

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 15641 - L2 Version 2
Chandra X-Ray Center

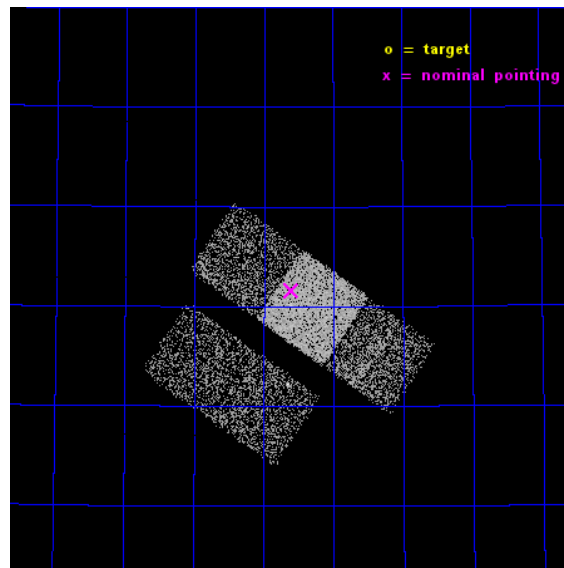
L2 Processing Date : Dec 2 2014

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1 Front

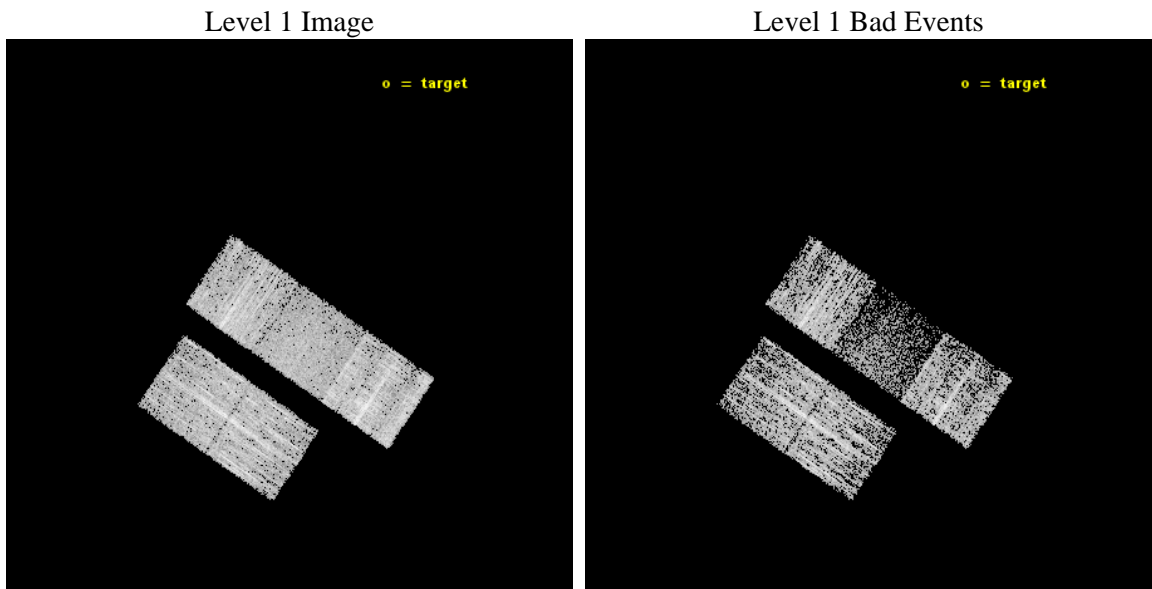
seq_num	100095	Sequence number
obs_id	15641	Observation id
title	High Latitude Charge Exchange X-rays from Comet PANSTARRS in the Cold Polar Solar Wind	Proposal title
observer	Dr. Carey Lisse	Principal investigator
object	Comet 2011 L4 (PANSTARRS)	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	4.879166	Observer's specified target RA [deg]
dec_targ	60.061112	Observer's specified target Dec [deg]
ra_nom	4.6507769737829	Nominal RA [deg]
dec_nom	61.027011262194	Nominal Dec [deg]
roll_nom	34.3566799582	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5183.2000398636	Sum of GTIs [s]
livetime	5115.4777155264	Livetime [s]
ontime2	5183.2000398636	Sum of GTIs [s]
ontime3	5183.2000398636	Sum of GTIs [s]
ontime6	5183.2000398636	Sum of GTIs [s]
ontime7	5183.2000398636	Sum of GTIs [s]
ontime8	5183.2000398636	Sum of GTIs [s]
l2events	16959	Number of level 2 events



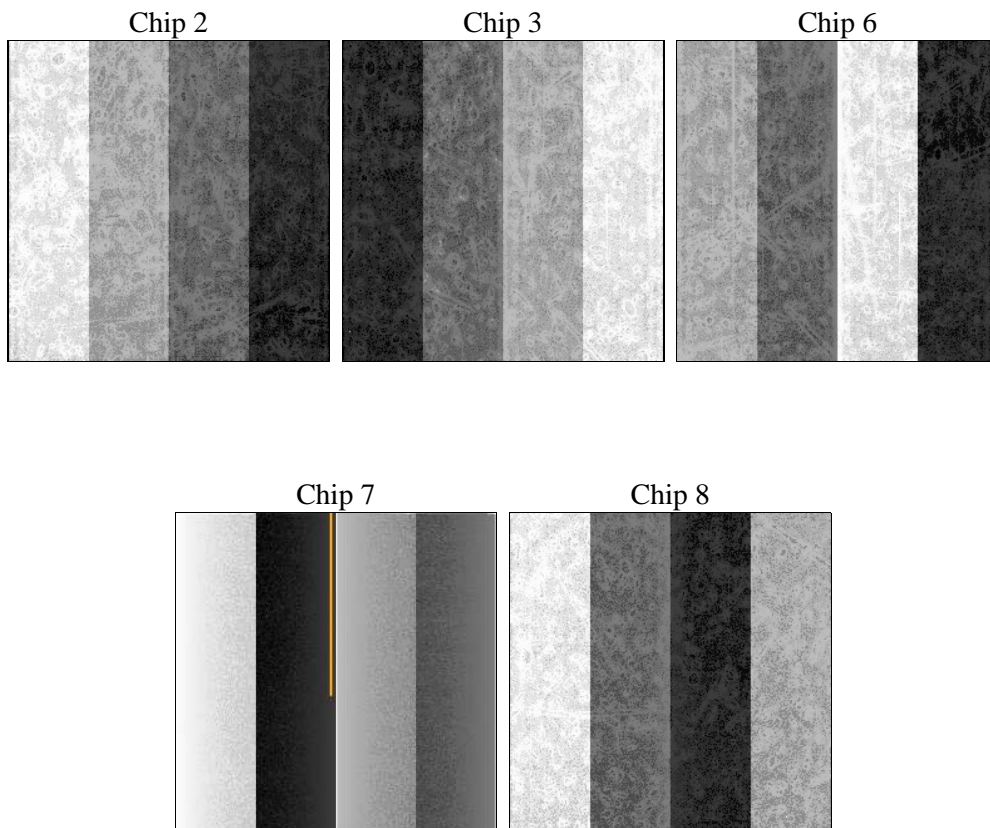
2 OBI

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	5183.2000398636	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	5183.2000398636	Sum of GTIs [s]
date	2014-12-02T21:53:02	Date and time of file creation	ontime3	5183.2000398636	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	5183.2000398636	Sum of GTIs [s]
			ontime7	5183.2000398636	Sum of GTIs [s]
			ontime8	5183.2000398636	Sum of GTIs [s]
			l1events	116668	Number of level 1 events

