

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 15628 - L2 Version 2
Chandra X-Ray Center

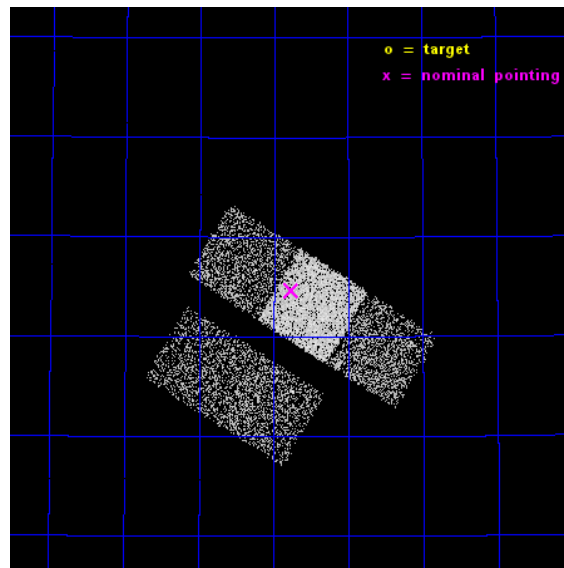
L2 Processing Date : Dec 2 2014

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1 Front

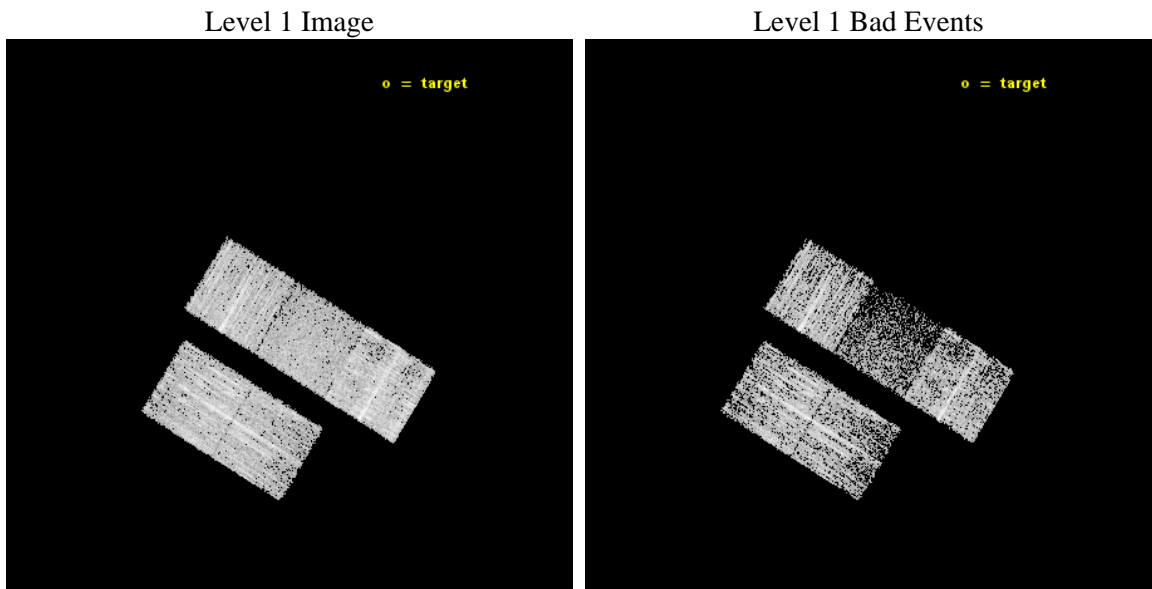
seq_num	100094	Sequence number
obs_id	15628	Observation id
title	High Latitude Charge Exchange X-rays from Comet PANSTARRS in the Cold Polar Solar Wind	Proposal title
observer	Dr. Carey Lisse	Principal investigator
object	Comet 2011 L4 (PANSTARRS)	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	5.445833	Observer's specified target RA [deg]
dec_targ	57.139167	Observer's specified target Dec [deg]
ra_nom	5.1909437634199	Nominal RA [deg]
dec_nom	58.744281496512	Nominal Dec [deg]
roll_nom	31.602680965374	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5074.7000390291	Sum of GTIs [s]
livetime	5008.3953470794	Livetime [s]
ontime2	5074.7000390291	Sum of GTIs [s]
ontime3	5071.5590686798	Sum of GTIs [s]
ontime6	5068.4180783629	Sum of GTIs [s]
ontime7	5074.7000390291	Sum of GTIs [s]
ontime8	5074.7000390291	Sum of GTIs [s]
l2events	16611	Number of level 2 events



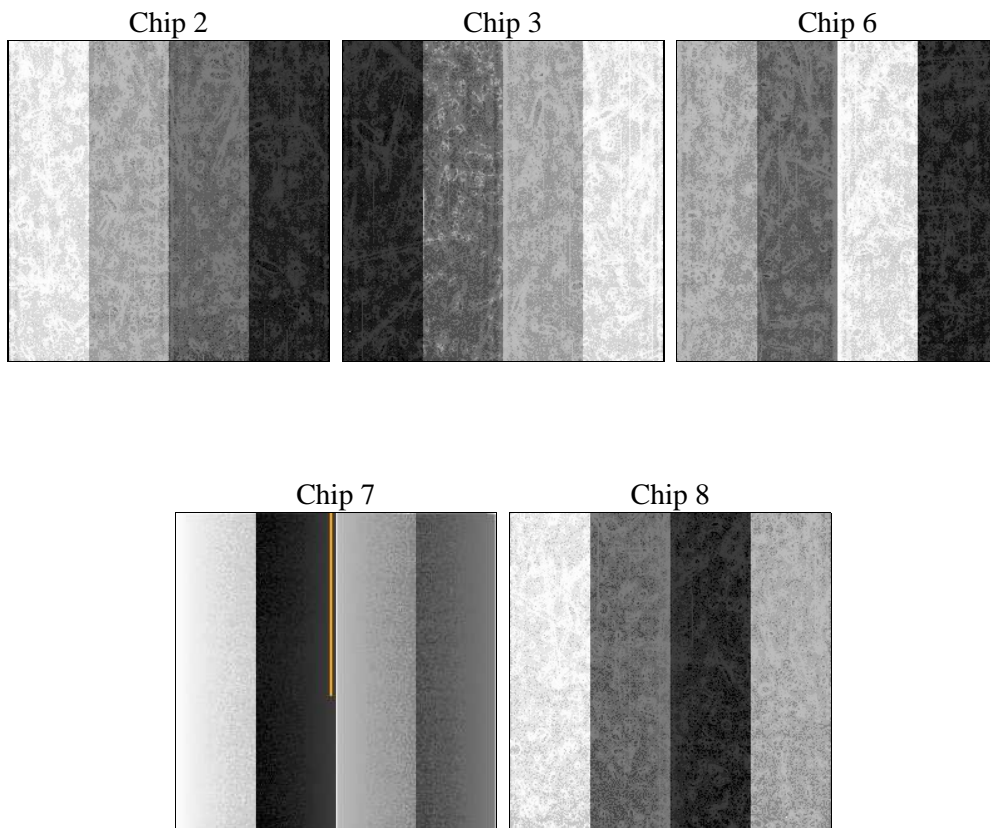
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	5074.7000390291	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	5074.7000390291	Sum of GTIs [s]
date	2014-12-02T21:47:52	Date and time of file creation	ontime3	5071.5590686798	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	5068.4180783629	Sum of GTIs [s]
			ontime7	5074.7000390291	Sum of GTIs [s]
			ontime8	5074.7000390291	Sum of GTIs [s]
			l1events	113491	Number of level 1 events

