

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 14514 - L2 Version 2
Chandra X-Ray Center

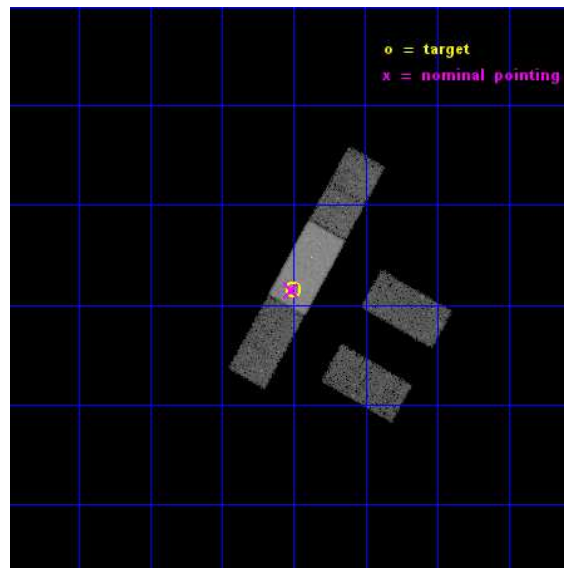
L2 Processing Date : Nov 30 2014

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1 Front

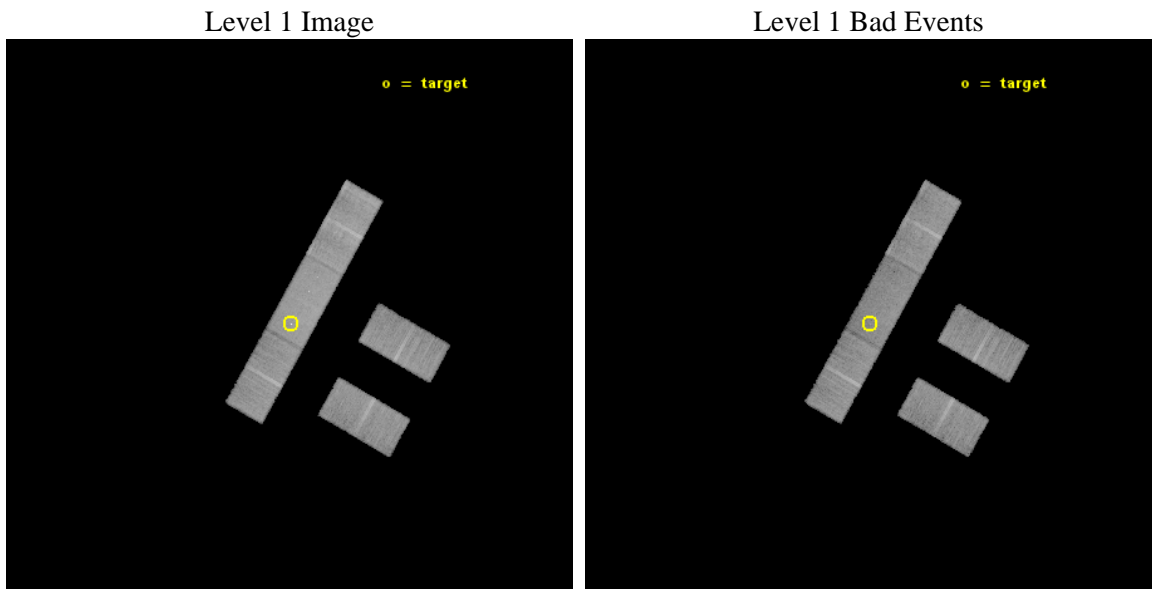
seq_num	702751	Sequence number
obs_id	14514	Observation id
title	ENERGY DEPENDENT X-RAY MICROLENSING AND THE STRUCTURE OF QUASARS	P
observer	Prof. Christopher Kochanek	Principal investigator
object	Q2237+0305	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	340.12625	Observer's specified target RA [deg]
dec_targ	3.358	Observer's specified target Dec [deg]
ra_nom	340.12926767442	Nominal RA [deg]
dec_nom	3.3578231566622	Nominal Dec [deg]
roll_nom	299.46727894315	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30064.499789238	Sum of GTIs [s]
livetime	29355.815858168	Livetime [s]
ontime2	30064.499789238	Sum of GTIs [s]
ontime3	30064.499789238	Sum of GTIs [s]
ontime6	30064.499789238	Sum of GTIs [s]
ontime7	30064.499789238	Sum of GTIs [s]
ontime8	30062.758798957	Sum of GTIs [s]
l2events	89157	Number of level 2 events



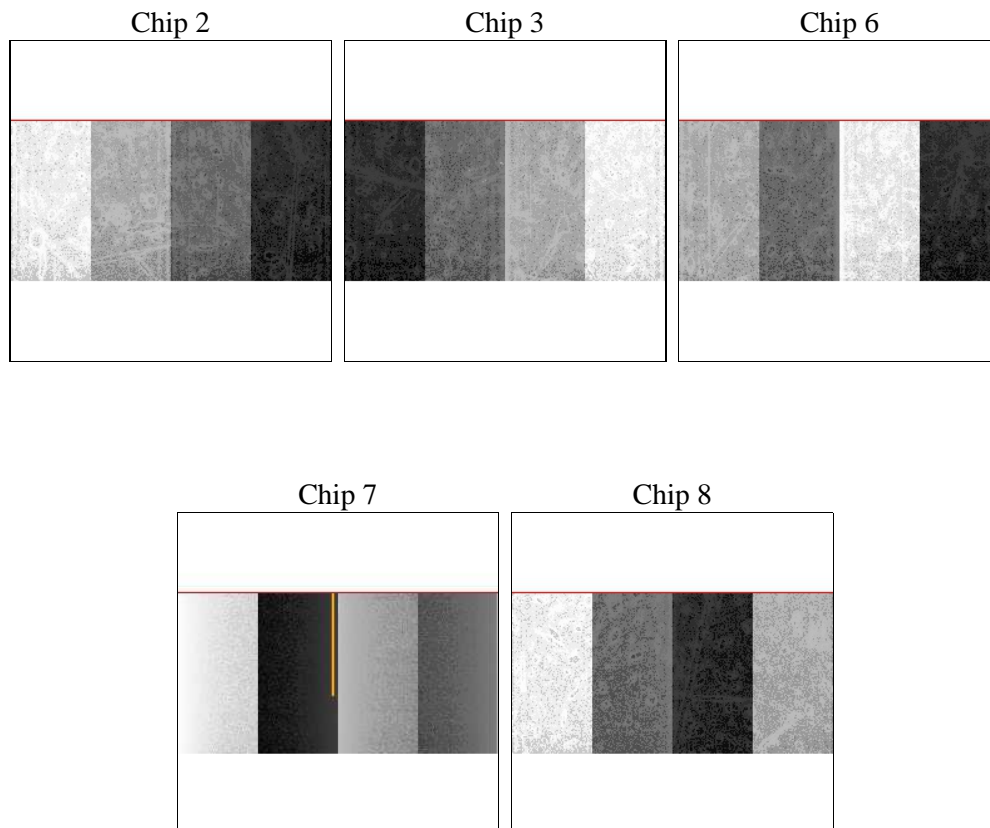
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	30064.499789238	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	30064.499789238	Sum of GTIs [s]
date	2014-11-30T22:14:10	Date and time of file creation	ontime3	30064.499789238	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	30064.499789238	Sum of GTIs [s]
			ontime7	30064.499789238	Sum of GTIs [s]
			ontime8	30062.758798957	Sum of GTIs [s]
			l1events	498414	Number of level 1 events

