

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 13490 - L2 Version 2
Chandra X-Ray Center

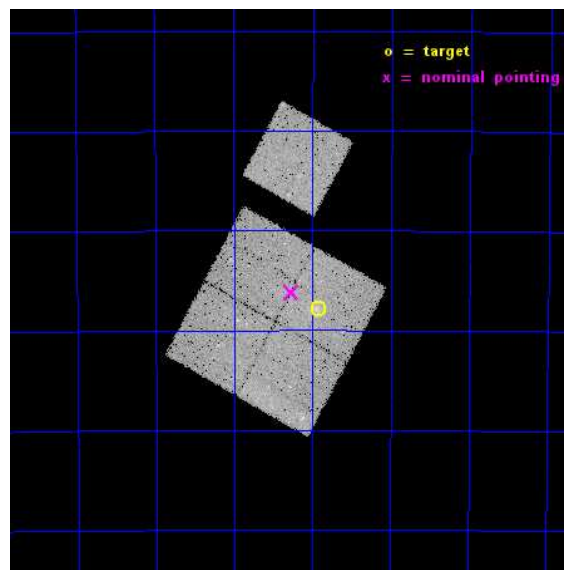
L2 Processing Date : Nov 28 2014

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

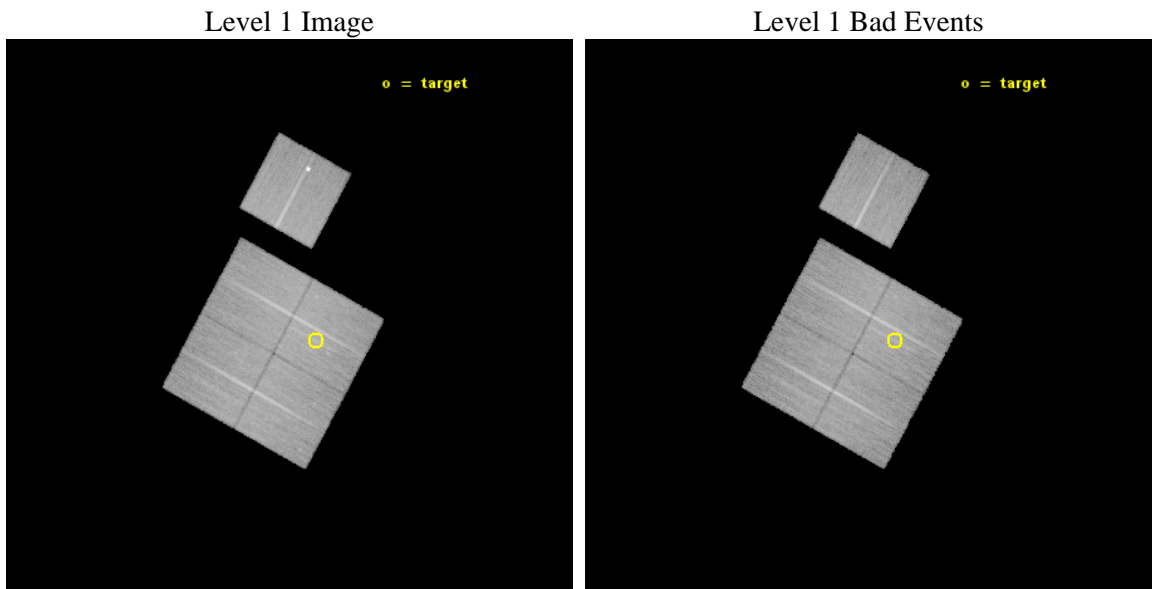
seq_num	801131	Sequence number
obs_id	13490	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg ² from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ0352-5647	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	58.232083	Observer's specified target RA [deg]
dec_targ	-56.798111	Observer's specified target Dec [deg]
ra_nom	58.317203619228	Nominal RA [deg]
dec_nom	-56.769997933014	Nominal Dec [deg]
roll_nom	28.77989463409	Nominal Roll [deg]
revision	2	Processing version of data
ontime	35680.483476698	Sum of GTIs [s]
livetime	35214.291692486	Livetime [s]
ontime0	35677.219306886	Sum of GTIs [s]
ontime1	35677.260396659	Sum of GTIs [s]
ontime2	35680.442397177	Sum of GTIs [s]
ontime3	35680.483476698	Sum of GTIs [s]
ontime6	35683.460317492	Sum of GTIs [s]
l2events	95047	Number of level 2 events



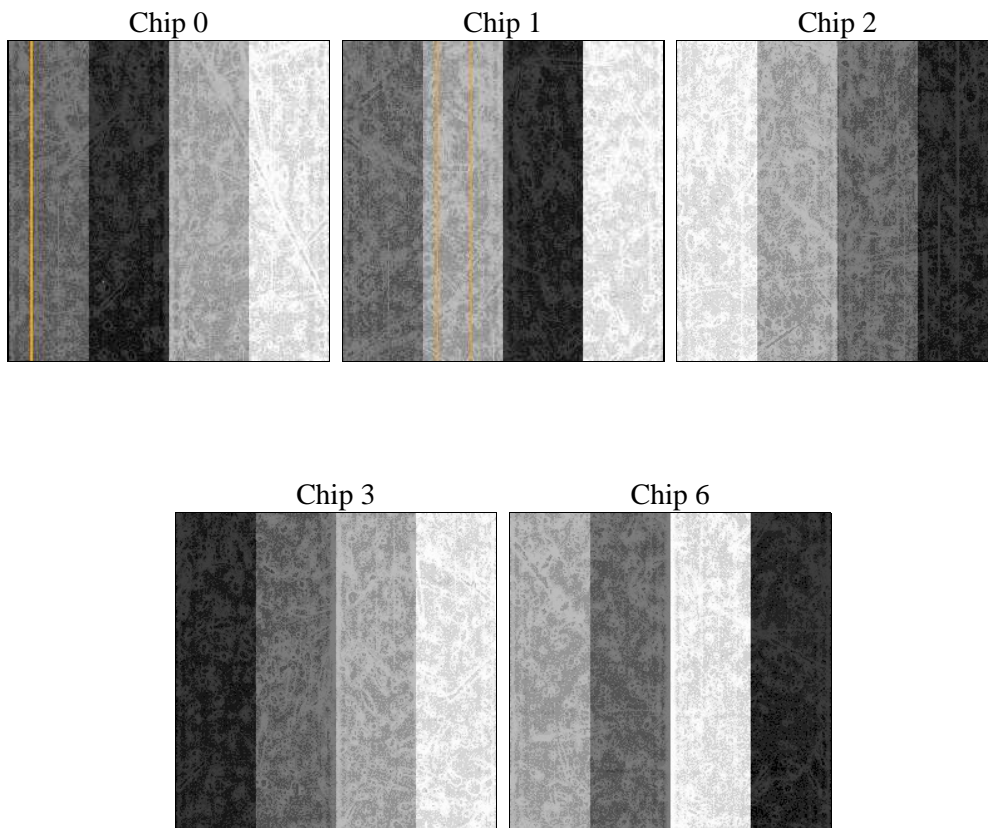
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35600.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	35680.483476698	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	35677.219306886	Sum of GTIs [s]
date	2014-11-28T18:55:36	Date and time of file creation	ontime1	35677.260396659	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	35680.442397177	Sum of GTIs [s]
			ontime3	35680.483476698	Sum of GTIs [s]
			ontime6	35683.460317492	Sum of GTIs [s]
			l1events	913236	Number of level 1 events

