

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 16585 - L2 Version 2
Chandra X-Ray Center

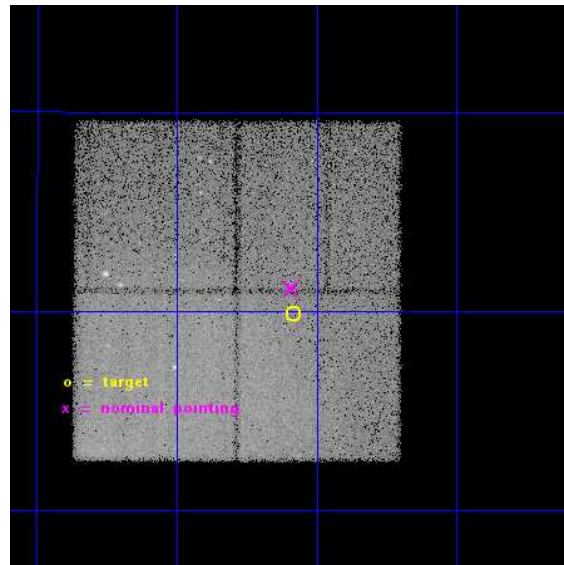
L2 Processing Date : Dec 10 2014

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1 Front

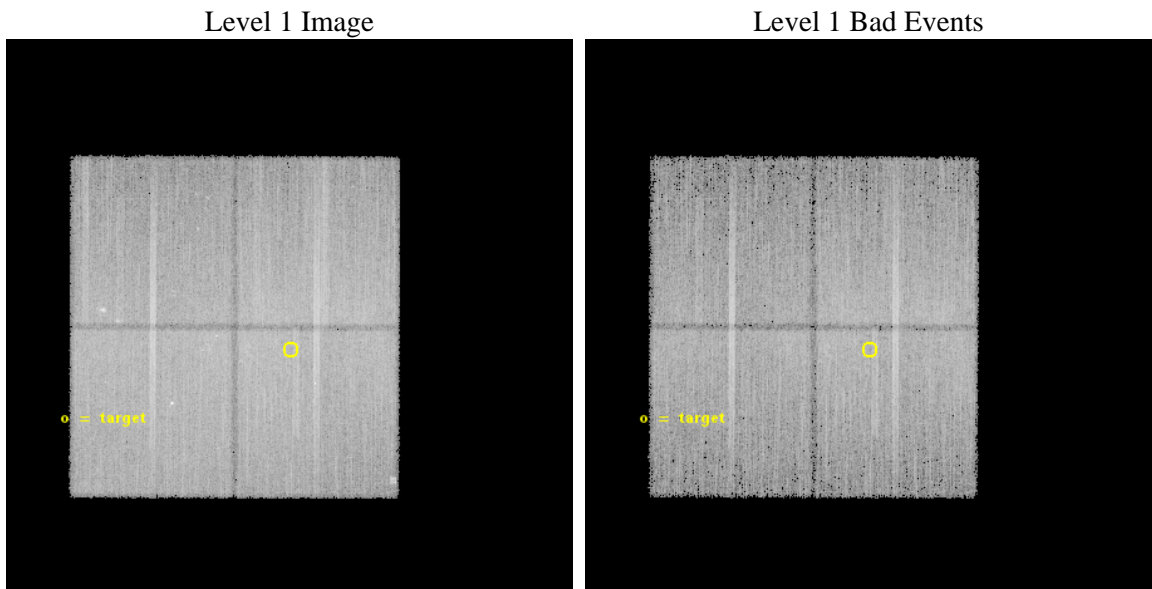
seq_num	801305	Sequence number
obs_id	16585	Observation id
title	Resolving the nearest cold front in the sky: the cleanest experimental tool to study detailed ICM physics	Proposal title
observer	Dr. Norbert Werner	Principal investigator
object	Virgo cold front	Source name
dtcycle	0	
cycle	P	events from 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	187.52245865559	Nominal RA [deg]
dec_nom	12.685852827744	Nominal Dec [deg]
roll_nom	90.208296849186	Nominal Roll [deg]
revision	2	Processing version of data
ontime	45628.859300613	Sum of GTIs [s]
livetime	45032.684662373	Livetime [s]
ontime0	45628.859300613	Sum of GTIs [s]
ontime1	45625.718270183	Sum of GTIs [s]
ontime2	45632.000350952	Sum of GTIs [s]
ontime3	45628.859300613	Sum of GTIs [s]
l2events	250876	Number of level 2 events



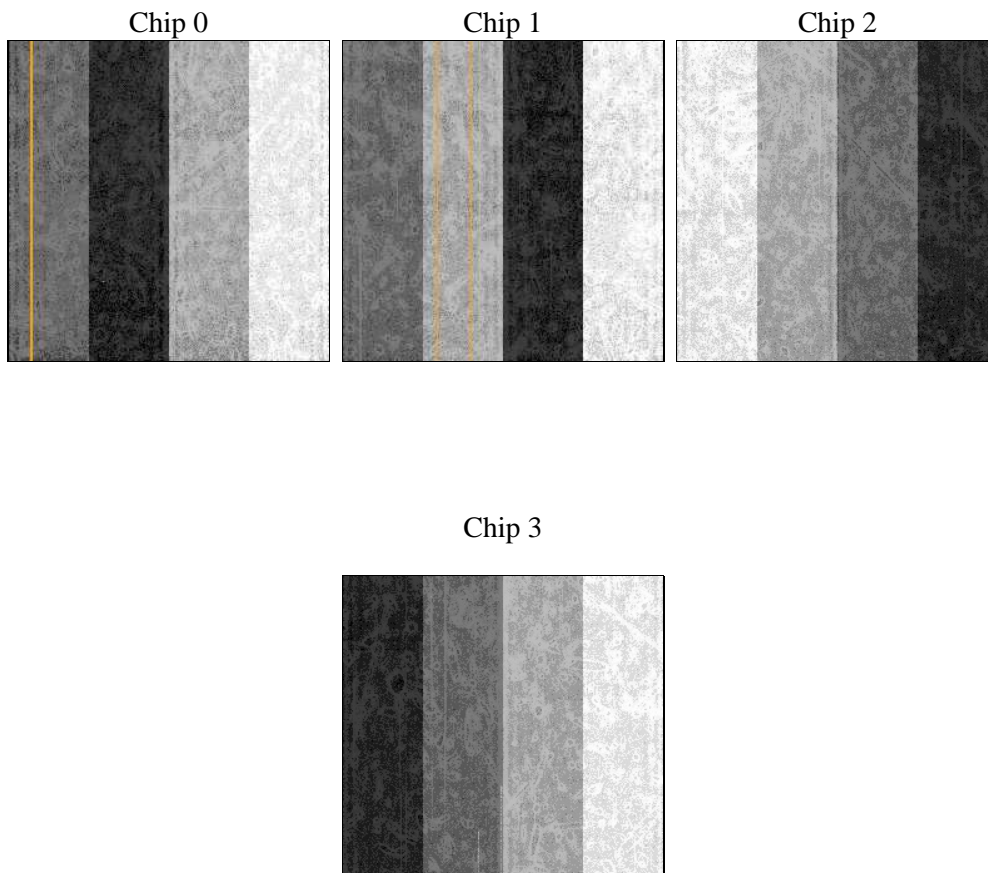
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45540.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	45628.859300613	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	45628.859300613	Sum of GTIs [s]
date	2014-12-10T09:11:28	Date and time of file creation	ontime1	45625.718270183	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	45632.000350952	Sum of GTIs [s]
			ontime3	45628.859300613	Sum of GTIs [s]
			l1events	1150442	Number of level 1 events

