

V&V Reference Report

L2 ASCDS Version : 10.1.1

Observation 16547 - L2 Version 2
Chandra X-Ray Center

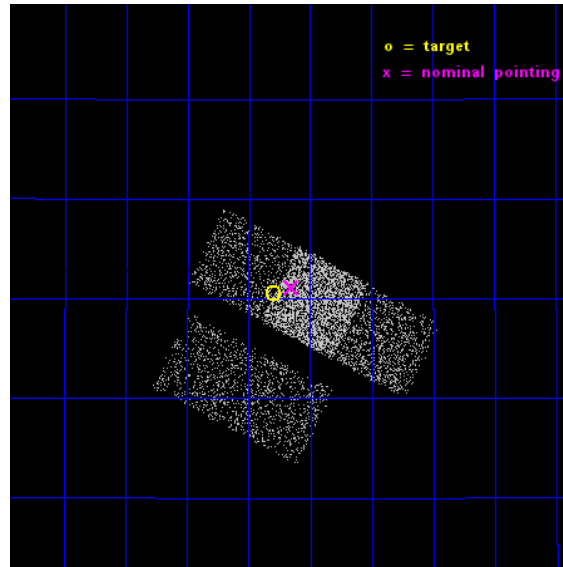
L2 Processing Date : Dec 8 2014

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1 Front

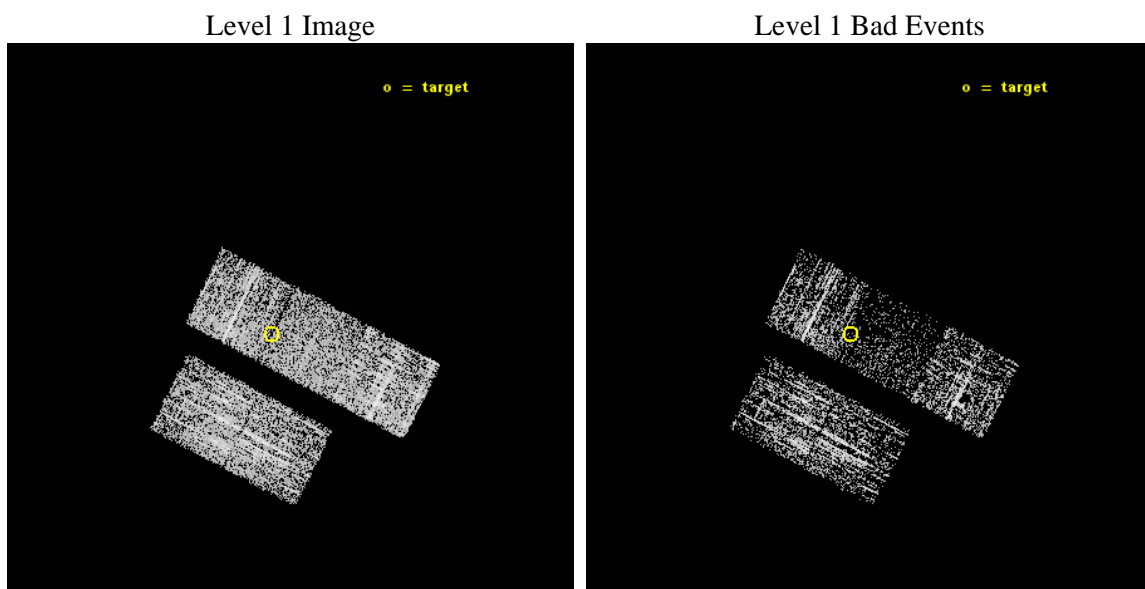
seq_num	100143	Sequence number
obs_id	16547	Observation id
title	Plumbing the Heights of the Solar Wind With Comet ISON	Proposal ti
observer	Dr. Carey Lisse	Principal investigator
object	Comet C/2012 S1 (ISON)	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	243.44931	Observer's specified target RA [deg]
dec_targ	31.00845	Observer's specified target Dec [deg]
ra_nom	243.4132204225	Nominal RA [deg]
dec_nom	31.019108207636	Nominal Dec [deg]
roll_nom	27.118282188394	Nominal Roll [deg]
revision	2	Processing version of data
ontime	2352.900018096	Sum of GTIs [s]
livetime	2322.1576471798	Livetime [s]
ontime2	2352.900018096	Sum of GTIs [s]
ontime3	2352.900018096	Sum of GTIs [s]
ontime6	2352.900018096	Sum of GTIs [s]
ontime7	2352.900018096	Sum of GTIs [s]
ontime8	2352.900018096	Sum of GTIs [s]
l2events	7035	Number of level 2 events



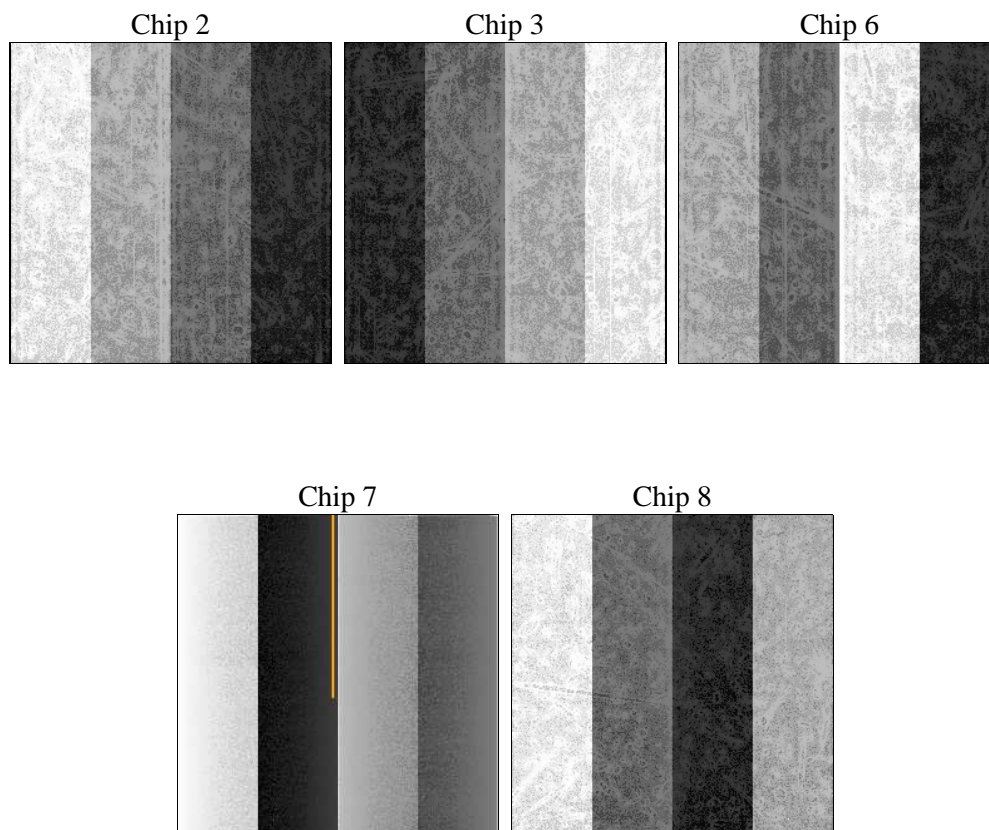
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2180.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	2352.900018096	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	2352.900018096	Sum of GTIs [s]
date	2014-12-08T10:00:20	Date and time of file creation	ontime3	2352.900018096	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	2352.900018096	Sum of GTIs [s]
			ontime7	2352.900018096	Sum of GTIs [s]
			ontime8	2352.900018096	Sum of GTIs [s]
			l1events	47365	Number of level 1 events

