

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 14013 - L2 Version 2
Chandra X-Ray Center

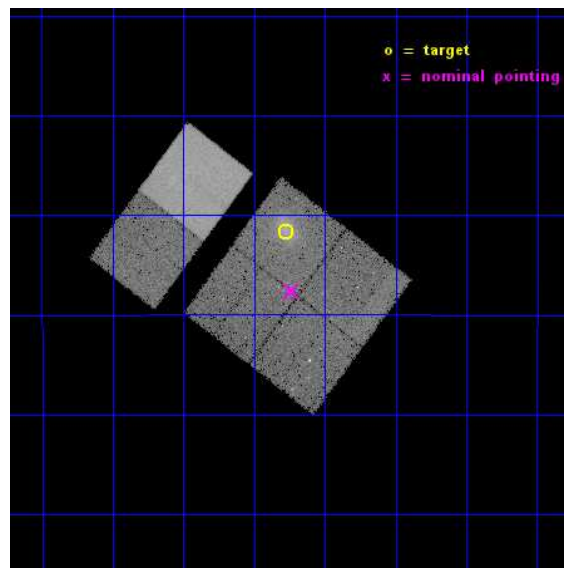
L2 Processing Date : Nov 28 2014

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

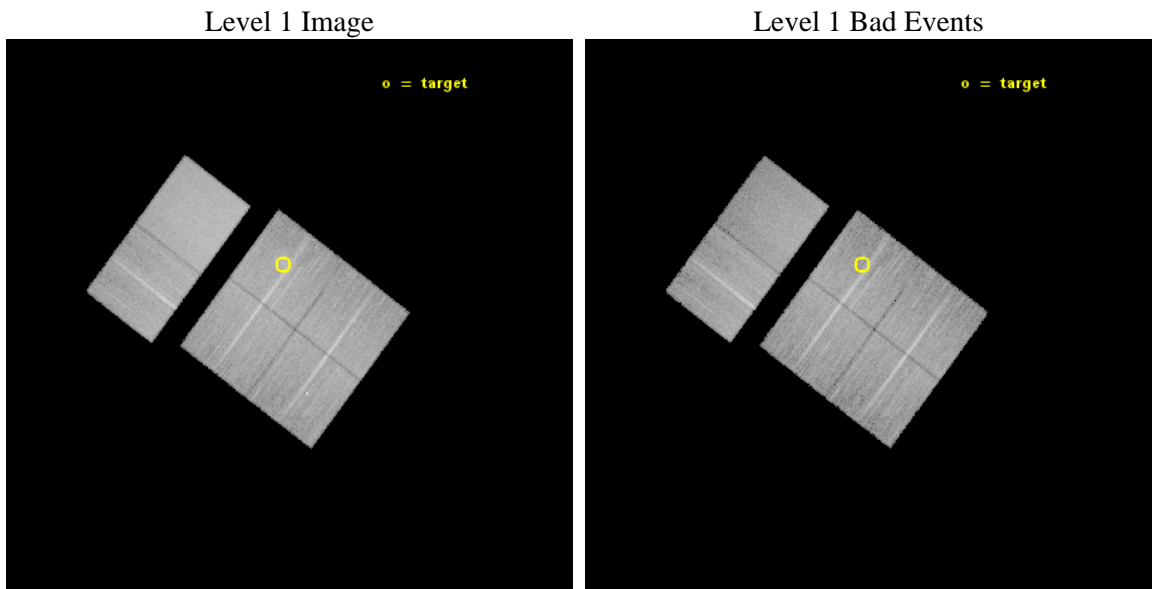
seq_num	801193	Sequence number
obs_id	14013	Observation id
title	Understanding the connection between radio halos and cluster mergers	
observer	Dr Rossella Cassano	Principal investigator
object	Abell 2645	Source name
dtycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	355.32	Observer's specified target RA [deg]
dec_targ	-9.0275	Observer's specified target Dec [deg]
ra_nom	355.30922038107	Nominal RA [deg]
dec_nom	-9.1273728232105	Nominal Dec [deg]
roll_nom	307.04518304069	Nominal Roll [deg]
revision	2	Processing version of data
ontime	26665.558870196	Sum of GTIs [s]
lvertime	26327.90350771	Livetime [s]
ontime0	26668.799900711	Sum of GTIs [s]
ontime1	26662.317830026	Sum of GTIs [s]
ontime2	26668.799900711	Sum of GTIs [s]
ontime3	26665.558870196	Sum of GTIs [s]
ontime6	26668.799900711	Sum of GTIs [s]
ontime7	26668.799900711	Sum of GTIs [s]
l2events	182274	Number of level 2 events



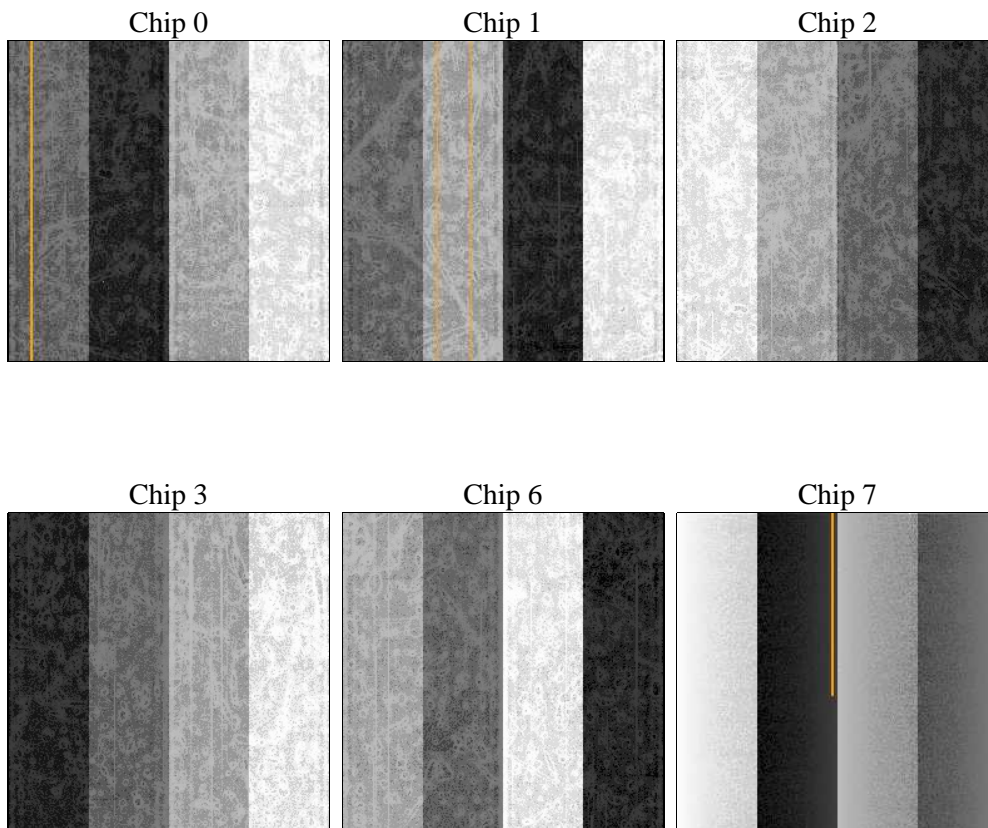
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	26695.201000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	26665.558870196	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	26668.799900711	Sum of GTIs [s]
date	2014-11-28T10:51:29	Date and time of file creation	ontime1	26662.317830026	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	26668.799900711	Sum of GTIs [s]
			ontime3	26665.558870196	Sum of GTIs [s]
			ontime6	26668.799900711	Sum of GTIs [s]
			ontime7	26668.799900711	Sum of GTIs [s]
			l1events	863197	Number of level 1 events

