

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 15622 - L2 Version 2
Chandra X-Ray Center

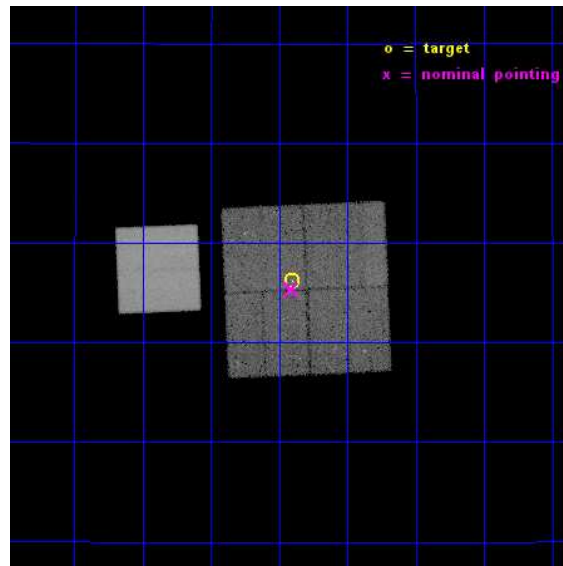
L2 Processing Date : Dec 2 2014

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1 Front

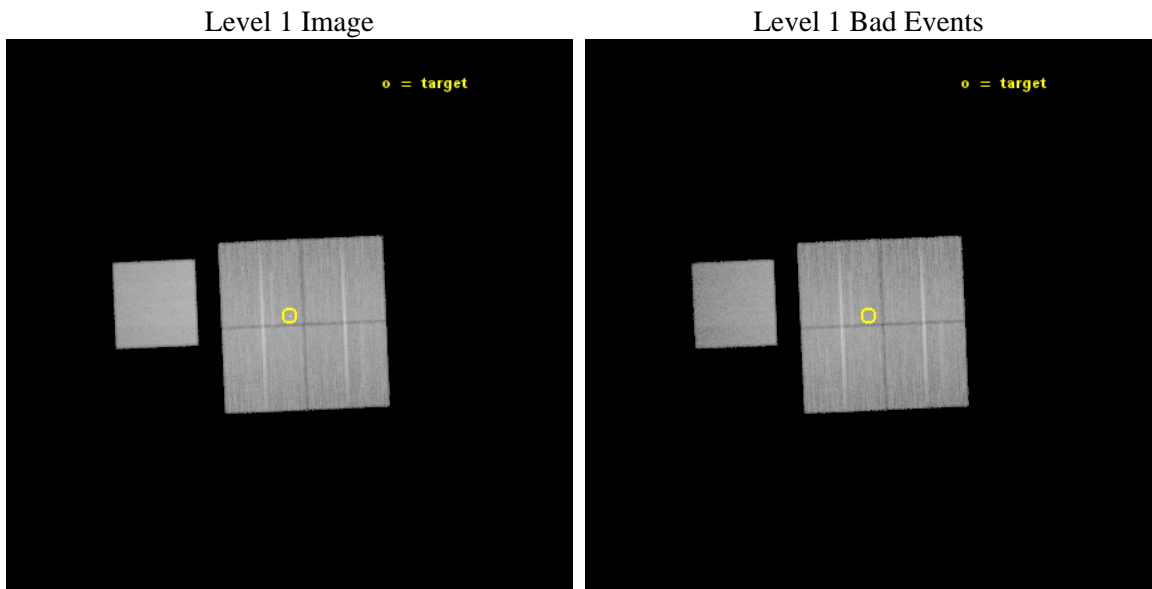
seq_num	501823	Sequence number
obs_id	15622	Observation id
title	A Legacy Study of the Relativistic Shocks of PWNe	Proposal title
observer	Prof. Roger Romani	Principal investigator
object	PSR J0633+1746	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	98.475833	Observer's specified target RA [deg]
dec_targ	17.77025	Observer's specified target Dec [deg]
ra_nom	98.477679038576	Nominal RA [deg]
dec_nom	17.755765410965	Nominal Dec [deg]
roll_nom	267.50812663895	Nominal Roll [deg]
revision	2	Processing version of data
ontime	47659.400366545	Sum of GTIs [s]
livetime	47036.695214416	Livetime [s]
ontime0	47659.400366545	Sum of GTIs [s]
ontime1	47656.259366214	Sum of GTIs [s]
ontime2	47659.400366545	Sum of GTIs [s]
ontime3	47659.400366545	Sum of GTIs [s]
ontime7	47659.400366545	Sum of GTIs [s]
l2events	237750	Number of level 2 events



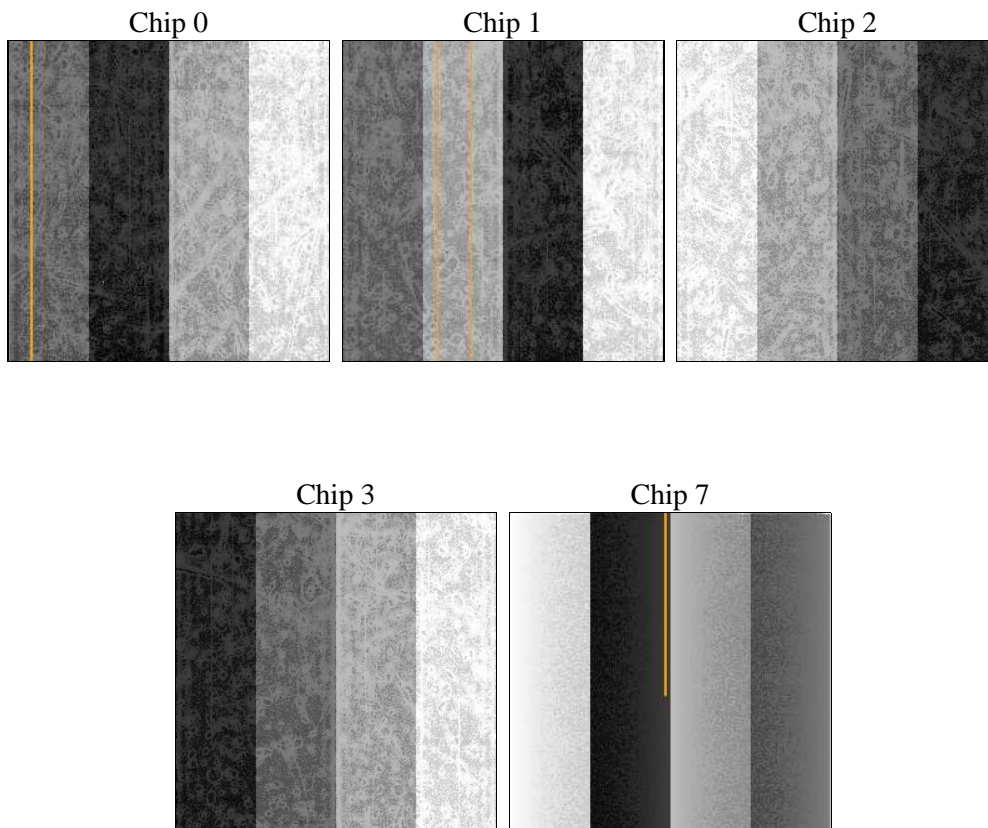
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	47592.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	47659.400366545	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	47659.400366545	Sum of GTIs [s]
date	2014-12-02T07:30:33	Date and time of file creation	ontime1	47656.259366214	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	47659.400366545	Sum of GTIs [s]
			ontime3	47659.400366545	Sum of GTIs [s]
			ontime7	47659.400366545	Sum of GTIs [s]
			l1events	1266727	Number of level 1 events

