

V&V Reference Report

L2 ASCDS Version : 10

Observation 16317 - L2 Version 2
Chandra X-Ray Center

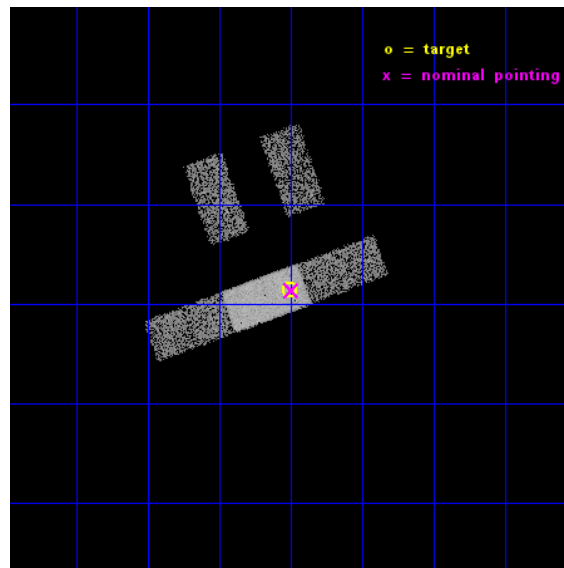
L2 Processing Date : Dec 6 2014

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1 Front

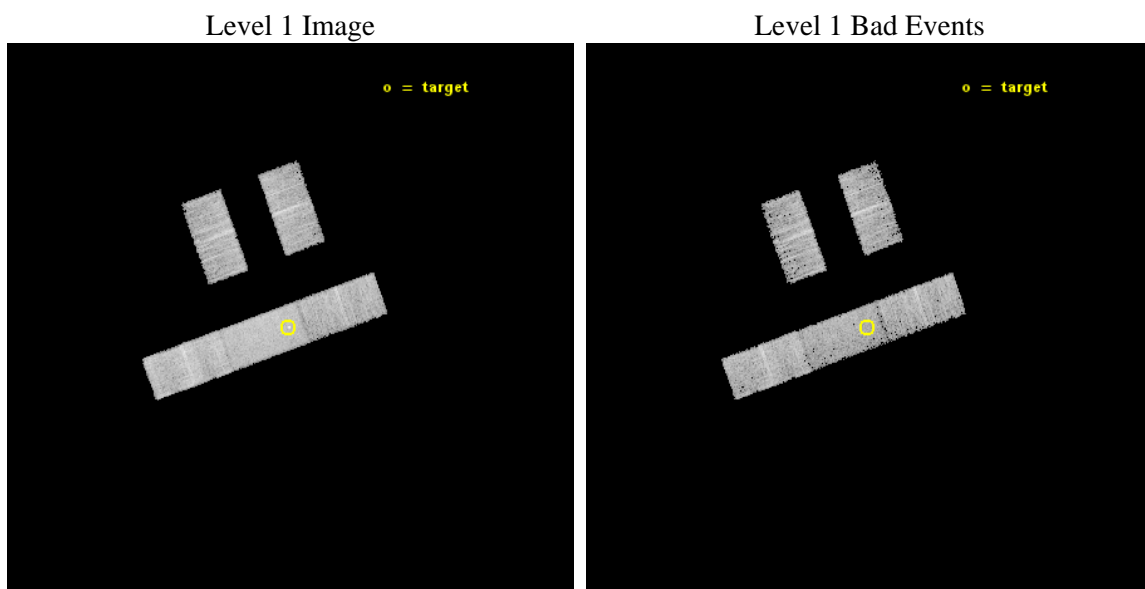
seq_num	702752	Sequence number
obs_id	16317	Observation id
title	ENERGY DEPENDENT X-RAY MICROLENSING AND THE STRUCTURE OF QUASARS	P
observer	Prof. Christopher Kochanek	Principal investigator
object	Q2237+0305	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	340.12625	Observer's specified target RA [deg]
dec_targ	3.358	Observer's specified target Dec [deg]
ra_nom	340.12382941427	Nominal RA [deg]
dec_nom	3.3561307902385	Nominal Dec [deg]
roll_nom	160.15674888001	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10065.699929476	Sum of GTIs [s]
livetime	9828.4300648514	Livetime [s]
ontime2	10065.699929476	Sum of GTIs [s]
ontime3	10065.699929476	Sum of GTIs [s]
ontime6	10065.699929476	Sum of GTIs [s]
ontime7	10065.699929476	Sum of GTIs [s]
ontime8	10065.699929476	Sum of GTIs [s]
l2events	26068	Number of level 2 events



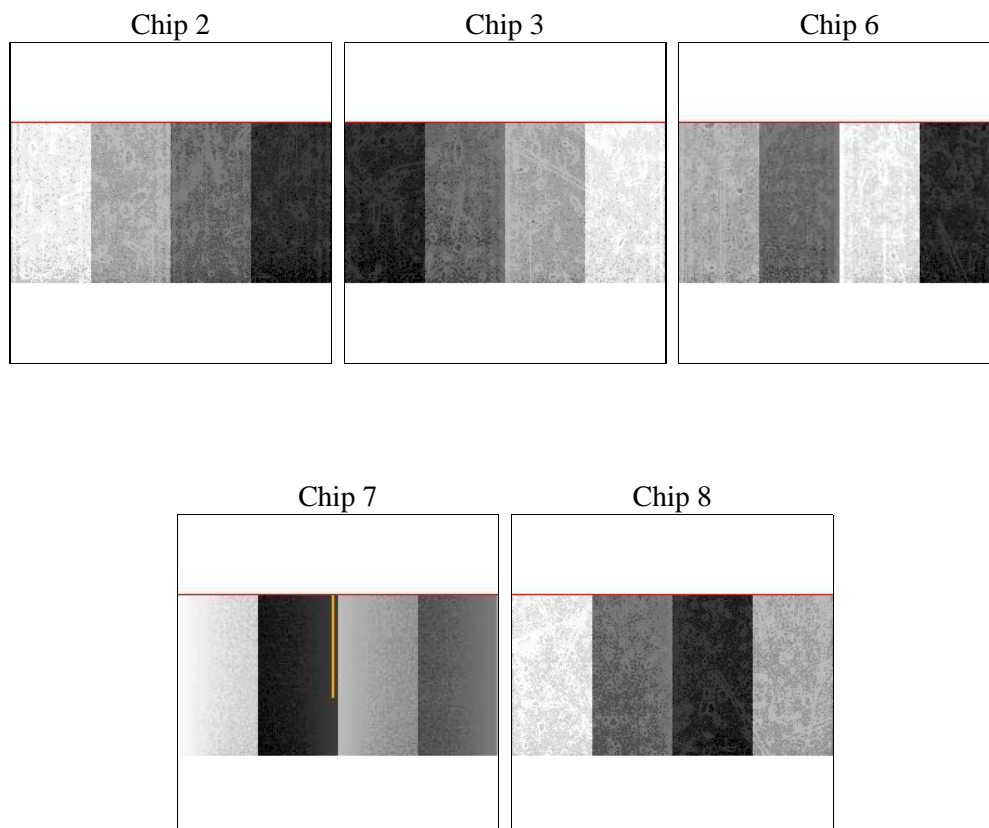
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	10065.699929476	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	10065.699929476	Sum of GTIs [s]
date	2014-12-06T07:41:18	Date and time of file creation	ontime3	10065.699929476	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	10065.699929476	Sum of GTIs [s]
			ontime7	10065.699929476	Sum of GTIs [s]
			ontime8	10065.699929476	Sum of GTIs [s]
			l1events	146102	Number of level 1 events

