

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 9494 - L2 Version 3
Chandra X-Ray Center

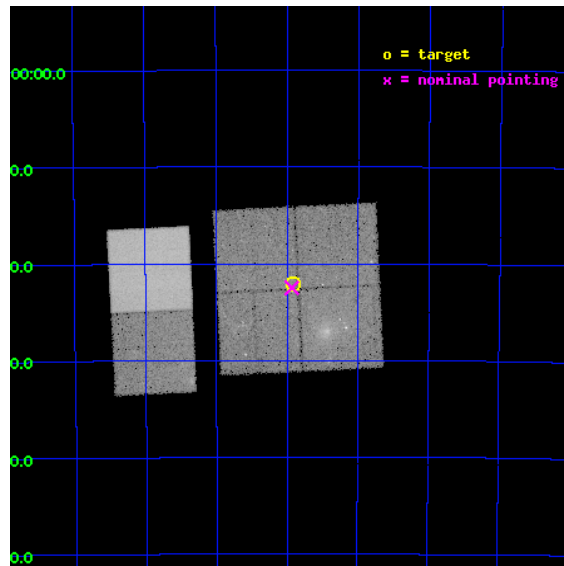
L2 Processing Date : Jun 11 2012

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

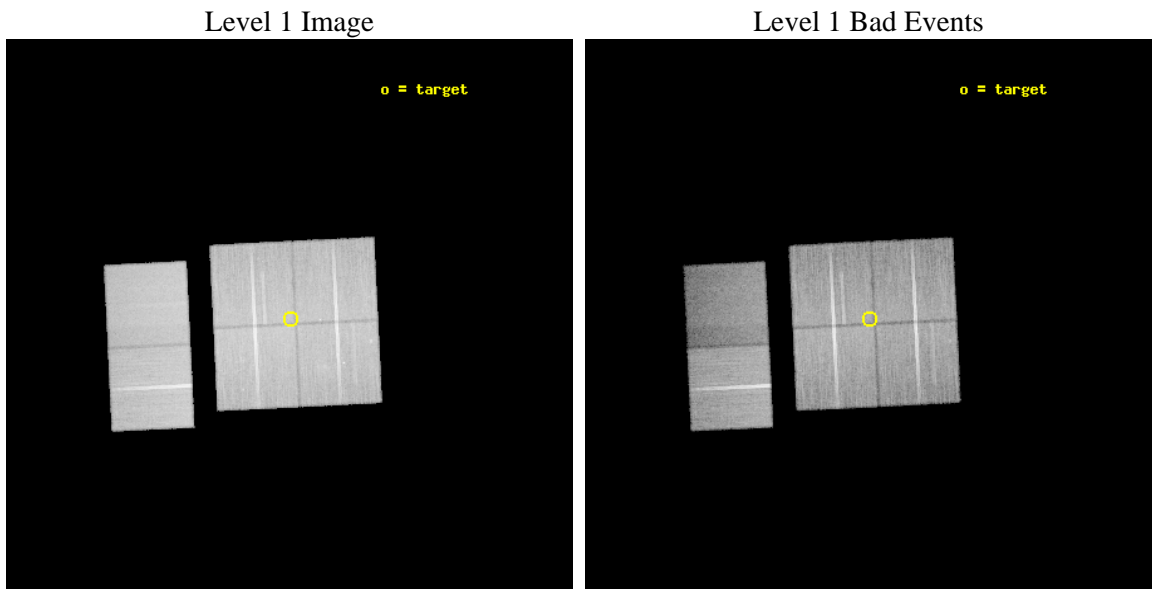
seq_num	900831	Sequence number
obs_id	9494	Observation id
title	The Great Nebula in Carina: Protoplanetary Disks to Starburst Galaxies	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	Carina South Pillars Ptg 4	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	161.729167	Observer's specified target RA [deg]
dec_targ	-60.367139	Observer's specified target Dec [deg]
ra_nom	161.73326370152	Nominal RA [deg]
dec_nom	-60.374958639386	Nominal Dec [deg]
roll_nom	267.21224879273	Nominal Roll [deg]
revision	3	Processing version of data
ontime	37036.75886184	Sum of GTIs [s]
livetime	36567.777120272	Livetime [s]
ontime0	37036.758881807	Sum of GTIs [s]
ontime1	37039.999862075	Sum of GTIs [s]
ontime2	37036.758851826	Sum of GTIs [s]
ontime3	37036.75886184	Sum of GTIs [s]
ontime6	37033.517931283	Sum of GTIs [s]
ontime7	37039.999862075	Sum of GTIs [s]
l2events	258194	Number of level 2 events



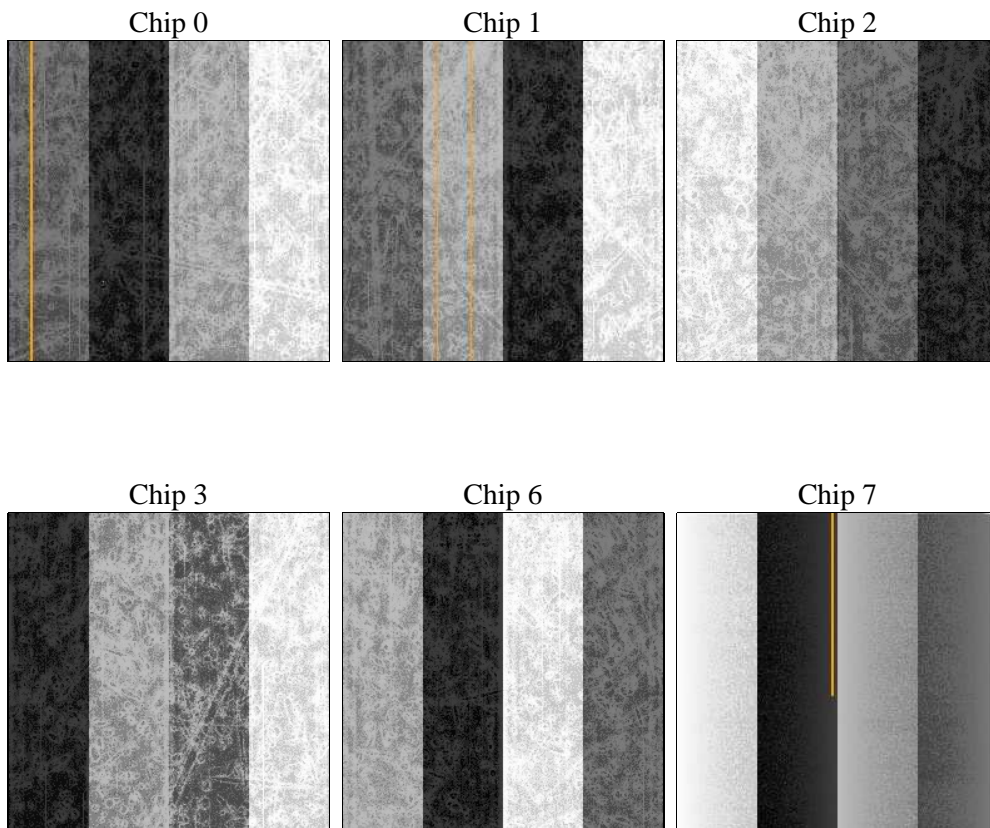
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	37000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	37036.75886184	Sum of GTIs [s]
caldbver	4.4.10	 	ontime0	37036.758881807	Sum of GTIs [s]
date	2012-06-11T21:21:59	Date and time of file creation	ontime1	37039.999862075	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	37036.758851826	Sum of GTIs [s]
			ontime3	37036.75886184	Sum of GTIs [s]
			ontime6	37033.517931283	Sum of GTIs [s]
			ontime7	37039.999862075	Sum of GTIs [s]
			l1events	1658211	Number of level 1 events

