

V&V Reference Report

L2 ASCDS Version : 10

Observation 16318 - L2 Version 2
Chandra X-Ray Center

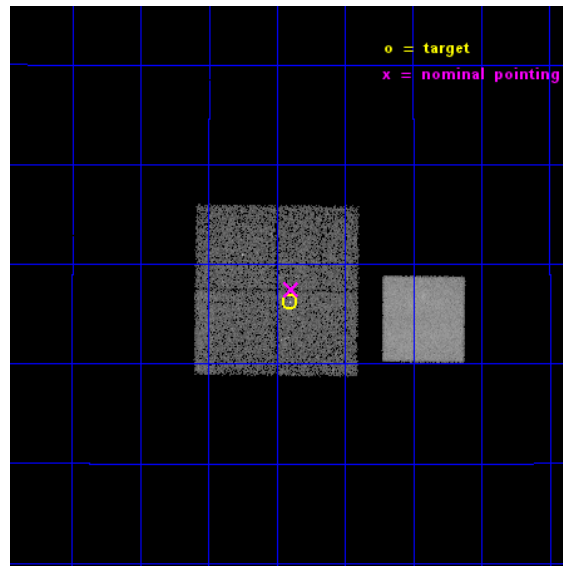
L2 Processing Date : Dec 6 2014

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1 Front

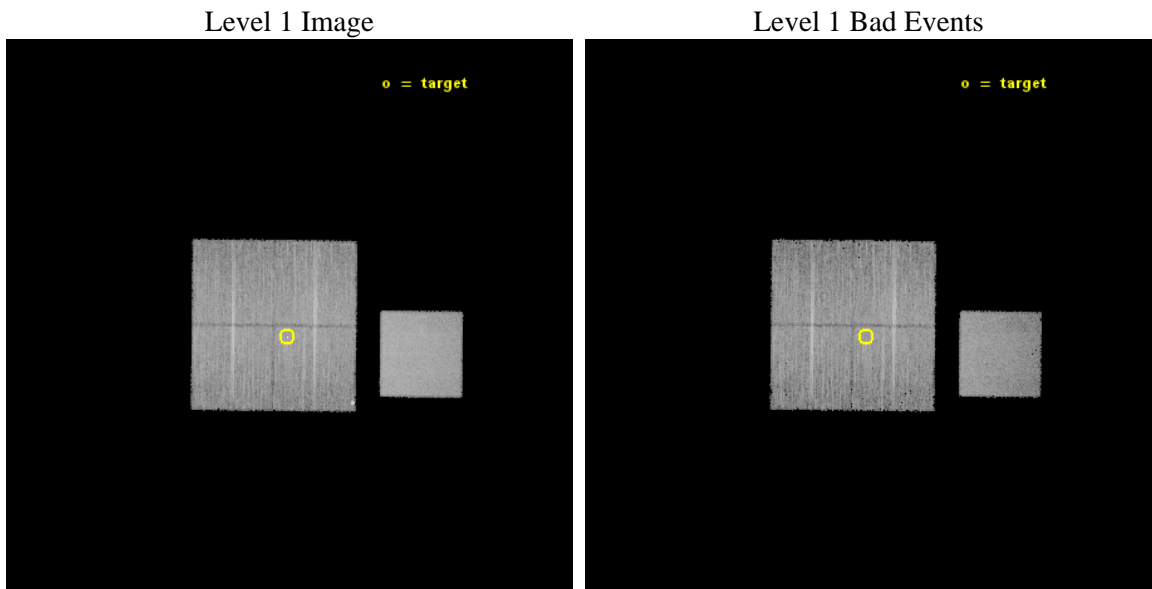
seq_num	501823	Sequence number
obs_id	16318	Observation id
title	A Legacy Study of the Relativistic Shocks of PWNe	Proposal title
observer	Prof. Roger Romani	Principal investigator
object	PSR J0633+1746	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	98.475833	Observer's specified target RA [deg]
dec_targ	17.77025	Observer's specified target Dec [deg]
ra_nom	98.47315436559	Nominal RA [deg]
dec_nom	17.791263002431	Nominal Dec [deg]
roll_nom	90.609519217667	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20068.343891144	Sum of GTIs [s]
livetime	19806.136204106	Livetime [s]
ontime0	20068.220771134	Sum of GTIs [s]
ontime1	20068.261811137	Sum of GTIs [s]
ontime2	20065.161860943	Sum of GTIs [s]
ontime3	20068.343891144	Sum of GTIs [s]
ontime7	20068.384931147	Sum of GTIs [s]
l2events	94296	Number of level 2 events



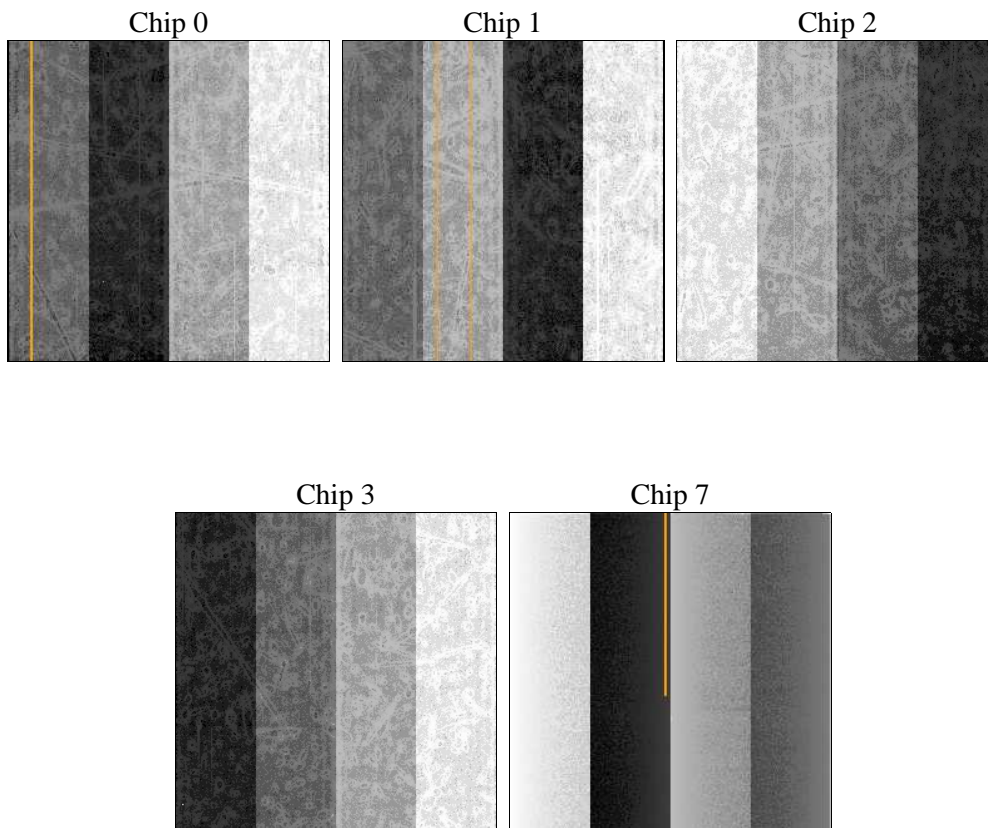
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	20068.343891144	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	20068.220771134	Sum of GTIs [s]
date	2014-12-06T07:44:24	Date and time of file creation	ontime1	20068.261811137	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	20065.161860943	Sum of GTIs [s]
			ontime3	20068.343891144	Sum of GTIs [s]
			ontime7	20068.384931147	Sum of GTIs [s]
			l1events	487456	Number of level 1 events

