

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 14493 - L2 Version 2
Chandra X-Ray Center

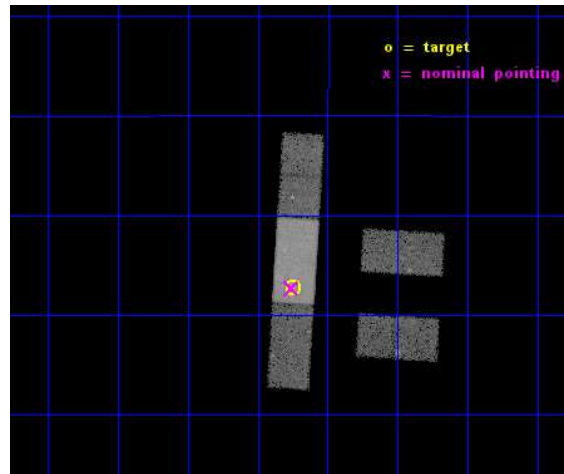
L2 Processing Date : Dec 10 2014

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1 Front

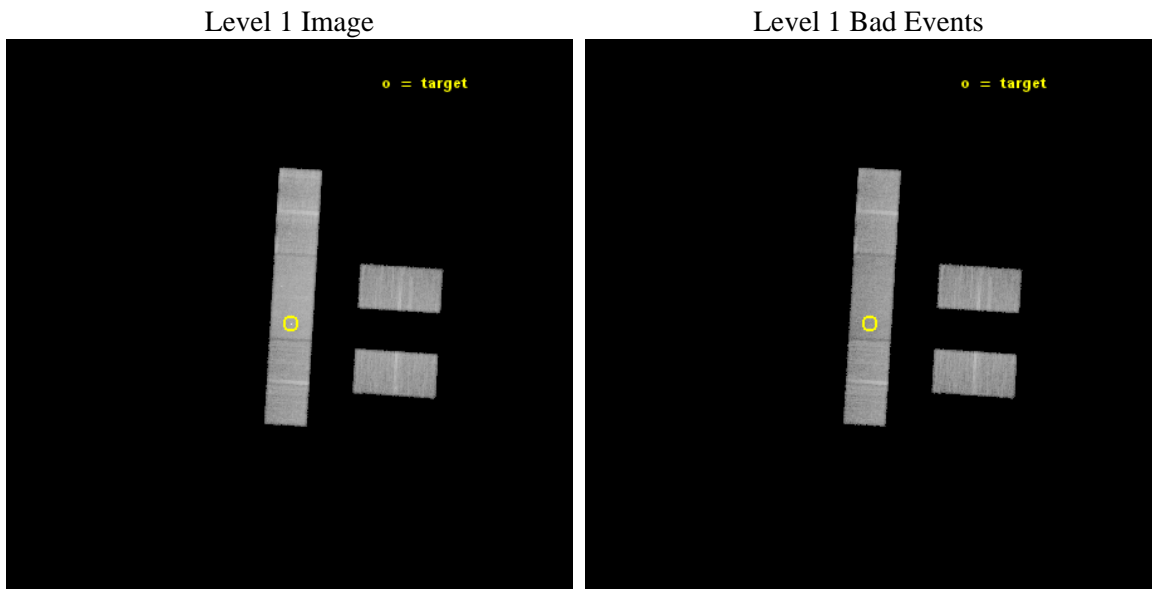
seq_num	702730	Sequence number
obs_id	14493	Observation id
title	ENERGY DEPENDENT X-RAY MICROLENSING AND THE STRUCTURE OF QUASARS	P
observer	Prof. Christopher Kochanek	Principal investigator
object	HE0435-1223	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	69.562083	Observer's specified target RA [deg]
dec_targ	-12.287333	Observer's specified target Dec [deg]
ra_nom	69.564803369242	Nominal RA [deg]
dec_nom	-12.288794558563	Nominal Dec [deg]
roll_nom	273.57883521104	Nominal Roll [deg]
revision	2	Processing version of data
ontime	37092.187570512	Sum of GTIs [s]
livetime	36217.846155097	Livetime [s]
ontime2	37092.023410499	Sum of GTIs [s]
ontime3	37092.105490506	Sum of GTIs [s]
ontime6	37092.146530509	Sum of GTIs [s]
ontime7	37092.187570512	Sum of GTIs [s]
ontime8	37092.064450502	Sum of GTIs [s]
l2events	92596	Number of level 2 events



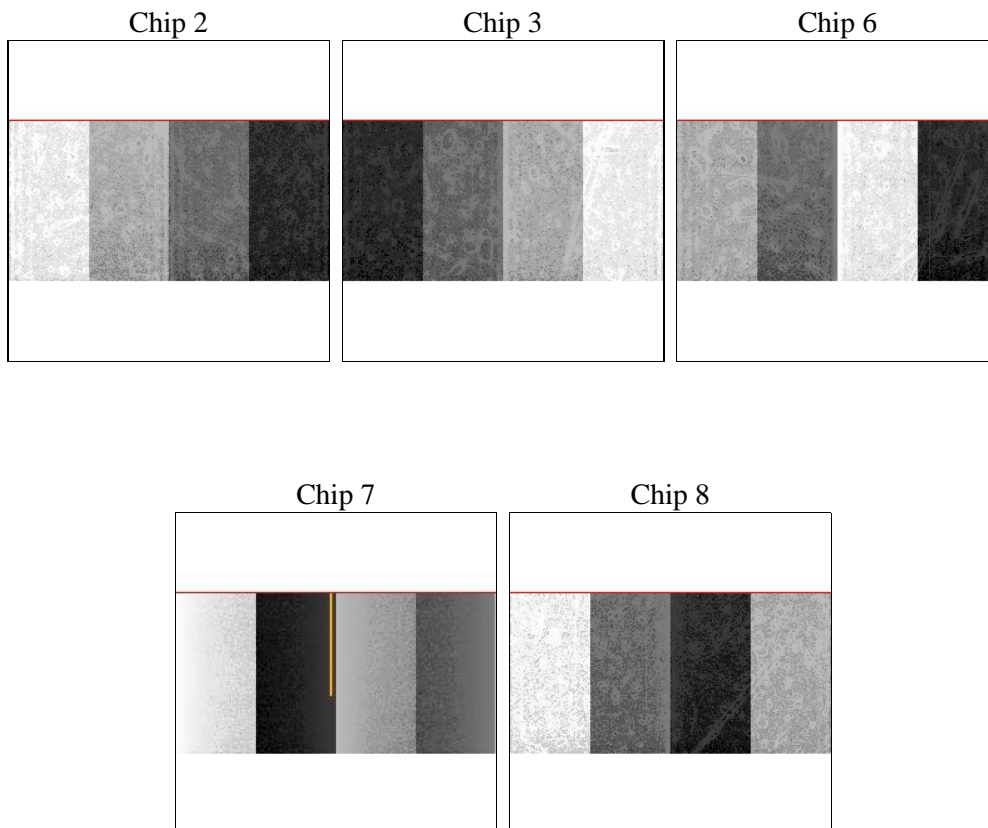
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37025.485000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	37092.187570512	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	37092.023410499	Sum of GTIs [s]
date	2014-12-10T16:43:02	Date and time of file creation	ontime3	37092.105490506	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	37092.146530509	Sum of GTIs [s]
			ontime7	37092.187570512	Sum of GTIs [s]
			ontime8	37092.064450502	Sum of GTIs [s]
			l1events	508612	Number of level 1 events