2.1.4 Events

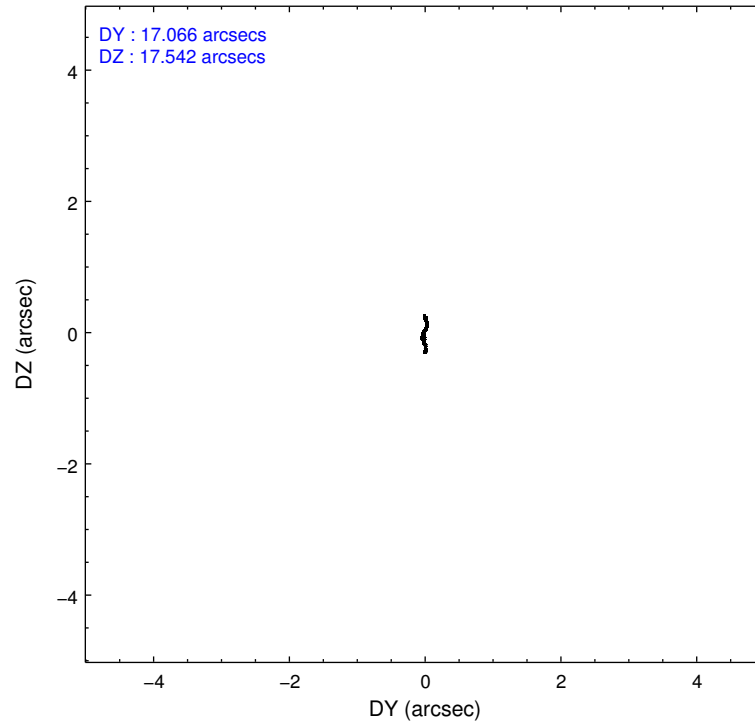
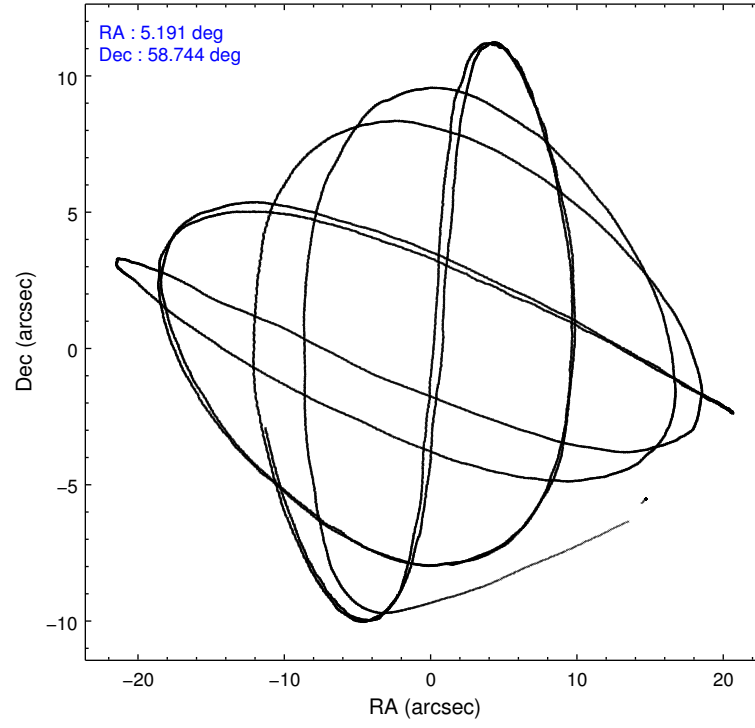
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	24640	20286	23224	17015	28326
rejected events	22375	18094	20869	7912	19712
rejected %	90%	89%	89%	46%	69%

