

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 15179 - L2 Version 2
Chandra X-Ray Center

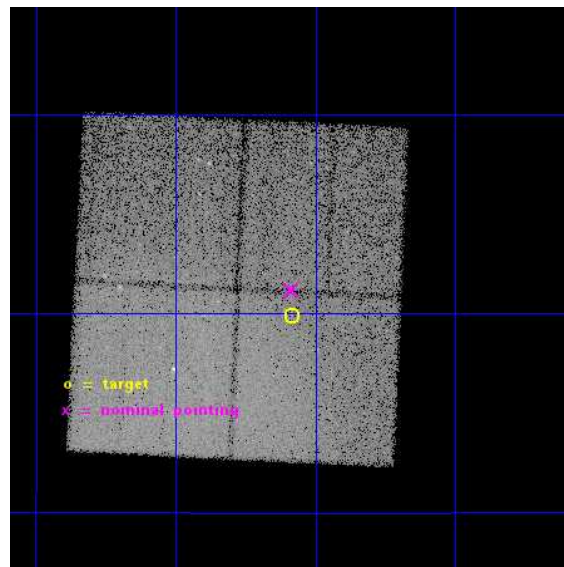
L2 Processing Date : Dec 10 2014

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1 Front

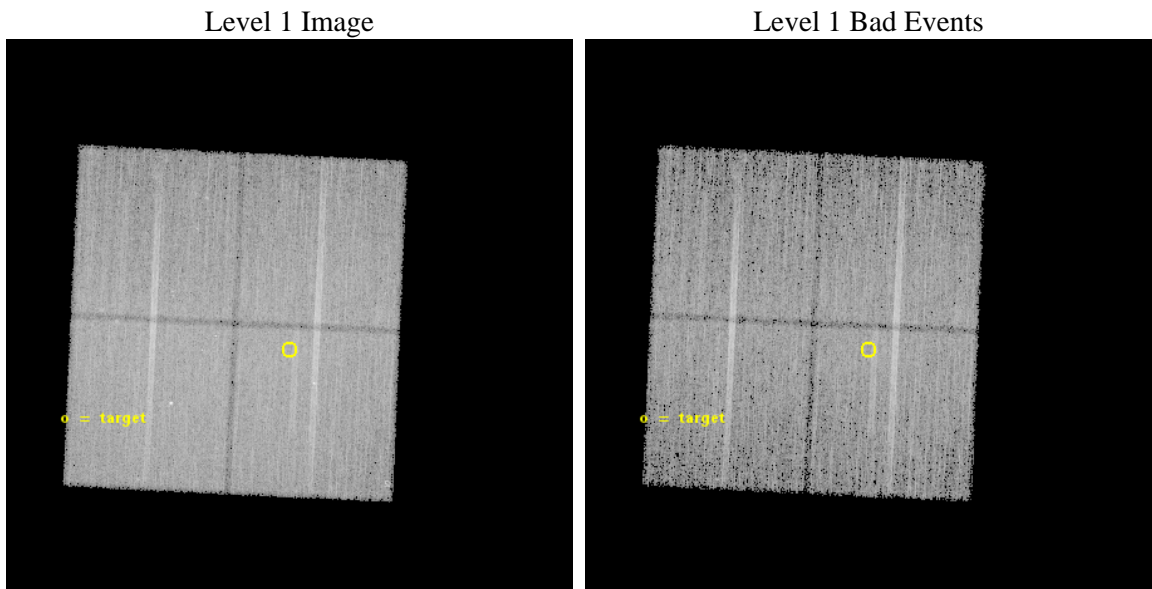
seq_num	801305	Sequence number
obs_id	15179	Observation id
title	Resolving the nearest cold front in the sky: the cleanest experimental tool to study detailed ICM physics	Proposal title
observer	Dr. Norbert Werner	Principal investigator
object	Virgo cold front	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.52067	Observer's specified target RA [deg]
dec_targ	12.664798	Observer's specified target Dec [deg]
ra_nom	187.52151483559	Nominal RA [deg]
dec_nom	12.685896213464	Nominal Dec [deg]
roll_nom	92.708506677707	Nominal Roll [deg]
revision	2	Processing version of data
ontime	41948.323726892	Sum of GTIs [s]
livetime	41400.237995494	Livetime [s]
ontime0	41951.341587245	Sum of GTIs [s]
ontime1	41945.100546479	Sum of GTIs [s]
ontime2	41951.423667252	Sum of GTIs [s]
ontime3	41948.323726892	Sum of GTIs [s]
l2events	213533	Number of level 2 events



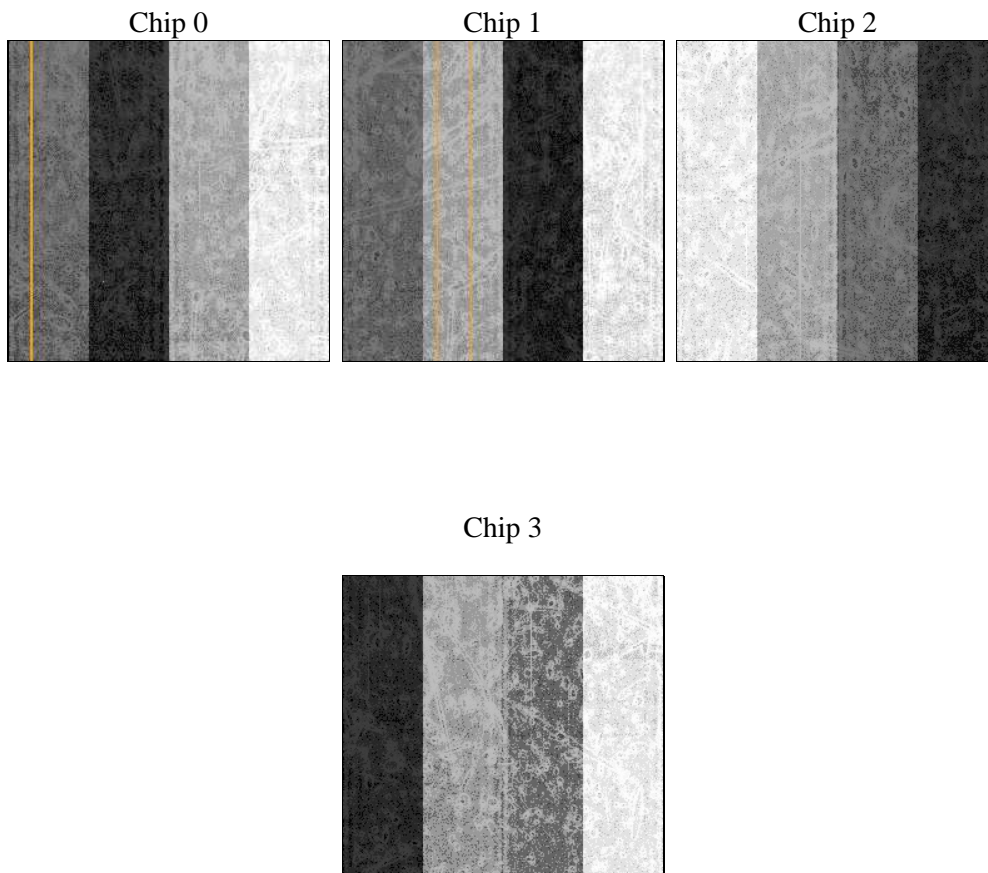
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	41856.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	41948.323726892	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	41951.341587245	Sum of GTIs [s]
date	2014-12-10T13:24:48	Date and time of file creation	ontime1	41945.100546479	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	41951.423667252	Sum of GTIs [s]
			ontime3	41948.323726892	Sum of GTIs [s]
			l1events	847509	Number of level 1 events

