

V&V Reference Report

L2 ASCDS Version : 10.1.1

Observation 15681 - L2 Version 2
Chandra X-Ray Center

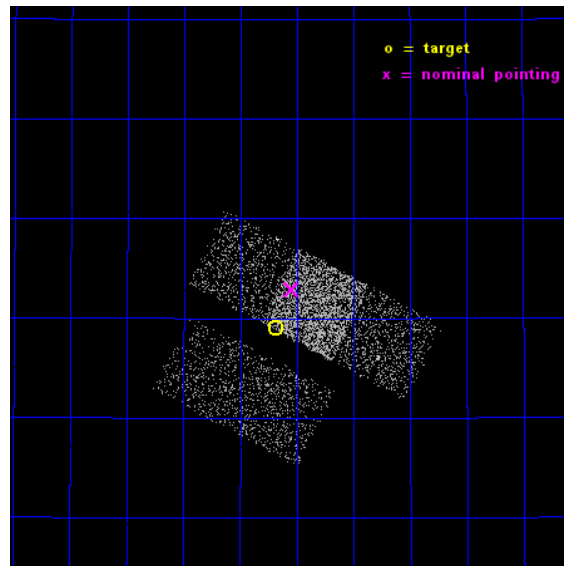
L2 Processing Date : Dec 8 2014

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1 Front

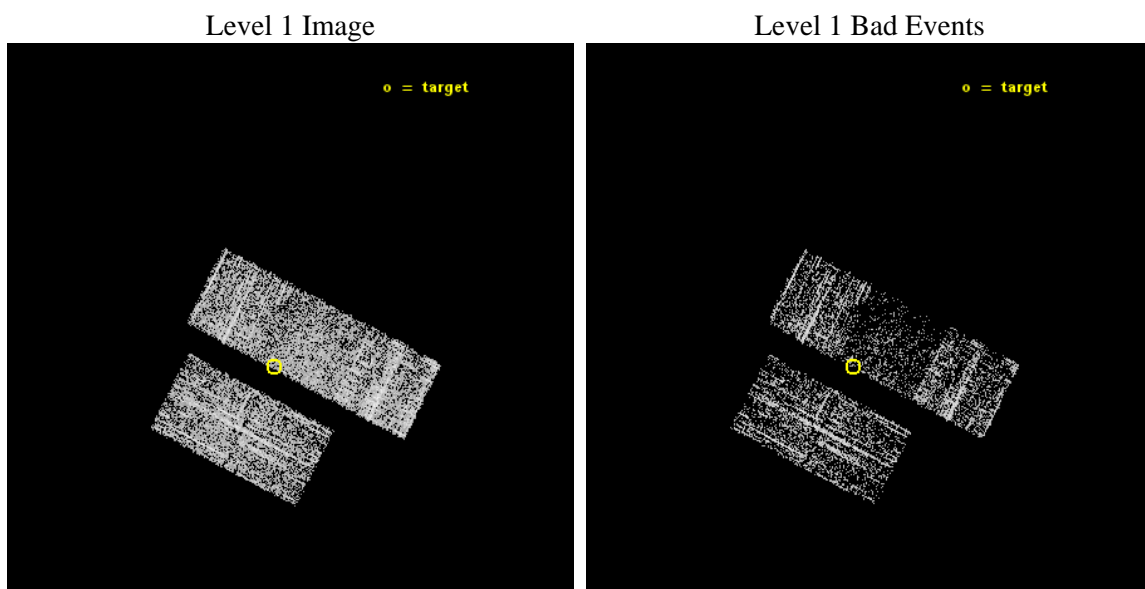
seq_num	100110	Sequence number
obs_id	15681	Observation id
title	Plumbing the Heights of the Solar Wind With Comet ISON	Proposal ti
observer	Dr. Carey Lisse	Principal investigator
object	Comet C/2012 S1 (ISON)	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	243.92021	Observer's specified target RA [deg]
dec_targ	37.81822	Observer's specified target Dec [deg]
ra_nom	243.88681704559	Nominal RA [deg]
dec_nom	37.88182394725	Nominal Dec [deg]
roll_nom	27.214183133477	Nominal Roll [deg]
revision	2	Processing version of data
ontime	2070.8000159264	Sum of GTIs [s]
livetime	2043.7434892175	Livetime [s]
ontime2	2070.8000159264	Sum of GTIs [s]
ontime3	2070.8000159264	Sum of GTIs [s]
ontime6	2070.8000159264	Sum of GTIs [s]
ontime7	2070.8000159264	Sum of GTIs [s]
ontime8	2070.8000159264	Sum of GTIs [s]
l2events	6265	Number of level 2 events



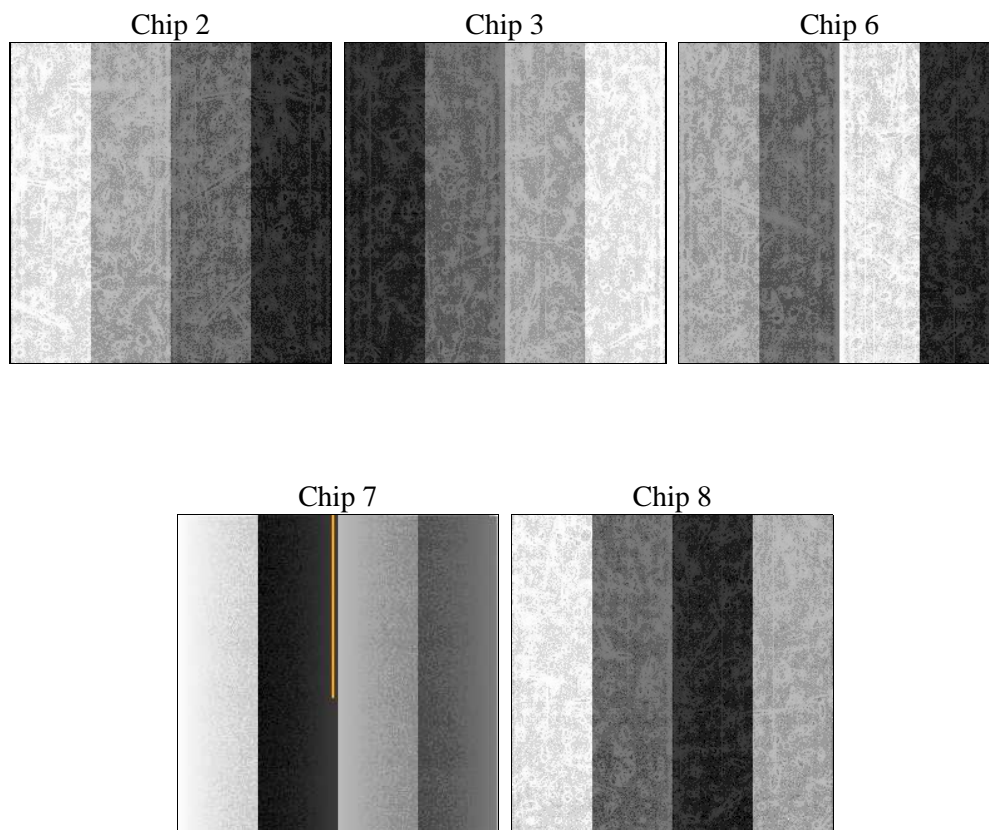
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	2070.8000159264	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	2070.8000159264	Sum of GTIs [s]
date	2014-12-08T12:09:28	Date and time of file creation	ontime3	2070.8000159264	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	2070.8000159264	Sum of GTIs [s]
			ontime7	2070.8000159264	Sum of GTIs [s]
			ontime8	2070.8000159264	Sum of GTIs [s]
			l1events	40807	Number of level 1 events

