

V&V Reference Report

L2 ASCDS Version : 10.4.2.1

Observation 17270 - L2 Version 1
Chandra X-Ray Center

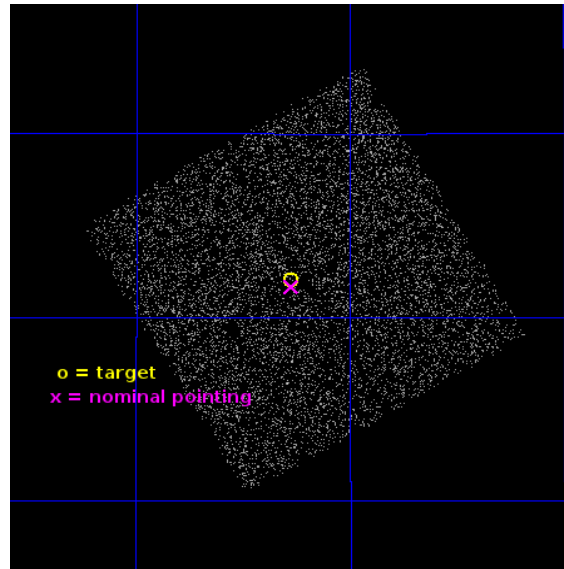
L2 Processing Date : Dec 12 2015

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1 Front

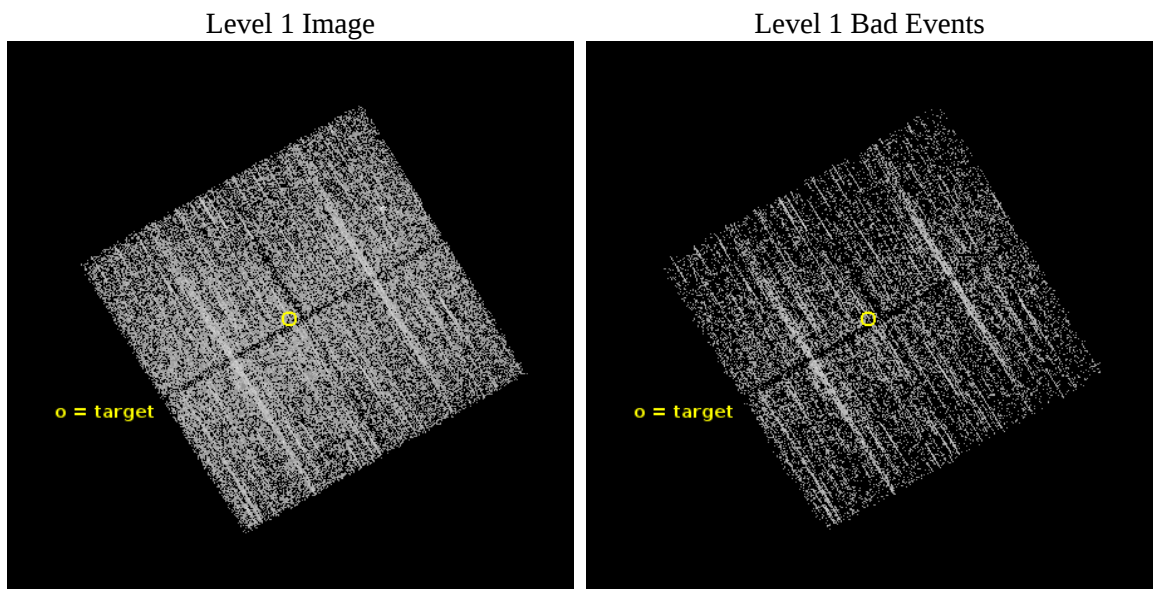
seq_num	801515	Sequence number
obs_id	17270	Observation id
title	Perseus: A New, Low-Redshift Anchor for Cluster Cosmology	Proposal
observer	Prof. Steven Allen	Principal investigator
object	Perseus cluster	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	51.31974	Observer's specified target RA [deg]
dec_targ	41.700953	Observer's specified target Dec [deg]
ra_nom	51.318573556393	Nominal RA [deg]
dec_nom	41.694513144552	Nominal Dec [deg]
roll_nom	239.38283706936	Nominal Roll [deg]
revision	1	Processing version of data
ontime	4792.0597074032	Sum of GTIs [s]
livetime	4729.4479194629	Livetime [s]
ontime0	4791.9365874529	Sum of GTIs [s]
ontime1	4791.9776273966	Sum of GTIs [s]
ontime2	4792.0186777115	Sum of GTIs [s]
ontime3	4792.0597074032	Sum of GTIs [s]
l2events	10199	Number of level 2 events



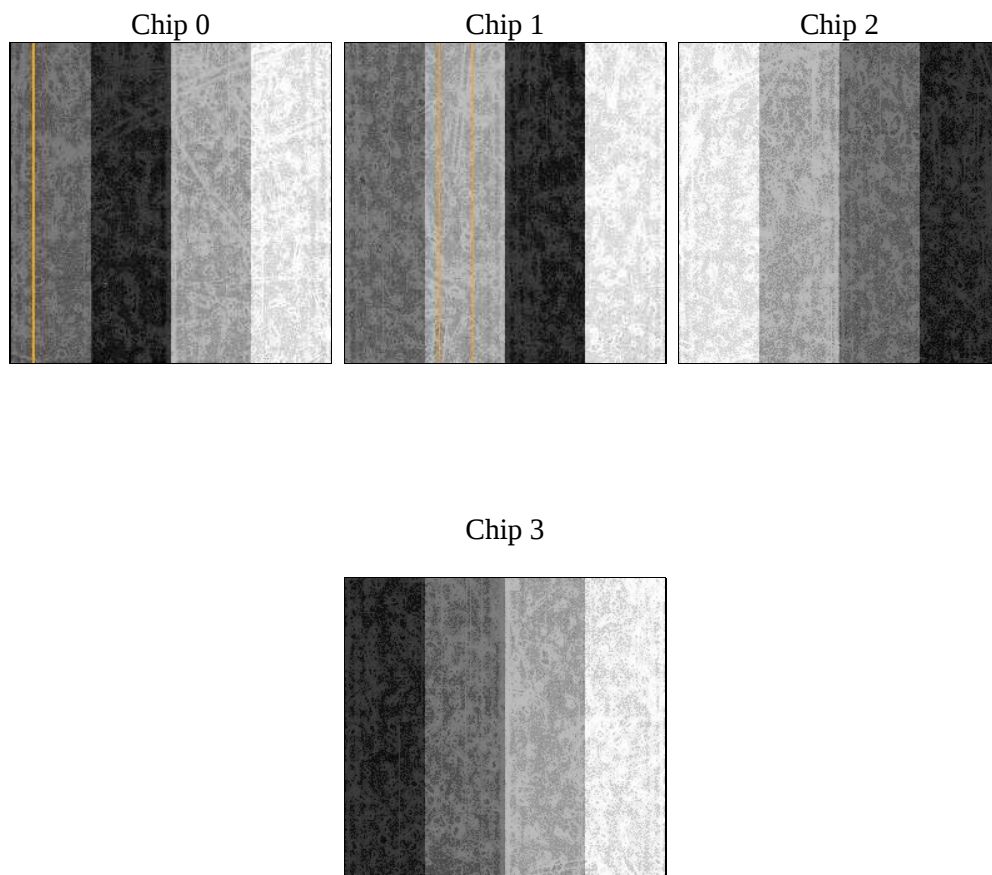
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.2.1	Processing system revision	ontime	4792.0597074032	Sum of GTIs [s]
caldsver	4.6.10a	 	ontime0	4791.9365874529	Sum of GTIs [s]
date	2015-12-12T19:36:28	Date and time of file creation	ontime1	4791.9776273966	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	4792.0186777115	Sum of GTIs [s]
			ontime3	4792.0597074032	Sum of GTIs [s]
			l1events	100440	Number of level 1 events

2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	23252	23547	27591	26050
rejected events	20309	20085	24707	23155
rejected %	87%	85%	89%	88%