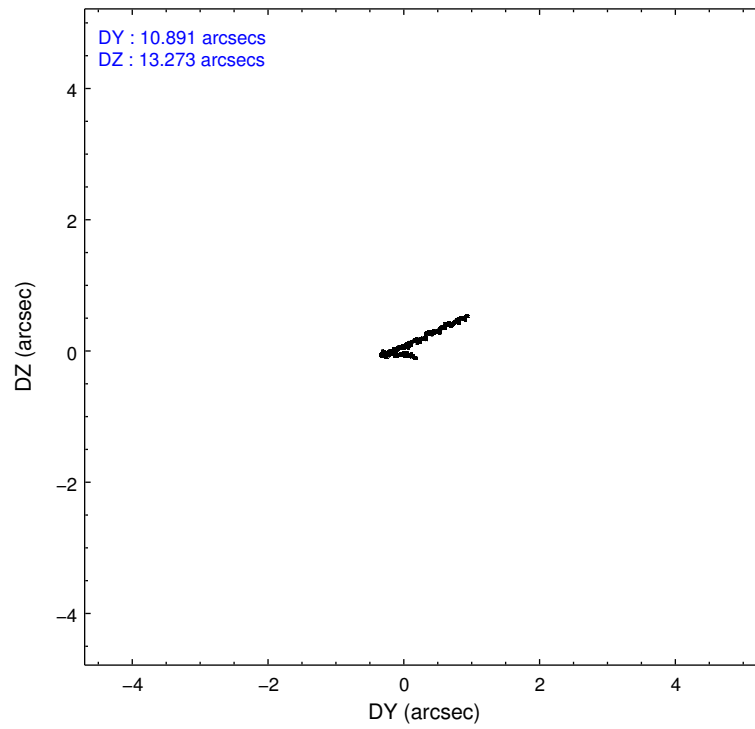
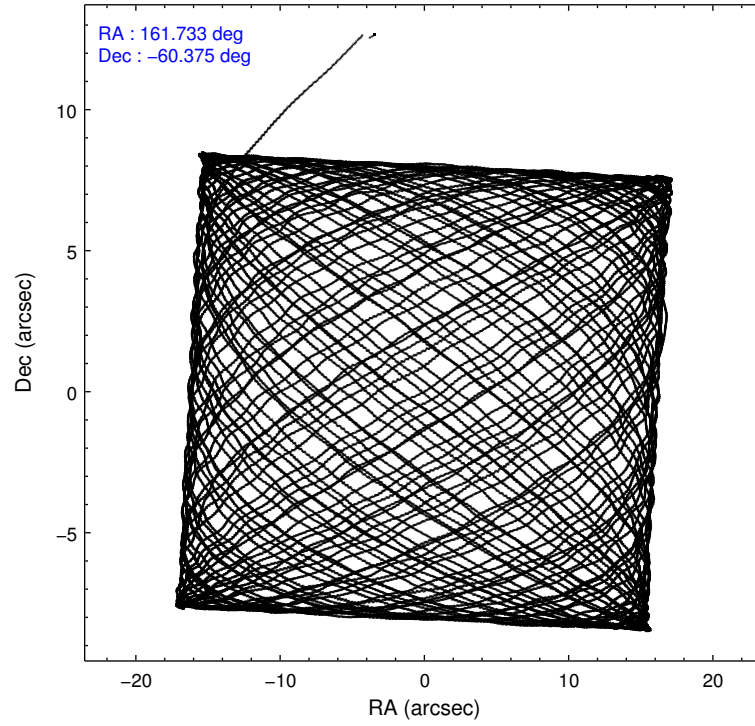
2.1.4 Events

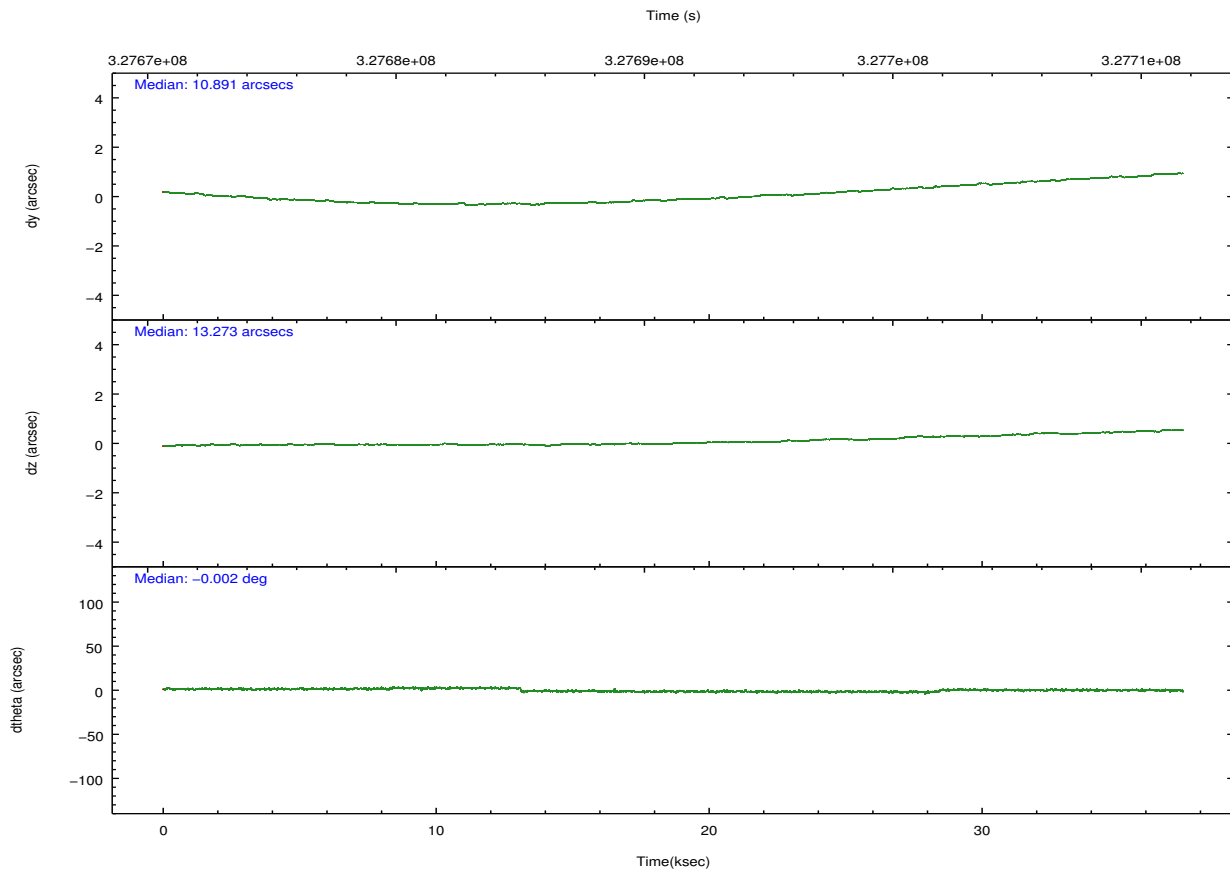
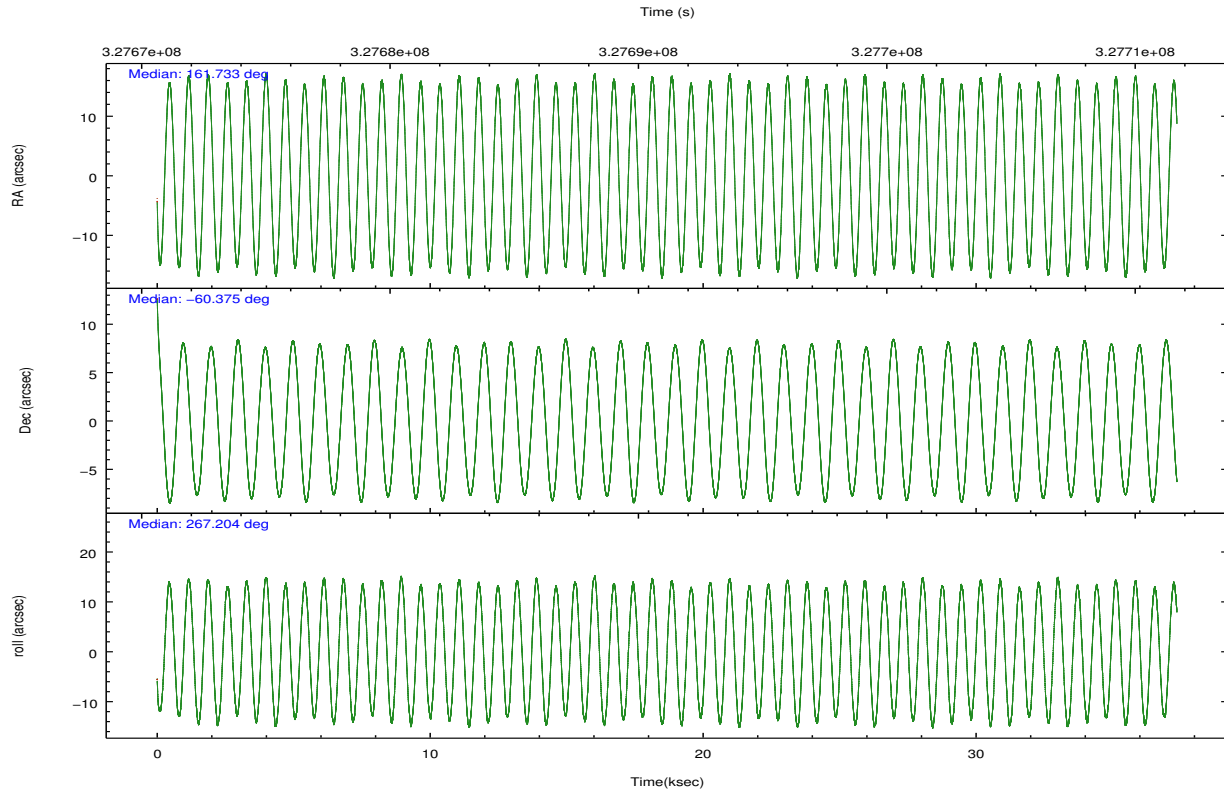
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	269853	260729	298163	271079	288867	269520	grade 0 events	17758	11461	12638	10747	11342	13792
rejected events	231943	230161	267851	244182	258916	136993		6%	4%	4%	3%	3%	5%
rejected %	85%	88%	89%	90%	89%	50%	grade 1 events	240	139	167	179	163	383
								0%	0%	0%	0%	0%	0%
							grade 2 events	8025	6740	6837	5667	6649	28223
								2%	2%	2%	2%	2%	10%
							grade 3 events	3392	3298	2910	2825	3095	12494
								1%	1%	0%	1%	1%	4%
							grade 4 events	3304	3210	3059	2822	3038	12188
								1%	1%	1%	1%	1%	4%
							grade 5 events	8243	9293	7786	9783	10021	28867
								3%	3%	2%	3%	3%	10%
							grade 6 events	5434	5866	4871	4839	5828	65846
								2%	2%	1%	1%	2%	24%
							grade 7 events	223457	220722	259895	234217	248731	107727
								82%	84%	87%	86%	86%	39%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	161.707643	161.7332637015195	CCD I2 on	Y	Y
[deg] Pointing Dec	-60.350556	-60.3749586393865	CCD I3 on	Y	Y
[deg] Pointing Roll	266.981296	267.2122487927253	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	327672838.184000	327671744.50537	CCD S5 on	N	N
Observation start date	2008-05-20T12:12:53	2008-05-20T11:55:44	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	327709838.184000	327710781.63228	On-chip summing requested	N	N
Observation end date	2008-05-20T22:29:33	2008-05-20T22:46:21	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