2.1.4 Events

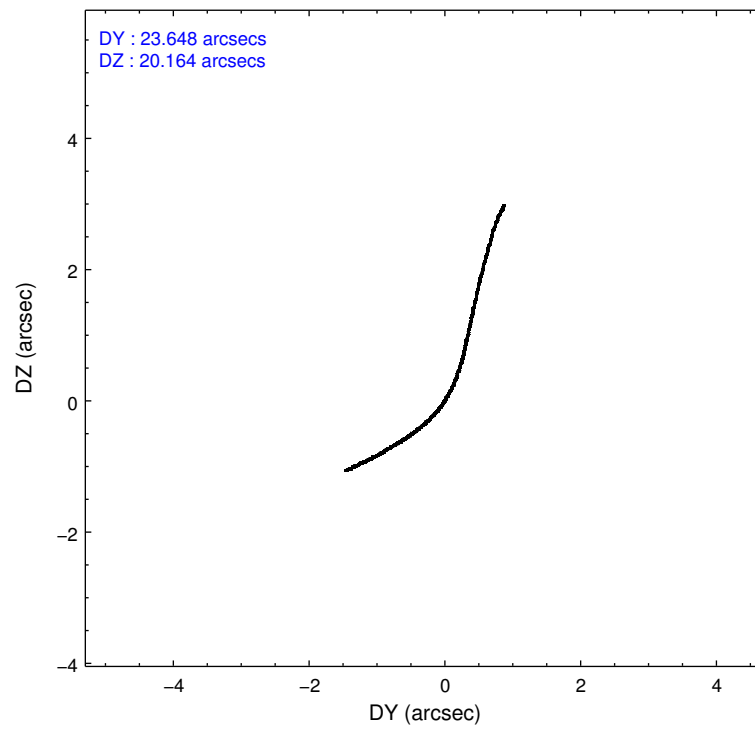
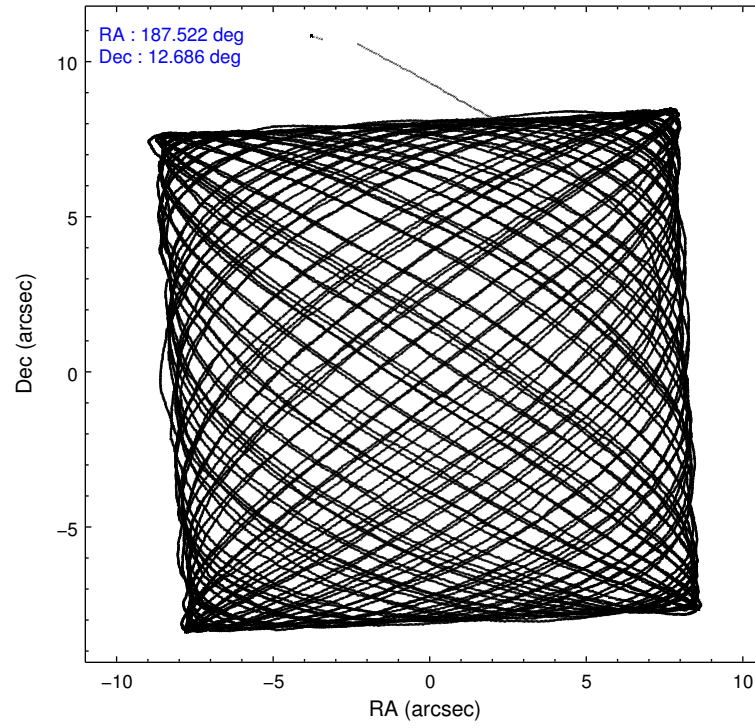
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	187204	238018	196017	226270
rejected events	144775	146313	156848	163682
rejected %	77%	61%	80%	72%

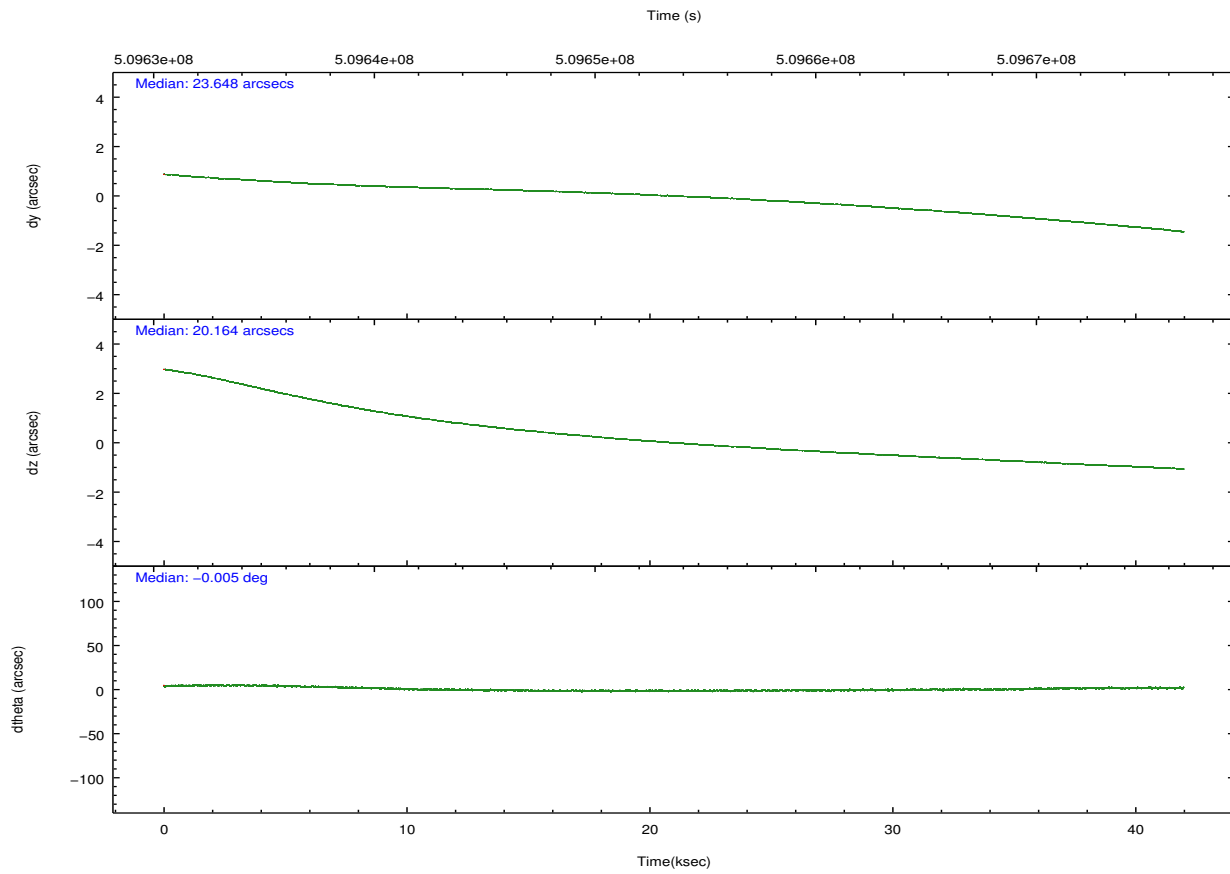
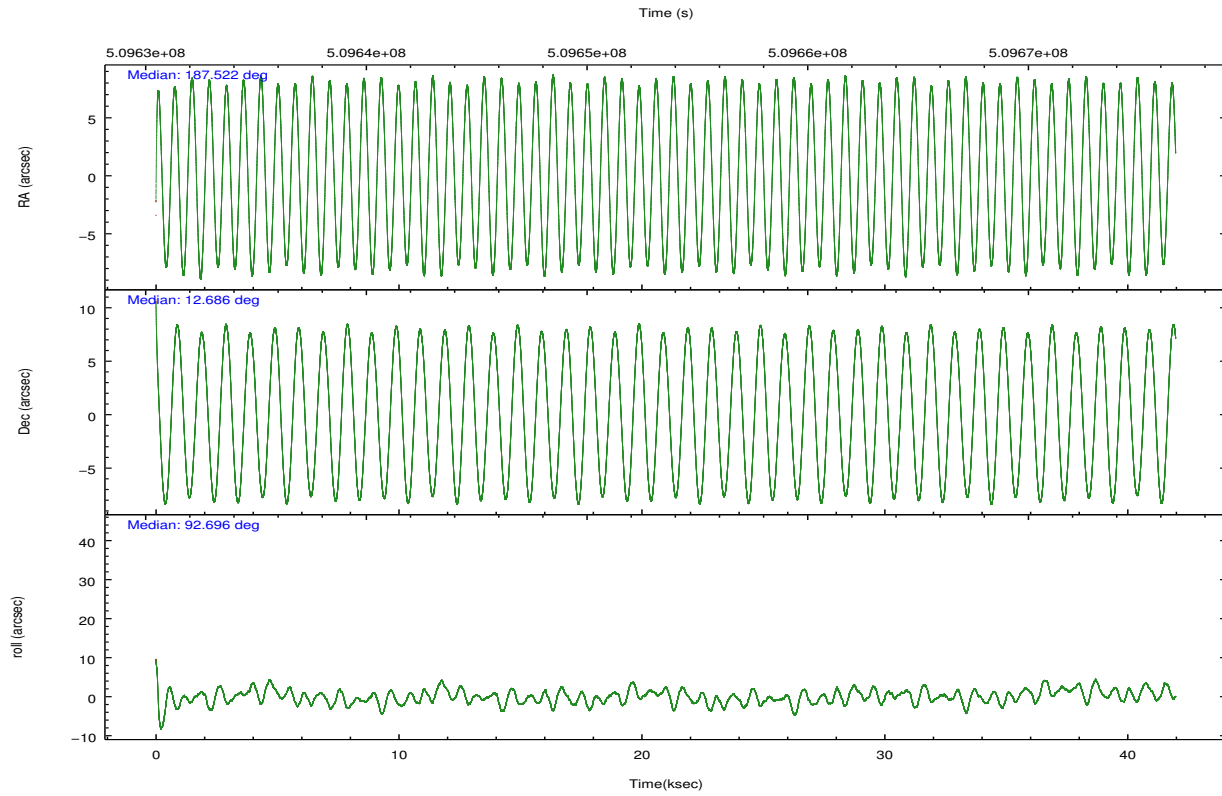
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	24125	63797	22158	41813
	12%	26%	11%	18%
grade 1 events	164	229	158	197
	0%	0%	0%	0%
grade 2 events	7488	12718	6946	8634
	3%	5%	3%	3%
grade 3 events	2907	4313	2725	3354
	1%	1%	1%	1%
grade 4 events	2779	4286	2692	3437
	1%	1%	1%	1%
grade 5 events	9125	9634	8688	10256
	4%	4%	4%	4%
grade 6 events	5134	6599	4654	5357
	2%	2%	2%	2%
grade 7 events	135482	136442	147996	153222
	72%	57%	75%	67%

