

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 13464 - L2 Version 2
Chandra X-Ray Center

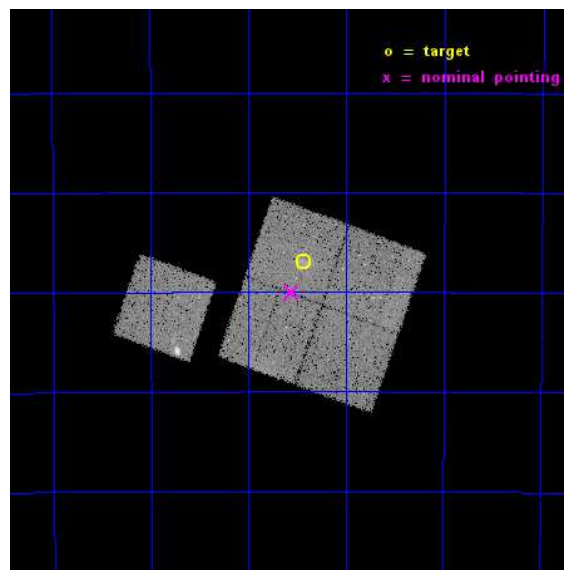
L2 Processing Date : Nov 30 2014

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1 Front

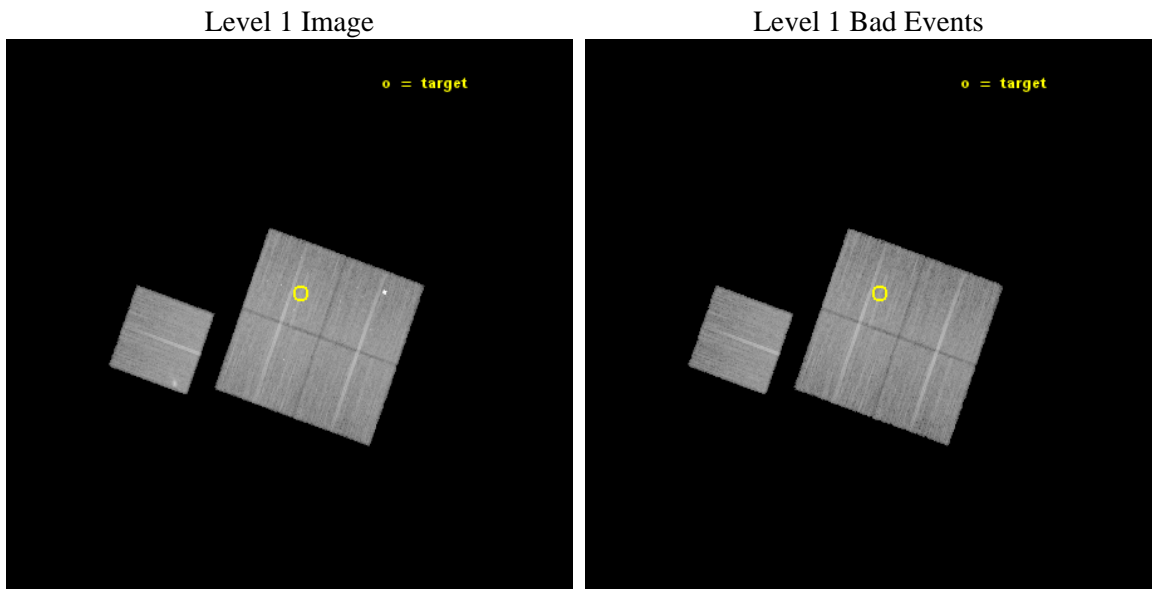
seq_num	801105	Sequence number
obs_id	13464	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg ² from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ0212-4656	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	33.11	Observer's specified target RA [deg]
dec_targ	-46.950194	Observer's specified target Dec [deg]
ra_nom	33.139881095426	Nominal RA [deg]
dec_nom	-47.000668441943	Nominal Dec [deg]
roll_nom	289.65023892151	Nominal Roll [deg]
revision	2	Processing version of data
ontime	28377.359247923	Sum of GTIs [s]
livetime	28006.588158241	Livetime [s]
ontime0	28377.305342495	Sum of GTIs [s]
ontime1	28377.34636265	Sum of GTIs [s]
ontime2	28380.500218272	Sum of GTIs [s]
ontime3	28377.359247923	Sum of GTIs [s]
ontime6	28377.264282525	Sum of GTIs [s]
l2events	82770	Number of level 2 events



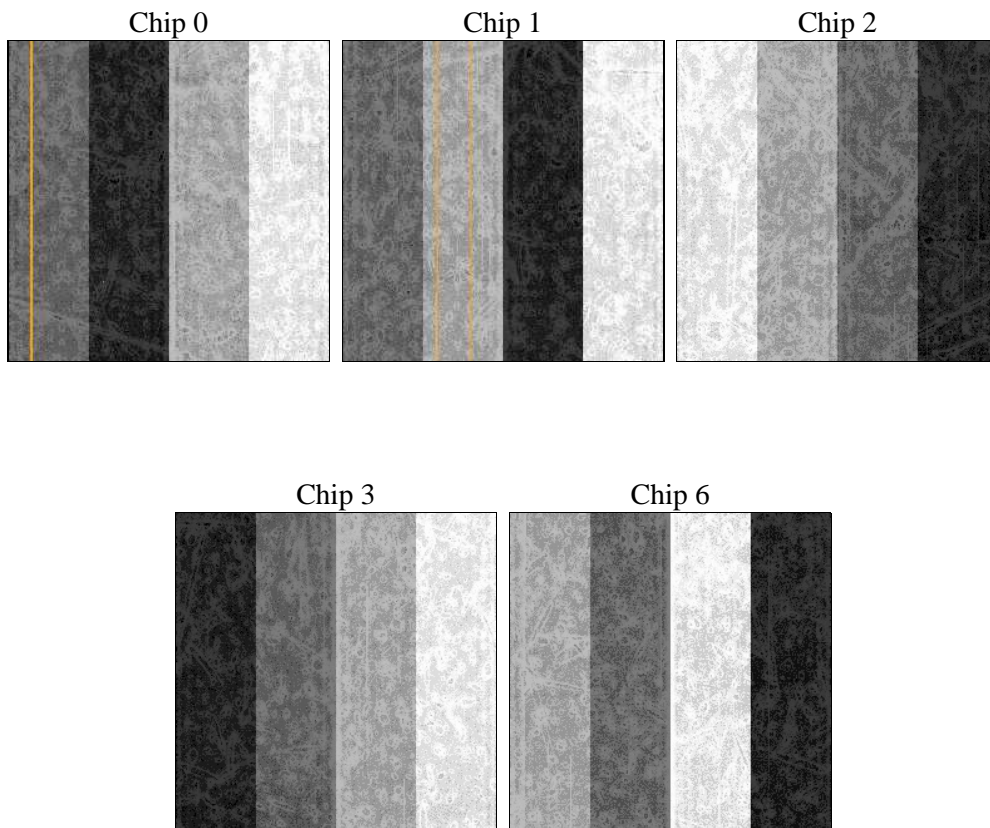
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	28300.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	28377.359247923	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	28377.305342495	Sum of GTIs [s]
date	2014-12-01T07:06:39	Date and time of file creation	ontime1	28377.34636265	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	28380.500218272	Sum of GTIs [s]
			ontime3	28377.359247923	Sum of GTIs [s]
			ontime6	28377.264282525	Sum of GTIs [s]
			l1events	763516	Number of level 1 events