2.1.4 Events

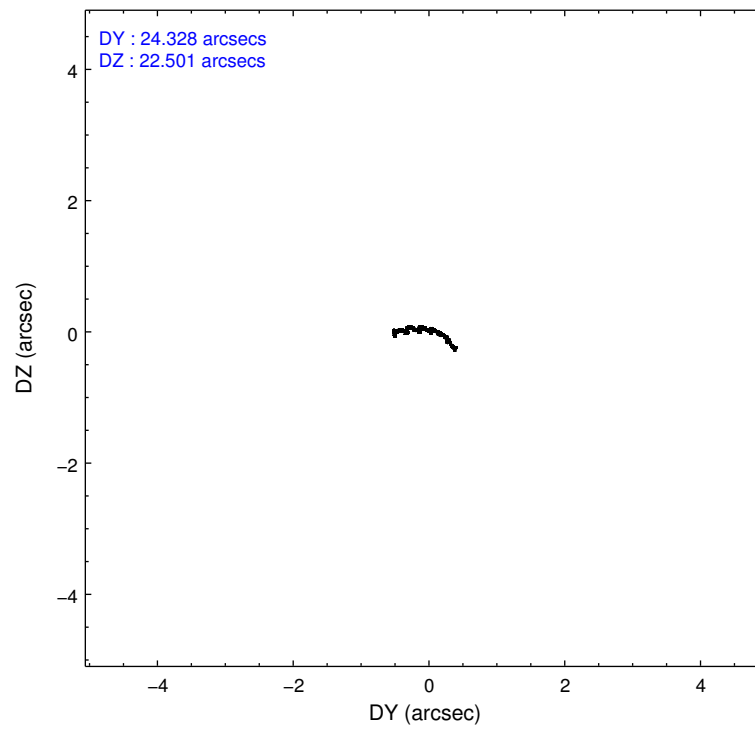
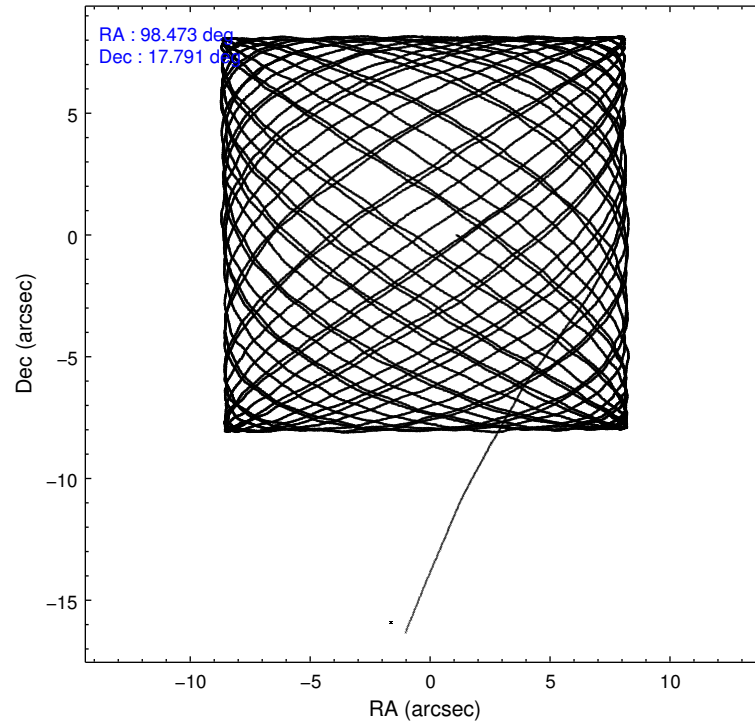
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	83123	88872	92714	90789	131958
rejected events	71723	76468	81736	78230	75233
rejected %	86%	86%	88%	86%	57%

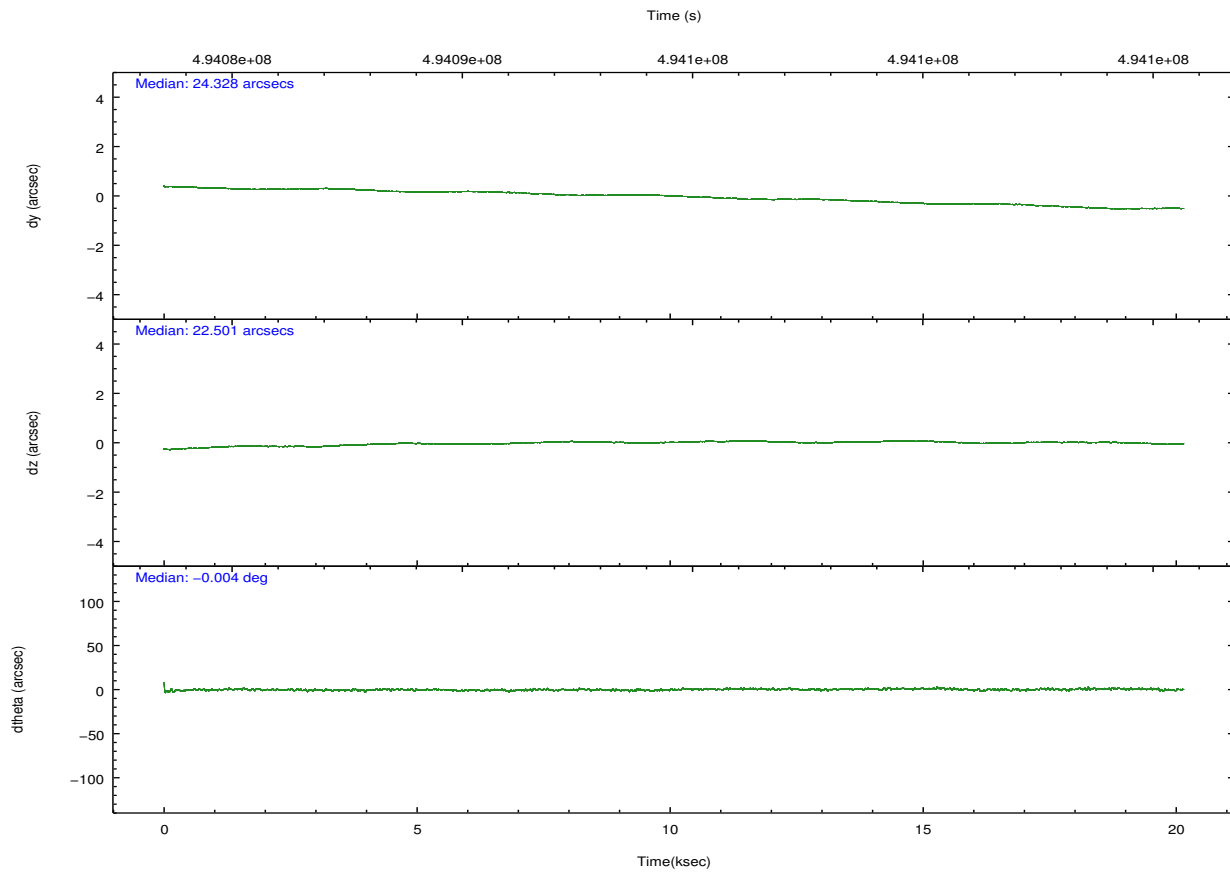
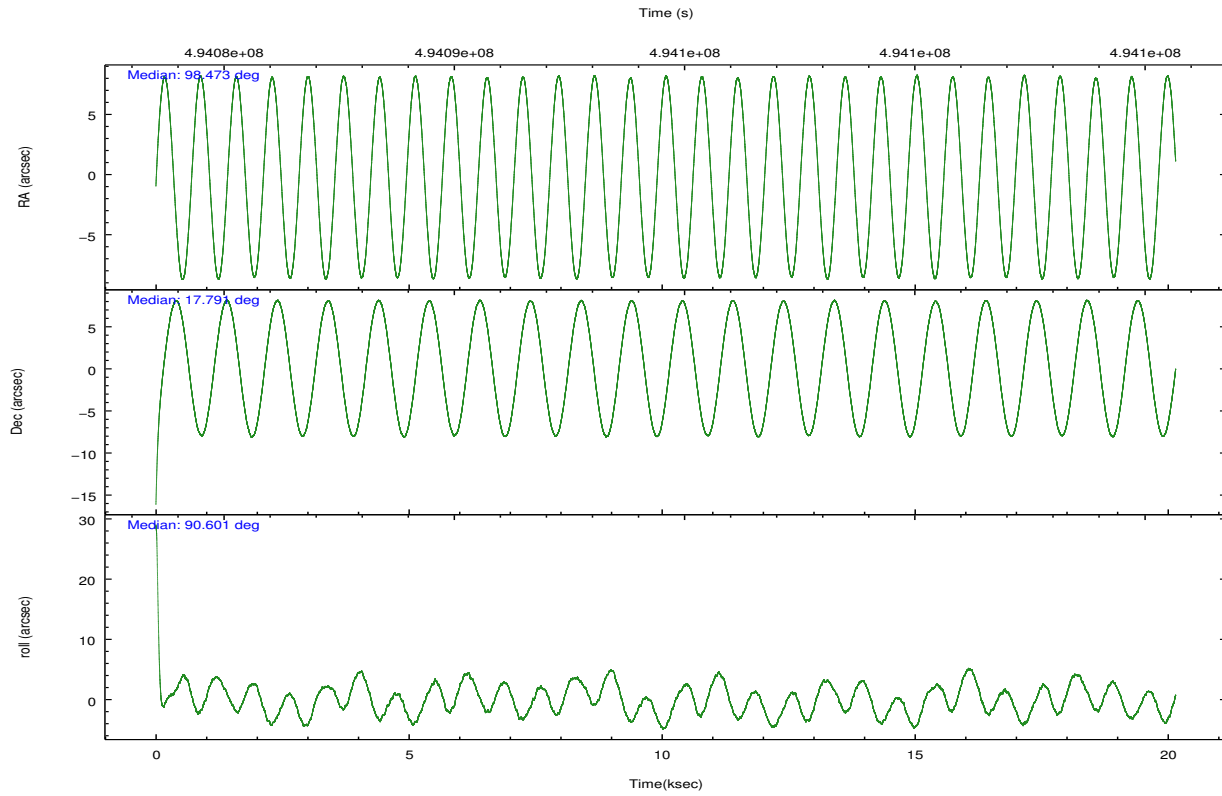
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	4000	4225	3827	5431	5005
	4%	4%	4%	5%	3%
grade 1 events	54	50	57	77	165
	0%	0%	0%	0%	0%
grade 2 events	2790	3125	2723	2498	11752
	3%	3%	2%	2%	8%
grade 3 events	1205	1177	1079	1168	4839
	1%	1%	1%	1%	3%
grade 4 events	1077	1231	1147	1196	4915
	1%	1%	1%	1%	3%
grade 5 events	4618	4919	4189	5025	13572
	5%	5%	4%	5%	10%
grade 6 events	2331	2658	2204	2270	30233
	2%	2%	2%	2%	22%
grade 7 events	67048	71487	77488	73124	61477
	80%	80%	83%	80%	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	98.487930	98.47315436558954	CCD I2 on	Y	Y
[deg] Pointing Dec	17.767664	17.79126300243104	CCD I3 on	Y	Y
[deg] Pointing Roll	90.396305	90.60951921766703	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)	494084659.184000	494083356.91317	CCD S5 on	N	N
Observation start date	2013-08-28T13:43:12	2013-08-28T13:22:36	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	494104659.184000	494105330.86436	On-chip summing requested	N	N
Observation end date	2013-08-28T19:16:32	2013-08-28T19:28:50	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