2.1.4 Events

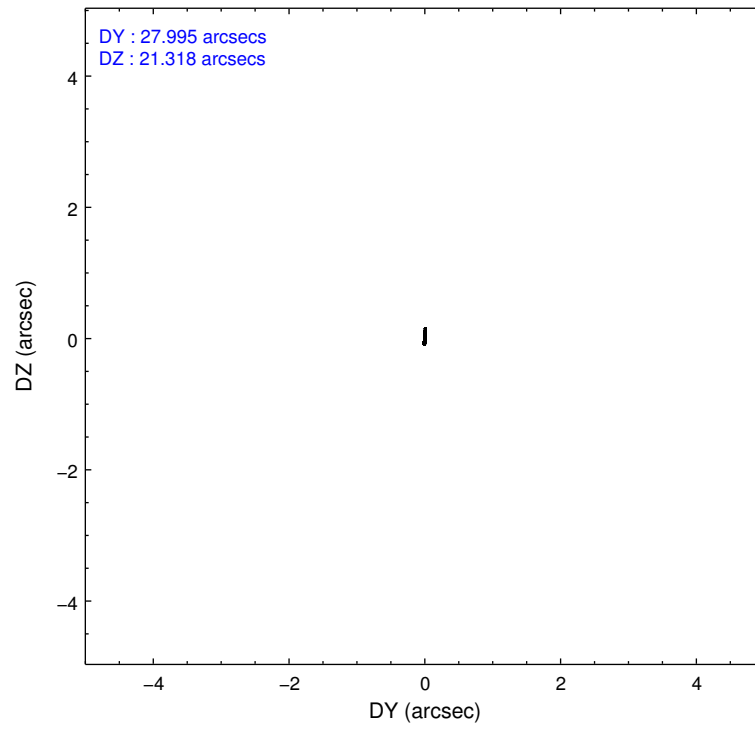
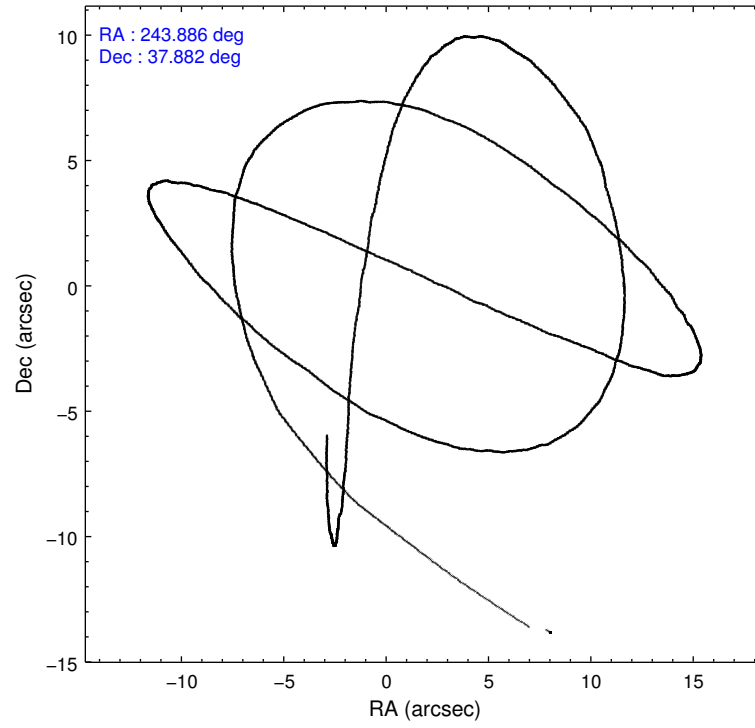
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	8087	7620	8164	6538	10398
rejected events	7318	6834	7255	3099	7276
rejected %	90%	89%	88%	47%	69%

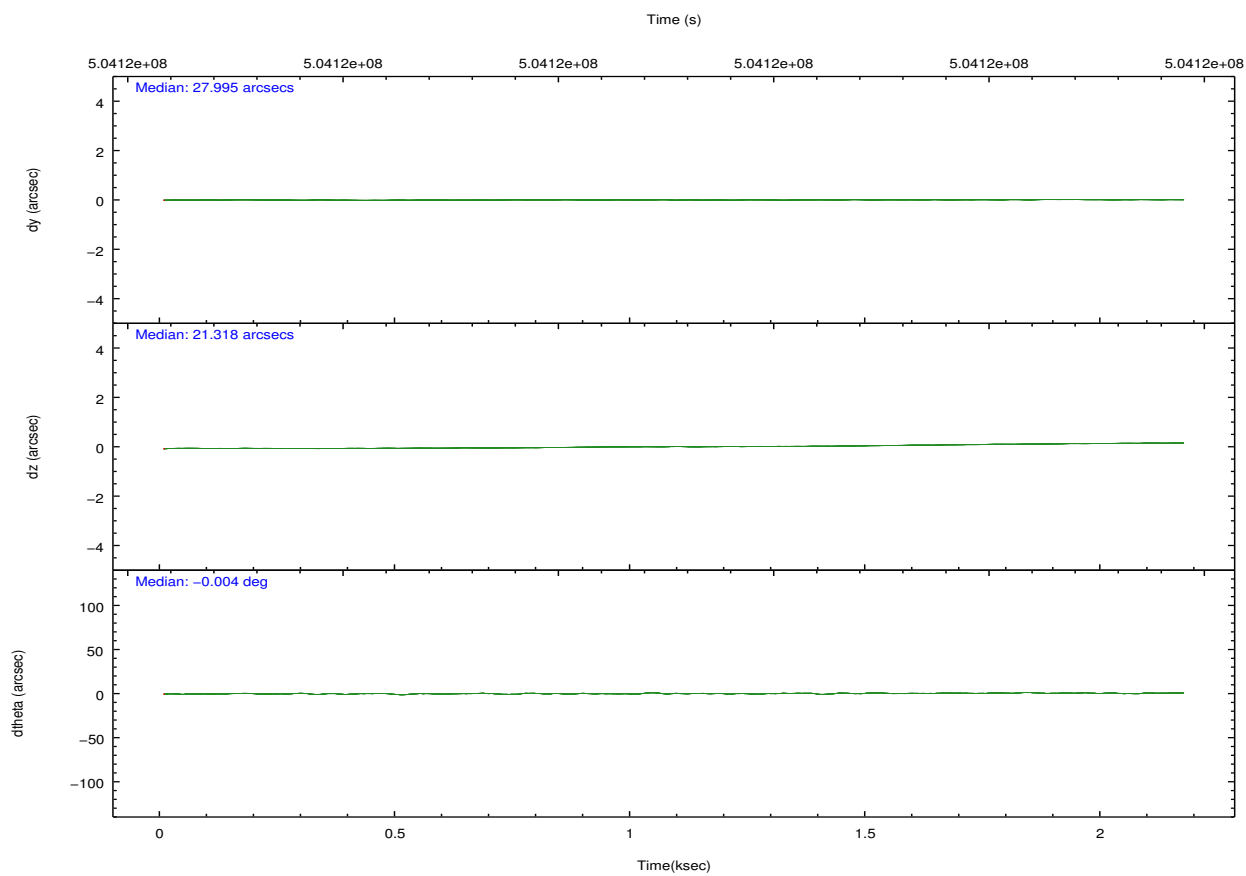
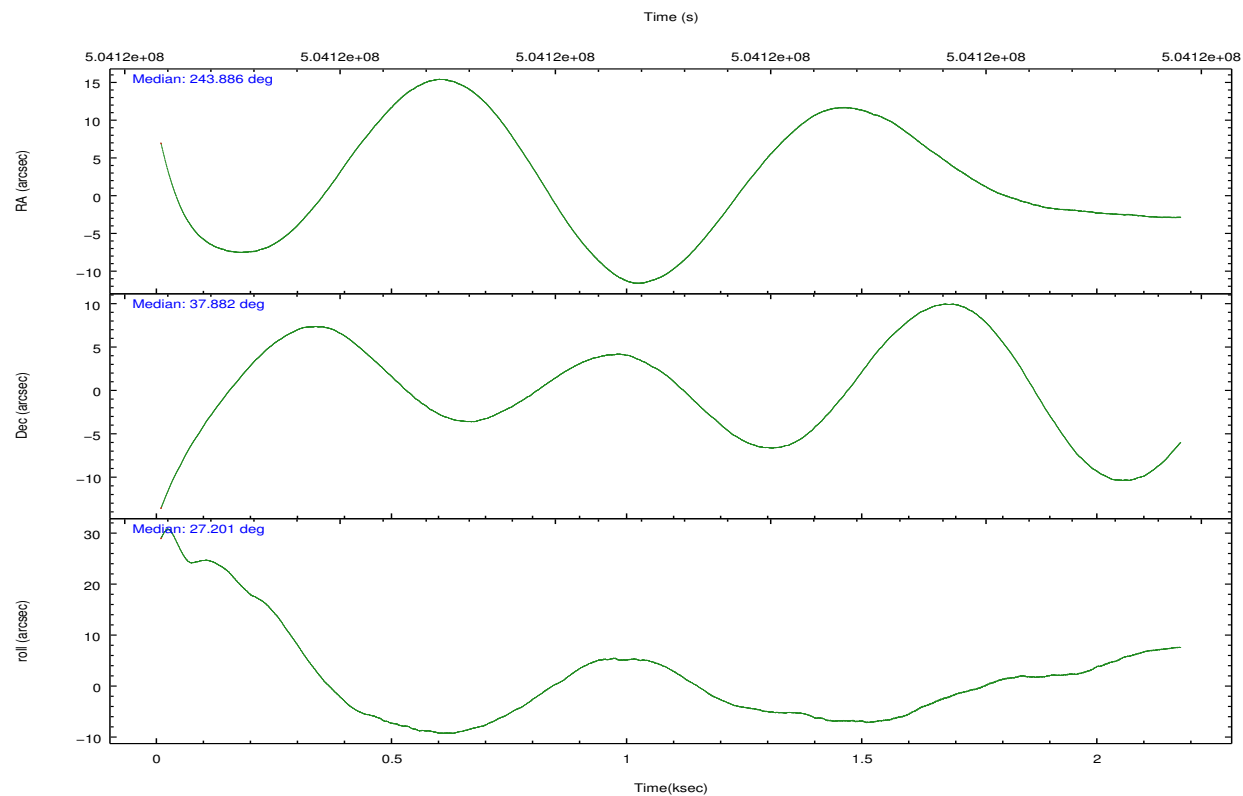
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	323	336	381	460	999
	3%	4%	4%	7%	9%
grade 1 events	5	4	9	16	3
	0%	0%	0%	0%	0%
grade 2 events	249	197	219	861	788
	3%	2%	2%	13%	7%
grade 3 events	80	80	106	349	363
	0%	1%	1%	5%	3%
grade 4 events	69	79	96	358	361
	0%	1%	1%	5%	3%
grade 5 events	179	268	235	645	397
	2%	3%	2%	9%	3%
grade 6 events	106	141	157	1635	785
	1%	1%	1%	25%	7%
grade 7 events	7076	6515	6961	2214	6702
	87%	85%	85%	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	243.868594	243.8868170455858	Subarray requested	NONE	NONE
[deg] Pointing Dec	37.858752	37.88182394725009	Alternating exposures requested	N	N
[deg] Pointing Roll	27.068679	27.21418313347741	[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)	504119858.184000	504118839.31239			
Observation start date	2013-12-22T17:16:31	2013-12-22T17:00:39			
[s] Observation end time (MET)	504121858.184000	504121992.21256			
Observation end date	2013-12-22T17:49:51	2013-12-22T17:53:12			
Read mode	TIMED	TIMED			