2.1.4 Events

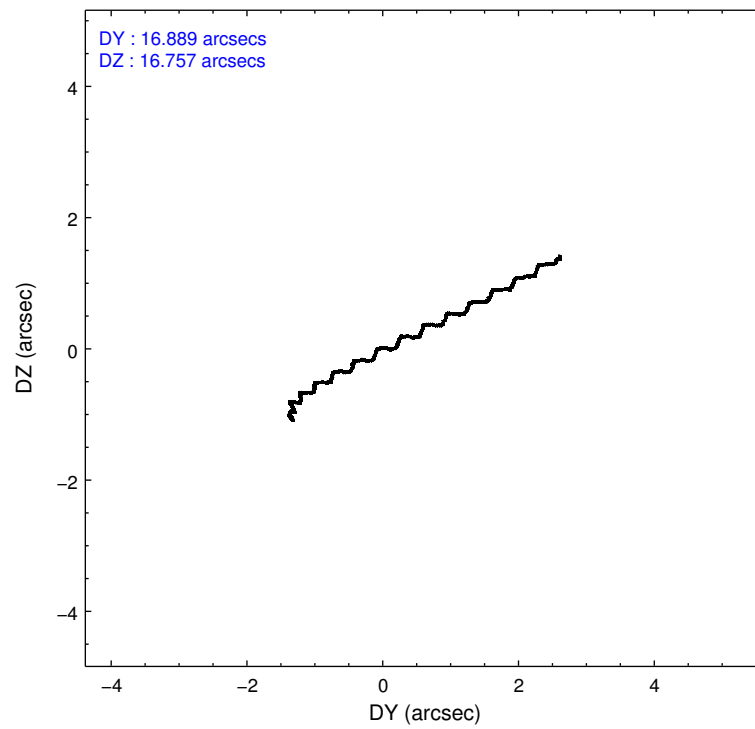
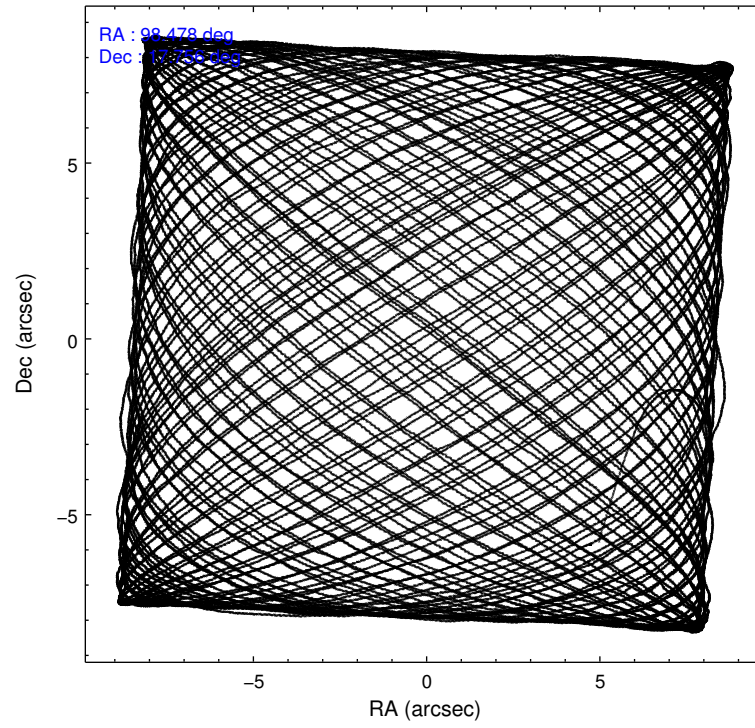
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	221555	230176	245207	241582	328207
rejected events	193208	198289	217259	212644	185357
rejected %	87%	86%	88%	88%	56%

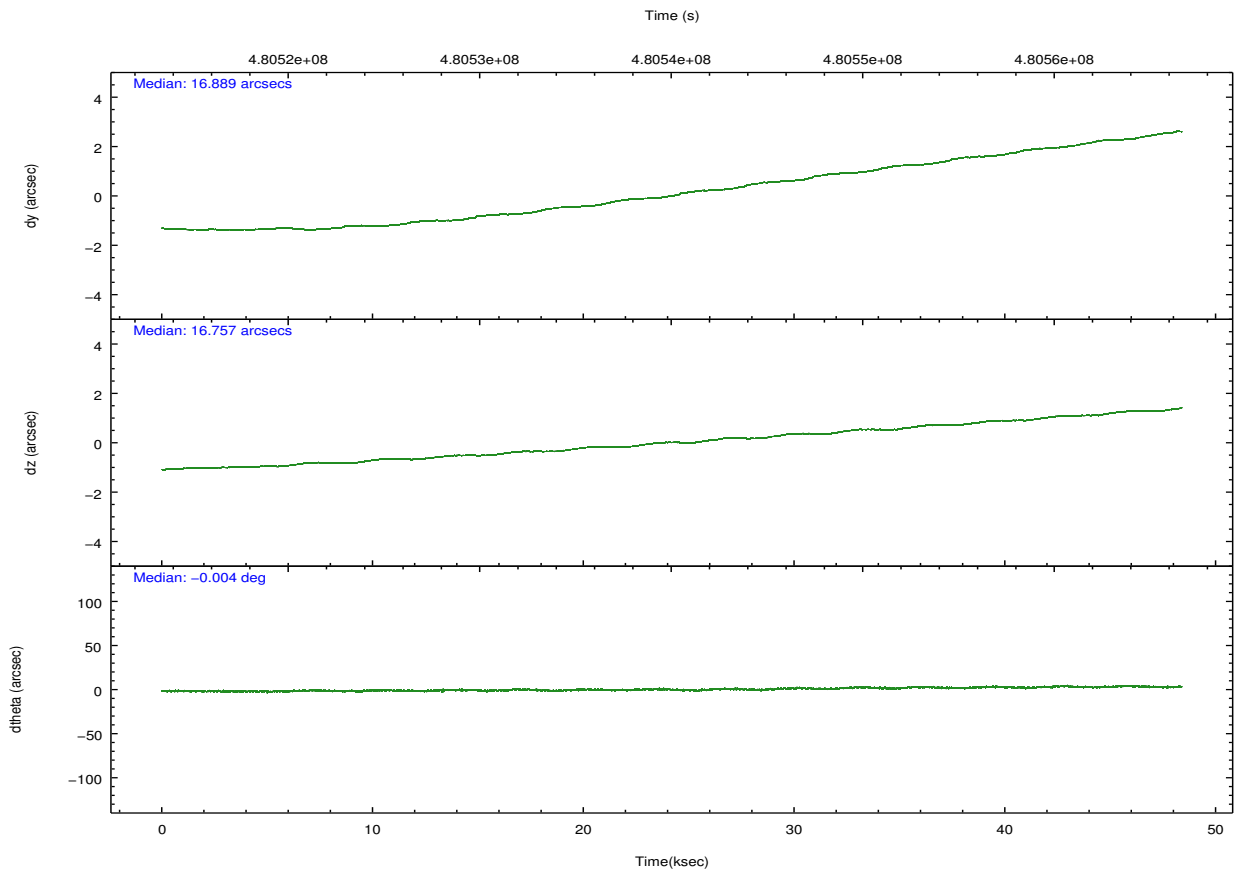
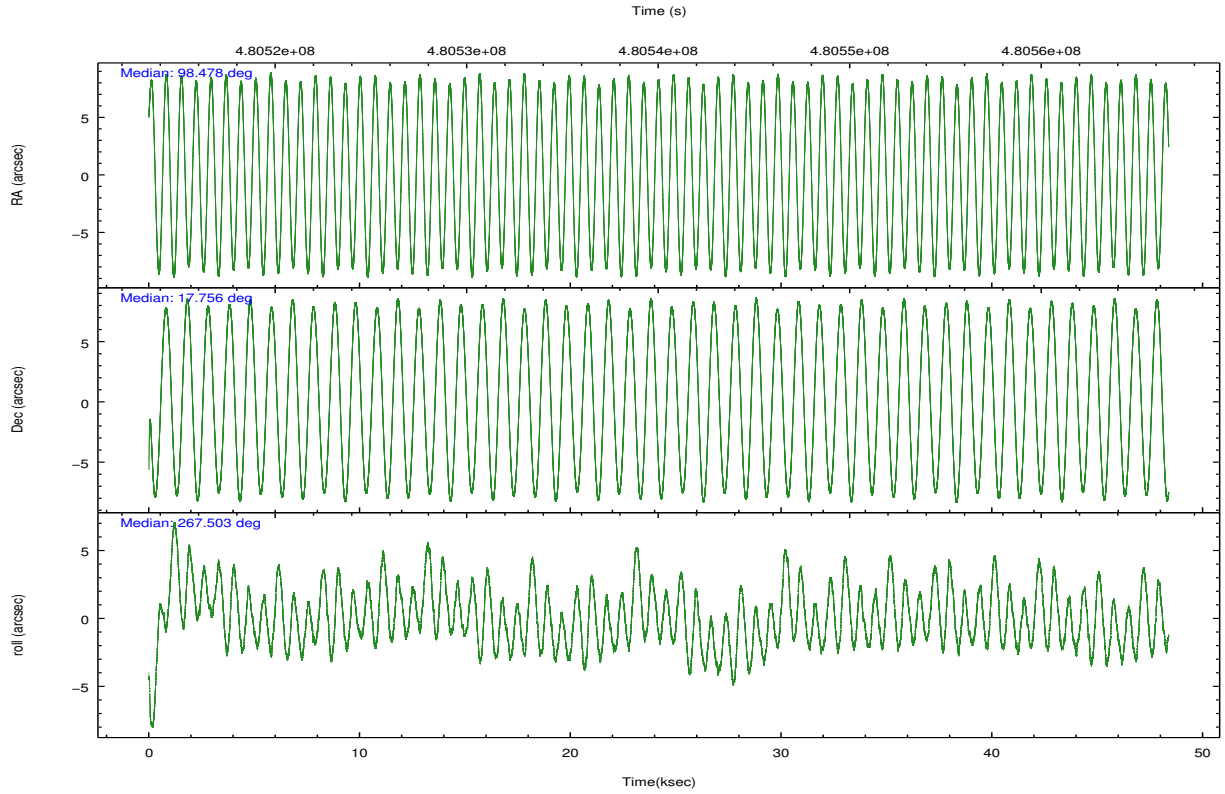
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	9601	10989	10022	10795	12292
	4%	4%	4%	4%	3%
grade 1 events	125	113	154	161	413
	0%	0%	0%	0%	0%
grade 2 events	7138	7806	6942	6300	29585
	3%	3%	2%	2%	9%
grade 3 events	3065	3114	2854	2932	12206
	1%	1%	1%	1%	3%
grade 4 events	2790	3130	2819	3013	12110
	1%	1%	1%	1%	3%
grade 5 events	10980	11859	10434	12876	34075
	4%	5%	4%	5%	10%
grade 6 events	5756	6852	5312	5899	76680
	2%	2%	2%	2%	23%
grade 7 events	182100	186313	206670	199606	150846
	82%	80%	84%	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	98.464235	98.47767903857596	CCD I2 on	Y	Y
[deg] Pointing Dec	17.780116	17.75576541096522	CCD I3 on	Y	Y
[deg] Pointing Roll	267.303545	267.5081266389483	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)	480516640.184000	480514308.80129	CCD S5 on	N	N
Observation start date	2013-03-24T12:49:33	2013-03-24T12:11:48	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	480564232.184000	480565275.90404	On-chip summing requested	N	N
Observation end date	2013-03-25T02:02:45	2013-03-25T02:21:15	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