2.1.4 Events

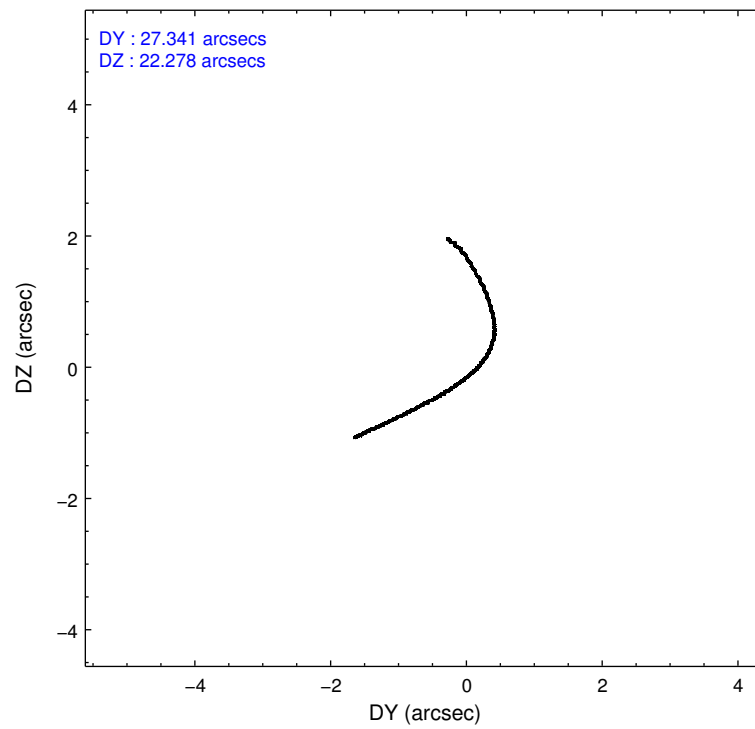
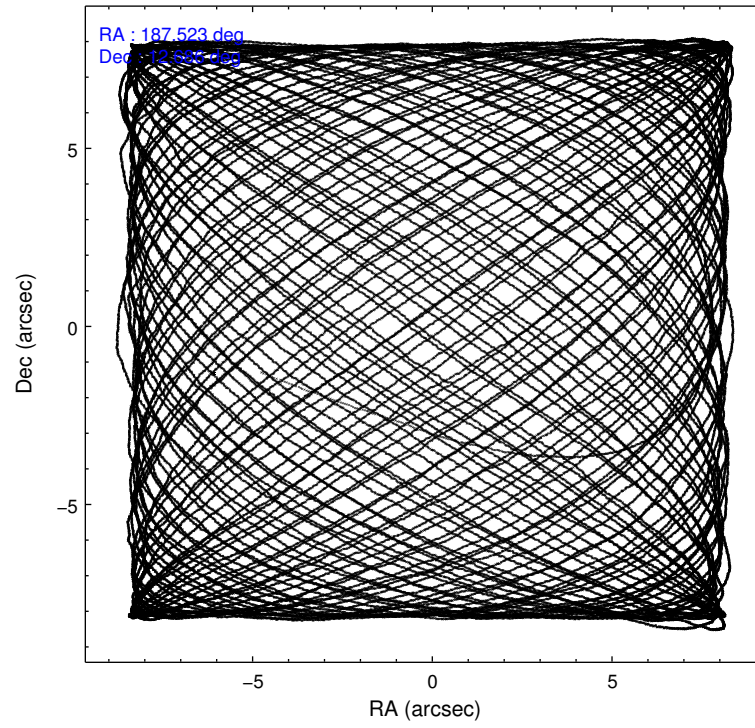
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	244855	315079	288969	301539
rejected events	185861	206723	230948	229446
rejected %	75%	65%	79%	76%

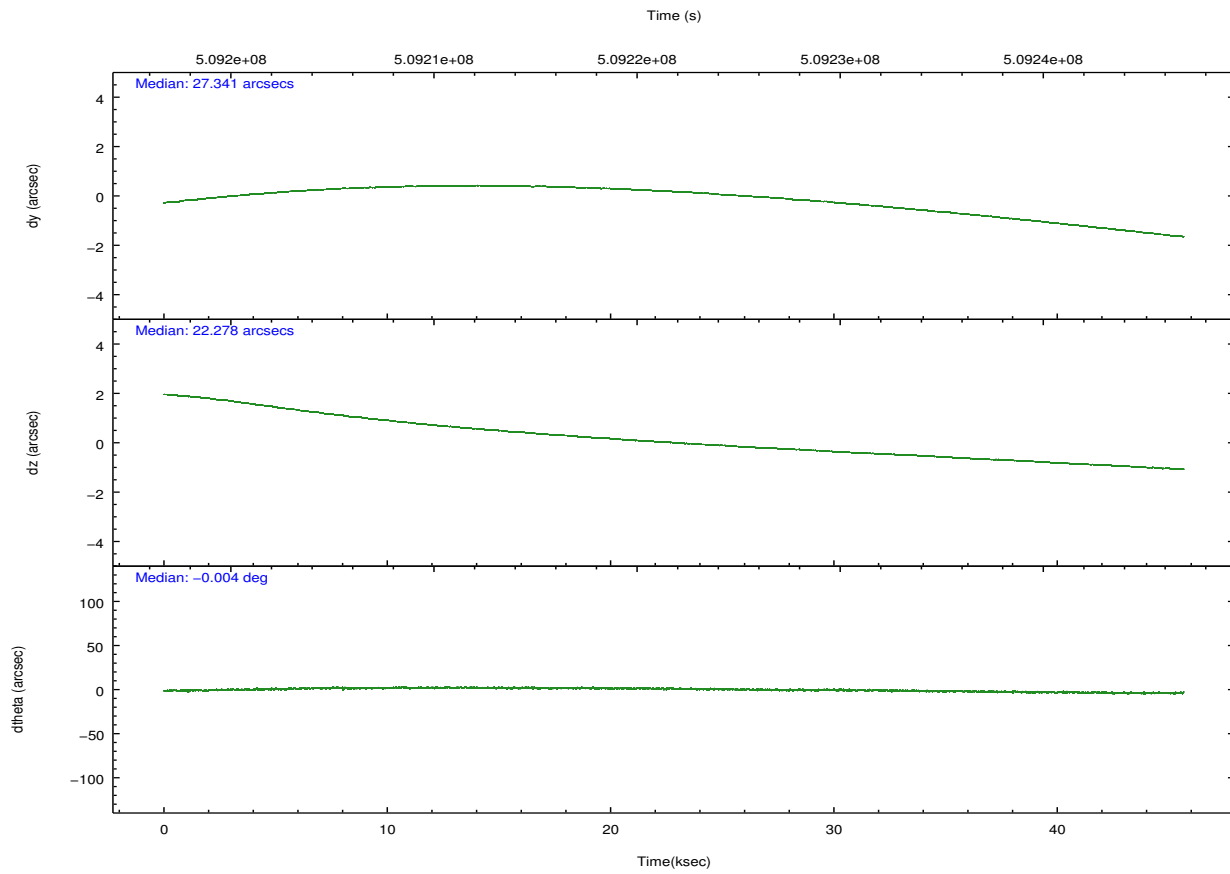
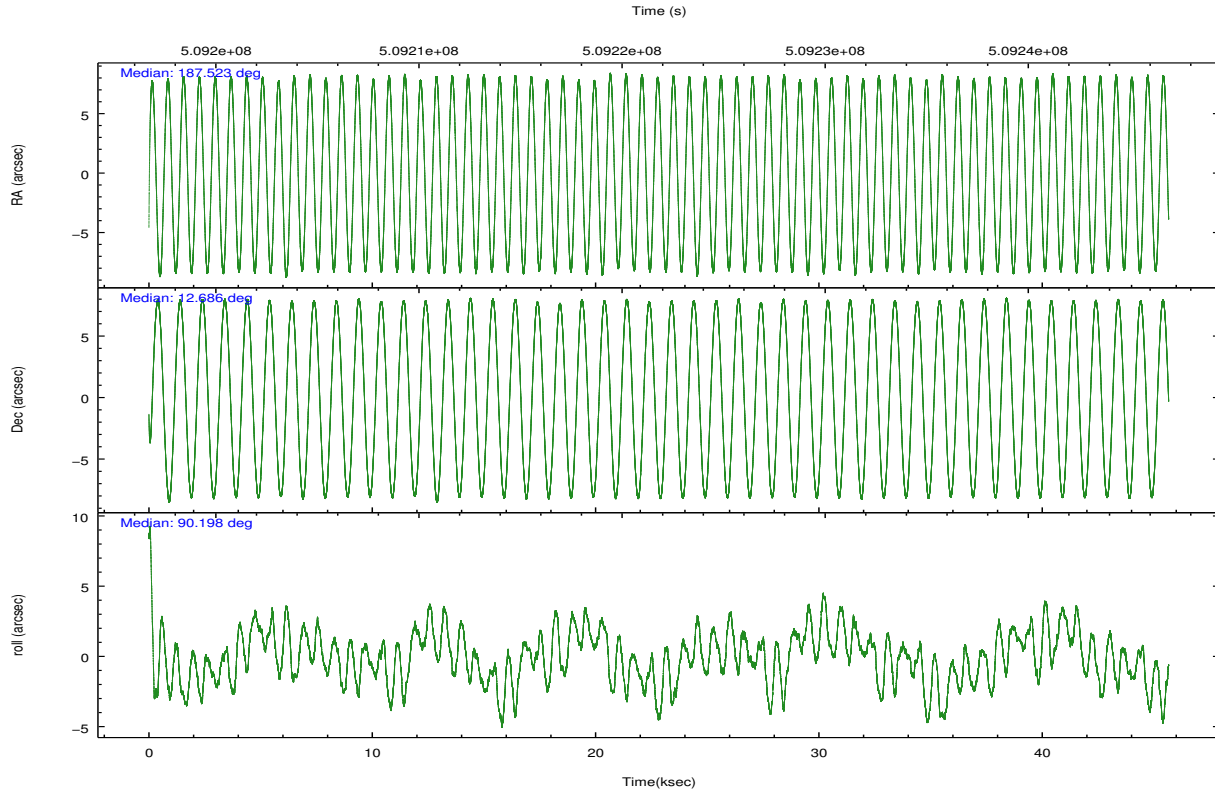
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	34728	74433	32451	47669
	14%	23%	11%	15%
grade 1 events	231	322	247	278
	0%	0%	0%	0%
grade 2 events	11751	16132	11747	10674
	4%	5%	4%	3%
grade 3 events	3443	5065	3127	3891
	1%	1%	1%	1%
grade 4 events	3307	4986	4756	3900
	1%	1%	1%	1%
grade 5 events	10241	10985	9562	11764
	4%	3%	3%	3%
grade 6 events	5776	7760	5947	5970
	2%	2%	2%	1%
grade 7 events	175378	195396	221132	217393
	71%	62%	76%	72%

