

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 7643 - L2 Version 4
Chandra X-Ray Center

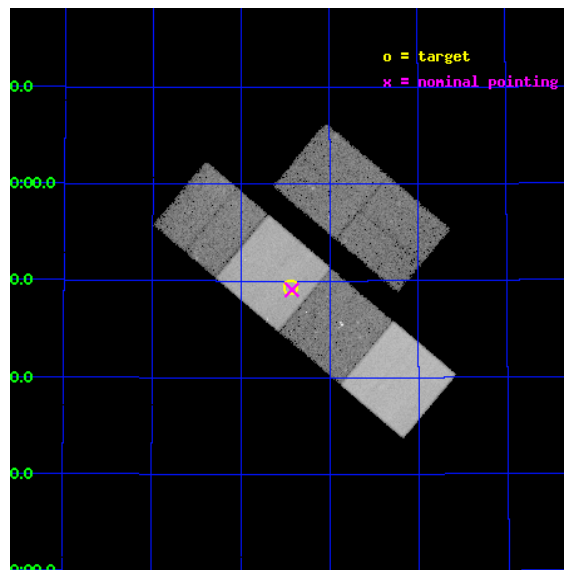
L2 Processing Date : Apr 24 2012

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1 Front

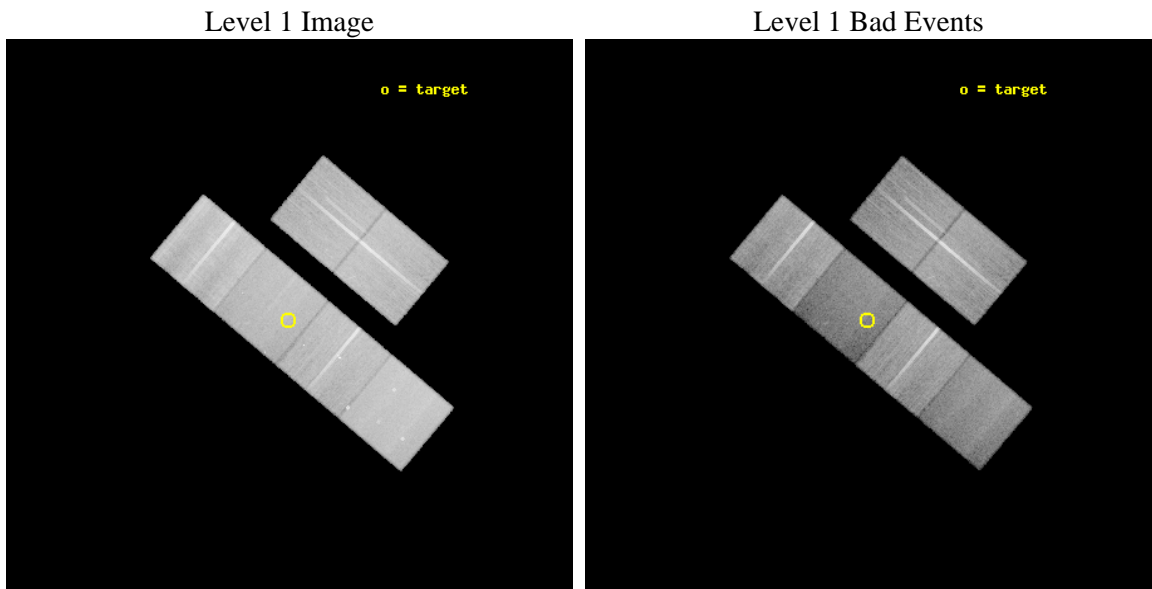
seq_num	500772	Sequence number
obs_id	7643	Observation id
title	In-depth Study of the Nearest Engine-Driven Cosmic Explosions	Prop
observer	Prof. Shrinivas Kulkarni	Principal investigator
object	SN2007bg	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	177.359167	Observer's specified target RA [deg]
dec_targ	51.822722	Observer's specified target Dec [deg]
ra_nom	177.35669139445	Nominal RA [deg]
dec_nom	51.818113958998	Nominal Dec [deg]
roll_nom	220.07329744335	Nominal Roll [deg]
revision	4	Processing version of data
ontime	34041.599873245	Sum of GTIs [s]
livetime	33610.544638259	Livetime [s]
ontime2	34038.358873069	Sum of GTIs [s]
ontime3	34035.11791271	Sum of GTIs [s]
ontime5	34041.599873245	Sum of GTIs [s]
ontime6	34041.599873245	Sum of GTIs [s]
ontime7	34041.599873245	Sum of GTIs [s]
ontime8	34038.358863115	Sum of GTIs [s]
l2events	351414	Number of level 2 events



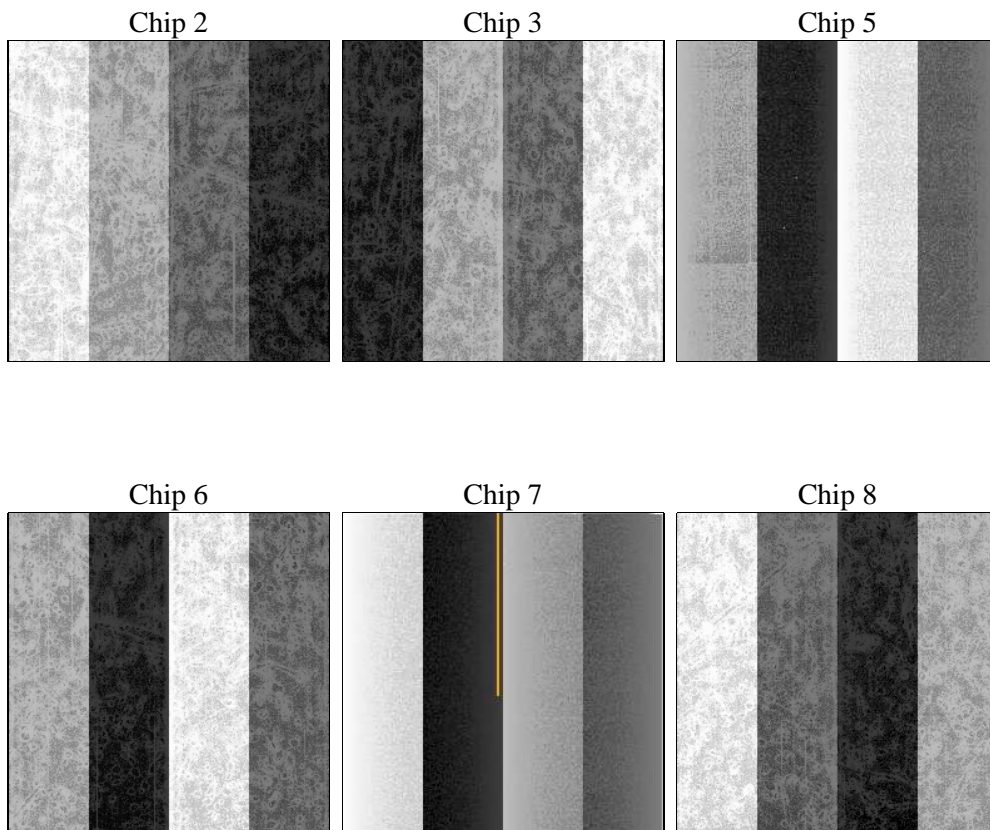
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	34000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	34041.599873245	Sum of GTIs [s]
caldsver	4.4.9	 	ontime2	34038.358873069	Sum of GTIs [s]
date	2012-04-24T09:46:48	Date and time of file creation	ontime3	34035.11791271	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	34041.599873245	Sum of GTIs [s]
			ontime6	34041.599873245	Sum of GTIs [s]
			ontime7	34041.599873245	Sum of GTIs [s]
			ontime8	34038.358863115	Sum of GTIs [s]
			l1events	1625084	Number of level 1 events

