

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 14513 - L2 Version 2
Chandra X-Ray Center

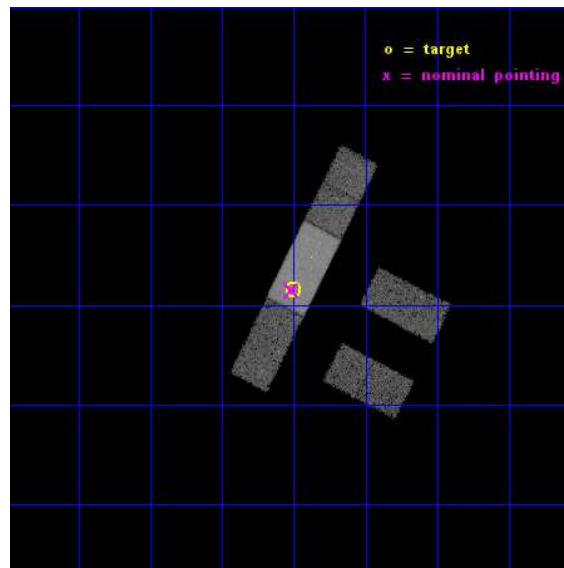
L2 Processing Date : Nov 30 2014

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

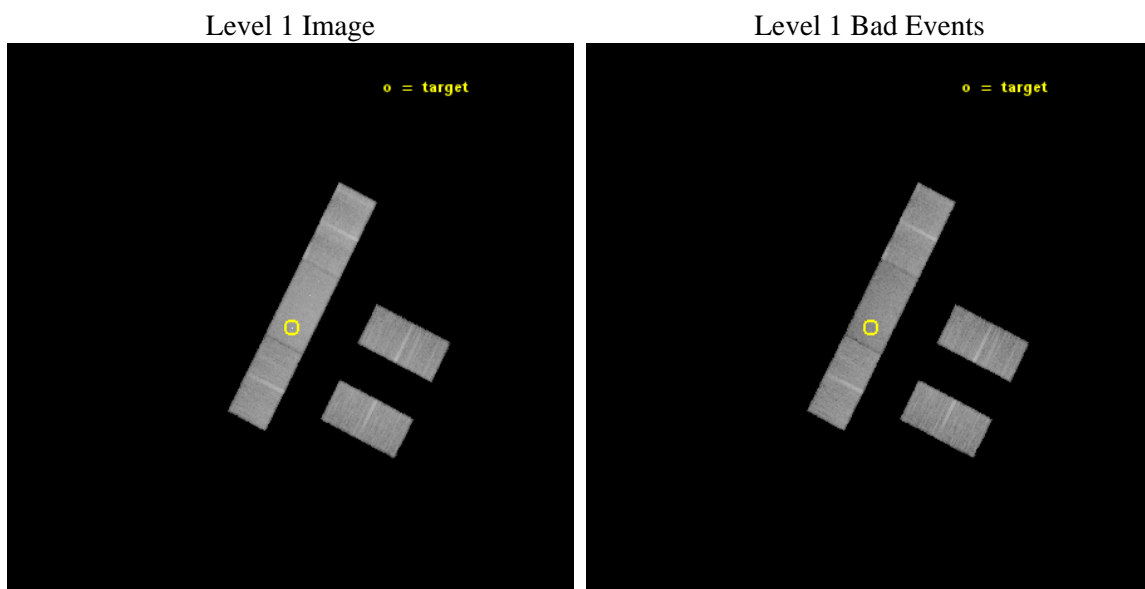
seq_num	702750	Sequence number
obs_id	14513	Observation id
title	ENERGY DEPENDENT X-RAY MICROLENSING AND THE STRUCTURE OF QUASARS	P
observer	Prof. Christopher Kochanek	Principal investigator
object	Q2237+0305	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	340.12625	Observer's specified target RA [deg]
dec_targ	3.358	Observer's specified target Dec [deg]
ra_nom	340.12926540911	Nominal RA [deg]
dec_nom	3.3577077283476	Nominal Dec [deg]
roll_nom	296.93249495199	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29314.799794495	Sum of GTIs [s]
livetime	28623.787880027	Livetime [s]
ontime2	29314.799794495	Sum of GTIs [s]
ontime3	29313.058804274	Sum of GTIs [s]
ontime6	29314.799794495	Sum of GTIs [s]
ontime7	29314.799794495	Sum of GTIs [s]
ontime8	29314.799794495	Sum of GTIs [s]
l2events	86112	Number of level 2 events



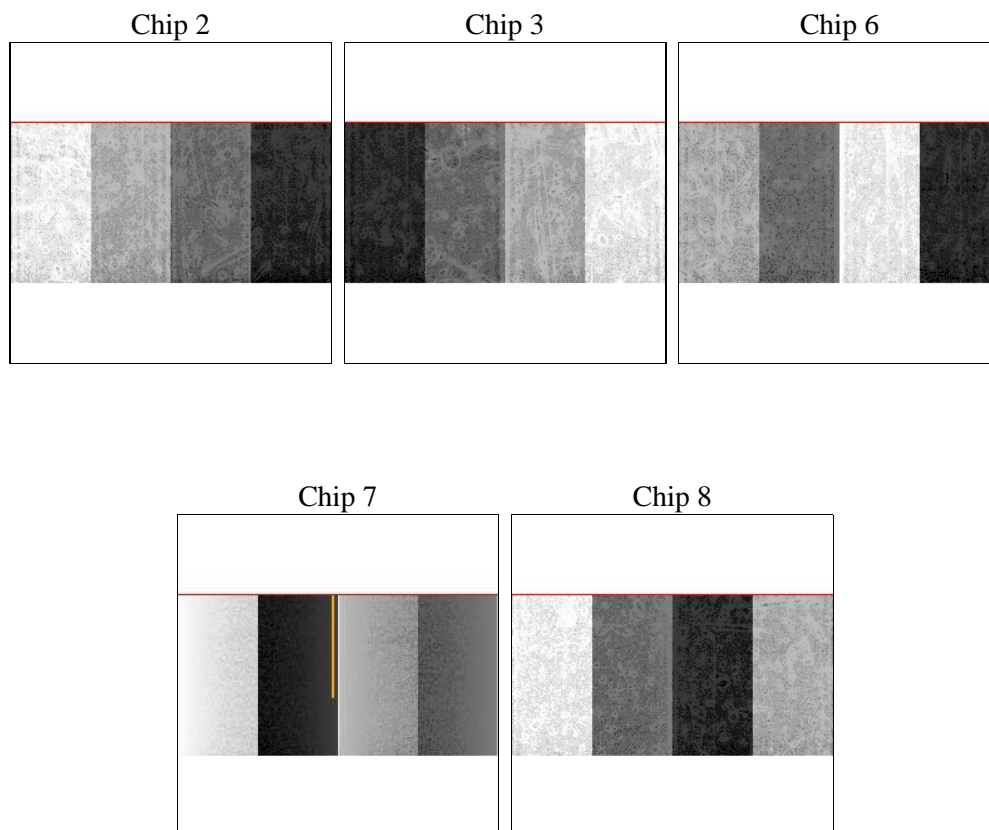
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29250.045000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	29314.799794495	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	29314.799794495	Sum of GTIs [s]
date	2014-11-30T19:46:02	Date and time of file creation	ontime3	29313.058804274	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	29314.799794495	Sum of GTIs [s]
			ontime7	29314.799794495	Sum of GTIs [s]
			ontime8	29314.799794495	Sum of GTIs [s]
			l1events	489967	Number of level 1 events

