

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16615 - L2 Version 2
Chandra X-Ray Center

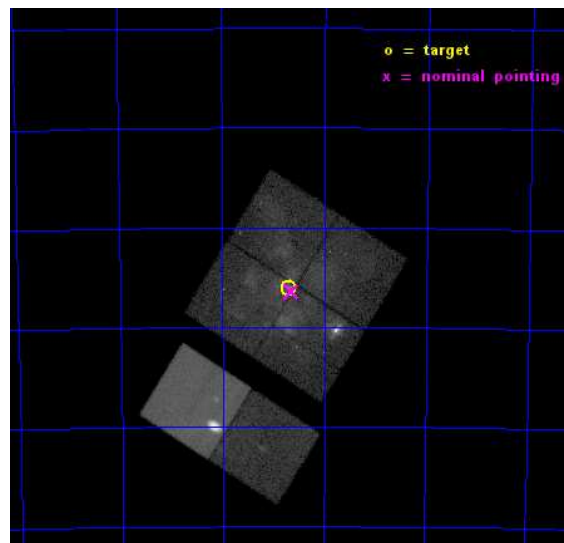
L2 Processing Date : Dec 11 2014

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1 Front

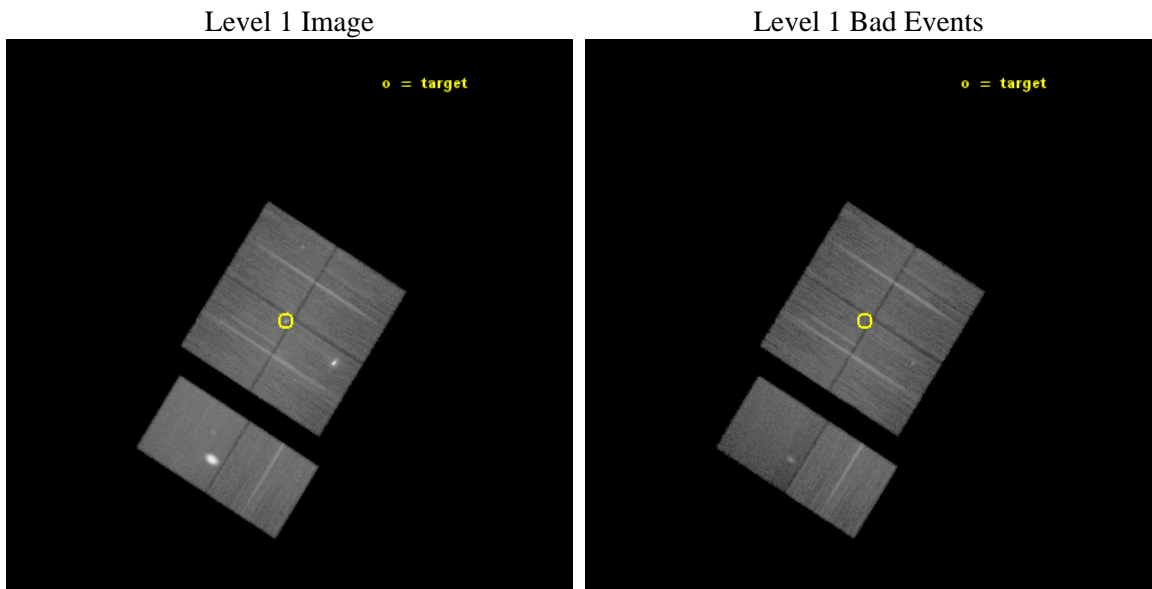
seq_num	901116	Sequence number
obs_id	16615	Observation id
title	The Tarantula -- Revealed by X-rays (T-ReX): A Definitive Chandra Investigation of 30 Doradus	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	30 Doradus	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.676667	Observer's specified target RA [deg]
dec_targ	-69.100806	Observer's specified target Dec [deg]
ra_nom	84.661951841514	Nominal RA [deg]
dec_nom	-69.106952700683	Nominal Dec [deg]
roll_nom	212.19494145038	Nominal Roll [deg]
revision	2	Processing version of data
ontime	45749.299154639	Sum of GTIs [s]
livetime	45169.993981822	Livetime [s]
ontime0	45749.176034629	Sum of GTIs [s]
ontime1	45749.217074633	Sum of GTIs [s]
ontime2	45749.258114636	Sum of GTIs [s]
ontime3	45749.299154639	Sum of GTIs [s]
ontime6	45749.381234646	Sum of GTIs [s]
ontime7	45749.340194643	Sum of GTIs [s]
l2events	456723	Number of level 2 events



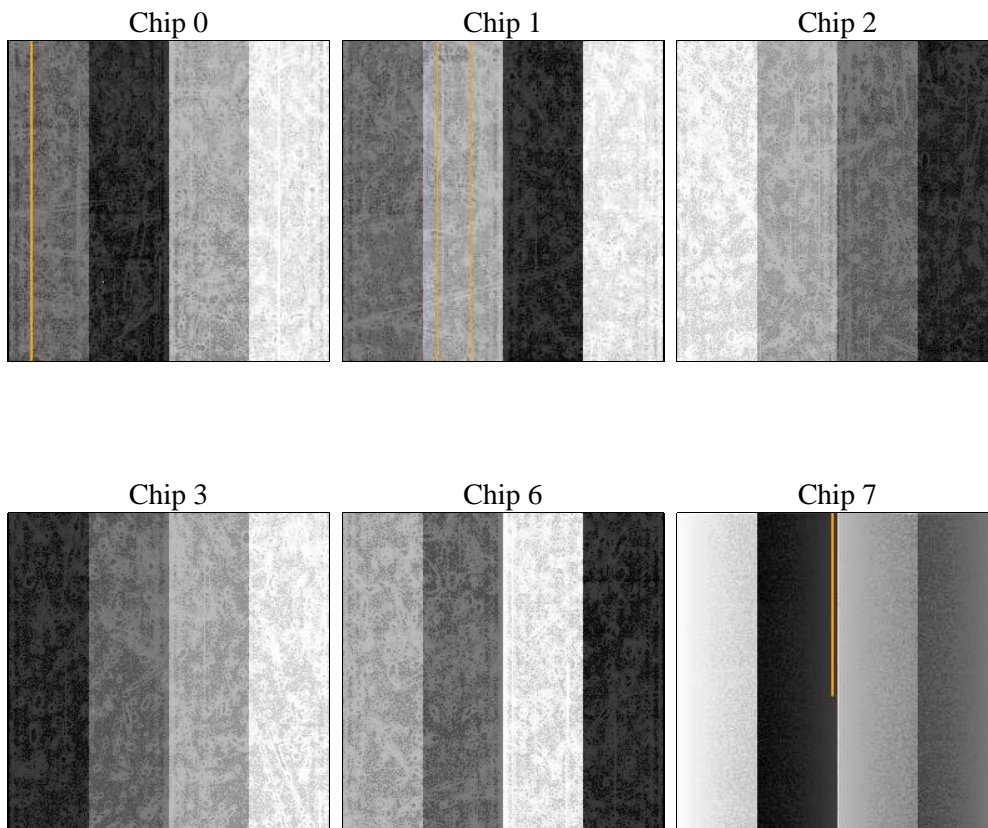
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45776.946000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	45749.299154639	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	45749.176034629	Sum of GTIs [s]
date	2014-12-11T12:54:14	Date and time of file creation	ontime1	45749.217074633	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	45749.258114636	Sum of GTIs [s]
			ontime3	45749.299154639	Sum of GTIs [s]
			ontime6	45749.381234646	Sum of GTIs [s]
			ontime7	45749.340194643	Sum of GTIs [s]
			l1events	1501194	Number of level 1 events

