

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 15640 - L2 Version 2
Chandra X-Ray Center

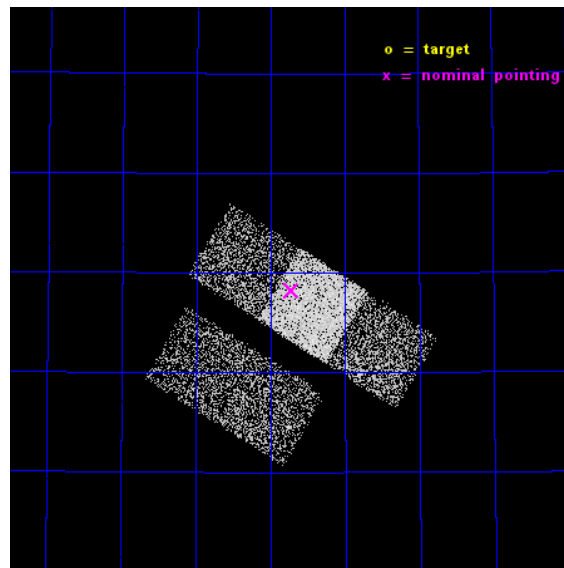
L2 Processing Date : Dec 2 2014

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1 Front

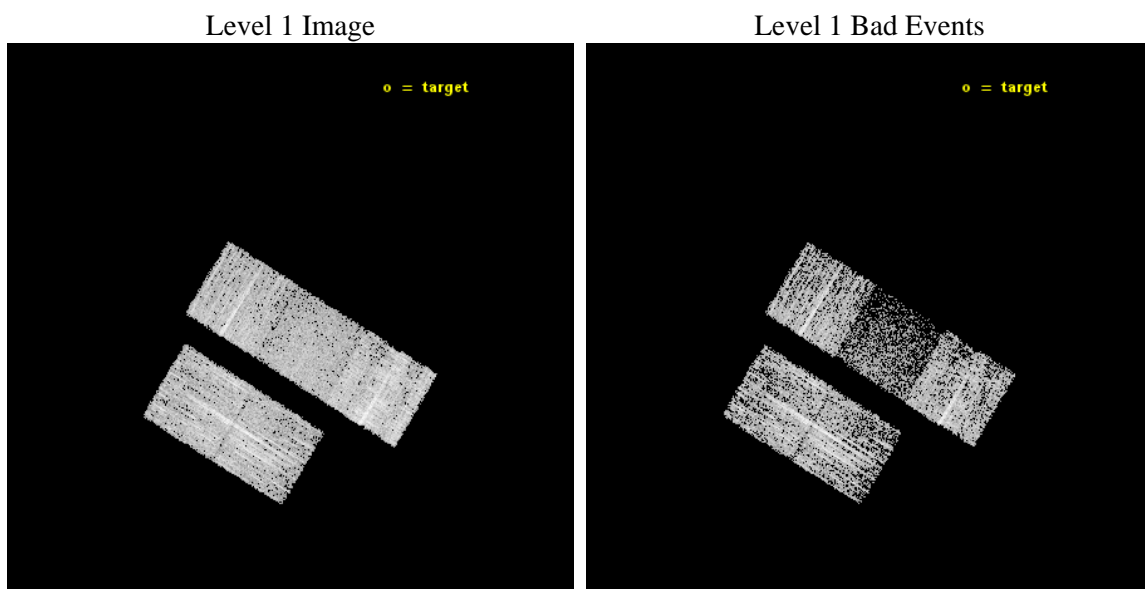
seq_num	100094	Sequence number
obs_id	15640	Observation id
title	High Latitude Charge Exchange X-rays from Comet PANSTARRS in the Cold Polar Solar Wind	Proposal title
observer	Dr. Carey Lisse	Principal investigator
object	Comet 2011 L4 (PANSTARRS)	Source name
dtcycle	0	
cycle	P	events from which exps? 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	5.1801252842609	Nominal RA [deg]
dec_nom	58.804260203051	Nominal Dec [deg]
roll_nom	31.602407233629	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5180.1000398397	Sum of GTIs [s]
livetime	5112.4182192851	Livetime [s]
ontime2	5180.1000398397	Sum of GTIs [s]
ontime3	5180.1000398397	Sum of GTIs [s]
ontime6	5180.1000398397	Sum of GTIs [s]
ontime7	5180.1000398397	Sum of GTIs [s]
ontime8	5180.1000398397	Sum of GTIs [s]
l2events	16792	Number of level 2 events



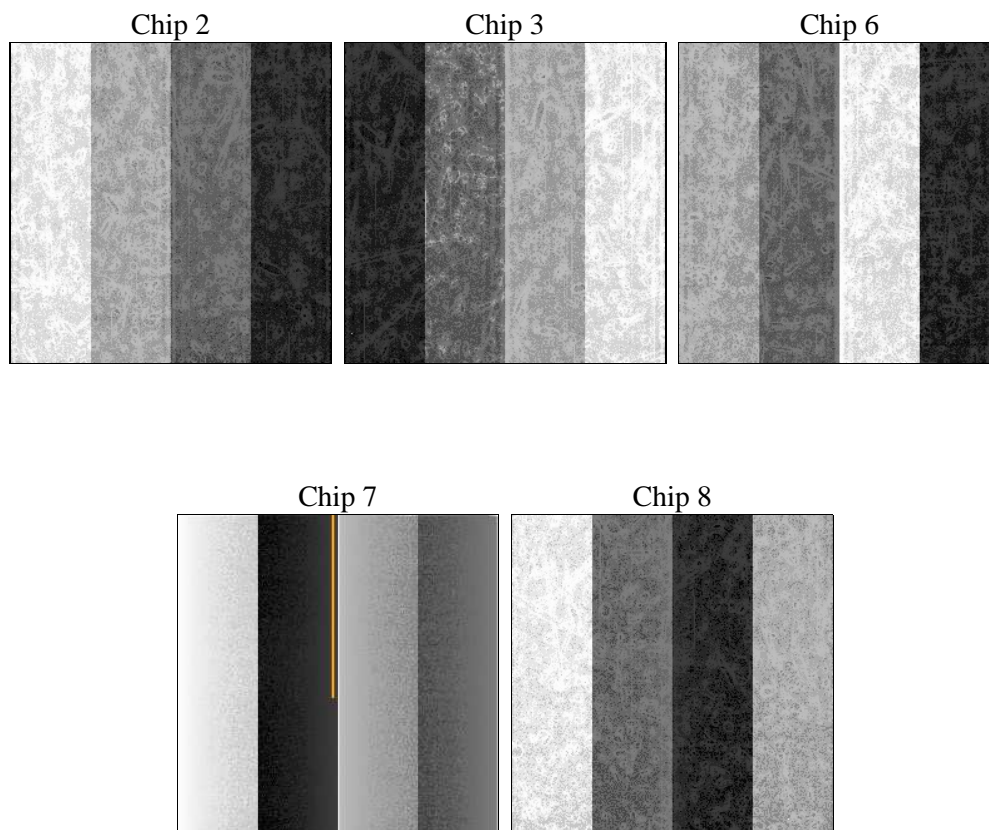
2 OBI

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	5180.1000398397	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	5180.1000398397	Sum of GTIs [s]
date	2014-12-02T22:18:33	Date and time of file creation	ontime3	5180.1000398397	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	5180.1000398397	Sum of GTIs [s]
			ontime7	5180.1000398397	Sum of GTIs [s]
			ontime8	5180.1000398397	Sum of GTIs [s]
			l1events	114044	Number of level 1 events

