

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 14518 - L2 Version 2
Chandra X-Ray Center

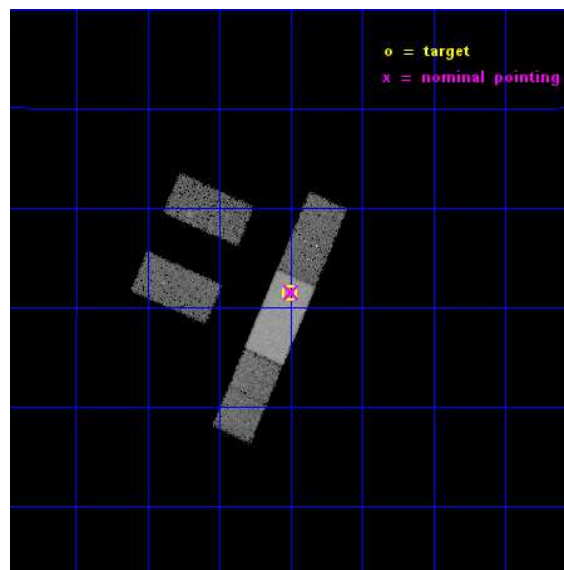
L2 Processing Date : Dec 11 2014

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1 Front

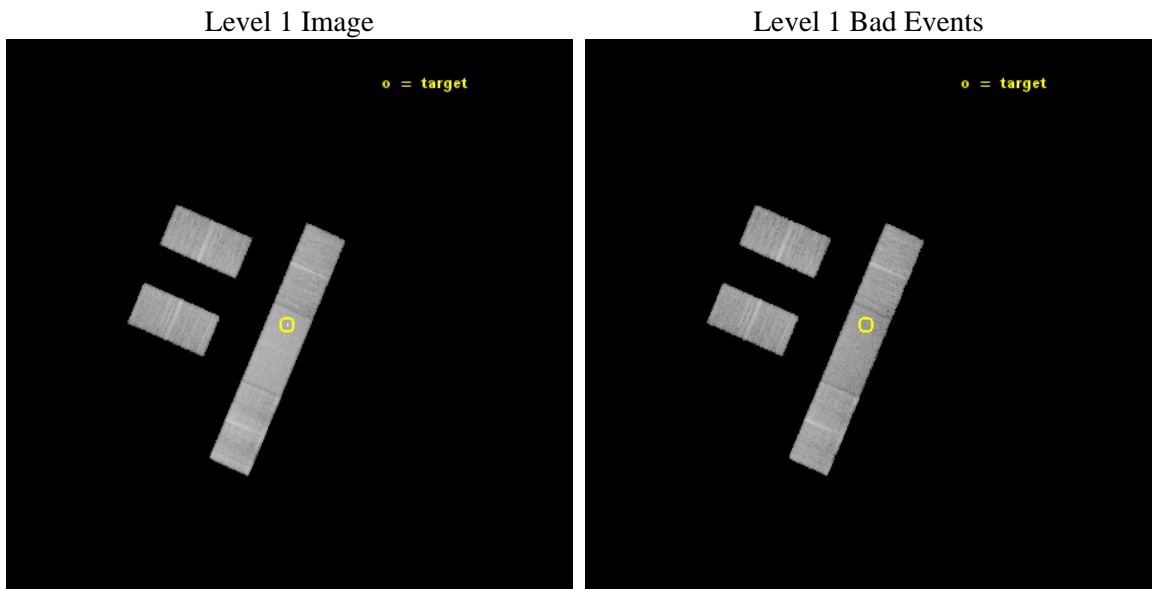
seq_num	702755	Sequence number
obs_id	14518	Observation id
title	ENERGY DEPENDENT X-RAY MICROLENSING AND THE STRUCTURE OF QUASARS	P
observer	Prof. Christopher Kochanek	Principal investigator
object	Q2237+0305	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	340.12625	Observer's specified target RA [deg]
dec_targ	3.358	Observer's specified target Dec [deg]
ra_nom	340.12327191787	Nominal RA [deg]
dec_nom	3.3584811678296	Nominal Dec [deg]
roll_nom	113.32960682661	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29984.599789798	Sum of GTIs [s]
livetime	29277.799270928	Livetime [s]
ontime2	29984.599789798	Sum of GTIs [s]
ontime3	29984.599789798	Sum of GTIs [s]
ontime6	29984.599789798	Sum of GTIs [s]
ontime7	29984.599789798	Sum of GTIs [s]
ontime8	29984.599789798	Sum of GTIs [s]
l2events	79267	Number of level 2 events



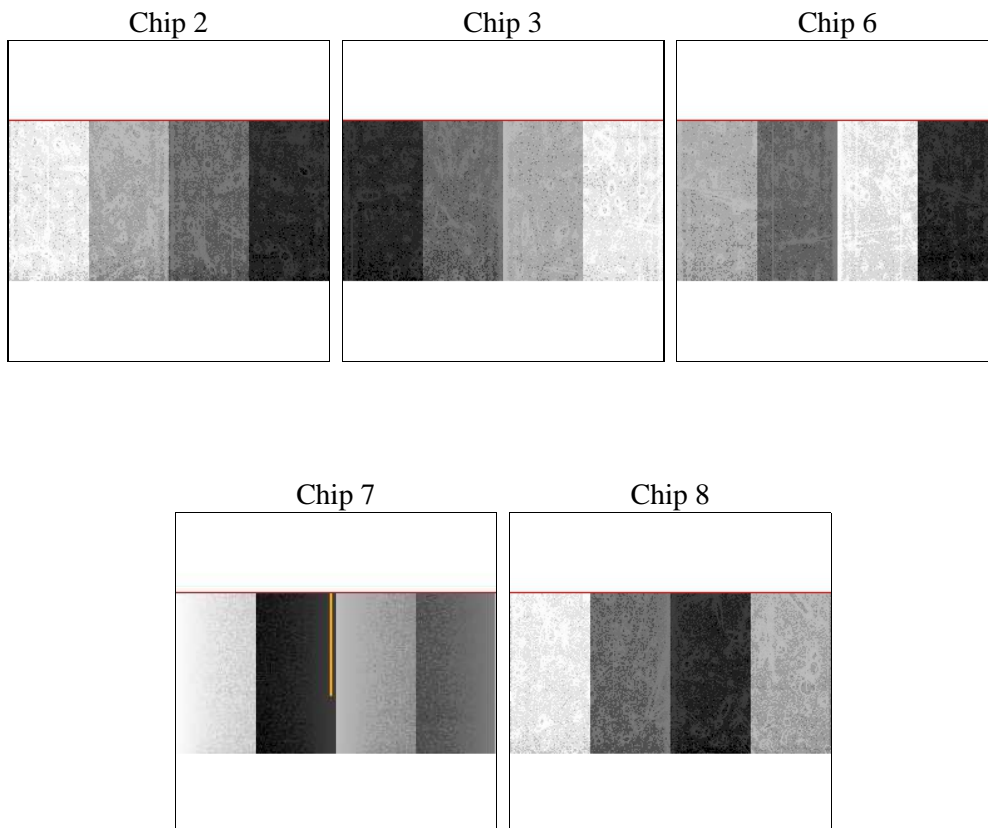
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29919.179000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	29984.599789798	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	29984.599789798	Sum of GTIs [s]
date	2014-12-12T01:39:45	Date and time of file creation	ontime3	29984.599789798	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	29984.599789798	Sum of GTIs [s]
			ontime7	29984.599789798	Sum of GTIs [s]
			ontime8	29984.599789798	Sum of GTIs [s]
			l1events	431765	Number of level 1 events