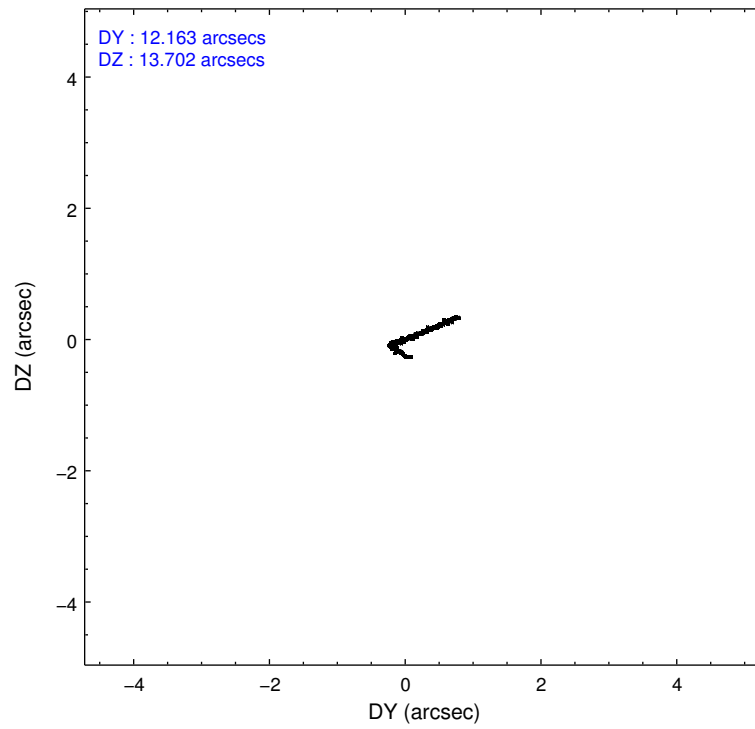
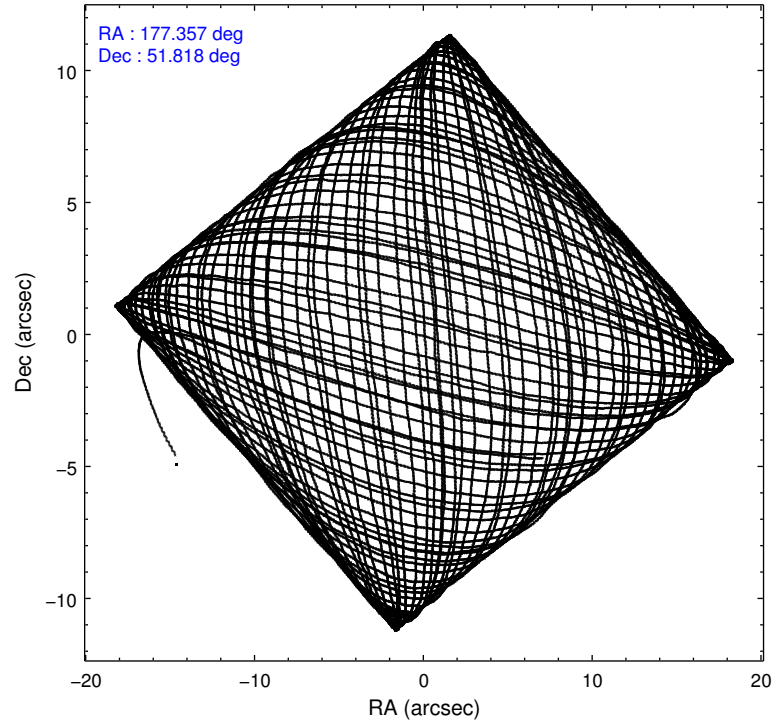
2.1.4 Events

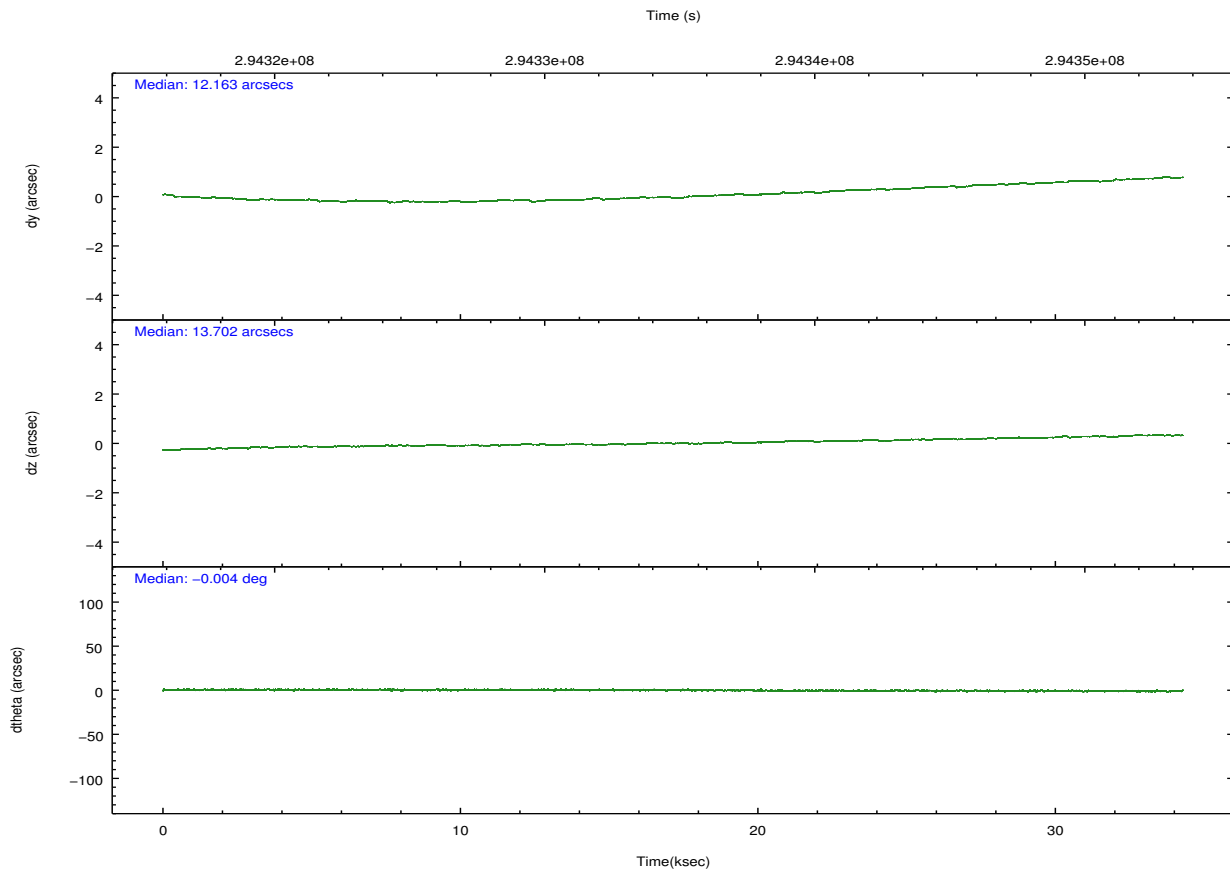
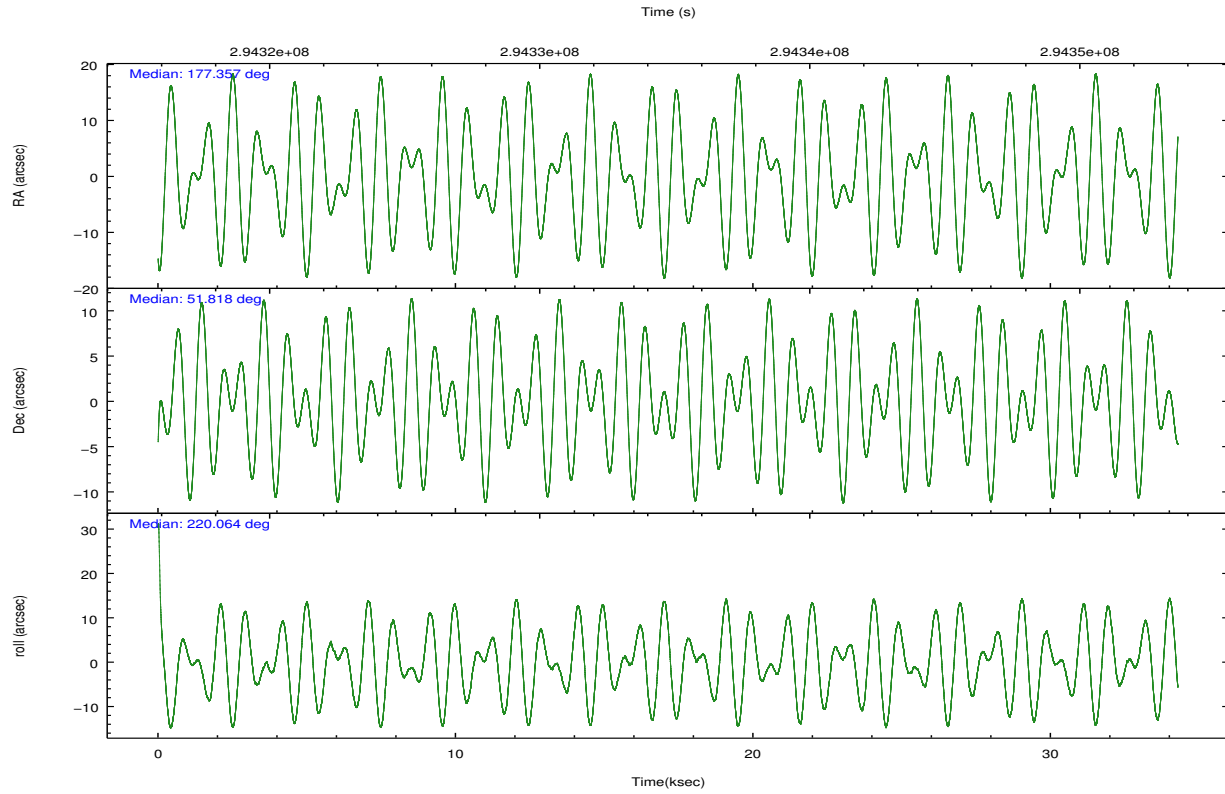
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	273832	240935	306910	257836	235673	309898	grade 0 events	8573	8421	14387	11266	11993	20675
rejected events	250421	218258	146295	230024	119558	234851		3%	3%	4%	4%	5%	6%
rejected %	91%	90%	47%	89%	50%	75%	grade 1 events	156	140	713	140	362	229
								0%	0%	0%	0%	0%	0%
							grade 2 events	5662	4755	49242	5795	24478	17503
								2%	1%	16%	2%	10%	5%
							grade 3 events	2494	2716	7069	2877	10920	8492
								0%	1%	2%	1%	4%	2%
							grade 4 events	2621	2543	6916	2765	10854	8013
								0%	1%	2%	1%	4%	2%
							grade 5 events	6951	8365	24827	8493	25236	12677
								2%	3%	8%	3%	10%	4%
							grade 6 events	4061	4244	83036	5116	57882	20372
								1%	1%	27%	1%	24%	6%
							grade 7 events	243314	209751	120720	221384	93948	221937
								88%	87%	39%	85%	39%	71%