2.1.4 Events

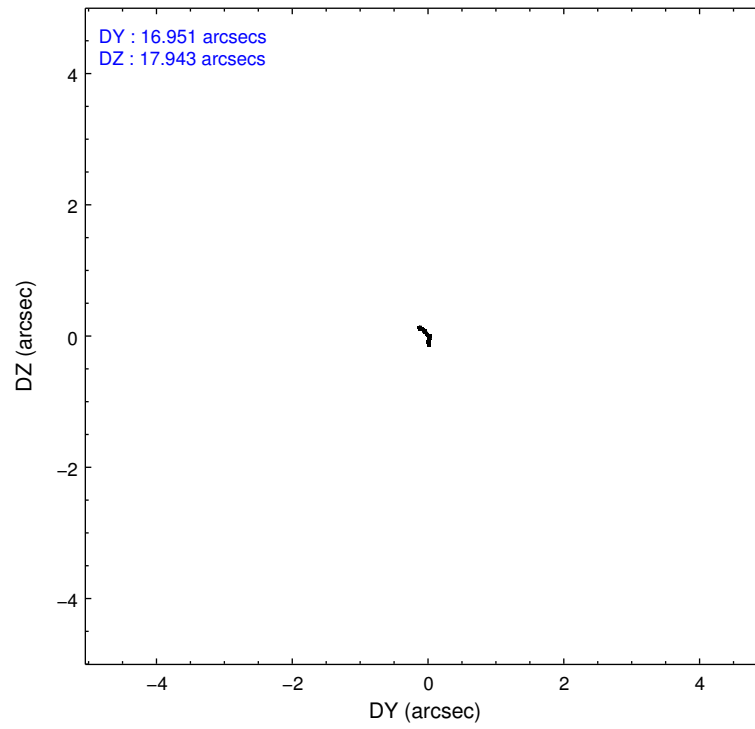
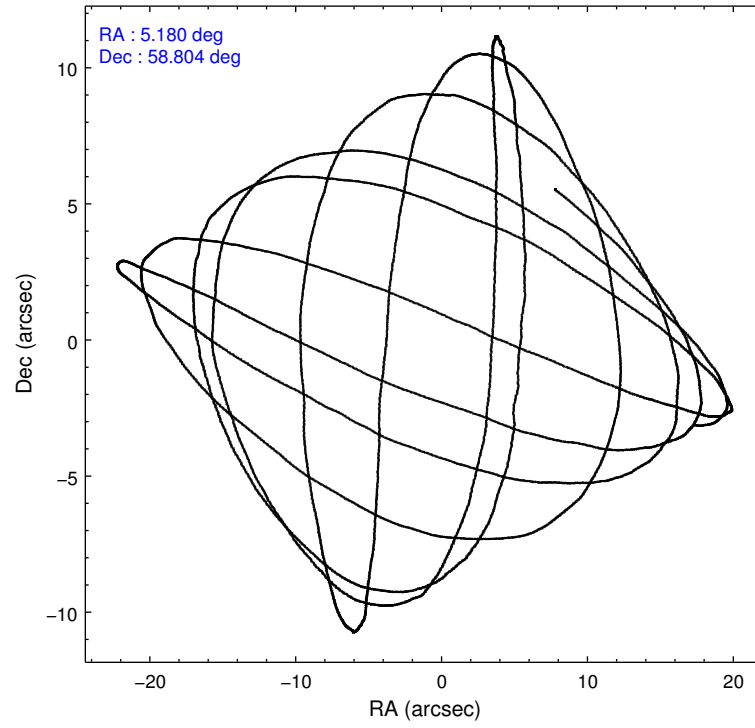
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	23518	22292	21529	16904	29801
rejected events	21184	20114	19157	7758	20745
rejected %	90%	90%	88%	45%	69%

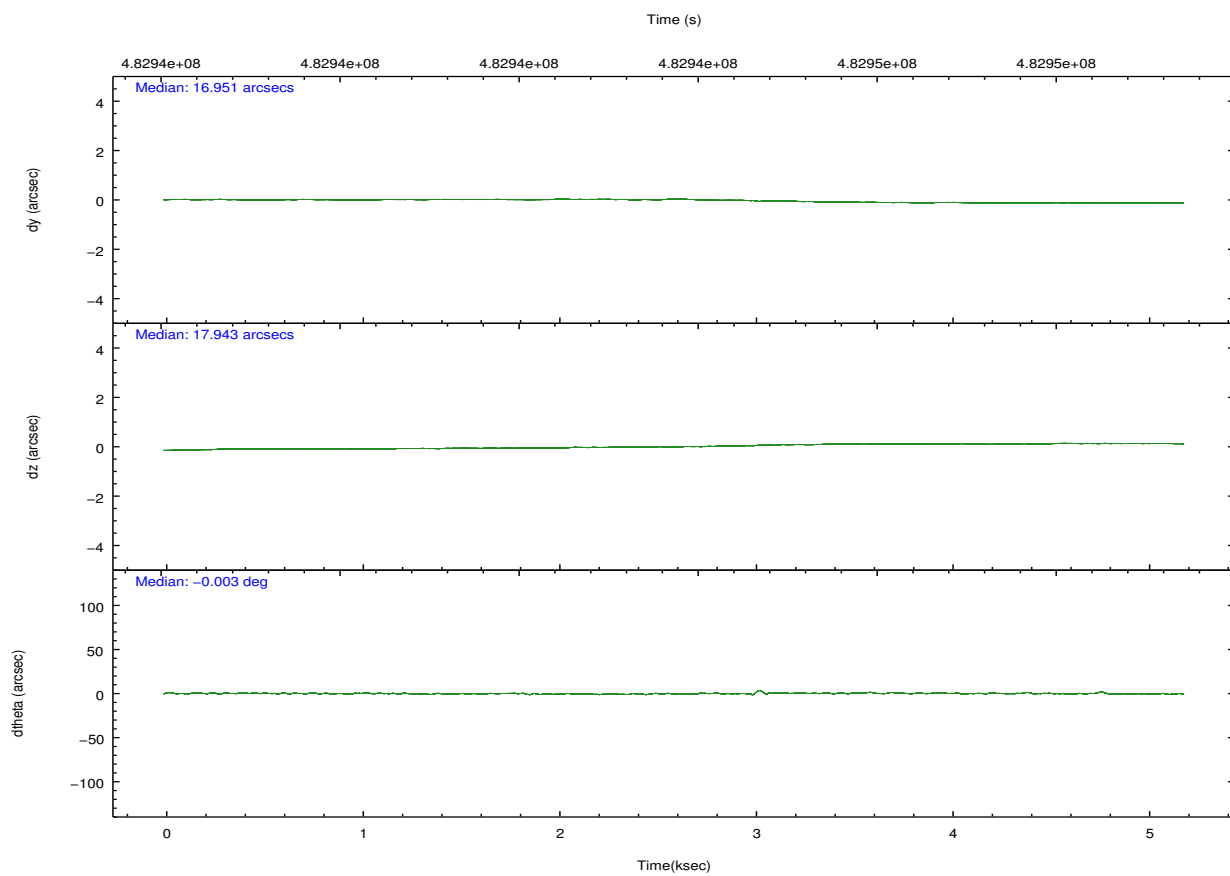
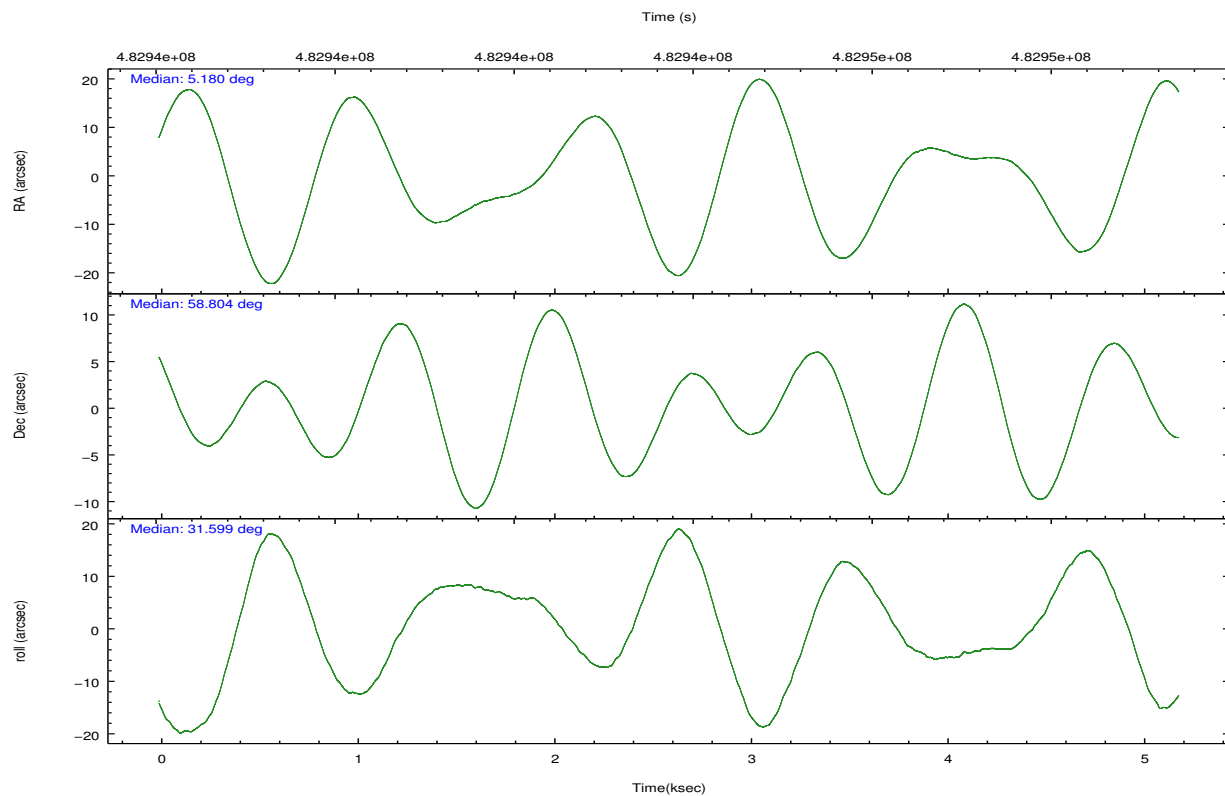
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	966	860	986	1242	2461
	4%	3%	4%	7%	8%
grade 1 events	20	14	13	47	33
	0%	0%	0%	0%	0%
grade 2 events	631	532	581	2340	2277
	2%	2%	2%	13%	7%
grade 3 events	219	265	236	926	997
	0%	1%	1%	5%	3%
grade 4 events	218	225	247	865	919
	0%	1%	1%	5%	3%
grade 5 events	447	655	593	1794	1082
	1%	2%	2%	10%	3%
grade 6 events	381	382	424	4119	2638
	1%	1%	1%	24%	8%
grade 7 events	20636	19359	18449	5571	19394
	87%	86%	85%	32%	65%