2.1.4 Events

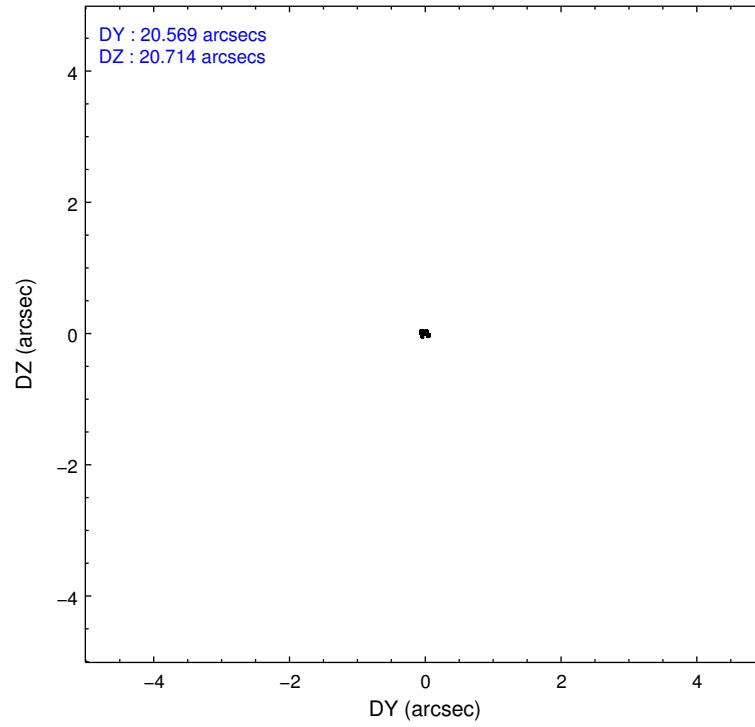
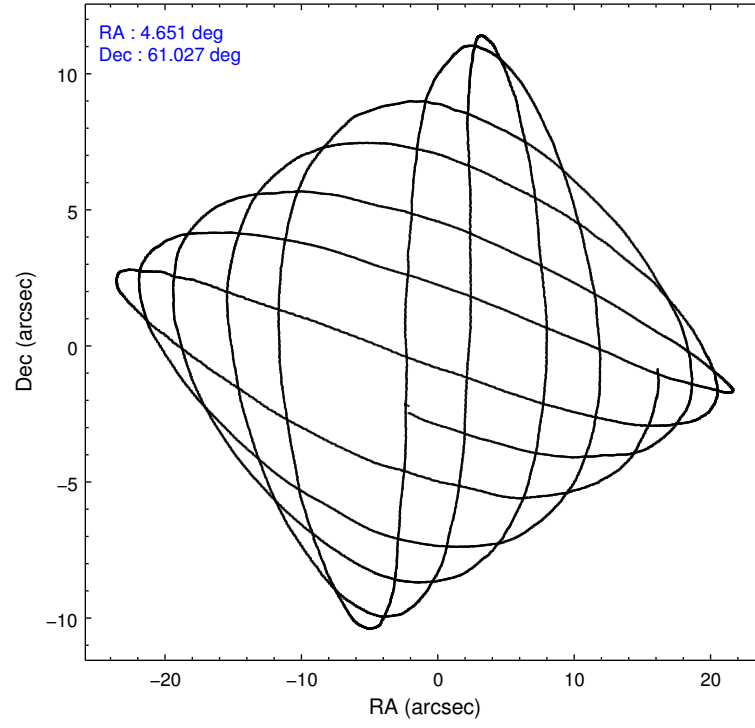
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	22524	24291	23402	17157	29294
rejected events	20308	22164	20971	7923	20553
rejected %	90%	91%	89%	46%	70%

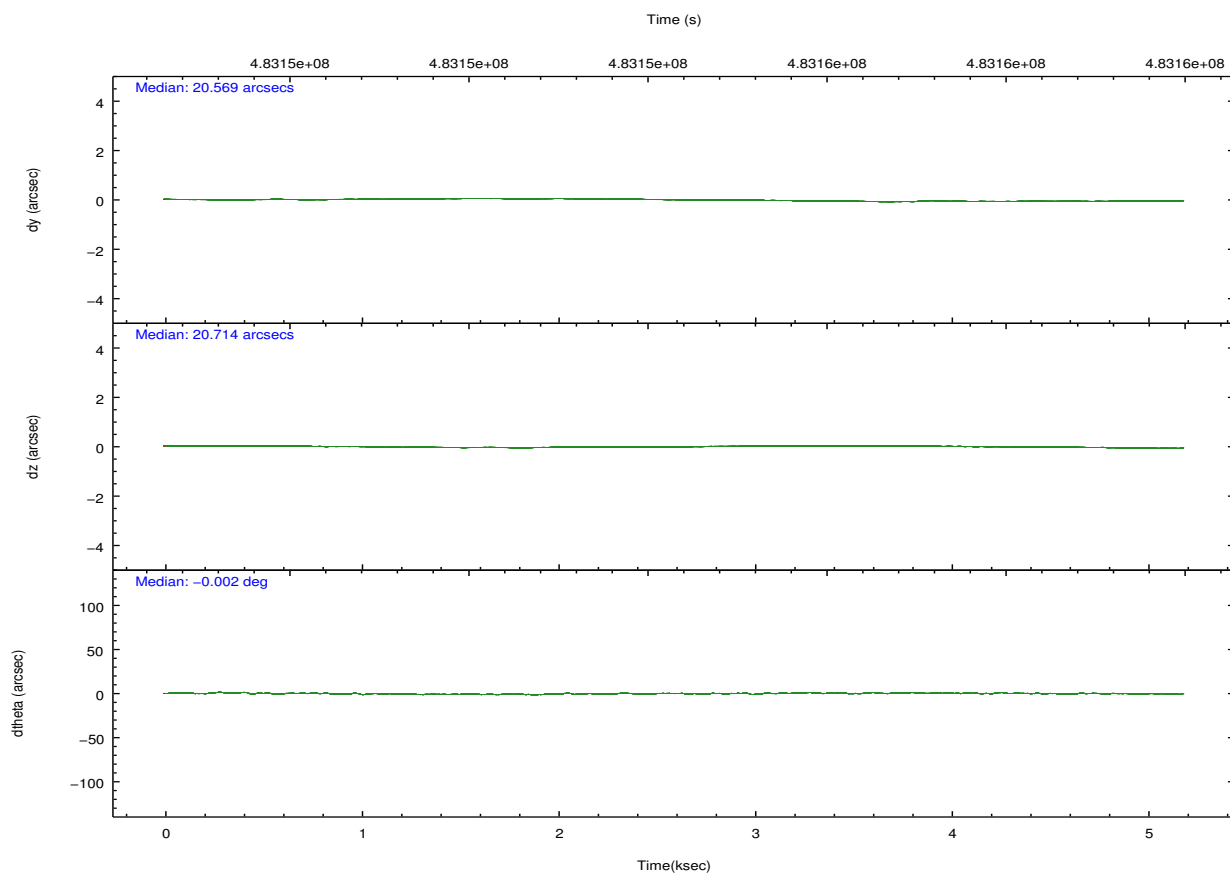
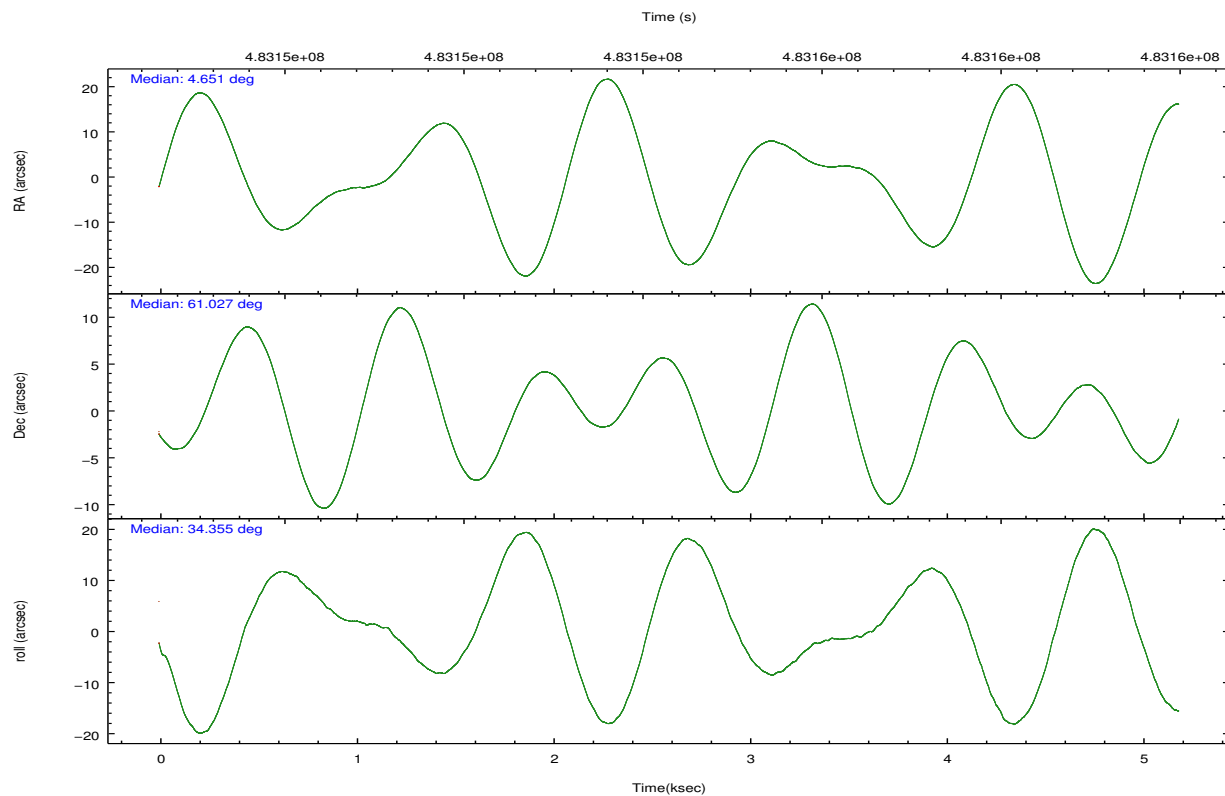
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	903	914	969	1348	2655
	4%	3%	4%	7%	9%
grade 1 events	15	12	8	42	30
	0%	0%	0%	0%	0%
grade 2 events	630	500	608	2293	2205
	2%	2%	2%	13%	7%
grade 3 events	196	226	253	944	941
	0%	0%	1%	5%	3%
grade 4 events	249	208	259	908	941
	1%	0%	1%	5%	3%
grade 5 events	485	622	626	1829	1046
	2%	2%	2%	10%	3%
grade 6 events	320	361	438	4088	2547
	1%	1%	1%	23%	8%
grade 7 events	19726	21448	20241	5705	18929
	87%	88%	86%	33%	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	4.626926	4.650776973782901	Subarray requested	NONE	NONE
[deg] Pointing Dec	61.002257	61.02701126219417	Alternating exposures requested	N	N
[deg] Pointing Roll	34.220926	34.35667995819993	[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	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	483151730.184000	483151354.11905			
Observation start date	2013-04-24T00:47:43	2013-04-24T00:42:34			
[s] Observation end time (MET)	483156730.184000	483156918.84435			
Observation end date	2013-04-24T02:11:03	2013-04-24T02:15:18			
Read mode	TIMED	TIMED			

