

V&V Reference Report

L2 ASCDS Version : 10.5.2

Observation 18983 - L2 Version 2
Chandra X-Ray Center

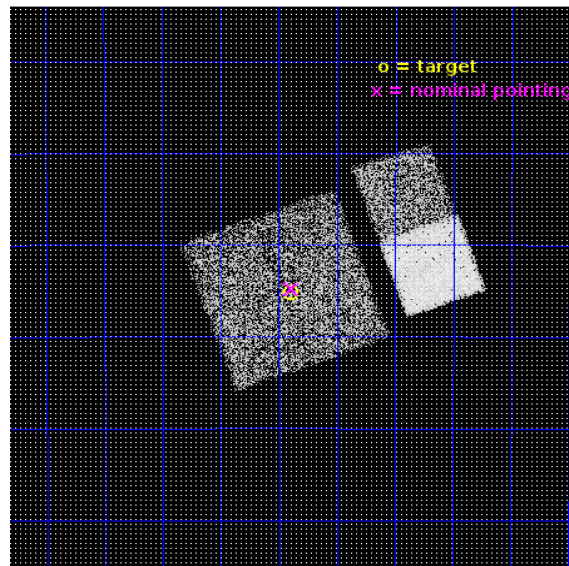
L2 Processing Date : Apr 12 2017

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1 Front

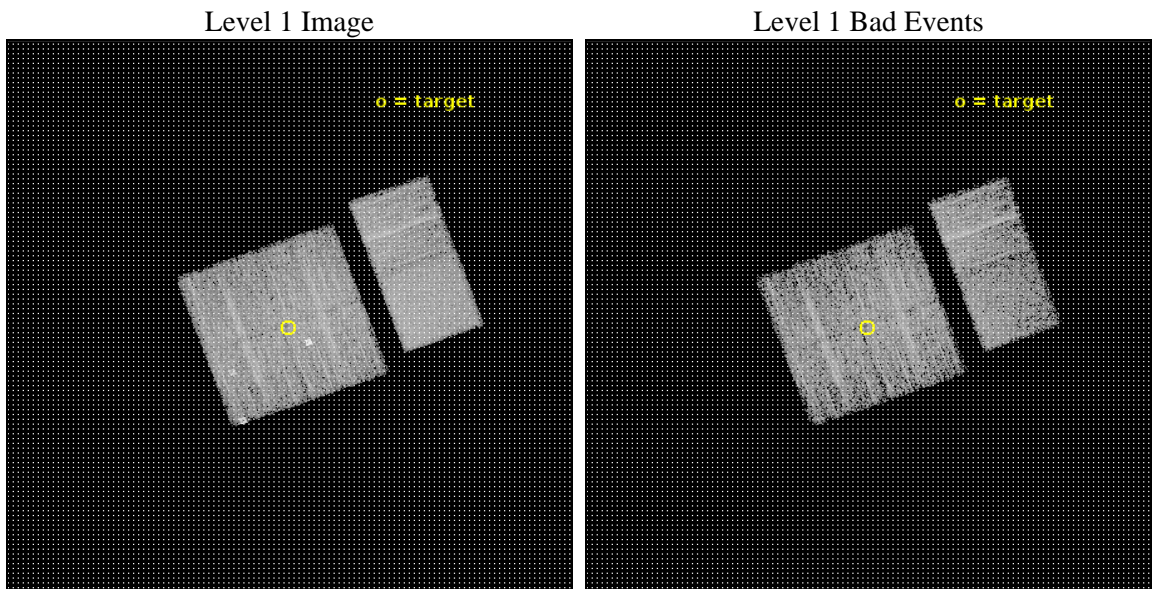
seq_num	401851	Sequence number
obs_id	18983	Observation id
title	The Nature of INTEGRAL Sources in the Galactic Plane	Proposal titl
observer	John Tomsick	Principal investigator
object	IGR J16120-3543	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	242.974167	Observer's specified target RA [deg]
dec_targ	-35.754	Observer's specified target Dec [deg]
ra_nom	242.9729800898	Nominal RA [deg]
dec_nom	-35.746470454698	Nominal Dec [deg]
roll_nom	70.122171903555	Nominal Roll [deg]
revision	2	Processing version of data
ontime	4940.7590135336	Sum of GTIs [s]
livetime	4878.1961479363	Livetime [s]
ontime0	4944.0000736713	Sum of GTIs [s]
ontime1	4940.758912921	Sum of GTIs [s]
ontime2	4944.0000736713	Sum of GTIs [s]
ontime3	4940.7590135336	Sum of GTIs [s]
ontime6	4944.0000736713	Sum of GTIs [s]
ontime7	4944.0000736713	Sum of GTIs [s]
l2events	34712	Number of level 2 events