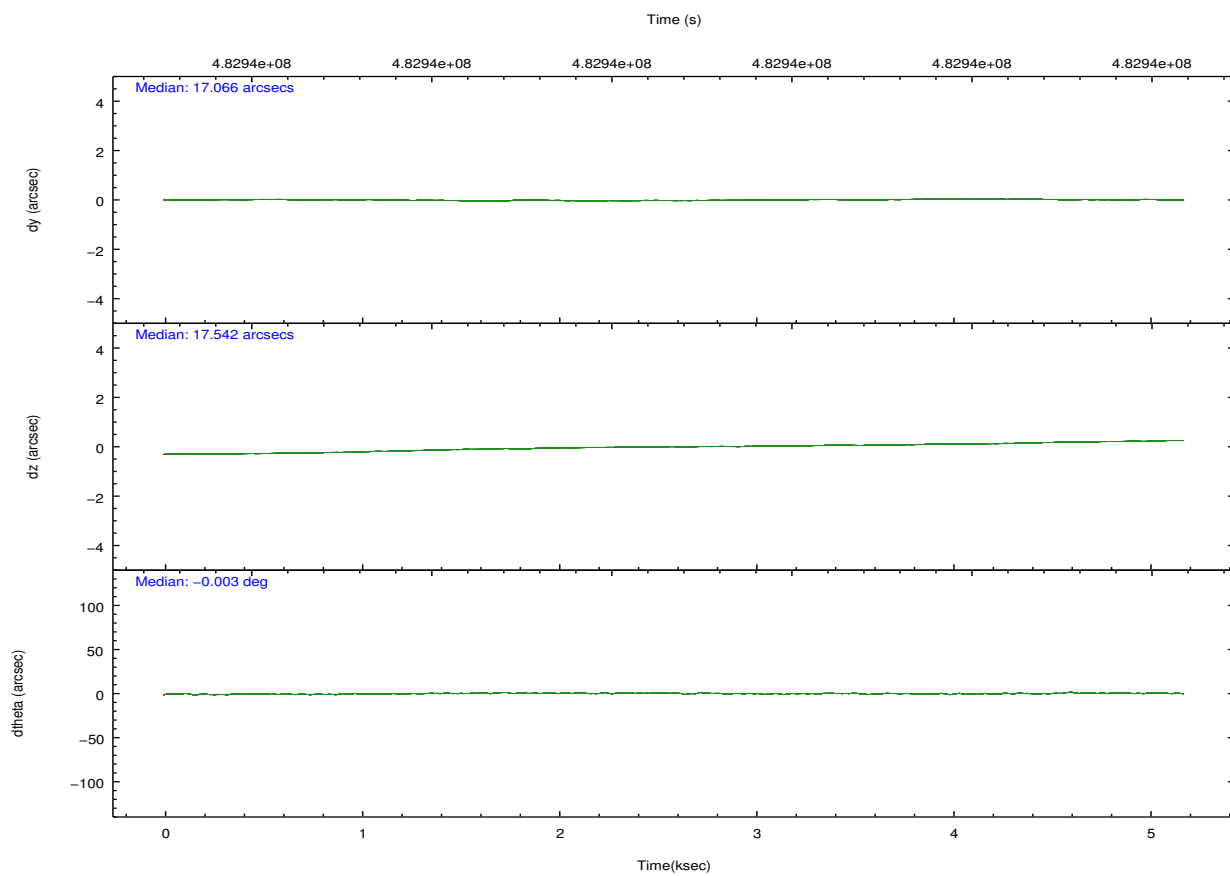
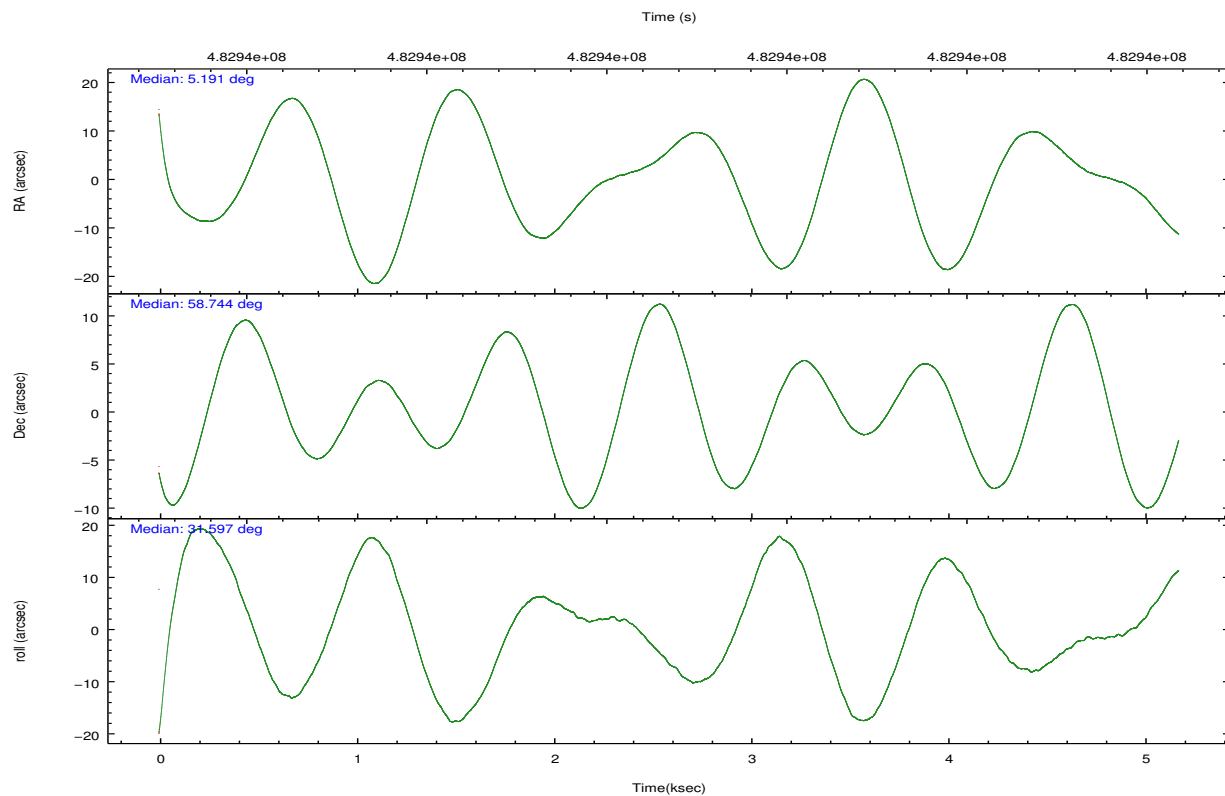
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	930	946	913	1261	2530
	3%	4%	3%	7%	8%
grade 1 events	16	11	11	32	29
	0%	0%	0%	0%	0%
grade 2 events	555	474	557	2296	2077
	2%	2%	2%	13%	7%
grade 3 events	221	224	271	872	918
	0%	1%	1%	5%	3%
grade 4 events	228	262	215	823	913
	0%	1%	0%	4%	3%
grade 5 events	447	586	604	1781	1058
	1%	2%	2%	10%	3%
grade 6 events	380	350	461	4104	2399
	1%	1%	1%	24%	8%
grade 7 events	21863	17433	20192	5846	18402
	88%	85%	86%	34%	64%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	5.166569	5.190943763419924	Subarray requested	NONE	NONE
[deg] Pointing Dec	58.720140	58.74428149651182	Alternating exposures requested	N	N
[deg] Pointing Roll	31.466932	31.60268096537439	[s] Primary exposure time	0.000000	3.1
[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)	482936934.184000	482935442.46982			
Observation start date	2013-04-21T13:07:47	2013-04-21T12:44:02			
[s] Observation end time (MET)	482941934.184000	482942068.58268			
Observation end date	2013-04-21T14:31:07	2013-04-21T14:34:28			
Read mode	TIMED	TIMED			