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	187.536731	187.5224586555863	CCD I2 on	Y	Y
[deg] Pointing Dec	12.662128	12.68585282774376	CCD I3 on	Y	Y
[deg] Pointing Roll	89.996480	90.20829684918607	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)	509199099.184000	509197932.91665	CCD S5 on	N	N
Observation start date	2014-02-19T12:10:32	2014-02-19T11:52:12	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	509244639.184000	509245508.29427	On-chip summing requested	N	N
Observation end date	2014-02-20T00:49:32	2014-02-20T01:05:08	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





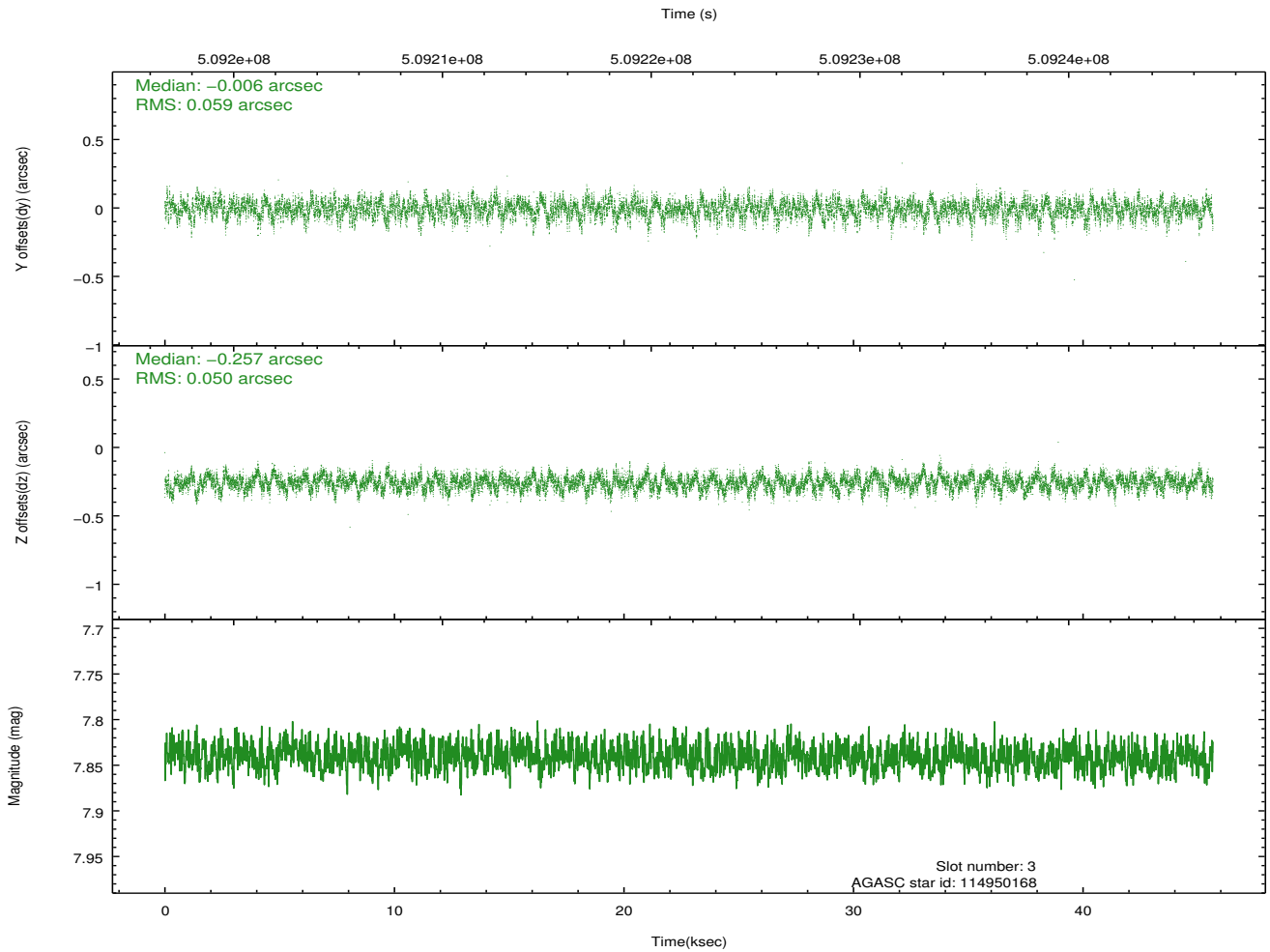
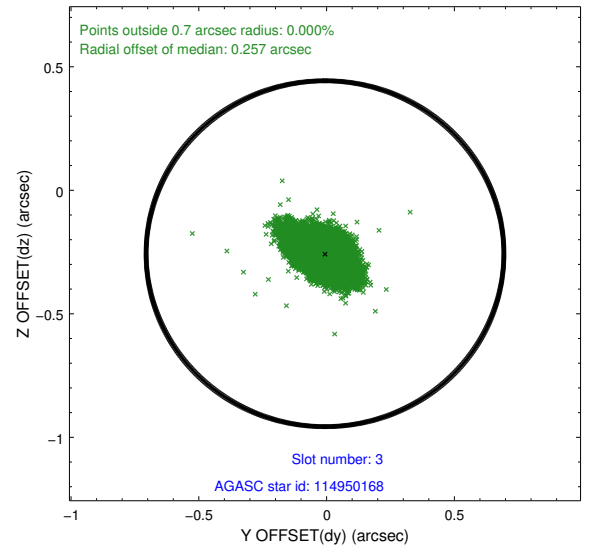
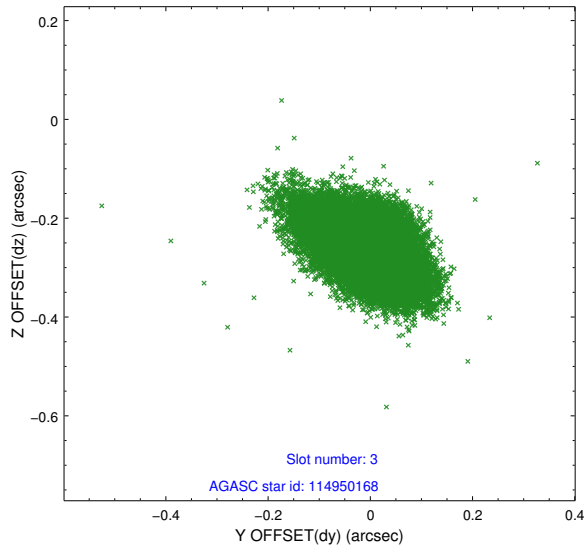
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.13	11138	0.096	-0.084	0.016	0.039	0.000000	0.000000	912.01	-969.40
1	FID		ACIS-I-5	7.13	11138	-0.352	0.051	0.008	0.015	0.000000	0.000000	-1836.63	928.09
2	FID		ACIS-I-6	7.14	11138	0.164	0.104	0.015	0.034	0.000000	0.000000	377.52	1572.74
3	GUIDE	used	114950168	7.84	22269	-0.006	-0.257	0.080	0.139	187.143398	12.117441	-1960.36	1384.23
4	GUIDE	used	114952824	8.58	22269	-0.143	0.147	0.088	0.140	187.703904	12.486727	-631.31	-586.48
5	GUIDE	used	114954440	9.17	22262	0.038	-0.601	0.123	0.201	186.915066	12.219118	-1593.04	2185.53
6	GUIDE	used	114955056	8.33	22273	0.102	1.113	0.079	0.125	187.914001	12.127854	-1921.96	-1326.48
7	GUIDE	used	114957008	8.24	22267	0.009	-0.401	0.088	0.154	186.894794	12.099160	-2024.67	2260.17