2.1.4 Events

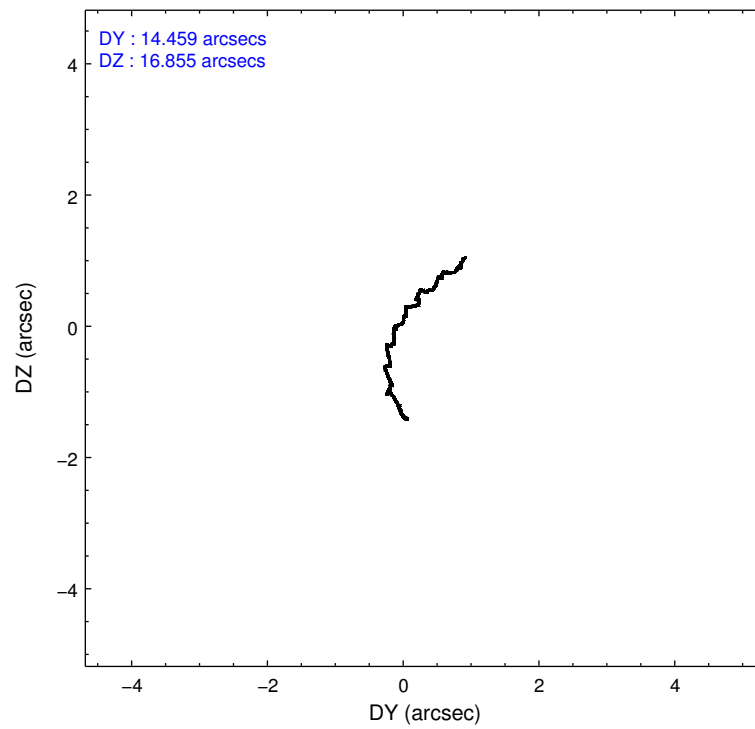
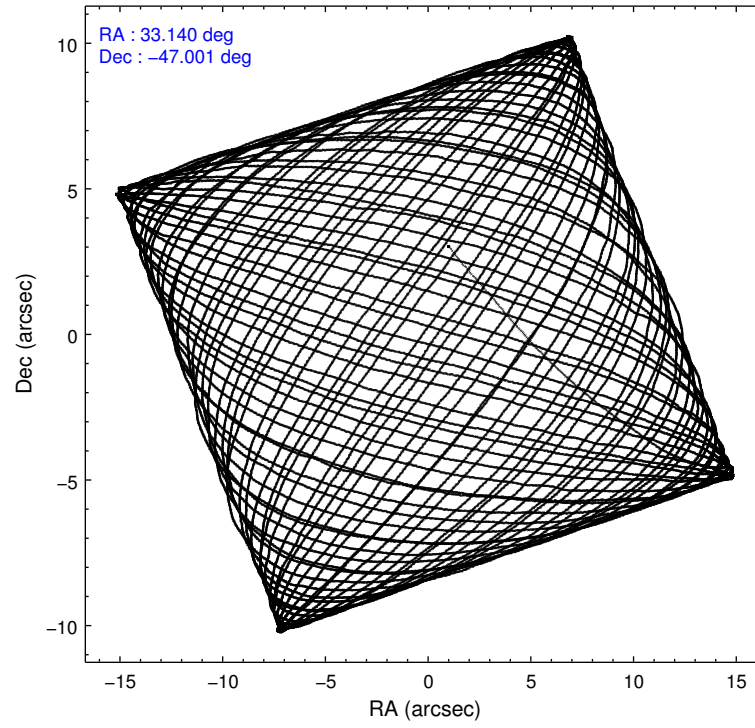
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	138984	153218	158928	156044	156342
rejected events	121129	124150	139560	136959	135816
rejected %	87%	81%	87%	87%	86%

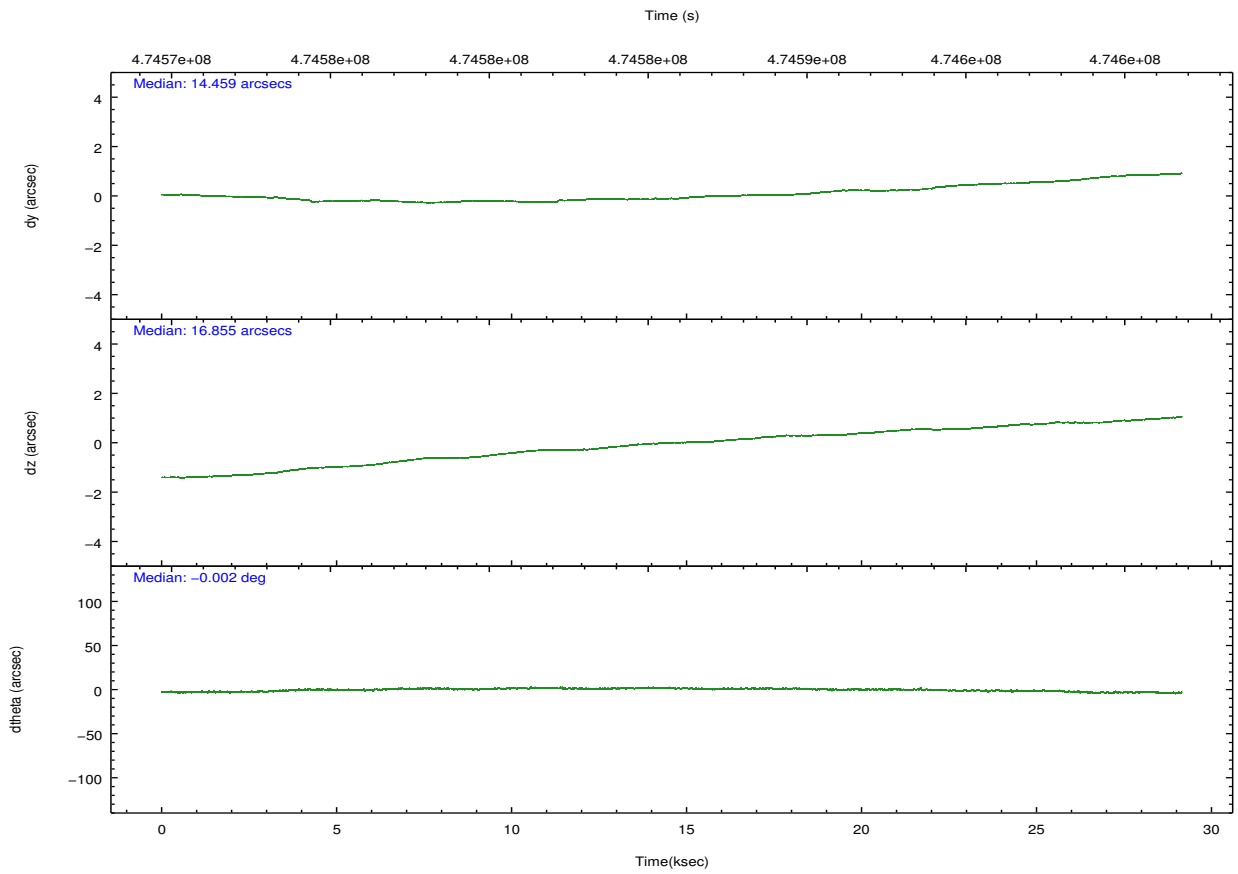
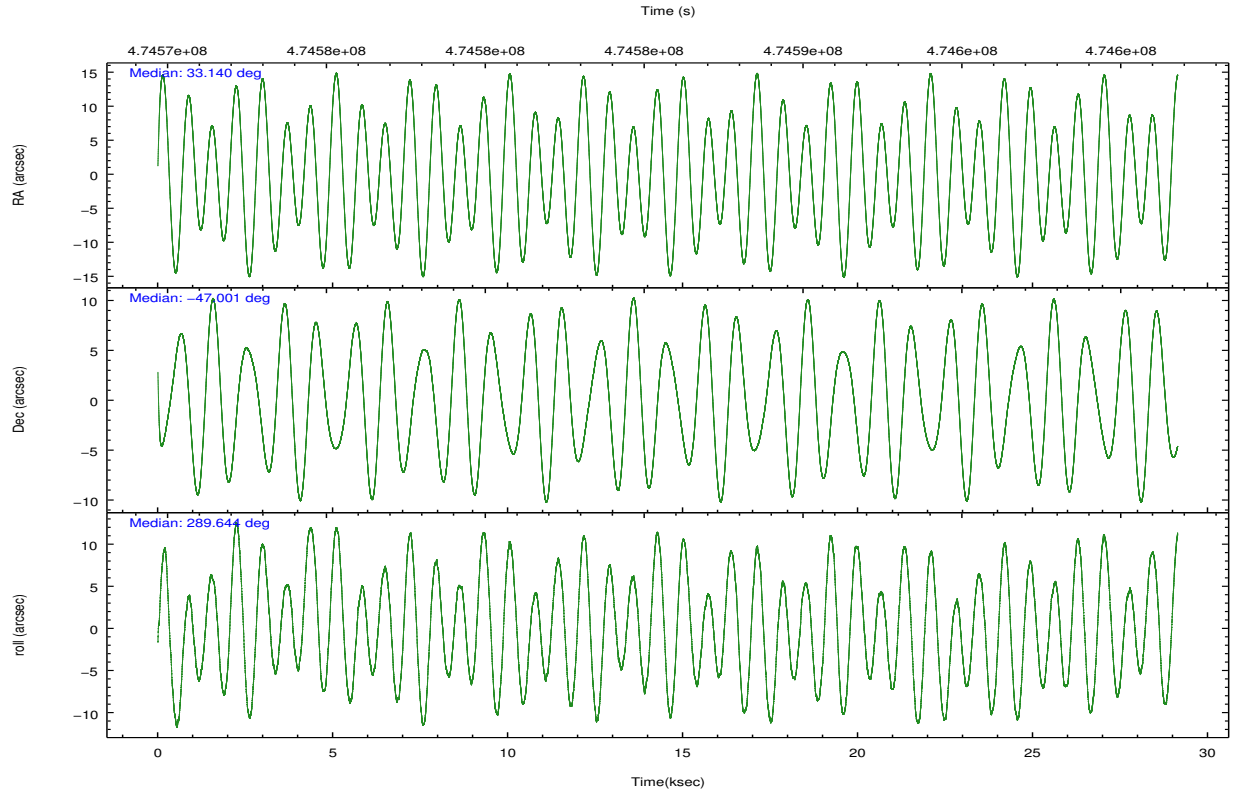
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	6183	16036	7942	7568	7881
	4%	10%	4%	4%	5%
grade 1 events	74	101	88	87	84
	0%	0%	0%	0%	0%
grade 2 events	4437	4883	4310	4068	4443
	3%	3%	2%	2%	2%
grade 3 events	1911	1954	1899	1888	1938
	1%	1%	1%	1%	1%
grade 4 events	1738	1933	1808	1857	1951
	1%	1%	1%	1%	1%
grade 5 events	6972	7420	6582	7830	7479
	5%	4%	4%	5%	4%
grade 6 events	3587	4267	3414	3707	4319
	2%	2%	2%	2%	2%
grade 7 events	114082	116624	132885	129039	128247
	82%	76%	83%	82%	82%

