

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2796 - L2 Version 5
Chandra X-Ray Center

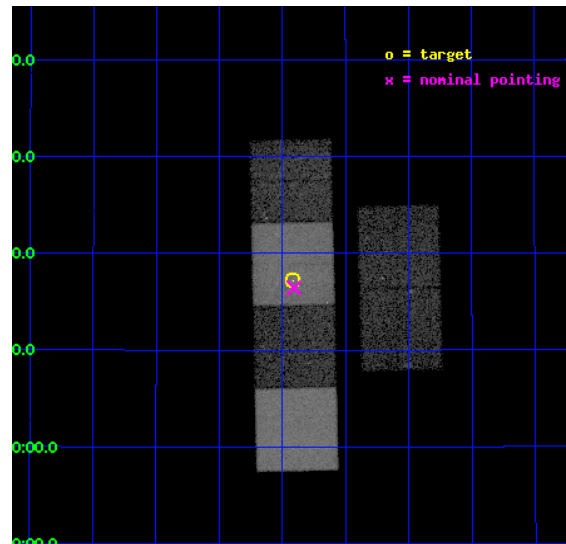
L2 Processing Date : Nov 2 2012

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1 Front

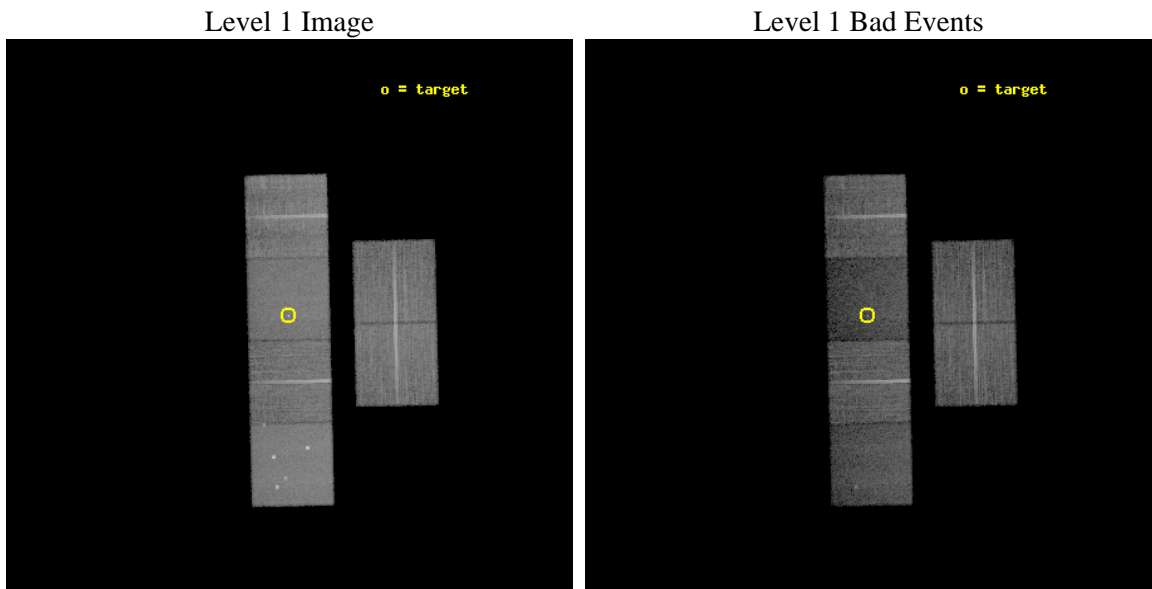
seq_num	500246	Sequence number
obs_id	2796	Observation id
title	PULSAR WIND TORI: NEUTRON STAR LINEAR AND ANGULAR MOMENTA	Proposal
observer	Prof. Roger Romani	Principal investigator
object	PSR J0538+2817	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.604583	Observer's specified target RA [deg]
dec_targ	28.286389	Observer's specified target Dec [deg]
ra_nom	84.602333391672	Nominal RA [deg]
dec_nom	28.274031449919	Nominal Dec [deg]
roll_nom	268.70874019064	Nominal Roll [deg]
revision	5	Processing version of data
ontime	19760.000018388	Sum of GTIs [s]
livetime	19509.787000112	Livetime [s]
ontime2	19760.000018388	Sum of GTIs [s]
ontime3	19753.518067956	Sum of GTIs [s]
ontime5	19760.000018388	Sum of GTIs [s]
ontime6	19760.000018388	Sum of GTIs [s]
ontime7	19760.000018388	Sum of GTIs [s]
ontime8	19756.759058133	Sum of GTIs [s]
l2events	177632	Number of level 2 events



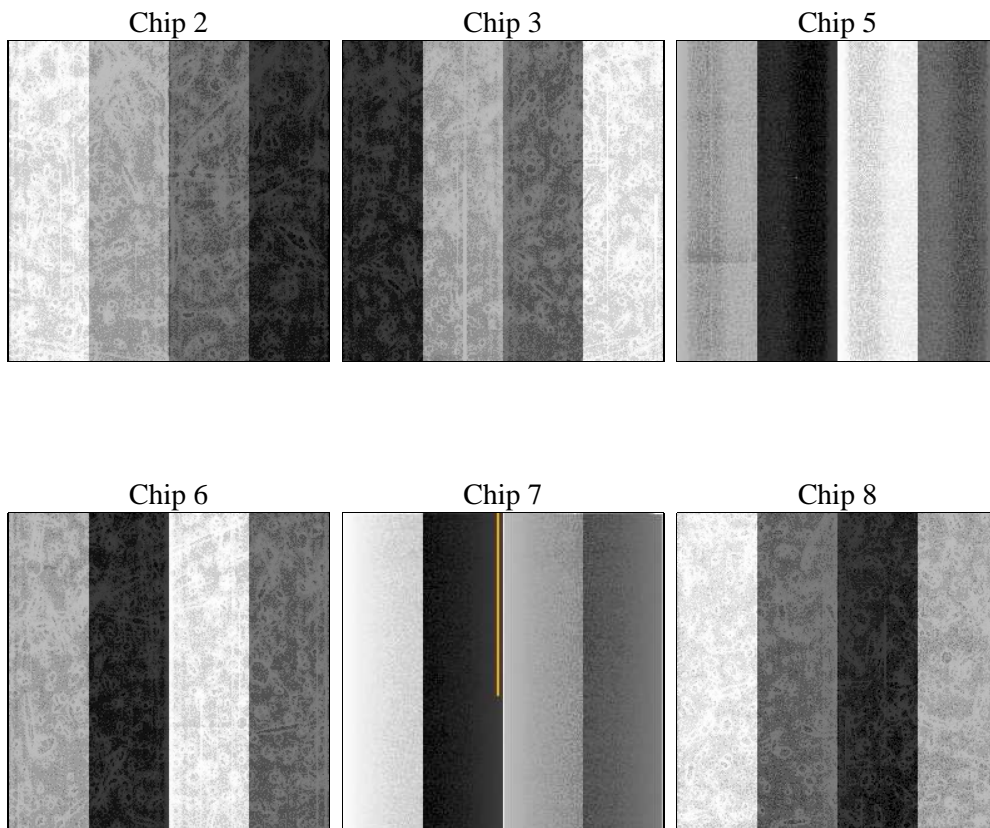
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19800.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	19760.000018388	Sum of GTIs [s]
caldsver	4.5.2	 	ontime2	19760.000018388	Sum of GTIs [s]
date	2012-11-02T16:15:42	Date and time of file creation	ontime3	19753.518067956	Sum of GTIs [s]
revision	5	Processing version of data	ontime5	19760.000018388	Sum of GTIs [s]
			ontime6	19760.000018388	Sum of GTIs [s]
			ontime7	19760.000018388	Sum of GTIs [s]
			ontime8	19756.759058133	Sum of GTIs [s]
			l1events	703033	Number of level 1 events

