

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 14906 - L2 Version 2
Chandra X-Ray Center

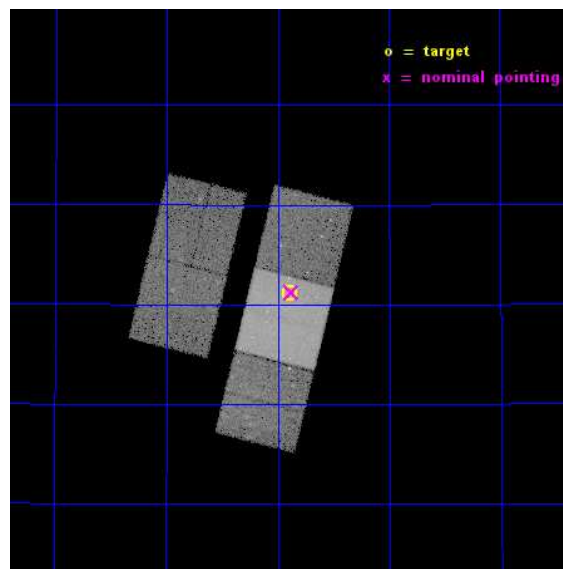
L2 Processing Date : Nov 30 2014

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1 Front

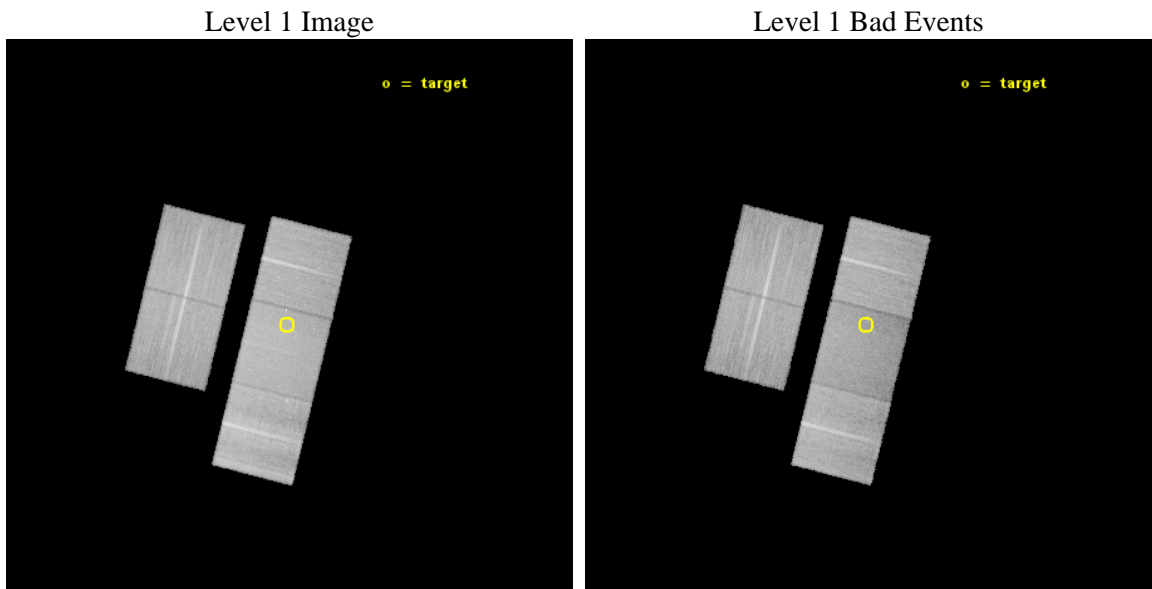
seq_num	601036	Sequence number
obs_id	14906	Observation id
title	Arp 143: Collisional Ring Galaxy	Proposal title
observer	Prof. Saul Rappaport	Principal investigator
object	Arp 143	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	116.723333	Observer's specified target RA [deg]
dec_targ	39.019444	Observer's specified target Dec [deg]
ra_nom	116.71963472318	Nominal RA [deg]
dec_nom	39.020416560417	Nominal Dec [deg]
roll_nom	104.03411826425	Nominal Roll [deg]
revision	2	Processing version of data
ontime	39512.600303888	Sum of GTIs [s]
livetime	38996.339092165	Livetime [s]
ontime2	39512.600303888	Sum of GTIs [s]
ontime3	39512.600303888	Sum of GTIs [s]
ontime6	39509.459243476	Sum of GTIs [s]
ontime7	39512.600303888	Sum of GTIs [s]
ontime8	39512.600303888	Sum of GTIs [s]
l2events	186138	Number of level 2 events



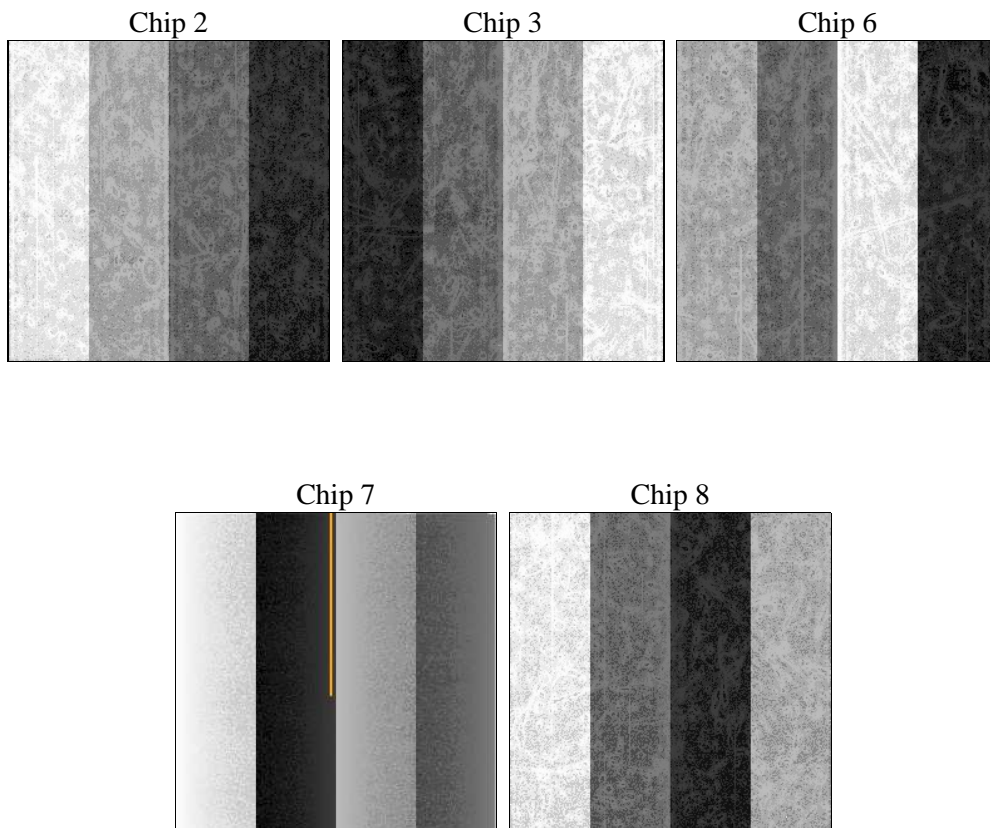
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	39400.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	39512.600303888	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	39512.600303888	Sum of GTIs [s]
date	2014-11-30T10:46:23	Date and time of file creation	ontime3	39512.600303888	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	39509.459243476	Sum of GTIs [s]
			ontime7	39512.600303888	Sum of GTIs [s]
			ontime8	39512.600303888	Sum of GTIs [s]
			l1events	1066250	Number of level 1 events

