

V&V Reference Report

L2 ASCDS Version : 10.4.2.1

Observation 17278 - L2 Version 2
Chandra X-Ray Center

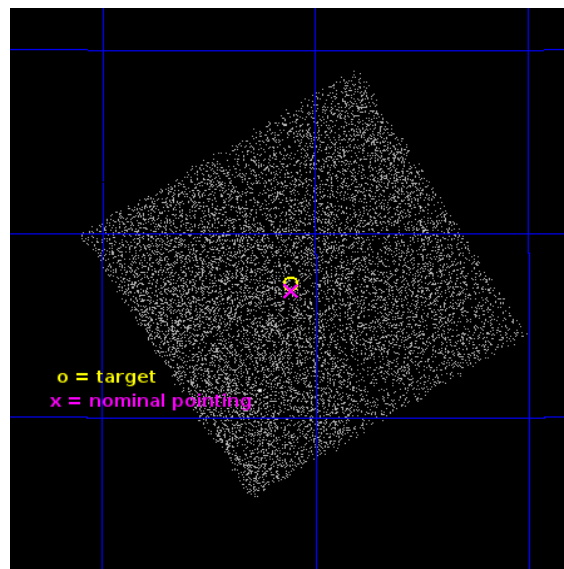
L2 Processing Date : Dec 16 2015

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1 Front

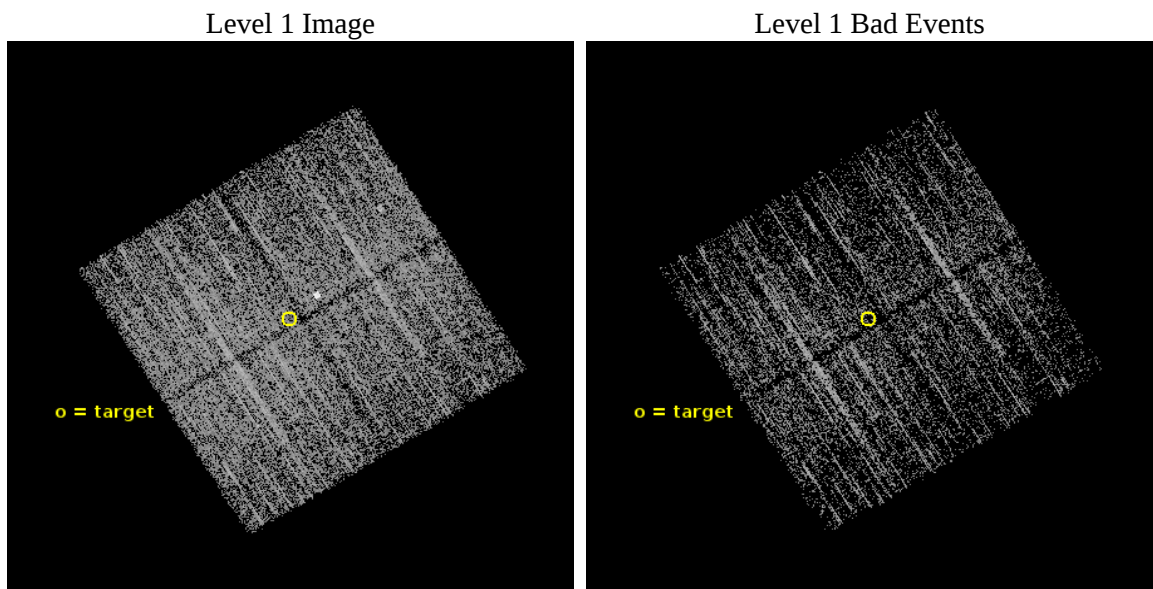
seq_num	801523	Sequence number
obs_id	17278	Observation id
title	Perseus: A New, Low-Redshift Anchor for Cluster Cosmology	Proposal
observer	Prof. Steven Allen	Principal investigator
object	Perseus cluster	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	49.52928	Observer's specified target RA [deg]
dec_targ	41.954625	Observer's specified target Dec [deg]
ra_nom	49.527940557029	Nominal RA [deg]
dec_nom	41.948412876078	Nominal Dec [deg]
roll_nom	238.21328621371	Nominal Roll [deg]
revision	2	Processing version of data
ontime	4795.7000370026	Sum of GTIs [s]
livetime	4733.0406854761	Livetime [s]
ontime0	4795.7000370026	Sum of GTIs [s]
ontime1	4795.7000370026	Sum of GTIs [s]
ontime2	4795.7000370026	Sum of GTIs [s]
ontime3	4795.7000370026	Sum of GTIs [s]
l2events	13716	Number of level 2 events



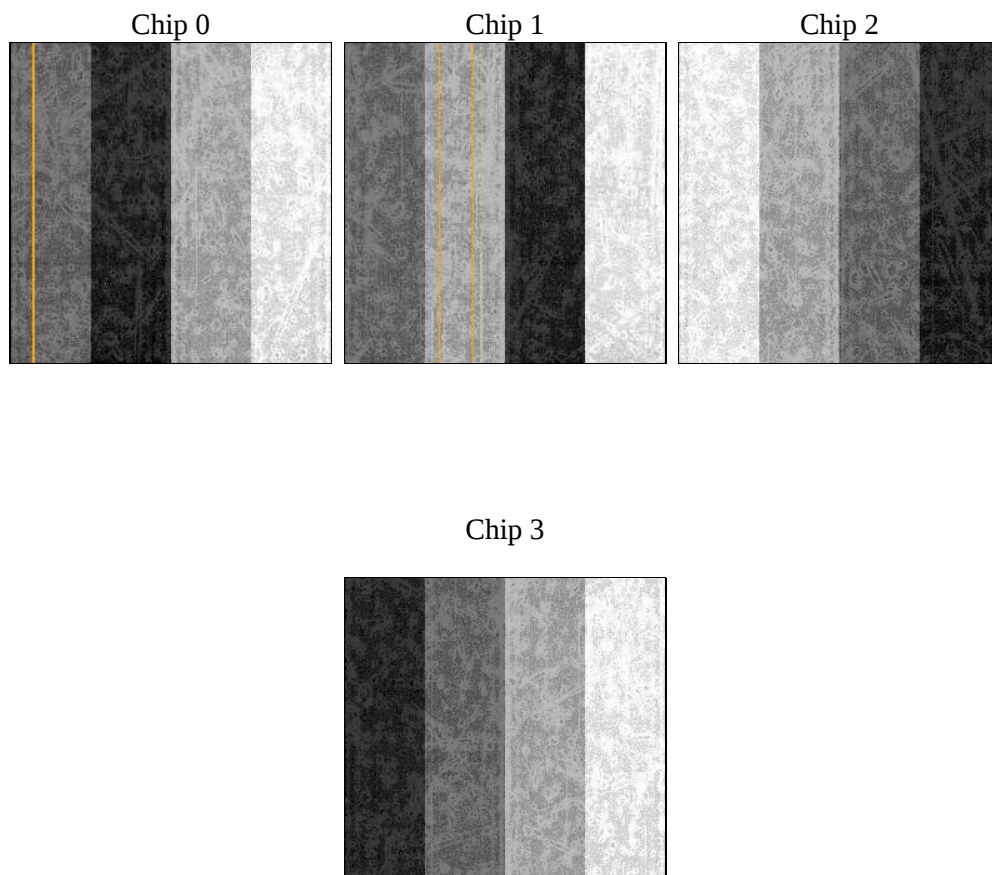
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3	Processing system revision	ontime	4795.7000370026	Sum of GTIs [s]
caldbver	4.7.0	 	ontime0	4795.7000370026	Sum of GTIs [s]
date	2015-12-16T20:24:41	Date and time of file creation	ontime1	4795.7000370026	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4795.7000370026	Sum of GTIs [s]
			ontime3	4795.7000370026	Sum of GTIs [s]
			l1events	106260	Number of level 1 events

