

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12721 - L2 Version 2
Chandra X-Ray Center

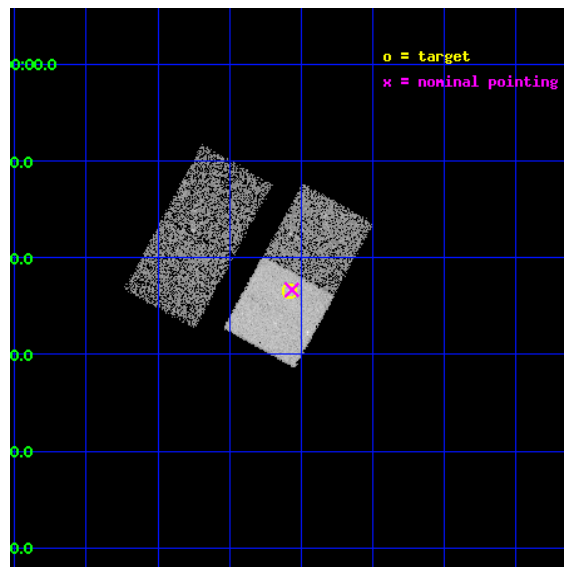
L2 Processing Date : Feb 10 2012

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1 Front

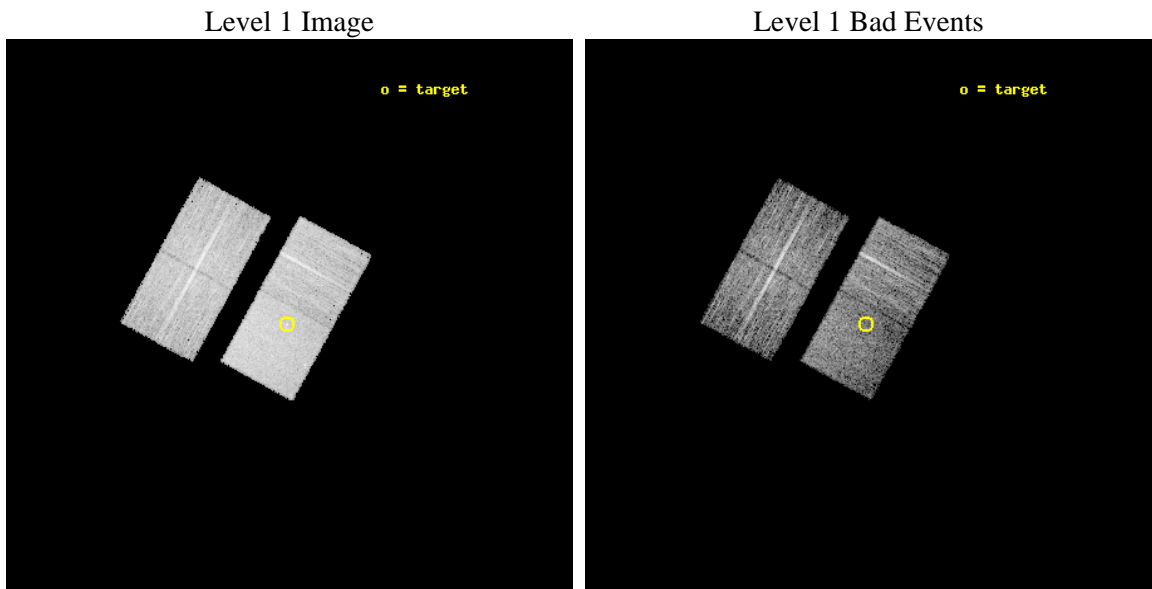
seq_num	702357	Sequence number
obs_id	12721	Observation id
title	Completing the Chandra 3C Snapshot Survey: Extragalactic Radio Sources with $z < 0.3$	Proposal title
observer	Dr. Daniel Harris	Principal investigator
object	3C 29	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	14.395417	Observer's specified target RA [deg]
dec_targ	-1.391111	Observer's specified target Dec [deg]
ra_nom	14.391191231209	Nominal RA [deg]
dec_nom	-1.3886910827972	Nominal Dec [deg]
roll_nom	118.8781250309	Nominal Roll [deg]
revision	2	Processing version of data
ontime	8050.7000619173	Sum of GTIs [s]
livetime	7945.5117387692	Livetime [s]
ontime2	8050.7000619173	Sum of GTIs [s]
ontime3	8050.7000619173	Sum of GTIs [s]
ontime6	8050.7000619173	Sum of GTIs [s]
ontime7	8050.7000619173	Sum of GTIs [s]
l2events	45792	Number of level 2 events



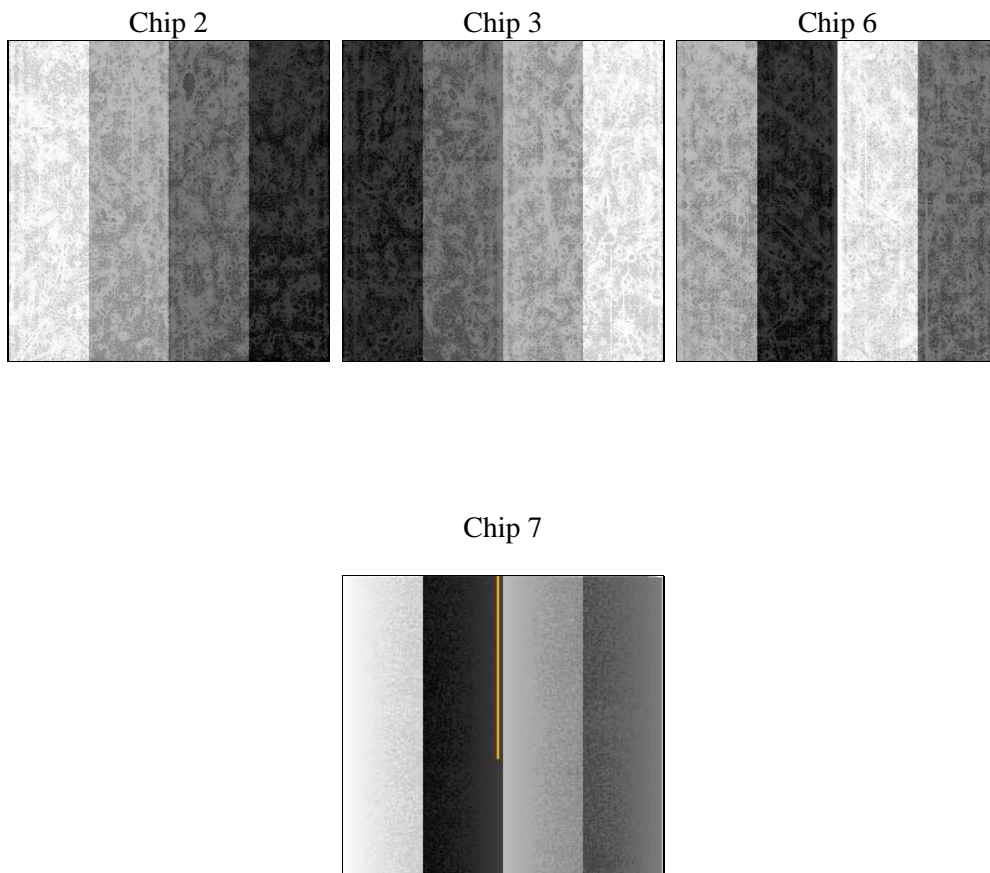
2 OBI

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	8050.7000619173	Sum of GTIs [s]
caldbver	4.4.7	 	ontime2	8050.7000619173	Sum of GTIs [s]
date	2012-02-10T23:45:06	Date and time of file creation	ontime3	8050.7000619173	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	8050.7000619173	Sum of GTIs [s]
			ontime7	8050.7000619173	Sum of GTIs [s]
			l1events	225182	Number of level 1 events