2.1.4 Events

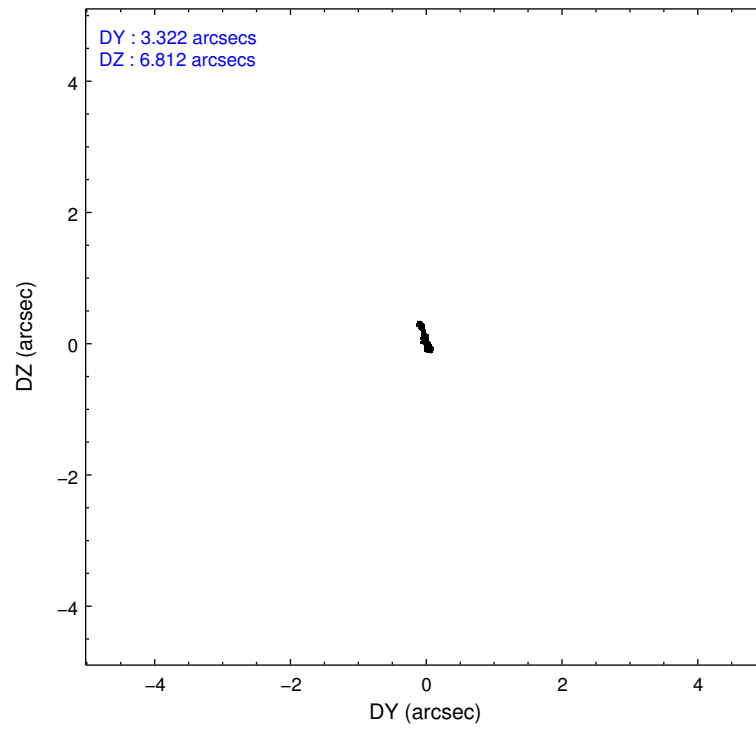
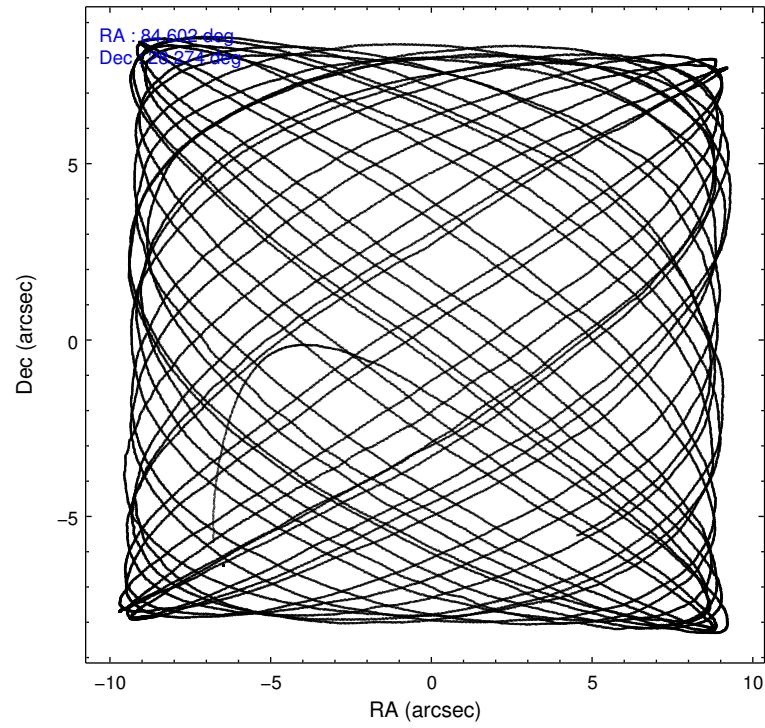
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	112820	100898	141817	104403	115270	127825	grade 0 events	3755	3638	13920	4549	8040	8682
rejected events	103027	91645	57881	93476	47680	98899		3%	3%	9%	4%	6%	6%
rejected %	91%	90%	40%	89%	41%	77%	grade 1 events	43	49	120	56	148	82
								0%	0%	0%	0%	0%	0%
							grade 2 events	2290	1892	23824	2189	14092	6380
								2%	1%	16%	2%	12%	4%
							grade 3 events	1026	988	4449	1206	6635	3300
								0%	0%	3%	1%	5%	2%
							grade 4 events	1027	1017	4319	1092	6538	2907
								0%	1%	3%	1%	5%	2%
							grade 5 events	2674	3107	10489	3434	10235	4763
								2%	3%	7%	3%	8%	3%
							grade 6 events	1698	1718	37451	1896	32307	7666
								1%	1%	26%	1%	28%	5%
							grade 7 events	100307	88489	47245	89981	37275	94045
								88%	87%	33%	86%	32%	73%

