

V&V Reference Report

L2 ASCDS Version : 10.1.1

Observation 15792 - L2 Version 2
Chandra X-Ray Center

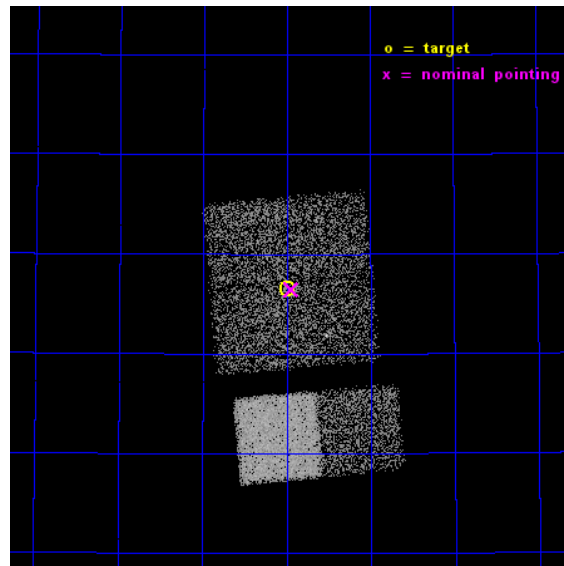
L2 Processing Date : Dec 7 2014

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

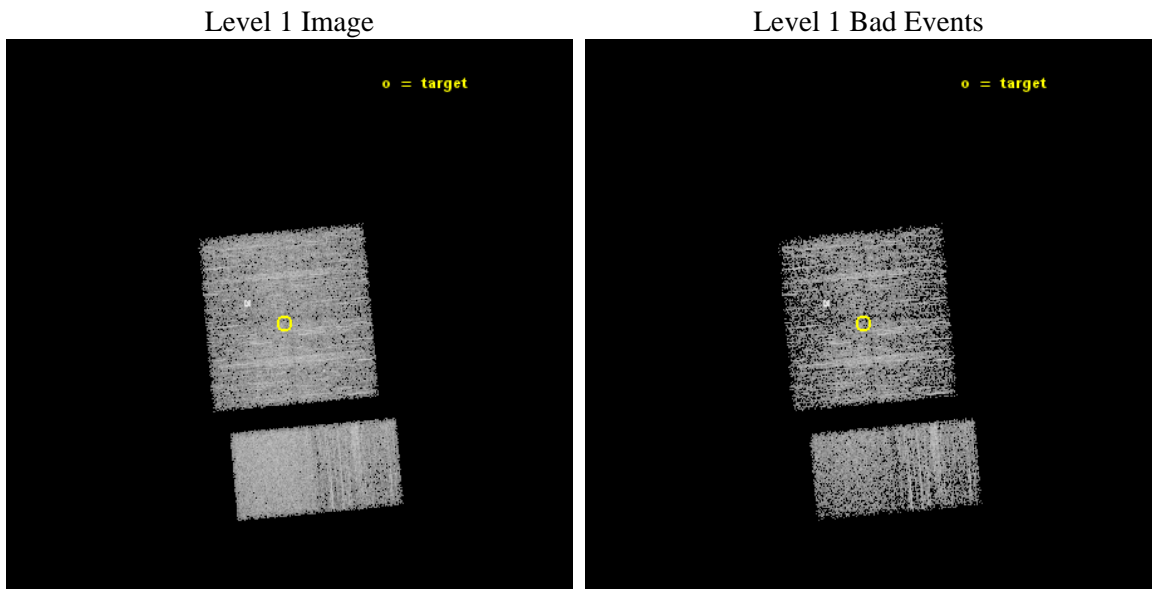
seq_num	401589	Sequence number
obs_id	15792	Observation id
title	The Nature of INTEGRAL Sources in the Galactic Plane	Proposal titl
observer	Dr. John Tomsick	Principal investigator
object	IGR J04059+5416	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	61.499167	Observer's specified target RA [deg]
dec_targ	54.276	Observer's specified target Dec [deg]
ra_nom	61.485789865934	Nominal RA [deg]
dec_nom	54.274354763133	Nominal Dec [deg]
roll_nom	174.7846533956	Nominal Roll [deg]
revision	2	Processing version of data
ontime	4972.7999815345	Sum of GTIs [s]
livetime	4909.8313939076	Livetime [s]
ontime0	4972.7999815345	Sum of GTIs [s]
ontime1	4972.7999815345	Sum of GTIs [s]
ontime2	4969.5589712262	Sum of GTIs [s]
ontime3	4972.7999815345	Sum of GTIs [s]
ontime6	4972.7999815345	Sum of GTIs [s]
ontime7	4972.7999815345	Sum of GTIs [s]
l2events	25957	Number of level 2 events



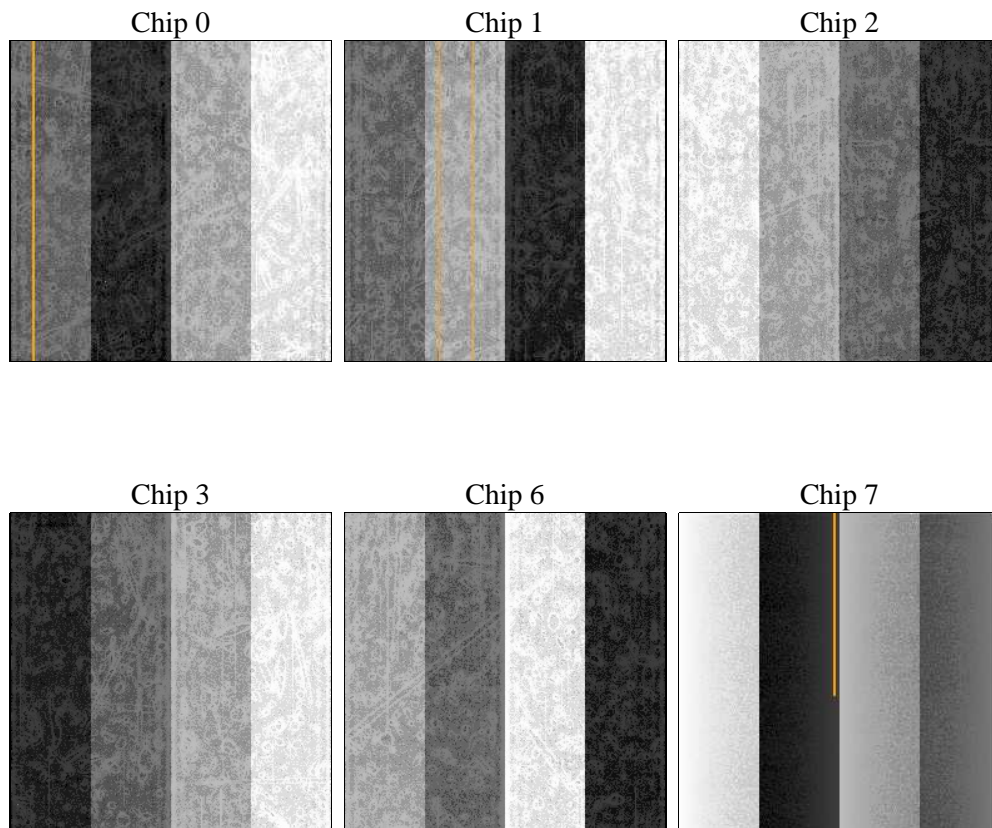
2 OBI

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	10.3.1	Processing system revision	ontime	4972.7999815345	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	4972.7999815345	Sum of GTIs [s]
date	2014-12-08T02:21:41	Date and time of file creation	ontime1	4972.7999815345	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4969.5589712262	Sum of GTIs [s]
			ontime3	4972.7999815345	Sum of GTIs [s]
			ontime6	4972.7999815345	Sum of GTIs [s]
			ontime7	4972.7999815345	Sum of GTIs [s]
			l1events	145920	Number of level 1 events