2.1.4 Events

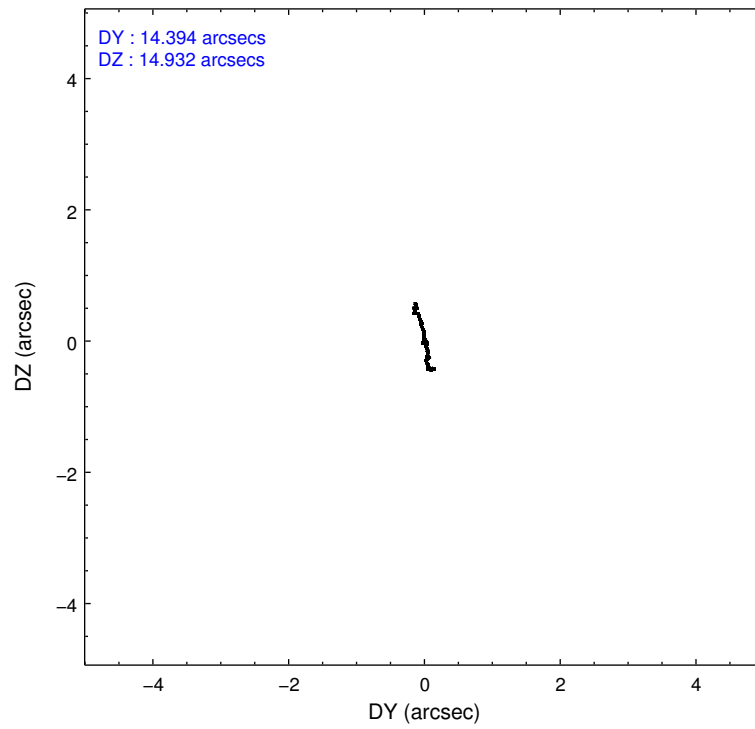
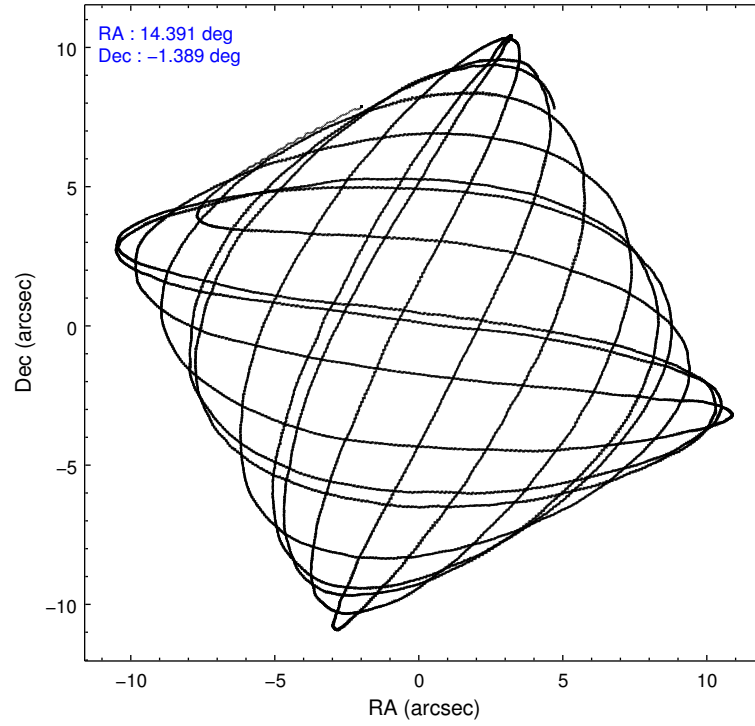
	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	52470	50436	54570	67706
rejected events	46674	44924	47464	37000
rejected %	88%	89%	86%	54%

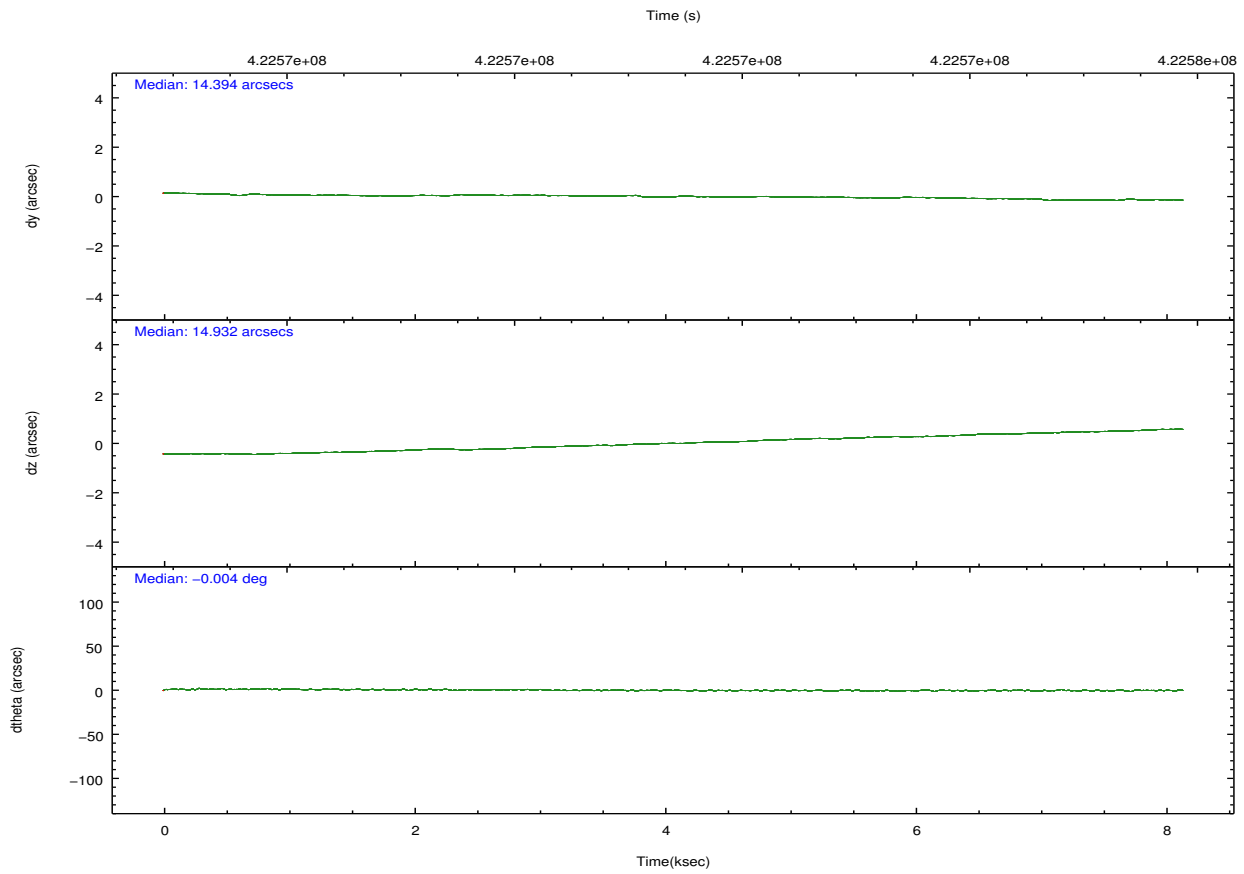
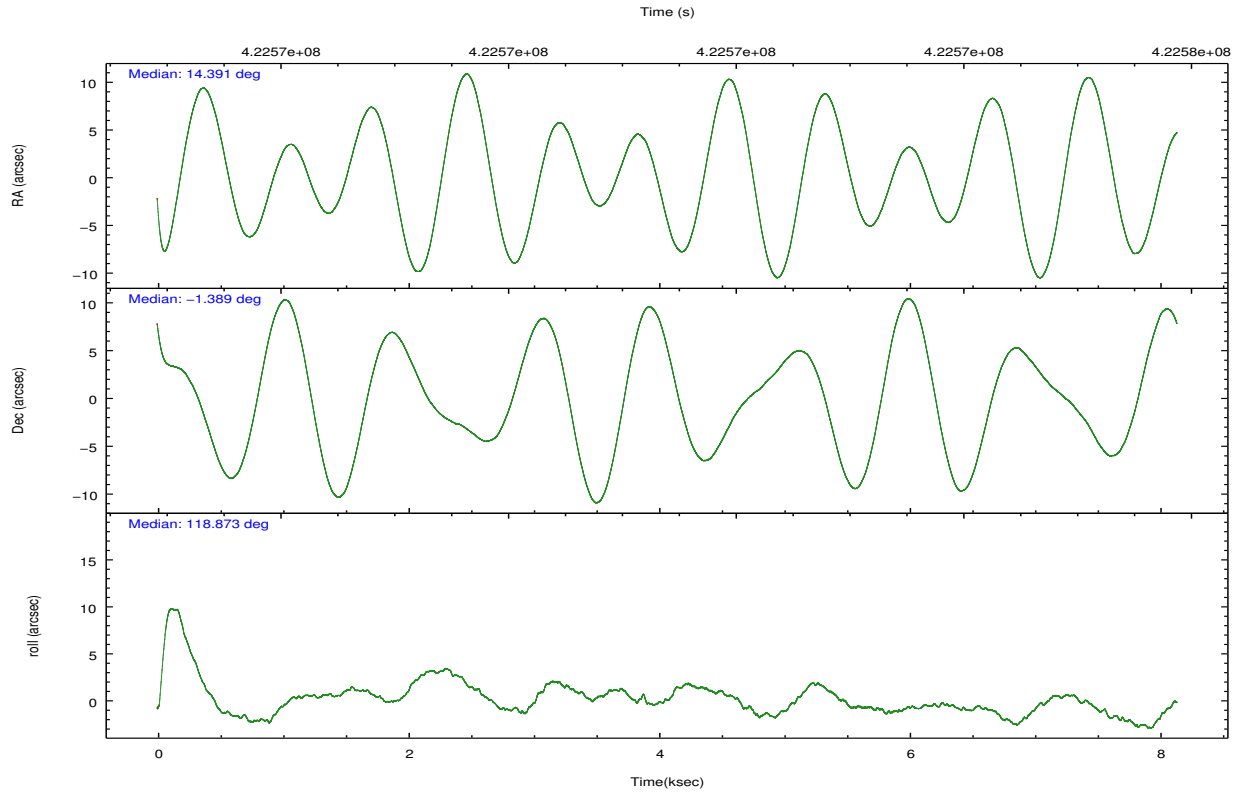
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	2161	1856	2931	2959
	4%	3%	5%	4%
grade 1 events	29	26	36	91
	0%	0%	0%	0%
grade 2 events	1379	1276	1444	6300
	2%	2%	2%	9%
grade 3 events	586	618	680	2667
	1%	1%	1%	3%
grade 4 events	571	606	675	2691
	1%	1%	1%	3%
grade 5 events	1996	2513	2537	6879
	3%	4%	4%	10%
grade 6 events	1103	1161	1383	16123
	2%	2%	2%	23%
grade 7 events	44645	42380	44884	29996
	85%	84%	82%	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	14.414792	14.39119123120861	CCD I2 on	O1	Y
[deg] Pointing Dec	-1.402538	-1.388691082797184	CCD I3 on	O2	Y
[deg] Pointing Roll	118.722104	118.8781250309019	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	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	N	N
[s] Observation start time (MET)	422567455.184000	422566171.67435	CCD S5 on	N	N
Observation start date	2011-05-23T19:49:49	2011-05-23T19:29:31	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	422575455.184000	422576513.92489	On-chip summing requested	N	N
Observation end date	2011-05-23T22:03:09	2011-05-23T22:21:53	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