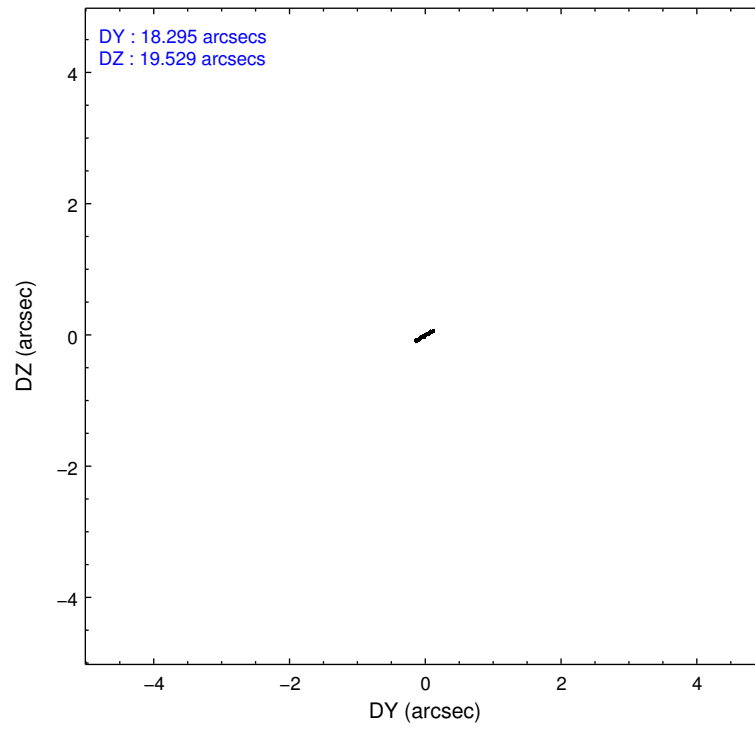
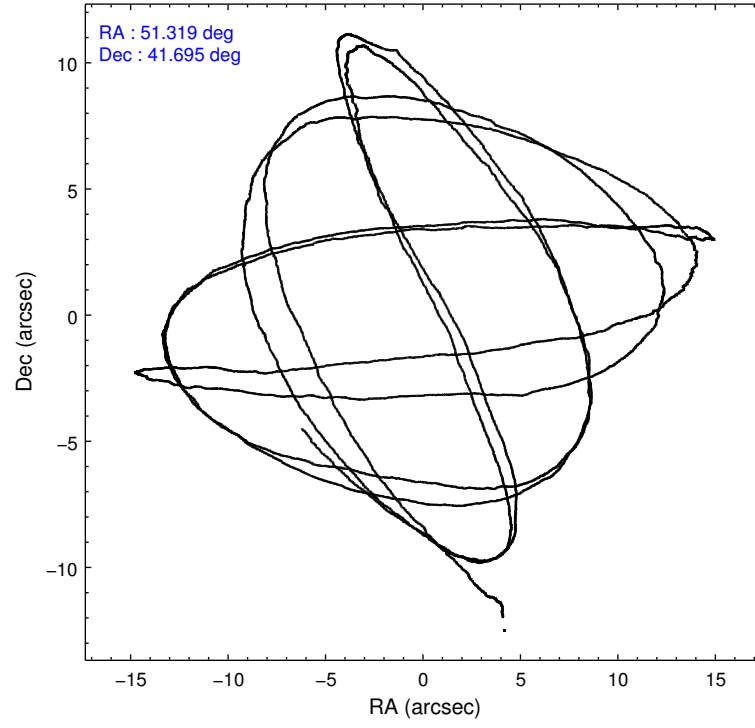
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	1058	1376	1041	1003
	4%	5%	3%	3%
grade 1 events	11	14	16	15
	0%	0%	0%	0%
grade 2 events	723	706	709	600
	3%	2%	2%	2%
grade 3 events	300	333	285	328
	1%	1%	1%	1%
grade 4 events	286	297	298	293
	1%	1%	1%	1%
grade 5 events	1119	1182	1085	1314
	4%	5%	3%	5%
grade 6 events	576	750	552	673
	2%	3%	2%	2%
grade 7 events	19179	18889	23605	21824
	82%	80%	85%	83%

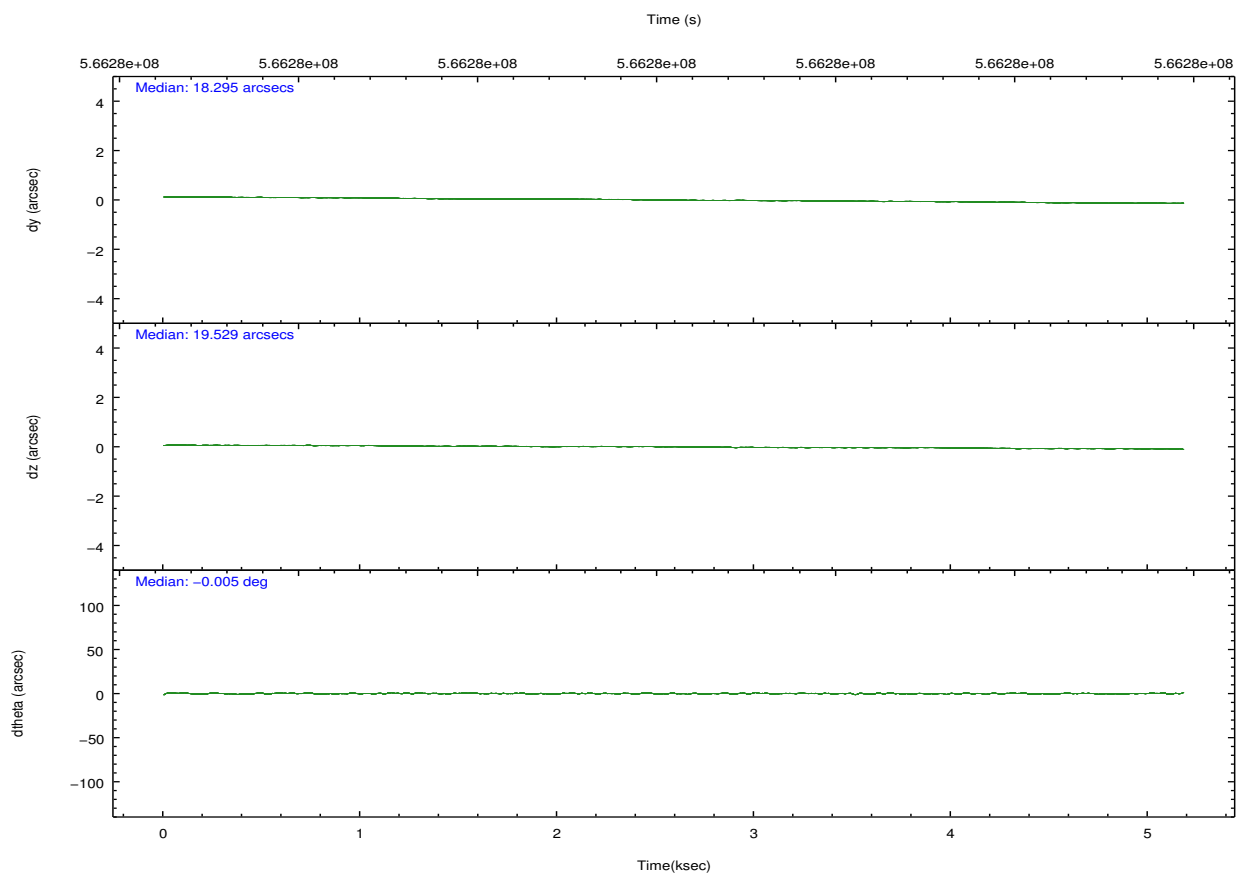
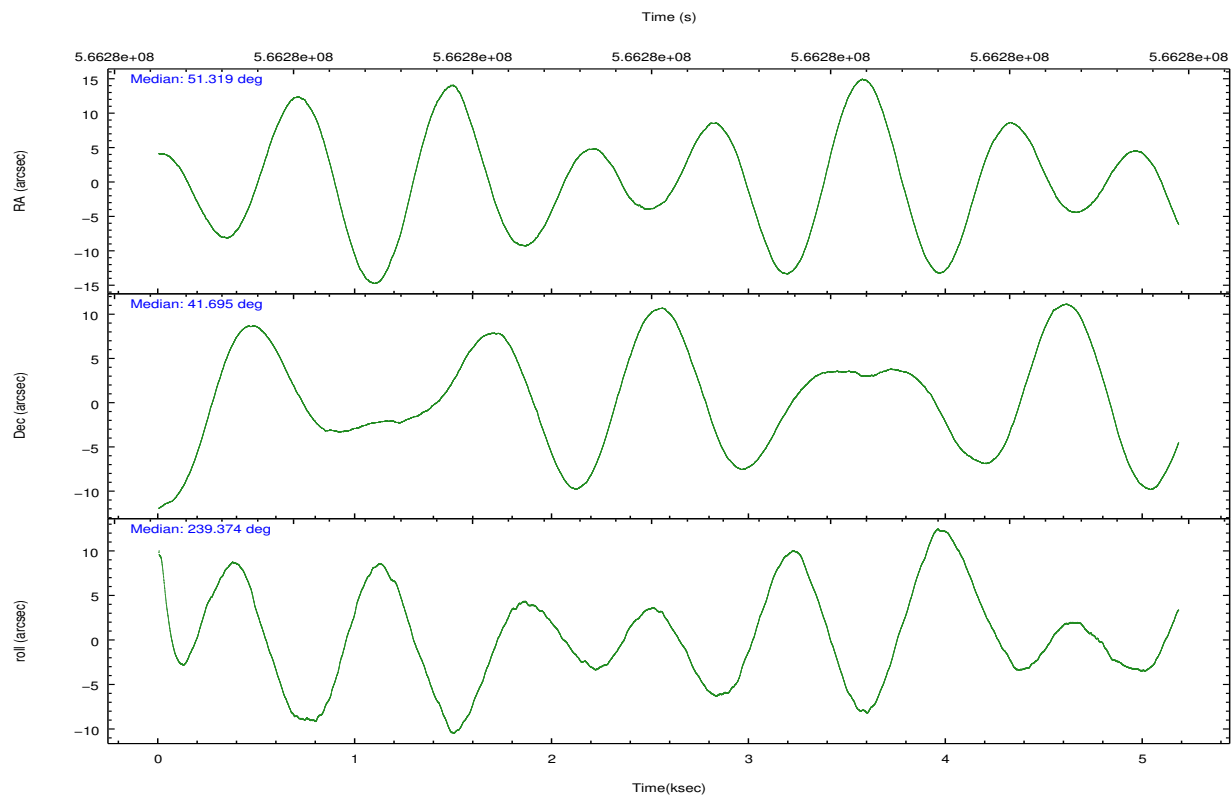
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-0123	ACIS-0123
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	51.318783	51.31857355639307
[deg] Pointing Dec	41.722233	41.6945131445519
[deg] Pointing Roll	239.173987	239.3828370693576
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-233.592463	-233.5874344608287
[mm] SIM translation stage offset	0	-0.005018542100998502
[s] Observation start time (MET)	566277690.184000	566277303.0549901
Observation start date	2015-12-12T03:20:22	2015-12-12T03:15:03
[s] Observation end time (MET)	566282690.184000	566282945.68031
Observation end date	2015-12-12T04:43:42	2015-12-12T04:49:05
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	Y	Y
CCD I1 on	Y	Y
CCD I2 on	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	O1	N
CCD S3 on	N	N
CCD S4 on	N	N
CCD S5 on	N	N
Number of optional ACIS chips dropped	1	1
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect



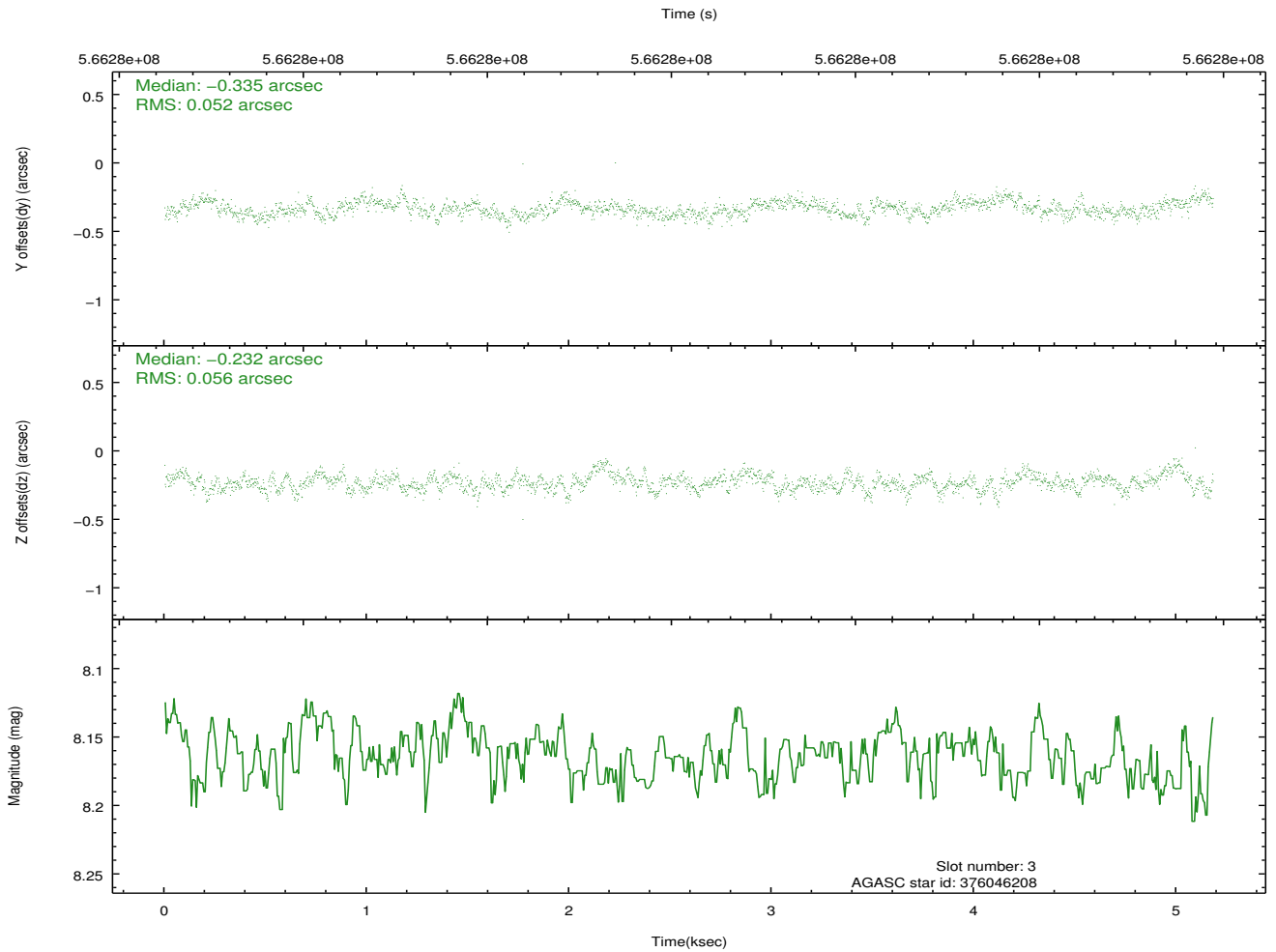
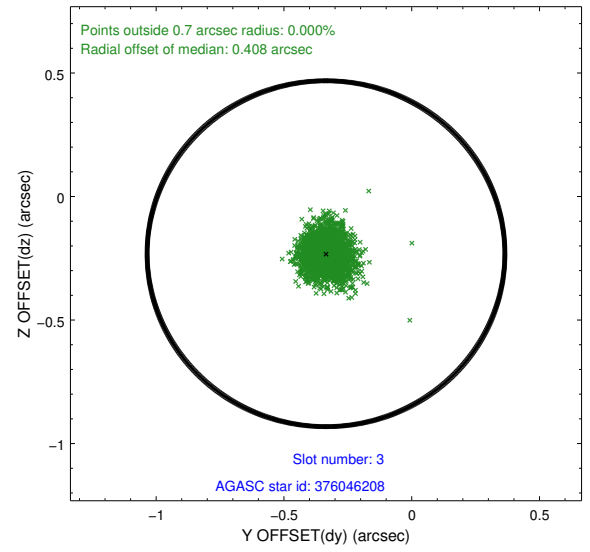
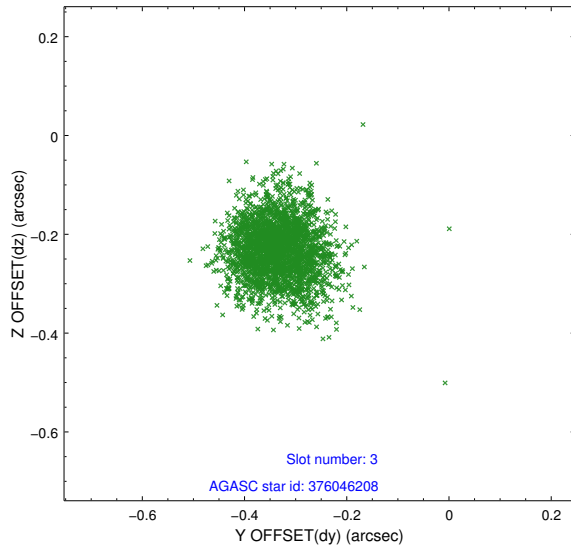