2.1.4 Events

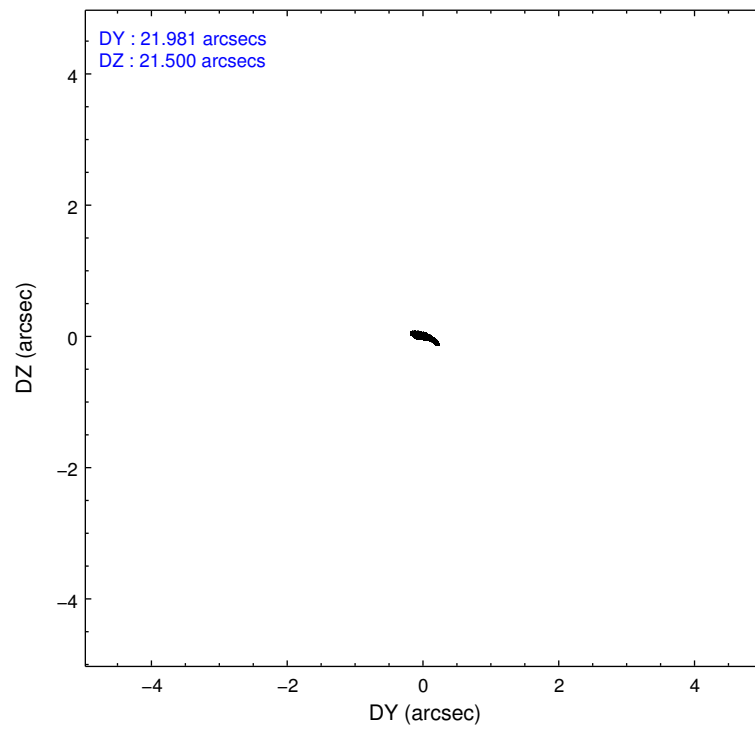
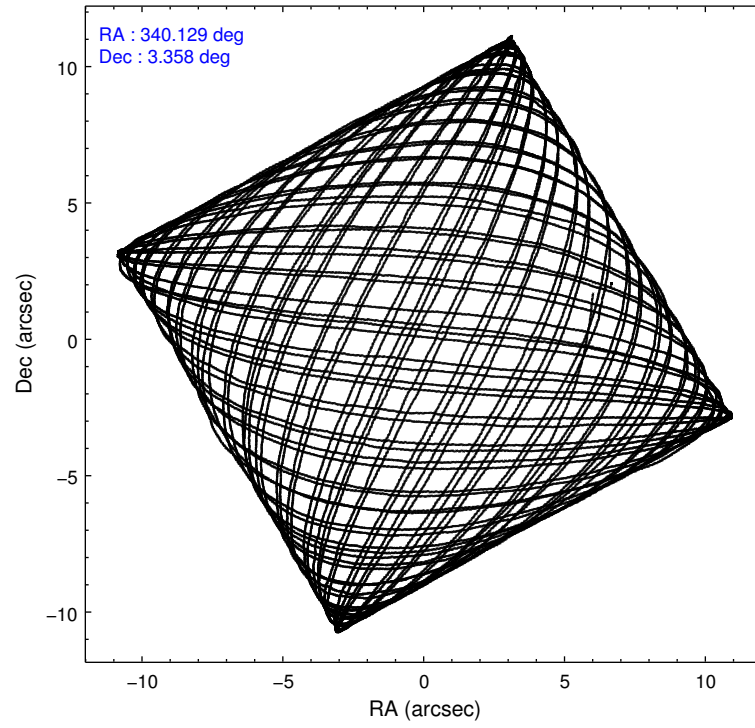
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	84706	86027	91386	117354	118941
rejected events	74712	76245	80619	63463	88230
rejected %	88%	88%	88%	54%	74%

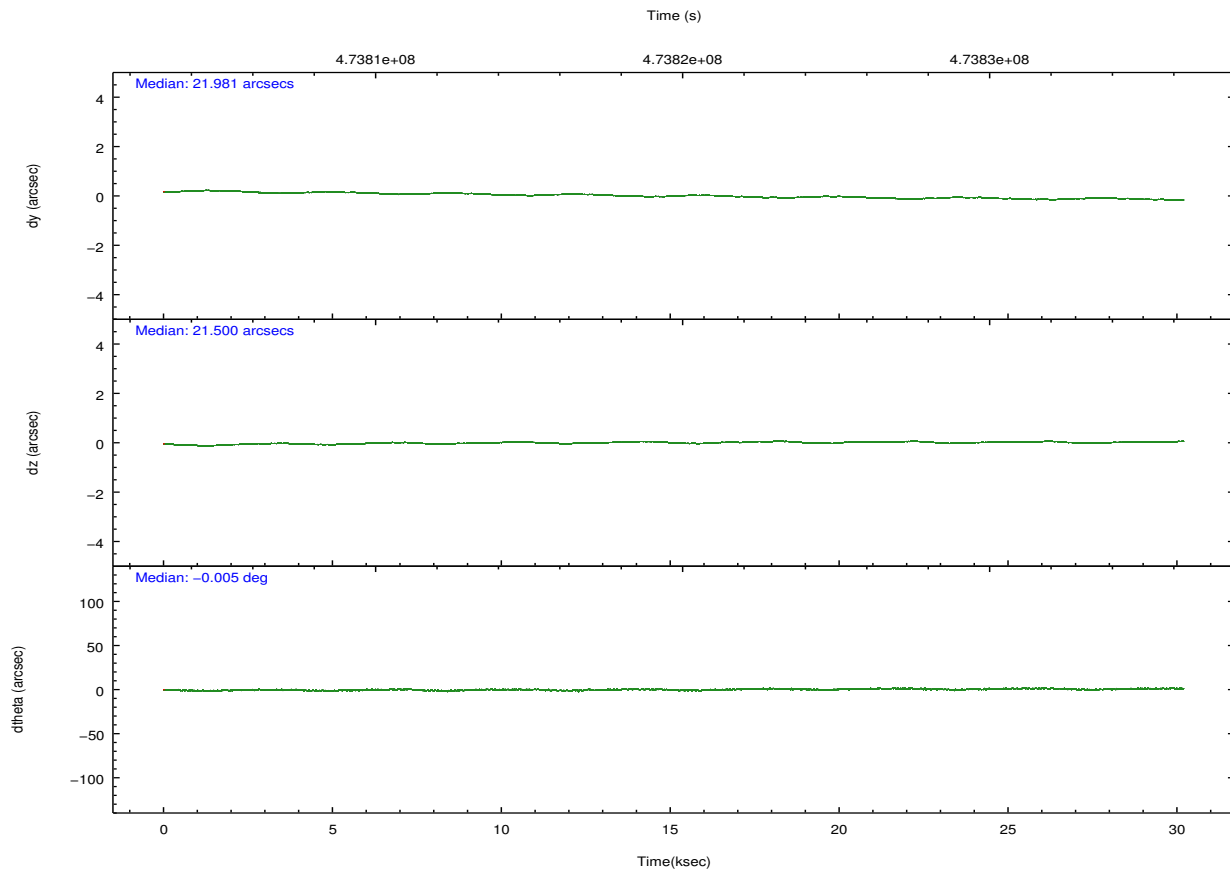
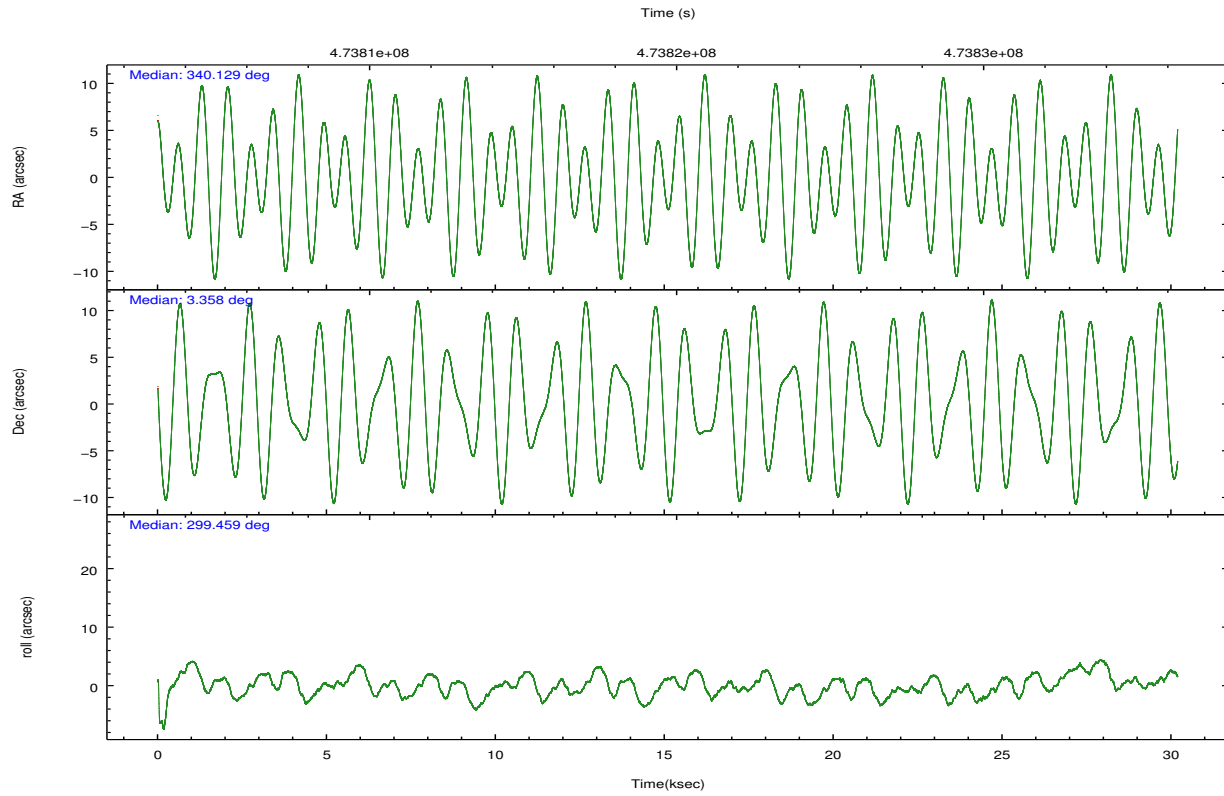
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	3334	3215	3431	5612	8796
	3%	3%	3%	4%	7%
grade 1 events	49	40	38	170	73
	0%	0%	0%	0%	0%
grade 2 events	2297	2106	2413	11270	7197
	2%	2%	2%	9%	6%
grade 3 events	1237	1282	1303	5344	3082
	1%	1%	1%	4%	2%
grade 4 events	1232	1200	1313	5238	2911
	1%	1%	1%	4%	2%
grade 5 events	3449	4309	4490	12205	6179
	4%	5%	4%	10%	5%
grade 6 events	1900	1979	2308	26432	8727
	2%	2%	2%	22%	7%
grade 7 events	71208	71896	76090	51083	81976
	84%	83%	83%	43%	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	340.105500	340.1292676744194	CCD I2 on	O4	Y
[deg] Pointing Dec	3.371404	3.357823156662192	CCD I3 on	O3	Y
[deg] Pointing Roll	299.312042	299.4672789431468	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)	473804808.184000	473803884.05127	CCD S5 on	N	N
Observation start date	2013-01-05T20:25:41	2013-01-05T20:11:24	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	473834808.184000	473835724.65299	On-chip summing requested	N	N
Observation end date	2013-01-06T04:45:41	2013-01-06T05:02:04	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