2.1.4 Events

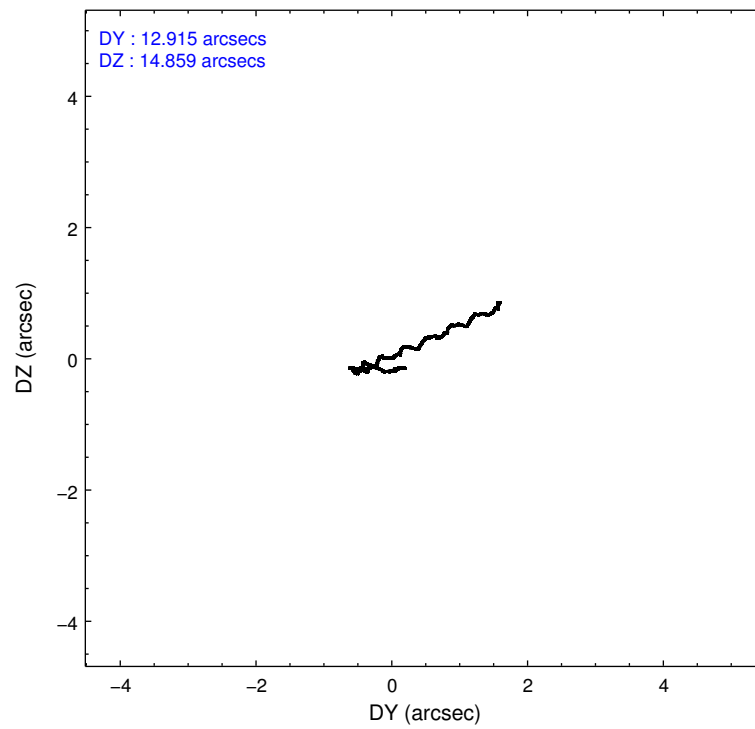
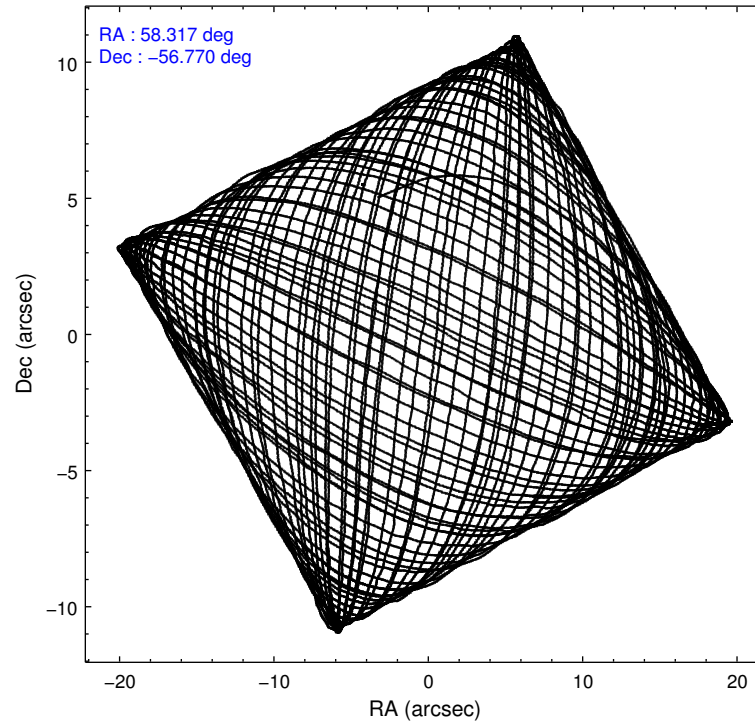
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	169839	180367	185170	189291	188569
rejected events	147873	156040	163761	167308	160363
rejected %	87%	86%	88%	88%	85%

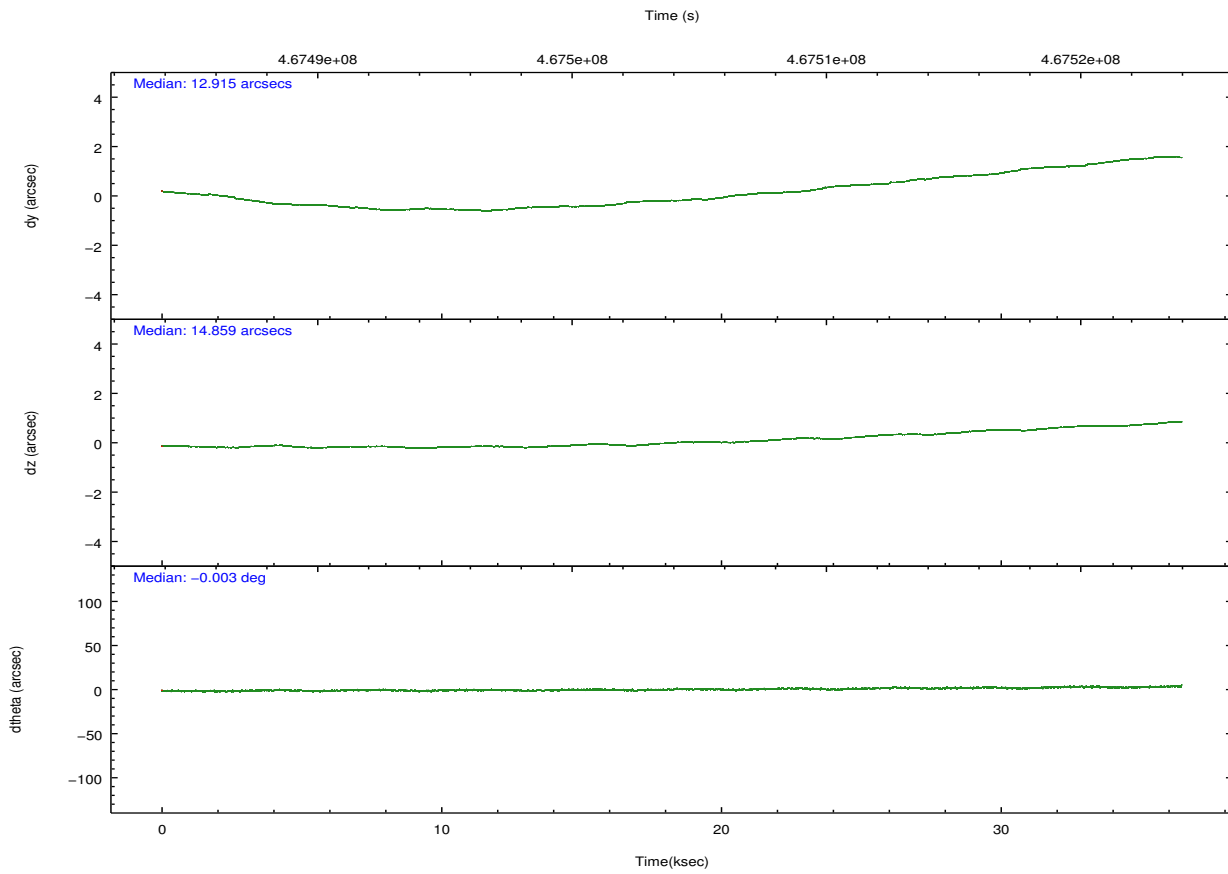
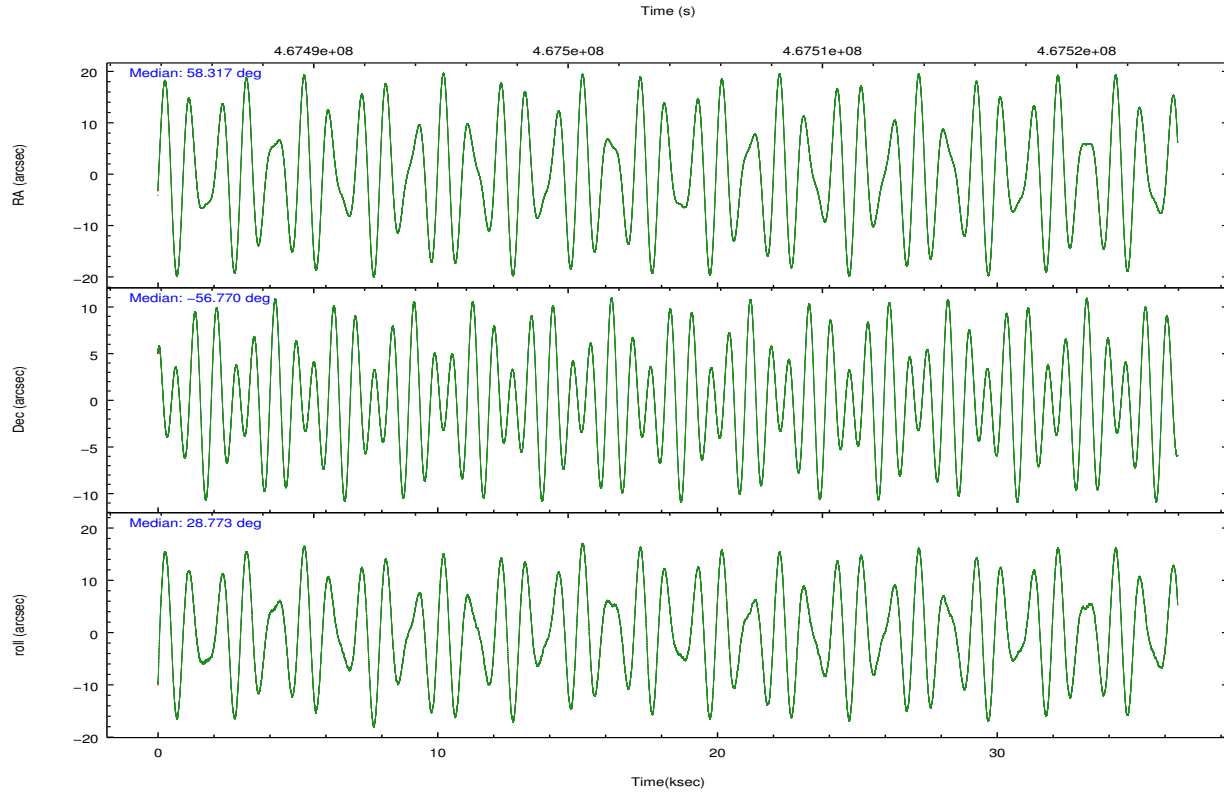
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	7584	8584	7608	8321	7823
	4%	4%	4%	4%	4%
grade 1 events	85	96	106	150	100
	0%	0%	0%	0%	0%
grade 2 events	5275	5829	5233	4784	10657
	3%	3%	2%	2%	5%
grade 3 events	2304	2424	2141	2143	2256
	1%	1%	1%	1%	1%
grade 4 events	2183	2318	2178	2236	2219
	1%	1%	1%	1%	1%
grade 5 events	8575	9137	8147	9688	9141
	5%	5%	4%	5%	4%
grade 6 events	4623	5179	4251	4499	5258
	2%	2%	2%	2%	2%
grade 7 events	139210	146800	155506	157470	151115
	81%	81%	83%	83%	80%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	58.291309	58.31720361922802	CCD I2 on	Y	Y
[deg] Pointing Dec	-56.793582	-56.76999793301442	CCD I3 on	Y	Y
[deg] Pointing Roll	28.549548	28.77989463409002	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	-225.842463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	467486548.184000	467484953.97384	CCD S5 on	N	N
Observation start date	2012-10-24T17:21:21	2012-10-24T16:55:53	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	467522148.184000	467523110.11339	On-chip summing requested	N	N
Observation end date	2012-10-25T03:14:41	2012-10-25T03:31:50	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