2.1.4 Events

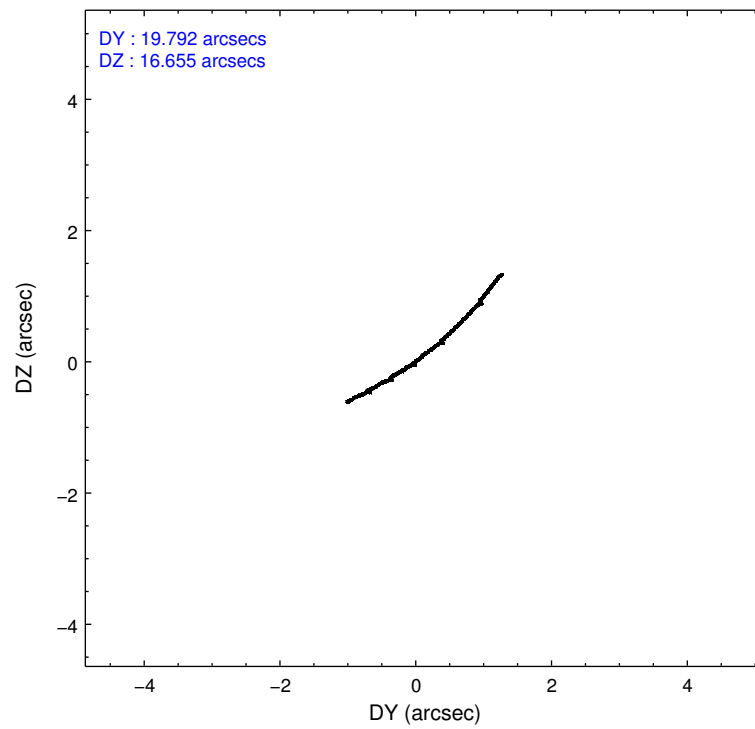
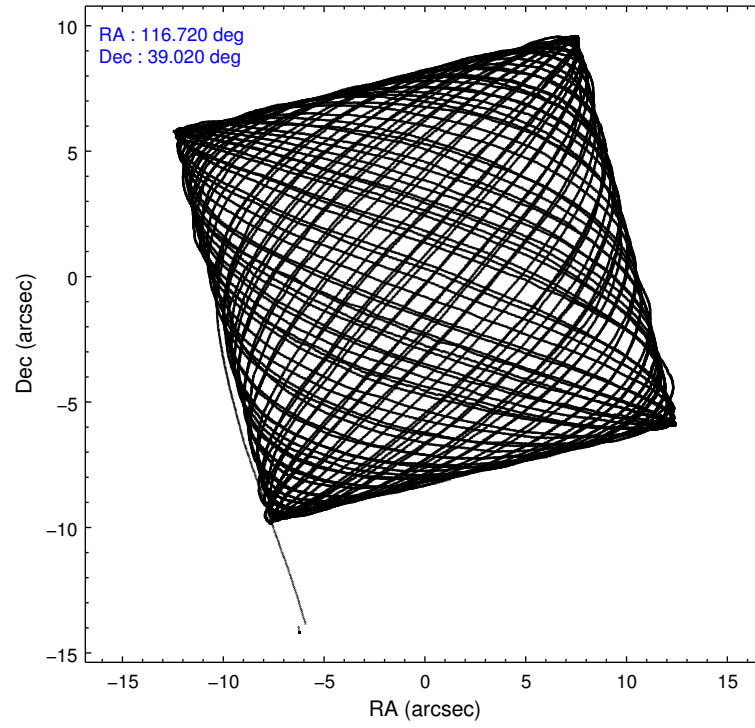
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	195819	187403	197933	230756	254339
rejected events	174528	166417	174048	121772	182137
rejected %	89%	88%	87%	52%	71%

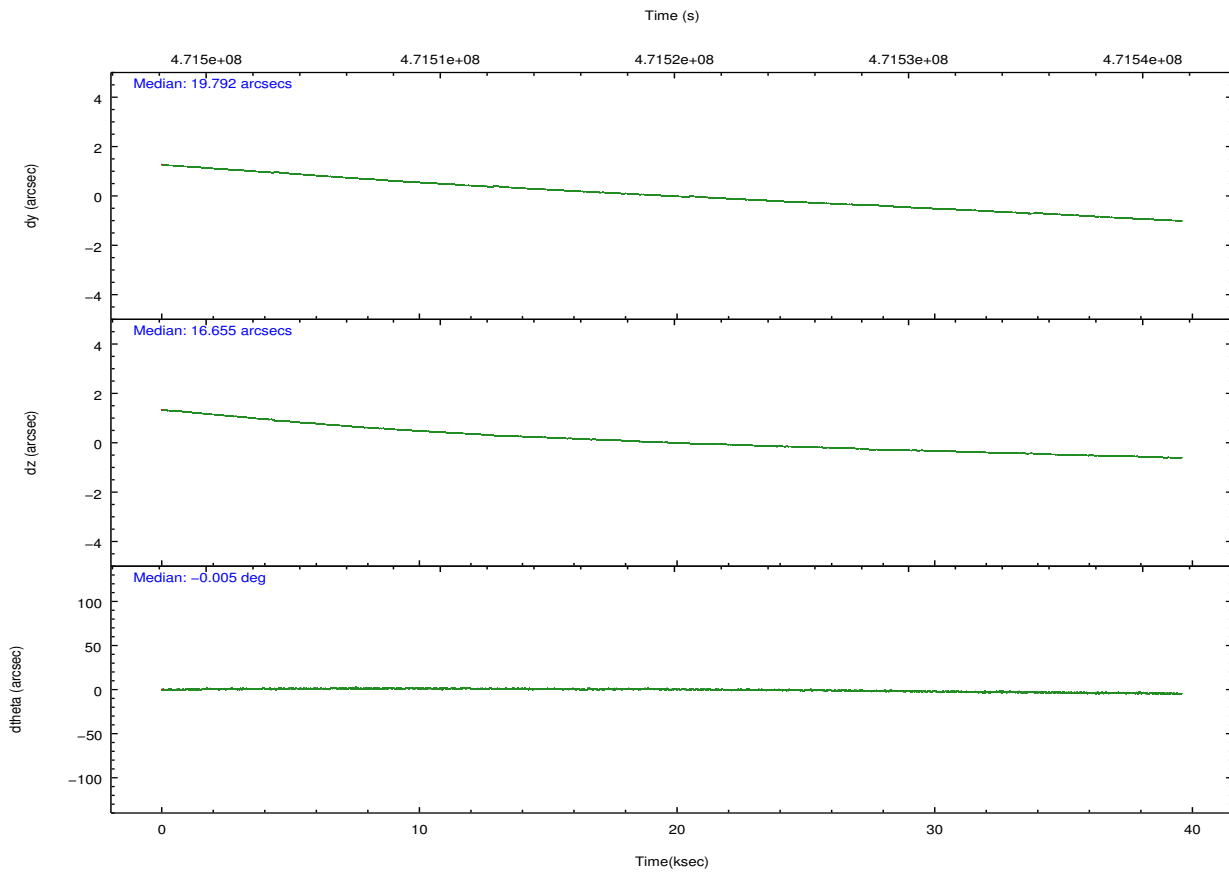
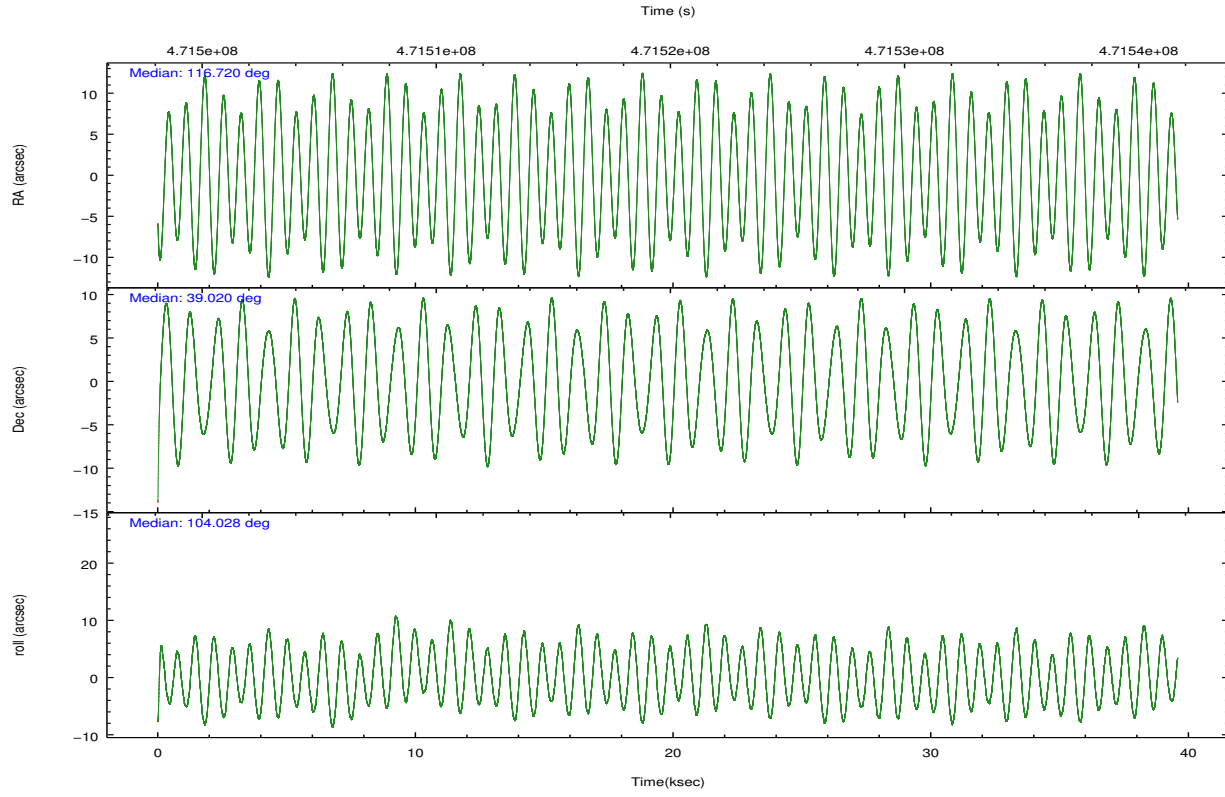
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	7708	7619	8489	10763	20414
	3%	4%	4%	4%	8%
grade 1 events	122	90	106	355	222
	0%	0%	0%	0%	0%
grade 2 events	5277	4668	5436	23046	17123
	2%	2%	2%	9%	6%
grade 3 events	2194	2291	2428	9647	7668
	1%	1%	1%	4%	3%
grade 4 events	2276	2217	2372	9544	7216
	1%	1%	1%	4%	2%
grade 5 events	7029	8684	8877	24216	13232
	3%	4%	4%	10%	5%
grade 6 events	3836	4191	5161	55993	19783
	1%	2%	2%	24%	7%
grade 7 events	167377	157643	165064	97192	168681
	85%	84%	83%	42%	66%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	116.744440	116.719634723184	CCD I2 on	O3	Y
[deg] Pointing Dec	39.001010	39.02041656041742	CCD I3 on	O2	Y
[deg] Pointing Roll	103.861877	104.0341182642461	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	471500280.184000	471499294.42714	CCD S5 on	N	N
Observation start date	2012-12-10T04:16:53	2012-12-10T04:01:34	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	471539680.184000	471540368.22935	On-chip summing requested	N	N
Observation end date	2012-12-10T15:13:33	2012-12-10T15:26:08	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