2.3 Aspect



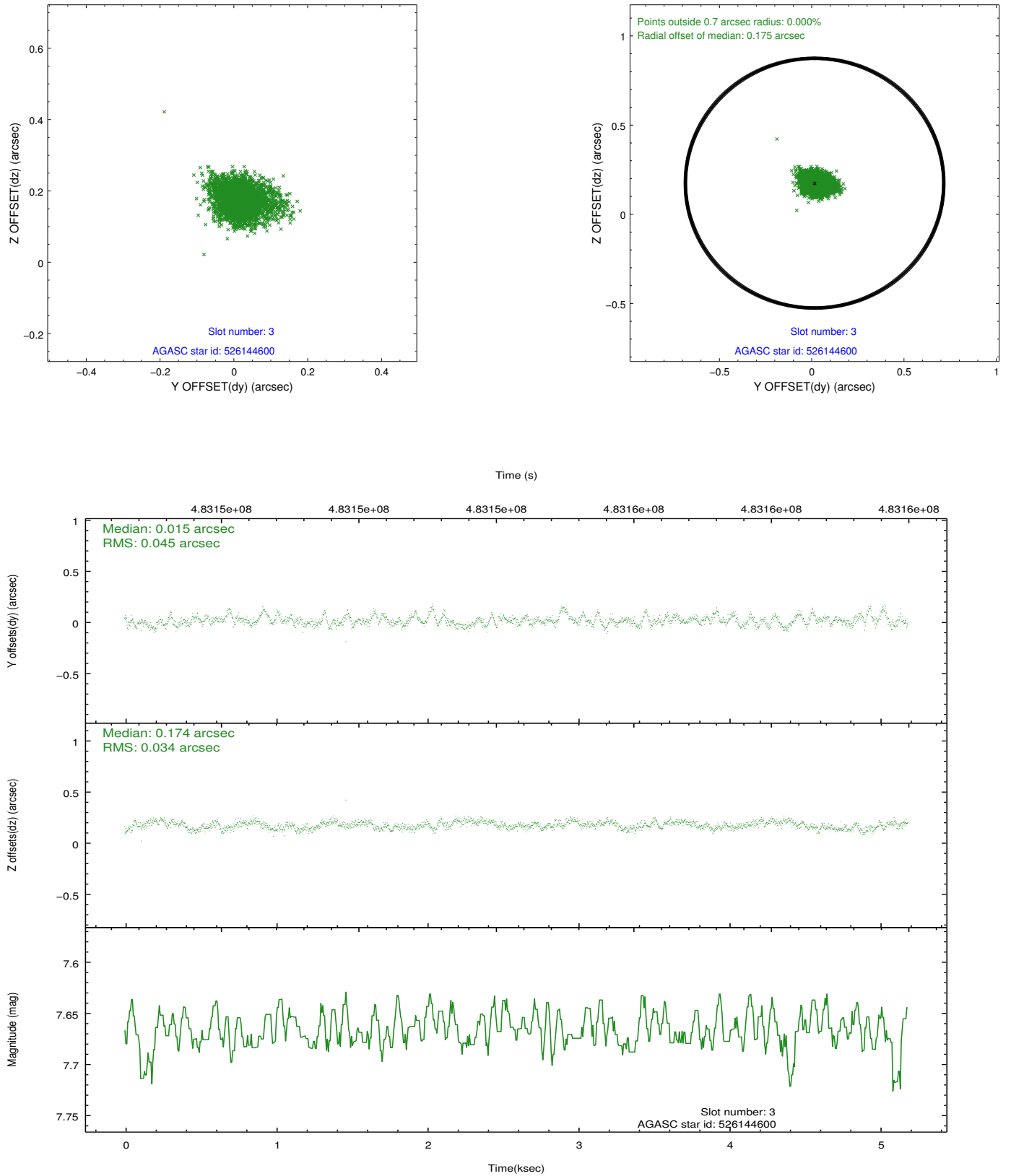


Slot Statistics

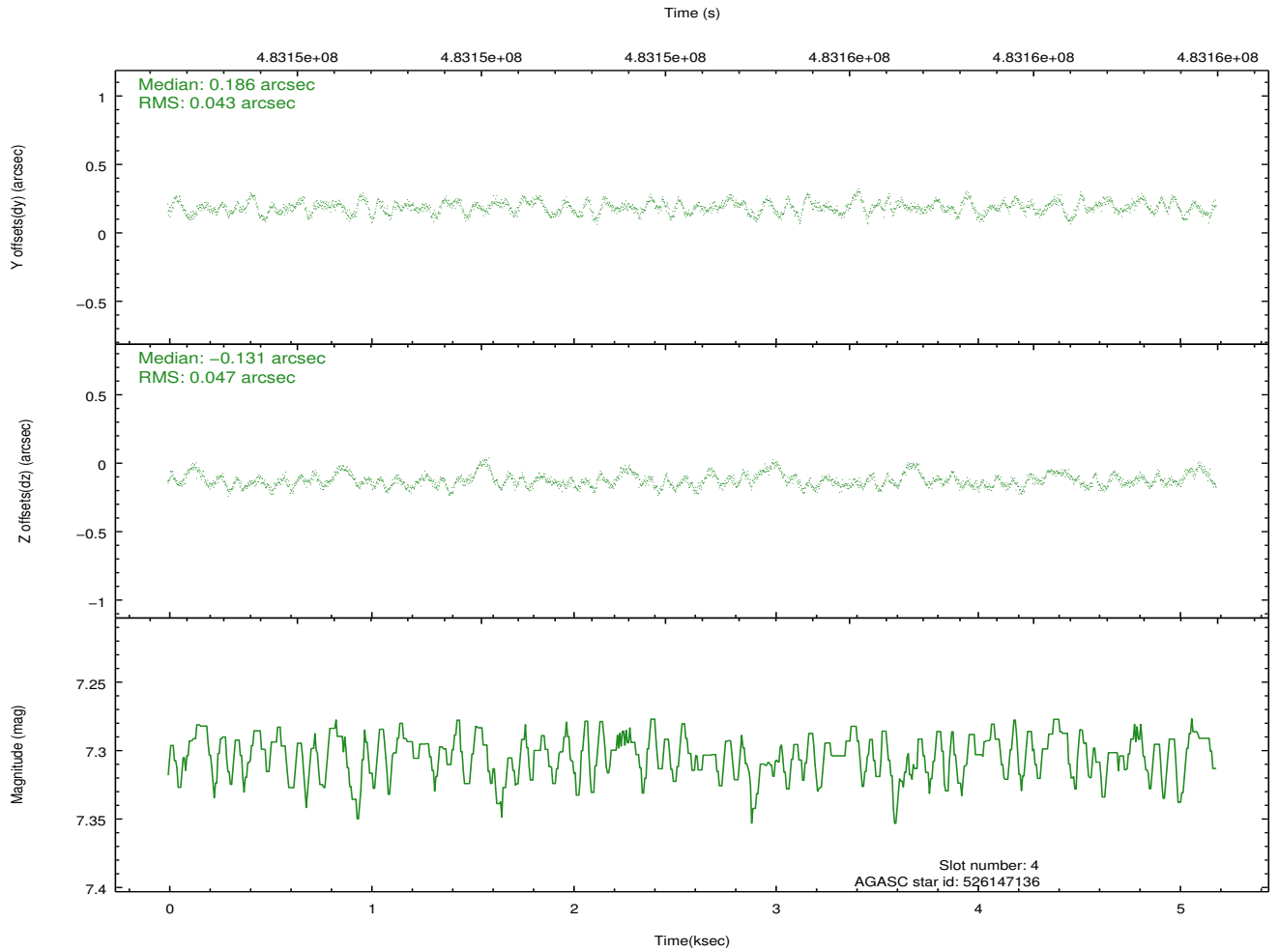
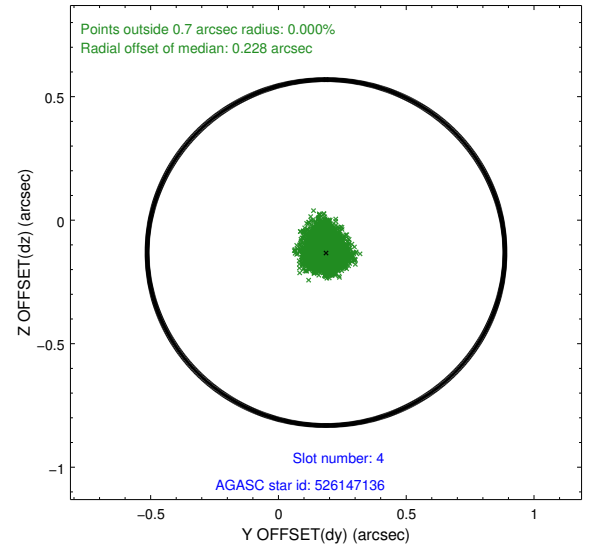
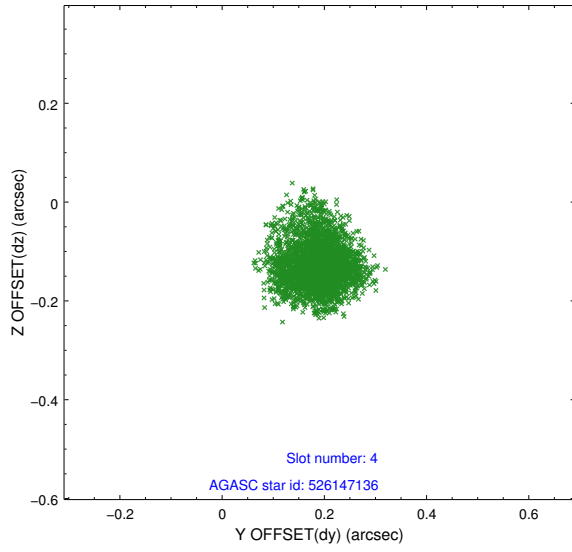
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.93	1266	-0.113	-0.060	0.006	0.010	0.000000	0.000000	-773.85	-1742.28
1	FID		ACIS-S-4	7.01	1266	0.128	0.067	0.006	0.010	0.000000	0.000000	2139.19	165.02
2	FID		ACIS-S-6	7.14	1265	-0.043	0.000	0.006	0.010	0.000000	0.000000	389.77	803.73
3	GUIDE	used	526144600	7.67	2531	0.015	0.174	0.058	0.099	3.527597	60.720350	-2161.94	263.34
4	GUIDE	used	526147136	7.30	2530	0.186	-0.131	0.069	0.110	3.790110	60.772118	-1677.55	150.35
5	GUIDE	used	526256320	8.76	2515	-0.074	-0.100	0.073	0.115	5.505391	61.521455	2303.14	705.90
6	GUIDE	used	526262328	7.92	2531	-0.221	-0.143	0.071	0.156	4.573936	61.727056	1393.47	2209.05
7	GUIDE	used	526271288	7.10	2530	0.090	0.206	0.059	0.096	5.005034	60.639200	-181.37	-1452.94