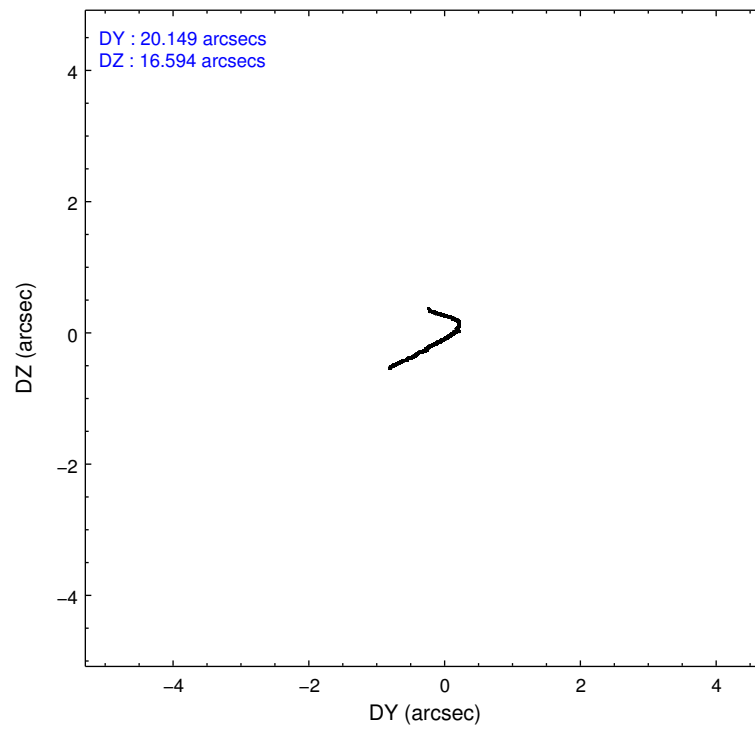
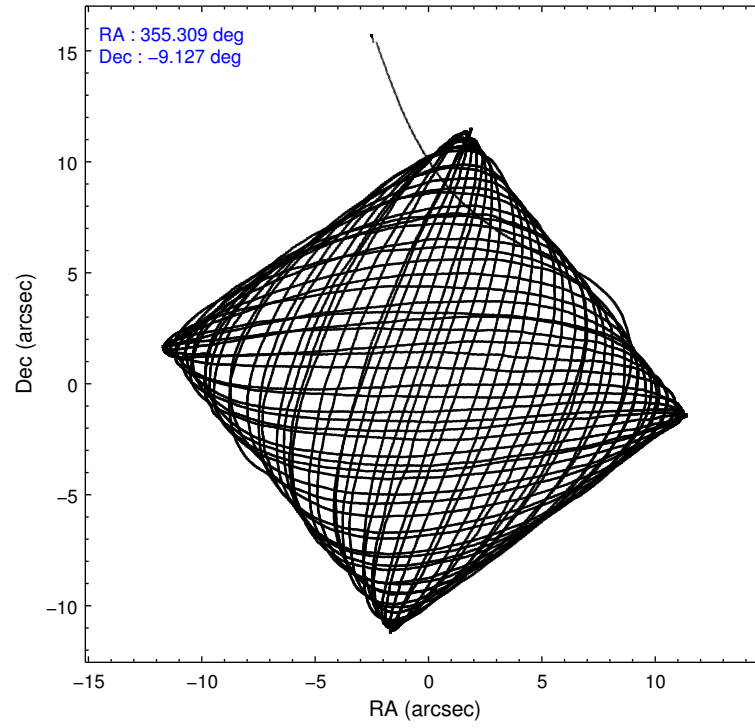
2.1.4 Events

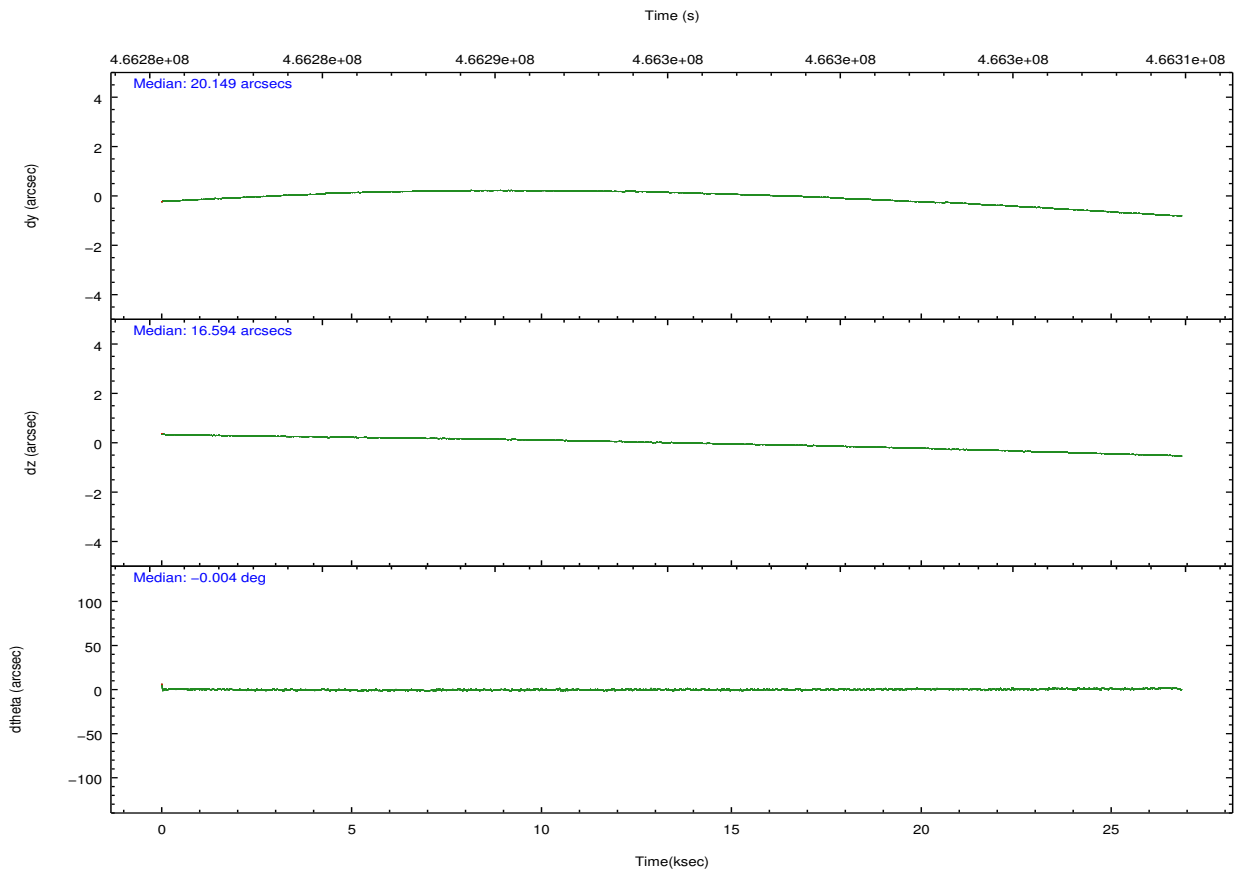
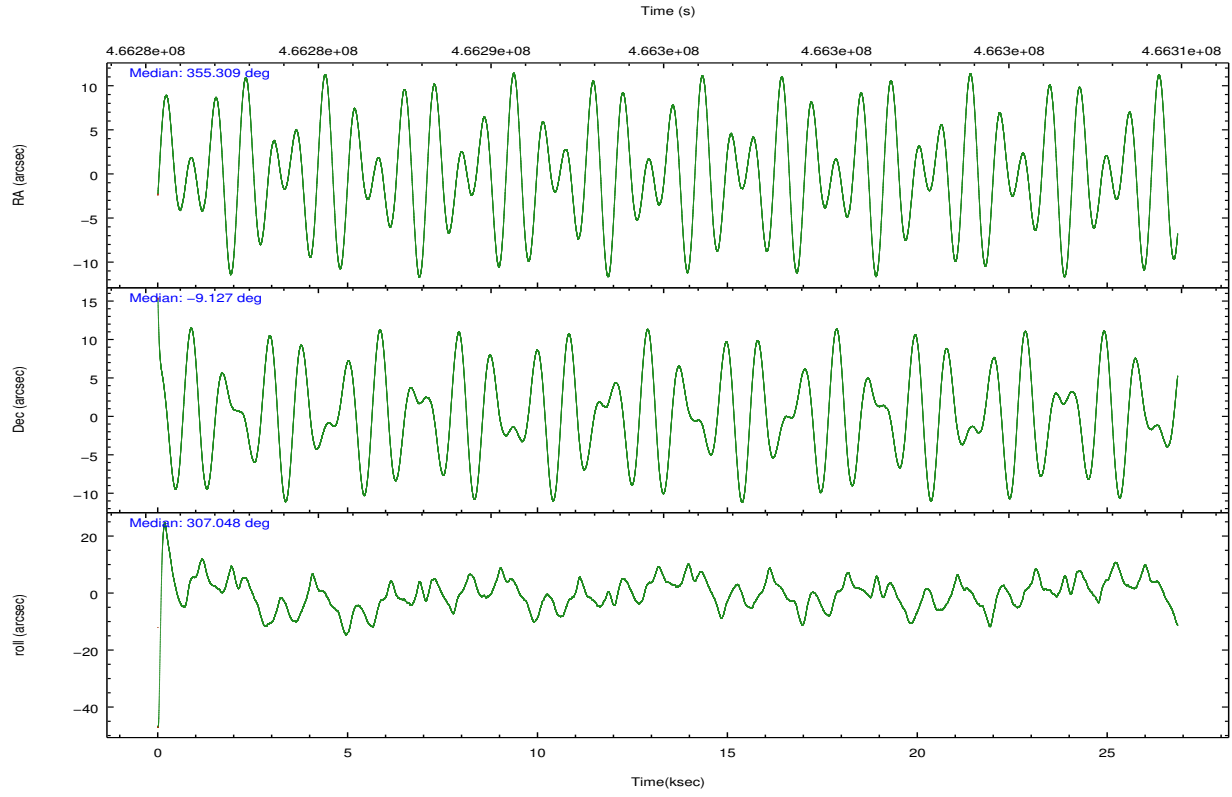
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	125358	128842	135176	139103	145074	189644	grade 0 events	8700	9076	7952	13275	8064	8152
rejected events	104056	106215	115374	113062	123872	102562		6%	7%	5%	9%	5%	4%
rejected %	83%	82%	85%	81%	85%	54%	grade 1 events	85	86	107	112	85	223
								0%	0%	0%	0%	0%	0%
							grade 2 events	4594	4825	4413	4652	4423	17539
								3%	3%	3%	3%	3%	9%
							grade 3 events	1973	2042	1791	2020	1937	7371
								1%	1%	1%	1%	1%	3%
							grade 4 events	1804	2001	1891	1952	1900	7306
								1%	1%	1%	1%	1%	3%
							grade 5 events	6388	6665	5878	7130	7235	18769
								5%	5%	4%	5%	4%	9%
							grade 6 events	4236	4685	3755	4148	4879	46729
								3%	3%	2%	2%	3%	24%
							grade 7 events	97578	99462	109389	105814	116551	83555
								77%	77%	80%	76%	80%	44%