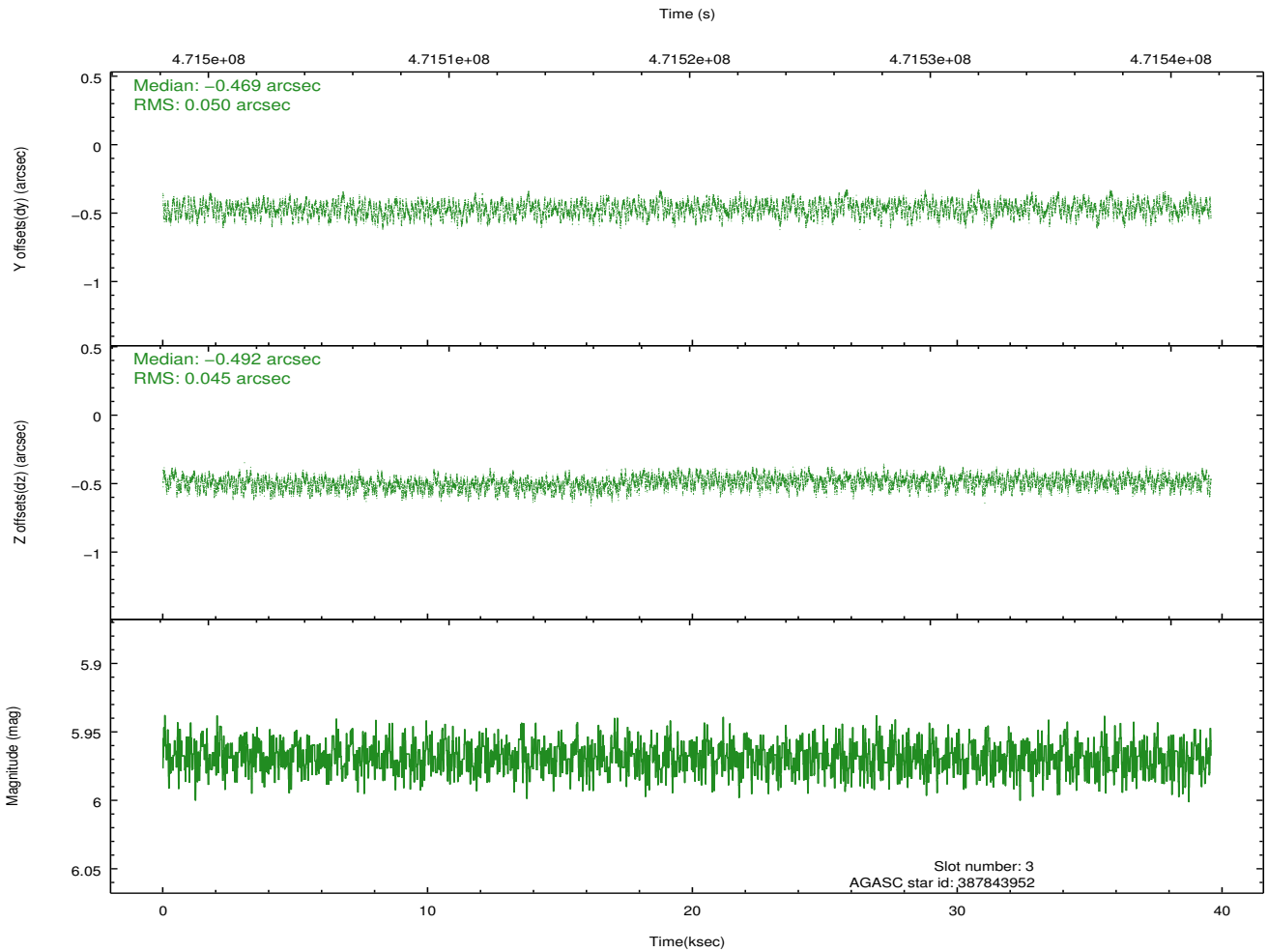
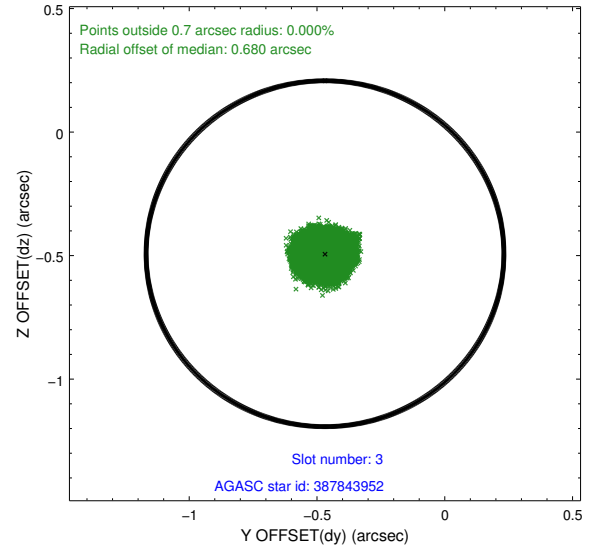
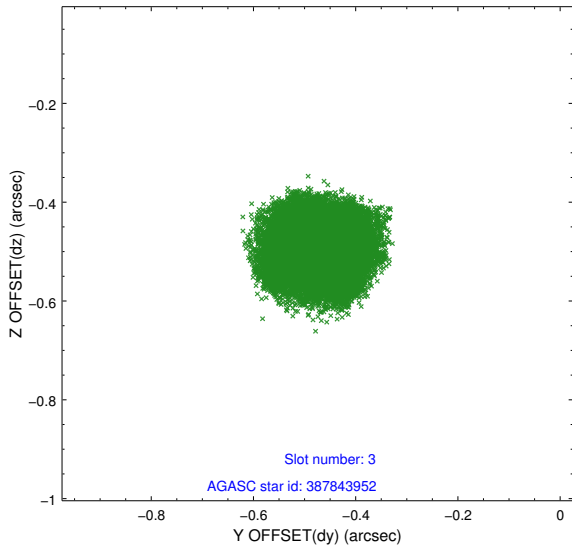
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.07	9653	0.098	-0.102	0.023	0.049	0.000000	0.000000	923.19	-1733.87
1	FID		ACIS-S-5	7.11	9652	-0.205	0.043	0.023	0.044	0.000000	0.000000	-1826.08	163.81
2	FID		ACIS-S-6	7.21	9652	0.085	0.072	0.025	0.078	0.000000	0.000000	388.72	807.80
3	GUIDE	used	387843952	5.97	19306	-0.469	-0.492	0.074	0.111	116.039537	38.837802	-90.11	2057.42
4	GUIDE	used	387974944	9.17	19292	0.371	0.470	0.116	0.184	117.693638	38.587906	-2070.63	-2239.10
5	GUIDE	used	387975400	8.94	19292	0.270	0.343	0.098	0.161	117.669095	38.526573	-2269.28	-2121.69
6	GUIDE	used	388371256	9.04	19183	-0.031	0.067	0.095	0.155	116.958551	39.618125	2014.60	-1108.39
7	GUIDE	used	388378136	7.41	19304	-0.140	-0.383	0.066	0.107	116.426409	39.546945	2121.03	386.13