2.1.4 Events

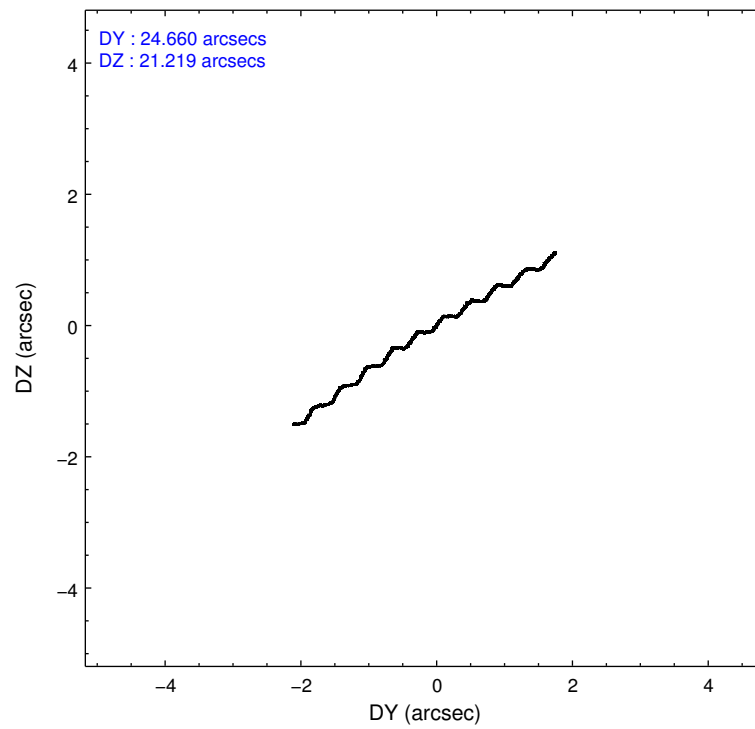
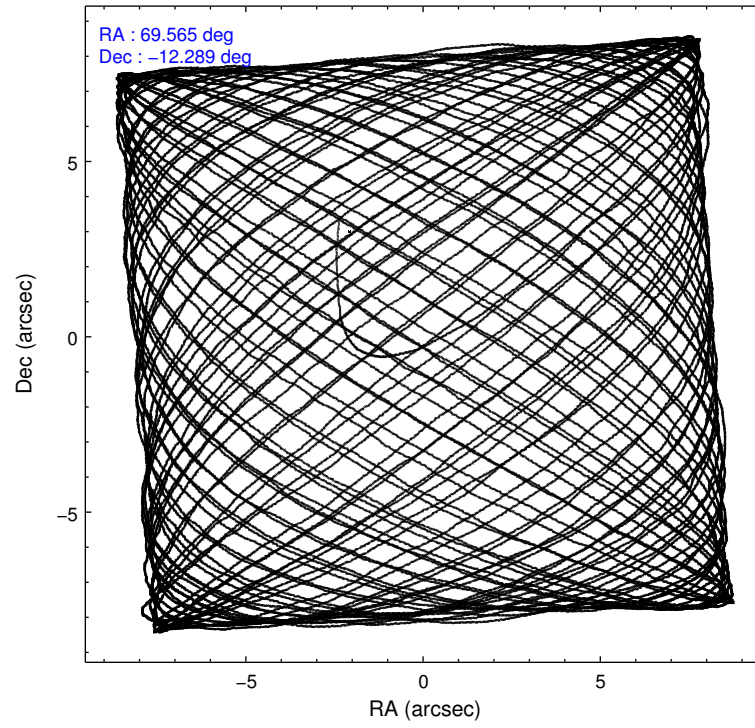
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	86008	85558	91104	122133	123809
rejected events	75664	75161	79892	66578	91154
rejected %	87%	87%	87%	54%	73%

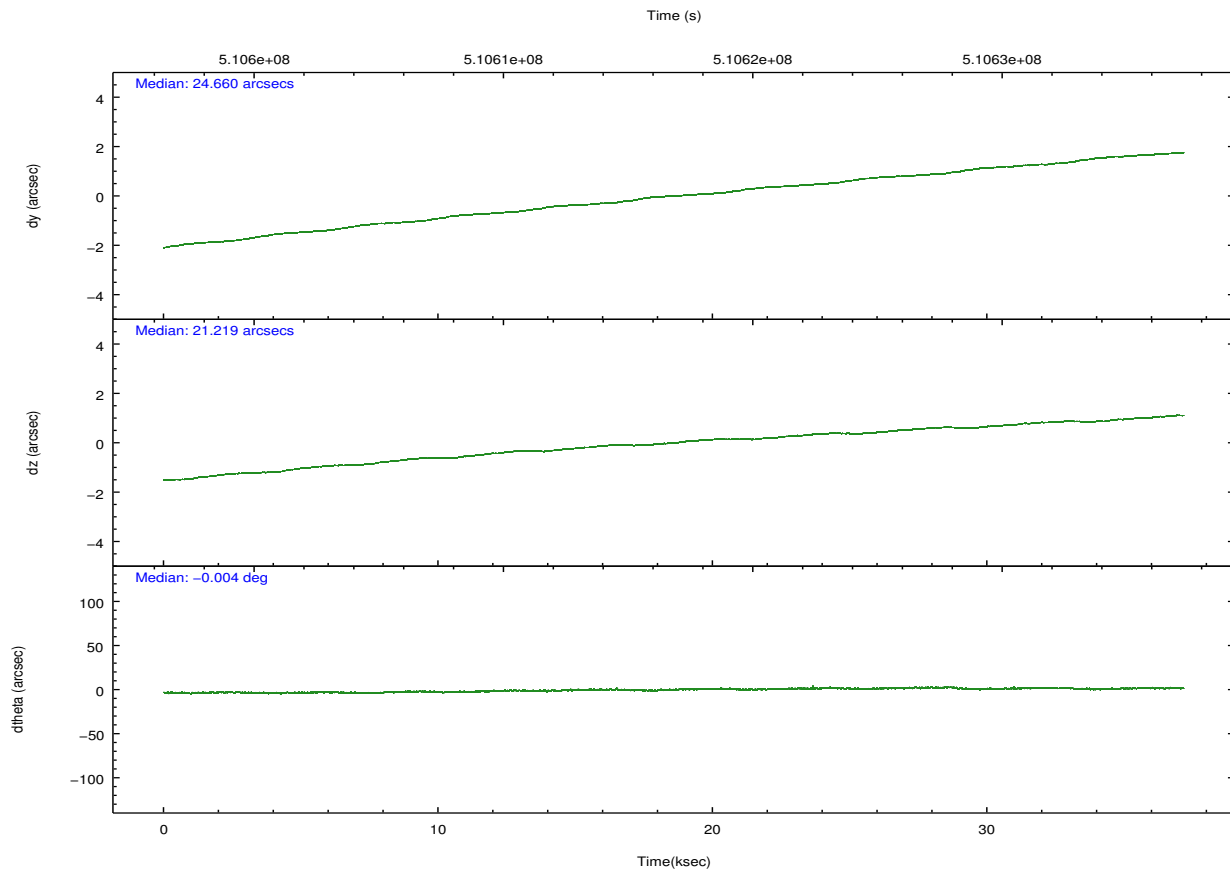
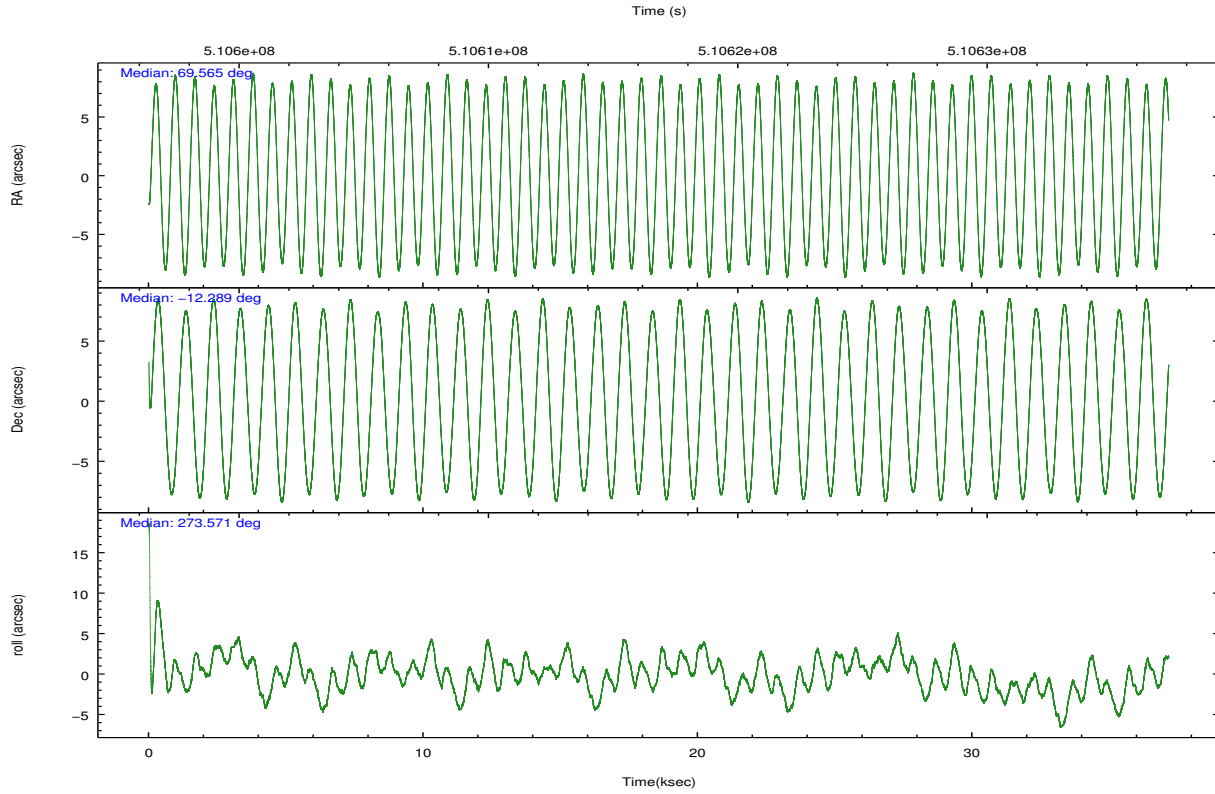
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	3525	3397	3501	5712	9342
	4%	3%	3%	4%	7%
grade 1 events	39	24	29	143	88
	0%	0%	0%	0%	0%
grade 2 events	2289	2355	2494	11554	7352
	2%	2%	2%	9%	5%
grade 3 events	1201	1241	1400	5334	3613
	1%	1%	1%	4%	2%
grade 4 events	1283	1319	1292	5292	3385
	1%	1%	1%	4%	2%
grade 5 events	3695	4657	4692	12547	6695
	4%	5%	5%	10%	5%
grade 6 events	2046	2085	2525	27663	8964
	2%	2%	2%	22%	7%
grade 7 events	71930	70480	75171	53888	84370
	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	69.549001	69.56480336924184	CCD I2 on	O4	Y
[deg] Pointing Dec	-12.266222	-12.28879455856295	CCD I3 on	O3	Y
[deg] Pointing Roll	273.418834	273.5788352110399	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)	510598387.184000	510596951.39372	CCD S5 on	N	N
Observation start date	2014-03-07T16:52:00	2014-03-07T16:29:11	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	510635413.184000	510635640.02086	On-chip summing requested	N	N
Observation end date	2014-03-08T03:09:06	2014-03-08T03:14:00	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



