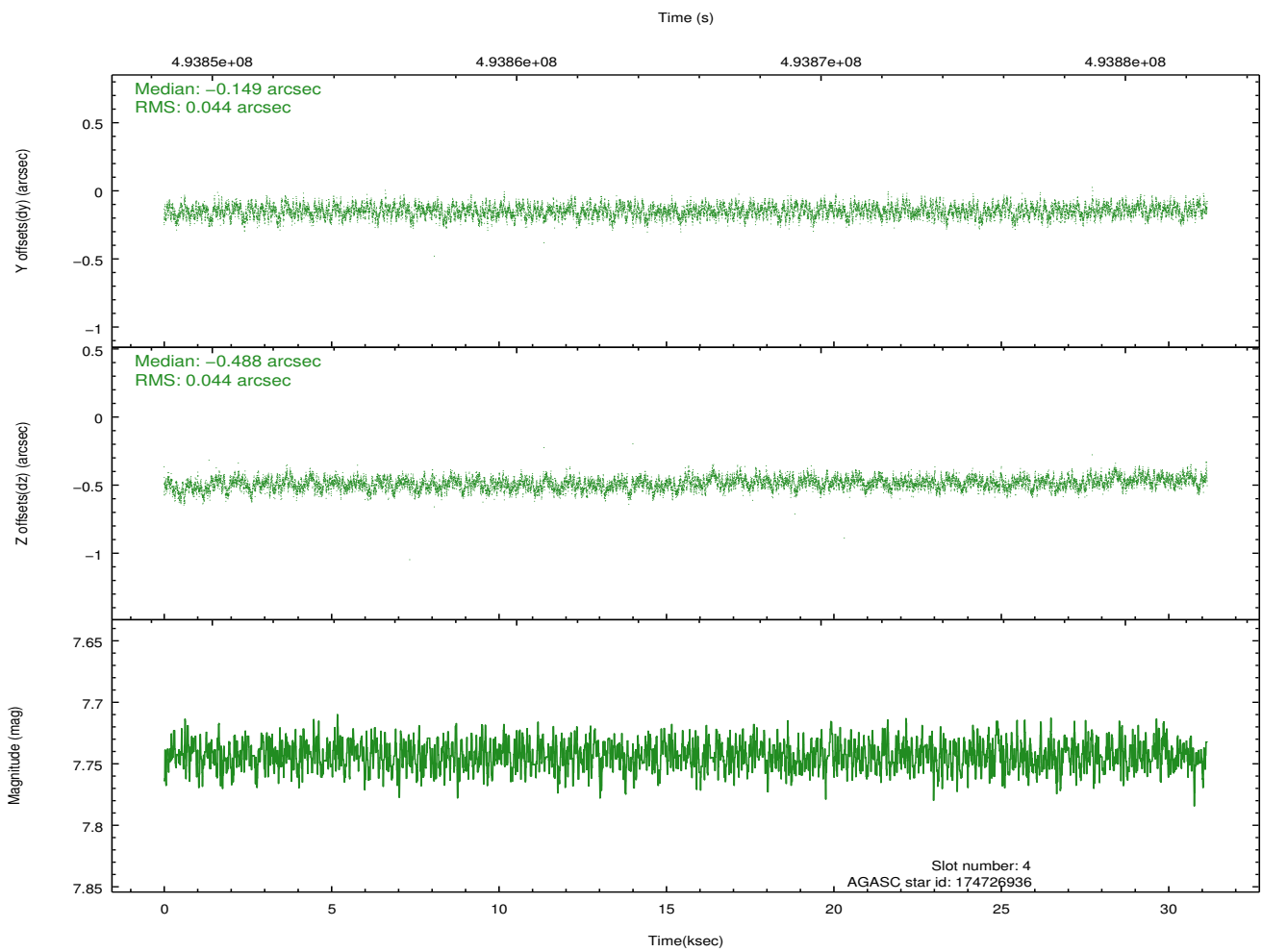
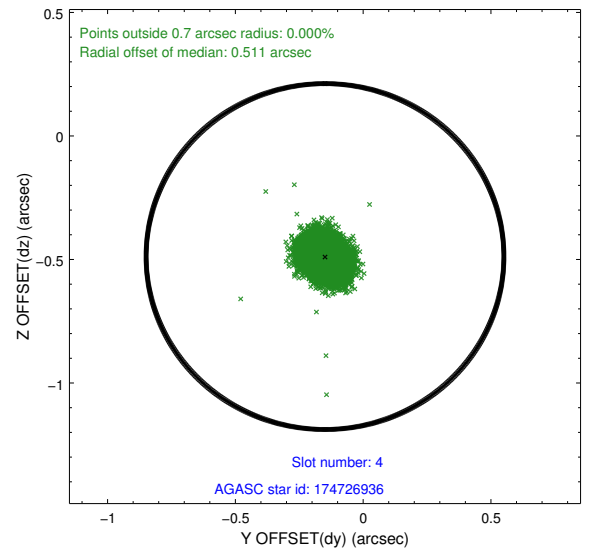
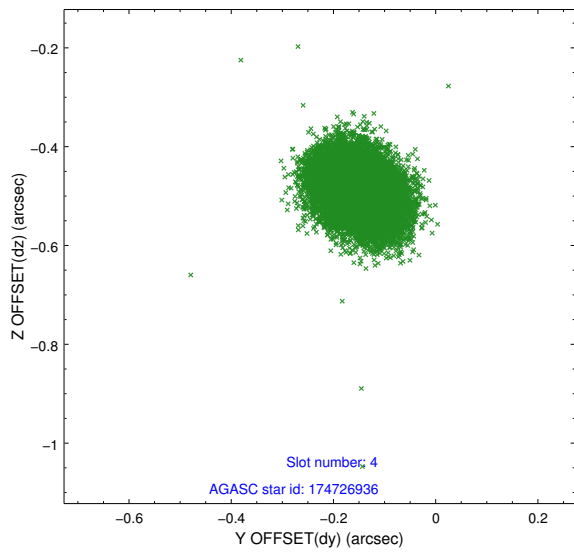