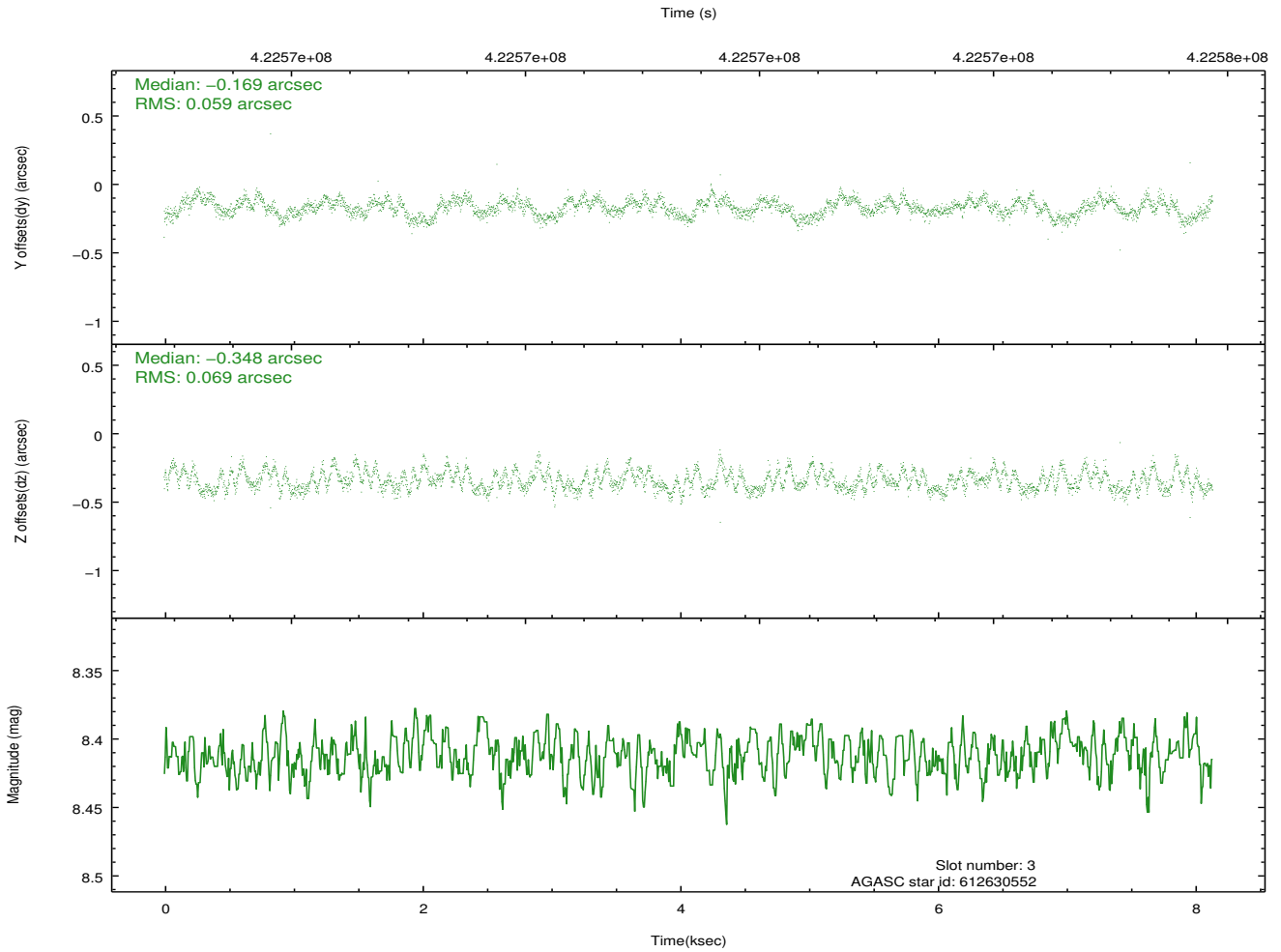
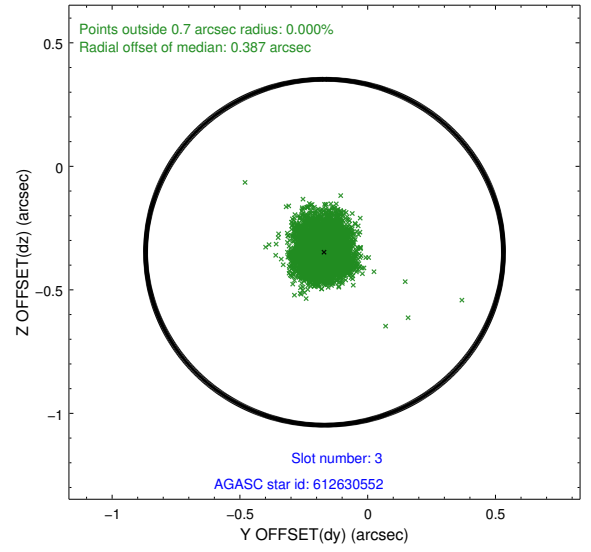
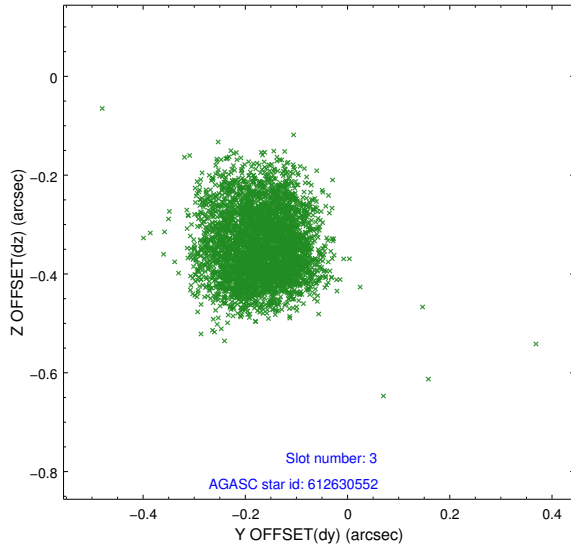