2.1.4 Events

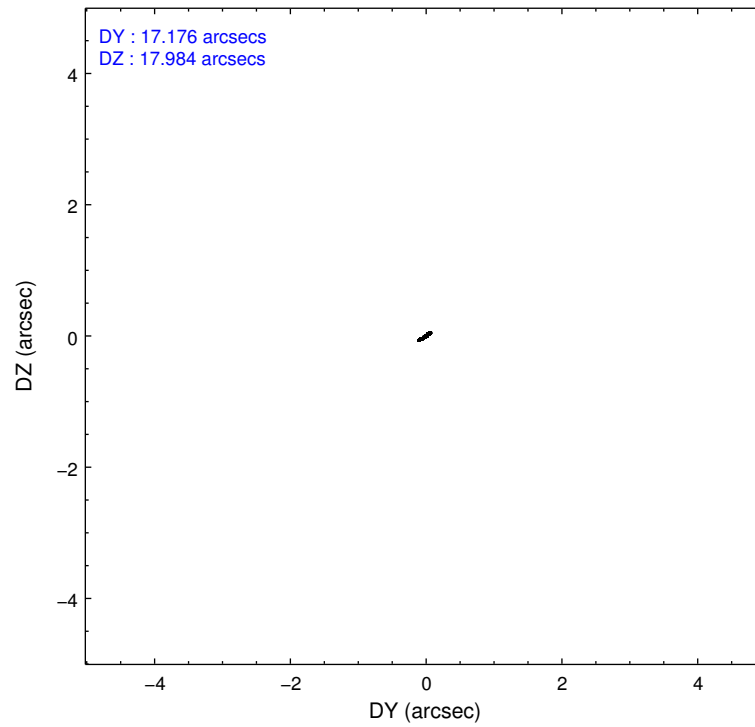
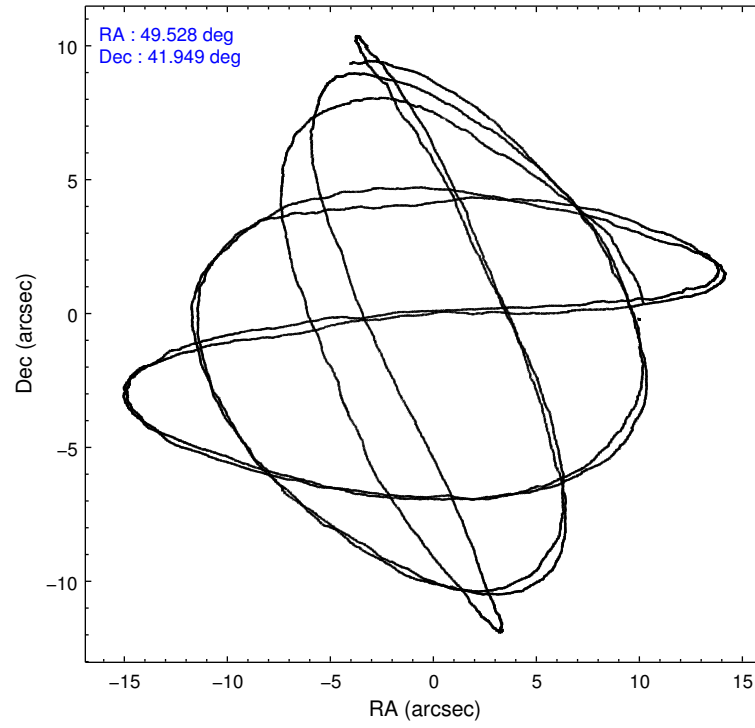
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	23604	26183	28253	28220
rejected events	19995	20823	23863	24167
rejected %	84%	79%	84%	85%

