

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 13620 - L2 Version 2
Chandra X-Ray Center

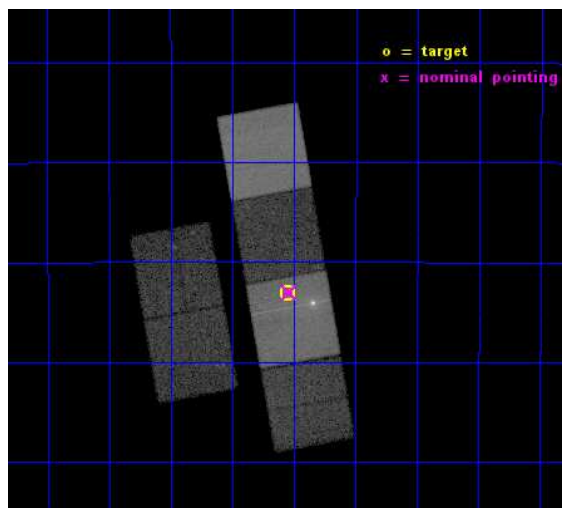
L2 Processing Date : Dec 1 2014

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1 Front

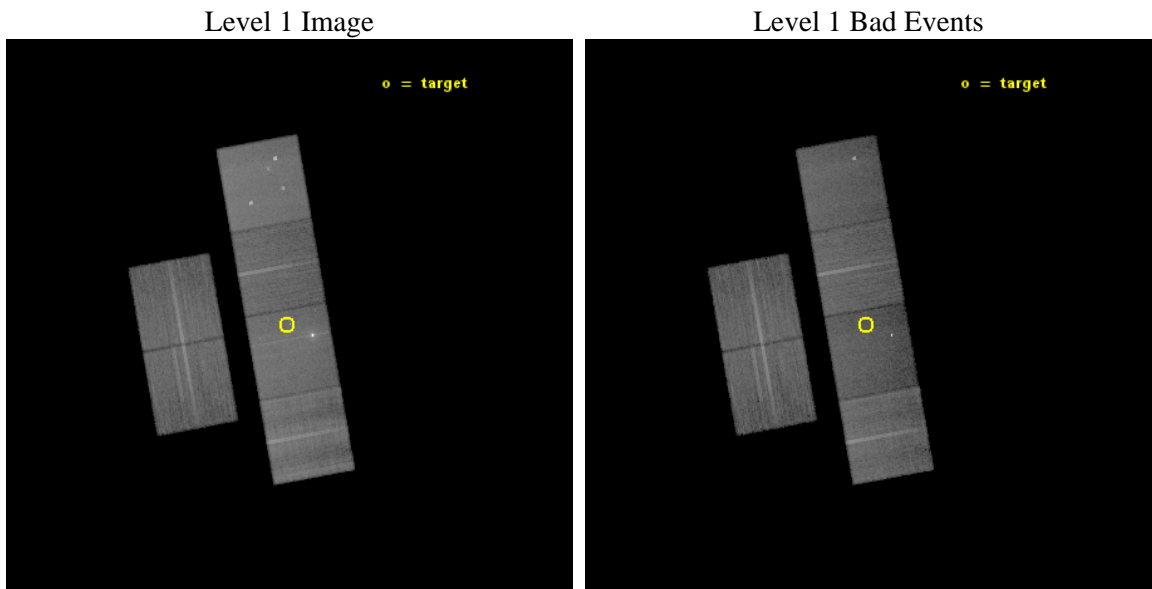
seq_num	200774	Sequence number
obs_id	13620	Observation id
title	V1309 Sco: The First Directly Observed Merging Binary	Proposal tit
observer	Prof. Saul Rappaport	Principal investigator
object	V1309 Sco	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	269.387083	Observer's specified target RA [deg]
dec_targ	-30.719444	Observer's specified target Dec [deg]
ra_nom	269.38451457091	Nominal RA [deg]
dec_nom	-30.717394579014	Nominal Dec [deg]
roll_nom	79.808725016543	Nominal Roll [deg]
revision	2	Processing version of data
ontime	34959.999869823	Sum of GTIs [s]
livetime	34517.315301087	Livetime [s]
ontime2	34959.999869823	Sum of GTIs [s]
ontime3	34959.999869823	Sum of GTIs [s]
ontime5	34959.999869823	Sum of GTIs [s]
ontime6	34959.999869823	Sum of GTIs [s]
ontime7	34959.999869823	Sum of GTIs [s]
ontime8	34953.517859101	Sum of GTIs [s]
l2events	342500	Number of level 2 events



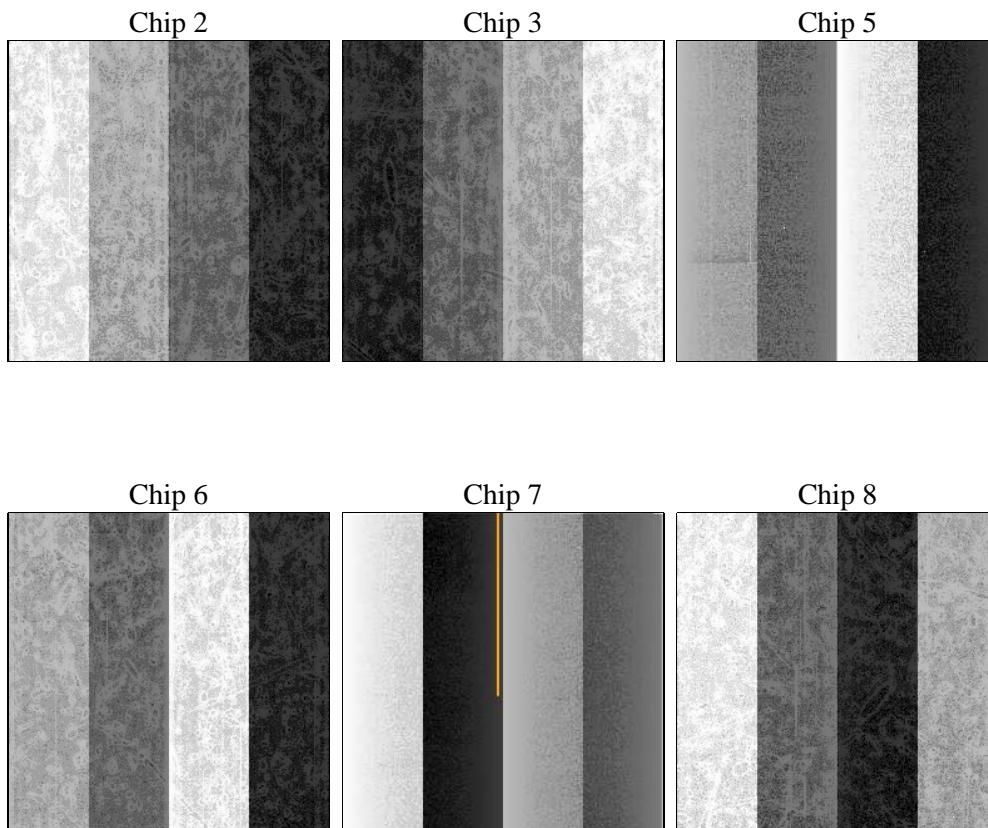
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	34959.999869823	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	34959.999869823	Sum of GTIs [s]
date	2014-12-01T19:28:50	Date and time of file creation	ontime3	34959.999869823	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	34959.999869823	Sum of GTIs [s]
			ontime6	34959.999869823	Sum of GTIs [s]
			ontime7	34959.999869823	Sum of GTIs [s]
			ontime8	34953.517859101	Sum of GTIs [s]
			l1events	1283882	Number of level 1 events