Slot Statistics

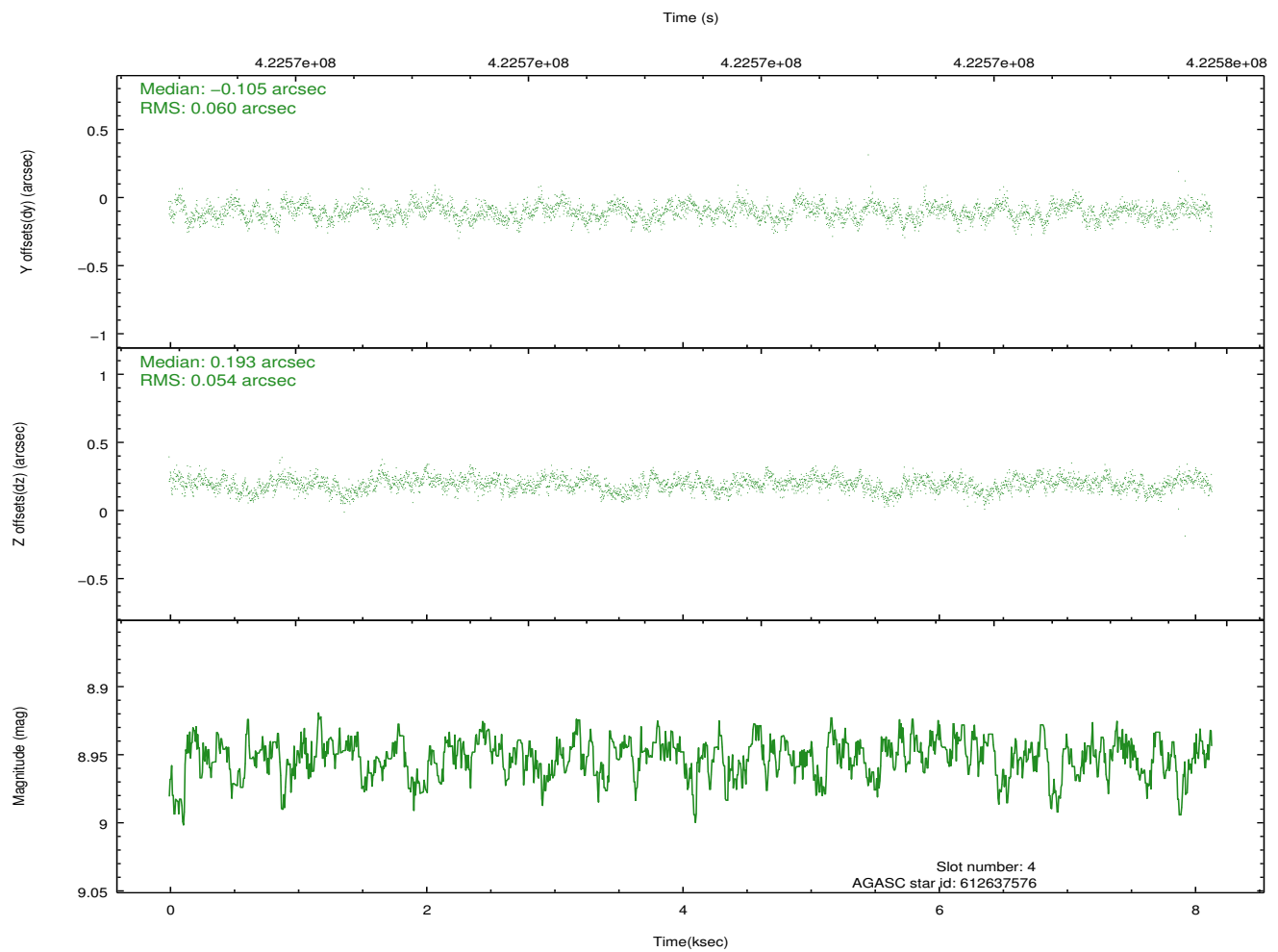
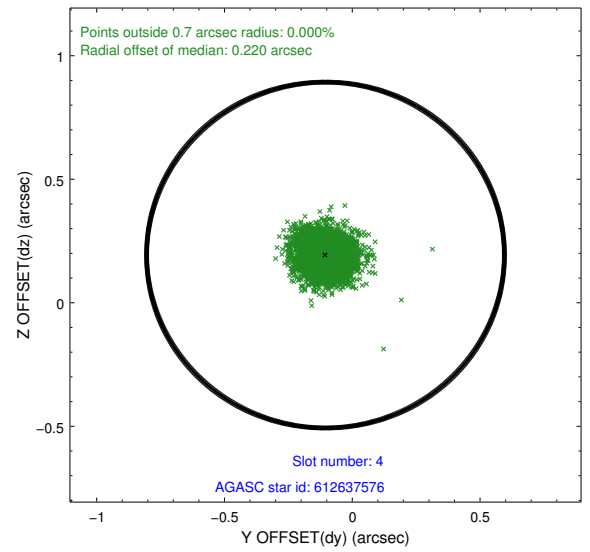
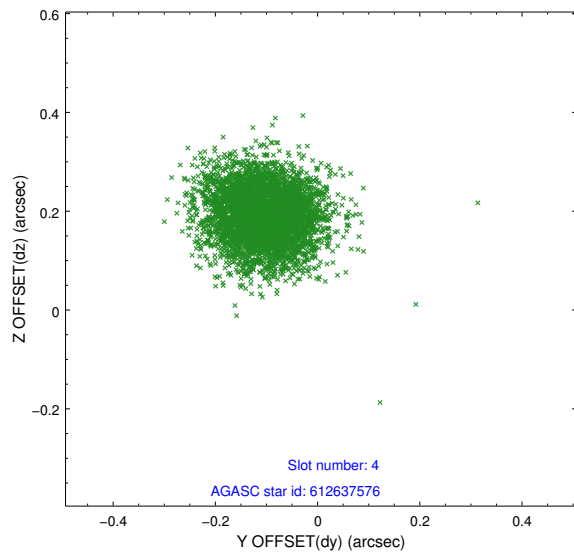
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.98	1985	-0.088	-0.038	0.011	0.019	0.000000	0.000000	-767.41	-1736.32
1	FID	ACIS-S-4	7.07	1986	0.220	0.053	0.007	0.011	0.000000	0.000000	2145.84	171.56
2	FID	ACIS-S-5	7.09	1986	-0.163	-0.006	0.009	0.015	0.000000	0.000000	-1819.47	165.93
3	GUIDE	612630552	8.41	3969	-0.169	-0.348	0.096	0.148	13.806949	-1.503313	732.34	2092.52
4	GUIDE	612637576	8.95	3968	-0.105	0.193	0.085	0.138	14.501240	-0.747907	1917.55	-1404.14
5	GUIDE	612639400	9.35	3968	0.188	-0.148	0.092	0.151	14.334247	-1.816006	-1165.78	972.65
6	BAD	613557312	5.61	1985	-0.355	0.019	0.056	0.089	15.168349	-1.658623	-2112.39	-1933.87
7	GUIDE	613559664	9.23	3967	0.268	0.294	0.114	0.181	15.022890	-1.524679	-1437.45	-1707.86