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	177.371232	177.3566913944505	CCD I2 on	O1	Y
[deg] Pointing Dec	51.843951	51.81811395899781	CCD I3 on	O2	Y
[deg] Pointing Roll	219.905226	220.073297443345	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[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	Y	Y
[s] Observation start time (MET)	294317889.184000	294316834.54566	CCD S5 on	N	N
Observation start date	2007-04-30T10:57:04	2007-04-30T10:40:34	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	294351889.184000	294352472.77236	On-chip summing requested	N	N
Observation end date	2007-04-30T20:23:44	2007-04-30T20:34:32	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



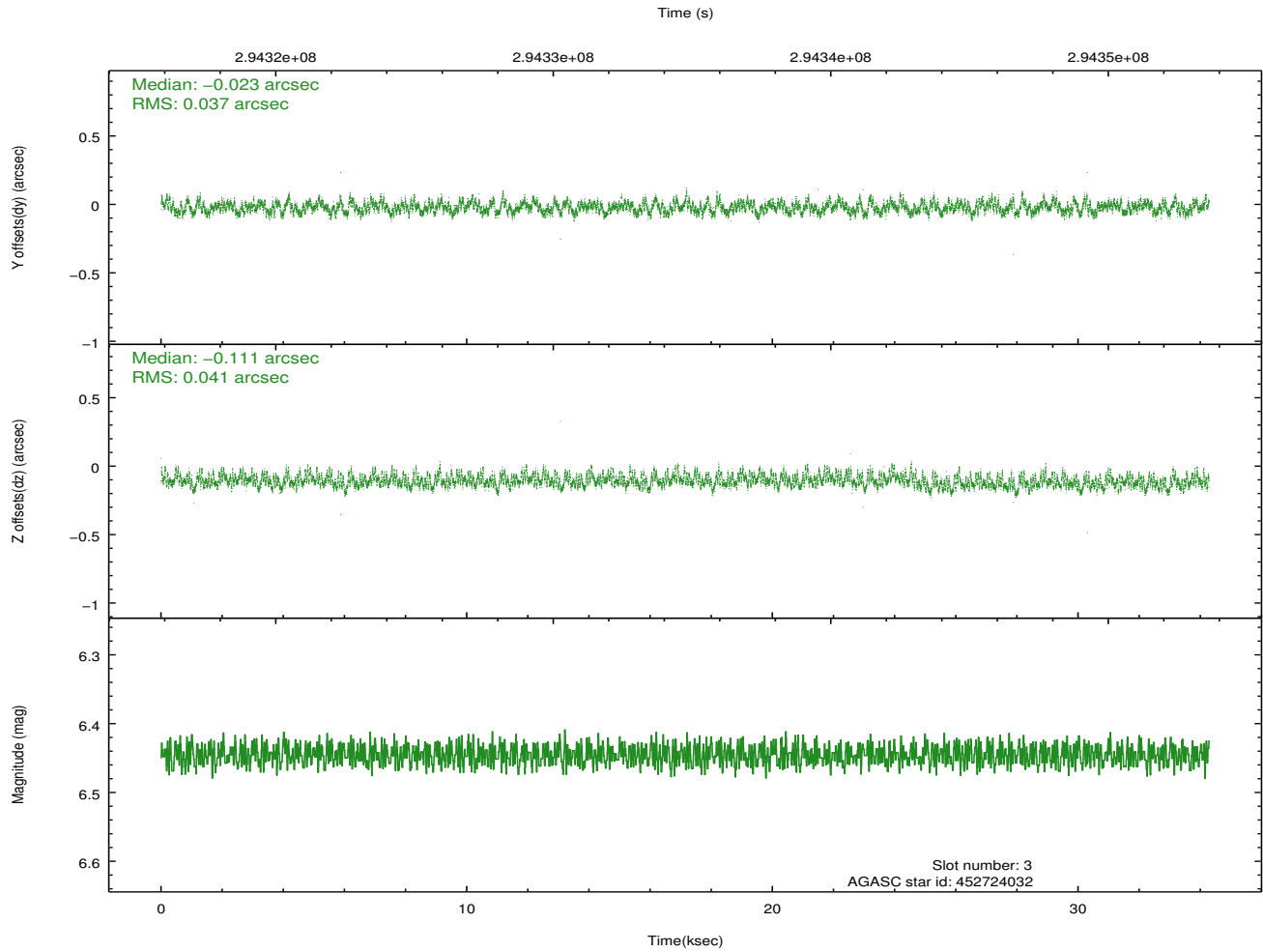
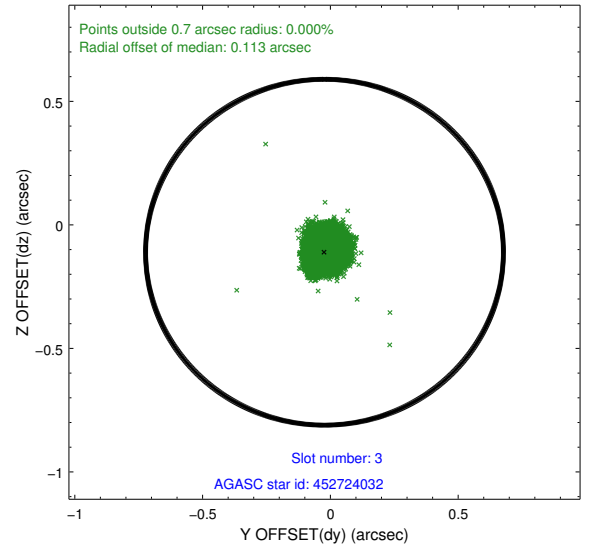
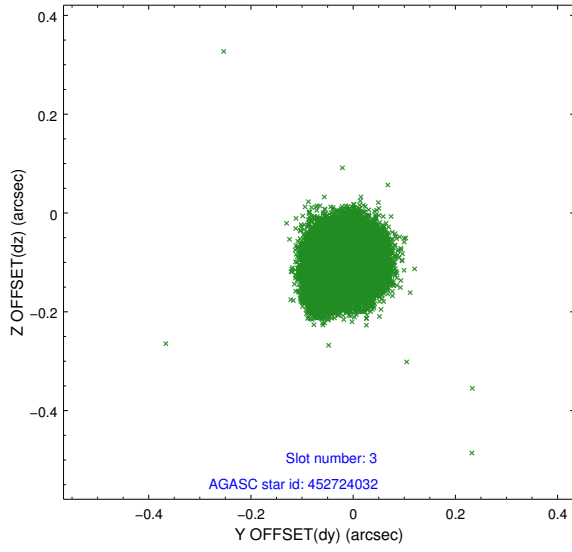