2.1.4 Events

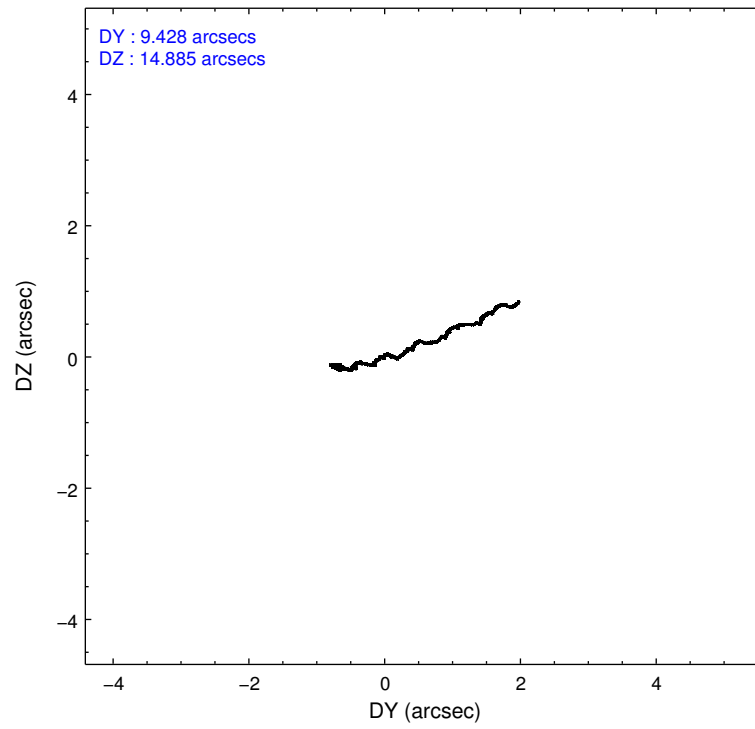
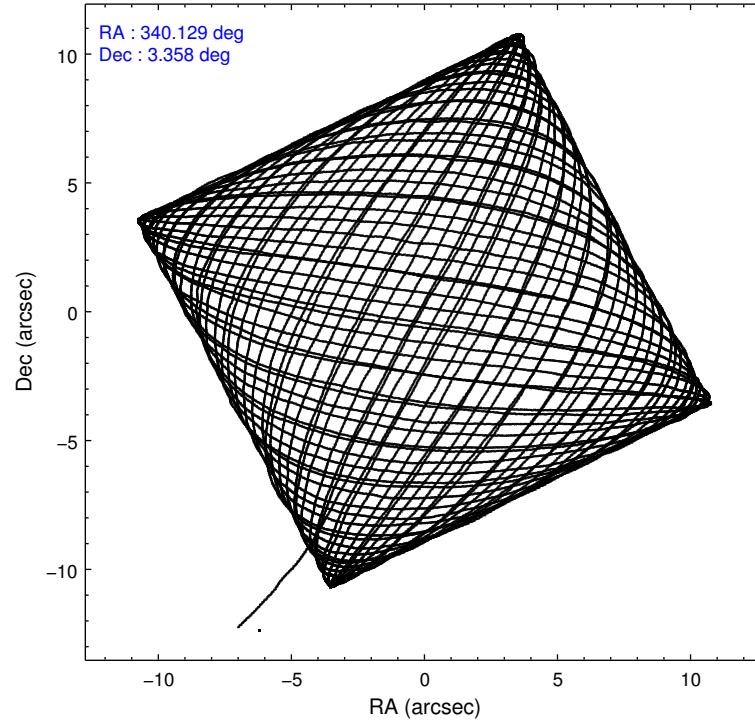
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	83465	83506	91549	113962	117485
rejected events	73799	74067	80932	62017	86767
rejected %	88%	88%	88%	54%	73%

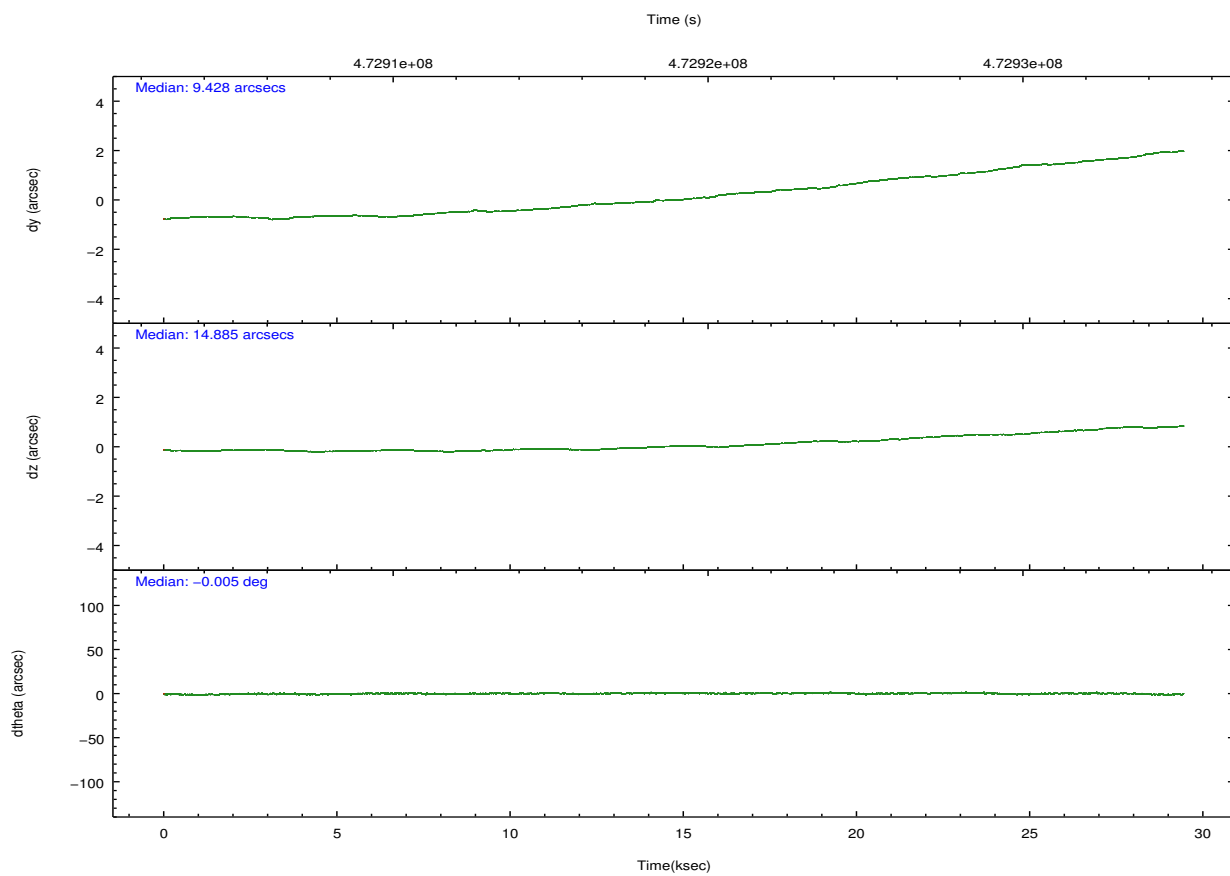
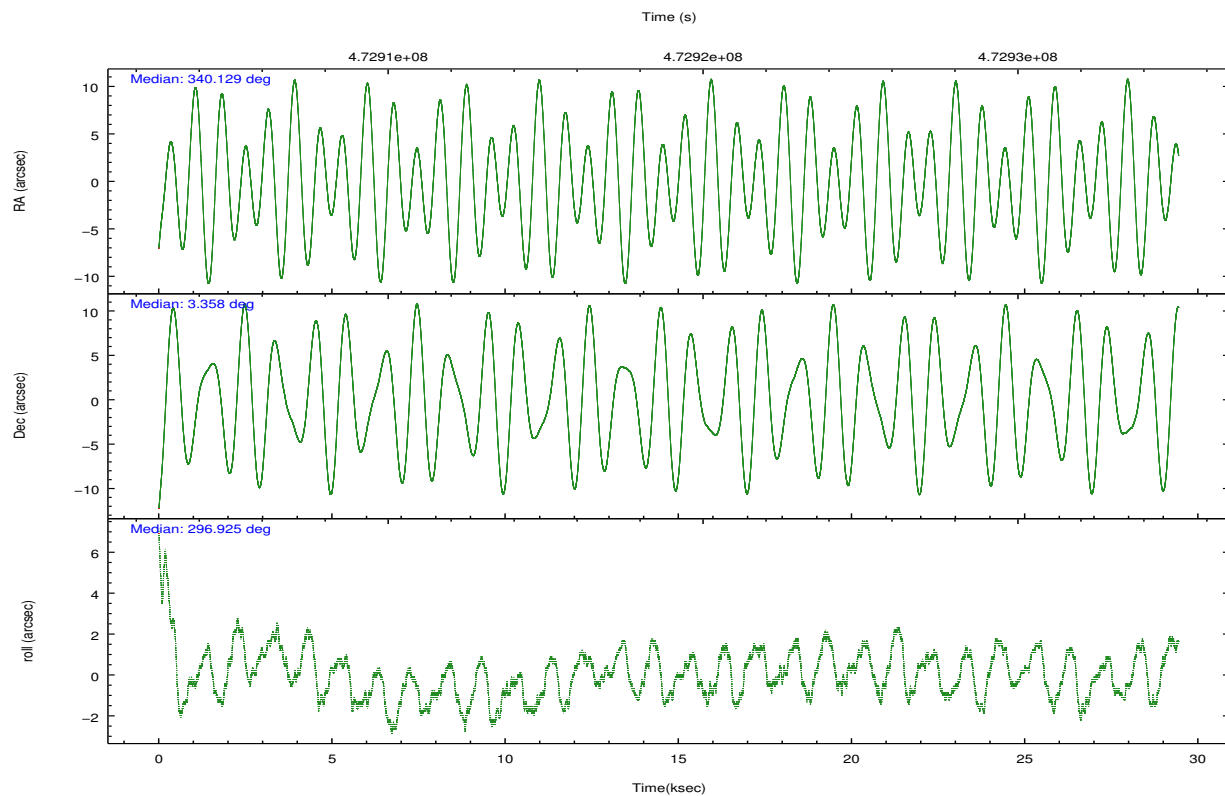
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	3208	3147	3409	5233	9037
	3%	3%	3%	4%	7%
grade 1 events	37	47	41	184	84
	0%	0%	0%	0%	0%
grade 2 events	2198	2076	2367	10824	7039
	2%	2%	2%	9%	5%
grade 3 events	1187	1161	1274	5078	3312
	1%	1%	1%	4%	2%
grade 4 events	1186	1148	1246	5112	3104
	1%	1%	1%	4%	2%
grade 5 events	3459	4120	4413	11719	5978
	4%	4%	4%	10%	5%
grade 6 events	1887	1907	2321	25700	8227
	2%	2%	2%	22%	7%
grade 7 events	70303	69900	76478	50112	80704
	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	340.106114	340.1292654091093	CCD I2 on	O4	Y
[deg] Pointing Dec	3.372305	3.357707728347567	CCD I3 on	O3	Y
[deg] Pointing Roll	296.777232	296.932494951988	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)	472904389.184000	472903405.61532	CCD S5 on	N	N
Observation start date	2012-12-26T10:18:42	2012-12-26T10:03:25	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	472933639.184000	472933865.02946	On-chip summing requested	N	N
Observation end date	2012-12-26T18:26:12	2012-12-26T18:31:05	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