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	5.155496	5.180125284260904	Subarray requested	NONE	NONE
[deg] Pointing Dec	58.780035	58.80426020305119	Alternating exposures requested	N	N
[deg] Pointing Roll	31.466860	31.60240723362928	[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)	482942444.184000	482942068.58268			
Observation start date	2013-04-21T14:39:37	2013-04-21T14:34:28			
[s] Observation end time (MET)	482947444.184000	482948203.20801			
Observation end date	2013-04-21T16:02:57	2013-04-21T16:16:43			
Read mode	TIMED	TIMED			

2.3 Aspect



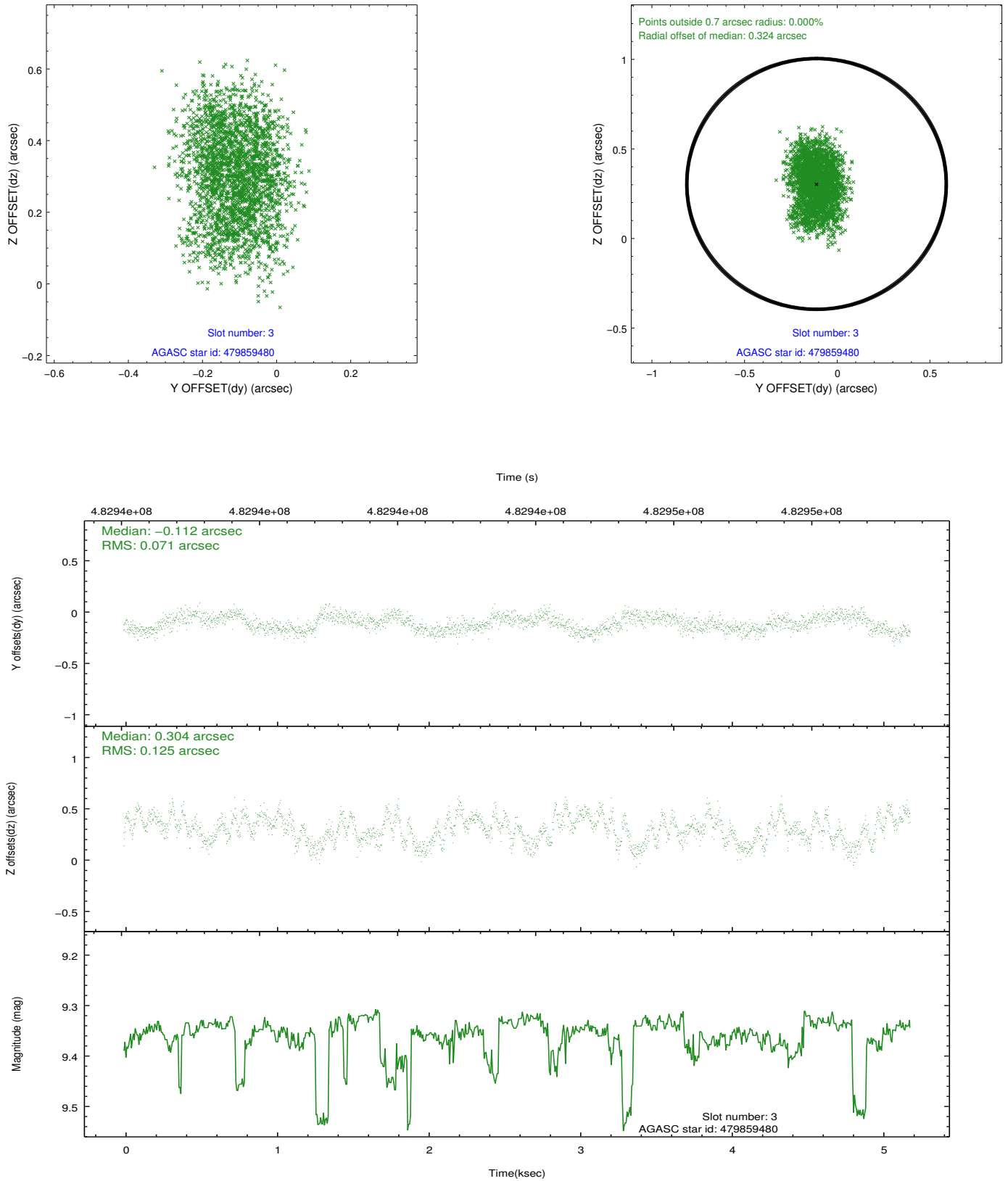


Slot Statistics

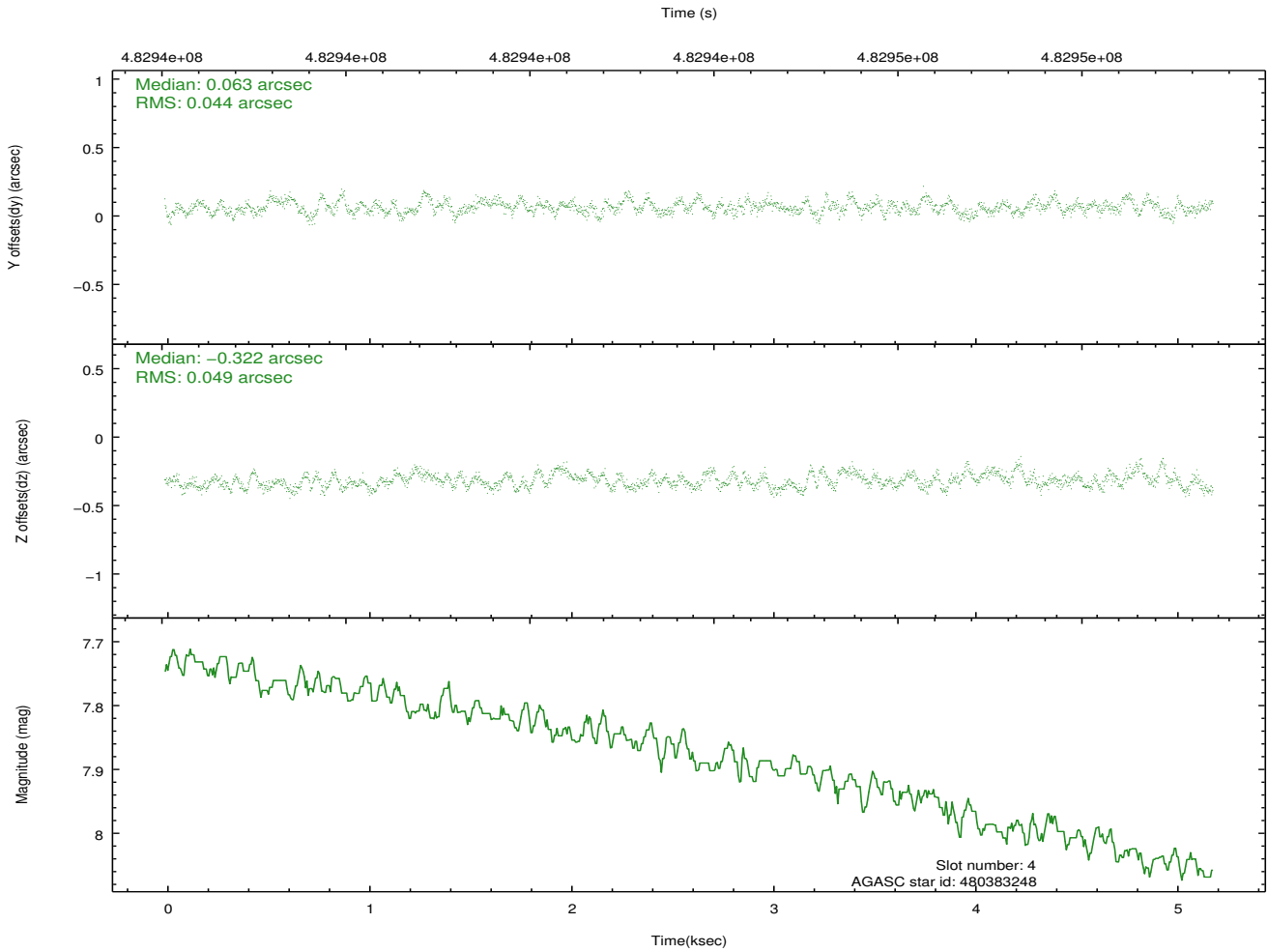
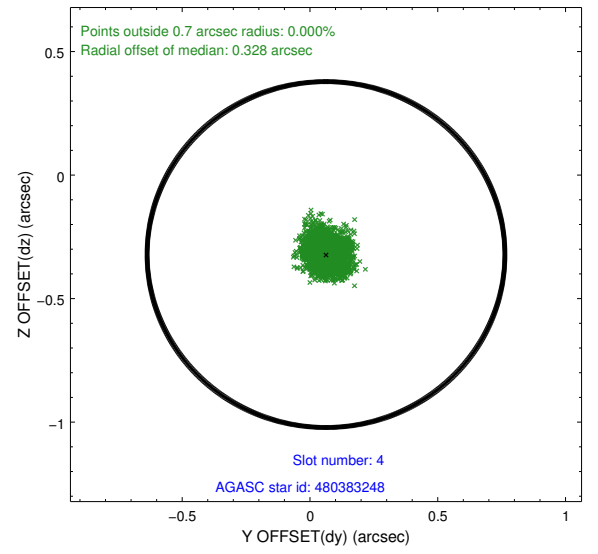
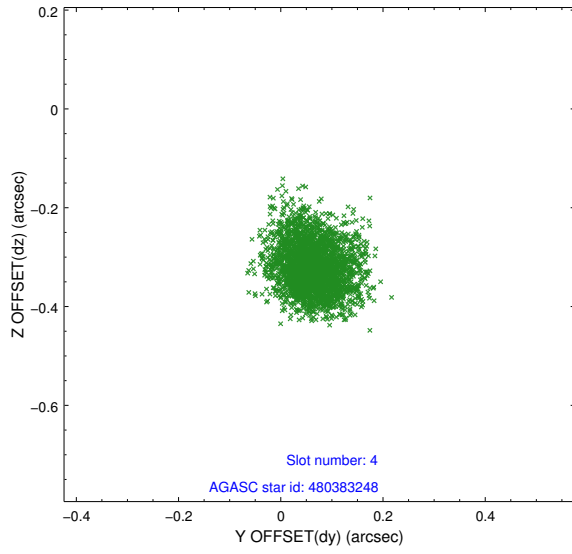
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.95	1266	-0.105	-0.061	0.006	0.011	0.000000	0.000000	-770.08	-1739.41
1	FID		ACIS-S-4	7.03	1266	0.142	0.048	0.007	0.011	0.000000	0.000000	2142.95	167.90
2	FID		ACIS-S-6	7.16	1265	-0.064	0.020	0.007	0.013	0.000000	0.000000	393.50	806.64
3	GUIDE	used	479859480	9.35	2506	-0.112	0.304	0.156	0.244	5.360092	58.065752	-1009.93	-2395.45
4	GUIDE	used	480383248	7.87	2531	0.063	-0.322	0.070	0.111	4.828098	59.139041	159.10	1418.44
5	GUIDE	used	480389024	8.58	2529	-0.207	0.081	0.095	0.157	3.735860	58.782118	-2239.33	1412.29
6	GUIDE	used	480379256	9.00	2531	-0.031	0.062	0.089	0.144	5.631259	59.673209	2416.65	2294.74
7	GUIDE	used	480516640	7.91	2530	0.280	-0.117	0.097	0.179	6.918814	58.553908	2423.43	-2384.43