2.4 Star Slots

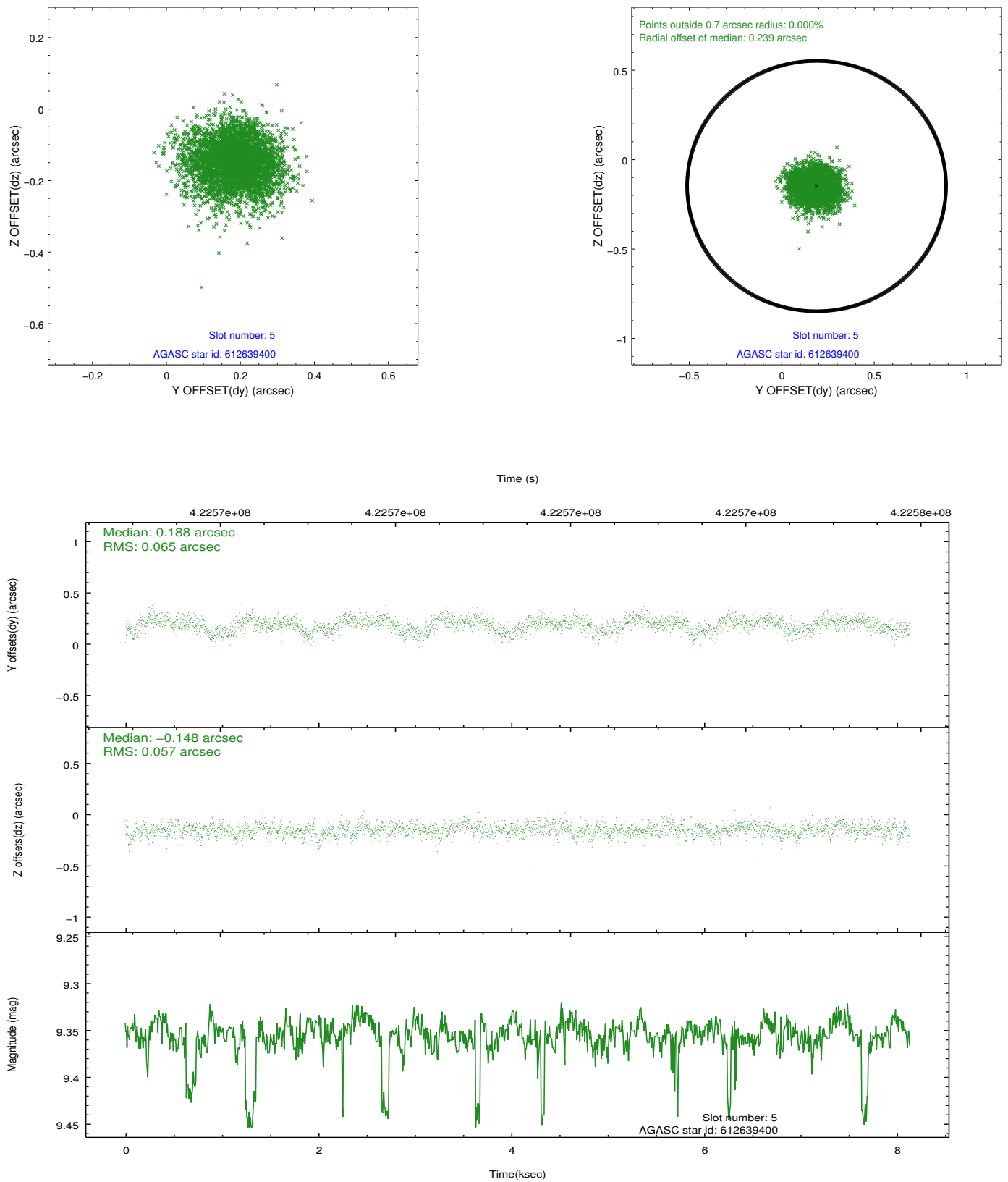
2.4.1 Slot 3



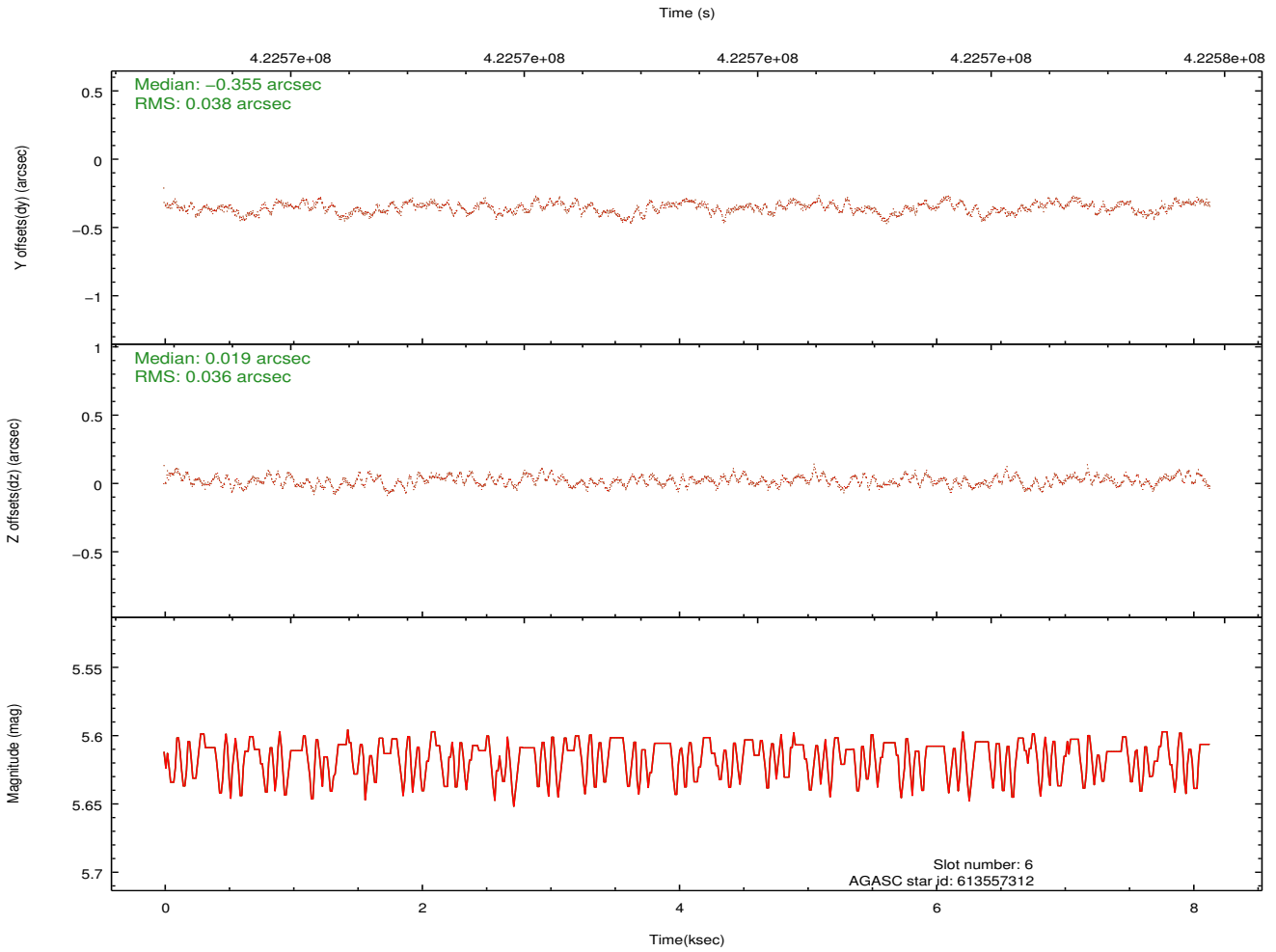
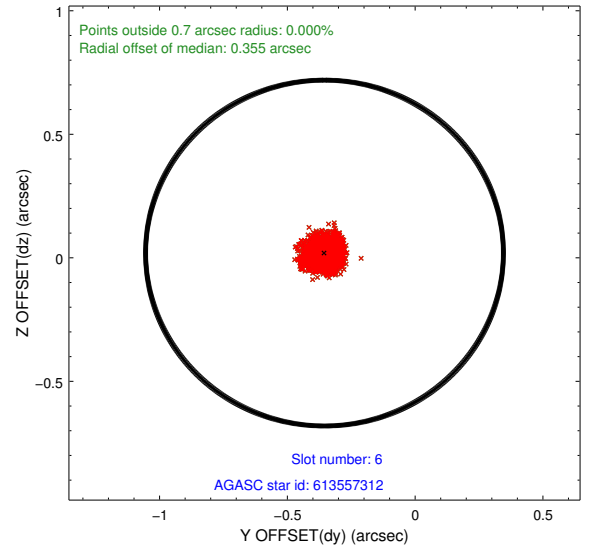
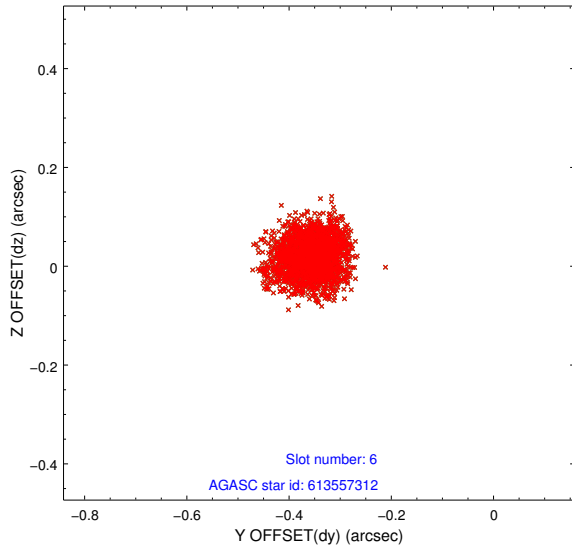
2.4.2 Slot 4