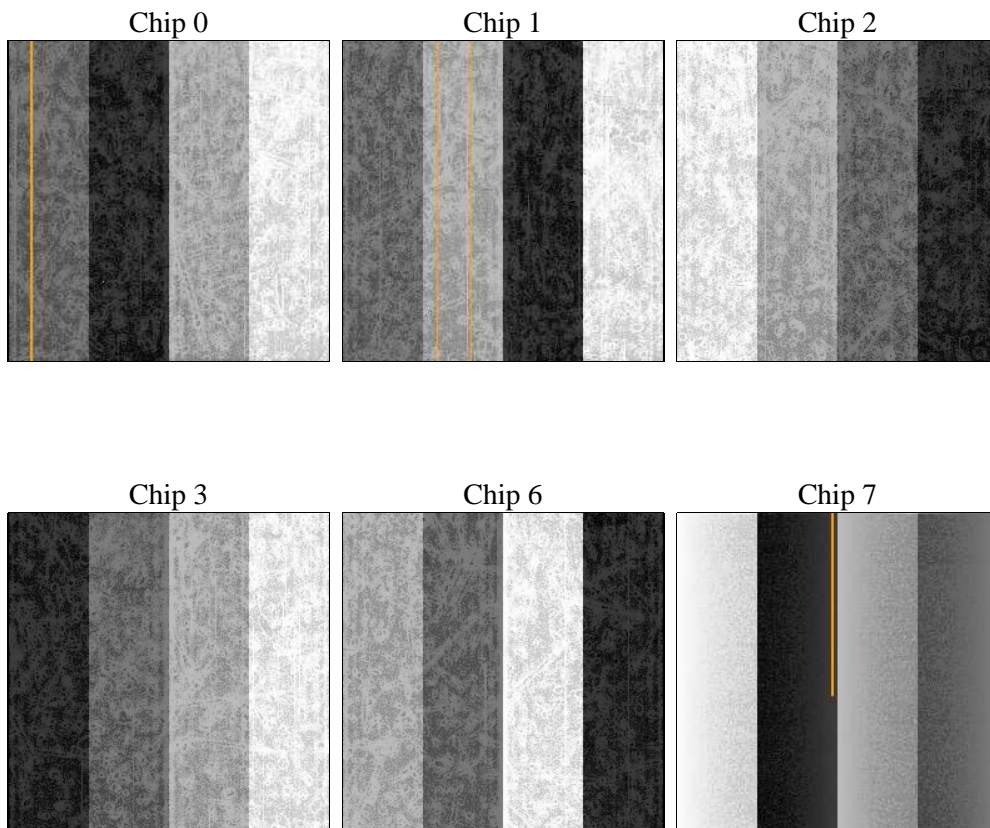
2 OBI

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	10.5.4	Processing system revision	ontime	4940.7590135336	Sum of GTIs [s]
caldsver	4.7.3	 	ontime0	4944.0000736713	Sum of GTIs [s]
date	2017-04-12T17:13:37	Date and time of file creation	ontime1	4940.758912921	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4944.0000736713	Sum of GTIs [s]
			ontime3	4940.7590135336	Sum of GTIs [s]
			ontime6	4944.0000736713	Sum of GTIs [s]
			ontime7	4944.0000736713	Sum of GTIs [s]
			l1events	219296	Number of level 1 events

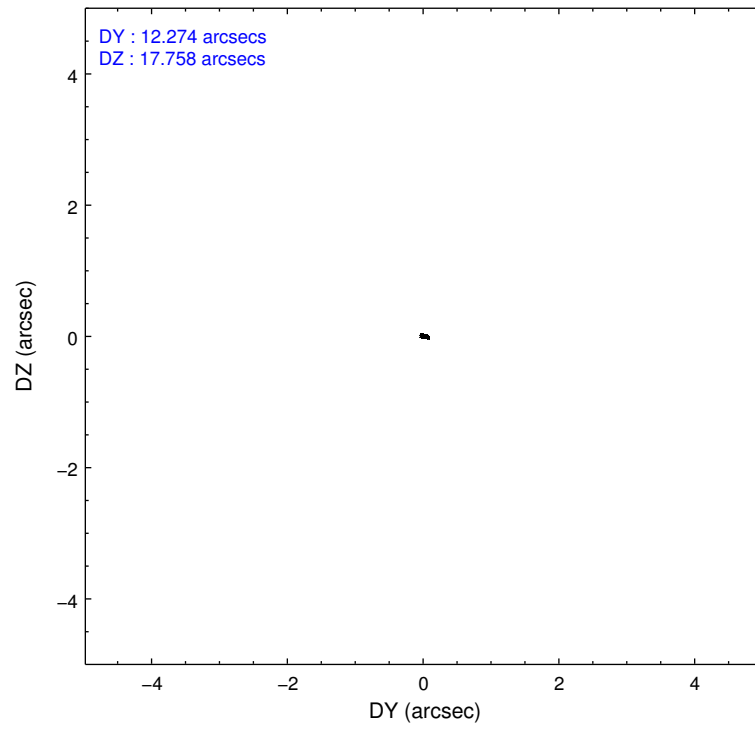
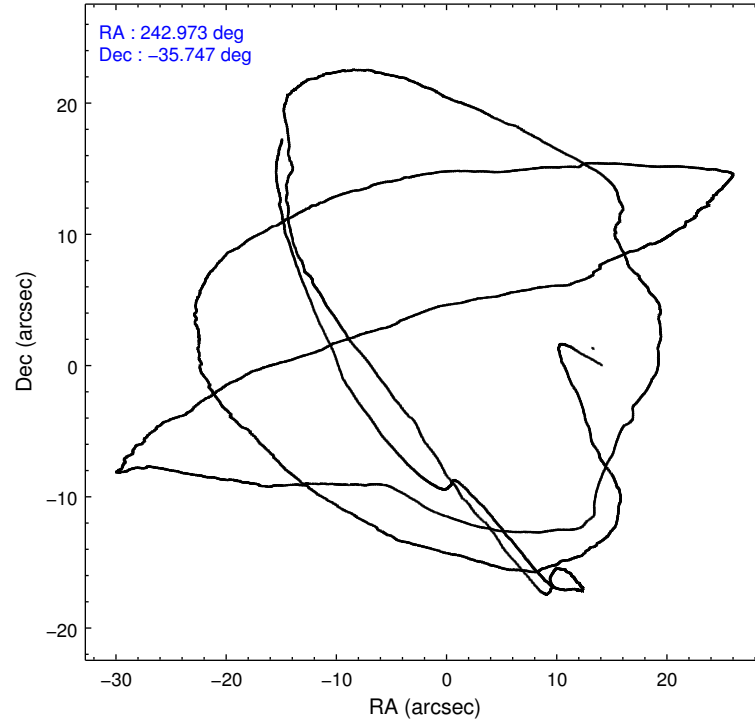
2.1.4 Events