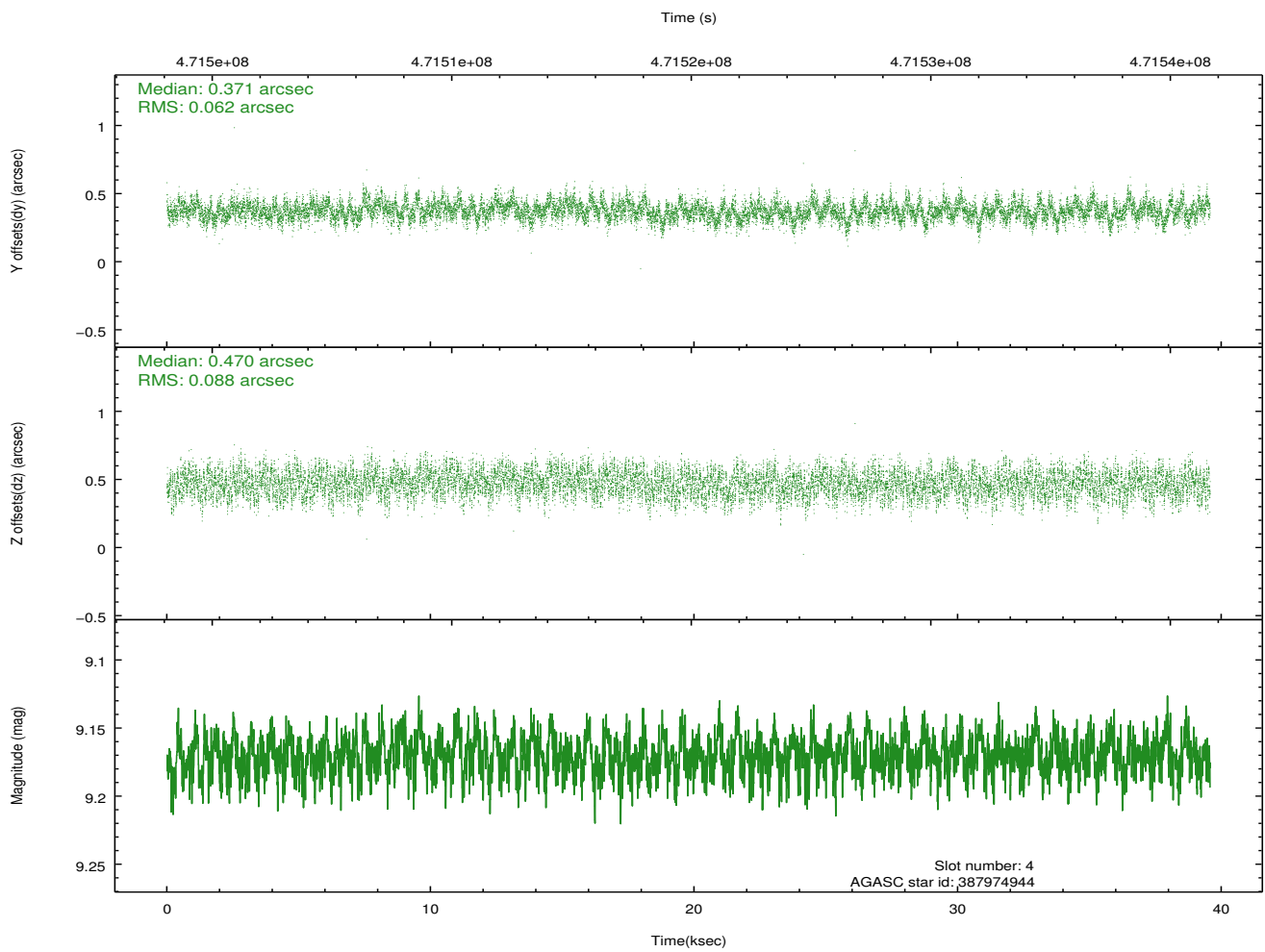
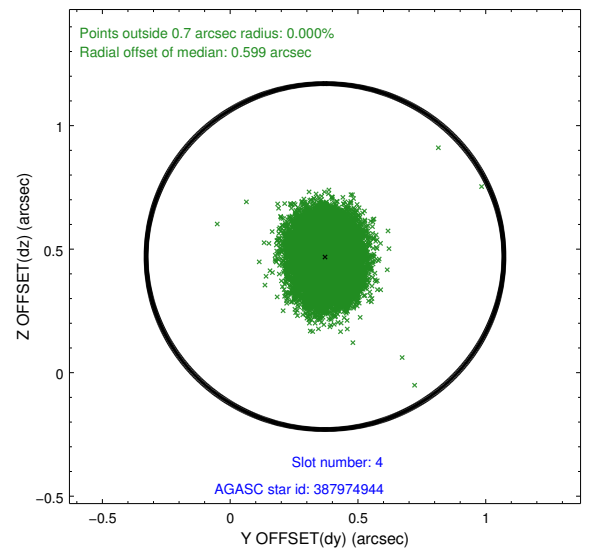
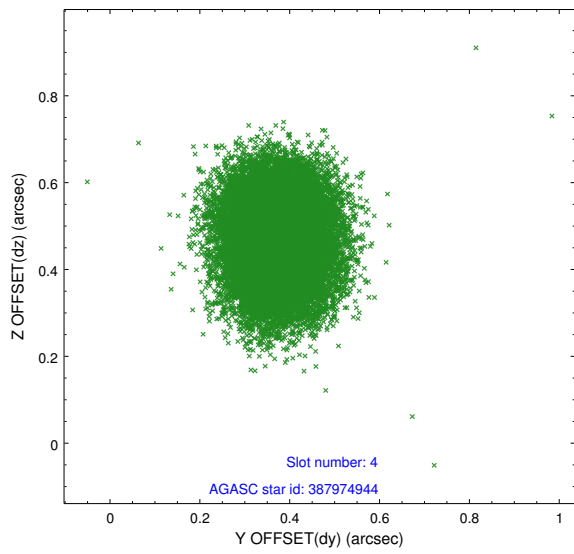
∞