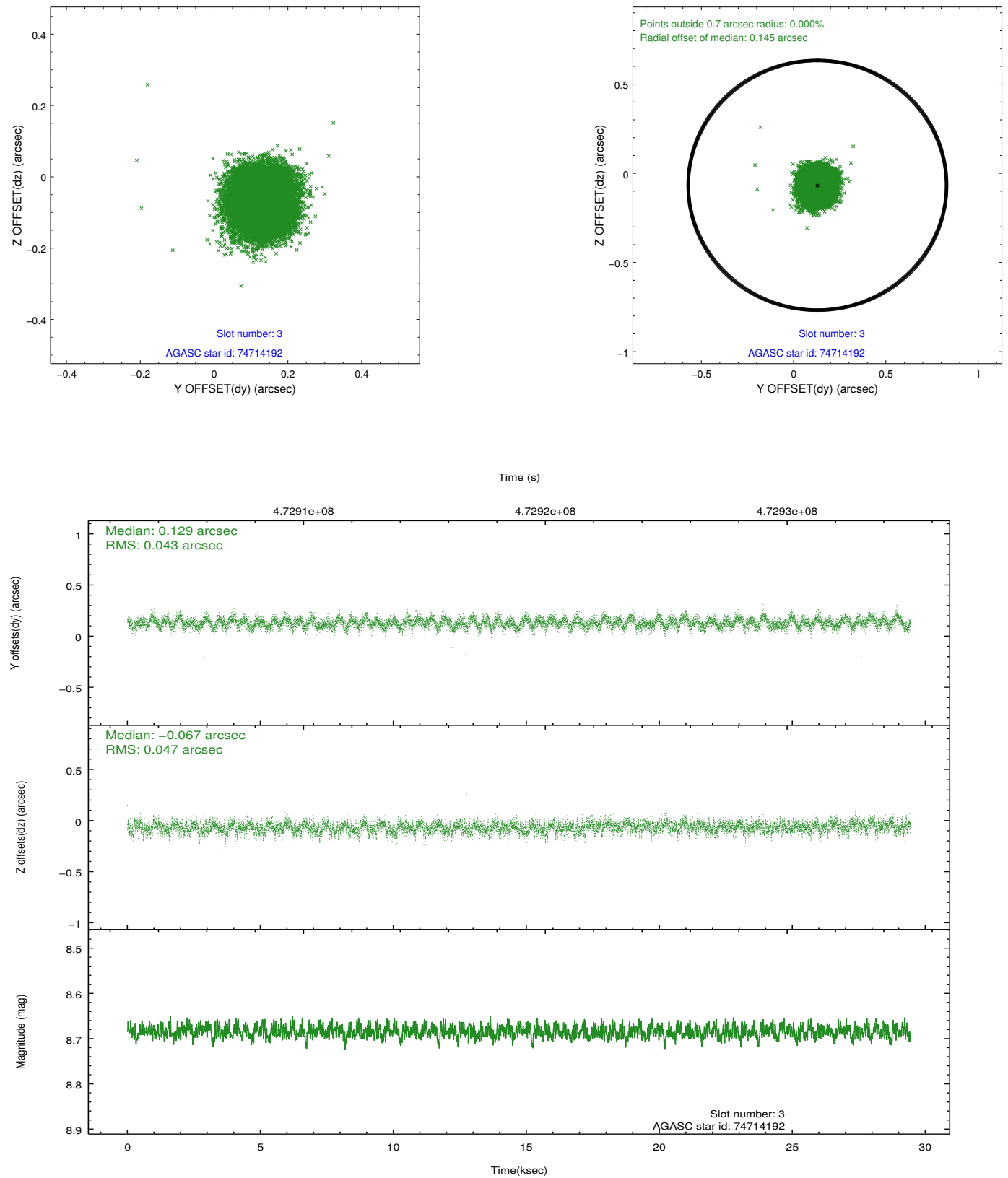


Slot Statistics

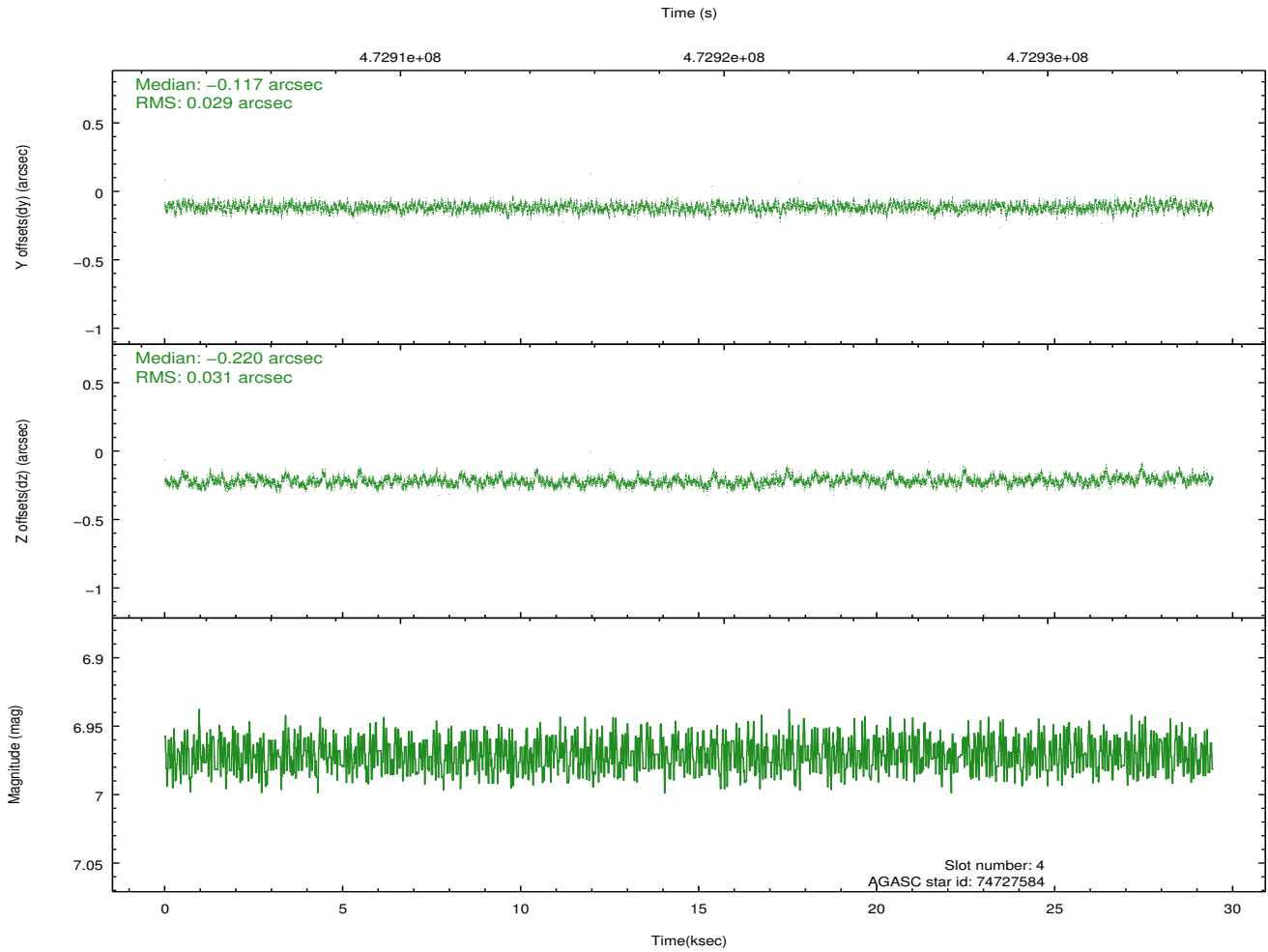
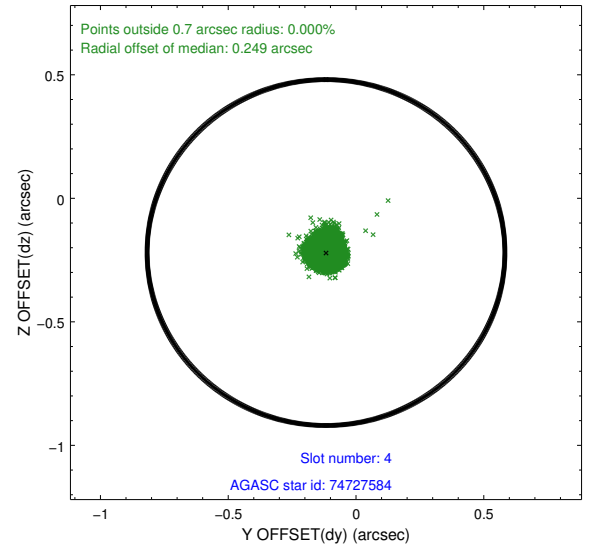
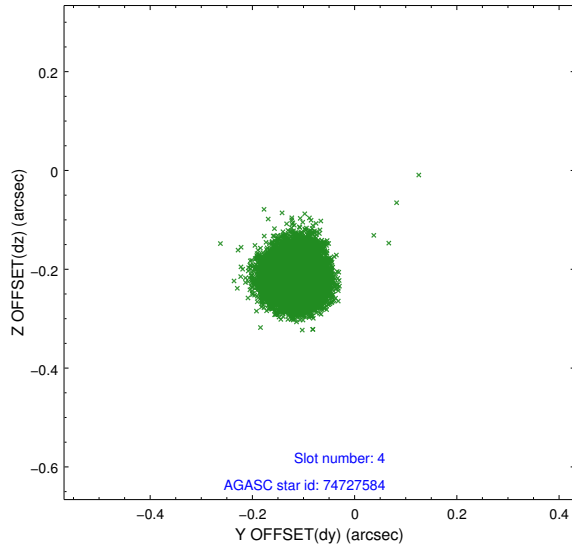
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.03	7181	0.031	-0.005	0.019	0.036	0.000000	0.000000	933.58	-1731.98
1	FID		ACIS-S-4	7.03	7180	0.129	-0.007	0.018	0.035	0.000000	0.000000	2151.12	172.10
2	FID		ACIS-S-5	7.06	7181	-0.187	0.027	0.015	0.032	0.000000	0.000000	-1815.41	165.81
3	GUIDE	used	74714192	8.68	14358	0.129	-0.067	0.068	0.109	339.623837	3.342441	-684.60	-1595.46
4	GUIDE	used	74727584	6.97	14362	-0.117	-0.220	0.045	0.072	339.633744	3.463732	-1058.60	-1367.08
5	GUIDE	used	74842128	8.54	14360	0.002	-0.036	0.071	0.125	340.118134	3.132788	789.64	-349.97
6	GUIDE	used	74854992	8.28	14359	-0.121	-0.021	0.056	0.090	340.342808	3.603730	-360.48	1134.47
7	GUIDE	used	74855640	8.85	14358	0.105	0.350	0.076	0.123	340.341123	3.746937	-823.57	1362.01