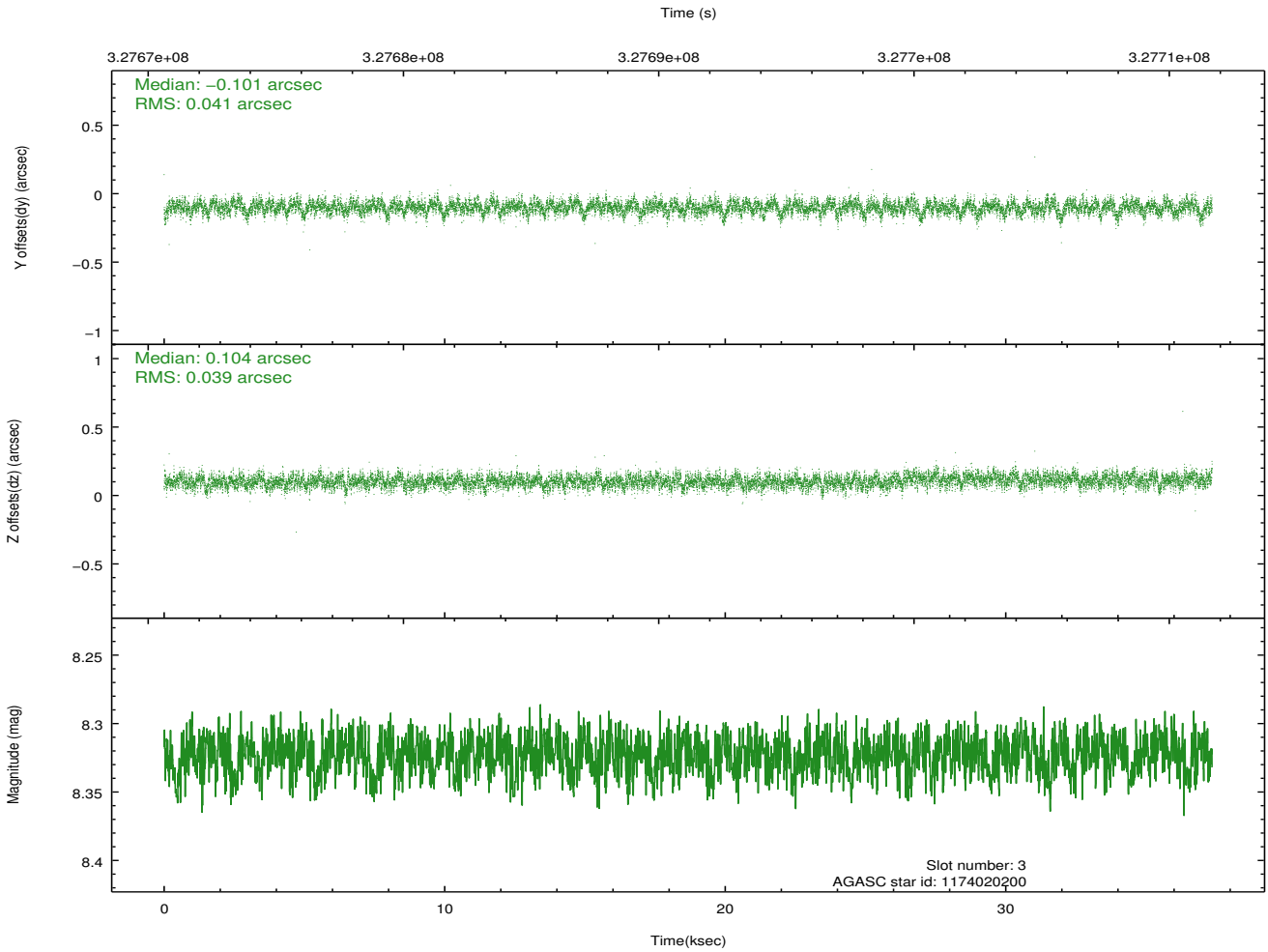
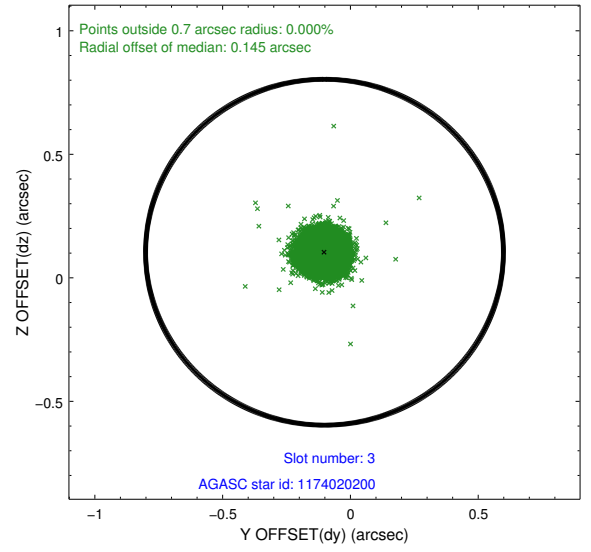
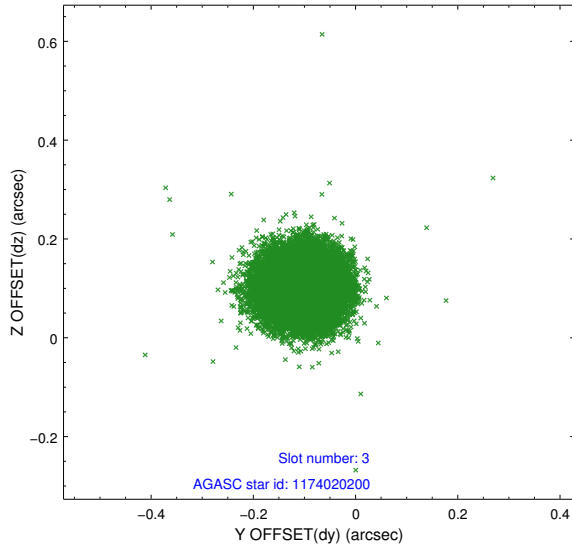