2.3 Aspect



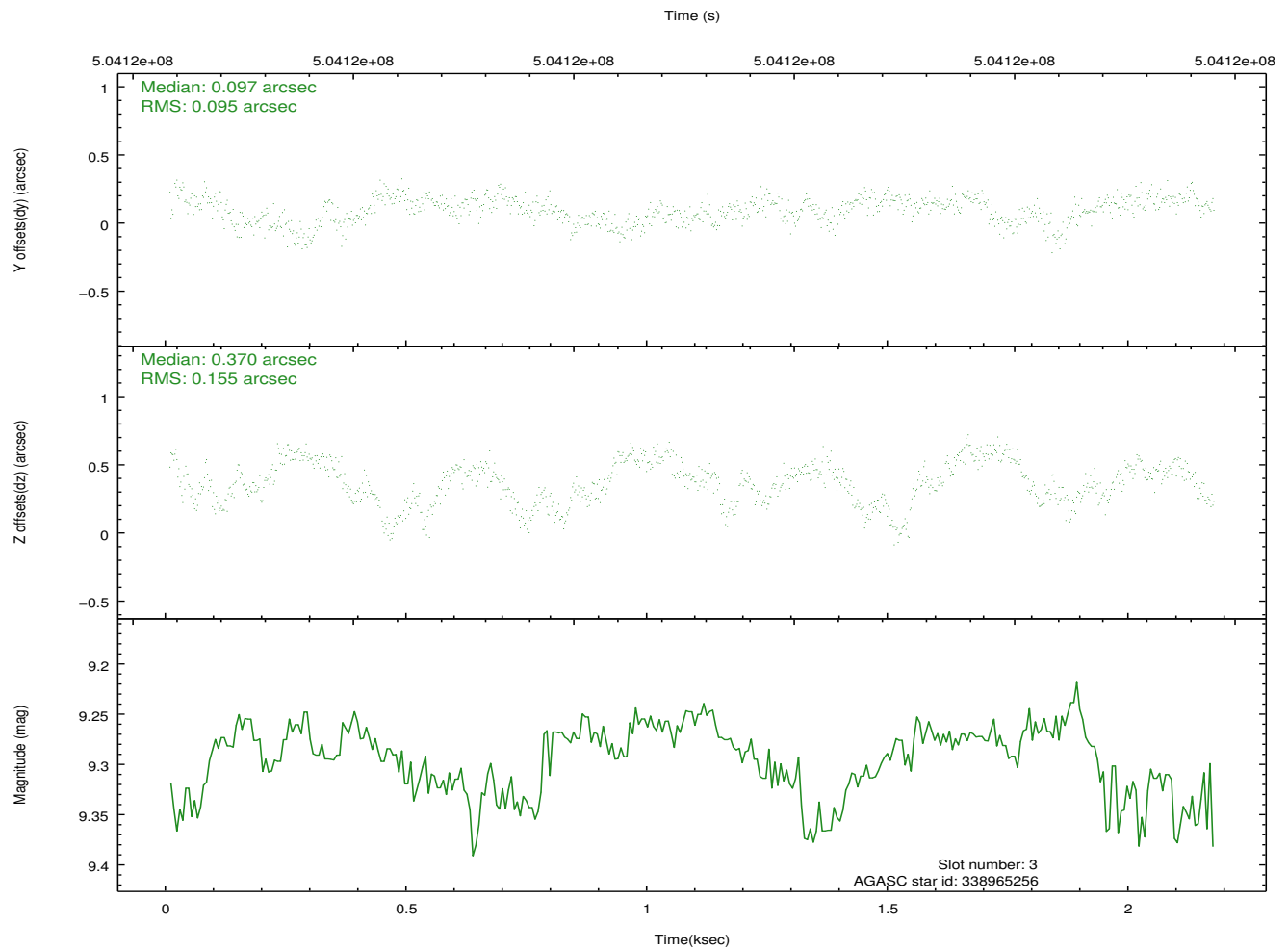
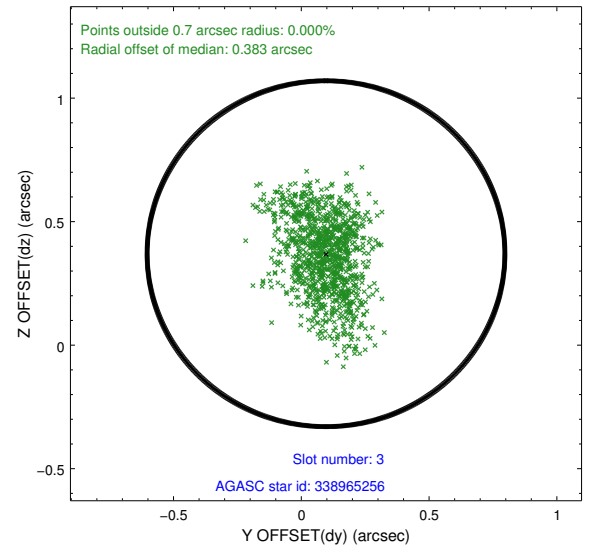
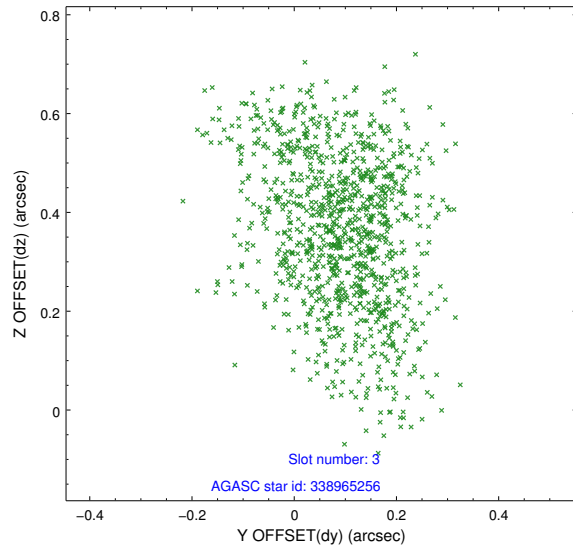