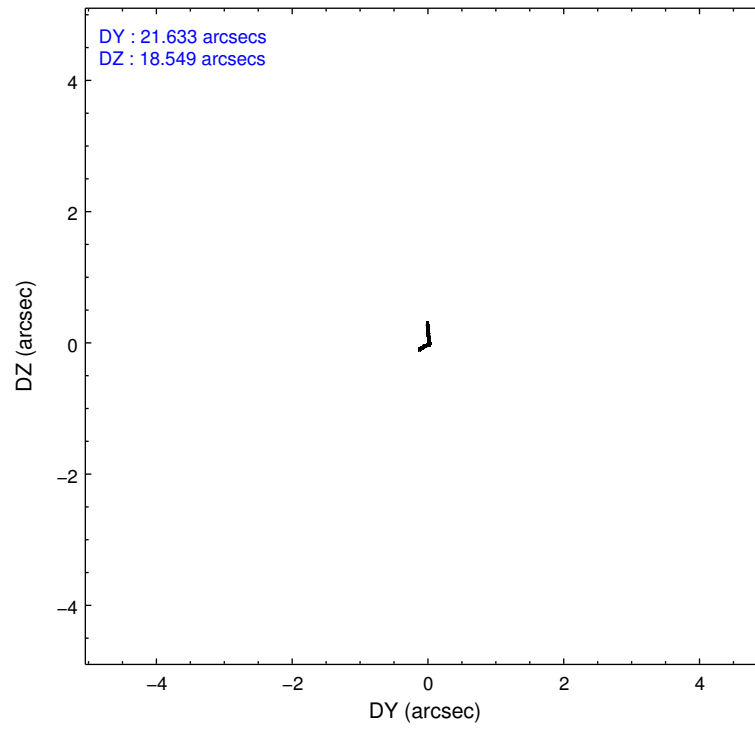
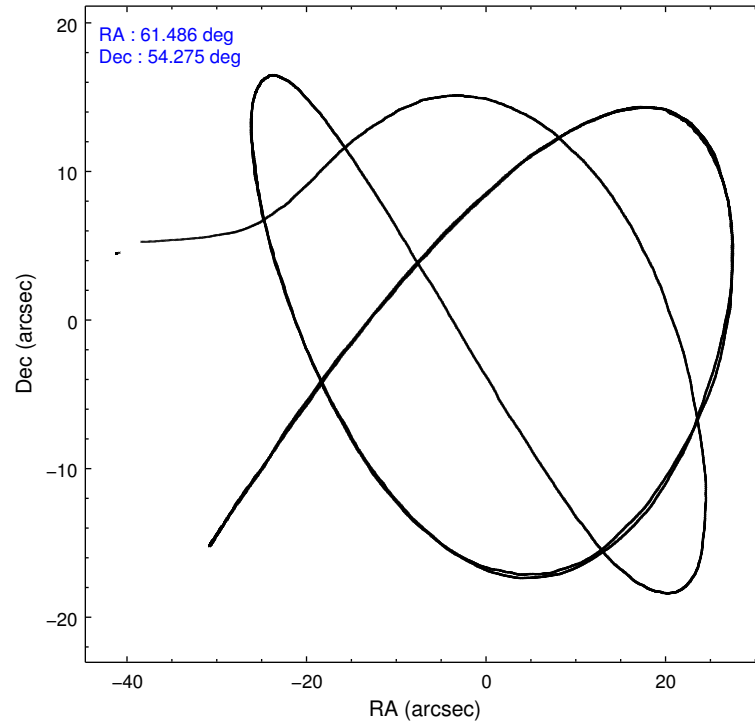
2.1.4 Events

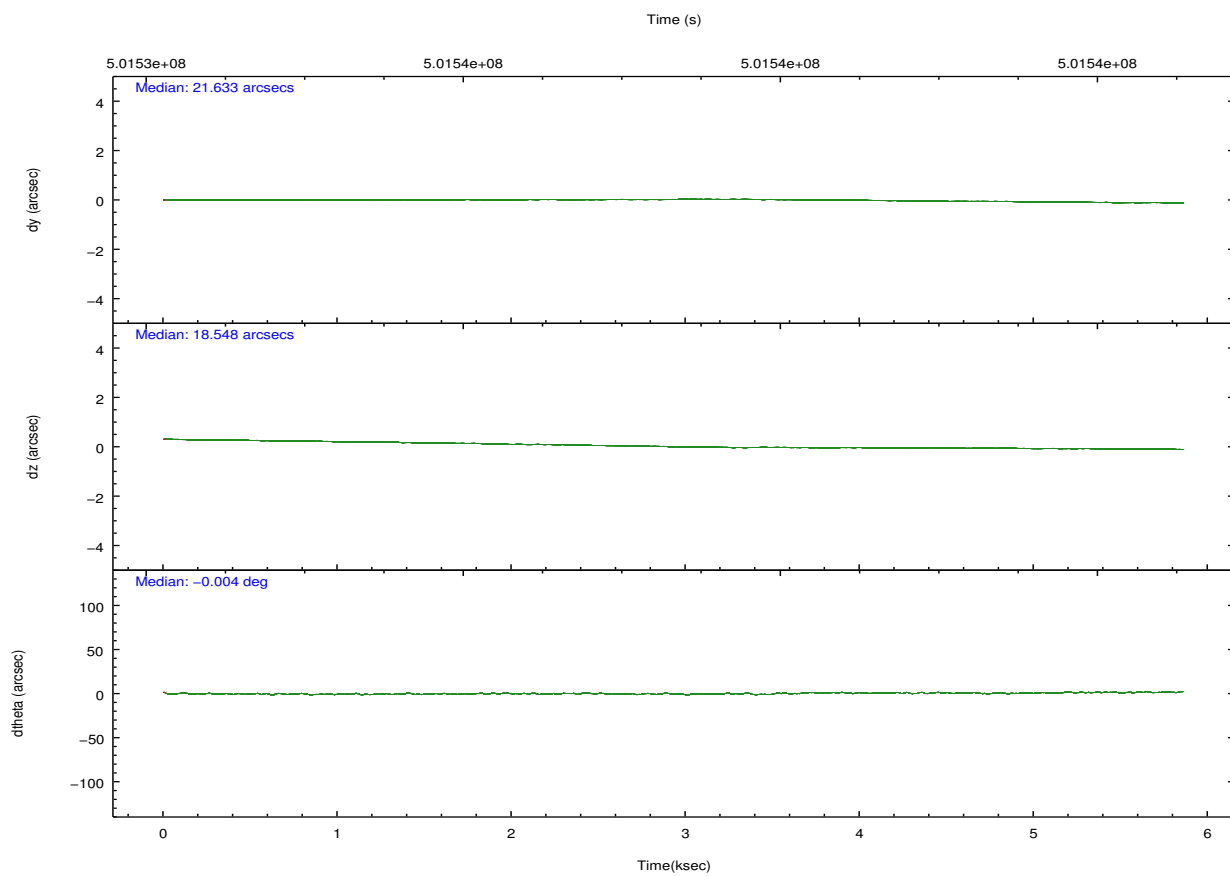
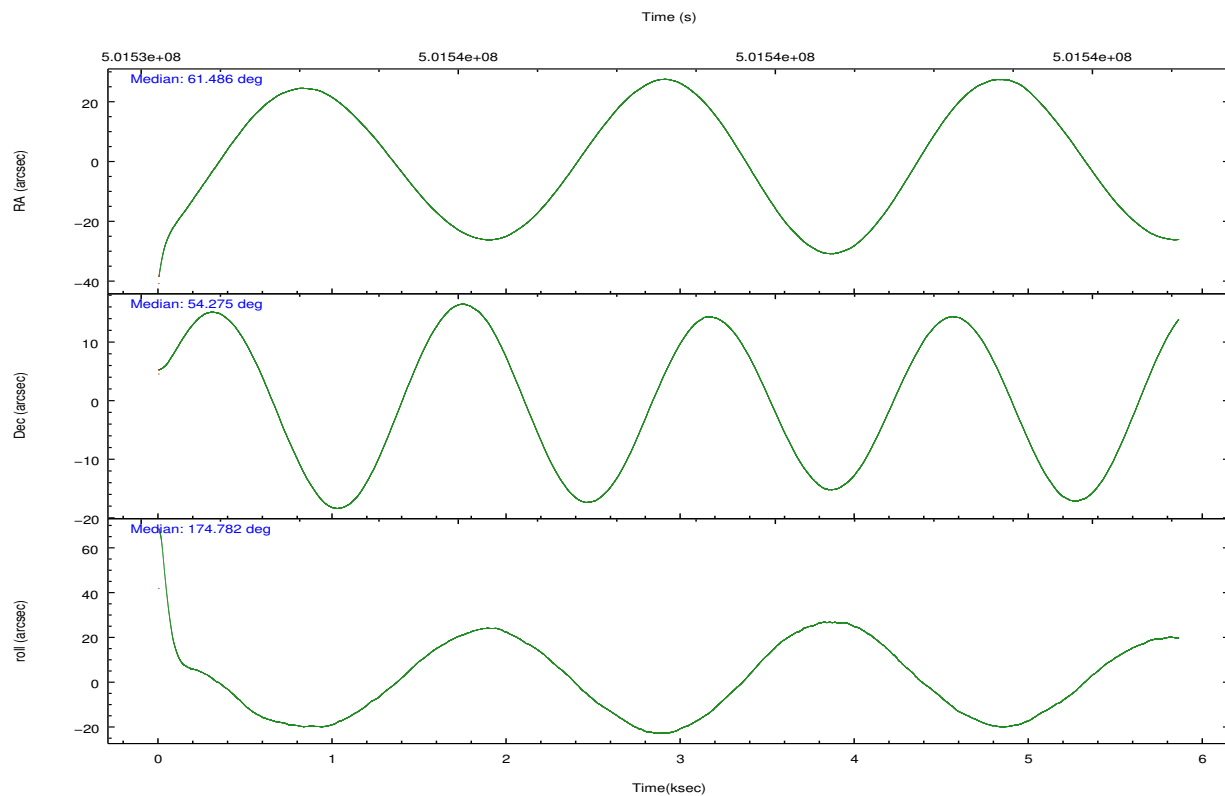
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	20261	22660	23125	22824	24097	32953	grade 0 events	1018	1056	983	914	944	1139
rejected events	17499	19578	20372	20154	21268	18670		5%	4%	4%	4%	3%	3%
rejected %	86%	86%	88%	88%	88%	56%	grade 1 events	11	1517	15	17	12	33
								0%	6%	0%	0%	0%	0%
							grade 2 events	627	760	697	607	665	2906
								3%	3%	3%	2%	2%	8%
							grade 3 events	285	320	274	301	287	1210
								1%	1%	1%	1%	1%	3%
							grade 4 events	259	285	280	284	277	1226
								1%	1%	1%	1%	1%	3%
							grade 5 events	1198	1160	1039	1347	1279	3392
								5%	5%	4%	5%	5%	10%
							grade 6 events	573	662	521	567	657	7806
								2%	2%	2%	2%	2%	23%
							grade 7 events	16290	16900	19316	18787	19976	15241
								80%	74%	83%	82%	82%	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	61.528322	61.48578986593442	CCD I2 on	Y	Y
[deg] Pointing Dec	54.285928	54.27435476313312	CCD I3 on	Y	Y
[deg] Pointing Roll	174.541319	174.7846533956036	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)	501535265.184000	501532835.40808	CCD S5 on	N	N
Observation start date	2013-11-22T19:19:58	2013-11-22T18:40:35	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	501540265.184000	501540674.60851	On-chip summing requested	N	N
Observation end date	2013-11-22T20:43:18	2013-11-22T20:51:14	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