Slot Statistics

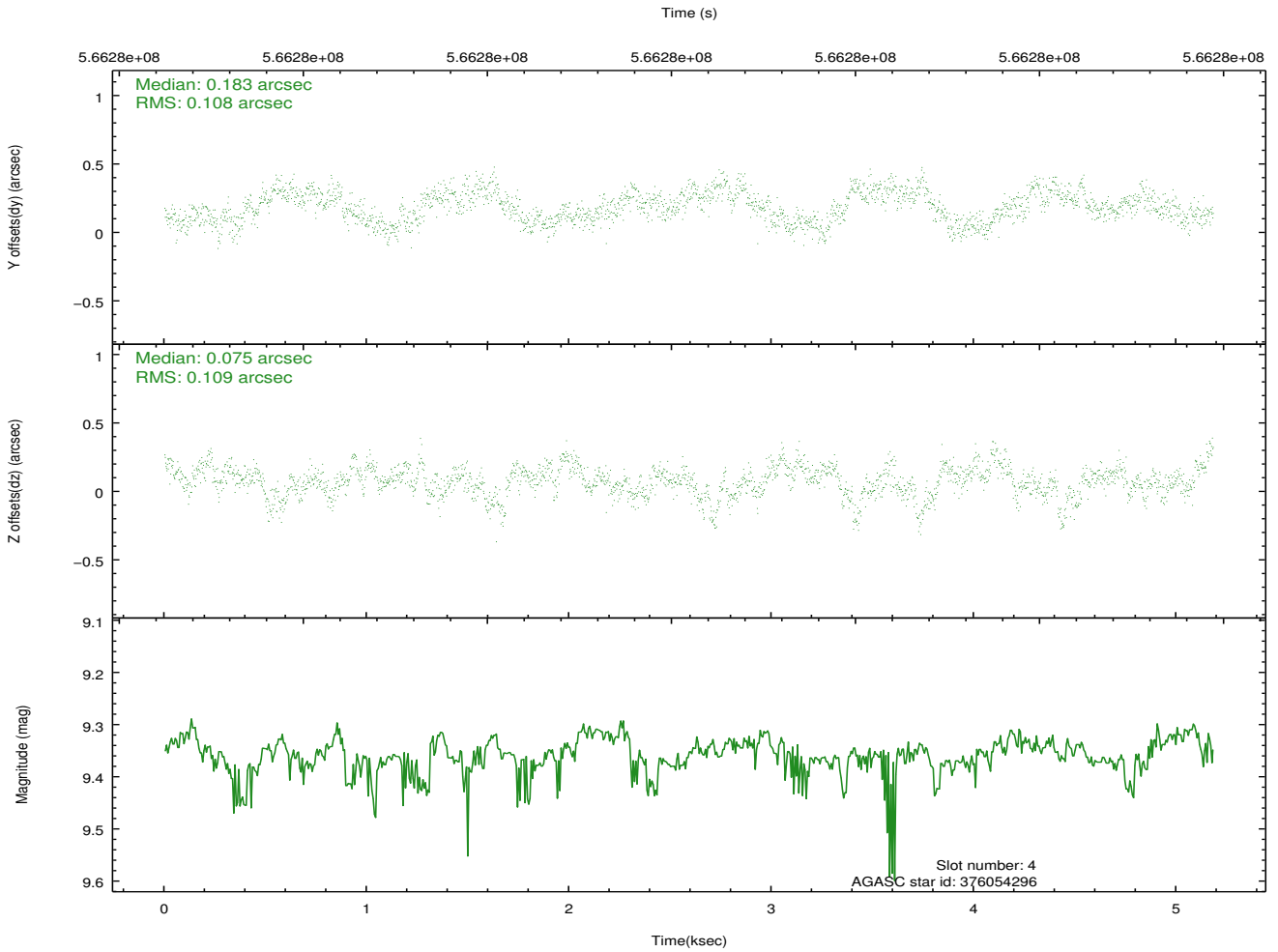
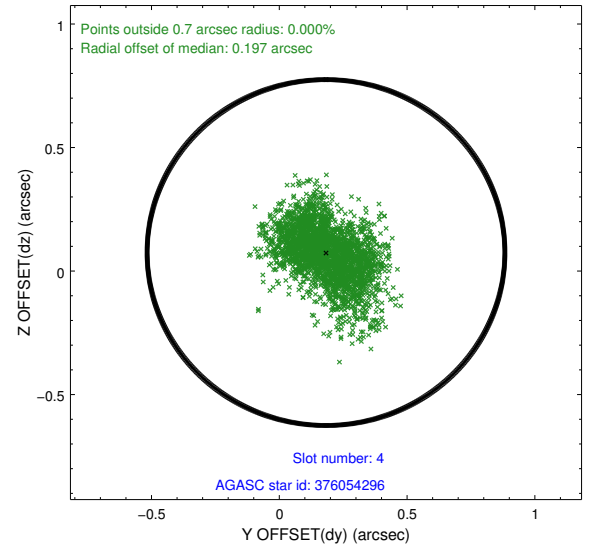
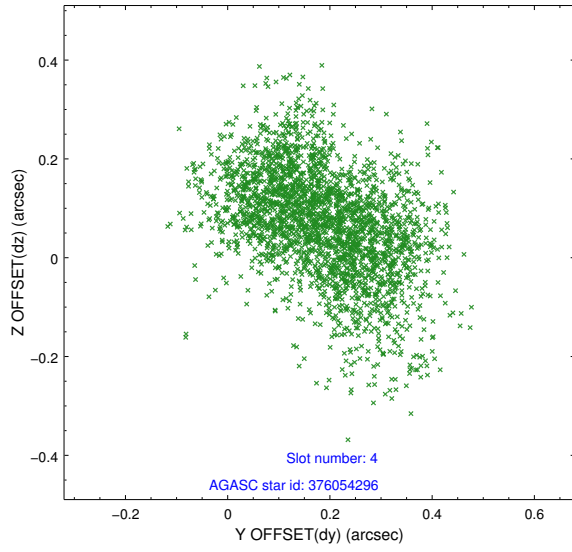
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.26	1264	0.054	-0.012	0.008	0.013	0.000000	0.000000	921.17	-843.21
1	FID		ACIS-I-5	7.26	1264	-0.359	0.016	0.007	0.011	0.000000	0.000000	-1826.80	1053.59
2	FID		ACIS-I-6	7.27	1264	0.215	0.065	0.007	0.012	0.000000	0.000000	385.48	1699.57
3	GUIDE	used	376046208	8.16	2528	-0.335	-0.232	0.080	0.132	51.749247	41.273134	788.73	1827.11
4	GUIDE	used	376054296	9.36	2528	0.183	0.075	0.164	0.267	51.304444	42.123131	-1218.33	-768.30
5	GUIDE	used	376057824	8.33	2526	0.134	0.135	0.110	0.185	50.665569	41.926280	260.49	-1881.97
6	GUIDE	used	376061424	9.26	2527	0.108	0.348	0.144	0.248	51.403542	42.058446	-1154.98	-426.61
7	GUIDE	used	376070440	6.97	2527	-0.096	-0.328	0.108	0.168	51.289107	41.257301	1477.93	788.01