2.1.4 Events

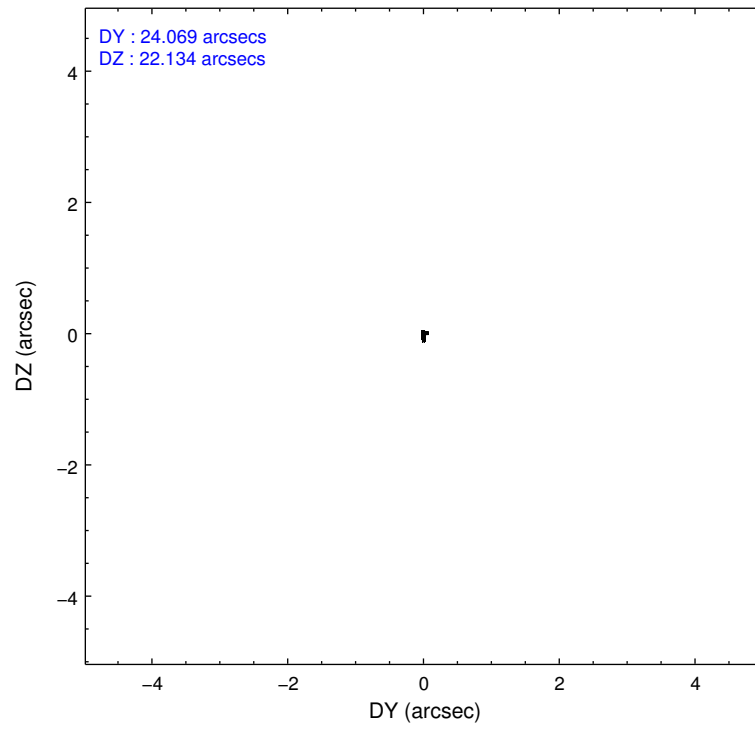
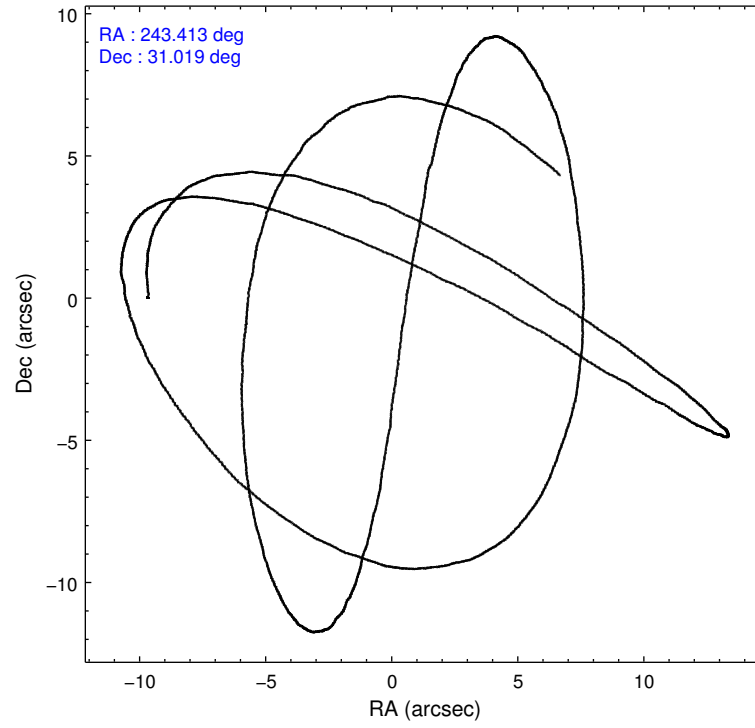
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	9804	9368	9159	7261	11773
rejected events	8875	8459	8137	3575	8415
rejected %	90%	90%	88%	49%	71%

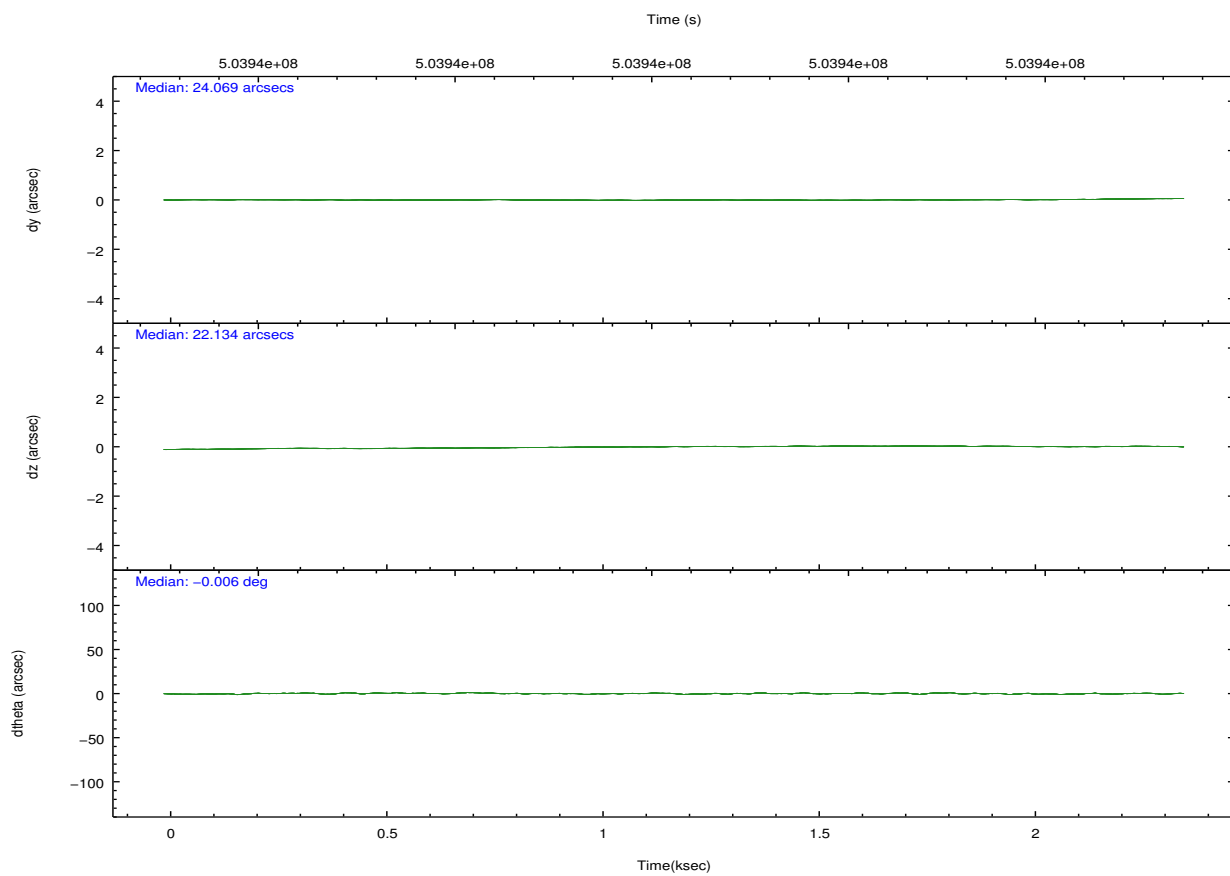
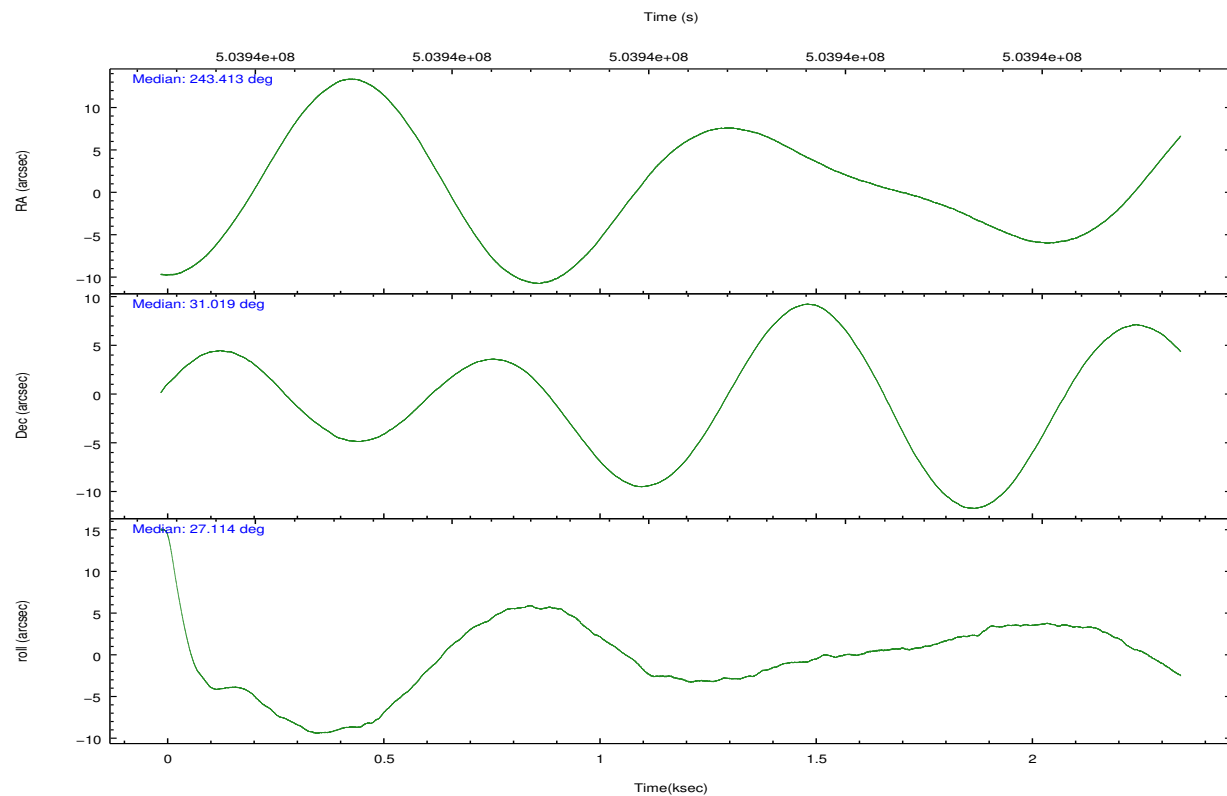
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	399	420	463	499	1027
	4%	4%	5%	6%	8%
grade 1 events	7	8	7	18	9
	0%	0%	0%	0%	0%
grade 2 events	239	200	259	962	886
	2%	2%	2%	13%	7%
grade 3 events	105	106	99	365	360
	1%	1%	1%	5%	3%
grade 4 events	107	109	96	372	334
	1%	1%	1%	5%	2%
grade 5 events	190	288	280	797	463
	1%	3%	3%	10%	3%
grade 6 events	149	145	198	1802	1007
	1%	1%	2%	24%	8%
grade 7 events	8608	8092	7757	2446	7687
	87%	86%	84%	33%	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	243.396397	243.4132204225027	Subarray requested	NONE	NONE
[deg] Pointing Dec	30.995781	31.01910820763595	Alternating exposures requested	N	N
[deg] Pointing Roll	26.970313	27.11828218839373	[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)	503942052.184000	503941675.74017			
Observation start date	2013-12-20T15:53:05	2013-12-20T15:47:55			
[s] Observation end time (MET)	503944232.184000	503944425.81532			
Observation end date	2013-12-20T16:29:25	2013-12-20T16:33:45			
Read mode	TIMED	TIMED			