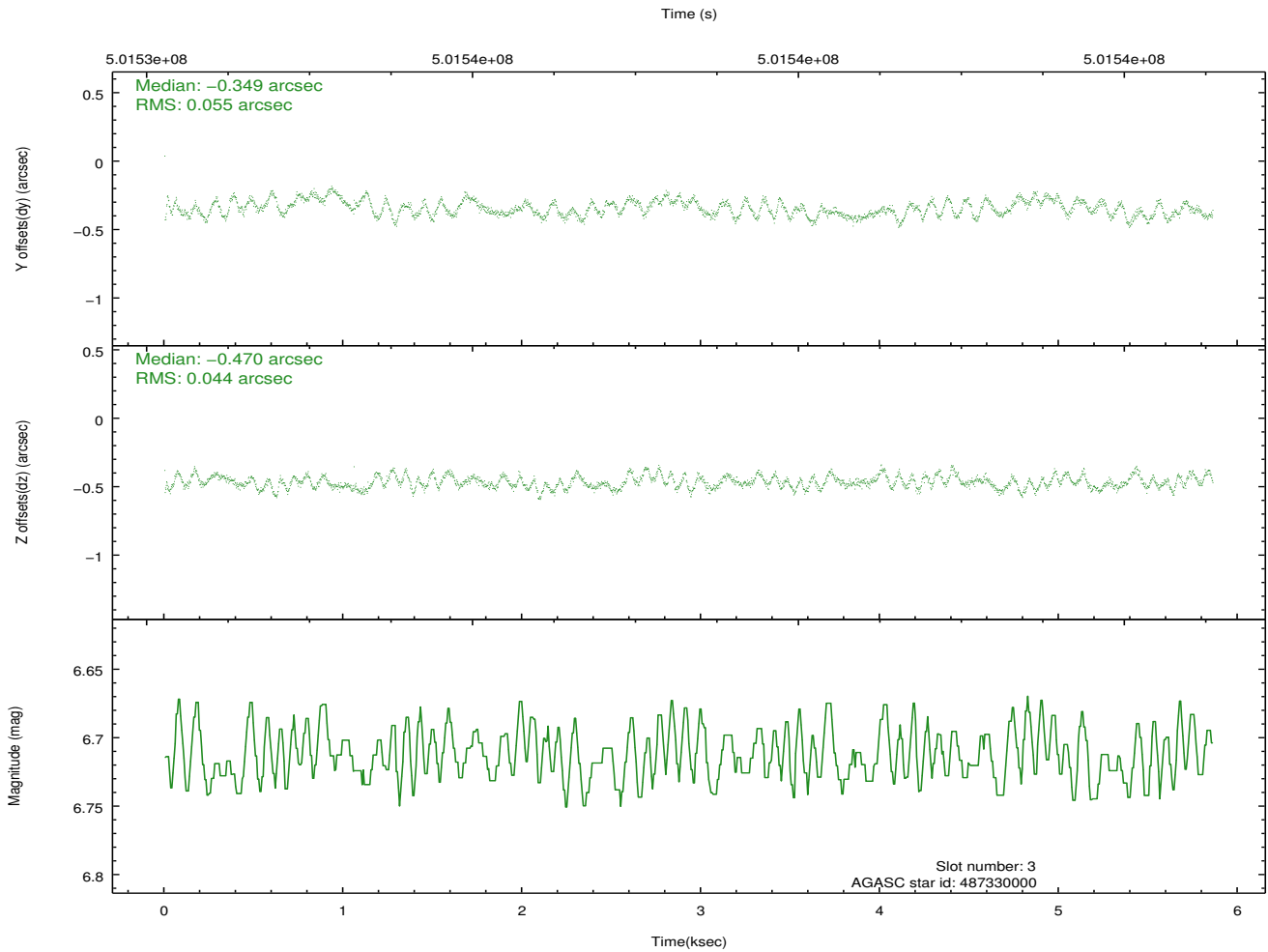
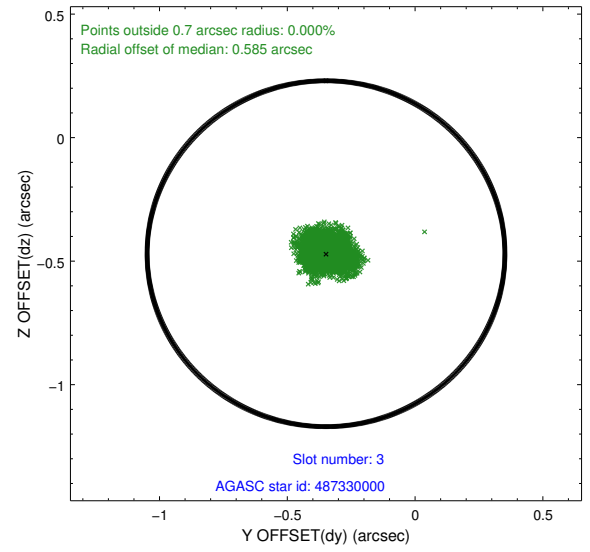
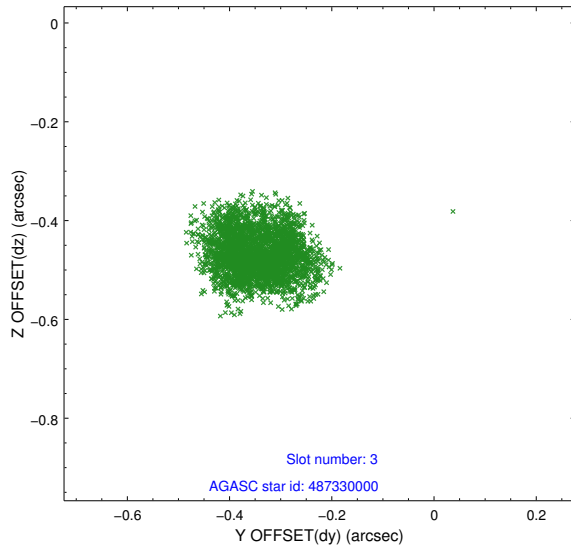