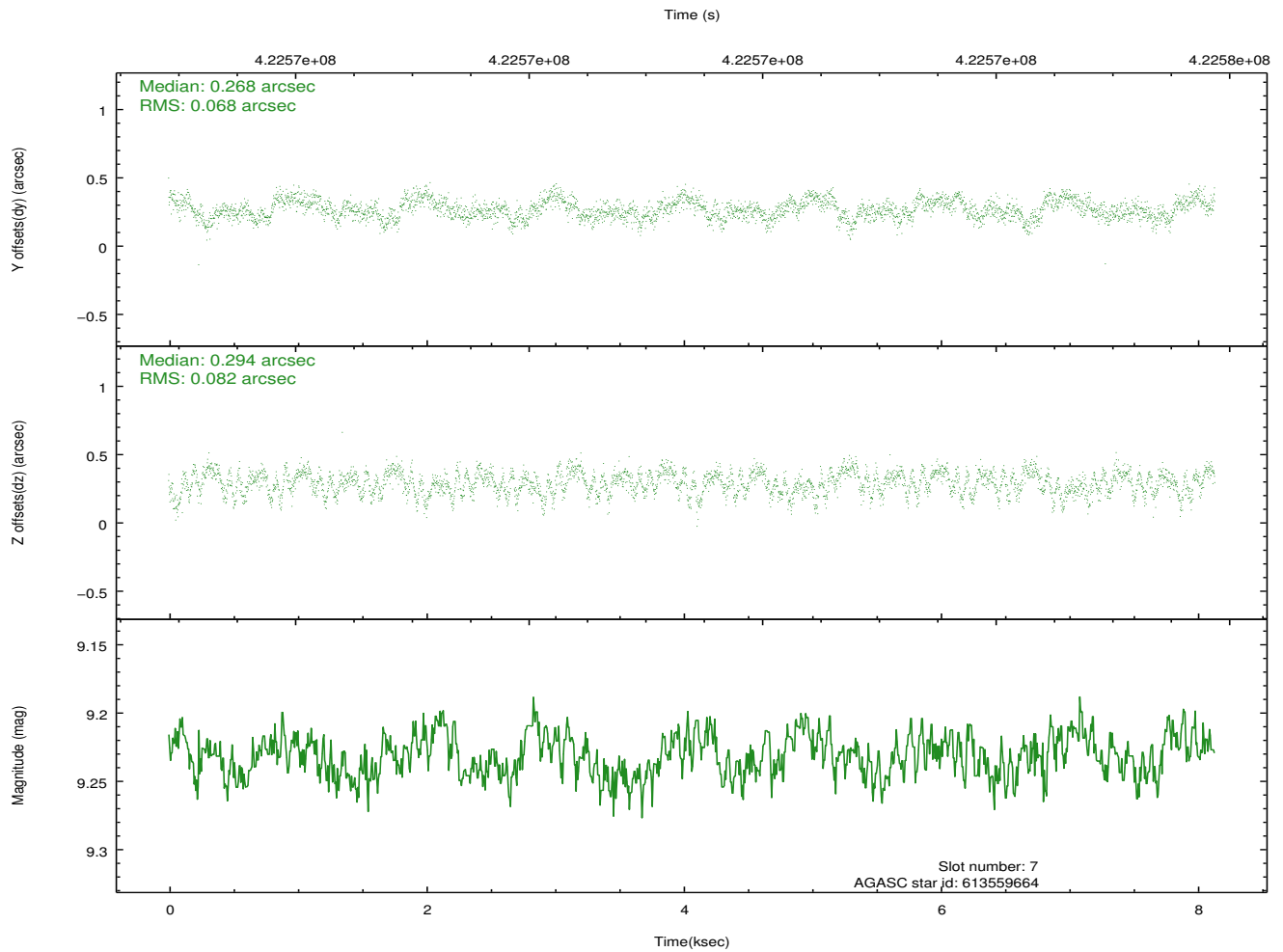
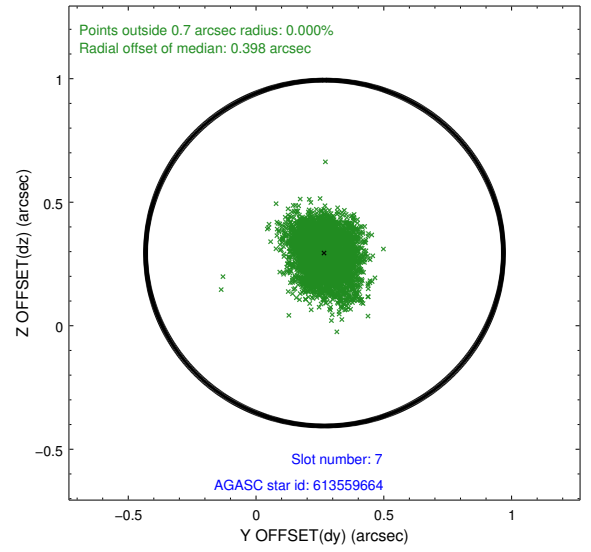
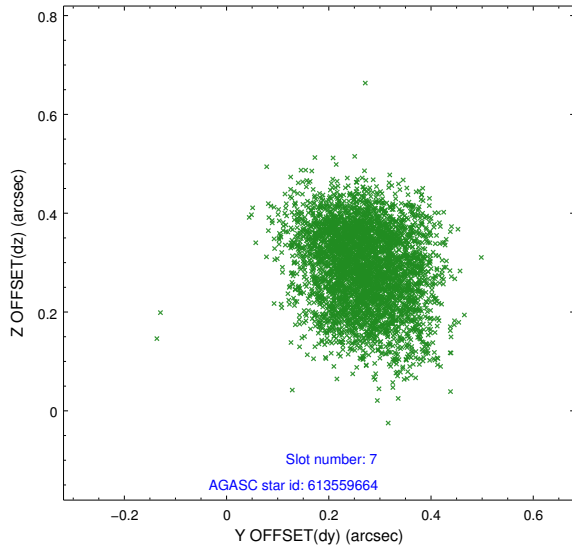
2.4.3 Slot 5