2.4 Star Slots

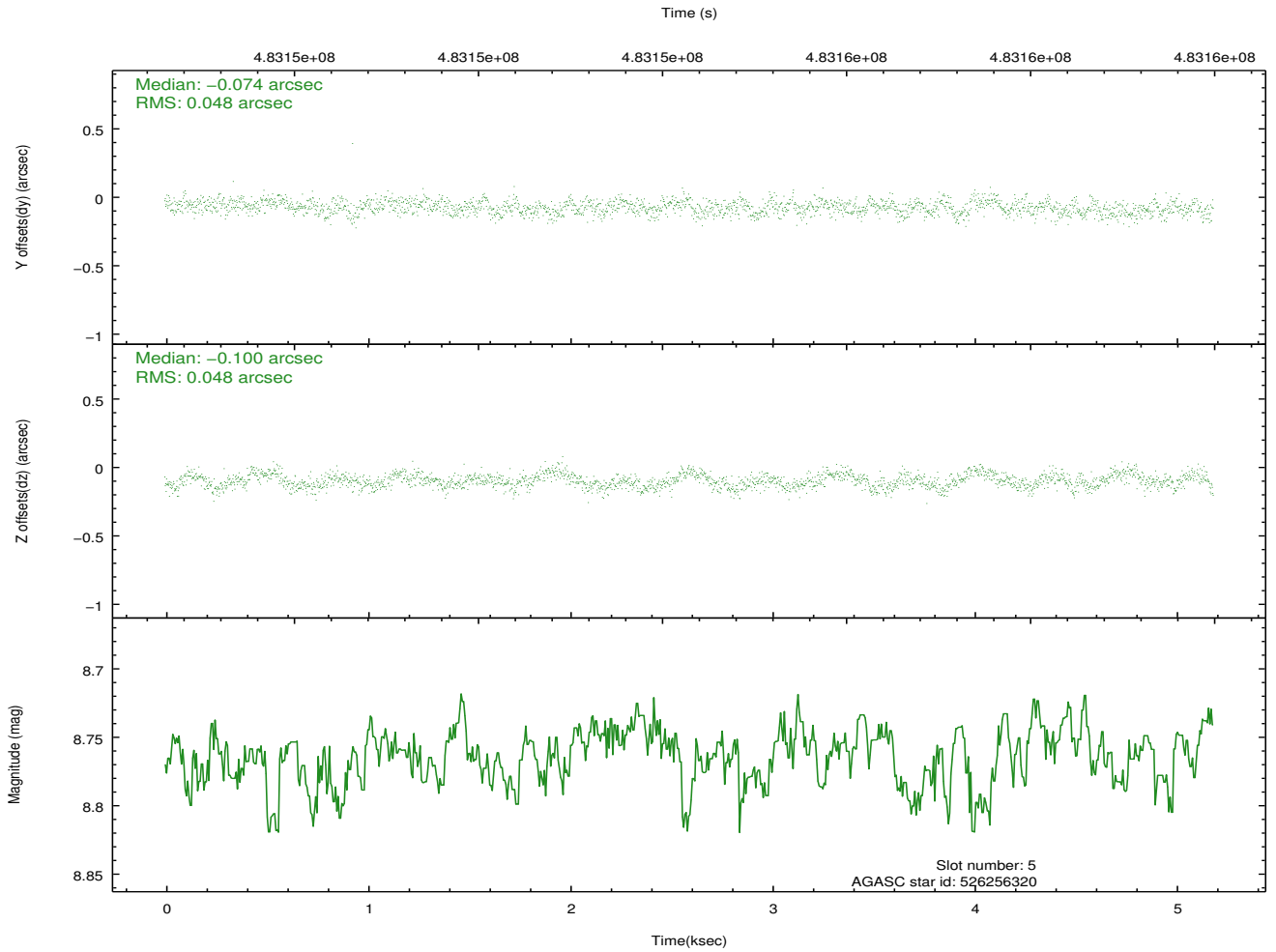
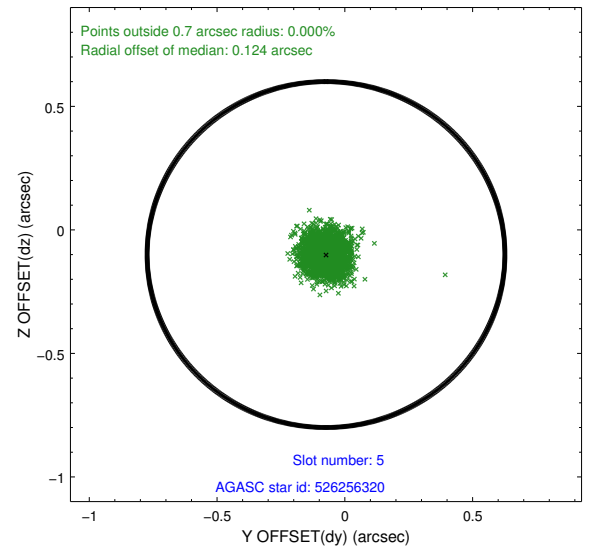
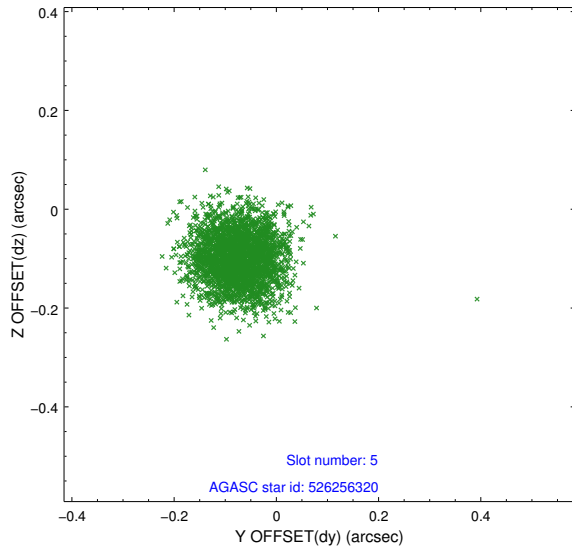
2.4.1 Slot 3