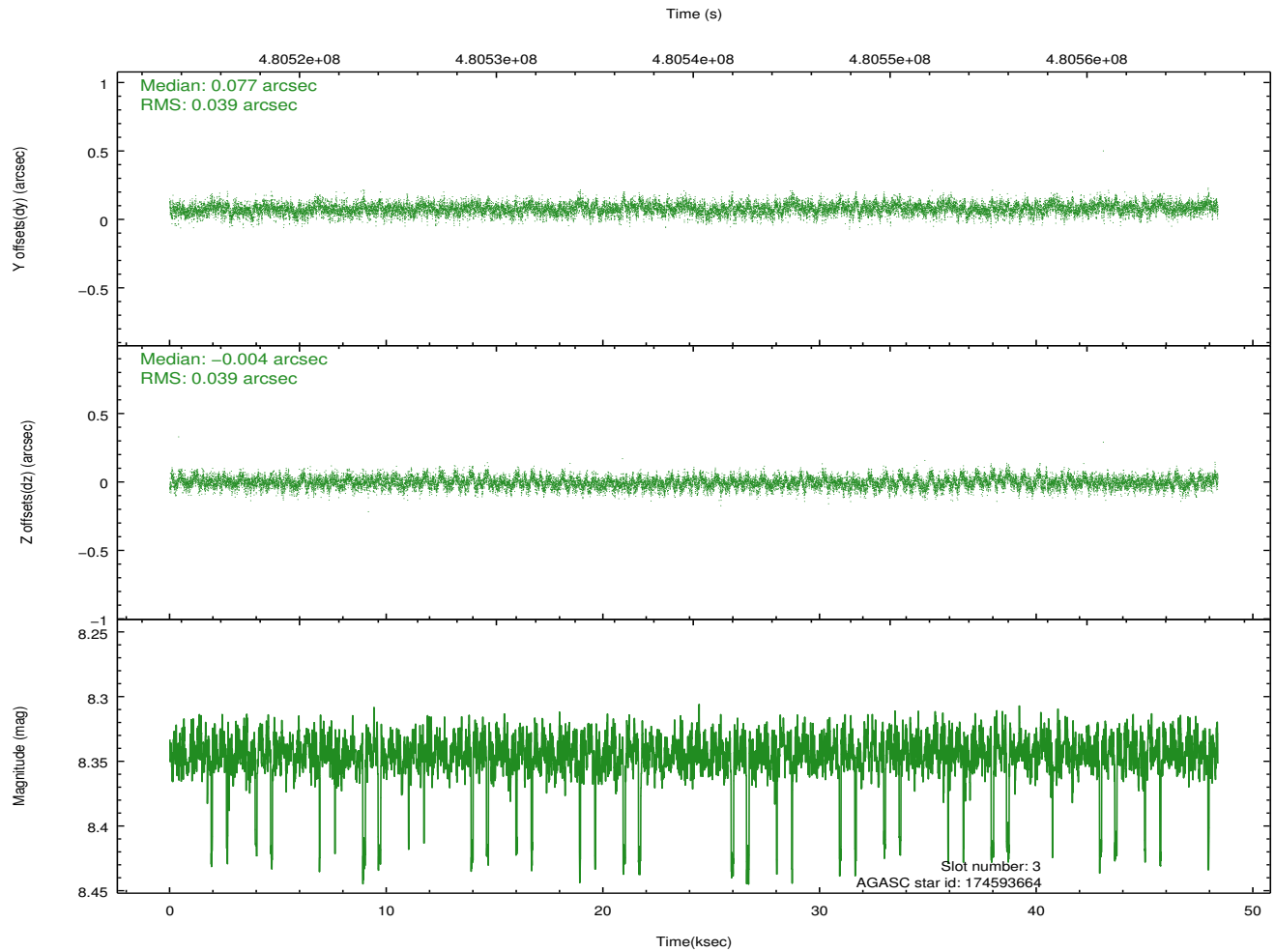
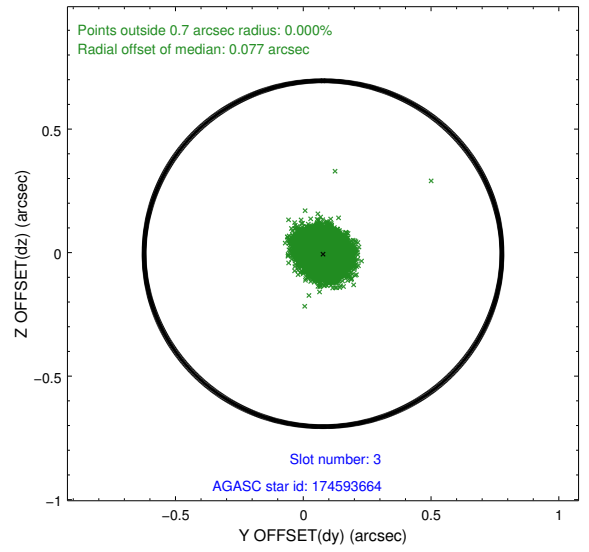
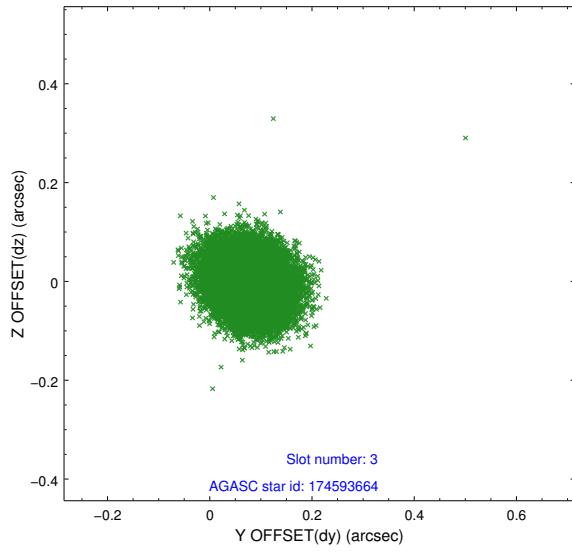
Slot Statistics