Slot Statistics

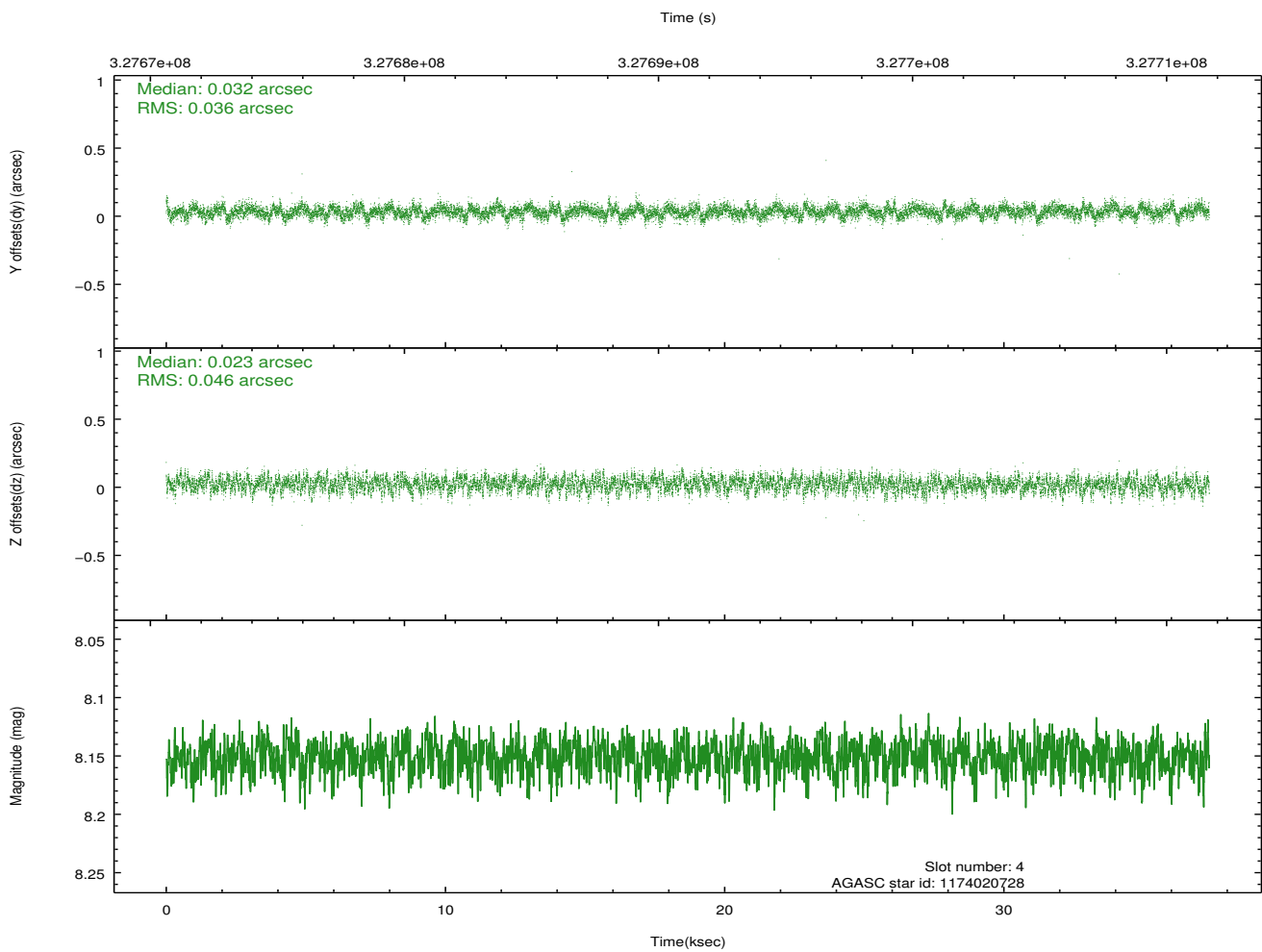
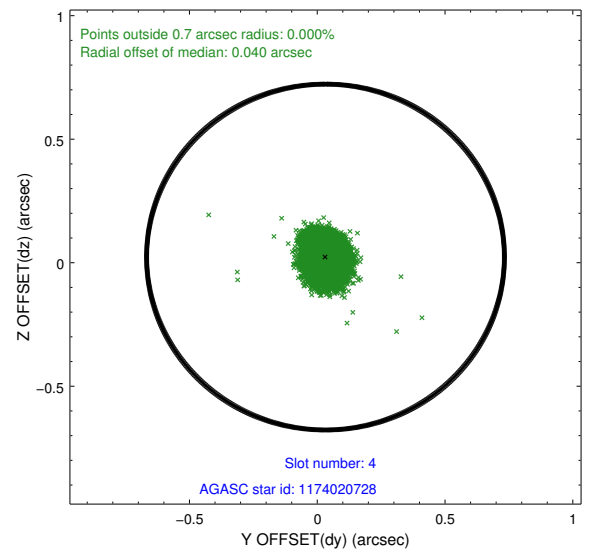
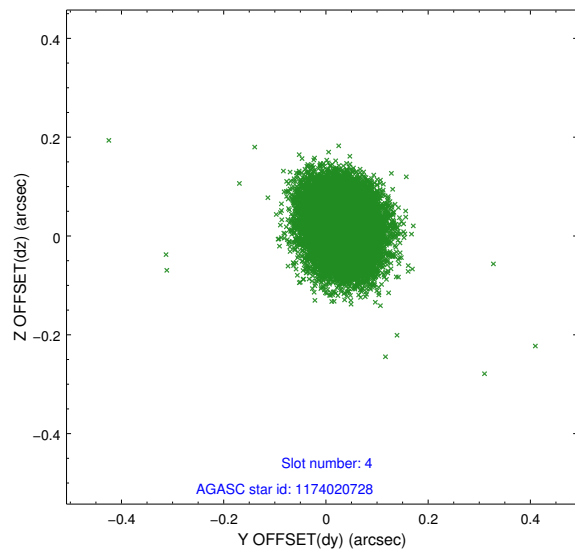
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-4	6.95	9112	0.097	0.044	0.018	0.028	0.000000	0.000000	2148.64	1062.99
1	FID	ACIS-I-5	7.00	9112	-0.221	0.029	0.011	0.021	0.000000	0.000000	-1819.60	1060.78
2	FID	ACIS-I-6	7.01	9113	0.023	-0.006	0.023	0.034	0.000000	0.000000	394.12	1705.07
3	GUIDE	1174020200	8.32	18208	-0.101	0.104	0.060	0.097	160.489138	-60.487295	625.76	-2130.45
4	GUIDE	1174020728	8.15	18219	0.032	0.023	0.062	0.100	162.364714	-60.294672	-256.68	1160.31
5	GUIDE	1174033752	8.46	18221	-0.044	-0.012	0.066	0.106	162.418977	-60.164599	-728.77	1237.49
6	GUIDE	1130642000	7.94	18223	-0.081	0.014	0.067	0.114	162.836255	-59.743891	-2271.55	1930.25
7	GUIDE	1174030544	7.59	18218	0.195	-0.128	0.071	0.118	160.765344	-60.986885	2386.57	-1521.28