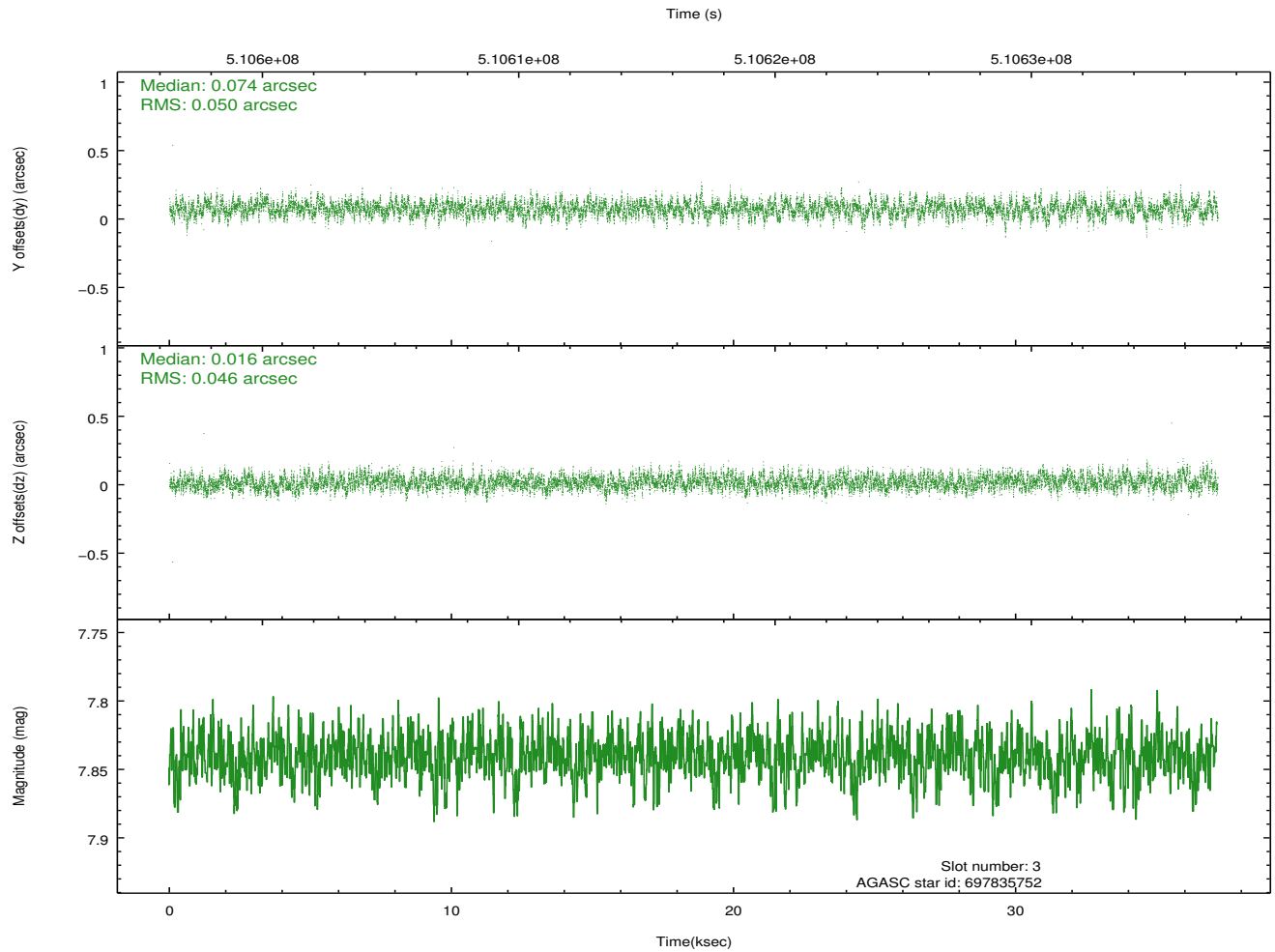
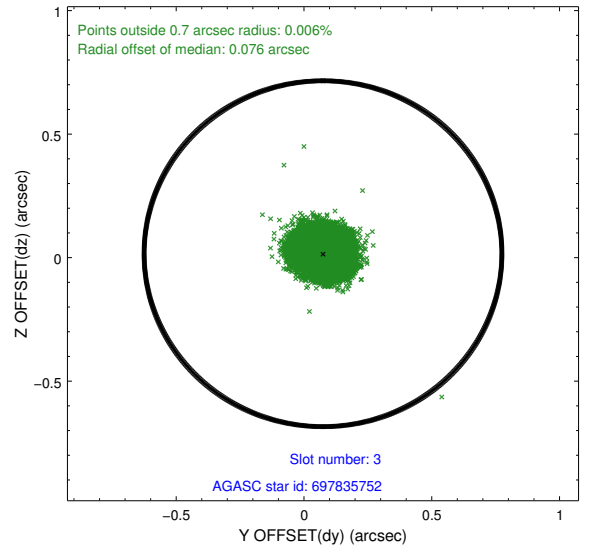
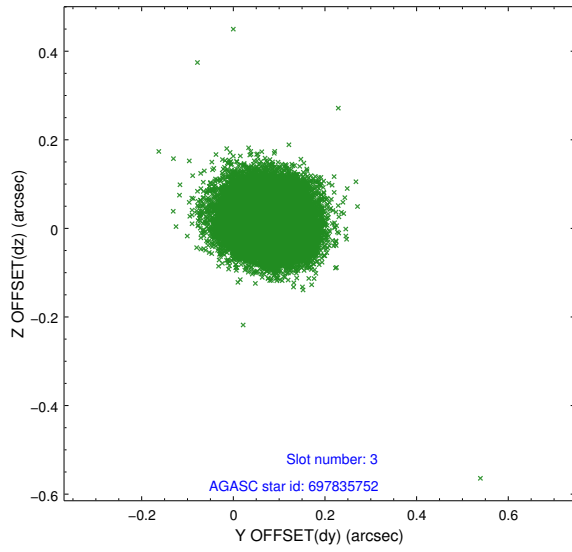