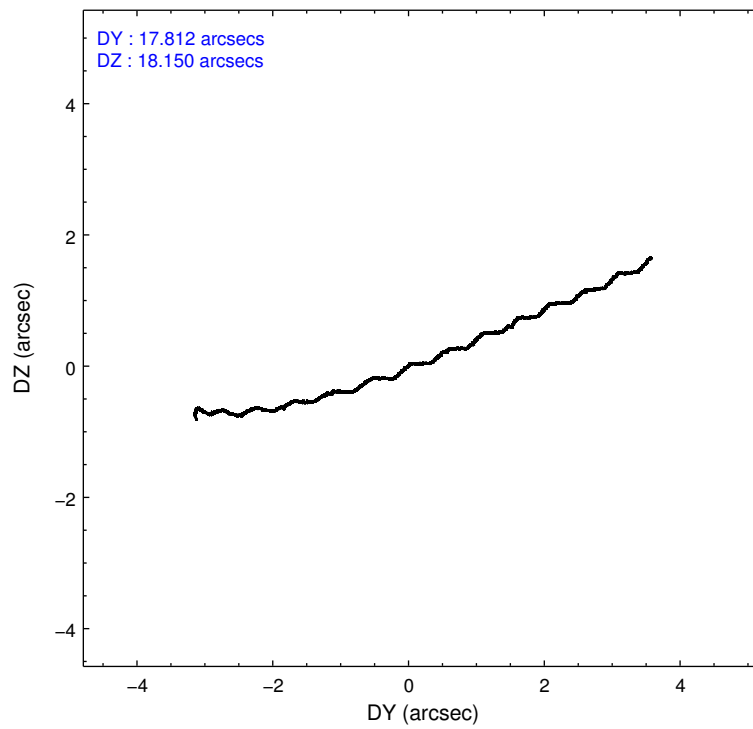
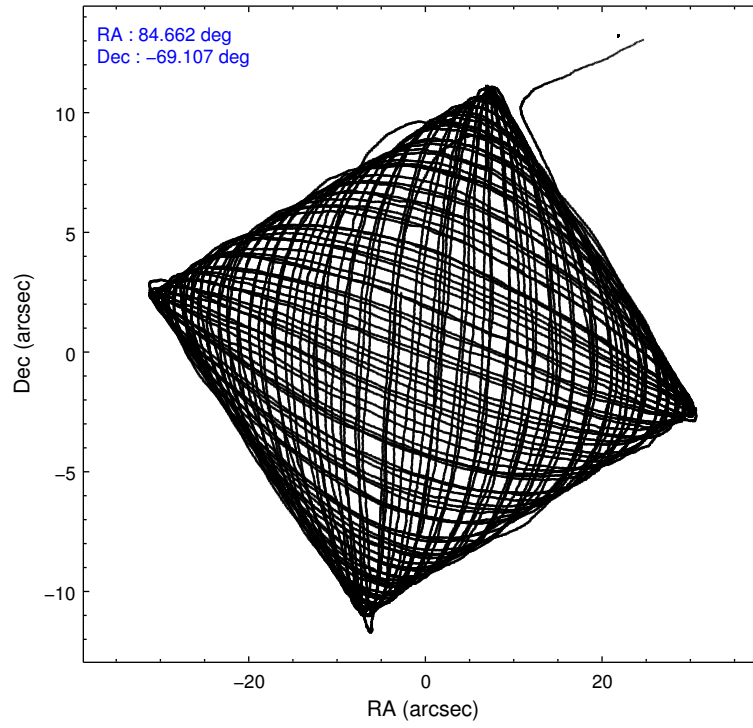
2.1.4 Events

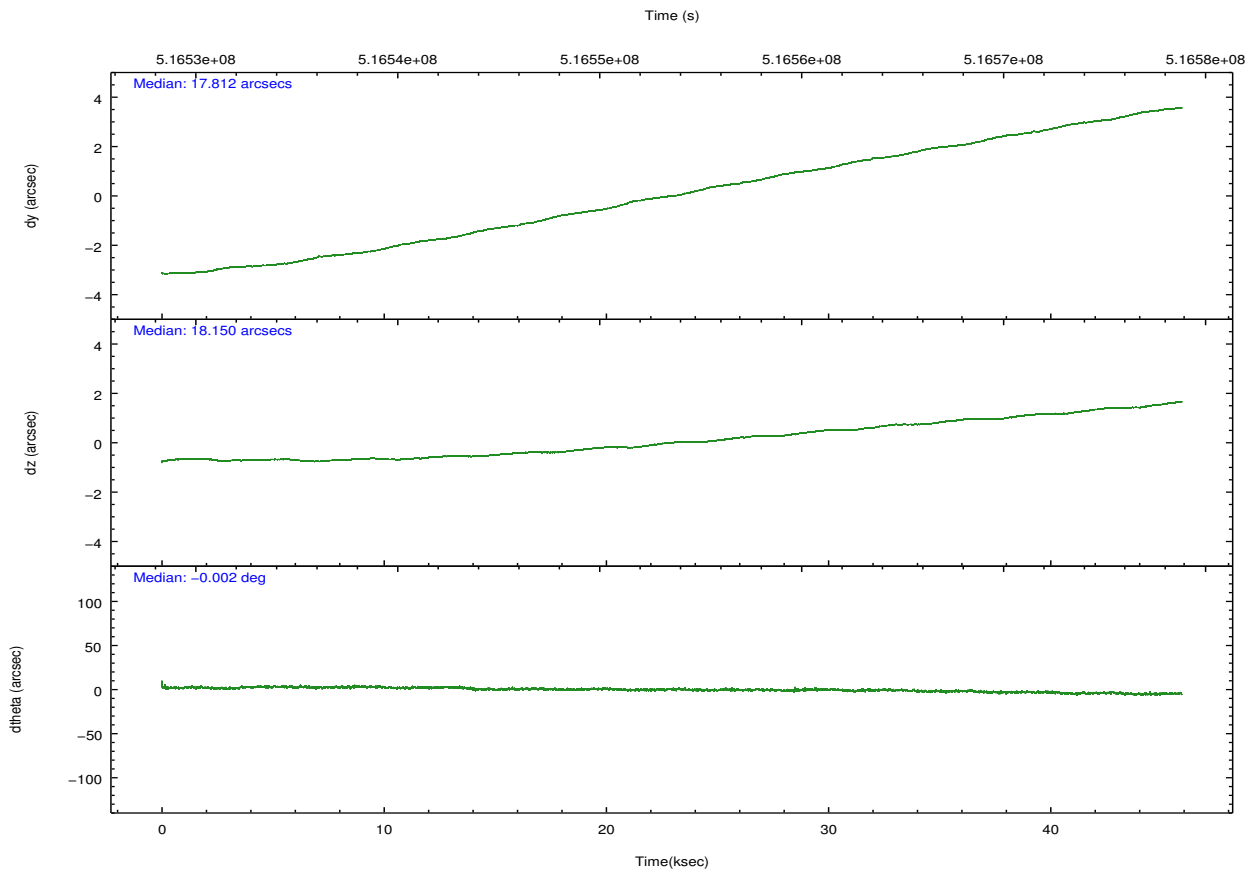
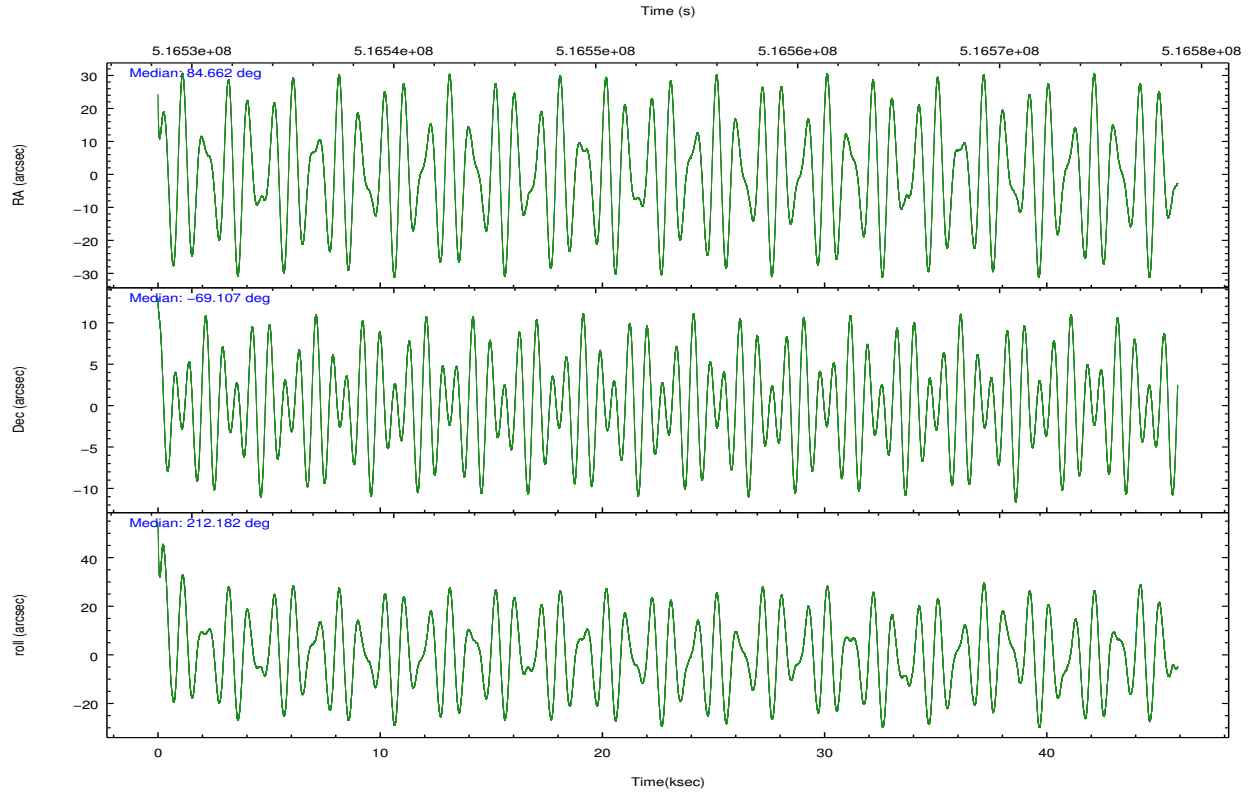
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	196566	202010	255014	214056	227021	406527	grade 0 events	17550	19097	44935	22768	16284	47996
rejected events	161959	164401	187560	174743	193075	133095		8%	9%	17%	10%	7%	11%
rejected %	82%	81%	73%	81%	85%	32%	grade 1 events	126	183	361	187	133	516
								0%	0%	0%	0%	0%	0%
							grade 2 events	6879	7119	10096	6378	6664	66900
								3%	3%	3%	2%	2%	16%
							grade 3 events	2793	2802	3582	2740	2648	28353
								1%	1%	1%	1%	1%	6%
							grade 4 events	2515	2810	3583	2799	2682	28259
								1%	1%	1%	1%	1%	6%
							grade 5 events	8317	9102	7689	9604	9812	27820
								4%	4%	3%	4%	4%	6%
							grade 6 events	4871	5787	5264	4629	5670	101940
								2%	2%	2%	2%	2%	25%
							grade 7 events	153515	155110	179504	164951	183128	104743
								78%	76%	70%	77%	80%	25%