2.4 Star Slots

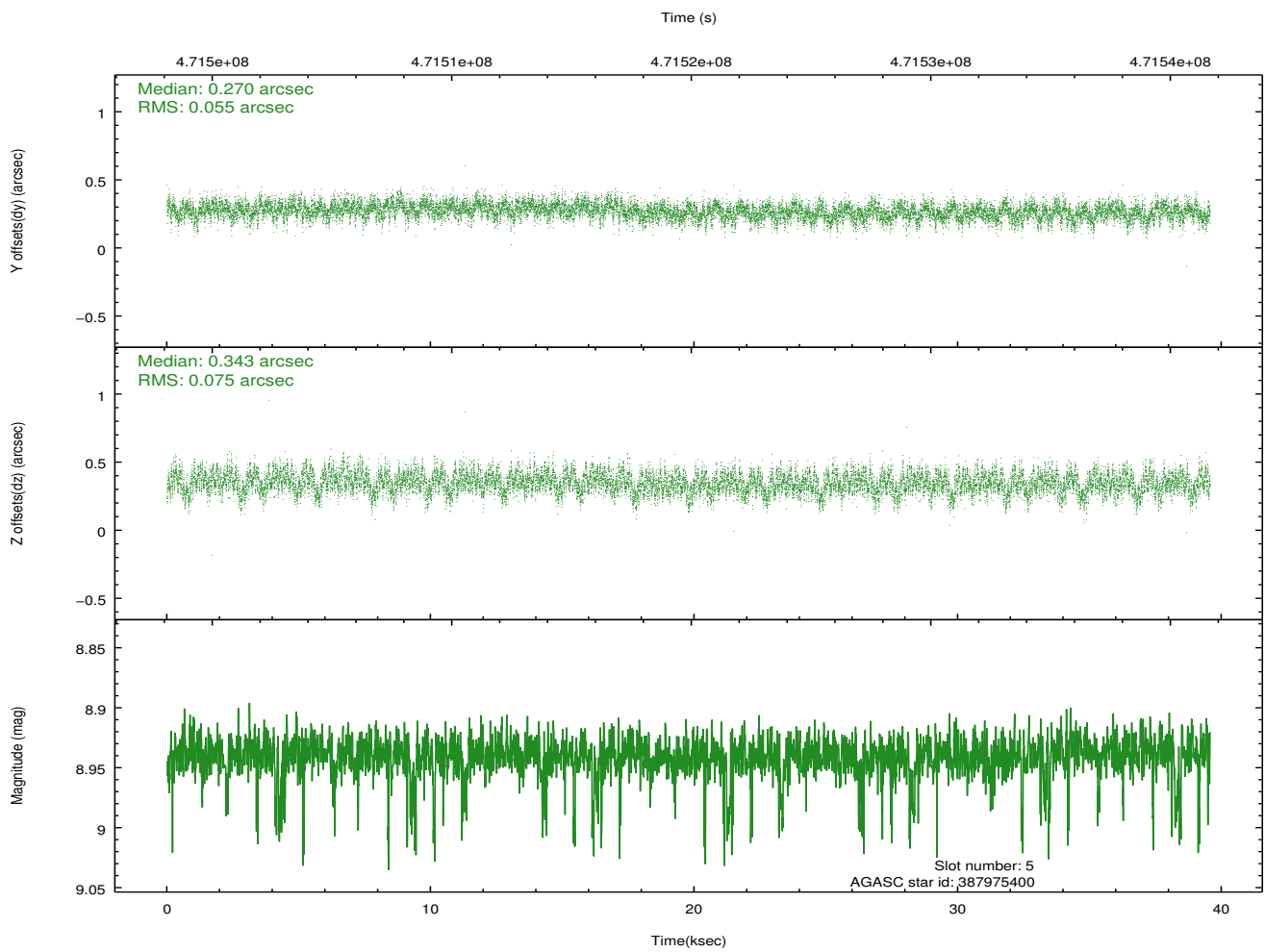
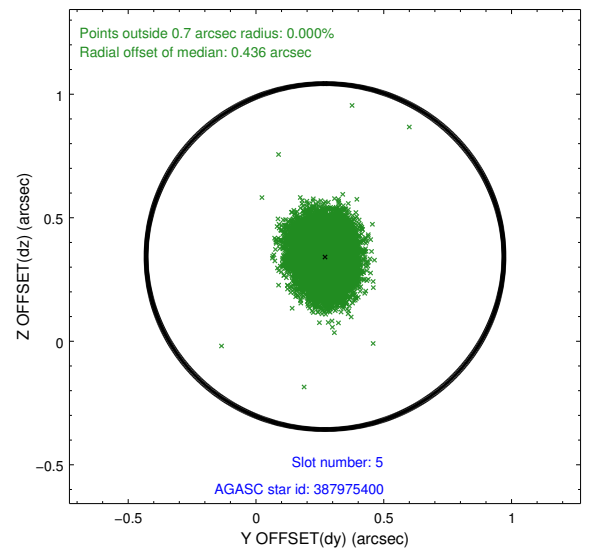
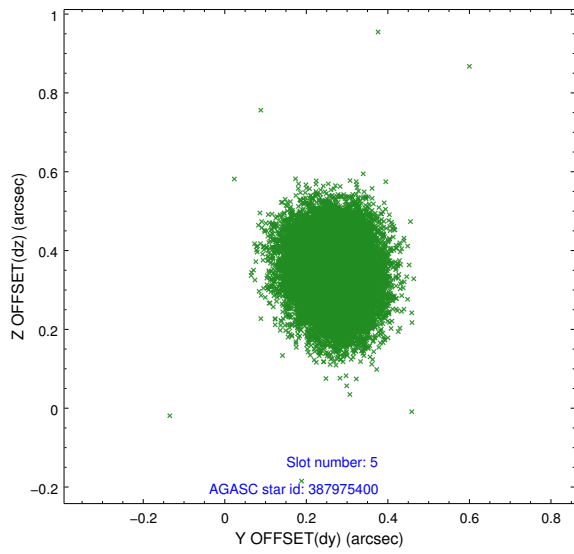
2.4.1 Slot 3



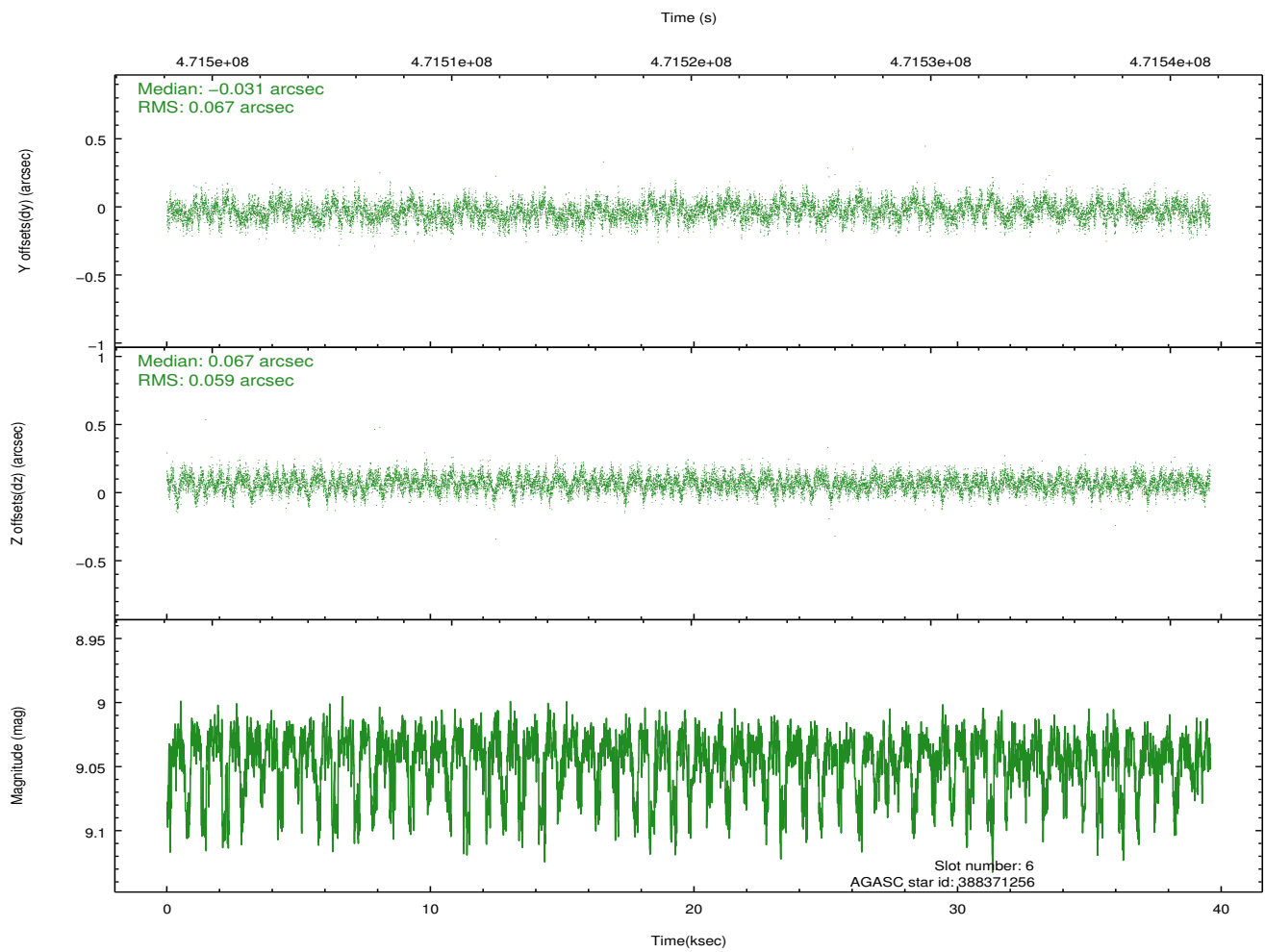
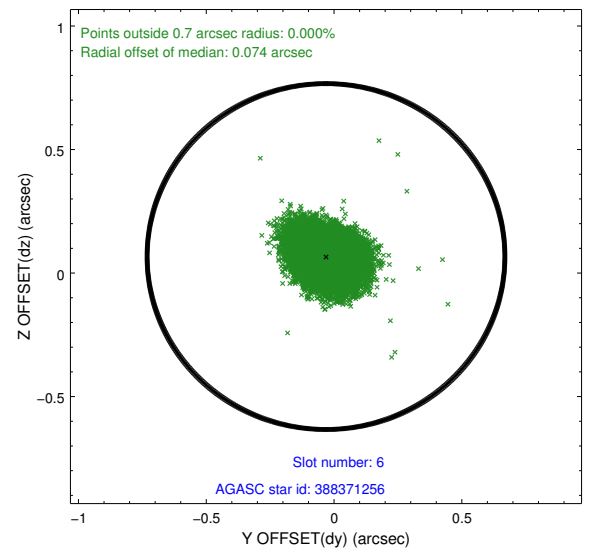
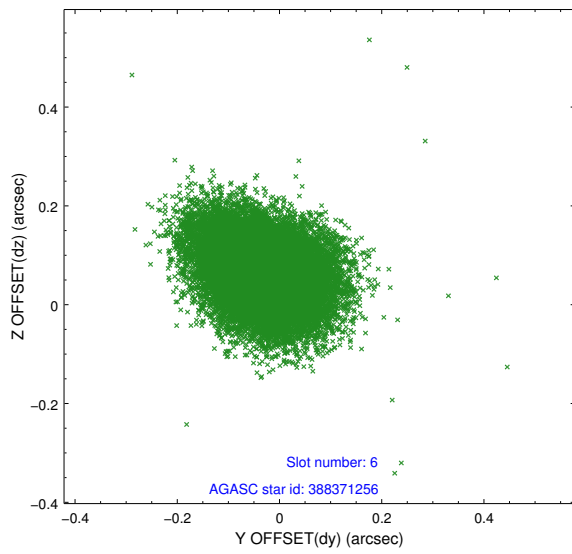
2.4.2 Slot 4