2.3 Aspect



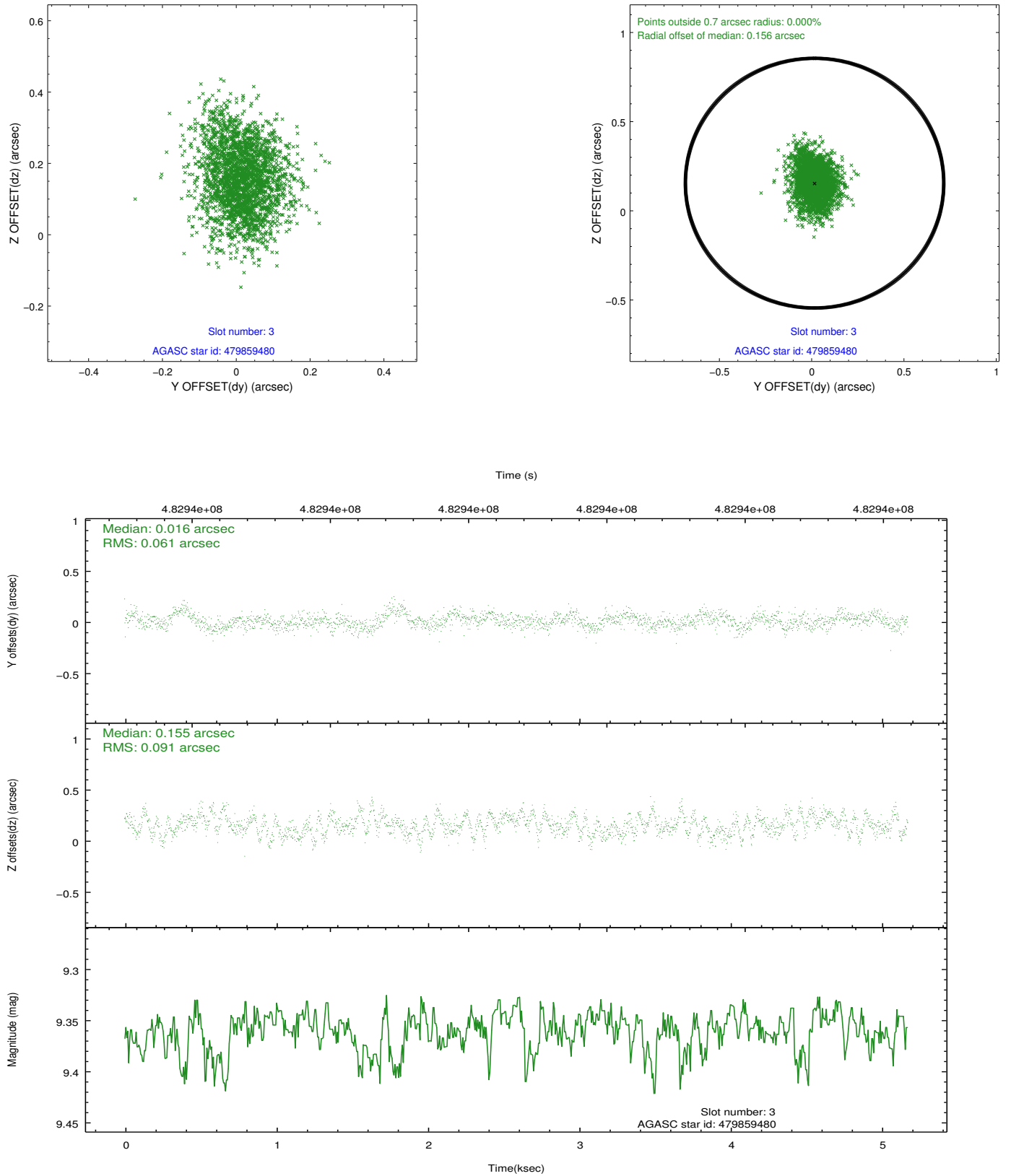


Slot Statistics

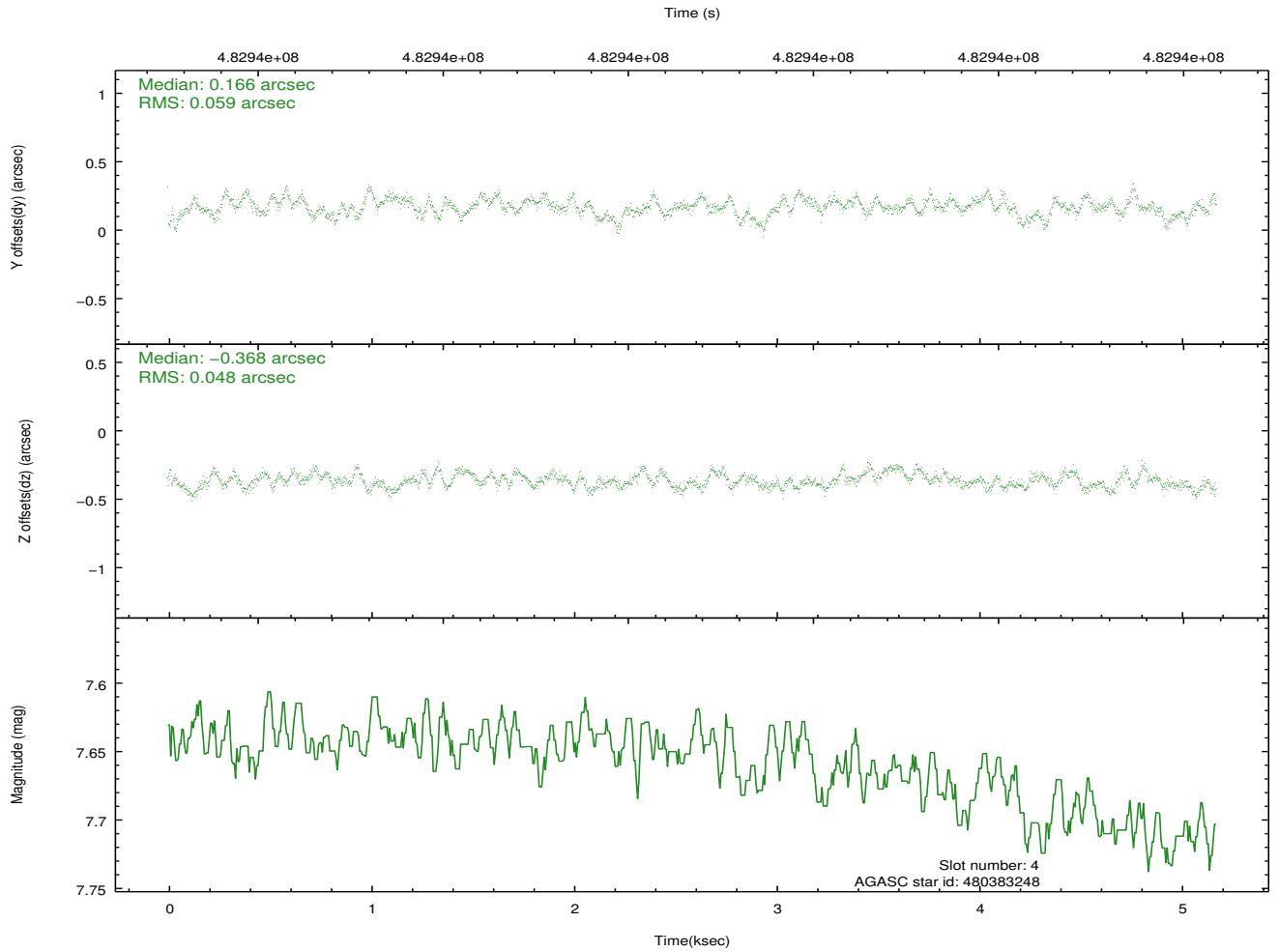
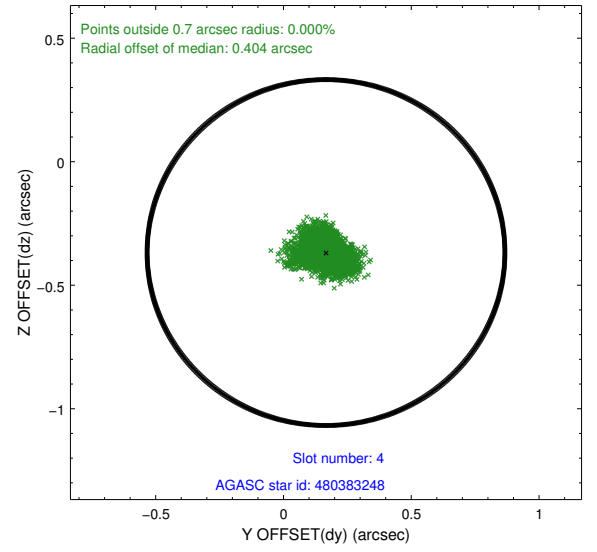
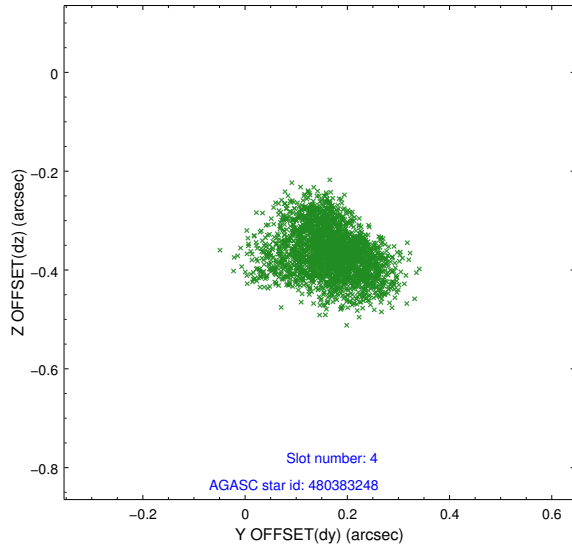
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.95	1263	-0.077	-0.040	0.007	0.012	0.000000	0.000000	-770.19	-1738.94
1	FID		ACIS-S-4	7.05	1263	0.208	0.048	0.007	0.011	0.000000	0.000000	2142.86	168.37
2	FID		ACIS-S-5	7.07	1263	-0.162	0.001	0.008	0.013	0.000000	0.000000	-1821.59	163.38
3	GUIDE	used	479859480	9.36	2524	0.016	0.155	0.116	0.192	5.360092	58.065752	-914.69	-2200.56
4	GUIDE	used	480383248	7.65	2523	0.166	-0.368	0.082	0.131	4.828098	59.139041	254.81	1613.34
5	GUIDE	used	480389024	8.58	2524	-0.074	-0.006	0.102	0.159	3.735860	58.782118	-2143.61	1607.47
6	GUIDE	used	480393664	9.25	2525	0.021	0.087	0.126	0.192	6.190835	58.413455	1078.70	-1936.16
7	GUIDE	used	480391984	9.10	2507	-0.135	0.130	0.117	0.190	6.240867	58.961592	2163.47	-285.66