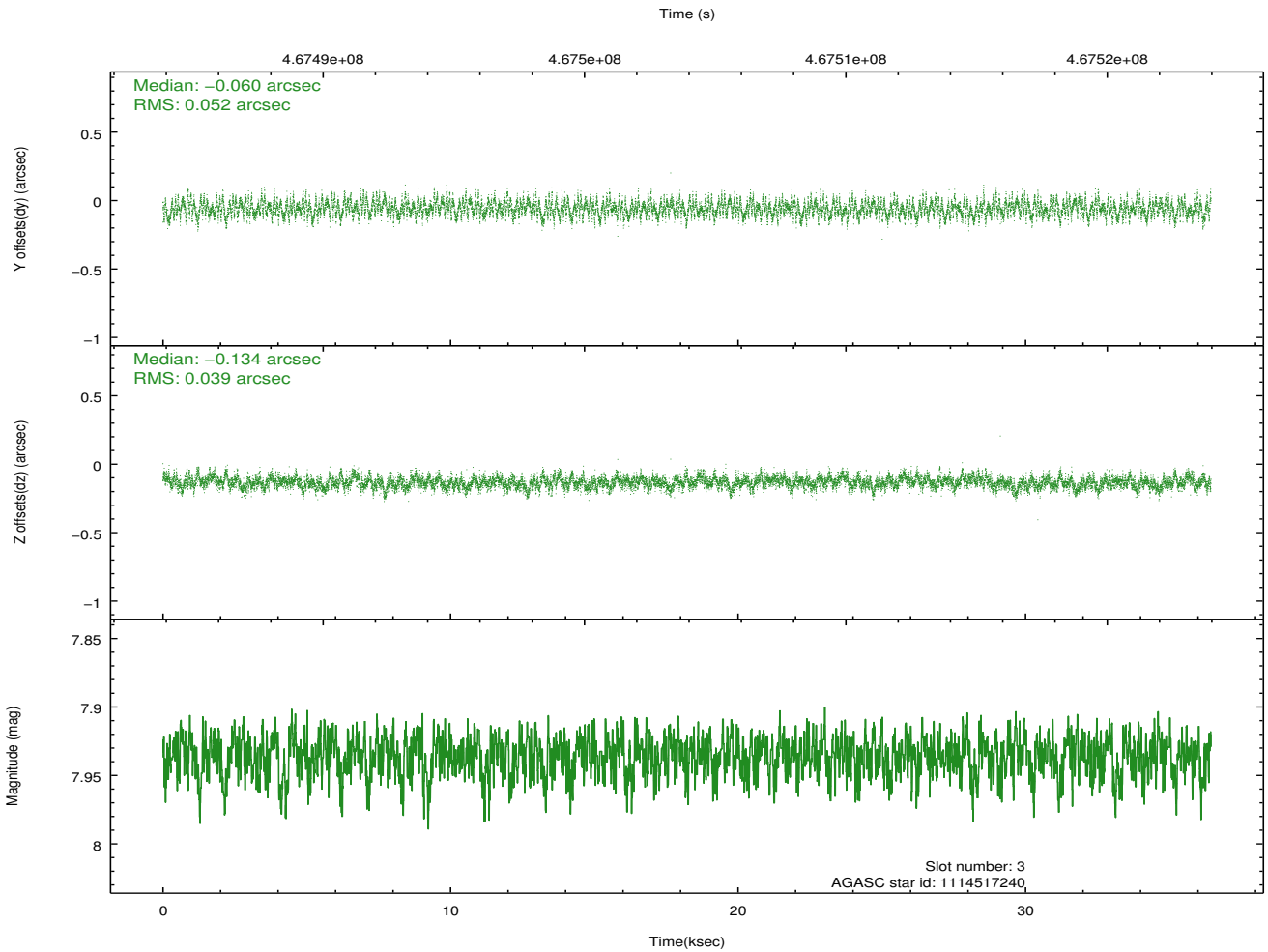
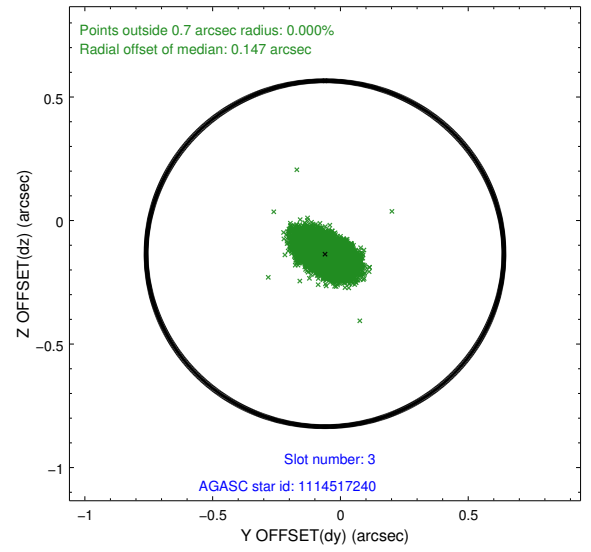
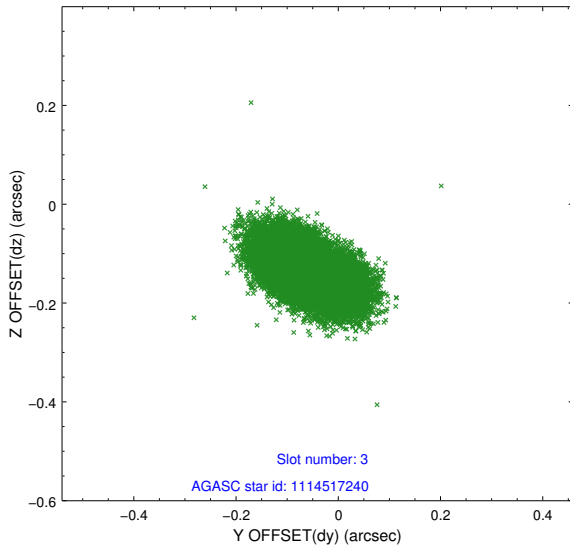
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.14	8891	0.128	-0.113	0.017	0.032	0.000000	0.000000	926.44	-997.74
1	FID		ACIS-I-5	7.12	8892	-0.297	0.098	0.024	0.044	0.000000	0.000000	-1822.13	899.86
2	FID		ACIS-I-6	7.14	8891	0.079	0.086	0.014	0.020	0.000000	0.000000	391.84	1544.44
3	GUIDE	used	1114517240	7.94	17777	-0.060	-0.134	0.068	0.115	57.034888	-56.464897	-1640.58	2213.25
4	GUIDE	used	1114641472	8.29	17780	0.218	0.056	0.065	0.107	58.453384	-57.084443	-221.12	-1071.10
5	GUIDE	used	1114643392	8.22	17778	0.020	-0.001	0.099	0.156	59.575186	-56.759025	2273.55	-1122.23
6	GUIDE	used	1114646624	7.42	17781	-0.108	-0.238	0.069	0.109	57.885359	-56.293975	145.93	1965.44
7	GUIDE	used	1114512720	7.52	17778	-0.076	0.307	0.066	0.100	57.514099	-57.353811	-2293.68	-1057.58