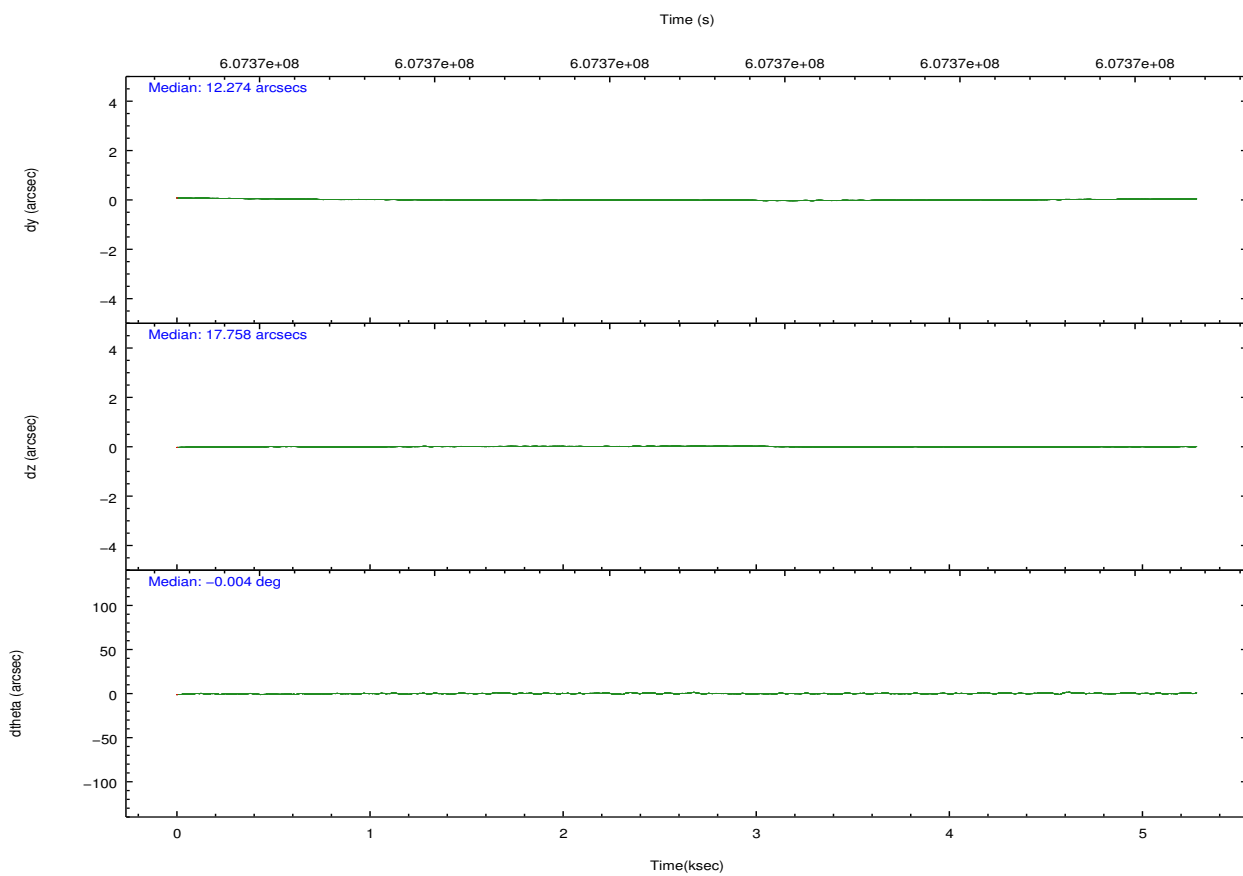
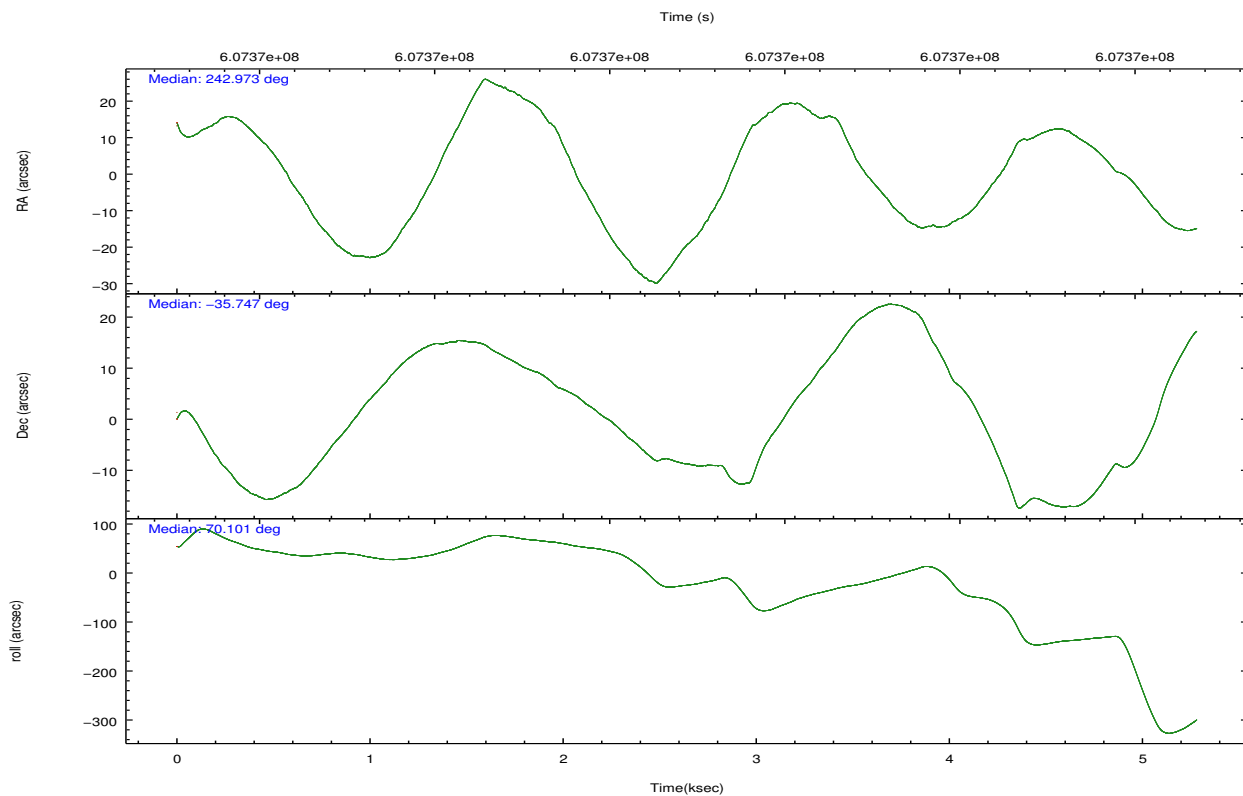
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	30696	34388	34323	38942	36308	44639	grade 0 events	1230	2094	1349	4113	1304	1624
rejected events	27031	28354	30731	32497	32303	25338		4%	6%	3%	10%	3%	3%
rejected %	88%	82%	89%	83%	88%	56%	grade 1 events	15	15	20	37	28	67
								0%	0%	0%	0%	0%	0%
							grade 2 events	935	2216	839	801	965	4127
								3%	6%	2%	2%	2%	9%
							grade 3 events	353	395	330	433	359	1505
								1%	1%	0%	1%	0%	3%
							grade 4 events	343	401	372	356	395	1475
								1%	1%	1%	0%	1%	3%
							grade 5 events	1380	1560	1278	1601	1592	4316
								4%	4%	3%	4%	4%	9%
							grade 6 events	806	938	703	745	983	10582
								2%	2%	2%	1%	2%	23%
							grade 7 events	25634	26769	29432	30856	30682	20943
								83%	77%	85%	79%	84%	46%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	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	242.979057	242.972980089804	CCD I2 on	Y	Y
[deg] Pointing Dec	-35.773105	-35.74647045469779	CCD I3 on	Y	Y
[deg] Pointing Roll	69.916904	70.1221719035545	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	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	607367093.184000	607366058.56252	CCD S5 on	N	N
Observation start date	2017-03-31T17:03:44	2017-03-31T16:47:38	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	607372093.184000	607372953.73792	On-chip summing requested	N	N
Observation end date	2017-03-31T18:27:04	2017-03-31T18:42:33	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