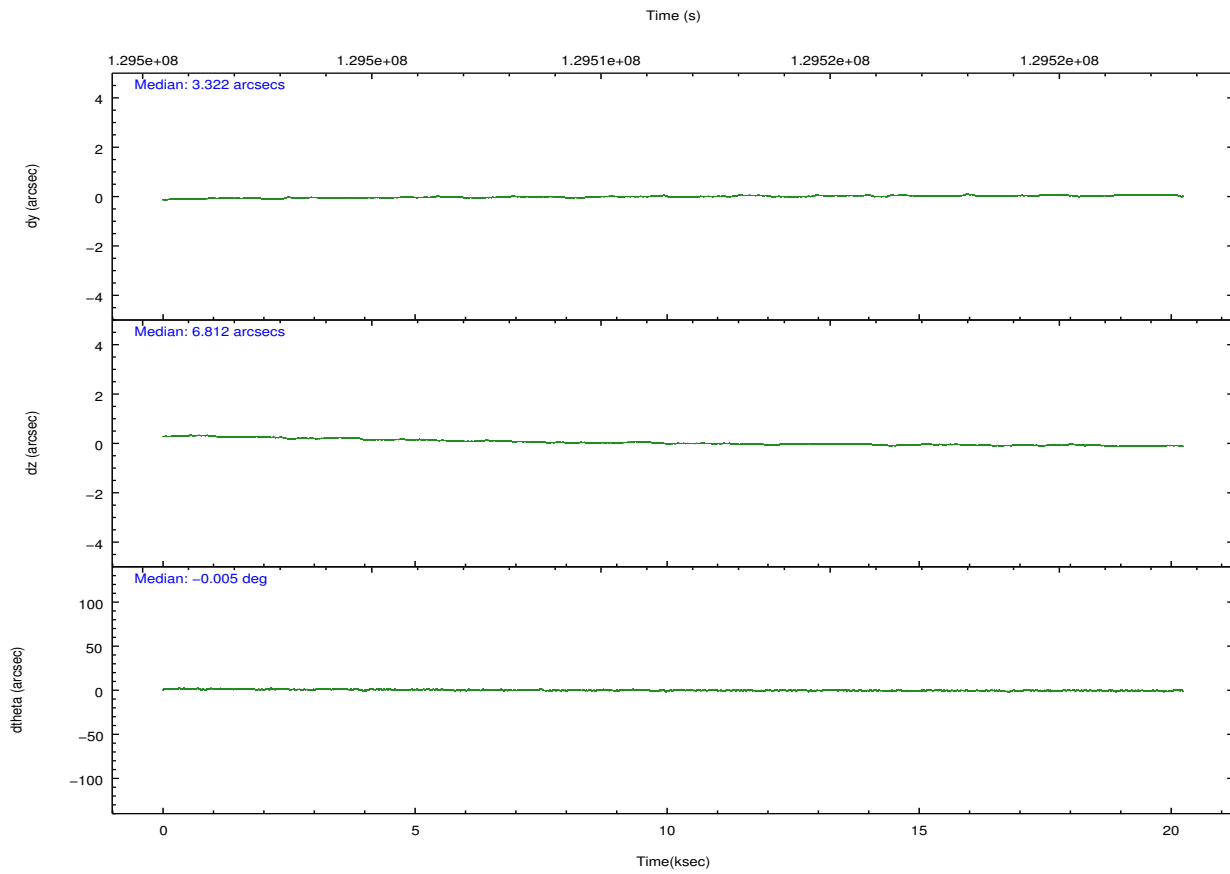
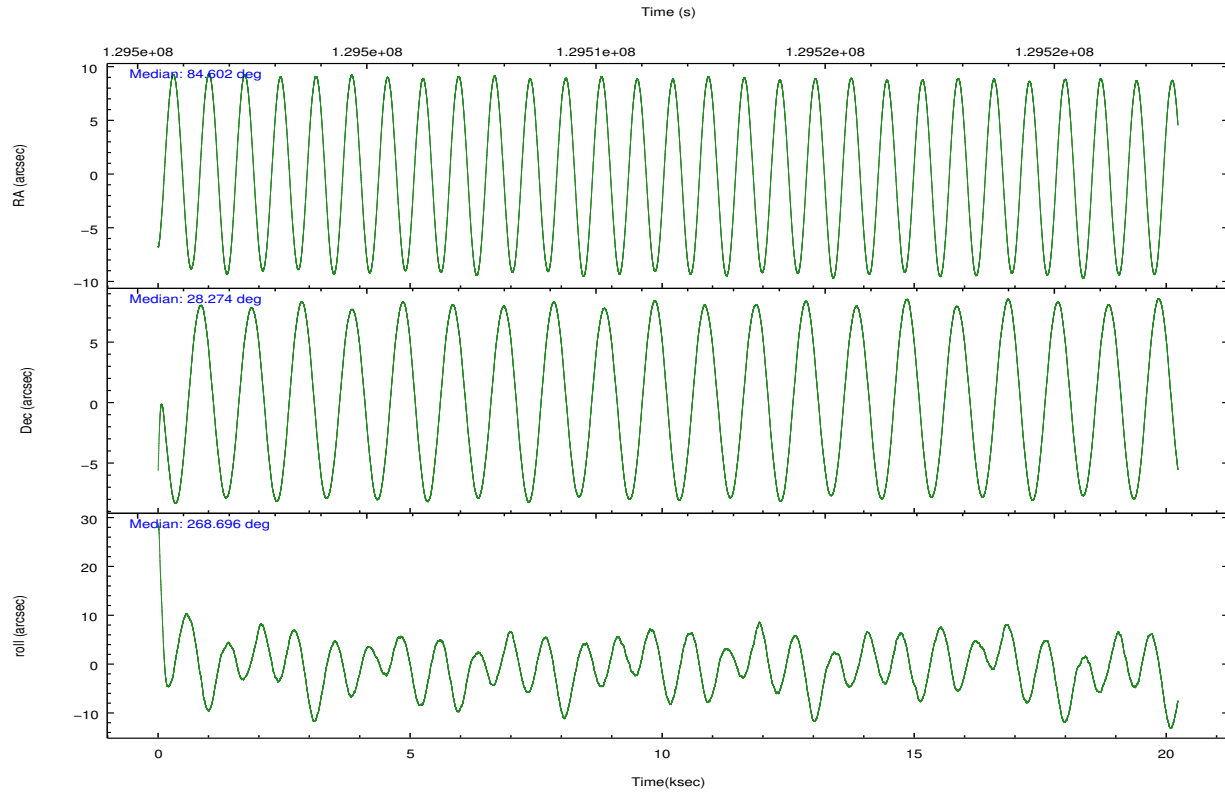
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-235678	ACIS-235678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	84.587108	84.60233339167203
[deg] Pointing Dec	28.297777	28.27403144991911
[deg] Pointing Roll	268.559304	268.7087401906396
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	129501889.184000	129500805.25599
Observation start date	2002-02-07T20:43:45	2002-02-07T20:26:45
[s] Observation end time (MET)	129521689.184000	129522296.43186
Observation end date	2002-02-08T02:13:45	2002-02-08T02:24:56
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