2.4 Star Slots

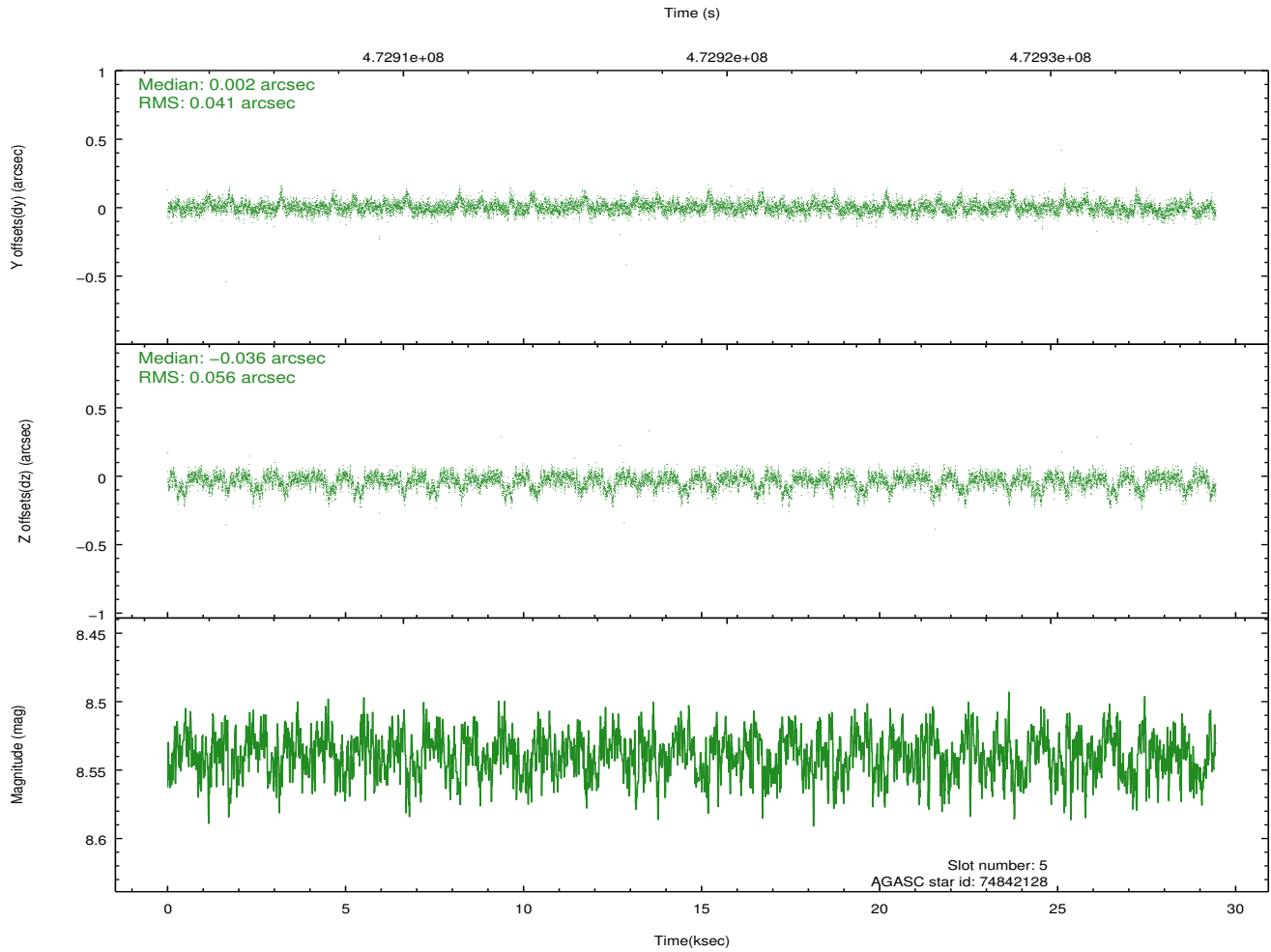
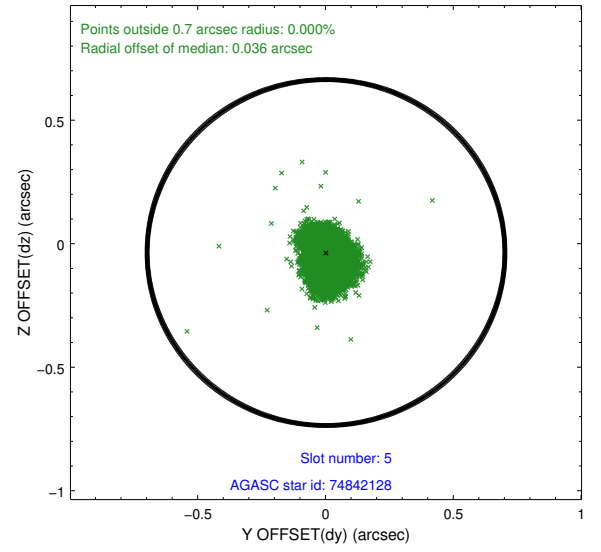
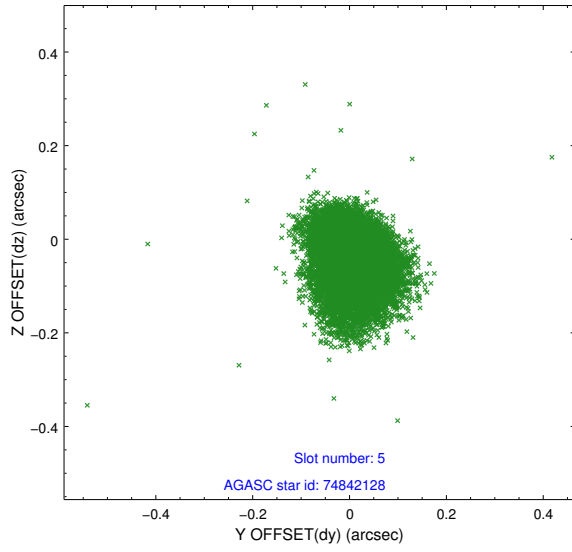
2.4.1 Slot 3