2.1.4 Events

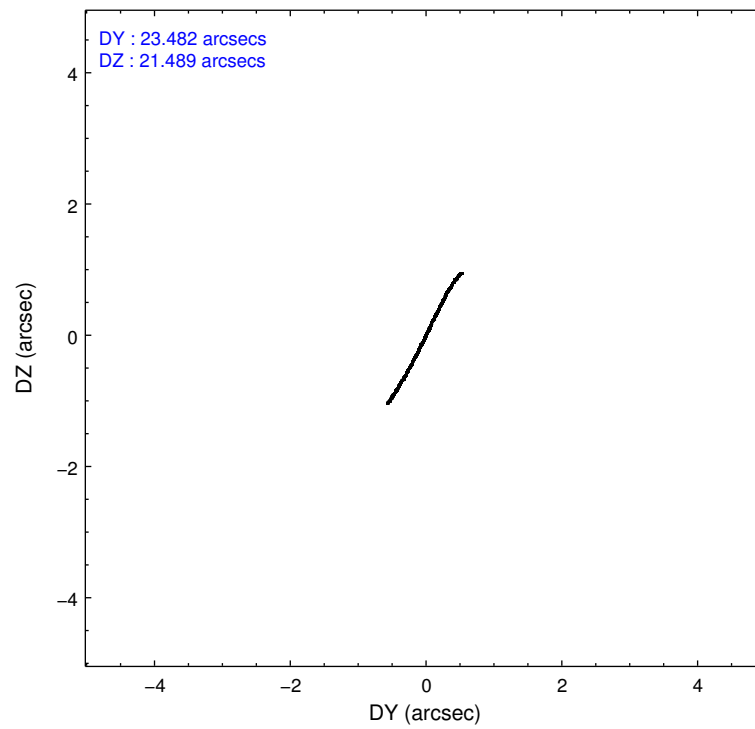
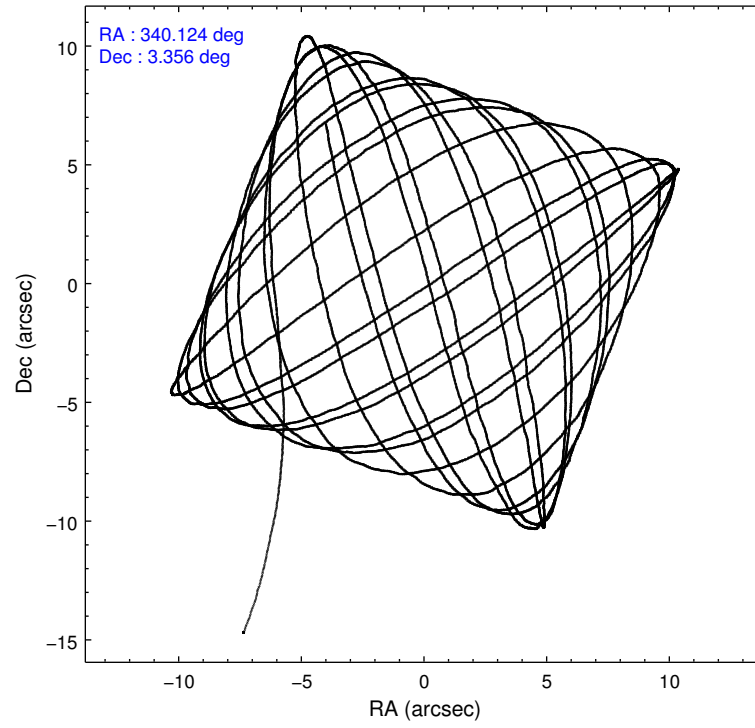
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	24250	24931	26358	34874	35689
rejected events	21355	21991	23101	19159	26202
rejected %	88%	88%	87%	54%	73%

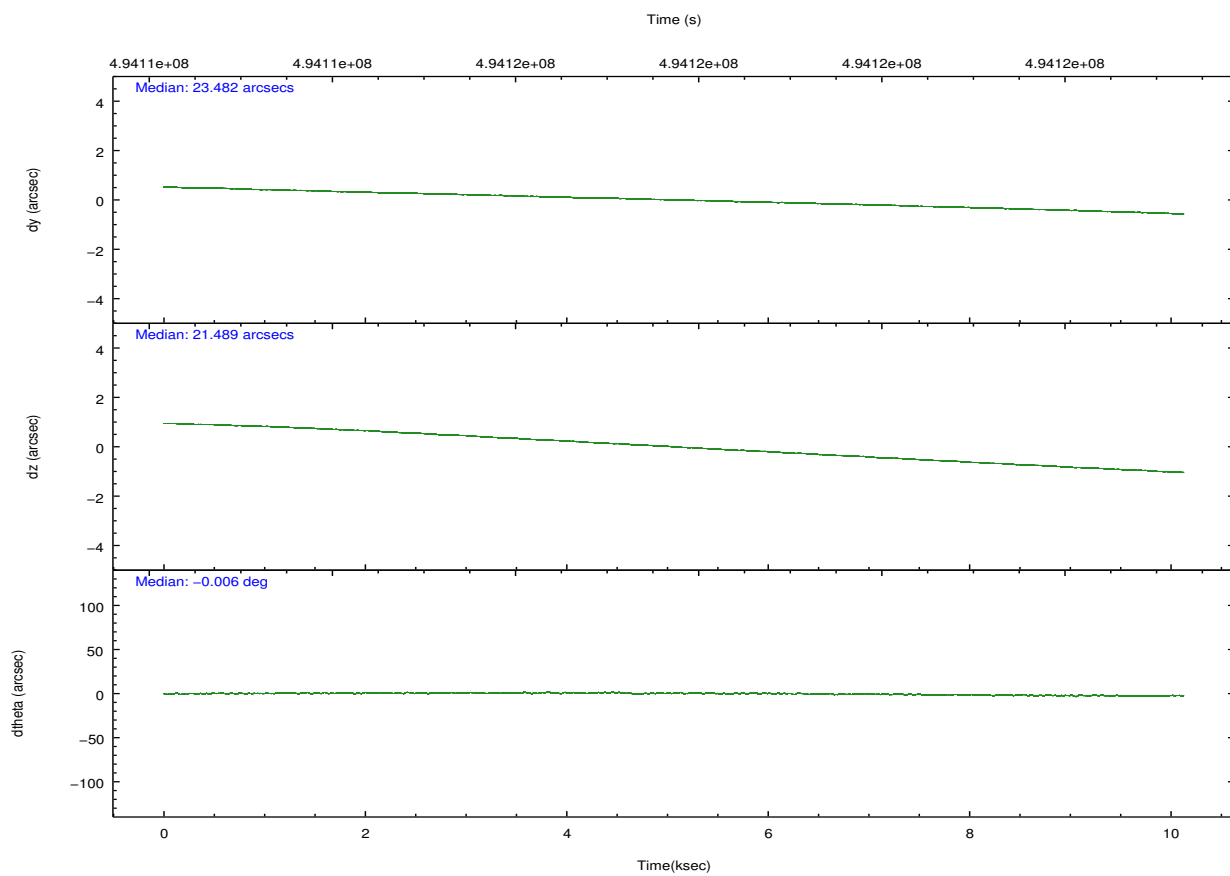
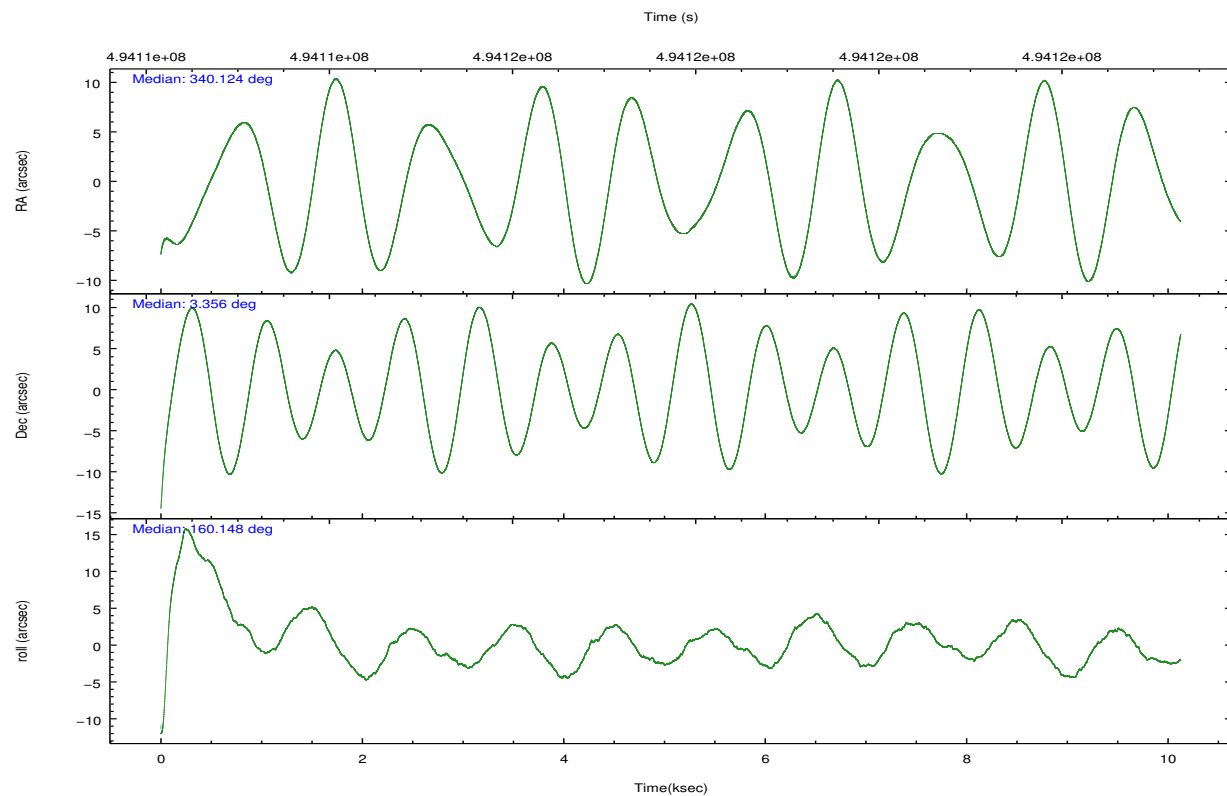
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	968	914	1017	1477	2602
	3%	3%	3%	4%	7%
grade 1 events	14	9	17	40	12
	0%	0%	0%	0%	0%
grade 2 events	674	699	679	3270	2168
	2%	2%	2%	9%	6%
grade 3 events	354	379	412	1483	986
	1%	1%	1%	4%	2%
grade 4 events	344	352	402	1457	936
	1%	1%	1%	4%	2%
grade 5 events	1048	1314	1267	3723	1837
	4%	5%	4%	10%	5%
grade 6 events	556	597	747	8032	2795
	2%	2%	2%	23%	7%
grade 7 events	20292	20667	21817	15392	24353
	83%	82%	82%	44%	68%