2.3 Aspect



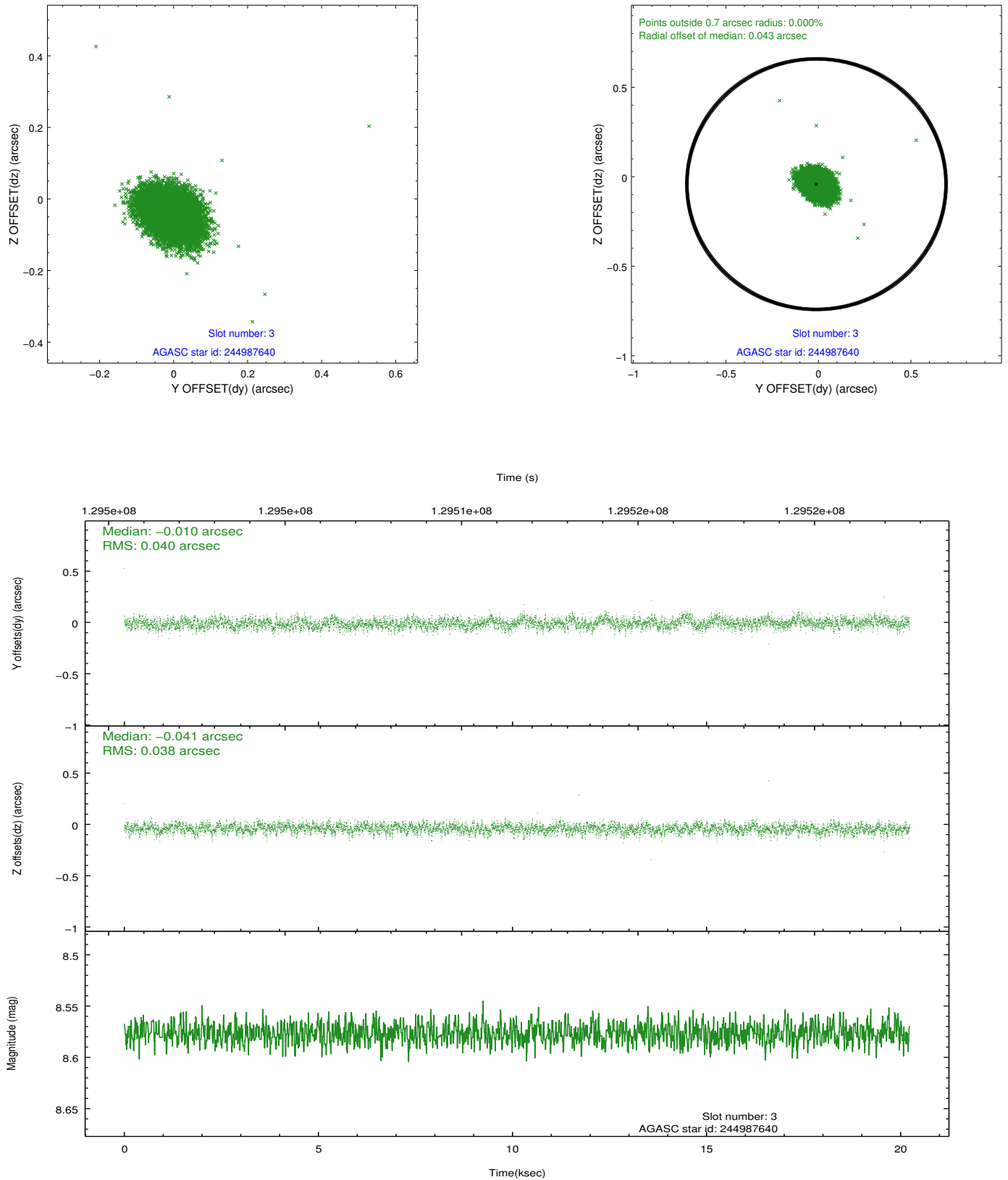


Slot Statistics

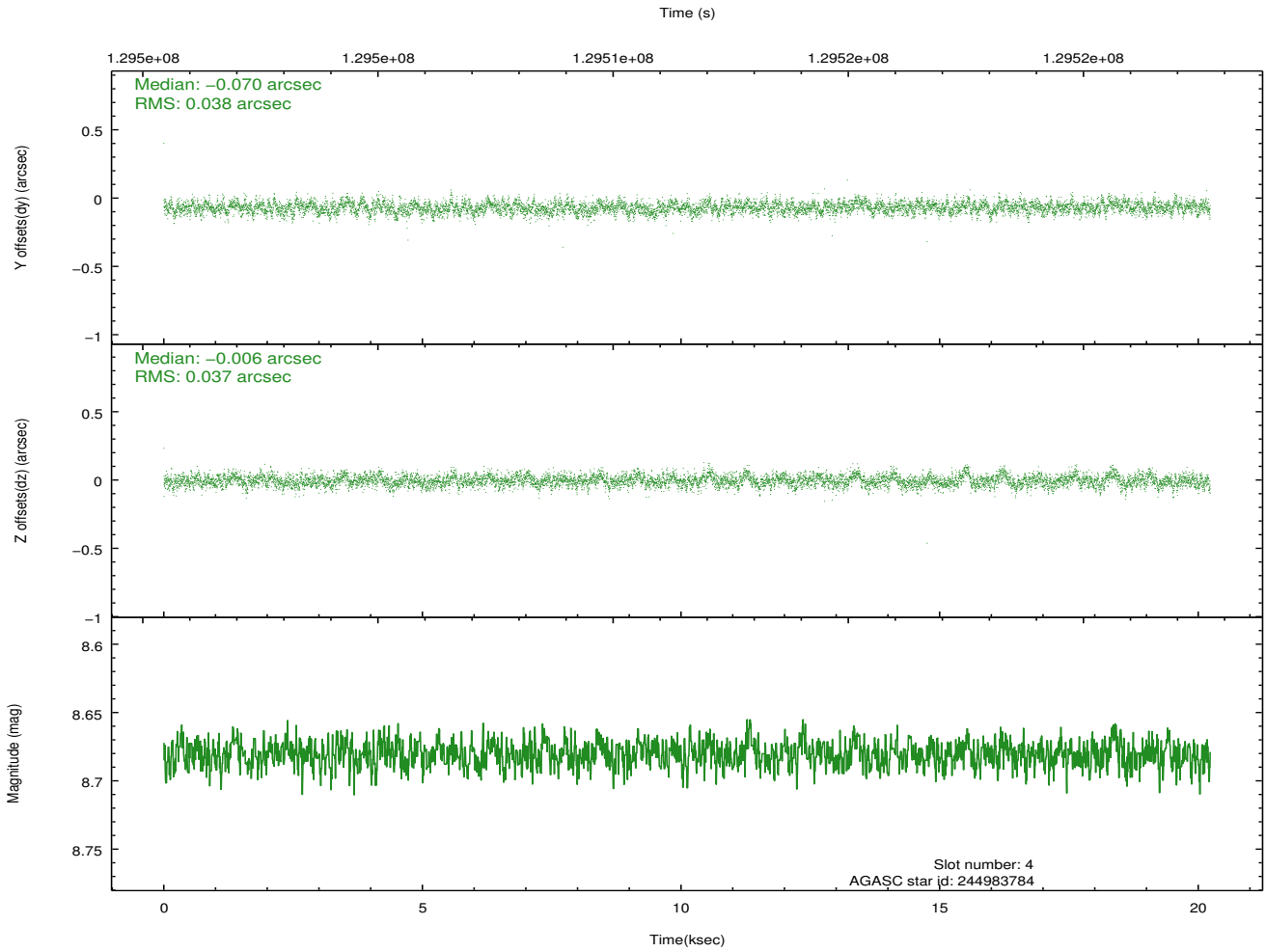
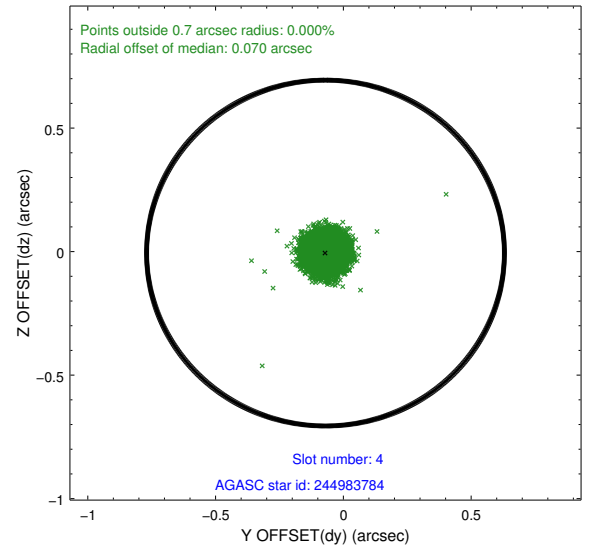
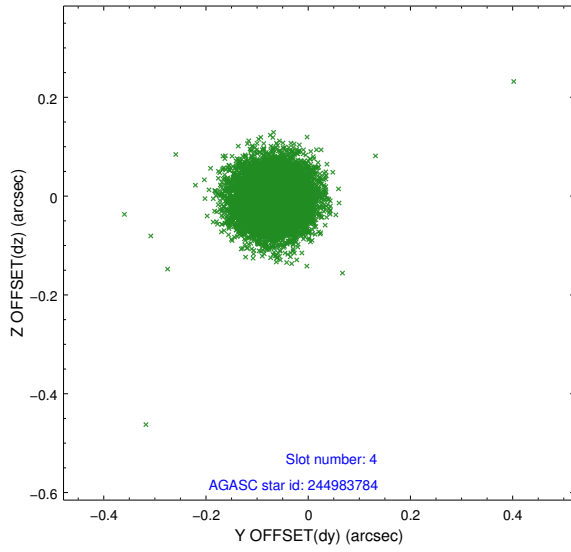
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	4935	-0.019	0.007	0.008	0.012	0.000000	0.000000	-755.97	-1727.97
1	FID	ACIS-S-4	7.20	4934	-0.010	0.008	0.008	0.015	0.000000	0.000000	2157.21	180.36
2	FID	ACIS-S-5	7.24	4934	-0.002	-0.005	0.008	0.015	0.000000	0.000000	-1808.58	174.18
3	GUIDE	244987640	8.58	9866	-0.010	-0.041	0.058	0.096	84.165830	27.911751	1422.26	-1304.98
4	GUIDE	244983784	8.68	9869	-0.070	-0.006	0.056	0.092	84.780149	28.001156	1052.86	639.98
5	GUIDE	244986520	9.36	9866	0.104	0.245	0.087	0.151	85.259892	27.682776	2154.59	2200.16
6	GUIDE	244985992	9.42	9836	0.005	-0.127	0.112	0.184	83.839346	27.820088	1773.90	-2337.04
7	GUIDE	245499976	9.47	9860	-0.026	-0.066	0.077	0.128	84.250710	28.199162	381.99	-1058.65