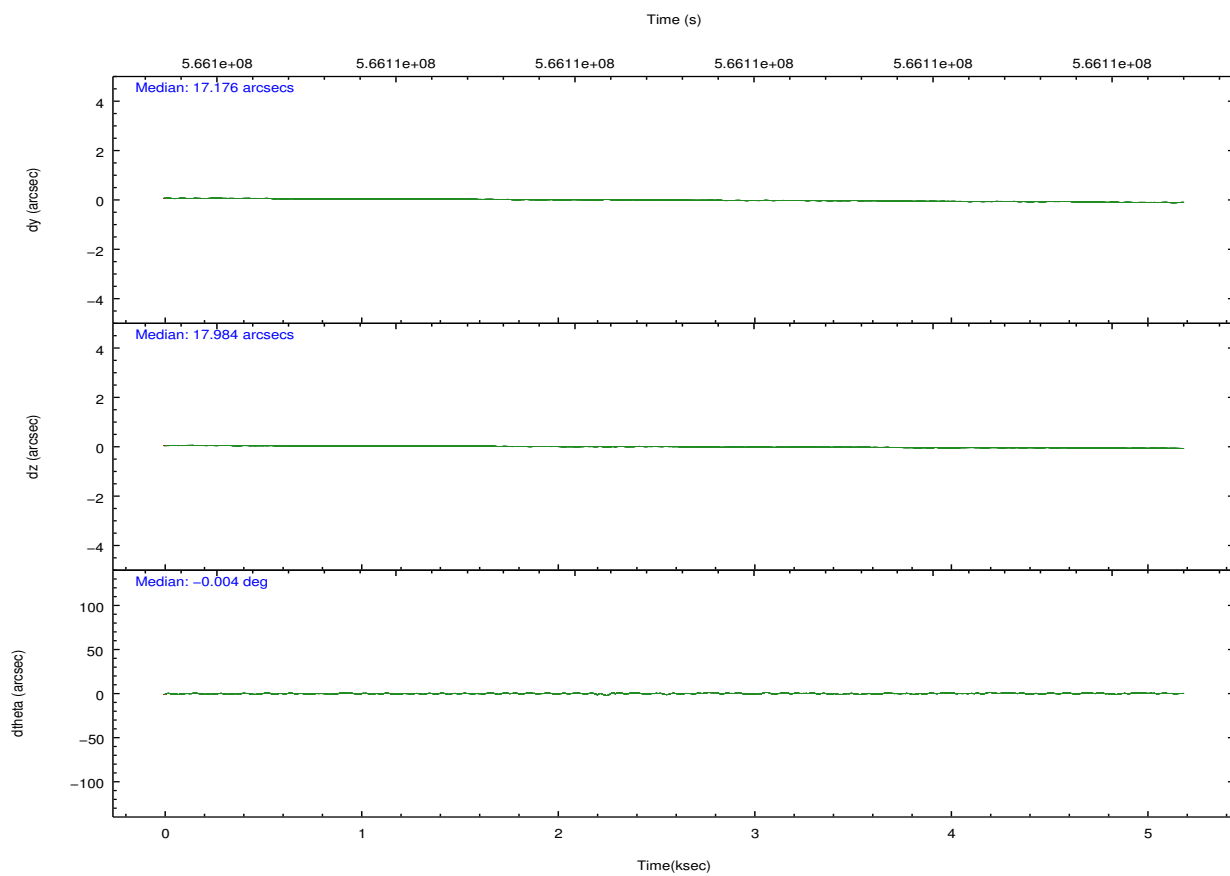
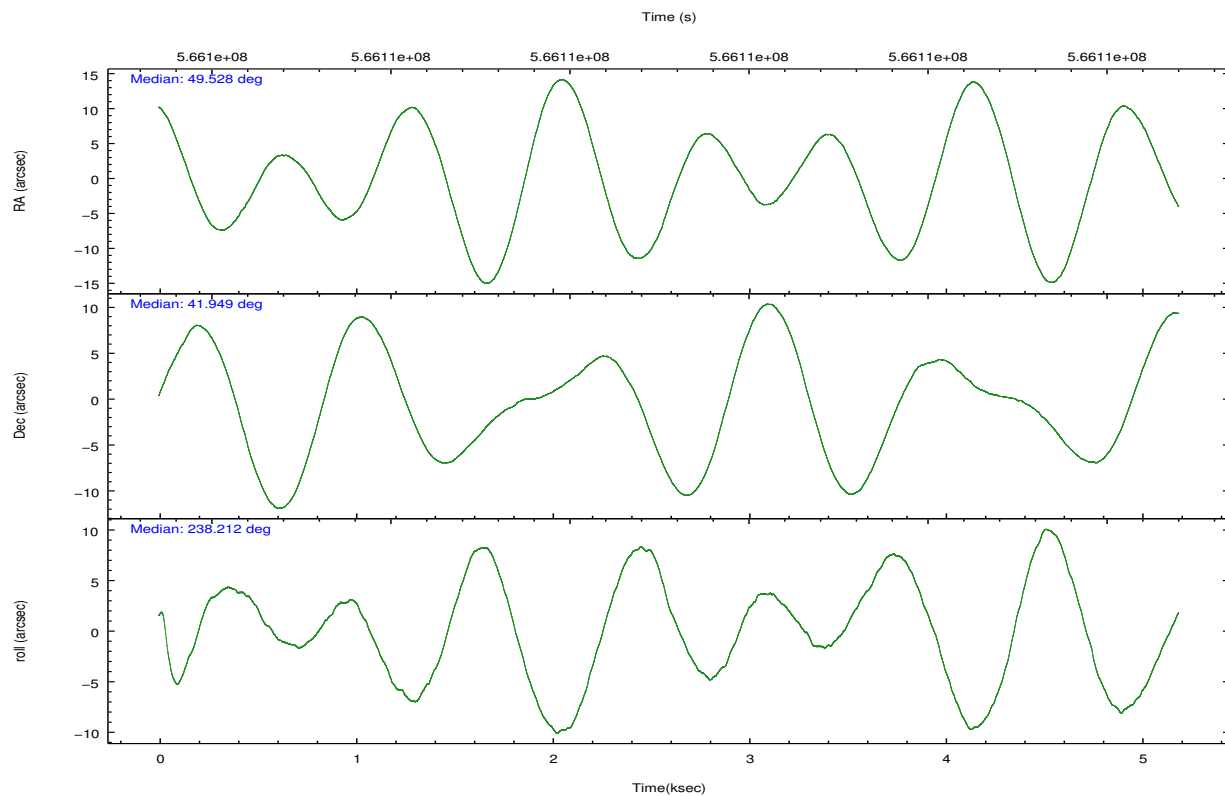
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	1522	3149	2203	1932
	6%	12%	7%	6%
grade 1 events	19	23	20	19
	0%	0%	0%	0%
grade 2 events	809	774	824	797
	3%	2%	2%	2%
grade 3 events	347	313	352	360
	1%	1%	1%	1%
grade 4 events	303	346	401	352
	1%	1%	1%	1%
grade 5 events	1208	1300	1103	1398
	5%	4%	3%	4%
grade 6 events	633	780	613	616
	2%	2%	2%	2%
grade 7 events	18763	19498	22737	22746
	79%	74%	80%	80%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	49.528894	49.52794055702891	CCD I2 on	Y	Y
[deg] Pointing Dec	41.975944	41.94841287607819	CCD I3 on	Y	Y
[deg] Pointing Roll	238.003950	238.2132862137135	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	566105142.184000	566104755.57022	CCD S5 on	N	N
Observation start date	2015-12-10T03:24:34	2015-12-10T03:19:15	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	566110142.184000	566110275.70803	On-chip summing requested	N	N
Observation end date	2015-12-10T04:47:54	2015-12-10T04:51:15	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