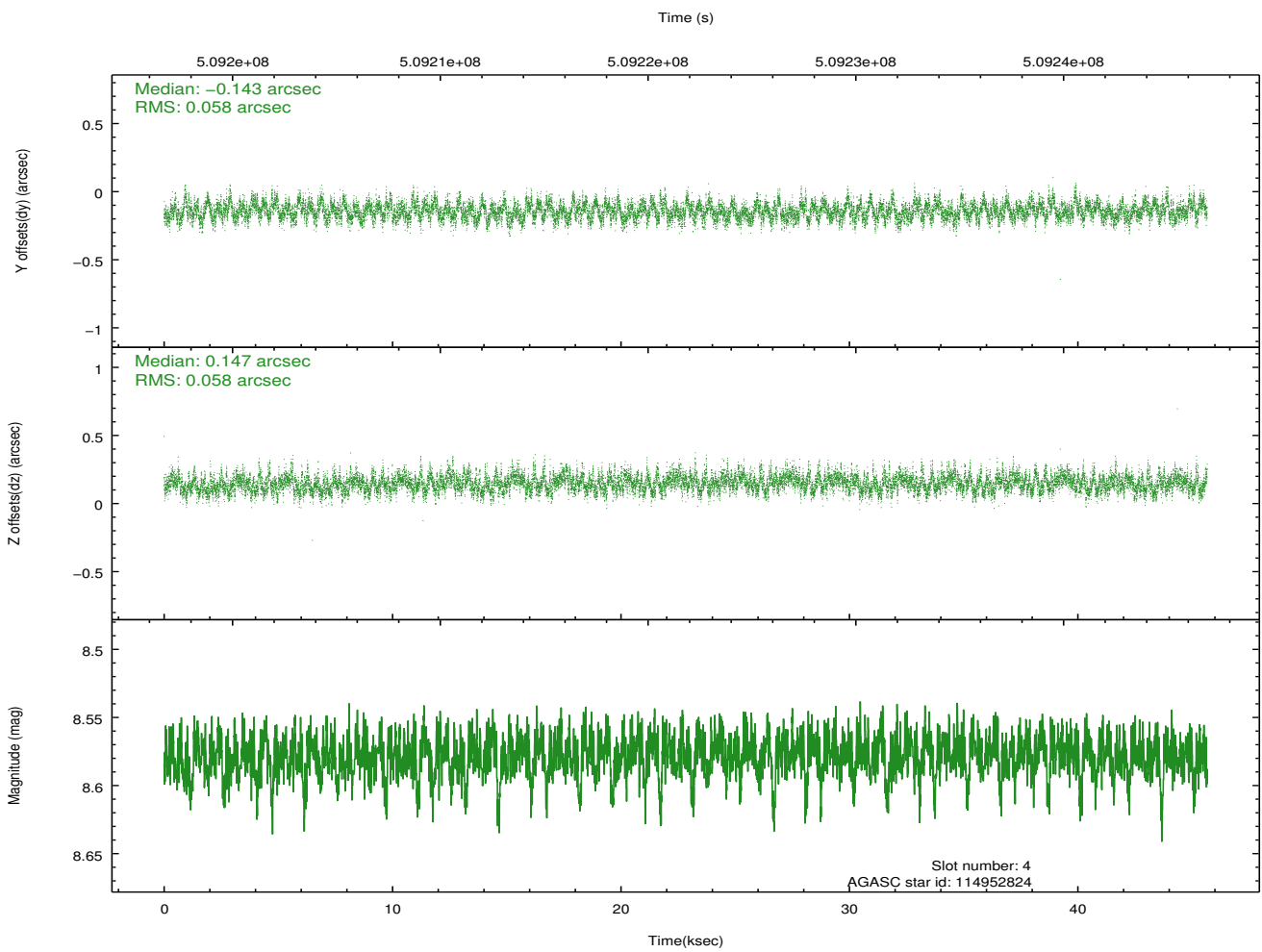
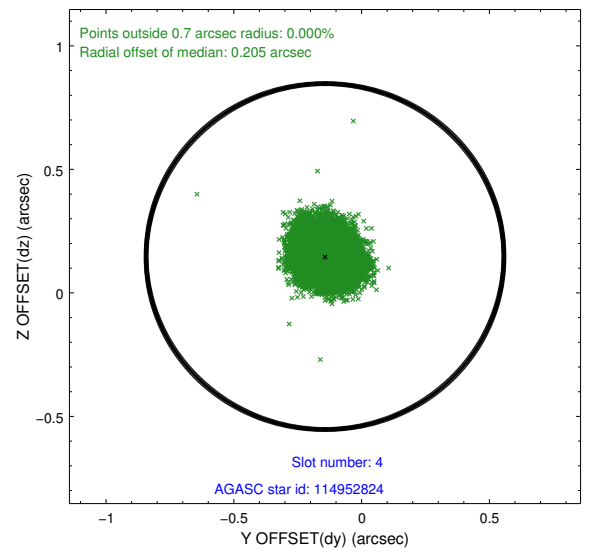
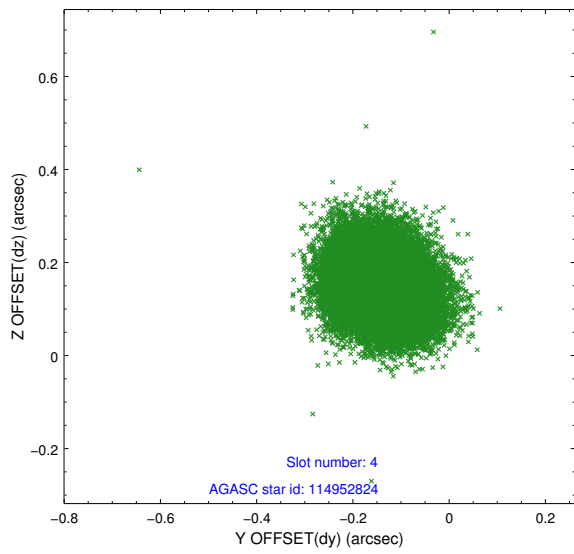
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2.4 Star Slots