2.4 Star Slots

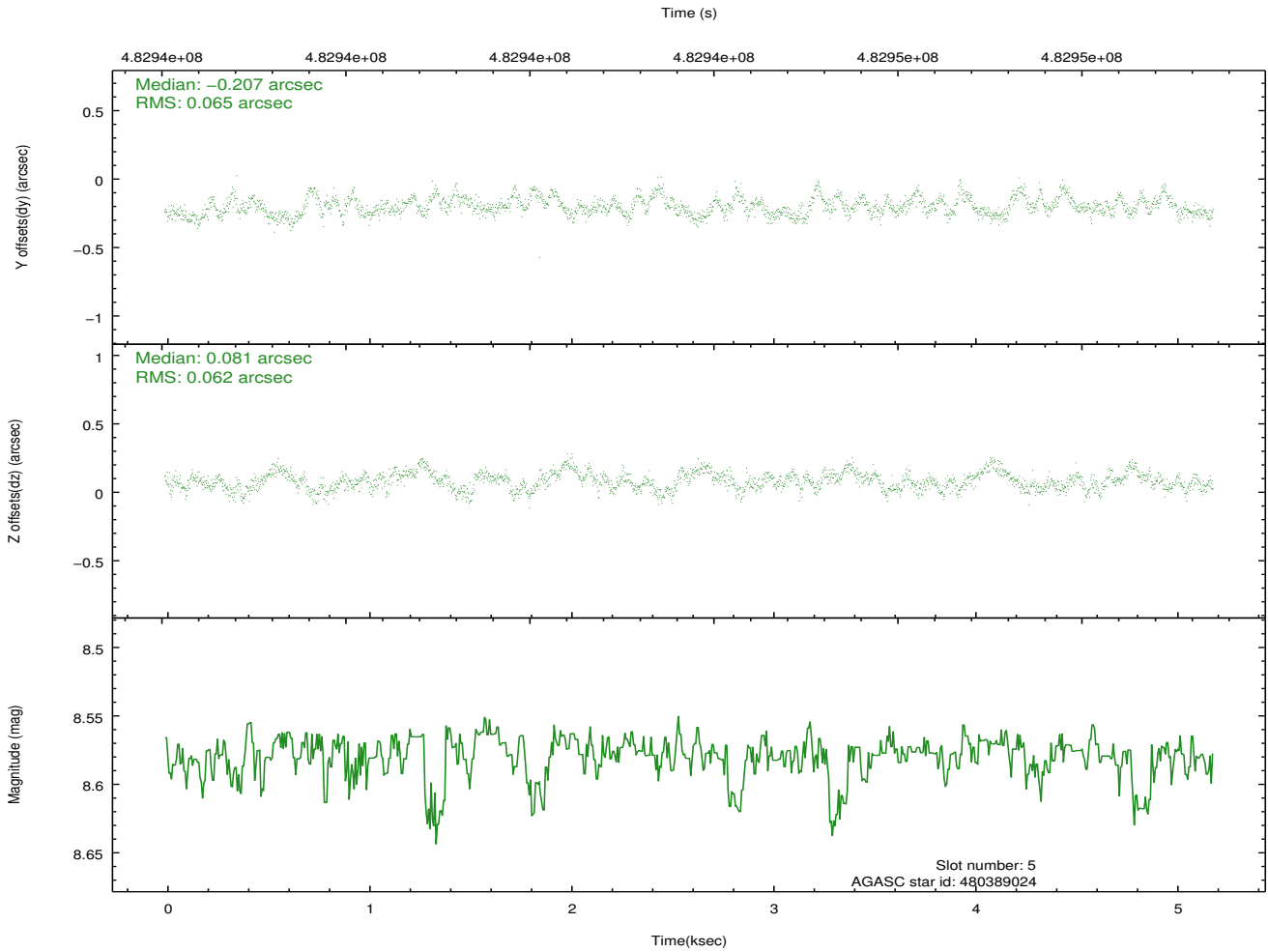
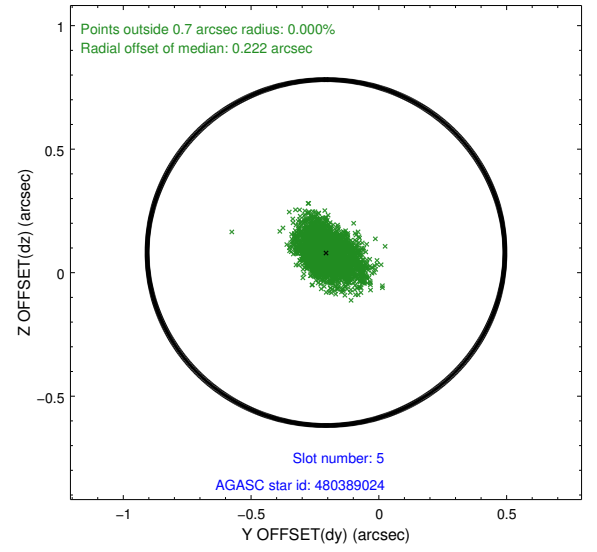
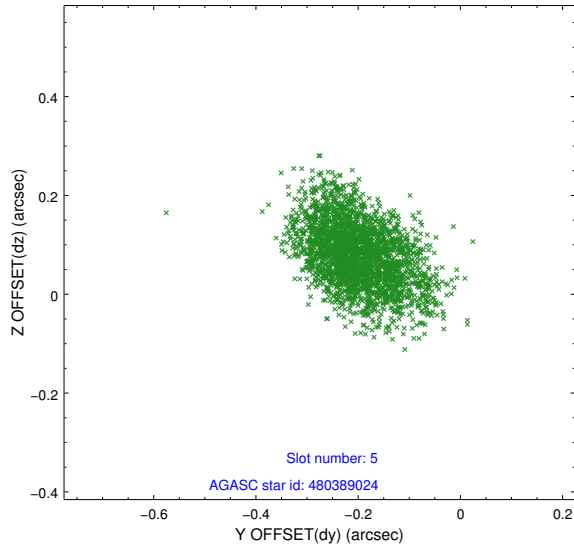
2.4.1 Slot 3