Slot Statistics

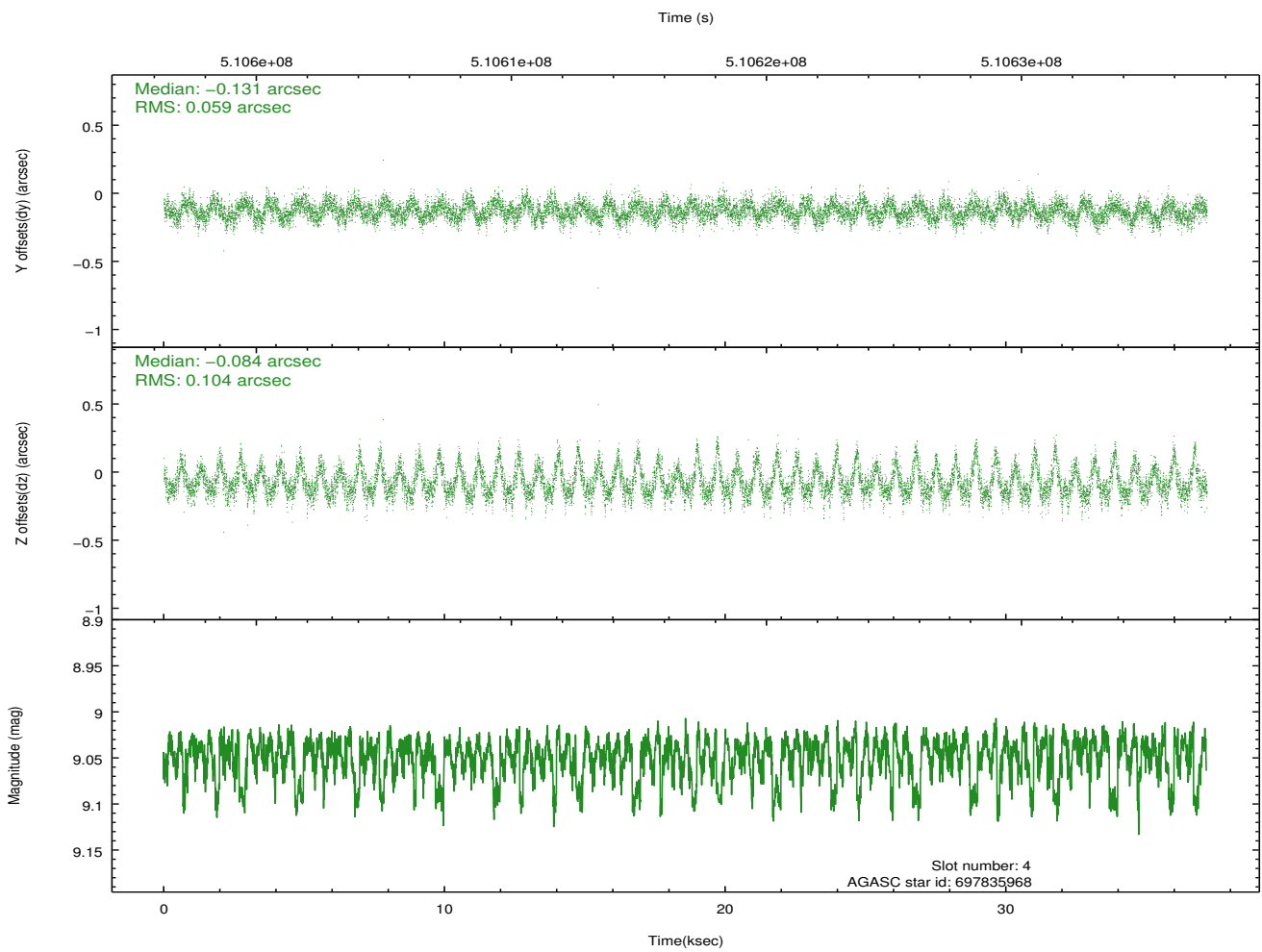
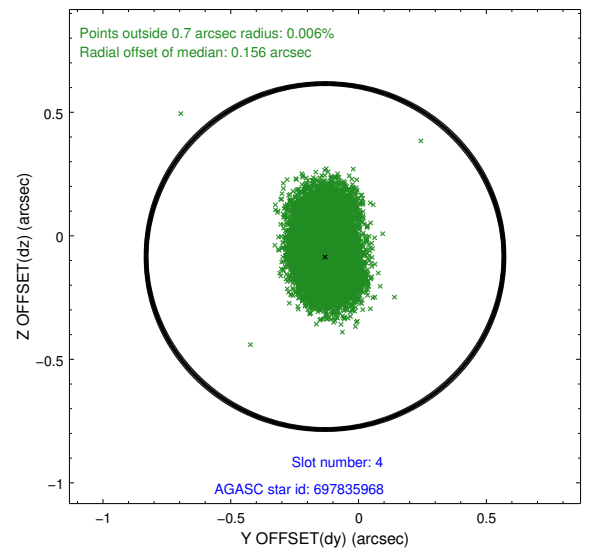
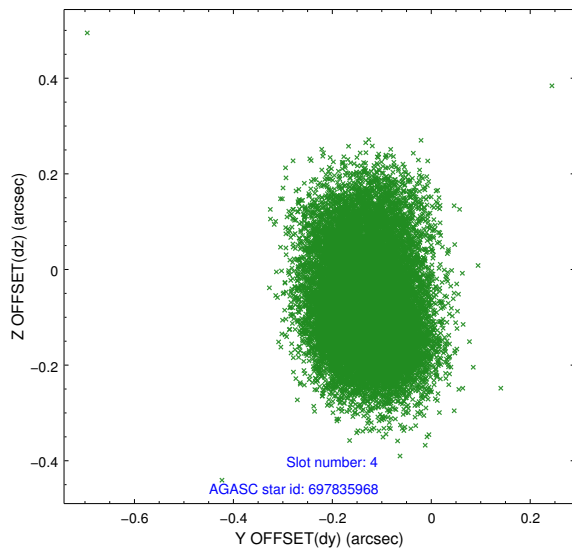
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.95	9063	-0.157	-0.013	0.021	0.036	0.000000	0.000000	-777.99	-1742.65
1	FID		ACIS-S-4	7.05	9063	0.321	0.081	0.014	0.043	0.000000	0.000000	2135.75	165.89
2	FID		ACIS-S-5	7.07	9063	-0.196	-0.056	0.017	0.024	0.000000	0.000000	-1830.83	159.47
3	GUIDE	used	697835752	7.84	18126	0.074	0.016	0.073	0.115	69.312835	-12.164170	-415.50	-806.77
4	GUIDE	used	697835968	9.05	18111	-0.131	-0.084	0.123	0.217	70.113917	-11.772123	-1654.83	2093.70
5	GUIDE	used	697837536	8.74	18122	0.113	0.269	0.082	0.129	69.361544	-11.866636	-1474.67	-572.95
6	GUIDE	used	697837912	9.34	18116	-0.025	-0.060	0.112	0.178	70.091872	-12.106315	-458.81	1941.89
7	GUIDE	used	698220616	7.52	18123	-0.032	-0.165	0.069	0.124	69.313891	-12.560296	1008.29	-887.39