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	33.109043	33.13988109542613	CCD I2 on	Y	Y
[deg] Pointing Dec	-46.982935	-47.00066844194273	CCD I3 on	Y	Y
[deg] Pointing Roll	289.419006	289.6502389215142	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)	474572017.184000	474570245.33016	CCD S5 on	N	N
Observation start date	2013-01-14T17:32:30	2013-01-14T17:04:05	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	474600317.184000	474600826.20681	On-chip summing requested	N	N
Observation end date	2013-01-15T01:24:10	2013-01-15T01:33:46	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





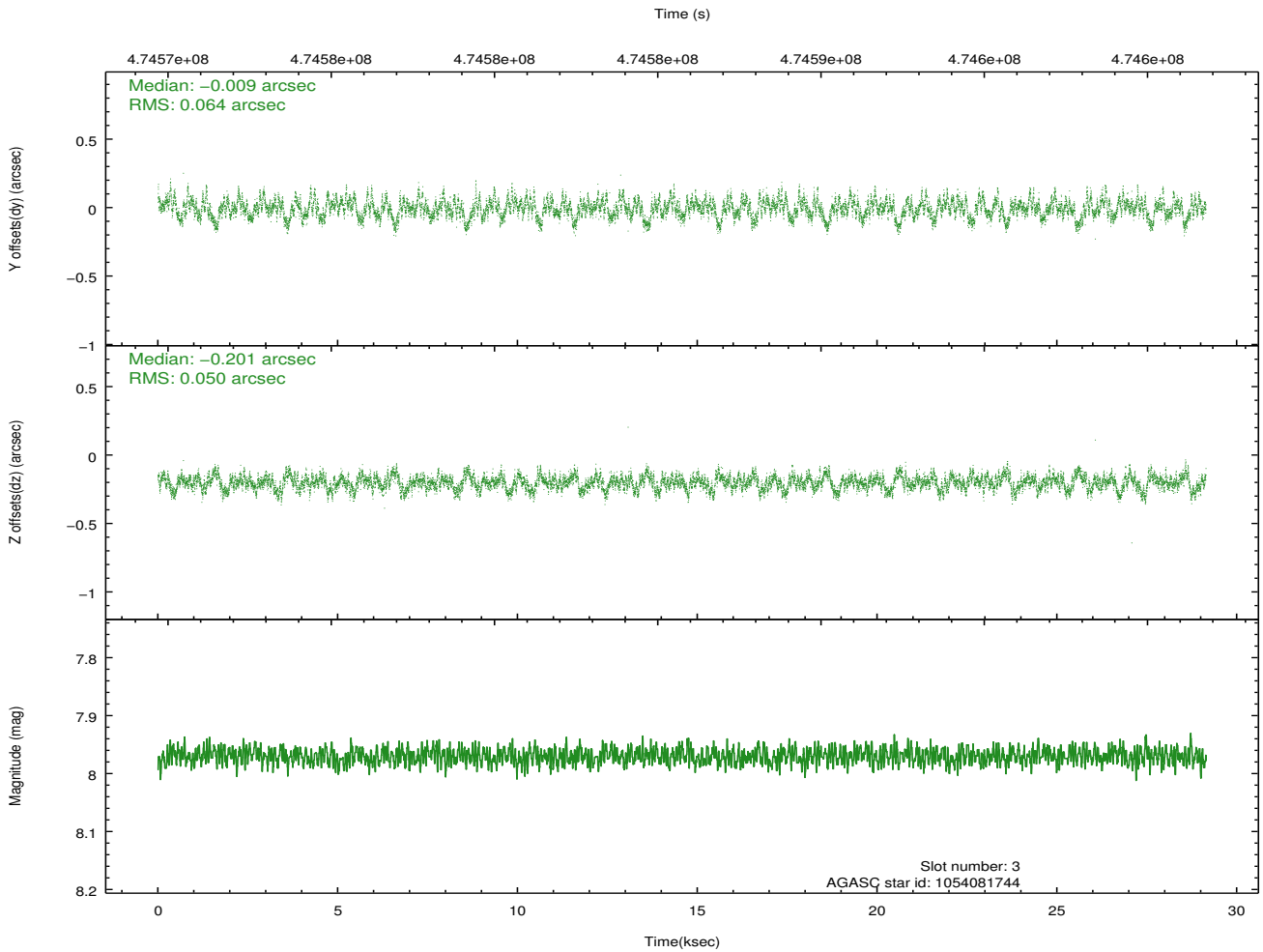
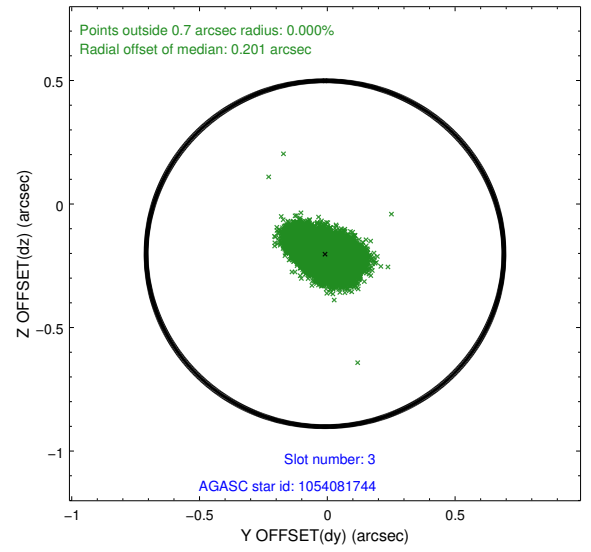
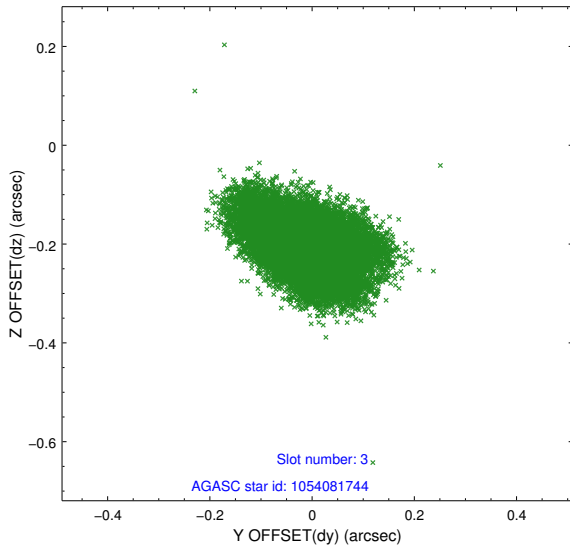
Slot Statistics