Slot Statistics

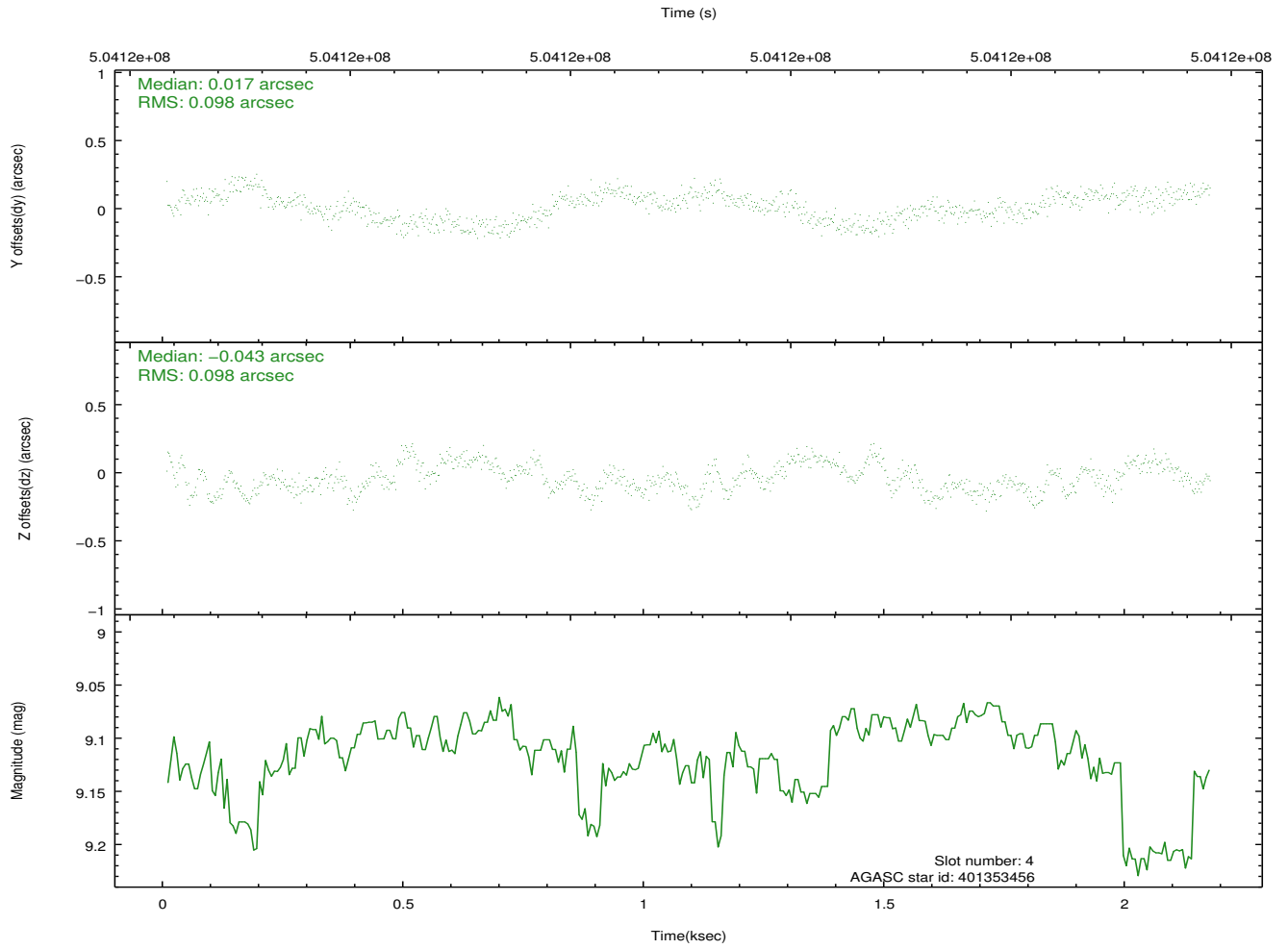
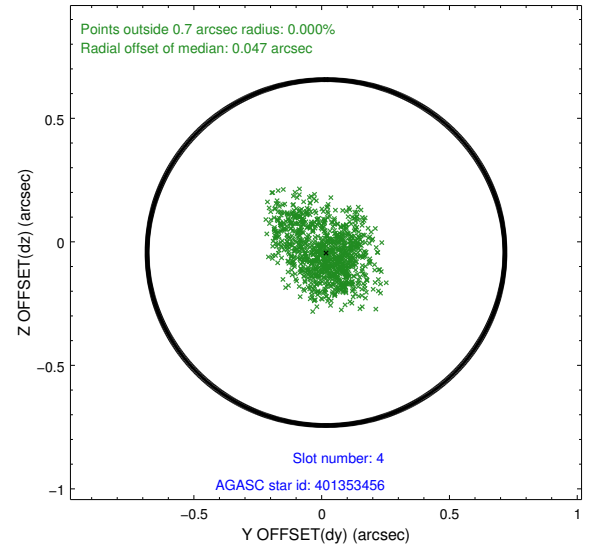
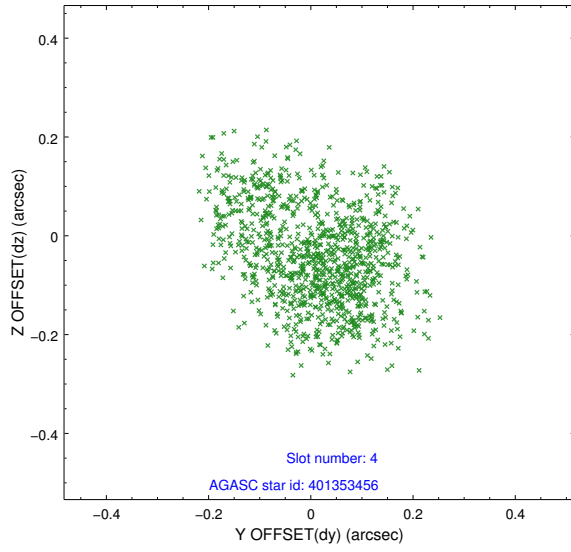
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.05	529	-0.198	-0.042	0.007	0.012	0.000000	0.000000	-781.51	-1742.92
1	FID		ACIS-S-4	7.15	530	0.435	0.107	0.005	0.008	0.000000	0.000000	2130.99	162.59
2	FID		ACIS-S-5	7.17	529	-0.269	-0.056	0.007	0.010	0.000000	0.000000	-1830.60	159.51
3	GUIDE	used	338965256	9.29	1059	0.097	0.370	0.194	0.320	244.484390	37.448142	898.82	-2111.56
4	GUIDE	used	401353456	9.11	1059	0.017	-0.043	0.153	0.227	244.055721	38.377788	1322.56	1421.92
5	GUIDE	used	401357120	7.09	1059	-0.062	0.239	0.082	0.127	244.752378	37.765715	2094.72	-1430.72
6	GUIDE	used	401349520	9.19	1058	-0.048	-0.348	0.153	0.241	243.986238	38.634265	1567.71	2334.27
7	GUIDE	used	401352752	9.29	1058	0.000	-0.208	0.126	0.200	244.241630	38.478764	1954.89	1513.74