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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	340.150741	340.1238294142706	CCD I2 on	O4	Y
[deg] Pointing Dec	3.361341	3.356130790238451	CCD I3 on	O3	Y
[deg] Pointing Roll	159.998561	160.1567488800114	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	O2	Y
[s] Observation start time (MET)	494112797.184000	494111447.0397	CCD S5 on	N	N
Observation start date	2013-08-28T21:32:10	2013-08-28T21:10:47	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	494122797.184000	494123922.31538	On-chip summing requested	N	N
Observation end date	2013-08-29T00:18:50	2013-08-29T00:38:42	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	257	257
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.7

2.3 Aspect



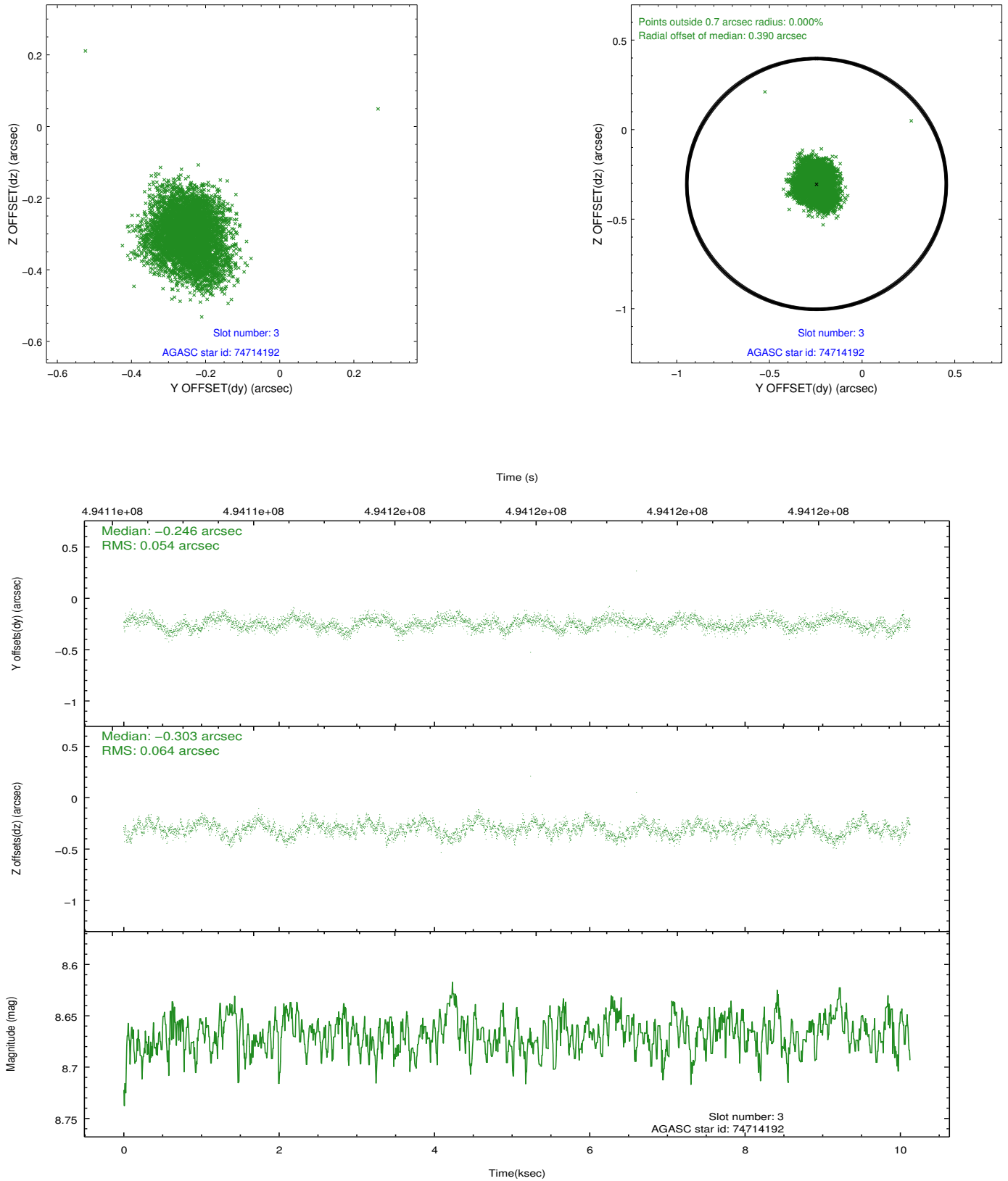


Slot Statistics

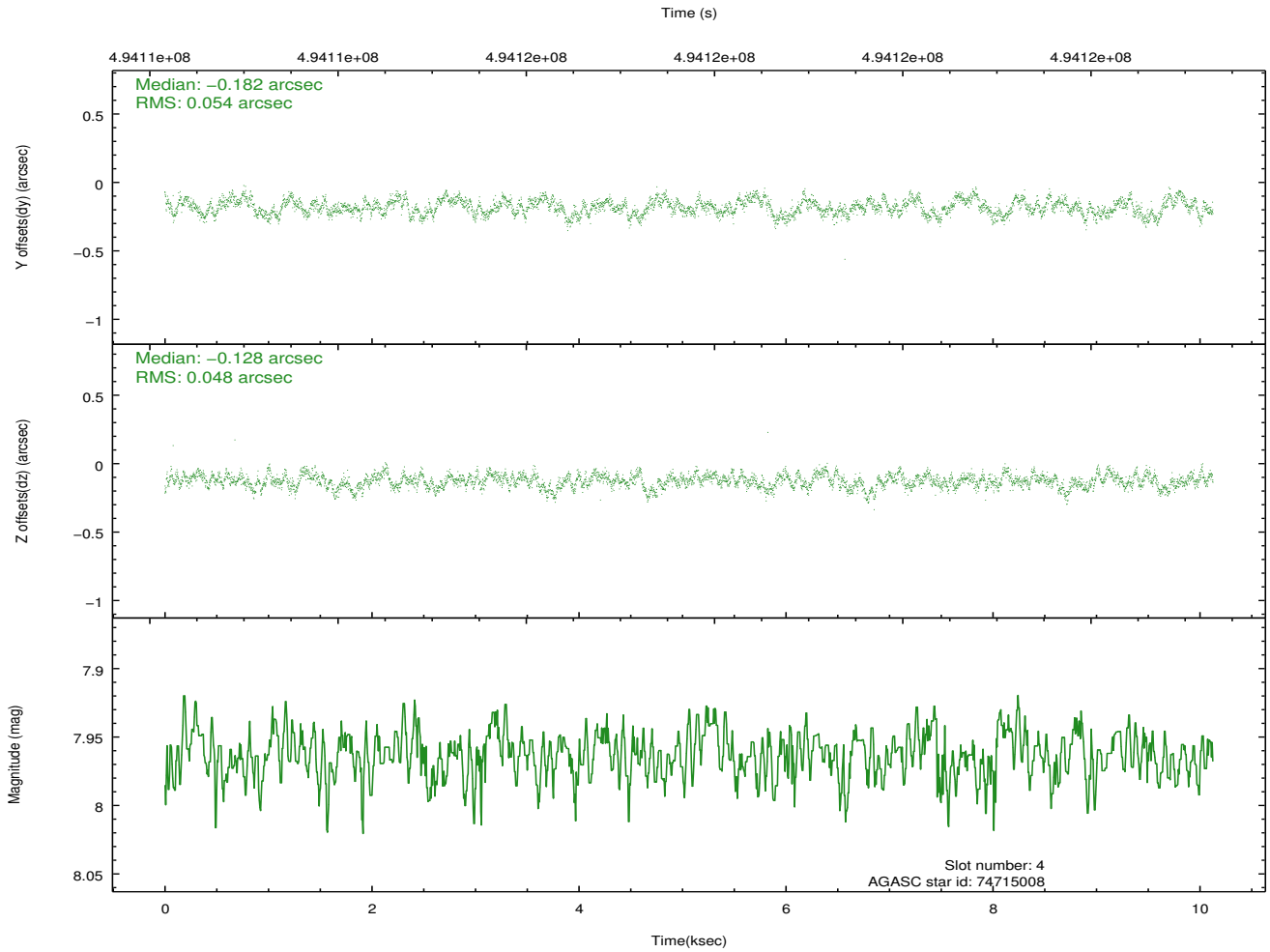
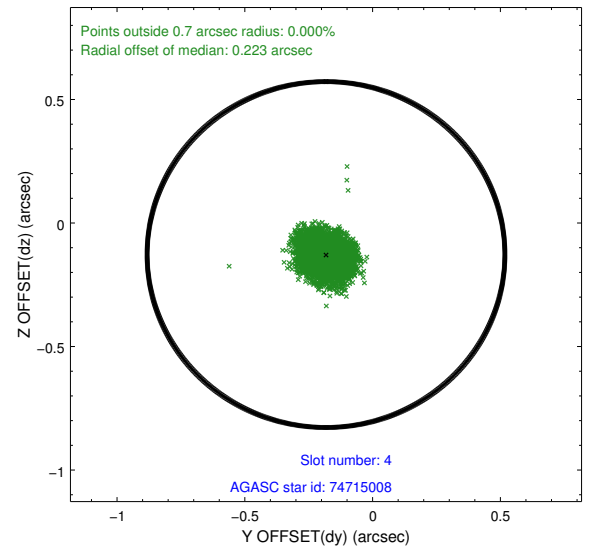
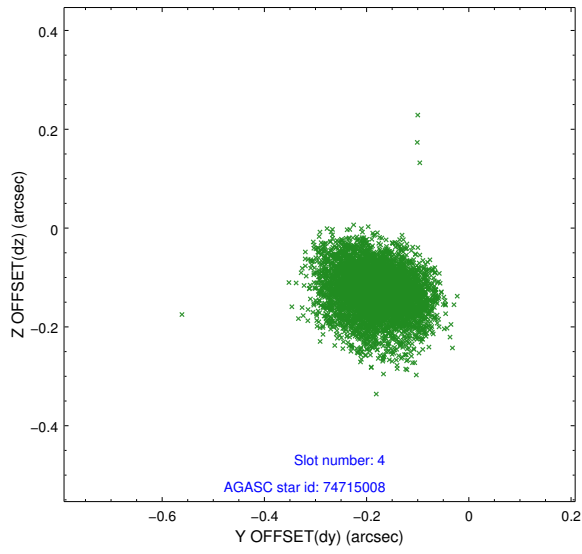
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.01	2470	0.177	-0.071	0.012	0.025	0.000000	0.000000	919.55	-1738.67
1	FID		ACIS-S-2	6.94	2470	-0.106	0.039	0.021	0.048	0.000000	0.000000	-776.35	-1743.68
2	FID		ACIS-S-5	7.05	2471	-0.095	0.043	0.017	0.024	0.000000	0.000000	-1830.13	158.43
3	GUIDE	used	74714192	8.67	4935	-0.246	-0.303	0.090	0.140	339.623837	3.342441	1756.22	711.17
4	GUIDE	used	74715008	7.96	4941	-0.182	-0.128	0.078	0.121	339.956848	3.242441	508.81	640.65
5	GUIDE	used	74842128	8.54	4941	0.260	-0.039	0.078	0.121	340.118134	3.132788	-170.58	813.66
6	GUIDE	used	74854992	8.29	4939	0.125	0.237	0.070	0.115	340.342808	3.603730	-349.30	-1055.31
7	GUIDE	used	74719664	8.35	4939	0.042	0.231	0.099	0.169	339.961529	4.116119	1566.72	-2322.99