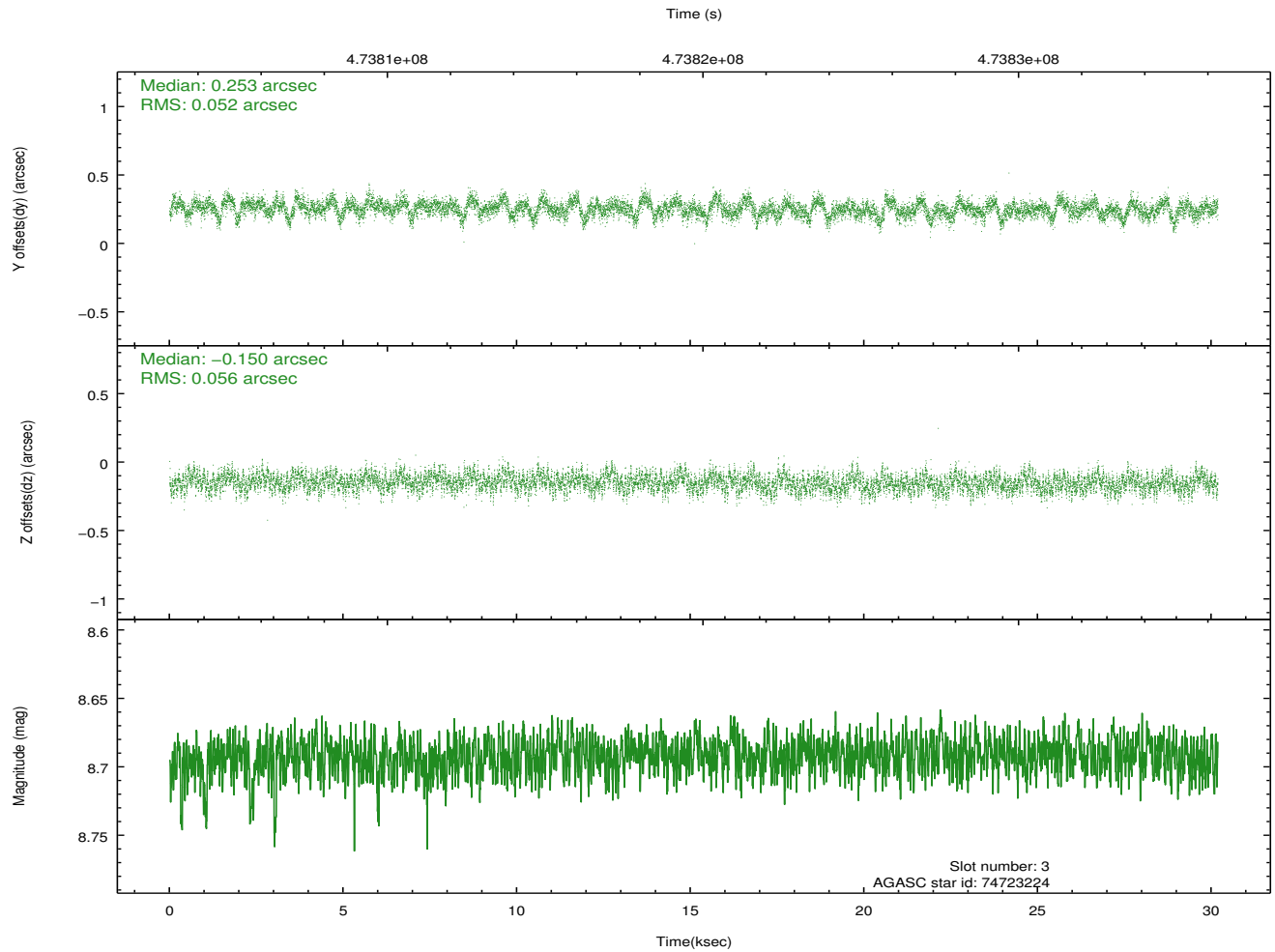
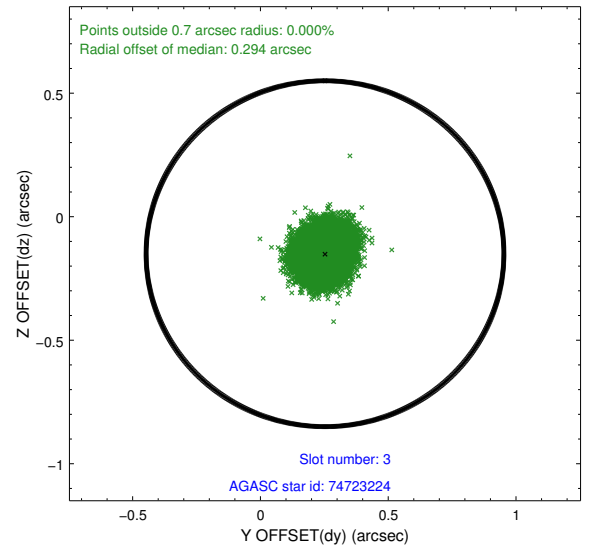
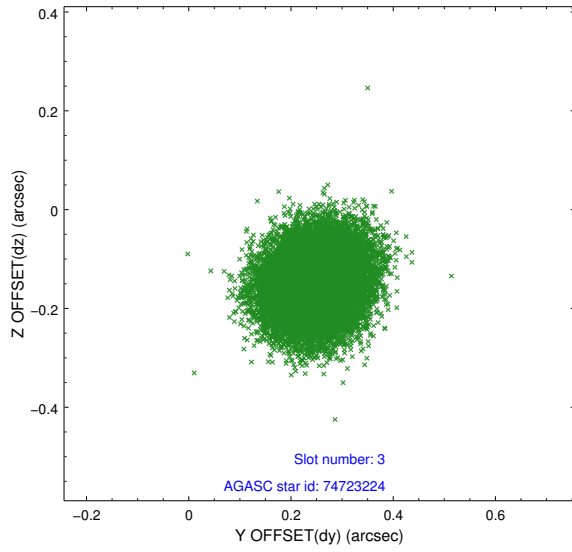
Slot Statistics