2.4 Star Slots

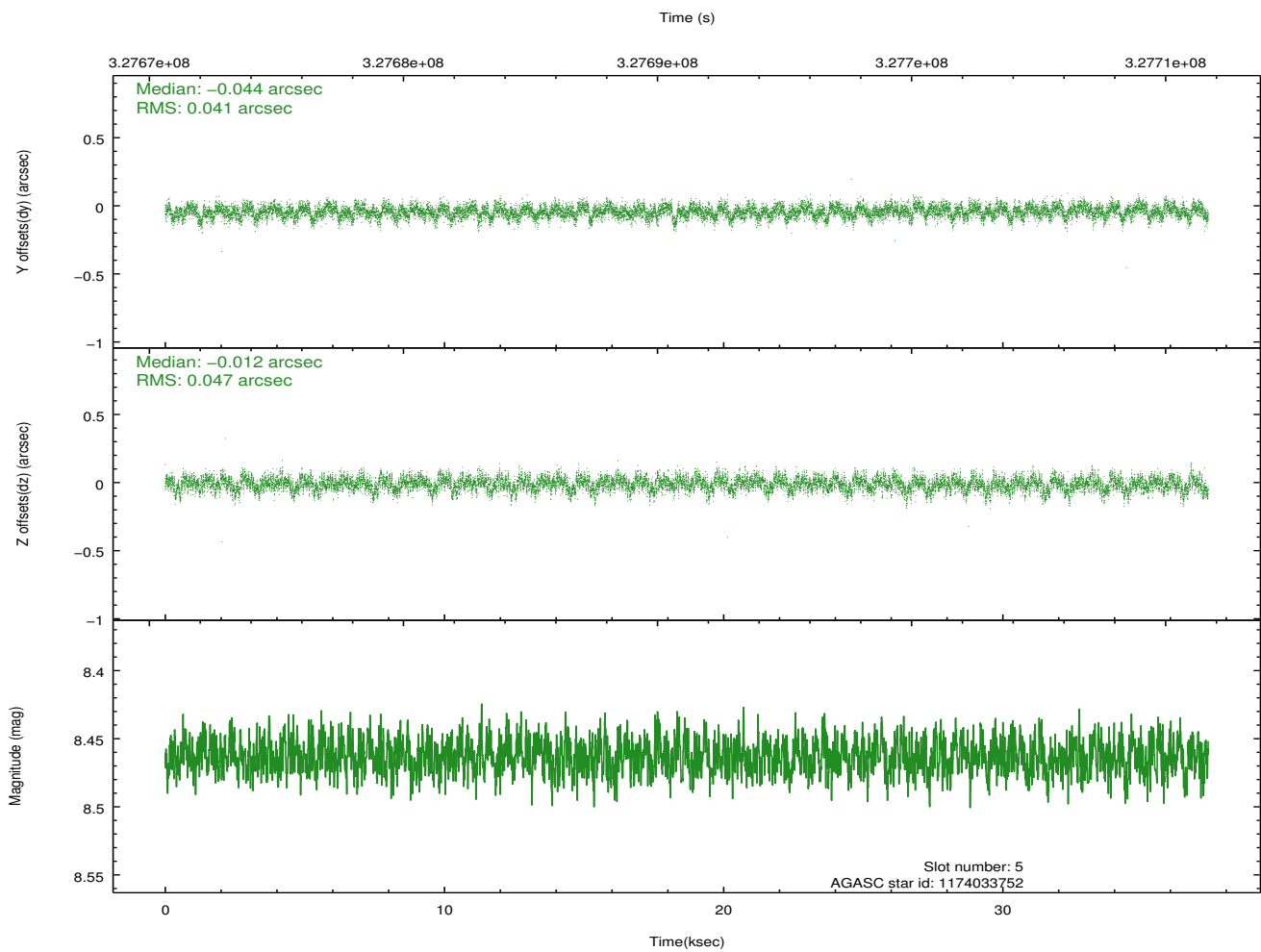
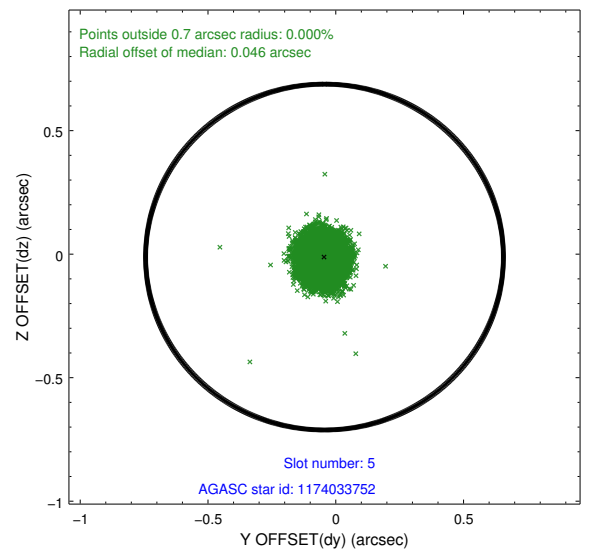
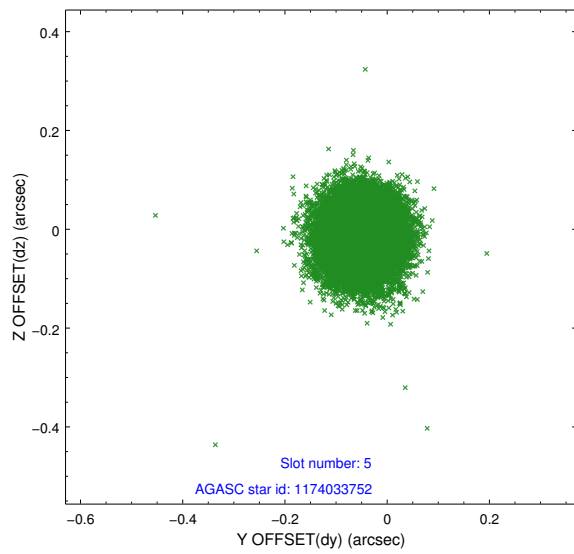
2.4.1 Slot 3