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	187.536834	187.5215148355946	CCD I2 on	Y	Y
[deg] Pointing Dec	12.662822	12.685896213464	CCD I3 on	Y	Y
[deg] Pointing Roll	92.496454	92.70850667770668	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	N	N
[mm] SIM translation stage pos	-227.592463	-227.5933067819097	CCD S3 on	O1	N
[mm] SIM translation stage offset	-6	-5.999146221020027	CCD S4 on	N	N
[s] Observation start time (MET)	509632690.184000	509631435.67801	CCD S5 on	N	N
Observation start date	2014-02-24T12:37:03	2014-02-24T12:17:15	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	509674546.184000	509675502.48044	On-chip summing requested	N	N
Observation end date	2014-02-25T00:14:39	2014-02-25T00:31:42	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





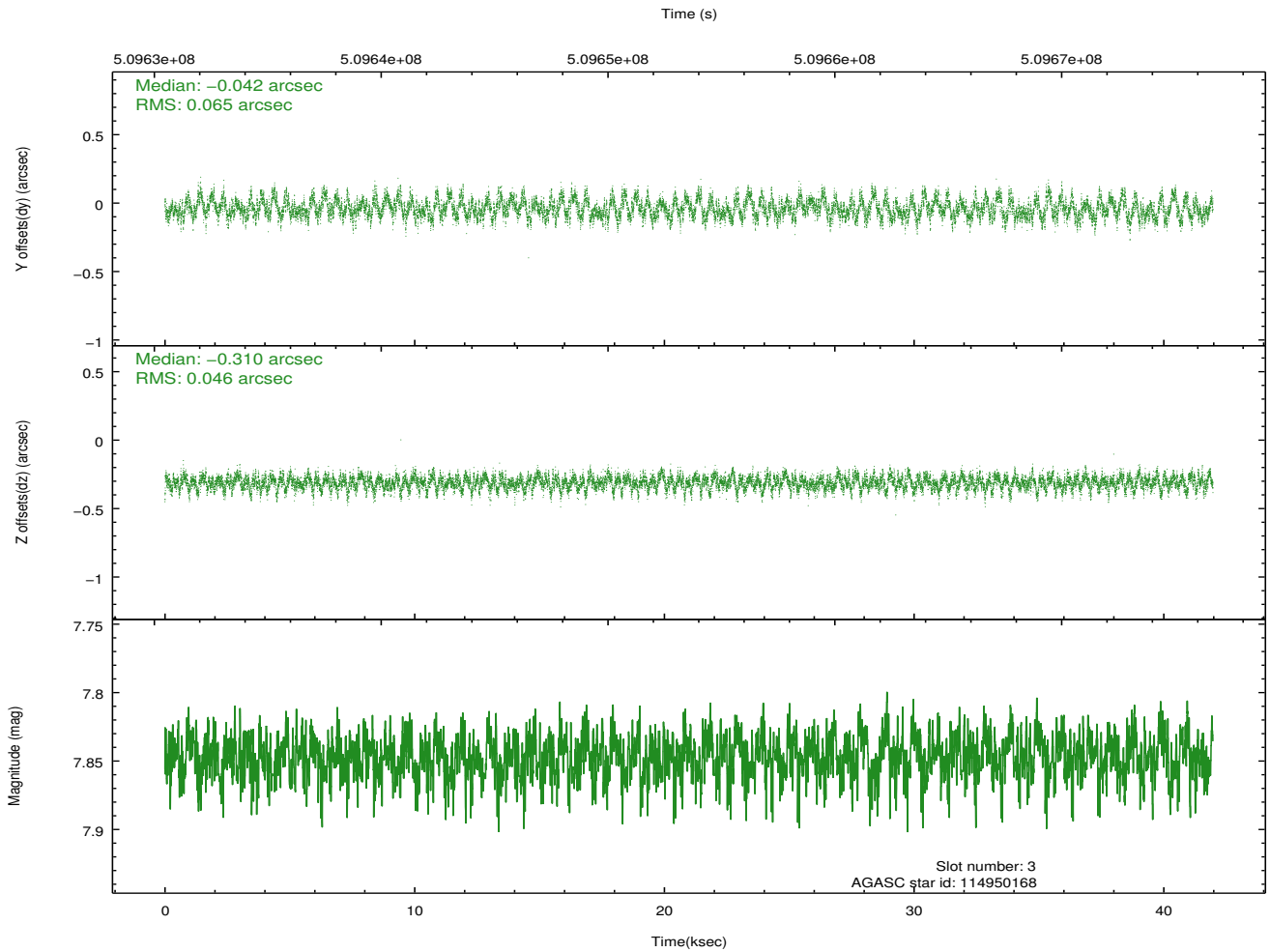
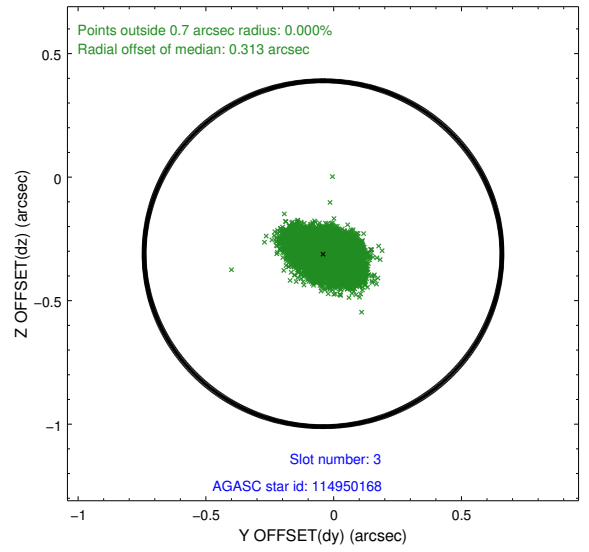
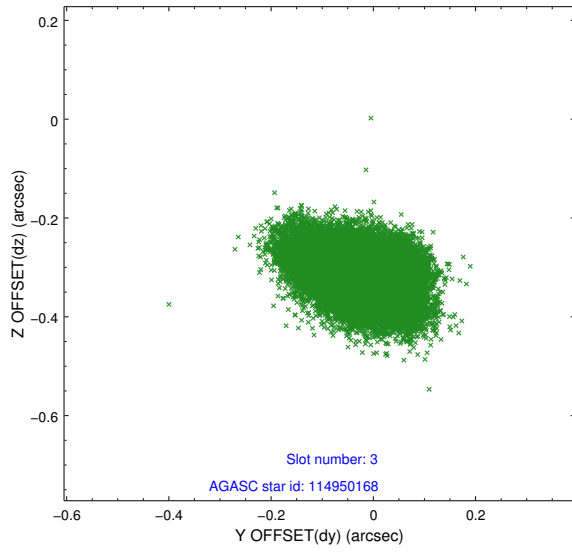
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.11	10239	0.074	-0.030	0.023	0.069	0.000000	0.000000	915.72	-967.35
1	FID		ACIS-I-5	7.11	10237	-0.320	0.049	0.021	0.037	0.000000	0.000000	-1832.87	930.09
2	FID		ACIS-I-6	7.12	10238	0.152	0.051	0.029	0.043	0.000000	0.000000	381.20	1574.71
3	GUIDE	used	114950168	7.85	20470	-0.042	-0.310	0.083	0.141	187.143398	12.117441	-1900.59	1468.83
4	GUIDE	used	114952824	8.57	20466	-0.040	0.115	0.083	0.132	187.703904	12.486727	-658.58	-557.91
5	GUIDE	used	114954440	9.17	20466	-0.007	-0.462	0.130	0.211	186.915066	12.219118	-1498.70	2253.55
6	GUIDE	used	114955056	8.32	20462	0.069	1.060	0.093	0.143	187.914001	12.127854	-1980.43	-1240.95
7	GUIDE	used	114957008	8.24	20472	0.021	-0.404	0.072	0.123	186.894794	12.099160	-1926.63	2346.79