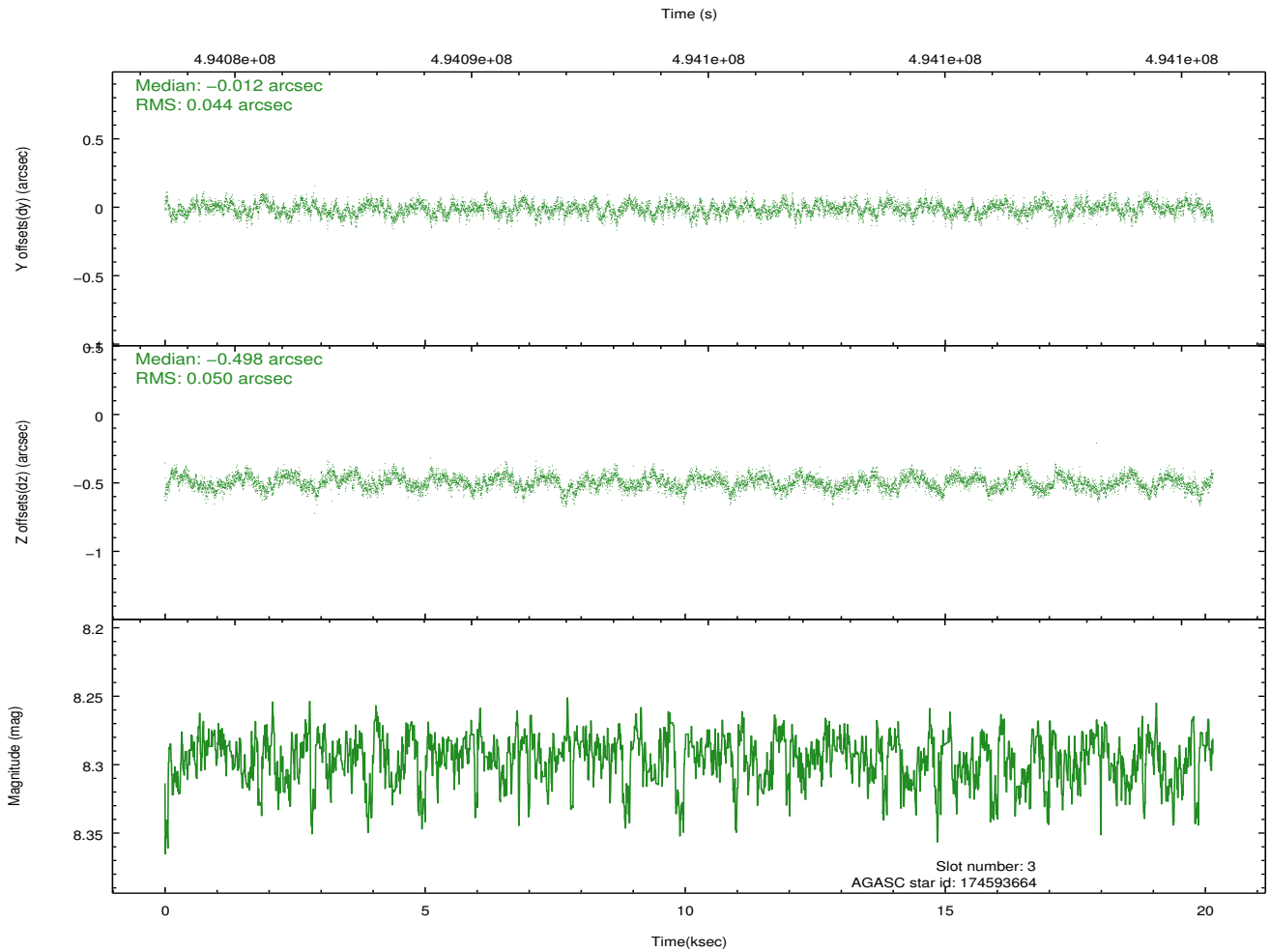
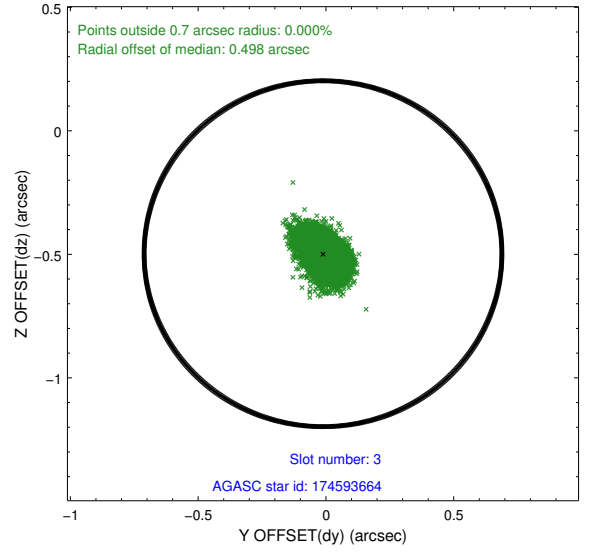
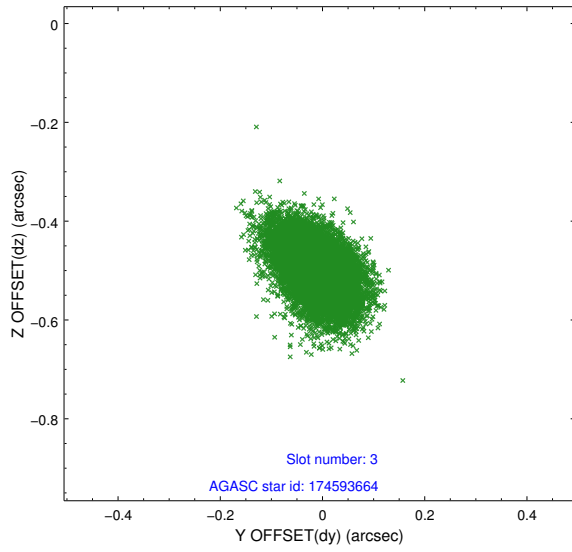
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	6.99	4914	-0.157	-0.060	0.010	0.017	0.000000	0.000000	-779.54	-900.33
1	FID		ACIS-I-4	6.98	4914	0.292	0.103	0.009	0.018	0.000000	0.000000	2134.81	1005.97
2	FID		ACIS-I-5	7.04	4915	-0.236	0.025	0.010	0.017	0.000000	0.000000	-1833.15	1003.53
3	GUIDE	used	174593664	8.29	9827	-0.012	-0.498	0.070	0.117	97.965949	17.333165	-1549.38	1804.37
4	GUIDE	used	174726936	7.74	9769	-0.151	-0.453	0.067	0.107	98.009571	17.665063	-356.52	1643.39
5	GUIDE	used	174730168	8.13	9826	-0.148	-0.056	0.080	0.127	98.803227	18.065078	1062.39	-1086.46
6	GUIDE	used	174731032	8.86	9818	0.203	0.630	0.087	0.142	99.169475	17.388789	-1375.05	-2331.21
7	GUIDE	used	174731792	7.92	9830	0.102	0.371	0.081	0.131	98.964622	17.200033	-2052.52	-1624.88