2.1.4 Events

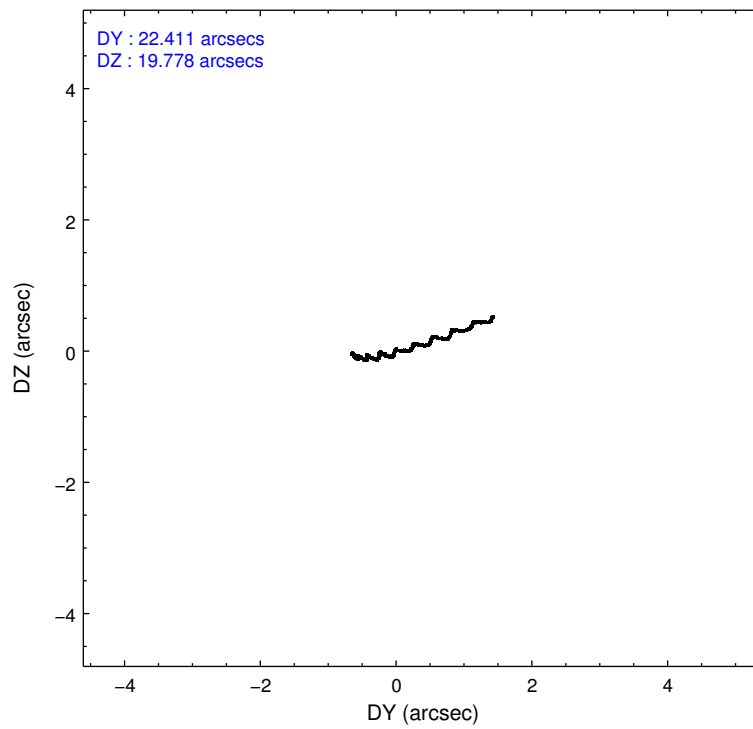
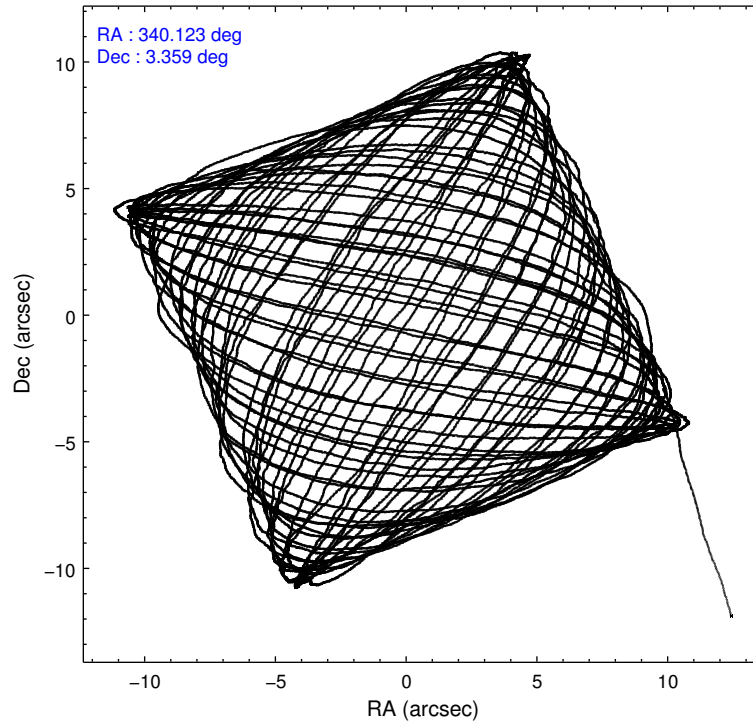
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	74826	73709	75258	103212	104760
rejected events	66159	65283	65652	54713	77226
rejected %	88%	88%	87%	53%	73%

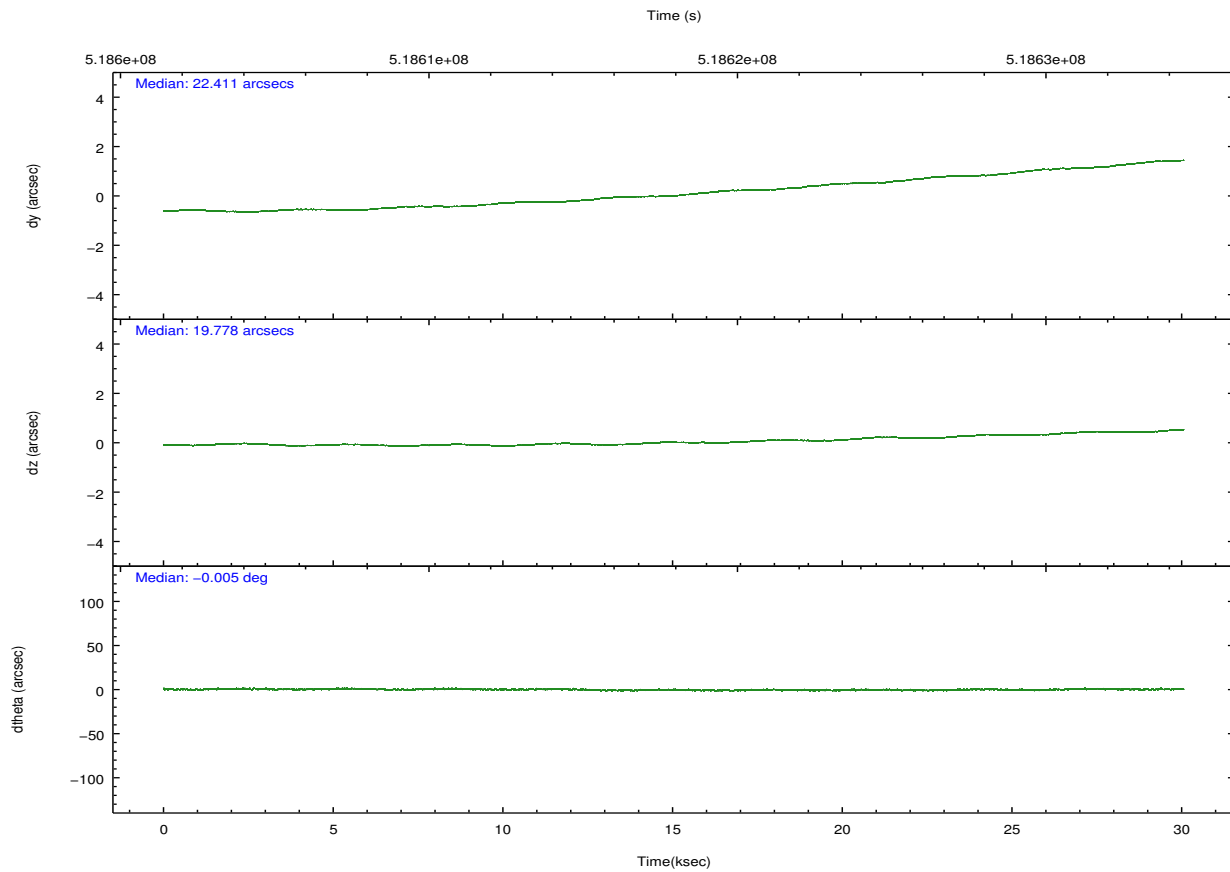
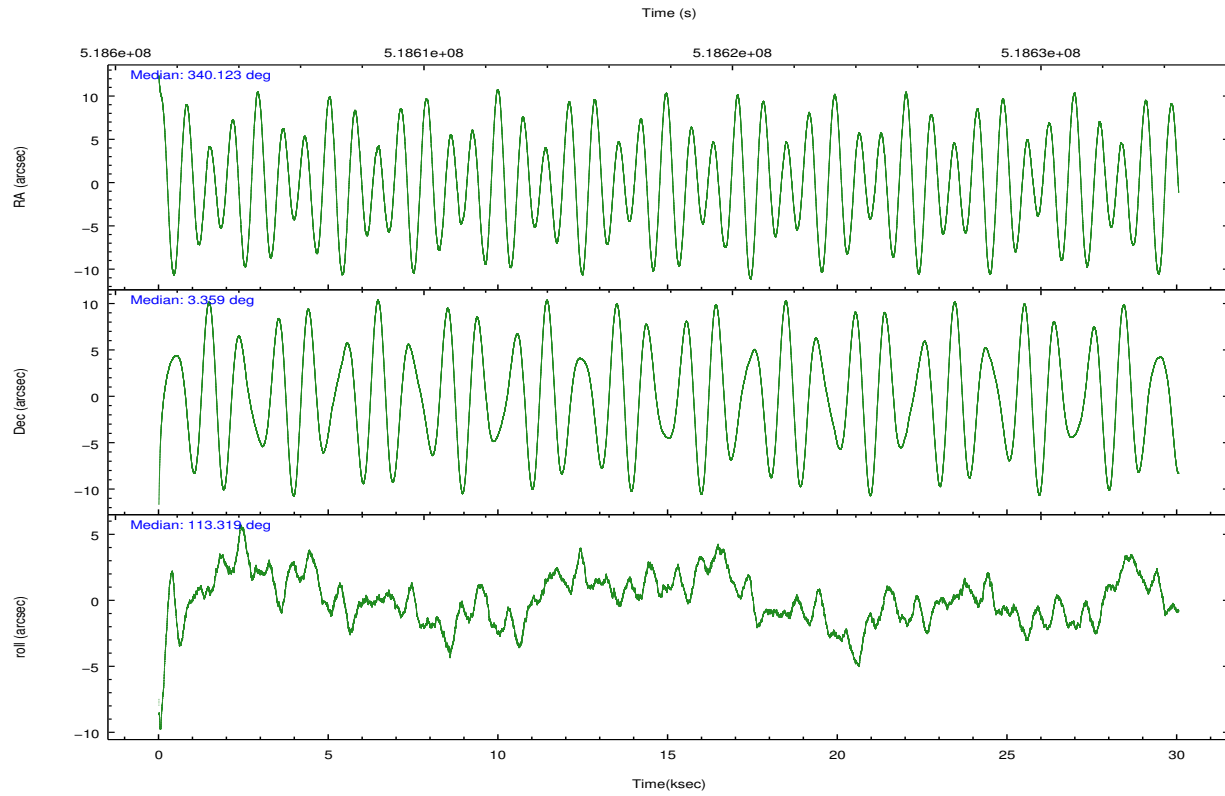
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	3029	2807	3272	5028	8085
	4%	3%	4%	4%	7%
grade 1 events	31	35	37	121	66
	0%	0%	0%	0%	0%
grade 2 events	2044	1819	2106	10042	6339
	2%	2%	2%	9%	6%
grade 3 events	961	1042	1114	4628	3021
	1%	1%	1%	4%	2%
grade 4 events	1039	1035	1100	4635	2866
	1%	1%	1%	4%	2%
grade 5 events	2898	3751	3959	10553	5380
	3%	5%	5%	10%	5%
grade 6 events	1594	1723	2015	24171	7223
	2%	2%	2%	23%	6%
grade 7 events	63230	61497	61655	44034	71780
	84%	83%	81%	42%	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	340.145448	340.1232719178721	CCD I2 on	O4	Y
[deg] Pointing Dec	3.342456	3.358481167829623	CCD I3 on	O3	Y
[deg] Pointing Roll	113.171677	113.3296068266142	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)	518603053.184000	518601751.86043	CCD S5 on	N	N
Observation start date	2014-06-08T08:23:06	2014-06-08T08:02:31	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	518632972.184000	518633197.32466	On-chip summing requested	N	N
Observation end date	2014-06-08T16:41:45	2014-06-08T16:46:37	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