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	84.697598	84.66195184151422	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.082566	-69.1069527006826	CCD I3 on	Y	Y
[deg] Pointing Roll	212.019549	212.1949414503843	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)	516530738.184000	516529485.15842	CCD S5 on	N	N
Observation start date	2014-05-15T08:44:31	2014-05-15T08:24:45	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	516576514.184000	516576752.01103	On-chip summing requested	N	N
Observation end date	2014-05-15T21:27:27	2014-05-15T21:32:32	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





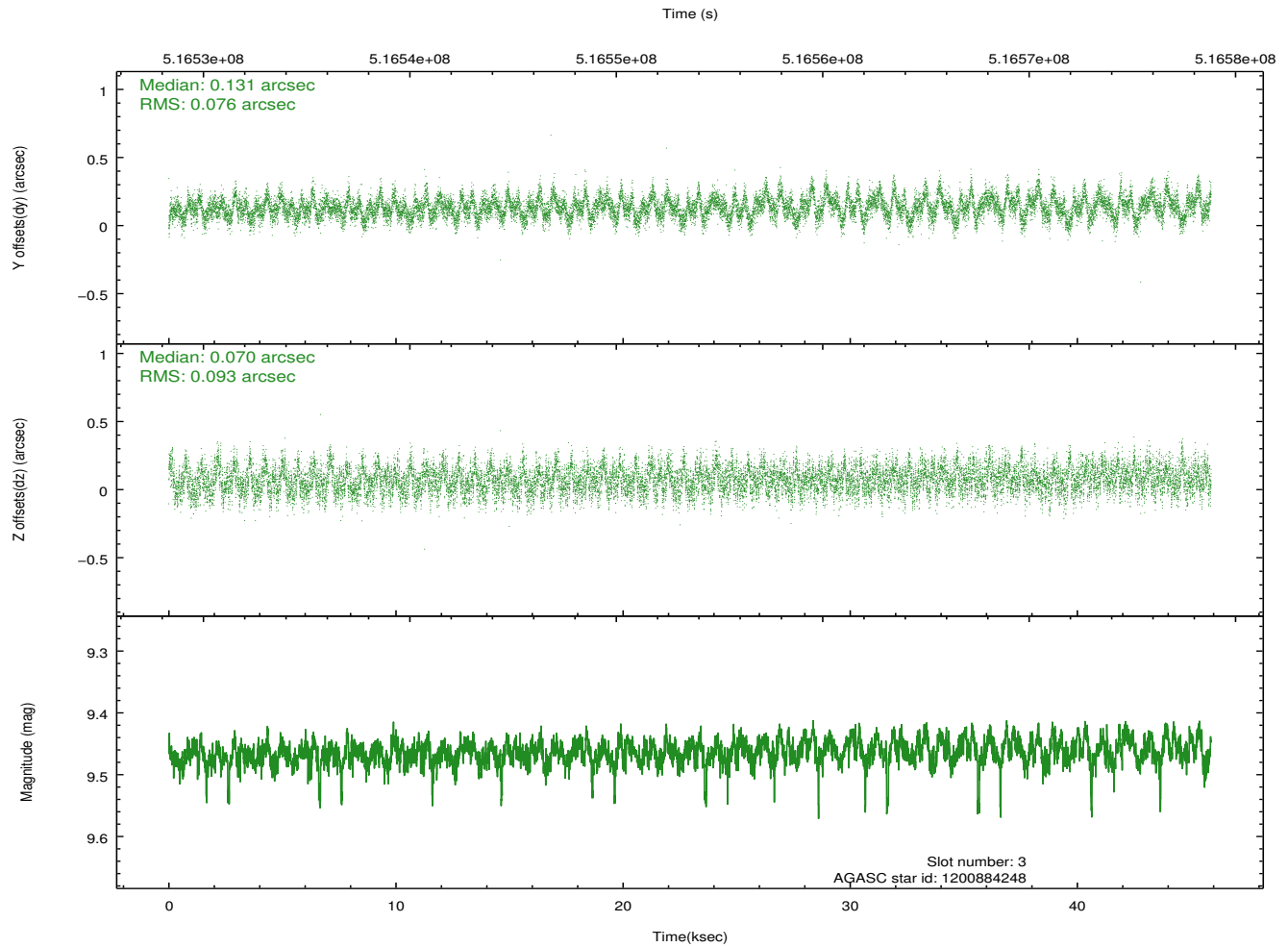
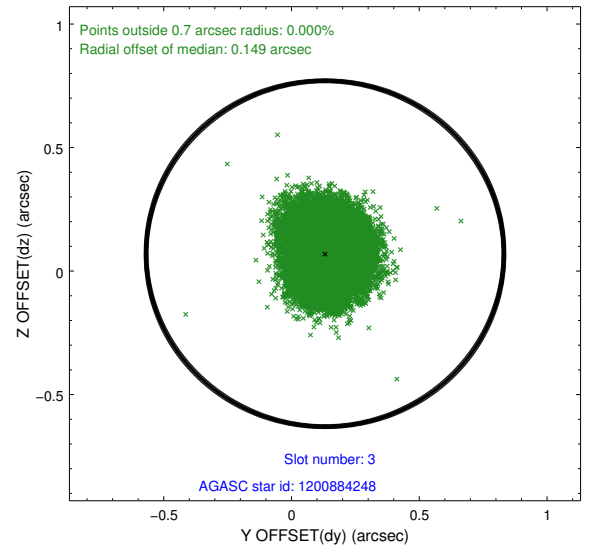
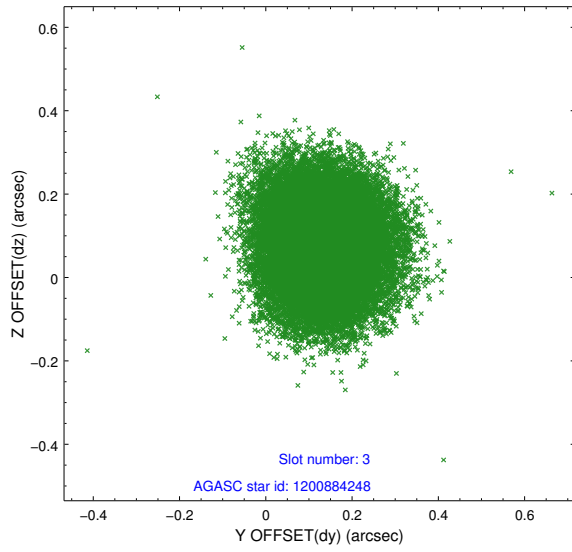
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.08	11194	0.007	0.079	0.031	0.053	0.000000	0.000000	921.55	-841.89
1	FID		ACIS-I-2	6.99	11192	-0.118	-0.056	0.026	0.035	0.000000	0.000000	-772.67	-848.45
2	FID		ACIS-I-6	7.08	11194	0.017	0.044	0.020	0.029	0.000000	0.000000	387.21	1699.90
3	GUIDE	used	1200884248	9.46	22360	0.131	0.070	0.130	0.205	83.880915	-68.565170	-72.42	-2142.56
4	GUIDE	used	1200885760	9.44	22373	-0.277	-0.007	0.154	0.235	83.723637	-68.777667	499.83	-1594.52
5	GUIDE	used	1201018312	9.54	22363	-0.023	-0.391	0.168	0.253	86.298231	-69.115627	-1664.13	1212.12
6	GUIDE	used	1201018384	9.04	22378	0.136	0.212	0.115	0.192	85.801362	-68.593260	-2156.75	-713.27
7	GUIDE	used	1201020040	8.59	22384	0.034	0.109	0.094	0.149	85.379163	-68.879396	-1134.53	-147.10