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	355.283519	355.3092203810698	CCD I2 on	Y	Y
[deg] Pointing Dec	-9.116745	-9.127372823210521	CCD I3 on	Y	Y
[deg] Pointing Roll	306.832448	307.0451830406851	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	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	466281858.184000	466280599.40917	CCD S5 on	N	N
Observation start date	2012-10-10T18:43:11	2012-10-10T18:23:19	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	466308553.184000	466308790.49818	On-chip summing requested	N	N
Observation end date	2012-10-11T02:08:06	2012-10-11T02:13:10	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





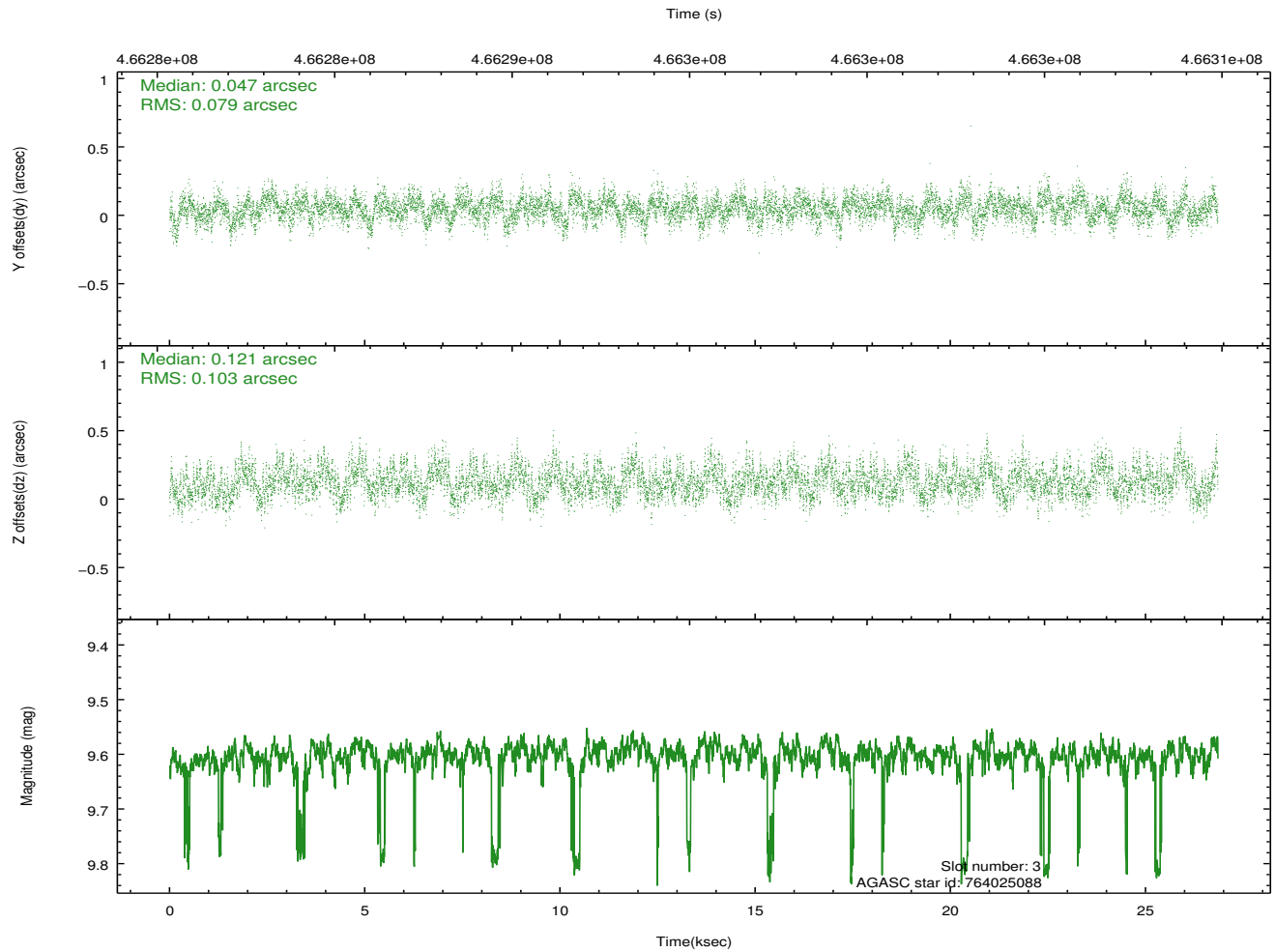
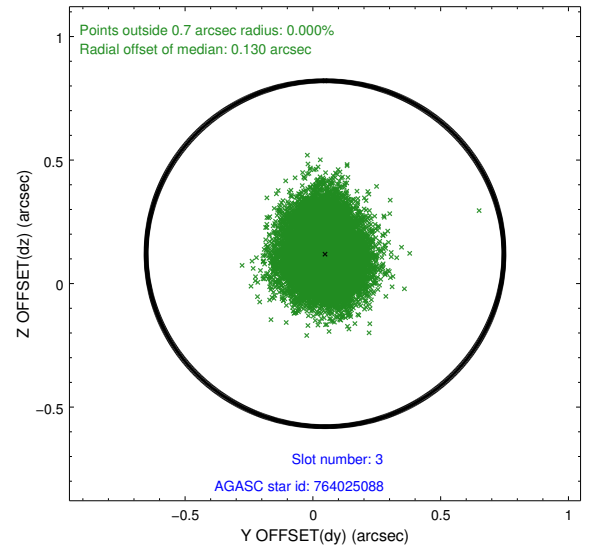
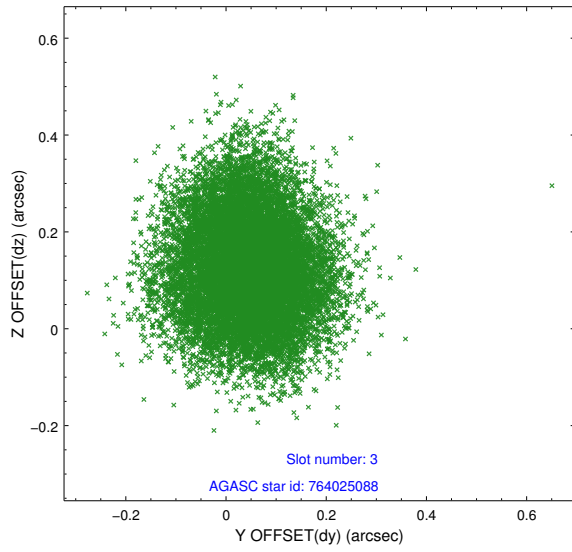
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.09	6550	-0.016	-0.100	0.011	0.022	0.000000	0.000000	919.27	-840.27
1	FID		ACIS-I-4	7.02	6550	0.216	0.101	0.010	0.019	0.000000	0.000000	2139.54	1059.72
2	FID		ACIS-I-5	7.07	6550	-0.298	0.070	0.009	0.016	0.000000	0.000000	-1828.94	1057.54
3	GUIDE	used	764025088	9.60	13014	0.047	0.121	0.140	0.221	354.735916	-8.940286	-1674.69	-1178.43
4	GUIDE	used	764150240	9.31	13086	-0.136	-0.154	0.136	0.223	355.769658	-8.962952	594.02	1714.73
5	GUIDE	used	764150360	8.54	13093	-0.049	-0.056	0.083	0.129	355.592734	-8.828779	-169.93	1500.17
6	GUIDE	used	764150392	8.77	13094	-0.011	-0.067	0.082	0.133	355.399627	-8.825152	-592.13	959.02
7	GUIDE	used	764152000	8.70	13094	0.155	0.151	0.087	0.142	355.853138	-9.041437	998.60	1782.80