2.4.4 Slot 6

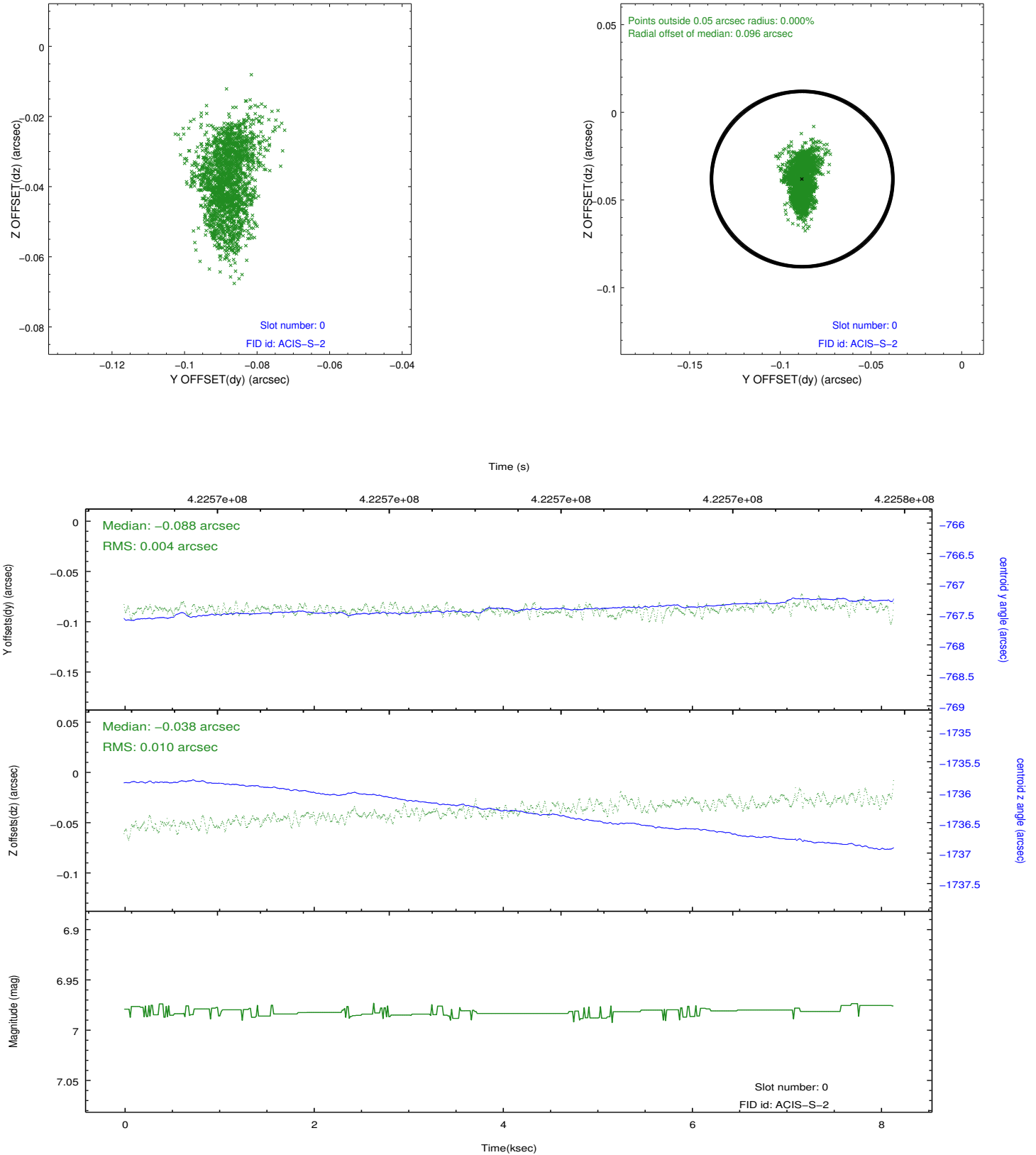


2.4.5 Slot 7

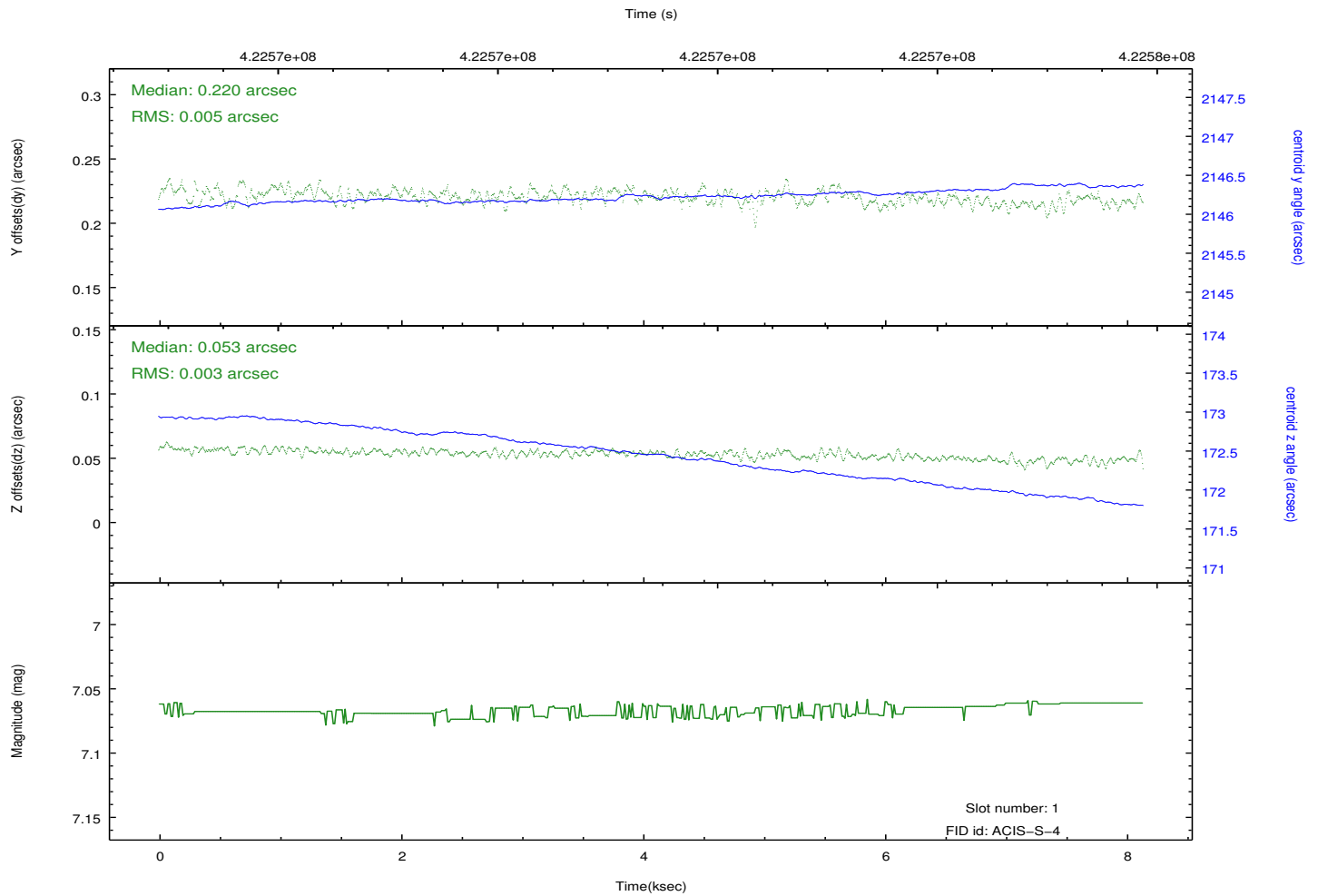
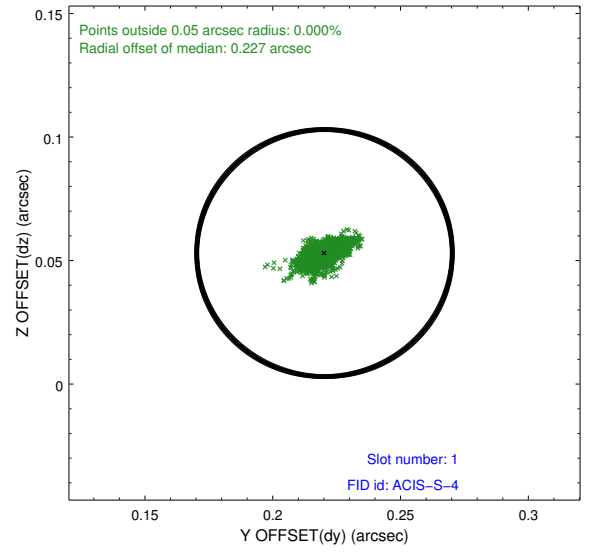
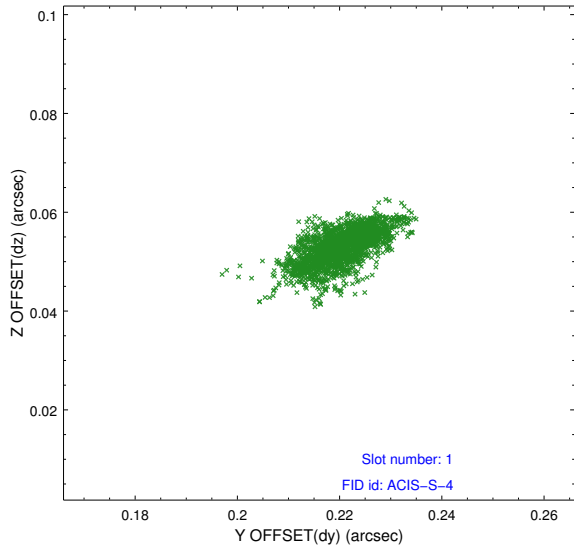