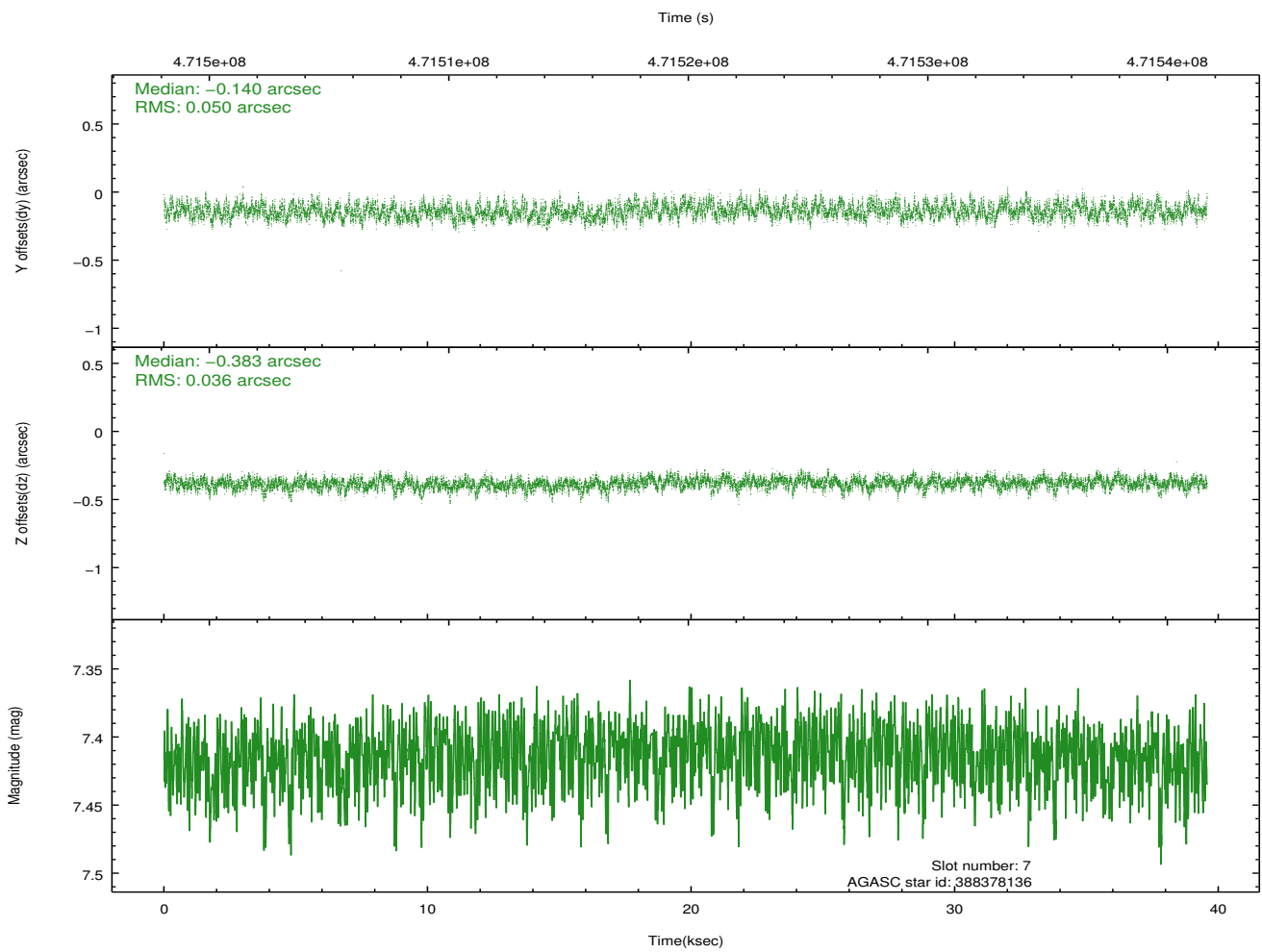
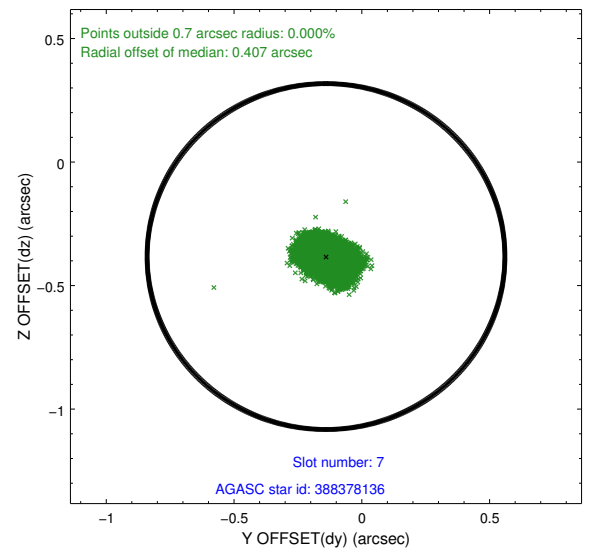
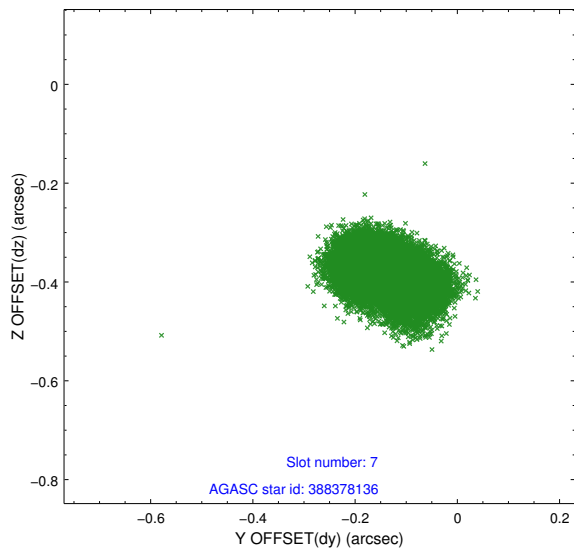
2.4.3 Slot 5