2.4 Star Slots

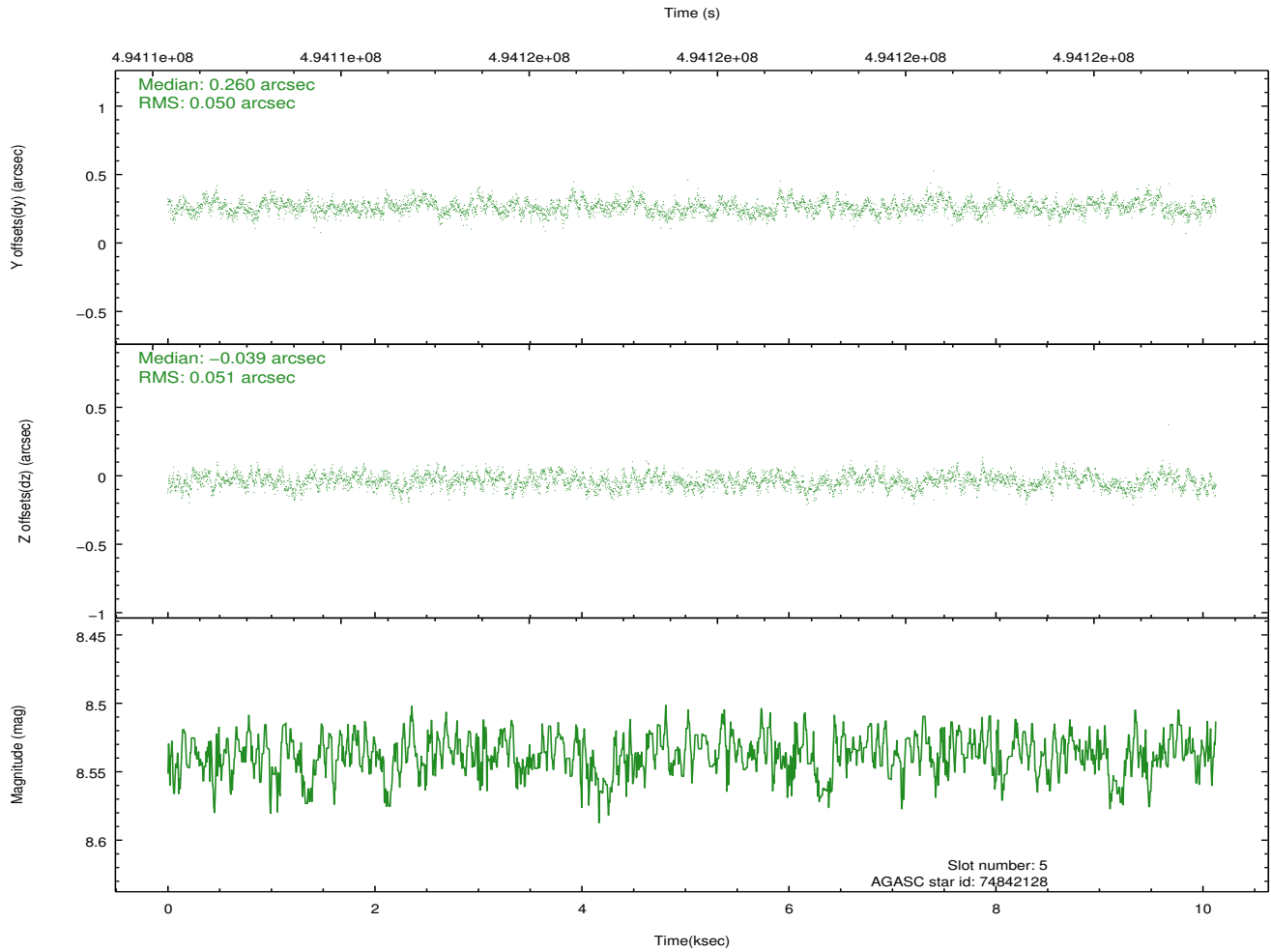
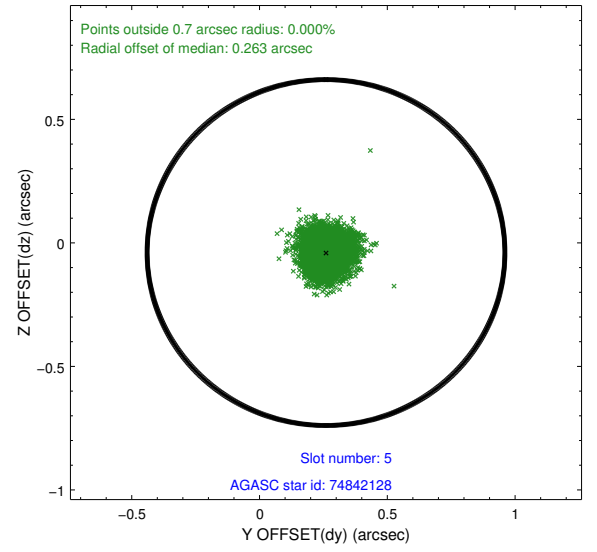
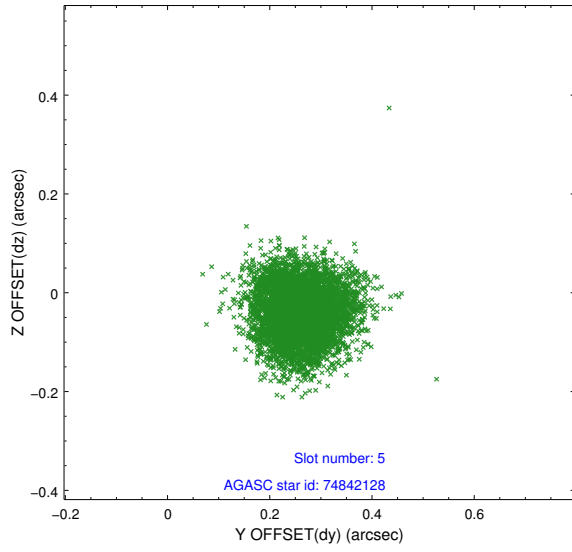
2.4.1 Slot 3