2.5 FID Slots

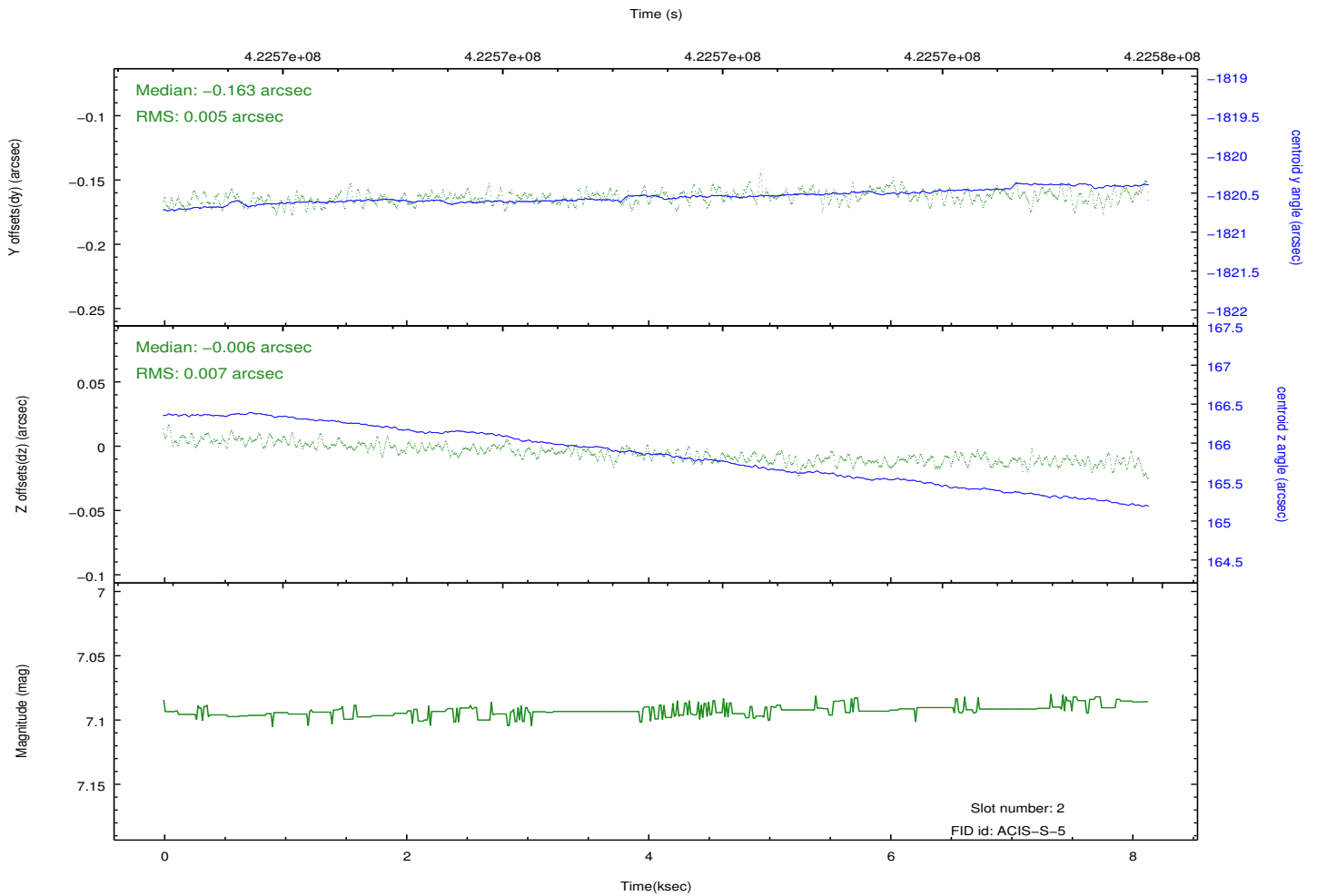
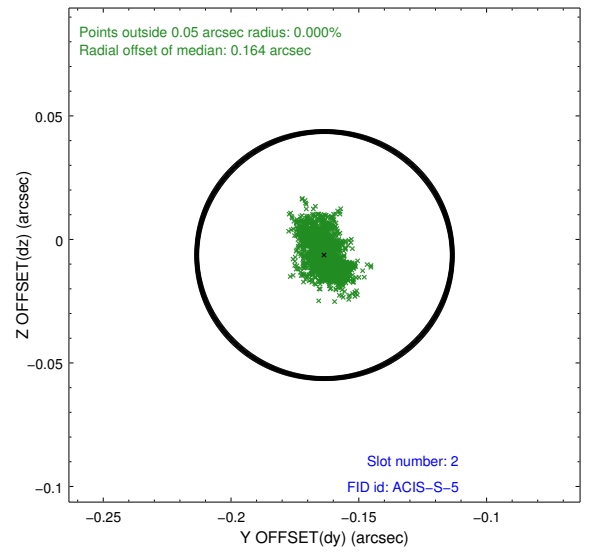
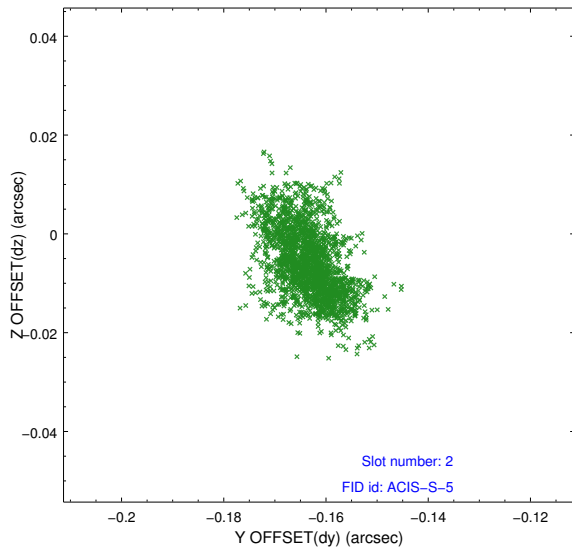
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.02.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.0507000619173

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.

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The guide star in slot 6 was excluded from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.