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	7108	0.167	-0.131	0.017	0.044	0.000000	0.000000	924.93	-999.59
1	FID		ACIS-I-5	7.13	7108	-0.331	0.128	0.013	0.025	0.000000	0.000000	-1823.64	898.07
2	FID		ACIS-I-6	7.14	7108	0.071	0.073	0.025	0.036	0.000000	0.000000	390.28	1542.63
3	GUIDE	used	1054081744	7.97	14213	-0.009	-0.201	0.086	0.144	33.086171	-46.816388	-583.25	145.42
4	GUIDE	used	1054081816	8.43	14209	0.195	0.024	0.080	0.146	32.670874	-47.020973	-224.94	-1060.69
5	GUIDE	used	1054087672	8.72	14110	-0.090	0.160	0.084	0.133	32.576705	-46.441119	-2274.21	-598.57
6	GUIDE	used	1054083896	9.43	14184	-0.024	0.078	0.136	0.210	32.234654	-47.291397	349.87	-2386.30
7	GUIDE	used	1054998864	9.74	14196	-0.079	-0.059	0.148	0.234	34.182655	-47.054772	1136.15	2391.76

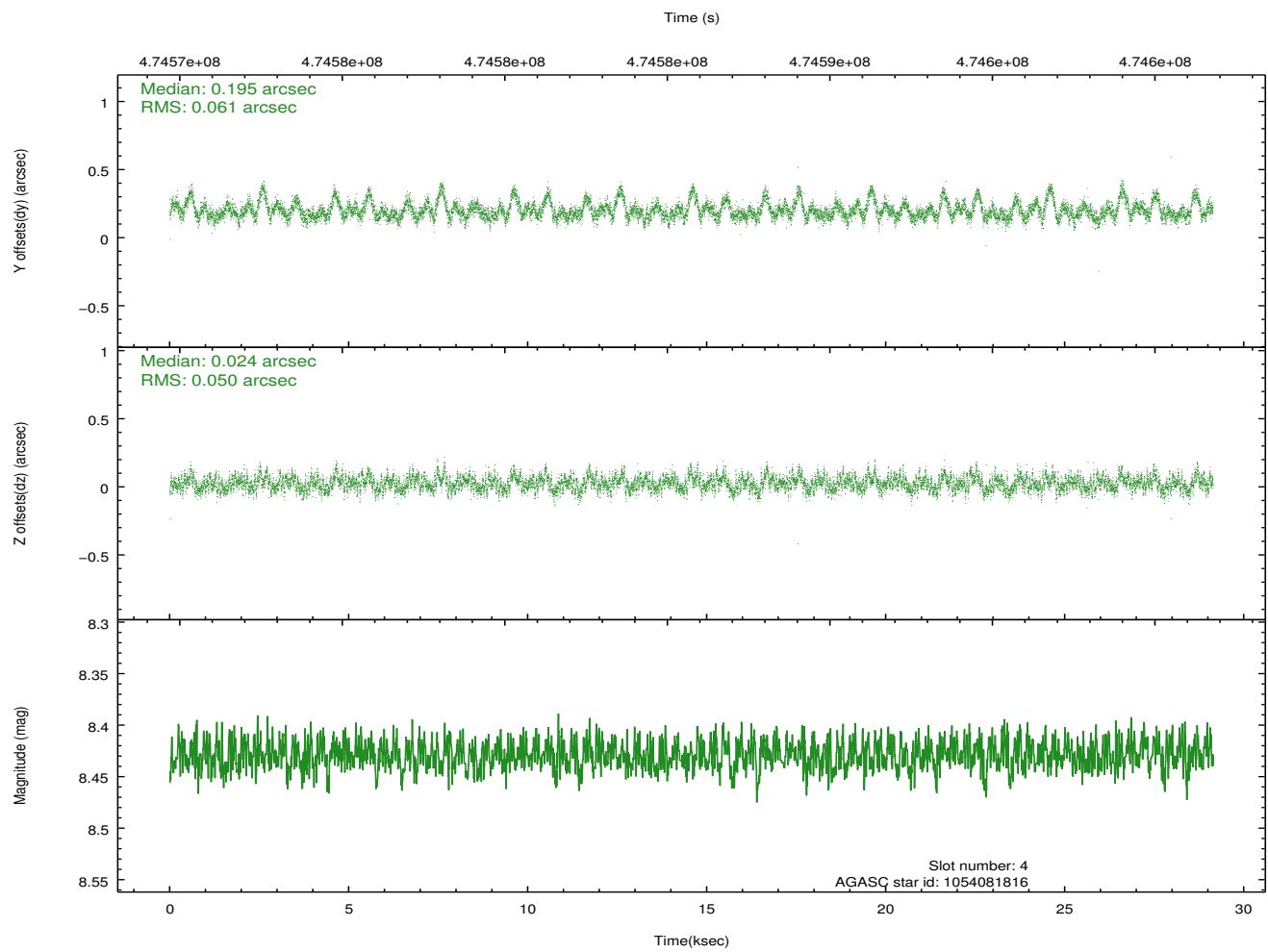
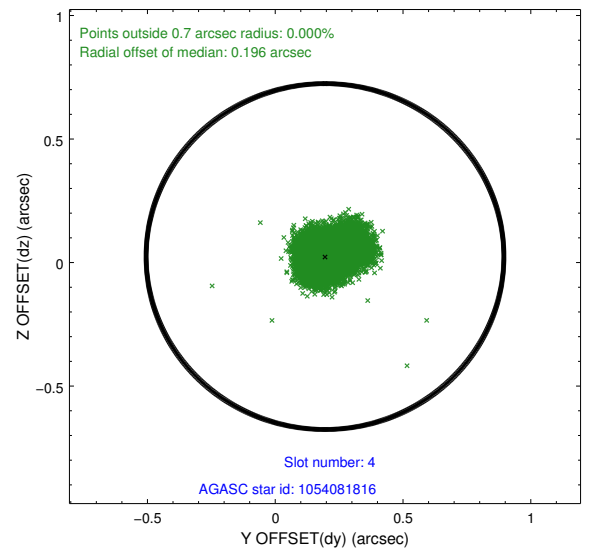
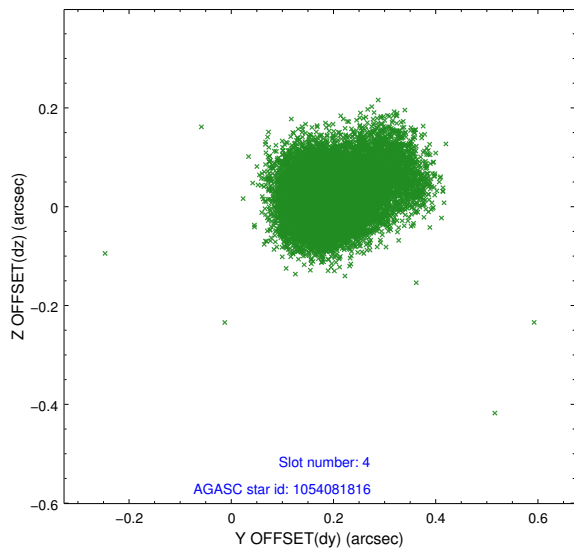
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2.4 Star Slots