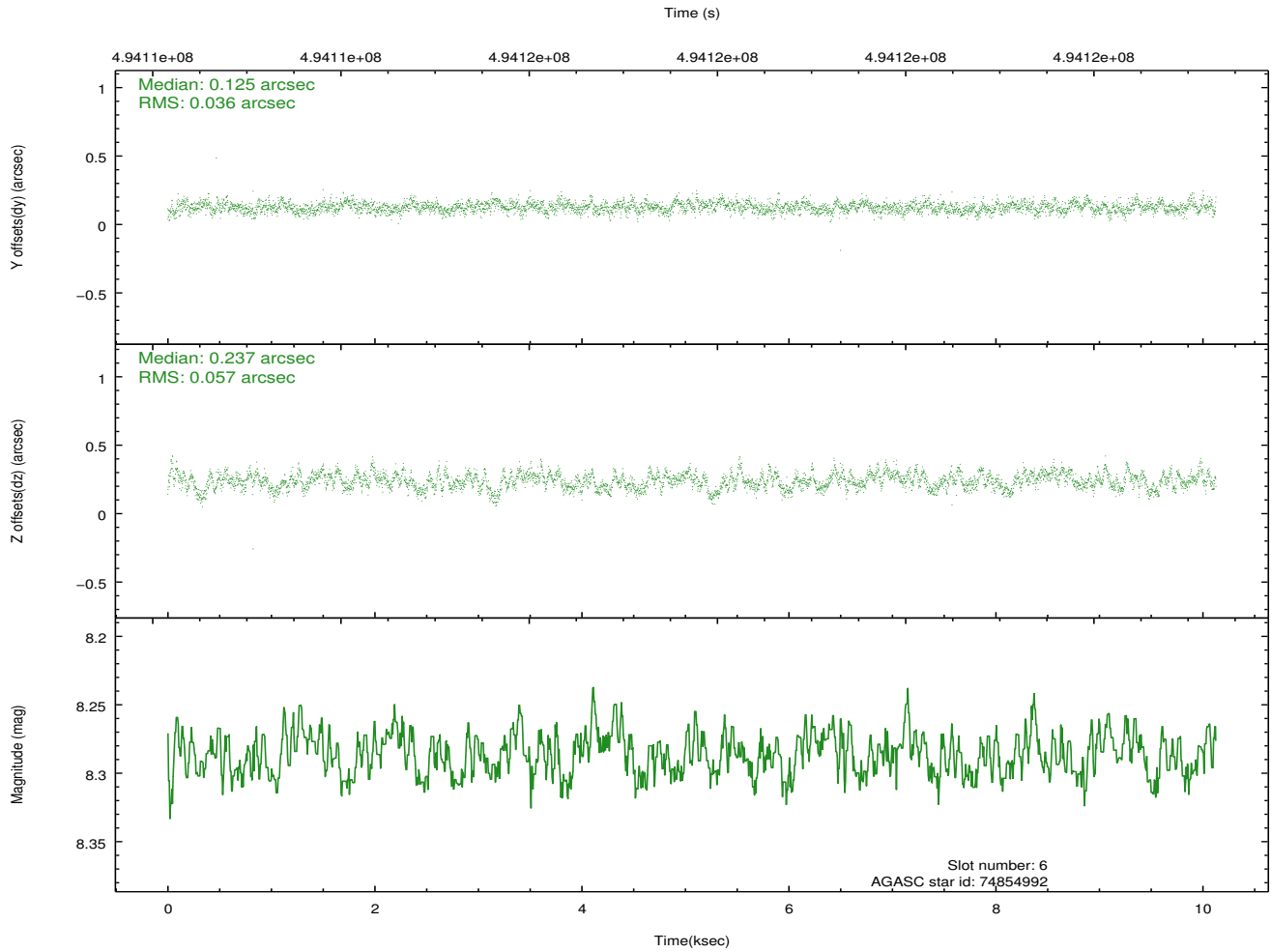
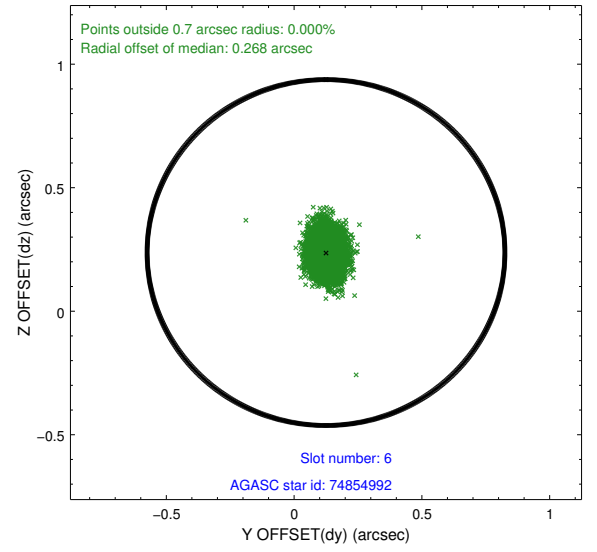
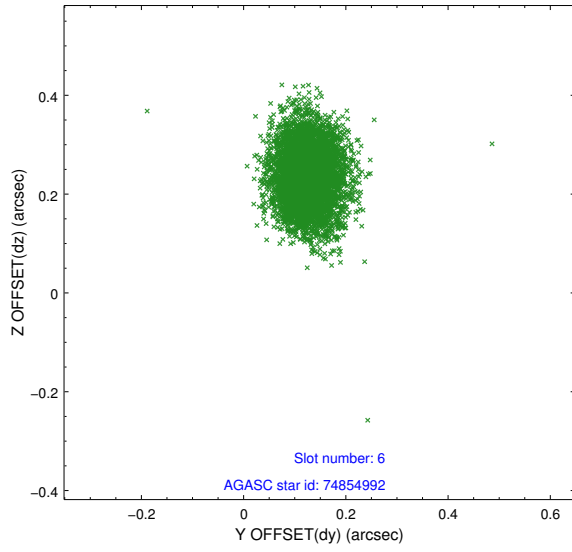
2.4.2 Slot 4