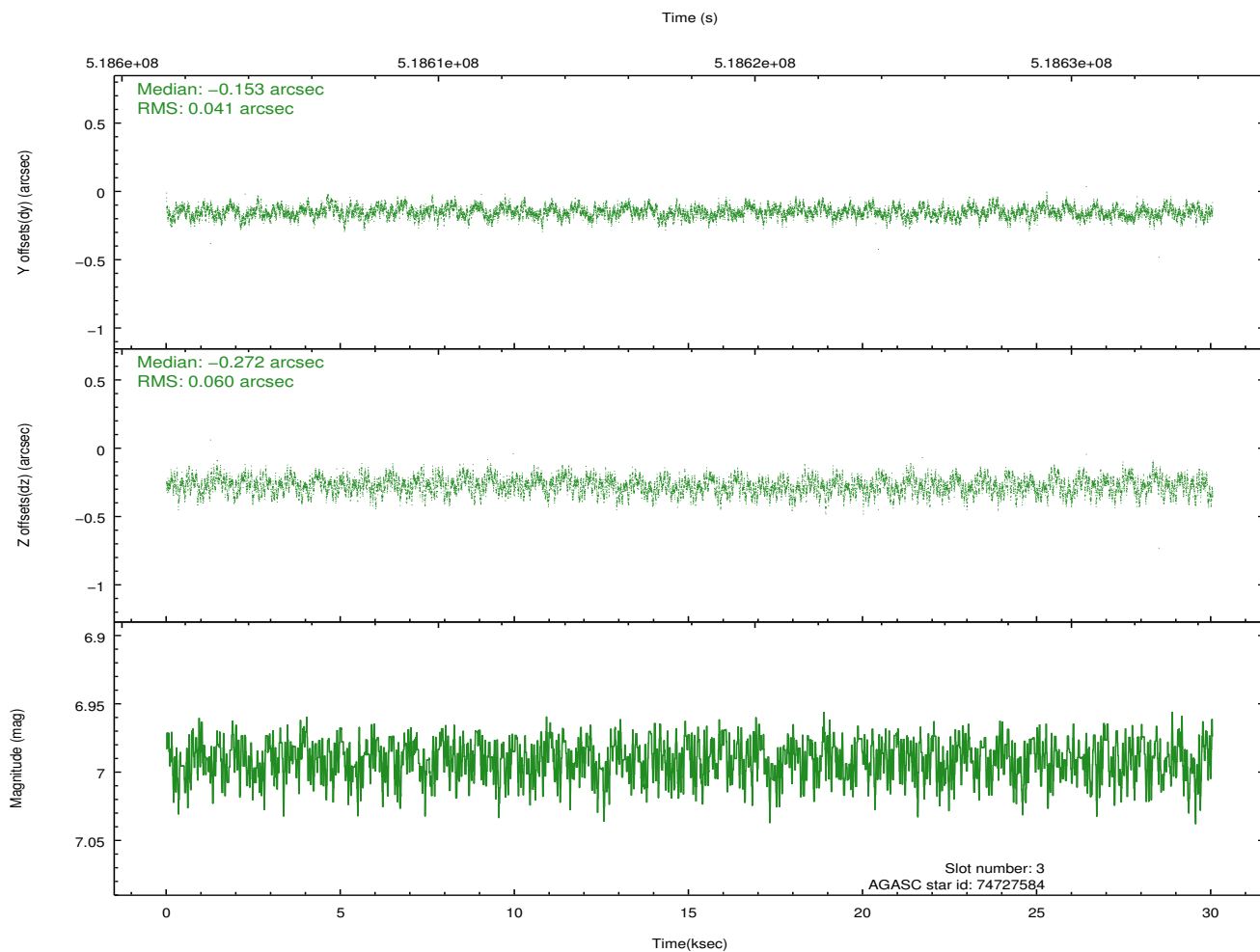
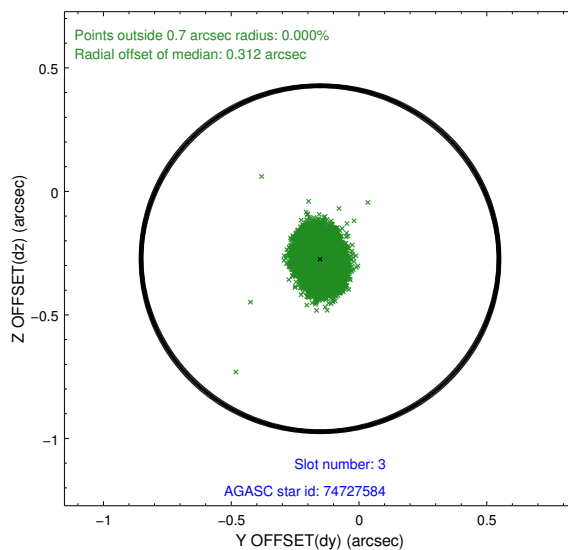
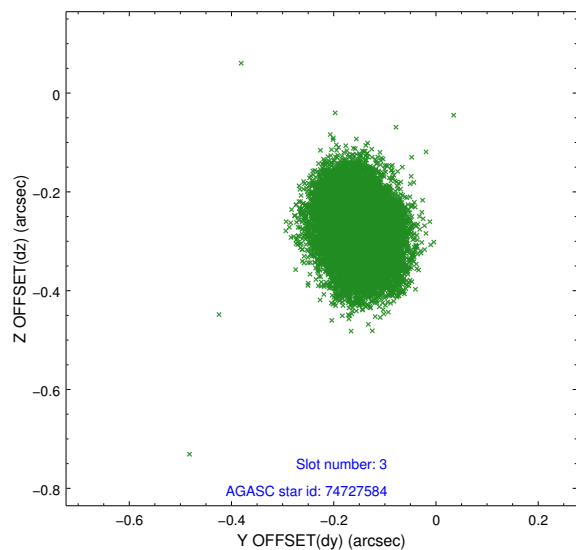