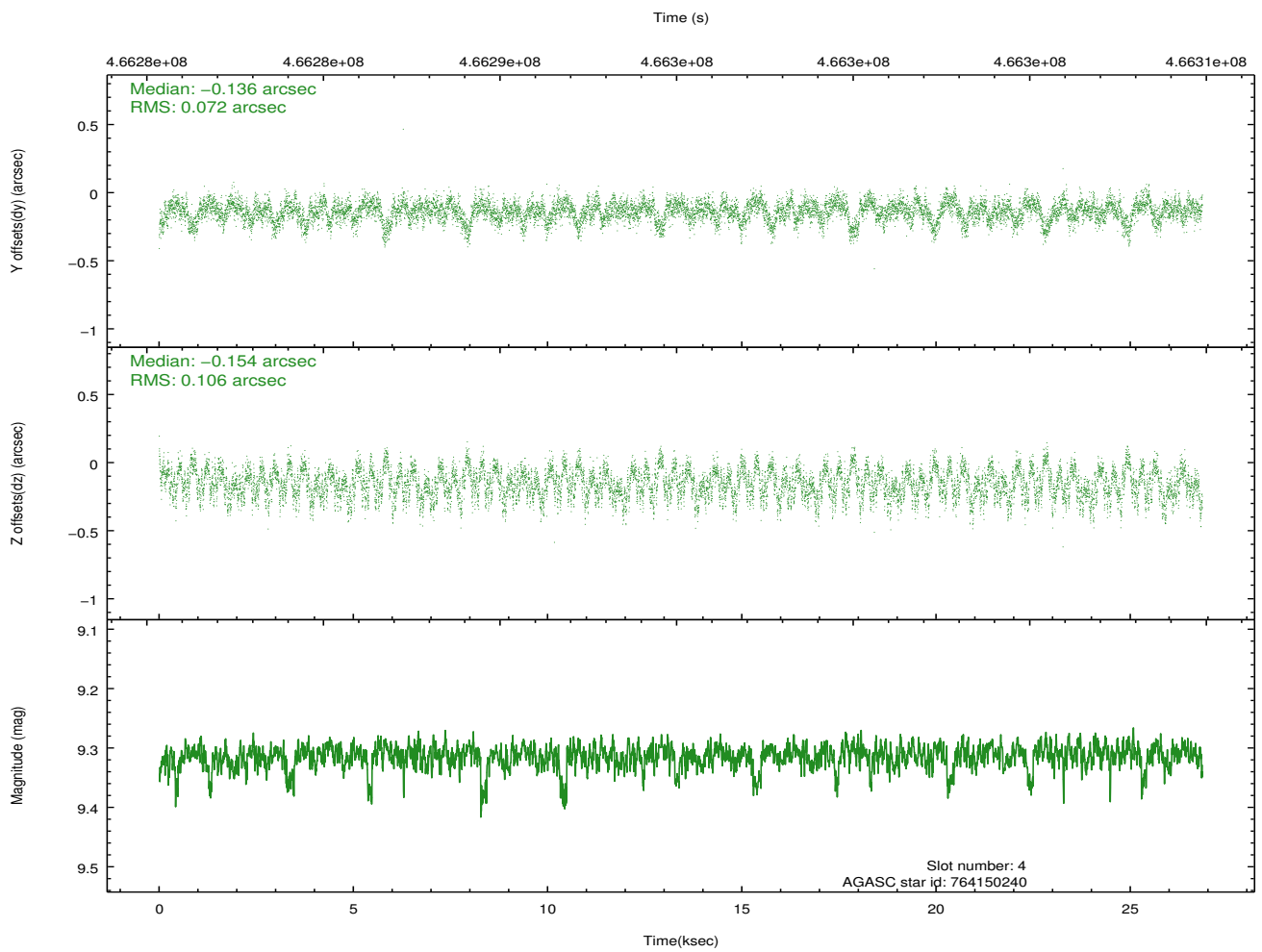
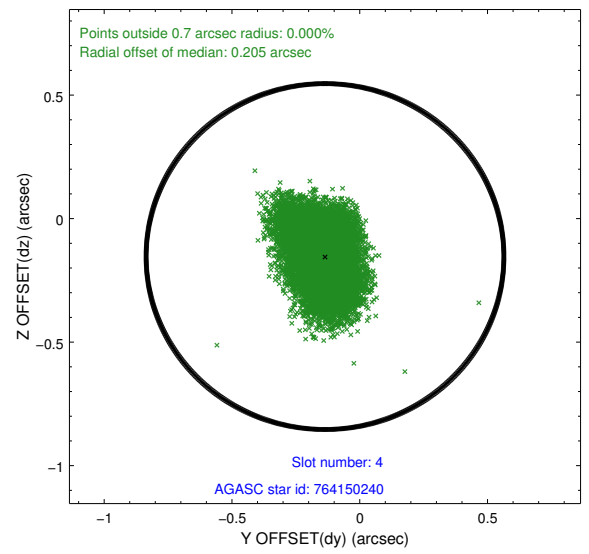
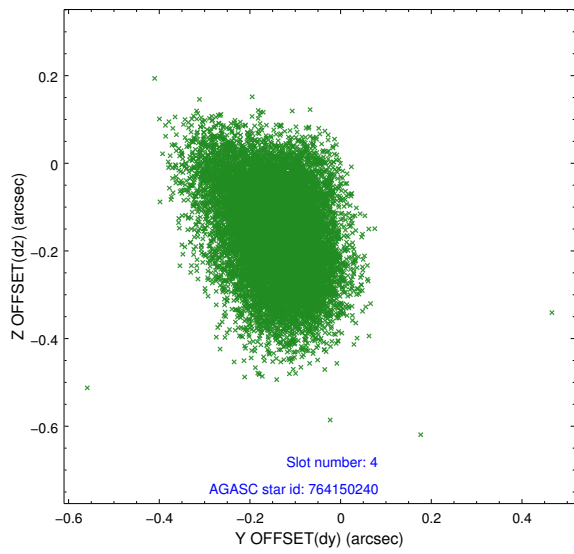
∞