2.3 Aspect



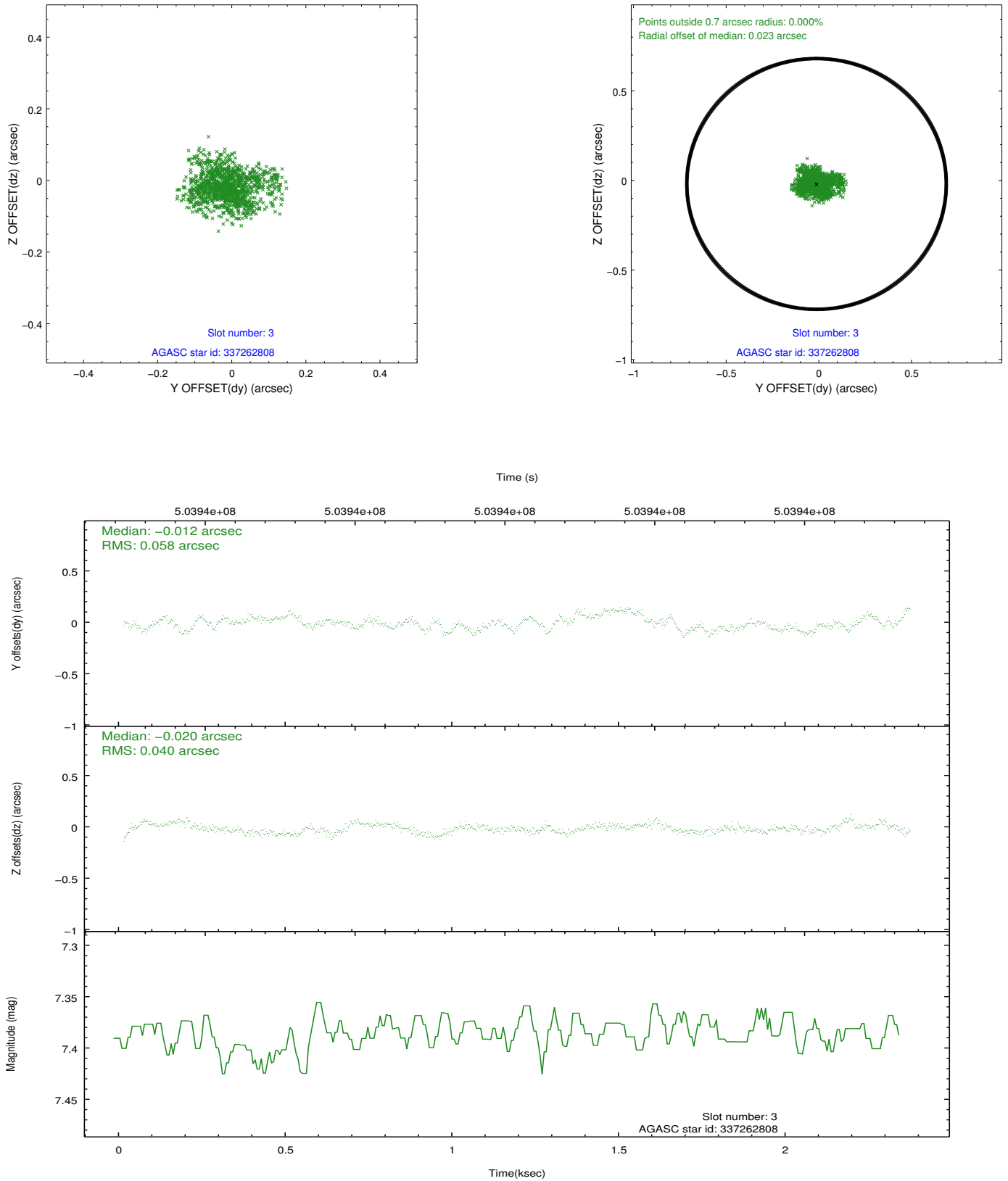


Slot Statistics

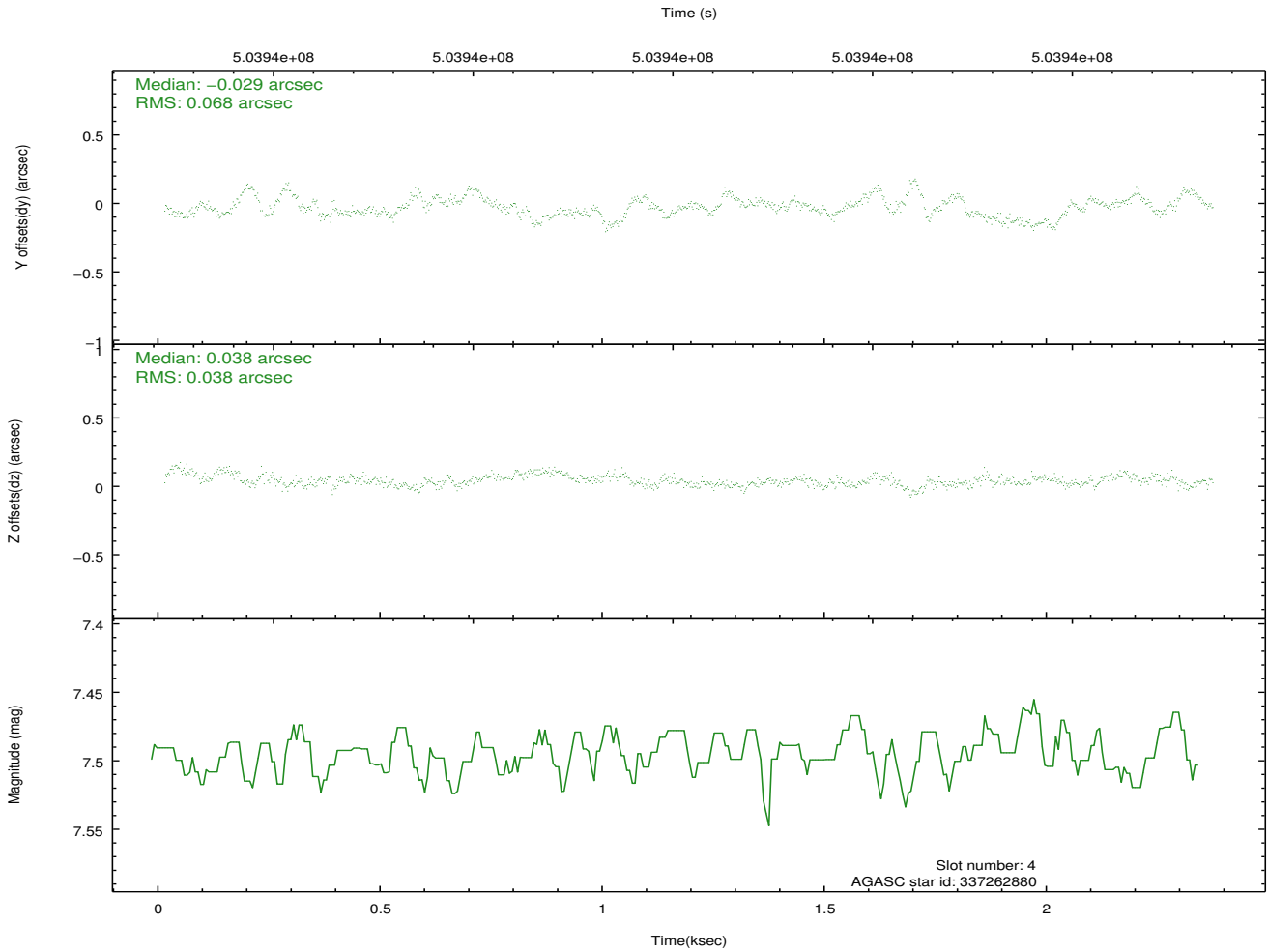
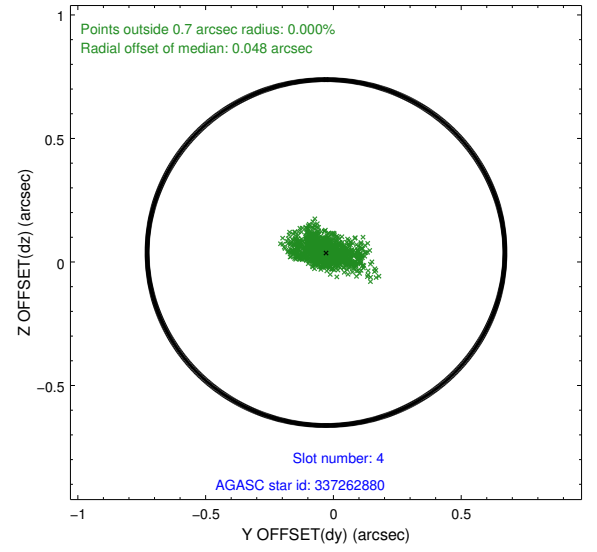
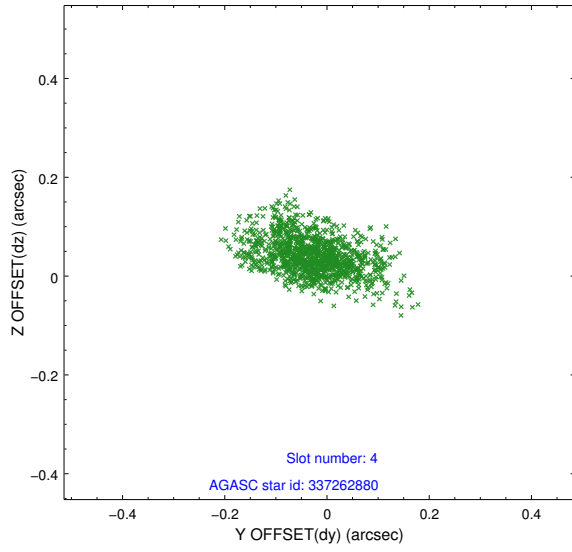
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.09	576	0.187	-0.057	0.006	0.011	0.000000	0.000000	918.95	-1739.31
1	FID		ACIS-S-2	7.02	576	-0.114	-0.004	0.007	0.012	0.000000	0.000000	-775.75	-1746.68
2	FID		ACIS-S-5	7.13	576	-0.097	0.067	0.006	0.011	0.000000	0.000000	-1831.78	155.48
3	GUIDE	used	337262808	7.39	1152	-0.012	-0.020	0.076	0.124	242.660016	30.974083	-2057.59	966.79
4	GUIDE	used	337262880	7.50	1152	-0.029	0.038	0.080	0.142	242.725099	30.985399	-1864.31	910.48
5	GUIDE	used	338176888	8.54	1152	0.016	-0.393	0.093	0.156	243.086660	31.476302	-64.43	1974.91
6	GUIDE	used	338179656	8.69	1152	-0.193	-0.125	0.086	0.137	243.346722	31.229324	245.06	819.77
7	GUIDE	used	338184744	9.12	1151	0.215	0.492	0.117	0.187	243.359501	30.458792	-977.88	-1670.40