2.4 Star Slots

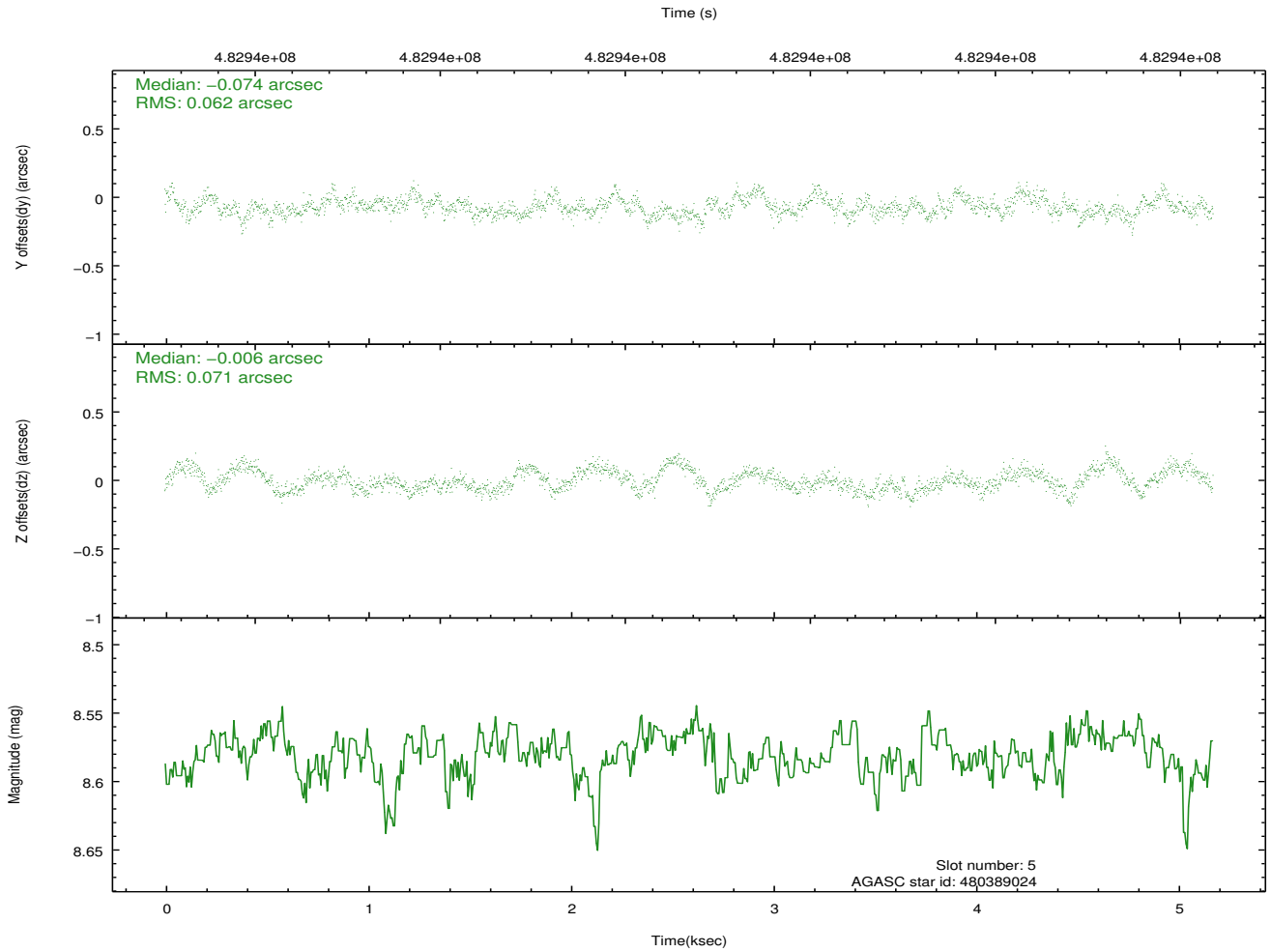
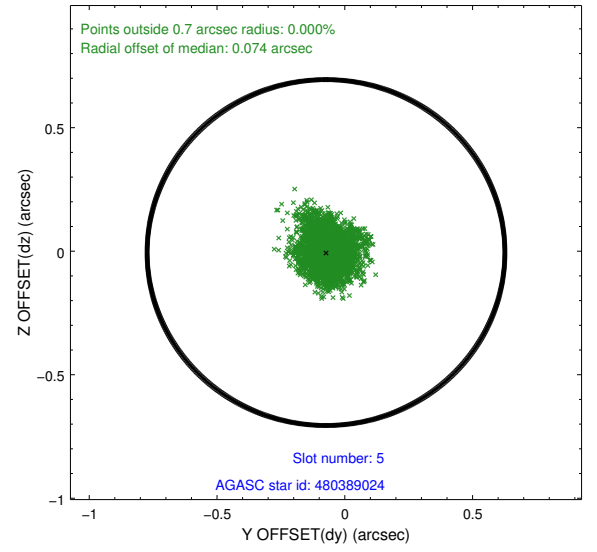
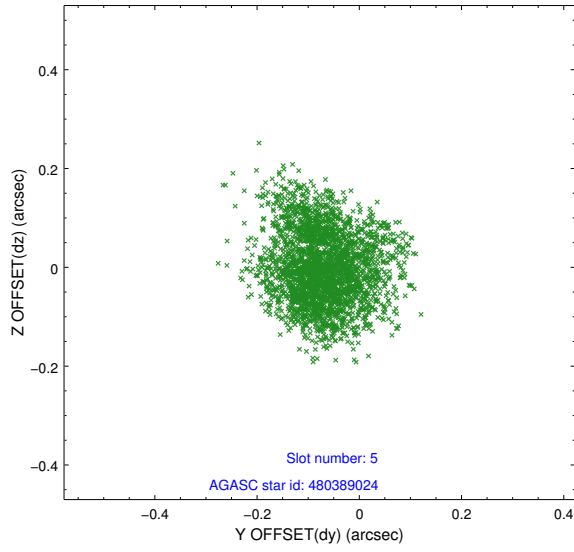
2.4.1 Slot 3