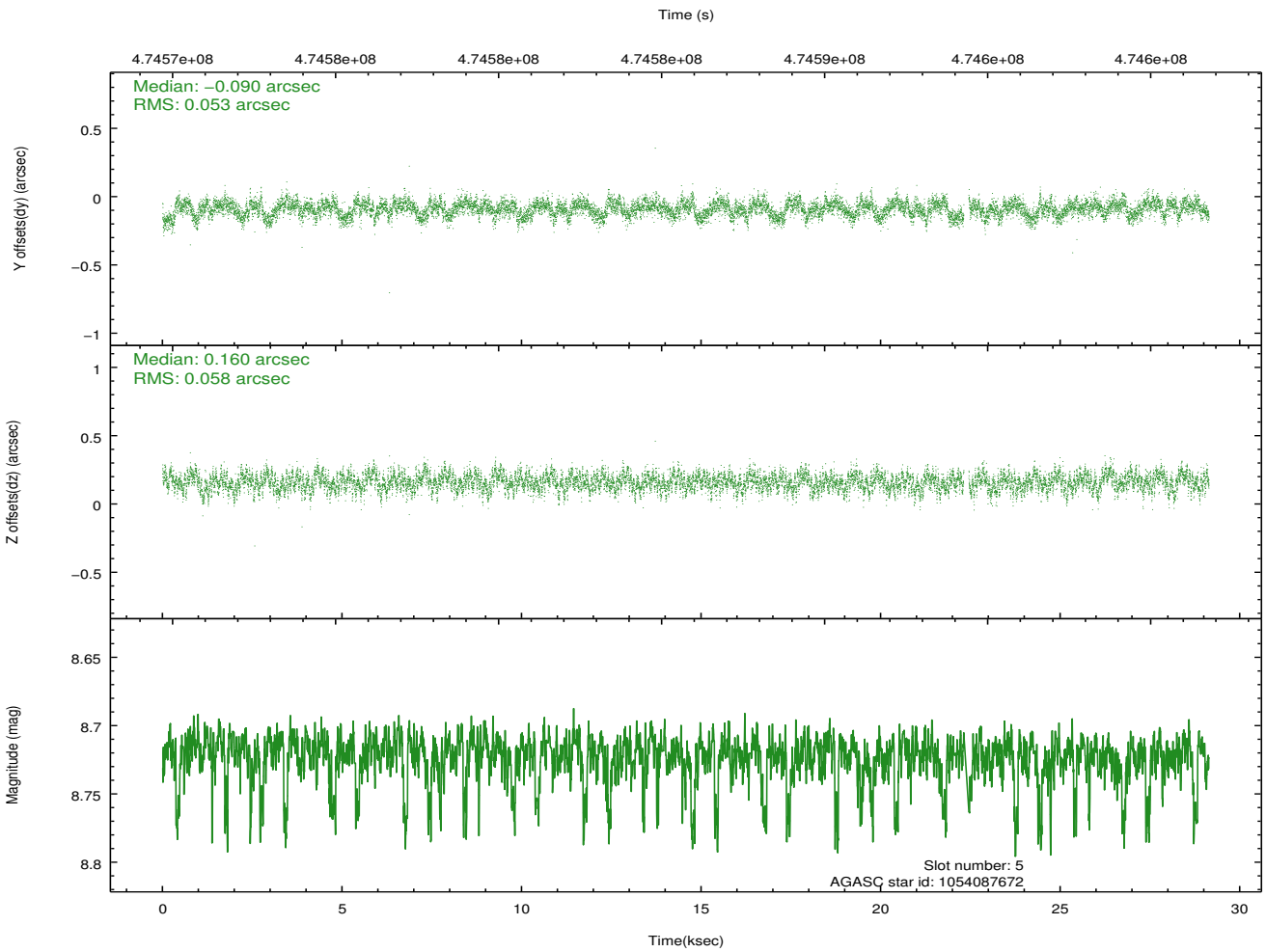
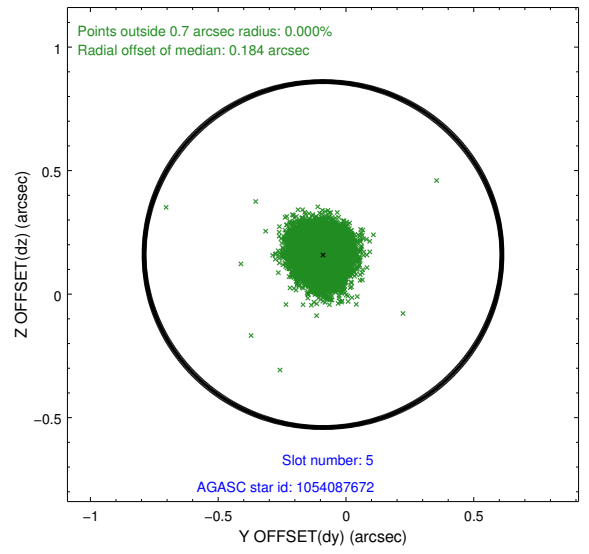
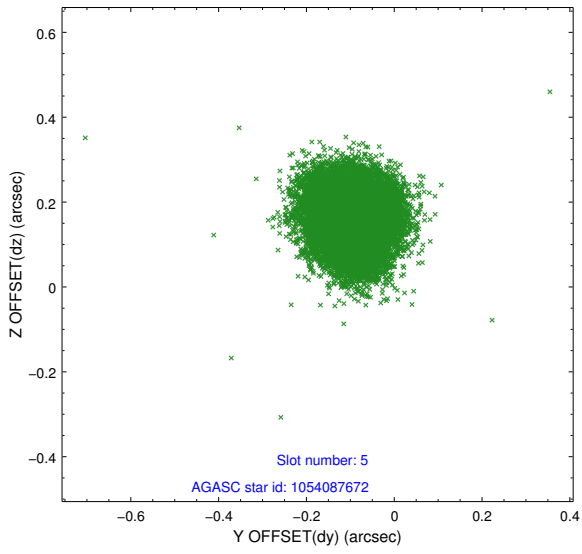
2.4.1 Slot 3



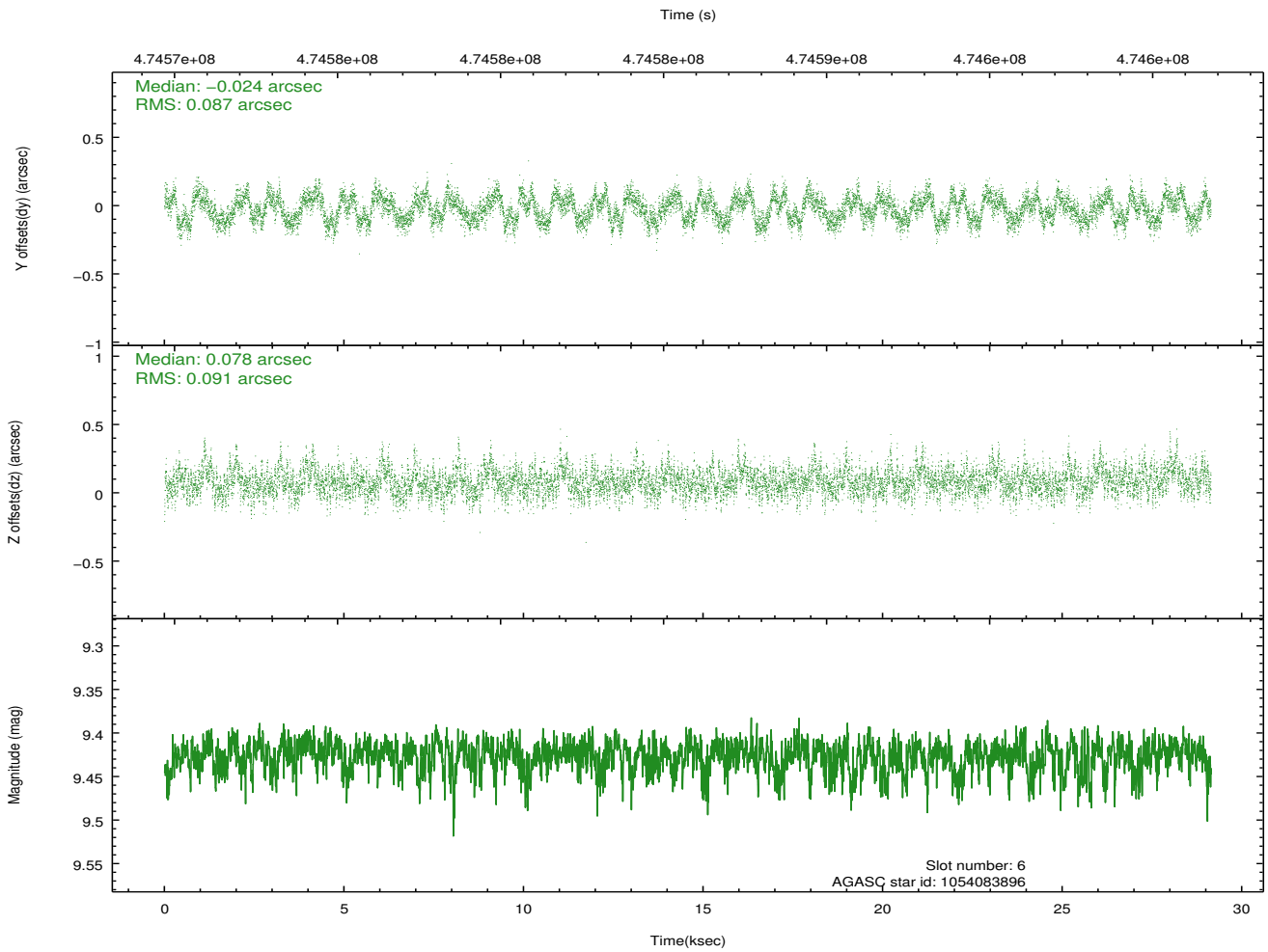
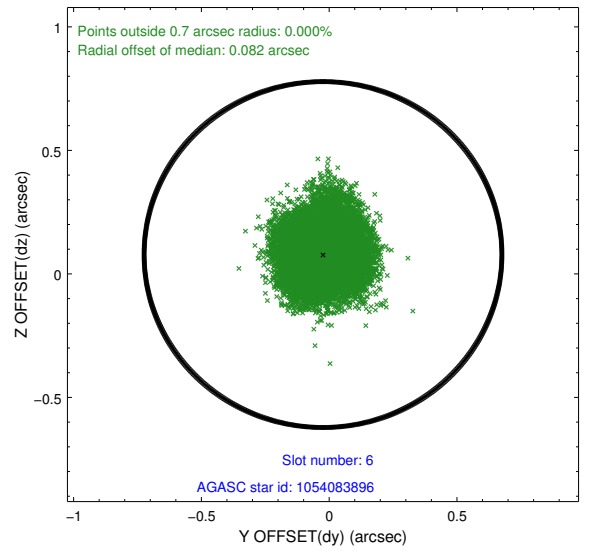
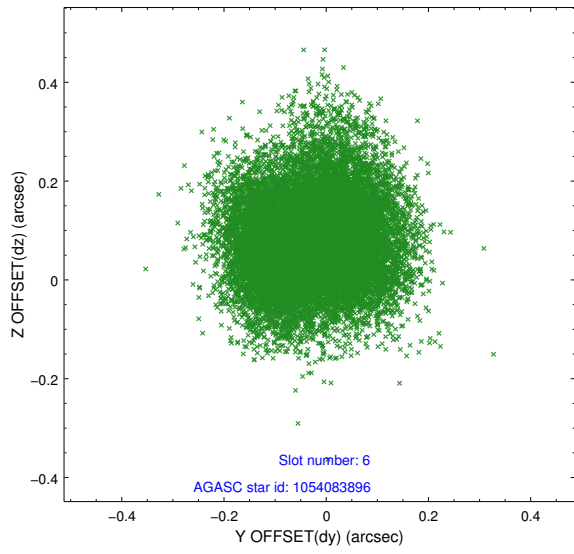
2.4.2 Slot 4