2.4 Star Slots

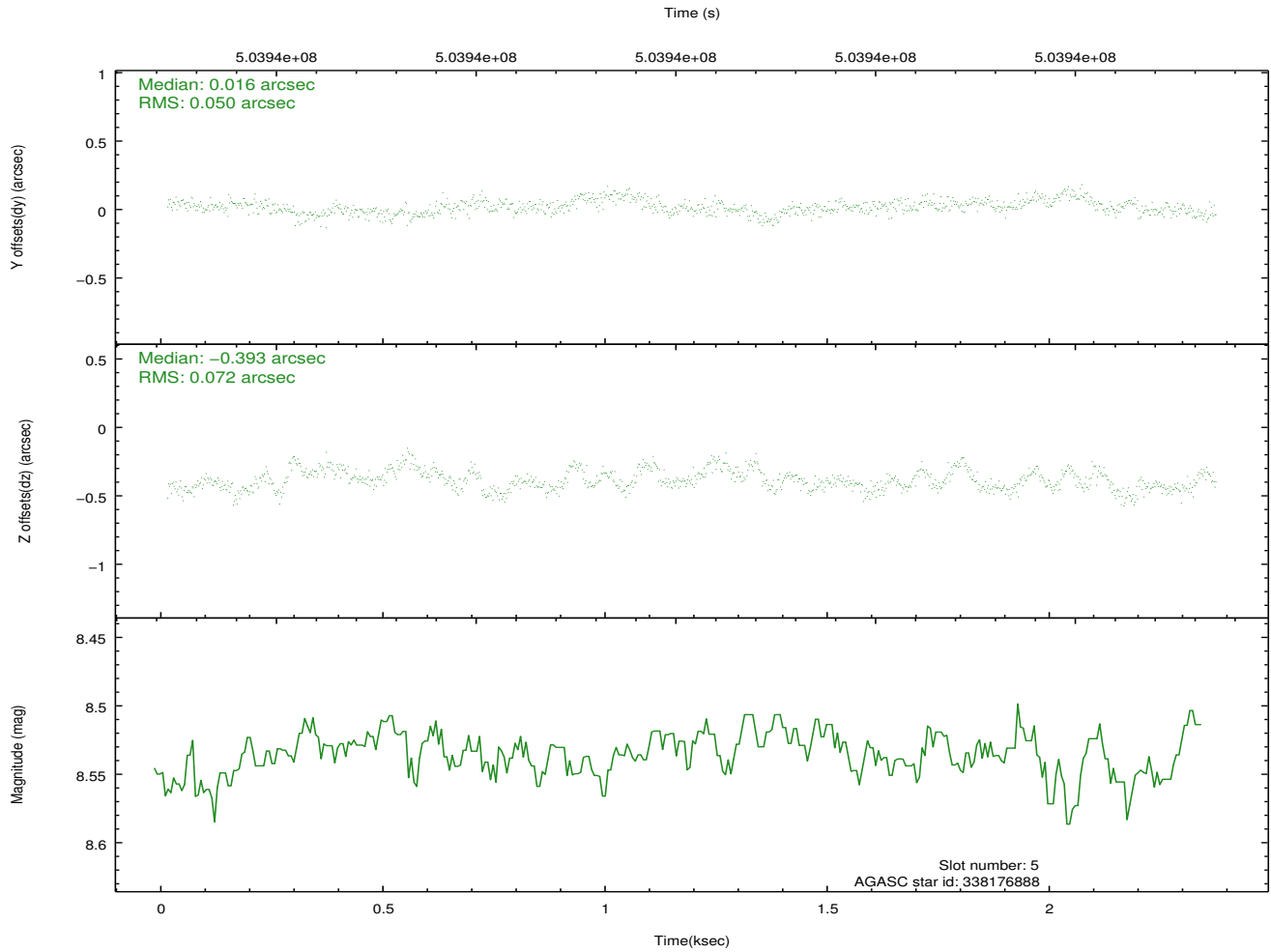
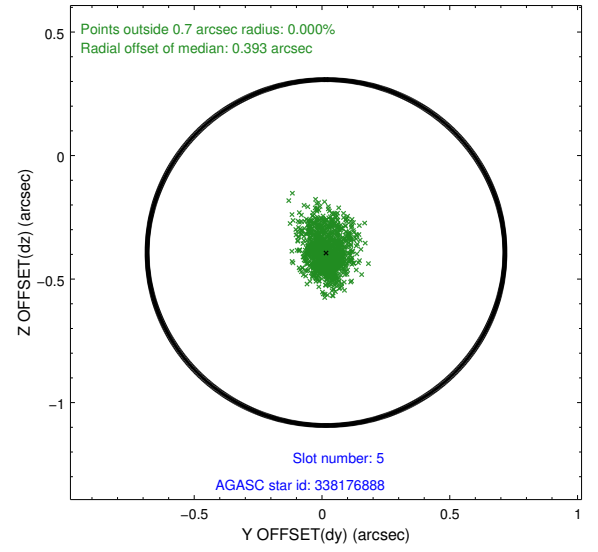
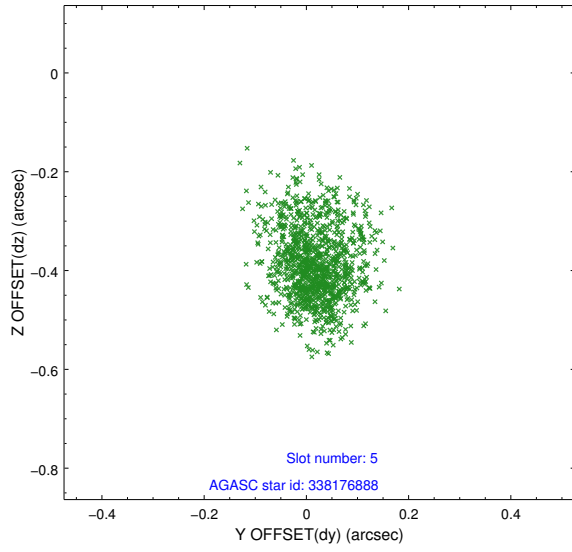
2.4.1 Slot 3