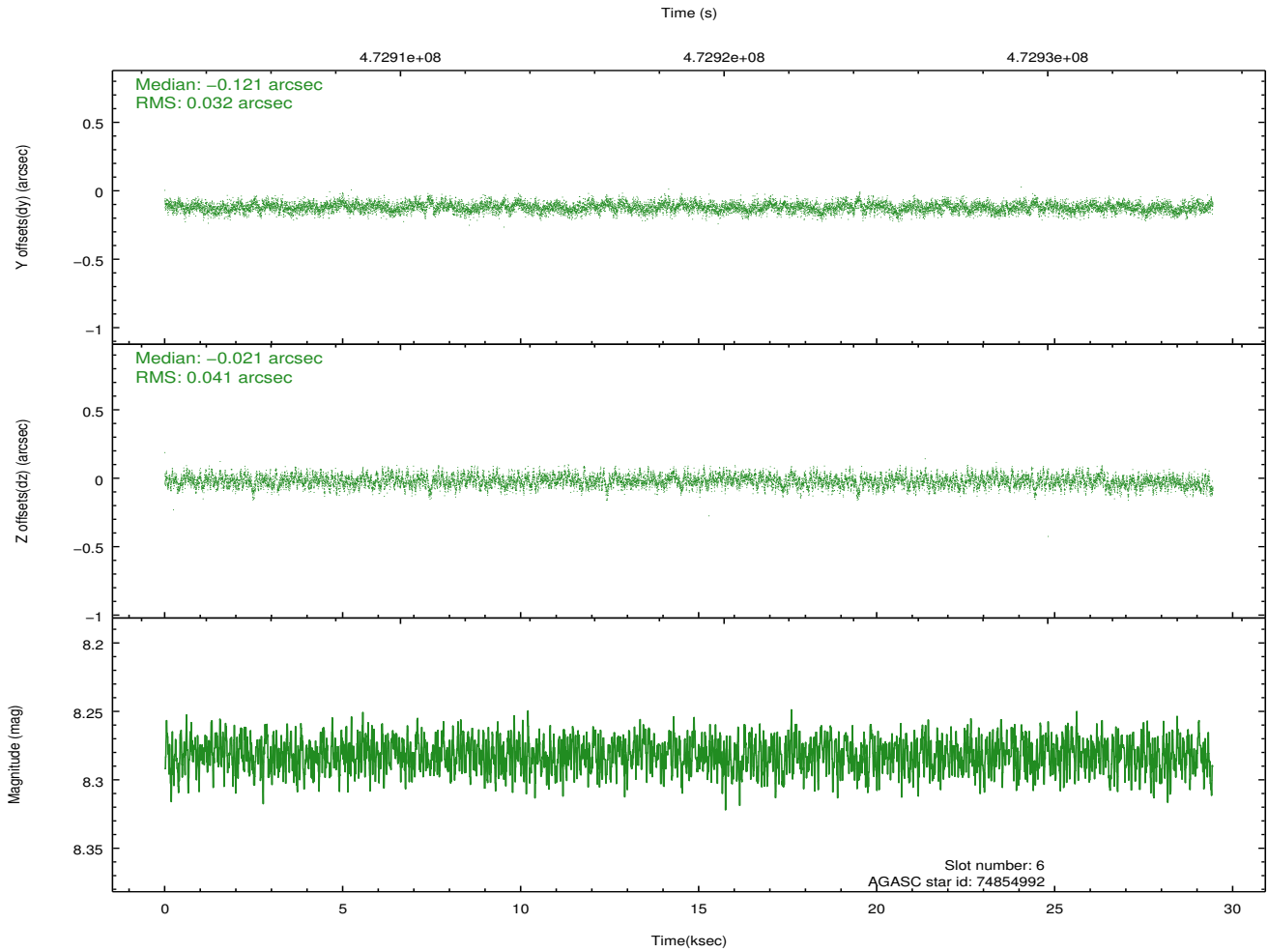
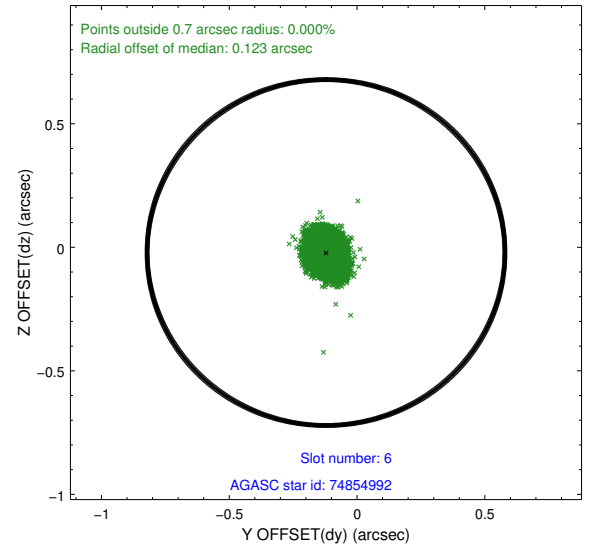
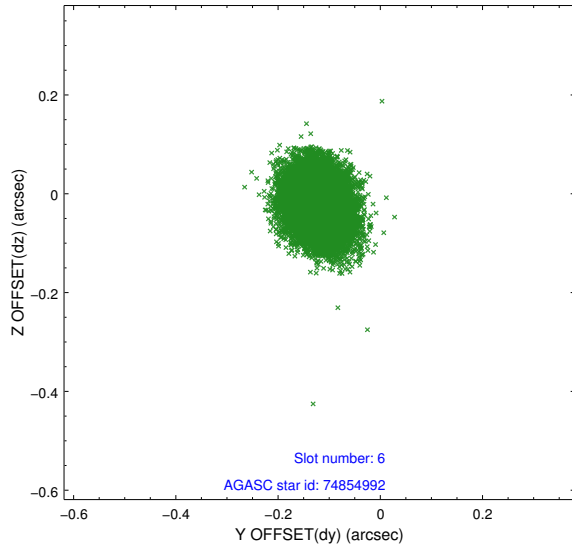
2.4.2 Slot 4