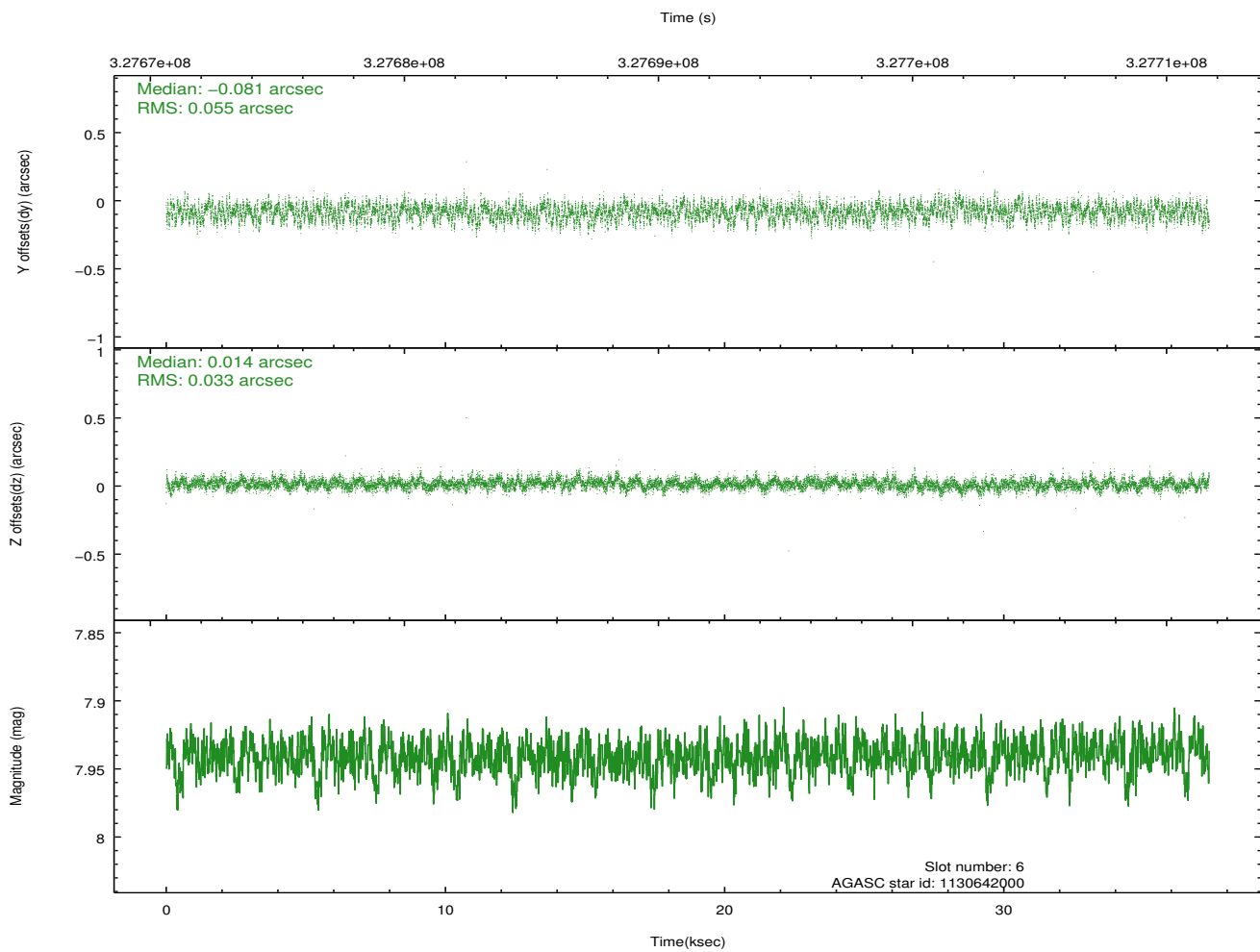
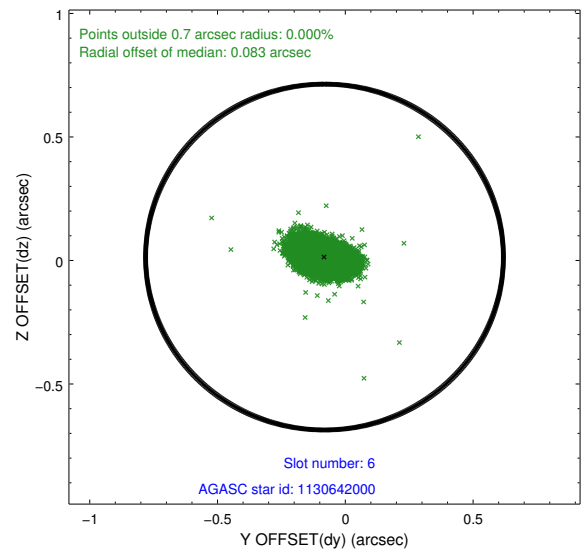
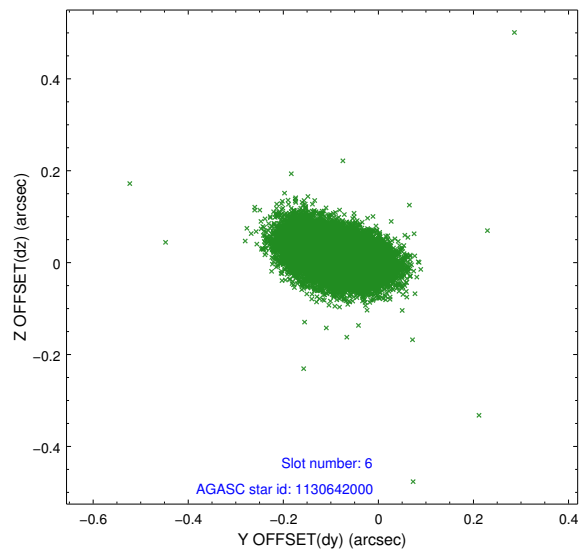
2.4.2 Slot 4



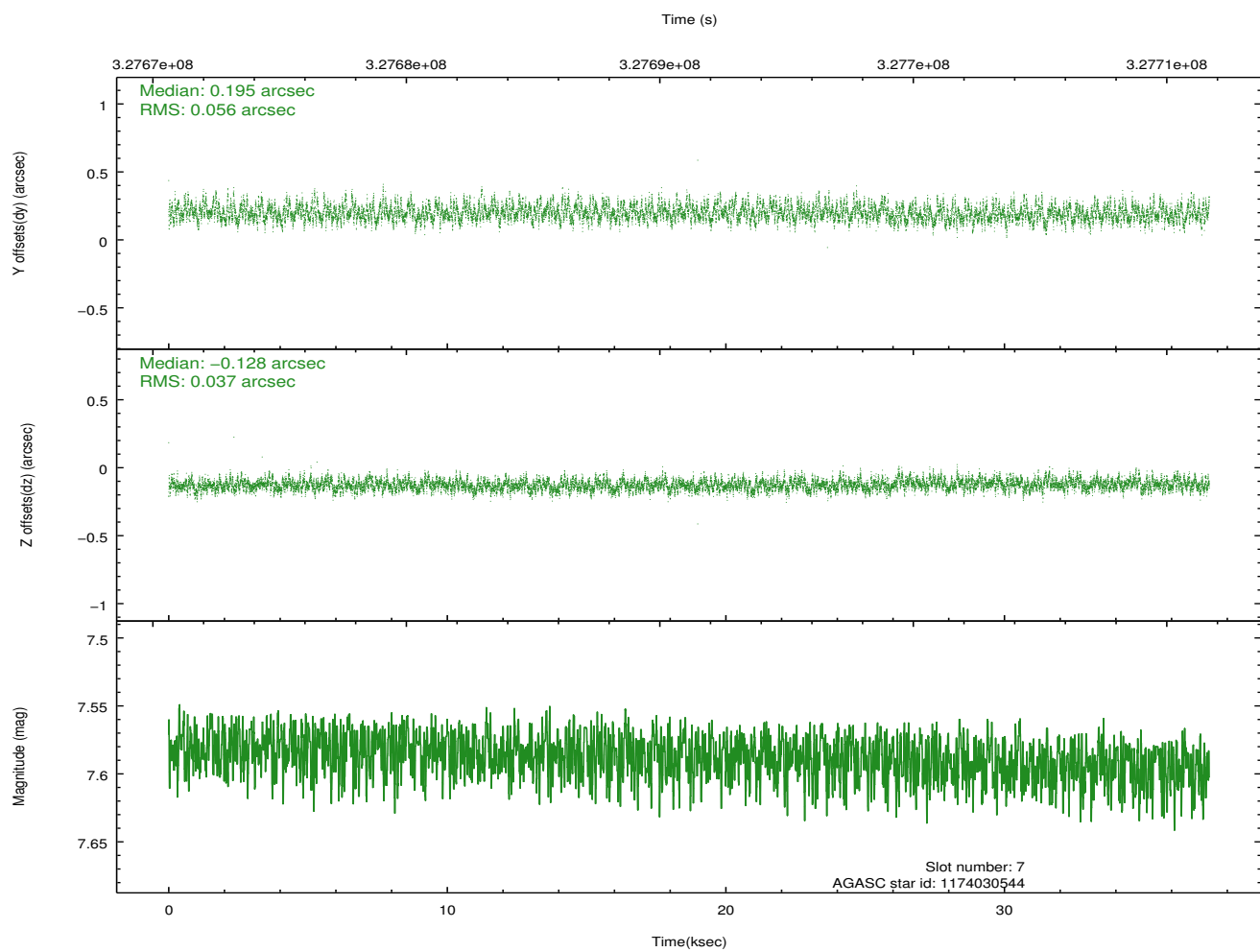
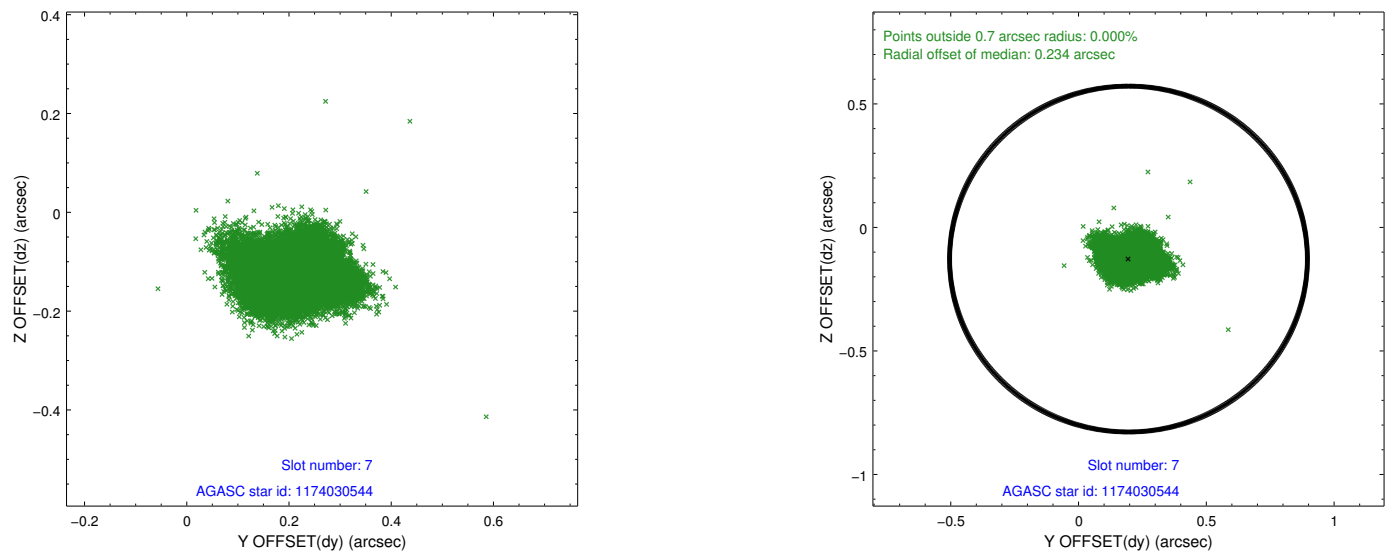
2.4.3 Slot 5