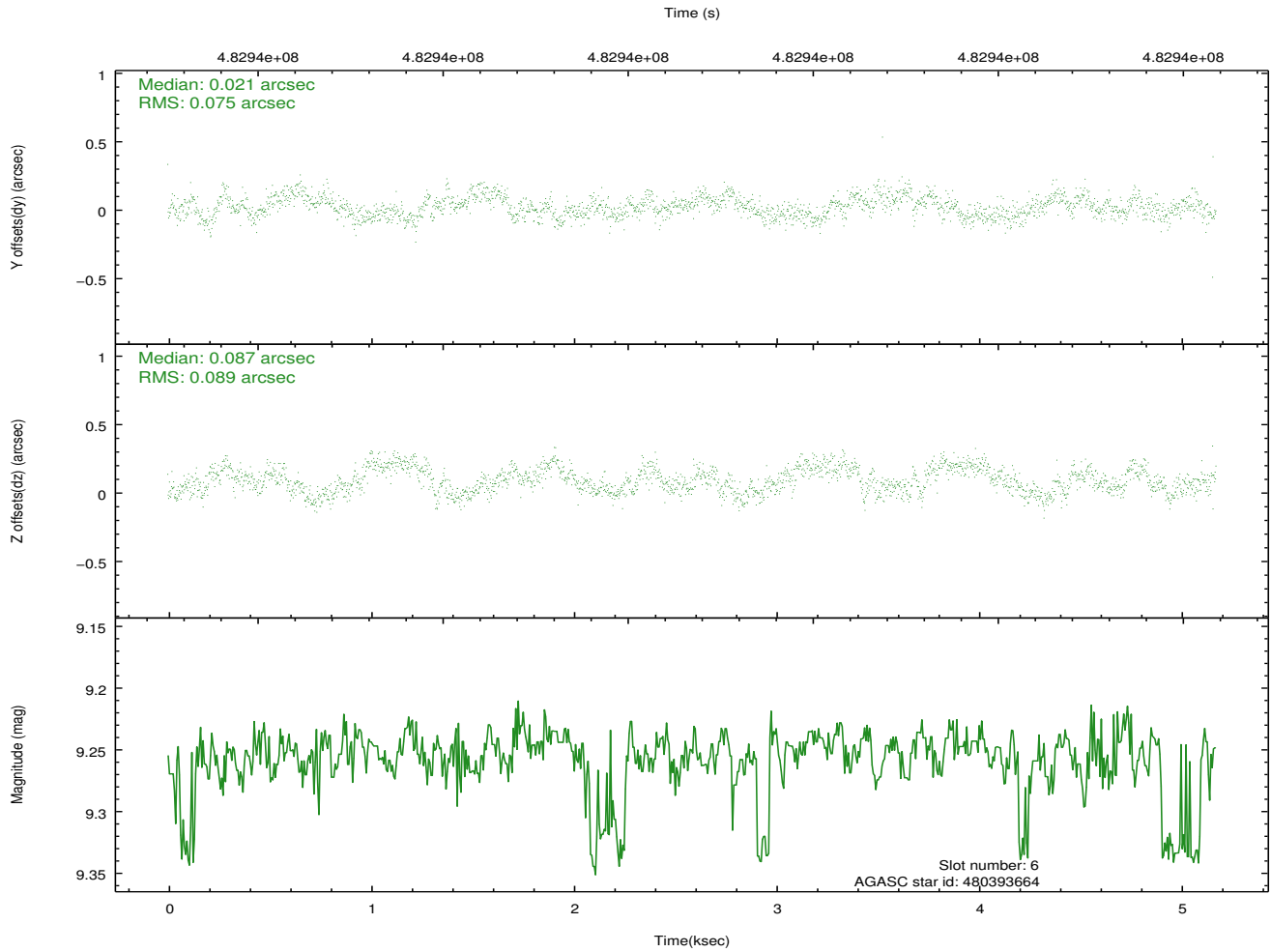
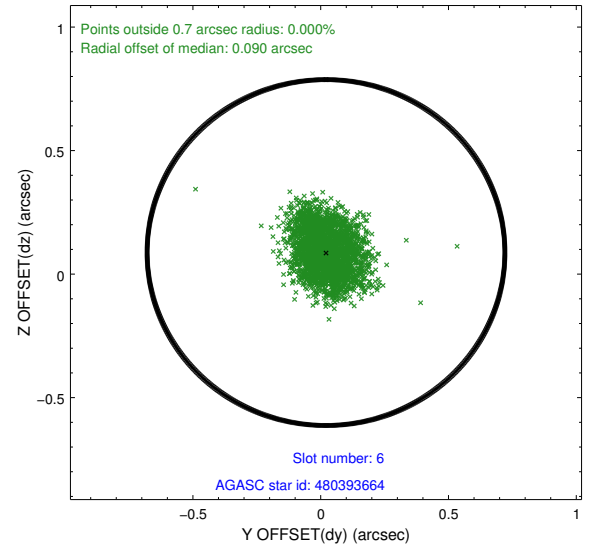
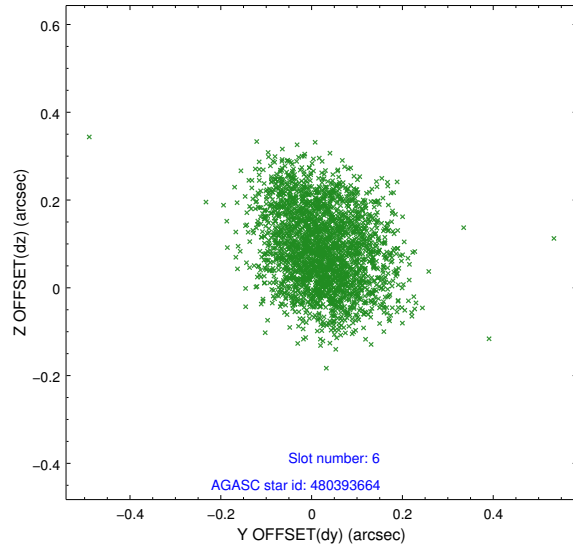
2.4.2 Slot 4