2.4 Star Slots

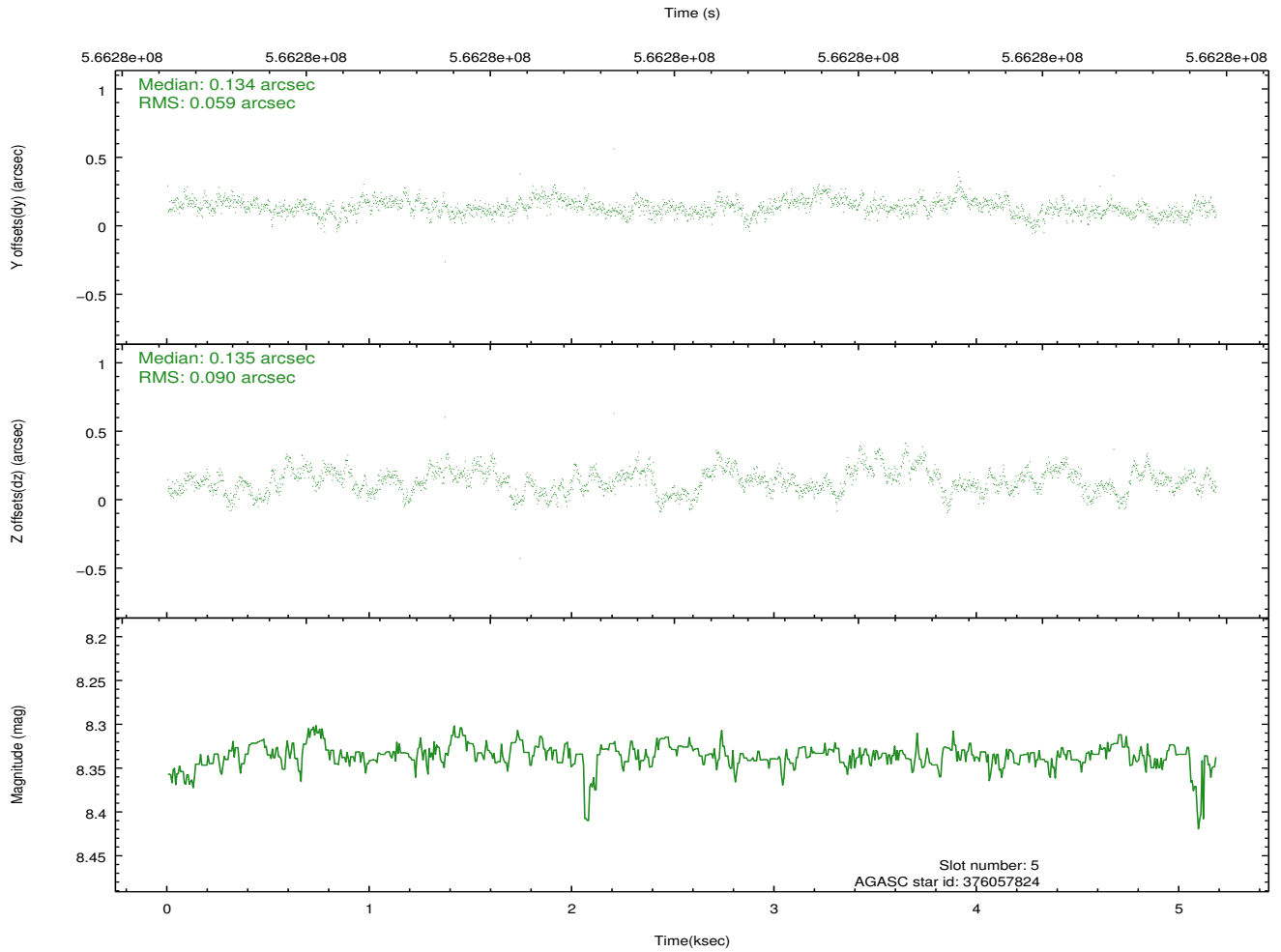
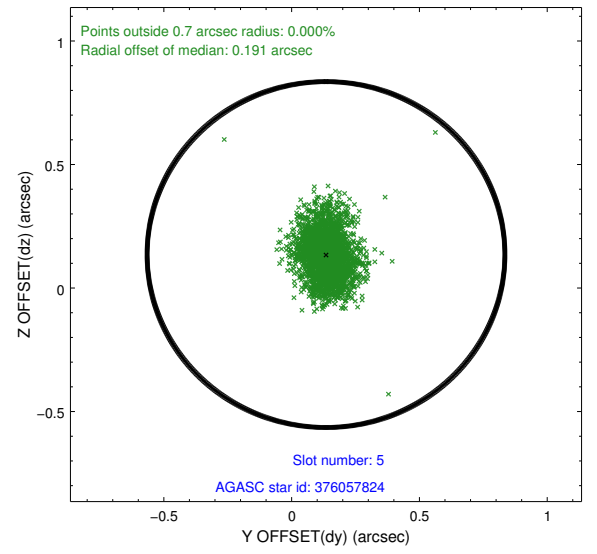
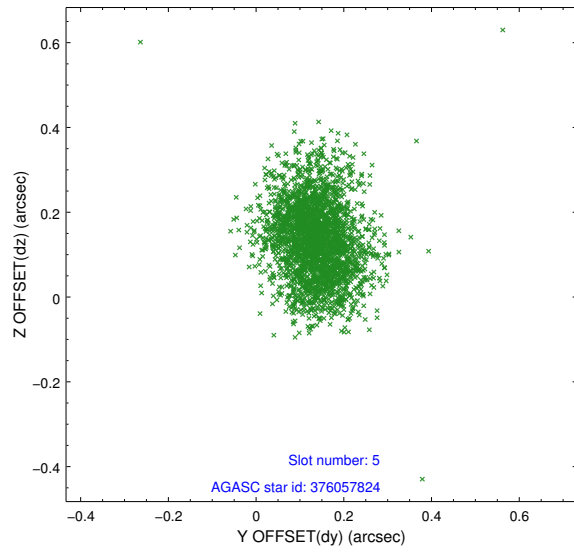
2.4.1 Slot 3