Slot Statistics

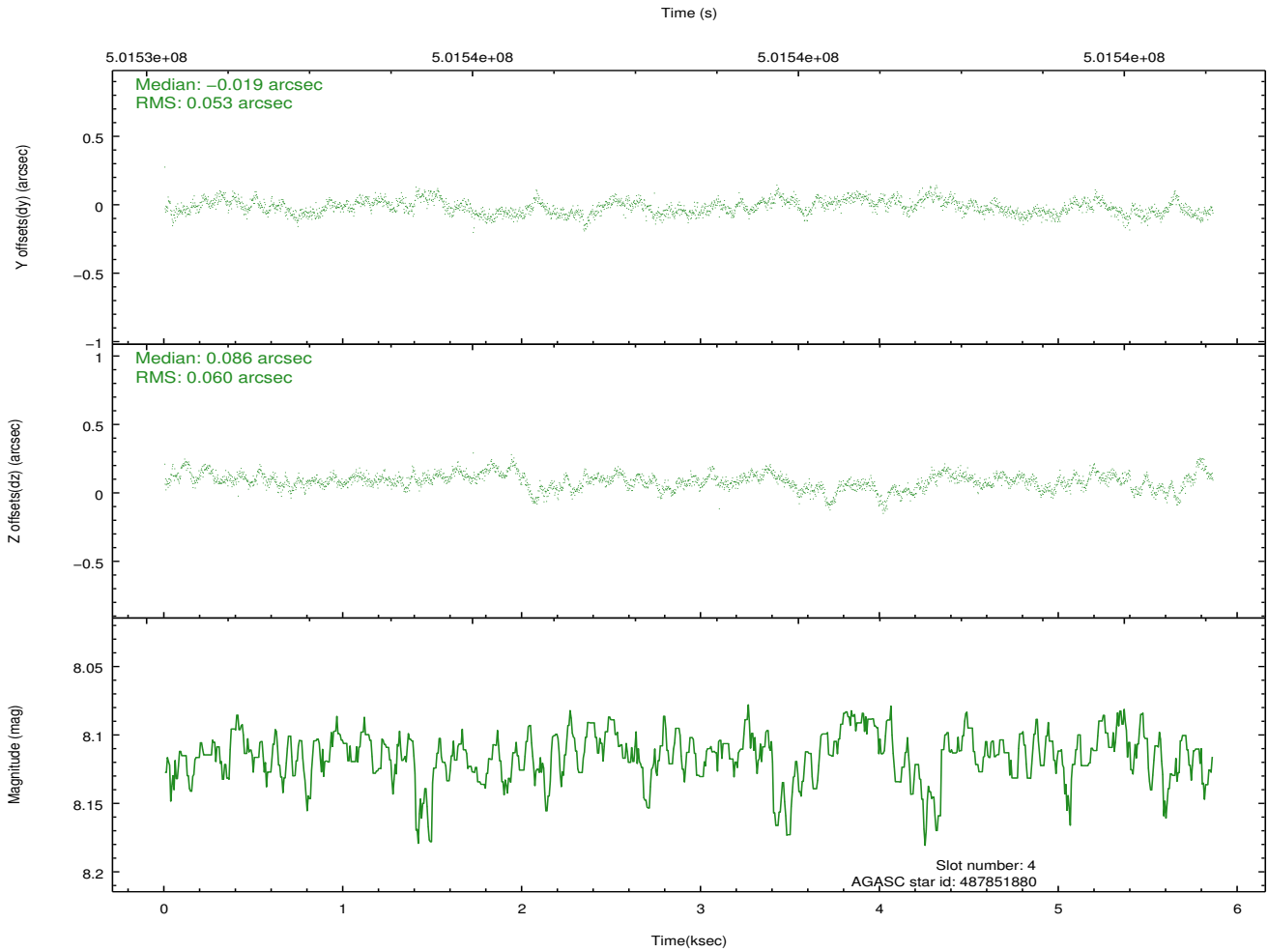
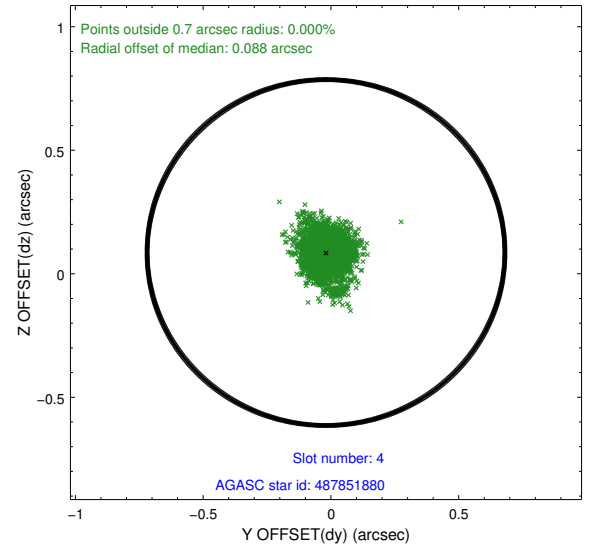
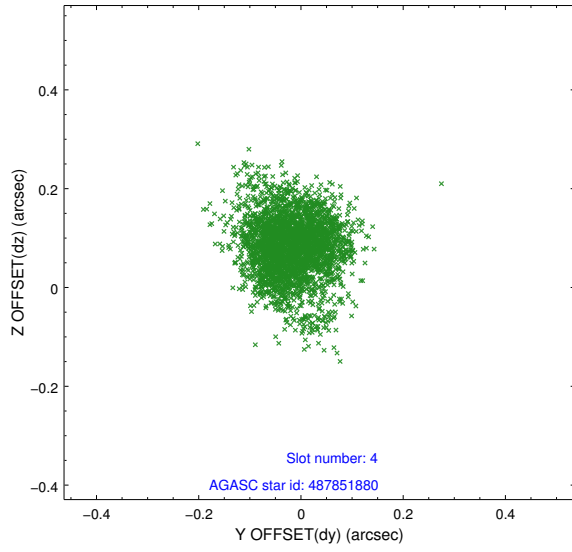
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.03	1430	-0.043	-0.015	0.008	0.013	0.000000	0.000000	917.66	-842.27
1	FID		ACIS-I-4	6.97	1430	0.265	0.055	0.007	0.012	0.000000	0.000000	2138.49	1057.14
2	FID		ACIS-I-5	7.01	1429	-0.320	0.031	0.006	0.011	0.000000	0.000000	-1829.40	1055.97
3	GUIDE	used	487330000	6.71	2859	-0.349	-0.470	0.076	0.117	60.405525	53.865933	2230.79	1713.21
4	GUIDE	used	487851880	8.11	2857	-0.019	0.086	0.083	0.145	60.850967	54.723956	1553.65	-1440.82
5	GUIDE	used	487858168	8.10	2857	-0.226	0.161	0.067	0.111	60.468138	54.475181	2274.94	-483.69
6	GUIDE	used	487331136	8.80	2855	0.186	-0.079	0.090	0.136	62.208935	54.141392	-1475.99	374.69
7	GUIDE	used	487855456	9.03	2857	0.406	0.294	0.111	0.184	62.592427	54.682355	-2066.59	-1647.26