Slot Statistics

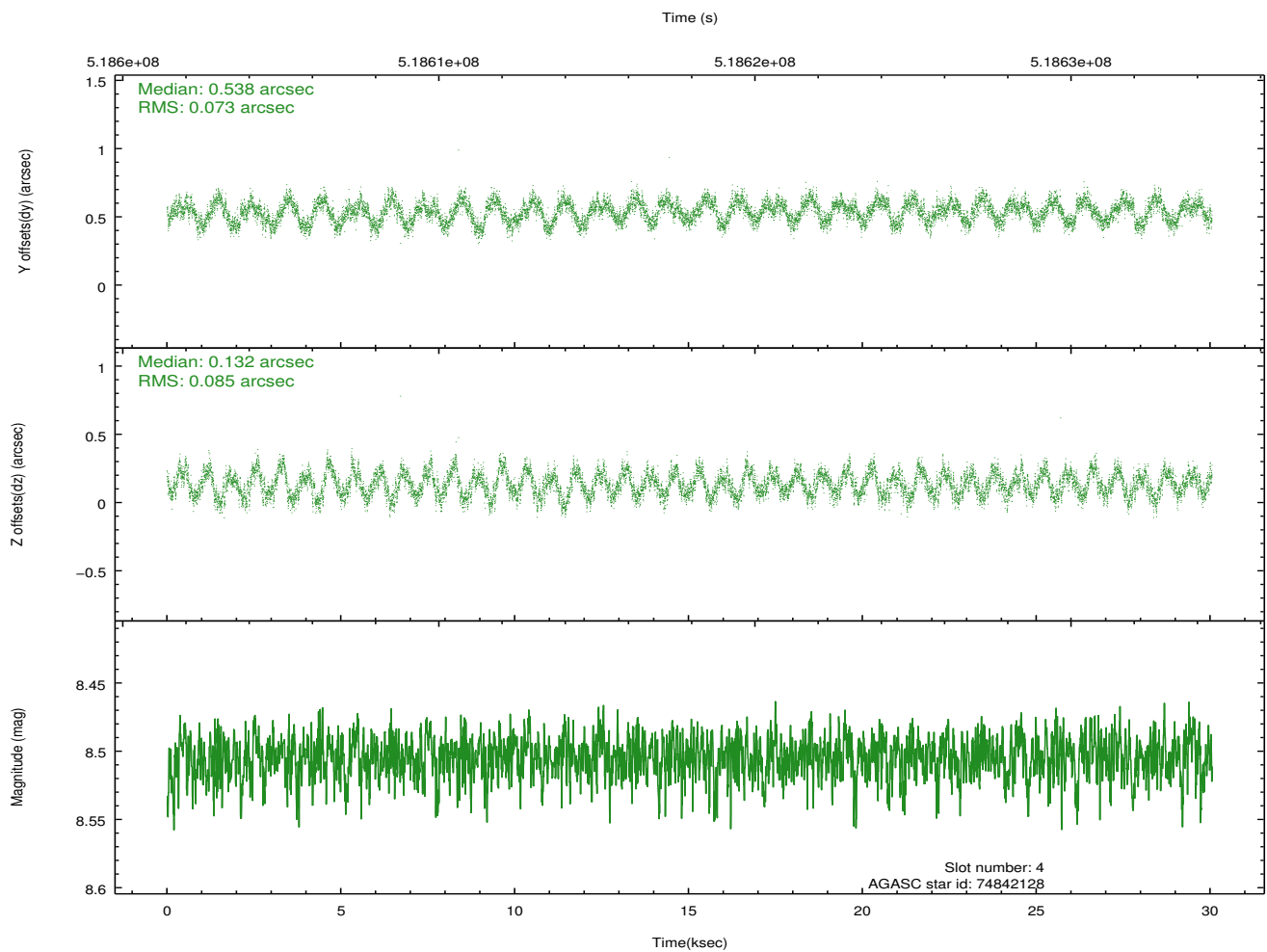
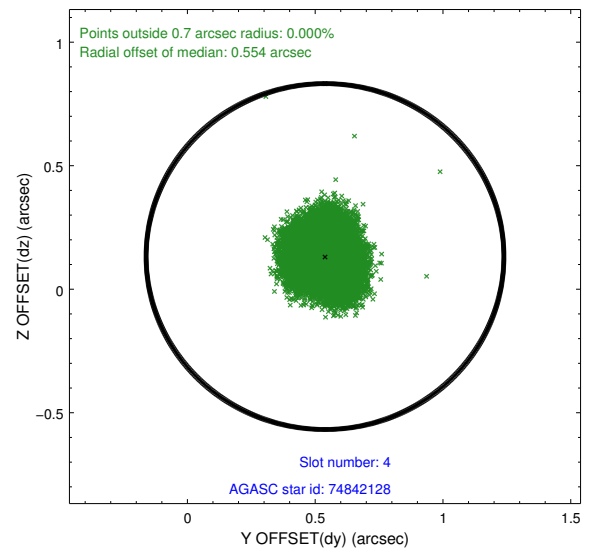
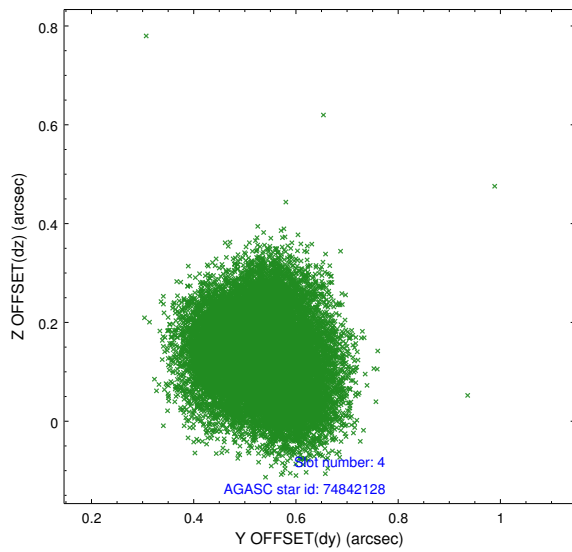
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.01	7328	-0.133	-0.029	0.014	0.031	0.000000	0.000000	-775.86	-1741.35
1	FID		ACIS-S-4	7.10	7329	0.299	0.073	0.029	0.069	0.000000	0.000000	2137.81	167.19
2	FID		ACIS-S-5	7.12	7329	-0.200	-0.035	0.024	0.043	0.000000	0.000000	-1828.70	160.79
3	GUIDE	used	74727584	6.99	14659	-0.153	-0.272	0.078	0.123	339.633744	3.463732	1125.21	1518.39
4	GUIDE	used	74842128	8.50	14652	0.538	0.132	0.123	0.180	340.118134	3.132788	-654.57	387.79
5	GUIDE	used	74854992	8.27	14656	0.071	0.361	0.069	0.110	340.342808	3.603730	586.04	-1021.13
6	GUIDE	used	74855640	8.83	14650	-0.106	-0.109	0.123	0.191	340.341123	3.746937	1062.56	-1219.23
7	GUIDE	used	74723224	8.68	14649	-0.338	-0.111	0.096	0.162	339.594650	3.574222	1546.04	1490.95