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2.4 Star Slots

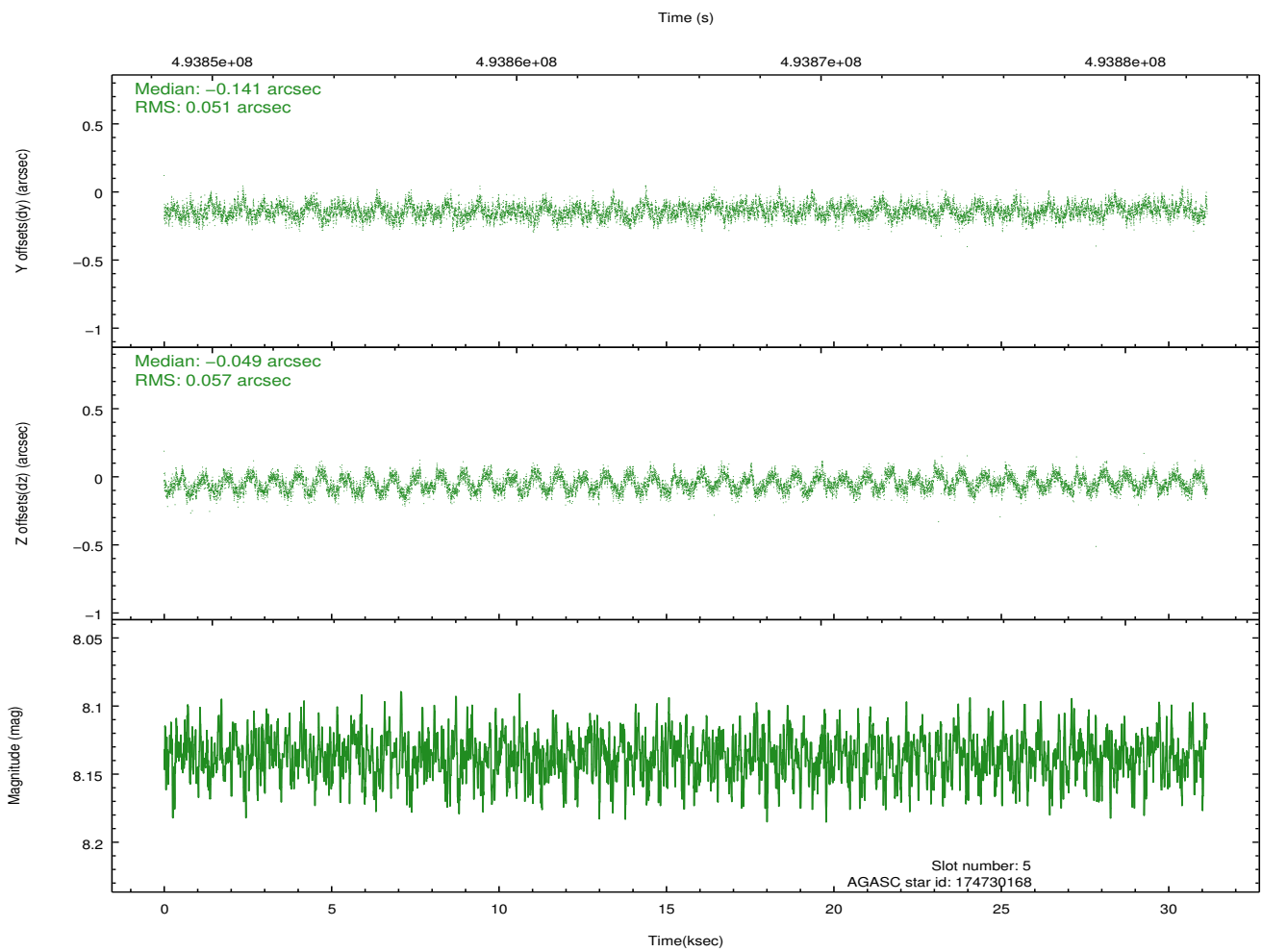
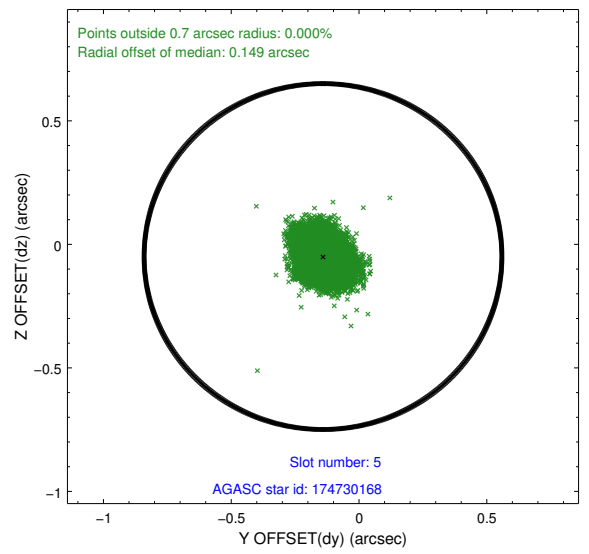