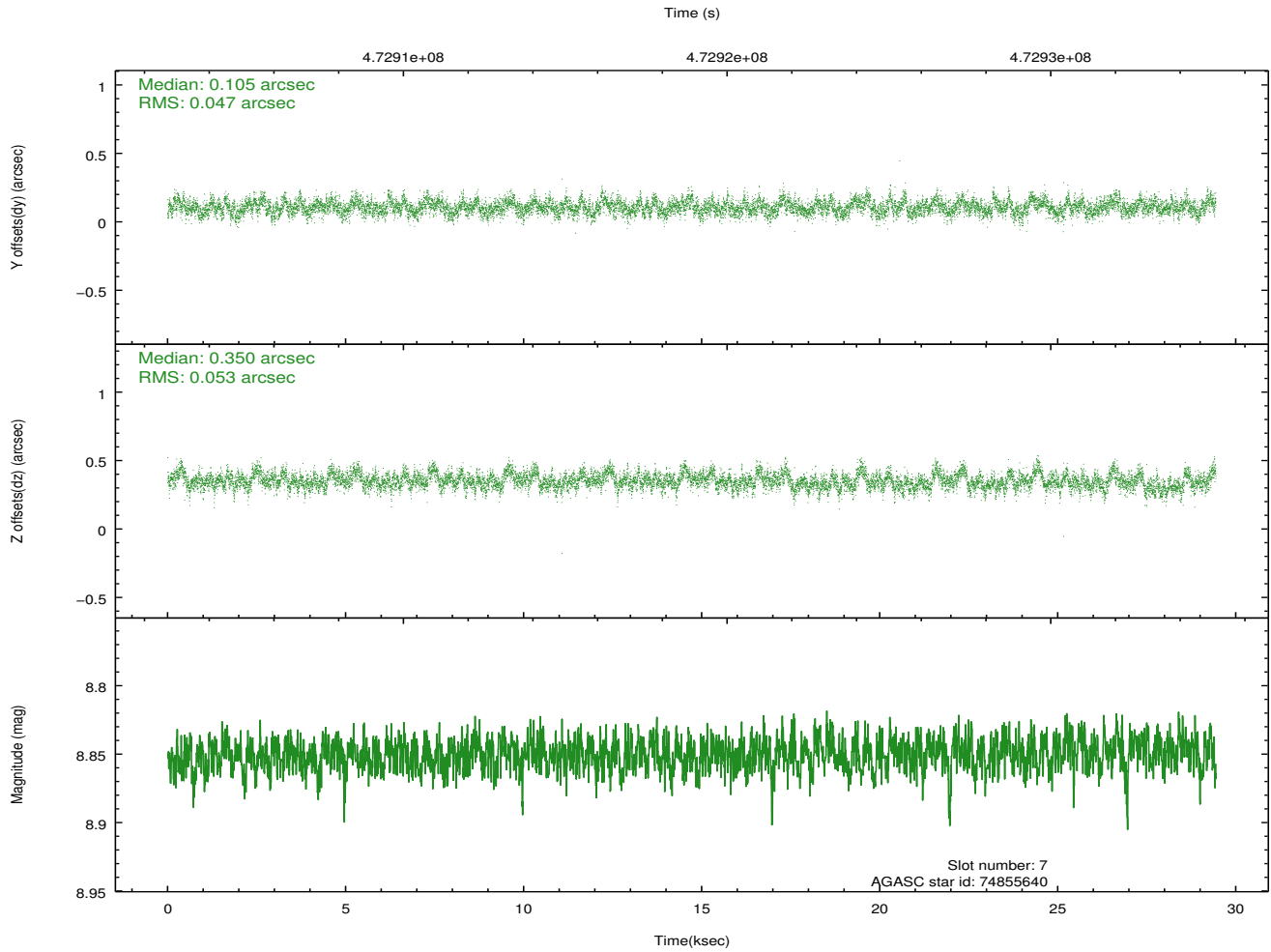
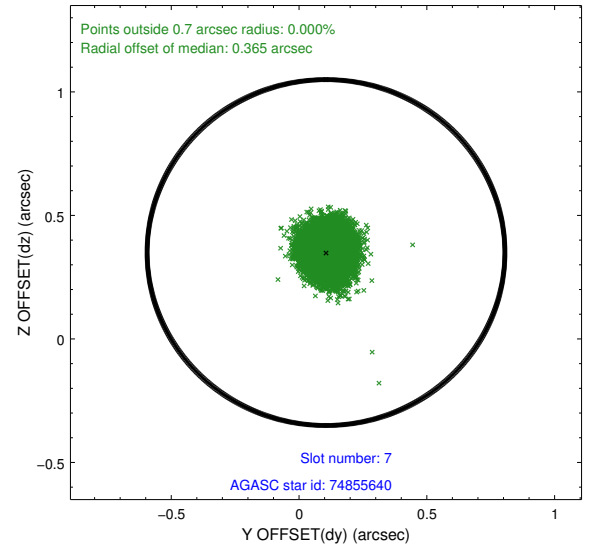
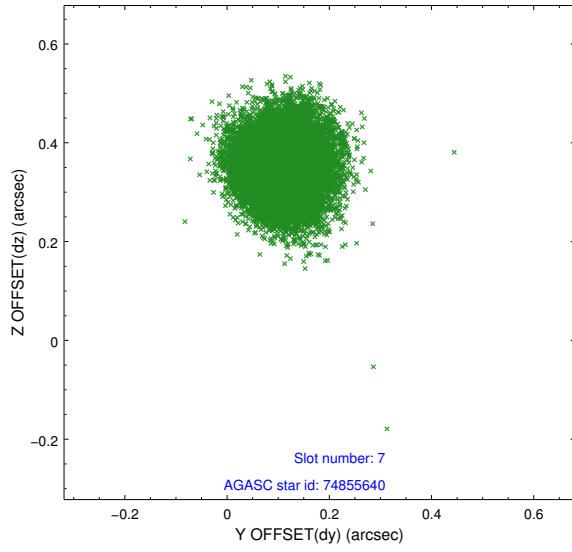
2.4.3 Slot 5