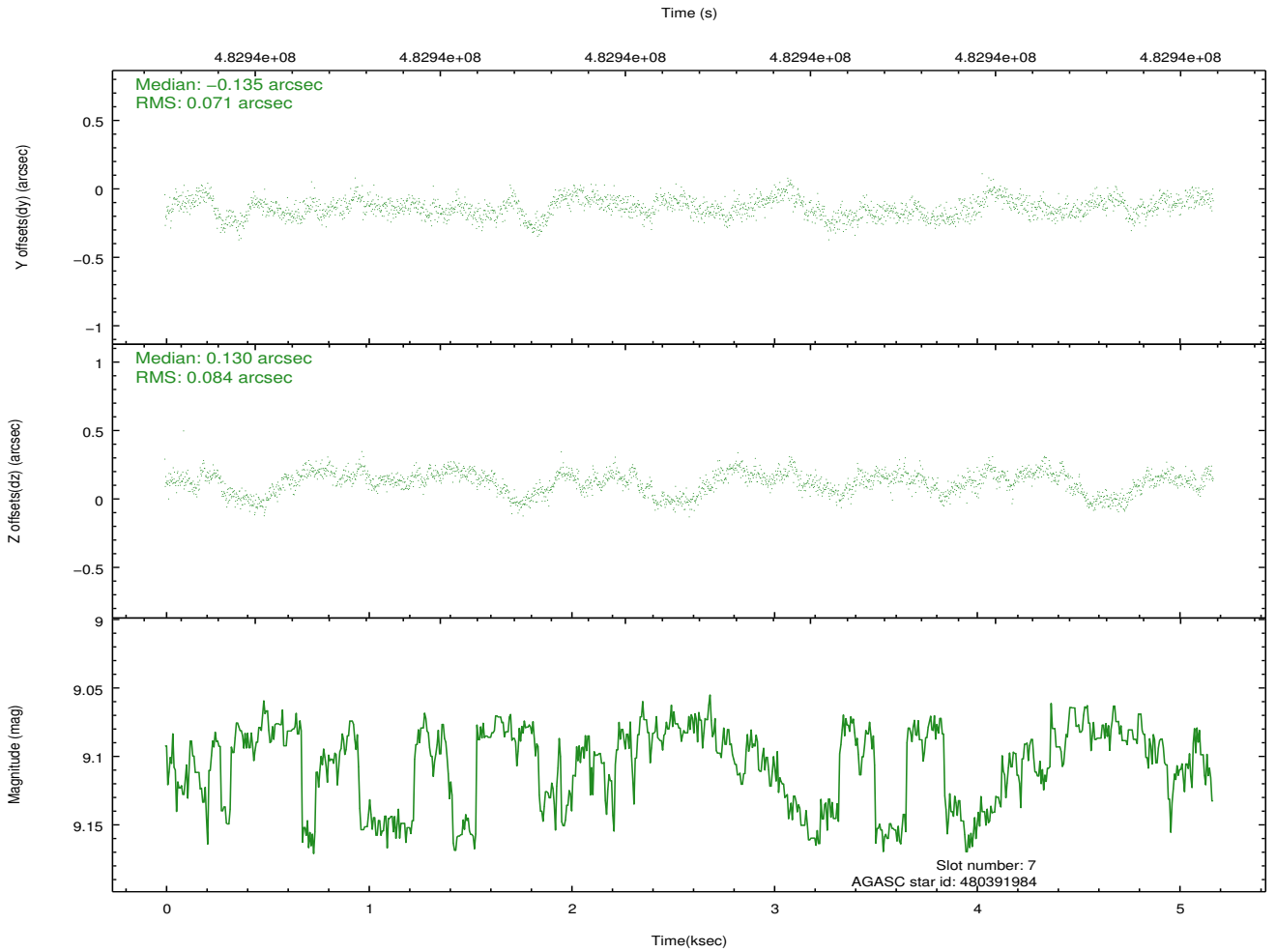
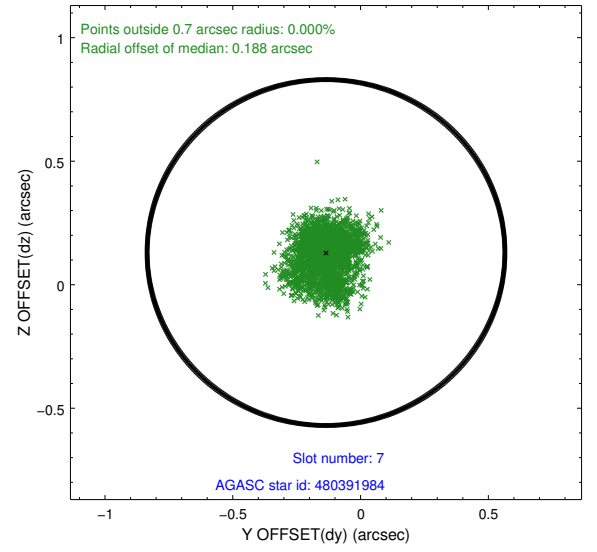
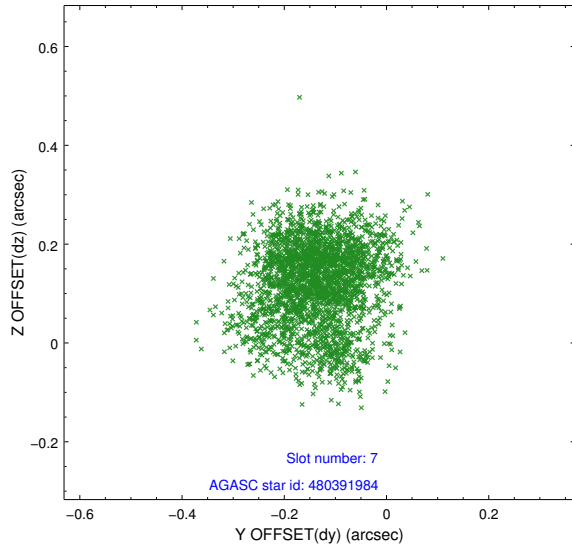
2.4.3 Slot 5



