

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12739 - L2 Version 3
Chandra X-Ray Center

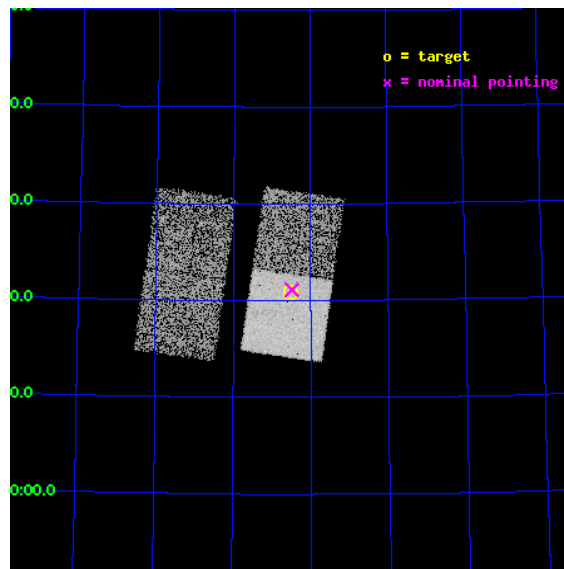
L2 Processing Date : Feb 7 2012

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1 Front

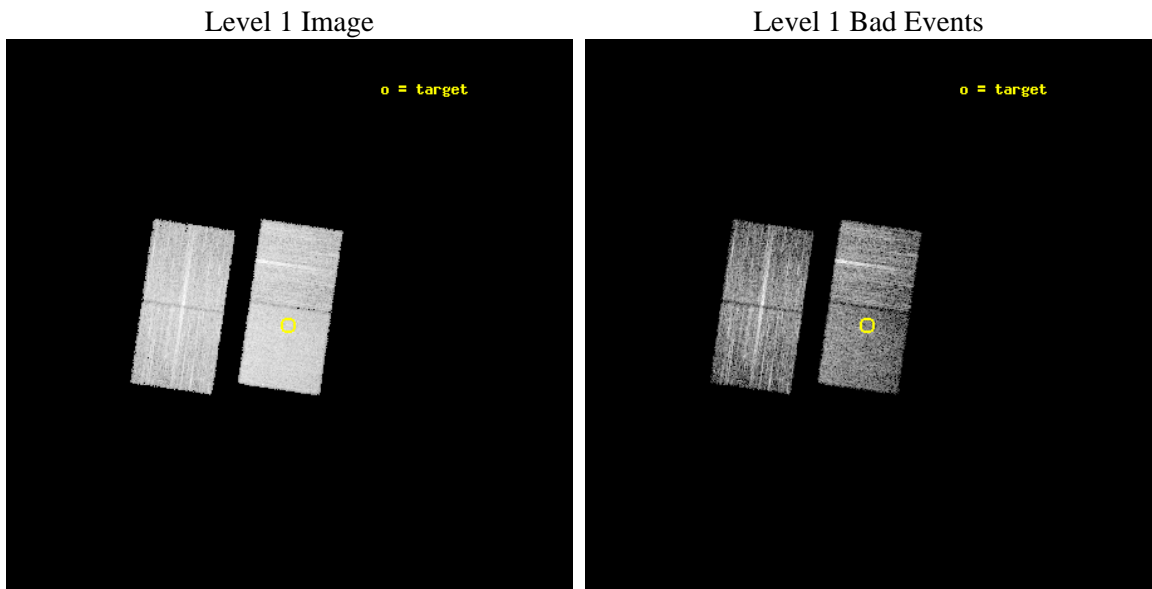
seq_num	702375	Sequence number
obs_id	12739	Observation id
title	Completing the Chandra 3C Snapshot Survey: Extragalactic Radio Sources with $z < 0.3$	Proposal title
observer	Dr. Daniel Harris	Principal investigator
object	3C 379.1	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	276.133333	Observer's specified target RA [deg]
dec_targ	74.348333	Observer's specified target Dec [deg]
ra_nom	276.12164661575	Nominal RA [deg]
dec_nom	74.35212170296	Nominal Dec [deg]
roll_nom	98.222895140813	Nominal Roll [deg]
revision	3	Processing version of data
ontime	8053.6932981014	Sum of GTIs [s]
livetime	7948.465866119	Livetime [s]
ontime2	8053.5701780915	Sum of GTIs [s]
ontime3	8050.4702478051	Sum of GTIs [s]
ontime6	8053.6522580981	Sum of GTIs [s]
ontime7	8053.6932981014	Sum of GTIs [s]
l2events	41763	Number of level 2 events



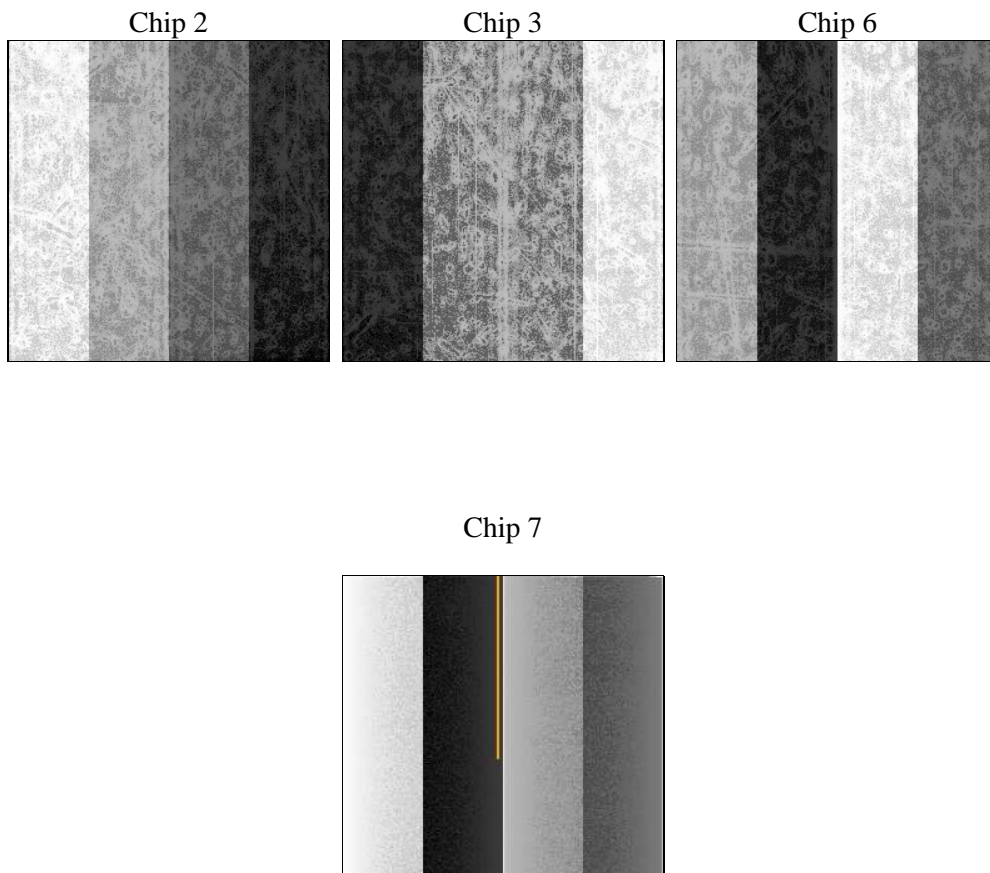
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	8053.6932981014	Sum of GTIs [s]
caldbver	4.4.7	 	ontime2	8053.5701780915	Sum of GTIs [s]
date	2012-02-07T16:04:38	Date and time of file creation	ontime3	8050.4702478051	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	8053.6522580981	Sum of GTIs [s]
			ontime7	8053.6932981014	Sum of GTIs [s]
			l1events	214358	Number of level 1 events