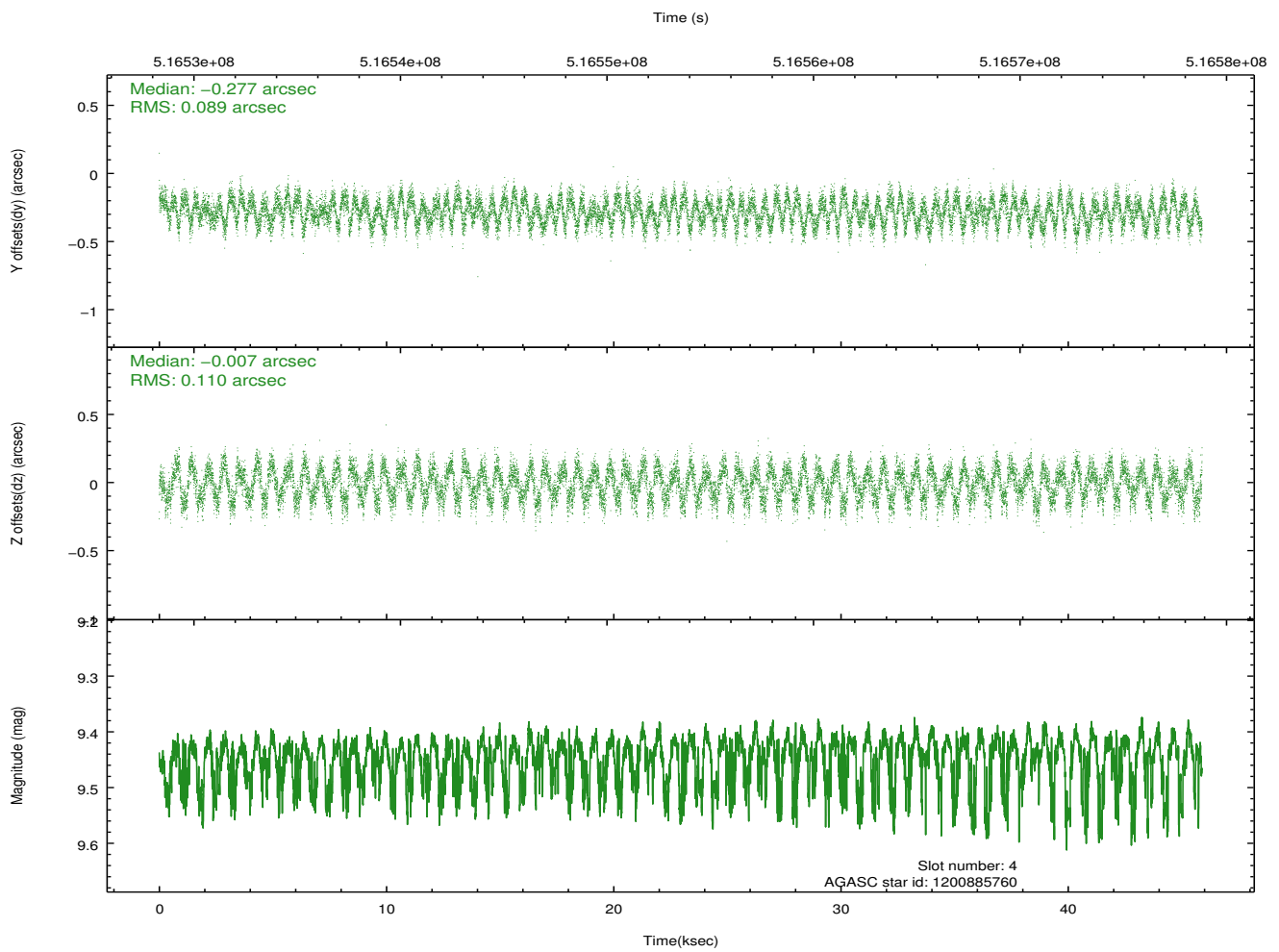
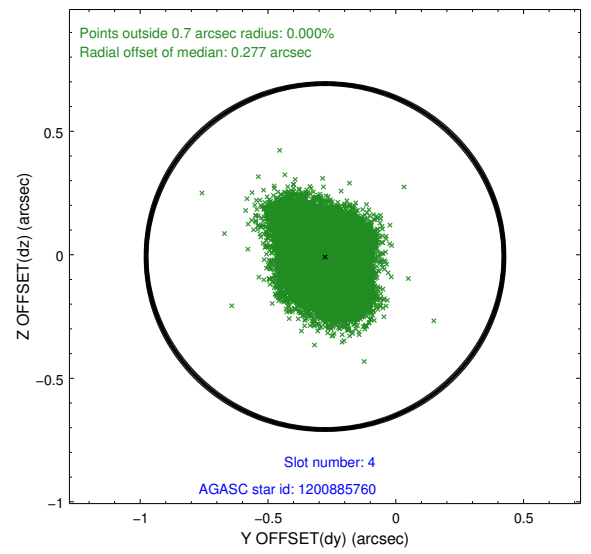
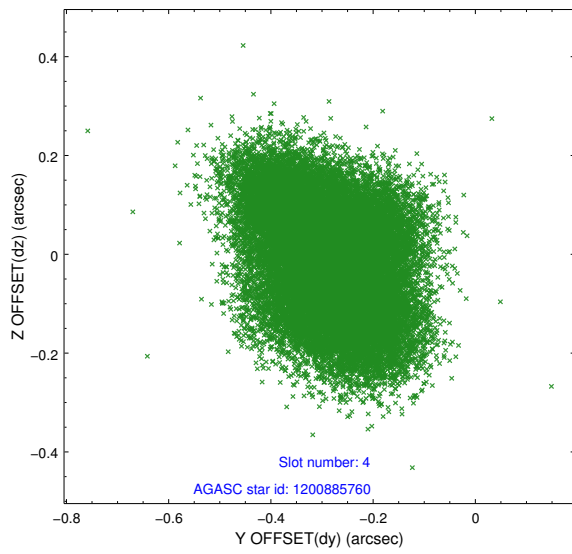
∞

2.4 Star Slots

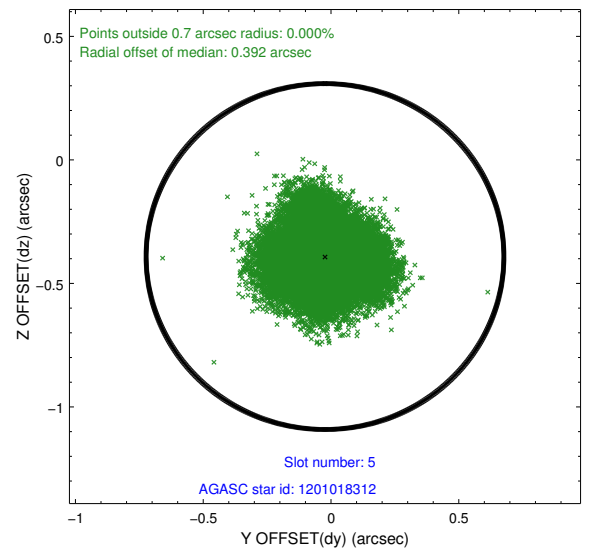
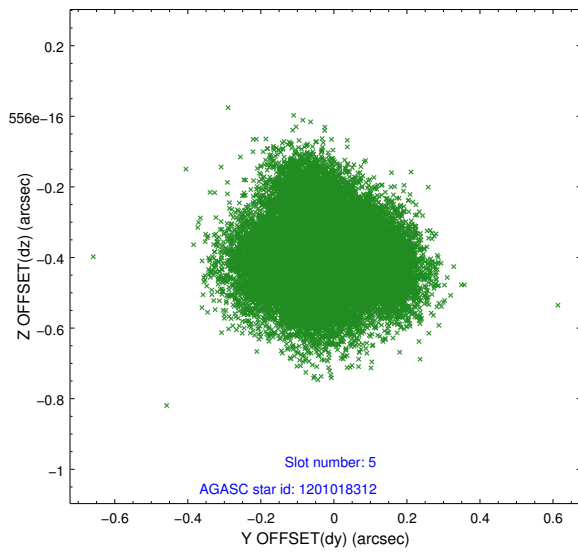
2.4.1 Slot 3