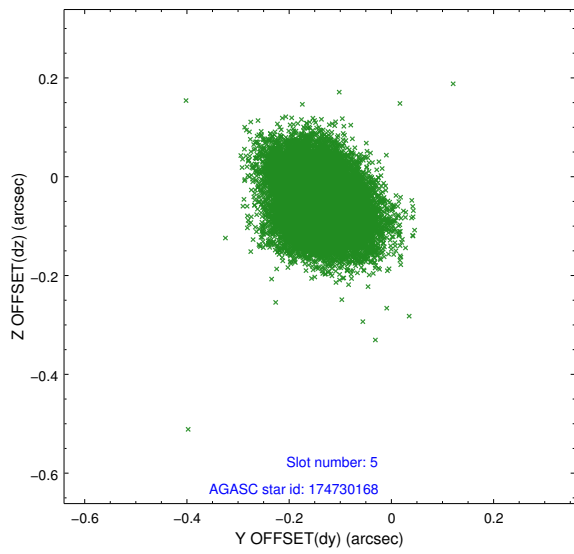
2.4.1 Slot 3



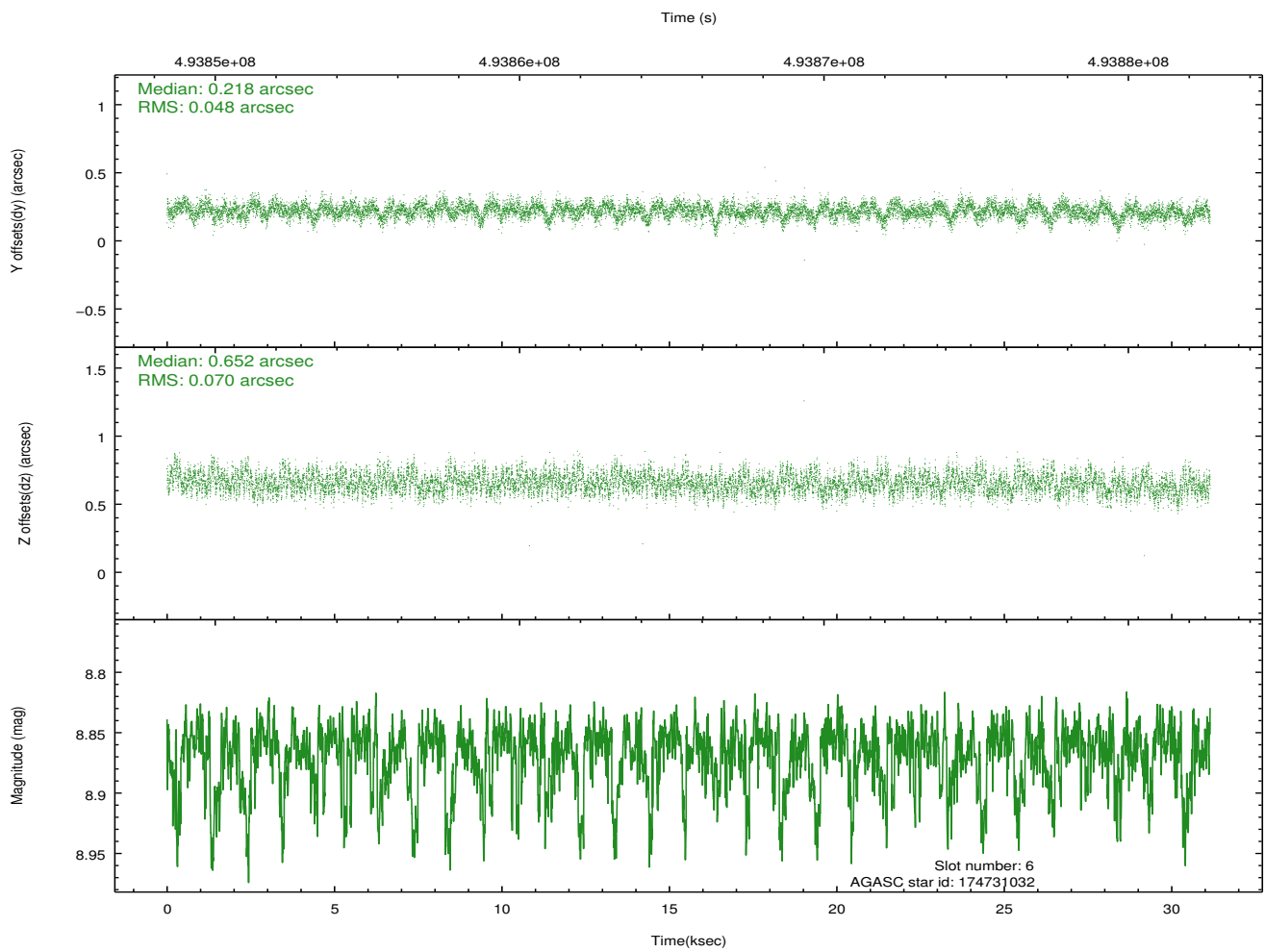
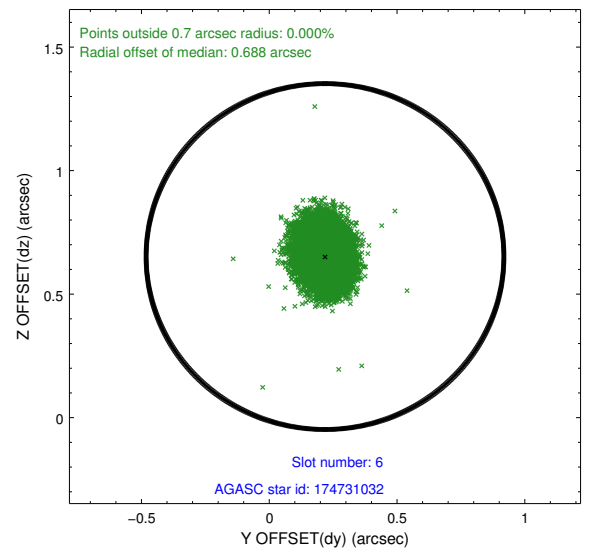