2.1.4 Events

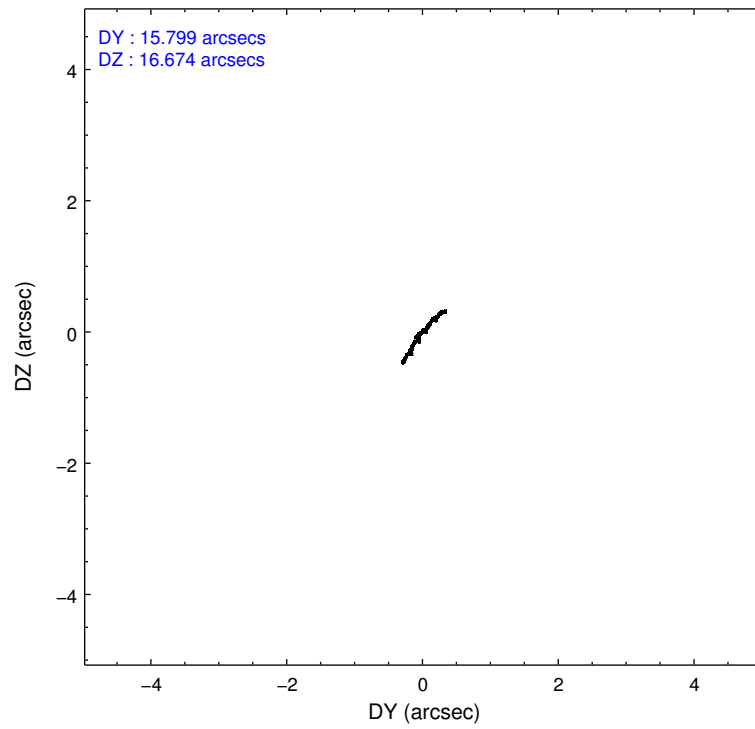
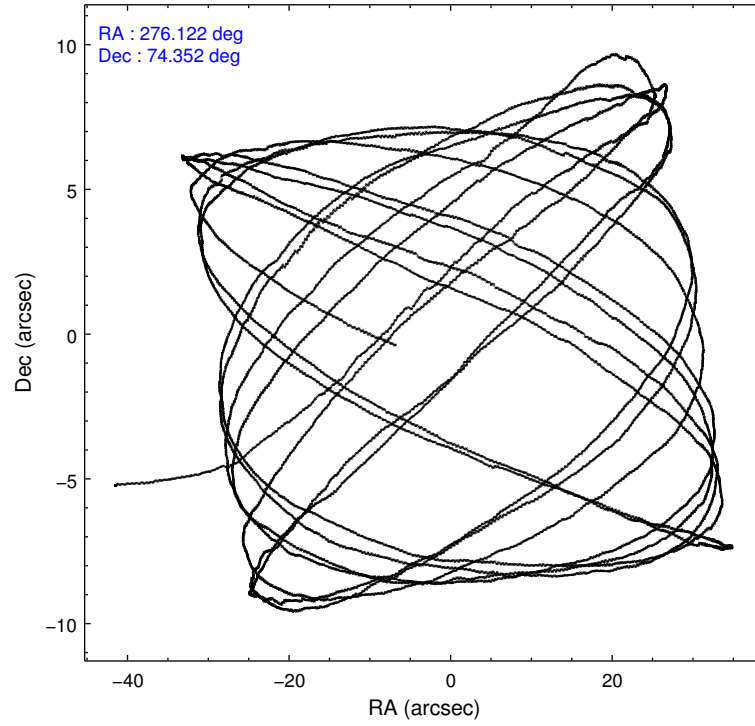
	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	49371	50023	51909	63055
rejected events	43836	44702	46037	34816
rejected %	88%	89%	88%	55%

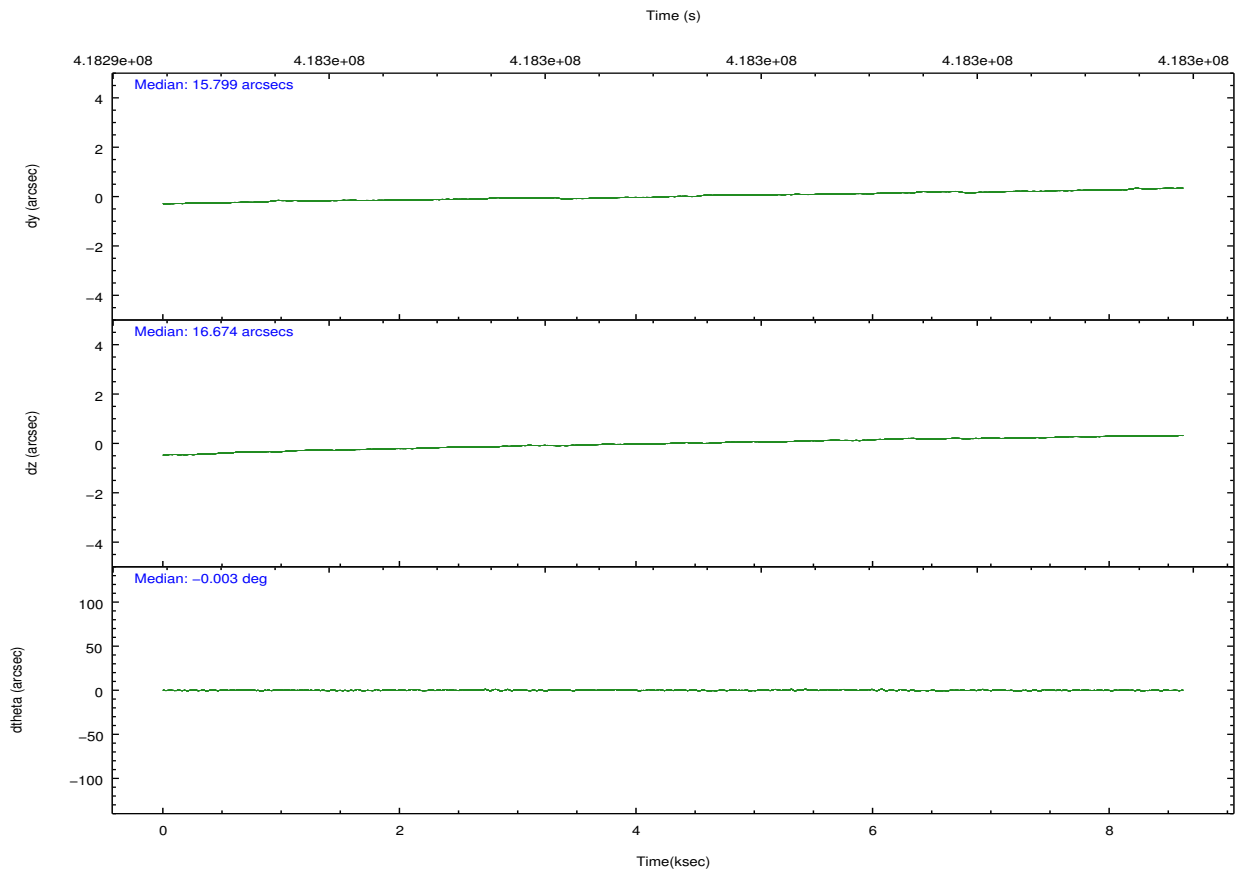
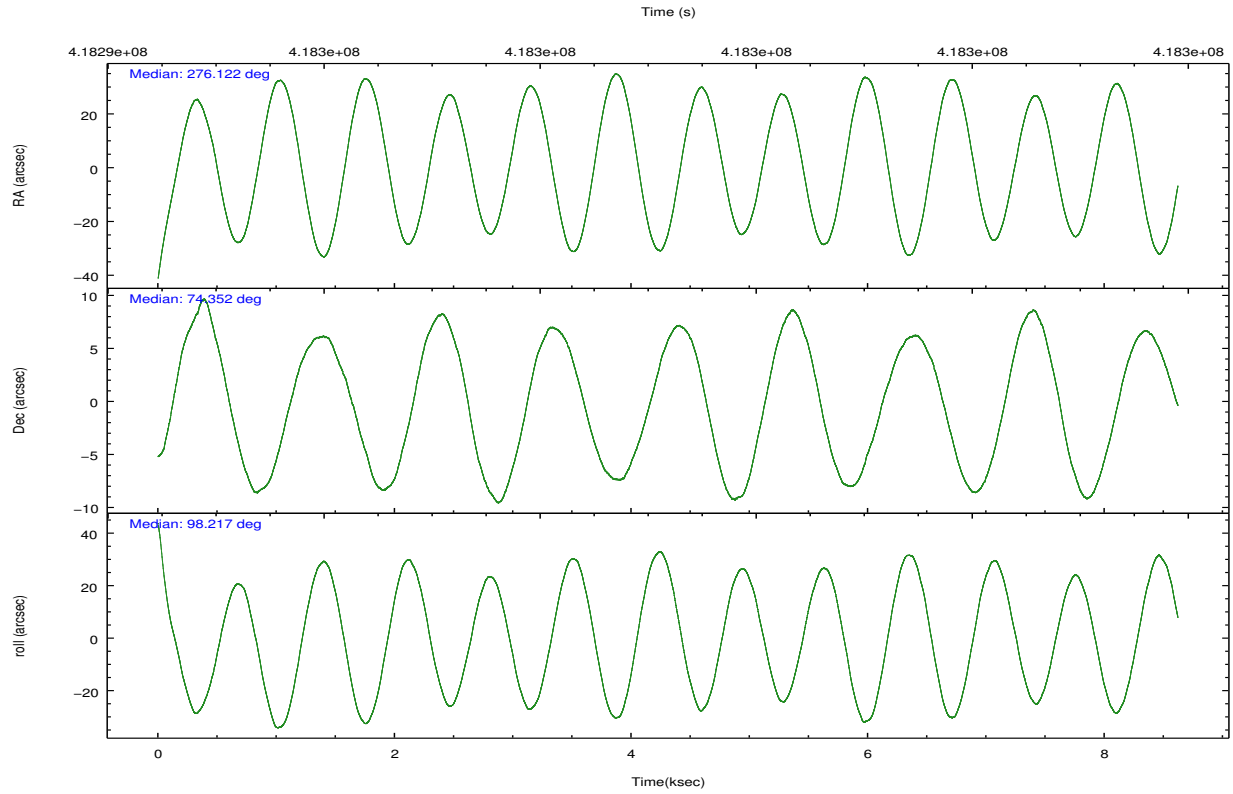
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	2009	1875	2094	2495
	4%	3%	4%	3%
grade 1 events	29	35	25	72
	0%	0%	0%	0%
grade 2 events	1381	1175	1300	5819
	2%	2%	2%	9%
grade 3 events	559	587	582	2507
	1%	1%	1%	3%
grade 4 events	593	552	609	2511
	1%	1%	1%	3%
grade 5 events	1995	2363	2358	6527
	4%	4%	4%	10%
grade 6 events	1000	1138	1299	14932
	2%	2%	2%	23%
grade 7 events	41805	42298	43642	28192
	84%	84%	84%	44%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-2367	ACIS-2367	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	276.185540	276.1216466157512	CCD I2 on	O1	Y
[deg] Pointing Dec	74.330794	74.35212170296018	CCD I3 on	O2	Y
[deg] Pointing Roll	98.004737	98.22289514081345	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	N	N
[s] Observation start time (MET)	418295505.184000	418294417.32759	CCD S5 on	N	N
Observation start date	2011-04-04T09:10:39	2011-04-04T08:53:37	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	418303505.184000	418303846.30308	On-chip summing requested	N	N
Observation end date	2011-04-04T11:23:59	2011-04-04T11:30:46	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