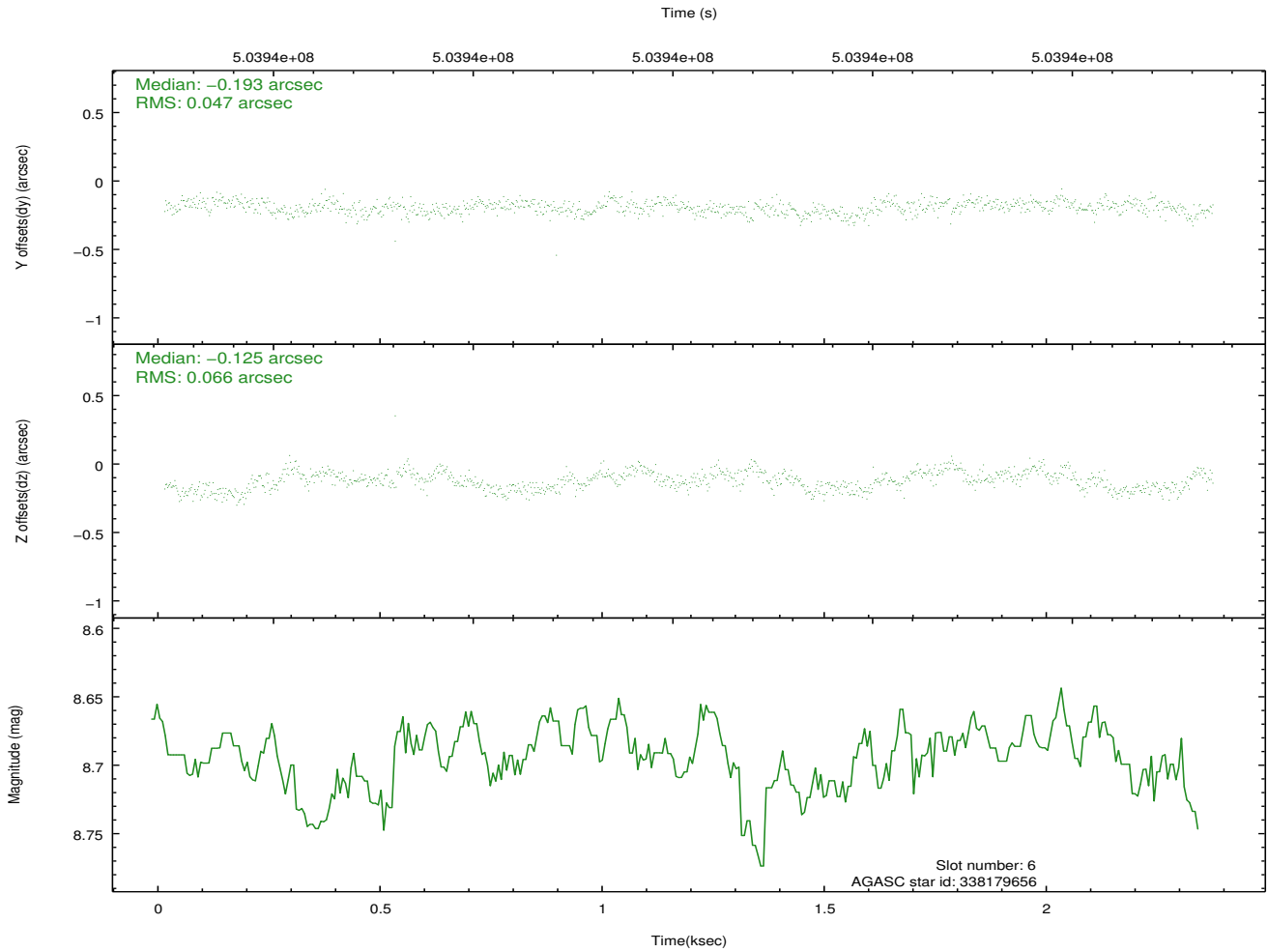
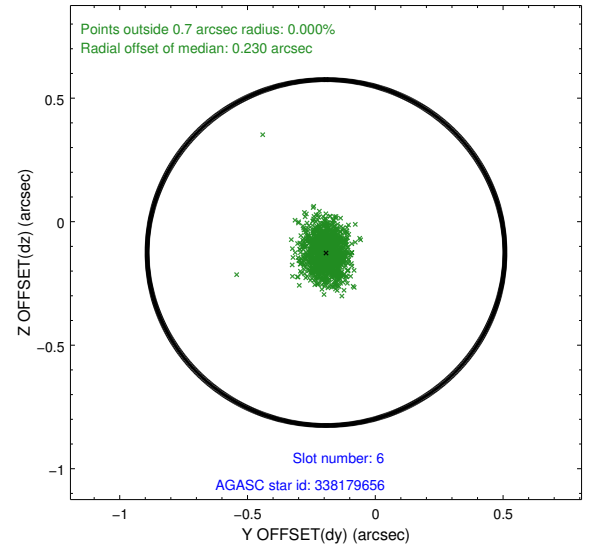
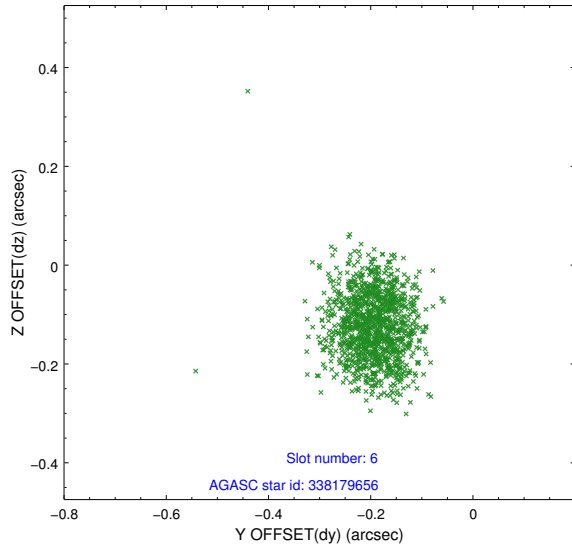
2.4.2 Slot 4