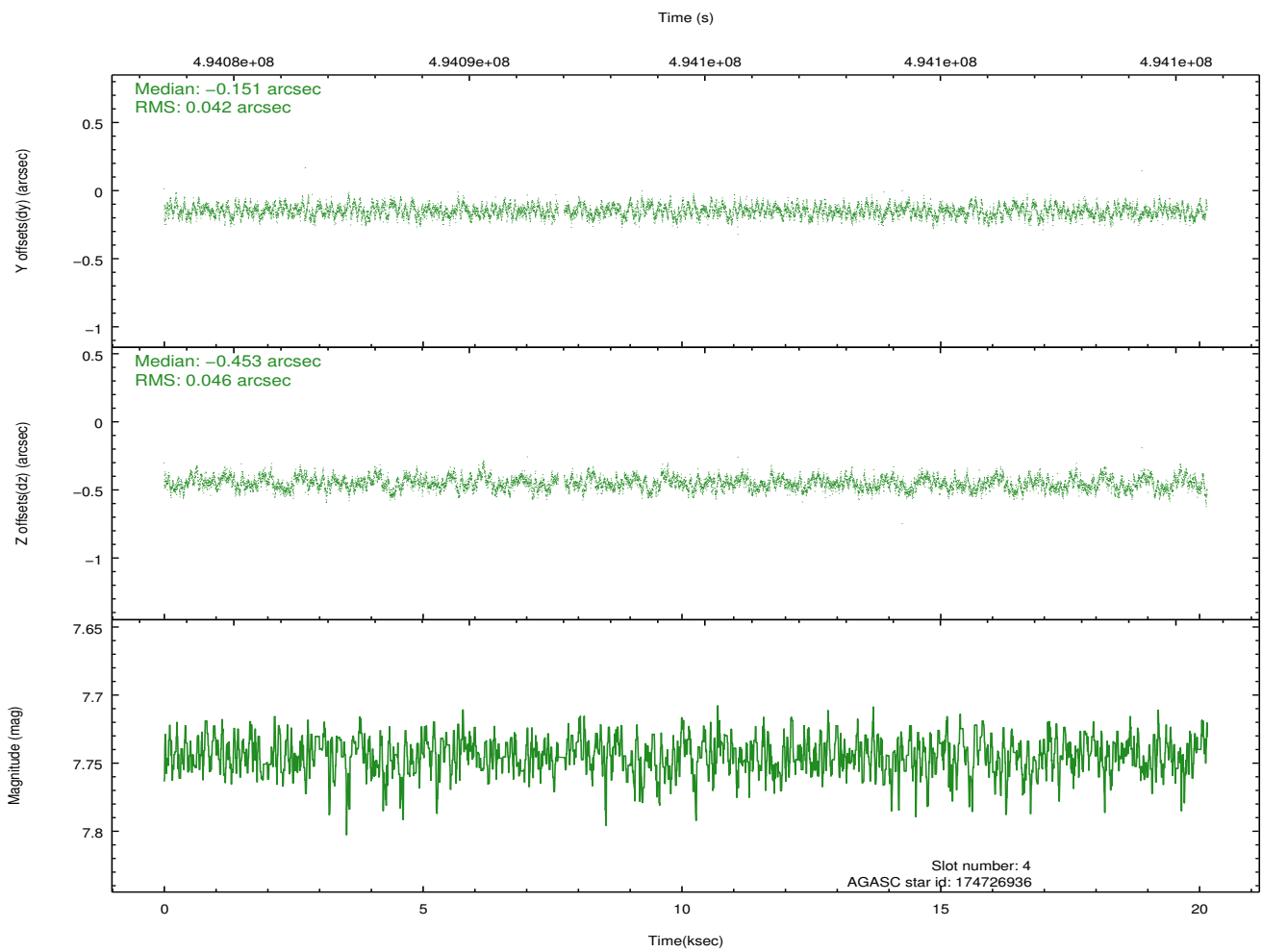
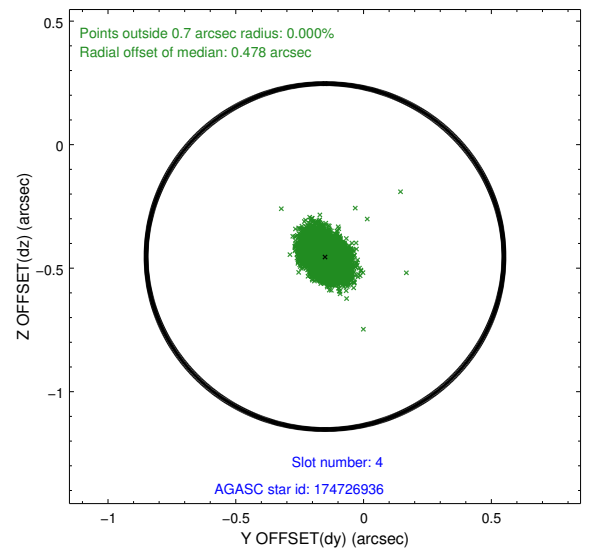
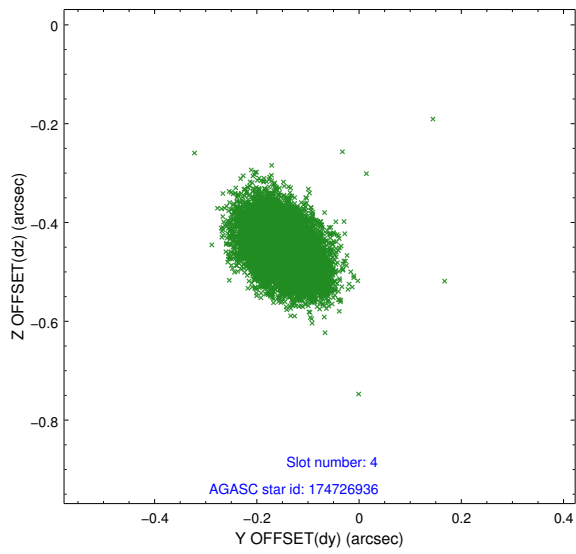
∞