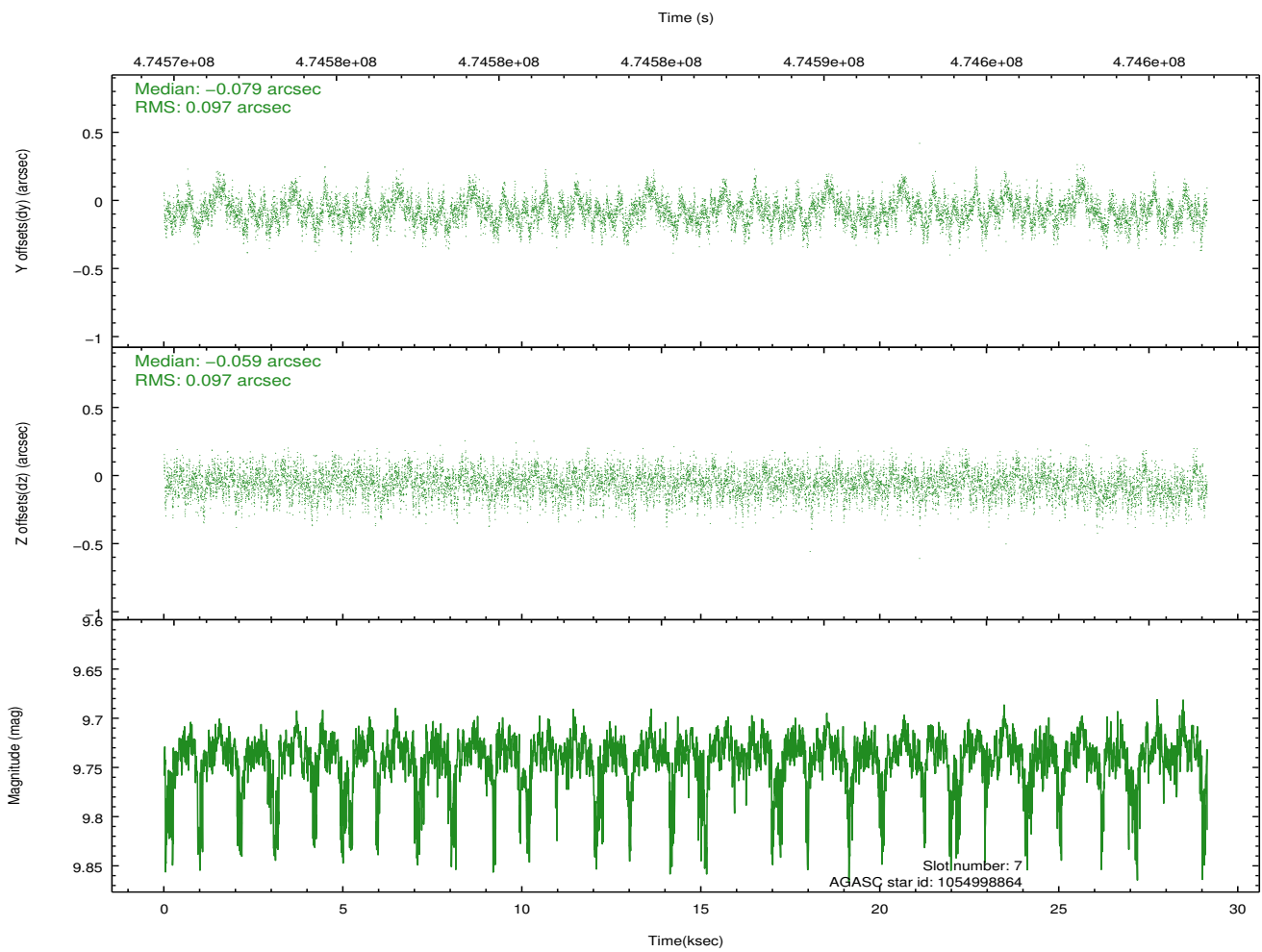
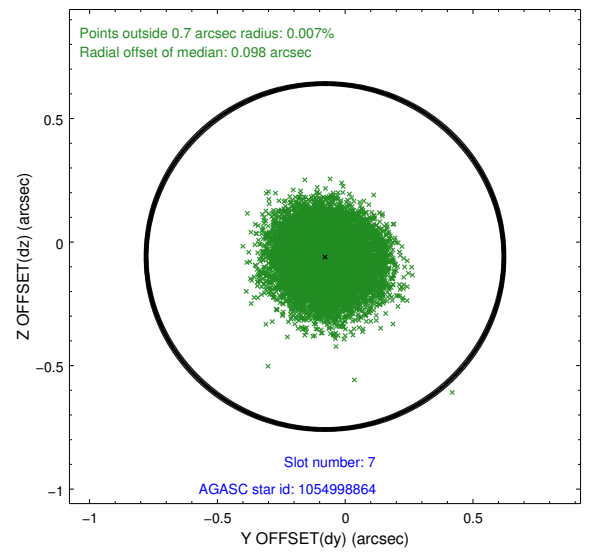
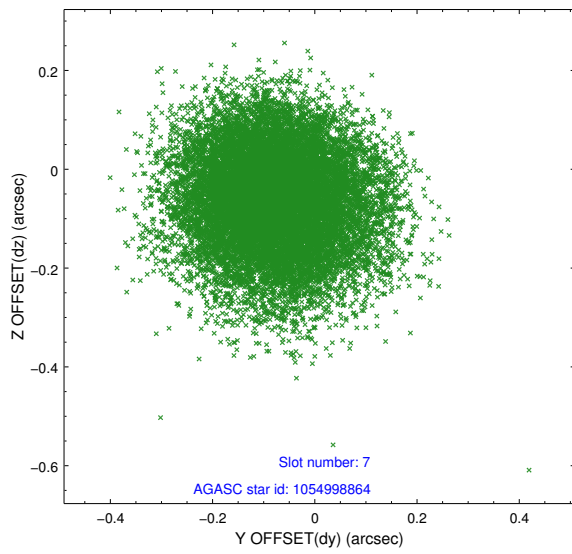
2.4.3 Slot 5