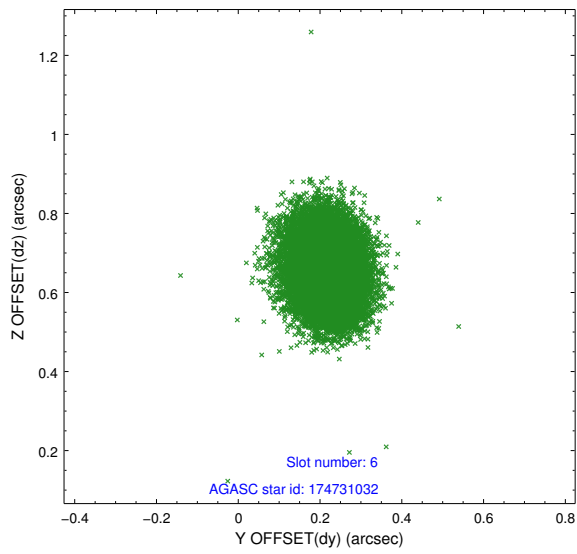
2.4.2 Slot 4



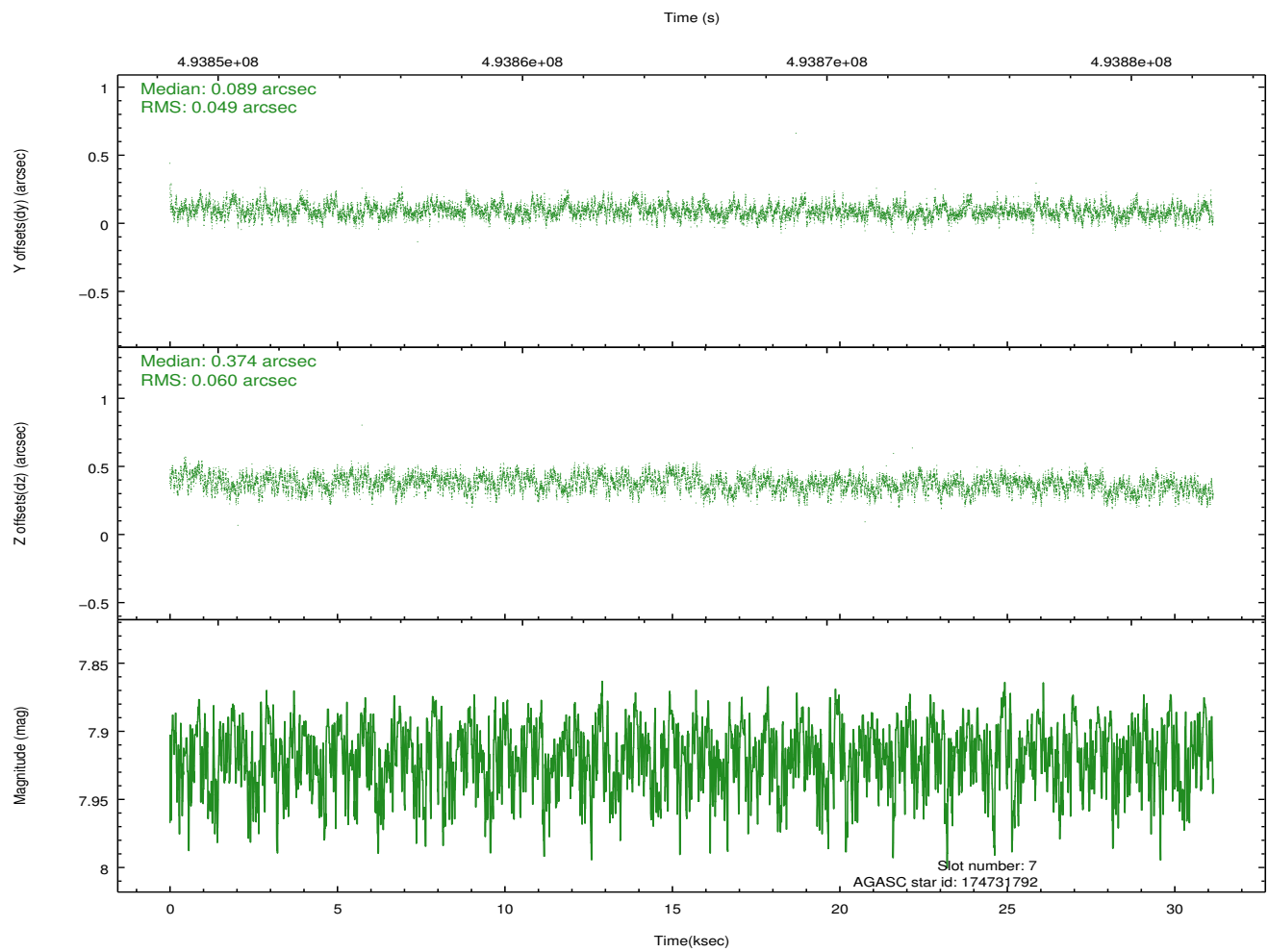
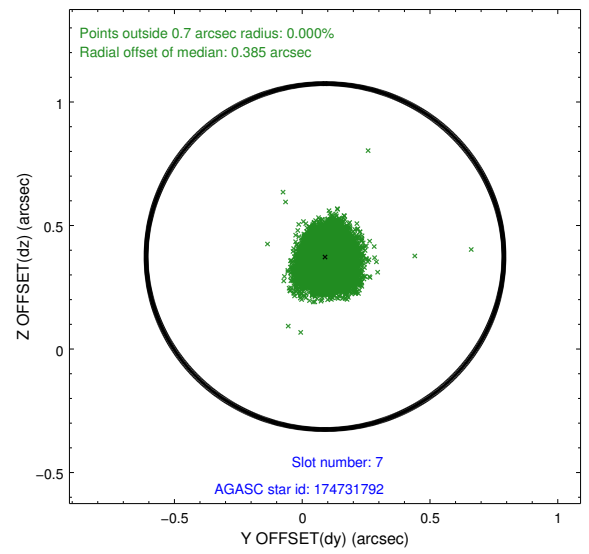