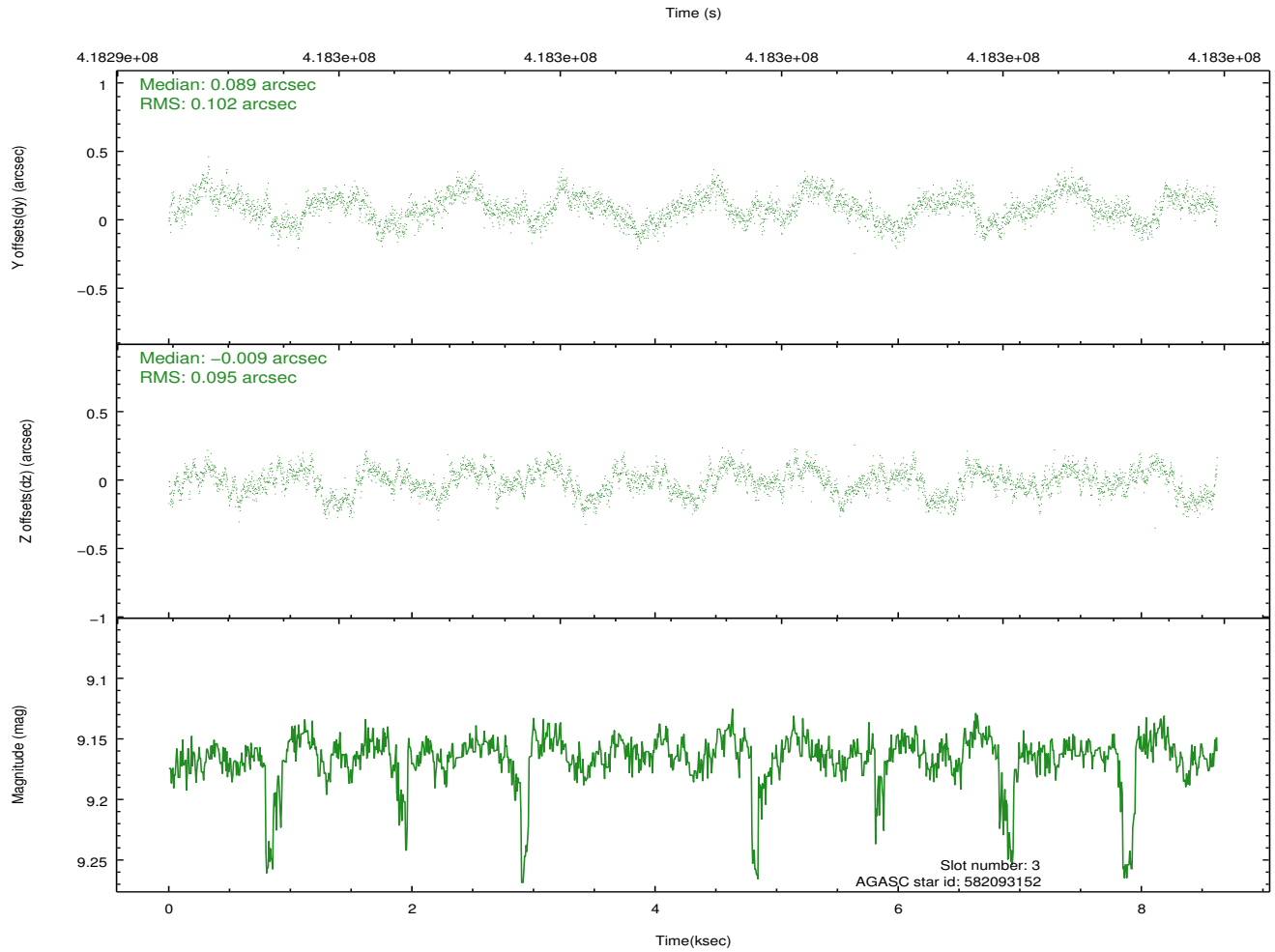
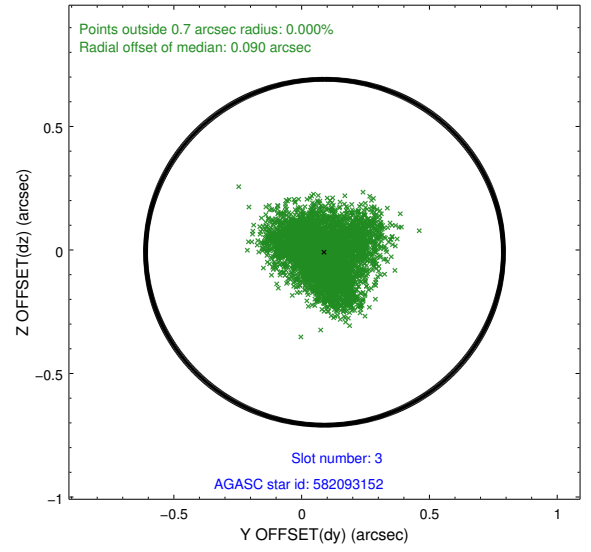
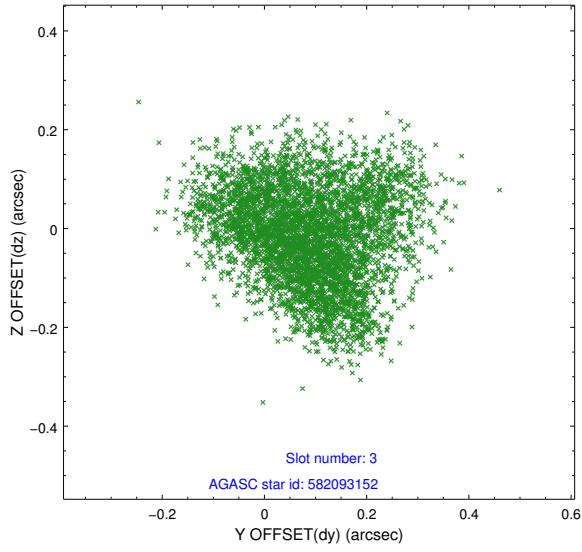