2.4.4 Slot 6

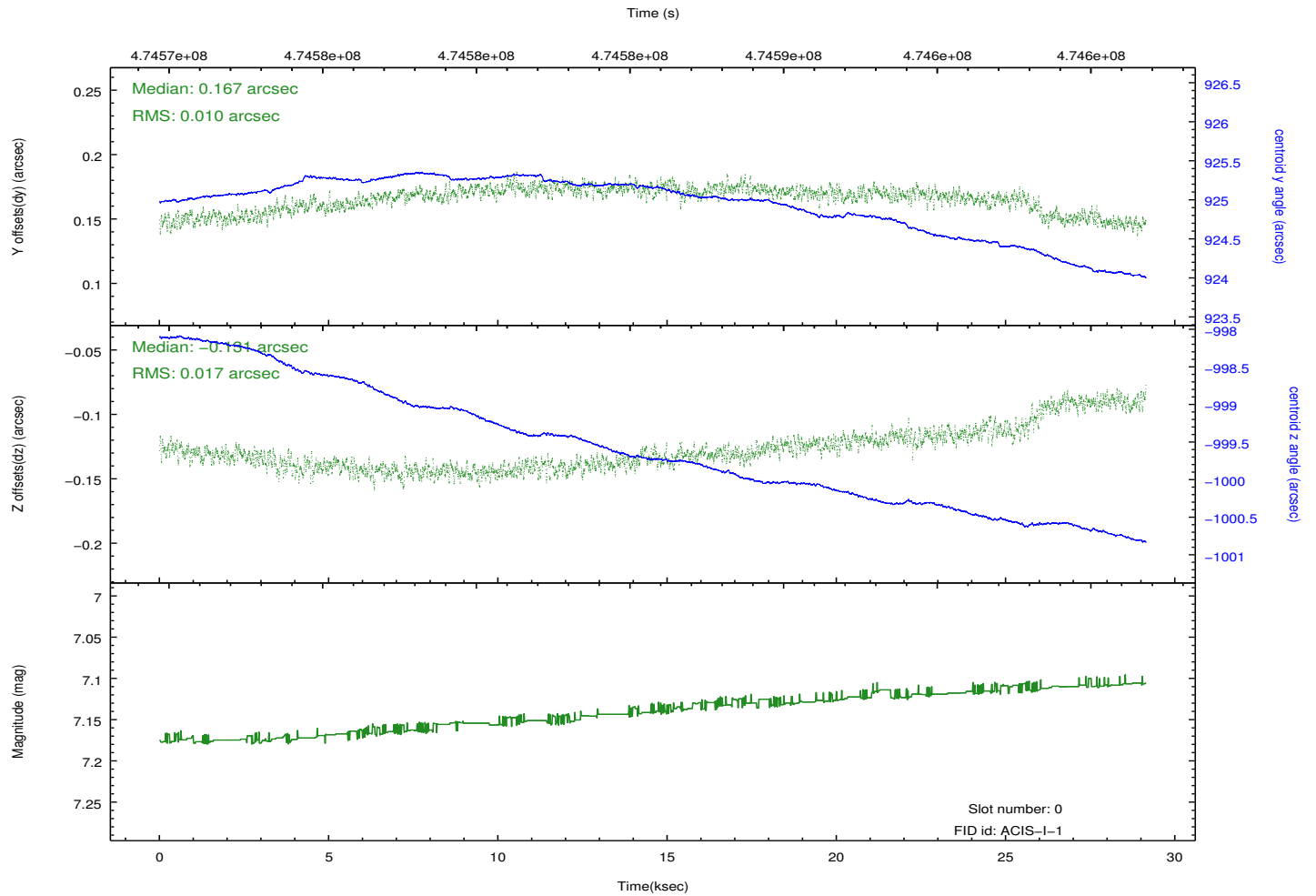
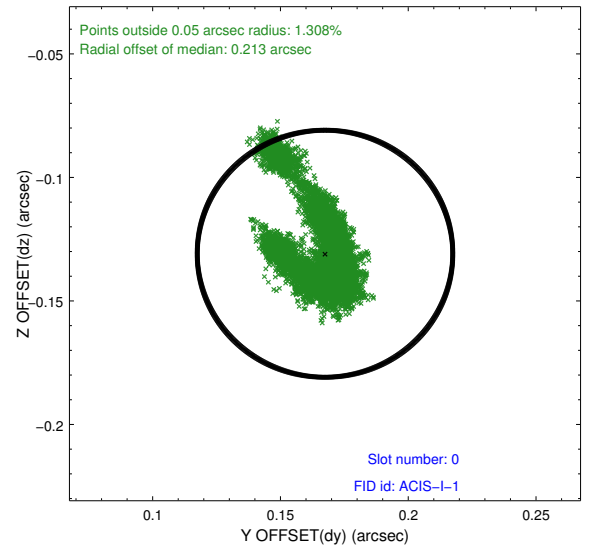
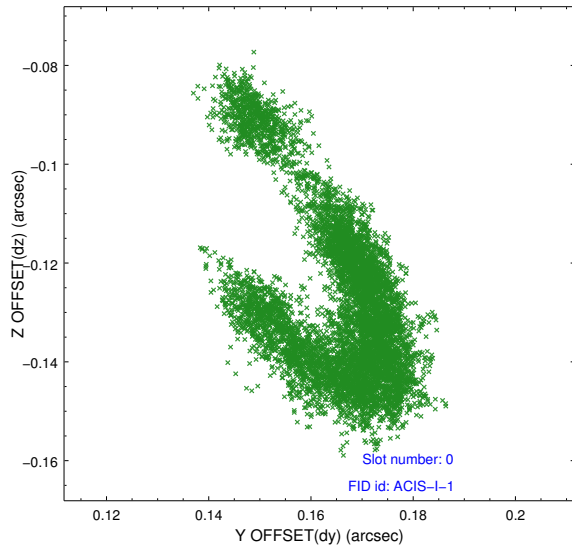


2.4.5 Slot 7

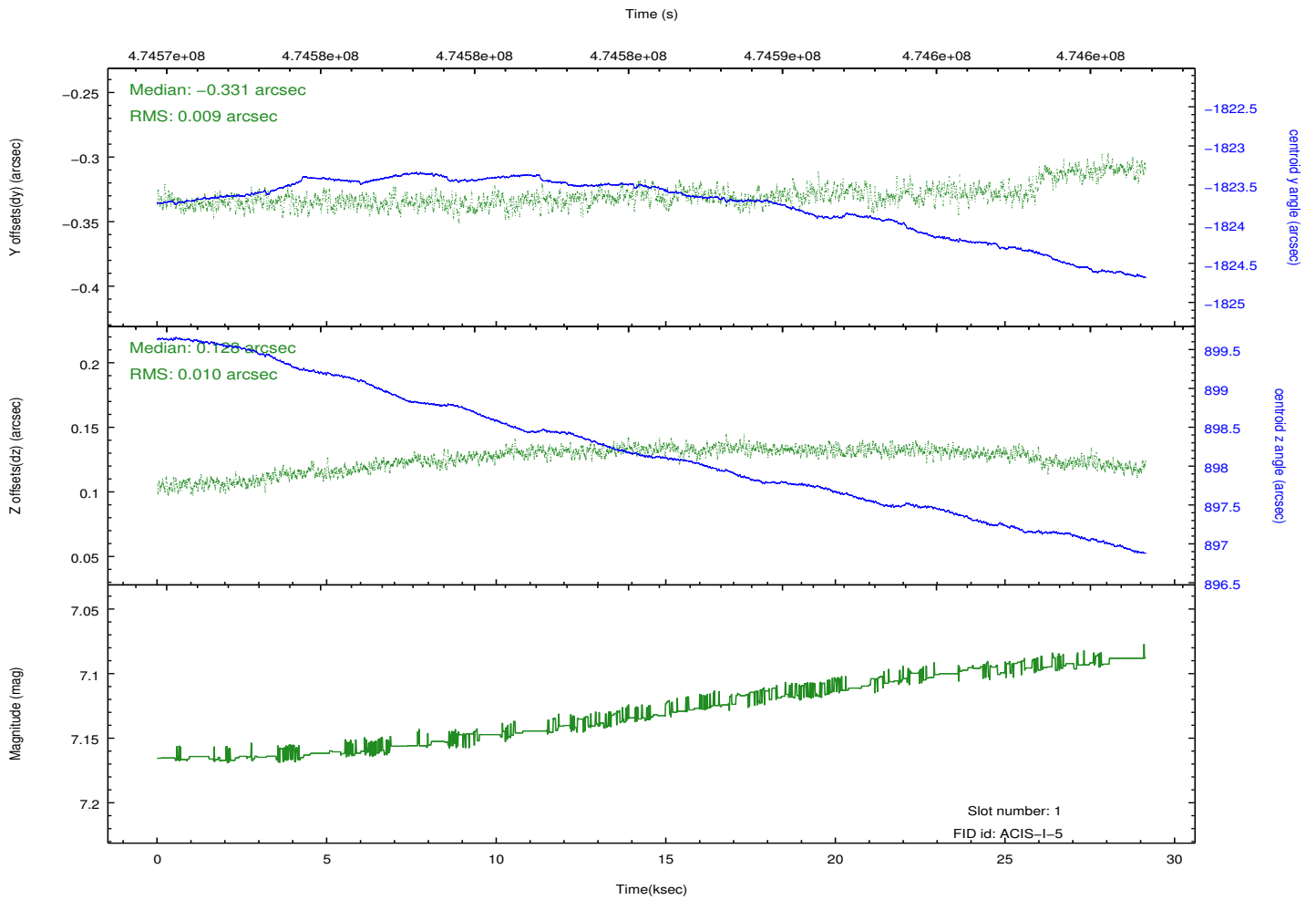
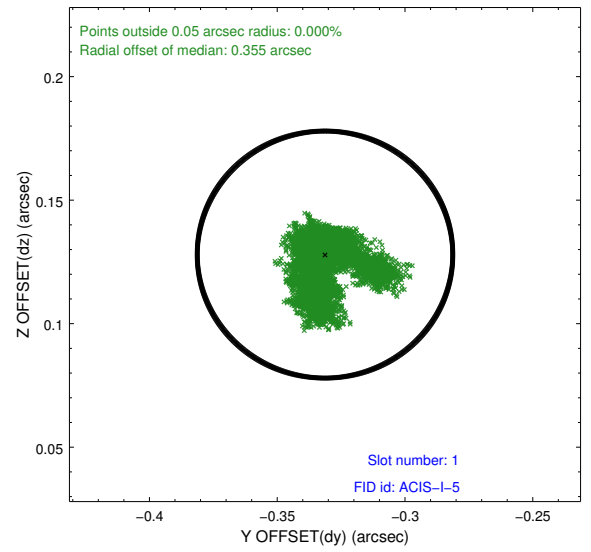
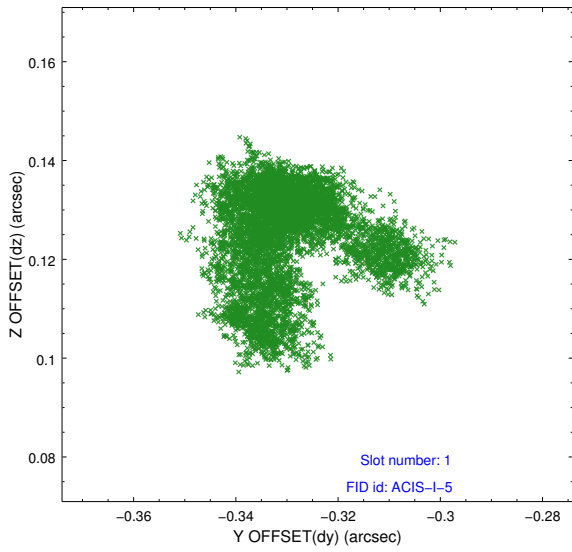