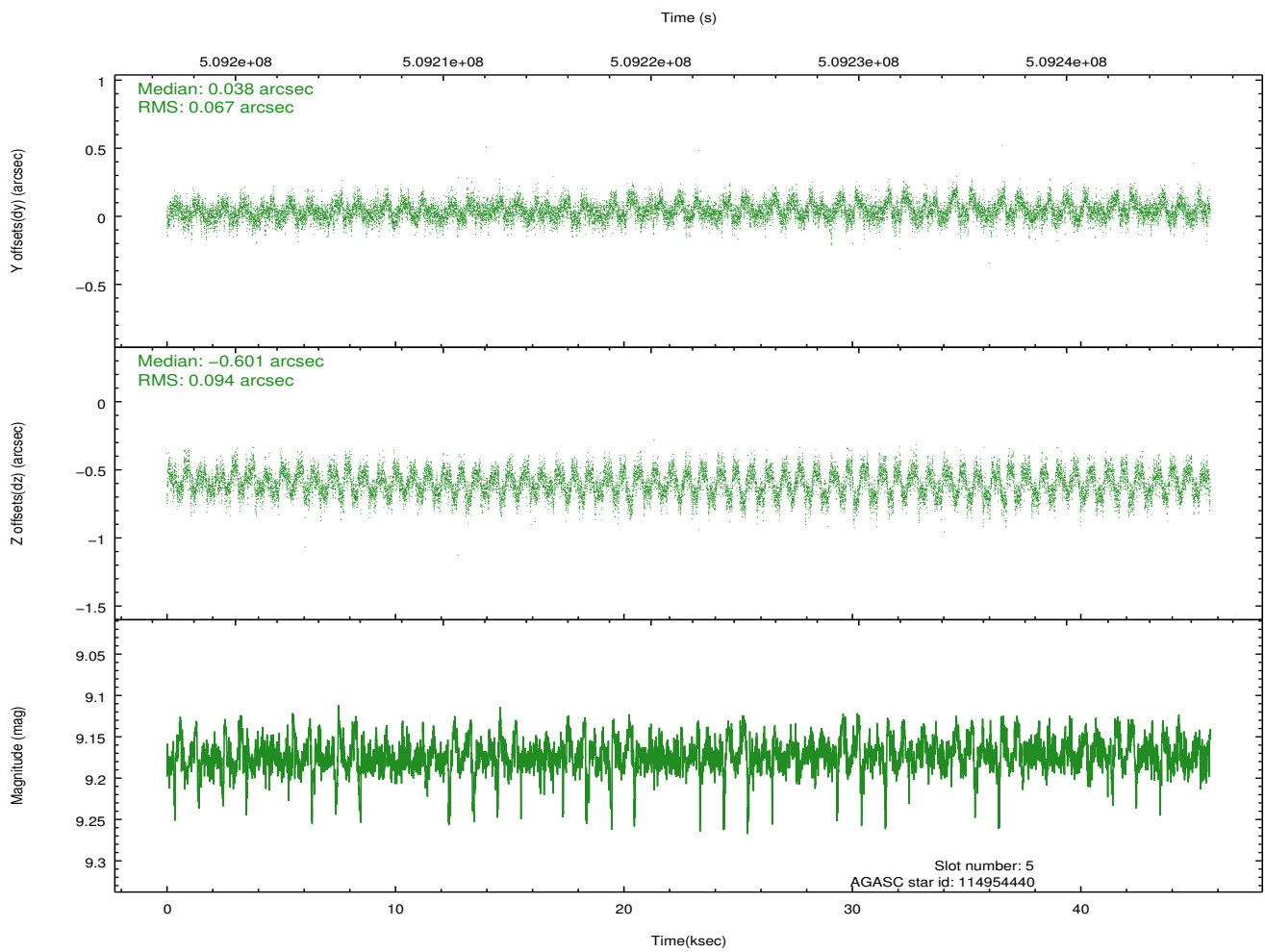
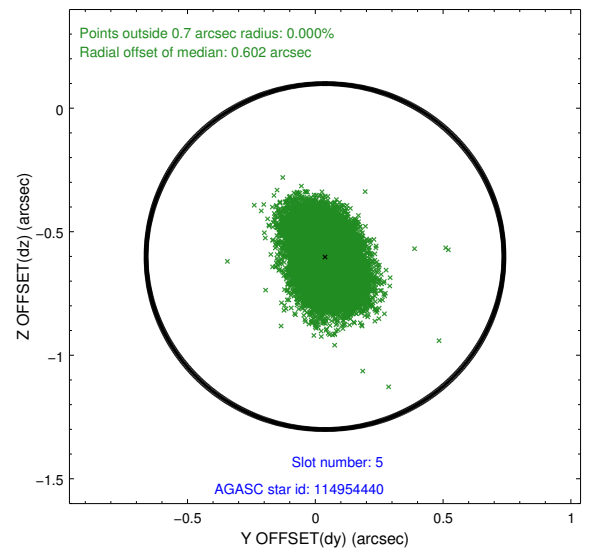
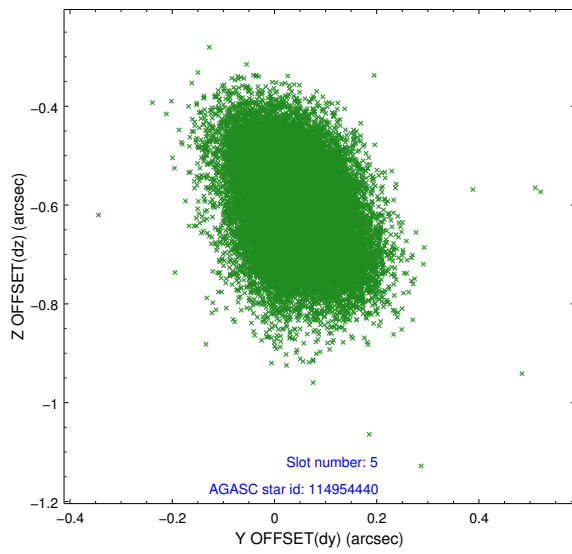
2.4.1 Slot 3



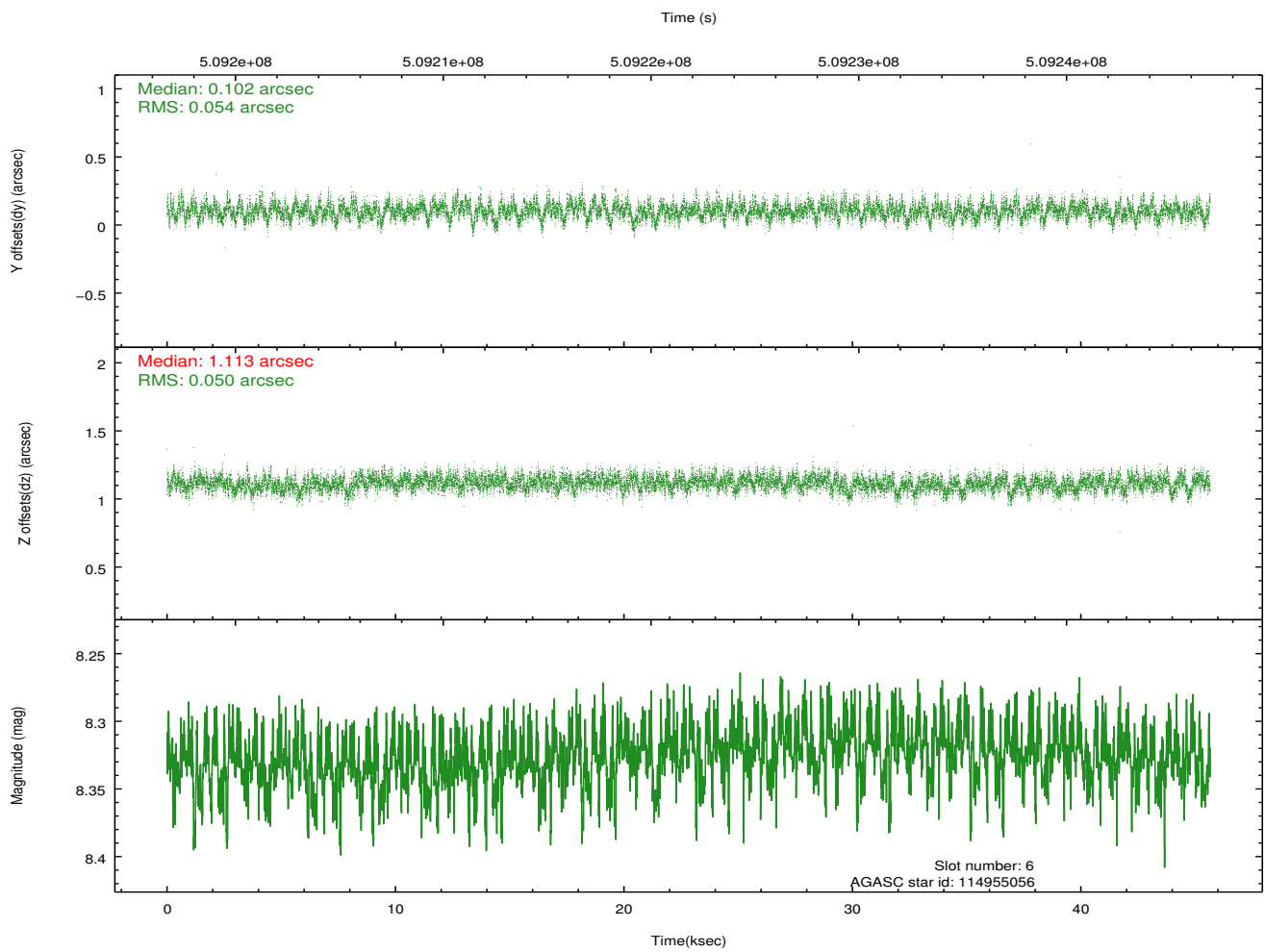
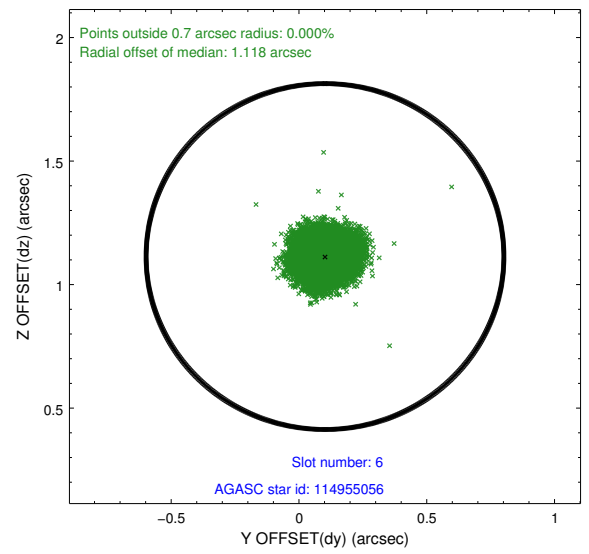
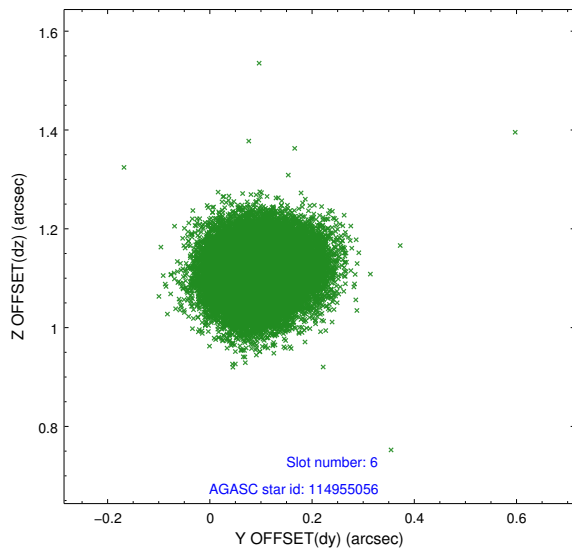
2.4.2 Slot 4