Slot Statistics

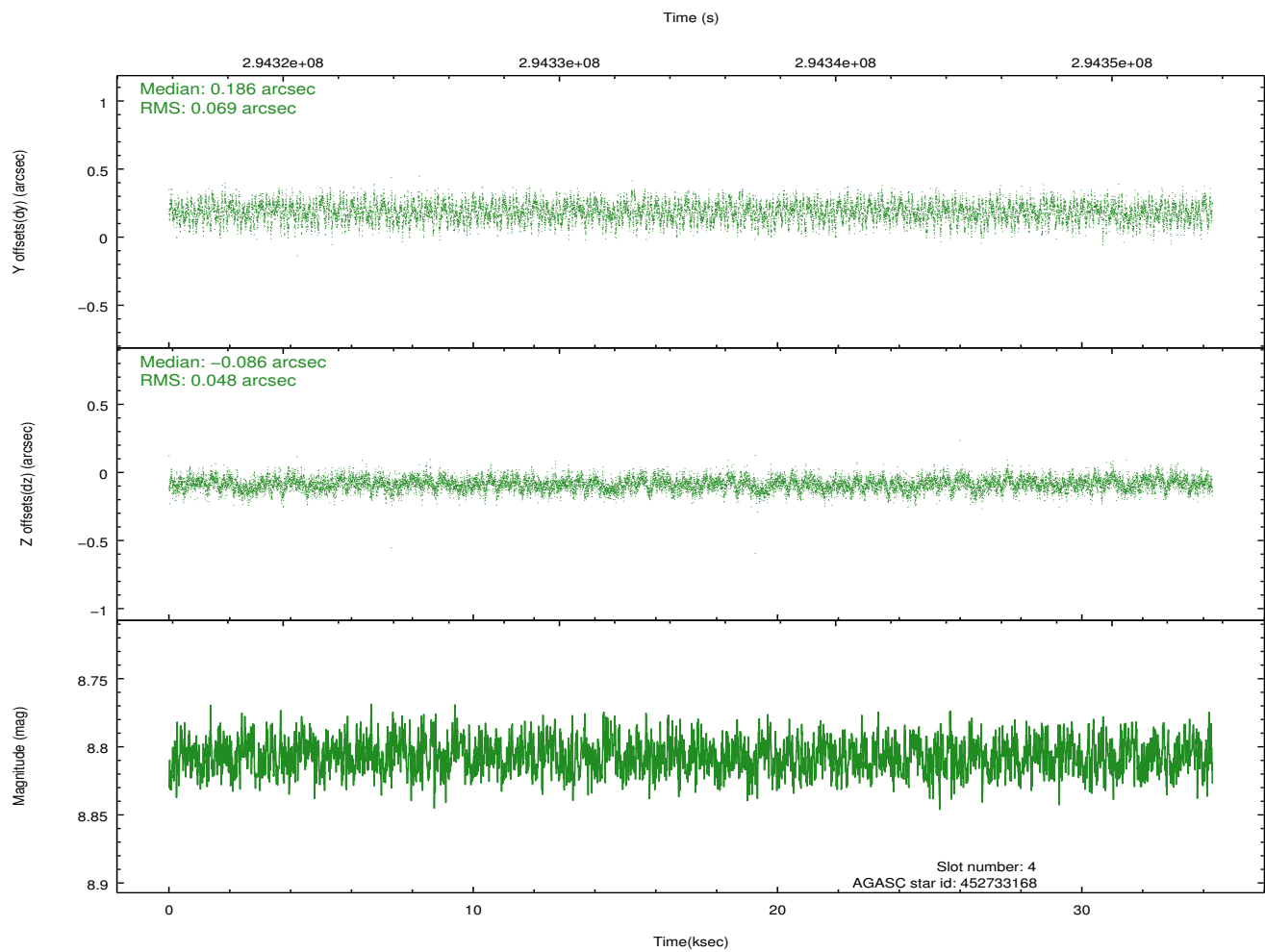
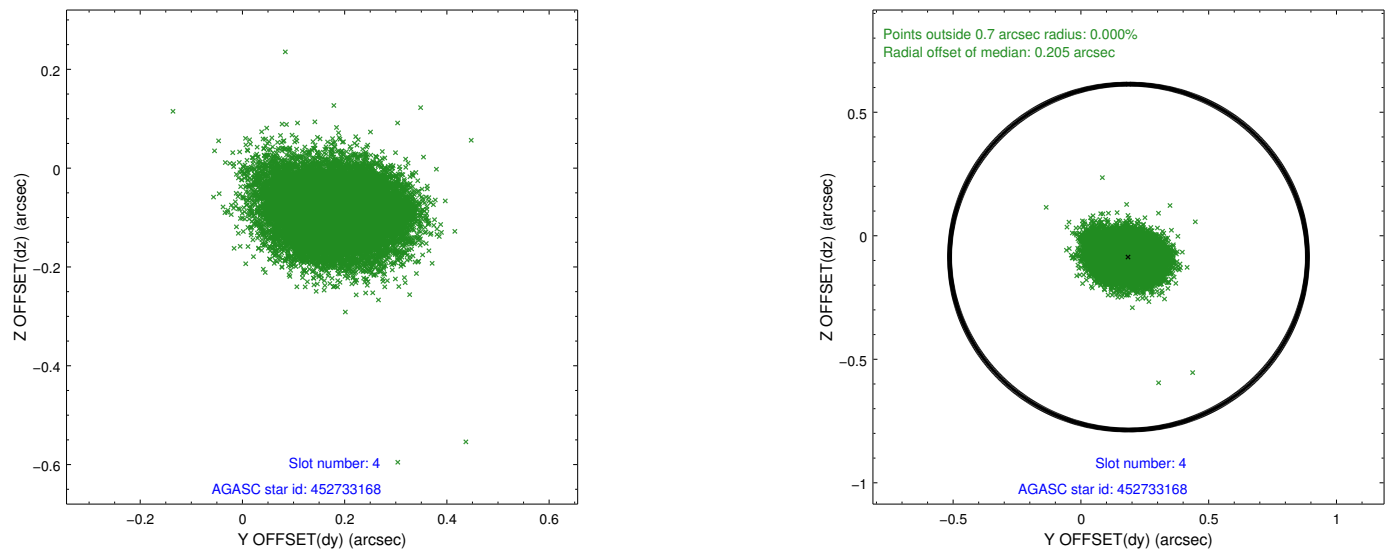
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	8362	-0.035	-0.061	0.009	0.016	0.000000	0.000000	-765.21	-1735.14
1	FID	ACIS-S-4	7.19	8361	0.151	0.033	0.007	0.015	0.000000	0.000000	2148.23	173.40
2	FID	ACIS-S-5	7.22	8360	-0.147	0.036	0.009	0.015	0.000000	0.000000	-1818.11	167.11
3	GUIDE	452724032	6.45	16724	-0.023	-0.111	0.059	0.094	177.710584	51.412748	410.21	1678.40
4	GUIDE	452733168	8.81	16715	0.186	-0.086	0.090	0.145	175.960228	51.961439	2111.21	-2355.31
5	GUIDE	452733648	7.57	16721	-0.063	0.015	0.086	0.124	176.604534	51.932873	1094.95	-1343.97
6	GUIDE	452724144	8.75	16713	-0.063	0.133	0.063	0.101	177.940604	51.991497	-1311.82	398.50
7	GUIDE	452734296	9.56	16703	-0.036	0.049	0.118	0.191	176.206913	52.115073	1335.66	-2415.39