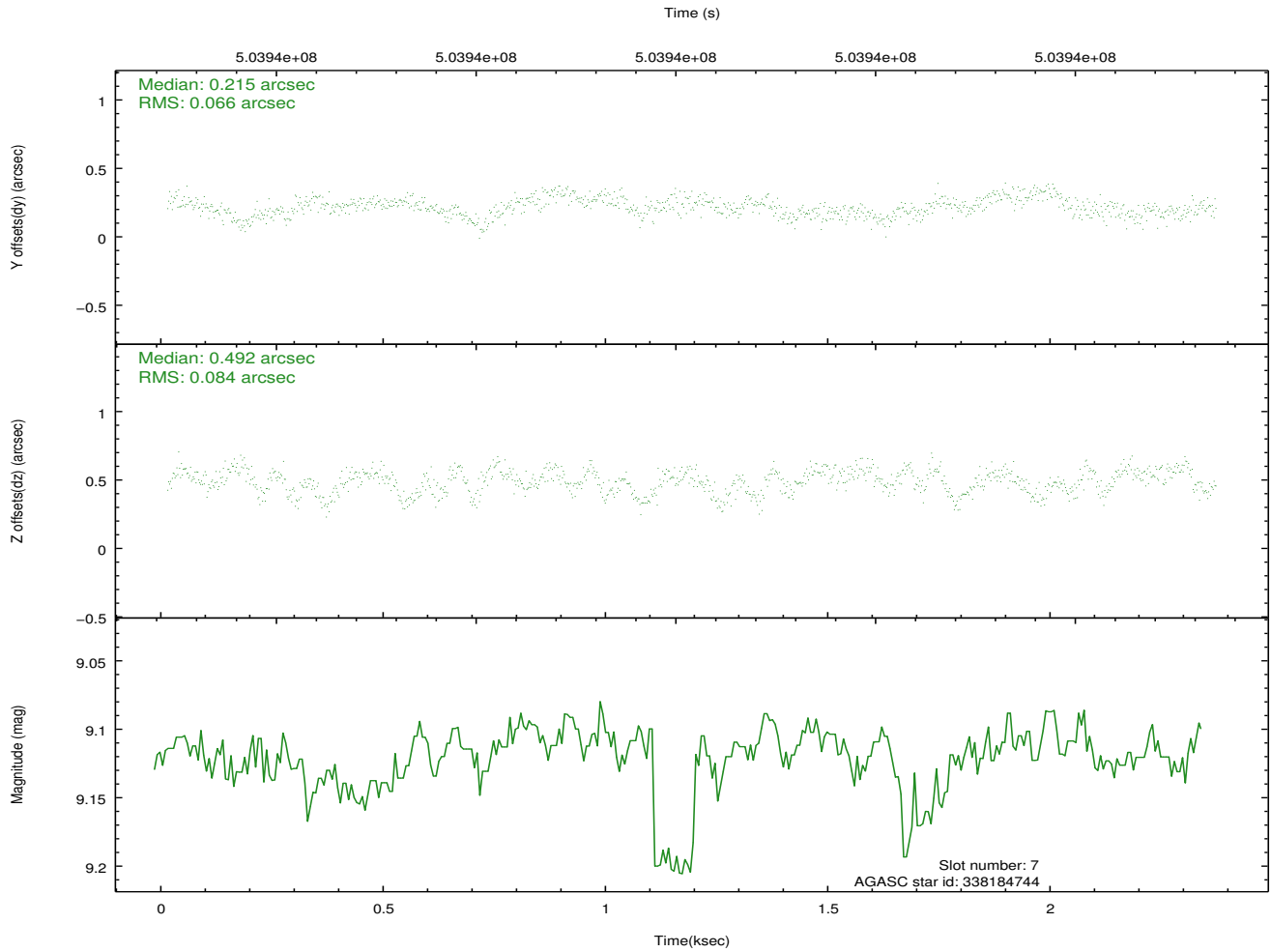
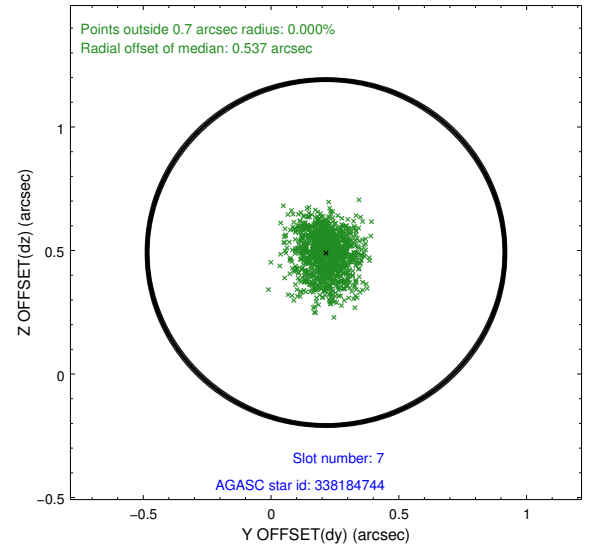
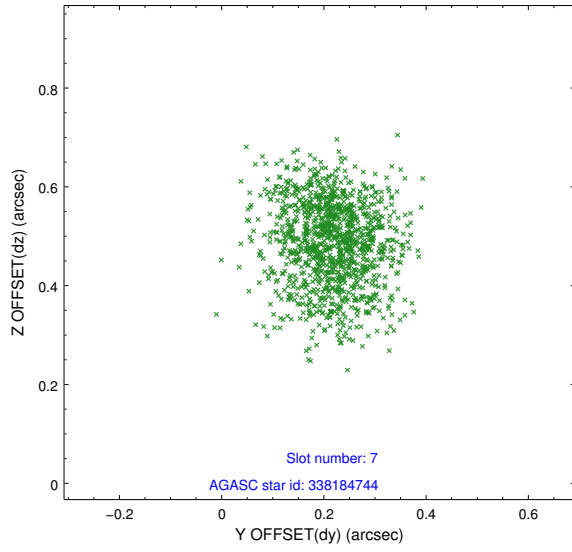
2.4.3 Slot 5