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	7364	0.048	-0.044	0.009	0.015	0.000000	0.000000	920.92	-1738.68
1	FID		ACIS-S-4	7.01	7363	0.130	0.012	0.008	0.013	0.000000	0.000000	2138.45	165.46
2	FID		ACIS-S-5	7.04	7364	-0.205	0.044	0.008	0.014	0.000000	0.000000	-1828.11	159.18
3	GUIDE	used	74723224	8.69	14716	0.253	-0.150	0.083	0.131	339.594650	3.574222	-1534.85	-1242.81
4	GUIDE	used	74727584	6.99	14727	-0.164	-0.063	0.051	0.082	339.633744	3.463732	-1119.79	-1315.20
5	GUIDE	used	74842128	8.53	14721	-0.104	-0.068	0.087	0.138	340.118134	3.132788	771.61	-380.99
6	GUIDE	used	74854992	8.29	14724	-0.120	-0.090	0.070	0.109	340.342808	3.603730	-311.66	1152.80
7	GUIDE	used	74855640	8.84	14716	0.134	0.374	0.101	0.156	340.341123	3.746937	-764.21	1400.69

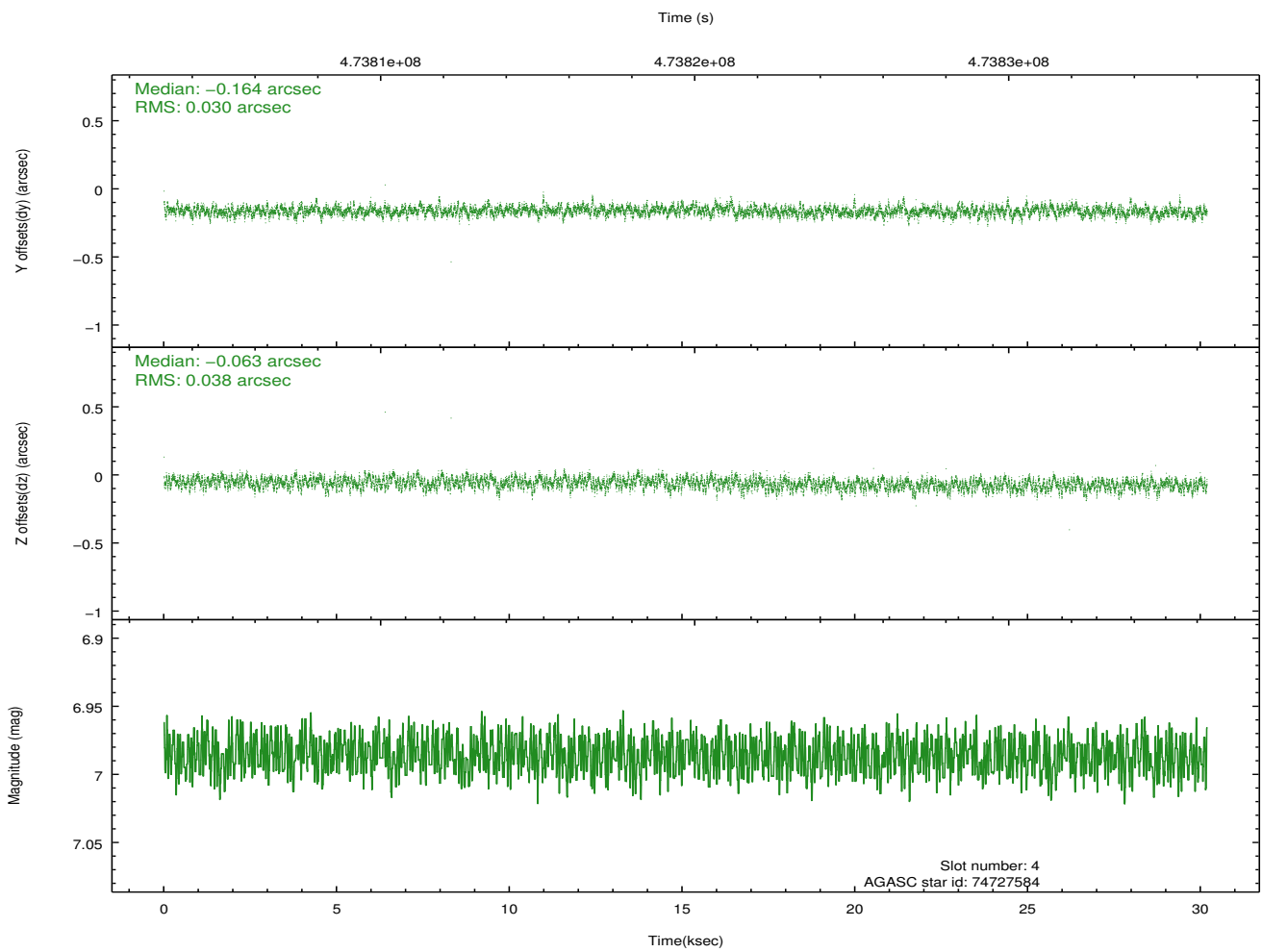
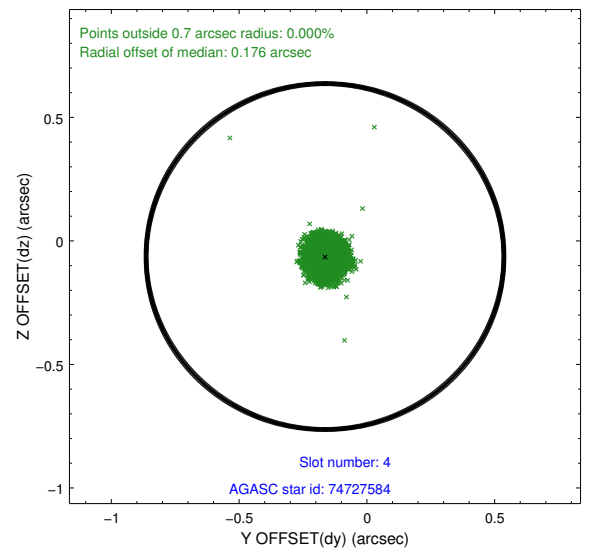
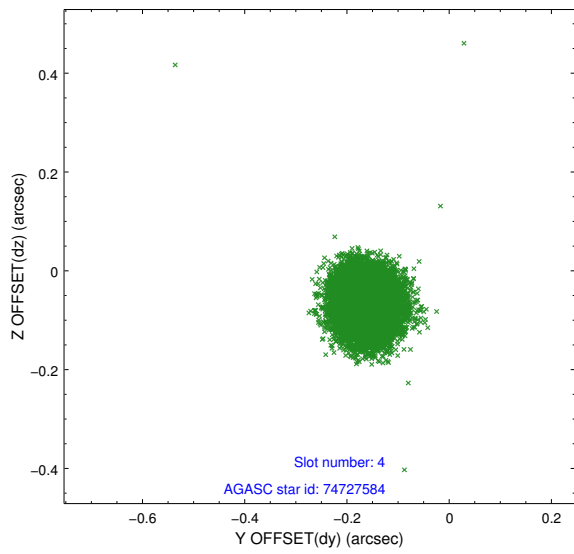
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2.4 Star Slots