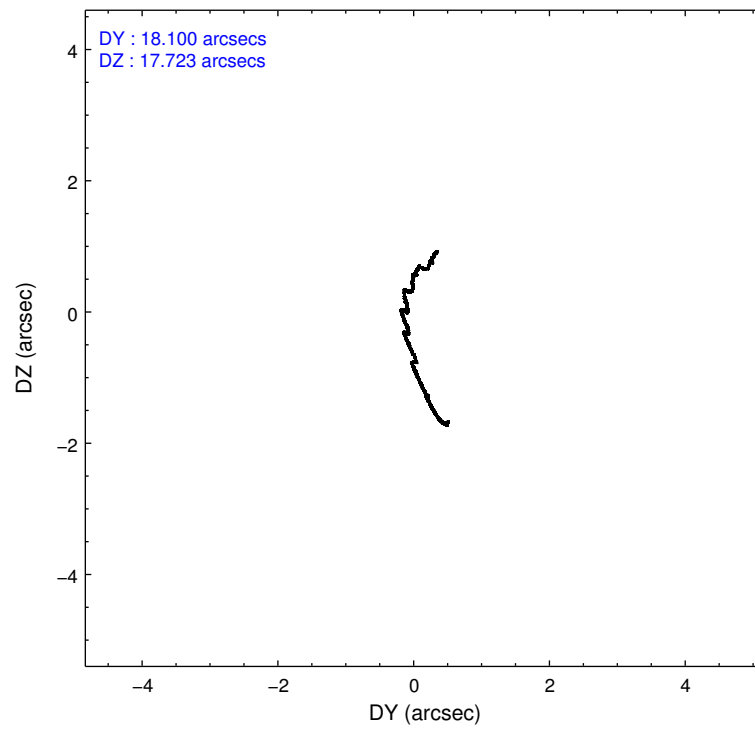
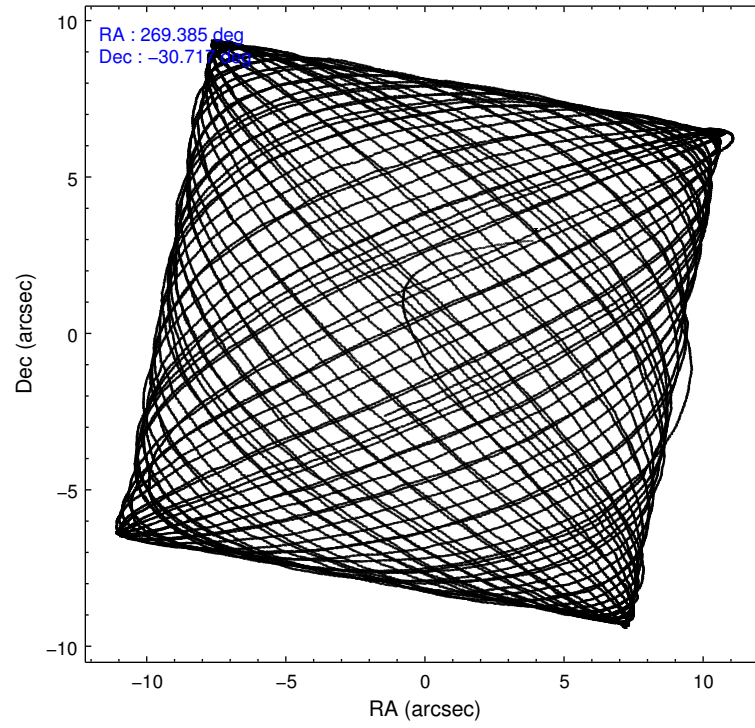
2.1.4 Events

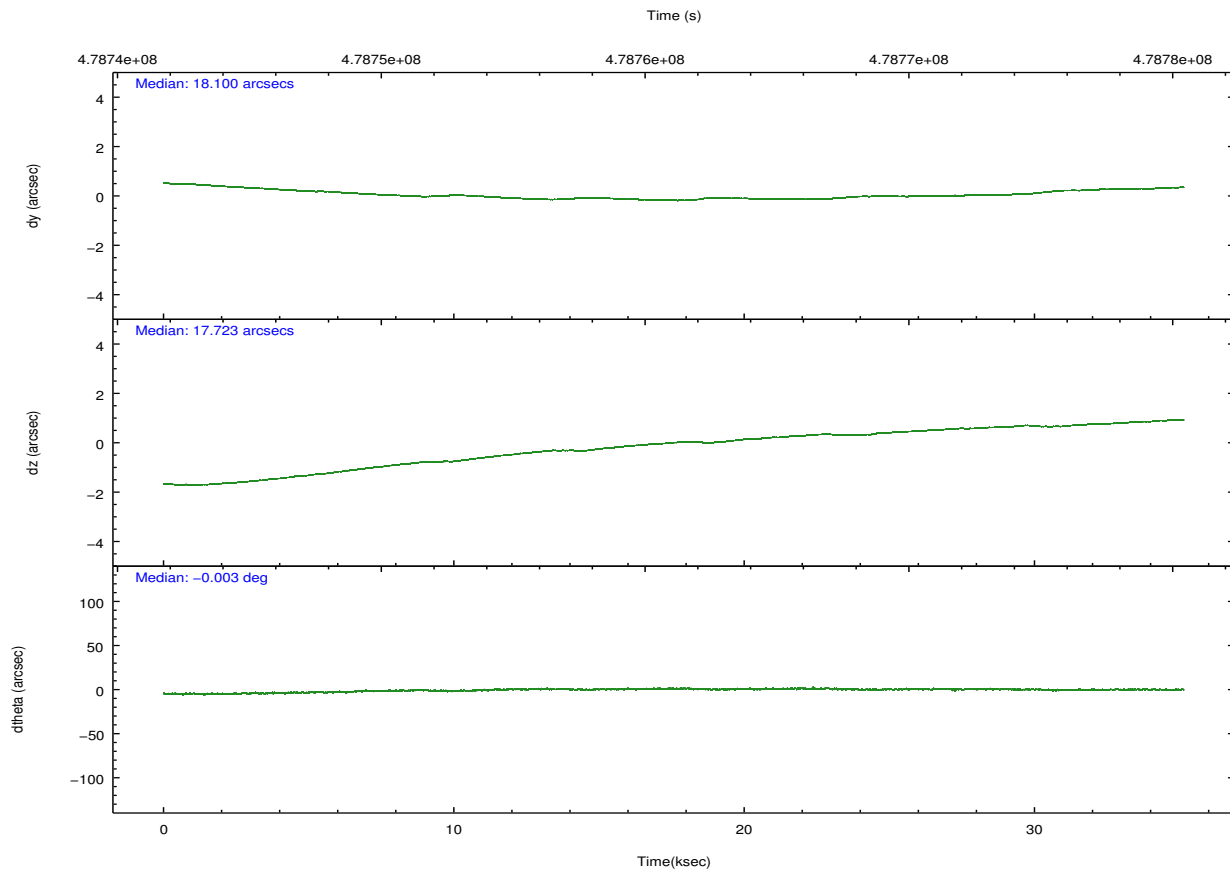
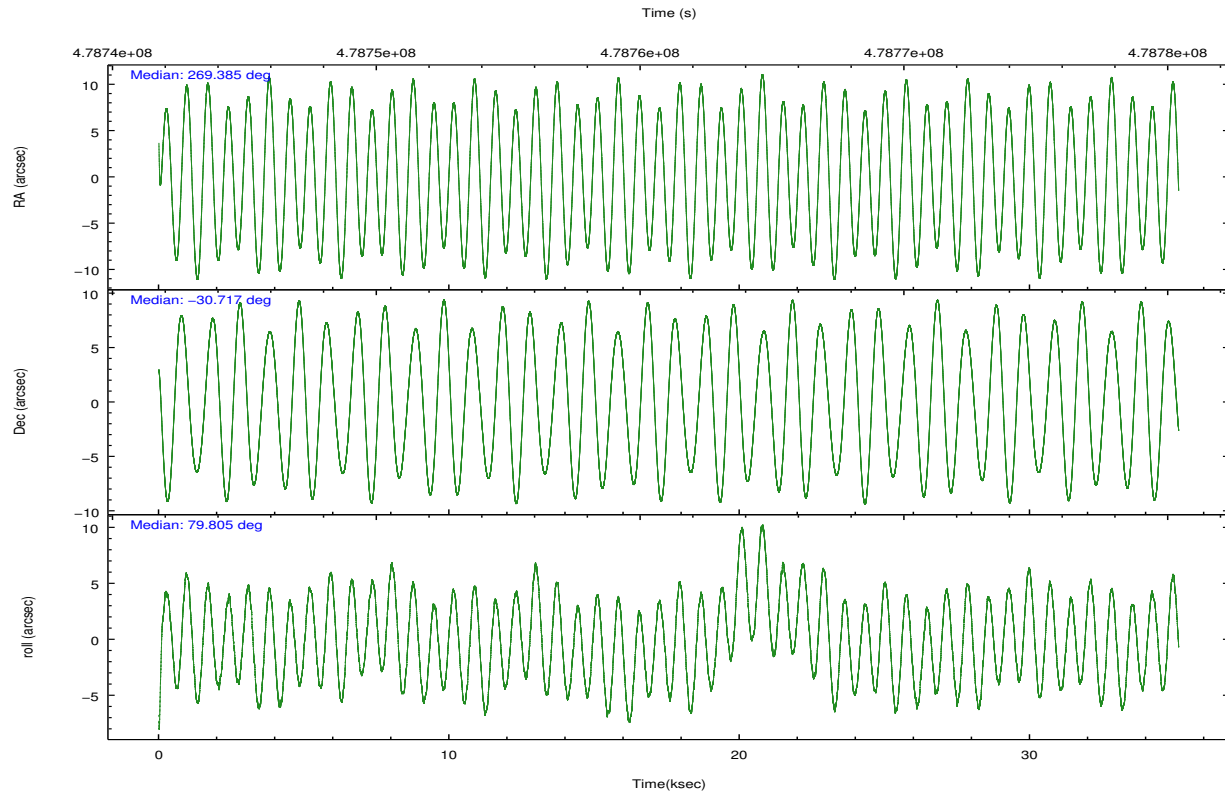
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	176217	171880	273683	179383	244335	238384	grade 0 events	9622	9040	18674	10848	16009	21410
rejected events	153420	150377	128976	154470	115710	169446		5%	5%	6%	6%	6%	8%
rejected %	87%	87%	47%	86%	47%	71%	grade 1 events	114	120	2148	112	752	171
								0%	0%	0%	0%	0%	0%
							grade 2 events	5299	4575	43839	5115	28397	15673
								3%	2%	16%	2%	11%	6%
							grade 3 events	2076	2030	5383	2274	11952	7324
								1%	1%	1%	1%	4%	3%
							grade 4 events	2066	2040	5122	2168	11793	6846
								1%	1%	1%	1%	4%	2%
							grade 5 events	6849	7845	20443	7824	23478	11872
								3%	4%	7%	4%	9%	4%
							grade 6 events	3740	3820	71712	4510	60496	17708
								2%	2%	26%	2%	24%	7%
							grade 7 events	146451	142410	106362	146532	91458	157380
								83%	82%	38%	81%	37%	66%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	269.395682	269.3845145709118	CCD I2 on	O5	Y
[deg] Pointing Dec	-30.742982	-30.71739457901434	CCD I3 on	O4	Y
[deg] Pointing Roll	79.657808	79.80872501654326	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O1	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	O2	Y
[s] Observation start time (MET)	478743659.184000	478742580.31798	CCD S5 on	N	N
Observation start date	2013-03-04T00:19:52	2013-03-04T00:03:00	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	478778659.184000	478779490.05748	On-chip summing requested	N	N
Observation end date	2013-03-04T10:03:12	2013-03-04T10:18:10	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