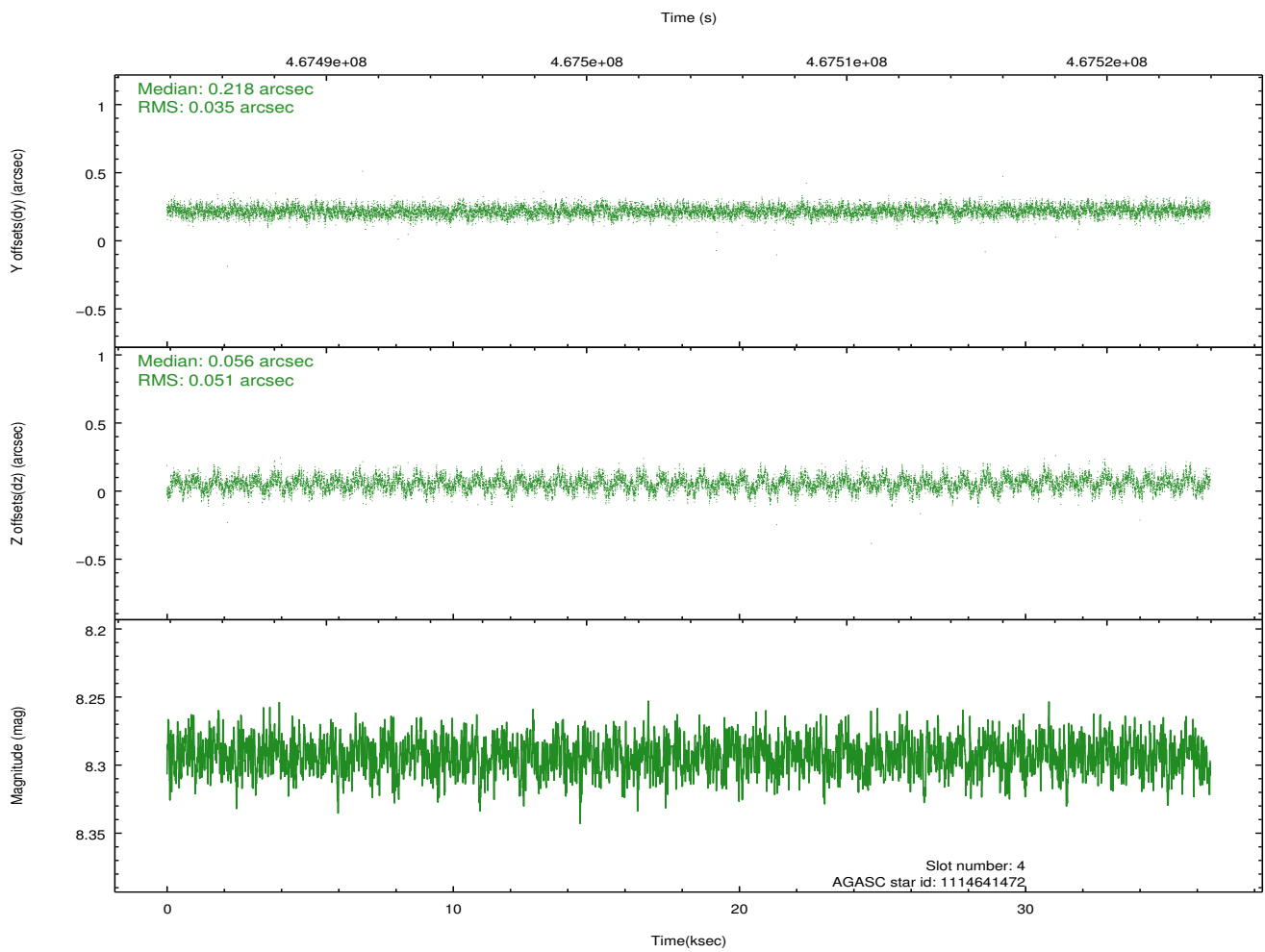
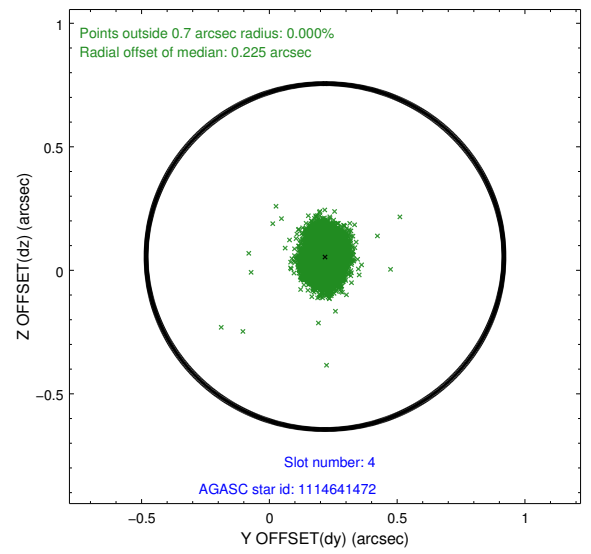
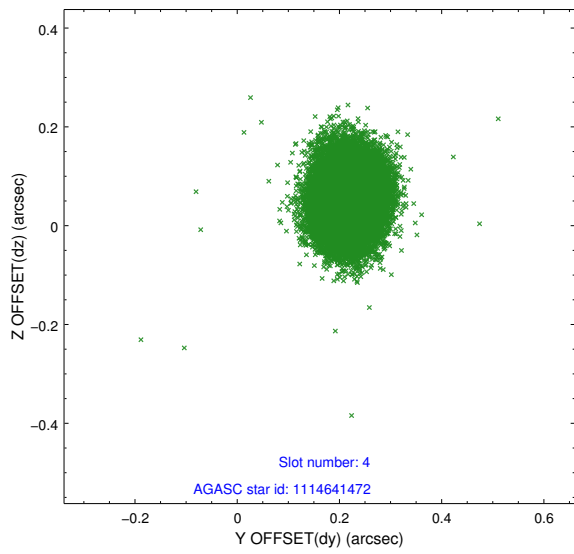
∞