2.4 Star Slots

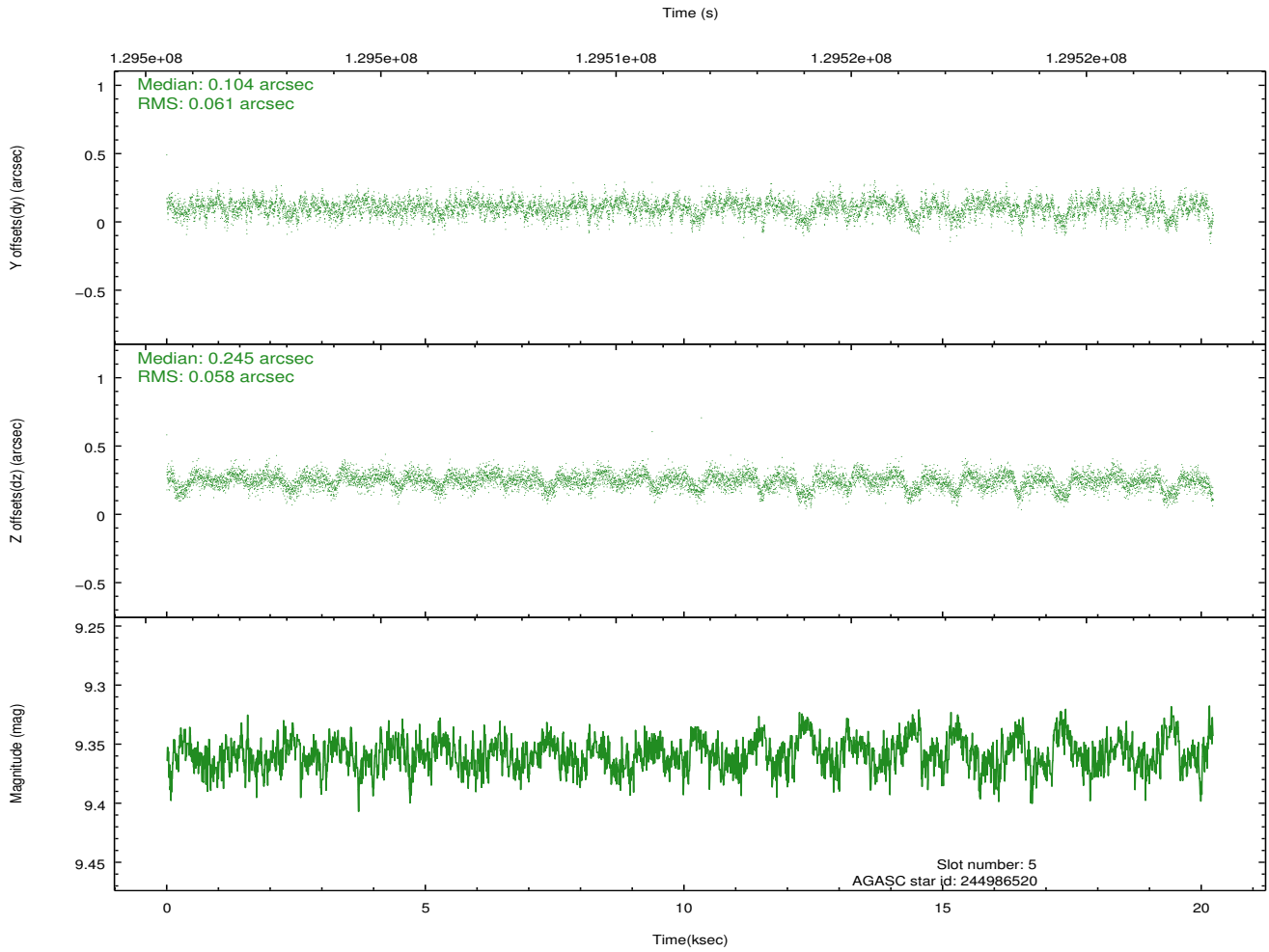
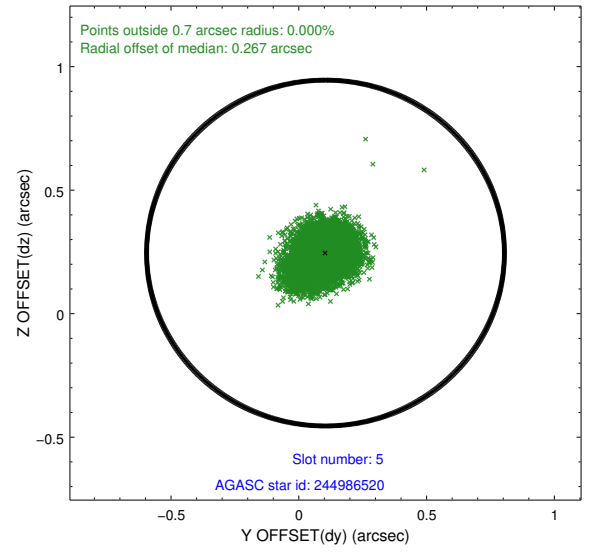
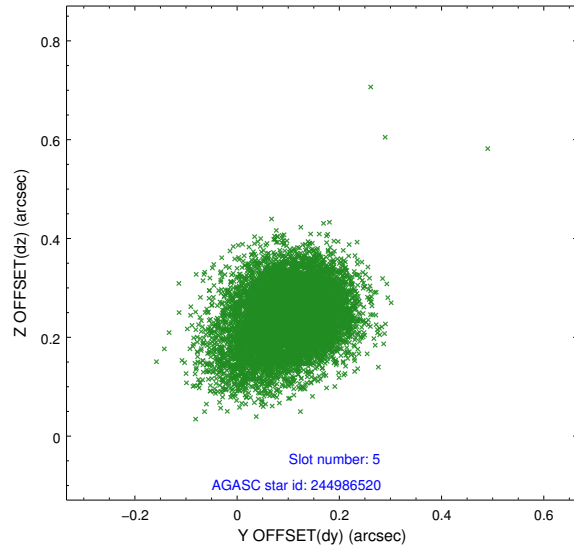
2.4.1 Slot 3