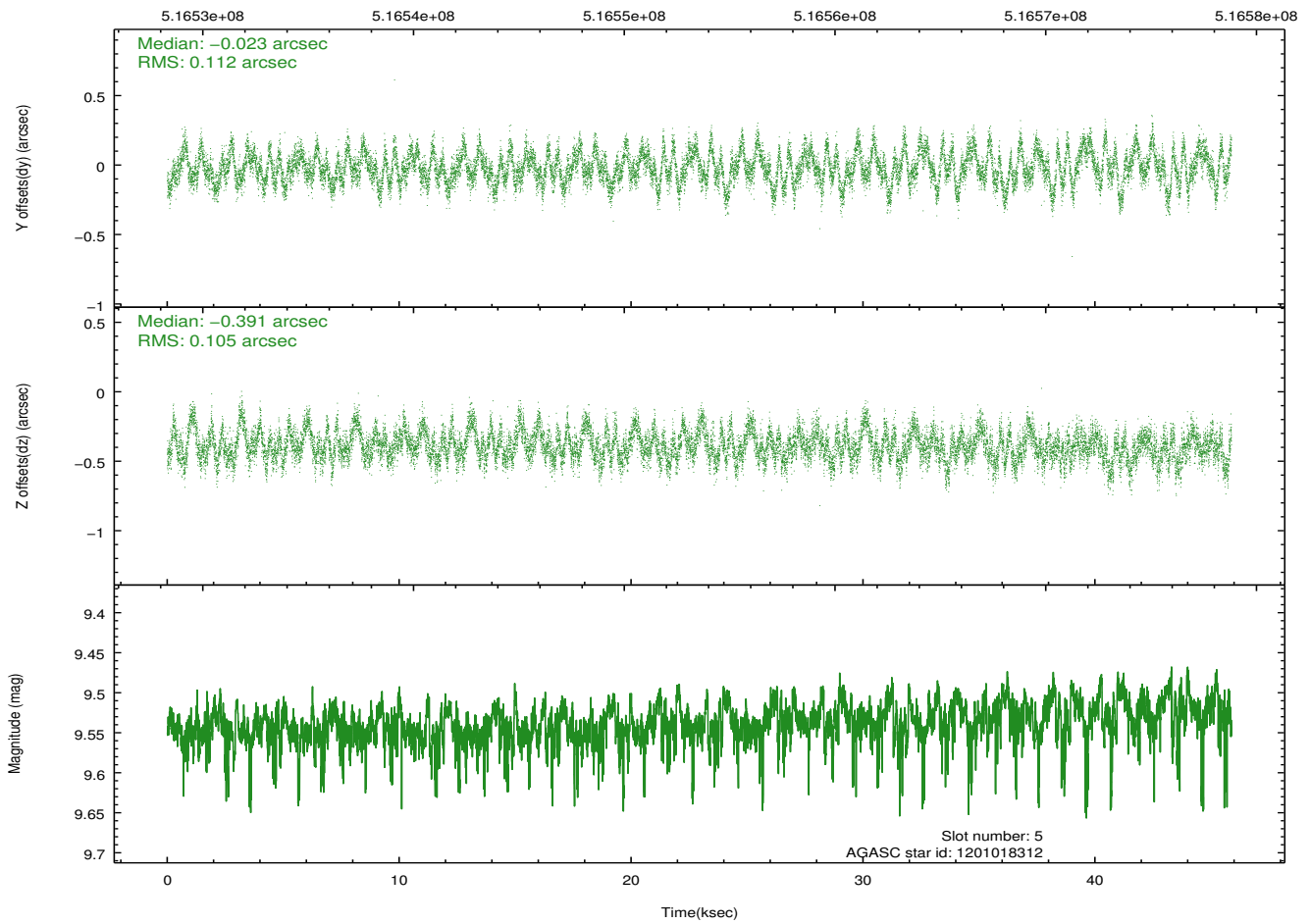
2.4.2 Slot 4



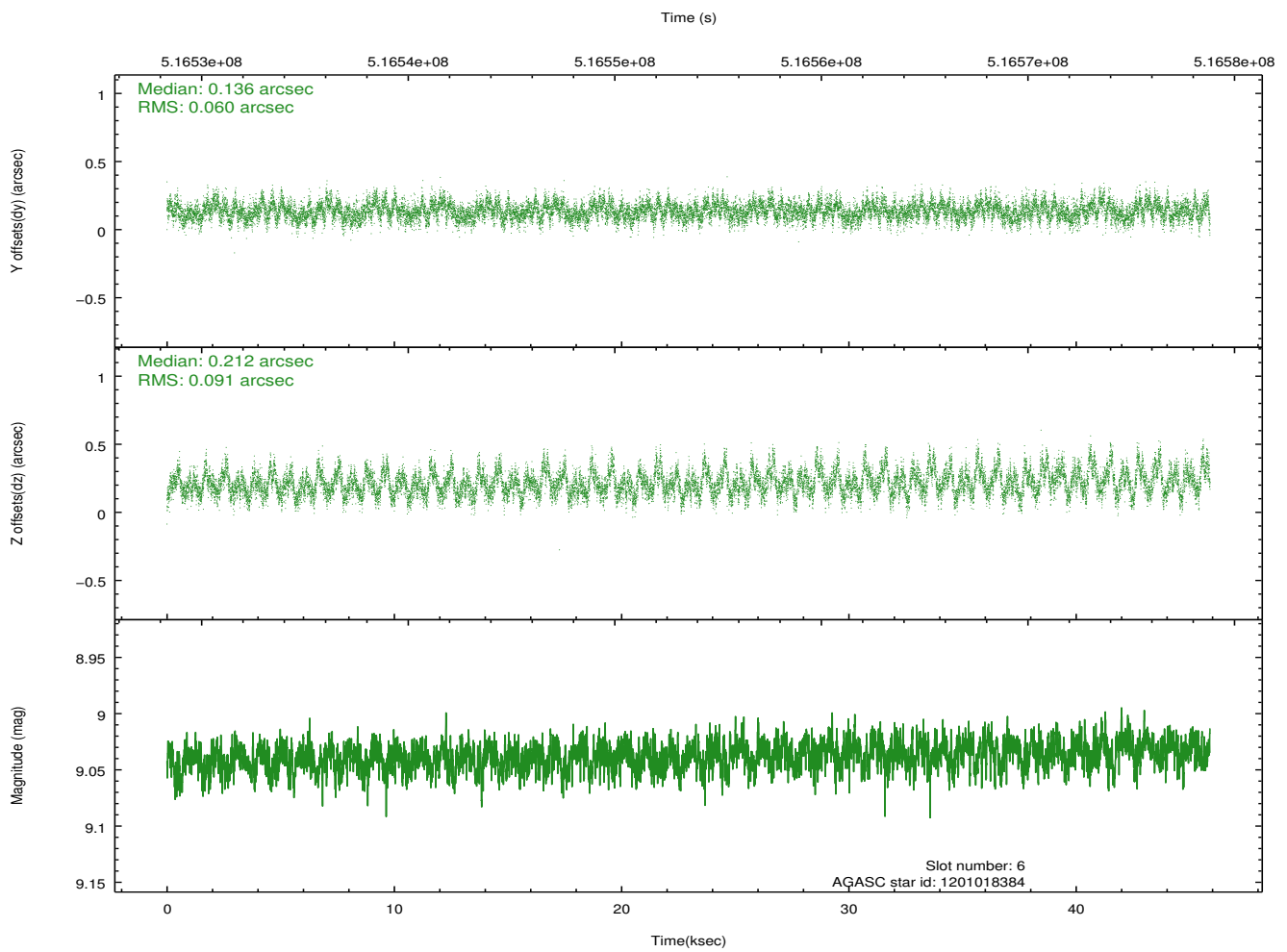
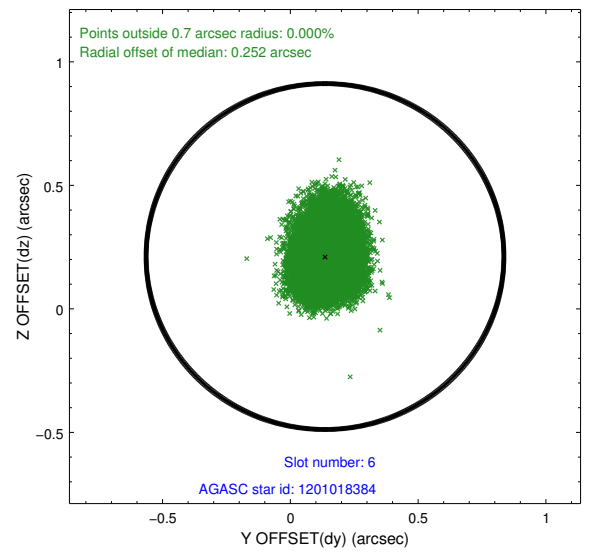
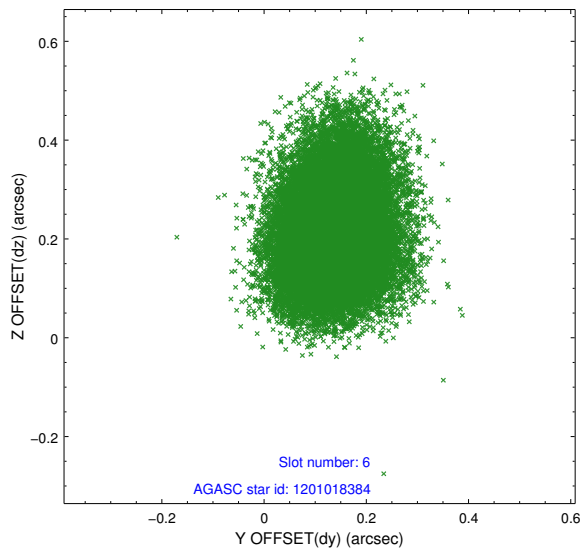
2.4.3 Slot 5