2.4 Star Slots

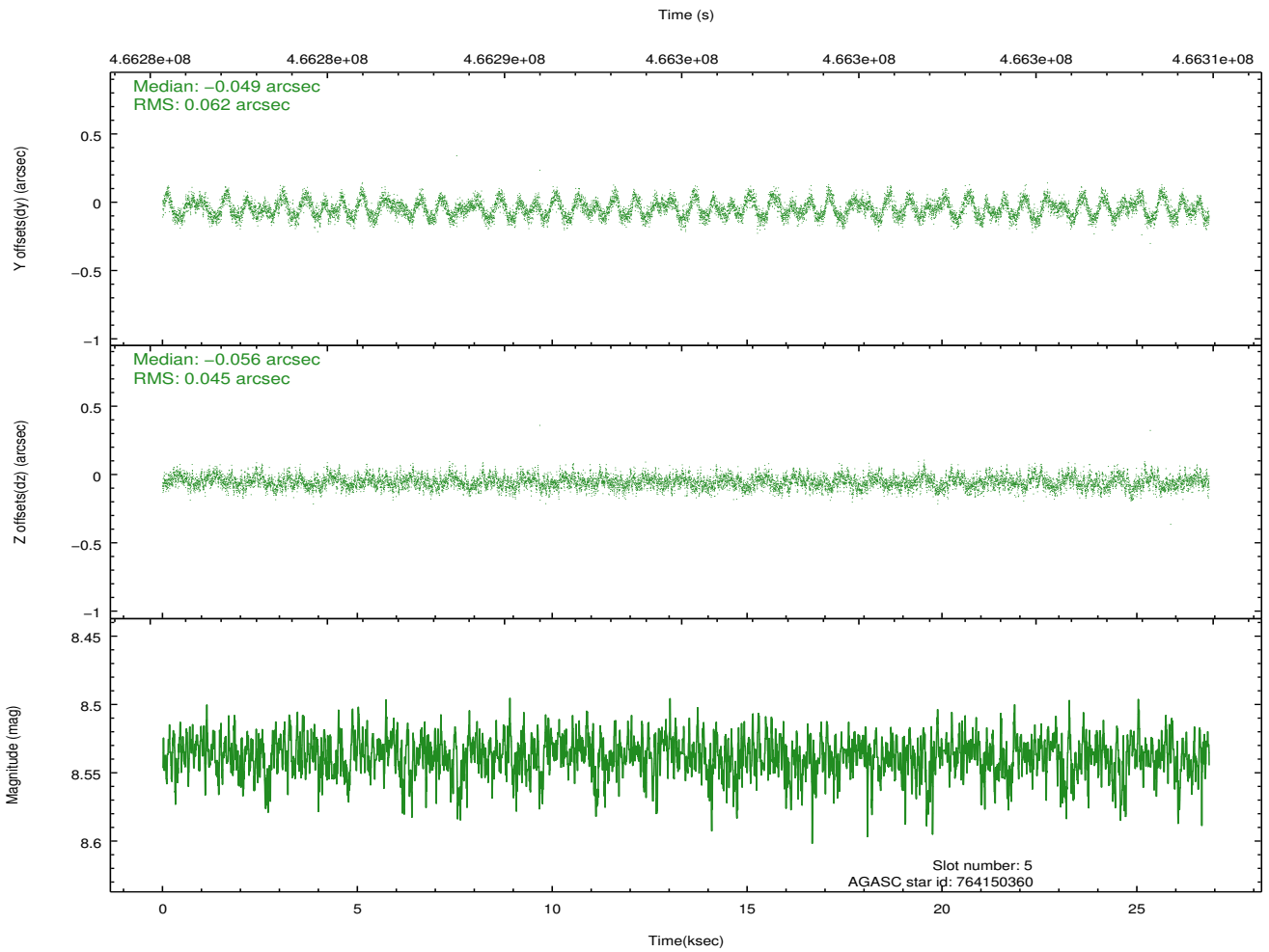
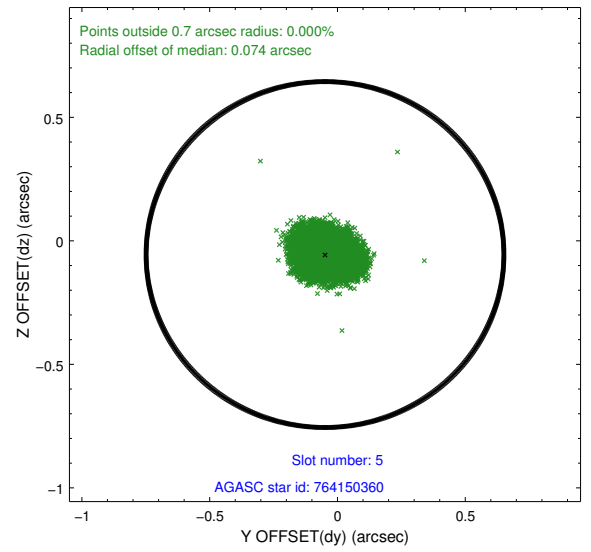
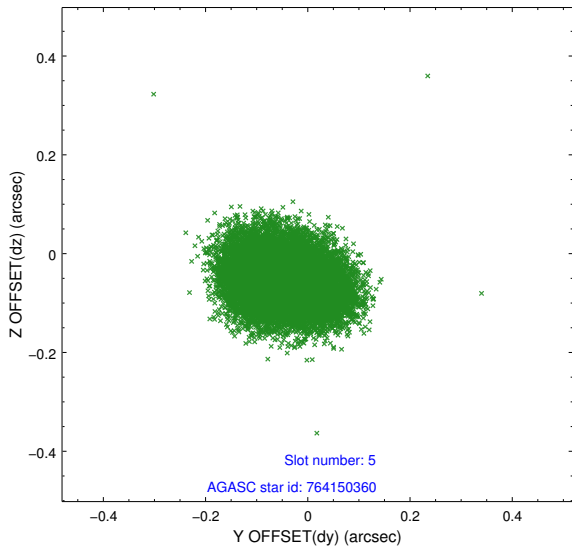
2.4.1 Slot 3



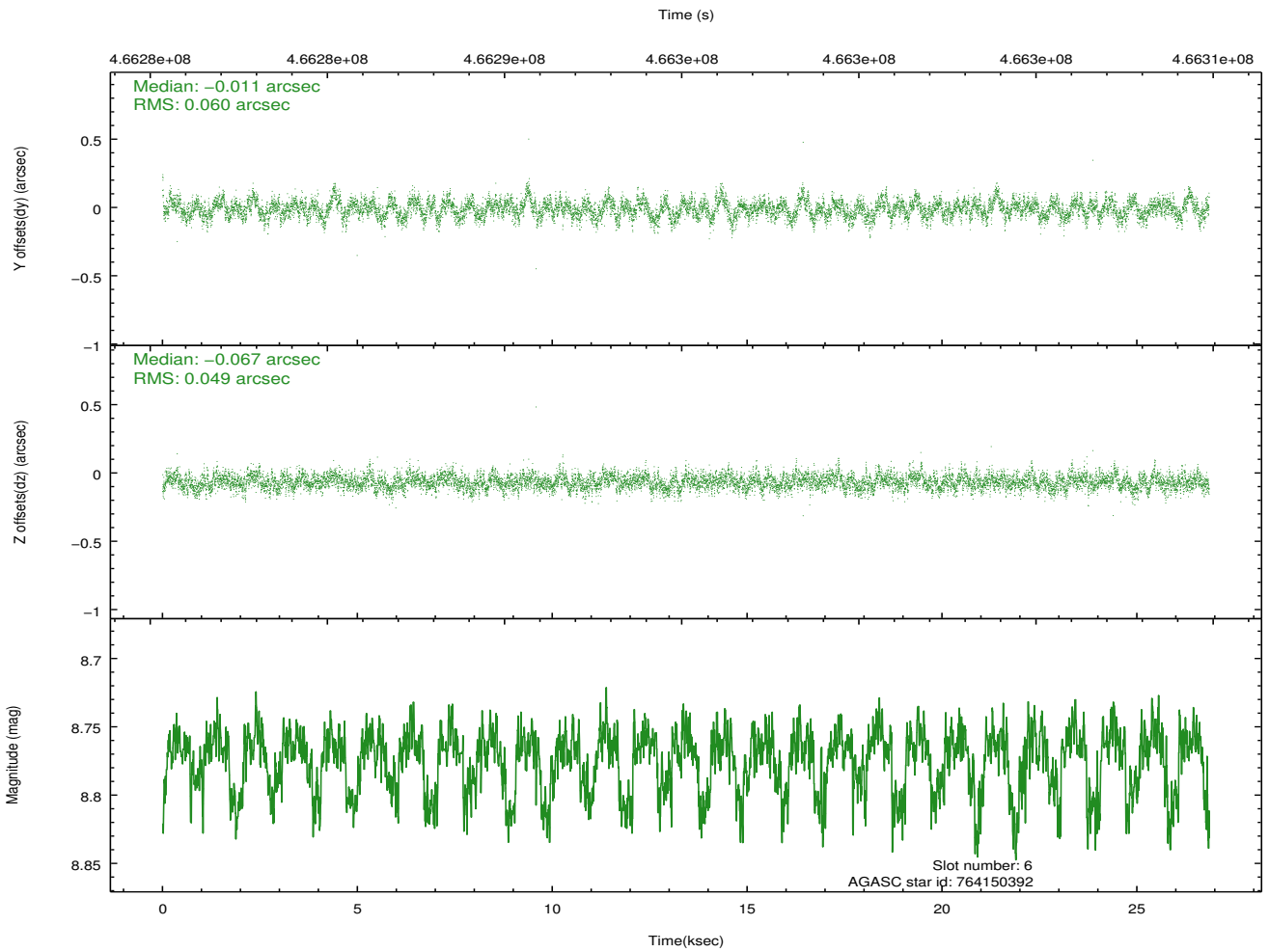
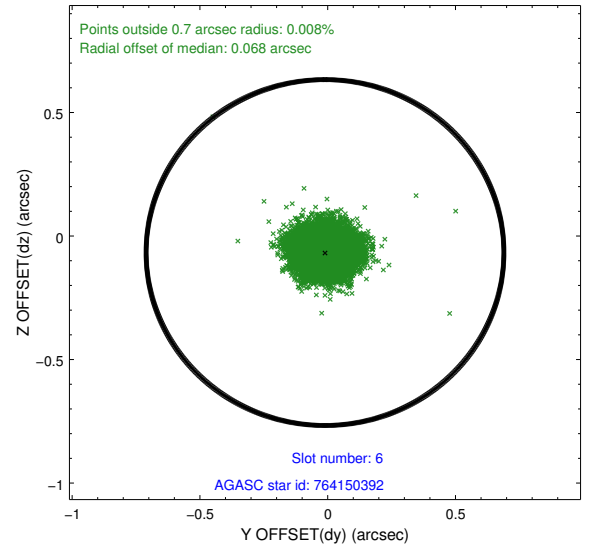
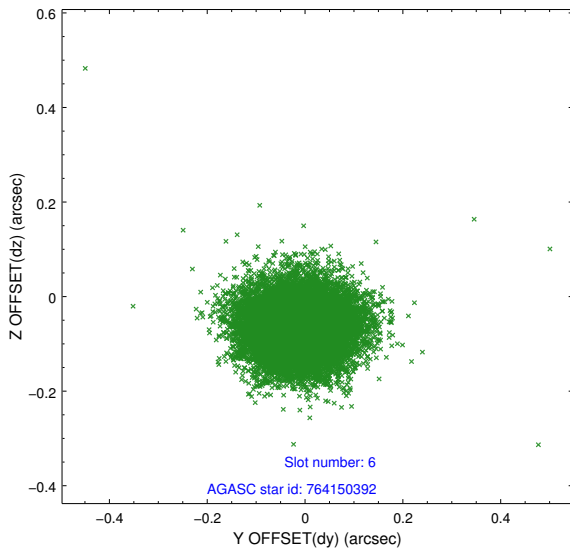
2.4.2 Slot 4