Slot Statistics

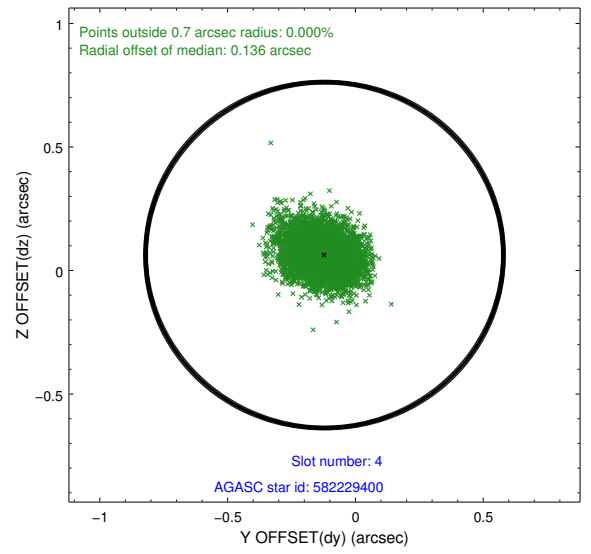
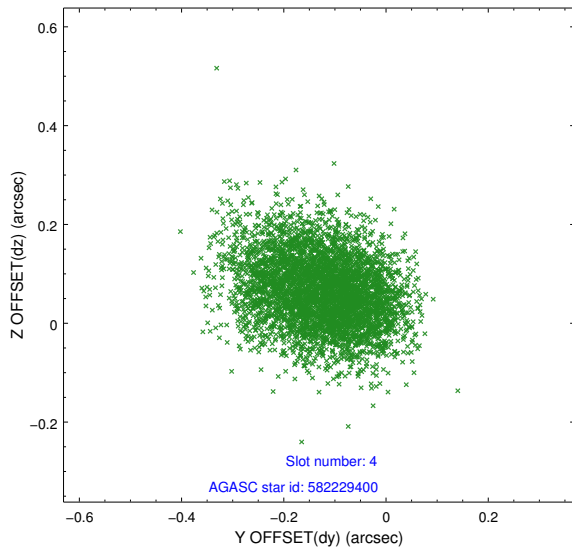
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.91	2103	-0.103	-0.062	0.007	0.012	0.000000	0.000000	-768.95	-1738.12
1	FID	ACIS-S-4	6.99	2103	0.134	0.048	0.007	0.012	0.000000	0.000000	2144.31	169.73
2	FID	ACIS-S-6	7.14	2103	-0.058	0.021	0.009	0.014	0.000000	0.000000	393.96	807.87
3	GUIDE	582093152	9.16	4187	0.089	-0.009	0.153	0.231	275.879645	74.167964	-537.70	379.10
4	GUIDE	582229400	9.19	4201	-0.121	0.062	0.118	0.186	278.434169	74.738478	1196.74	-2319.22
5	GUIDE	582229408	8.87	4205	0.056	0.082	0.086	0.141	277.018005	73.769657	-2110.73	-549.52
6	GUIDE	582236656	9.38	4202	-0.115	-0.111	0.111	0.178	276.118672	73.829254	-1779.21	317.65
7	GUIDE	599013648	8.65	4203	0.102	-0.025	0.104	0.176	278.129165	75.017020	2224.25	-2138.88