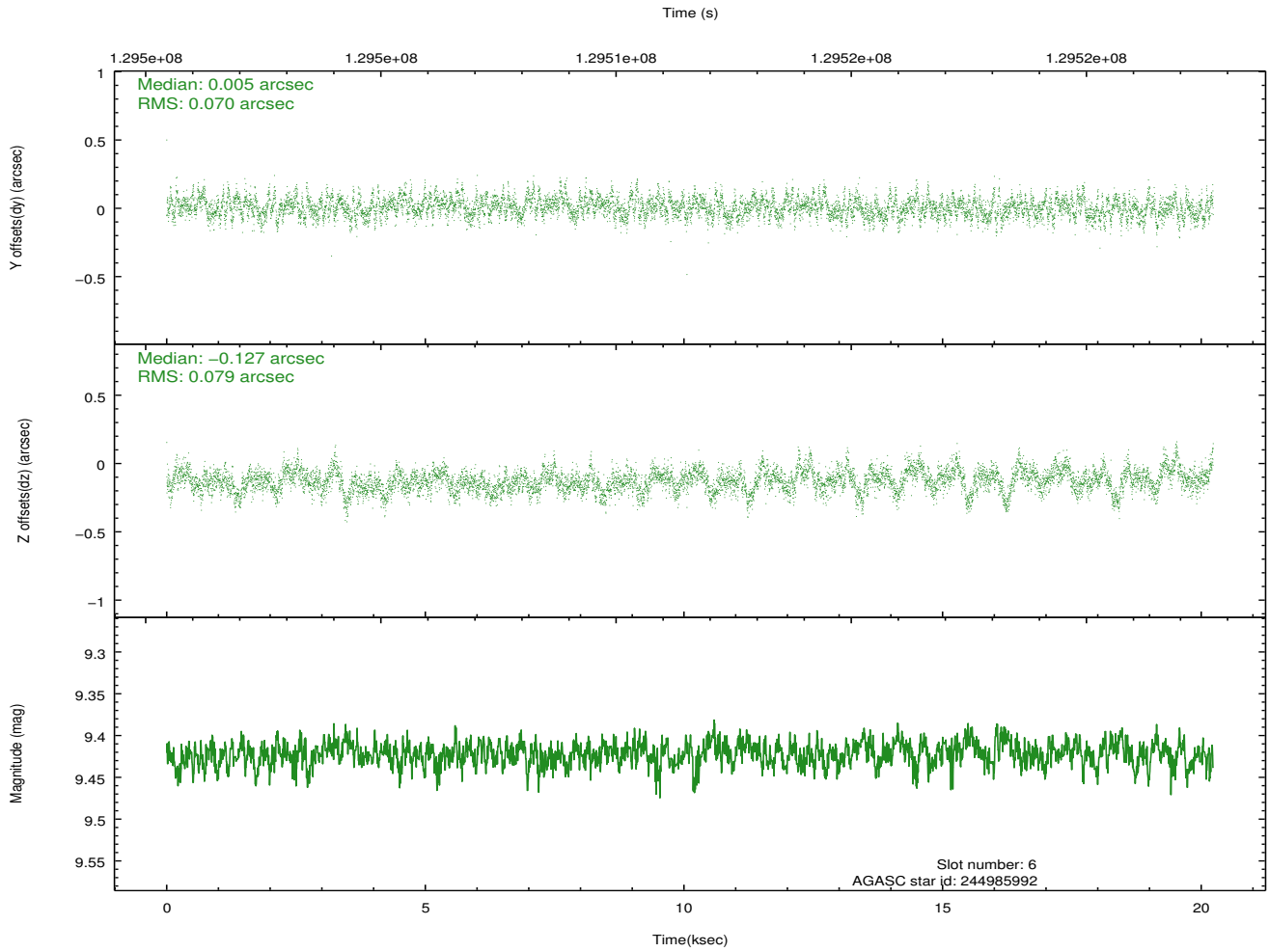
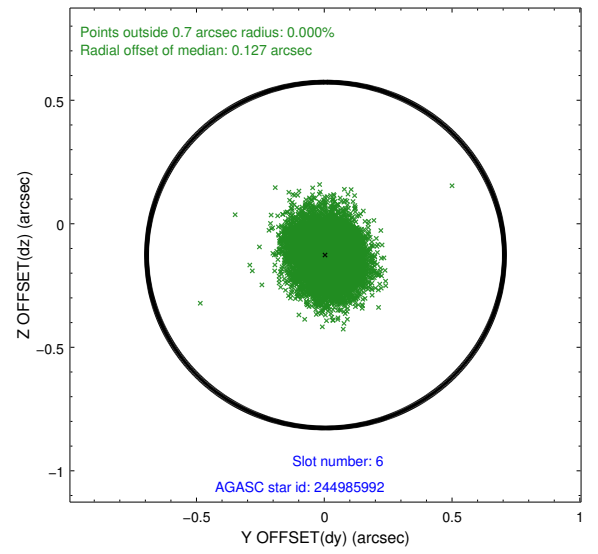
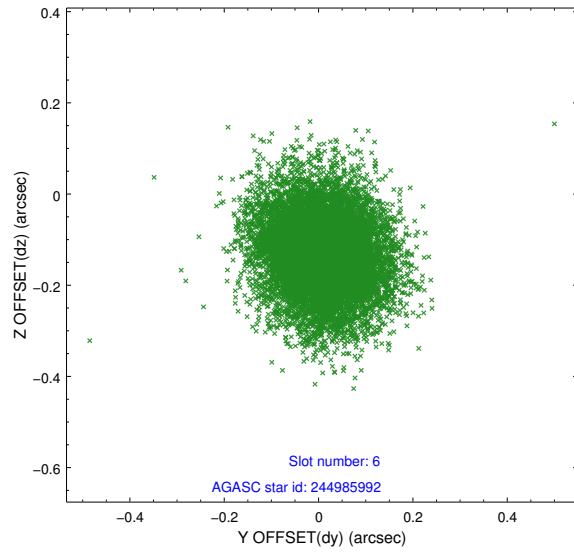
2.4.2 Slot 4