2.4.4 Slot 6

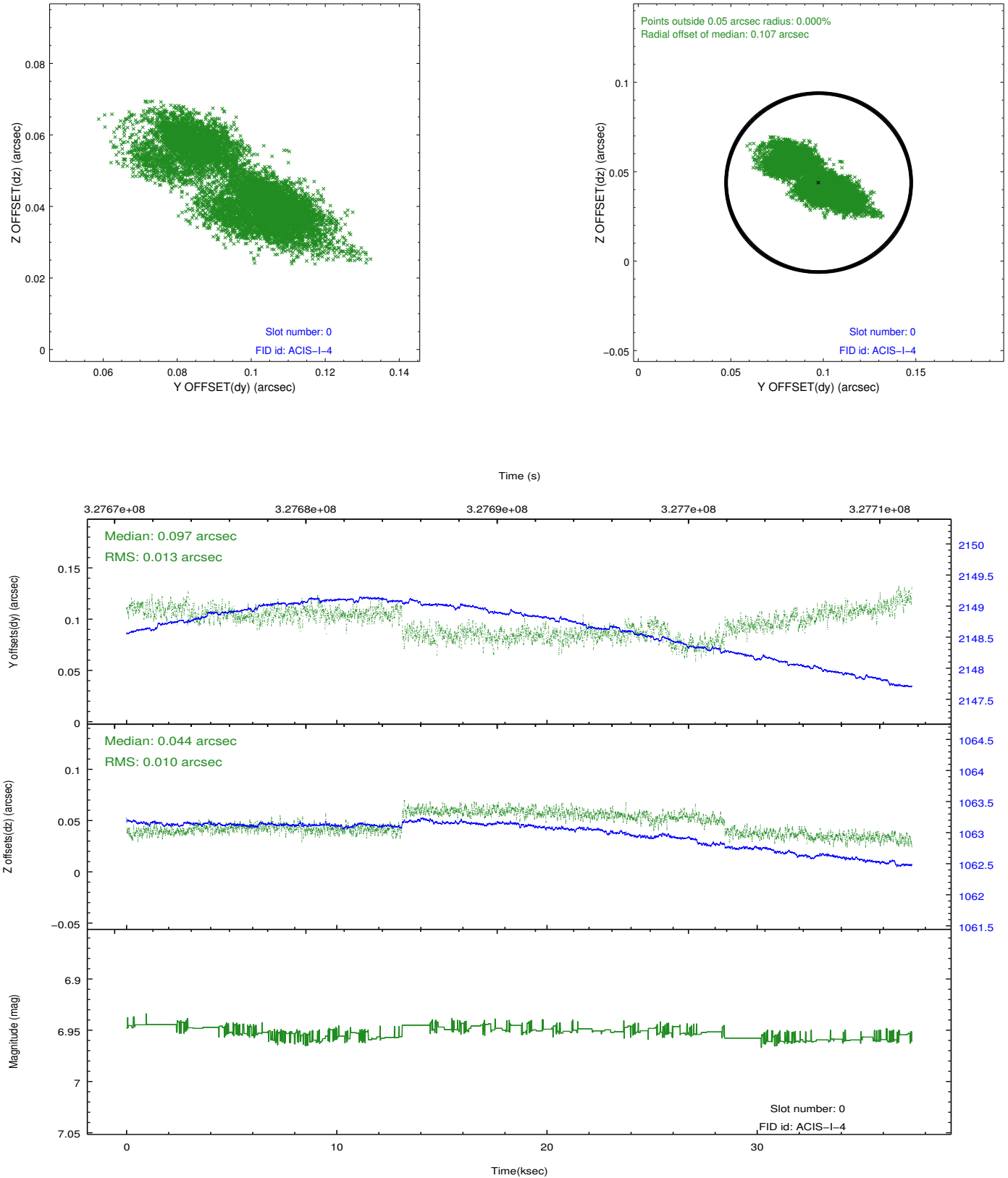


2.4.5 Slot 7

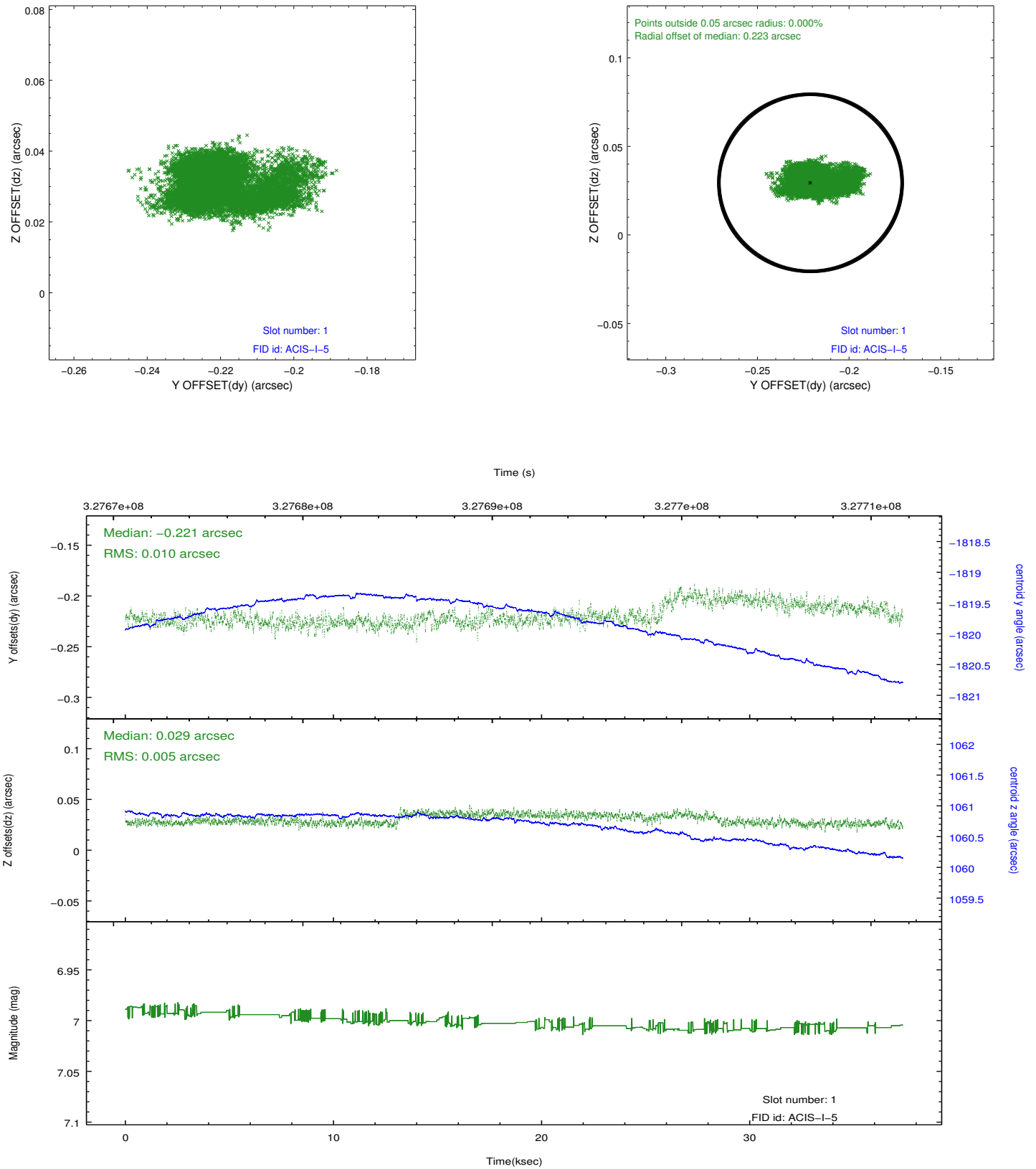


2.5 FID Slots

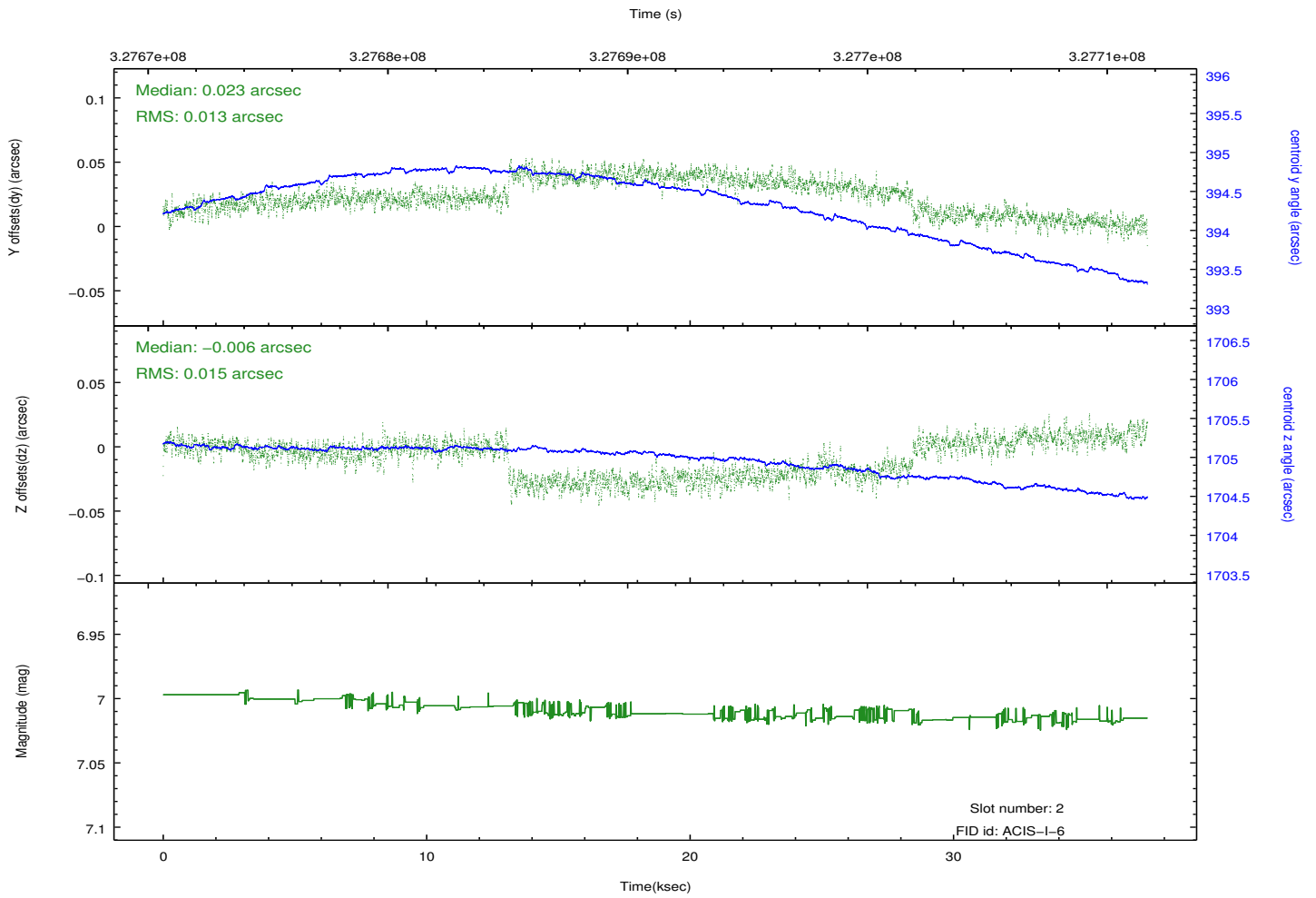
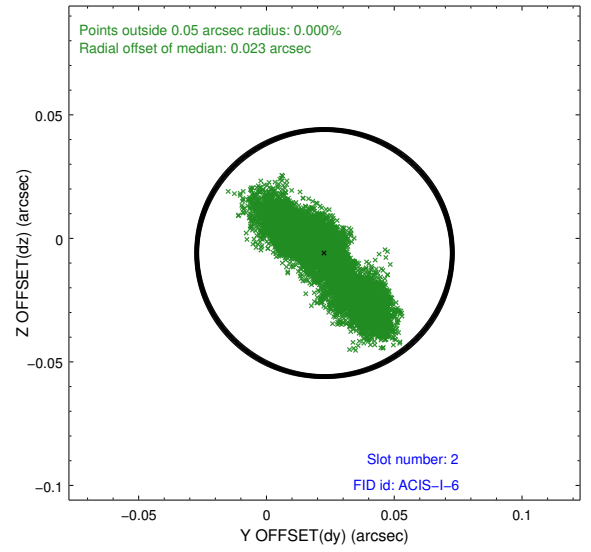
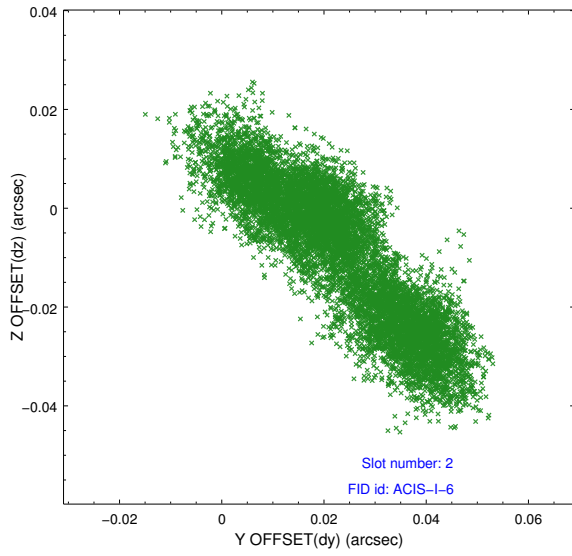
2.5.1 Slot 0



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)	2012.06.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.0367588

A.2 Comments

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:
(161.85247, -60.52136), (161.86409, -60.52162), (161.86623, -60.49901), (161.85516, -60.49304)