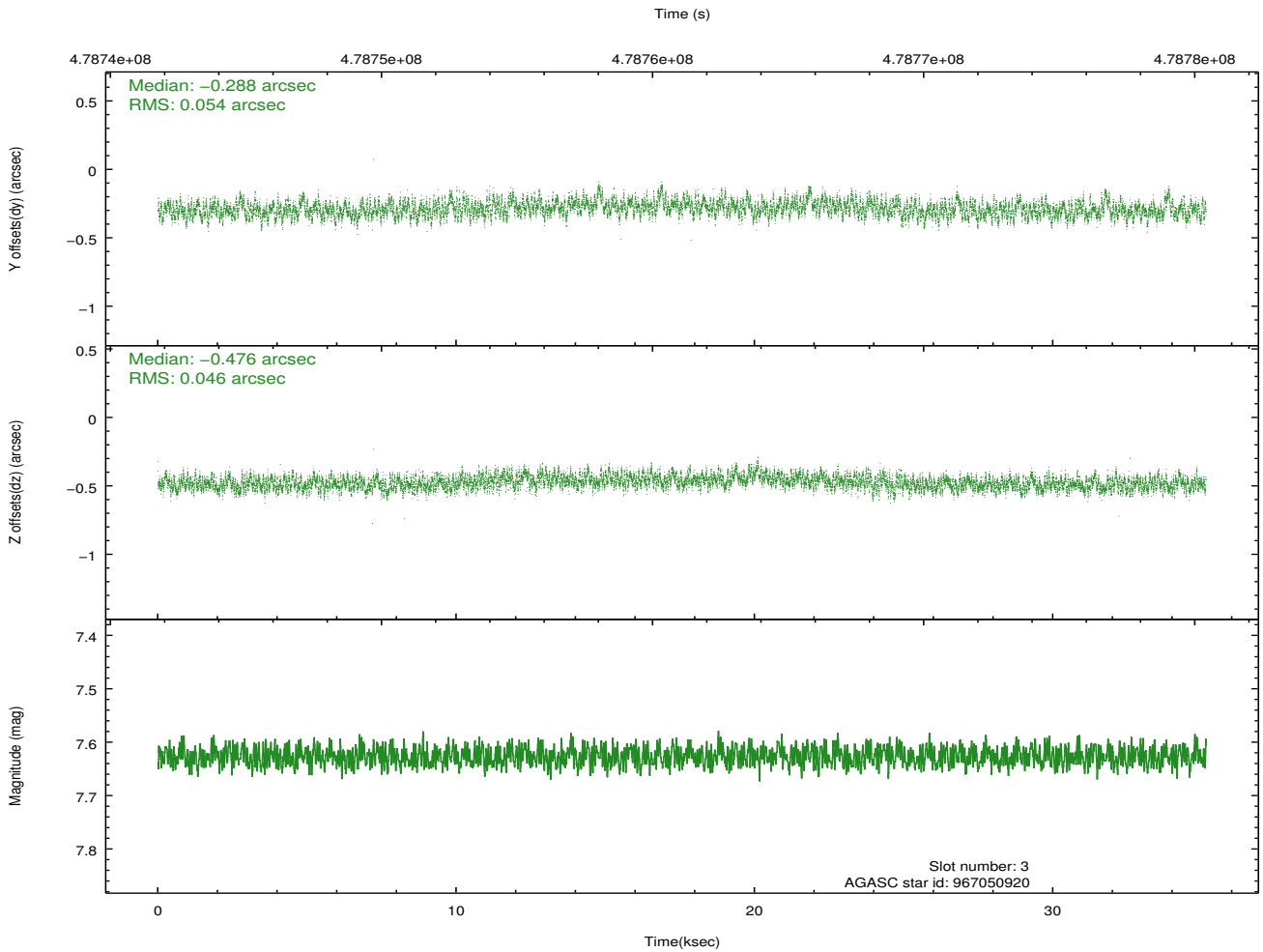
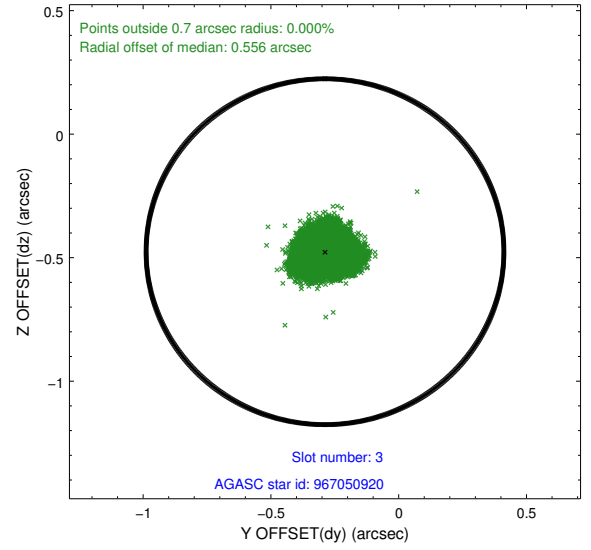
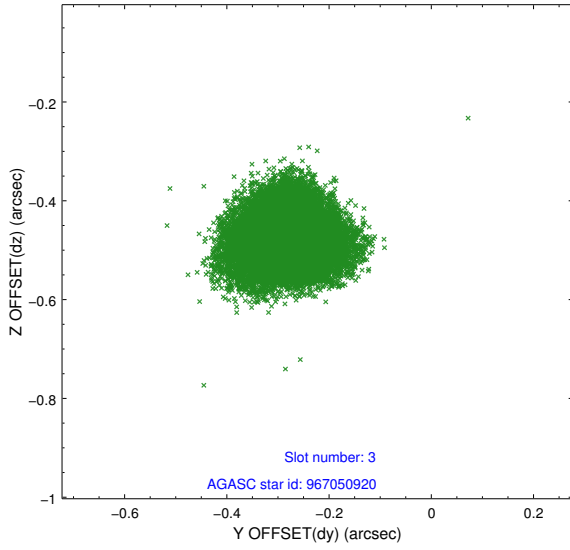
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.96	8568	-0.089	-0.049	0.018	0.057	0.000000	0.000000	-771.34	-1738.94
1	FID		ACIS-S-4	7.04	8566	0.248	0.054	0.010	0.022	0.000000	0.000000	2142.30	169.54
2	FID		ACIS-S-5	7.07	8568	-0.190	0.002	0.016	0.050	0.000000	0.000000	-1824.19	163.27
3	GUIDE	used	967050920	7.63	17135	-0.288	-0.476	0.076	0.120	268.870727	-30.021750	2256.61	2075.12
4	GUIDE	used	967063496	7.06	17135	-0.242	0.279	0.051	0.086	269.958012	-30.322954	1797.17	-1447.72
5	GUIDE	used	967069856	8.15	17132	0.360	0.225	0.077	0.121	269.688559	-31.132419	-1217.77	-1139.36
6	GUIDE	used	967054592	7.90	17134	-0.302	-0.440	0.069	0.109	268.937317	-30.571672	348.53	1507.55
7	GUIDE	used	967071240	8.68	17127	0.472	0.406	0.094	0.147	269.814629	-31.442097	-2246.34	-1717.87