2.4 Star Slots

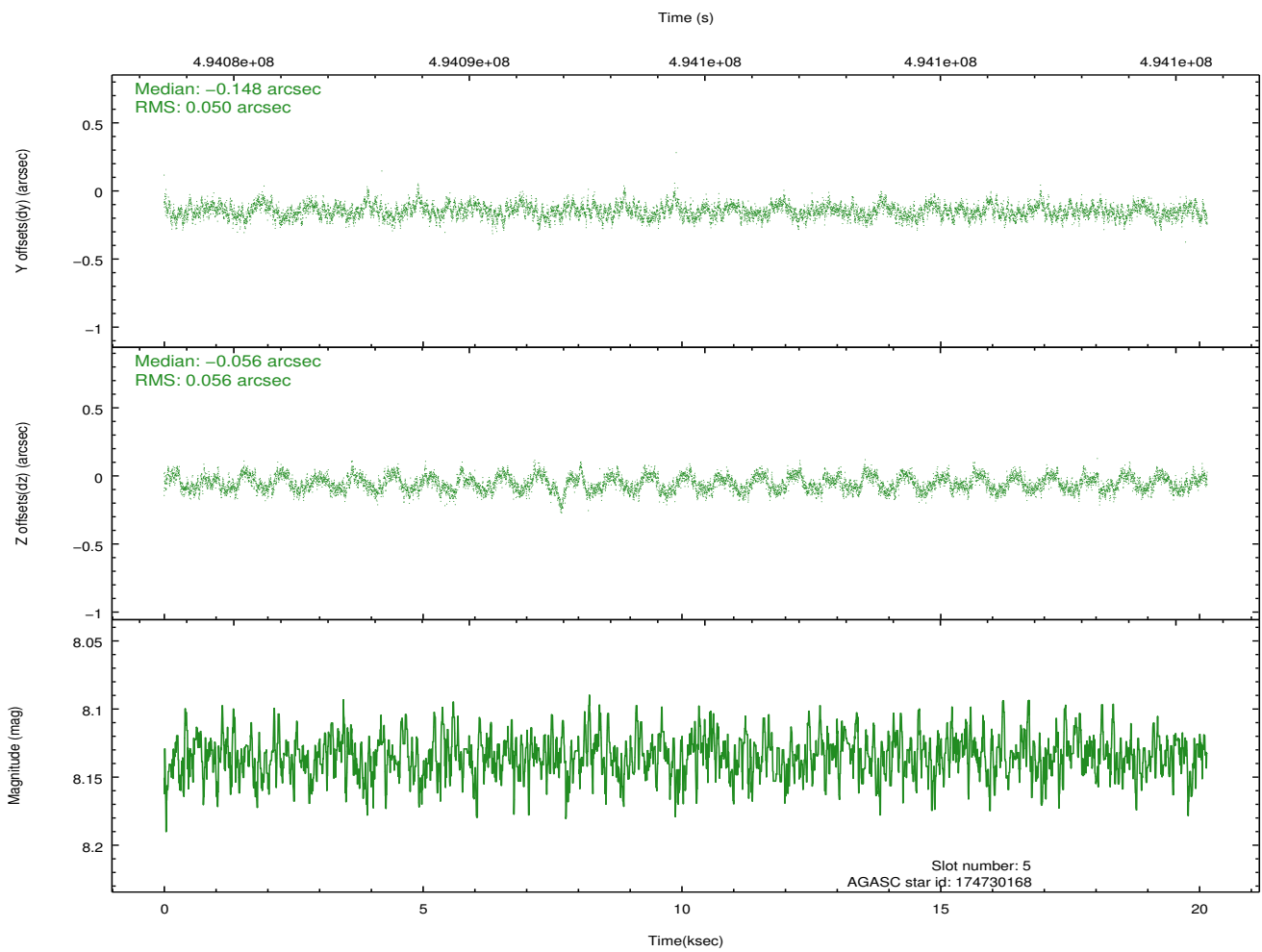
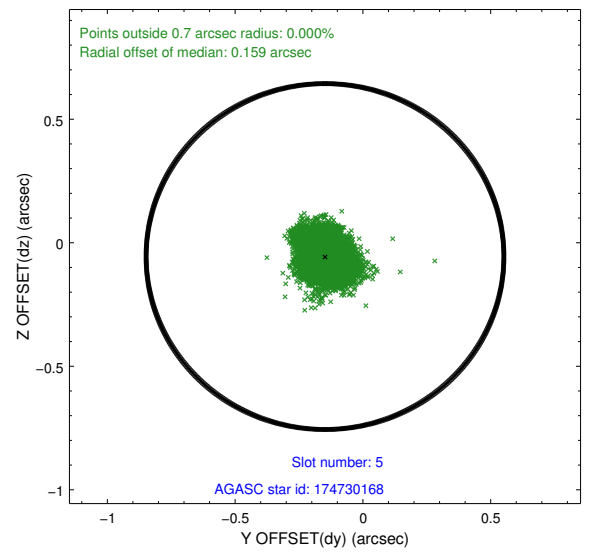
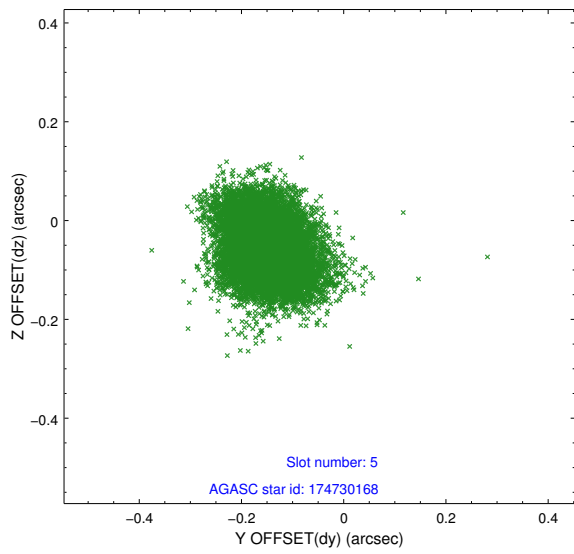
2.4.1 Slot 3



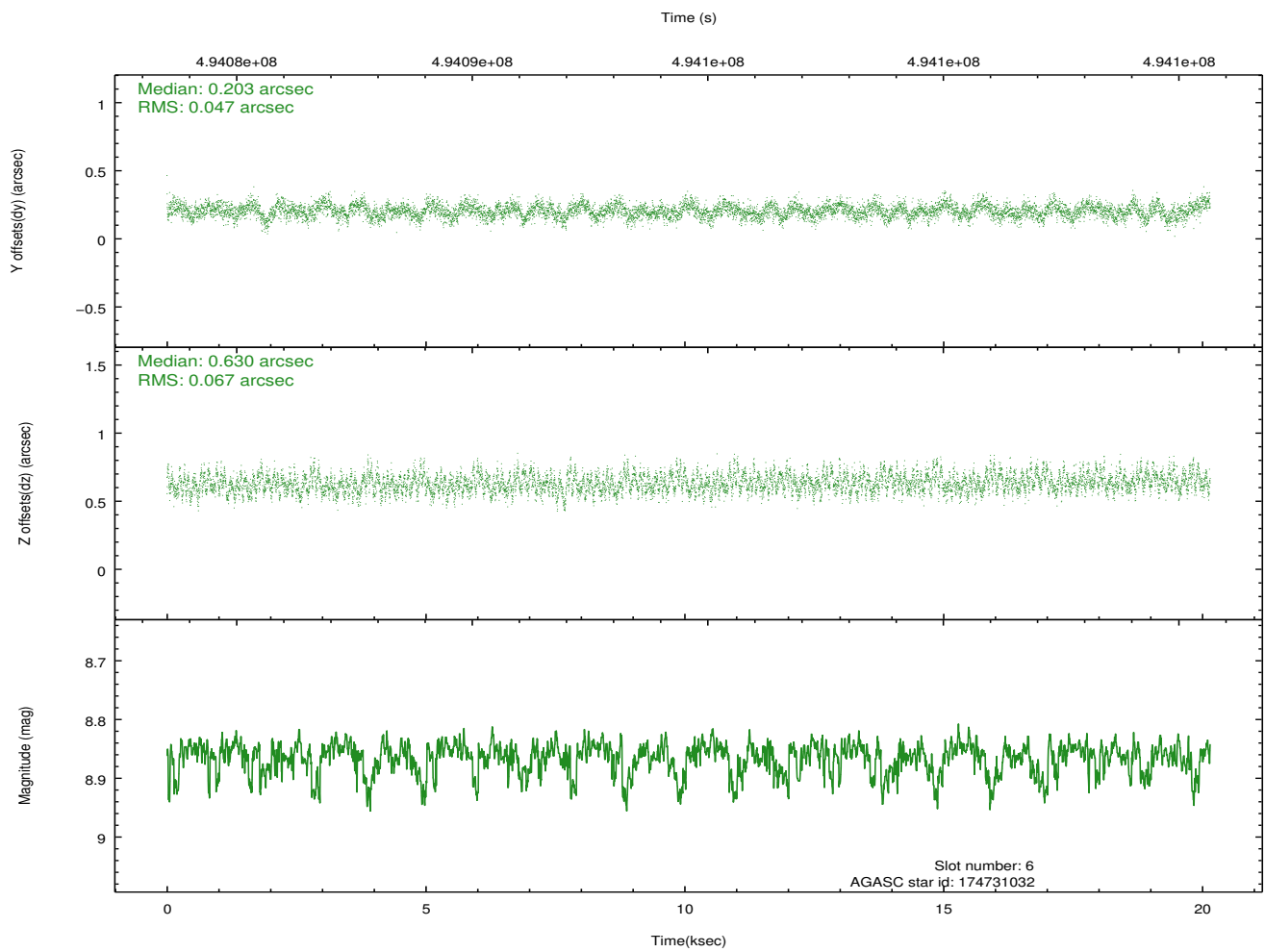
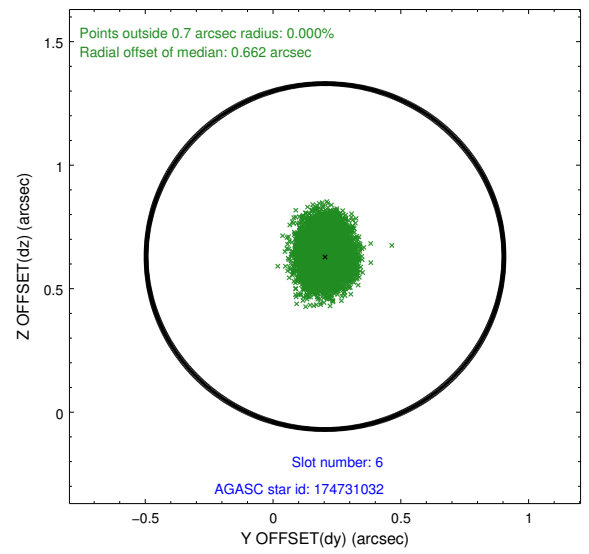
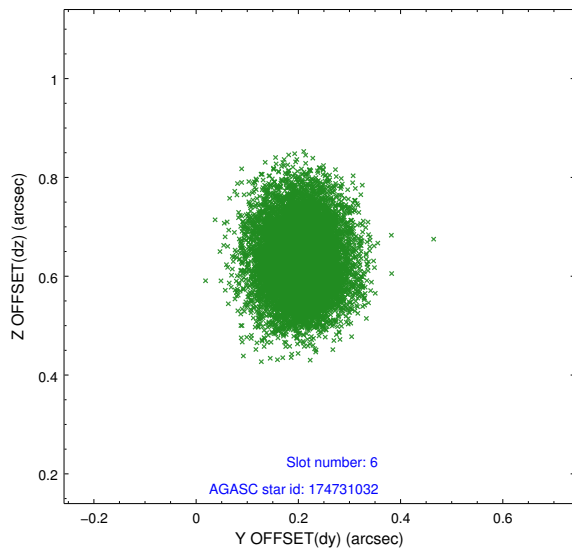
2.4.2 Slot 4