2.4.4 Slot 6

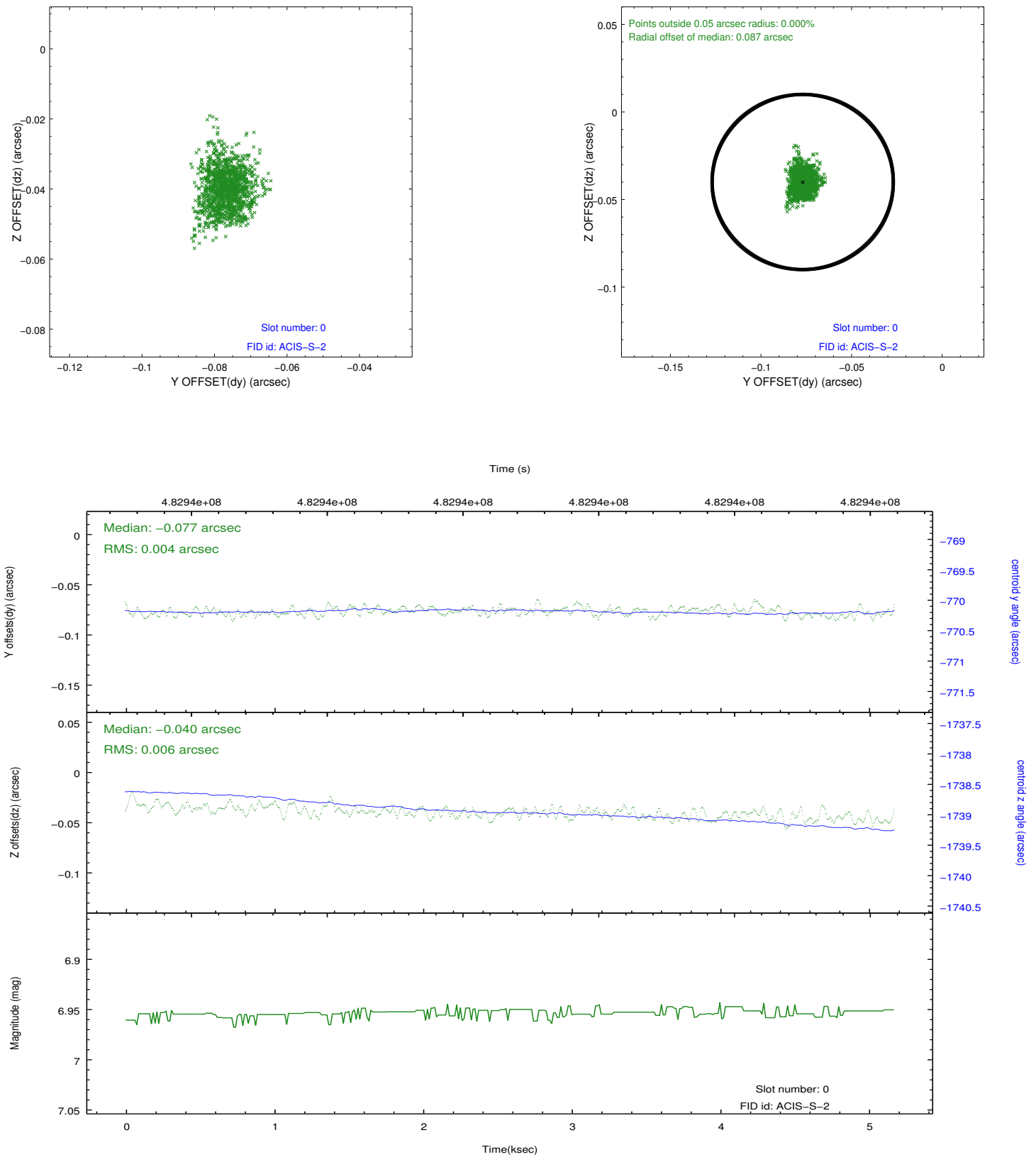


2.4.5 Slot 7

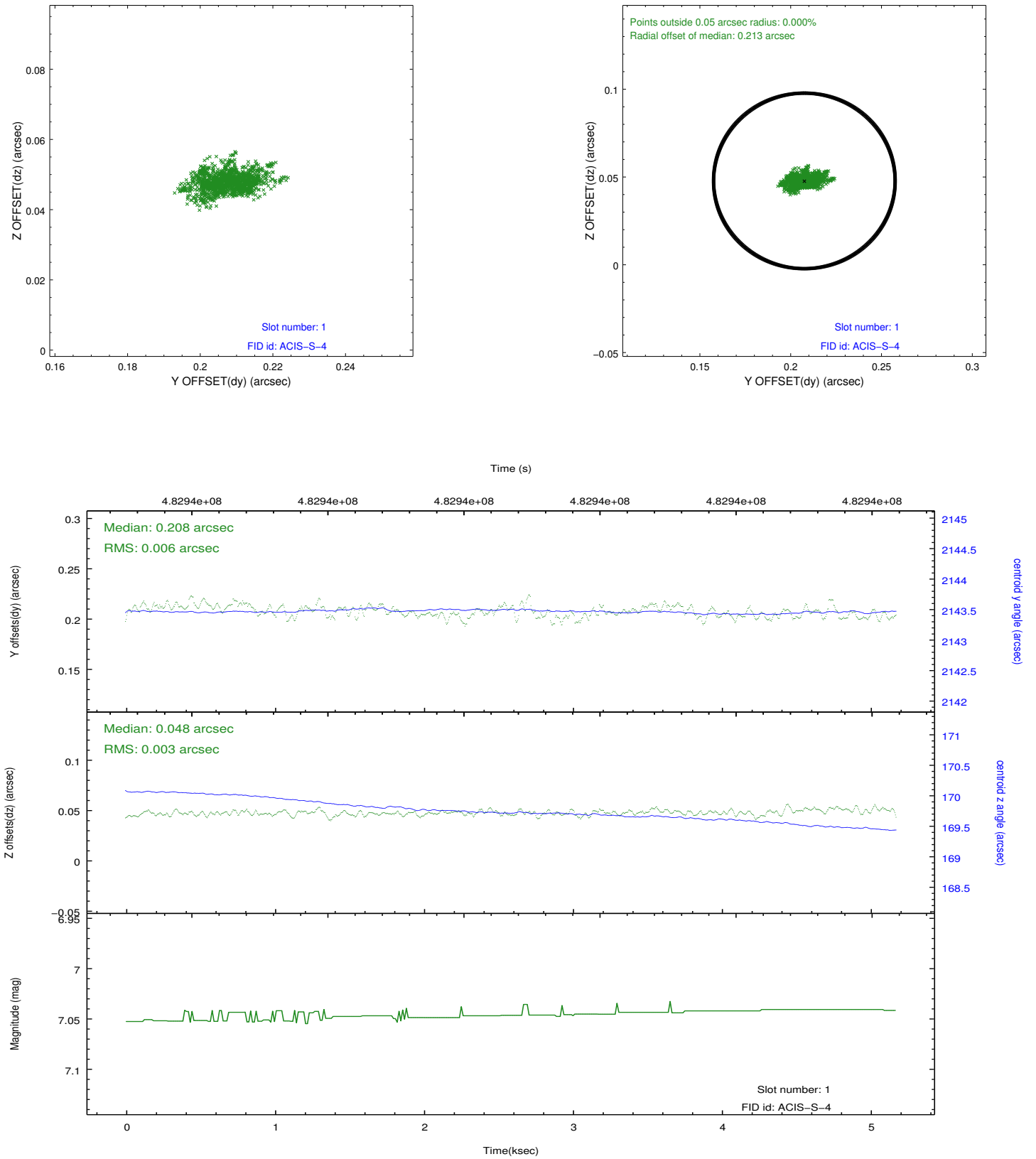


2.5 FID Slots

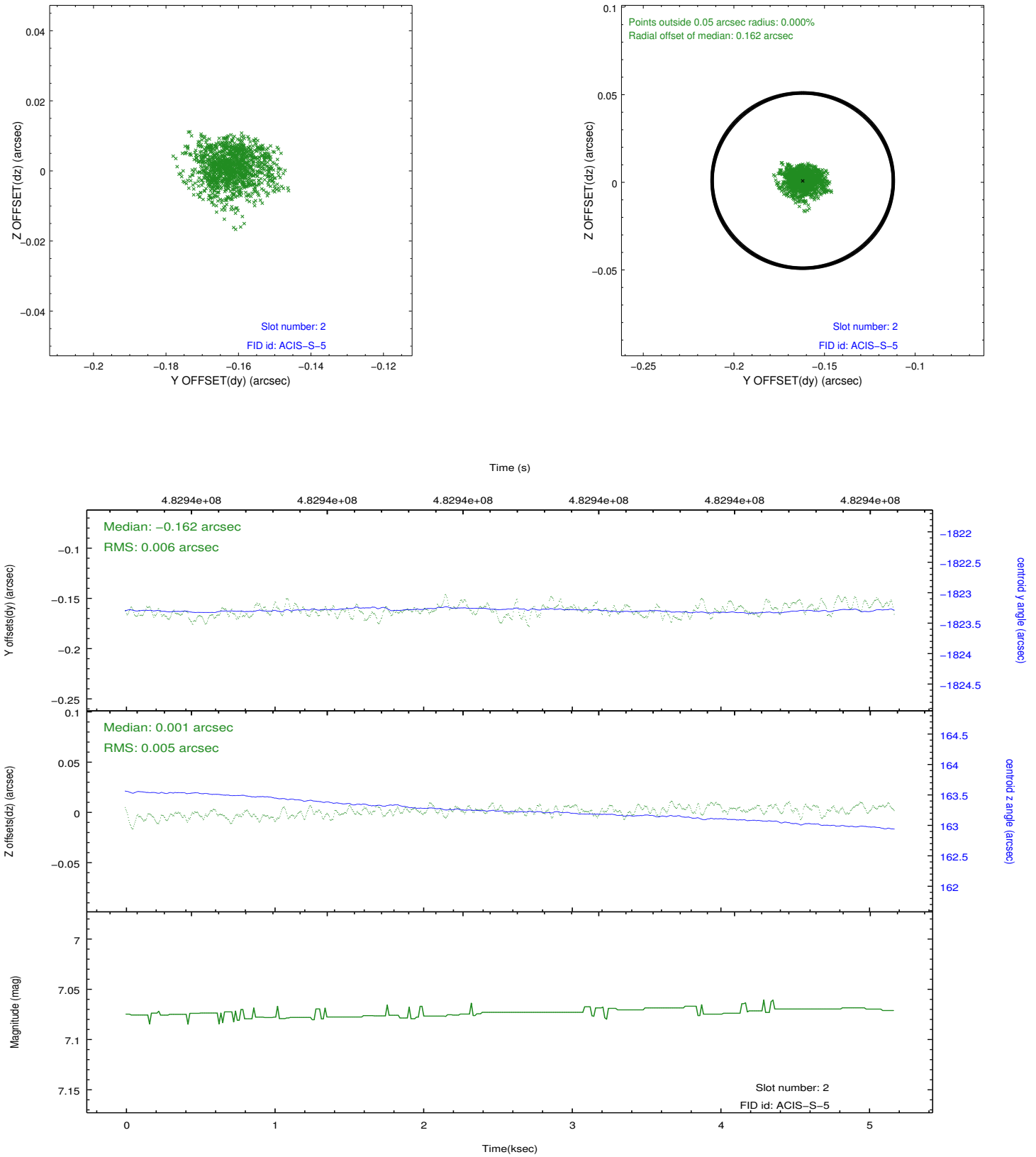
2.5.1 Slot 0



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)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.0747000390291

A.2 Comments

This is a moving target. Users will need to run `sso_freeze` or similar software to position the events in the reference frame of the target. These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.