2.4.4 Slot 6

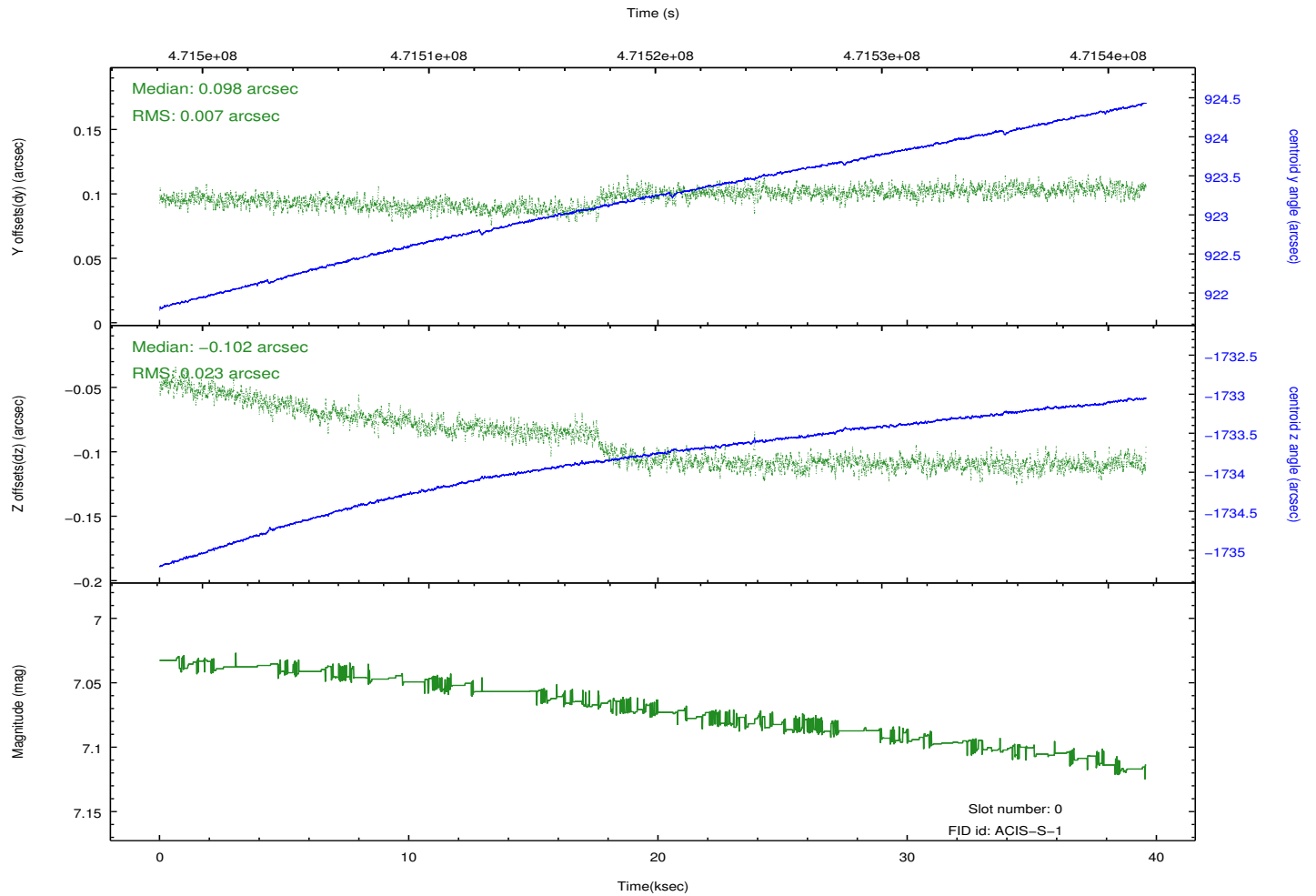
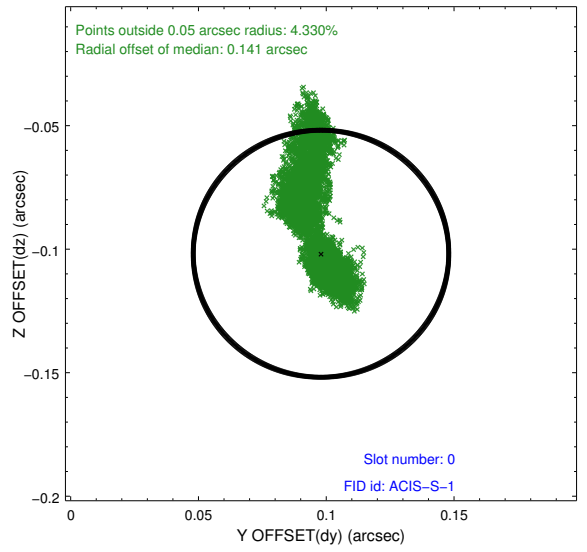
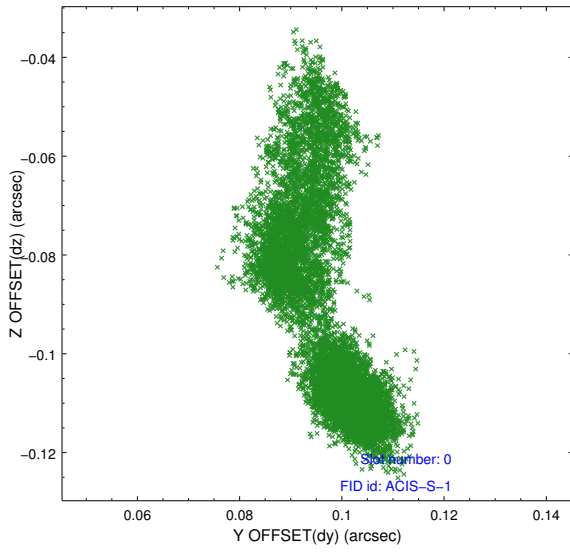


2.4.5 Slot 7

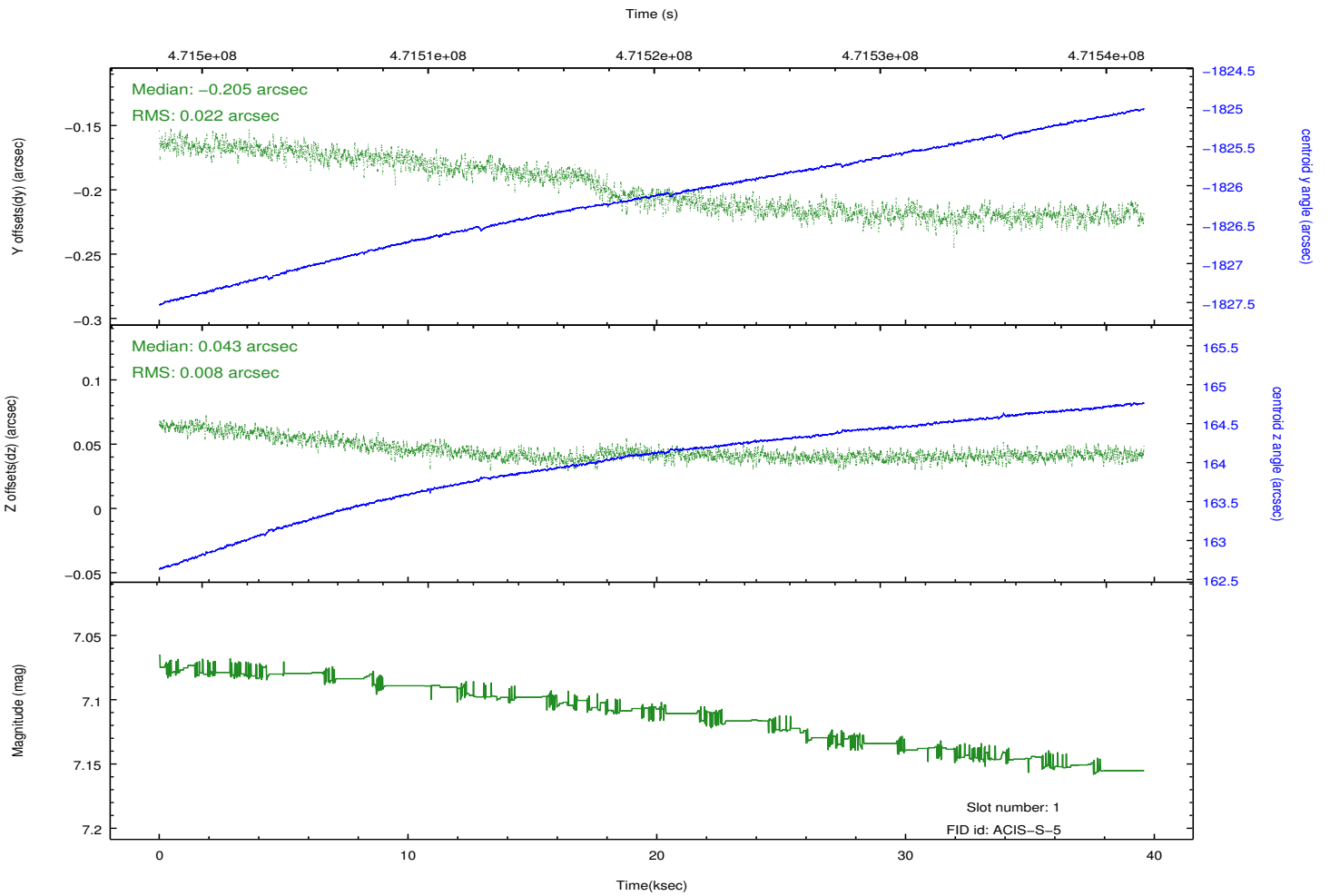
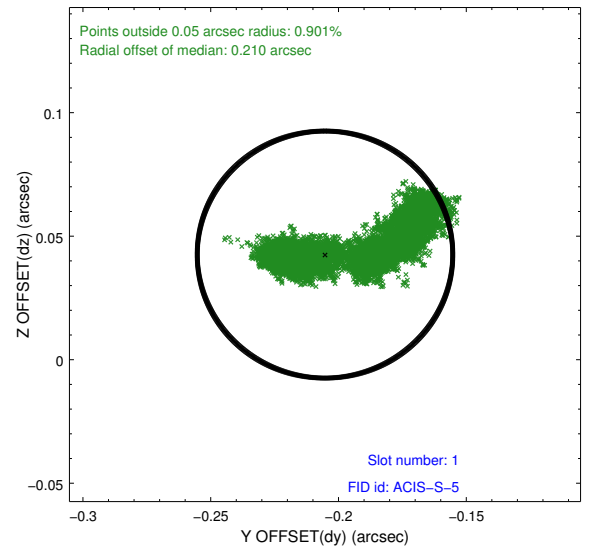
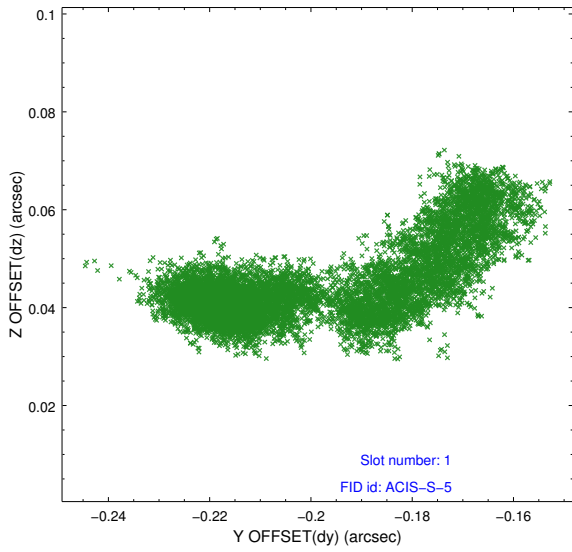