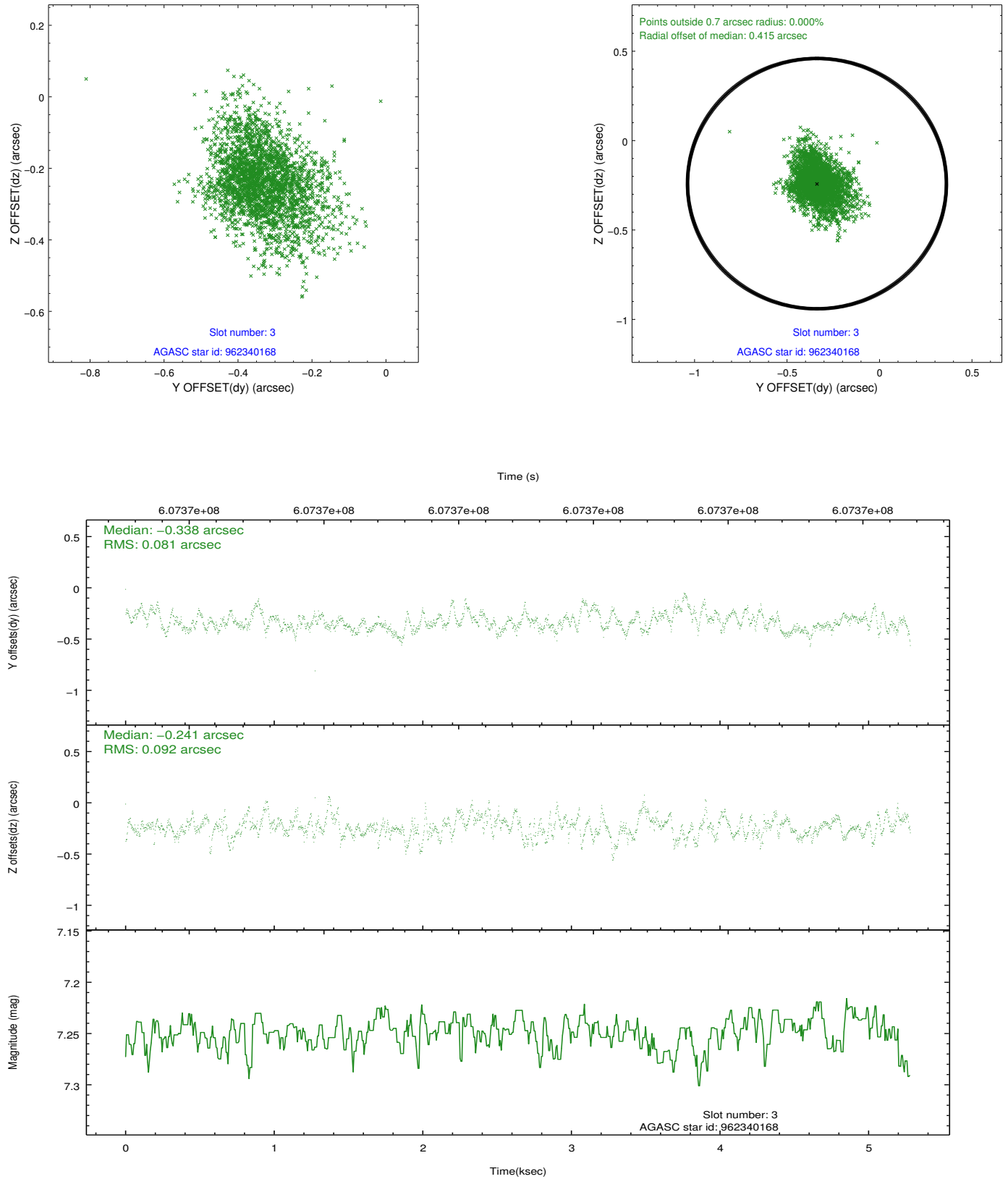


Slot Statistics

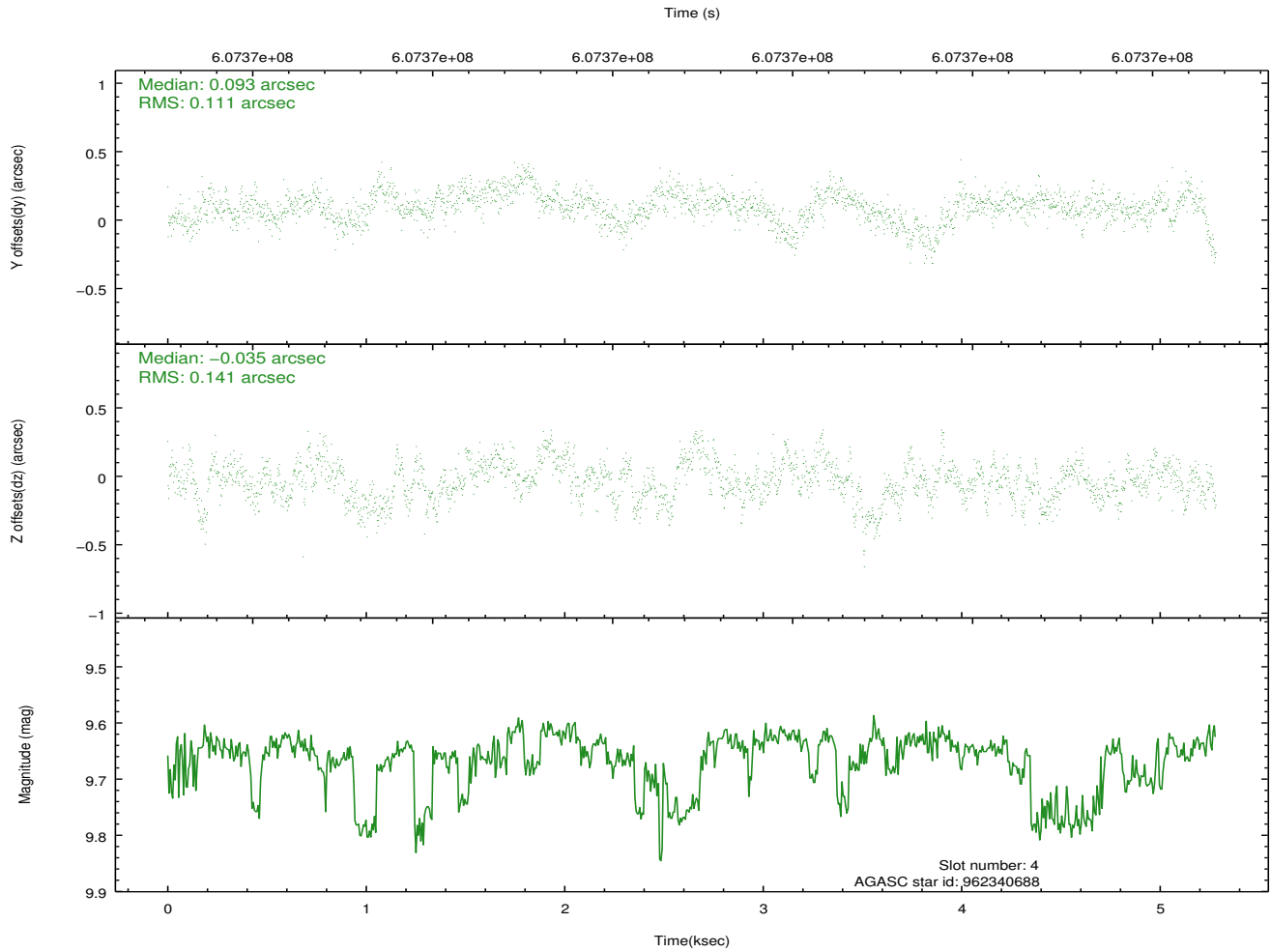
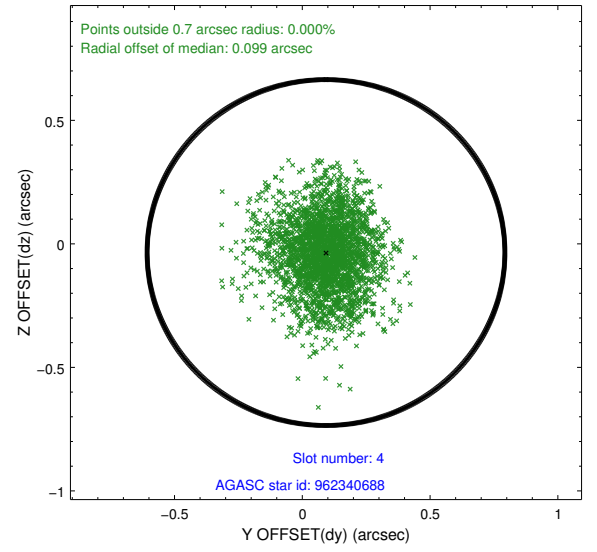
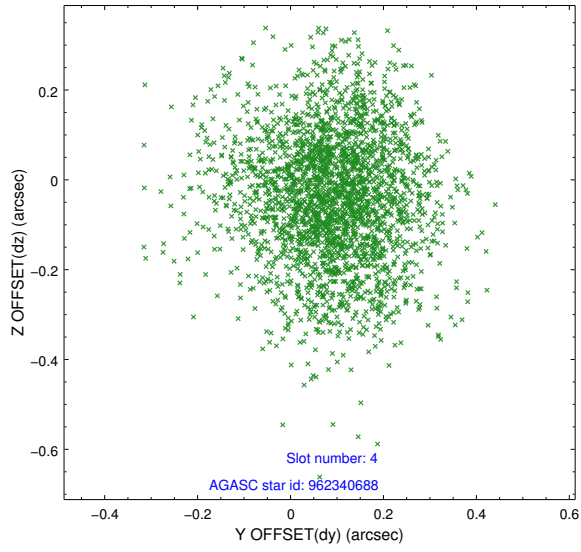
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.17	1289	0.066	-0.031	0.006	0.009	0.000000	0.000000	927.35	-841.43
1	FID		ACIS-I-5	7.18	1287	-0.332	0.035	0.006	0.010	0.000000	0.000000	-1820.60	1055.44
2	FID		ACIS-I-6	7.17	1289	0.175	0.067	0.006	0.011	0.000000	0.000000	391.66	1701.36
3	GUIDE	used	962340168	7.25	2577	-0.338	-0.241	0.126	0.221	242.502344	-35.642559	-40.28	1470.78
4	GUIDE	used	962340688	9.66	2573	0.093	-0.035	0.191	0.315	242.775533	-35.899884	-630.62	402.58
5	GUIDE	used	962340880	8.28	2577	0.240	0.279	0.111	0.185	242.878403	-36.379409	-2147.54	-474.31
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