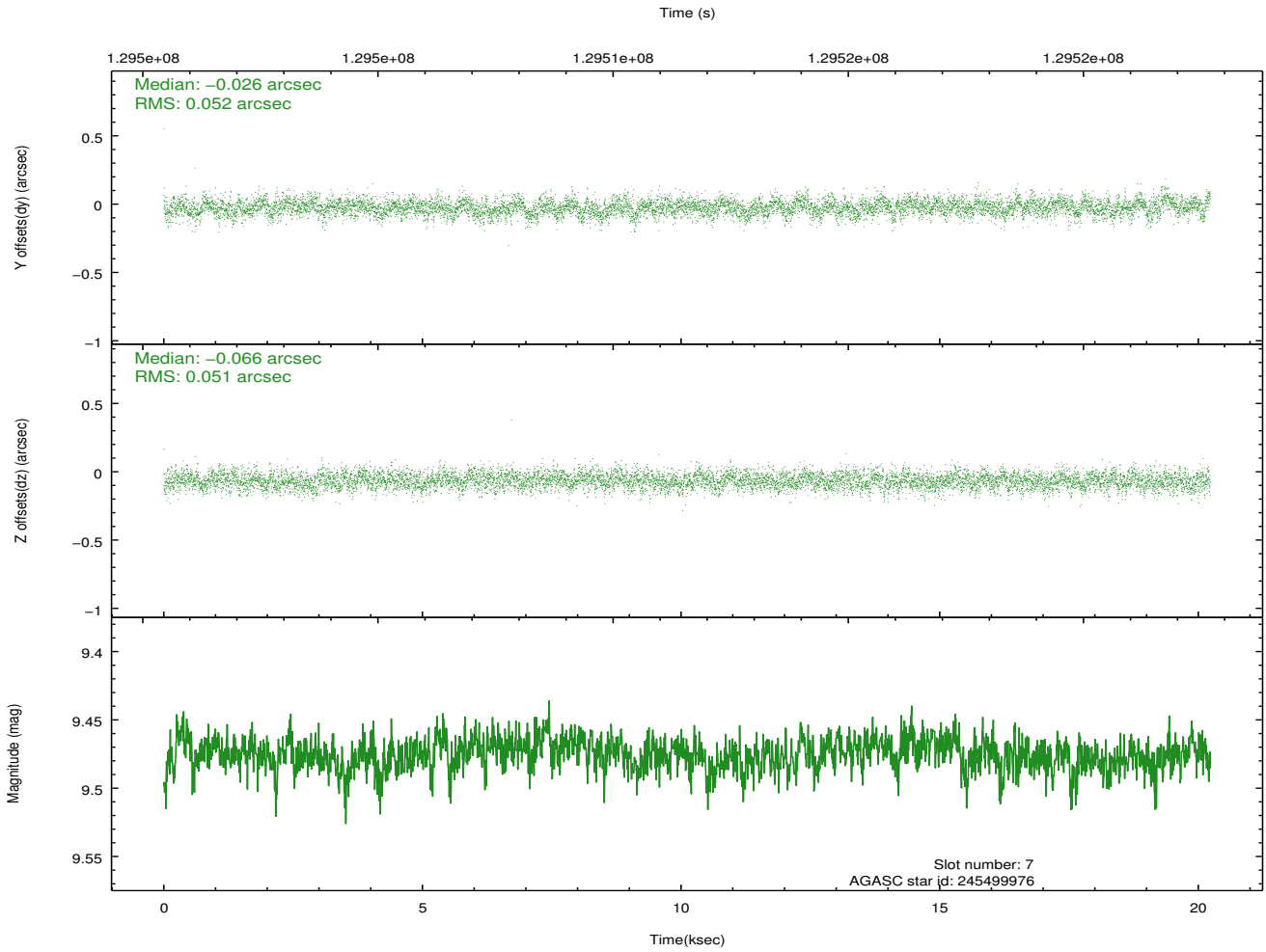
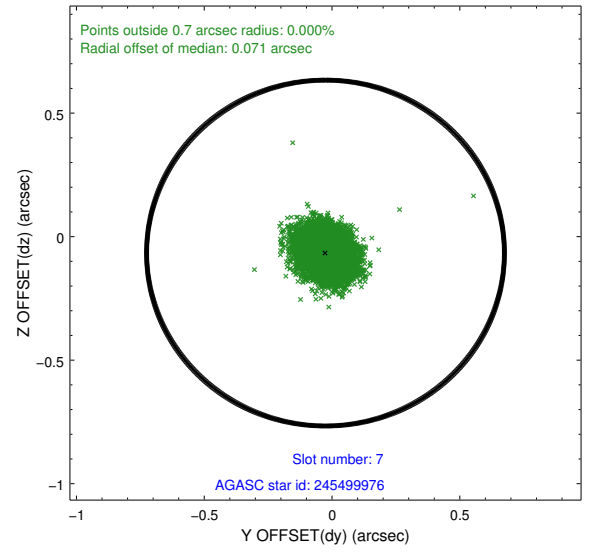
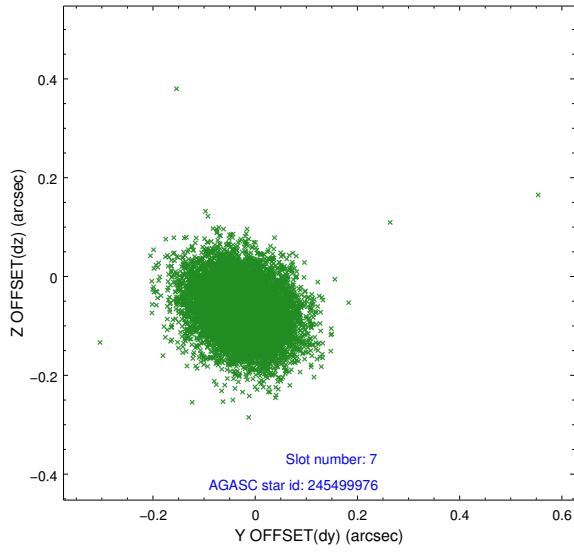
2.4.3 Slot 5