2.4 Star Slots

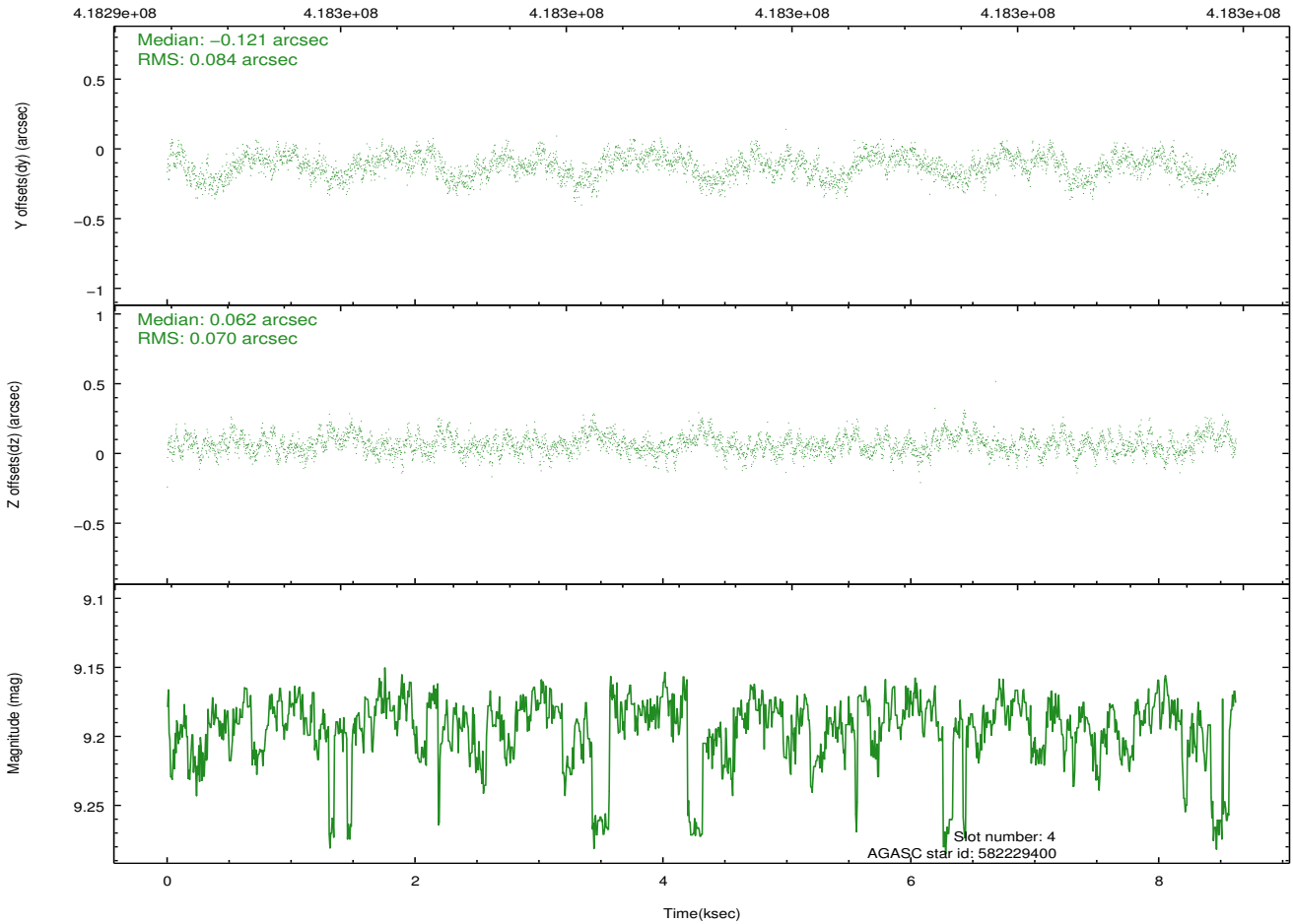
2.4.1 Slot 3



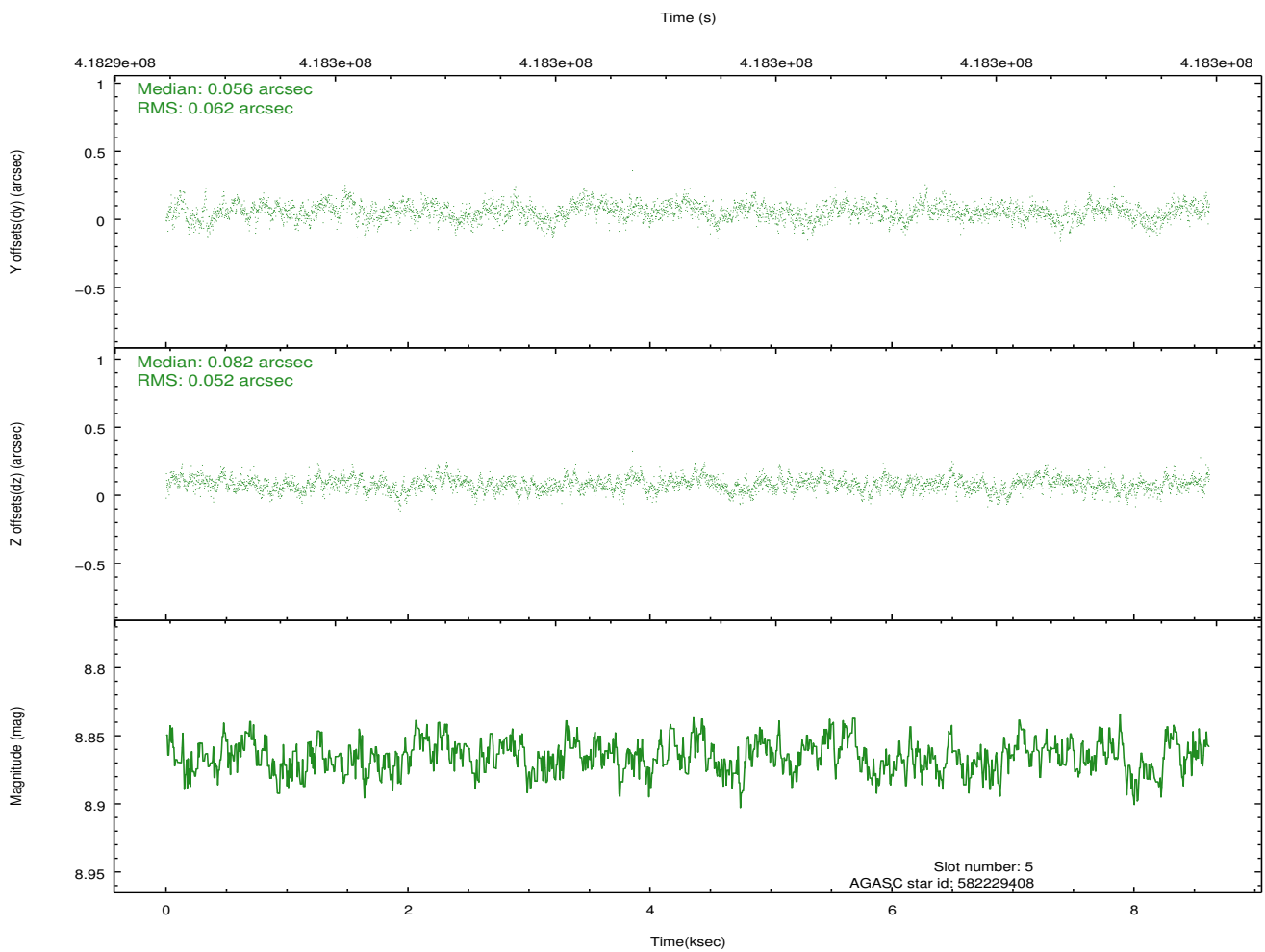
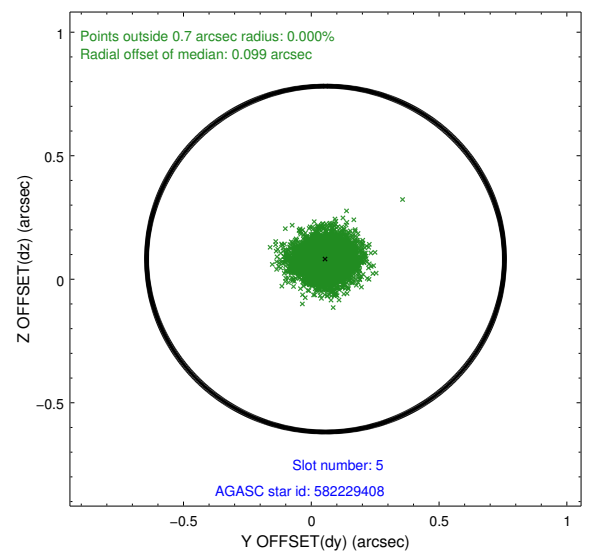
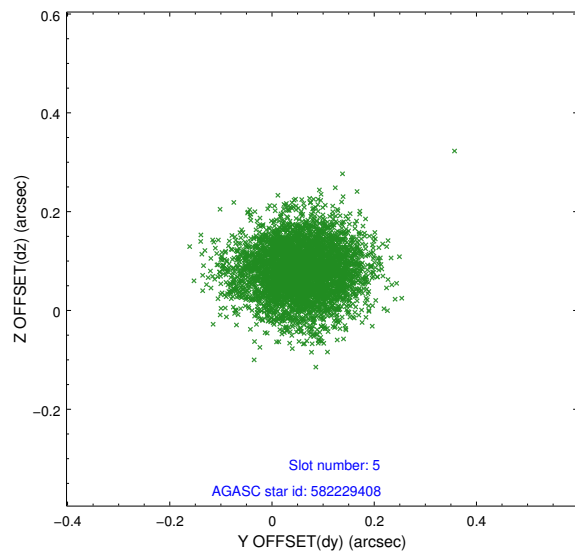
2.4.2 Slot 4



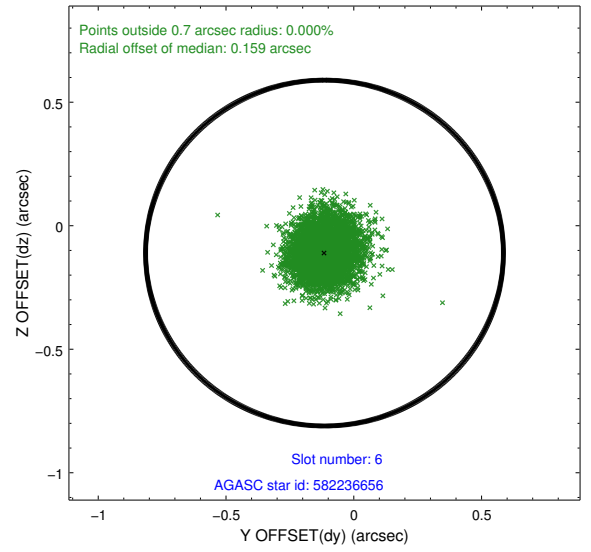
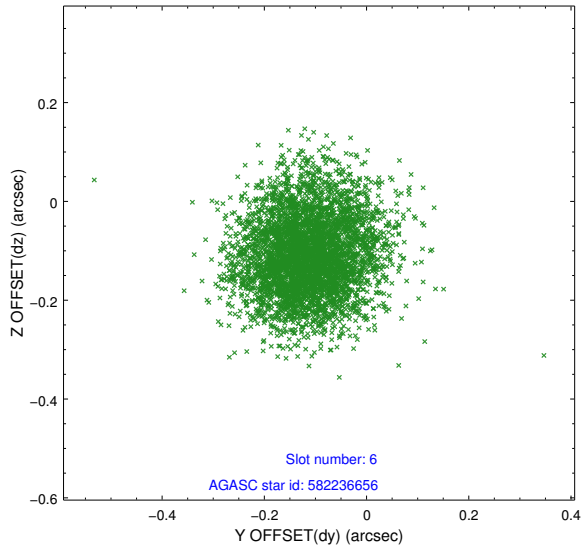
Time (s)