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	11801	0.054	-0.031	0.048	0.063	0.000000	0.000000	922.36	-888.37
1	FID		ACIS-I-5	7.08	11800	-0.244	0.048	0.031	0.060	0.000000	0.000000	-1826.12	1009.13
2	FID		ACIS-I-6	7.10	11799	0.104	0.055	0.026	0.046	0.000000	0.000000	387.89	1653.67
3	GUIDE	used	174593664	8.34	23539	0.077	-0.004	0.059	0.096	97.965949	17.333165	1686.02	-1634.57
4	GUIDE	used	174726936	7.75	23598	0.016	-0.080	0.078	0.119	98.009571	17.665063	485.91	-1538.15
5	GUIDE	used	174730168	8.12	23596	-0.194	0.032	0.080	0.130	98.803227	18.065078	-1078.59	1111.51
6	GUIDE	used	174731792	7.91	23598	0.104	0.003	0.087	0.142	98.964622	17.200033	2003.12	1817.55
7	GUIDE	used	174721496	9.14	23584	-0.003	0.050	0.109	0.168	98.690774	18.351692	-2092.06	676.57

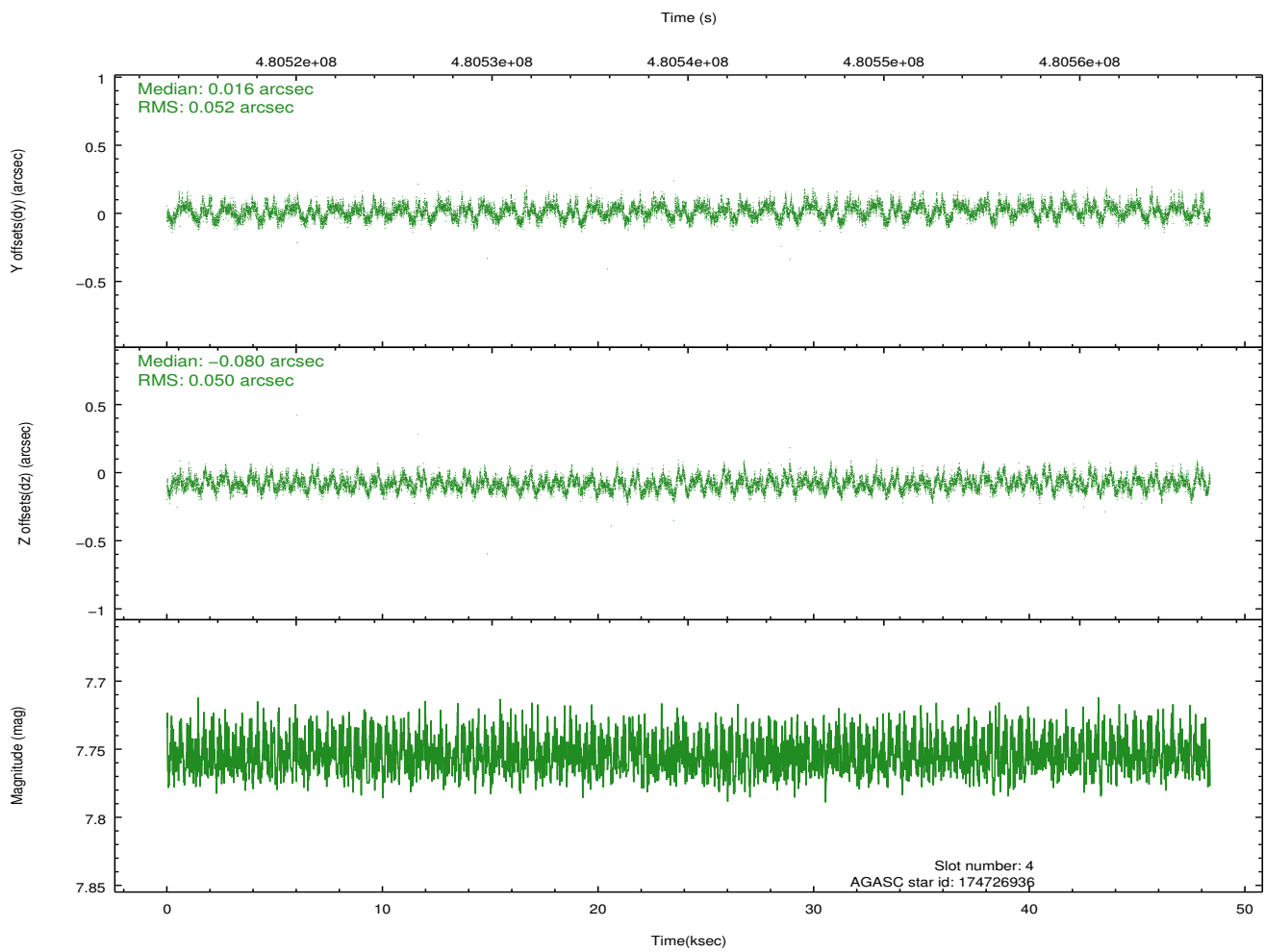
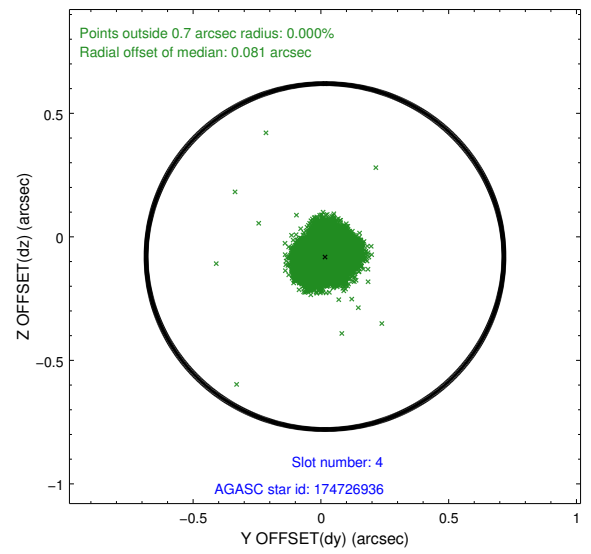
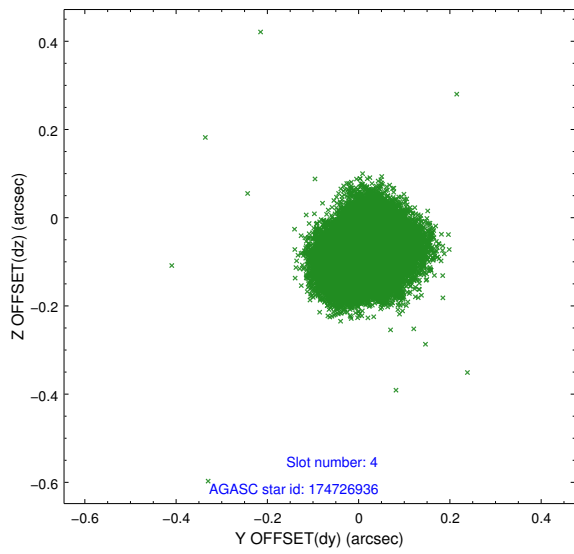
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2.4 Star Slots