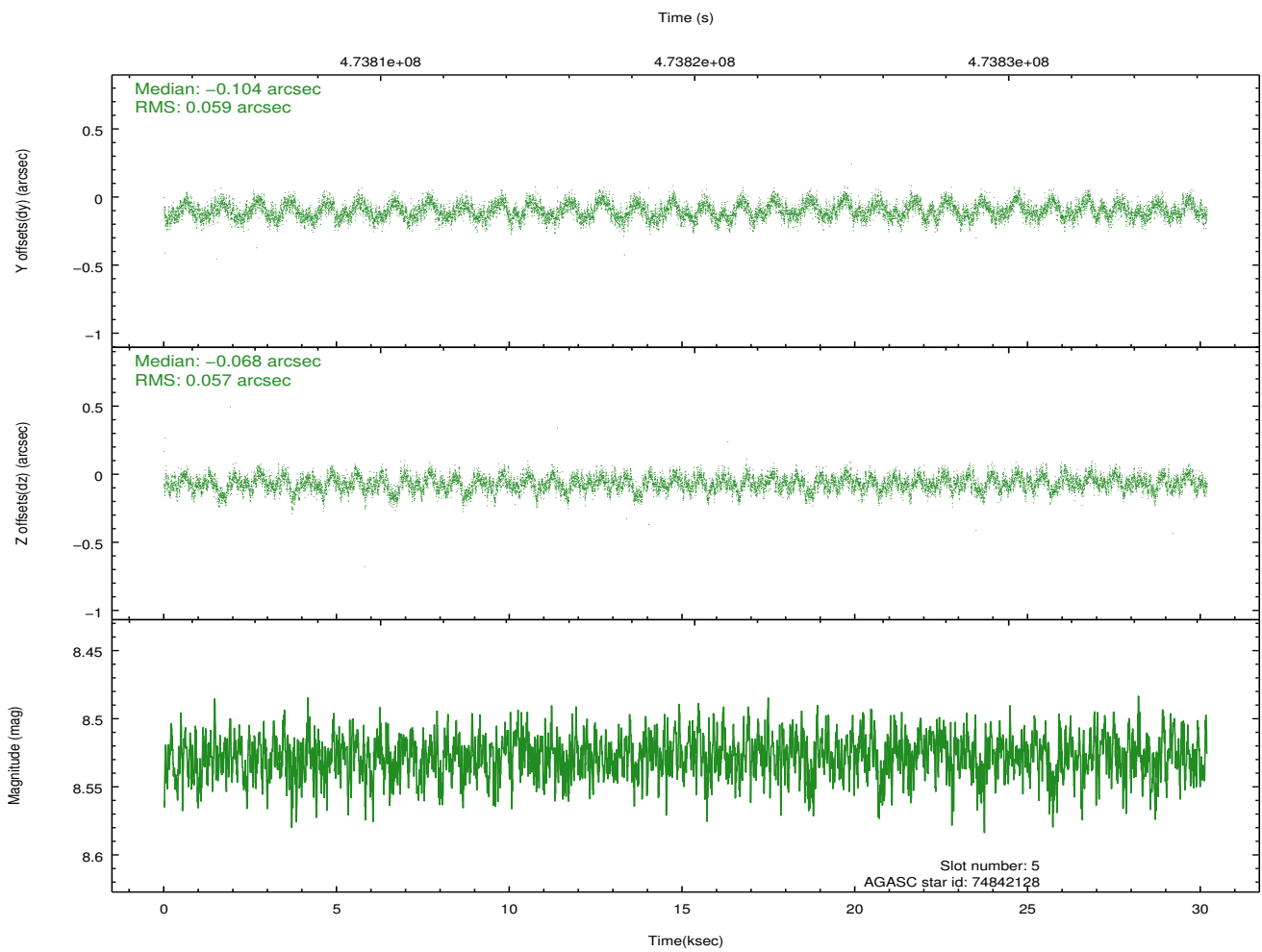
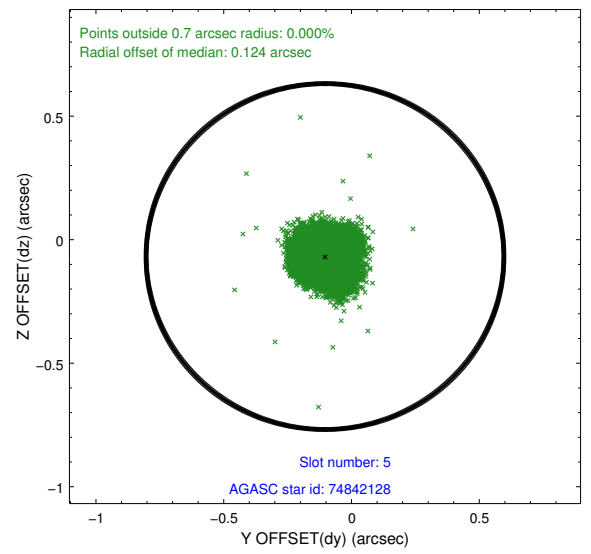
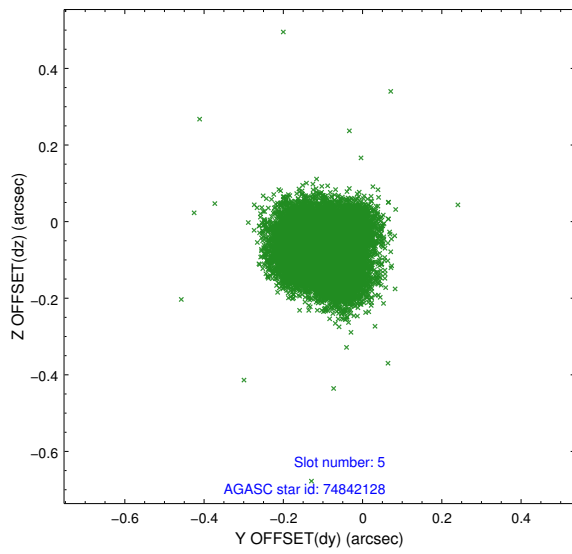
2.4.1 Slot 3



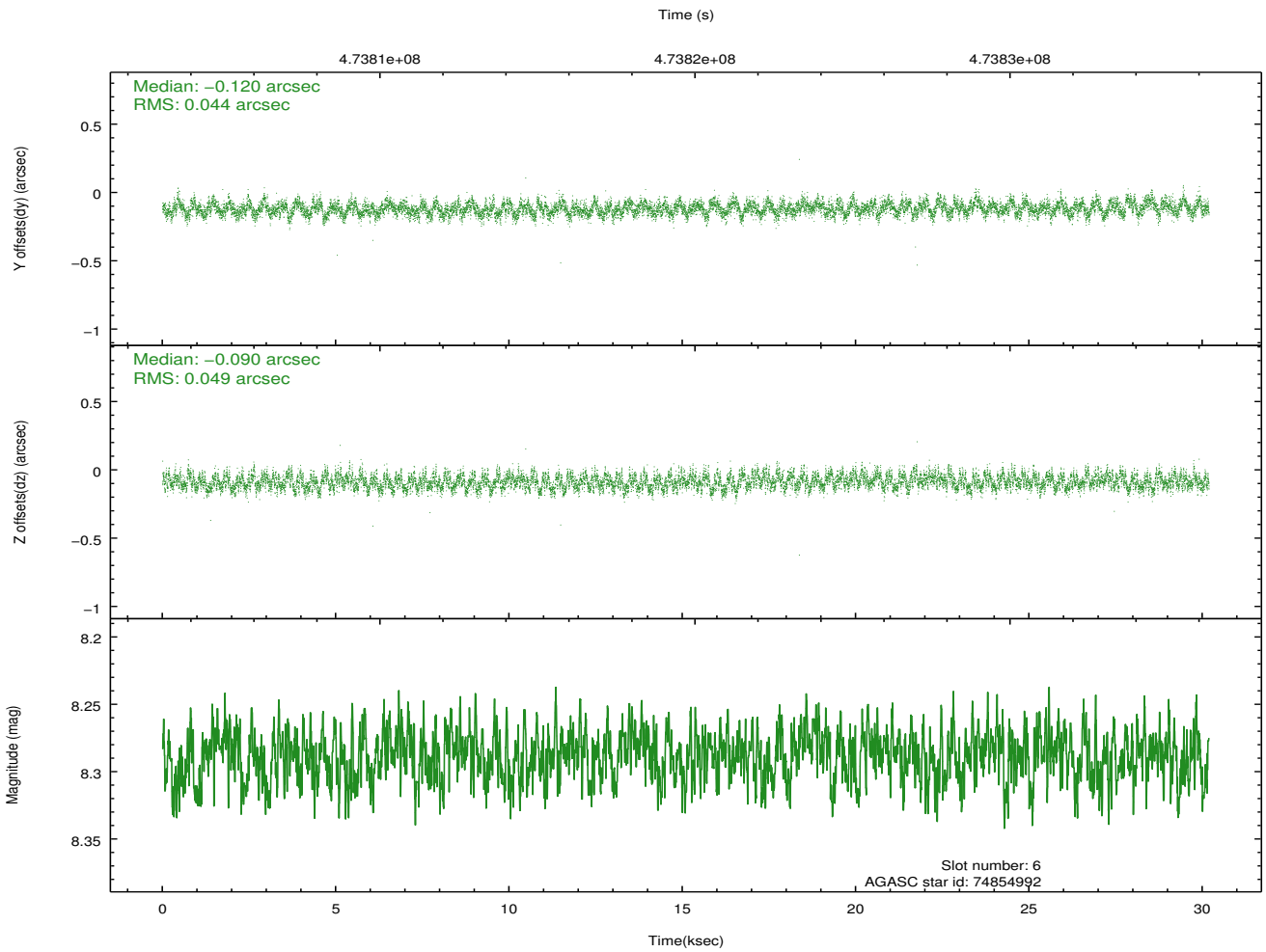
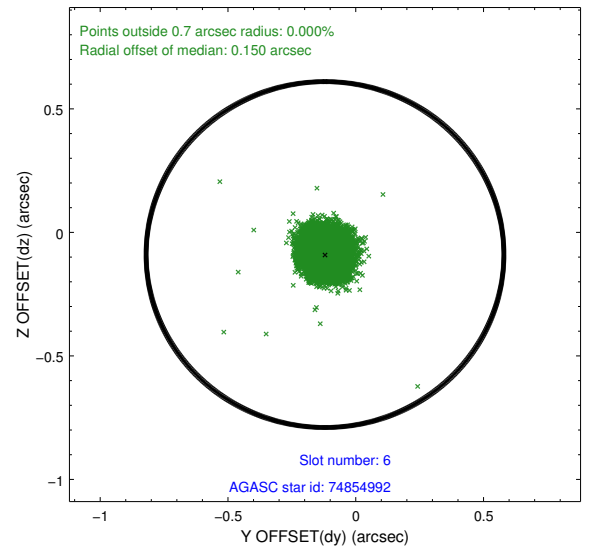
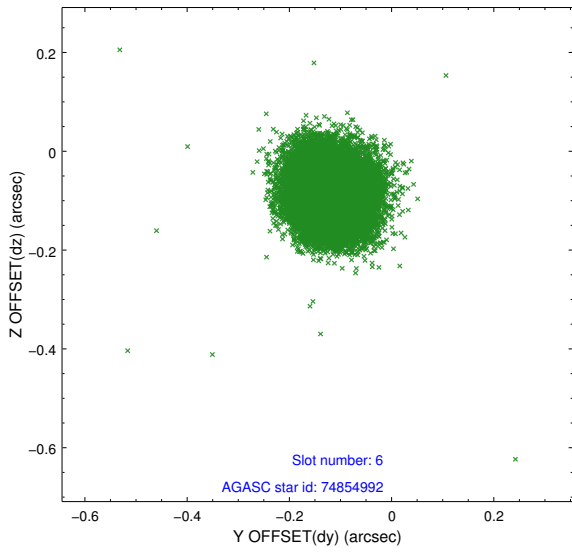
2.4.2 Slot 4