2.4 Star Slots

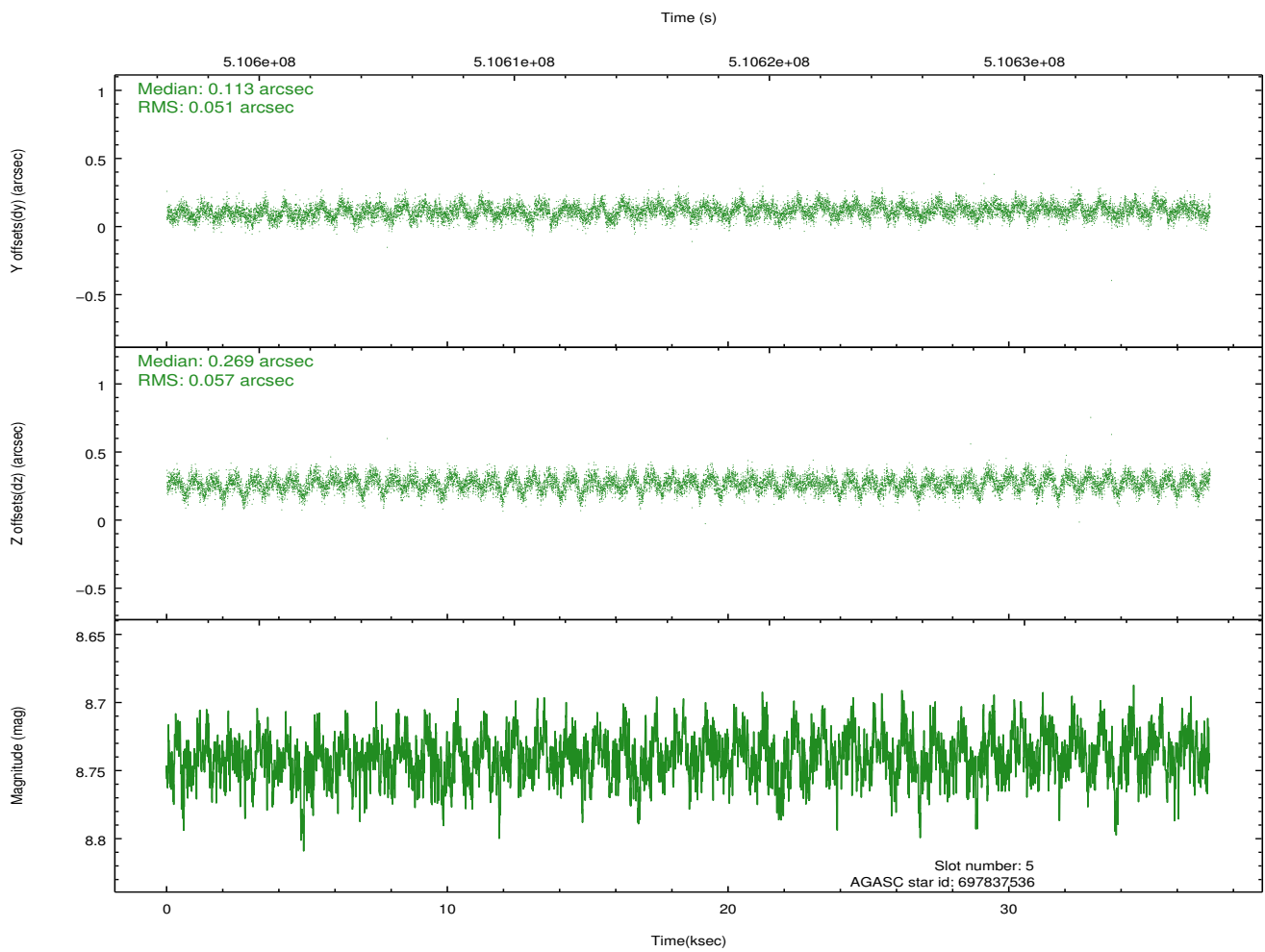
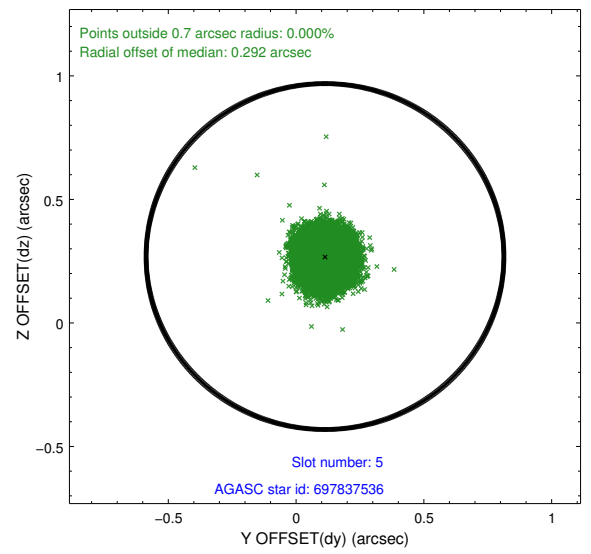
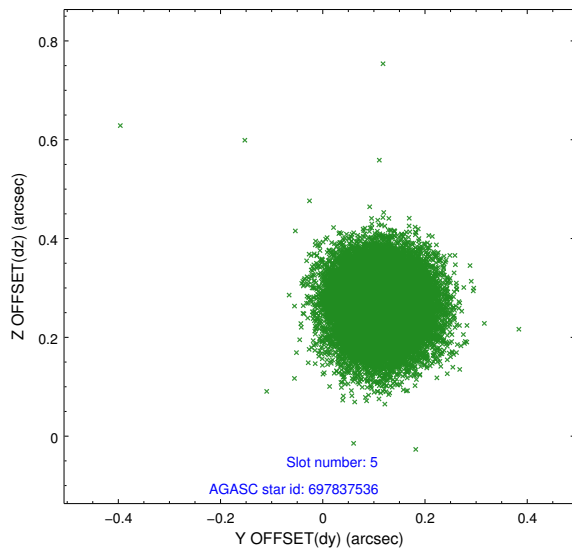
2.4.1 Slot 3



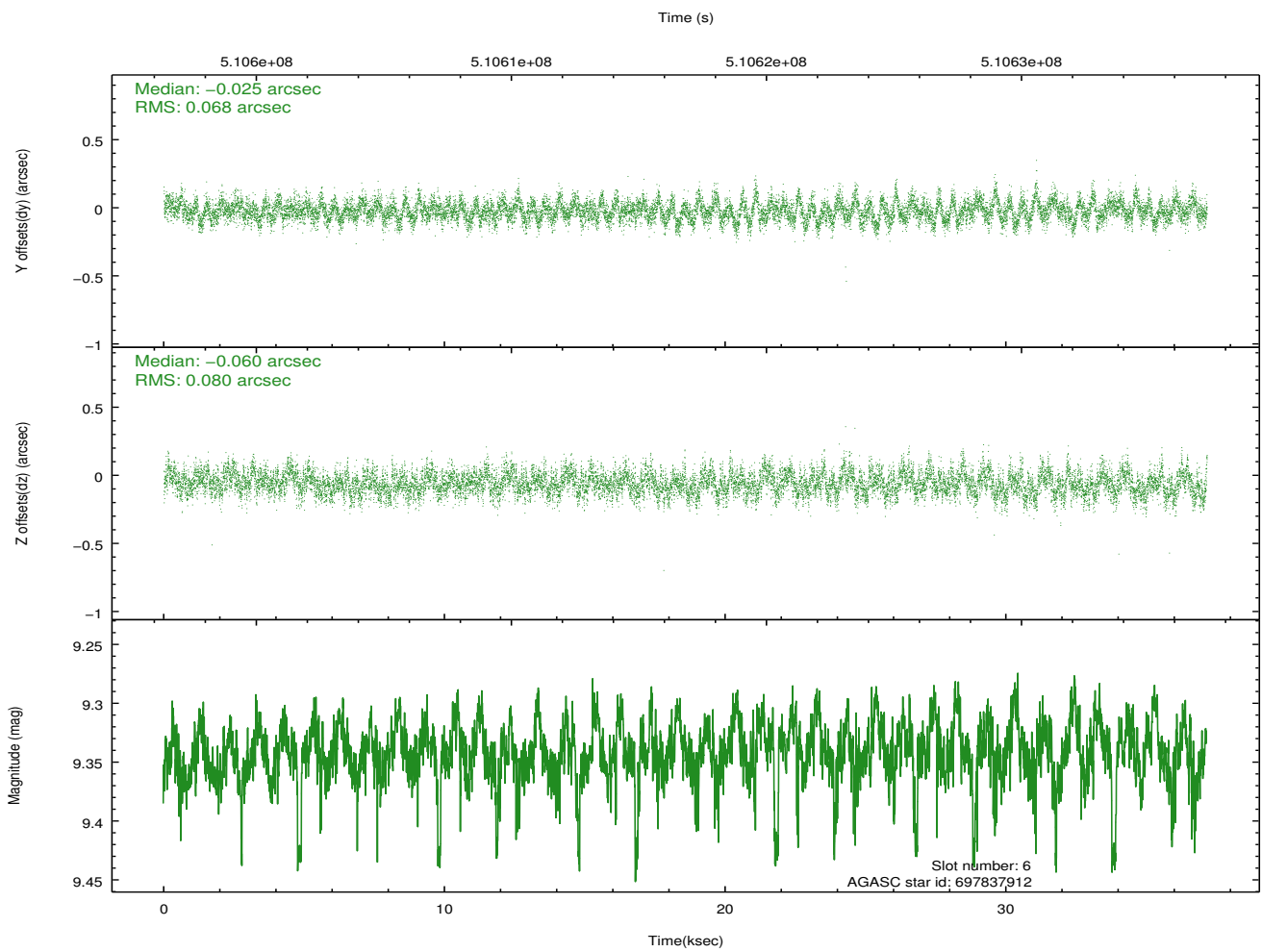
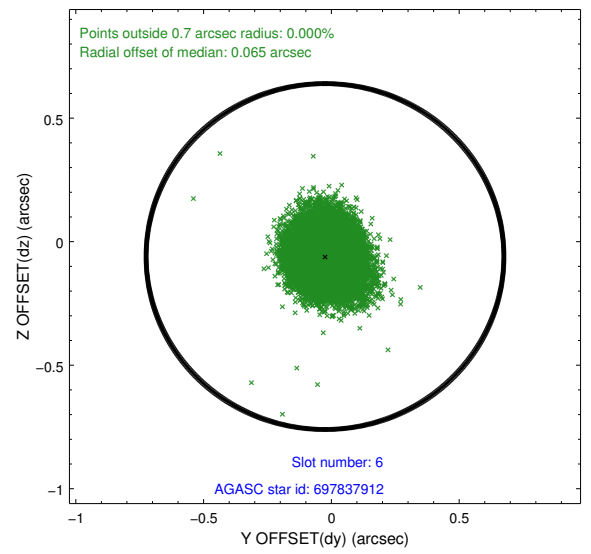
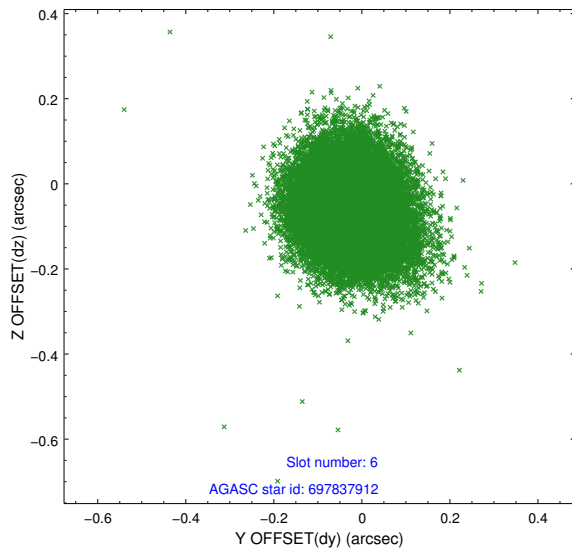
2.4.2 Slot 4