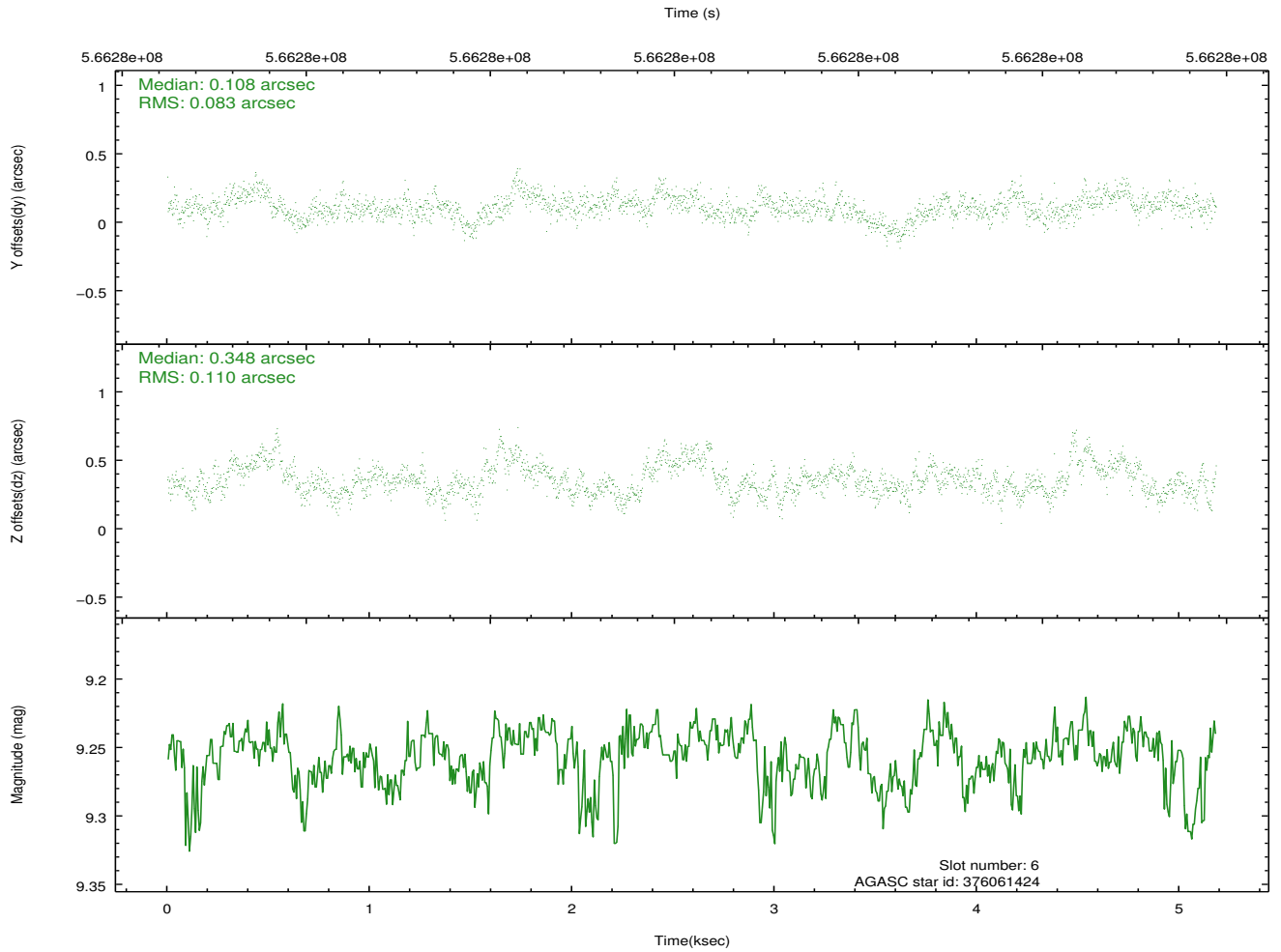
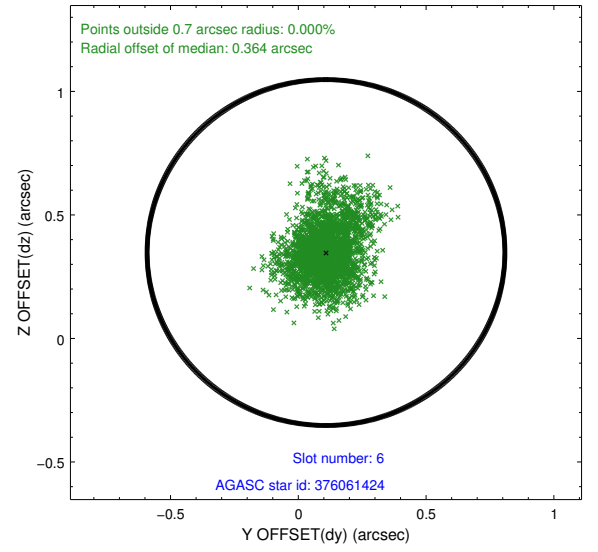
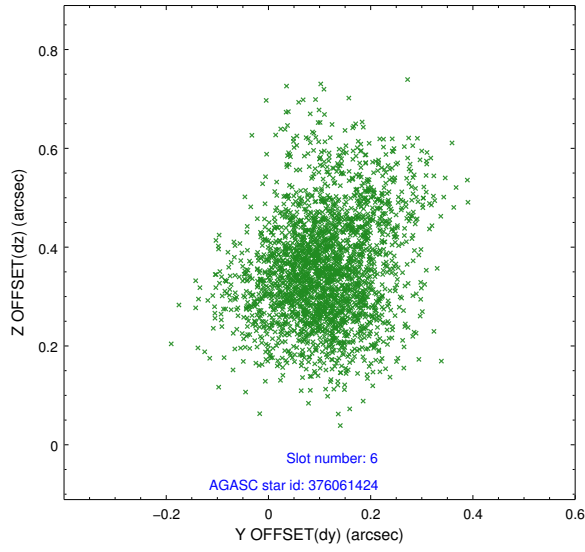
2.4.2 Slot 4



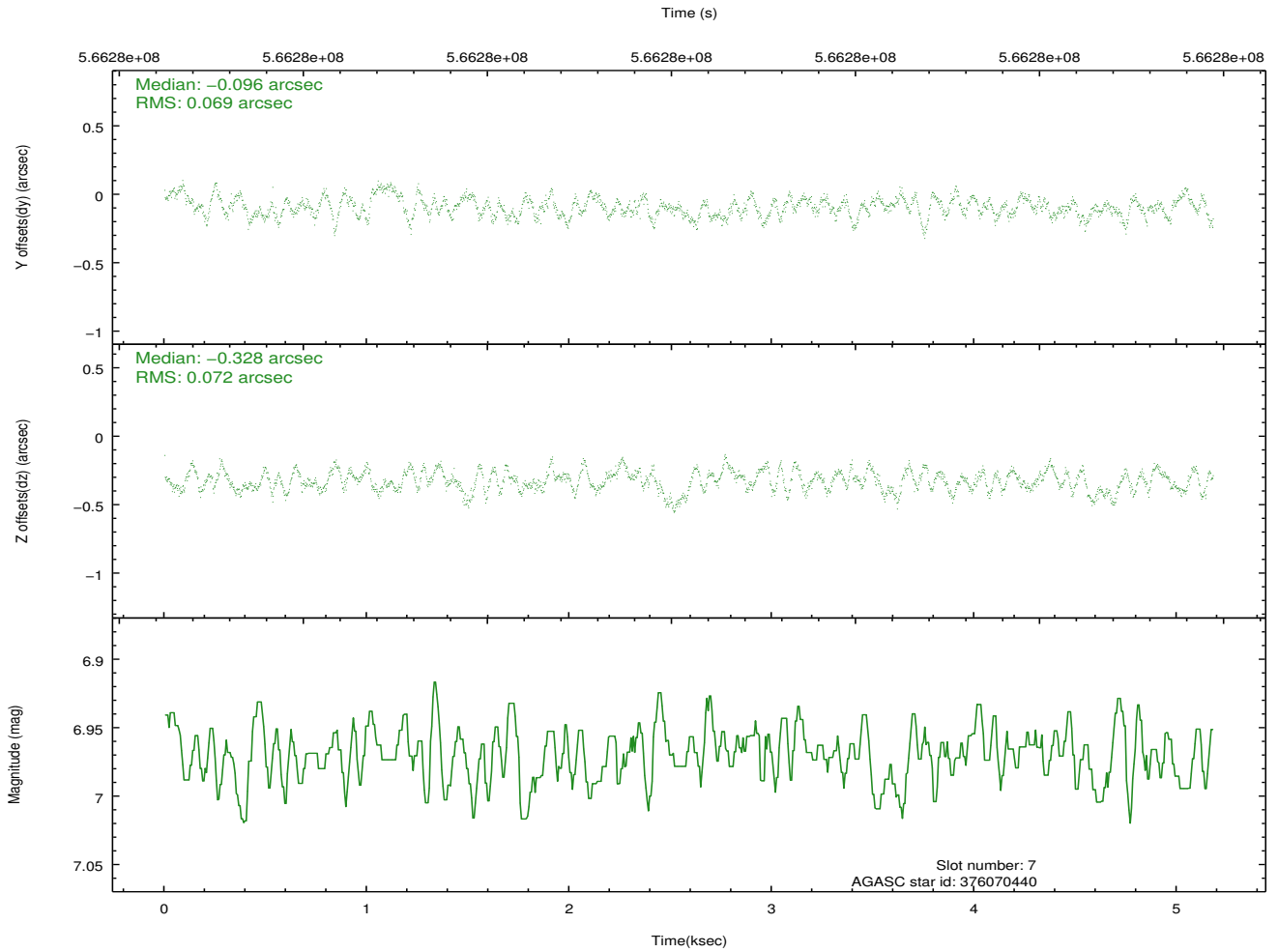
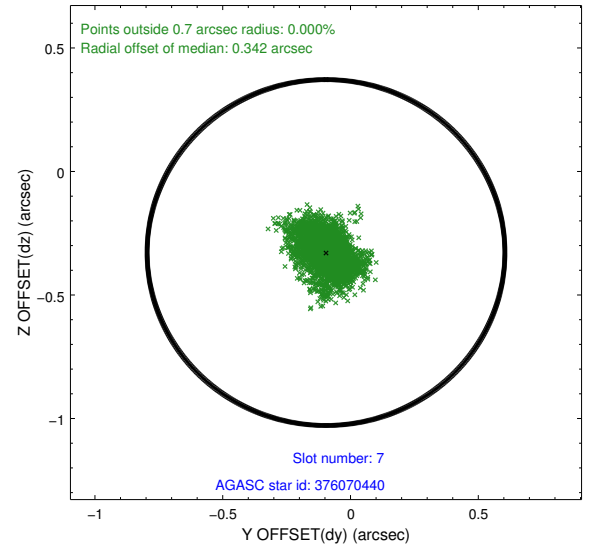
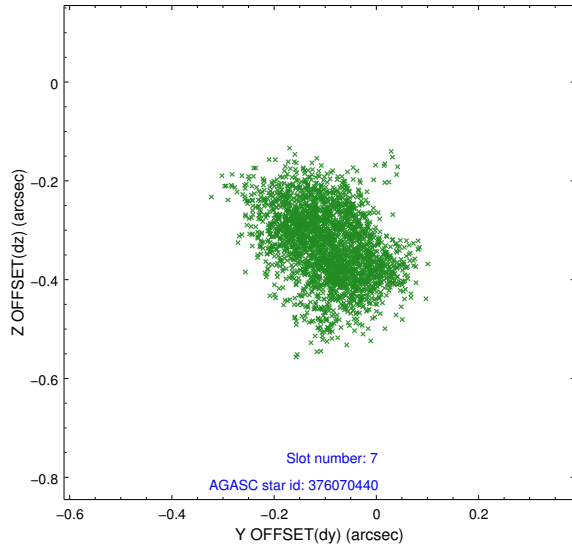
2.4.3 Slot 5