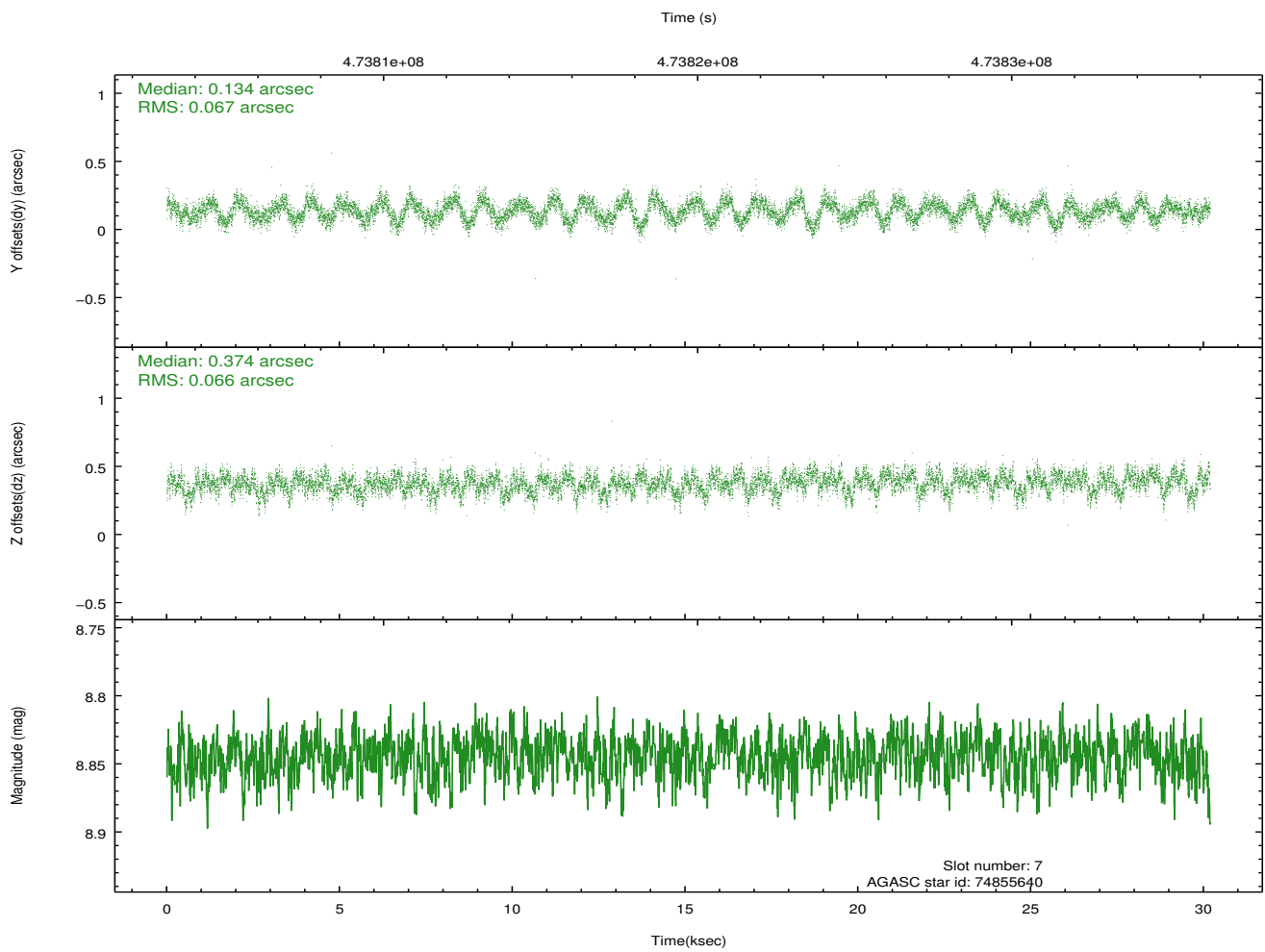
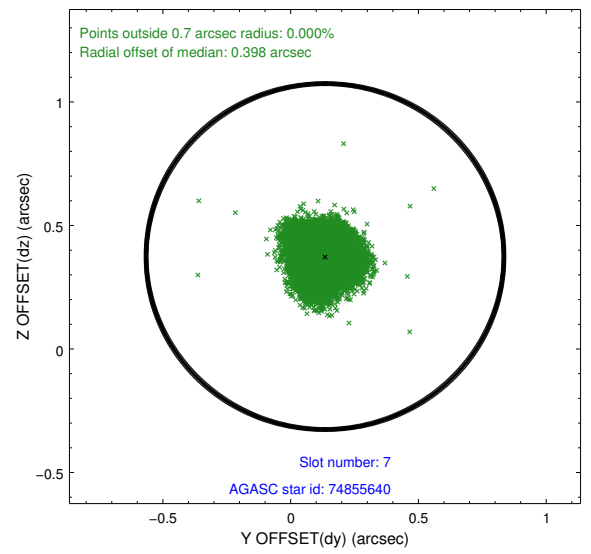
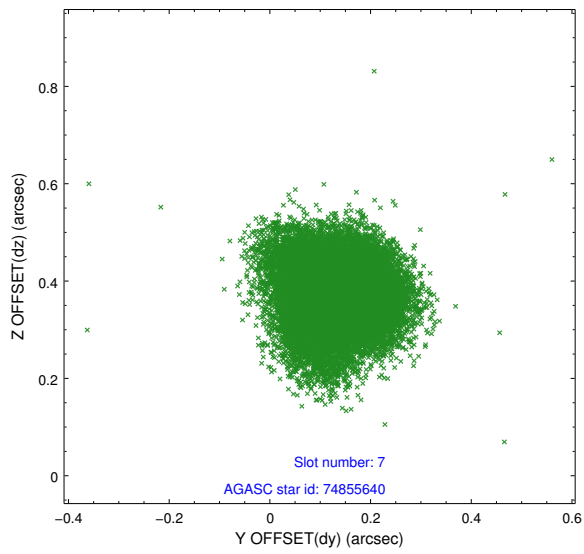
2.4.3 Slot 5