2.4 Star Slots

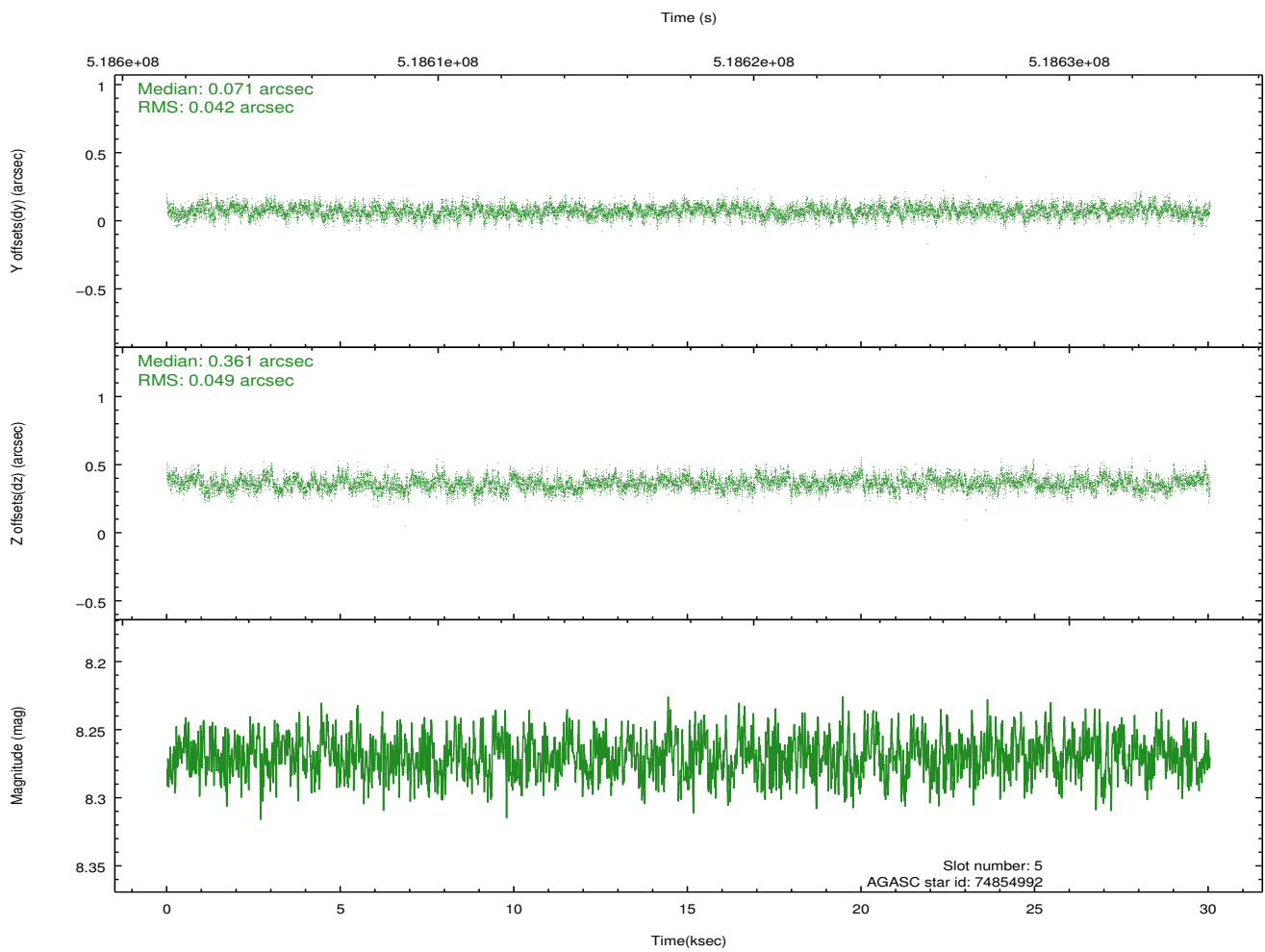
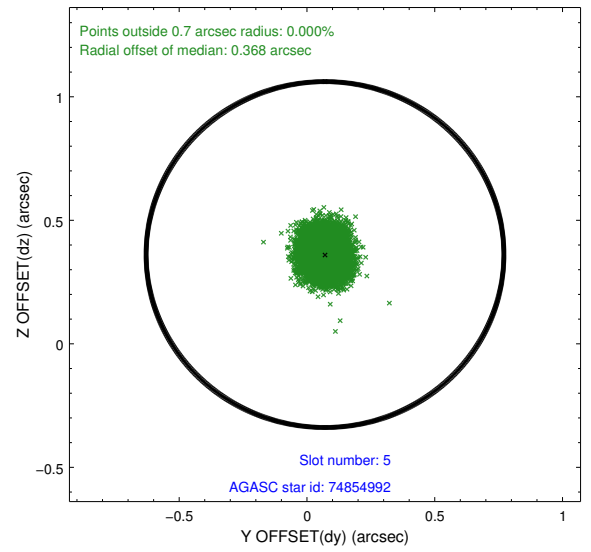
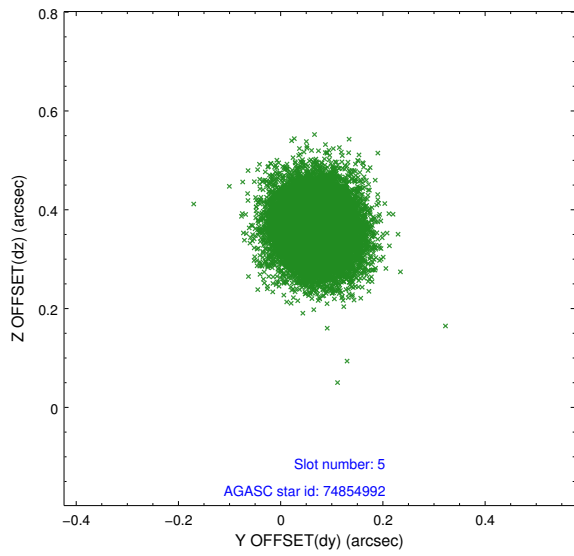
2.4.1 Slot 3



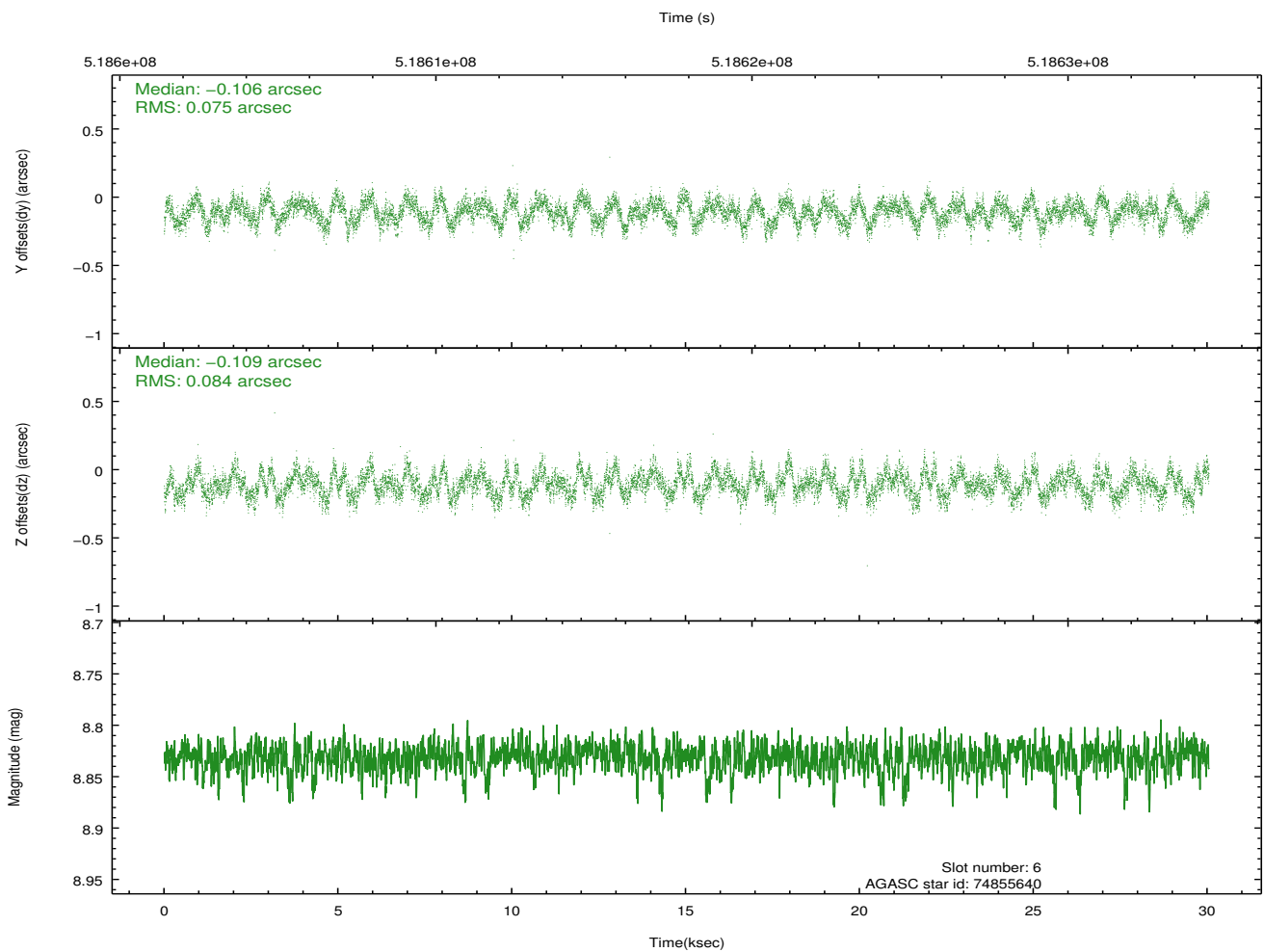
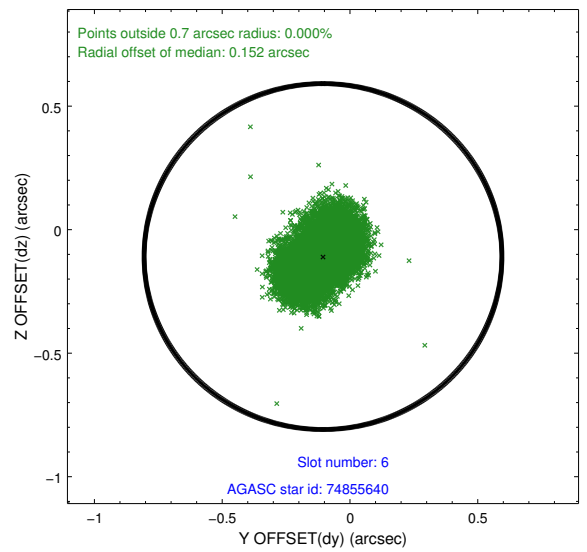
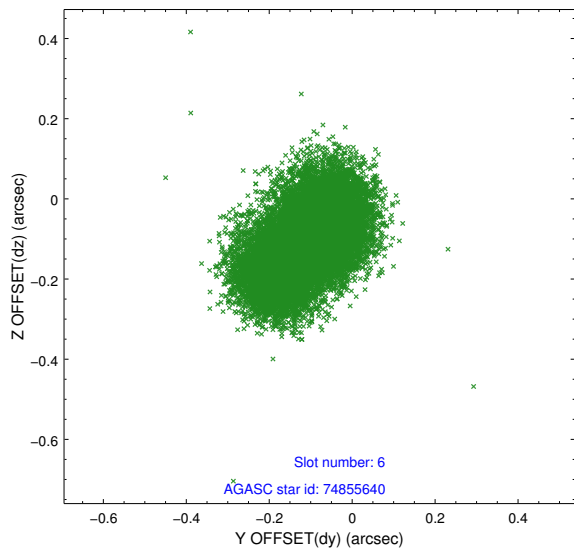
2.4.2 Slot 4