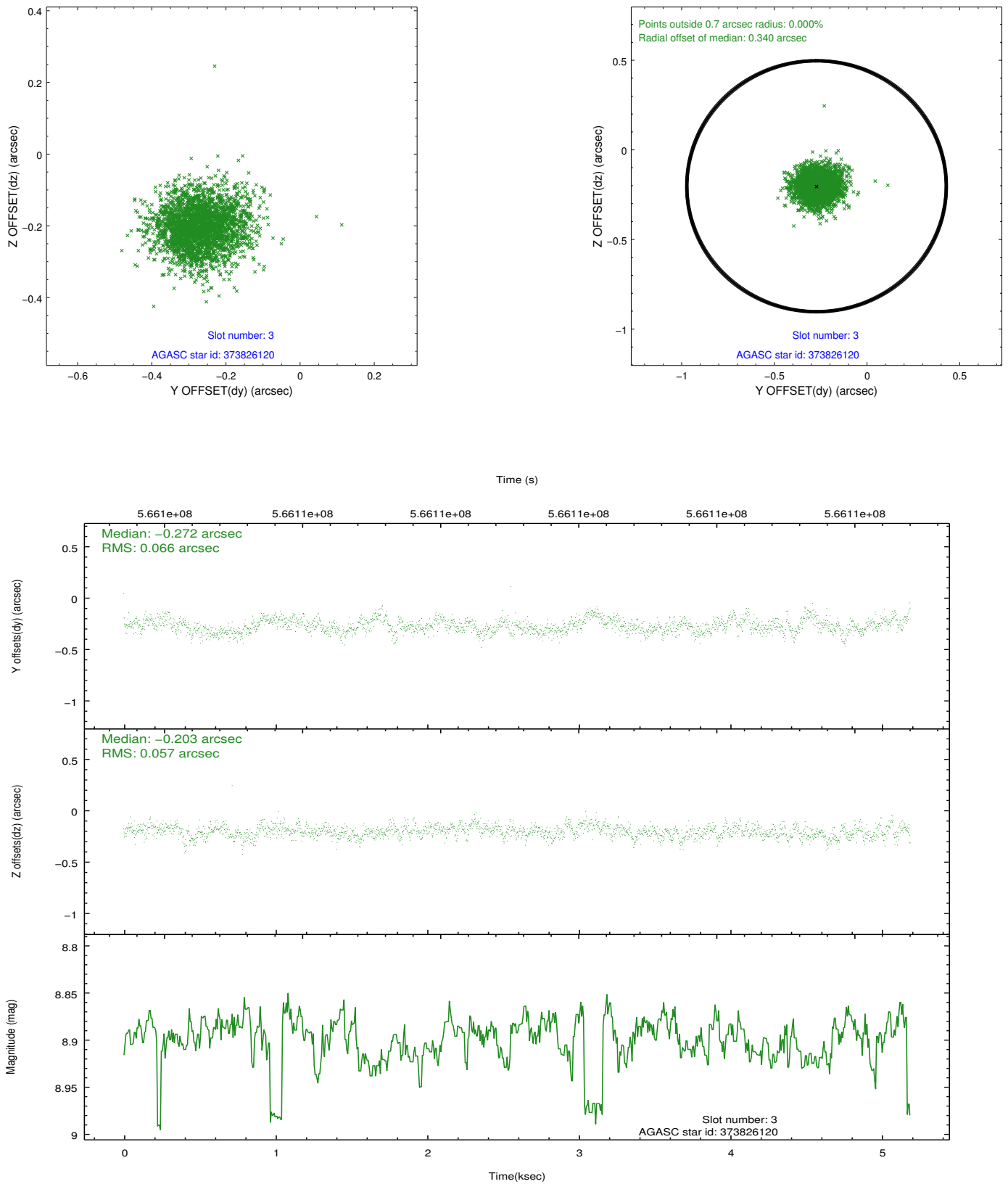


Slot Statistics

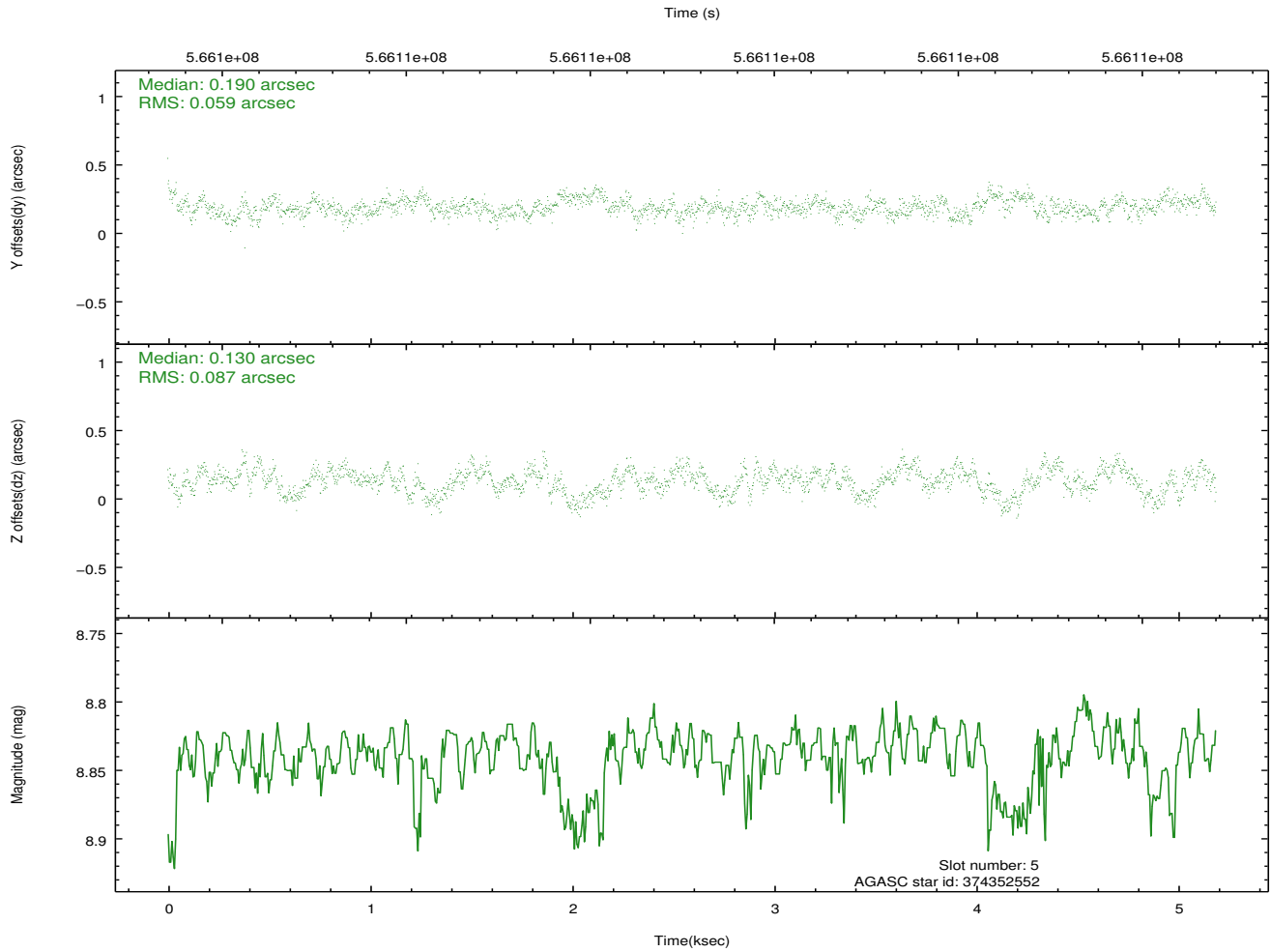
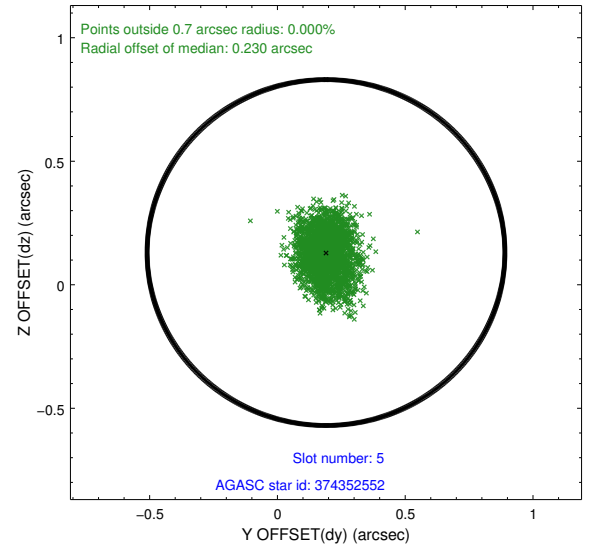
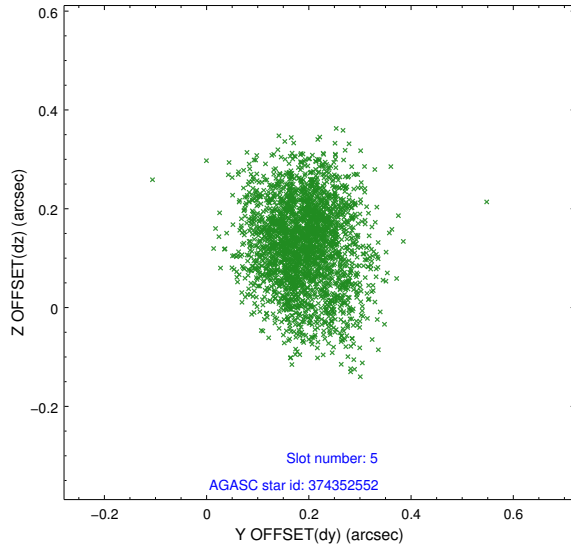
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.25	1266	0.064	0.000	0.007	0.011	0.000000	0.000000	922.33	-841.63
1	FID		ACIS-I-5	7.25	1266	-0.347	0.035	0.006	0.011	0.000000	0.000000	-1825.61	1055.22
2	FID		ACIS-I-6	7.26	1266	0.191	0.035	0.007	0.012	0.000000	0.000000	386.64	1701.12
3	GUIDE	used	373826120	8.90	2531	-0.272	-0.203	0.092	0.150	49.738165	41.186341	2110.27	1986.69
4	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
5	GUIDE	used	374352552	8.84	2531	0.190	0.130	0.112	0.182	49.205176	42.496124	-1131.98	-1720.00
6	GUIDE	used	376068632	8.75	2532	0.051	-0.074	0.096	0.166	50.582093	42.167240	-2087.42	2008.58
7	GUIDE	used	374350312	8.44	2530	0.025	0.149	0.082	0.132	49.824622	42.610331	-2353.17	-545.32