2.4 Star Slots

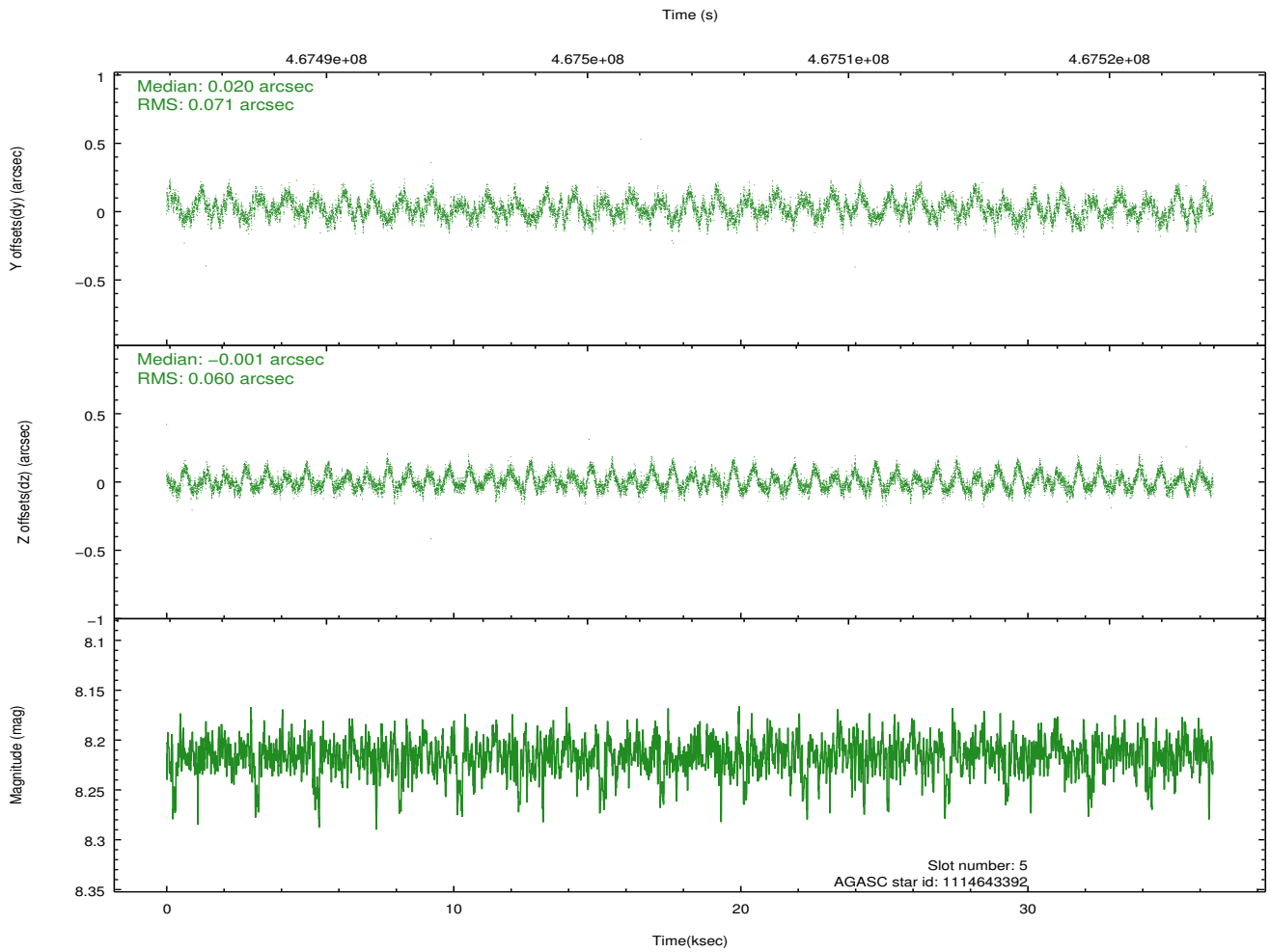
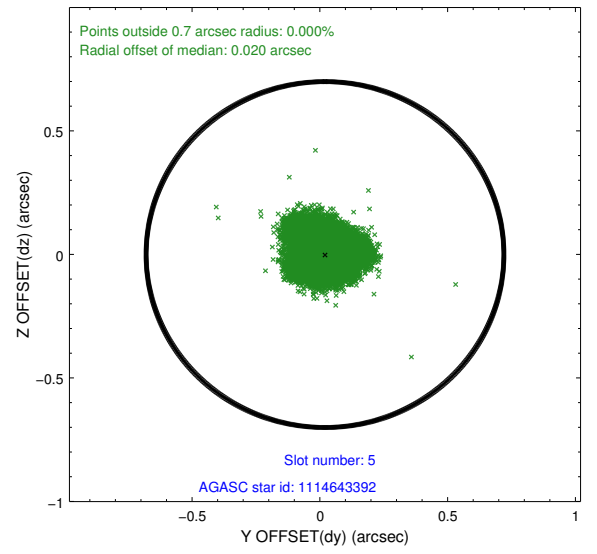
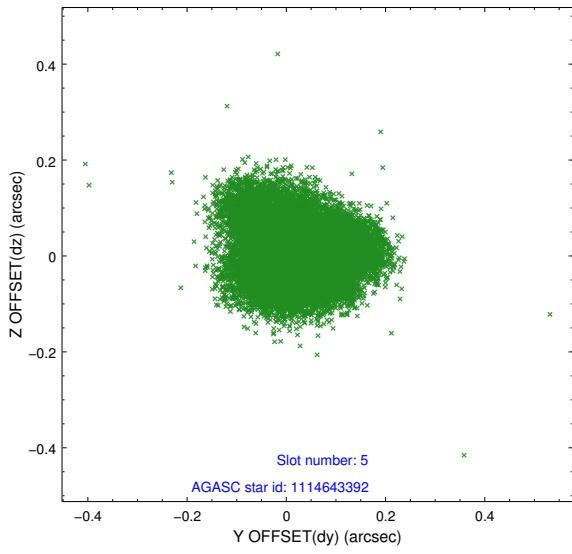
2.4.1 Slot 3



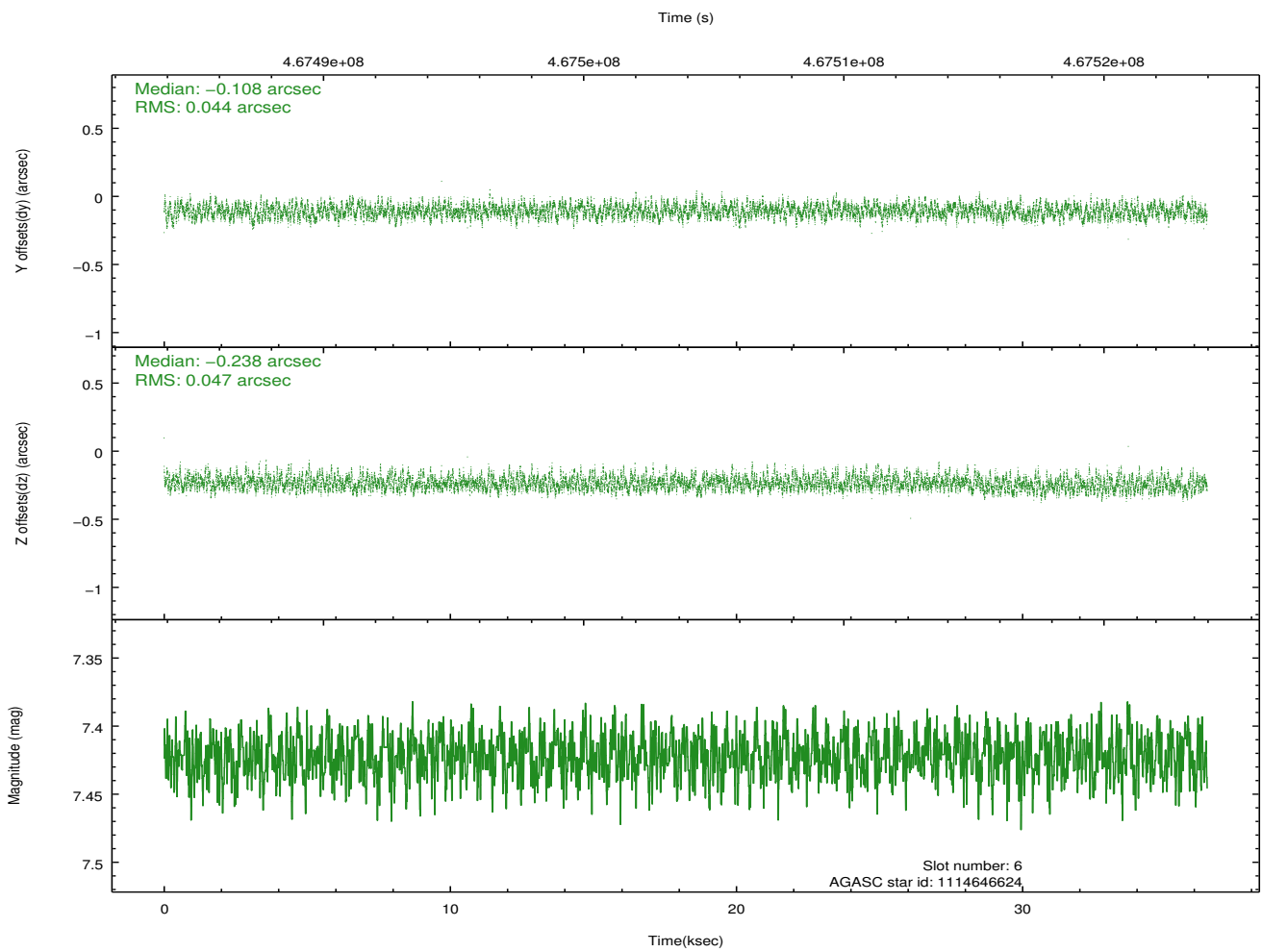
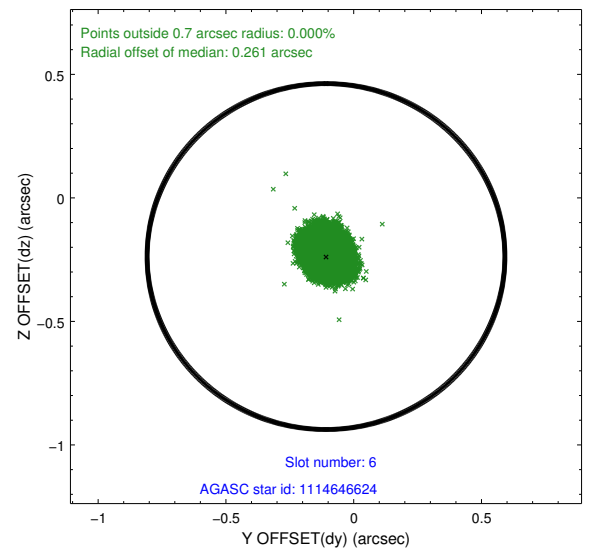
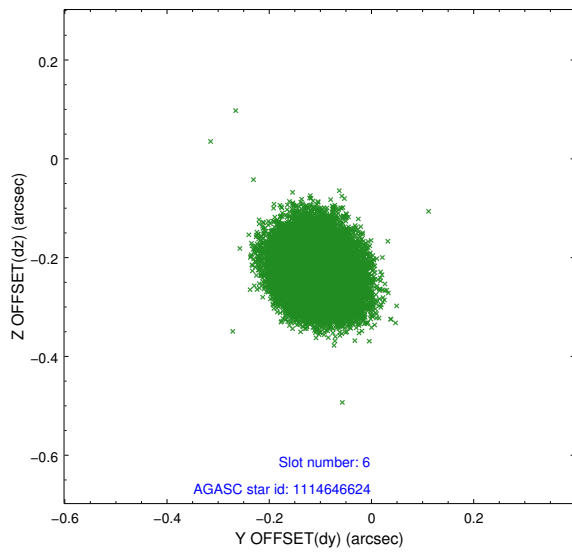
2.4.2 Slot 4