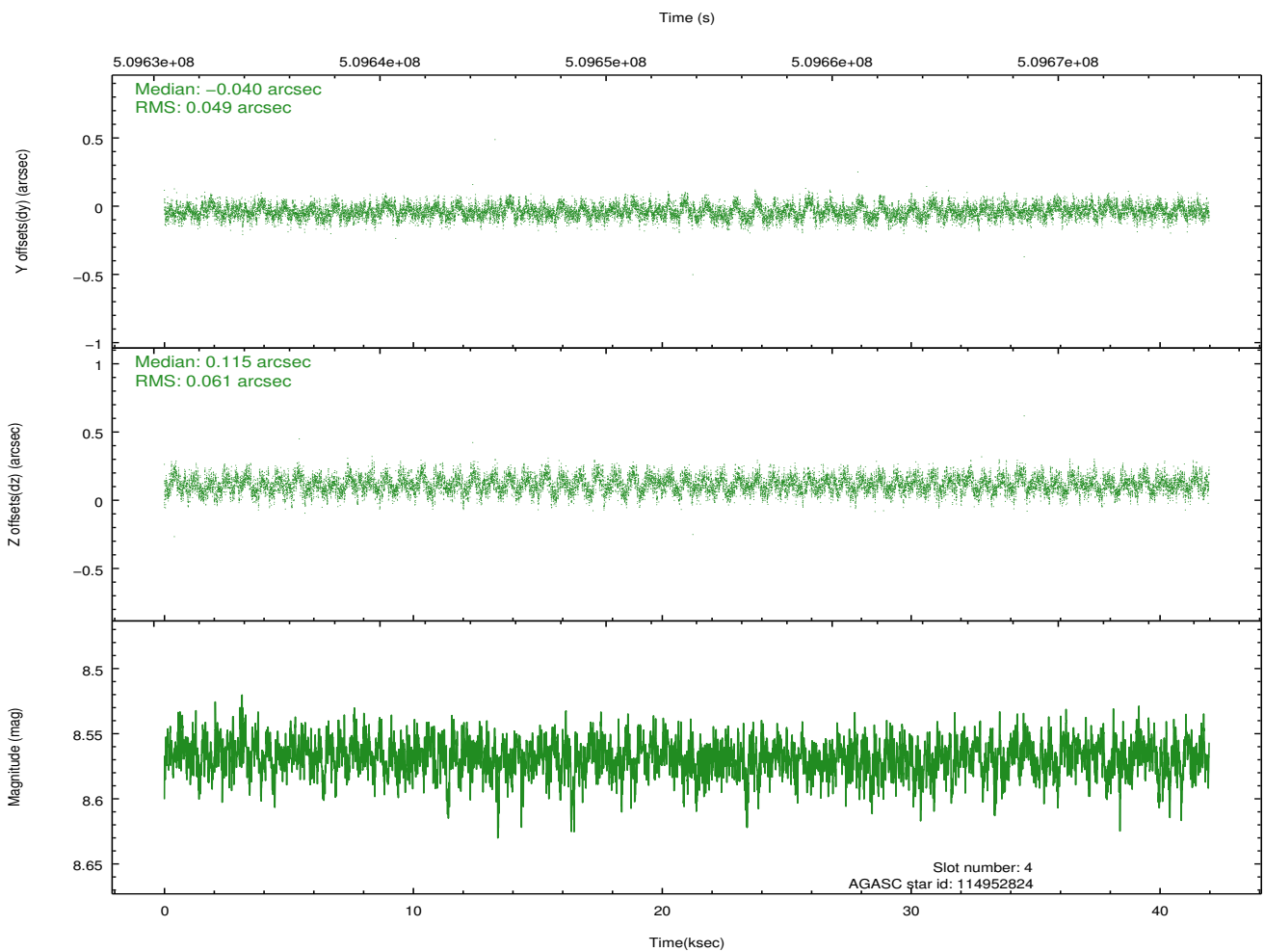
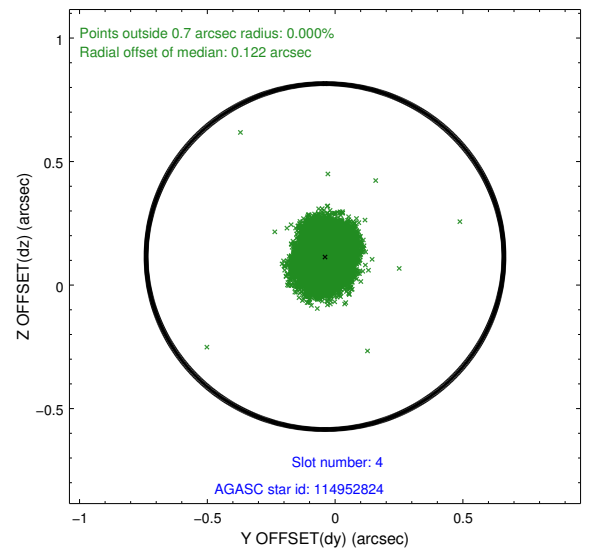
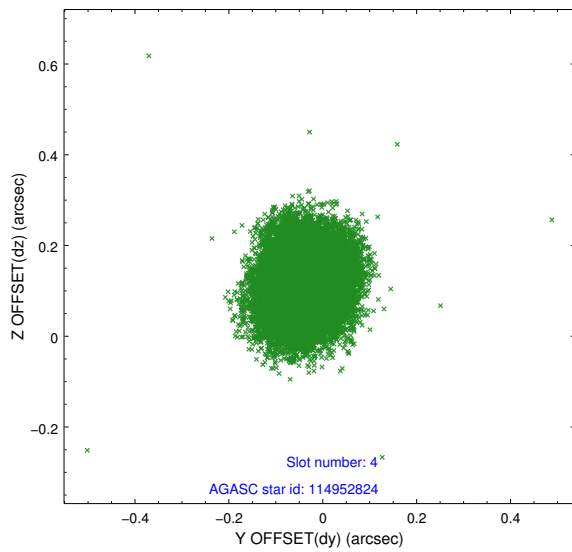
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2.4 Star Slots