2.4 Star Slots

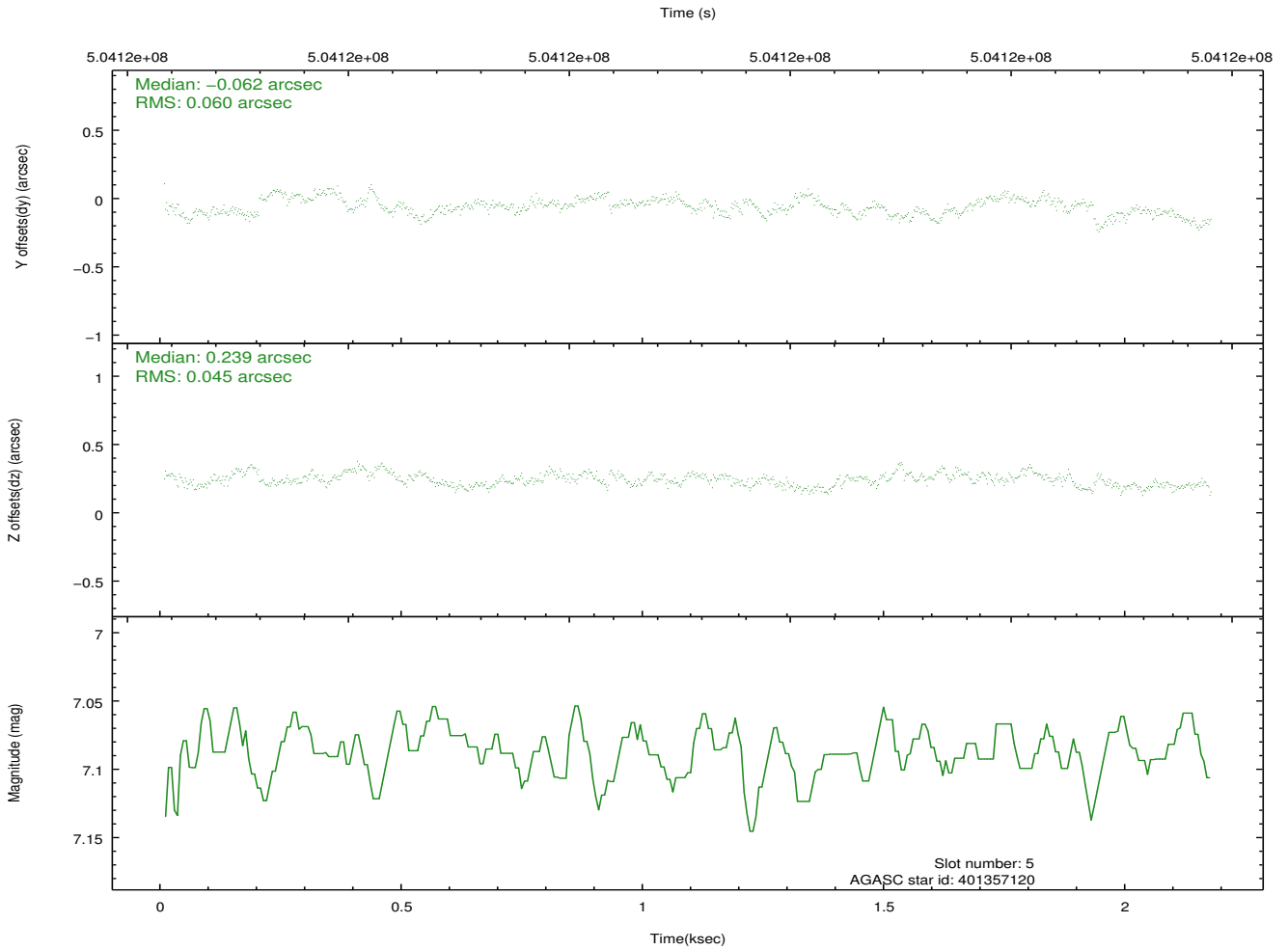
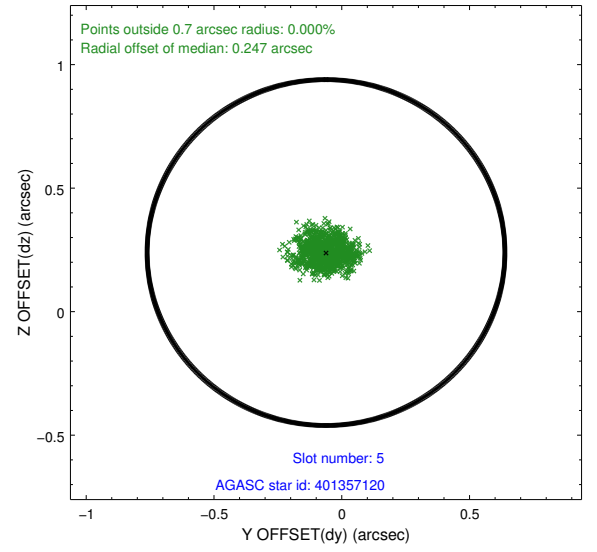
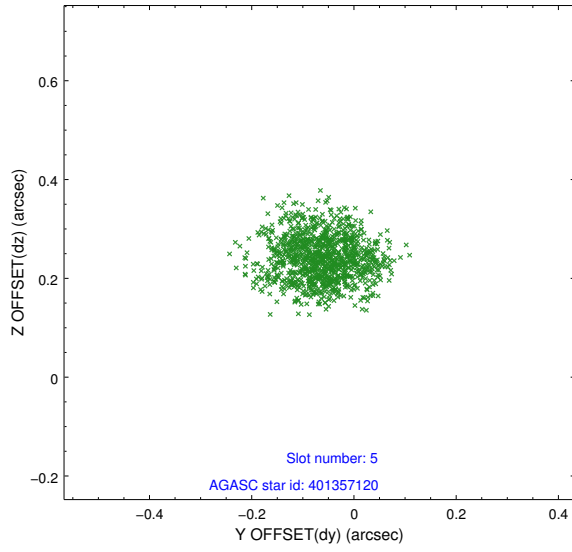
2.4.1 Slot 3