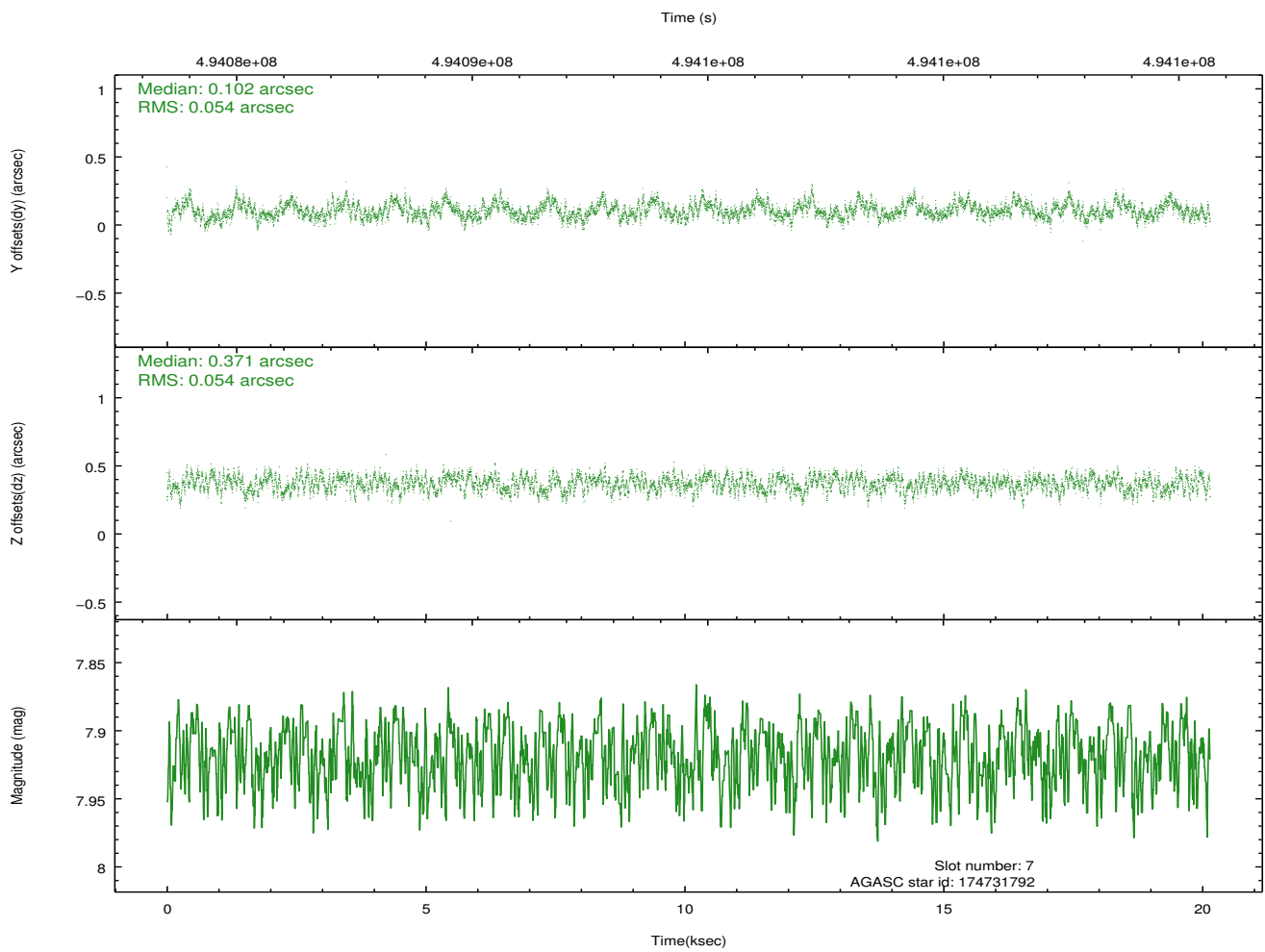
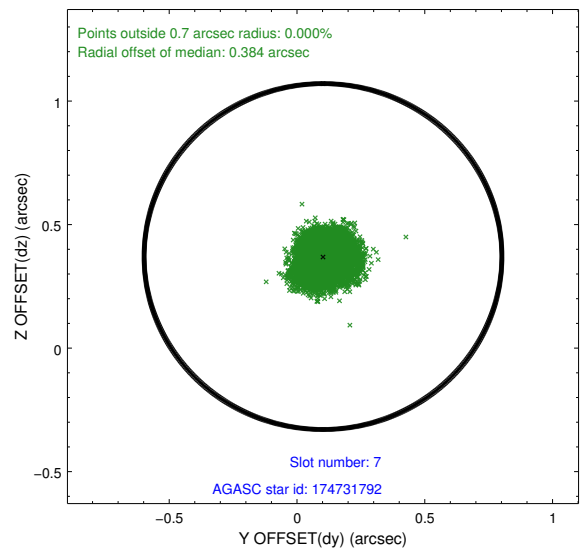
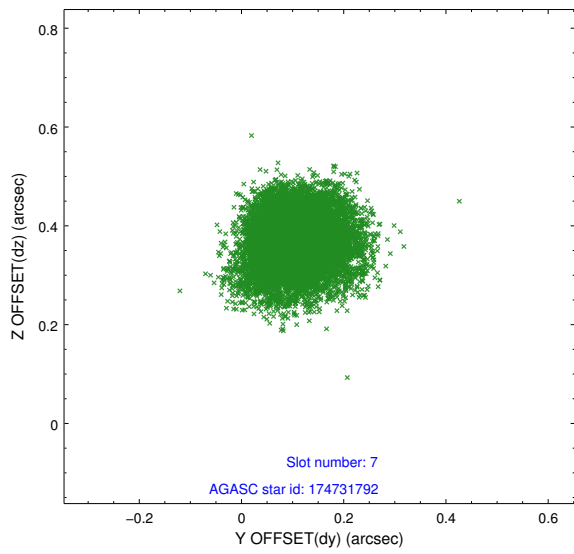
2.4.3 Slot 5