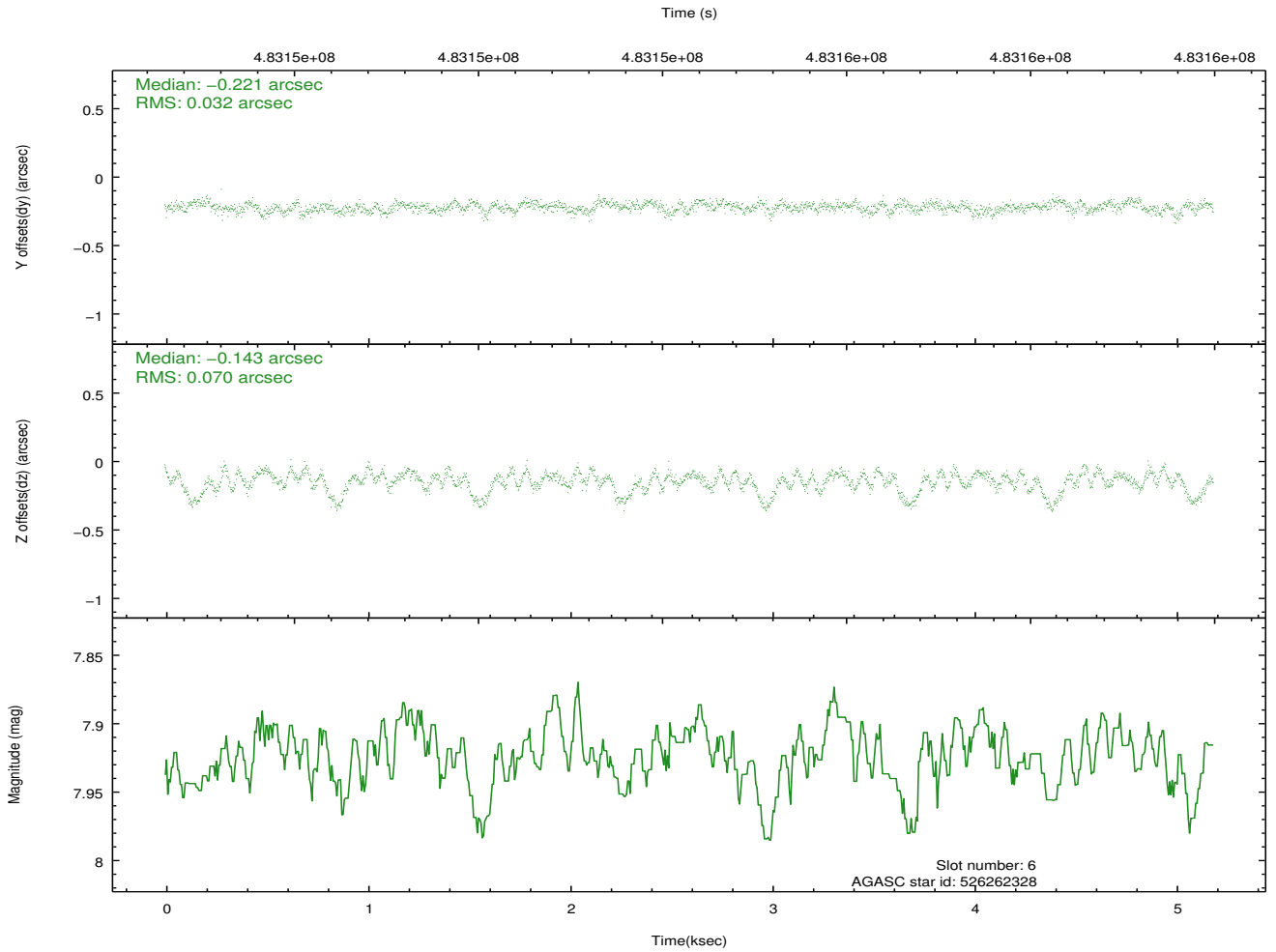
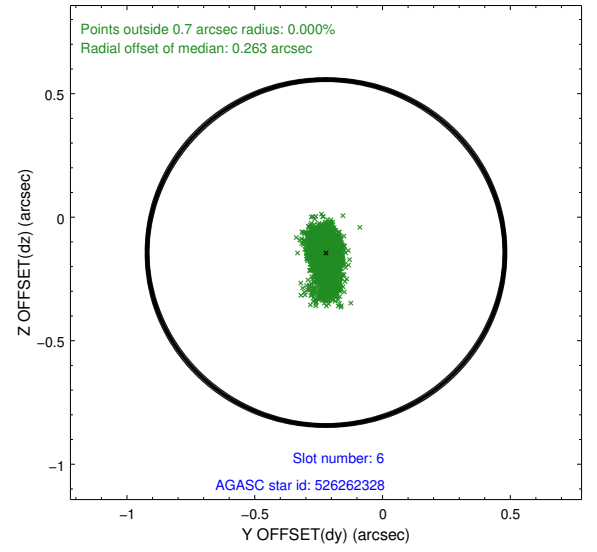
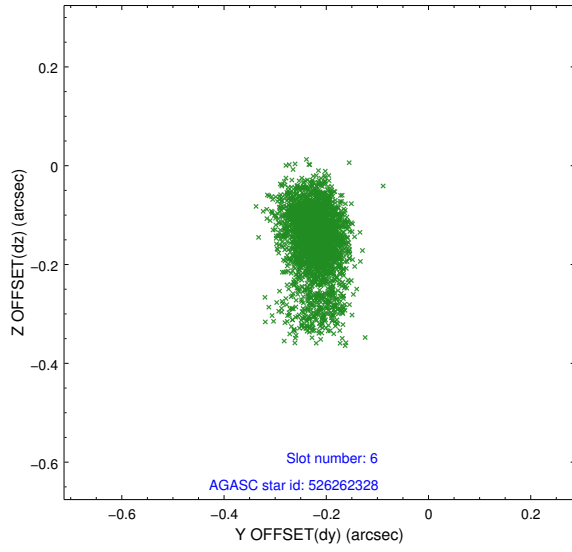
2.4.2 Slot 4