2.4.4 Slot 6

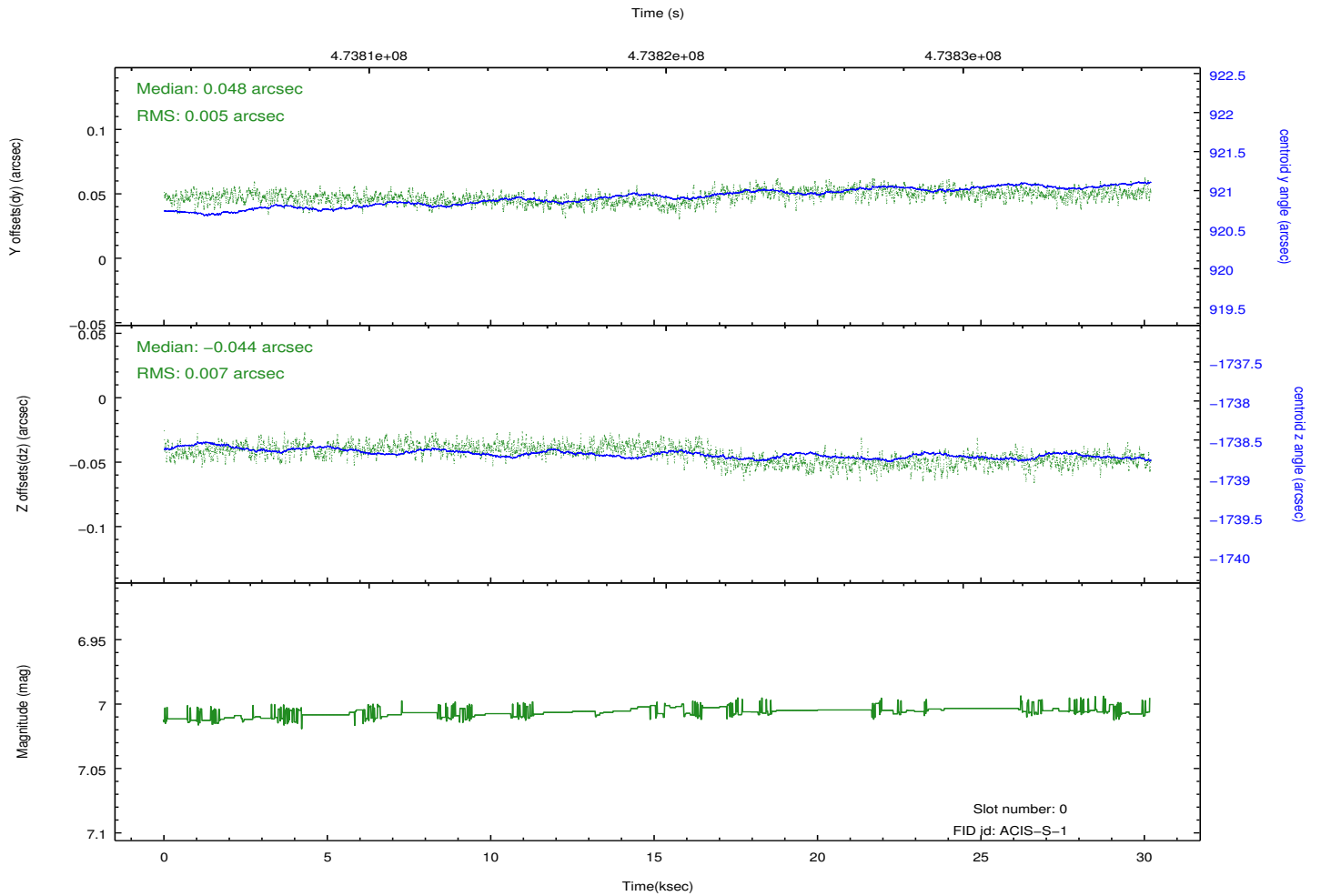
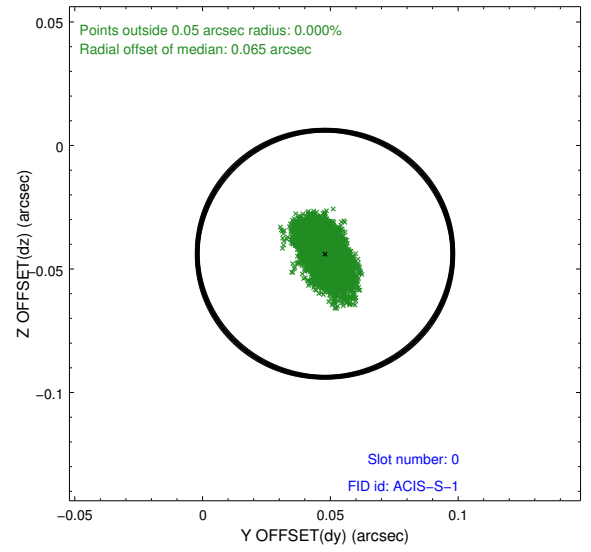
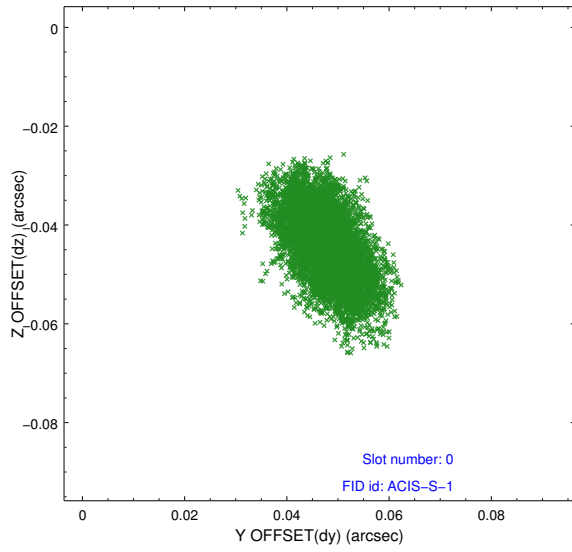


2.4.5 Slot 7

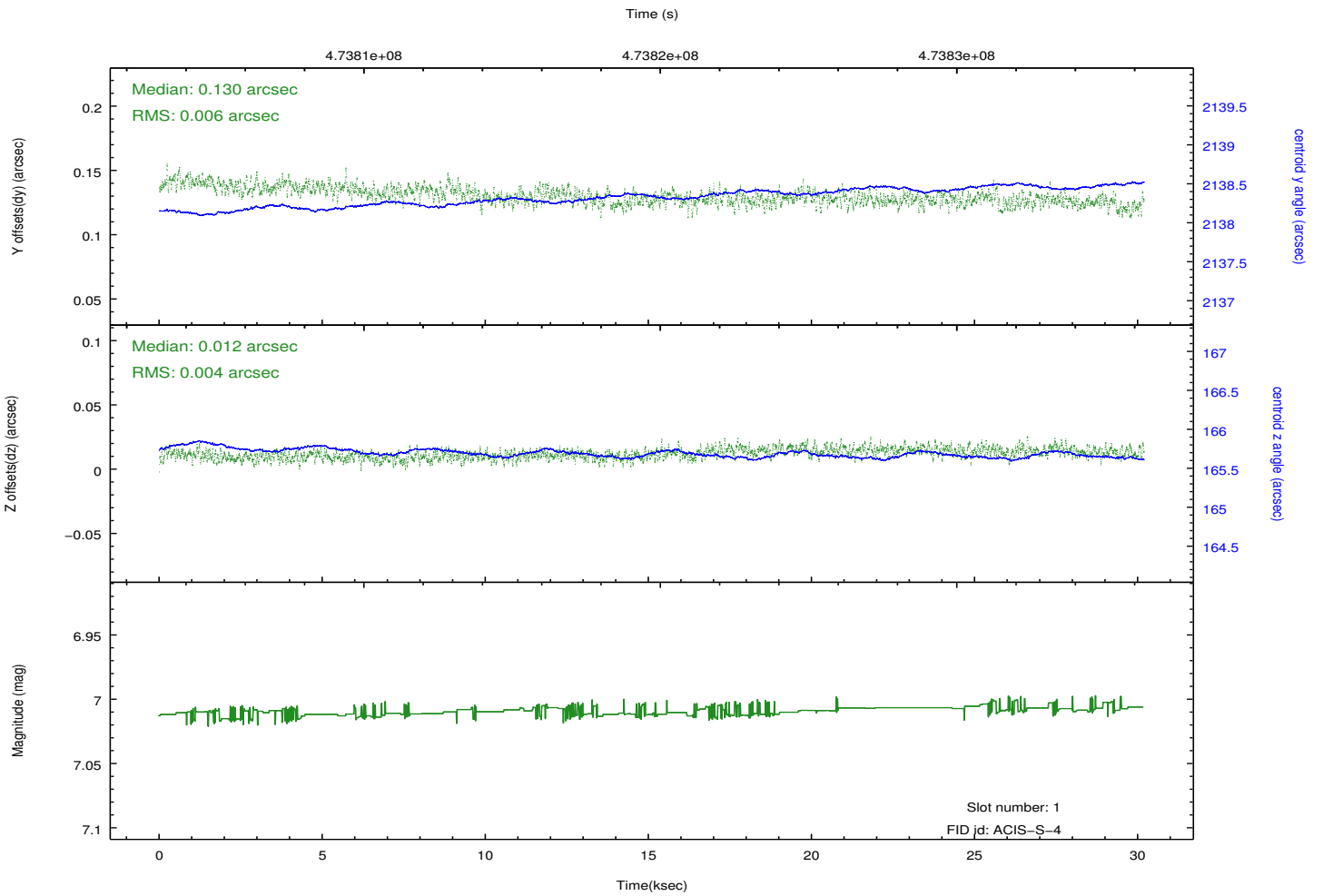
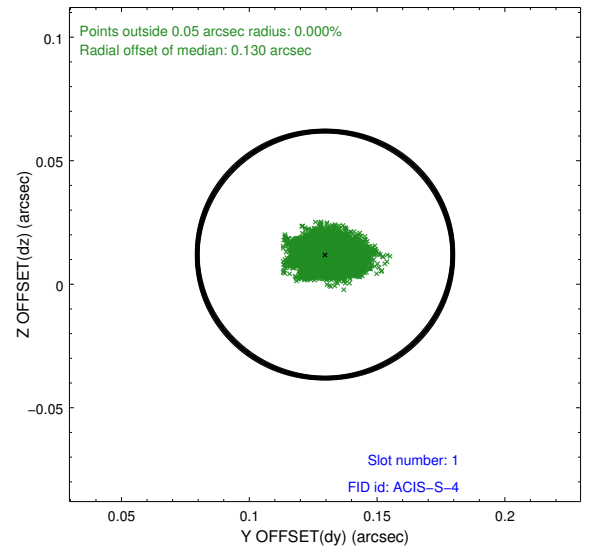
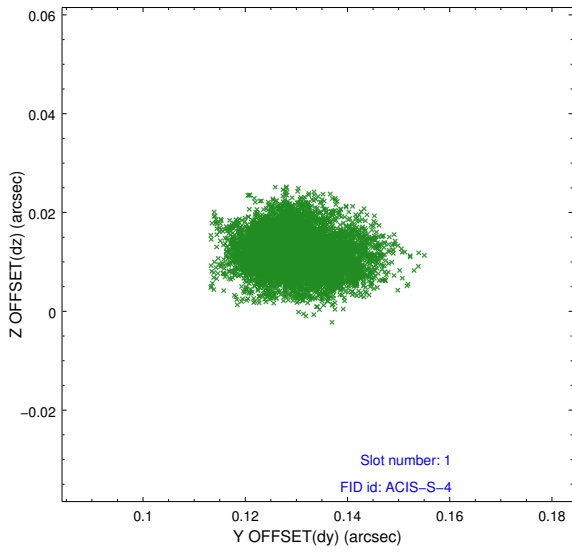