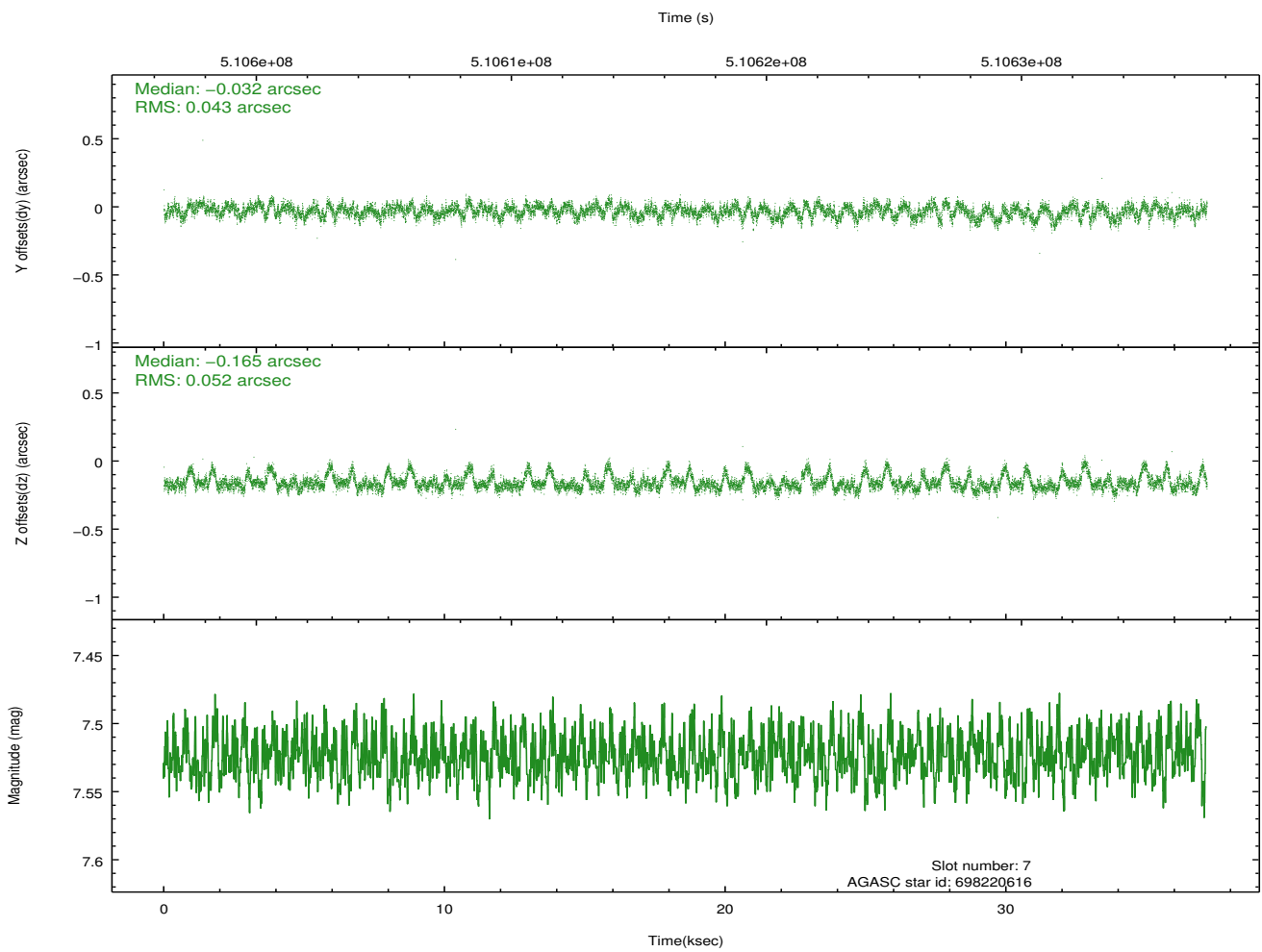
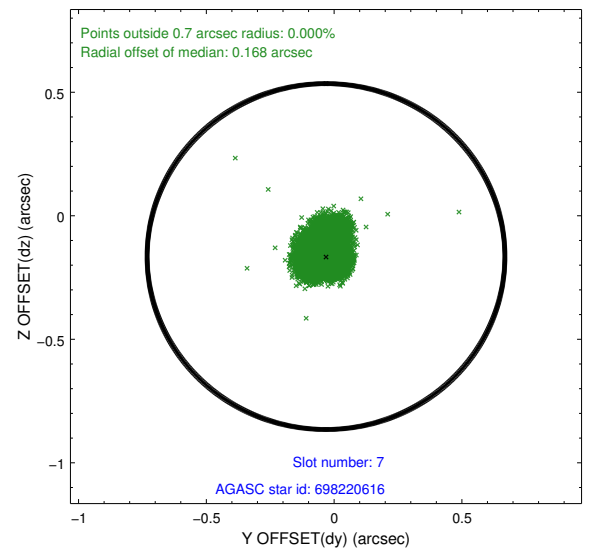
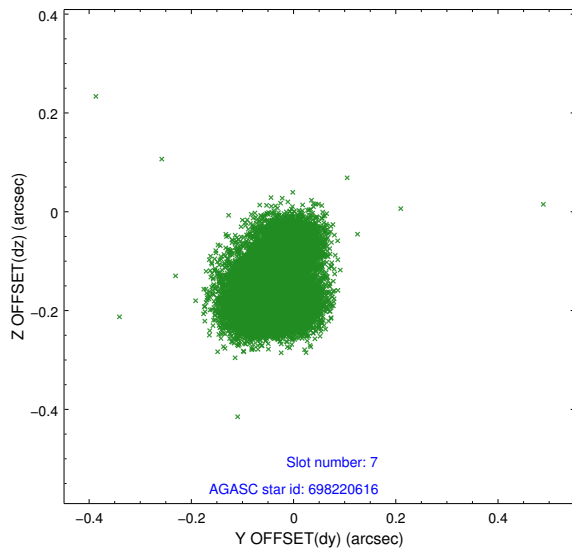
2.4.3 Slot 5