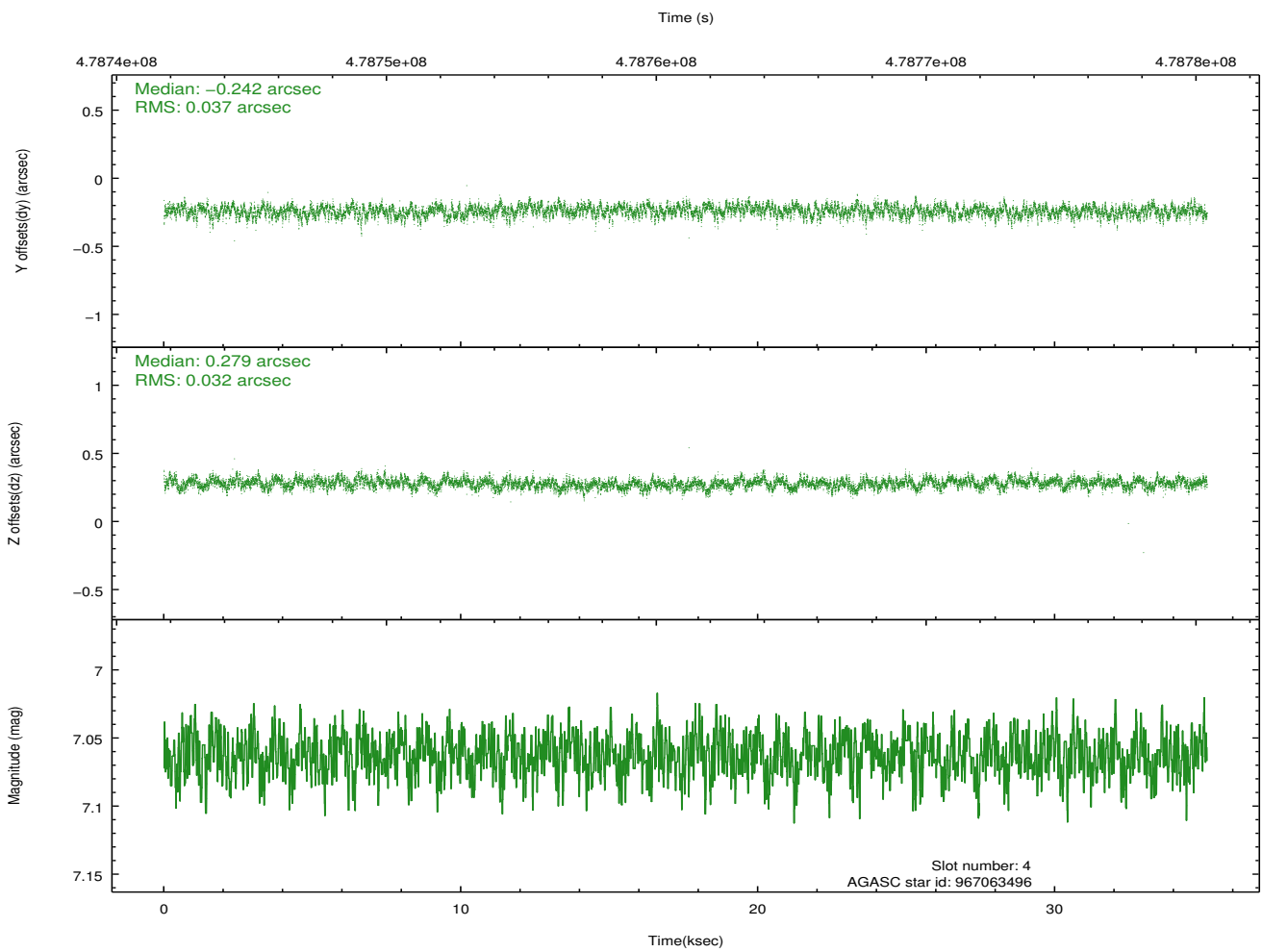
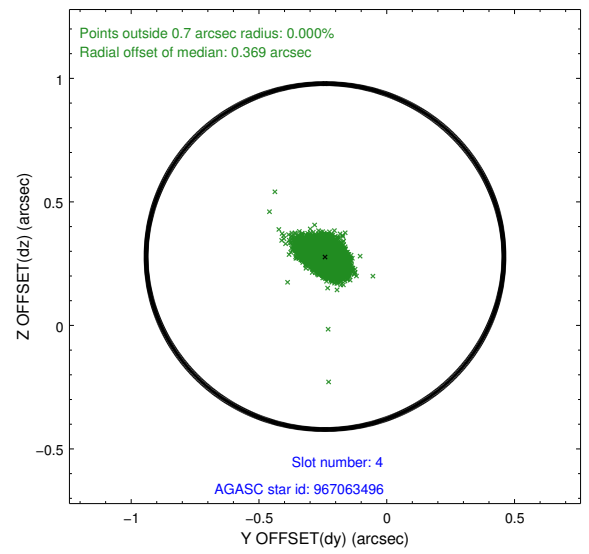
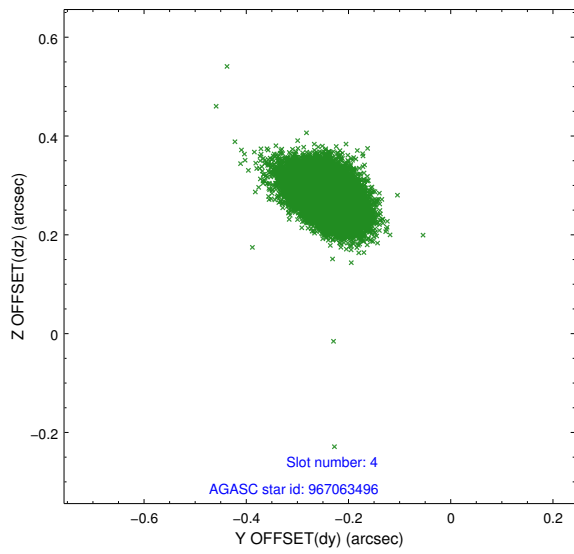
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2.4 Star Slots