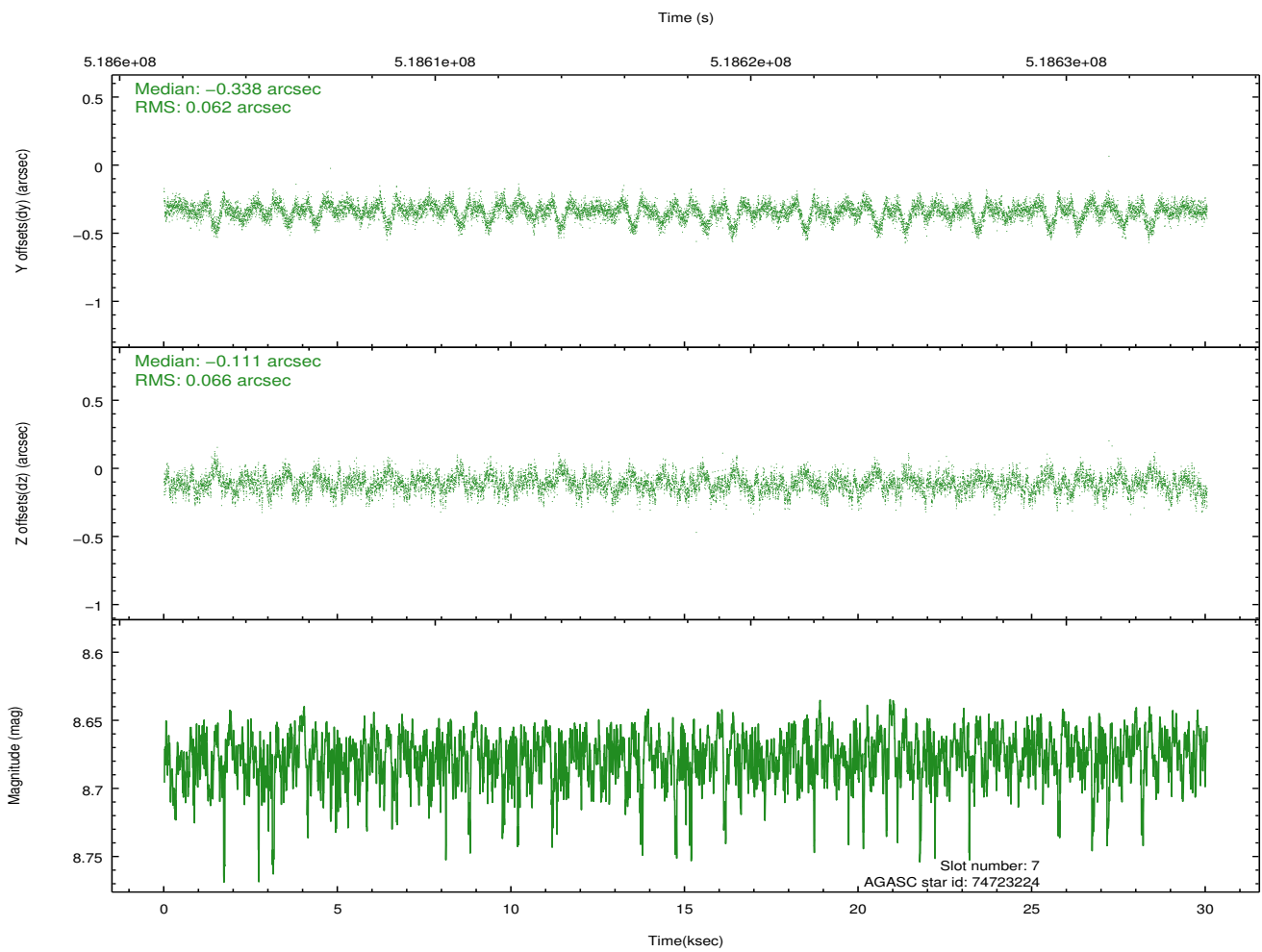
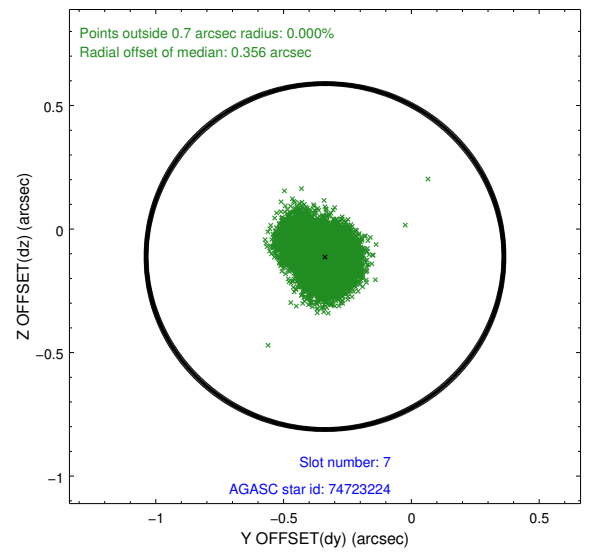
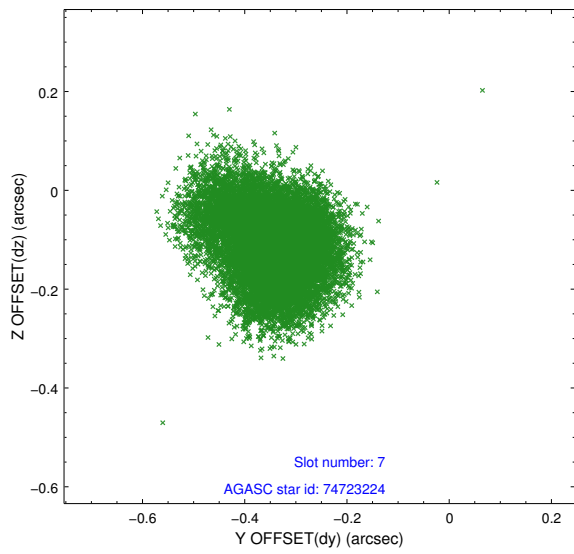
2.4.3 Slot 5