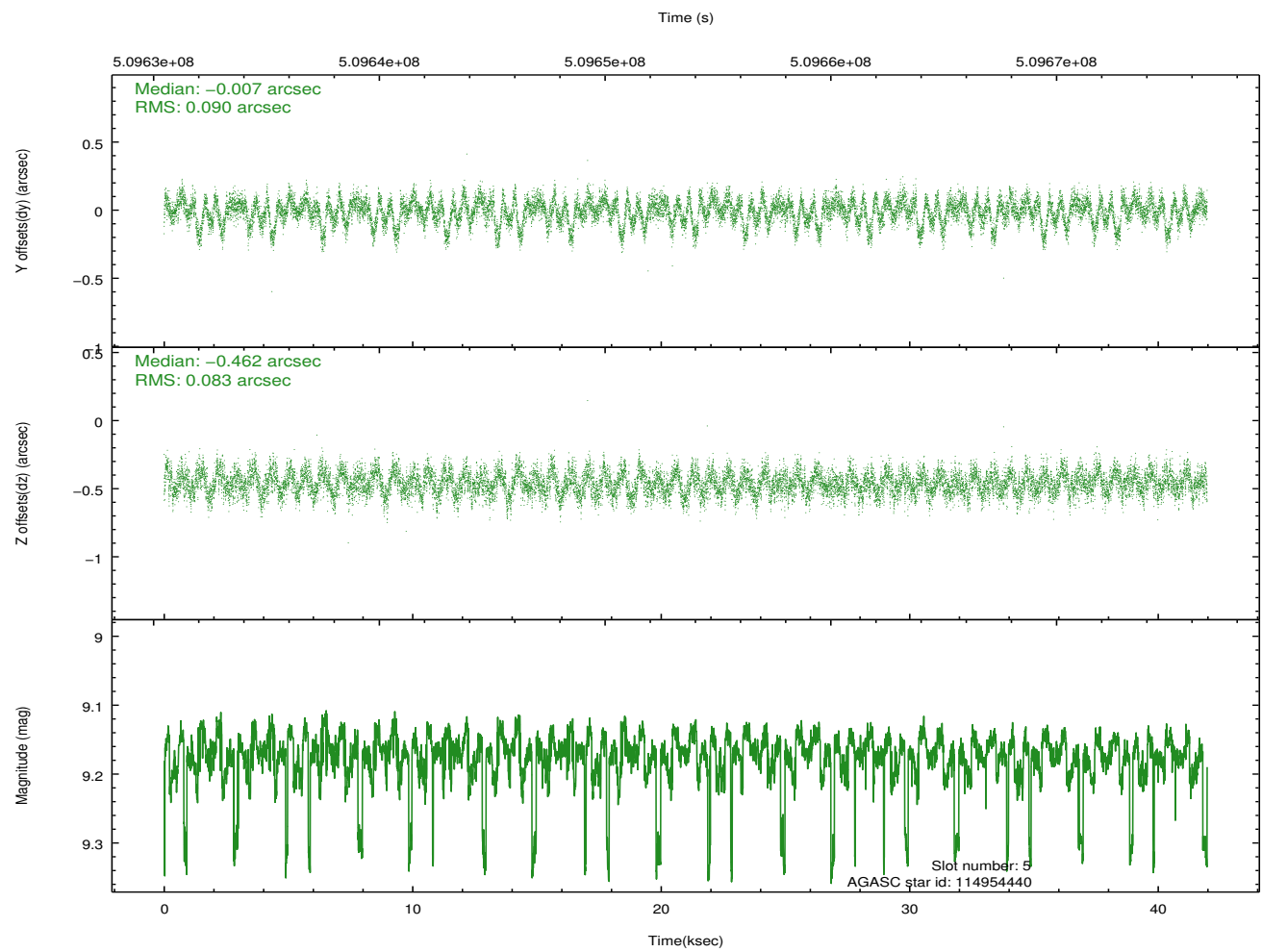
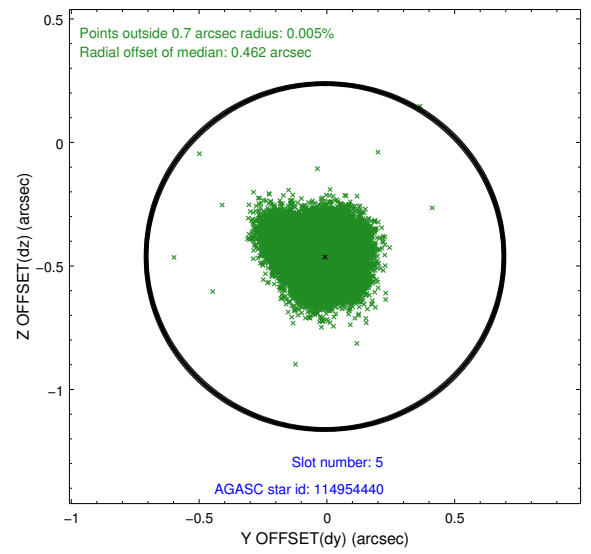
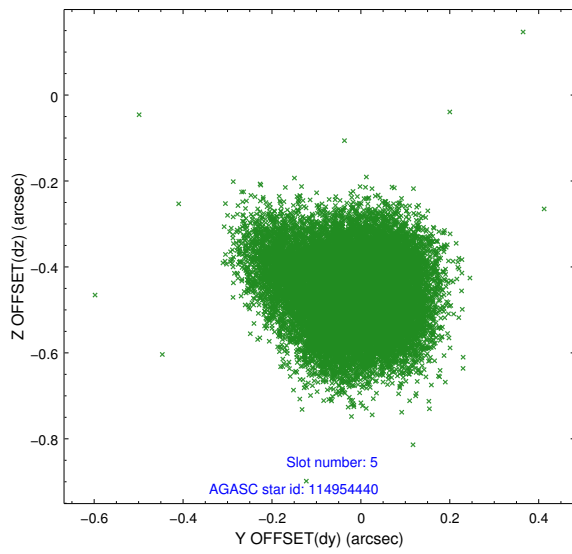
2.4.1 Slot 3



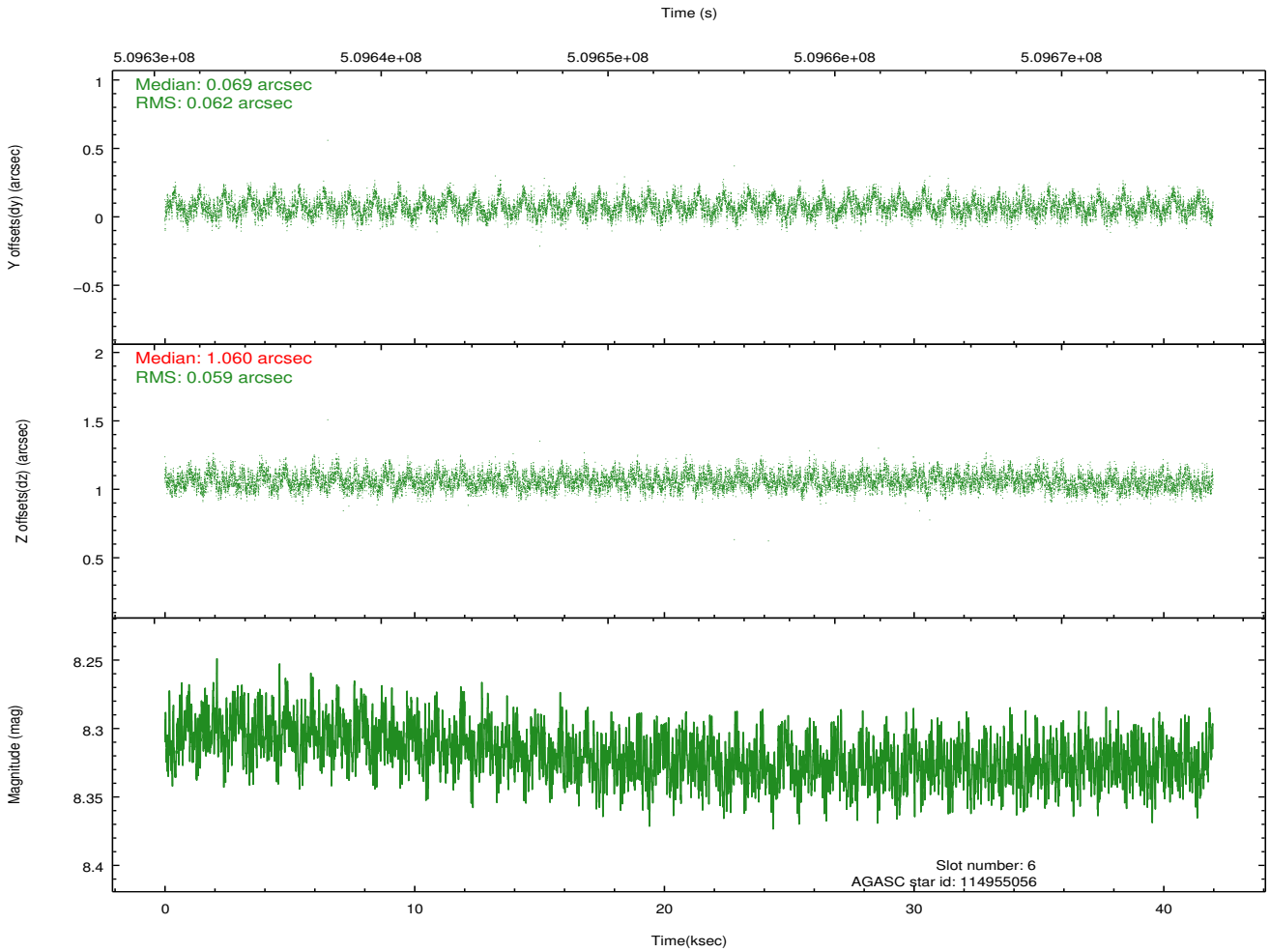
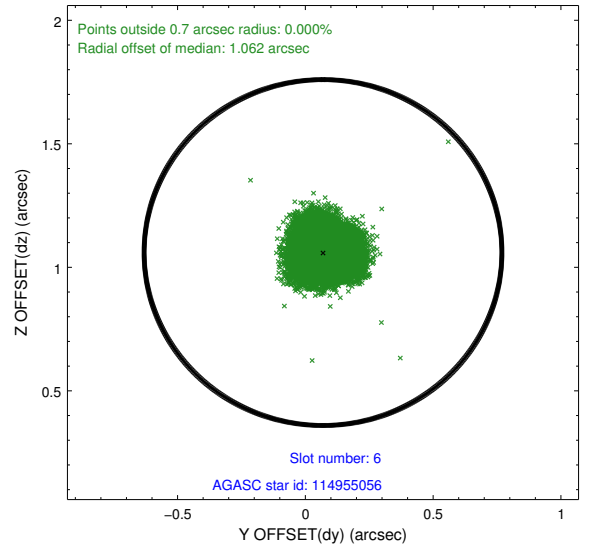
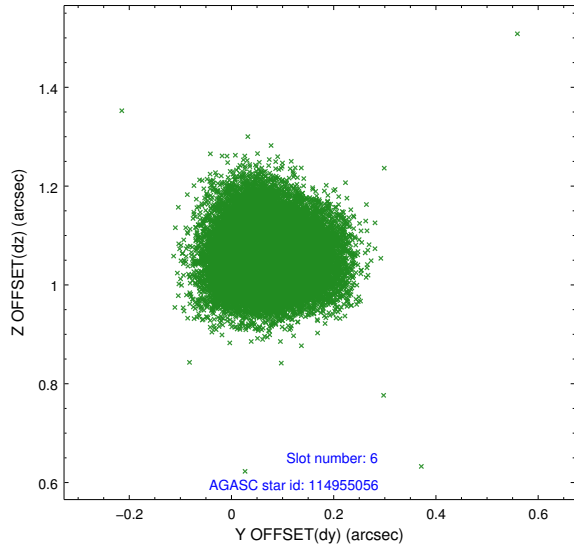
2.4.2 Slot 4