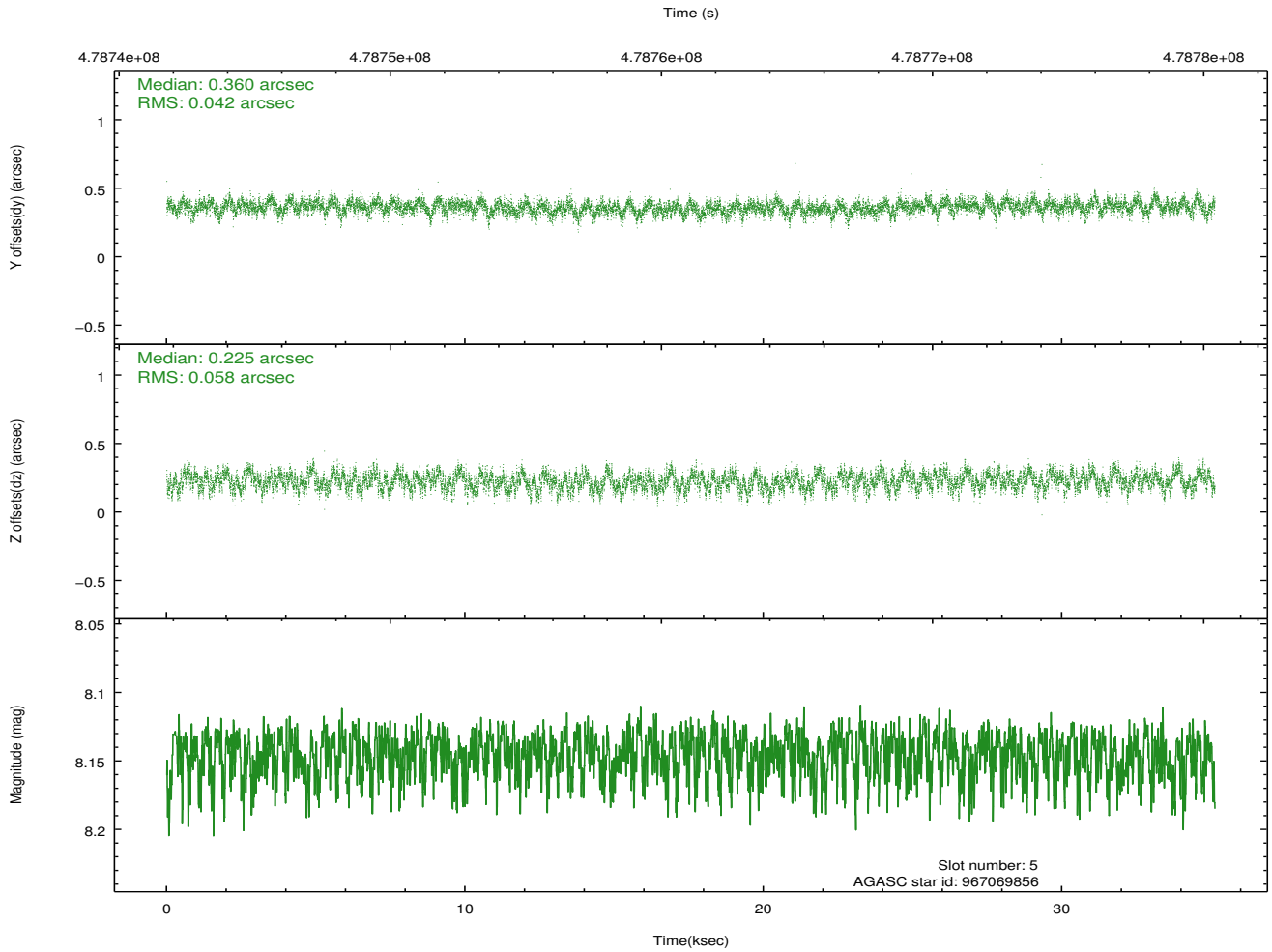
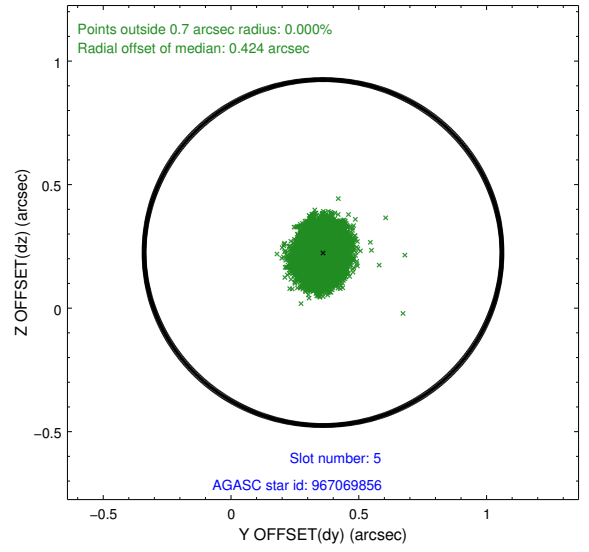
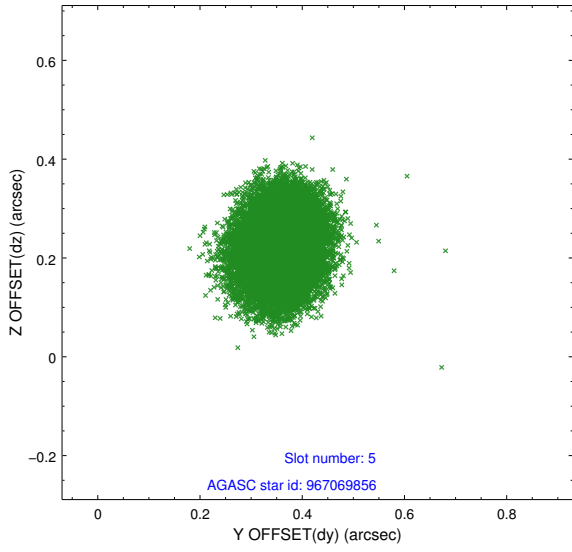
2.4.1 Slot 3