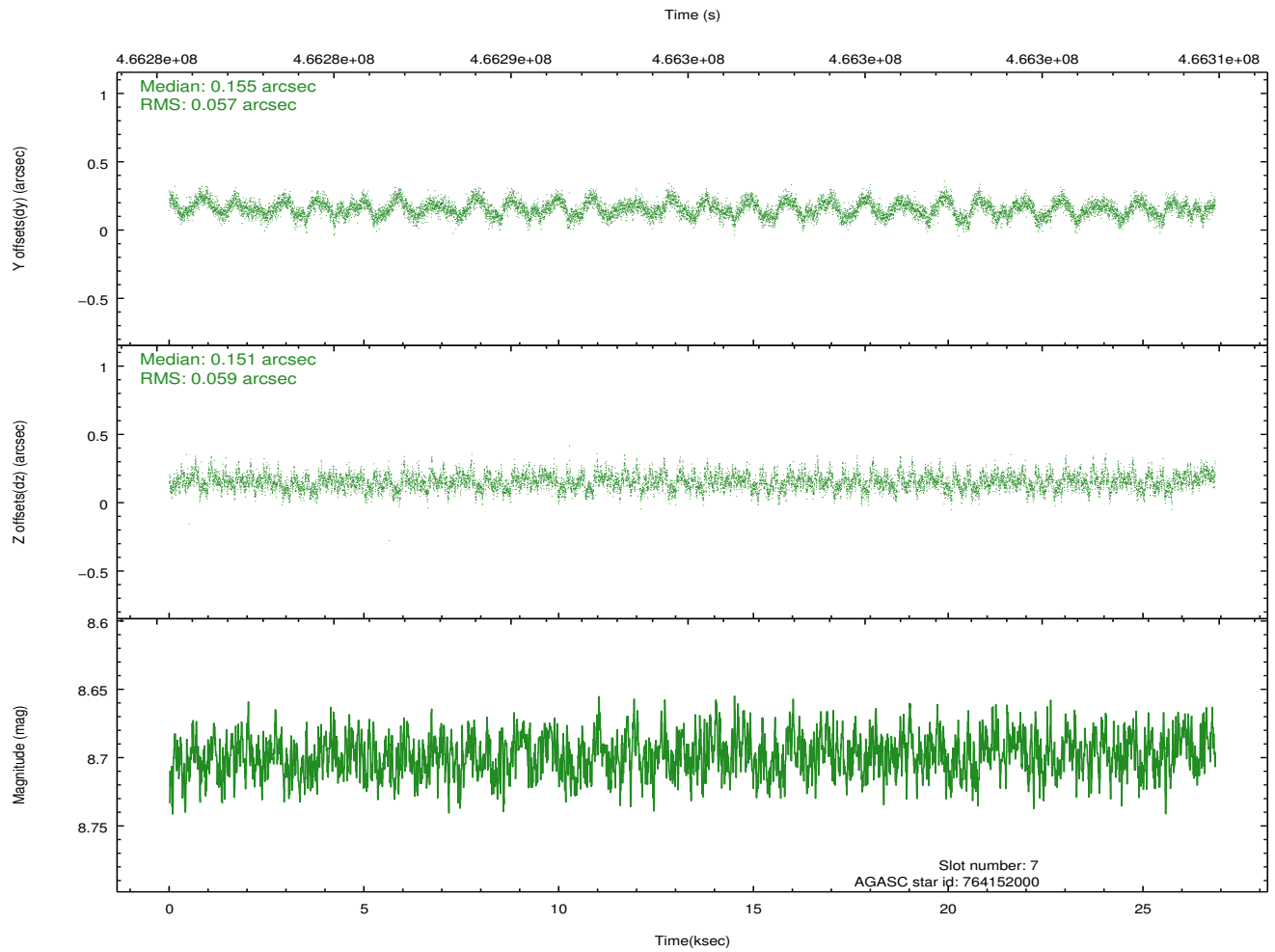
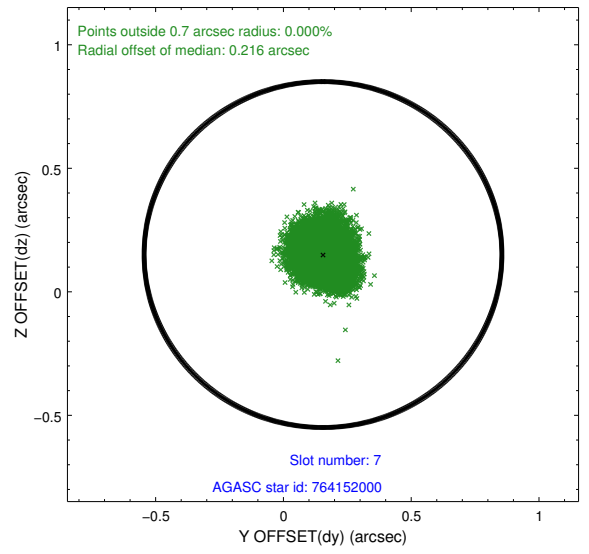
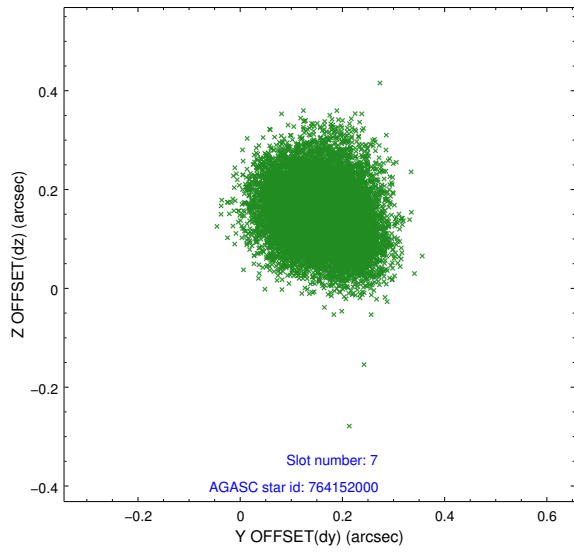
2.4.3 Slot 5