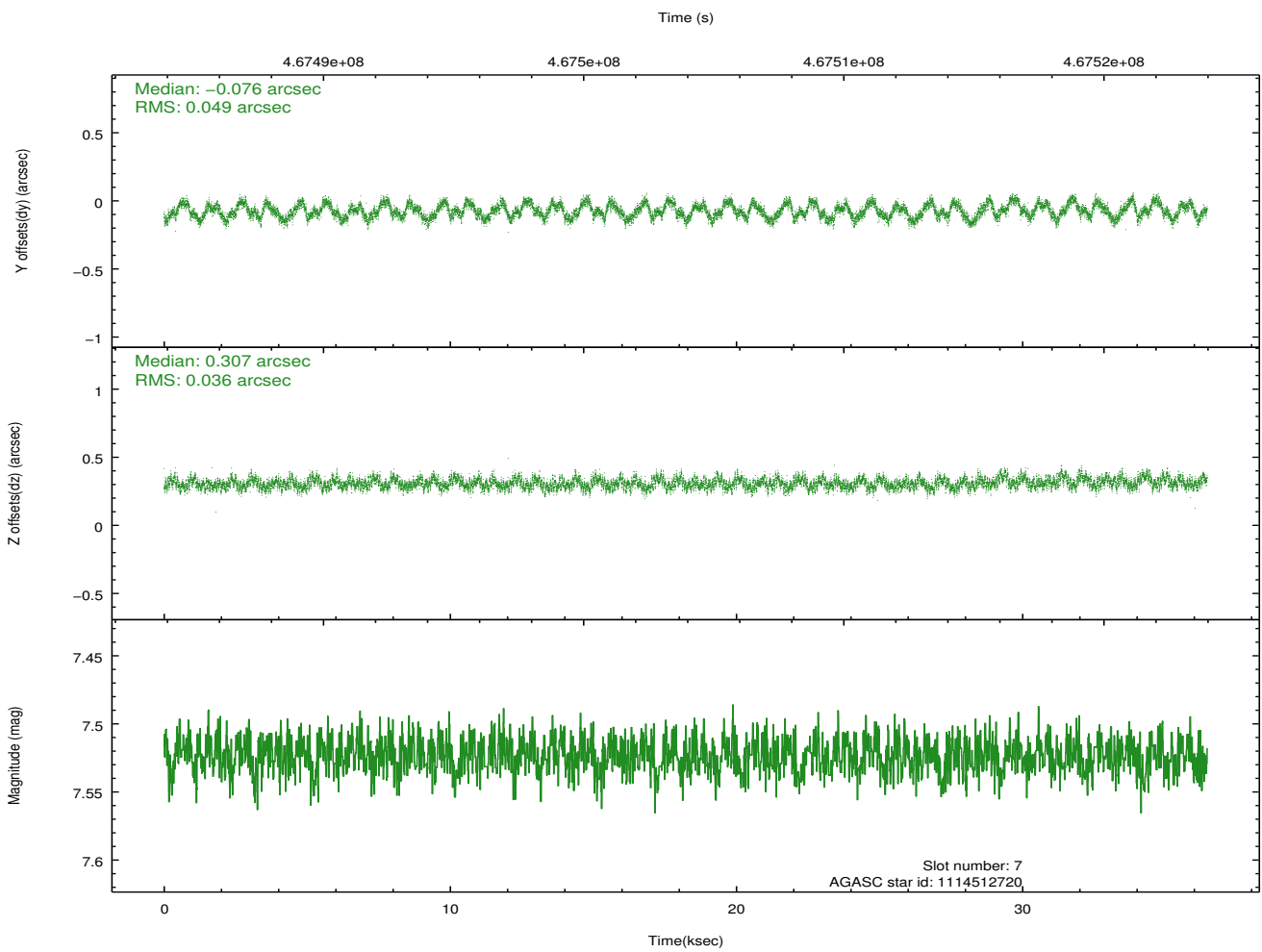
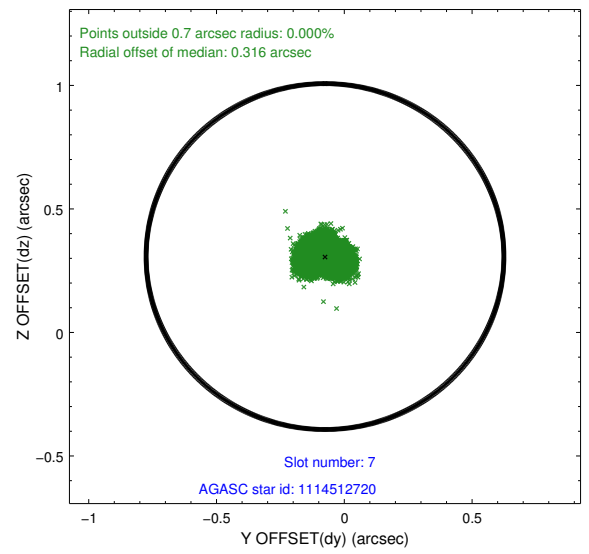
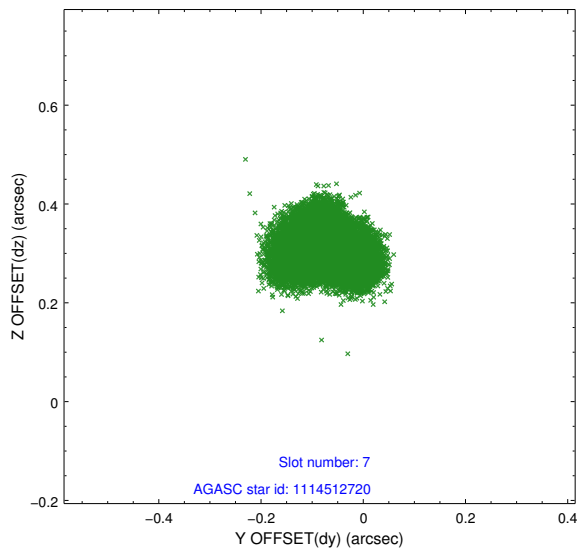
2.4.3 Slot 5