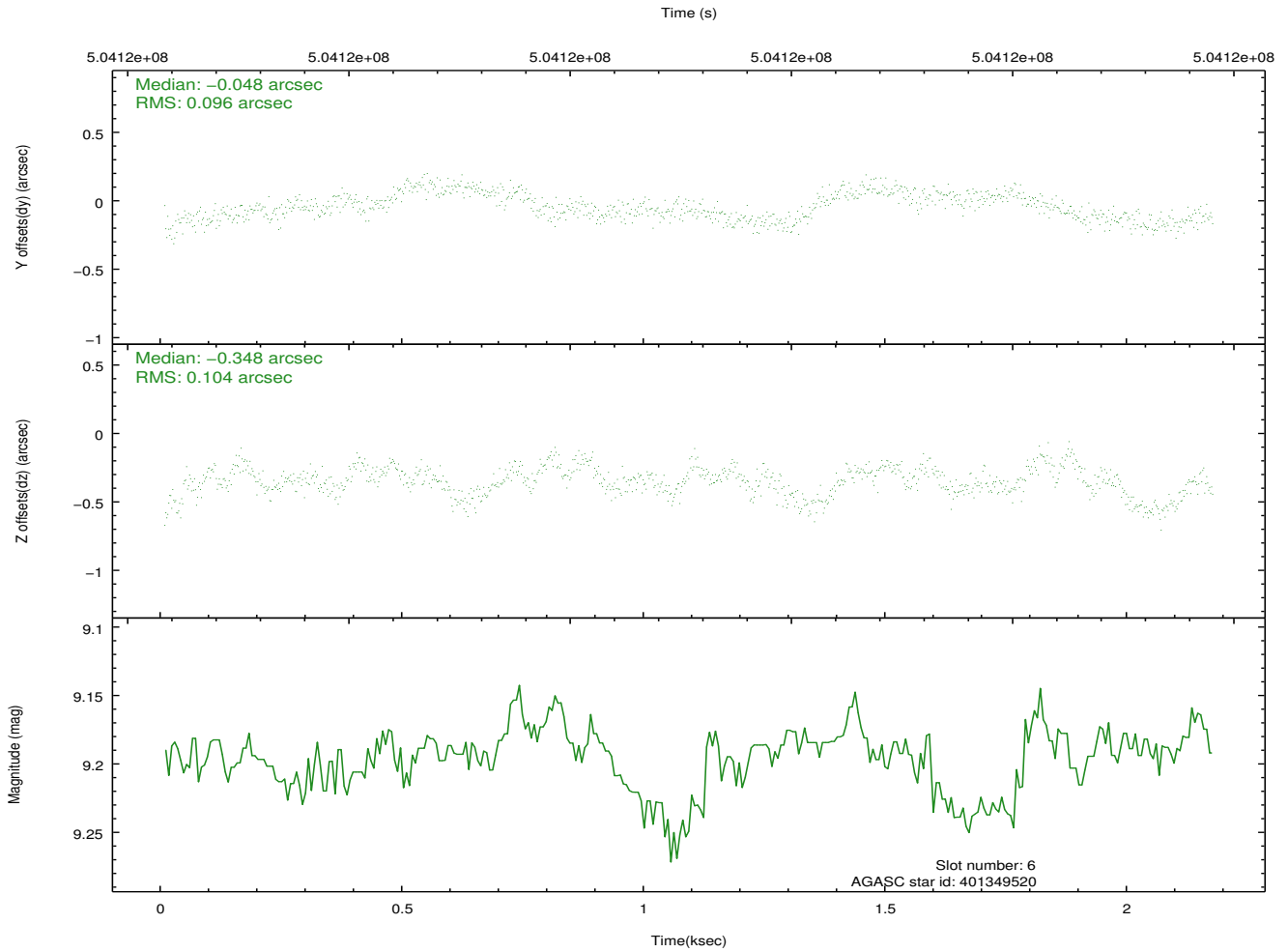
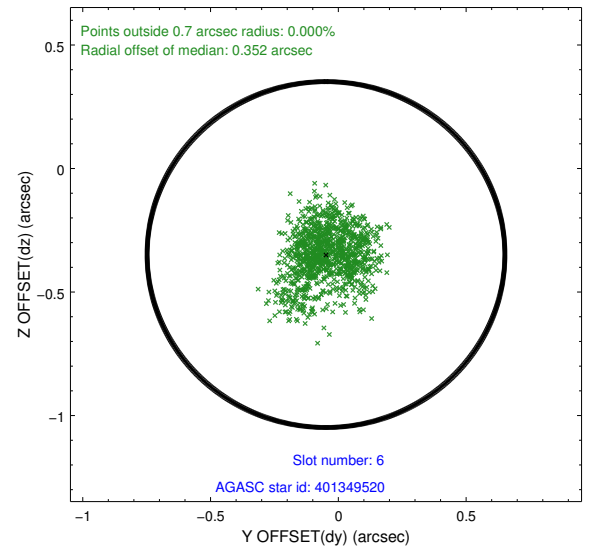
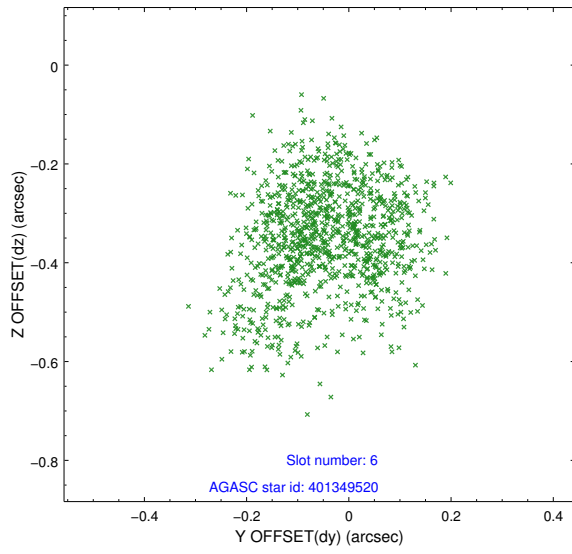
2.4.2 Slot 4



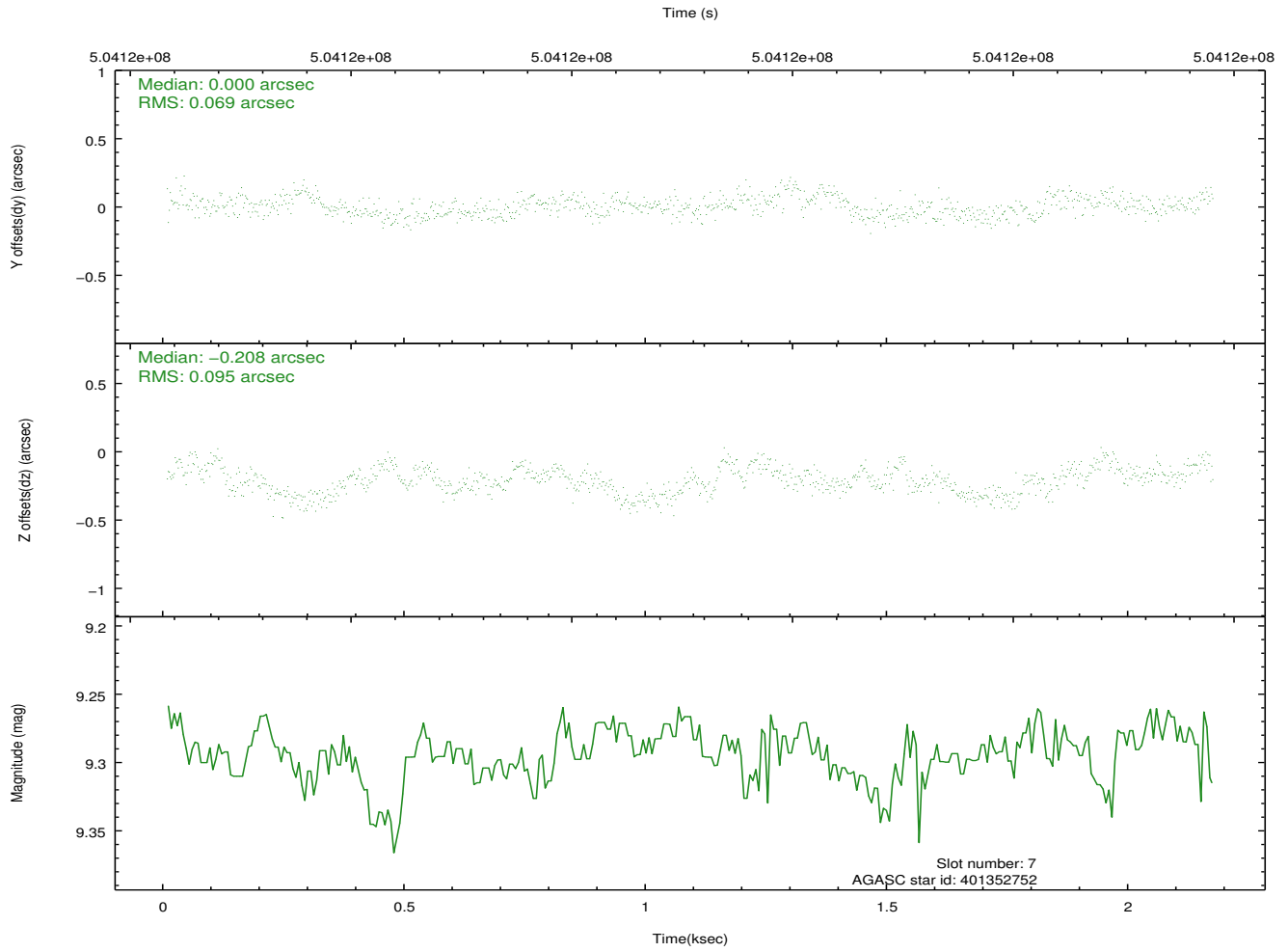
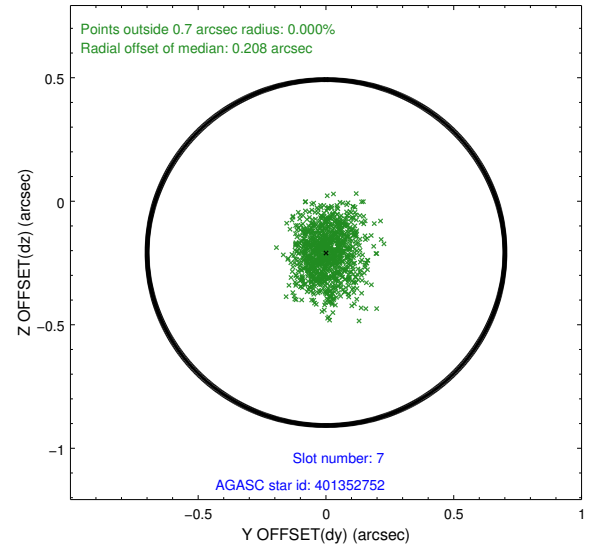
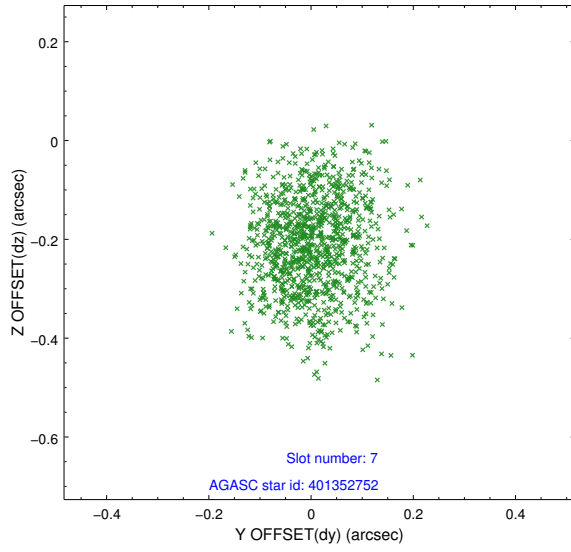
2.4.3 Slot 5