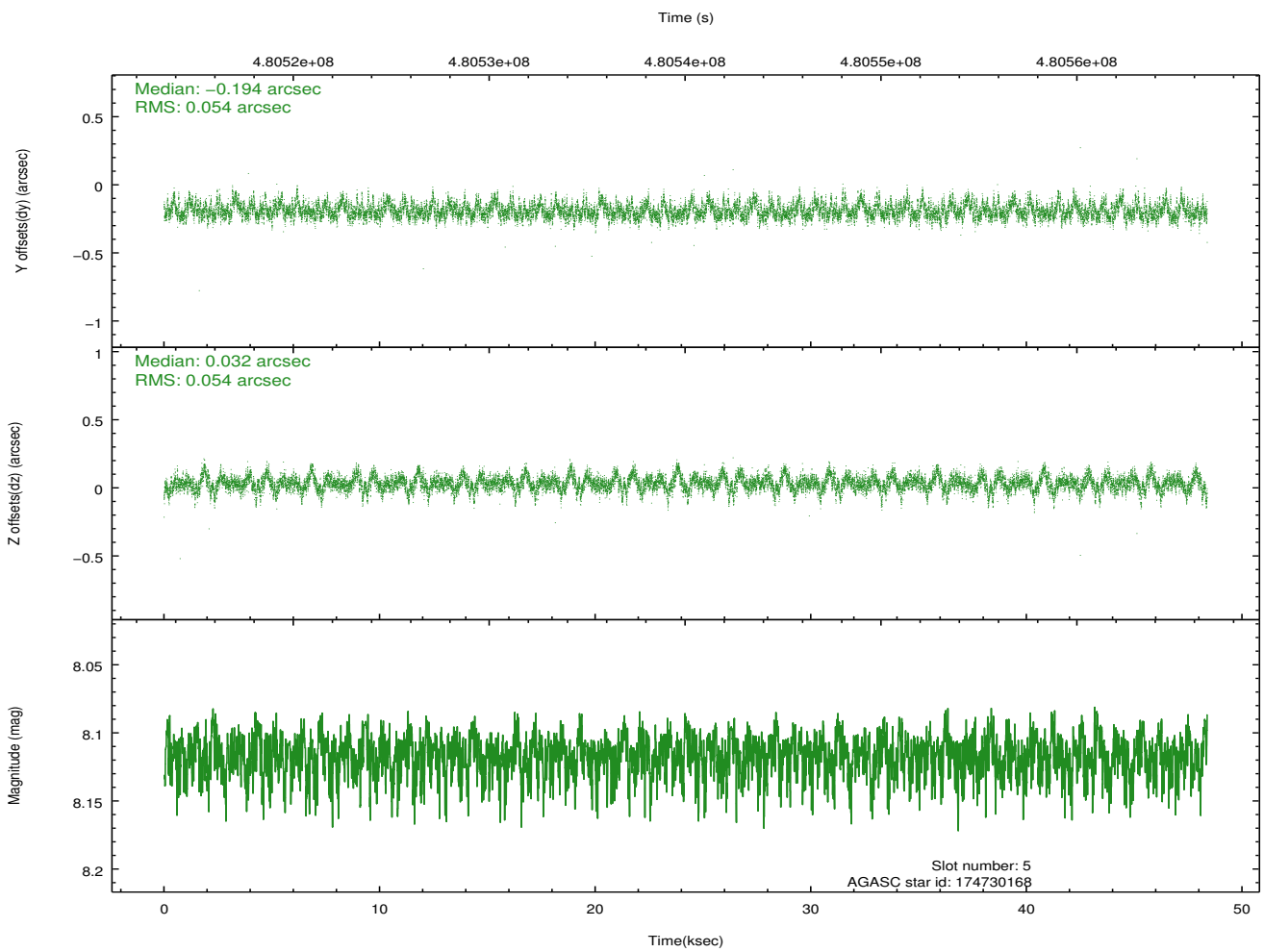
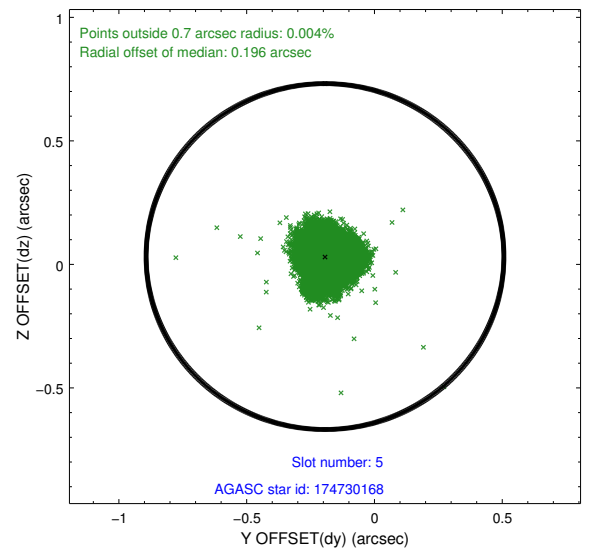
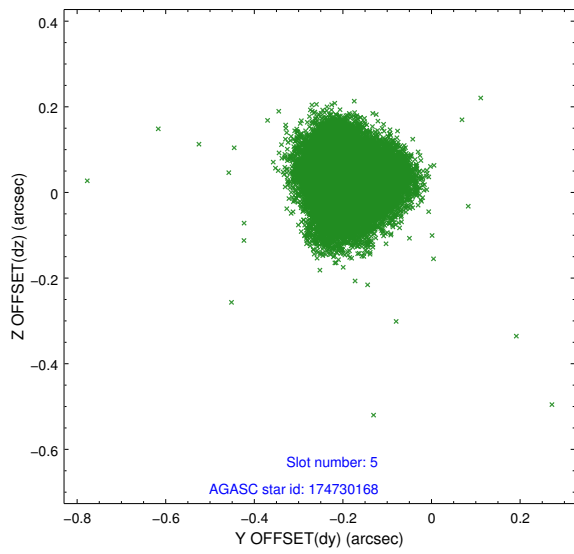
2.4.1 Slot 3



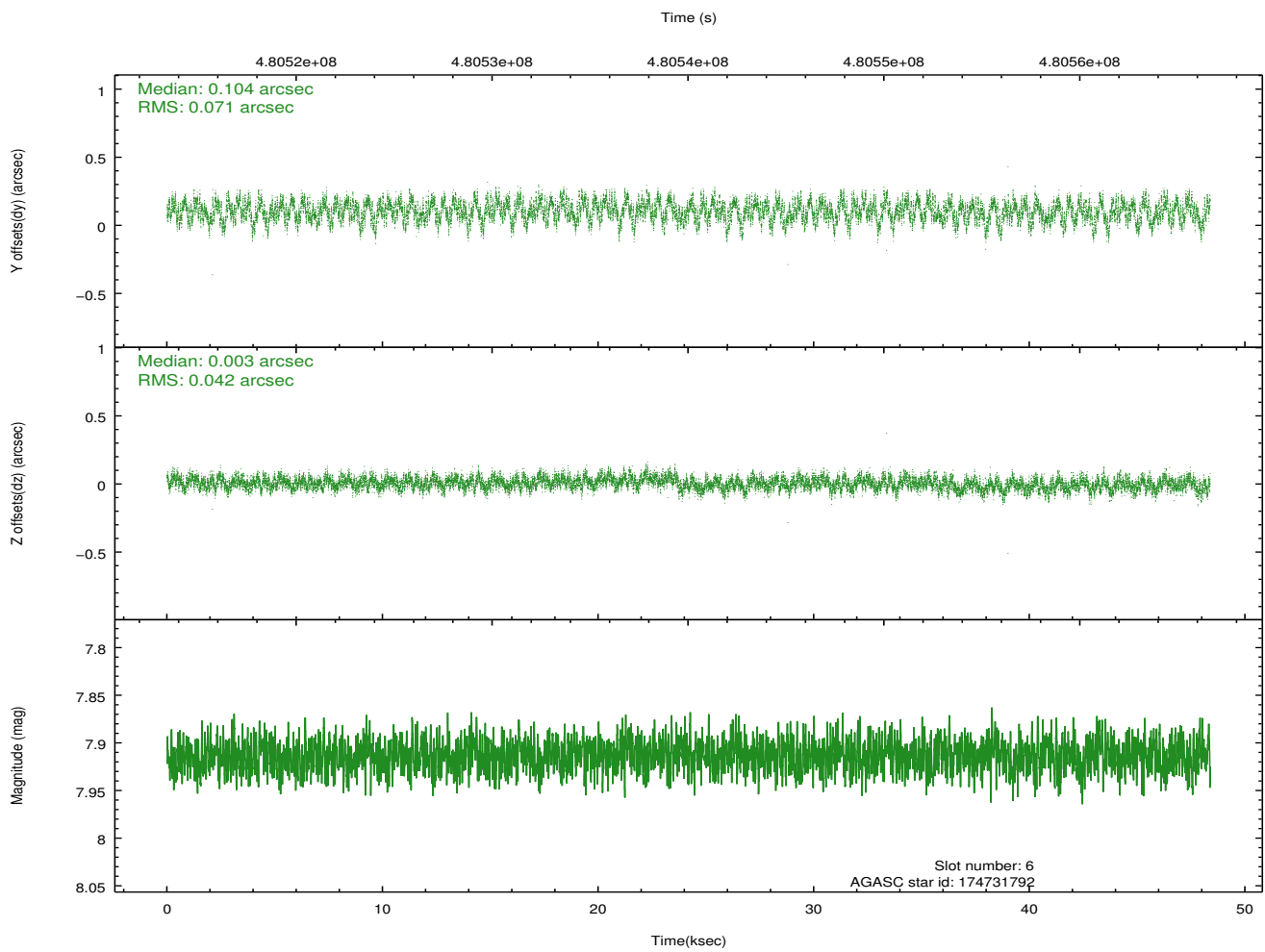
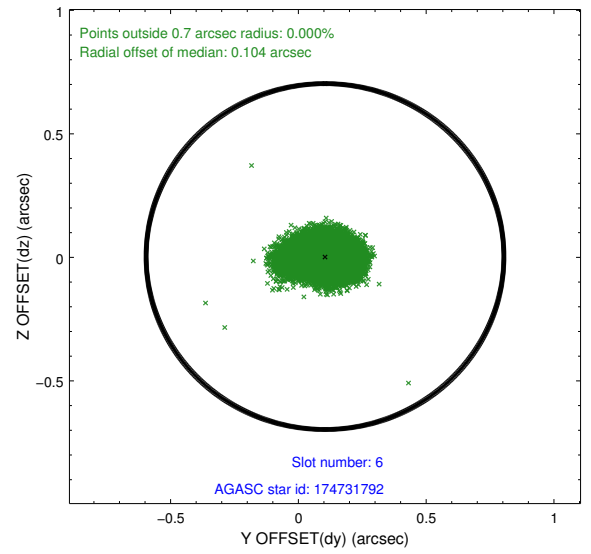
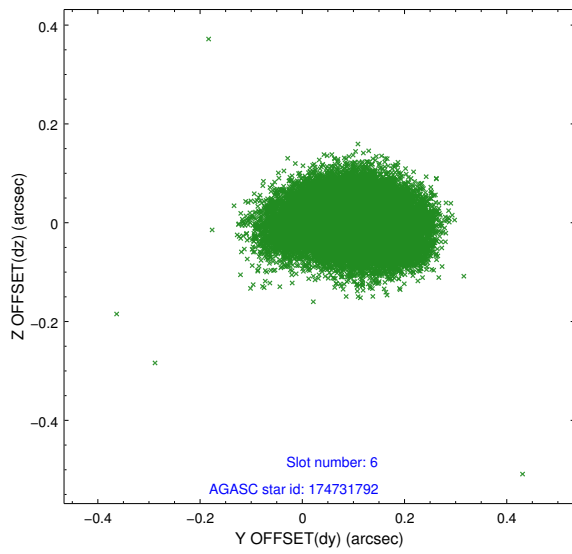
2.4.2 Slot 4