2.4.4 Slot 6

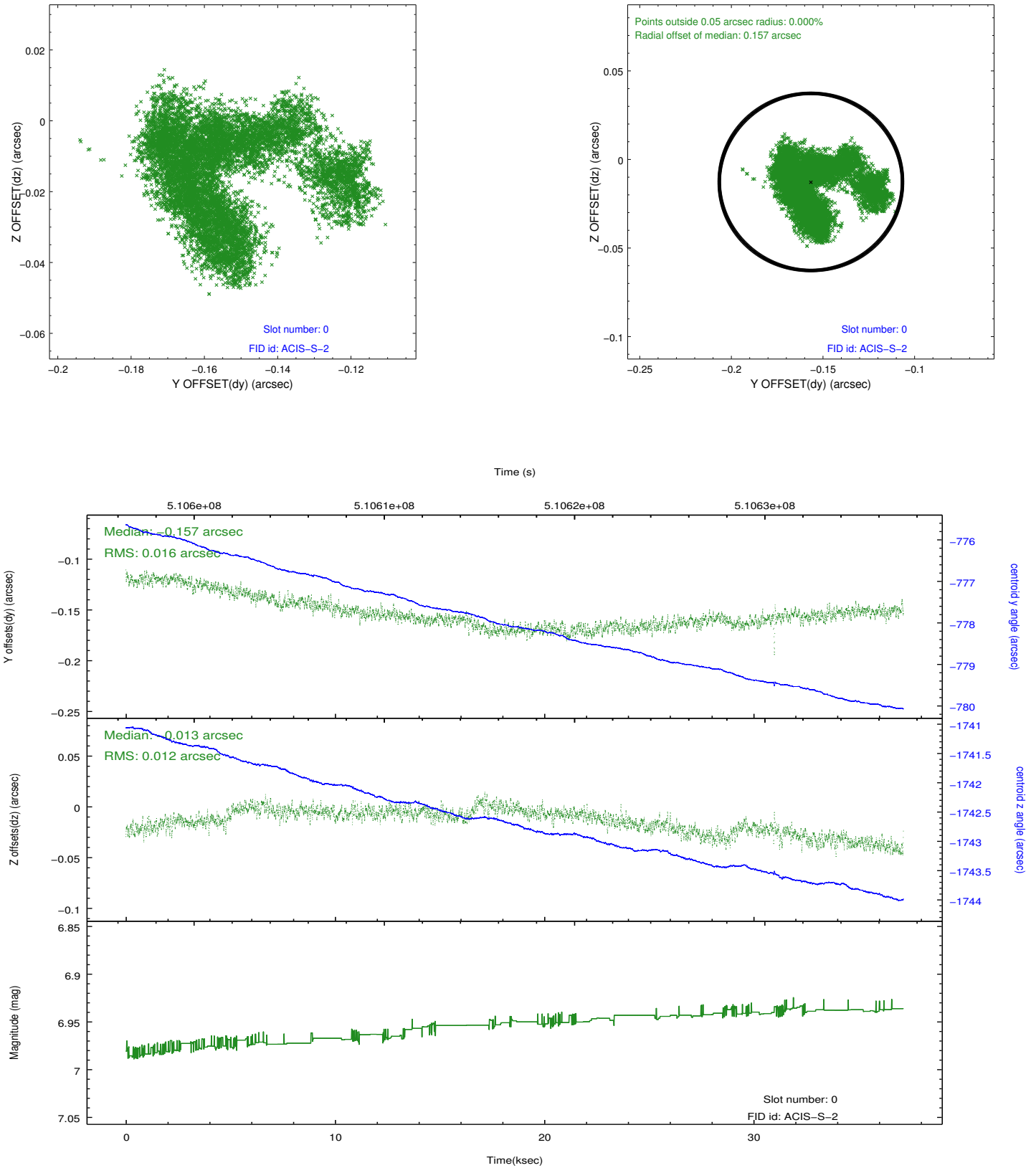


2.4.5 Slot 7

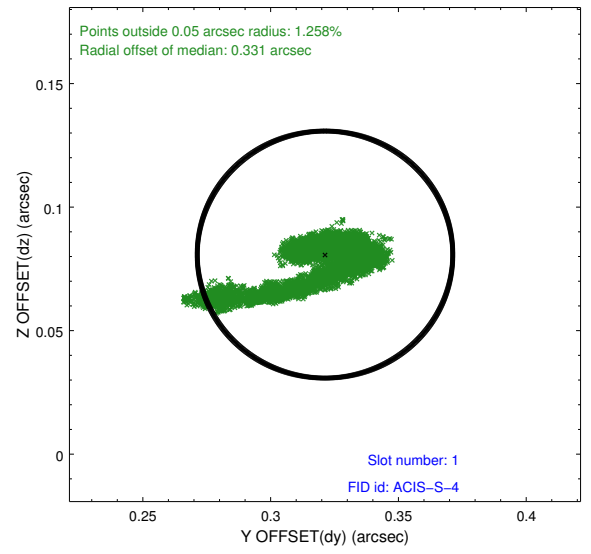
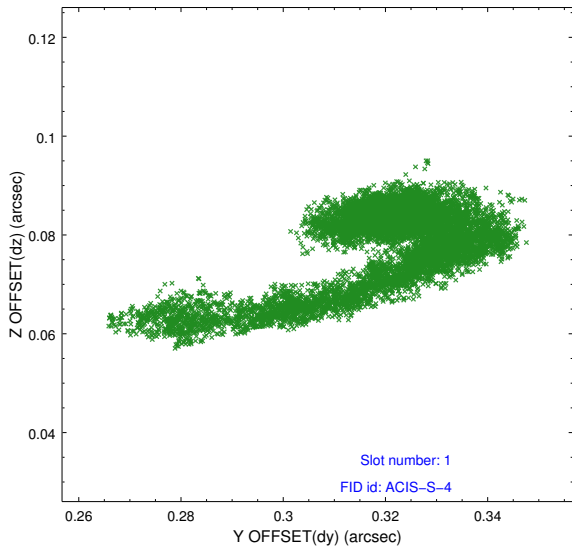