2.4.4 Slot 6

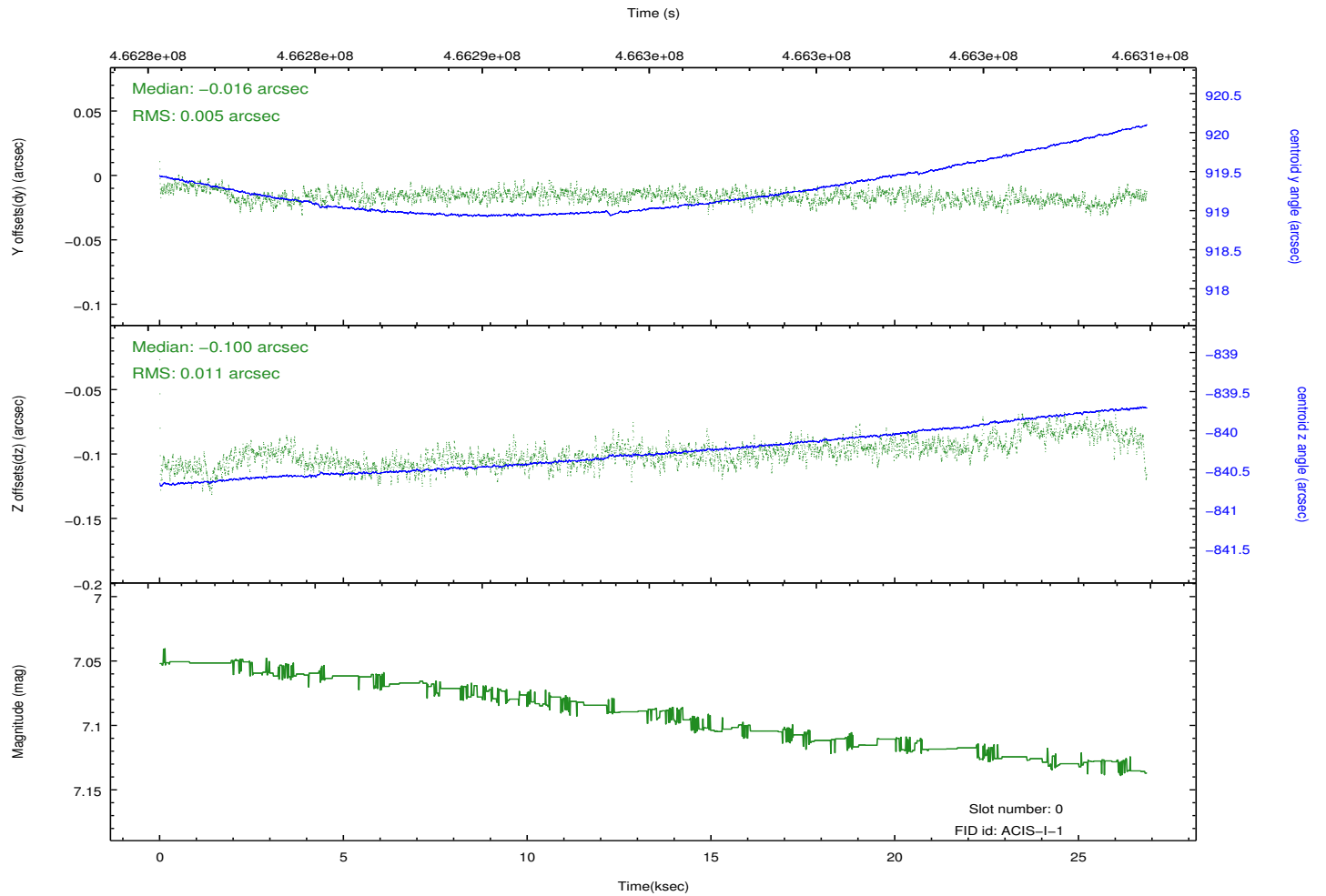
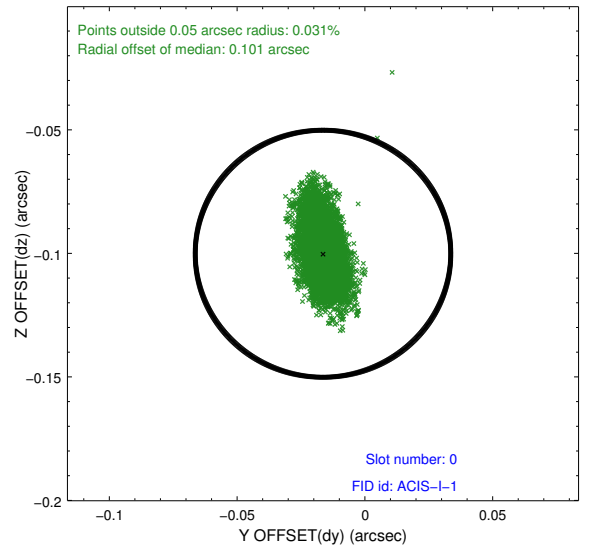
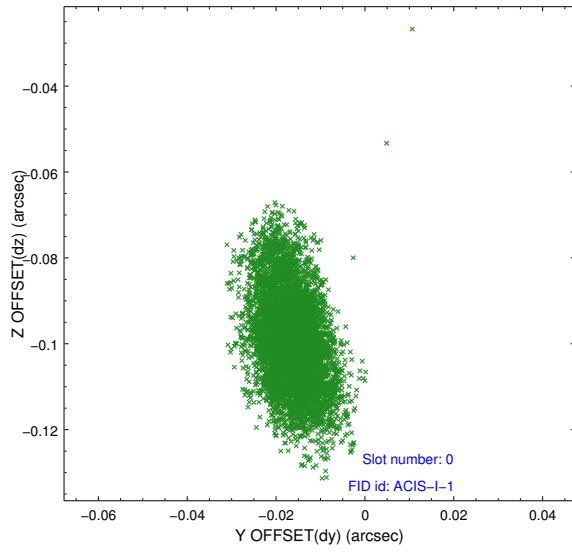


2.4.5 Slot 7

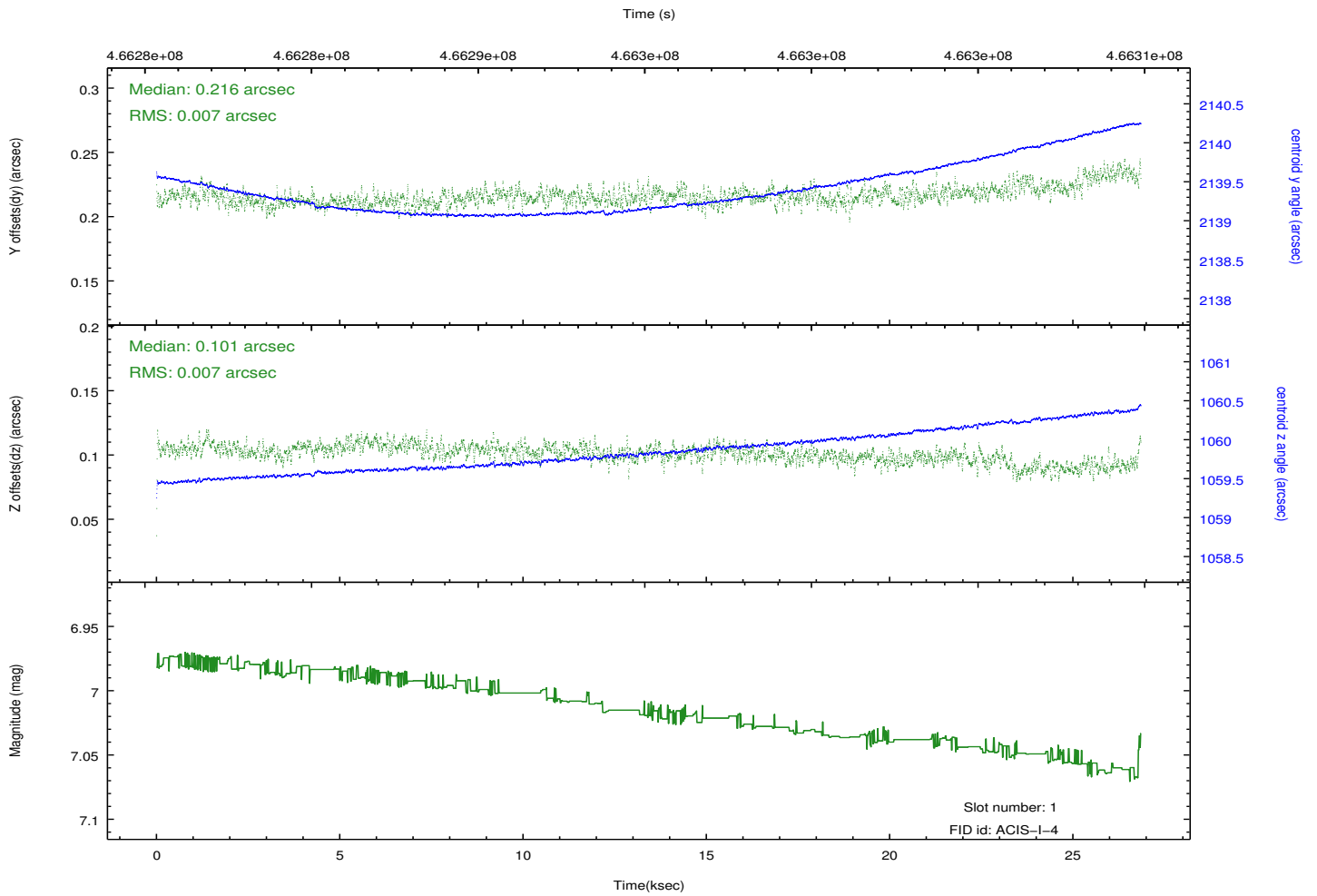
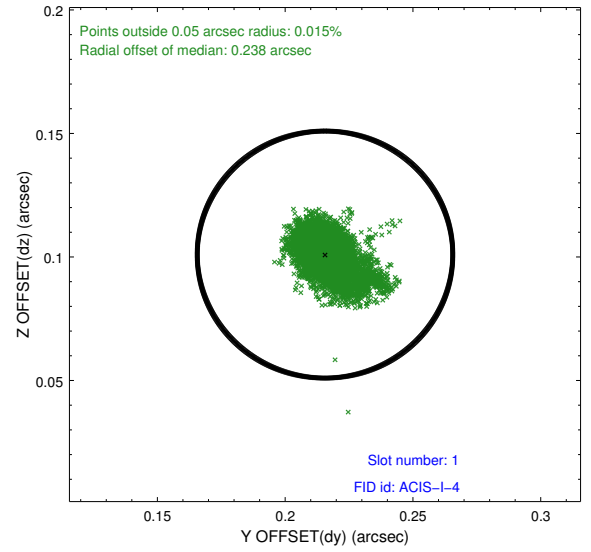
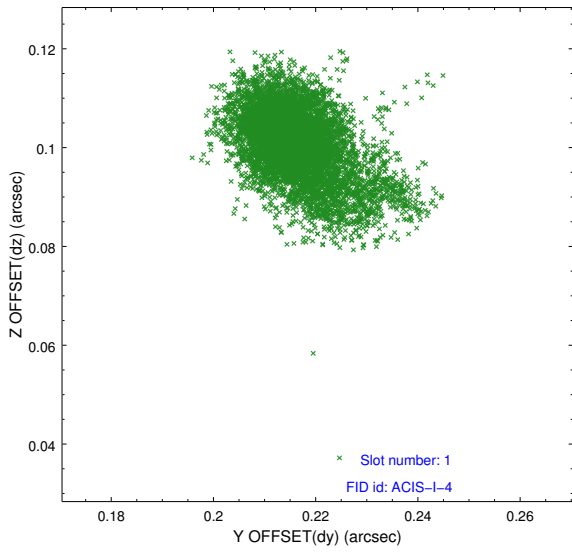