2.5 FID Slots

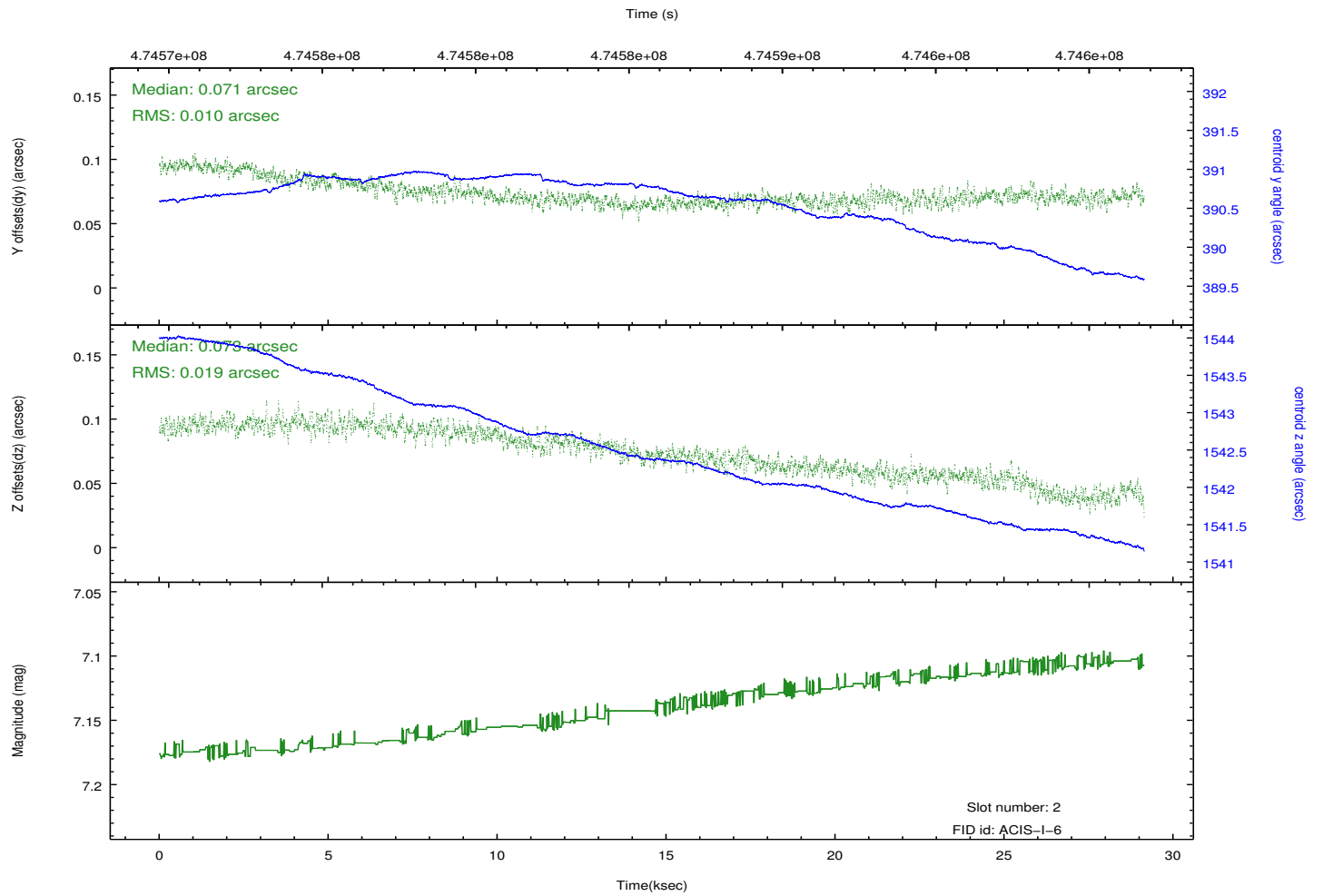
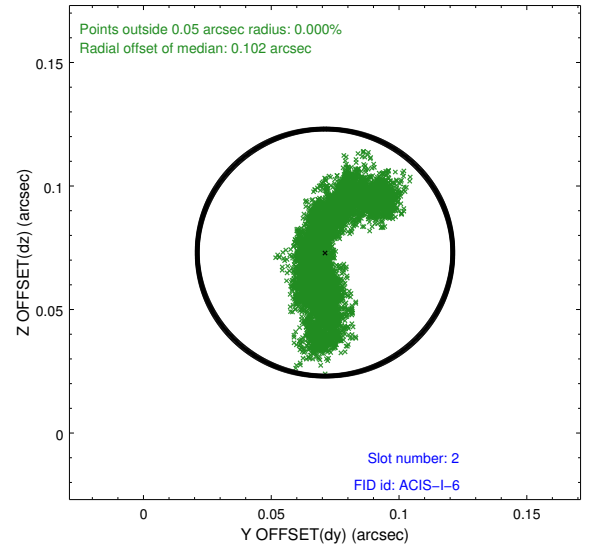
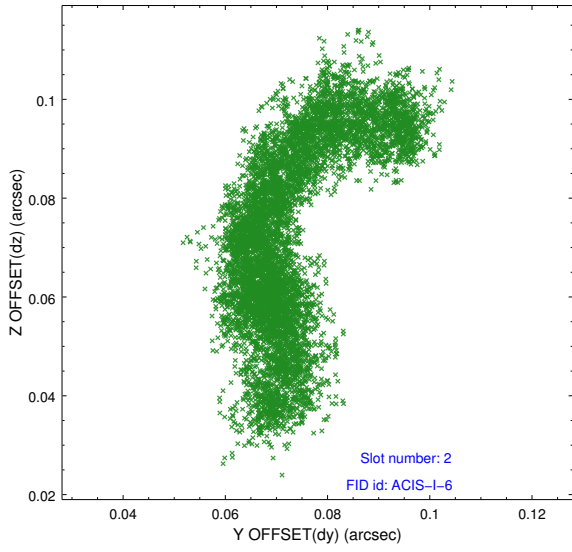
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	28.377359247923

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.