2.4.4 Slot 6

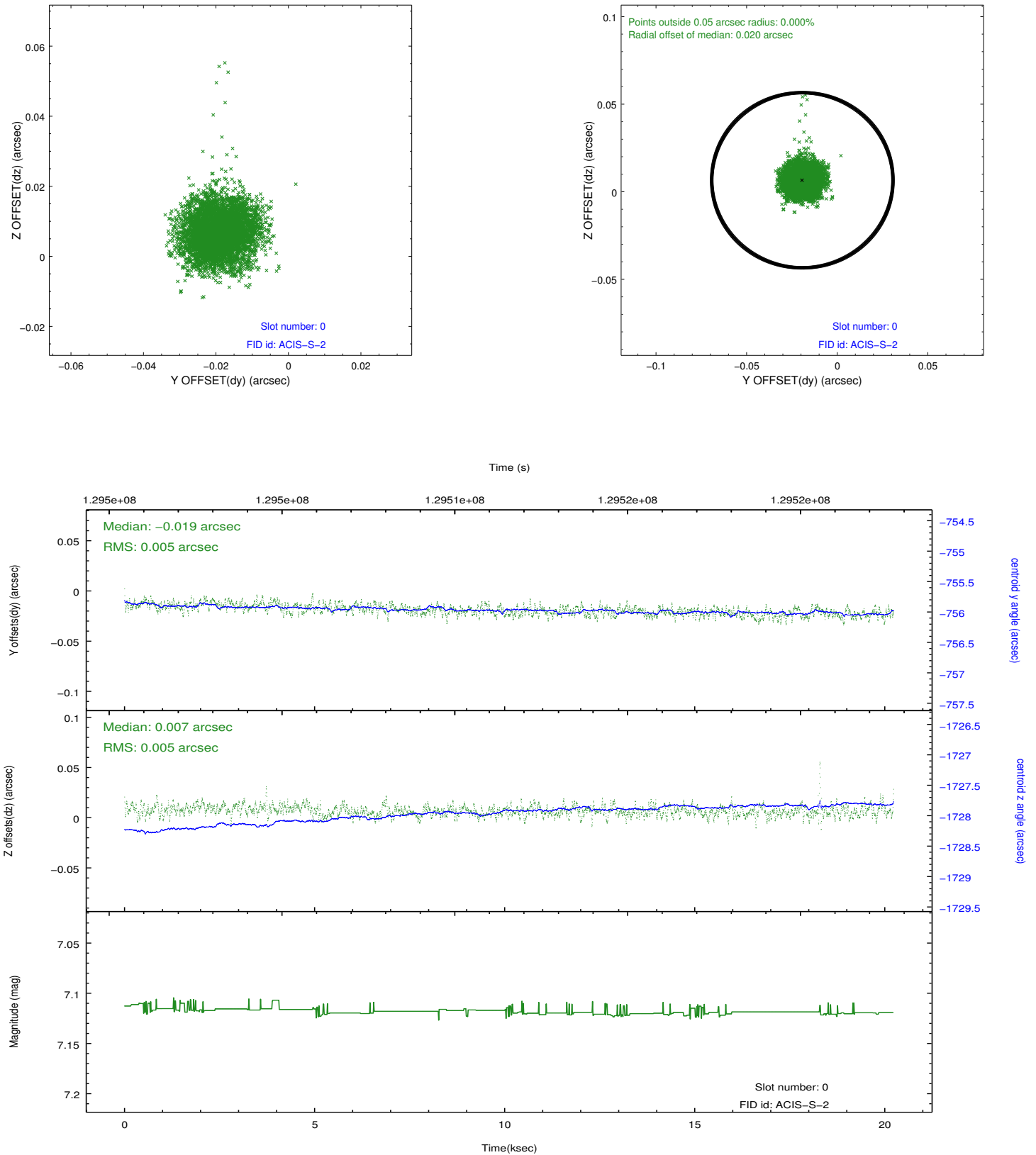


2.4.5 Slot 7

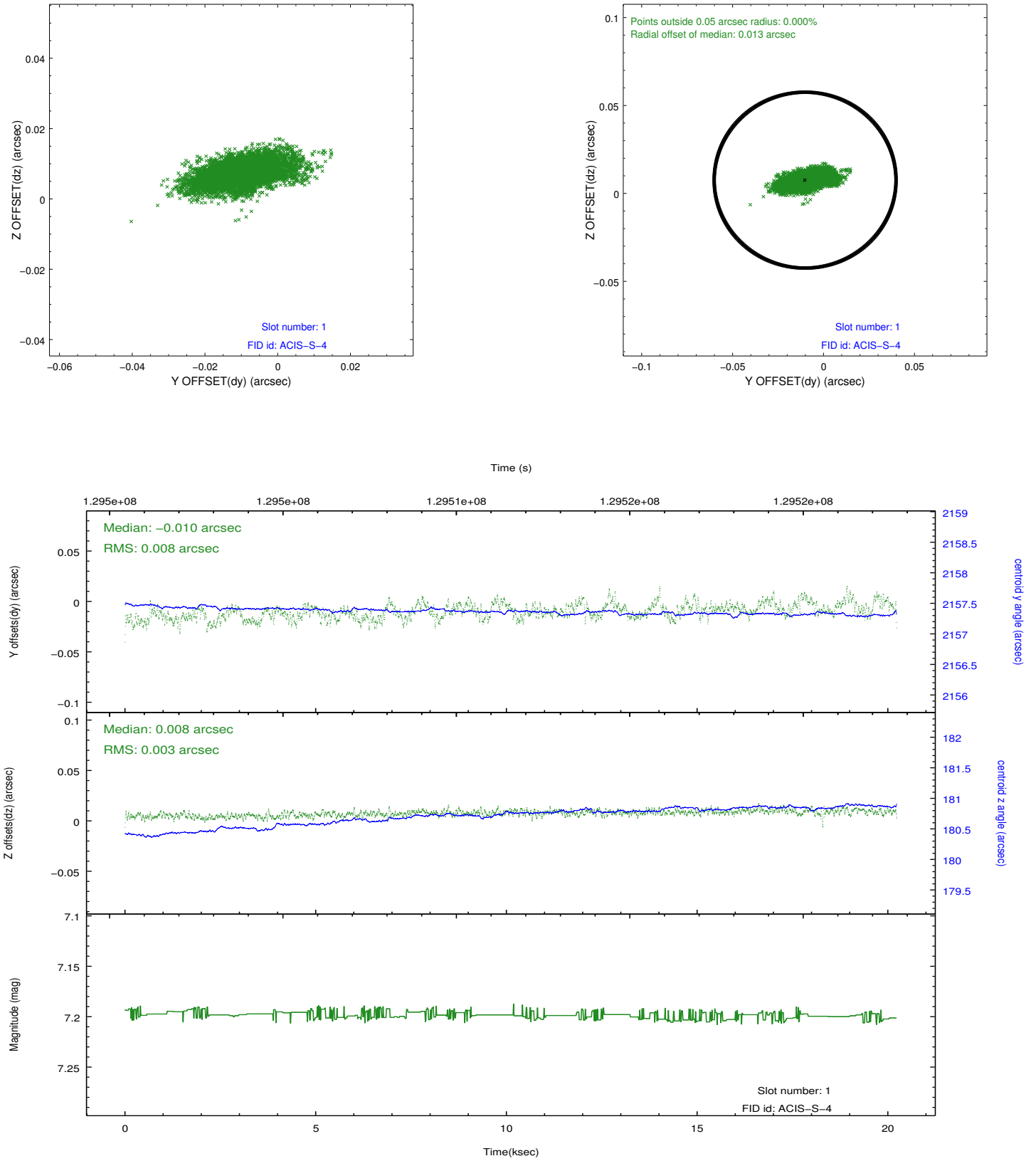


2.5 FID Slots

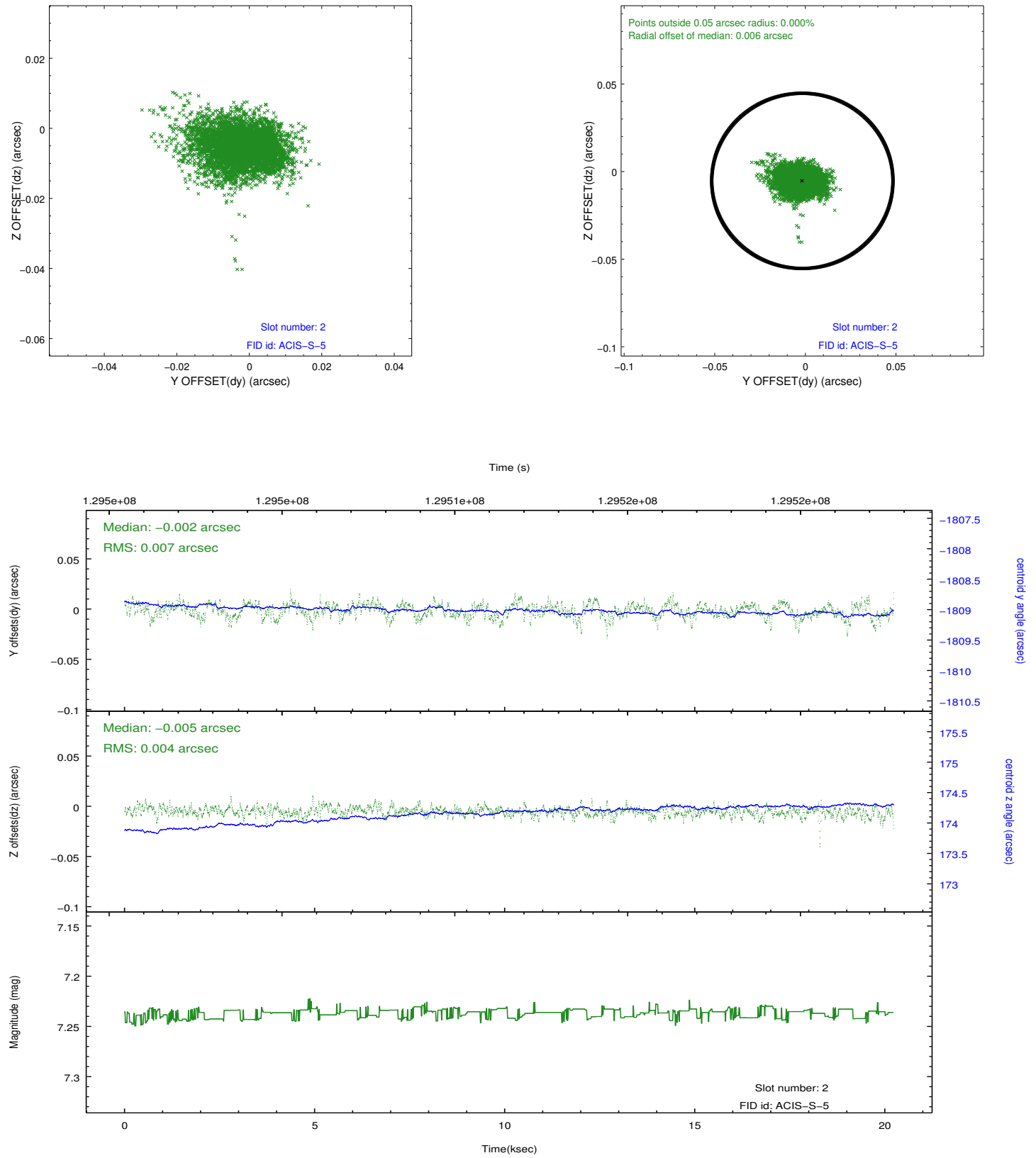
2.5.1 Slot 0



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)	2012.11.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.763

A.2 Comments

A spatial region of the original bias map for CCD = 6 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 = 6 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:
(84.68124,28.22687), (84.68158,28.24052), (84.52313,28.24353), (84.52281,28.22989)