2.4.4 Slot 6

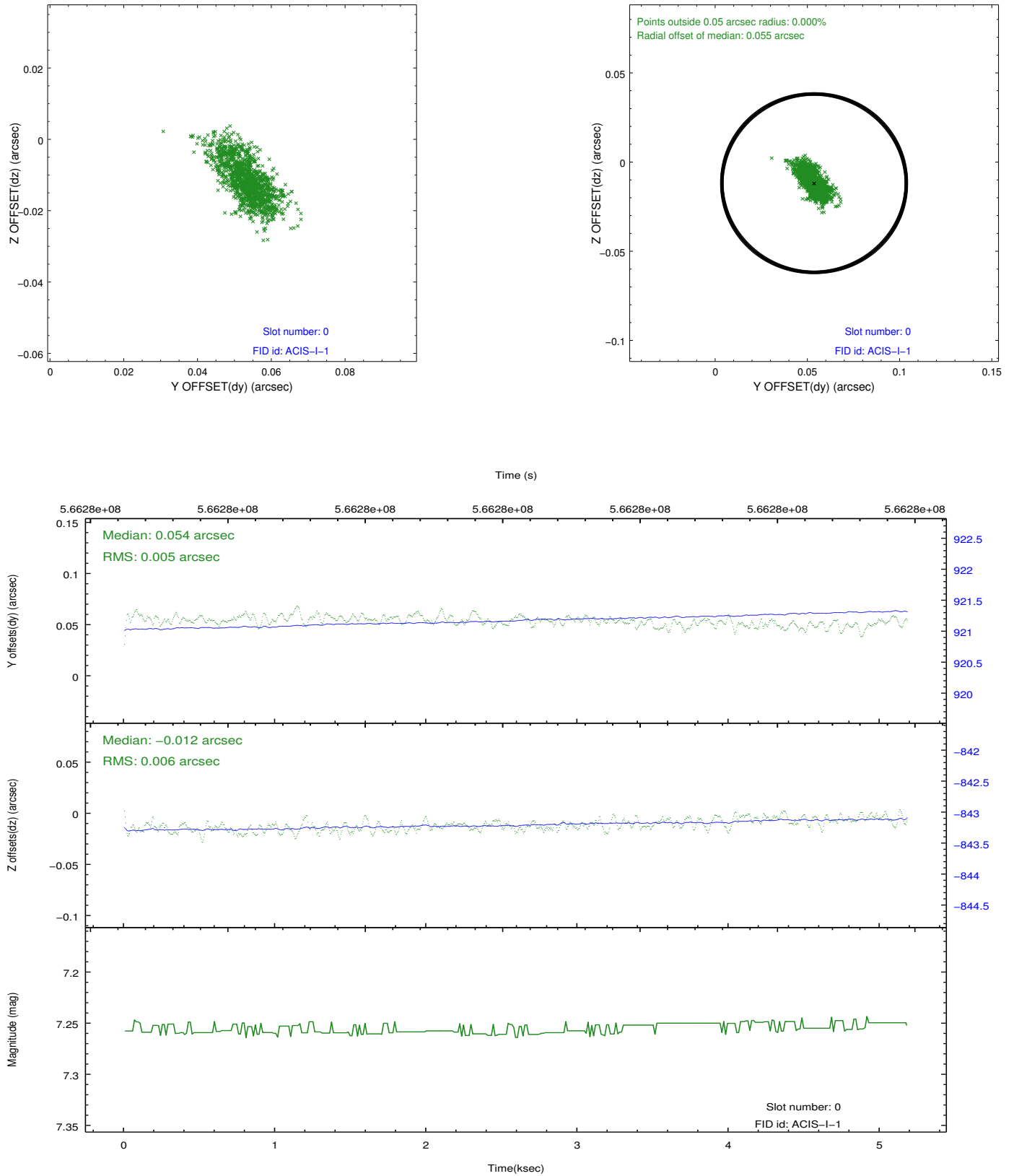


2.4.5 Slot 7

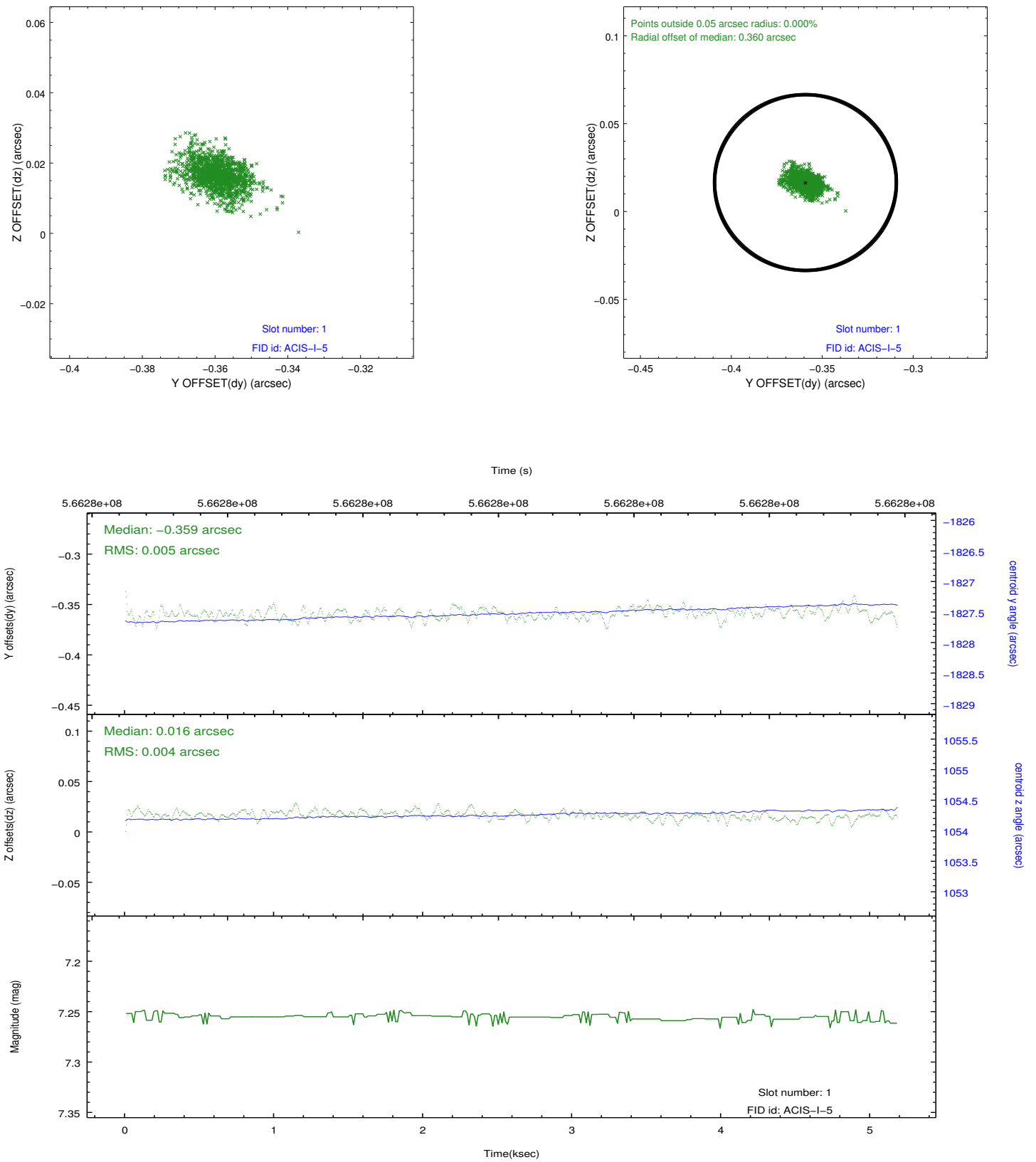


2.5 FID Slots

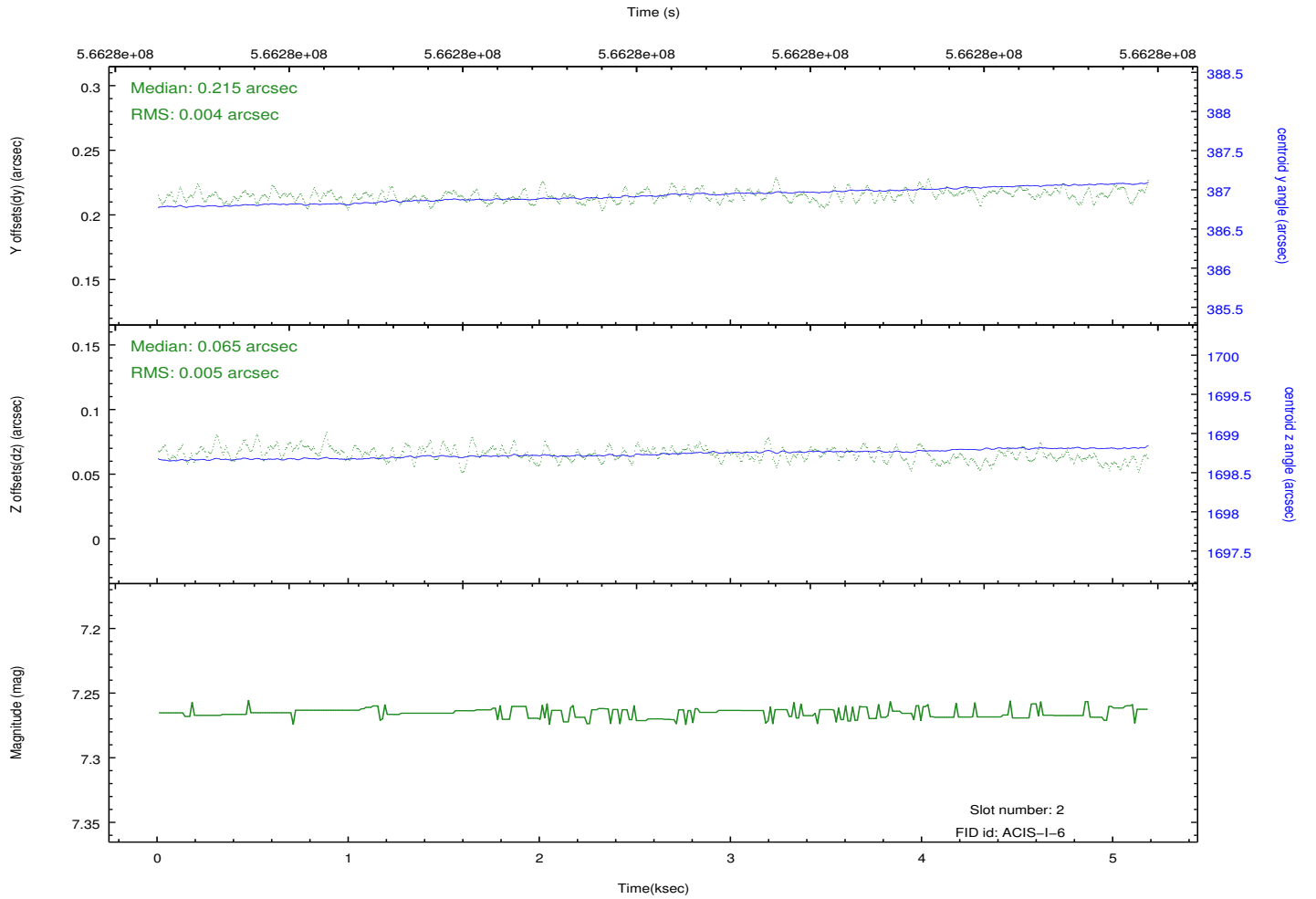
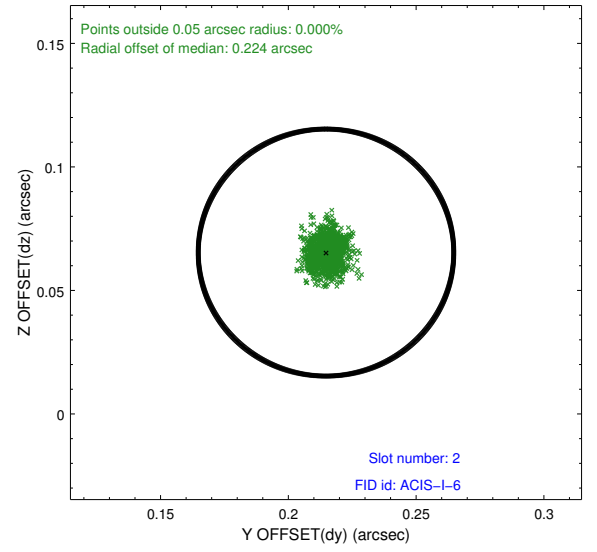
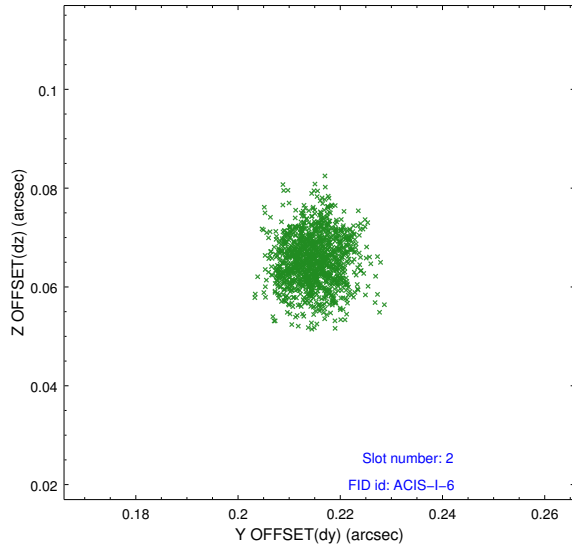
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2015.12.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.7920597074032

A.2 Comments

Optional chip S2 was dropped.