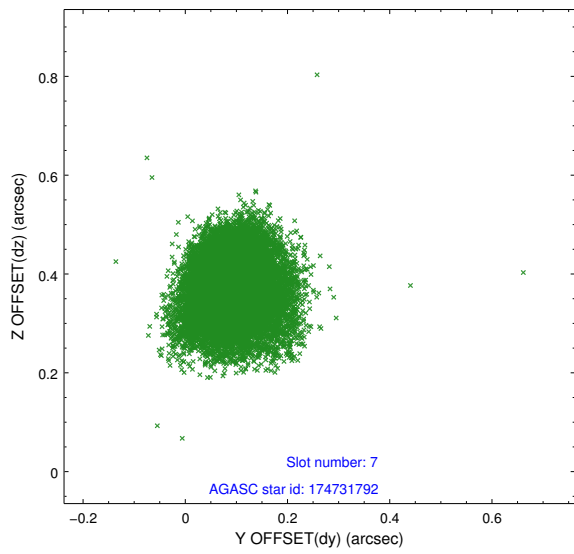
2.4.3 Slot 5



2.4.4 Slot 6

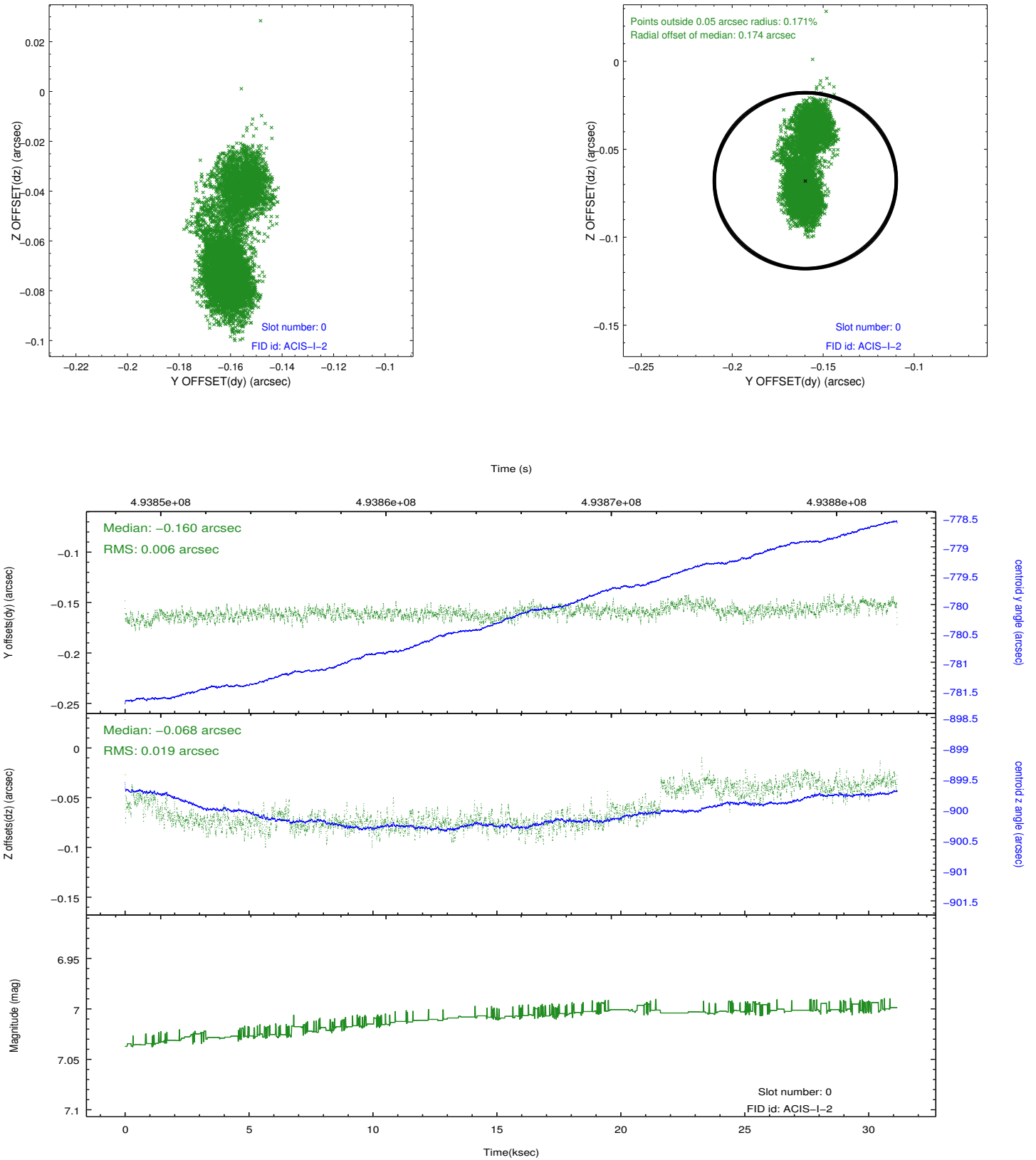


2.4.5 Slot 7