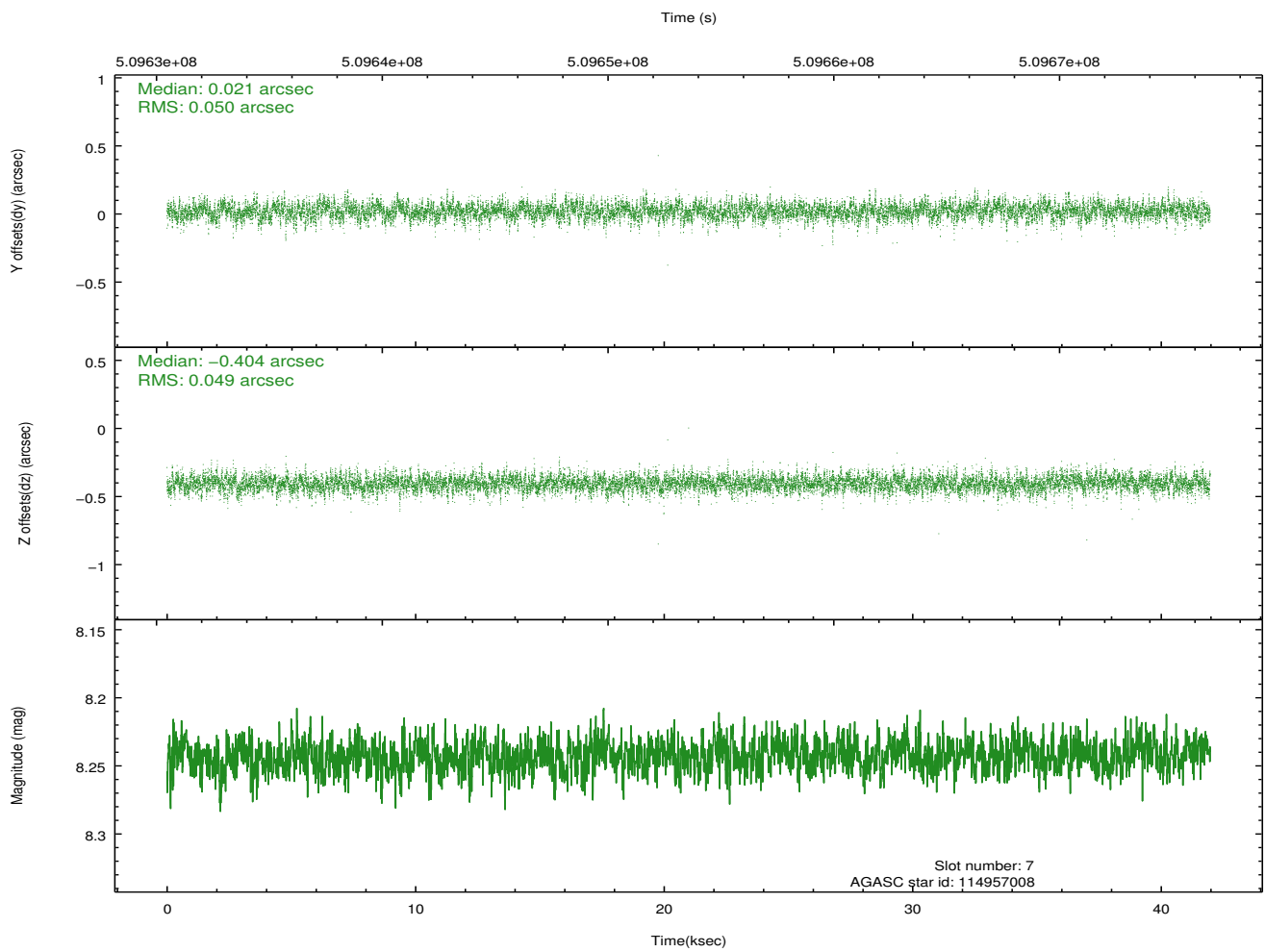
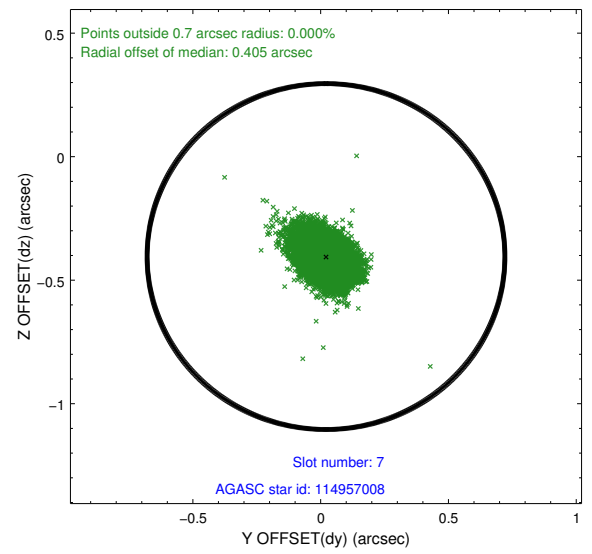
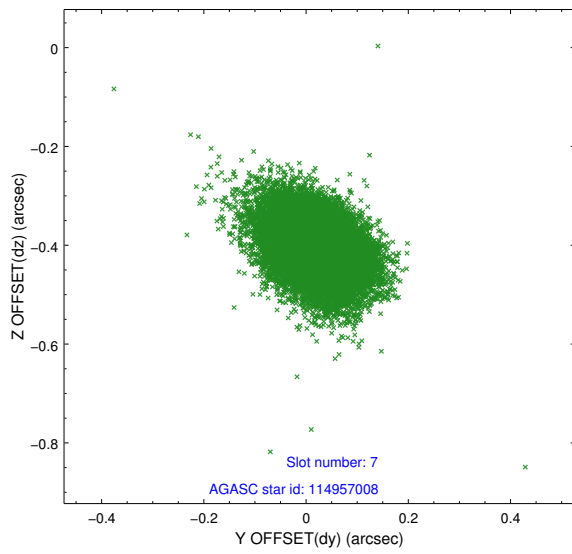
2.4.3 Slot 5