2.5 FID Slots

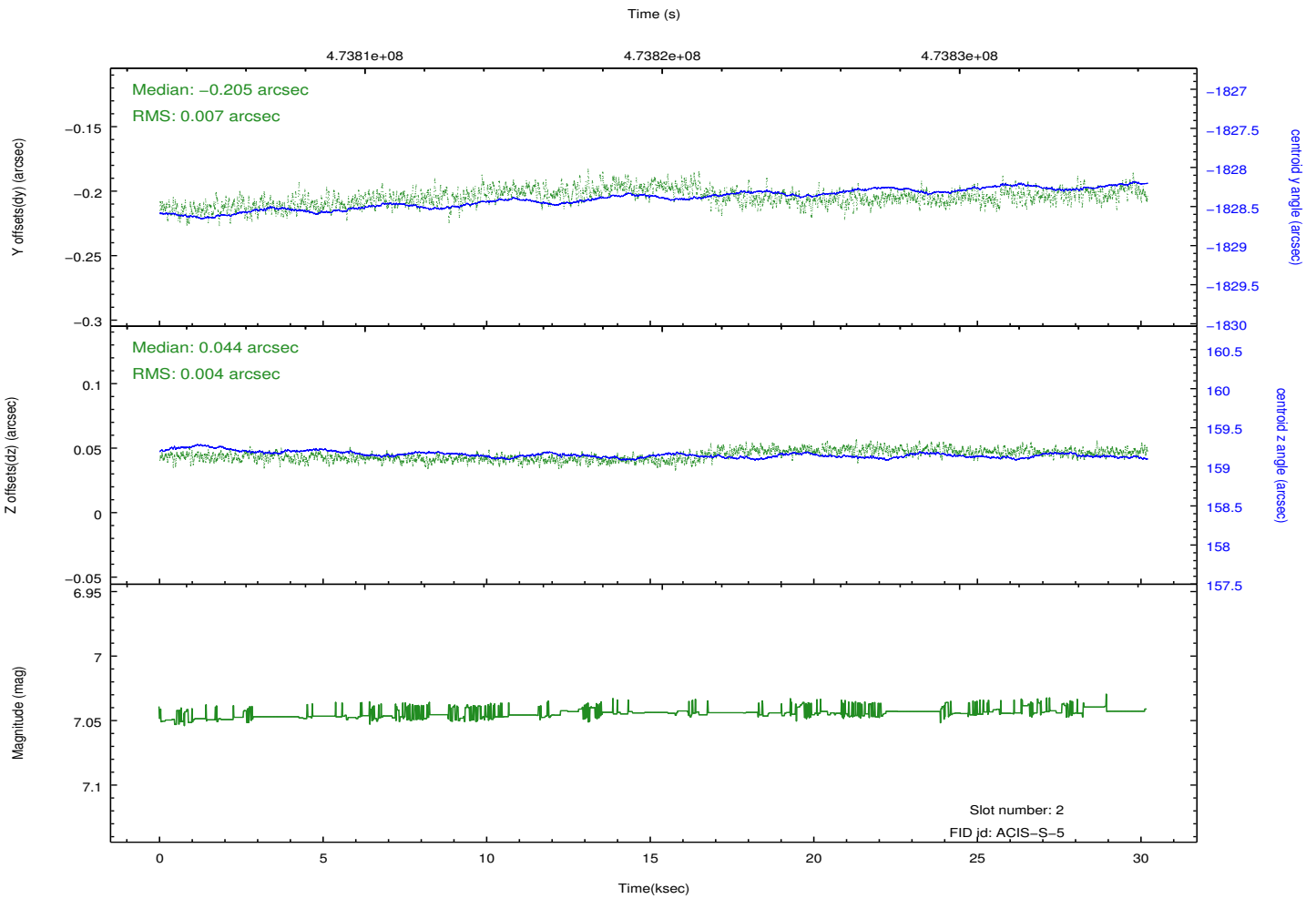
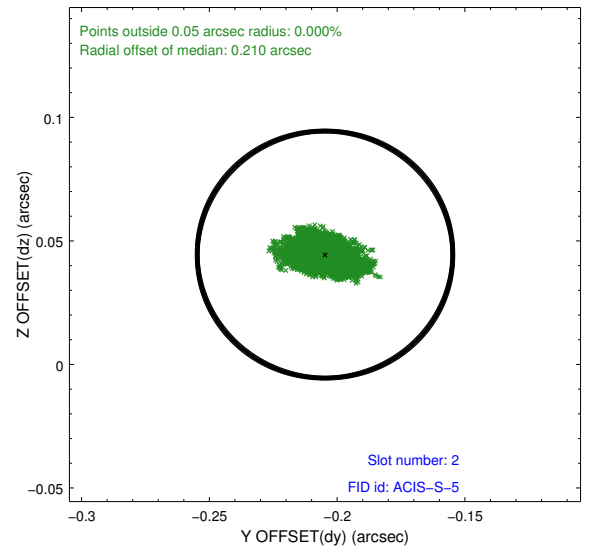
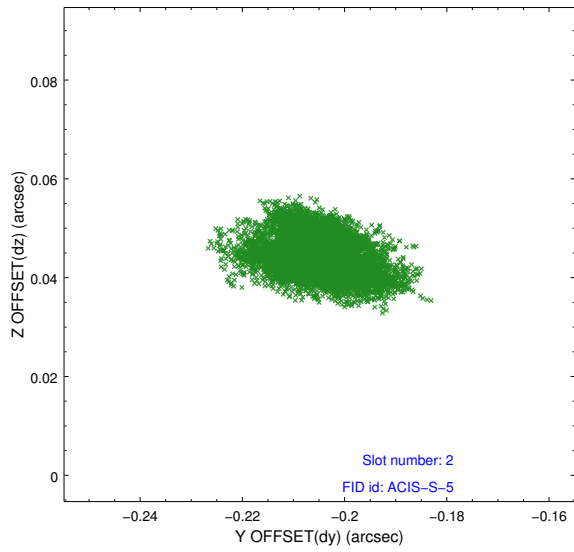
2.5.1 Slot 0



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)	2014.12.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.064499789238

A.2 Comments

Joint Proposal: 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.