2.4 Star Slots

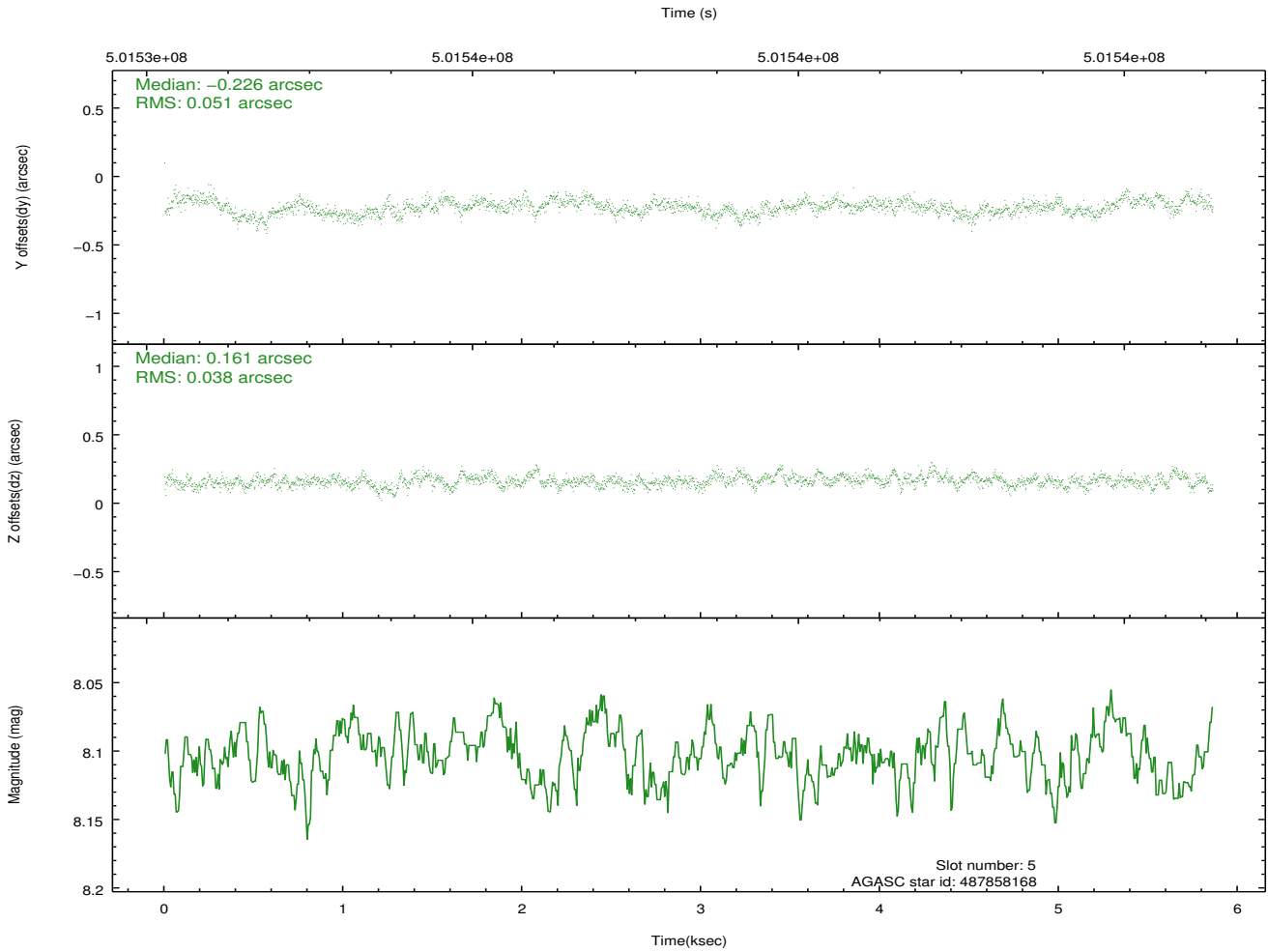
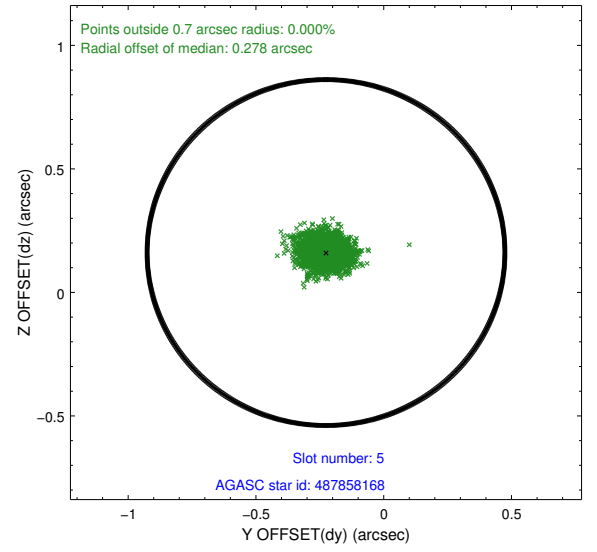
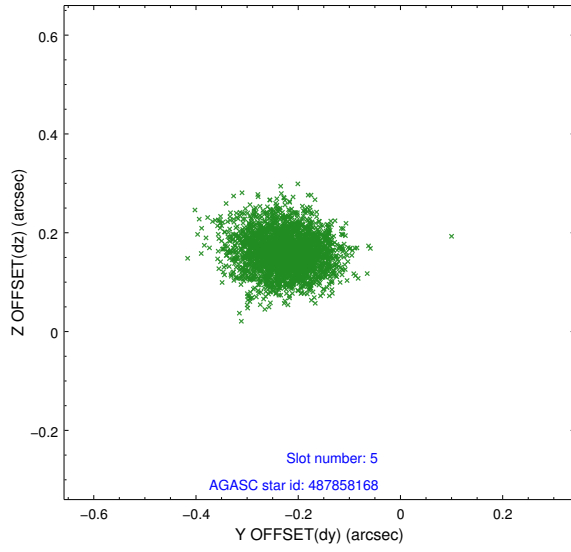
2.4.1 Slot 3