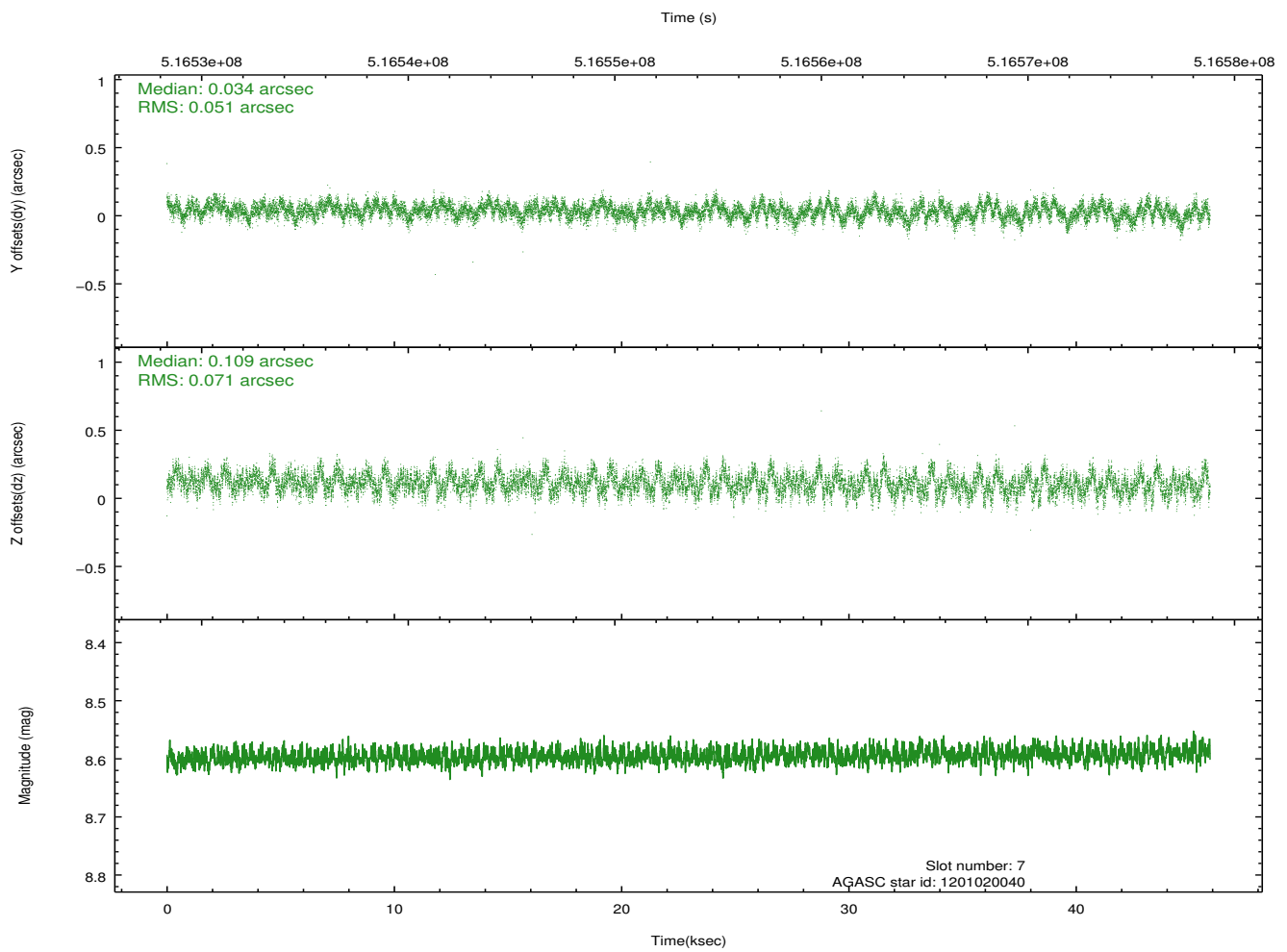
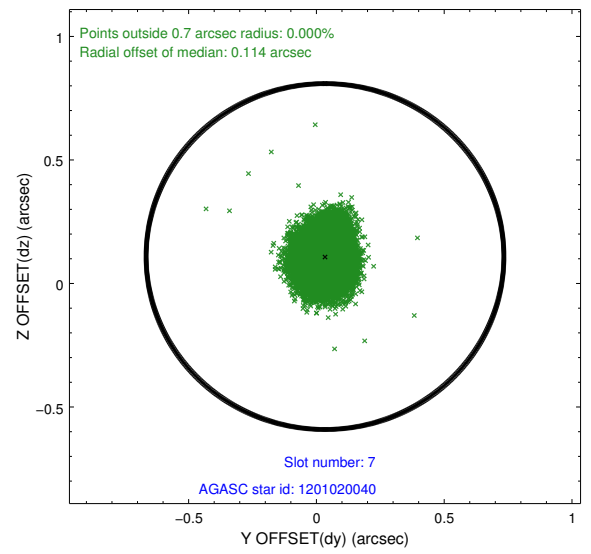
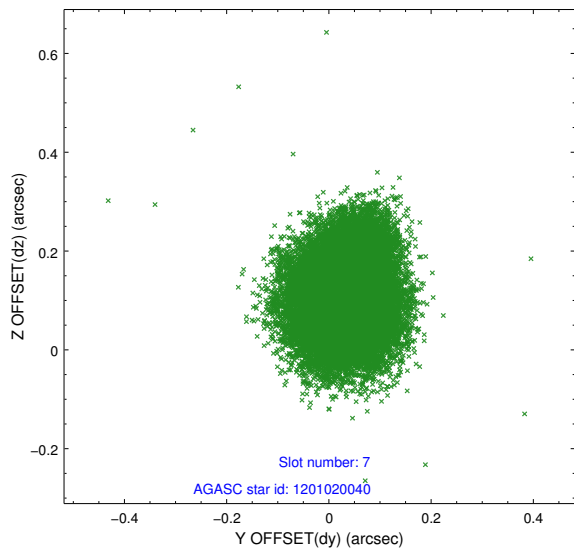
Time (s)