2.4.4 Slot 6

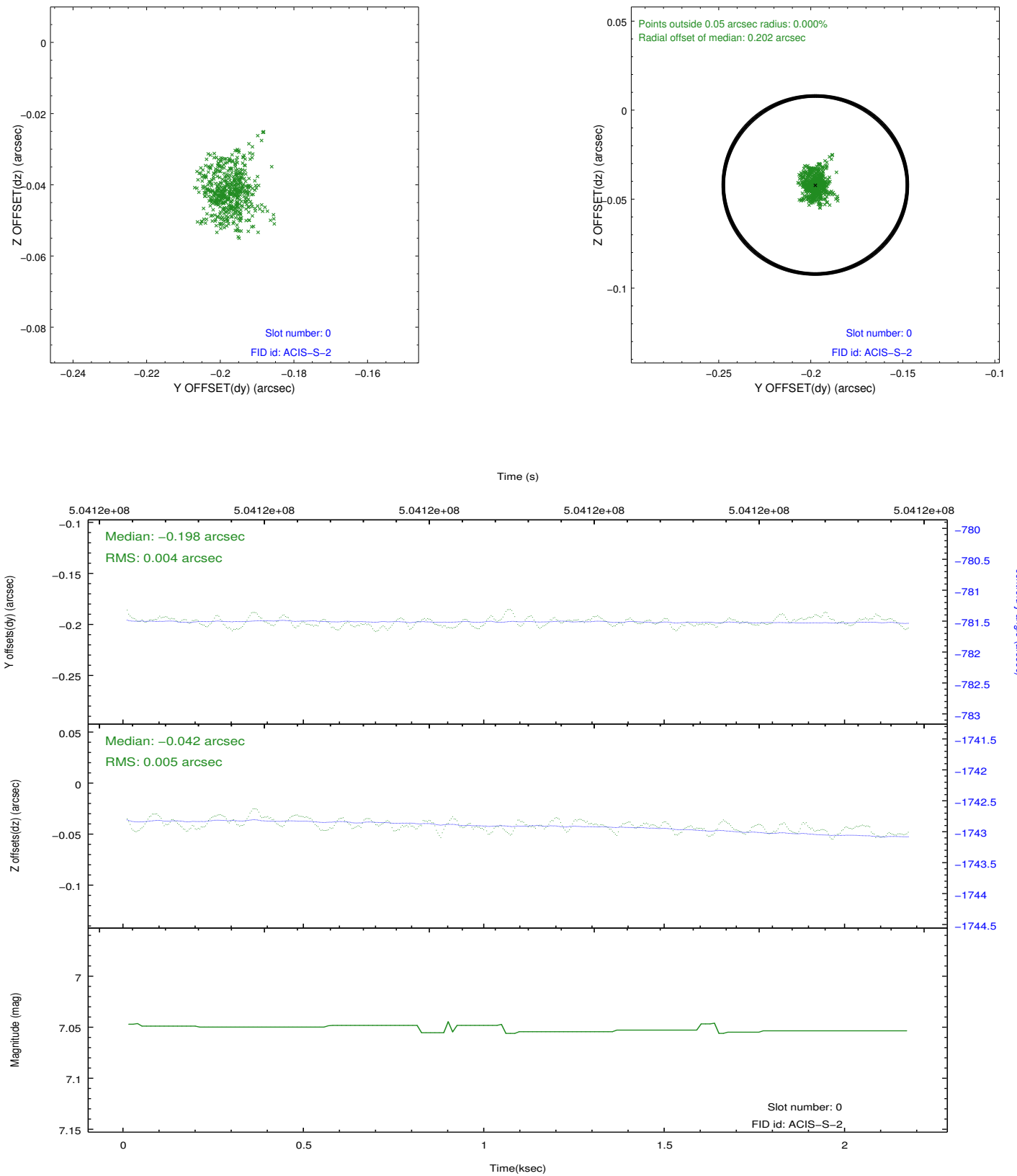


2.4.5 Slot 7

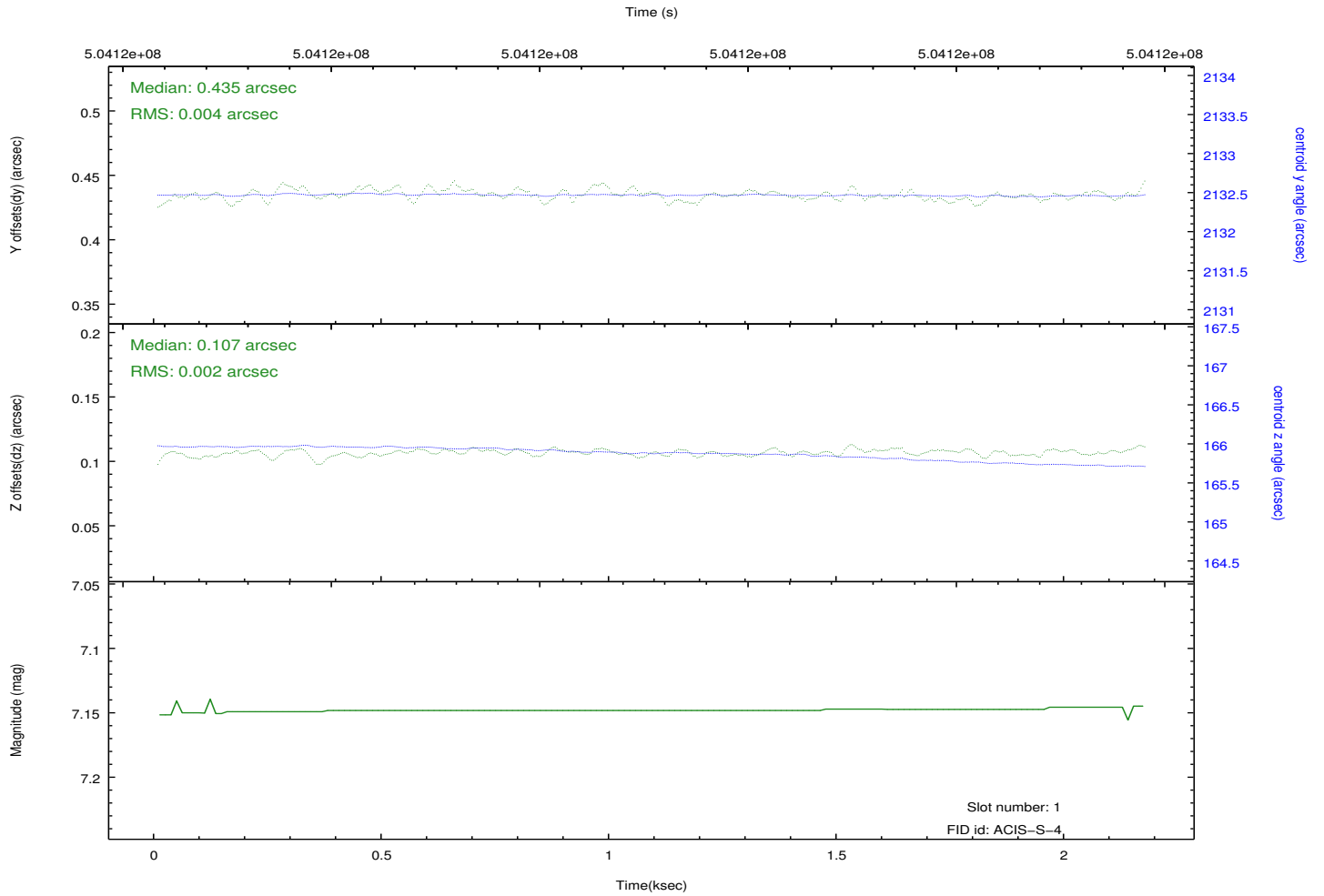
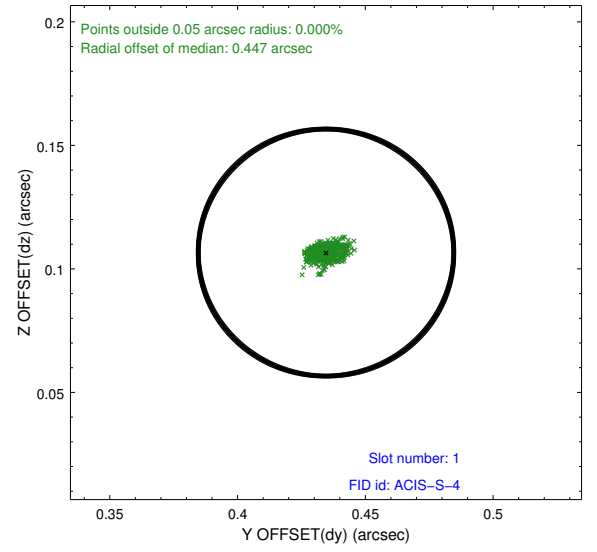
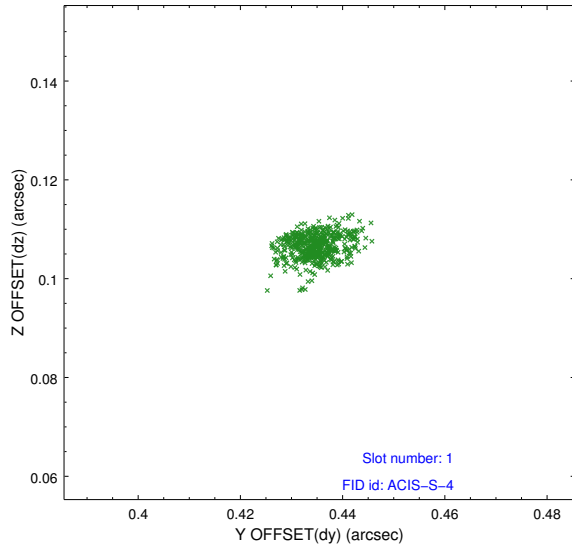


2.5 FID Slots