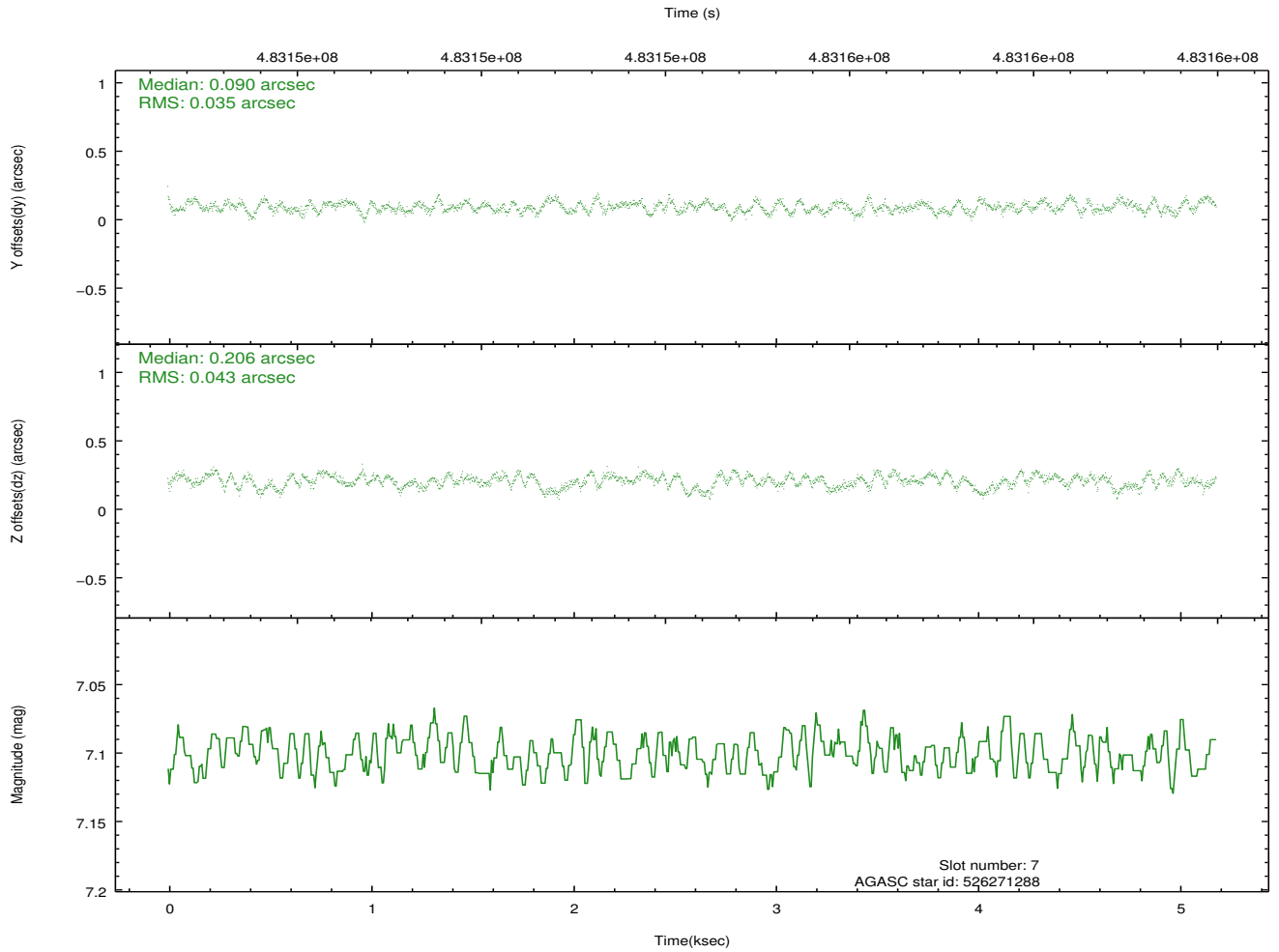
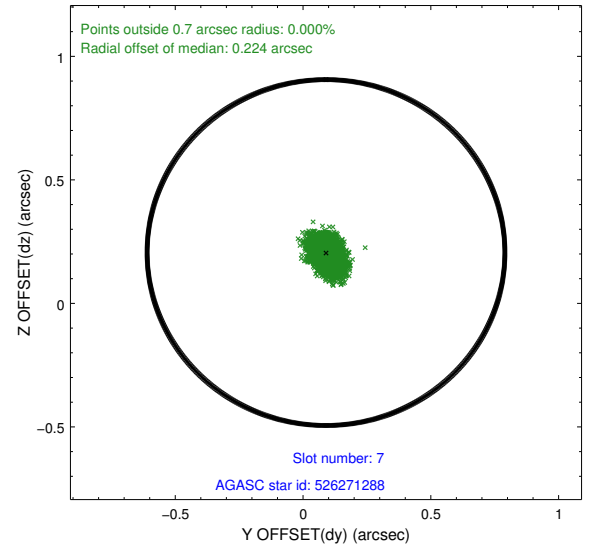
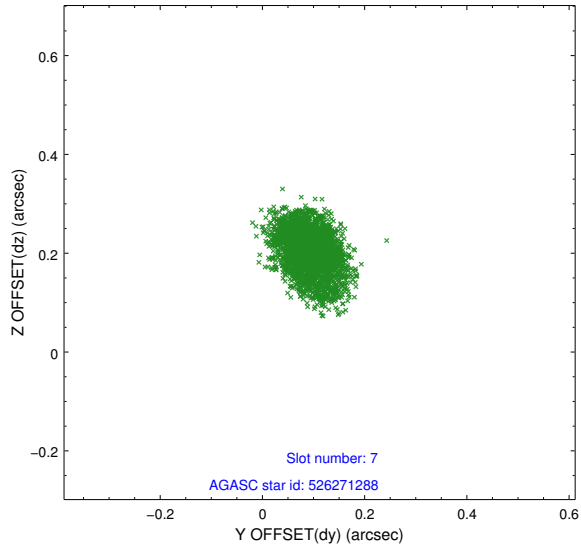
2.4.3 Slot 5