2.4.4 Slot 6

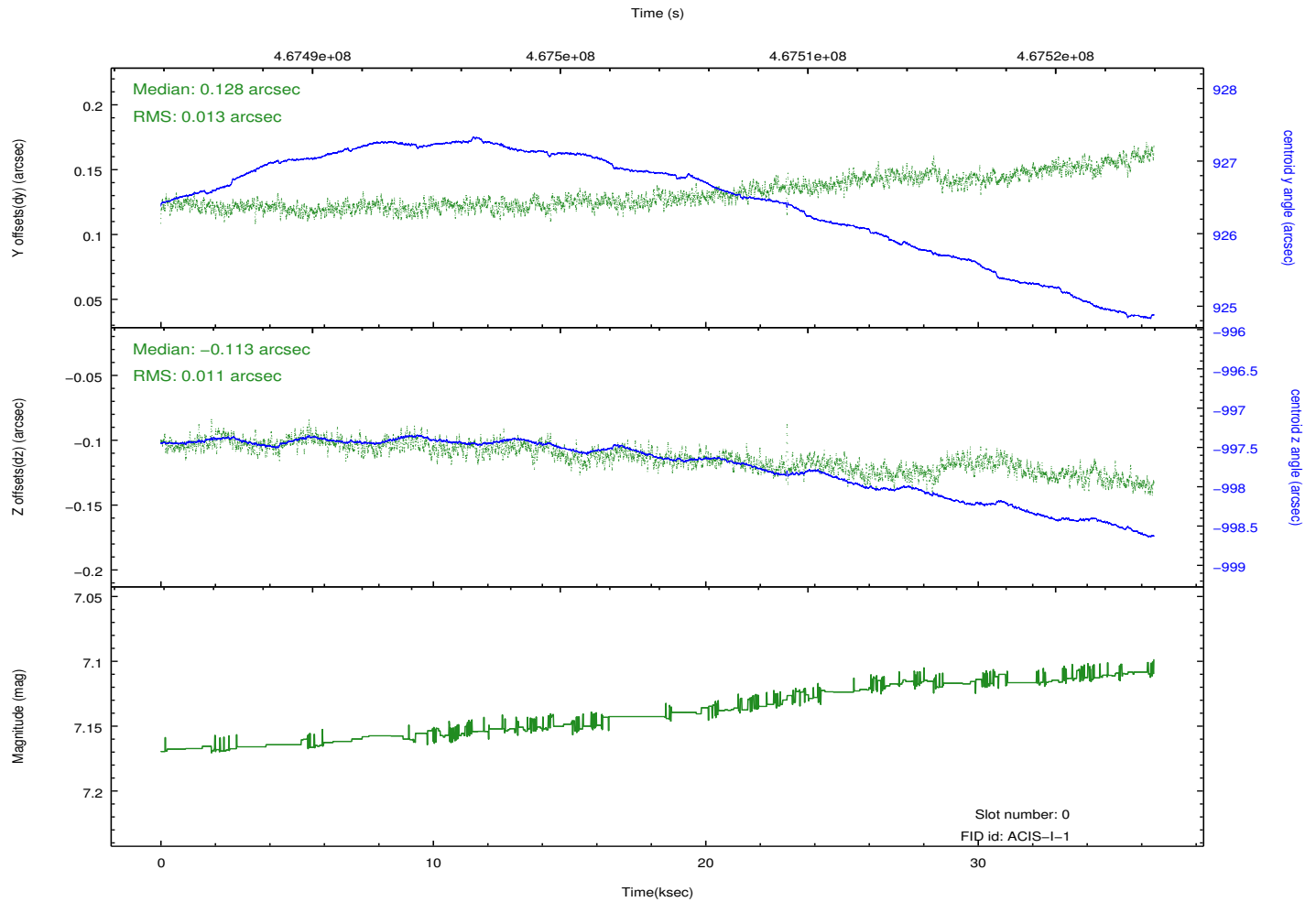
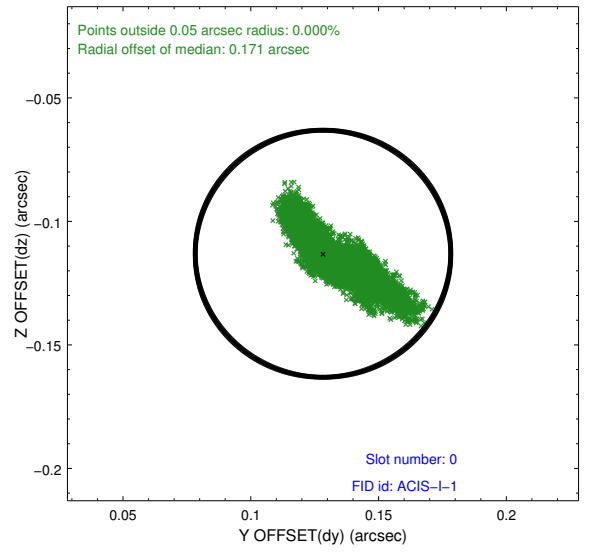
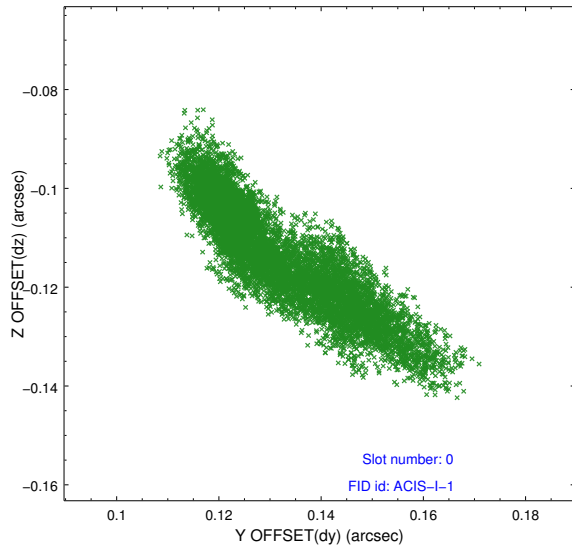


2.4.5 Slot 7

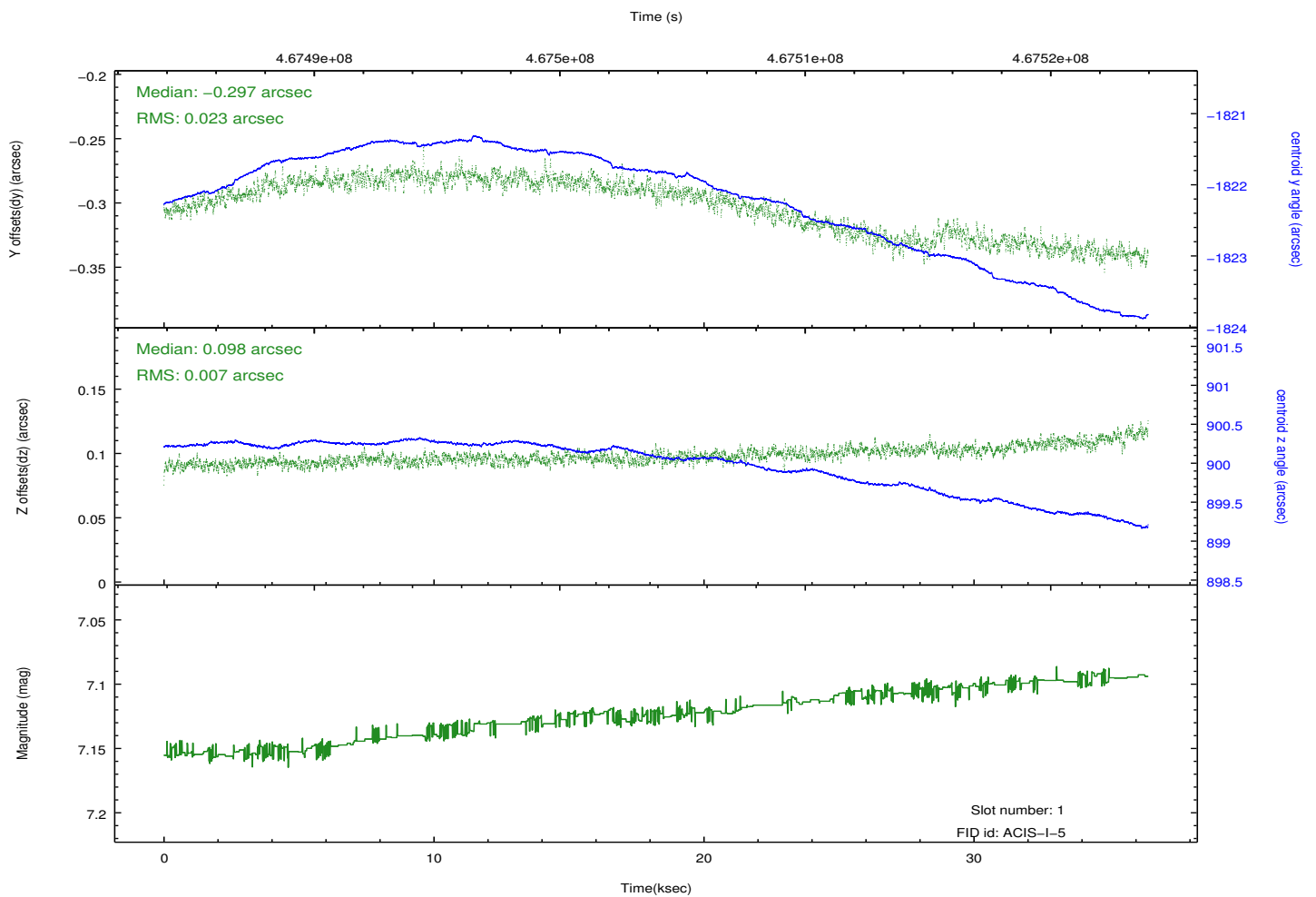
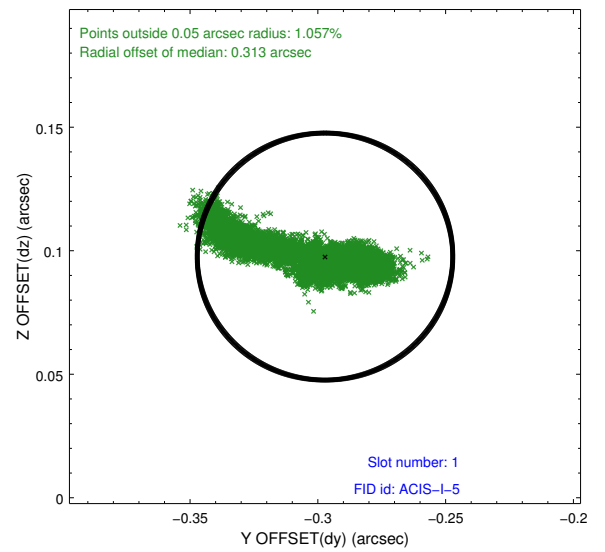
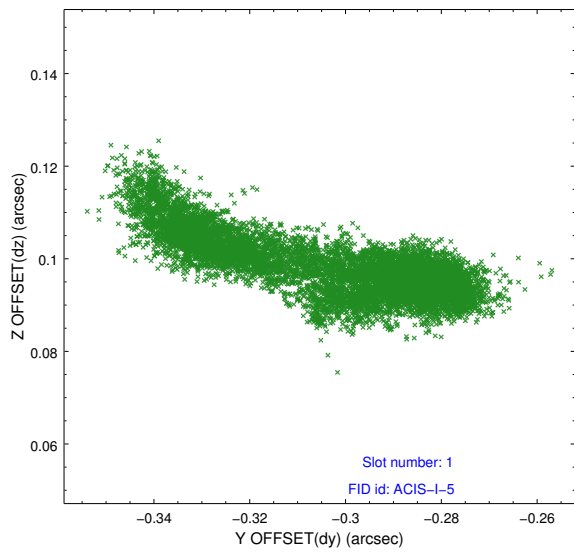