2.4 Star Slots

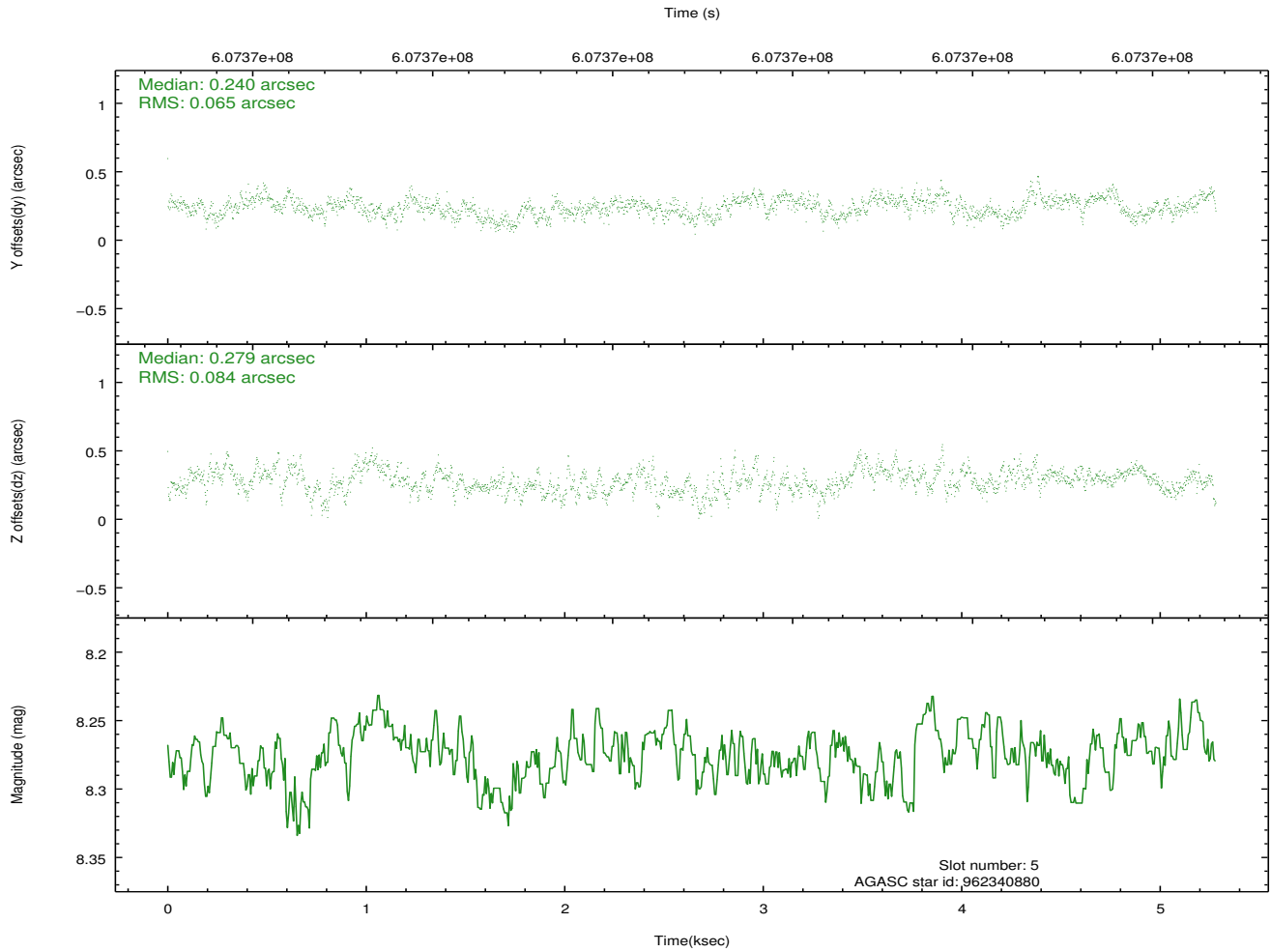
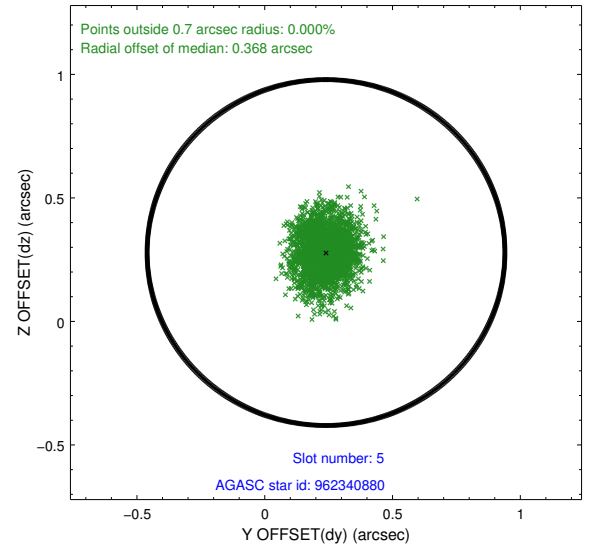
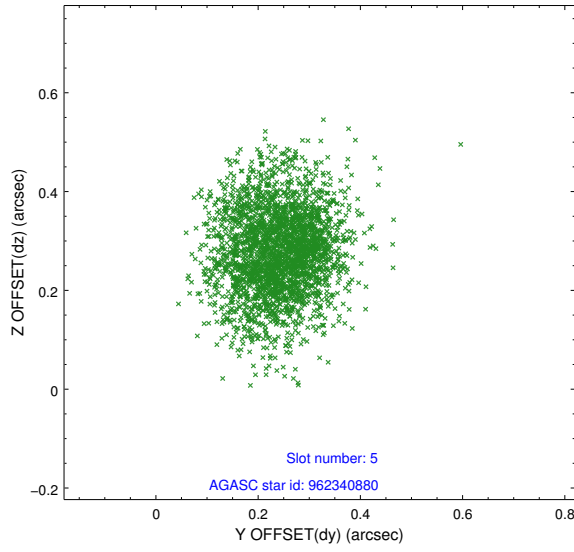
2.4.1 Slot 3