2.4.4 Slot 6

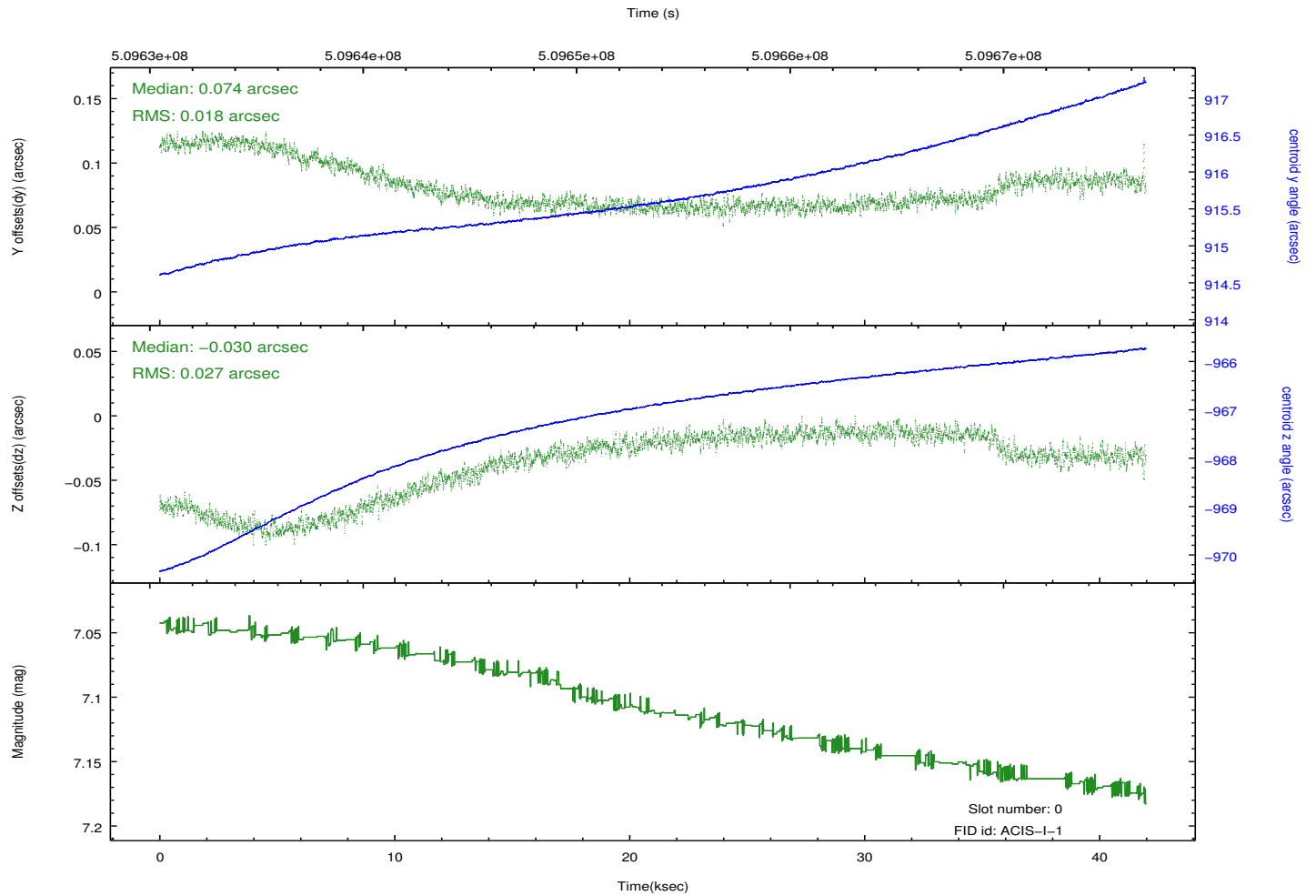
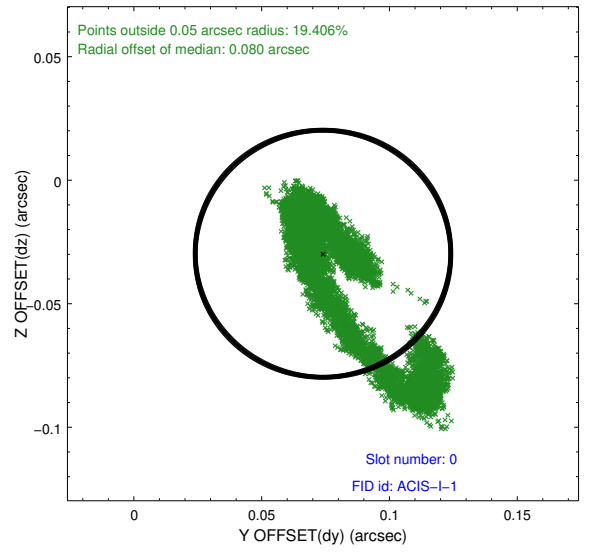
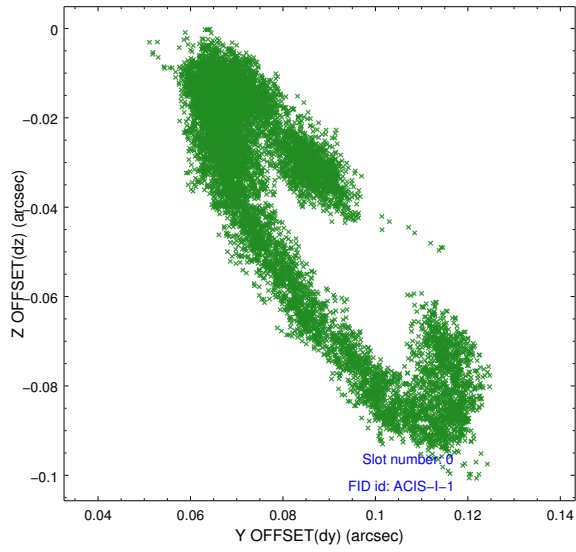


2.4.5 Slot 7

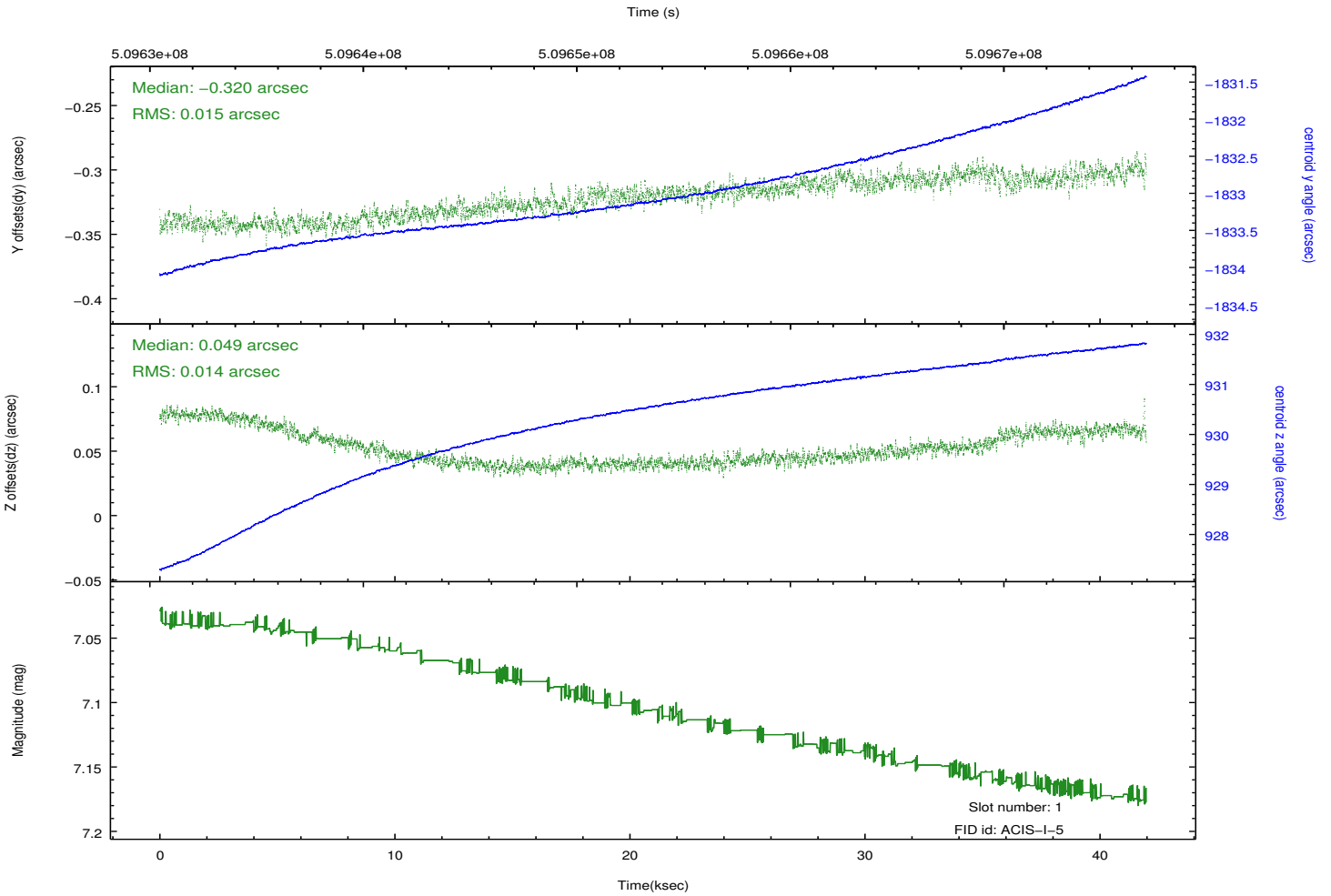
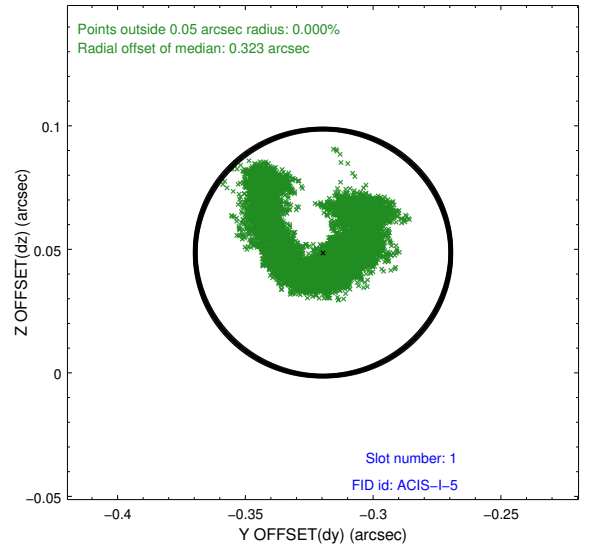
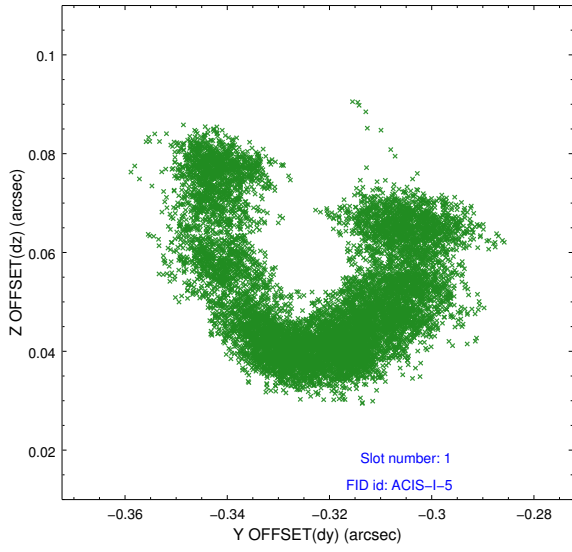