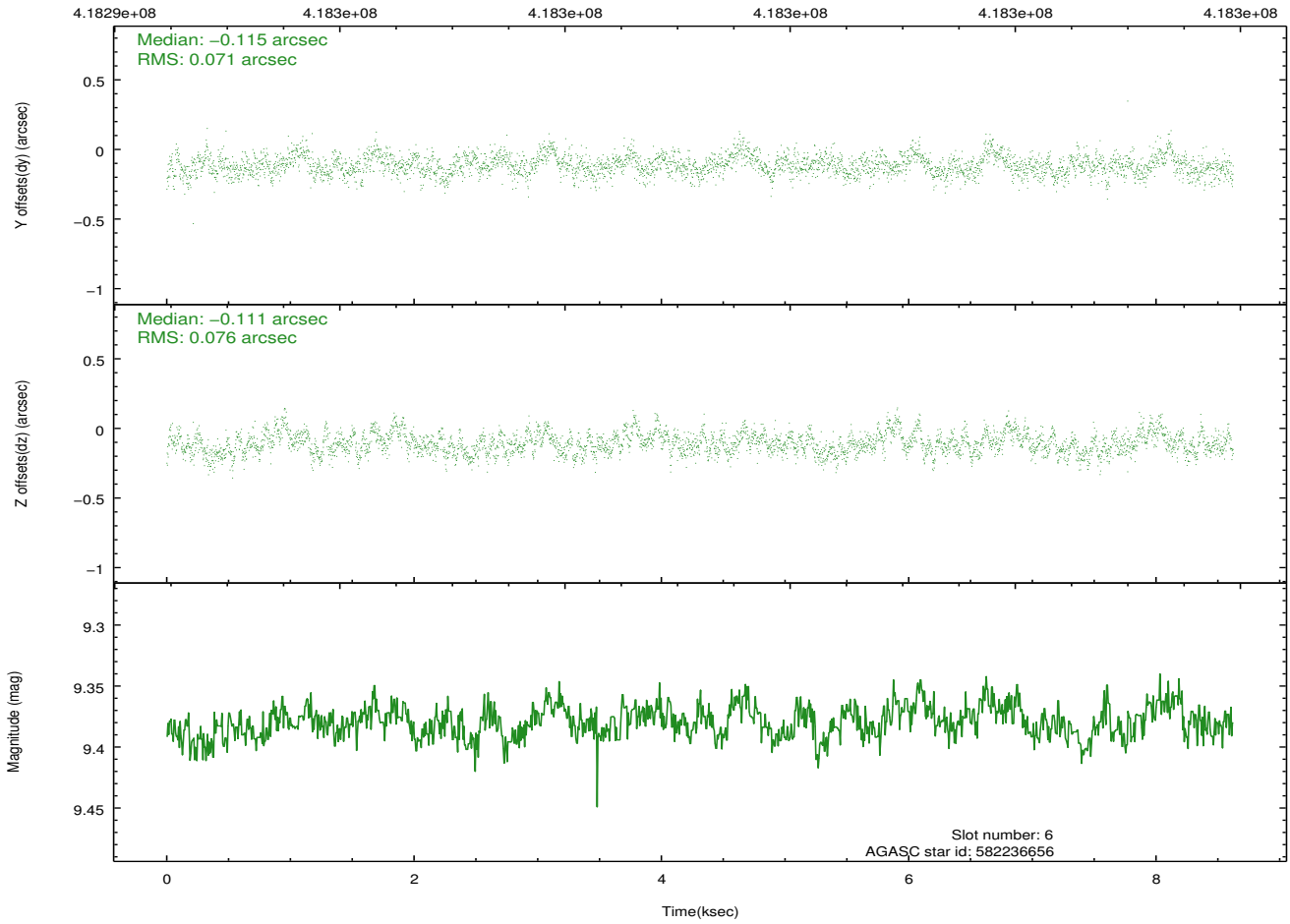
2.4.3 Slot 5



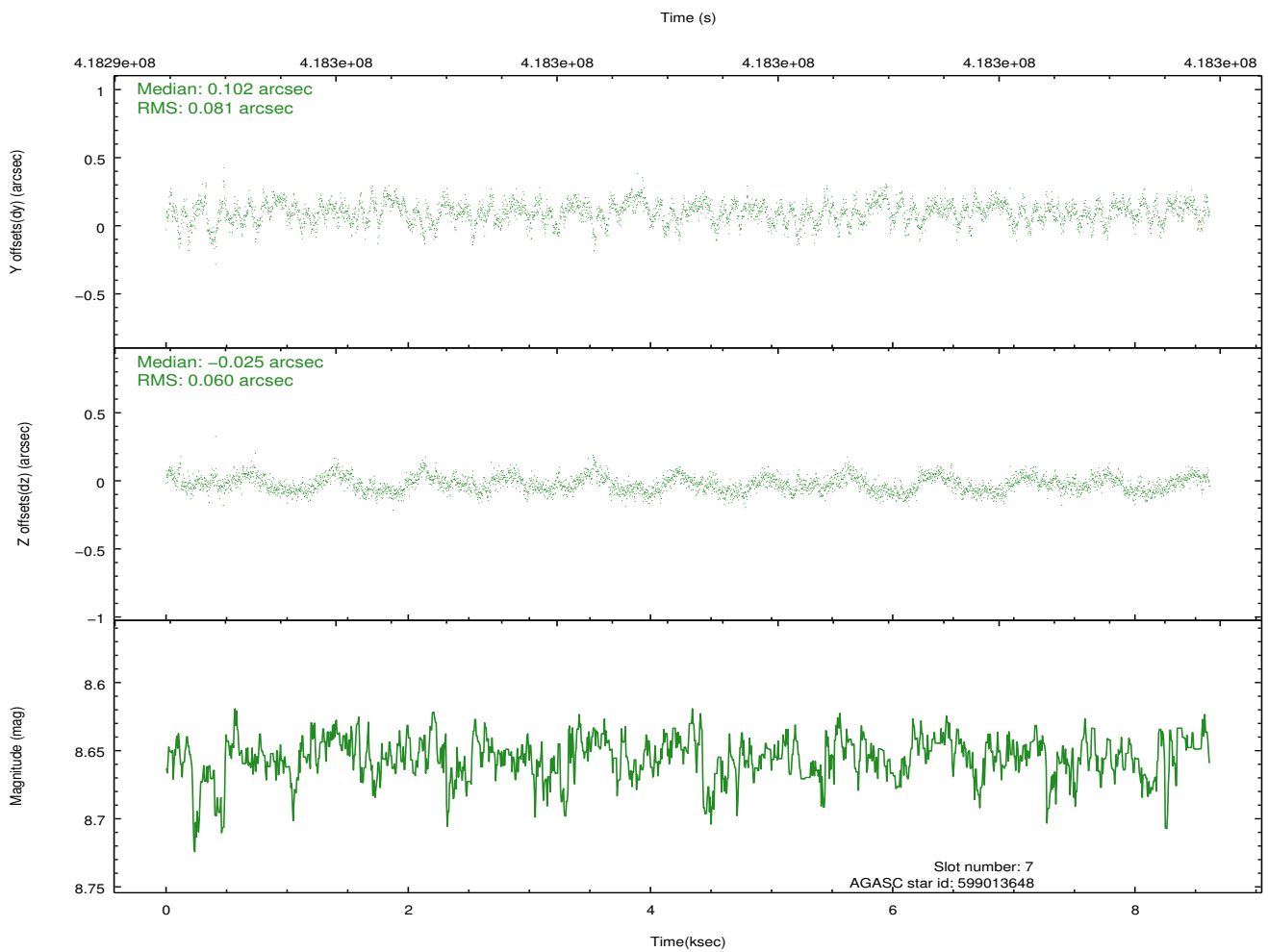
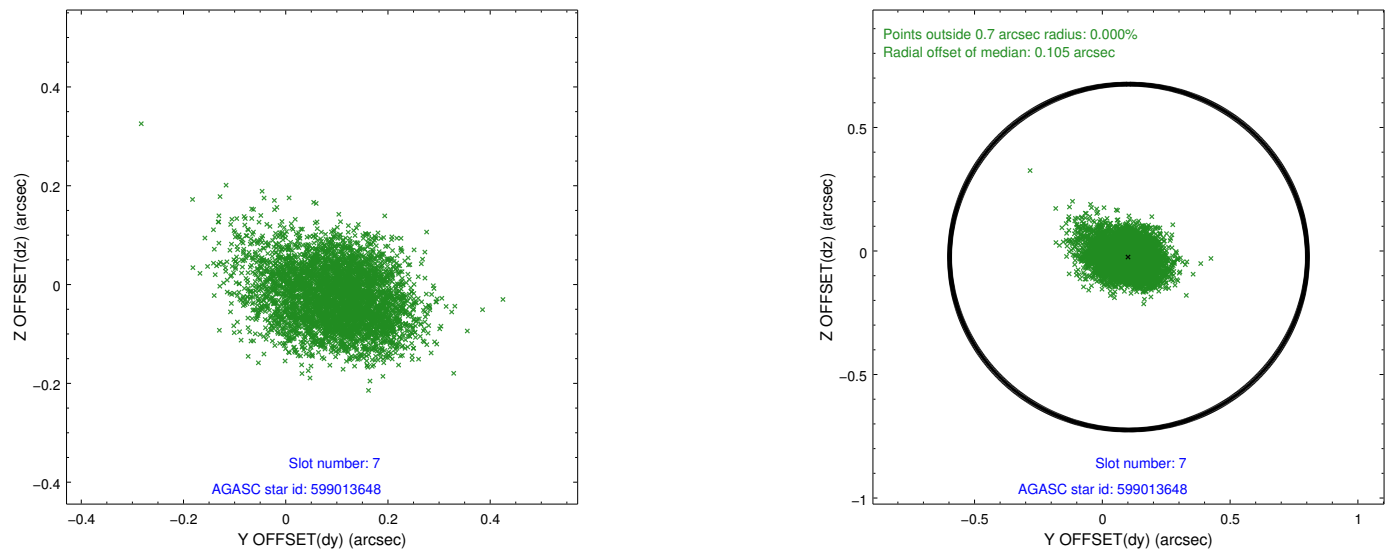
2.4.4 Slot 6



Time (s)