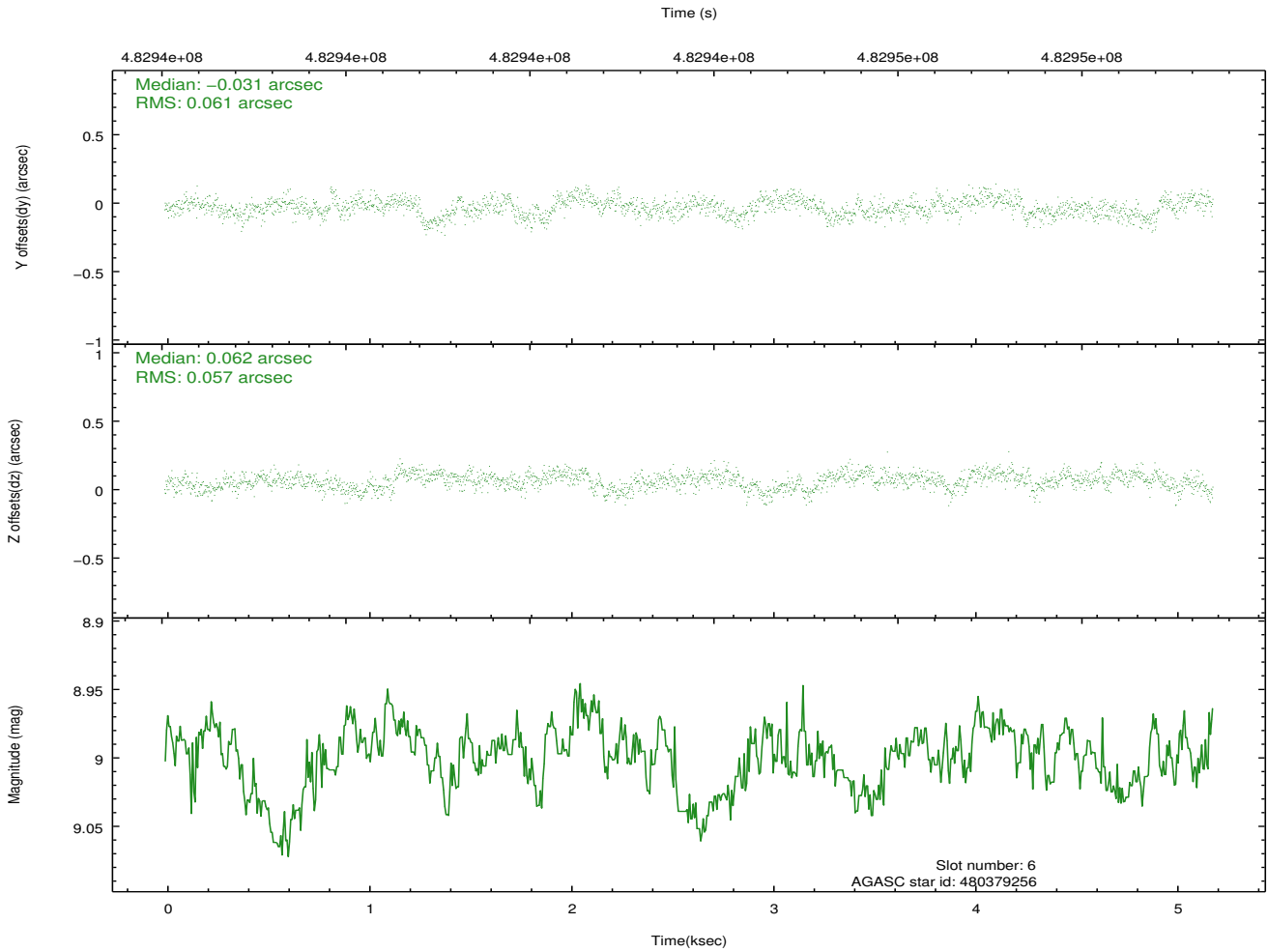
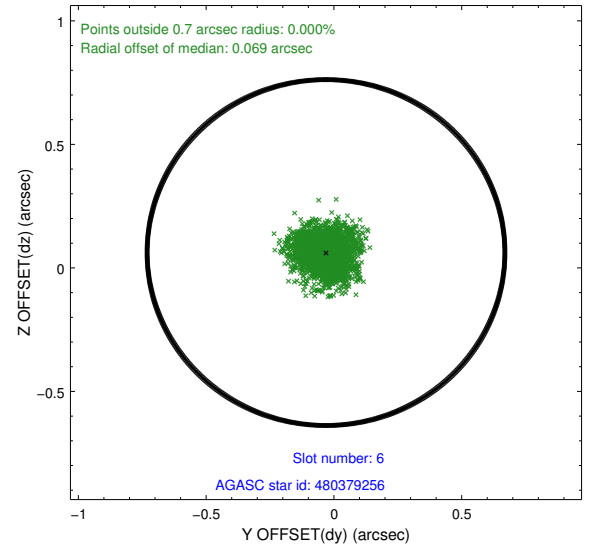
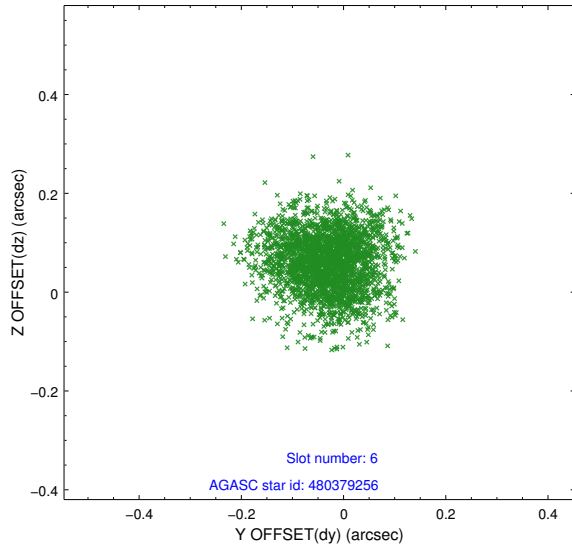
2.4.2 Slot 4