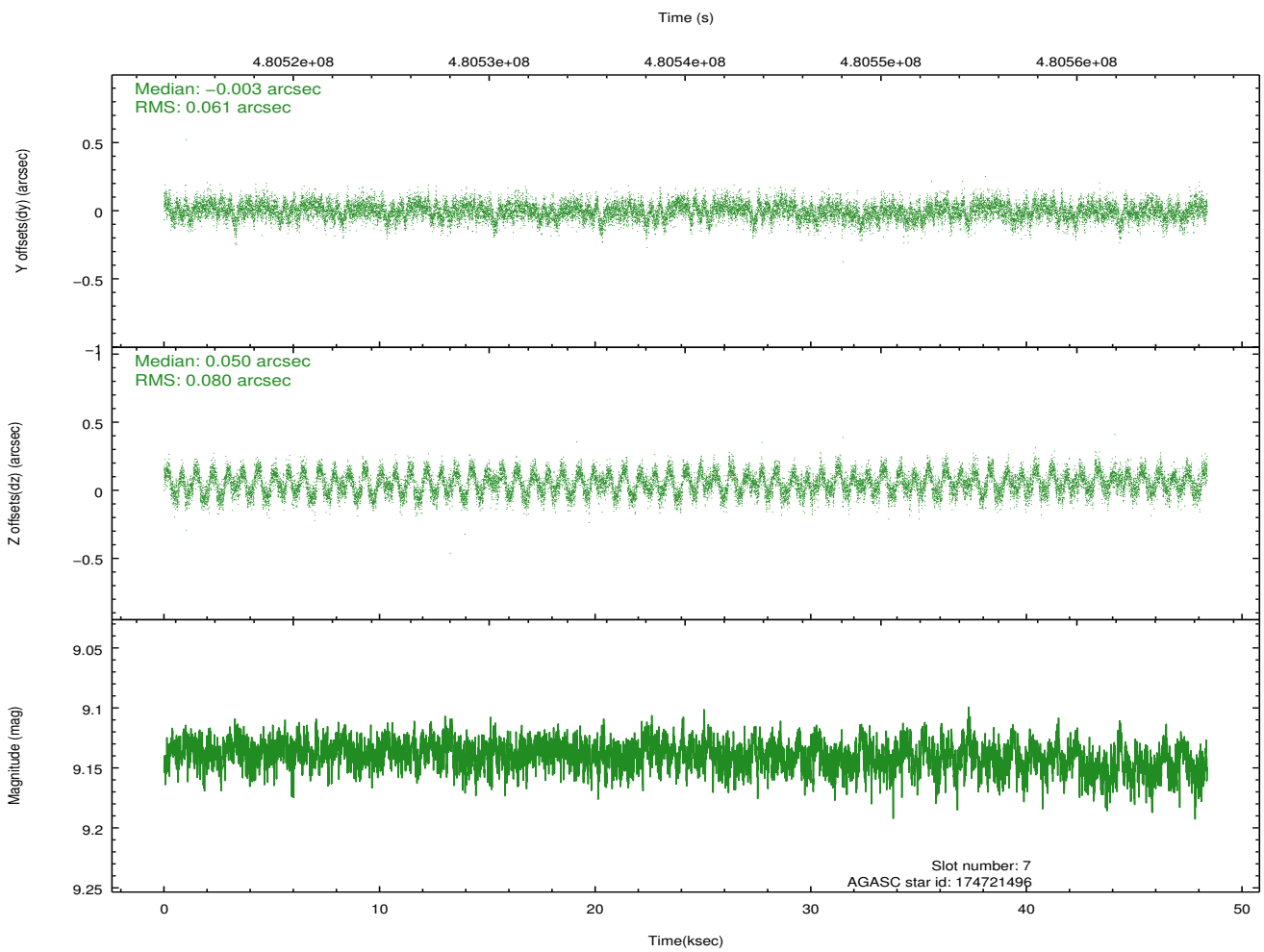
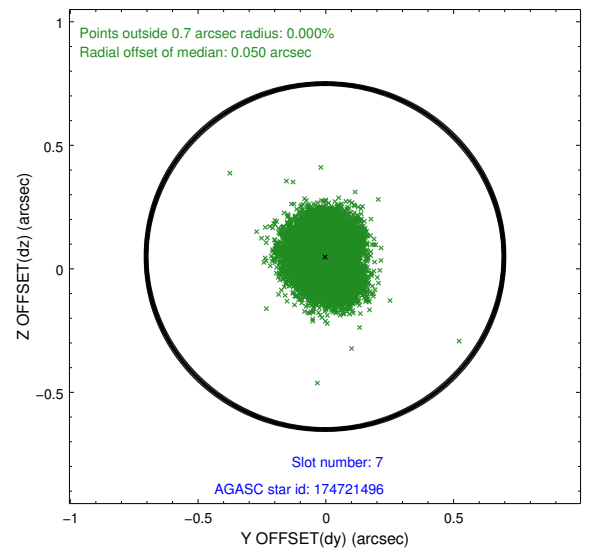
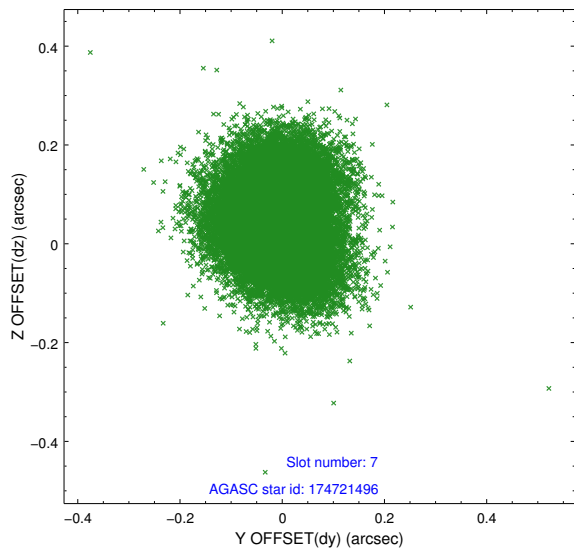
2.4.3 Slot 5