2.5 FID Slots

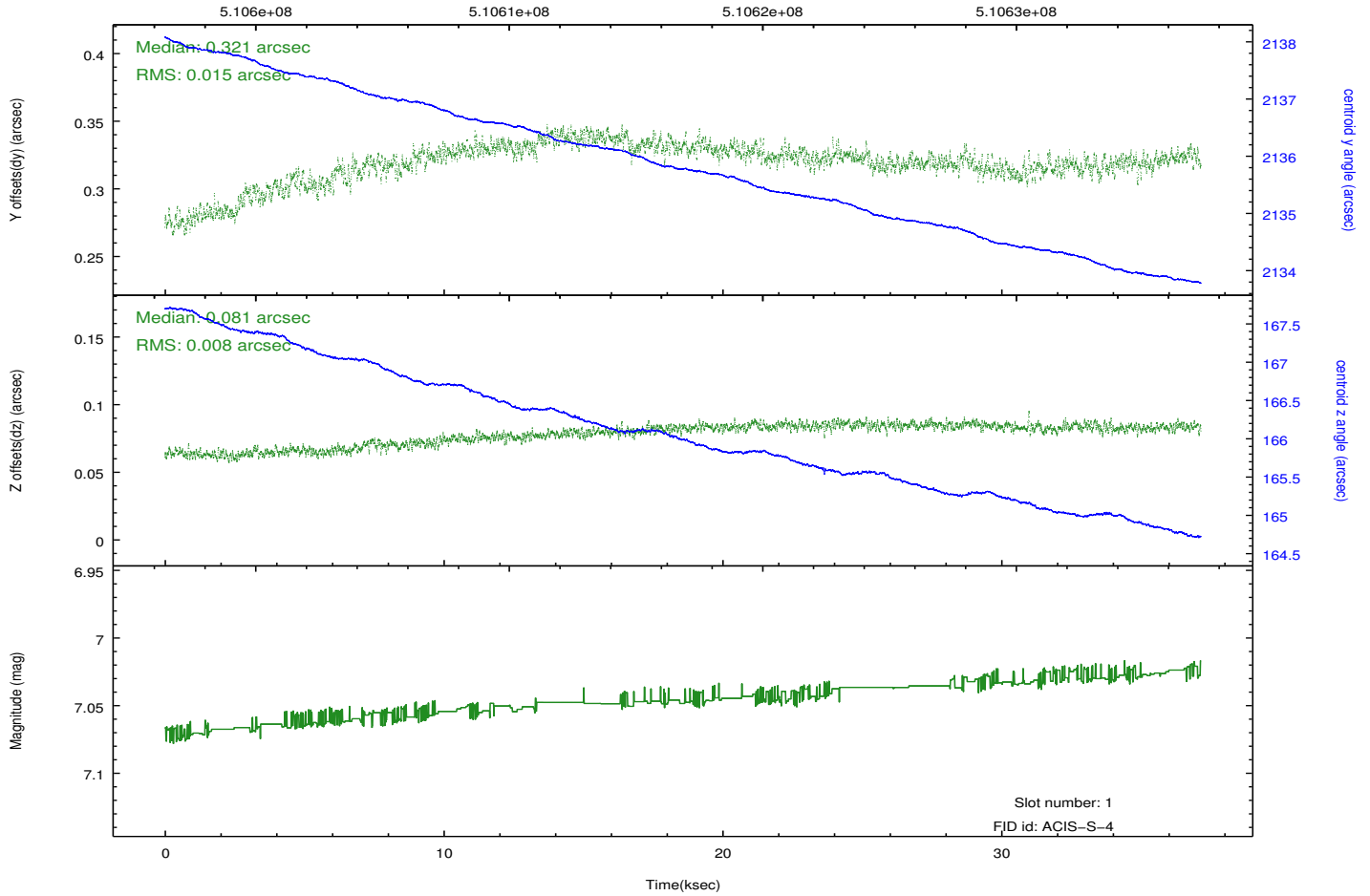
2.5.1 Slot 0



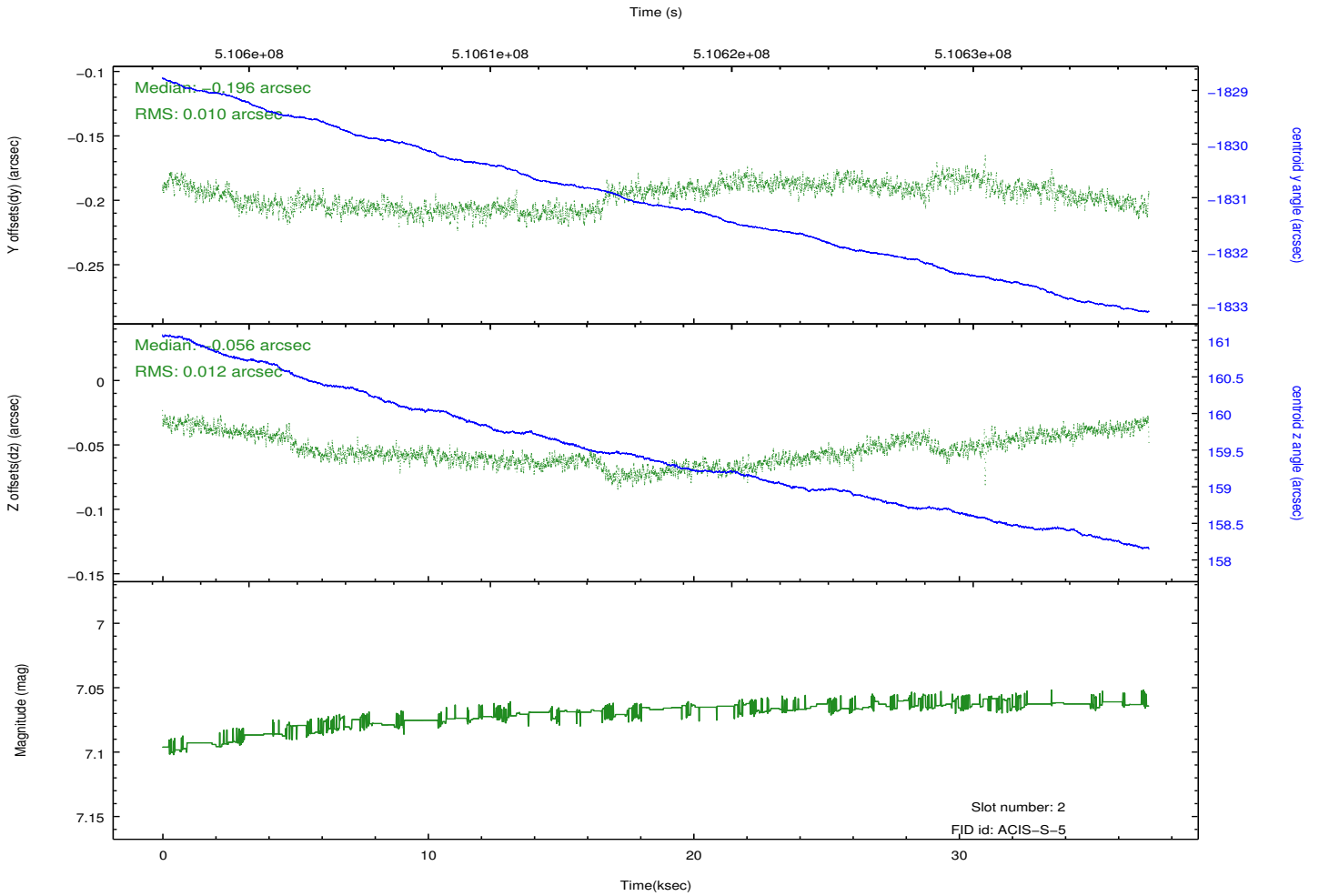
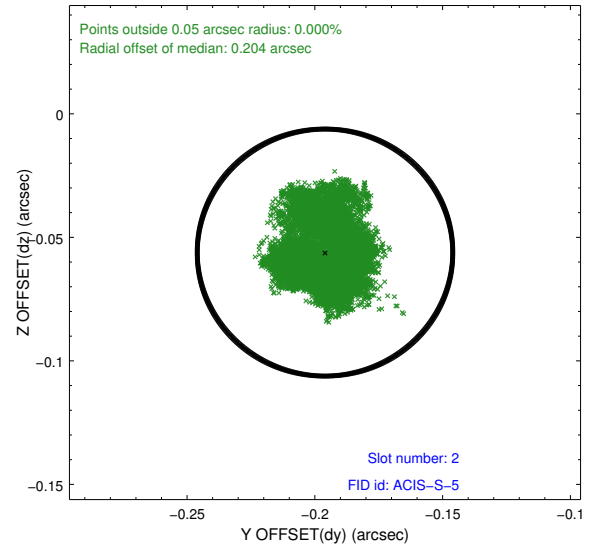
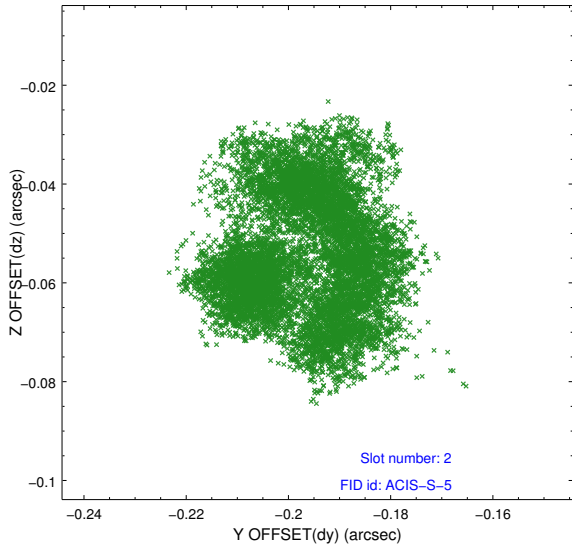
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.092187570512

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.