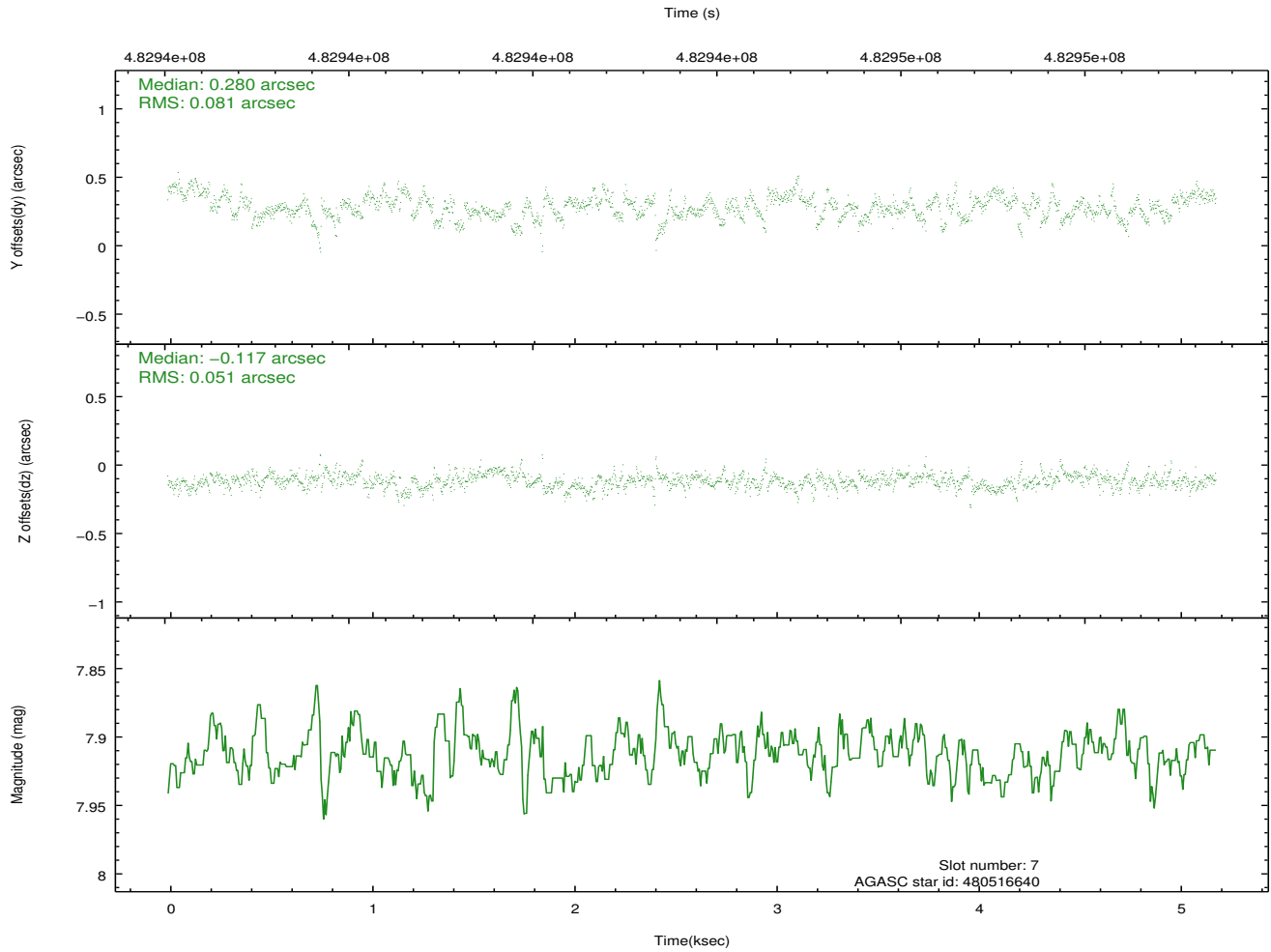
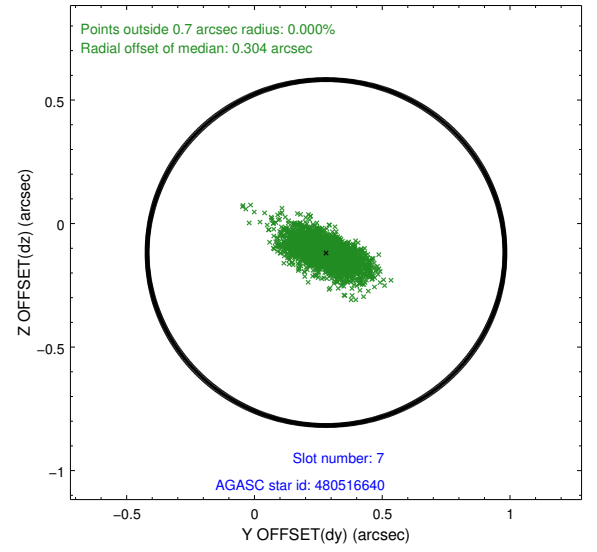
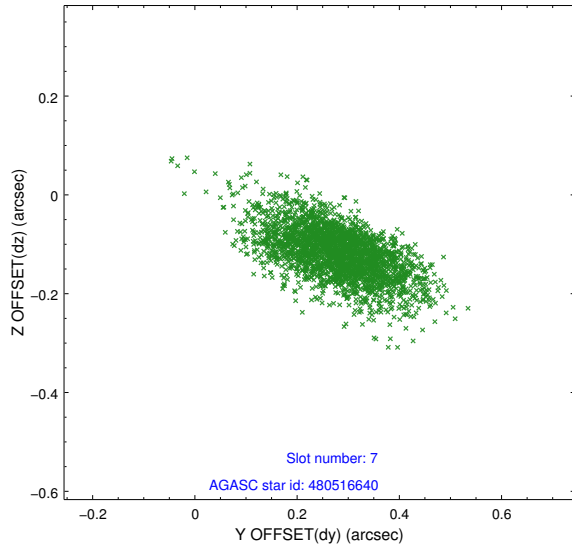
2.4.3 Slot 5