2.4.4 Slot 6

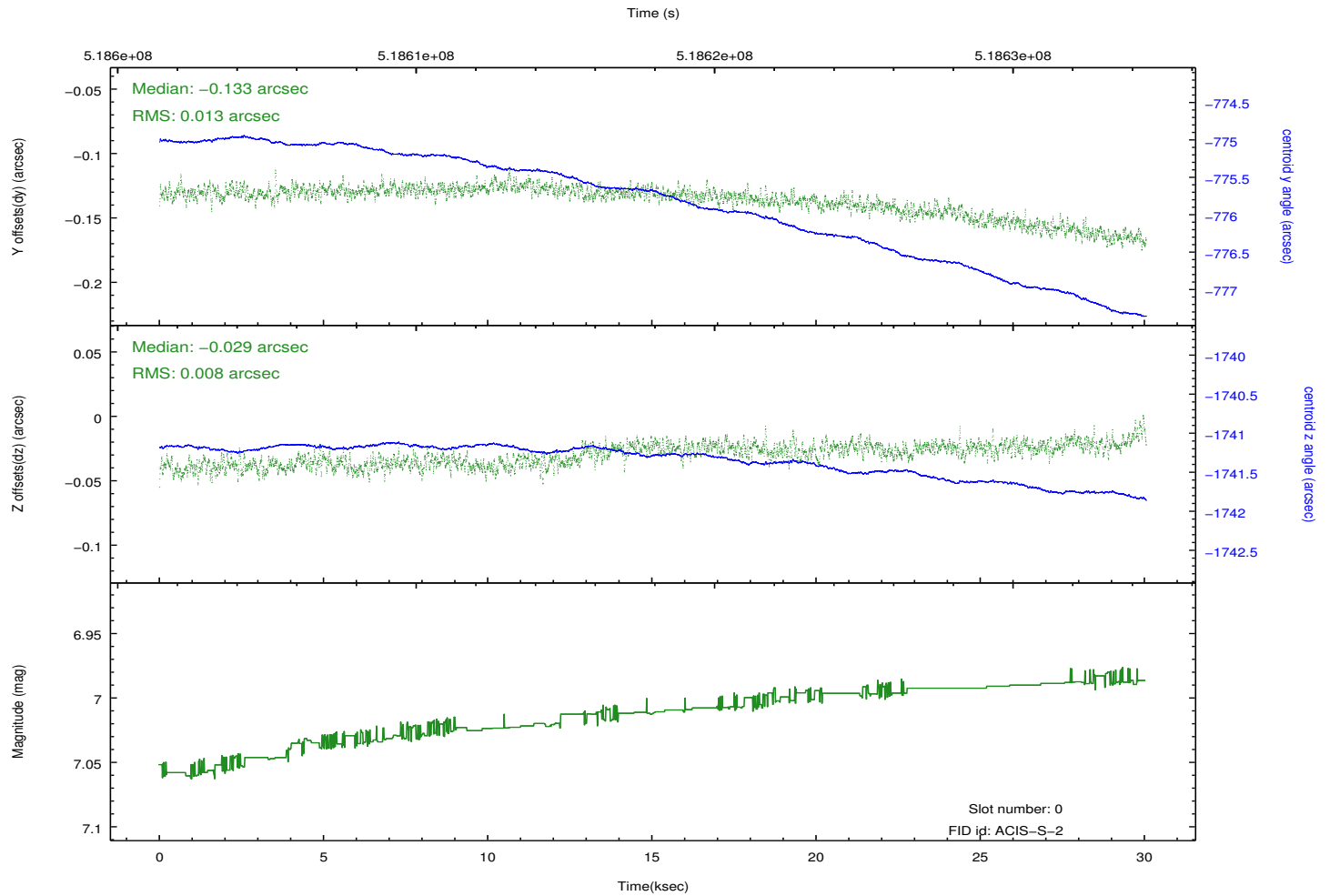
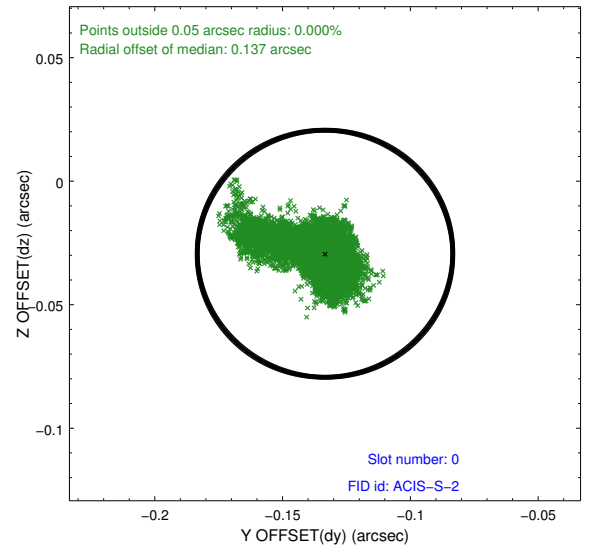
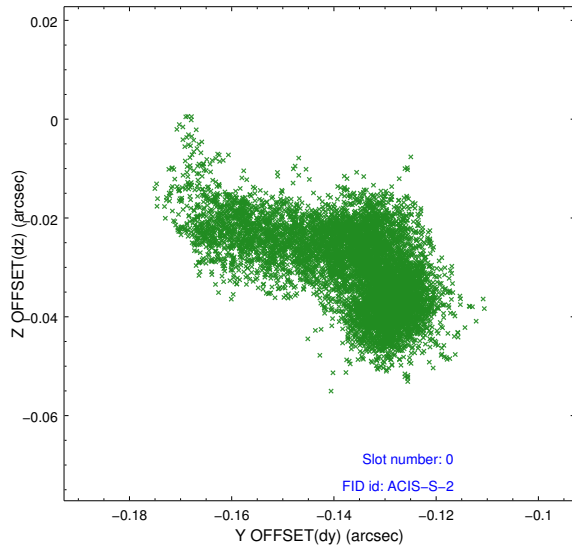


2.4.5 Slot 7

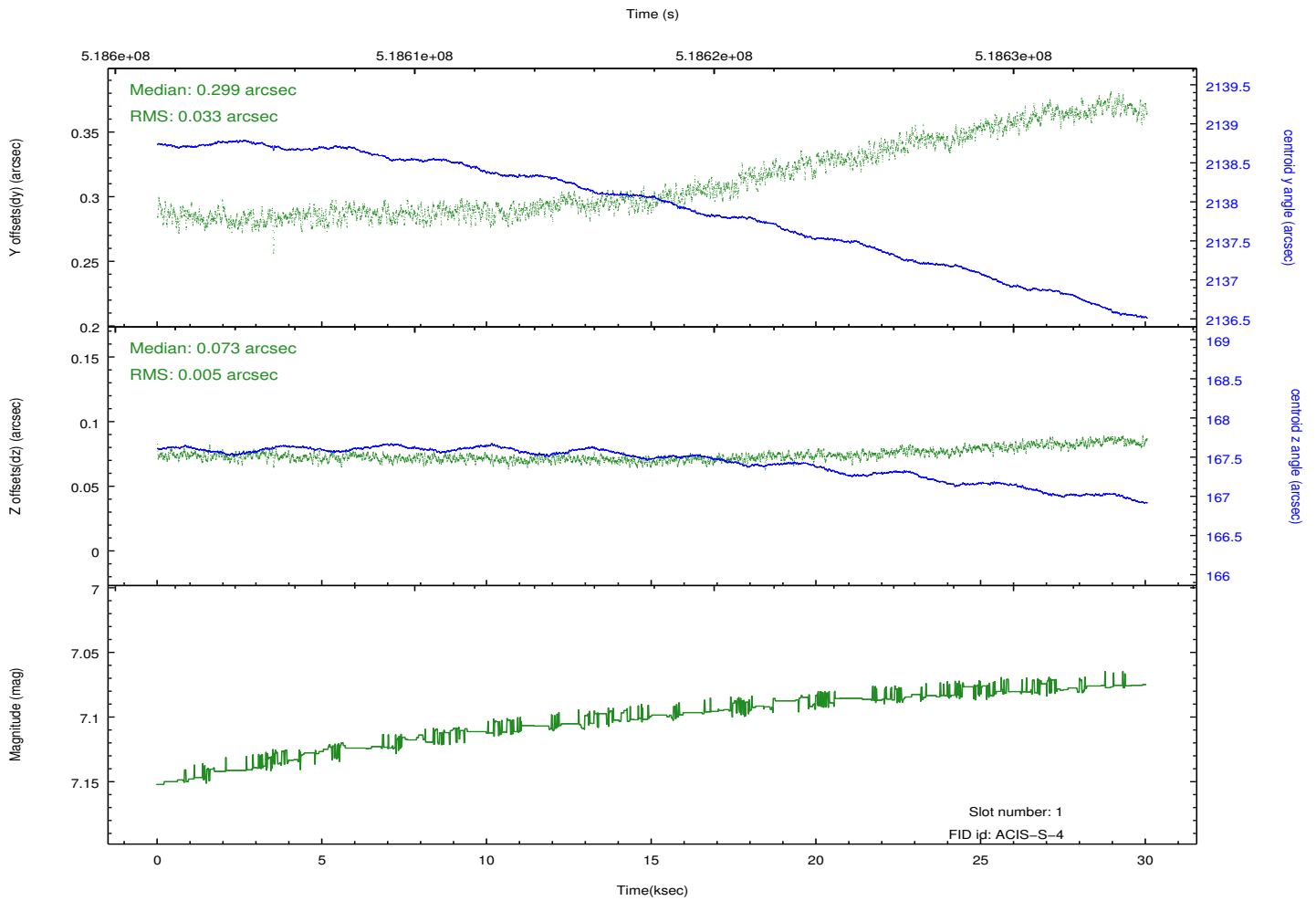
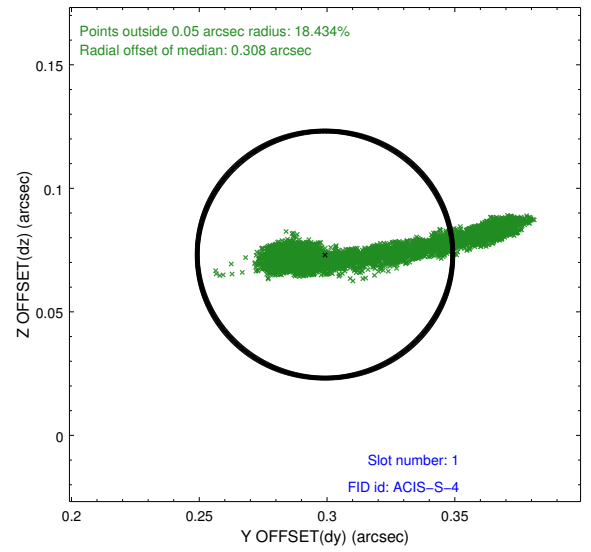
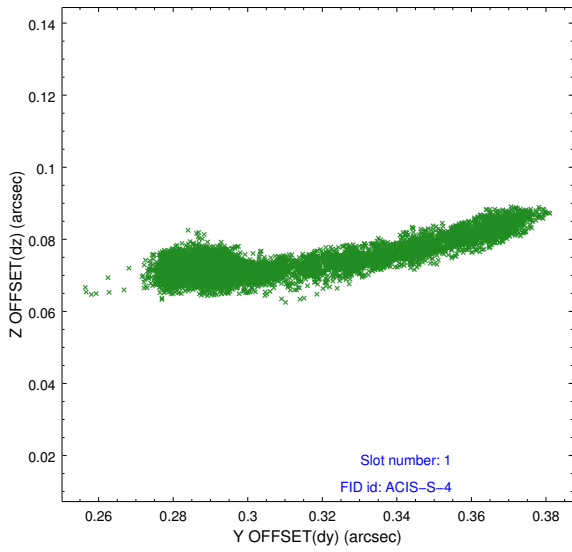