2.4.2 Slot 4

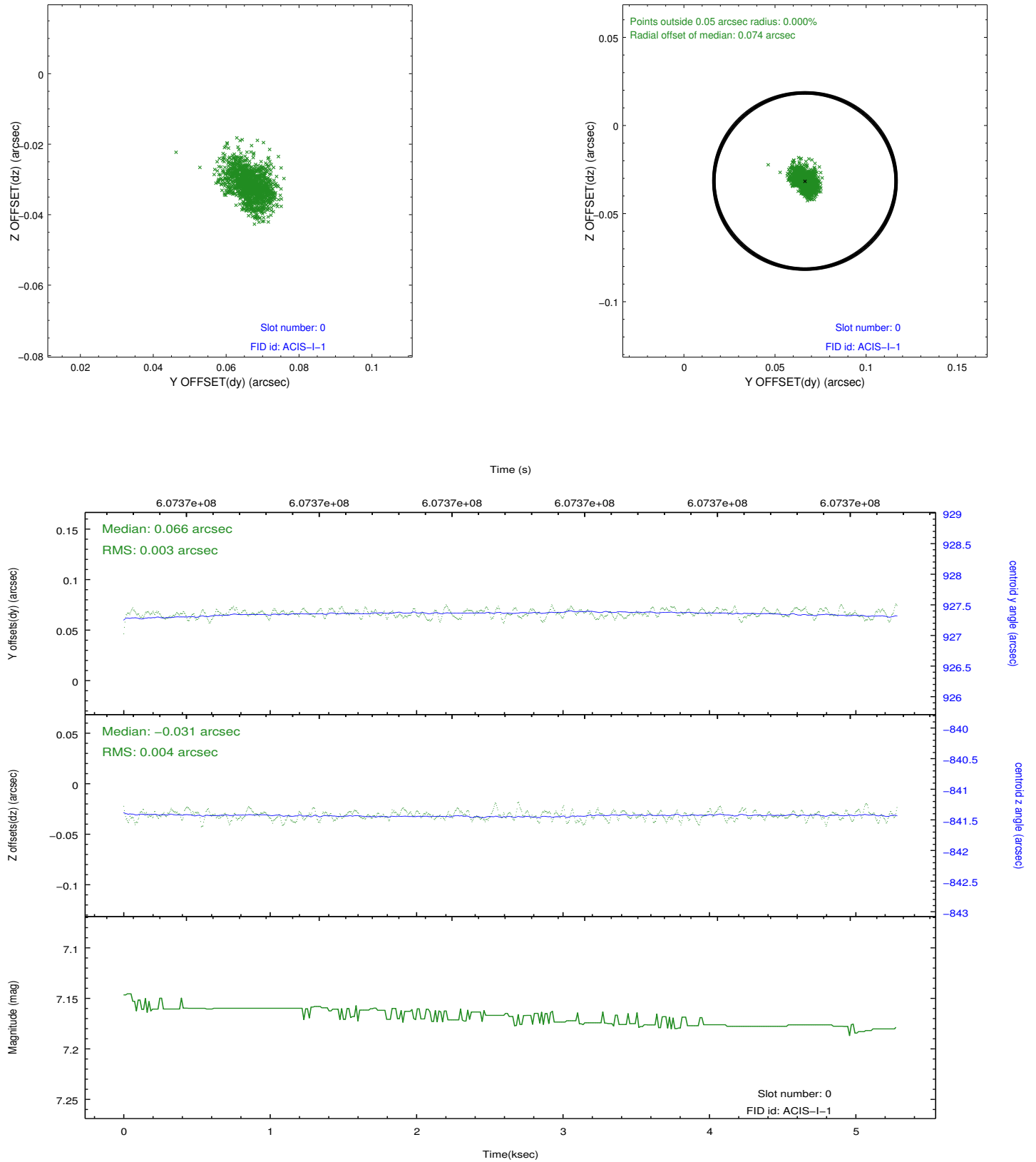


2.4.3 Slot 5

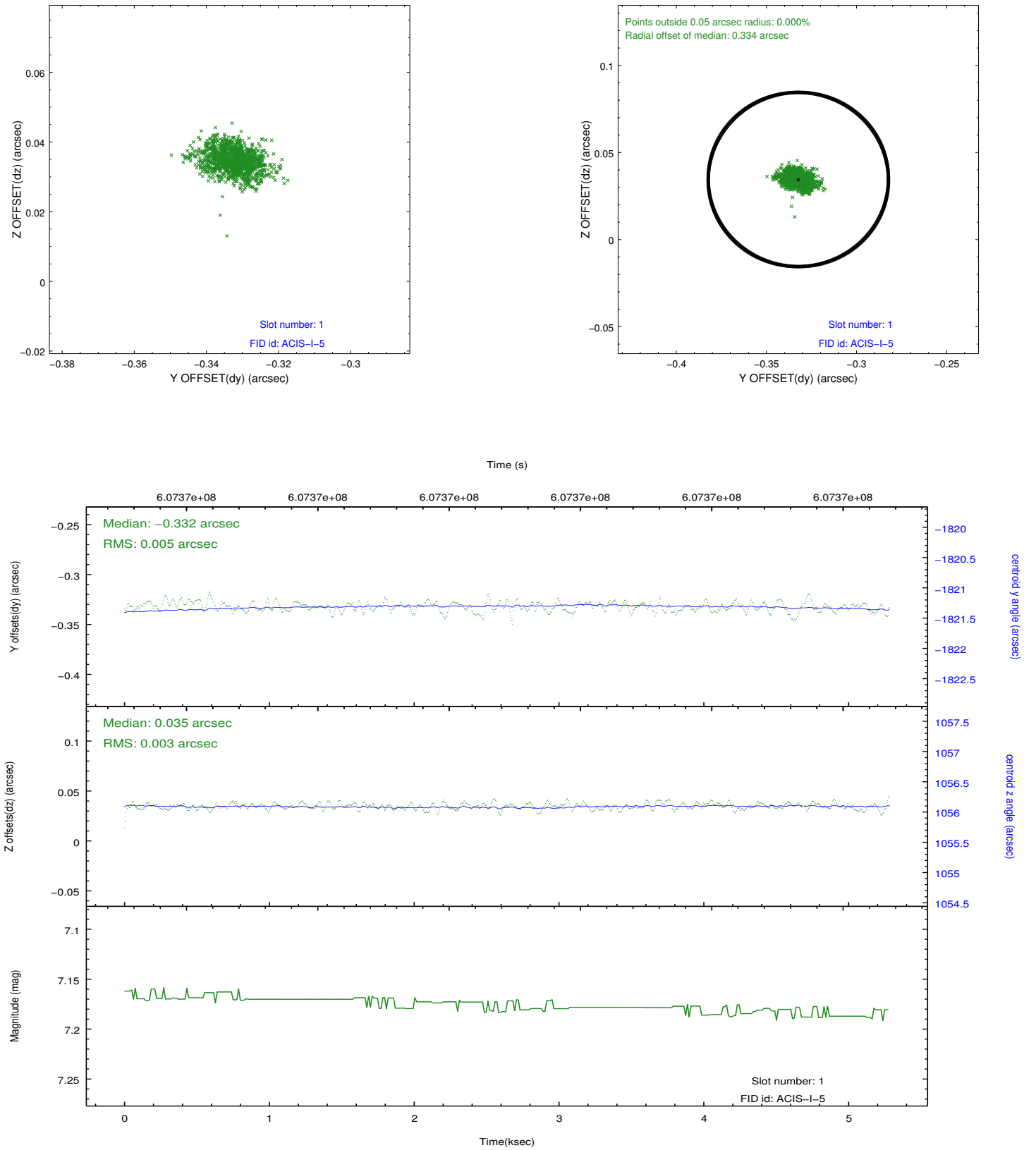


2.5 FID Slots

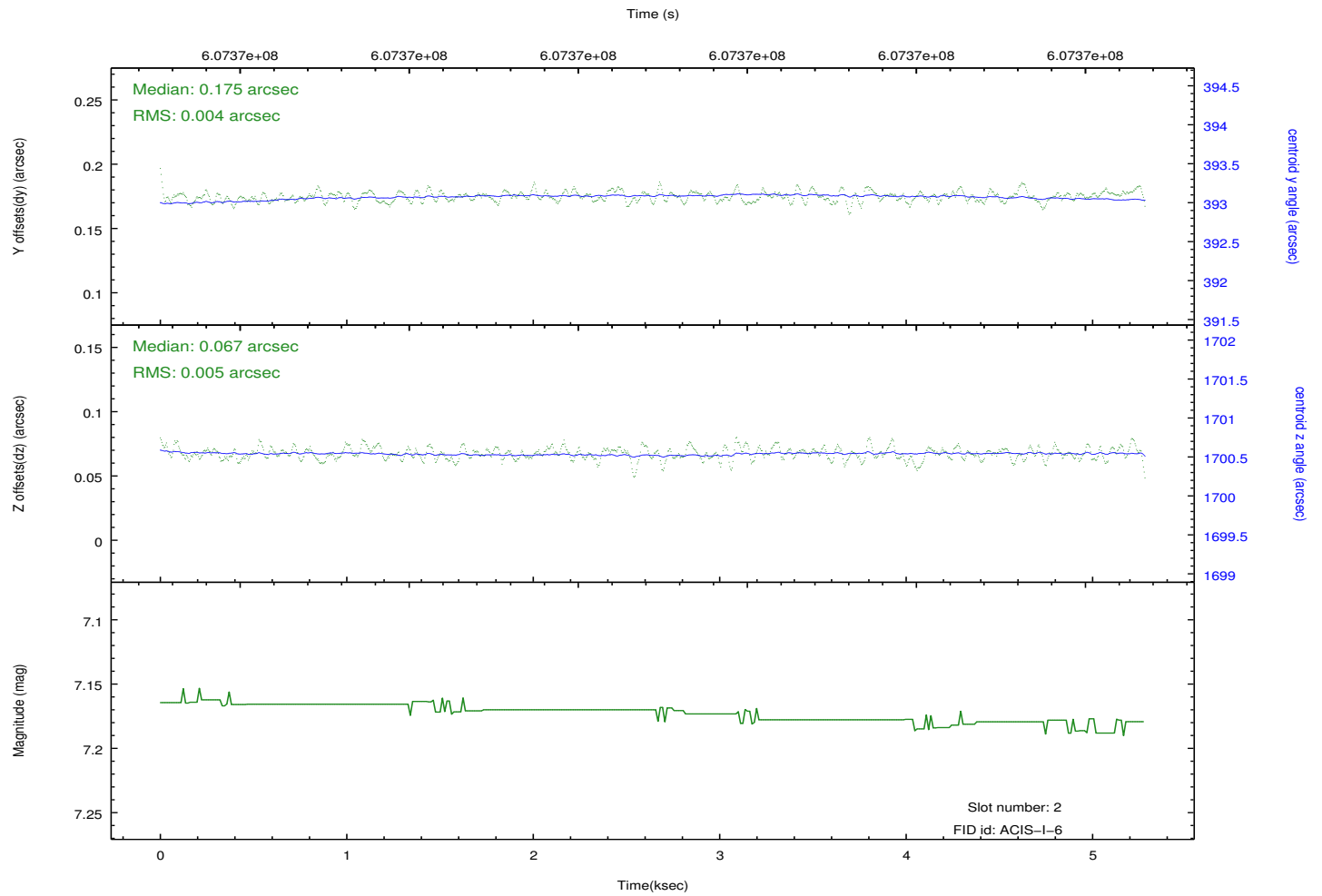
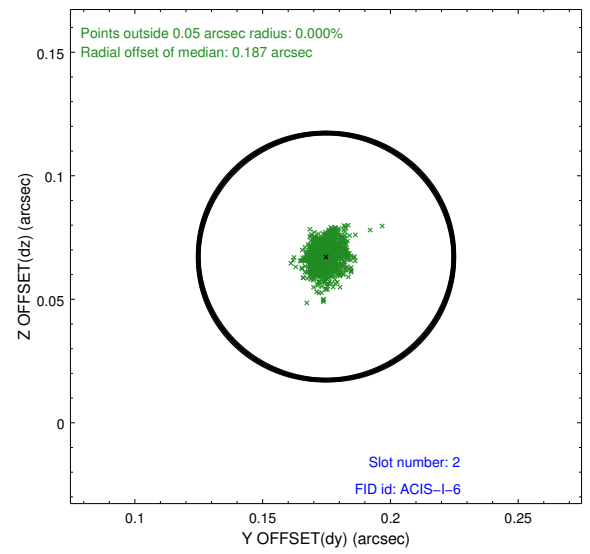
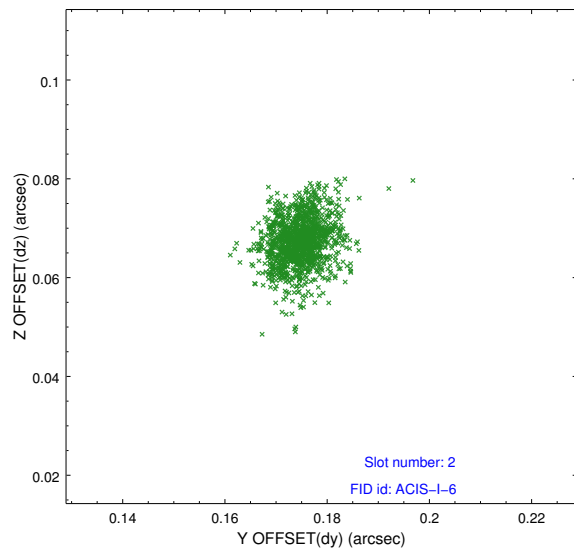
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2017.04.14
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	4.9407590135336

A.2 Comments

The guide stars in slots 6 and 7 were removed from the aspect solution due to poor data quality. The aspect solution is not as accurate as if we had been able to guide on 4 or 5 stars, but is acceptable. An onboard situation that is now understood caused the loss of these 2 guide stars.