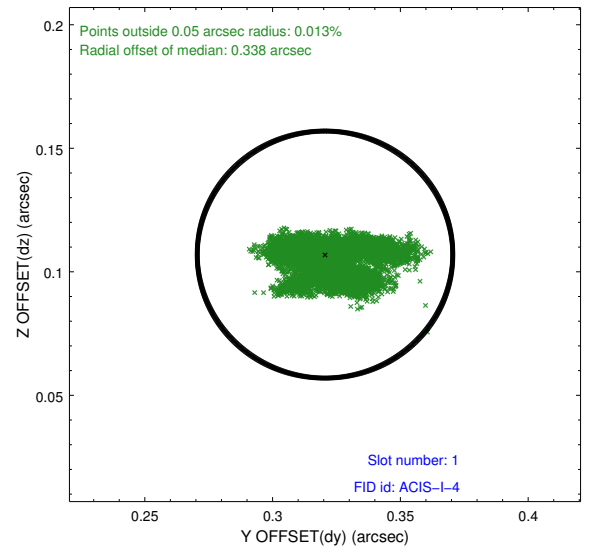
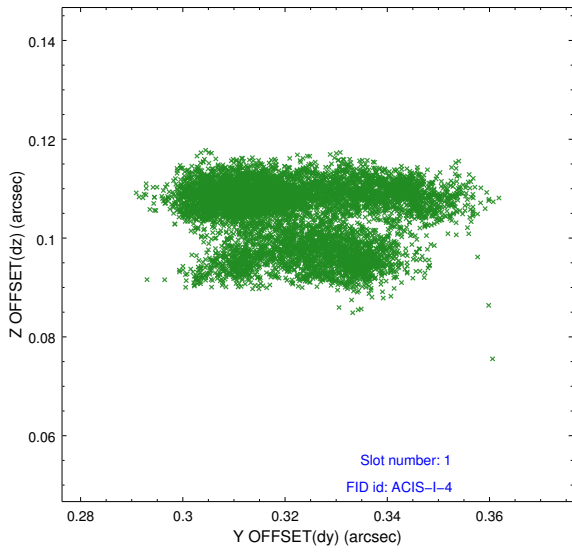


2.5 FID Slots

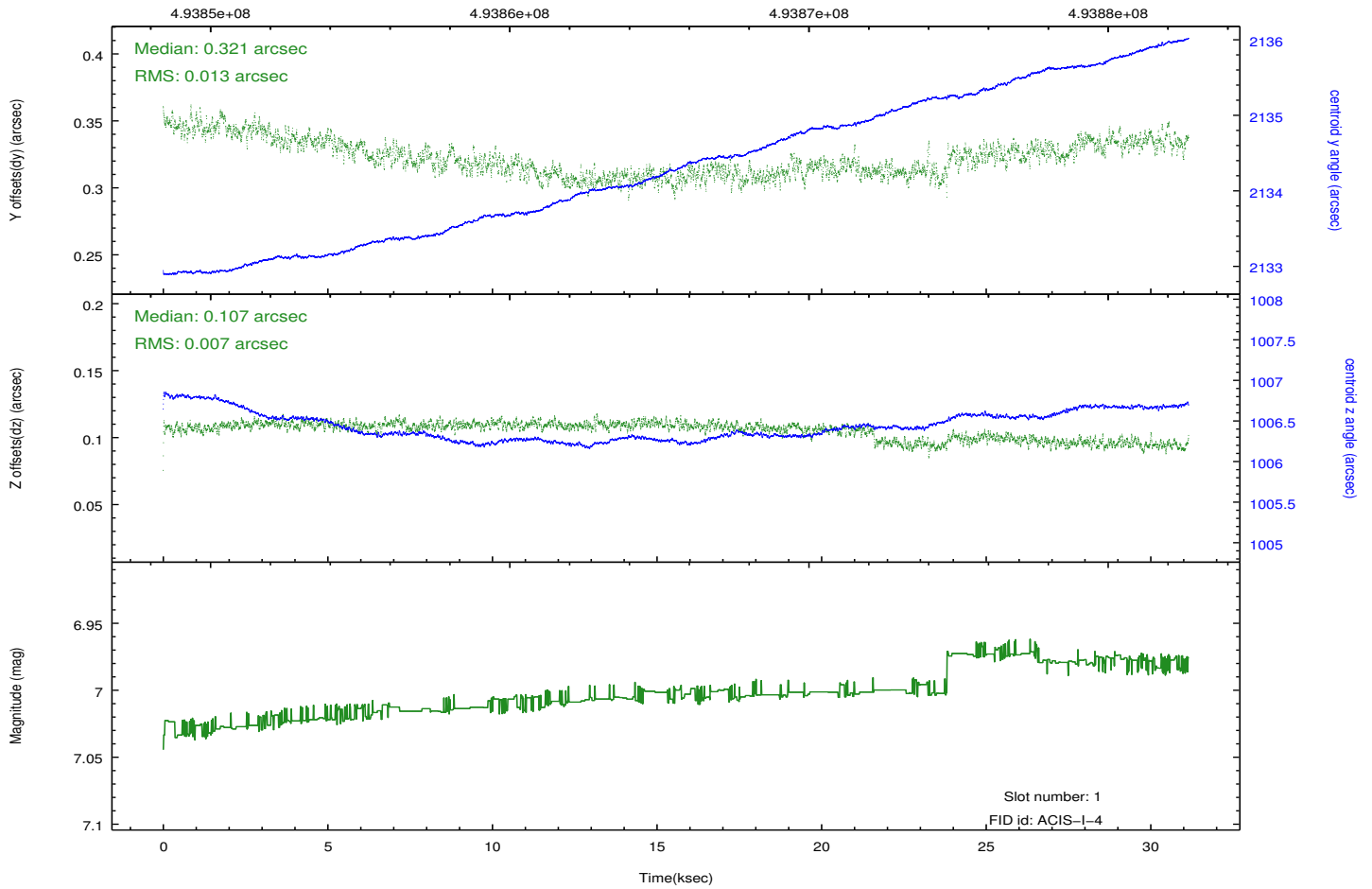