2.4.4 Slot 6

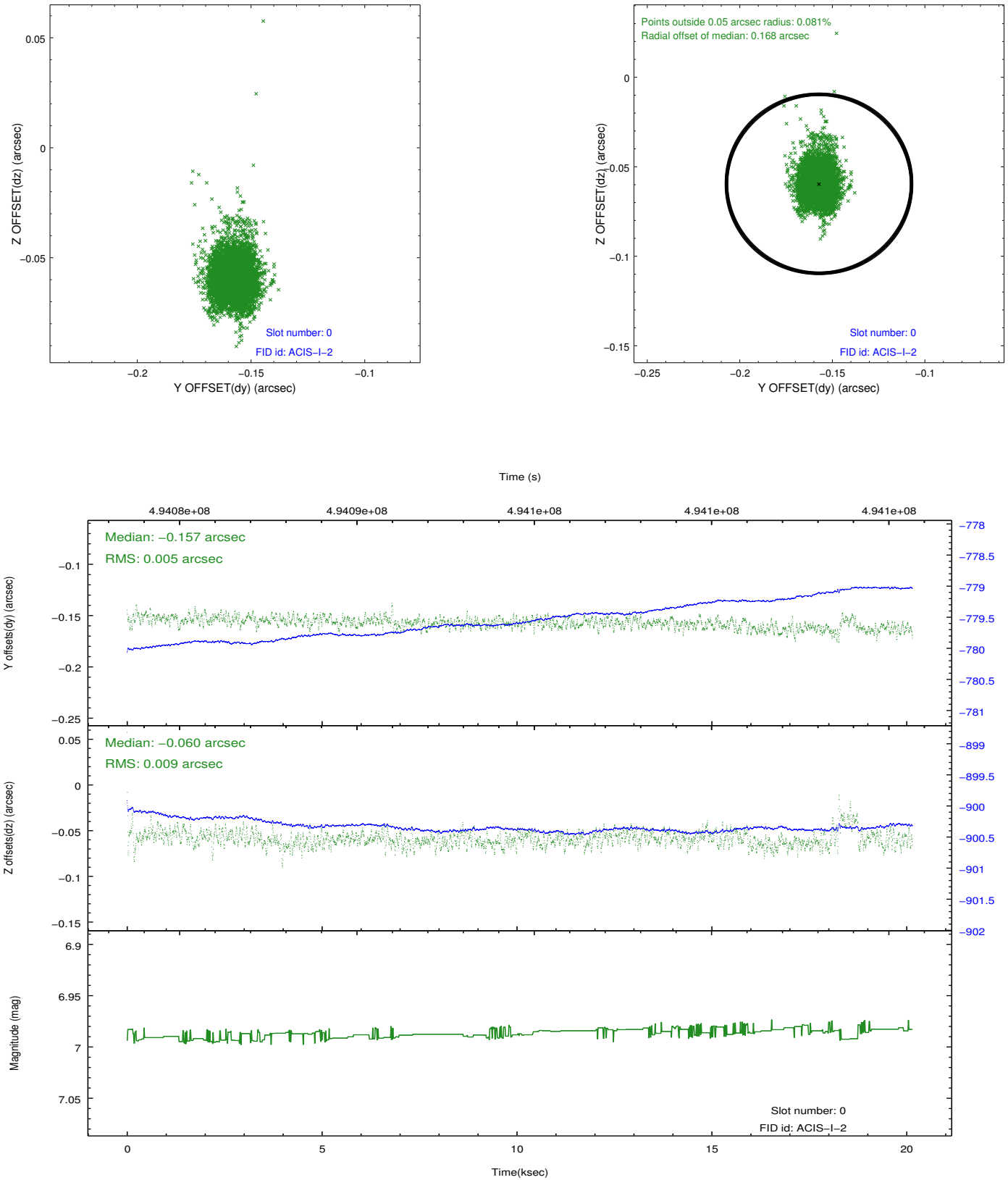


2.4.5 Slot 7

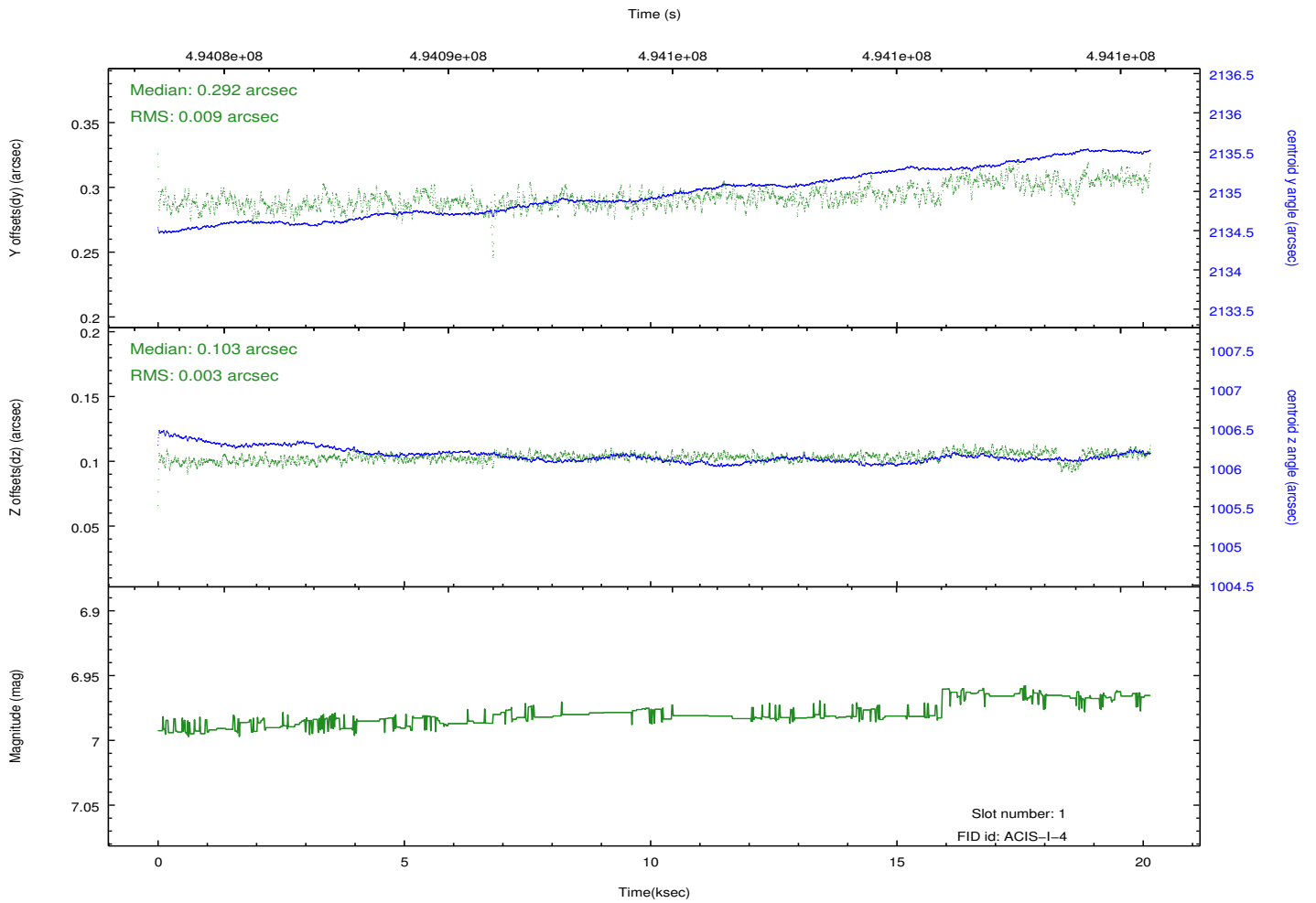
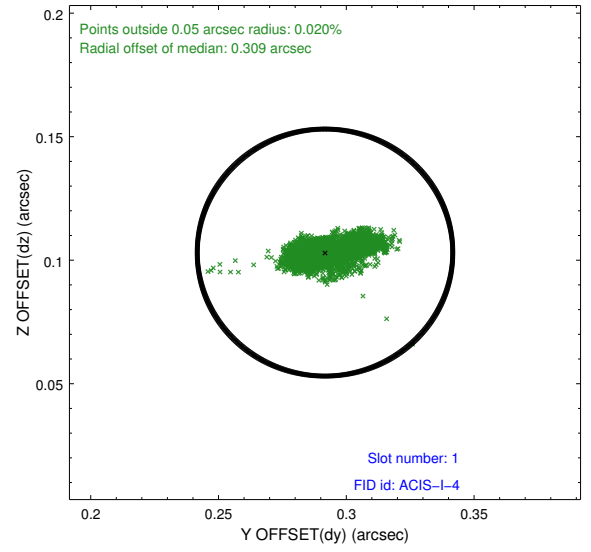
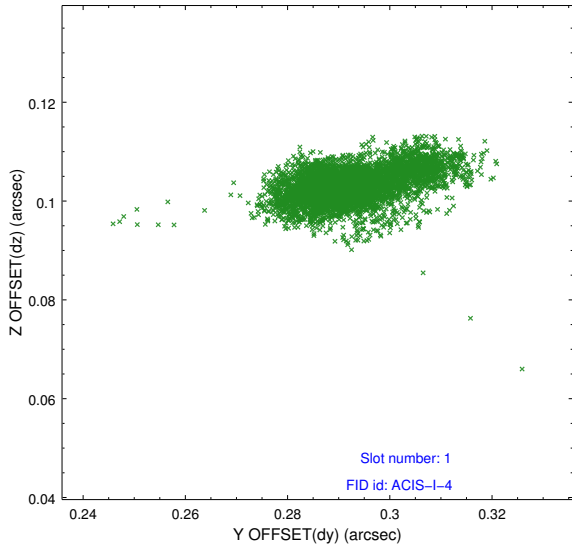