2.5 FID Slots

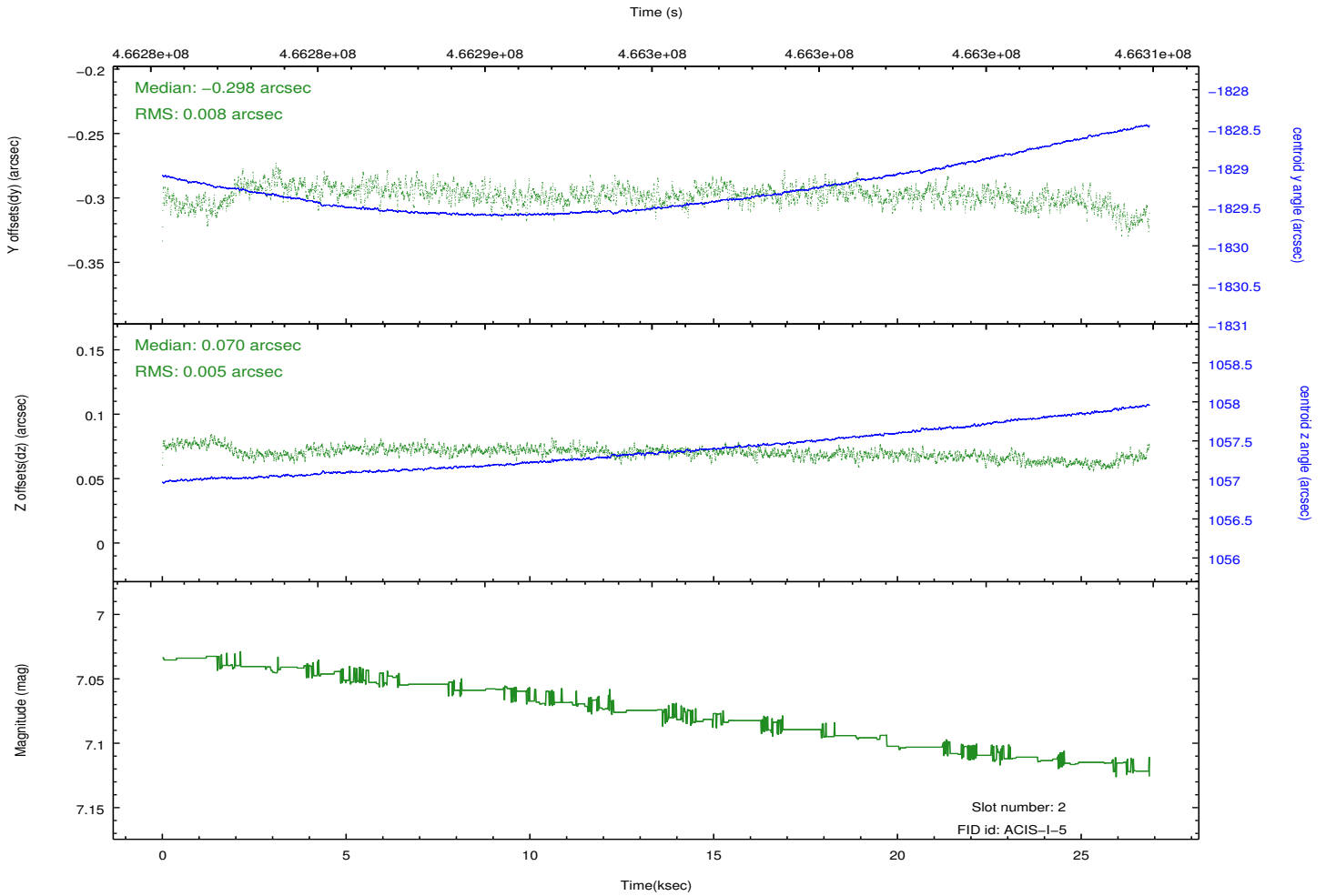
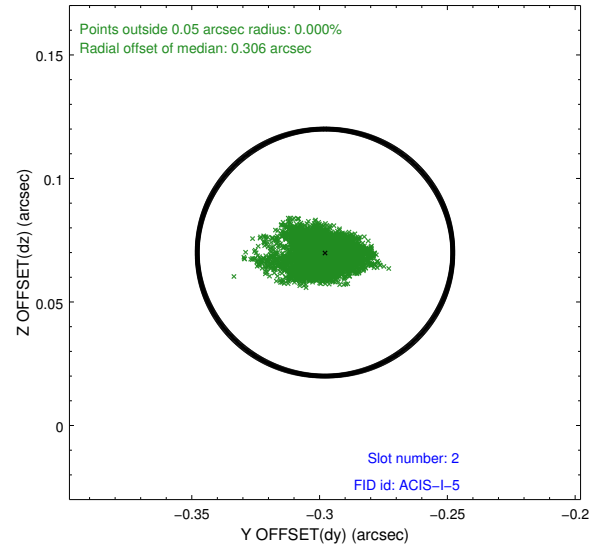
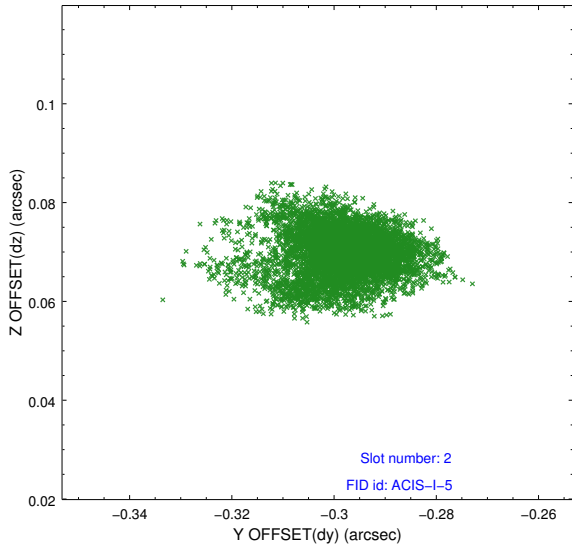
2.5.1 Slot 0



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)	2014.12.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	26.665558870196

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.