2.5.1 Slot 0



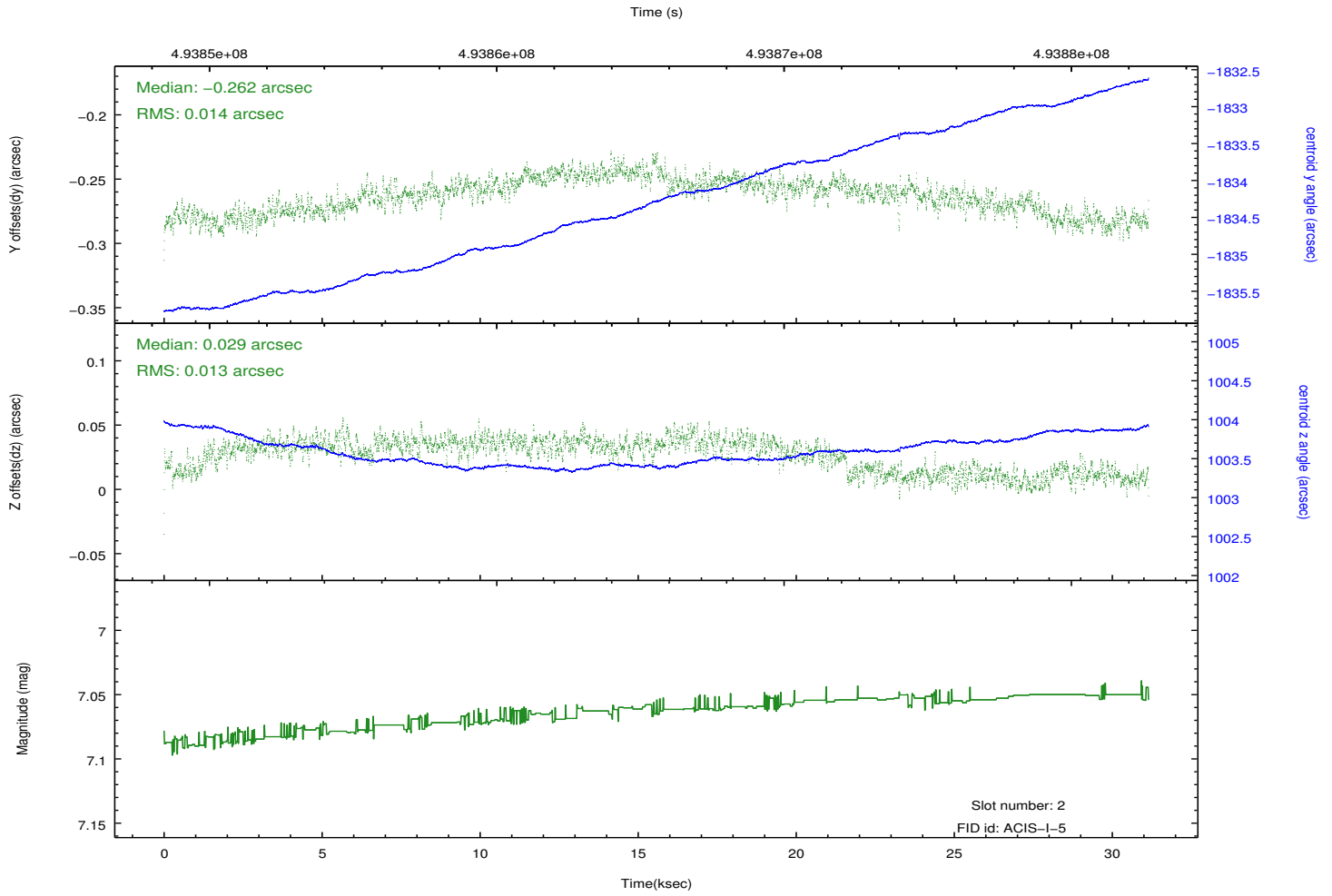
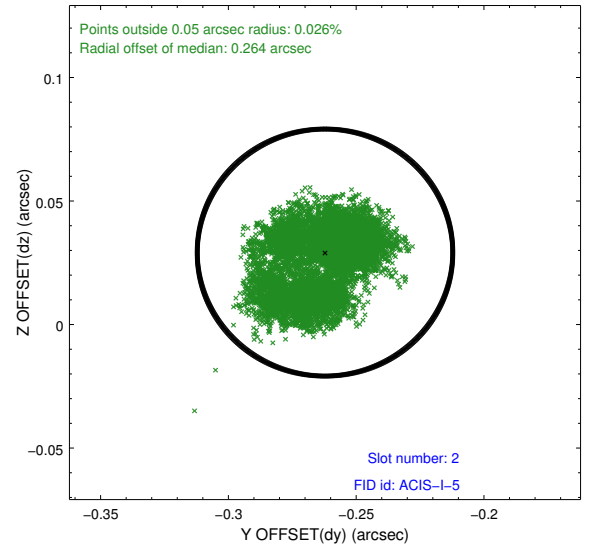
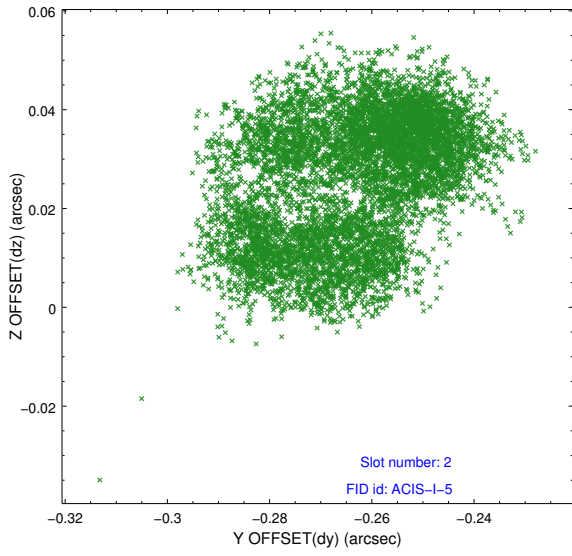
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	31.06746751827

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.