2.4 Star Slots

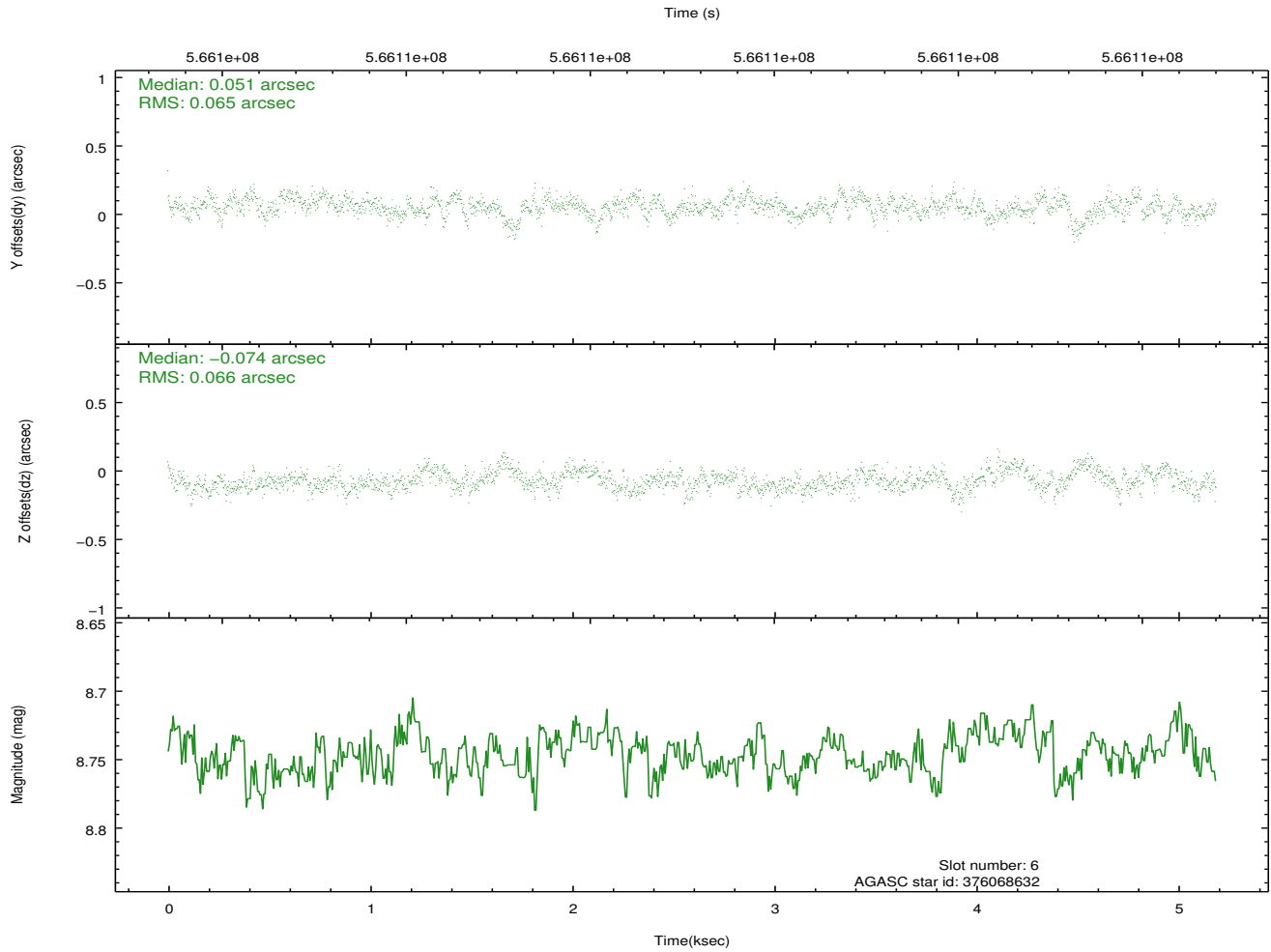
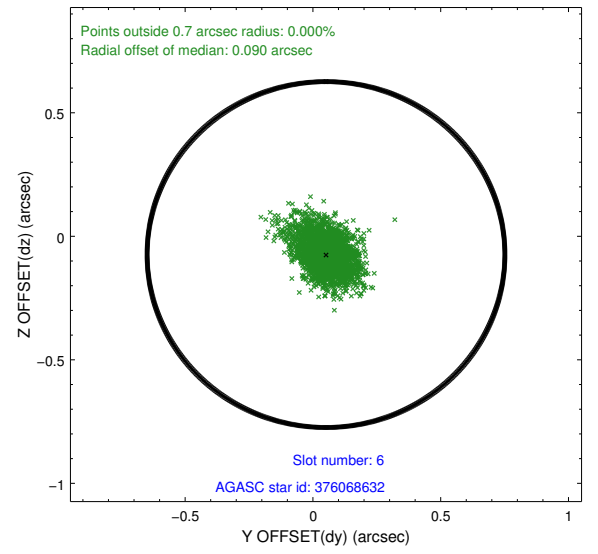
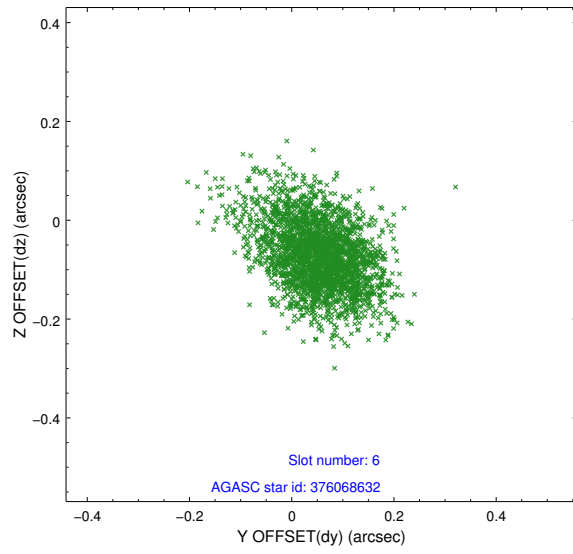
2.4.1 Slot 3