2.4.4 Slot 6

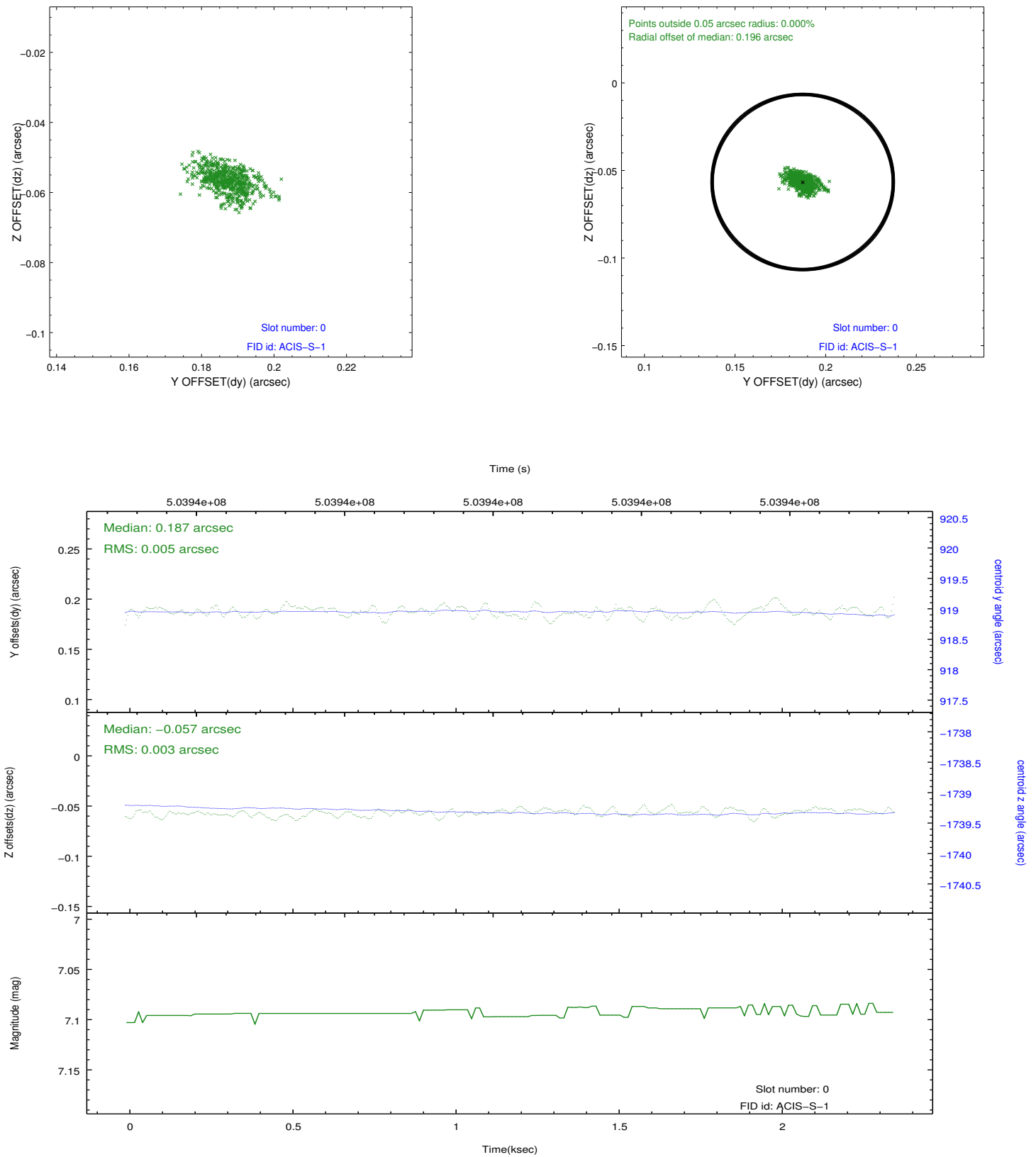


2.4.5 Slot 7

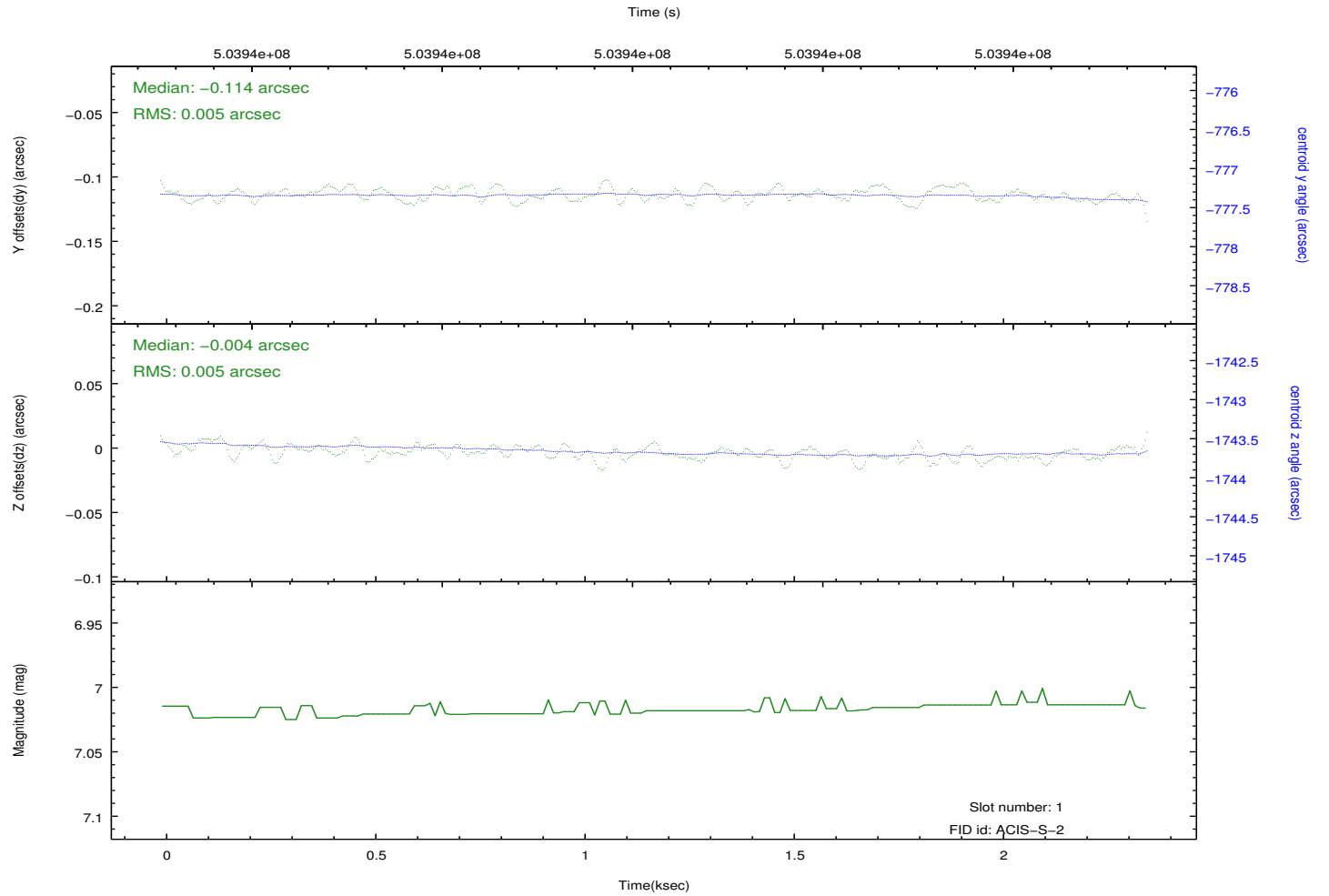
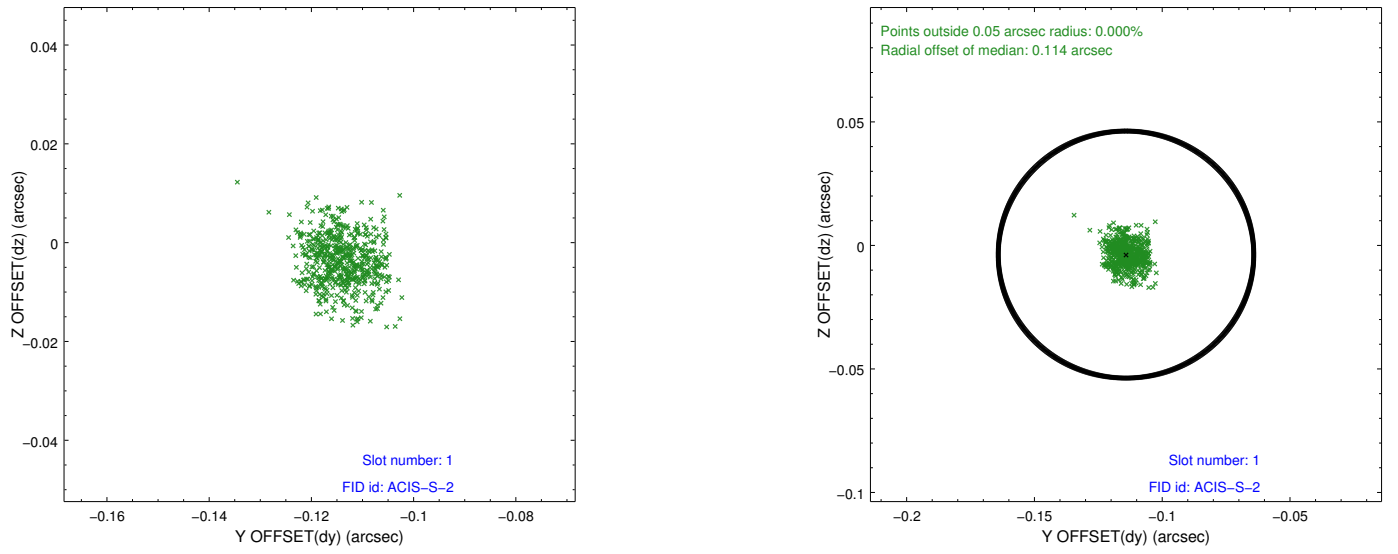


2.5 FID Slots