2.5 FID Slots

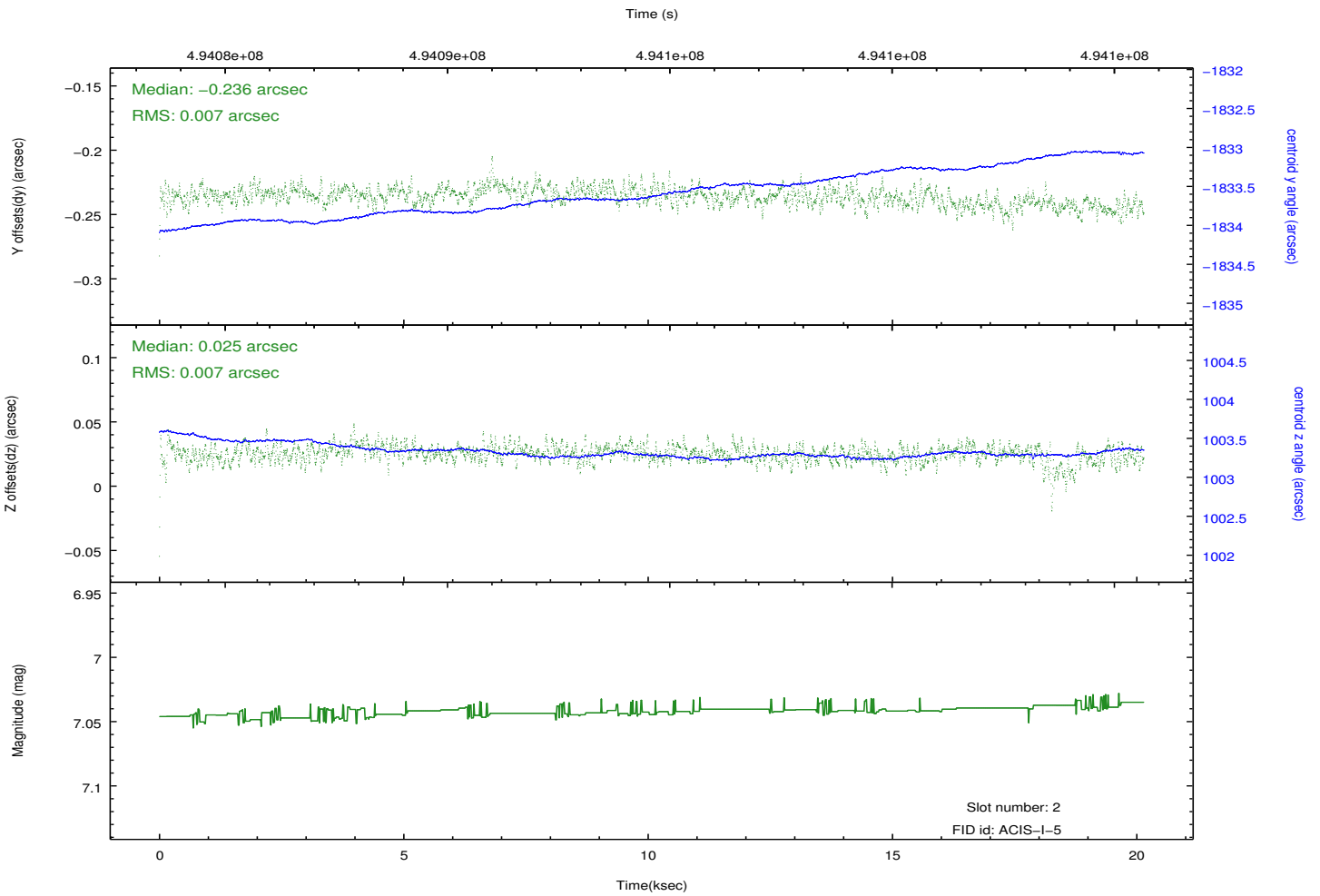
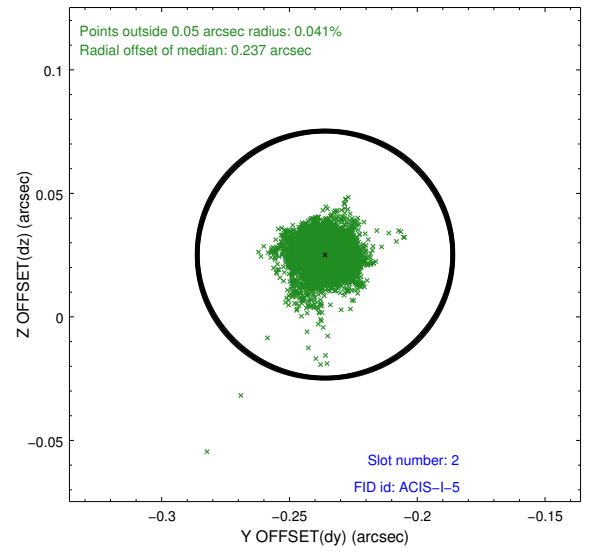
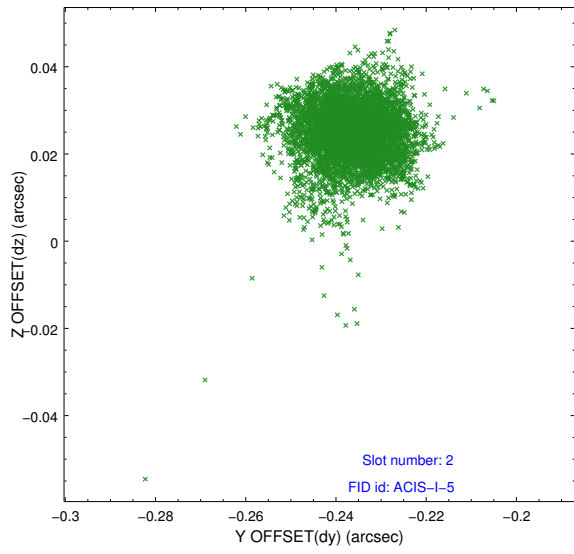
2.5.1 Slot 0



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)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.068343891144

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.