2.4.4 Slot 6

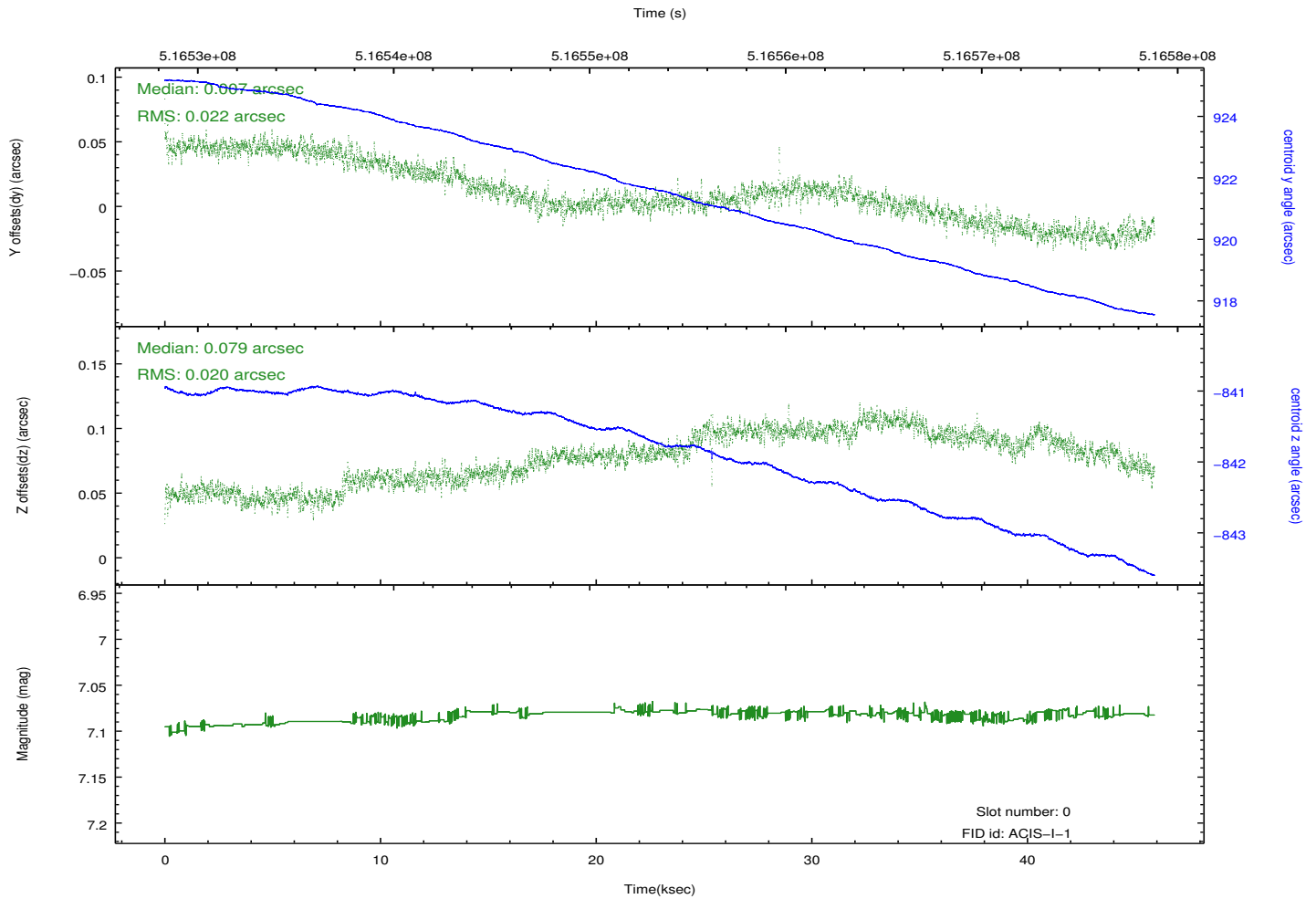
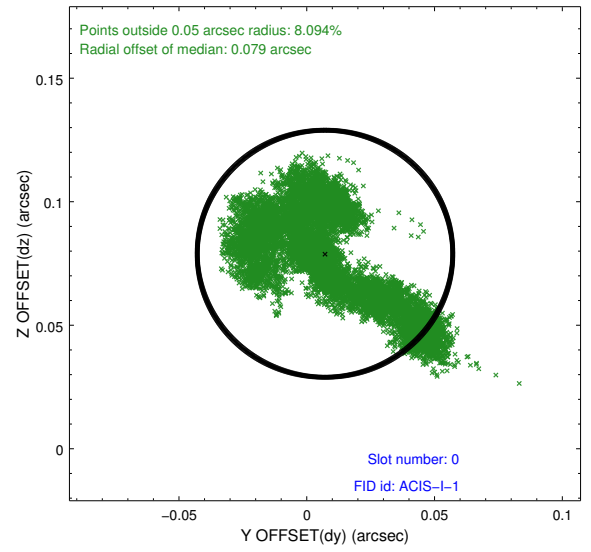
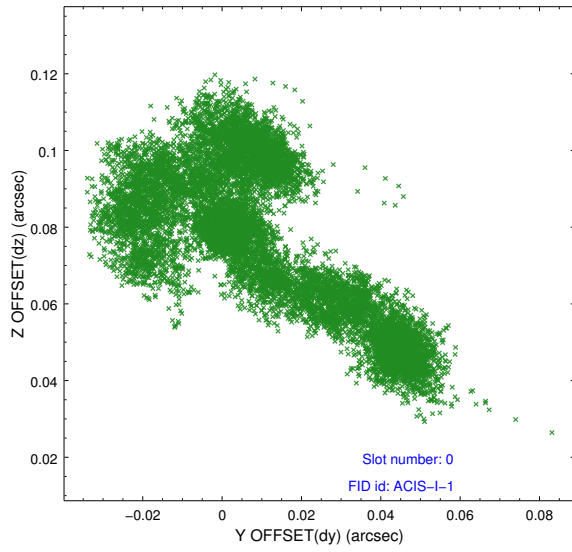


2.4.5 Slot 7

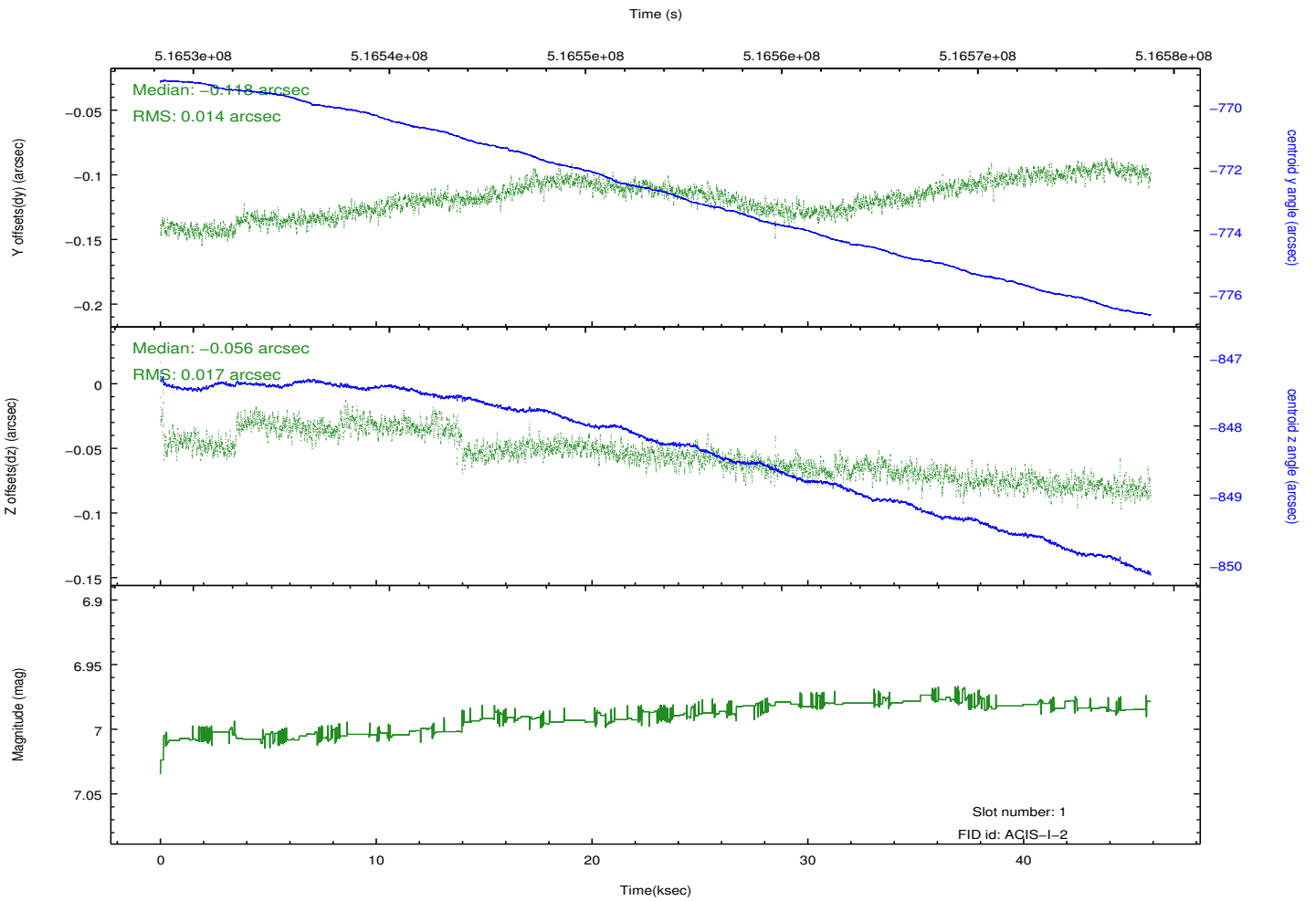
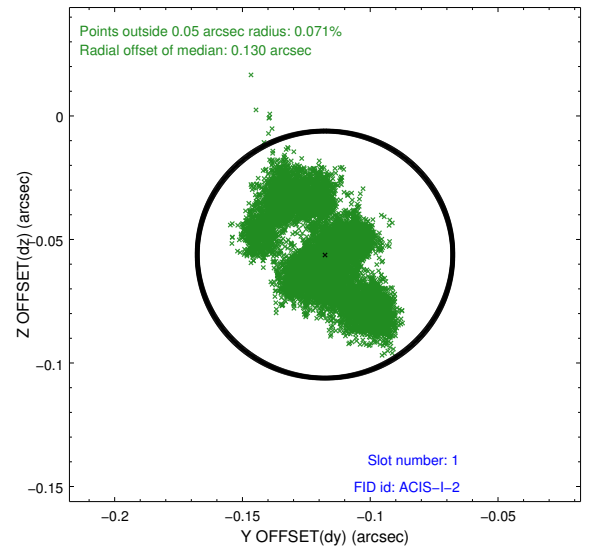
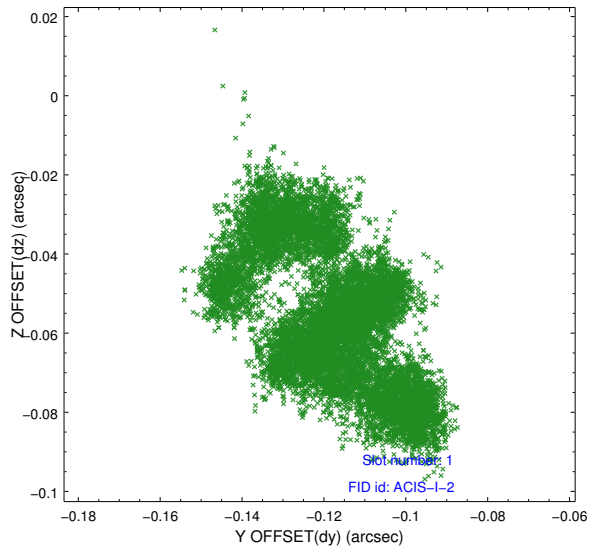