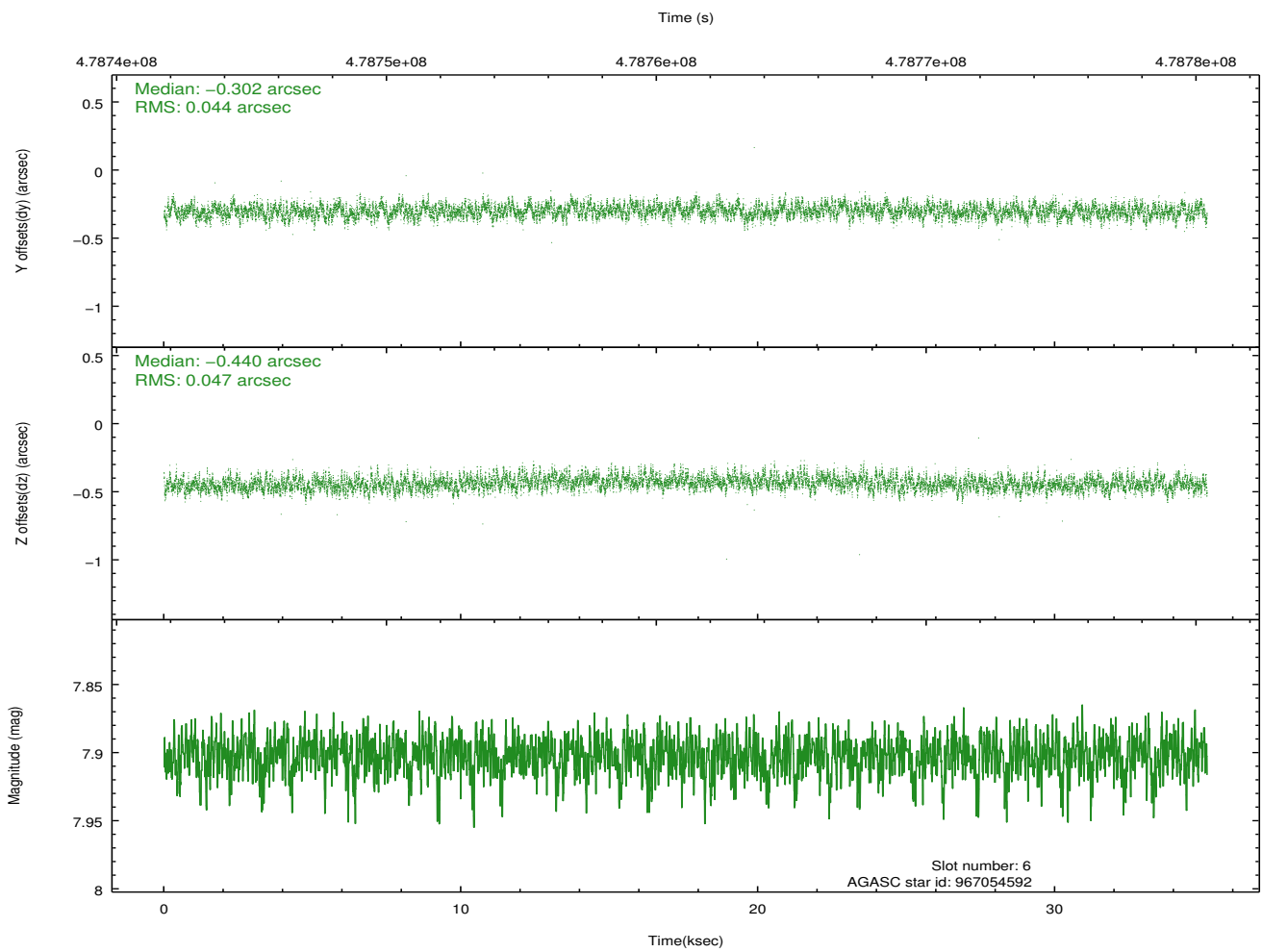
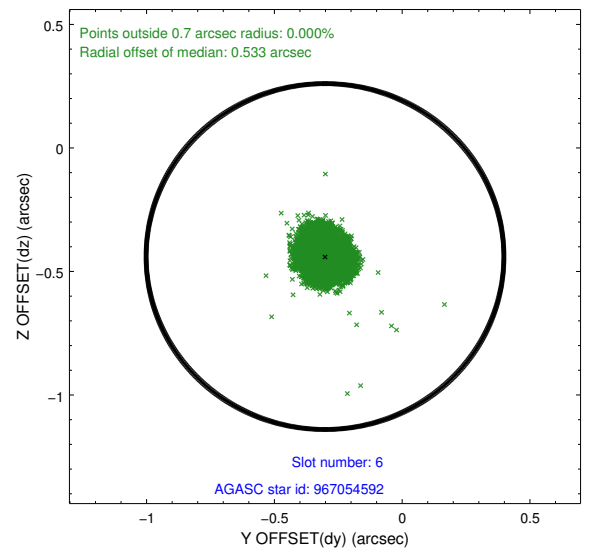
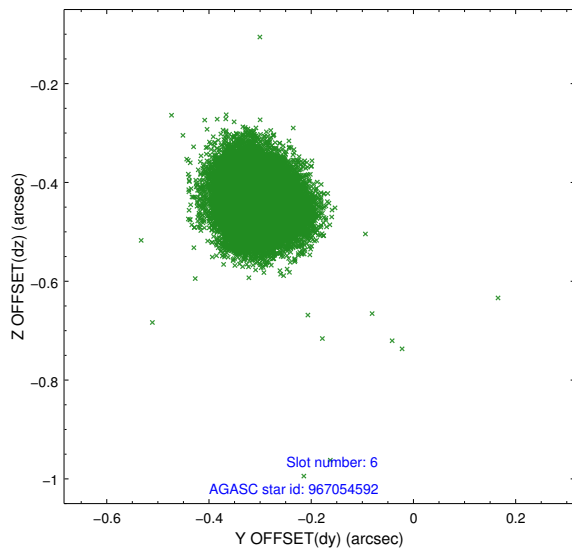
2.4.2 Slot 4



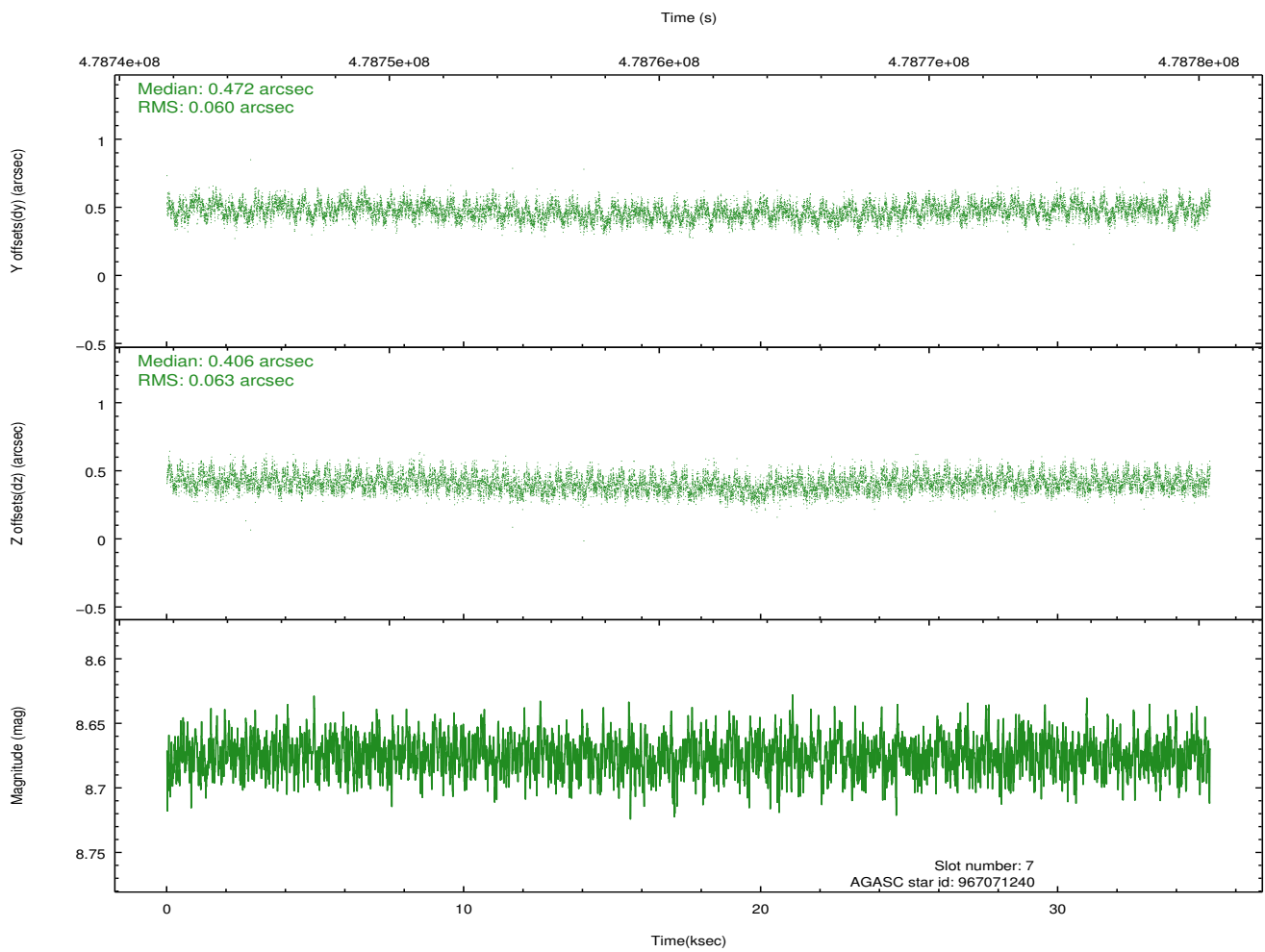
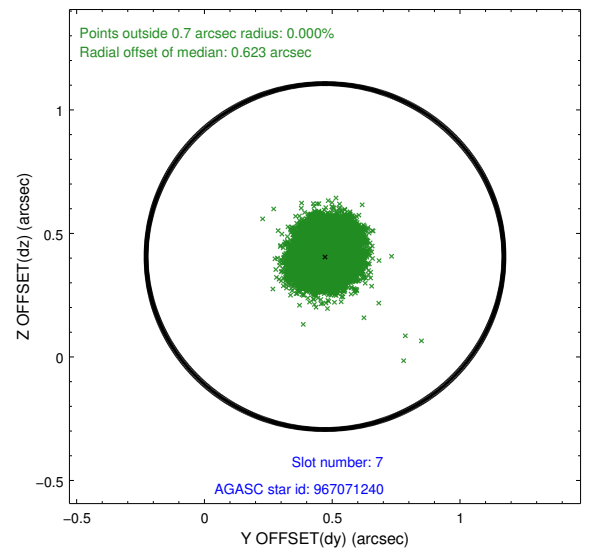
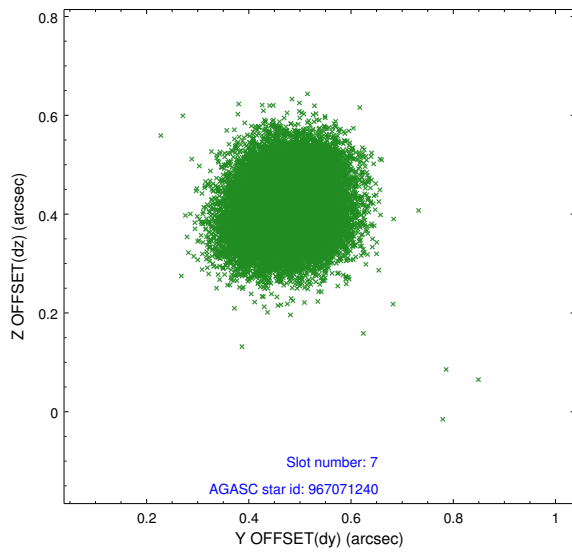
2.4.3 Slot 5