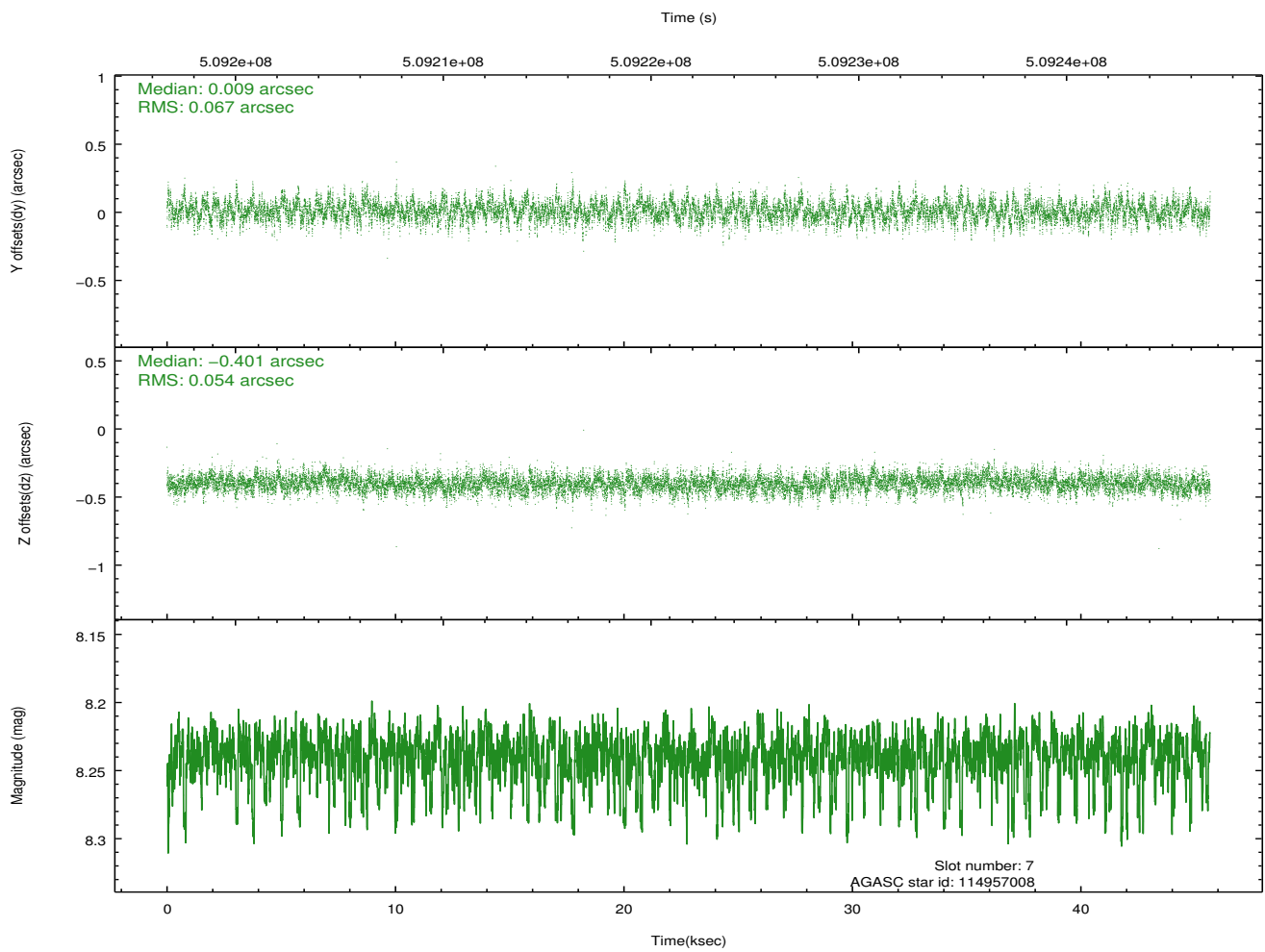
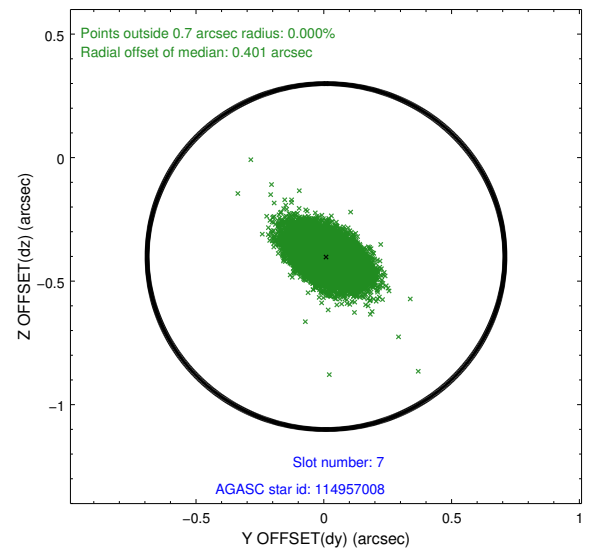
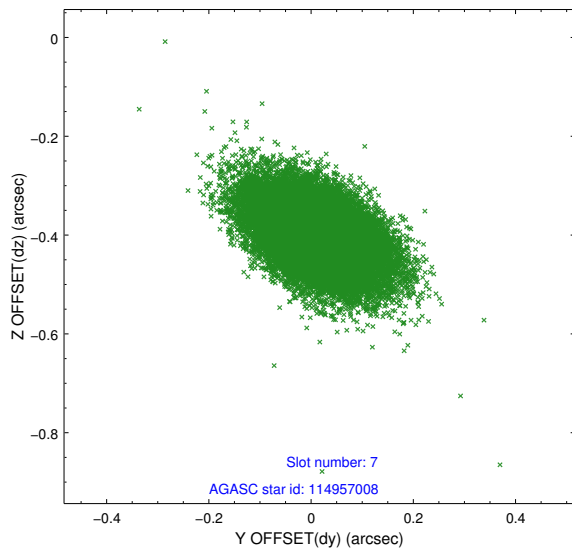
2.4.3 Slot 5