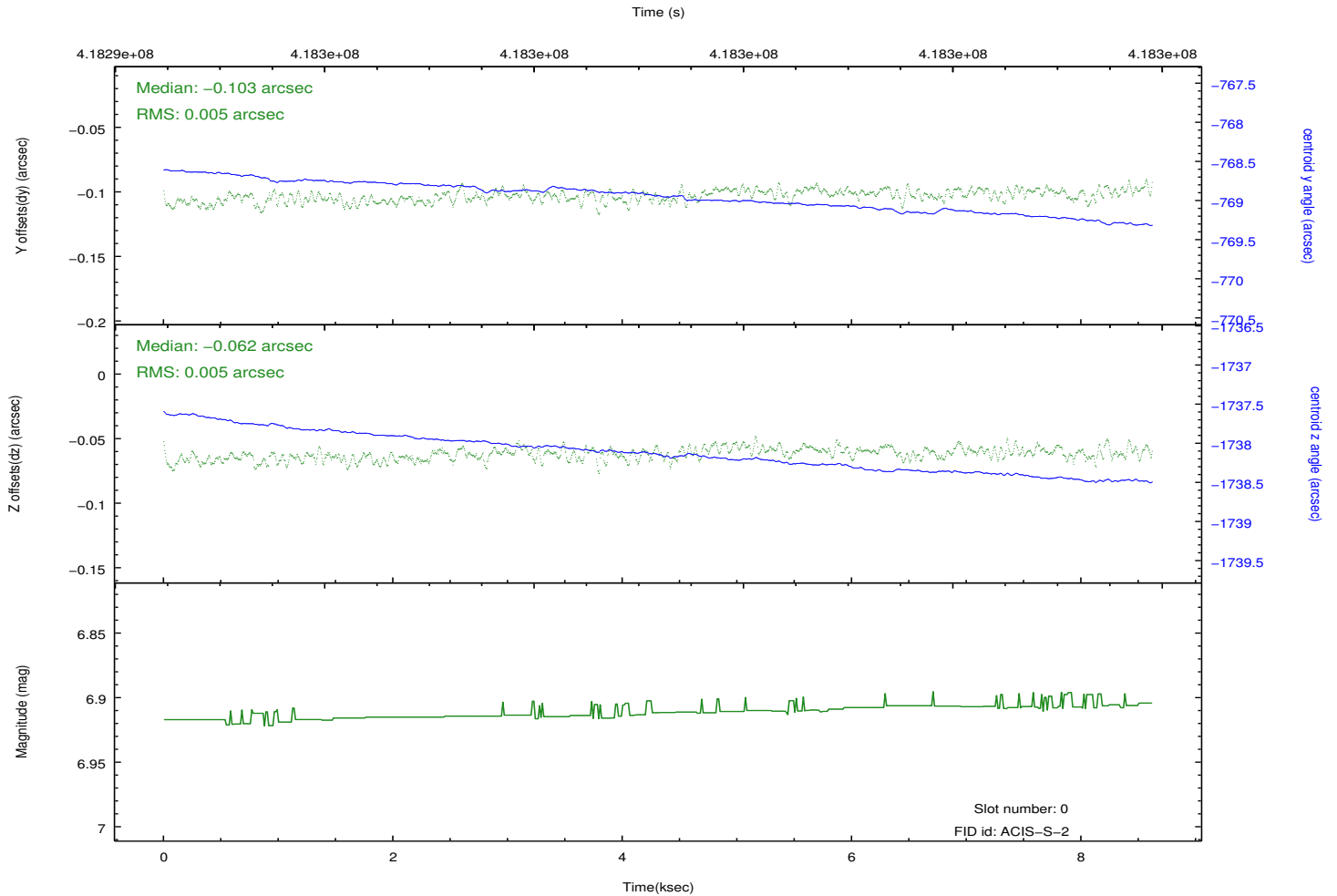
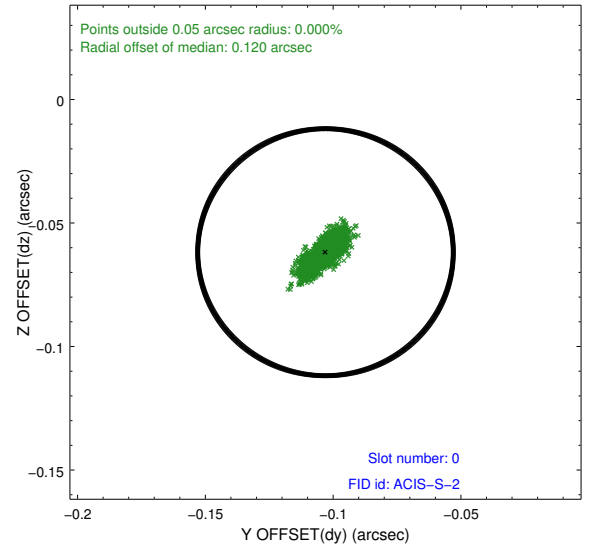
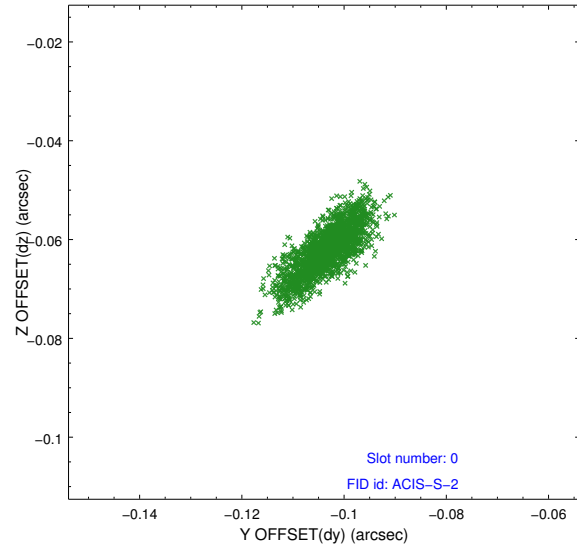


2.4.5 Slot 7

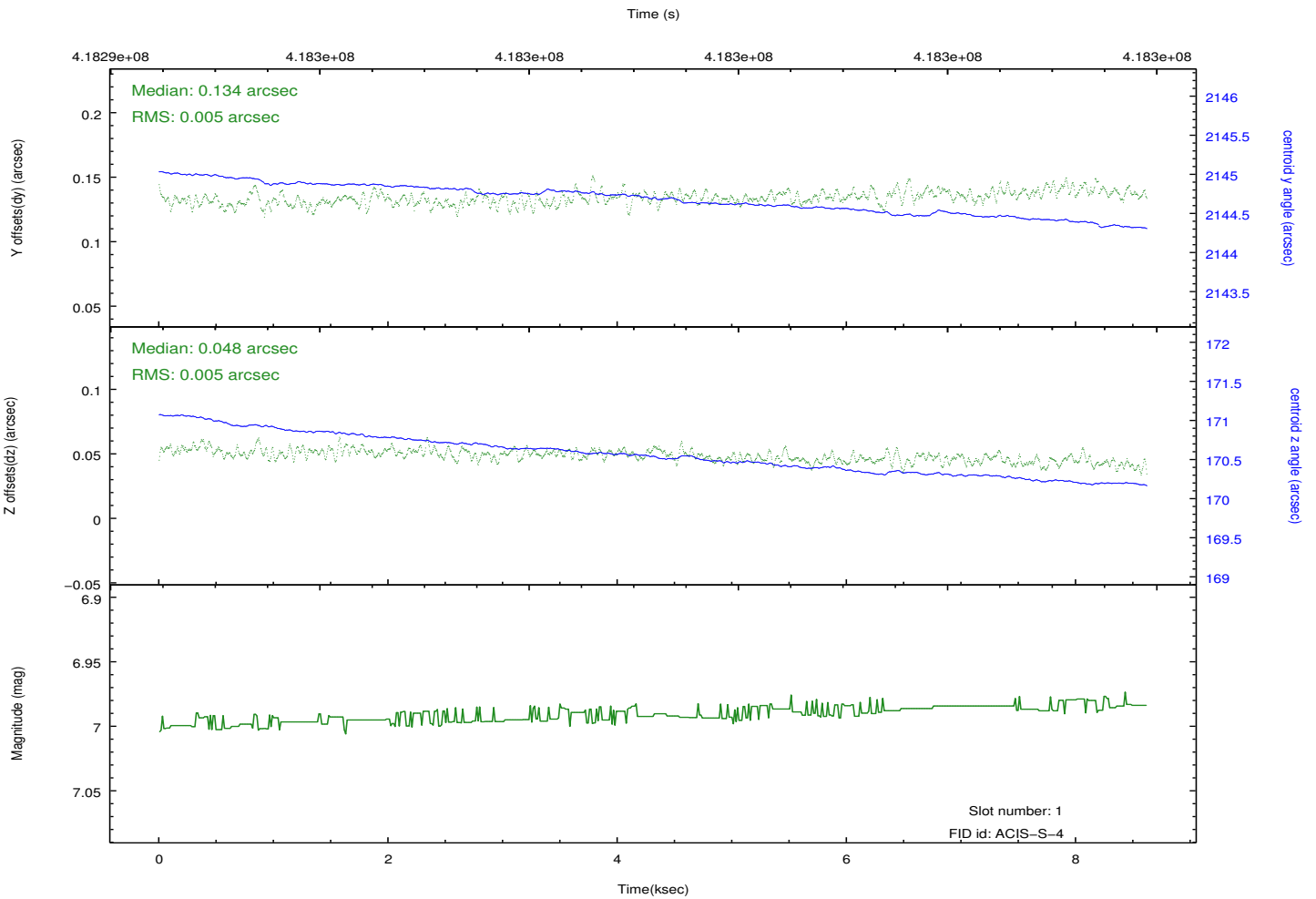
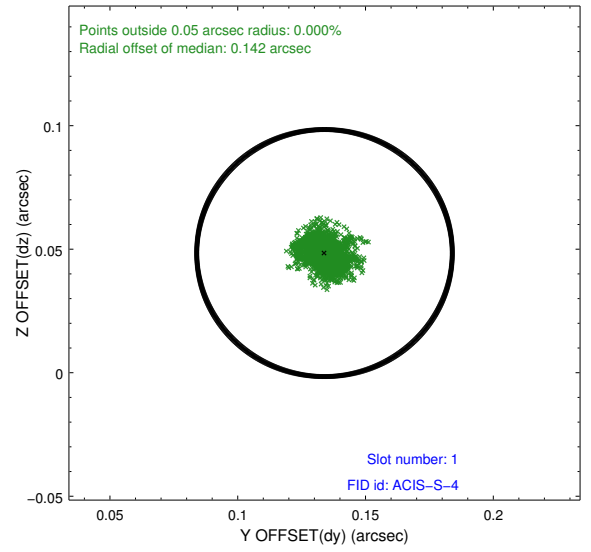
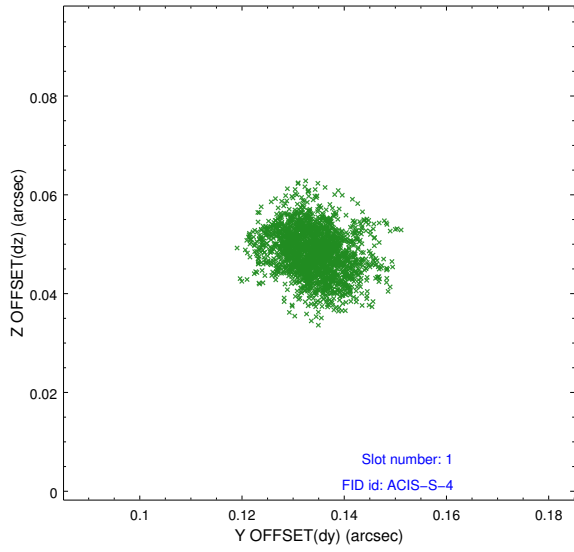