2.5 FID Slots

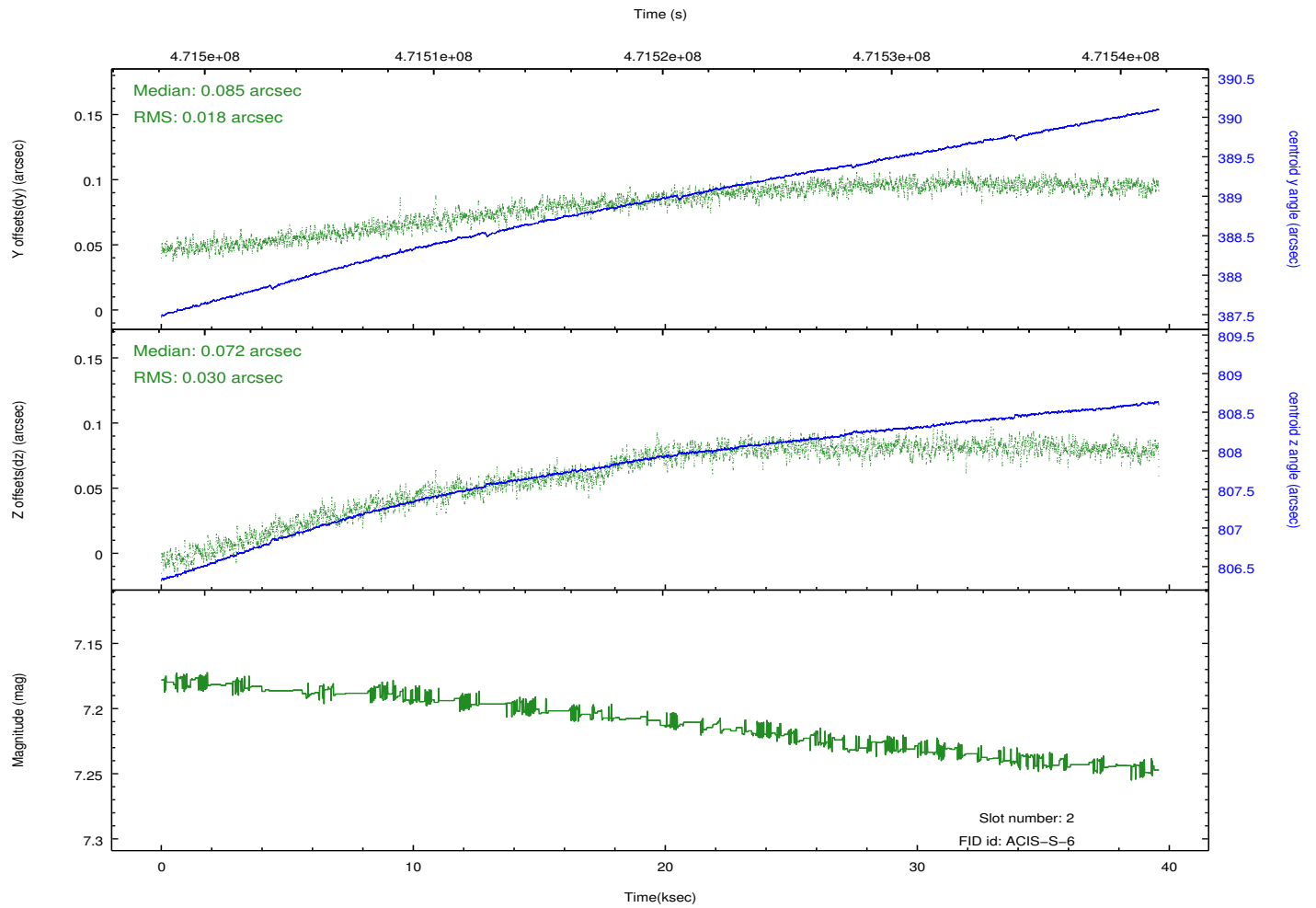
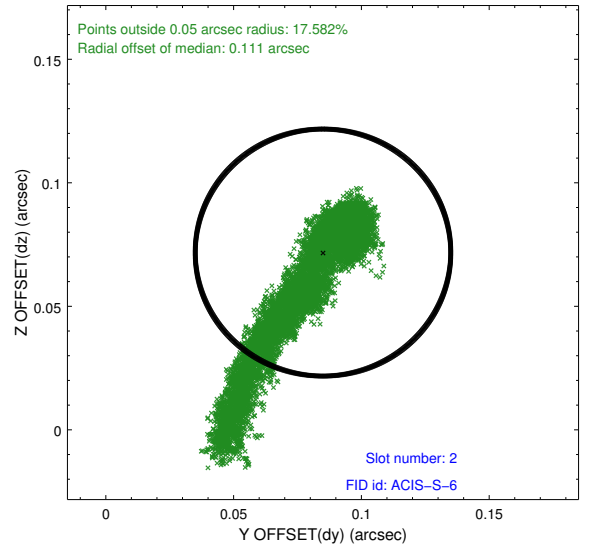
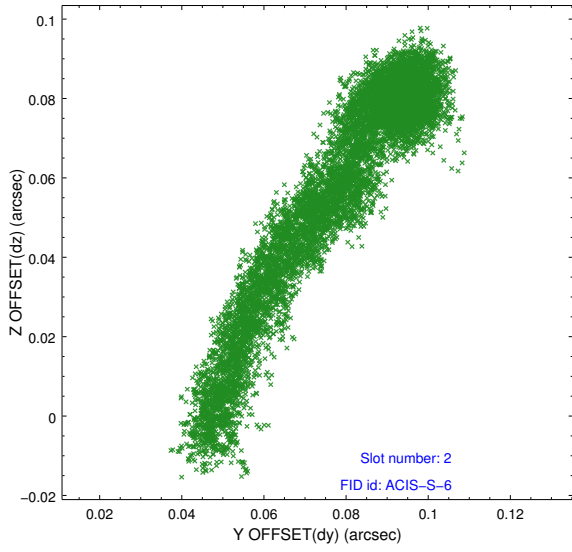
2.5.1 Slot 0



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)	2014.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	39.512600303888

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.