2.4 Star Slots

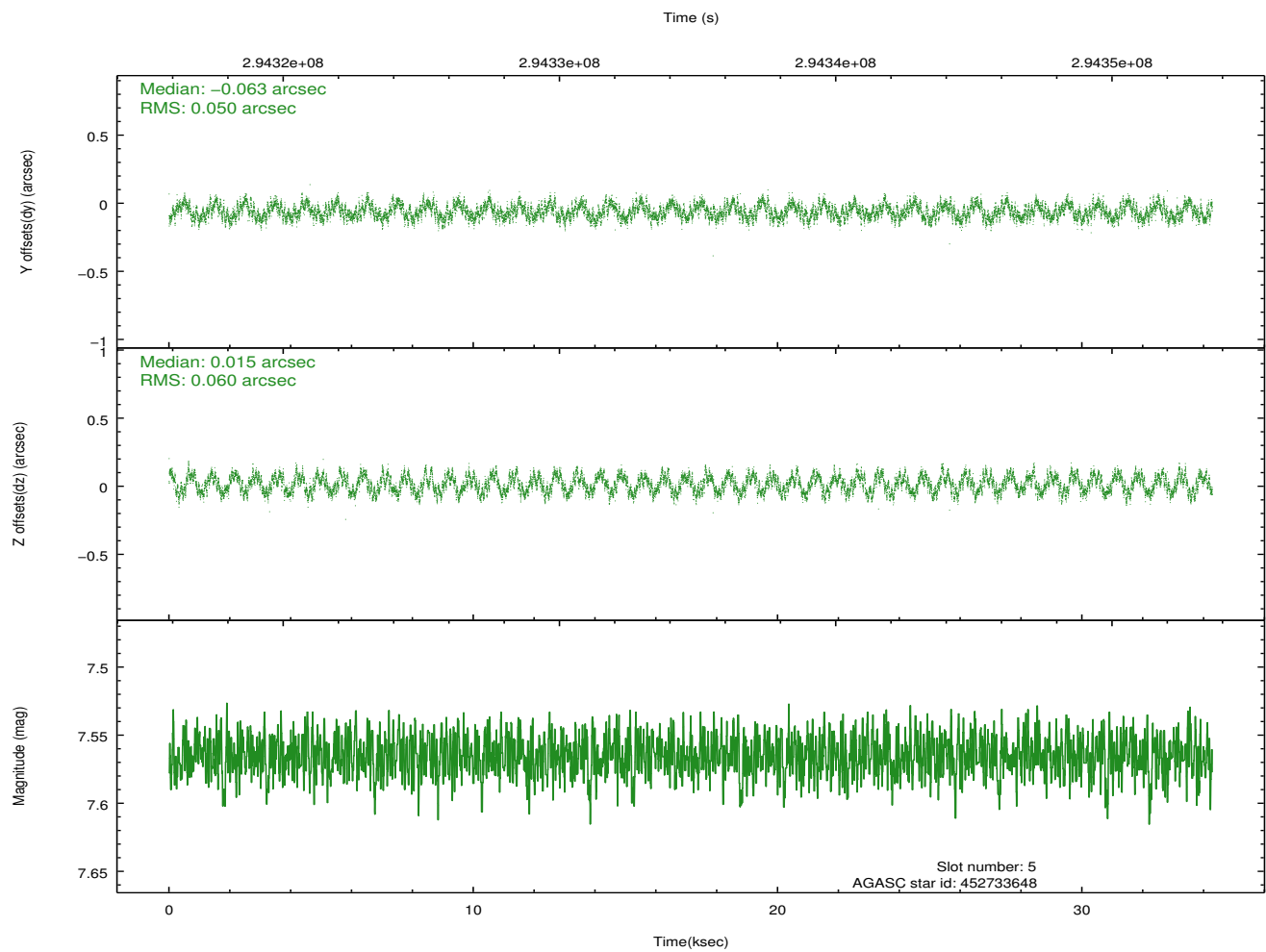
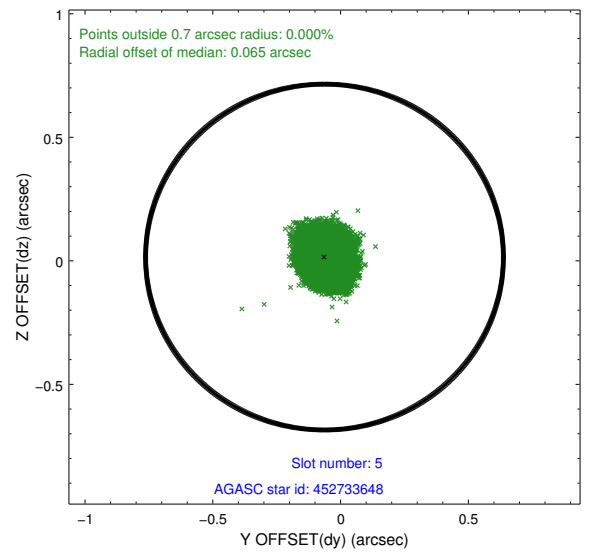
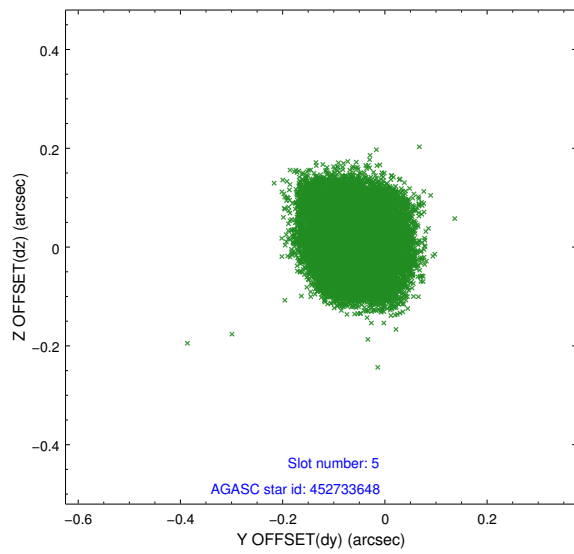
2.4.1 Slot 3



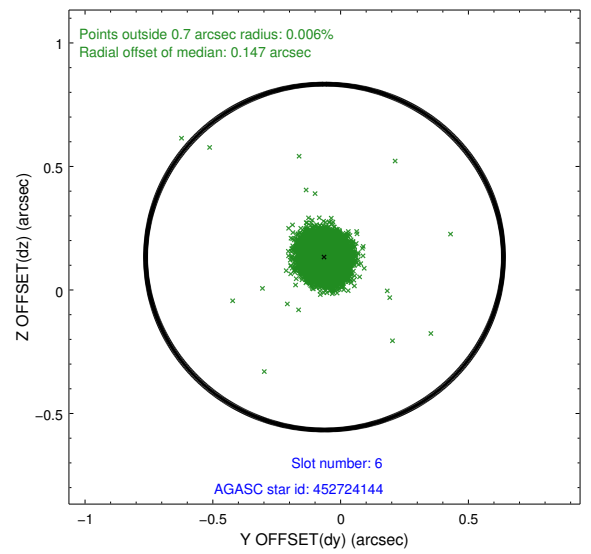
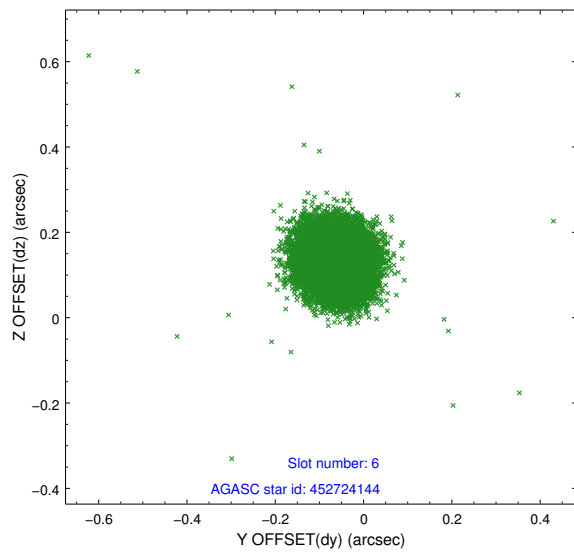
2.4.2 Slot 4