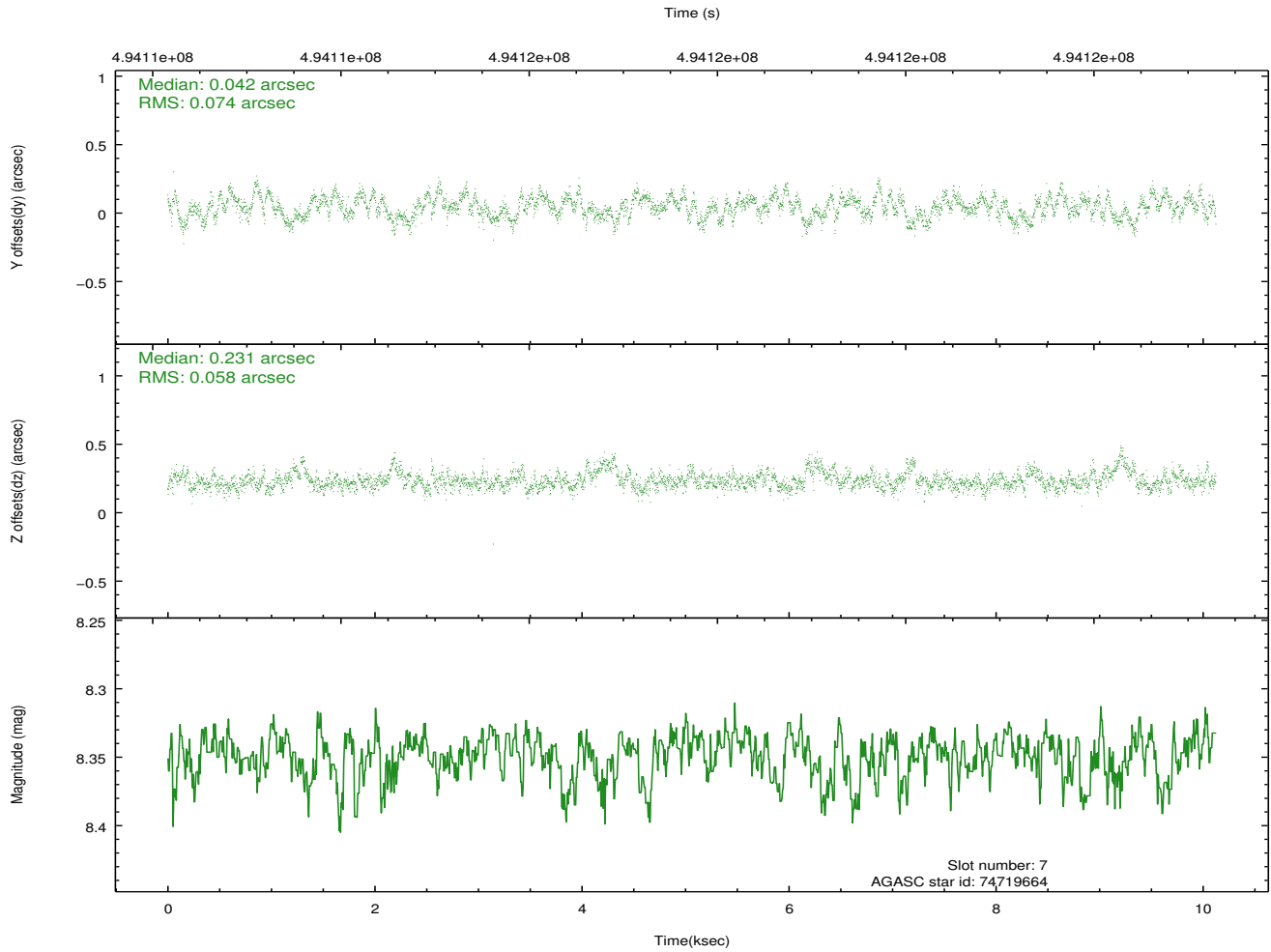
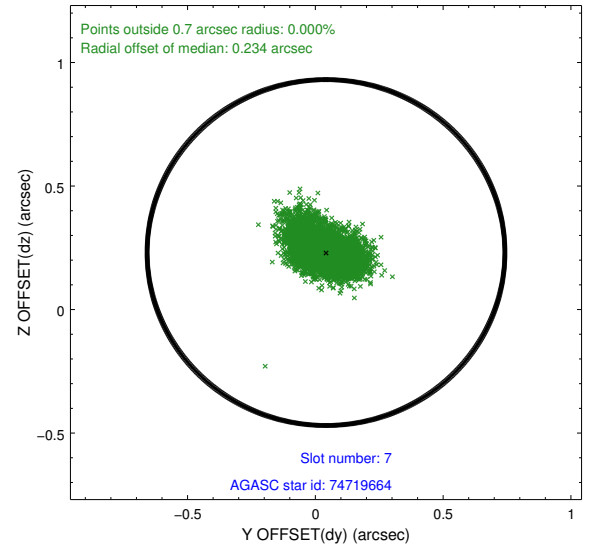
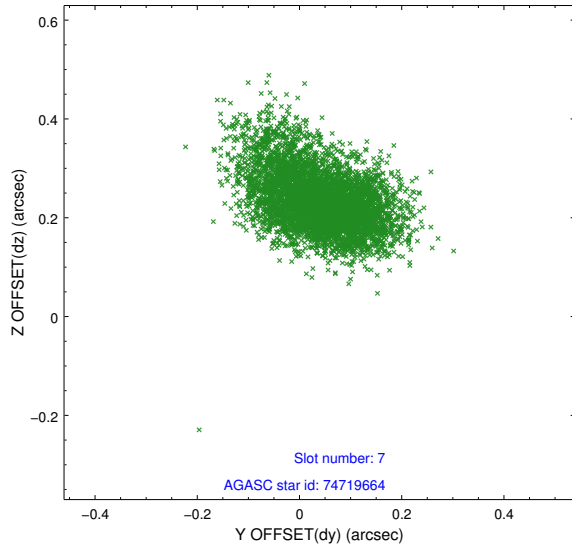
2.4.3 Slot 5