2.5 FID Slots

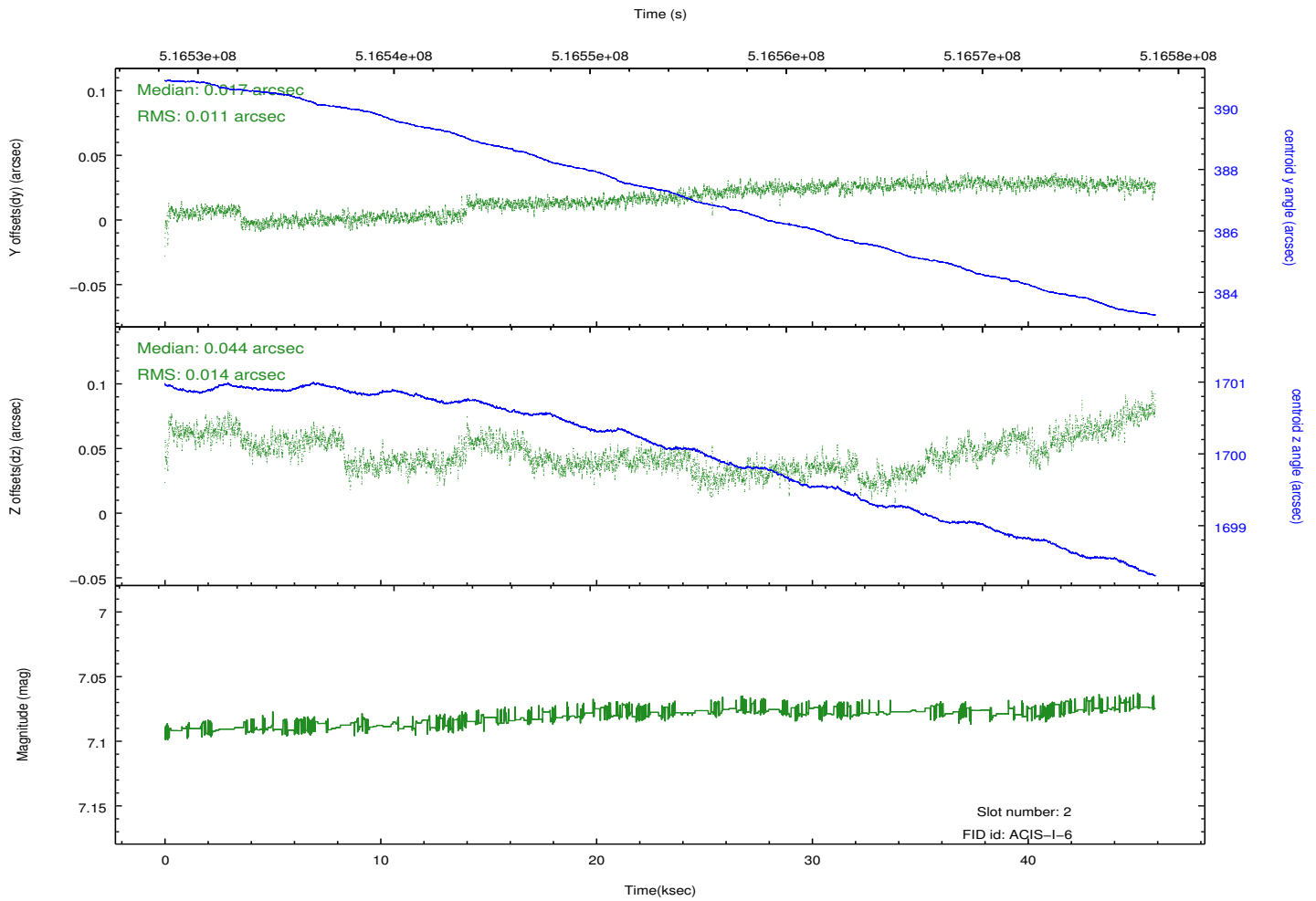
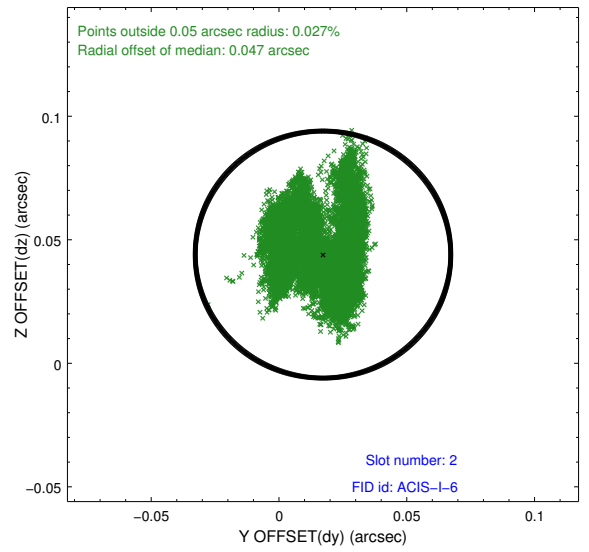
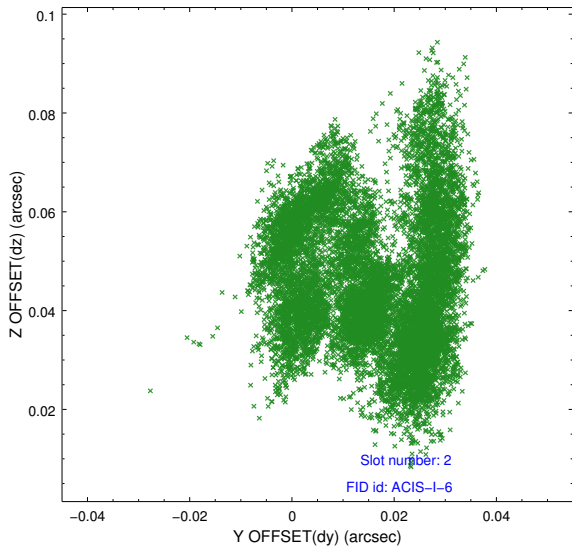
2.5.1 Slot 0



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)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.749299154639

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.