2.4.4 Slot 6

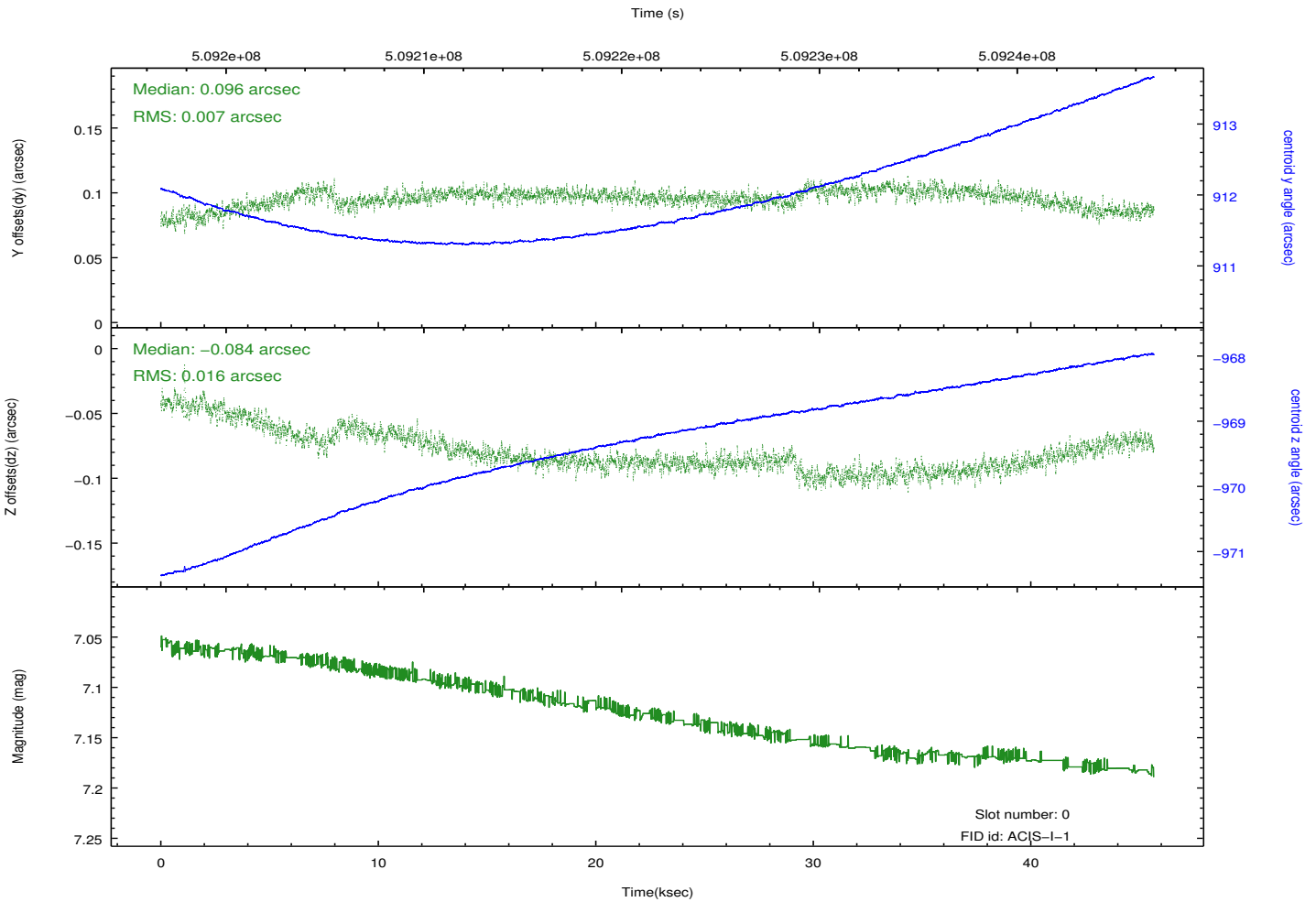
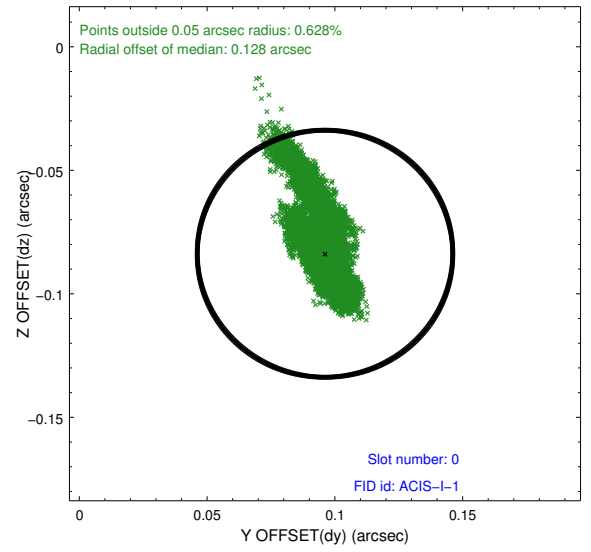
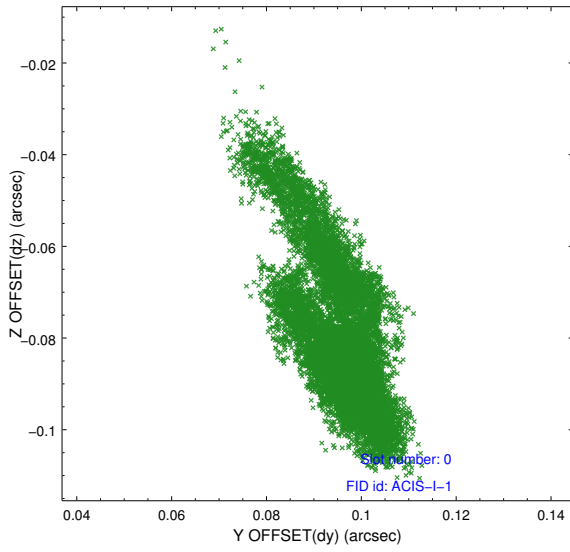