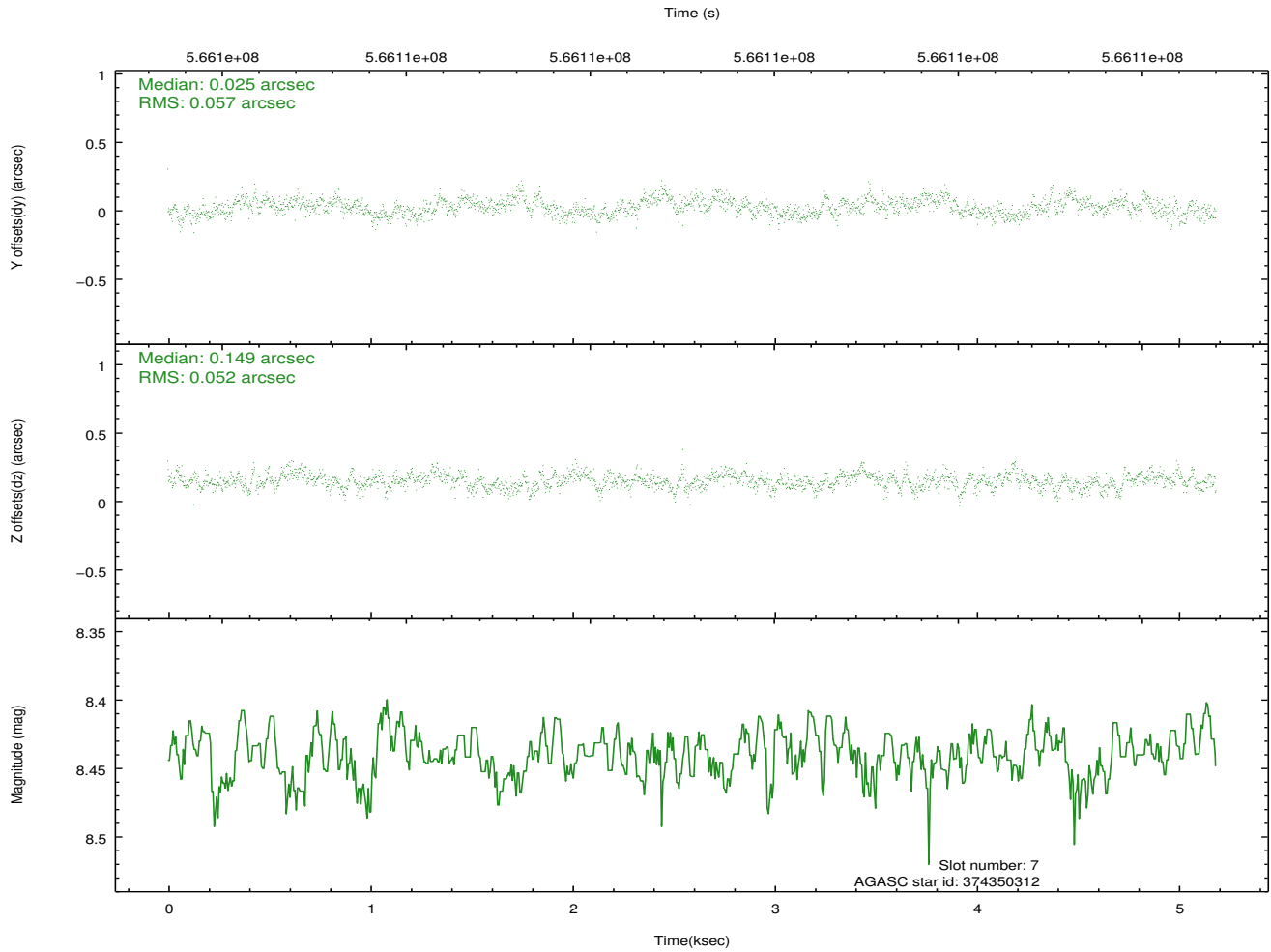
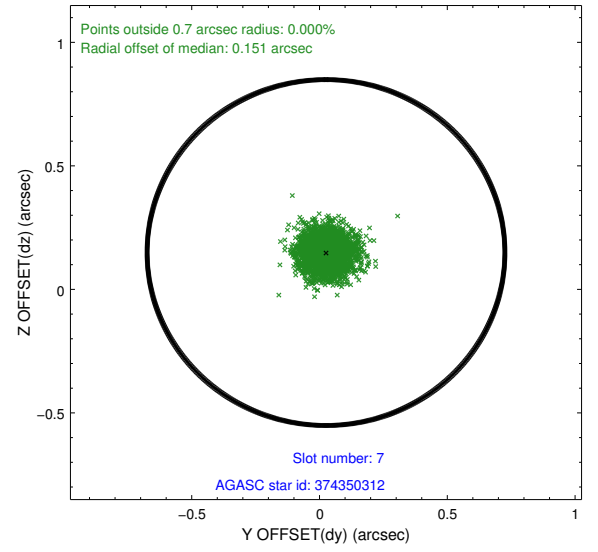
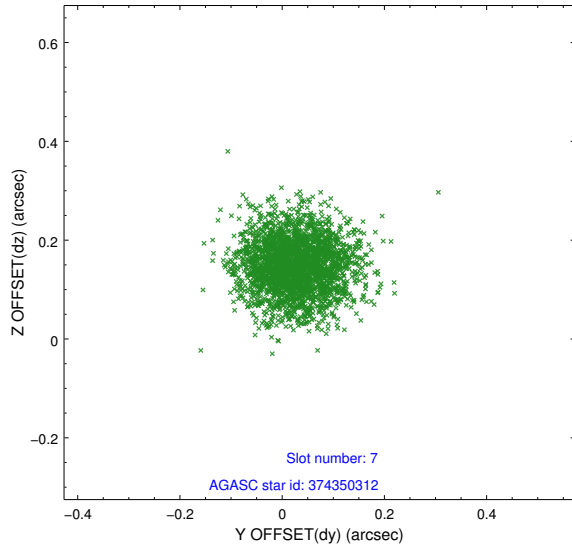
2.4.2 Slot 5