2.4.4 Slot 6

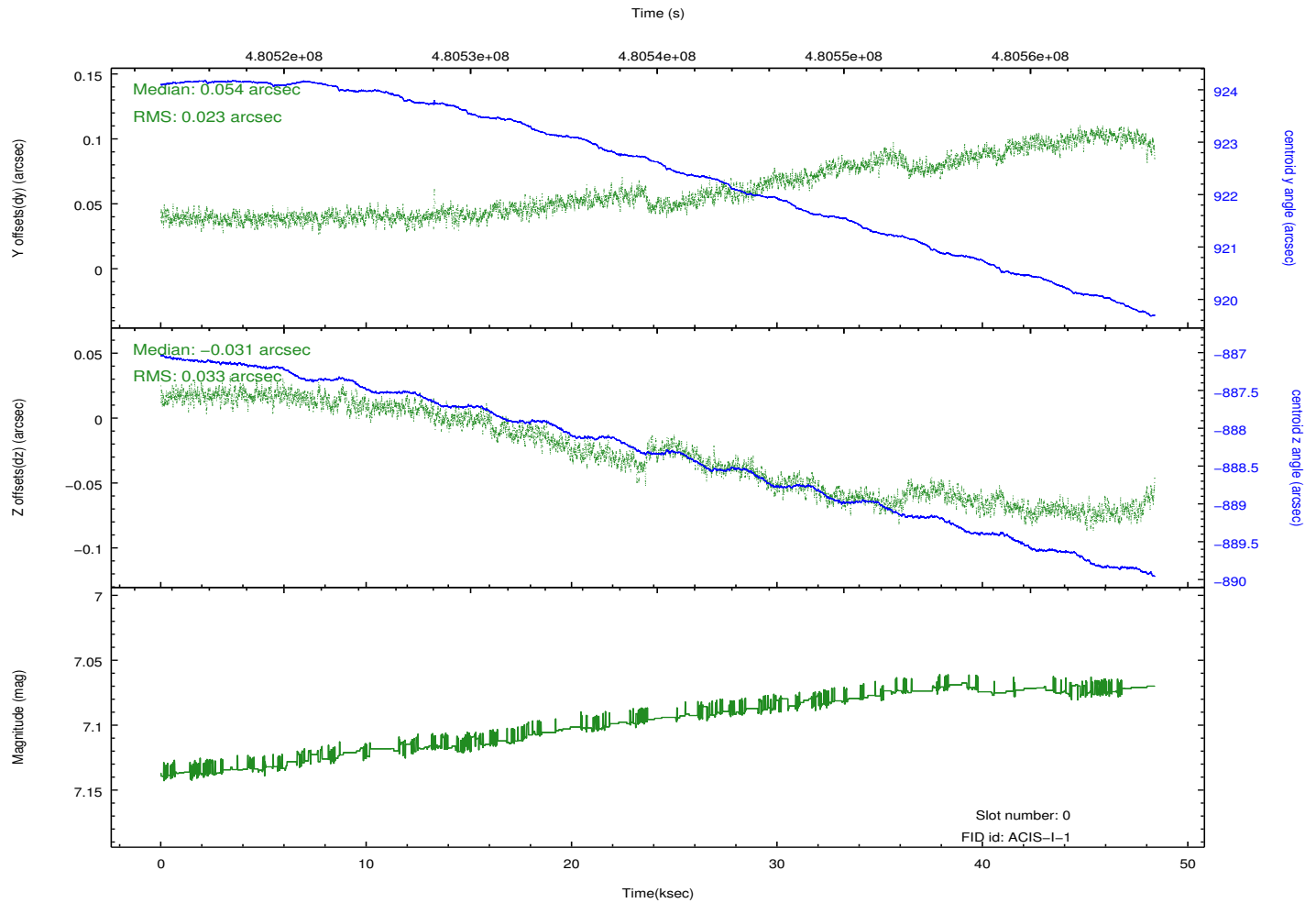
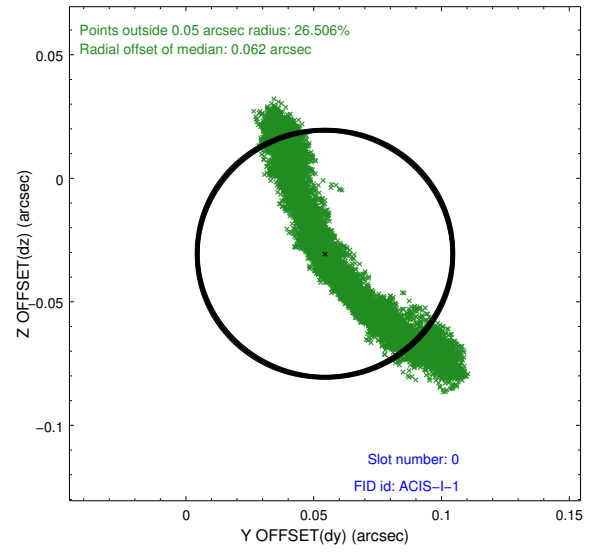
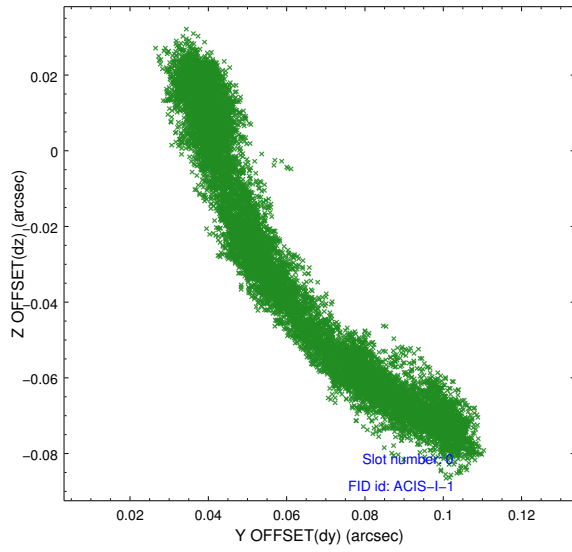


2.4.5 Slot 7

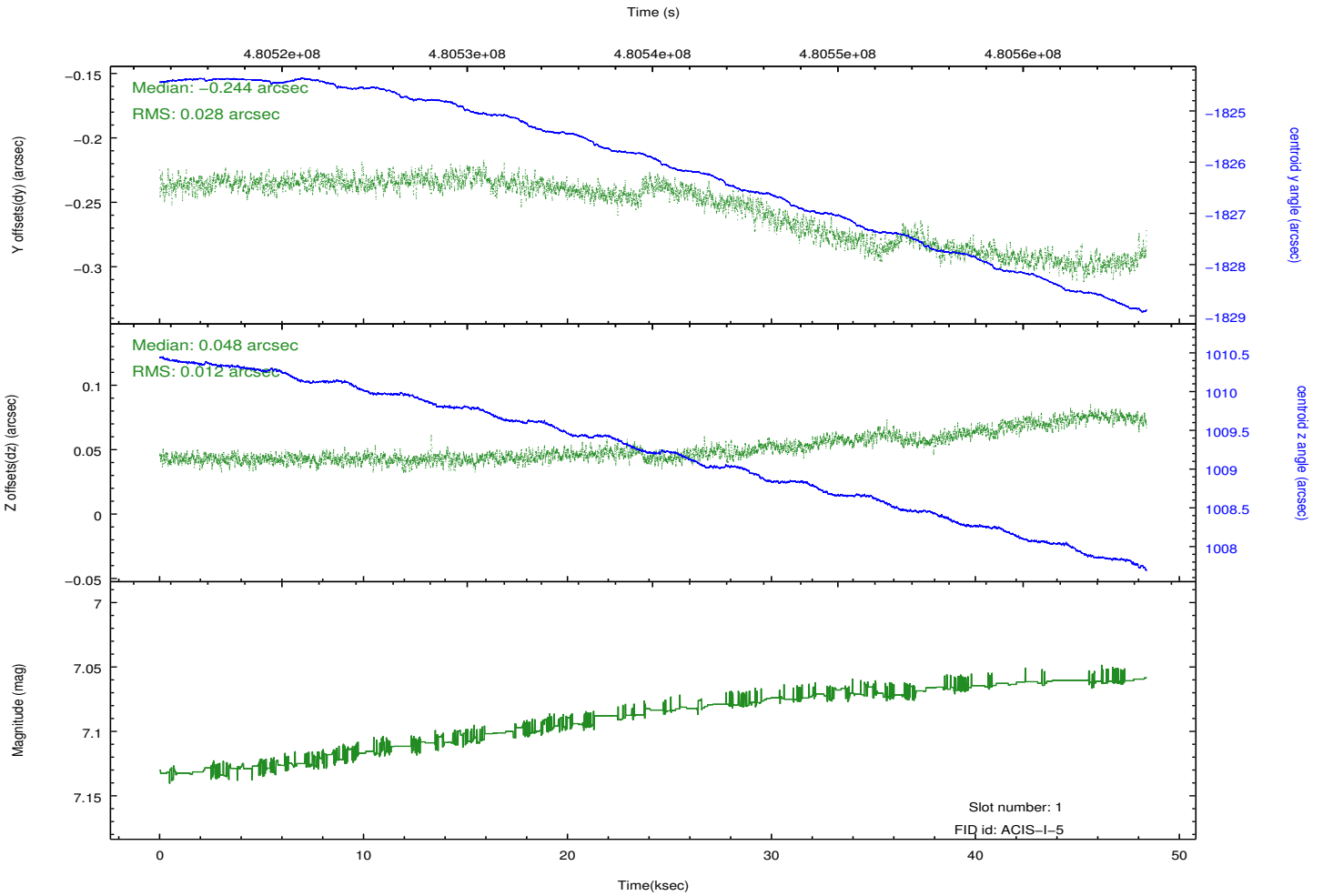
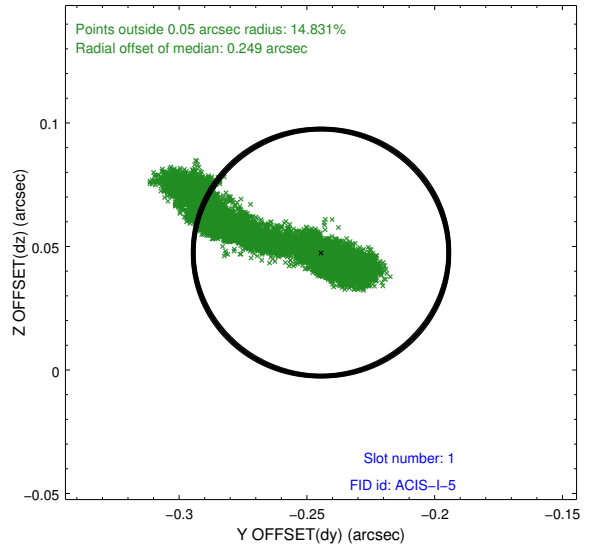
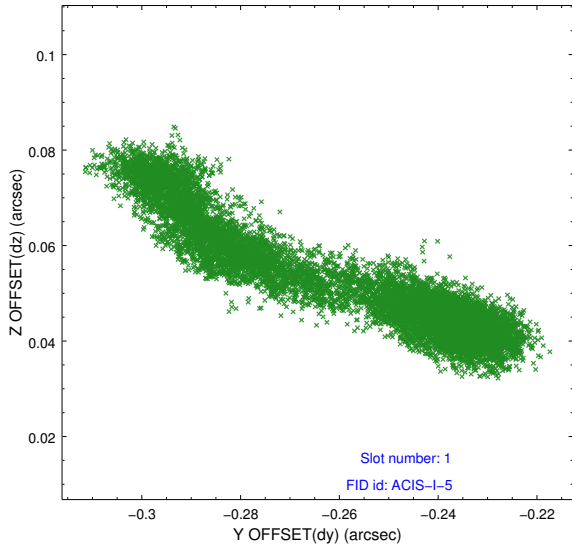