2.4.4 Slot 6

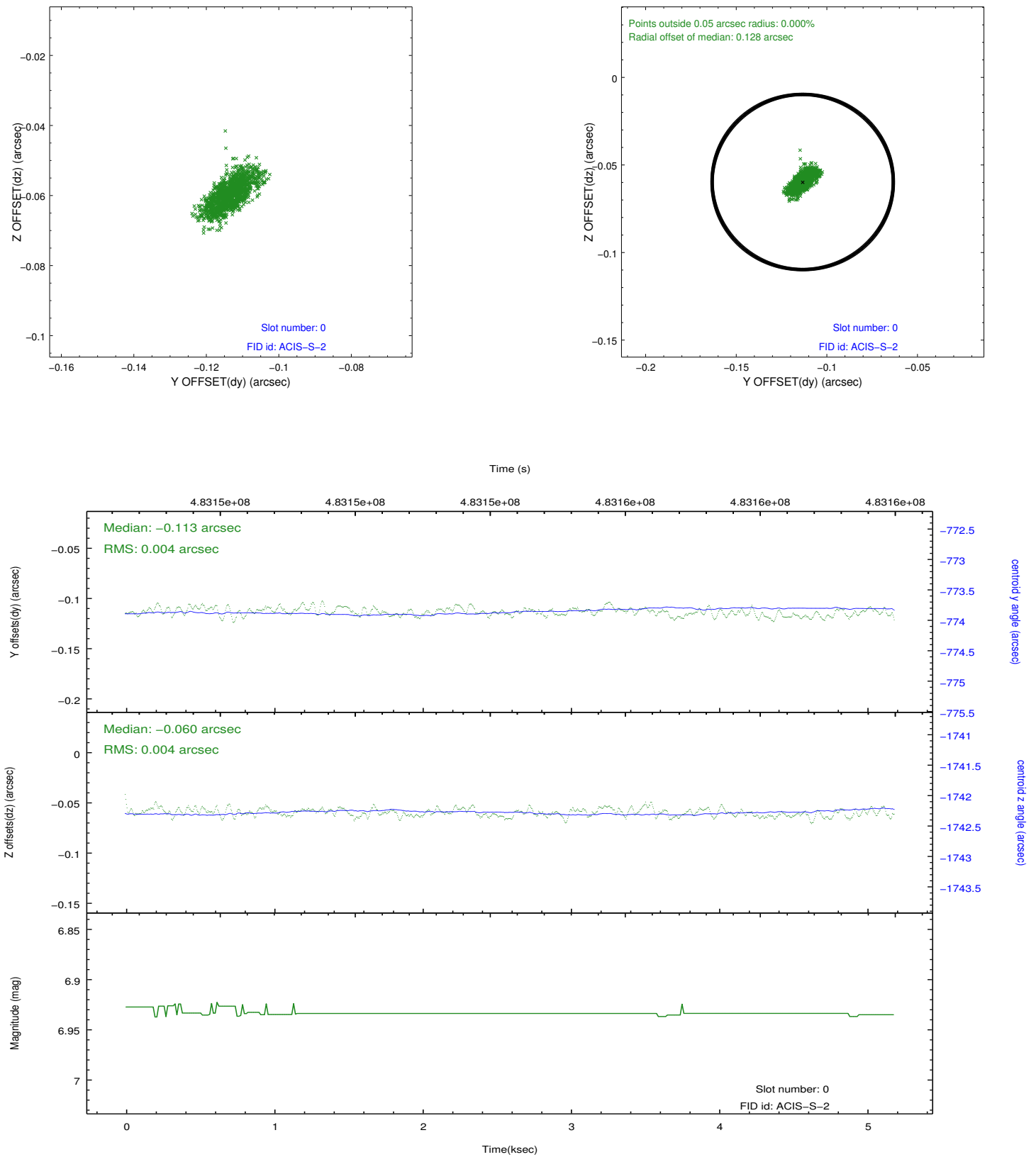


2.4.5 Slot 7

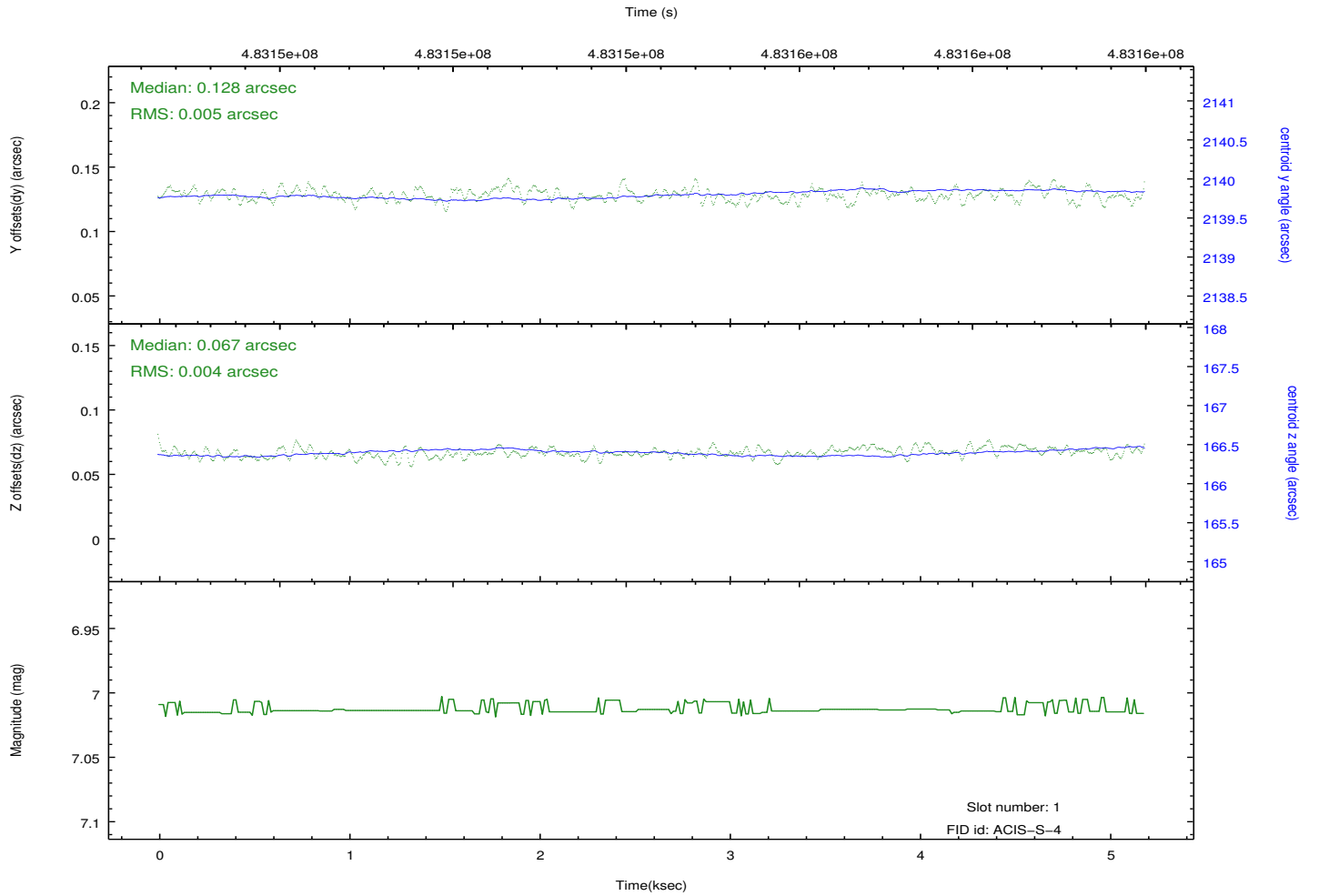
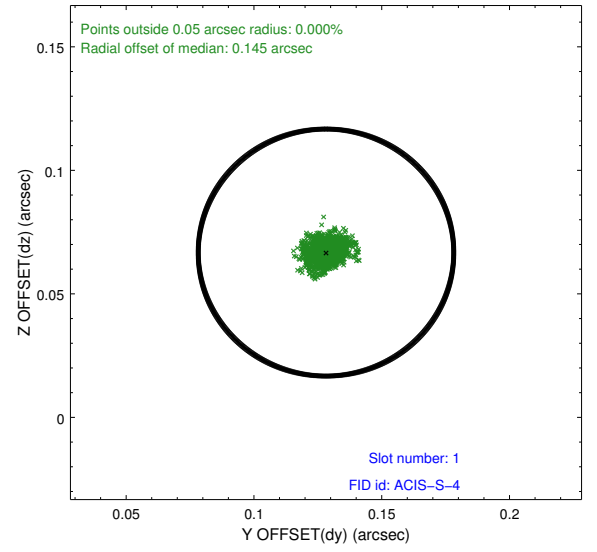
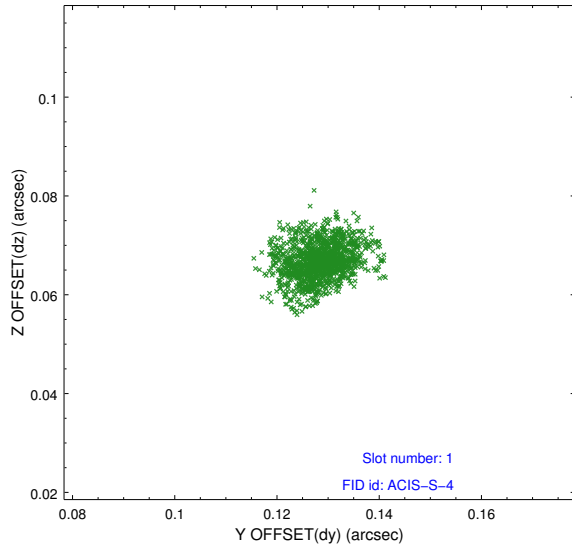