2.4.3 Slot 6

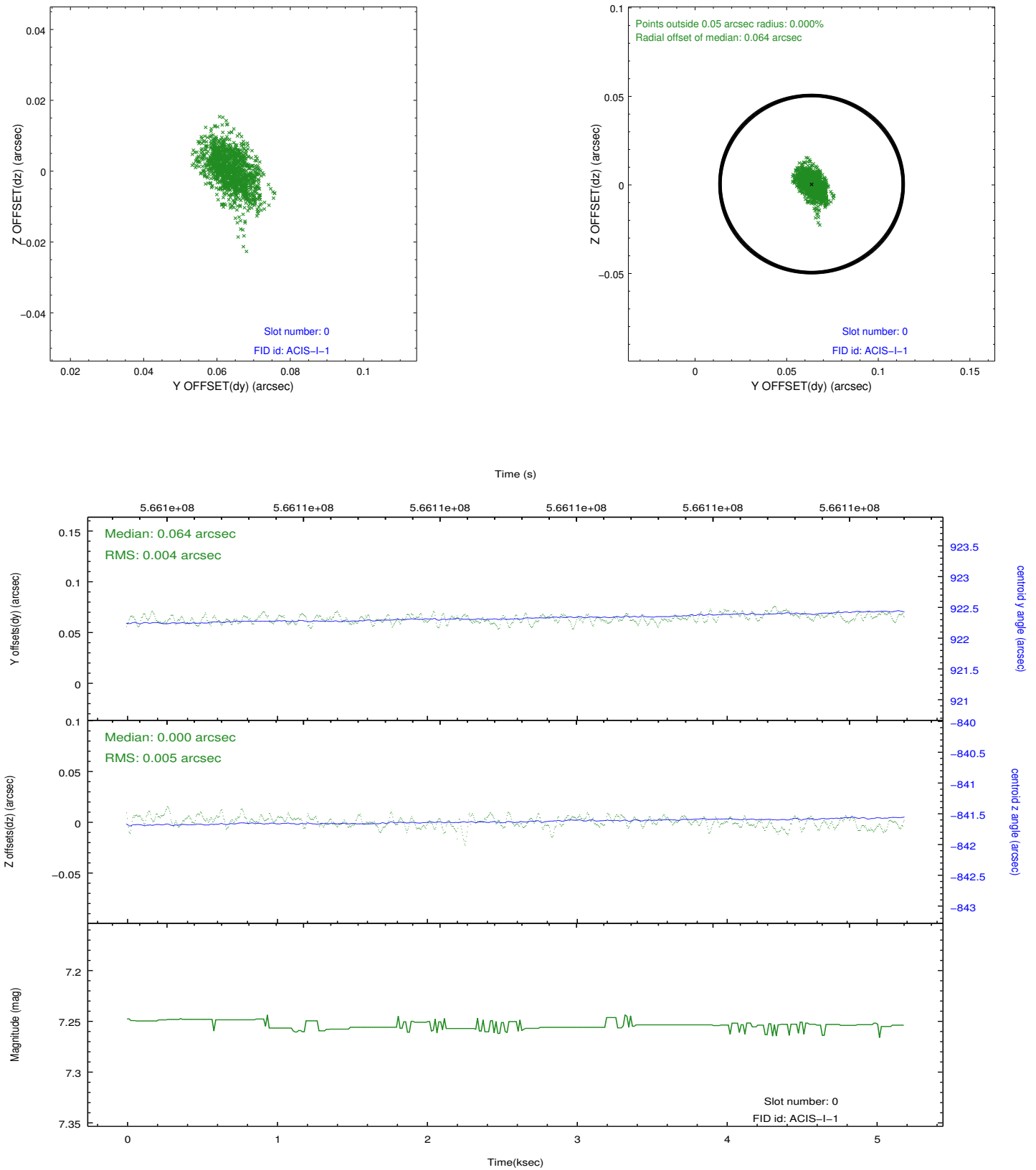


2.4.4 Slot 7

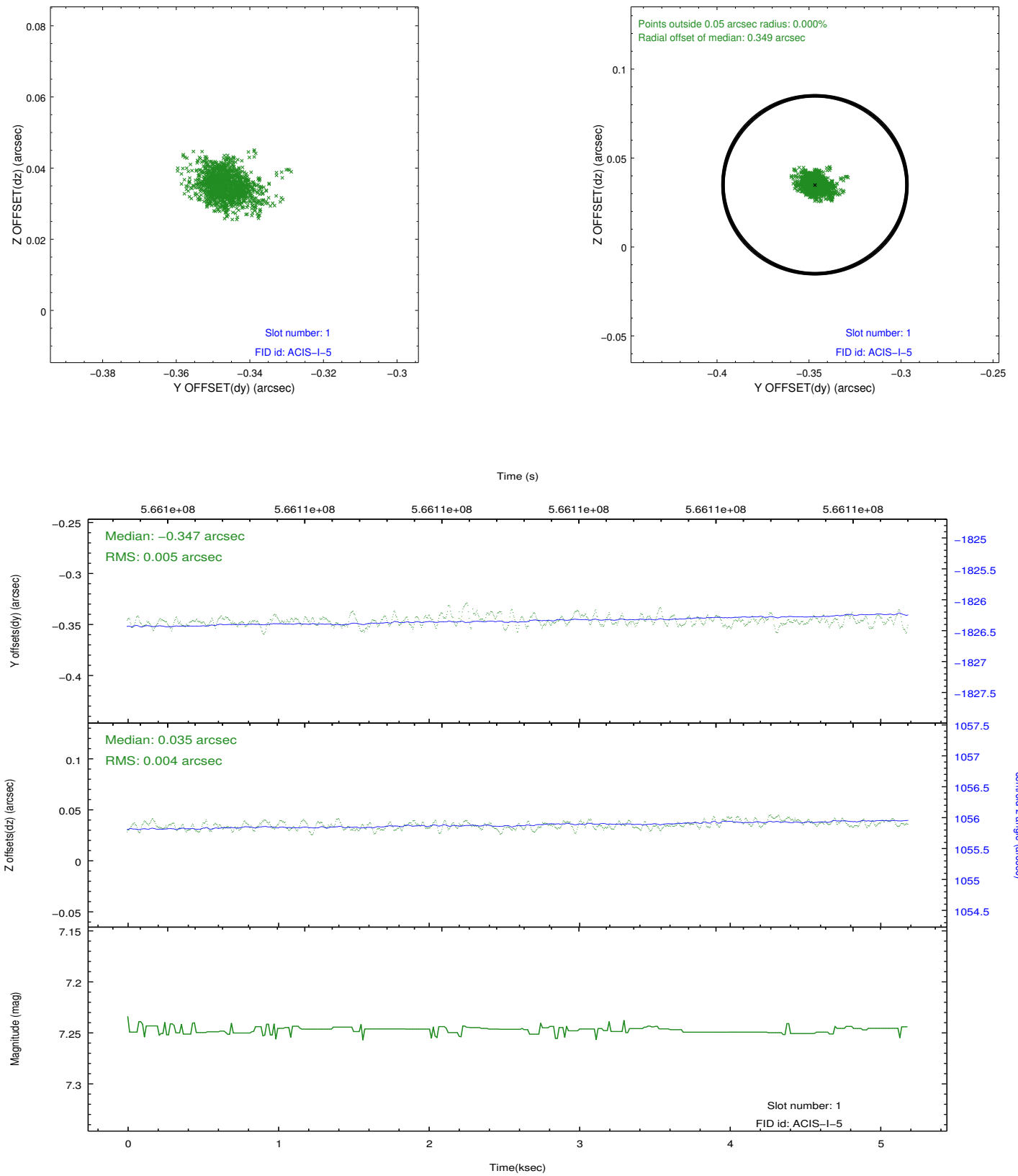


2.5 FID Slots

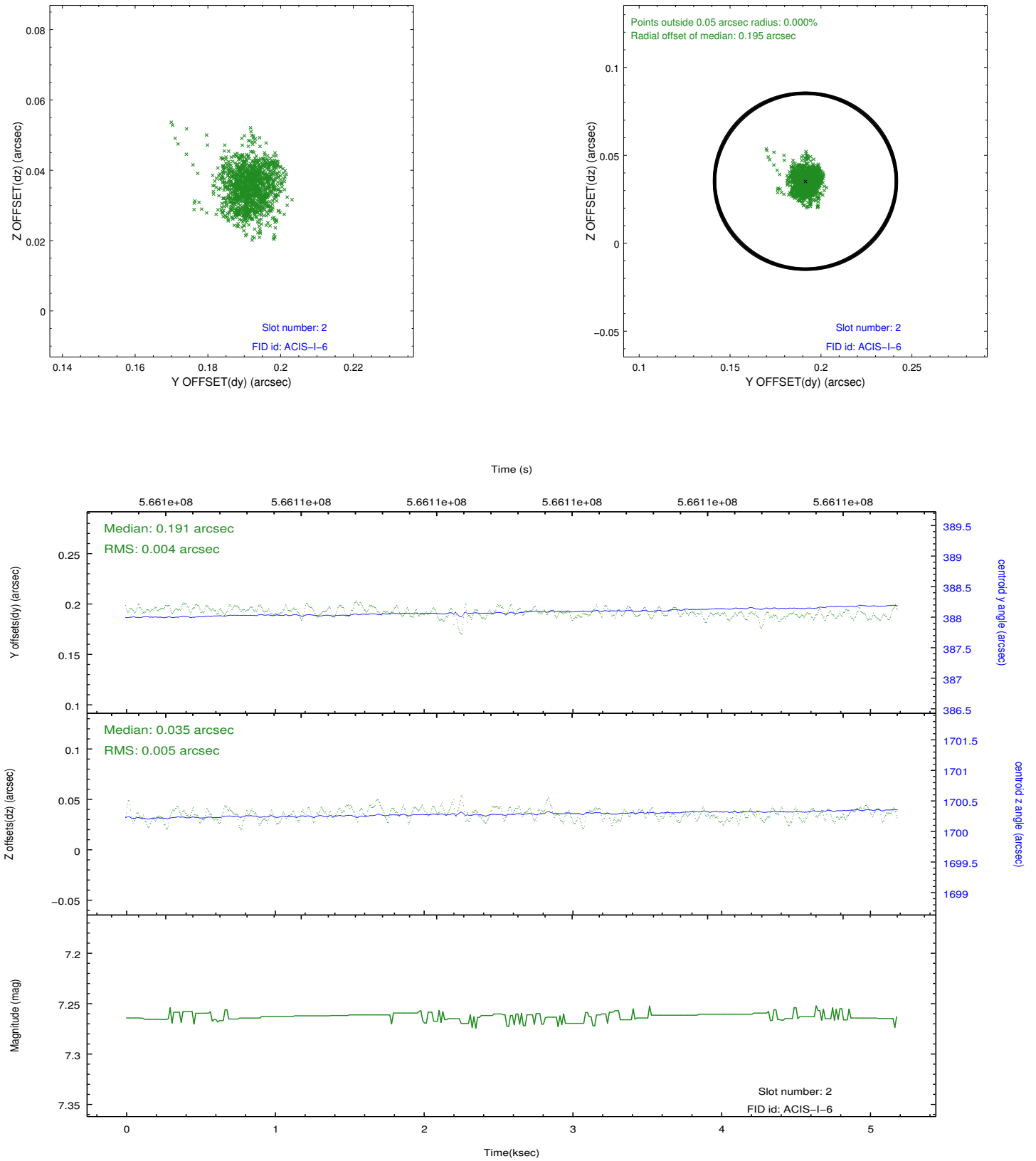
2.5.1 Slot 0



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)	2015.12.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.7957000370026

A.2 Comments

Optional chip S2 was dropped.

The guide star in slot 4 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.