2.5 FID Slots

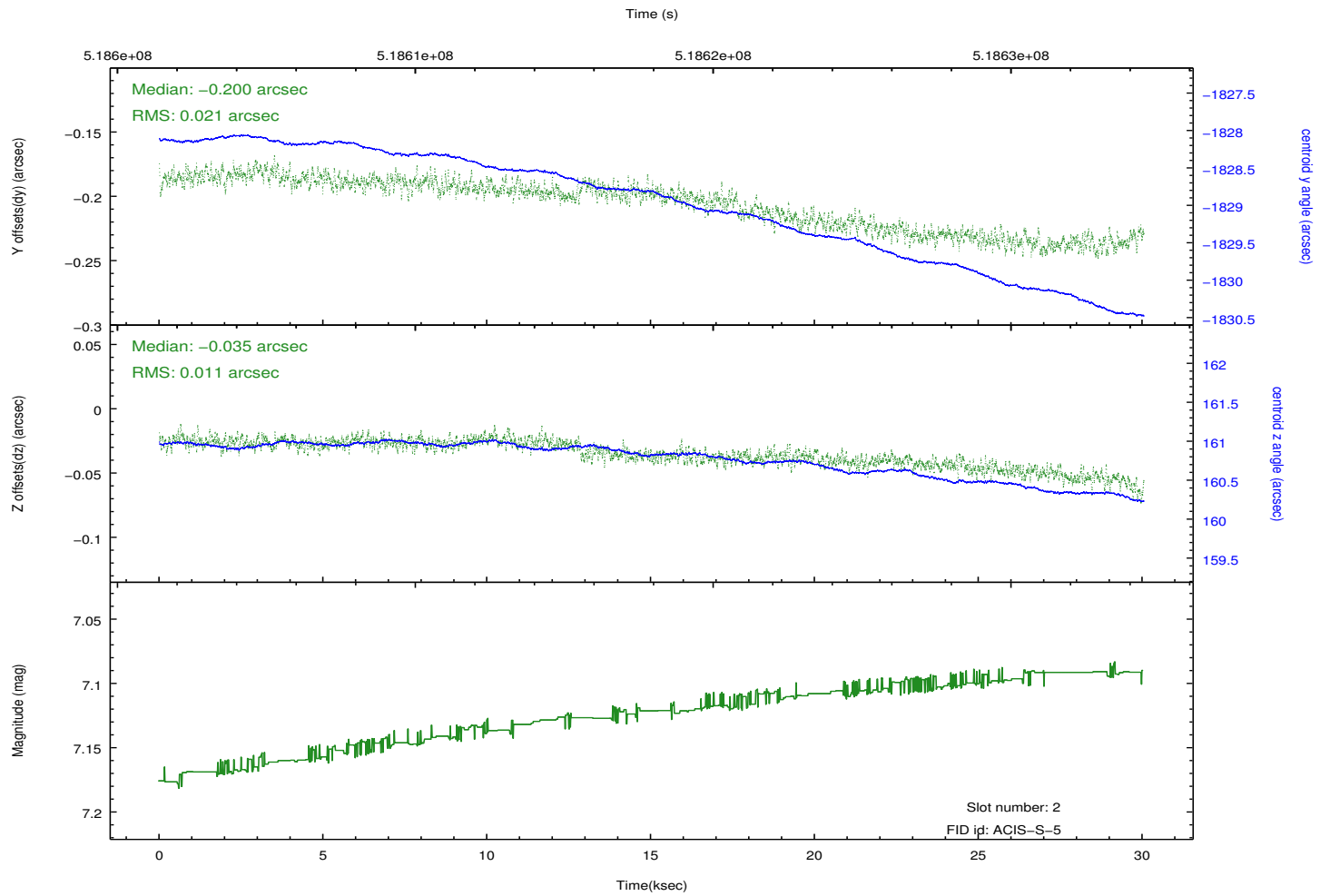
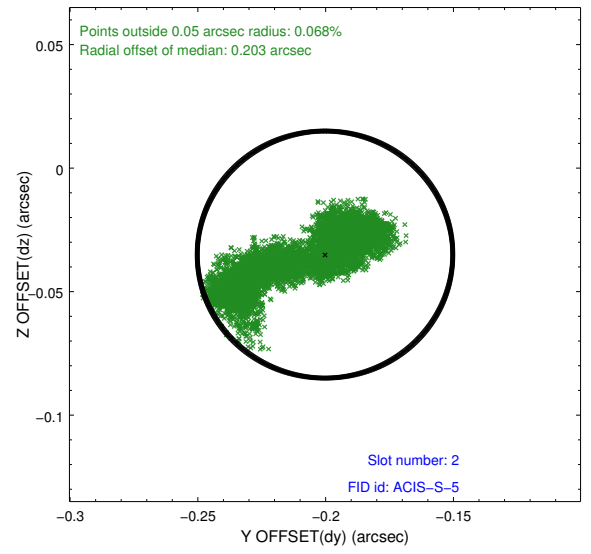
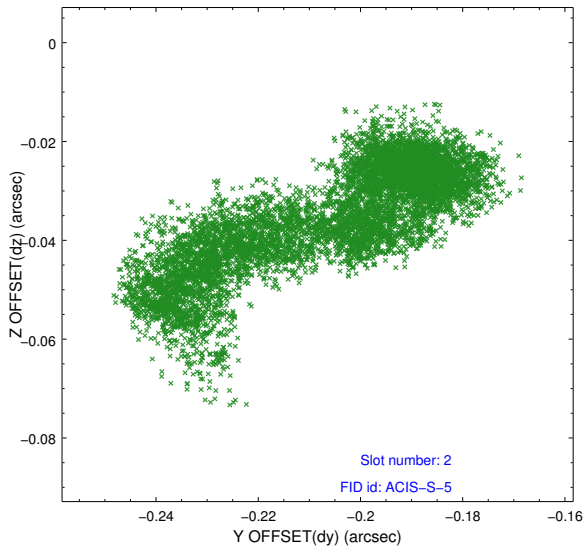
2.5.1 Slot 0



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)	2014.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.984599789798

A.2 Comments

Joint proposal with HST.

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.