2.4.4 Slot 6

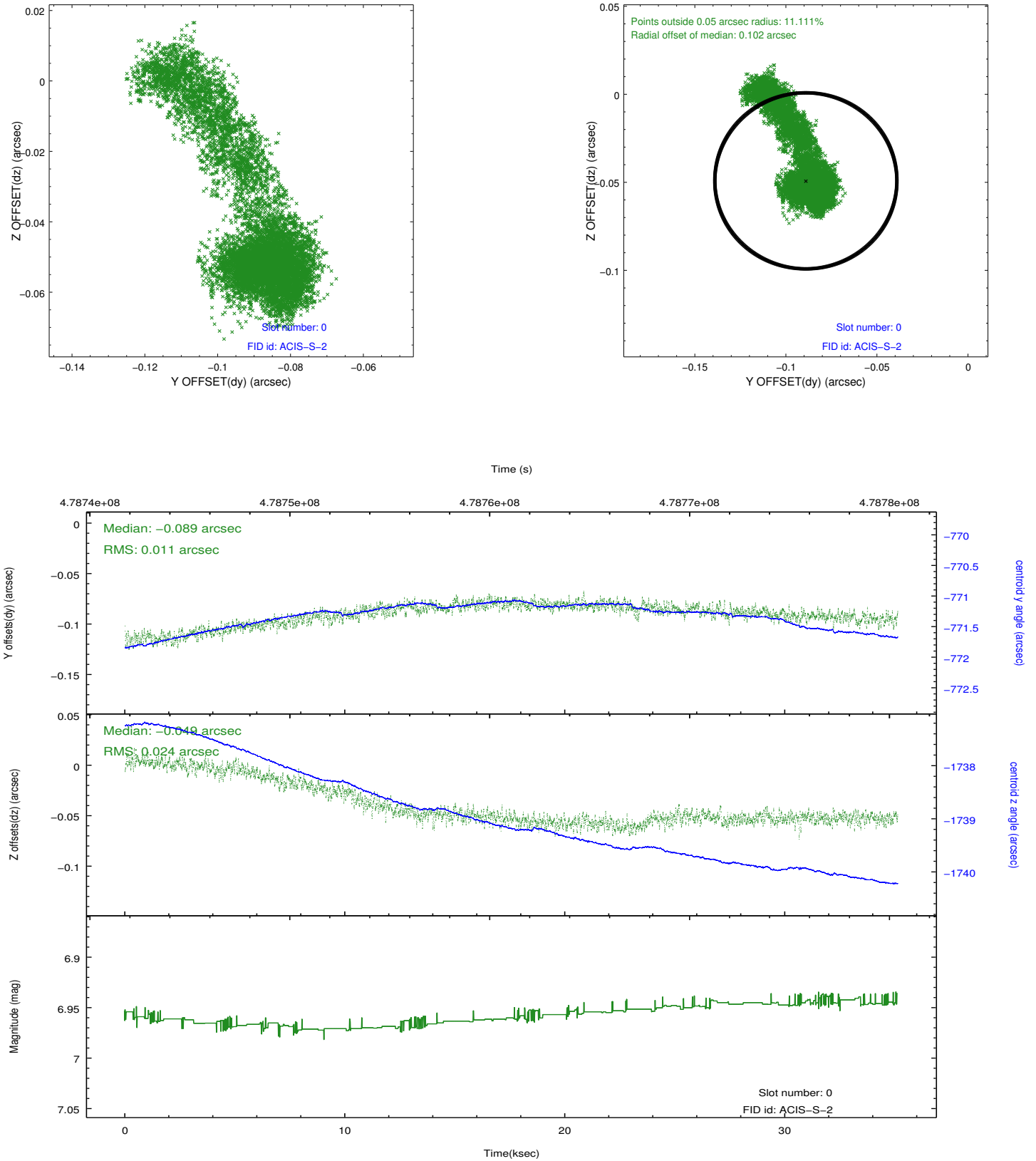


2.4.5 Slot 7

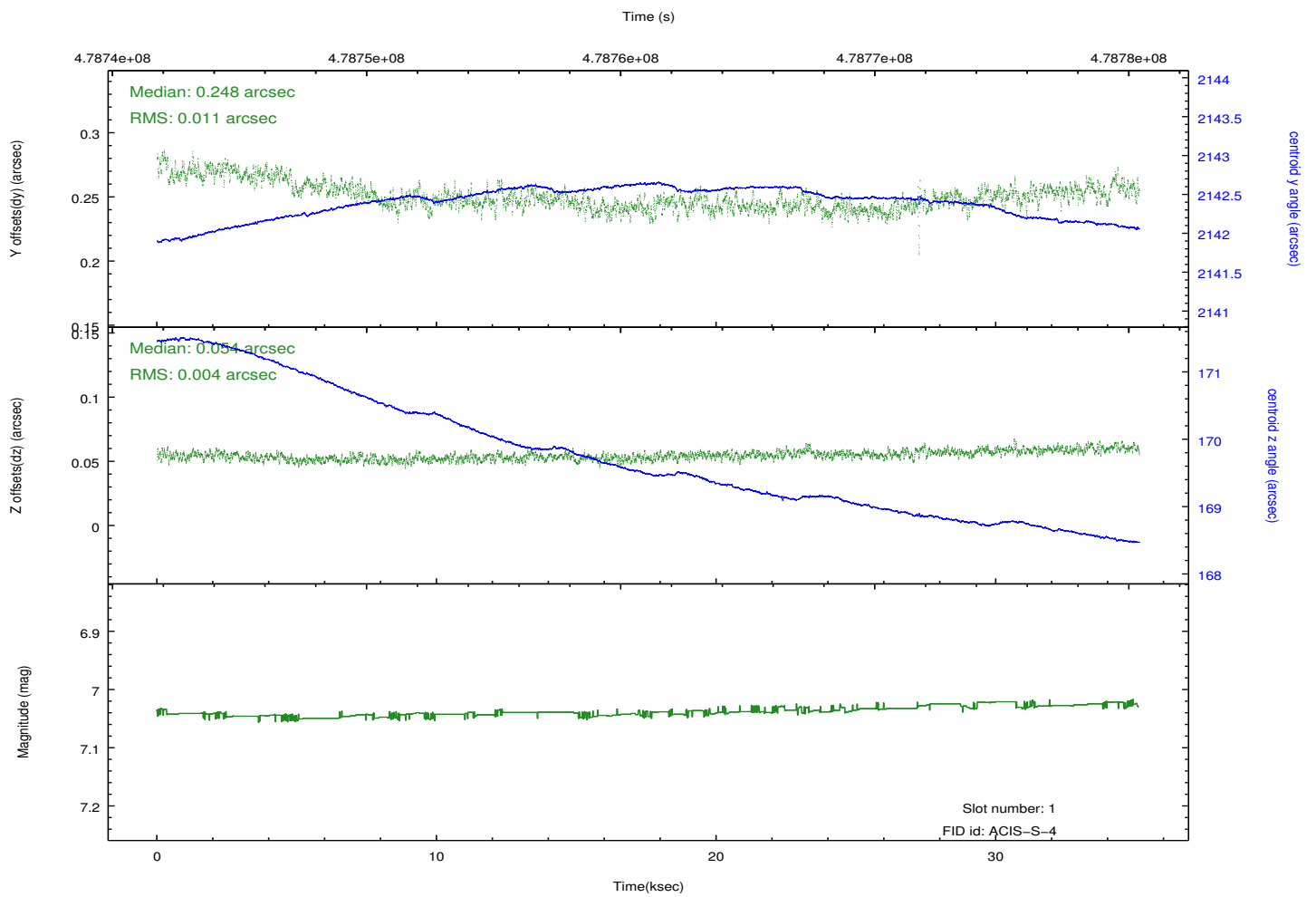
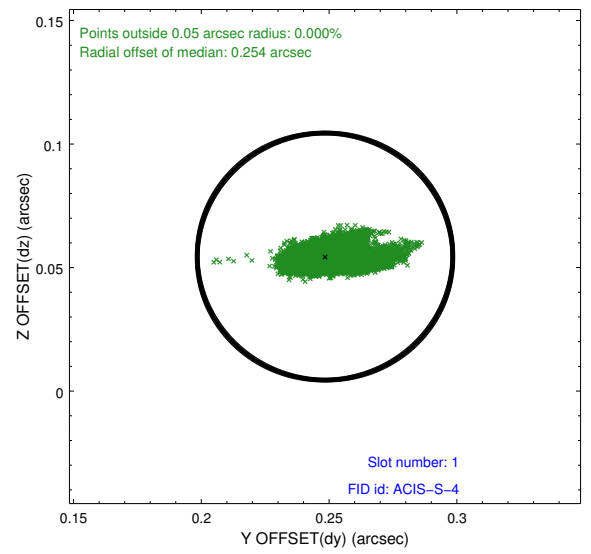
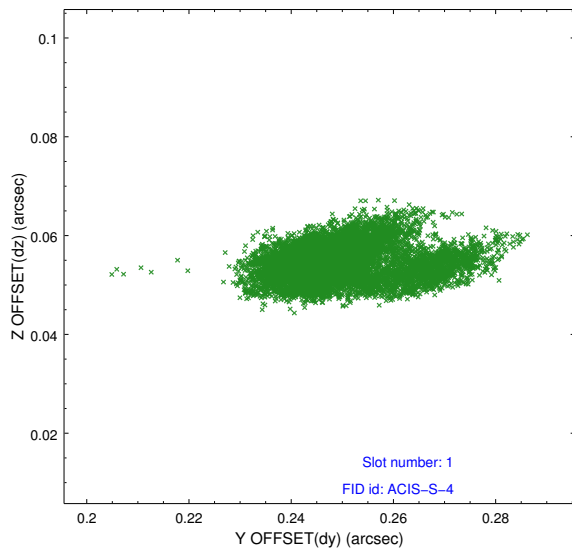