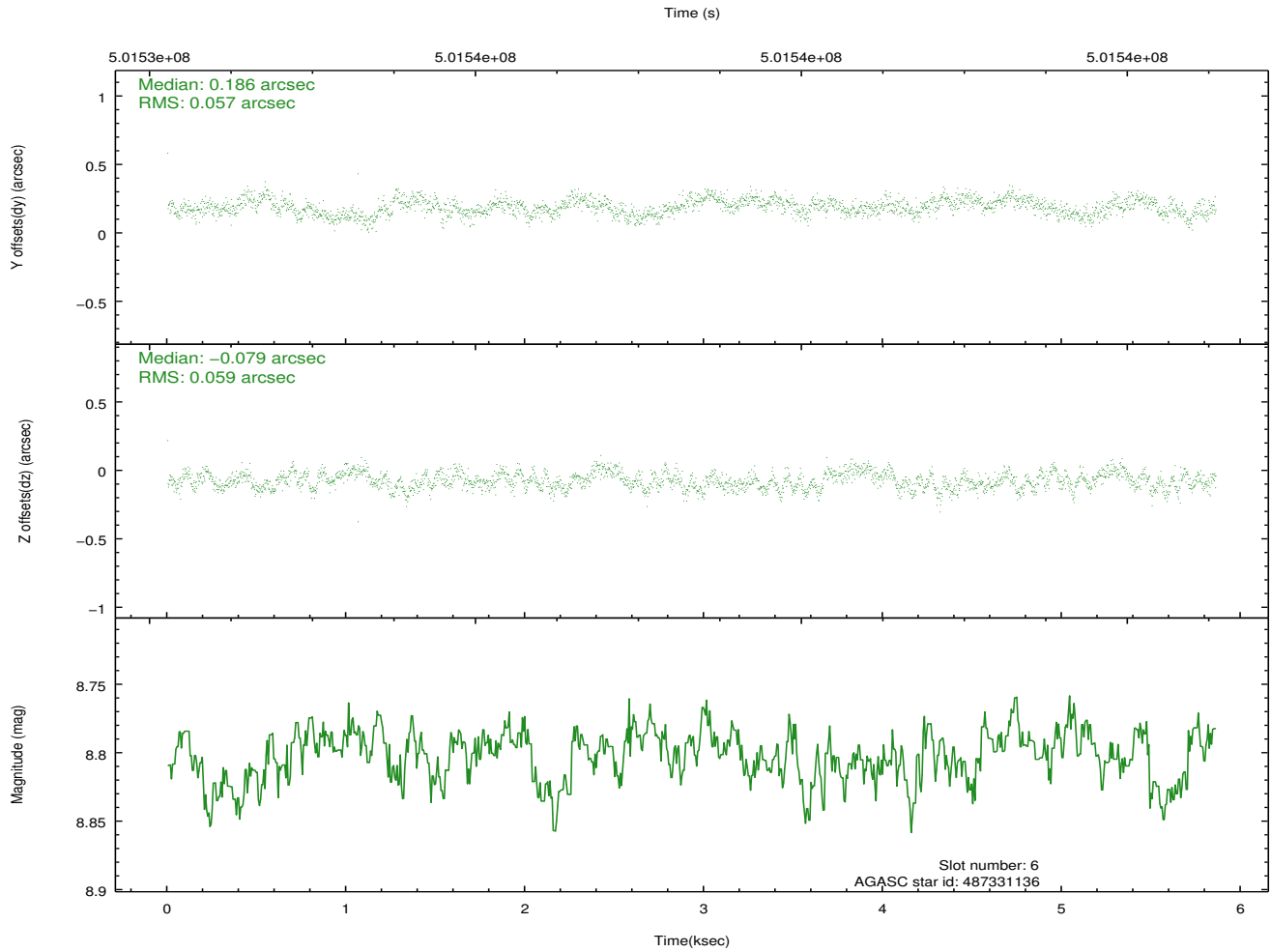
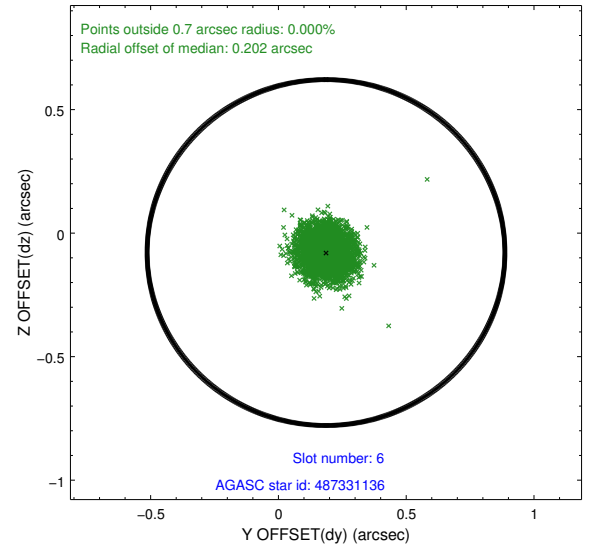
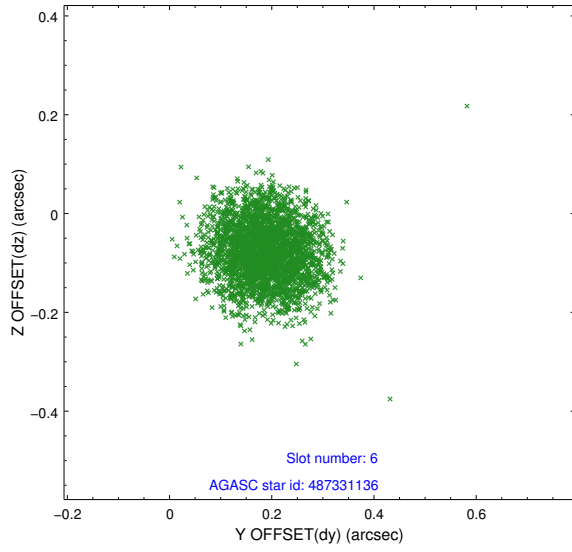
2.4.2 Slot 4



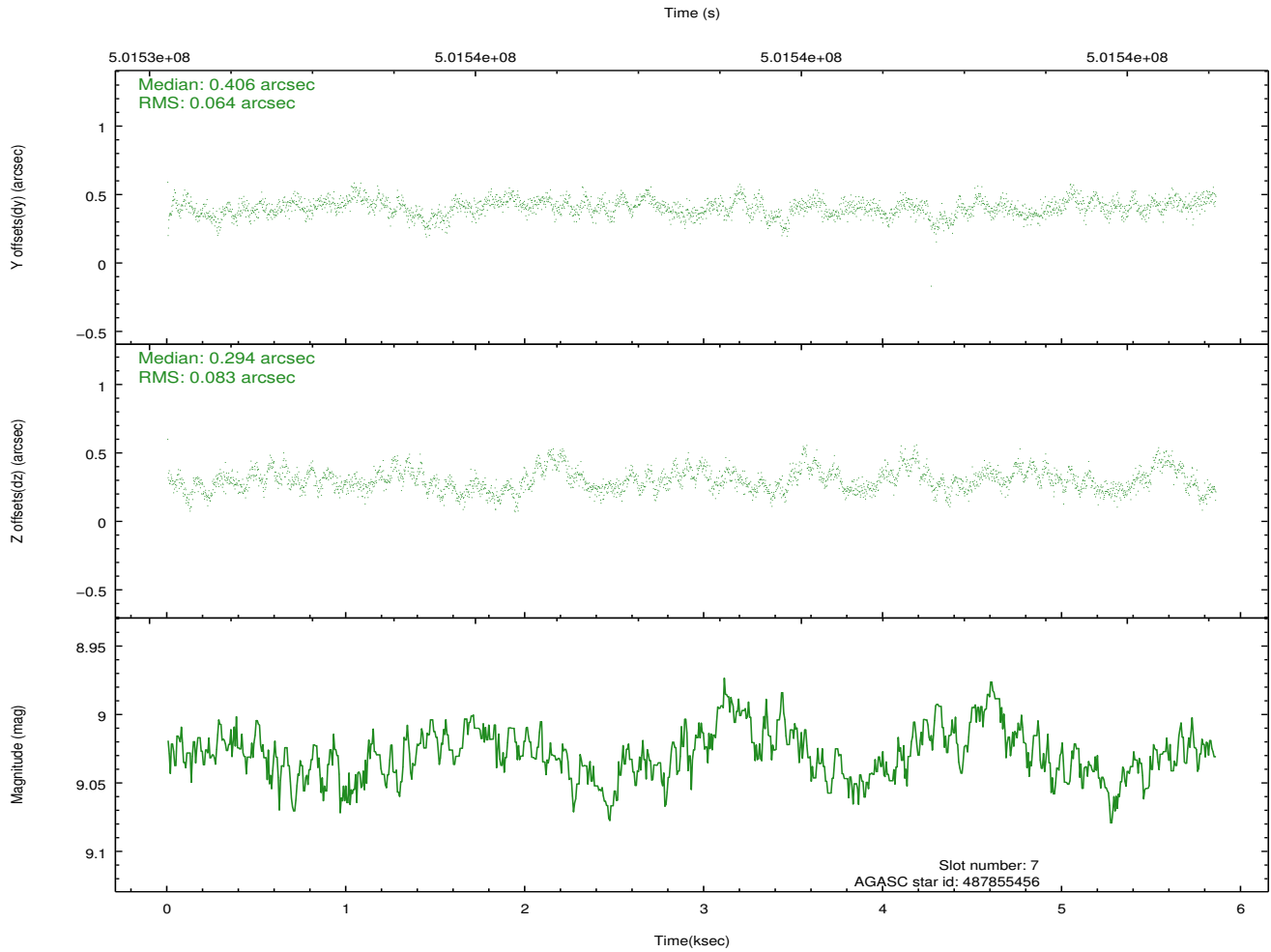
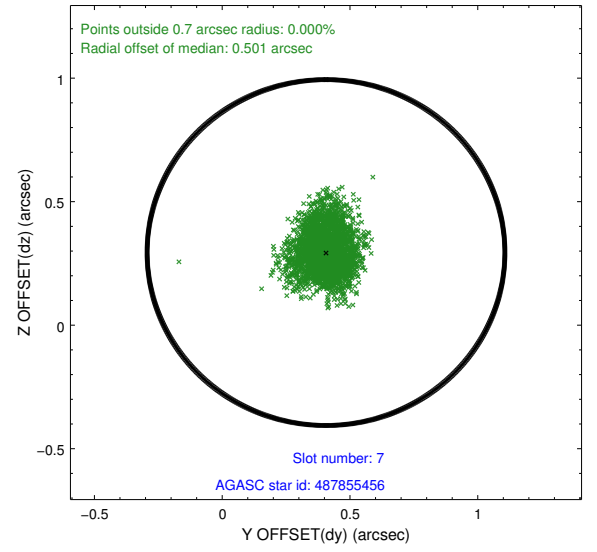
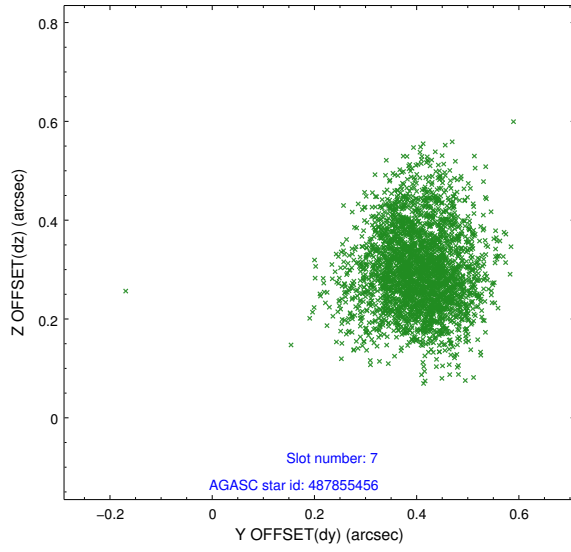
2.4.3 Slot 5