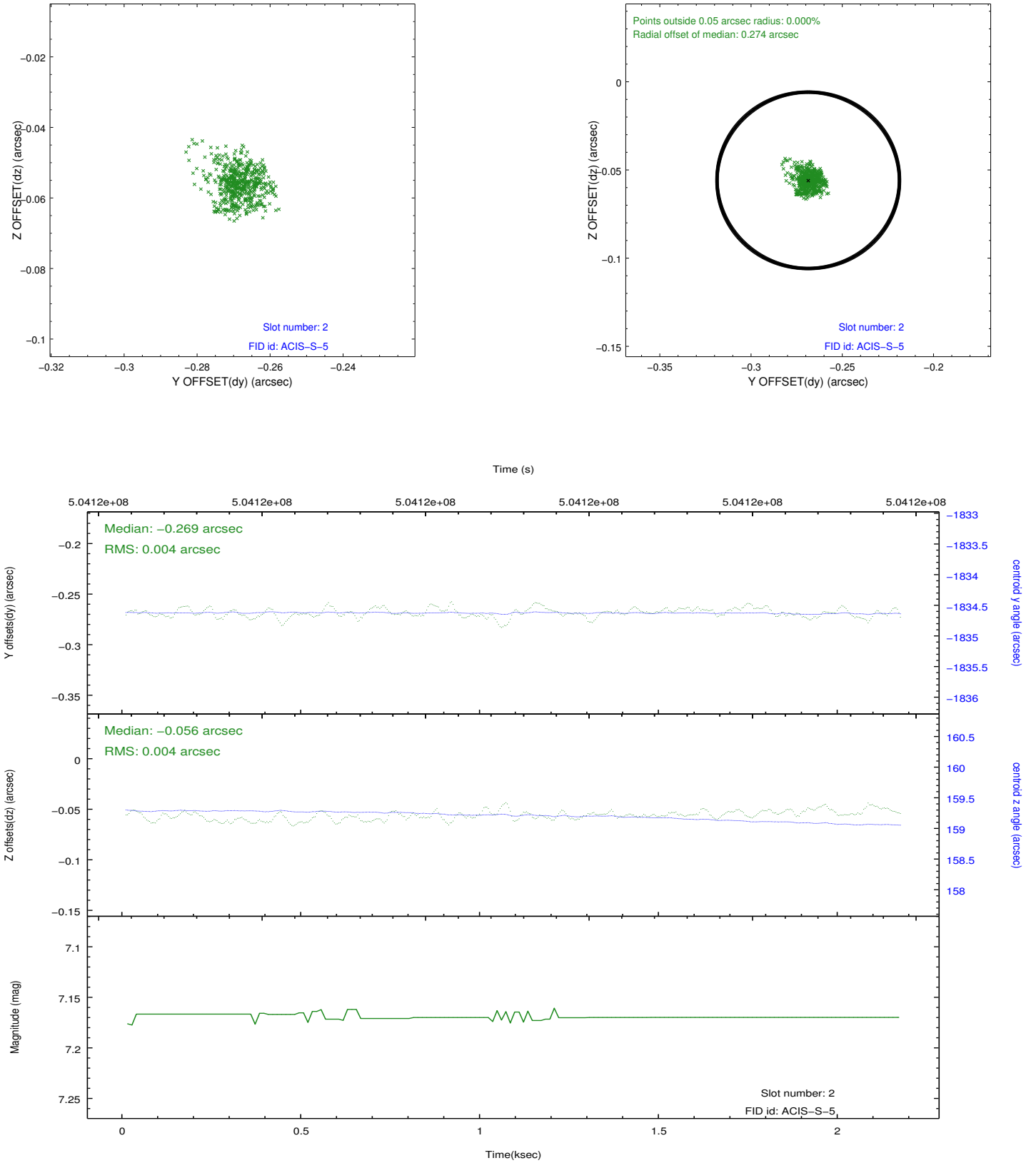
2.5.1 Slot 0



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)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.0708000159264

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.