2.5 FID Slots

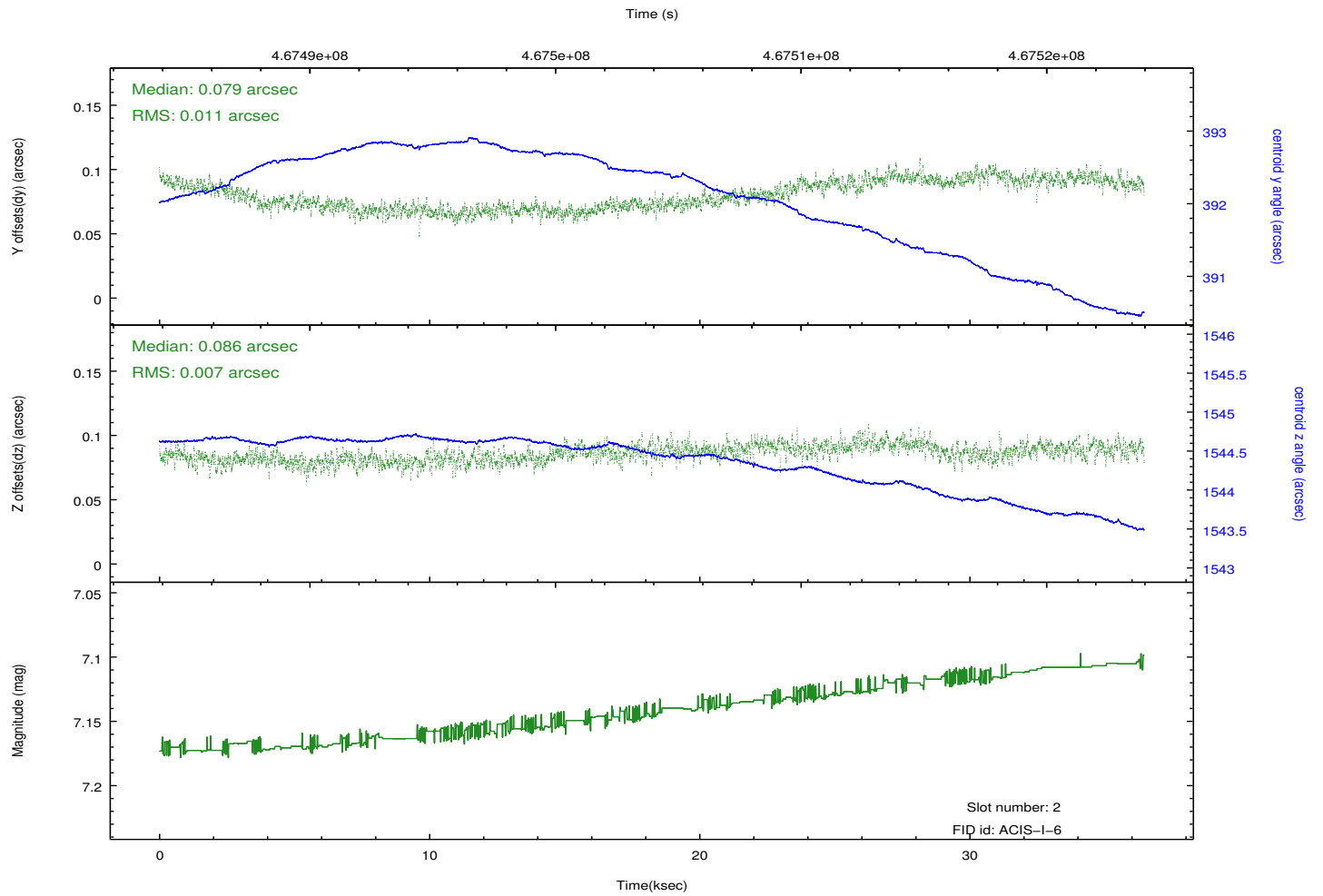
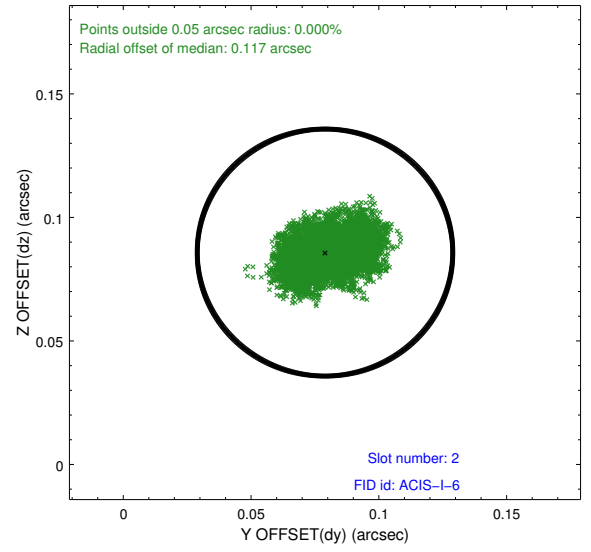
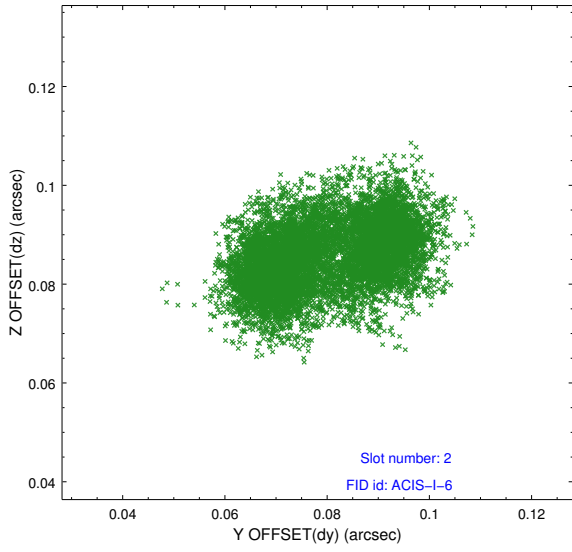
2.5.1 Slot 0



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	35.680483476698

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.