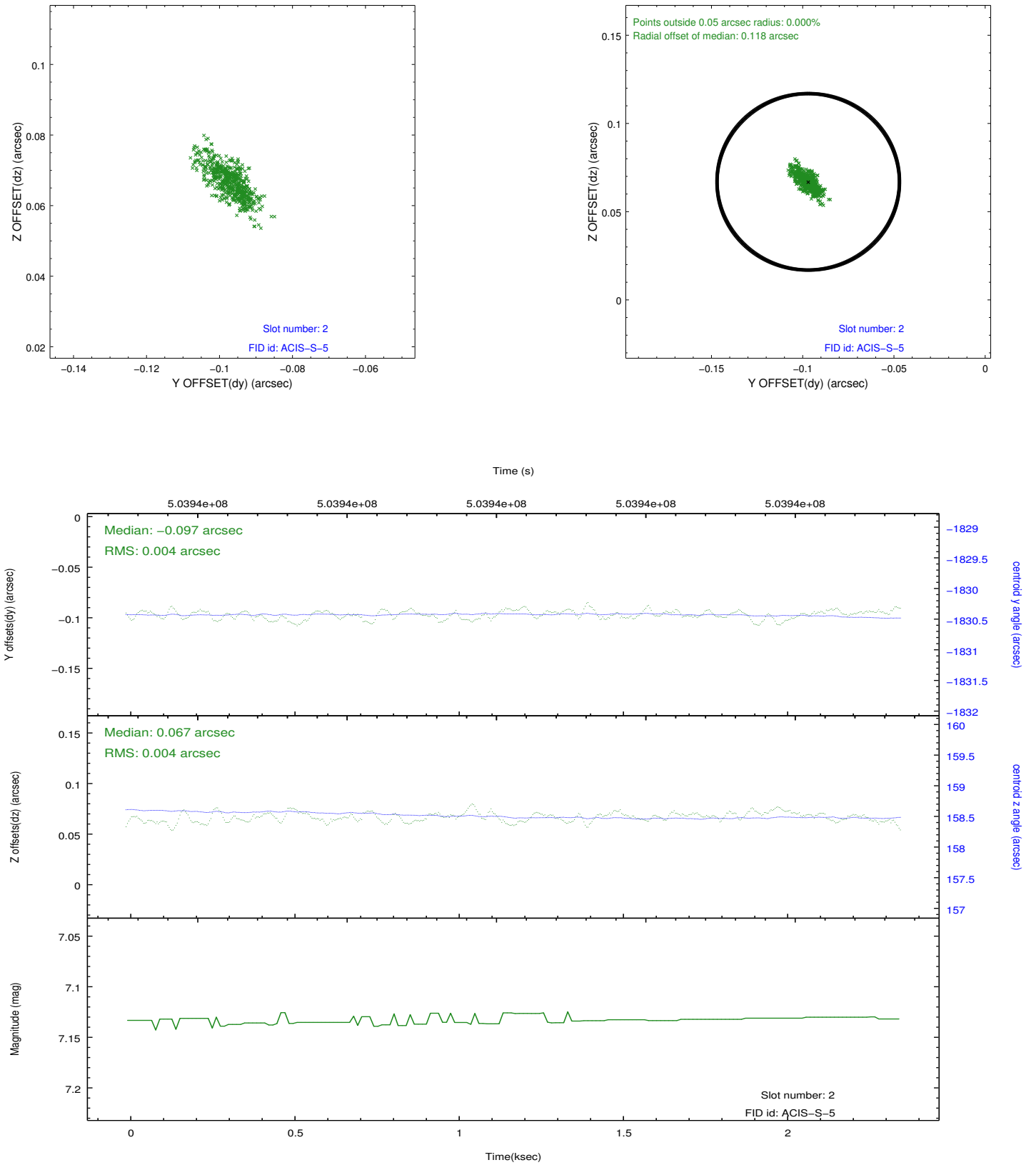
2.5.1 Slot 0



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	2.352900018096

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.