2.4.4 Slot 6

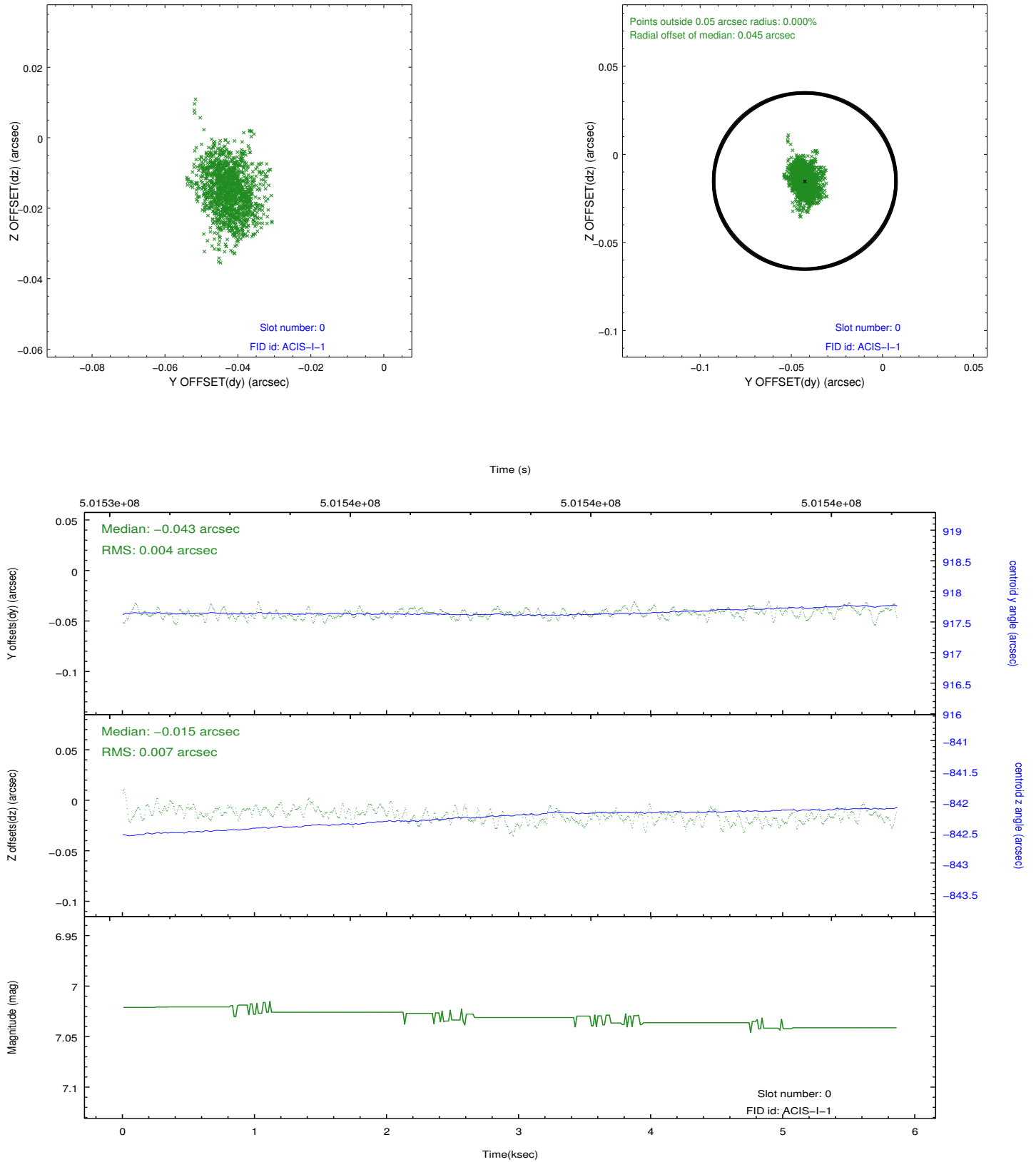


2.4.5 Slot 7

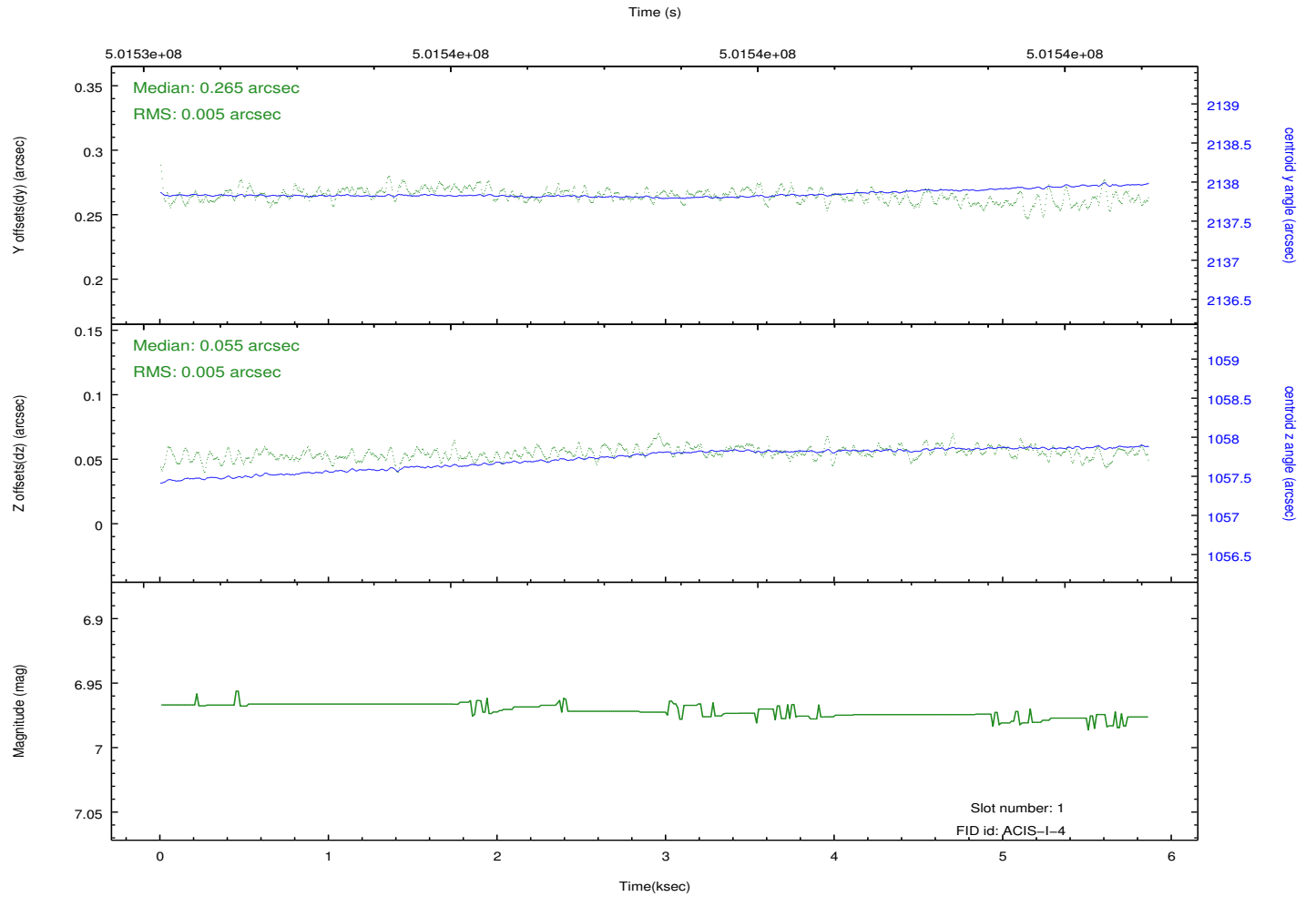
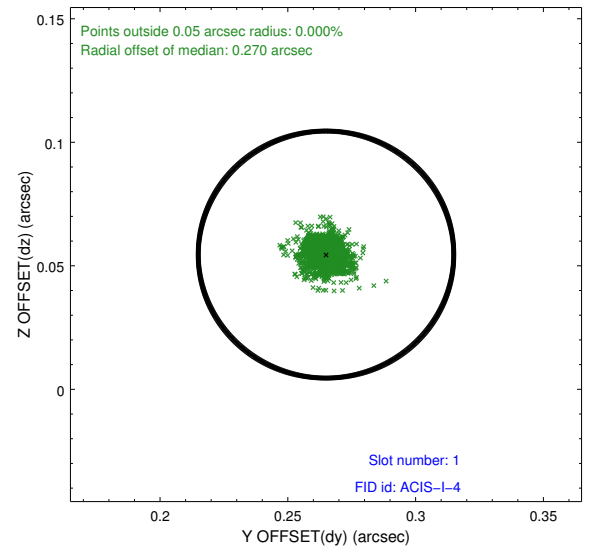
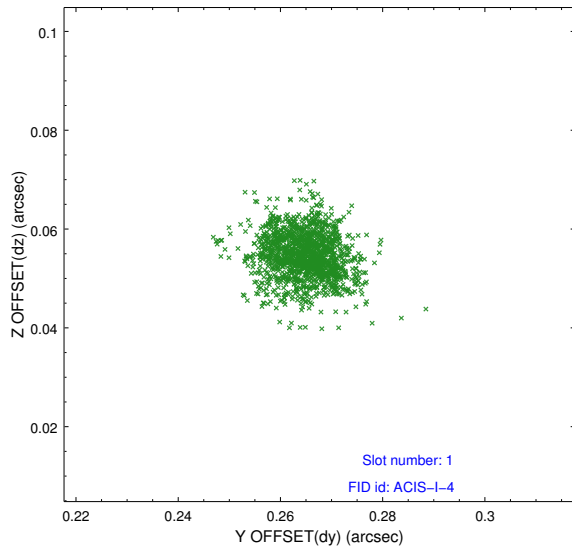


2.5 FID Slots