2.5 FID Slots

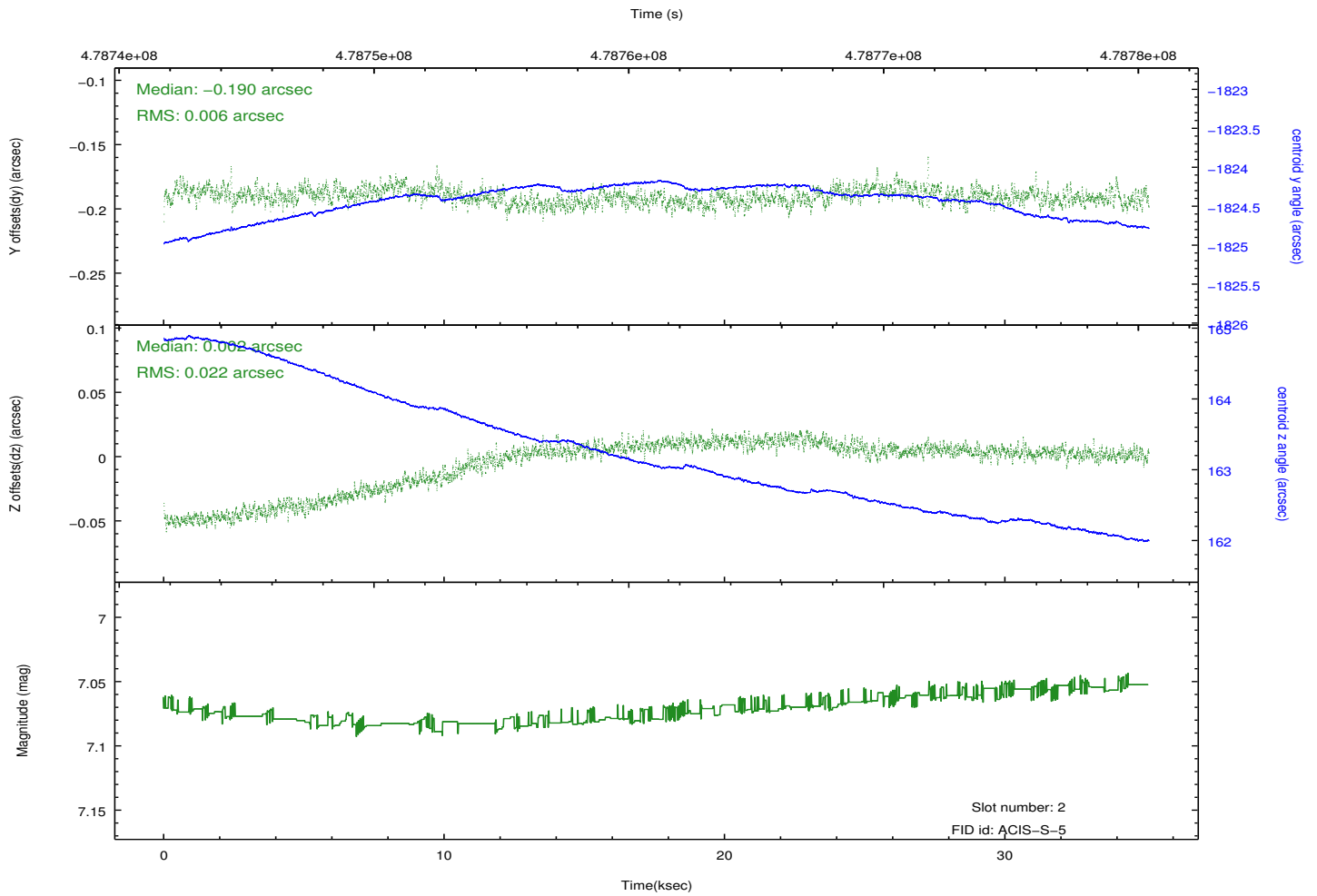
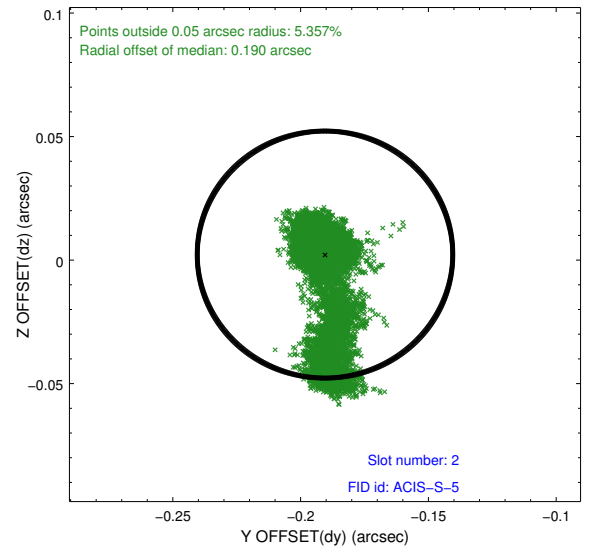
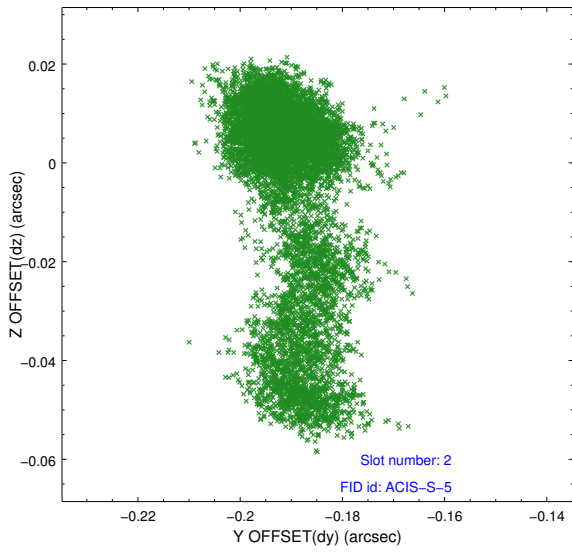
2.5.1 Slot 0



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	34.959999869823

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.