2.4.4 Slot 6

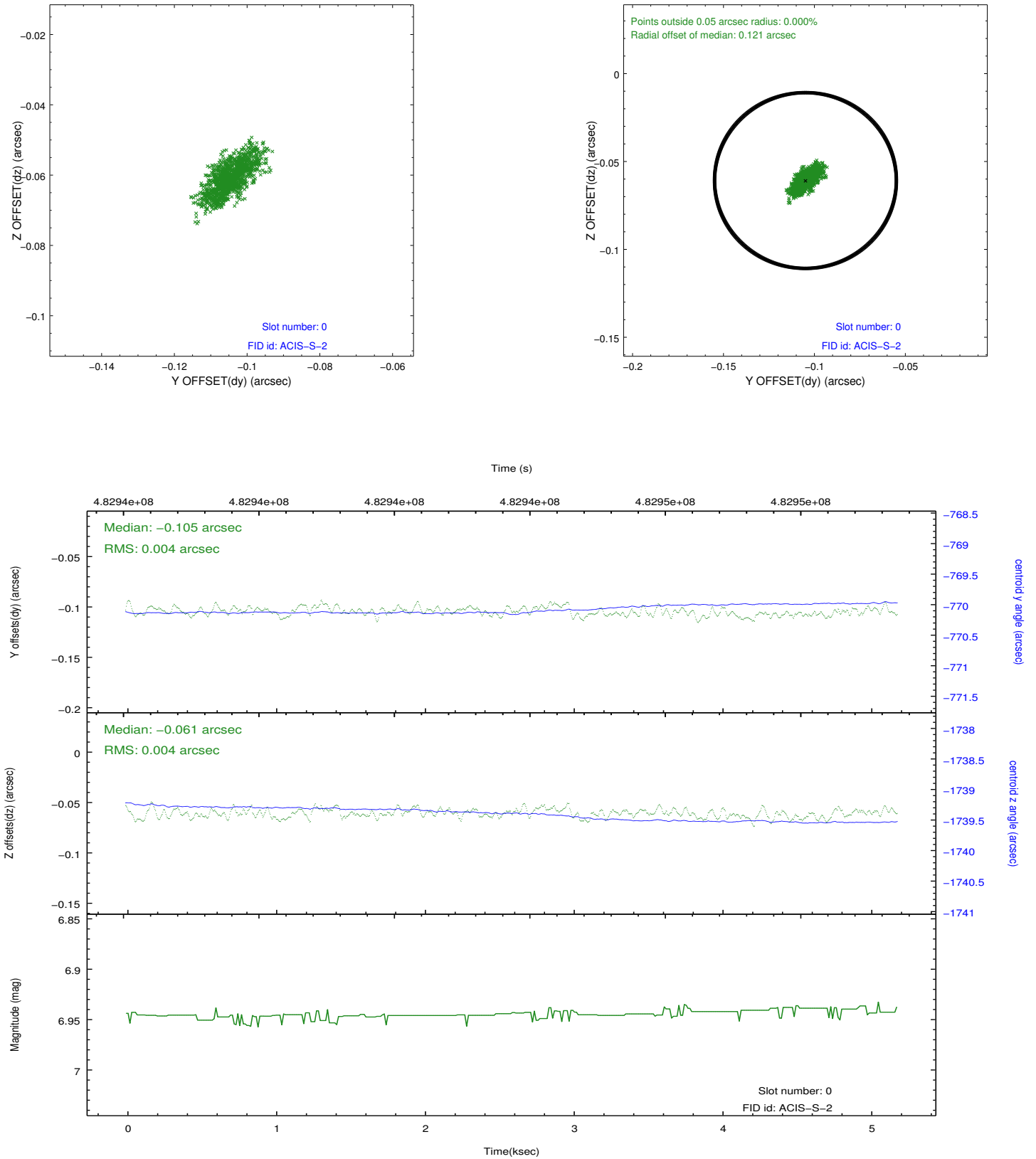


2.4.5 Slot 7

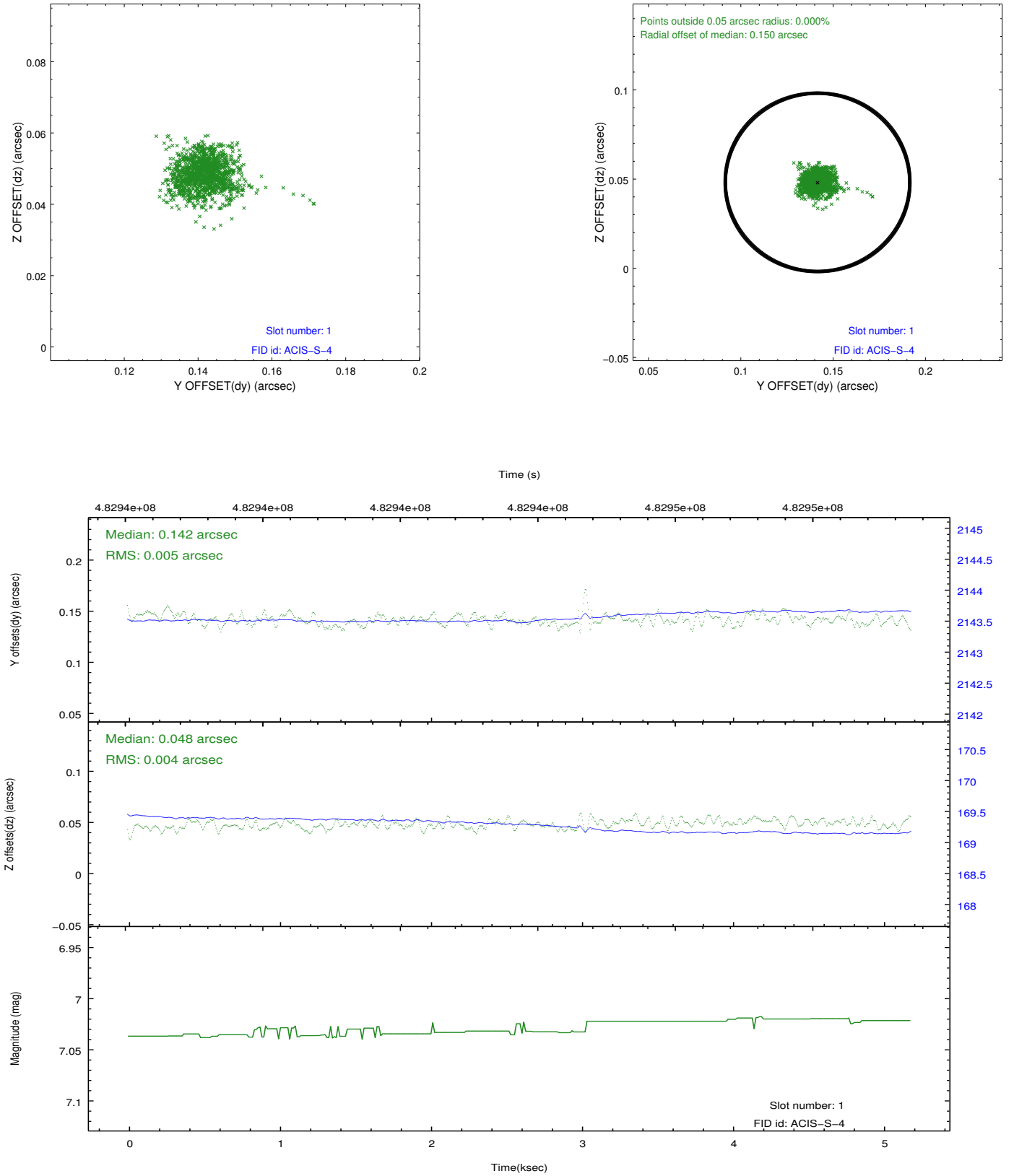


2.5 FID Slots

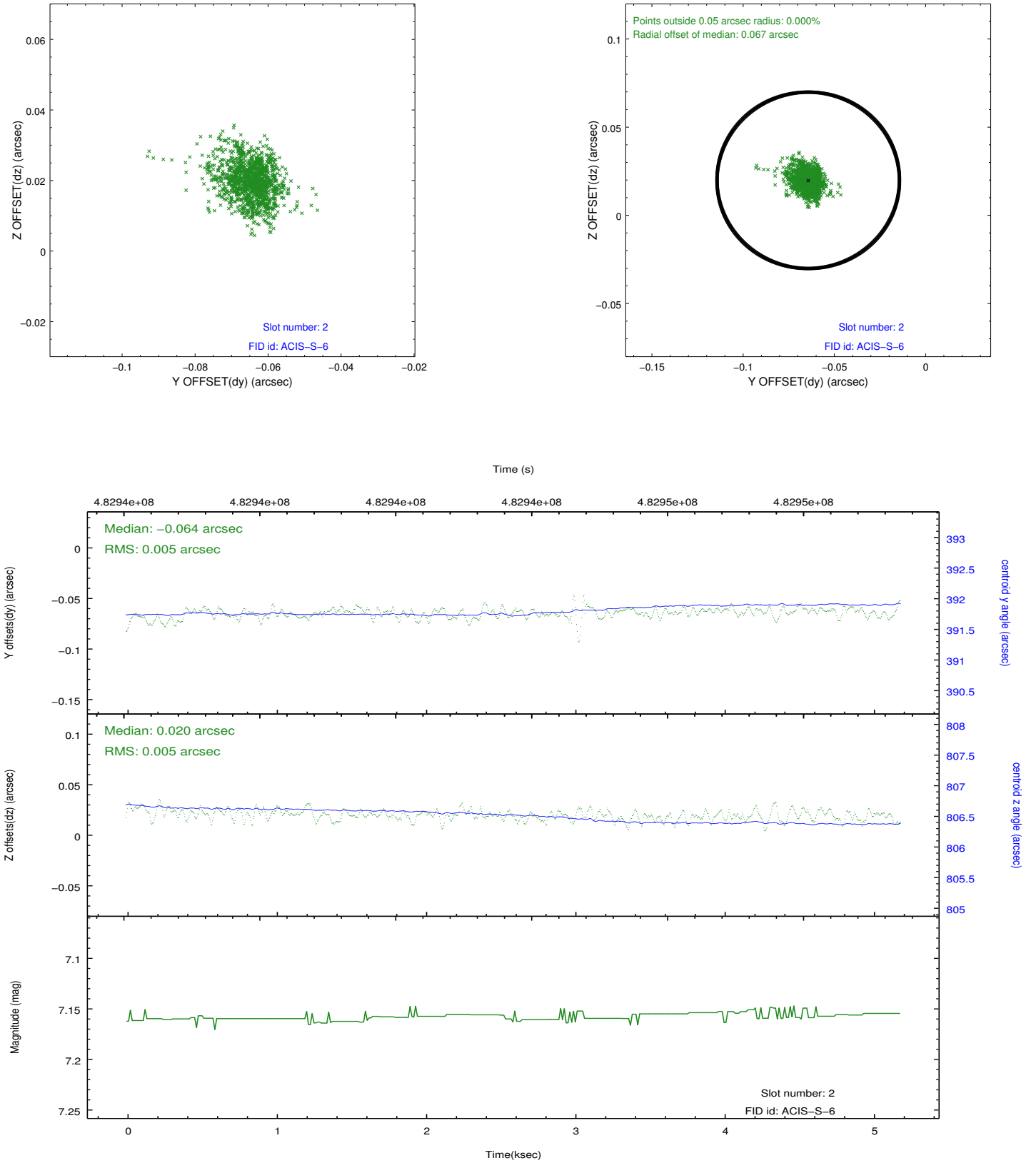
2.5.1 Slot 0



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	5.1801000398397

A.2 Comments

This is an observation of 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.