2.5 FID Slots

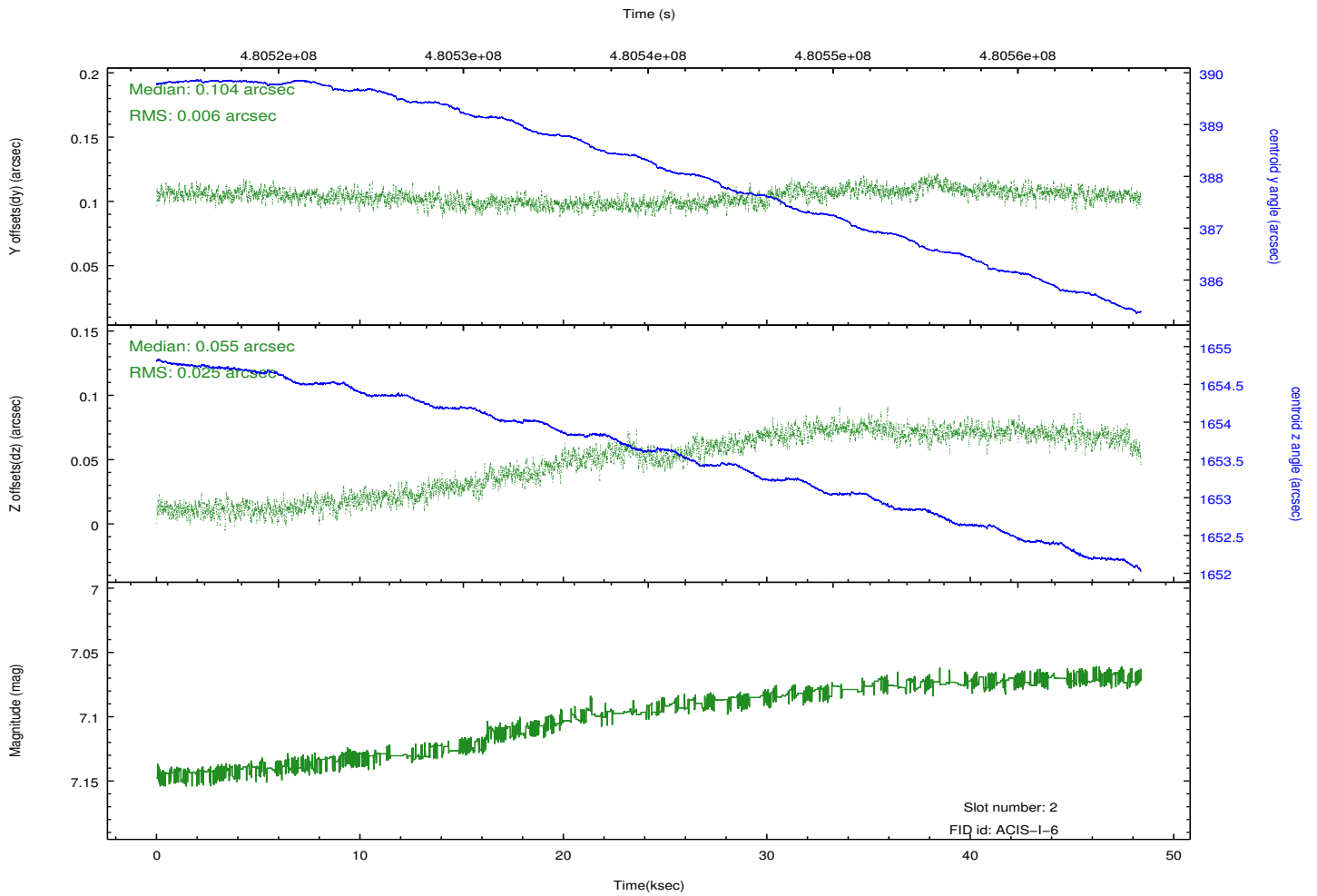
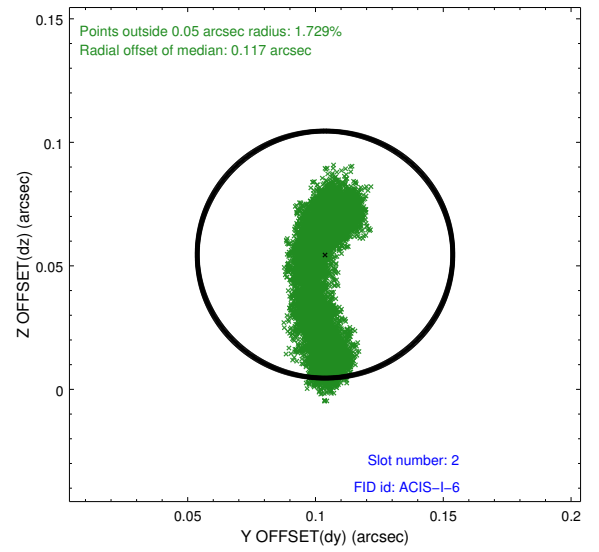
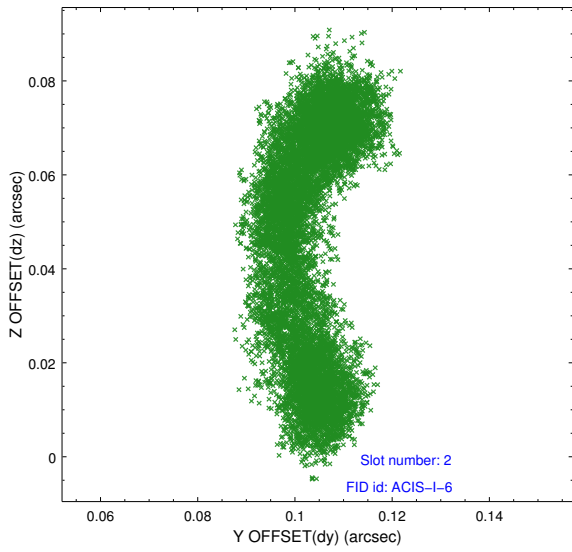
2.5.1 Slot 0



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)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	47.659400366545

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.