2.4.4 Slot 6

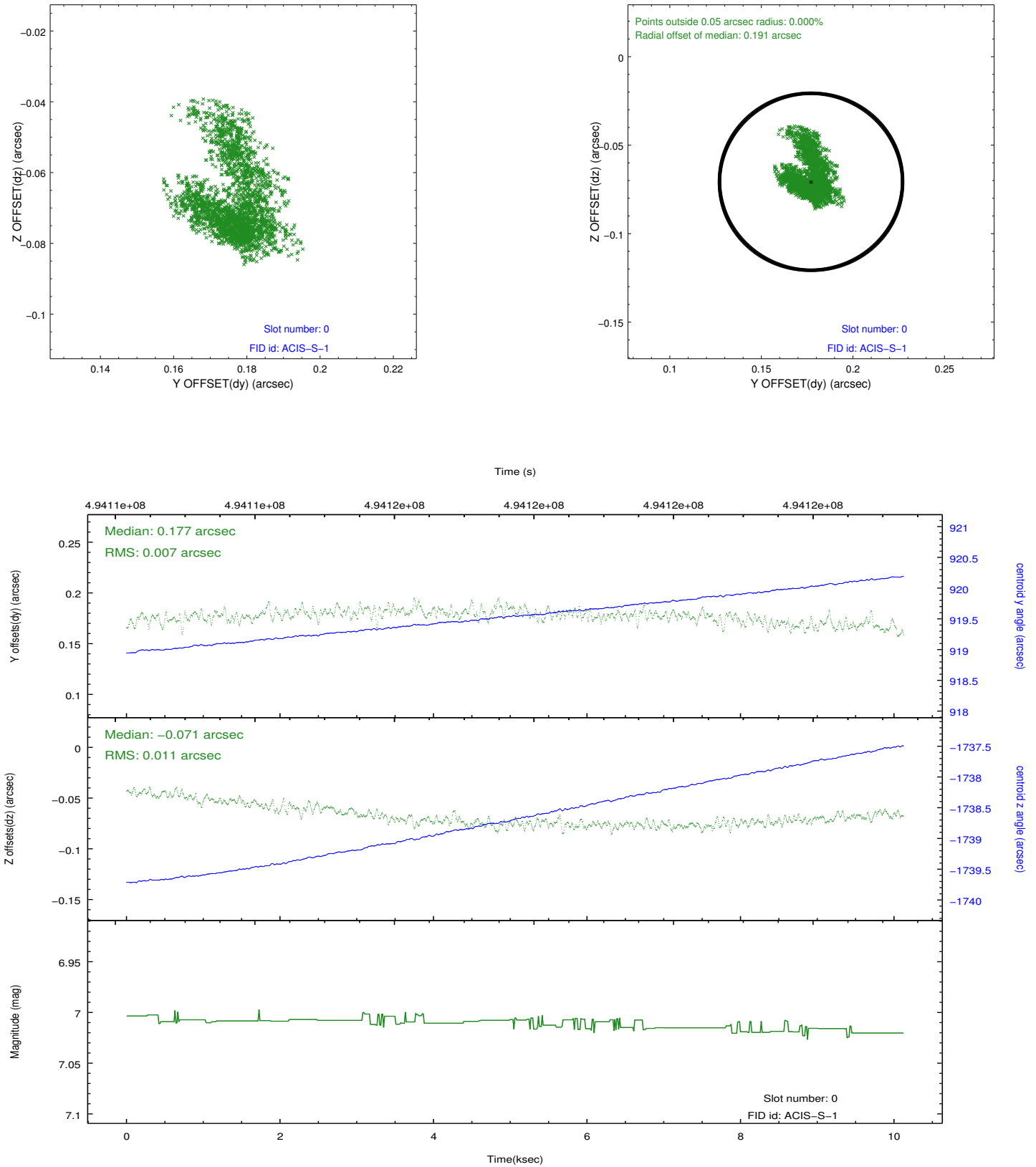


2.4.5 Slot 7

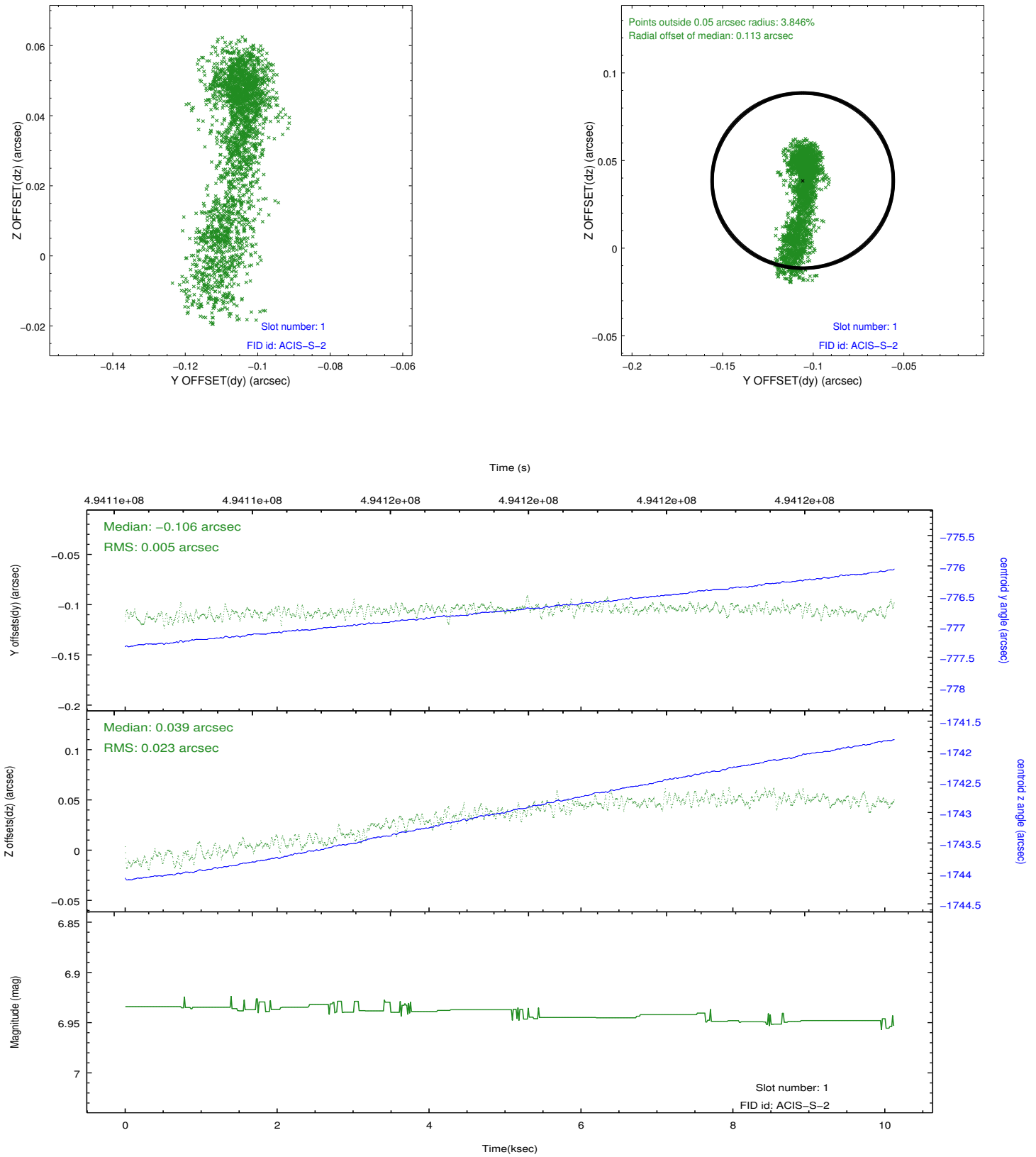


2.5 FID Slots

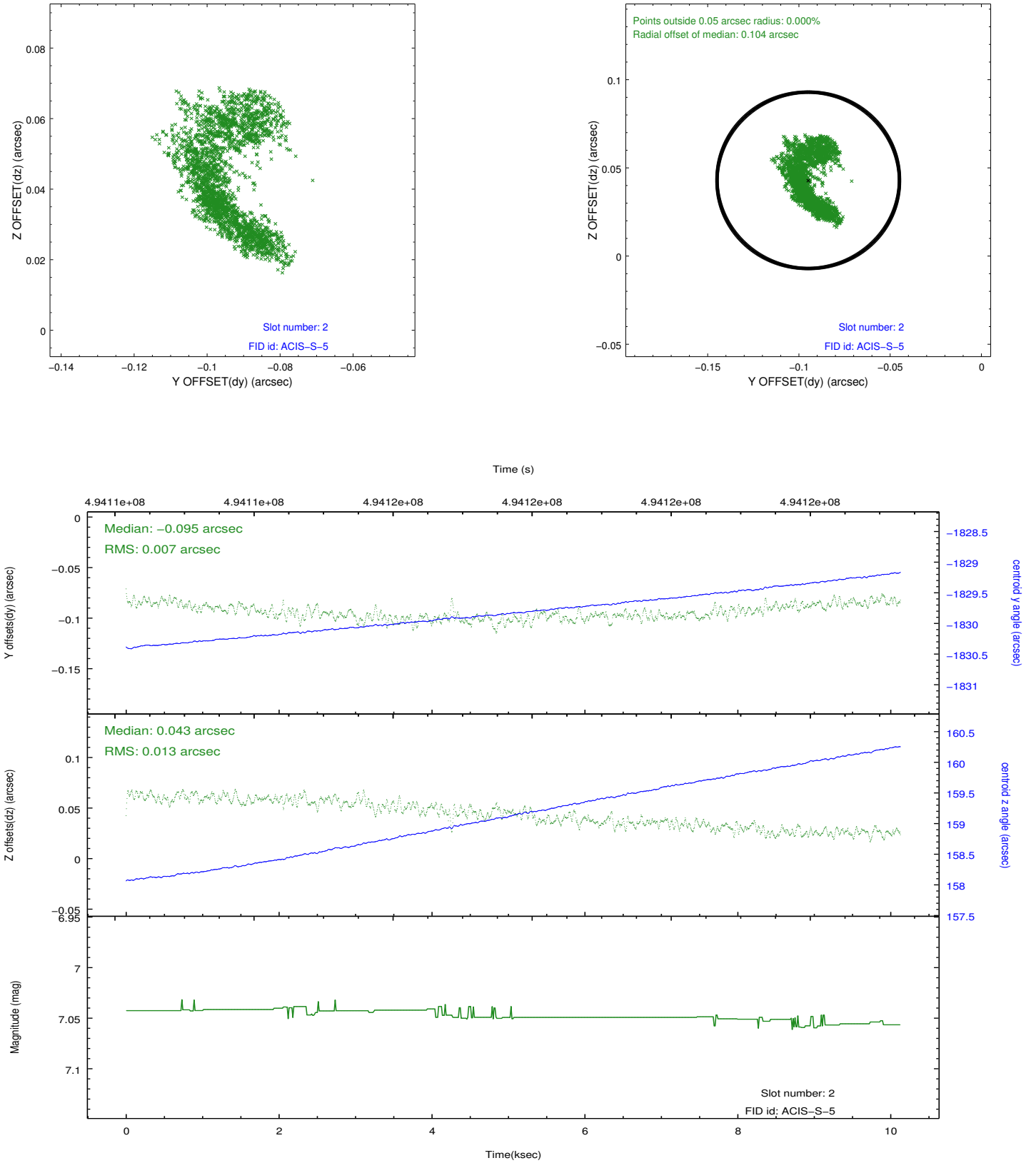
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.065699929476

A.2 Comments

Joint Proposal with HST. Monitor constraint met.

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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.