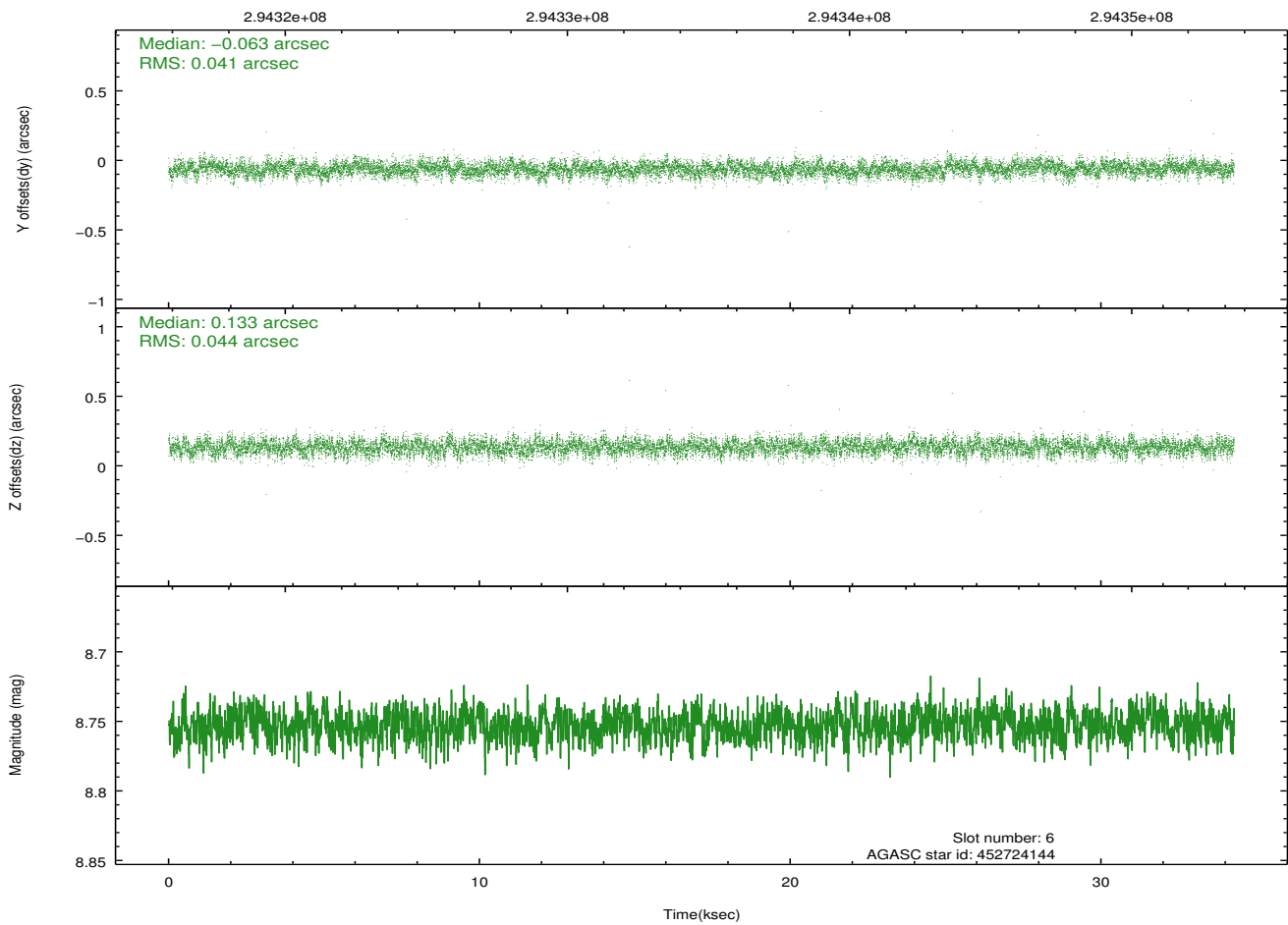
2.4.3 Slot 5



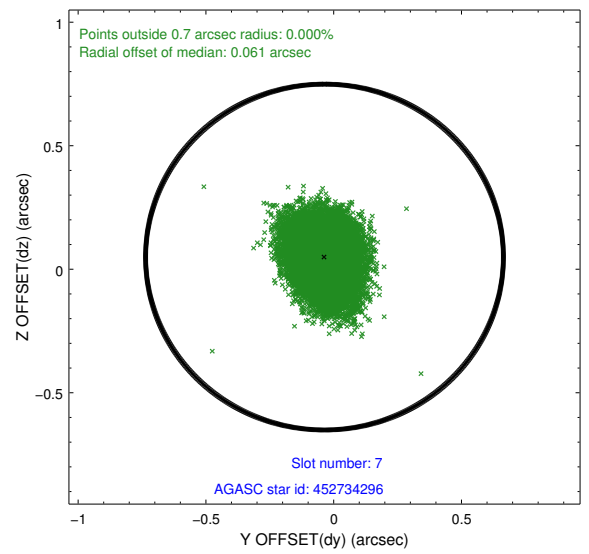
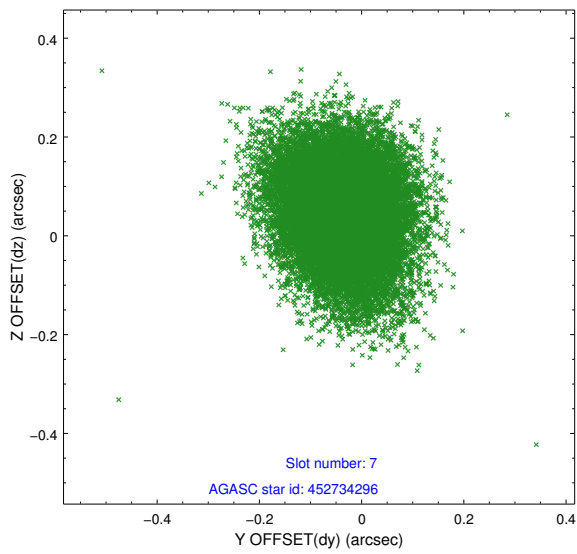
2.4.4 Slot 6