2.4.5 Slot 7

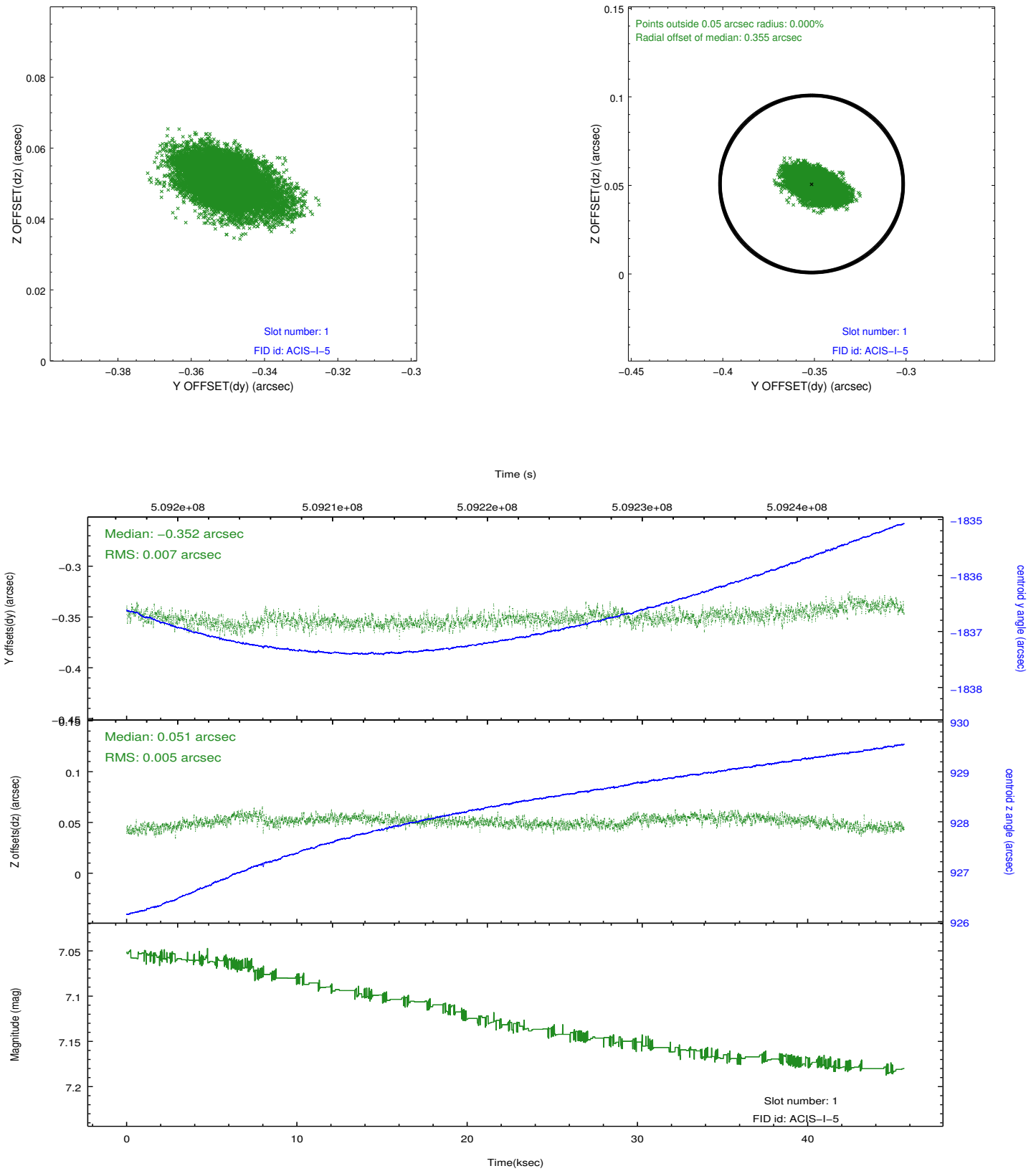


2.5 FID Slots

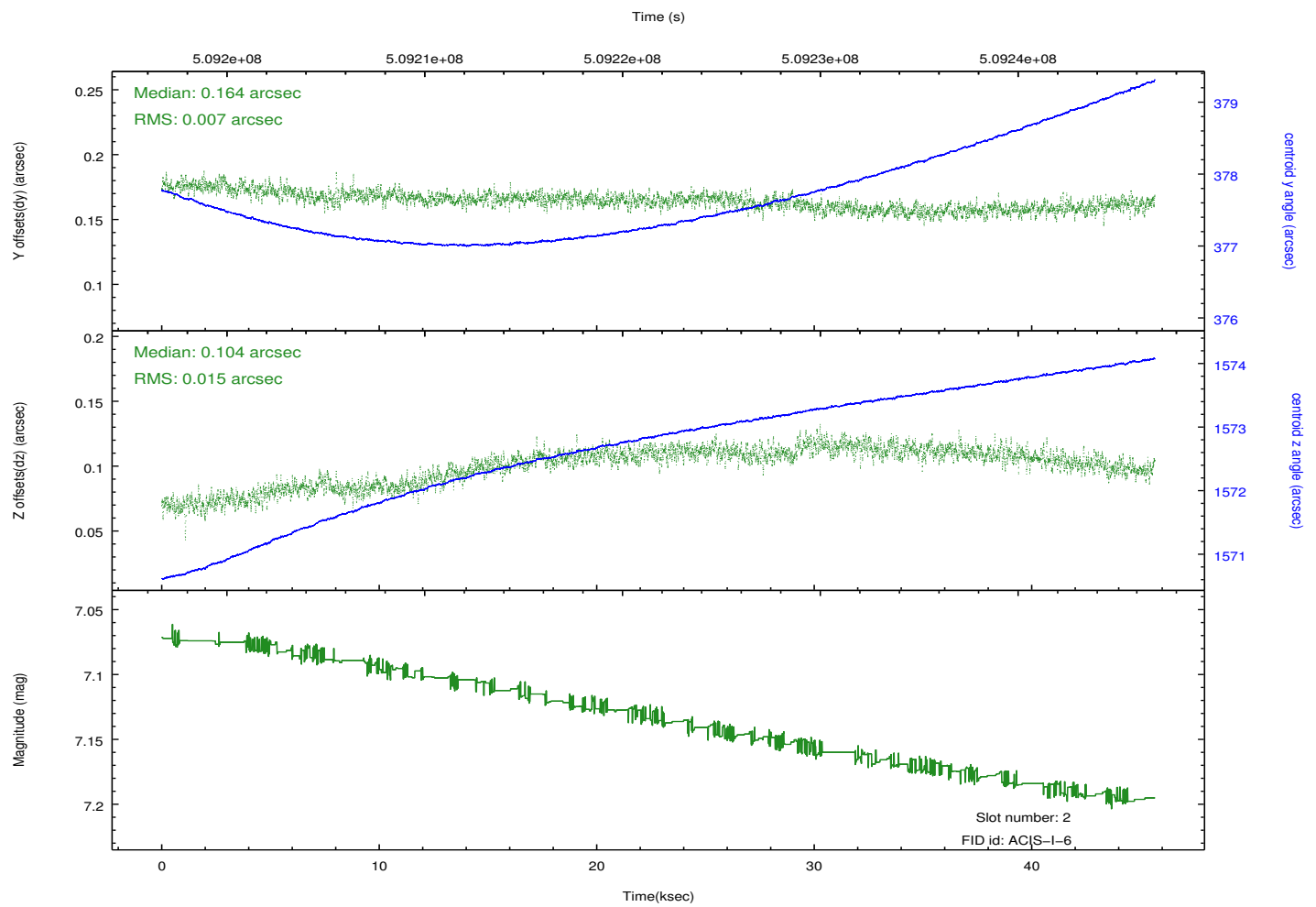
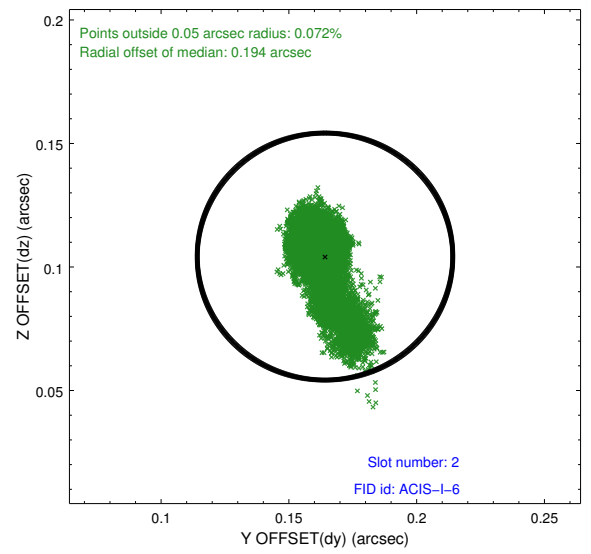
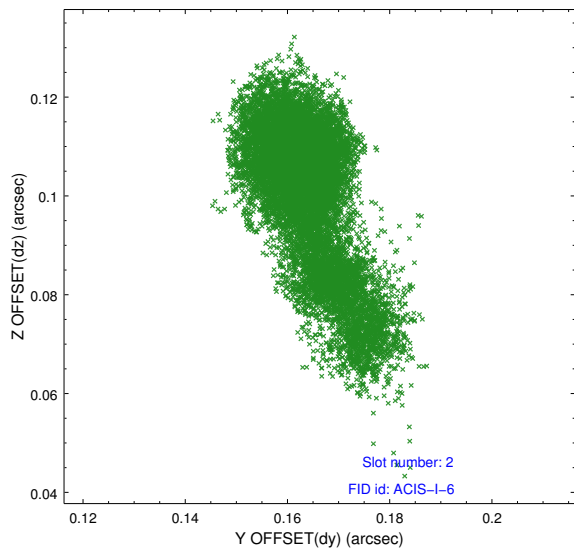
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.628859300613

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.