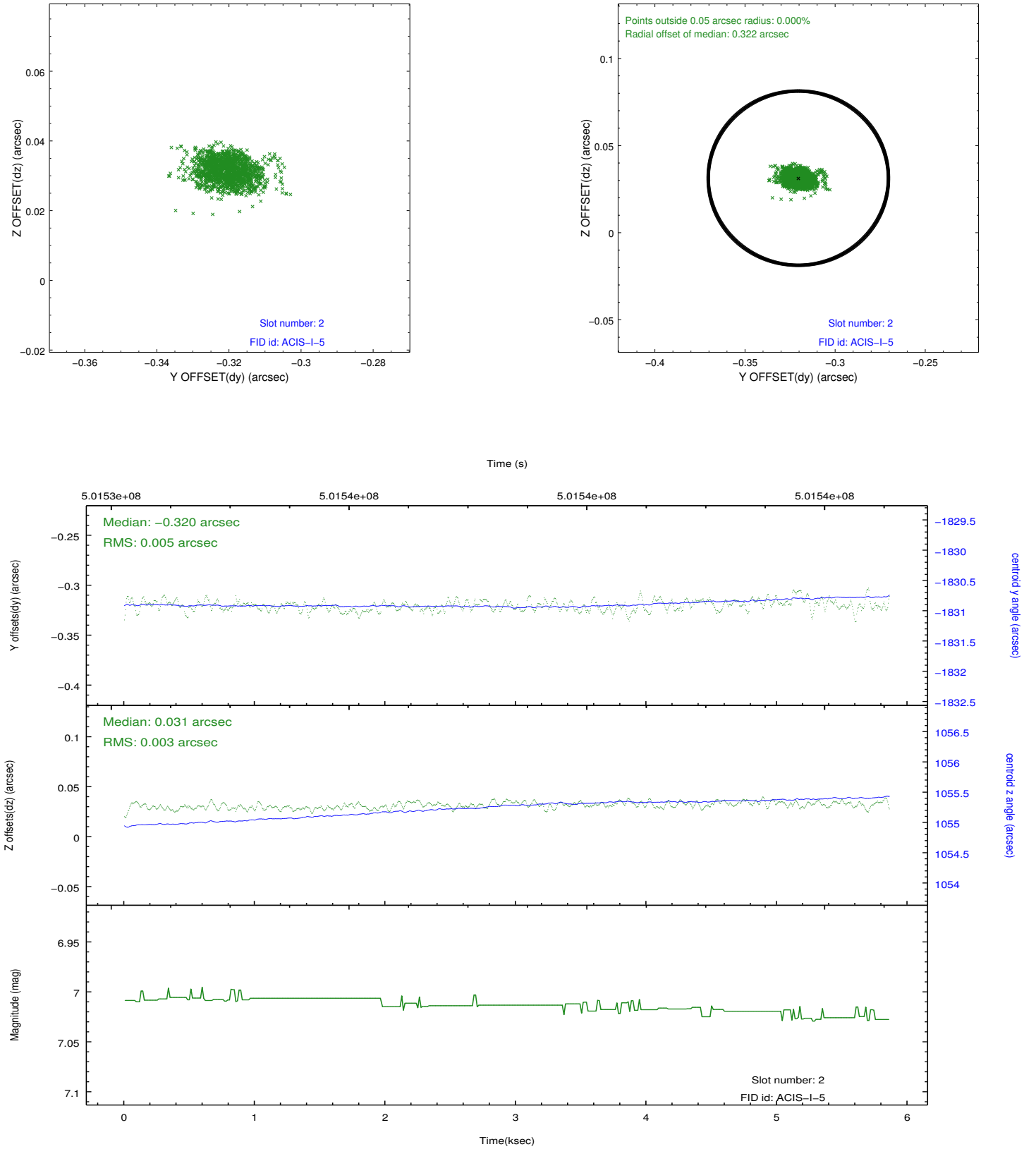
2.5.1 Slot 0



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)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.9727999815345

A.2 Comments

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.