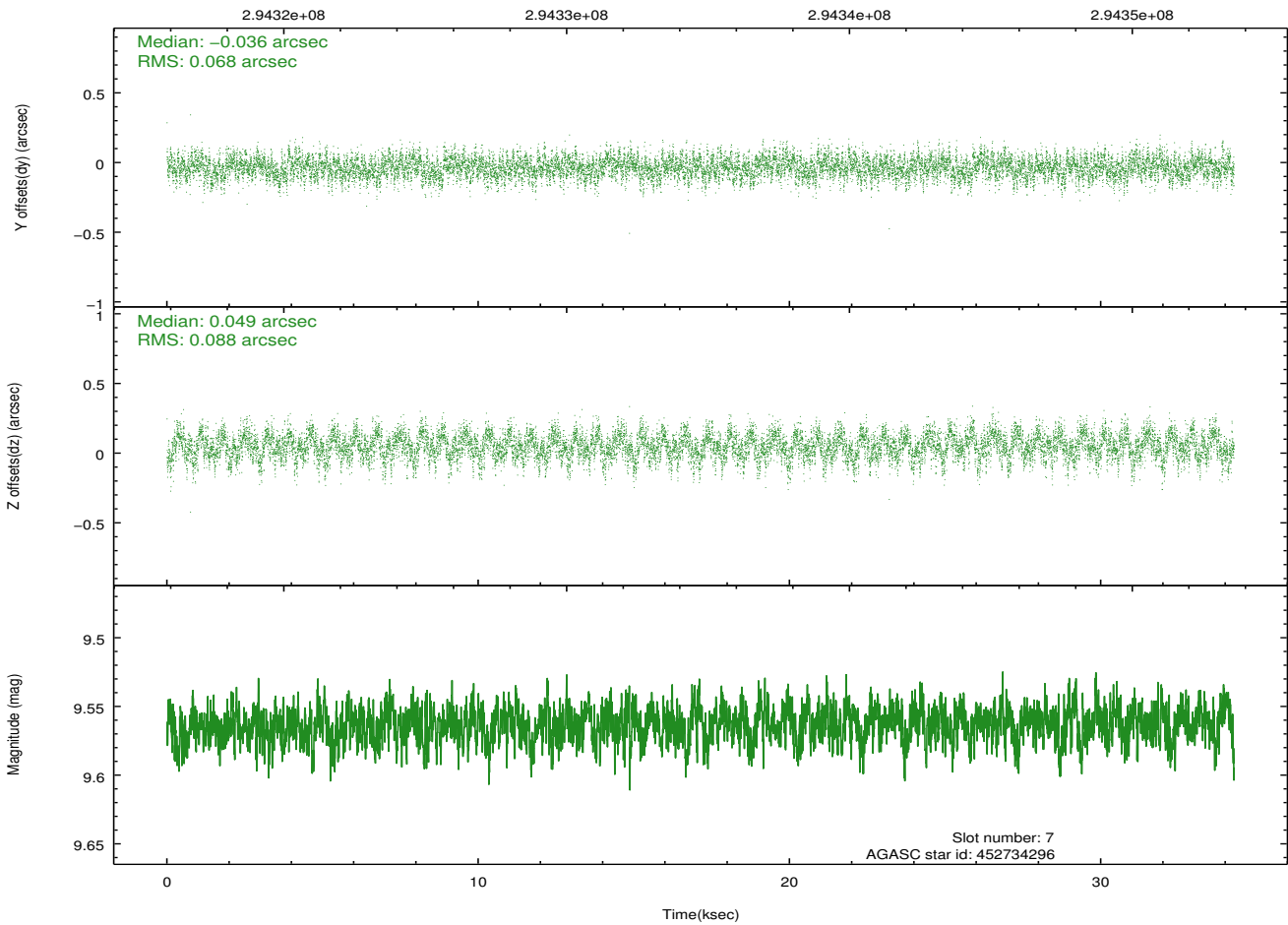
Time (s)



2.4.5 Slot 7

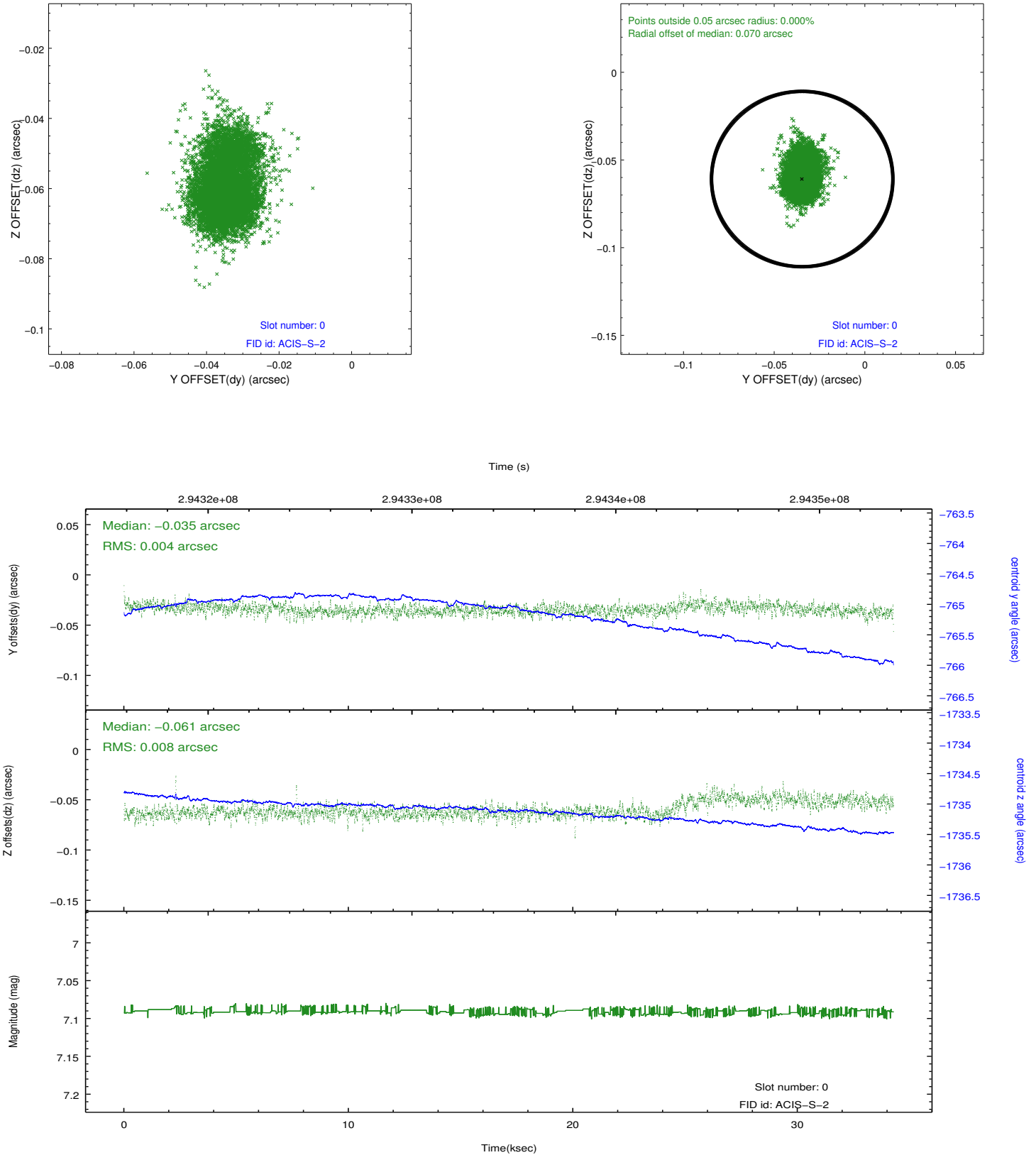


Time (s)