2.5 FID Slots

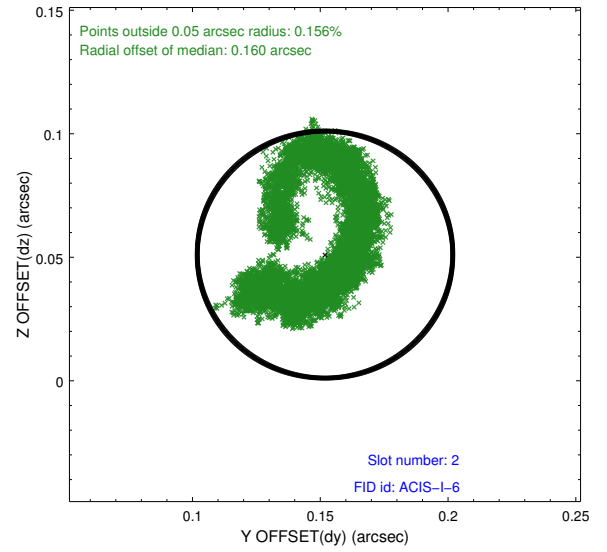
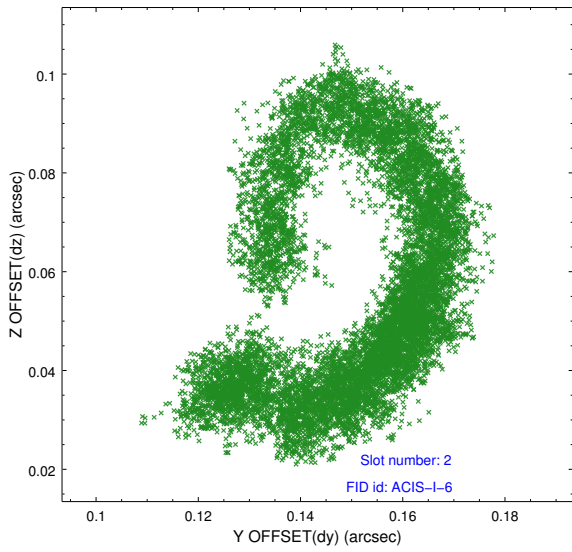
2.5.1 Slot 0



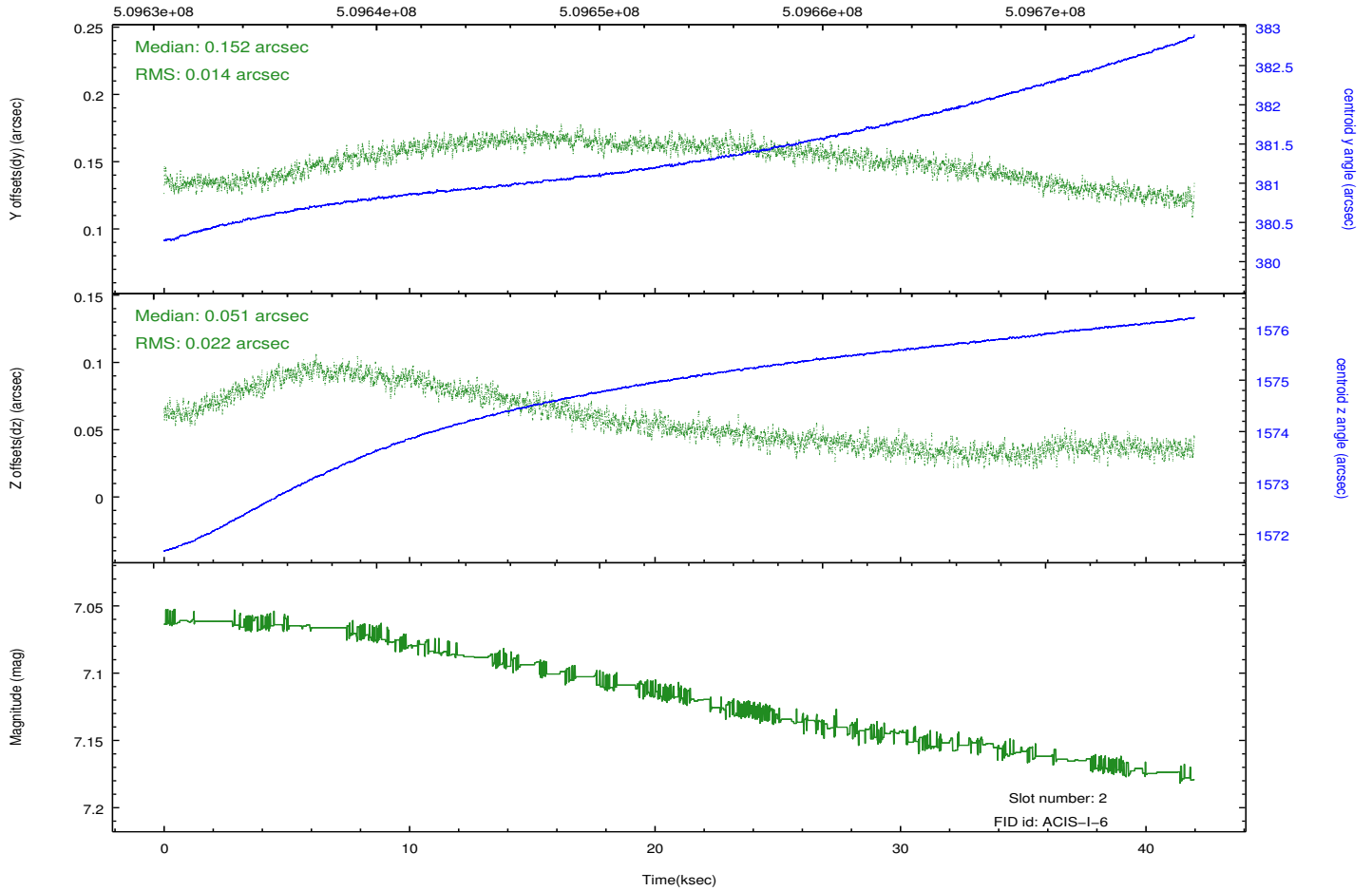
2.5.2 Slot 1



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	41.948323726892

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.