2.4.4 Slot 6

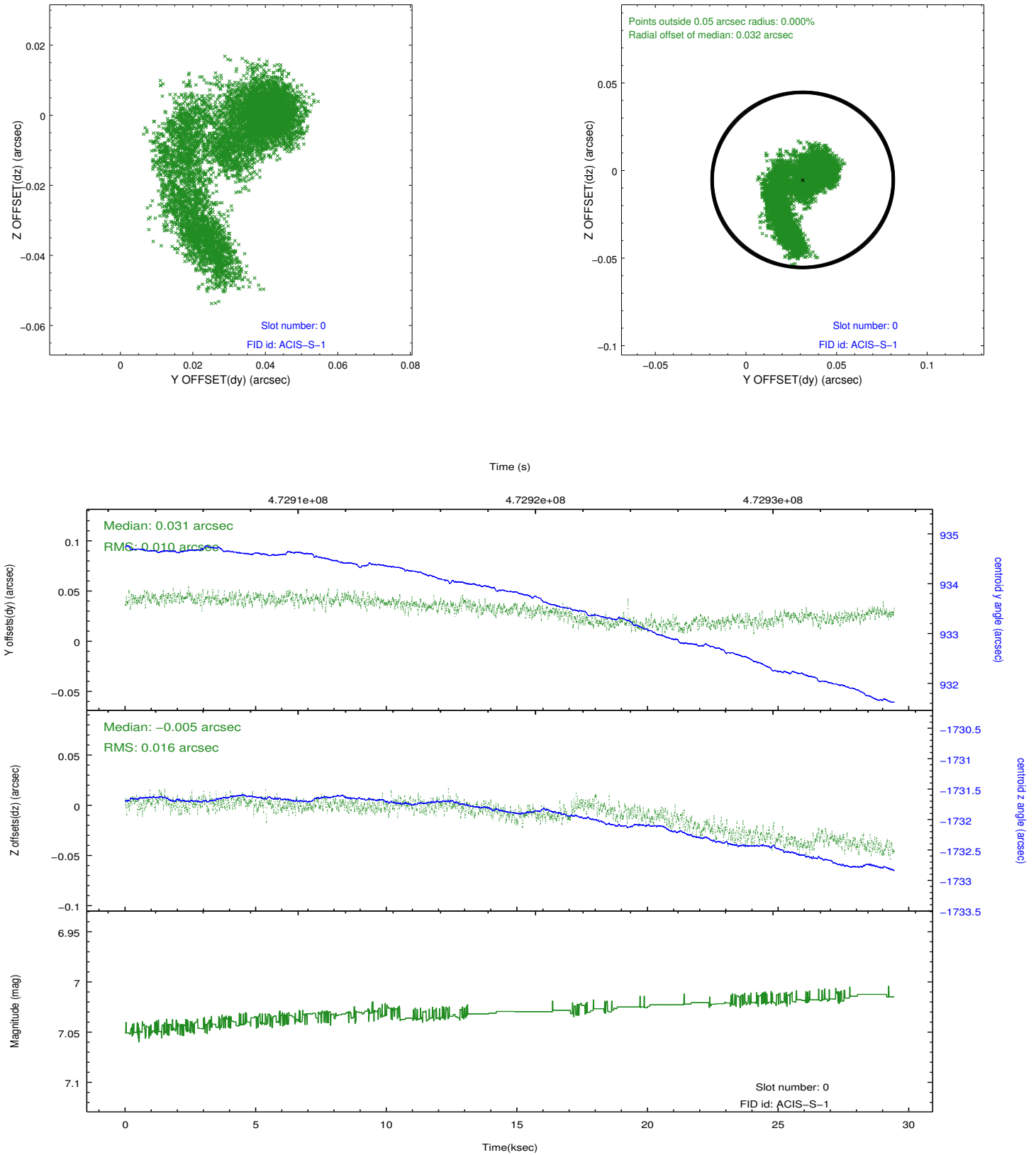


2.4.5 Slot 7

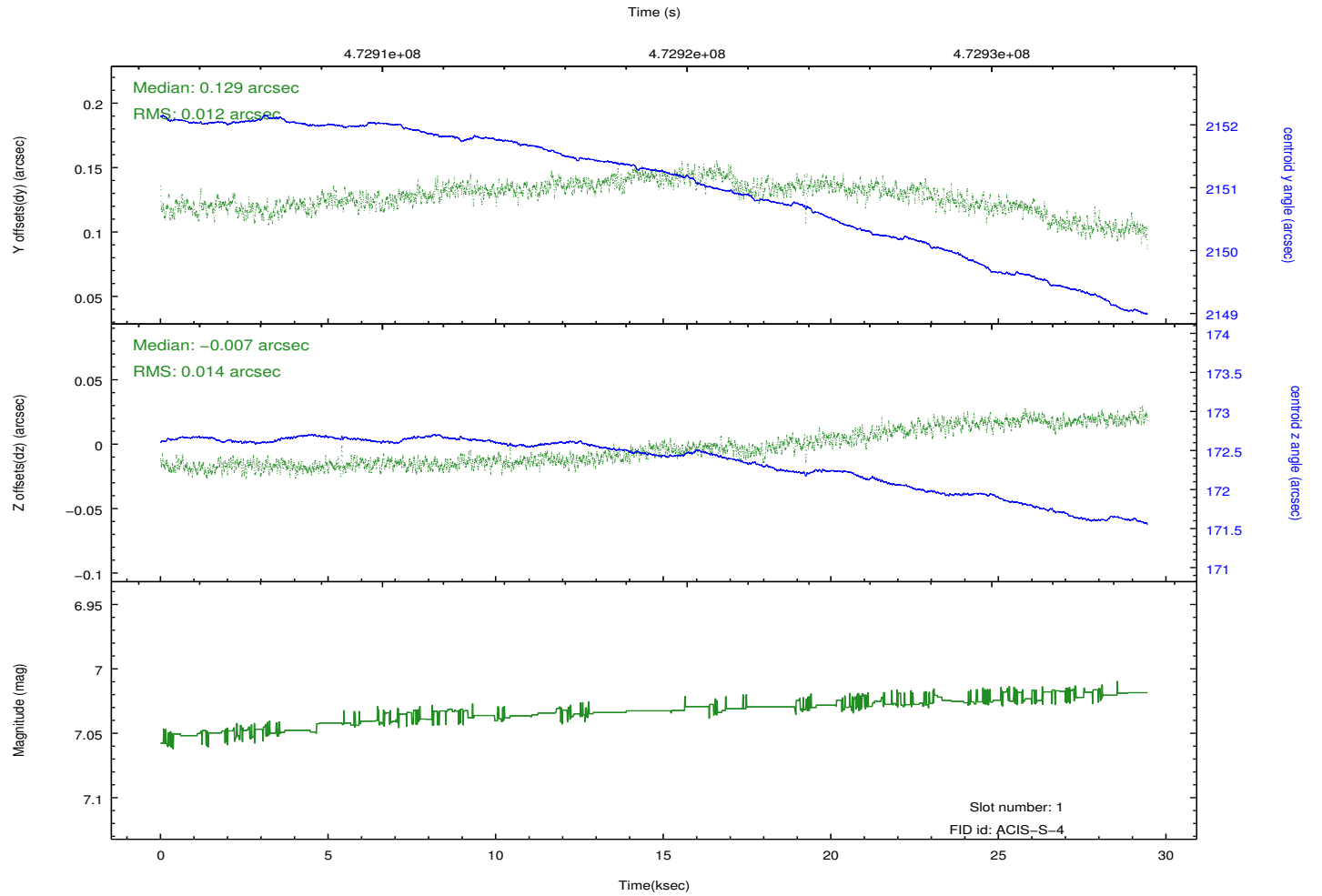
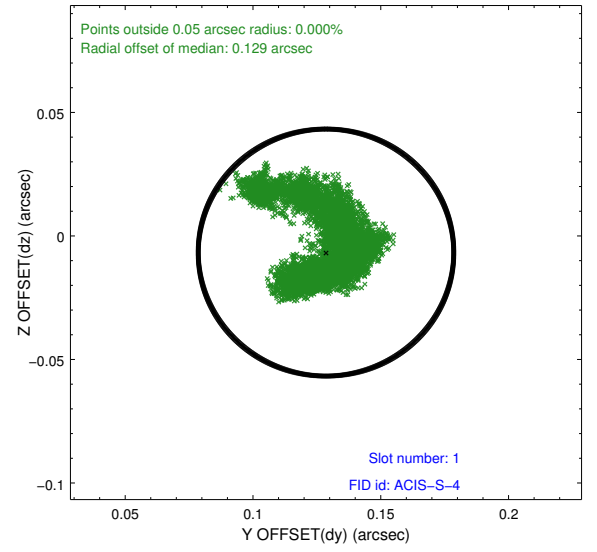
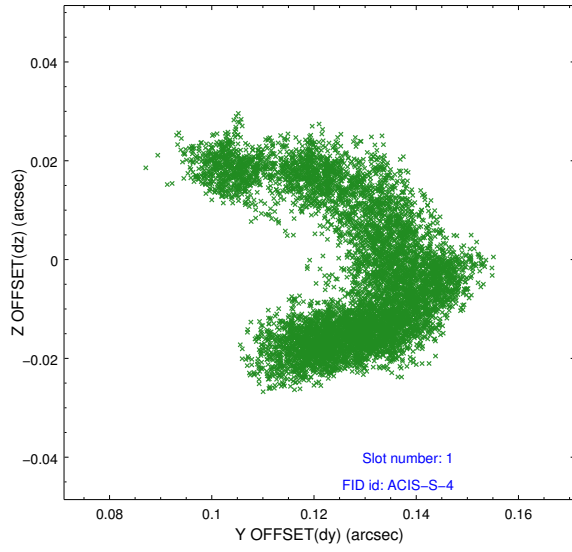


2.5 FID Slots

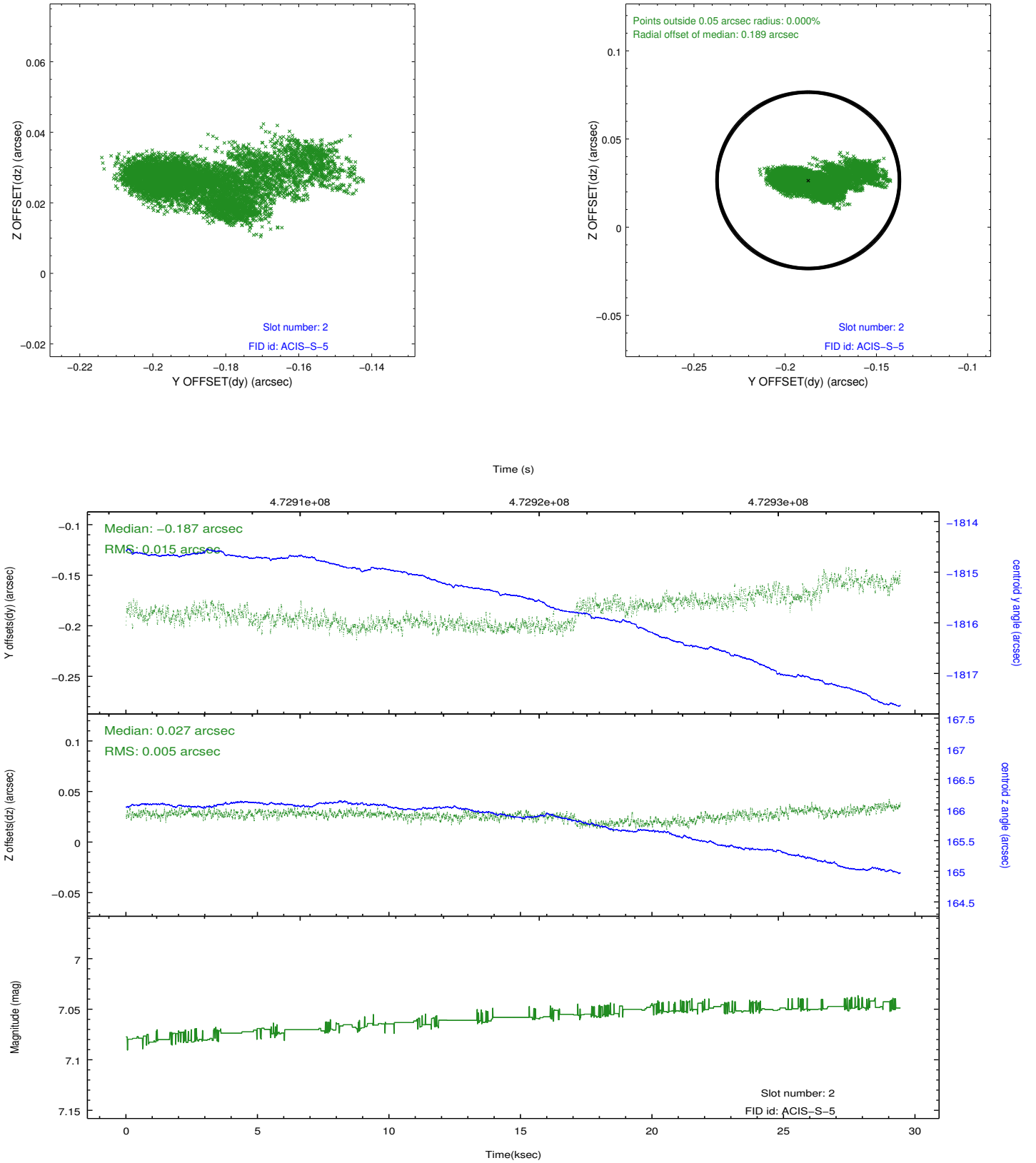
2.5.1 Slot 0



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)	2014.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.314799794495

A.2 Comments

Joint proposal with HST.

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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.