2.5 FID Slots

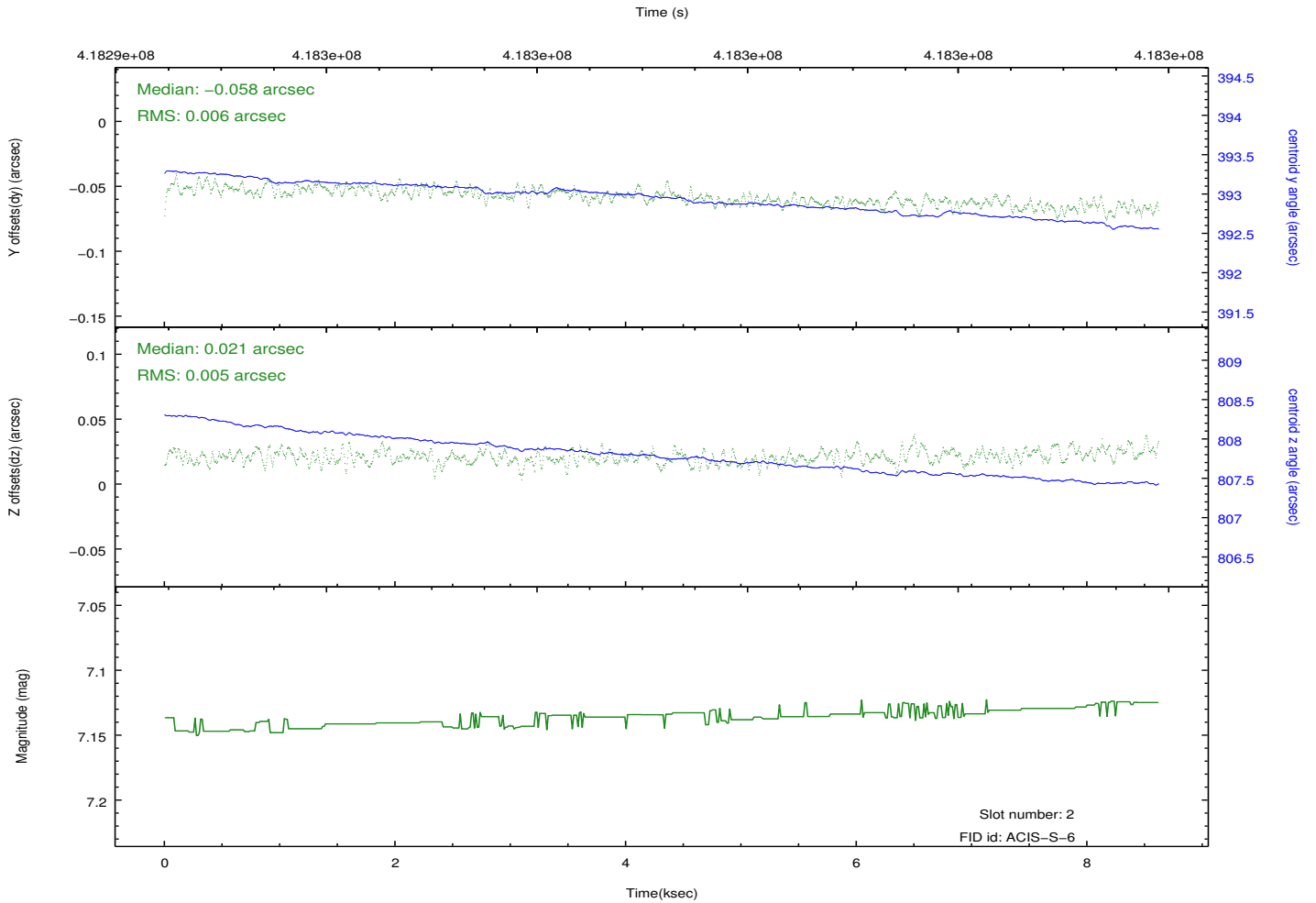
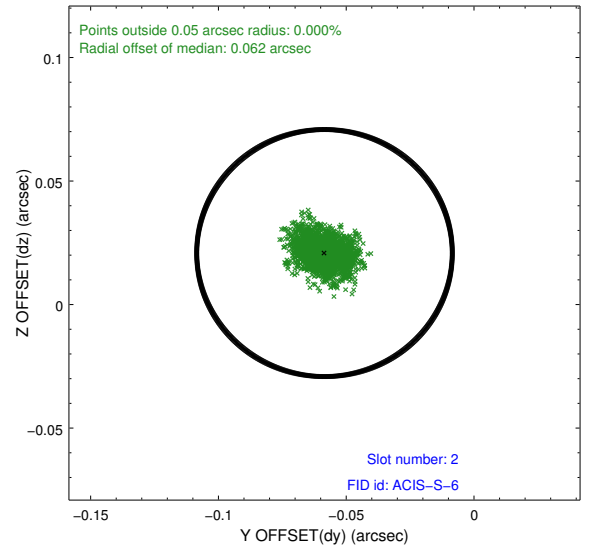
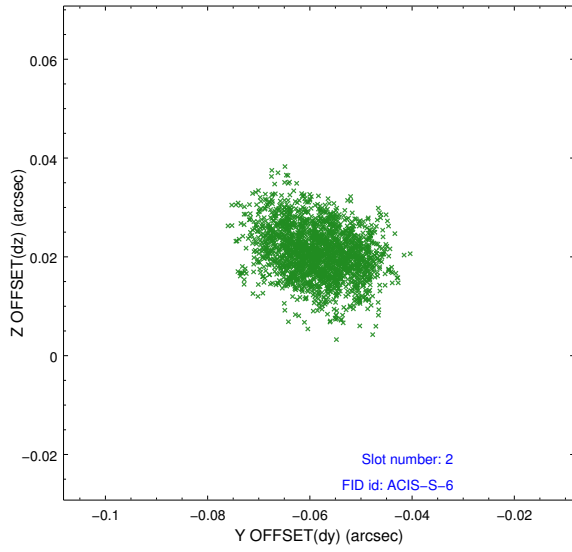
2.5.1 Slot 0



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)	2012.02.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.0536933003664

A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.

=====

A spatial region of the original bias map for CCD = 2 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 2 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:
(276.96361,74.50428), (276.90748,74.50229), (276.94235,74.43078), (277.00181,74.42533)