2.5 FID Slots

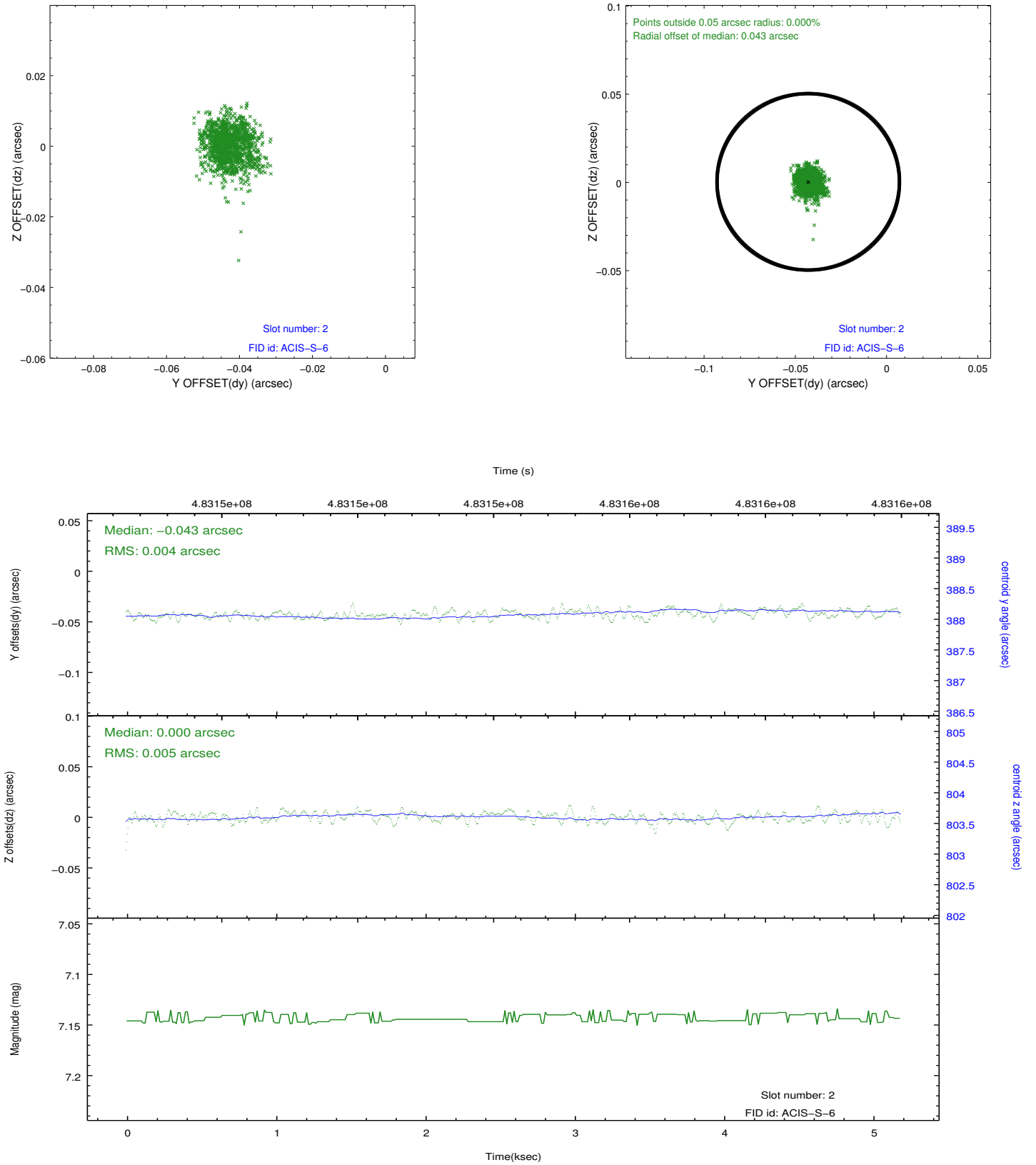
2.5.1 Slot 0



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	5.1832000398636

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.