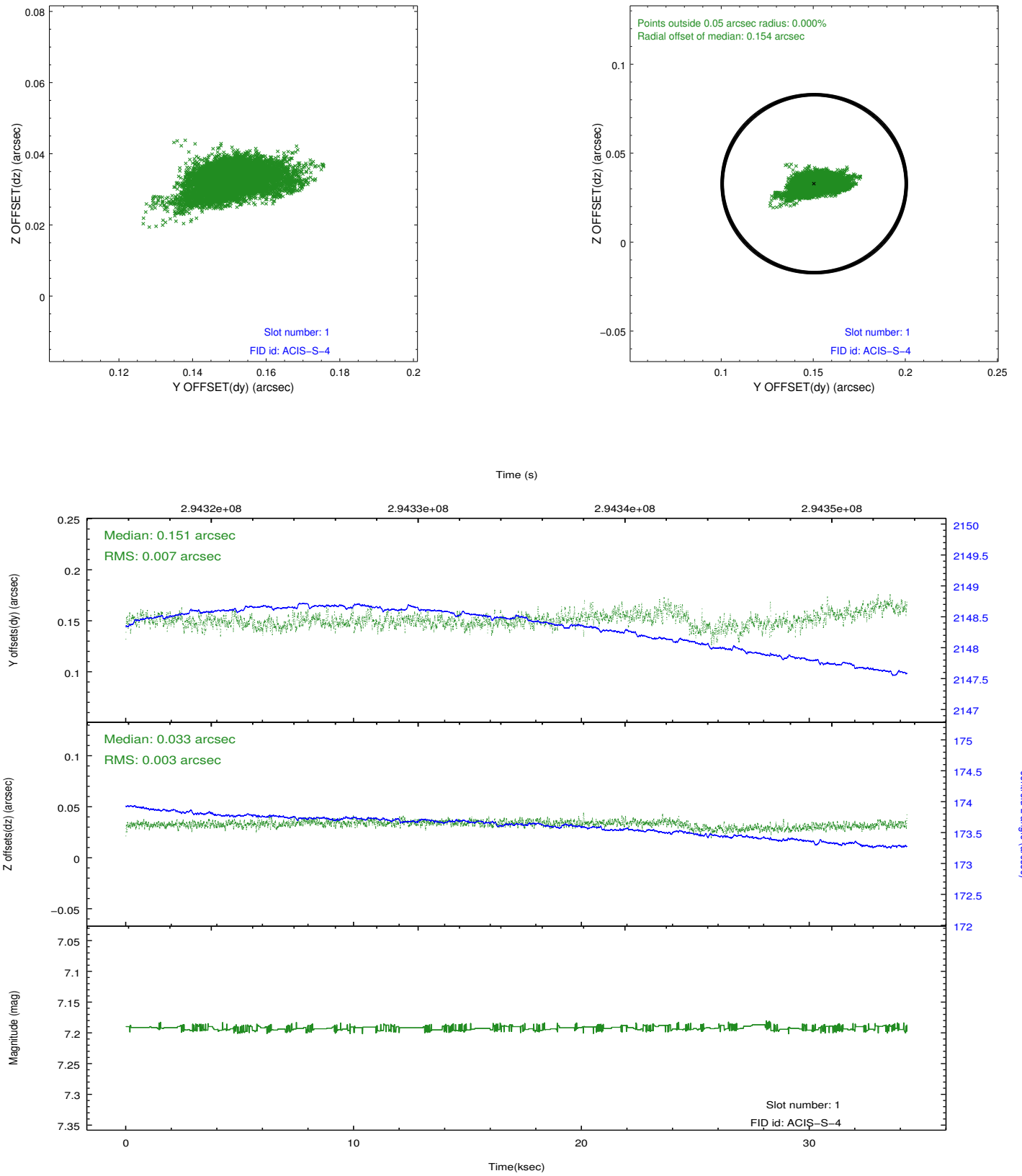


2.5 FID Slots

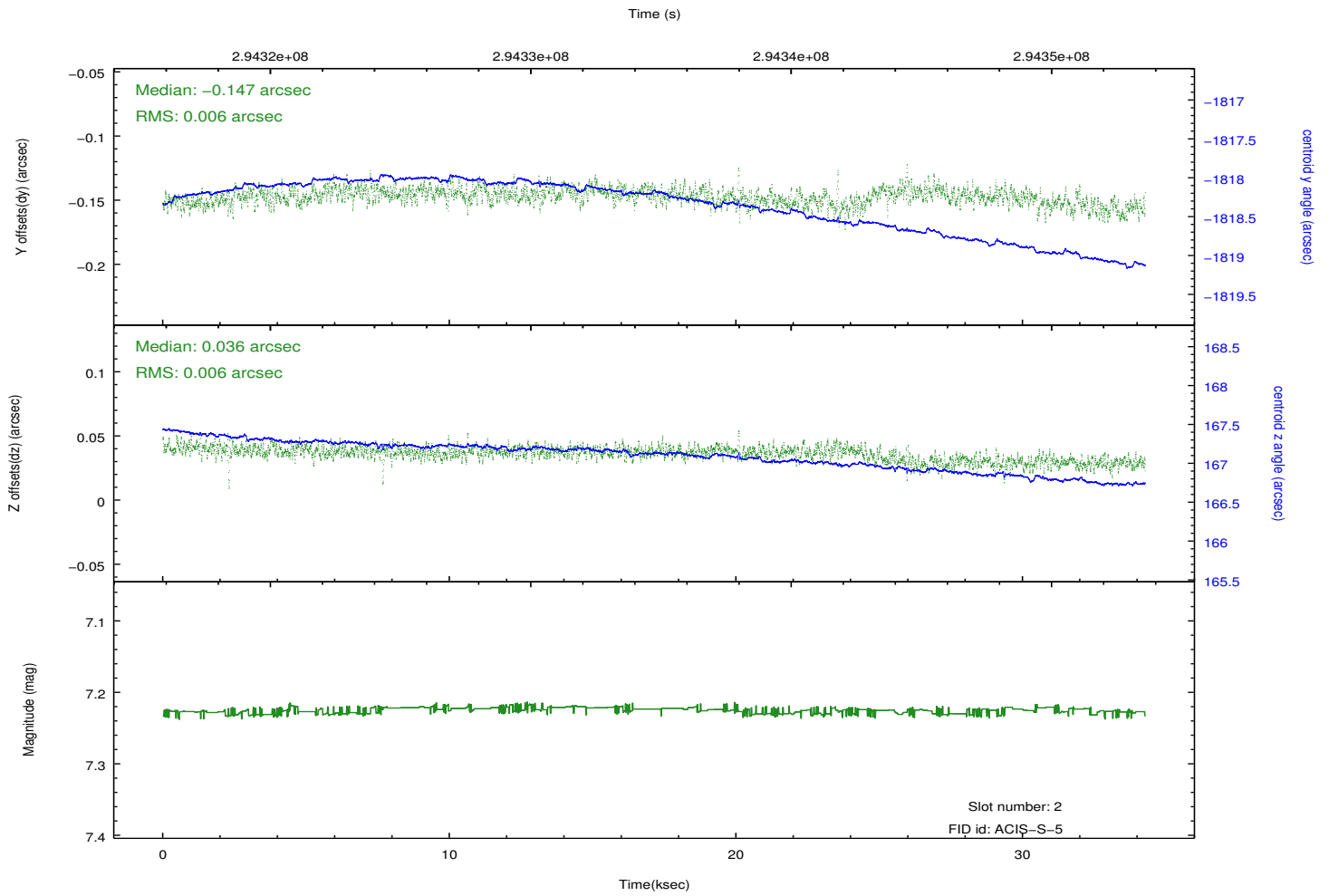
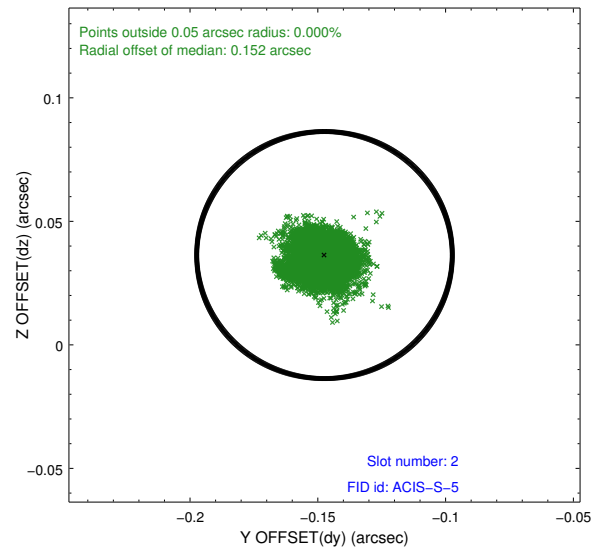
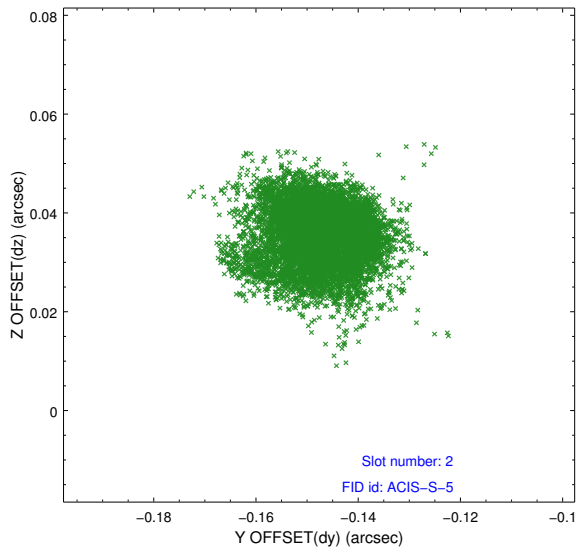
2.5.1 Slot 0



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)	2012.04.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	34.0415998

A.2 Comments

A spatial region of the original bias map for CCD = 3 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 = 3 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:
(177.31322,52.06556), (177.30482,52.07172), (177.25668,52.04675), (177.27000,52.04314)