

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 13483 - L2 Version 2
Chandra X-Ray Center

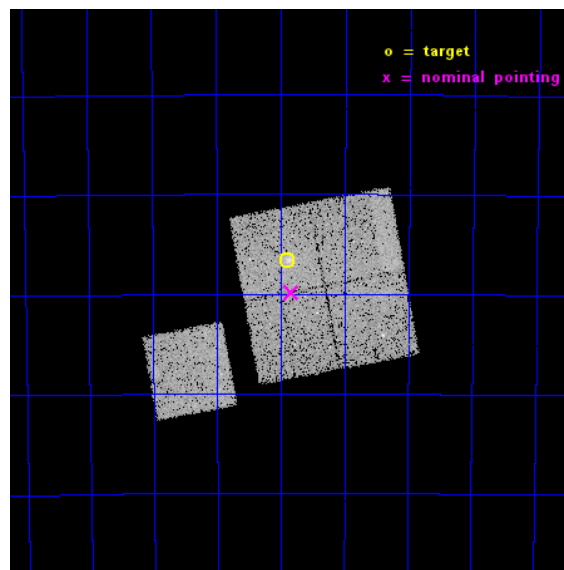
L2 Processing Date : Dec 1 2014

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1 Front

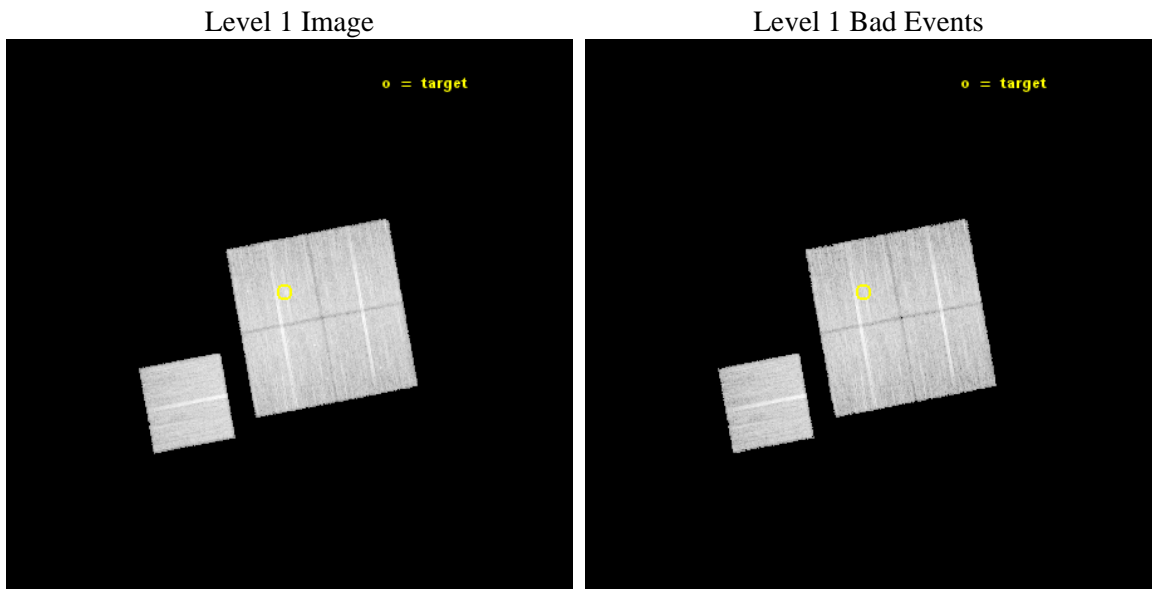
seq_num	801124	Sequence number
obs_id	13483	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg ² from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ0033-6326	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	8.475833	Observer's specified target RA [deg]
dec_targ	-63.443806	Observer's specified target Dec [deg]
ra_nom	8.4585224537043	Nominal RA [deg]
dec_nom	-63.497700995463	Nominal Dec [deg]
roll_nom	259.48442064511	Nominal Roll [deg]
revision	2	Processing version of data
ontime	21380.700164437	Sum of GTIs [s]
livetime	21101.345576546	Livetime [s]
ontime0	21377.55922395	Sum of GTIs [s]
ontime1	21380.700164437	Sum of GTIs [s]
ontime2	21380.700164437	Sum of GTIs [s]
ontime3	21380.700164437	Sum of GTIs [s]
ontime6	21380.700164437	Sum of GTIs [s]
l2events	58988	Number of level 2 events



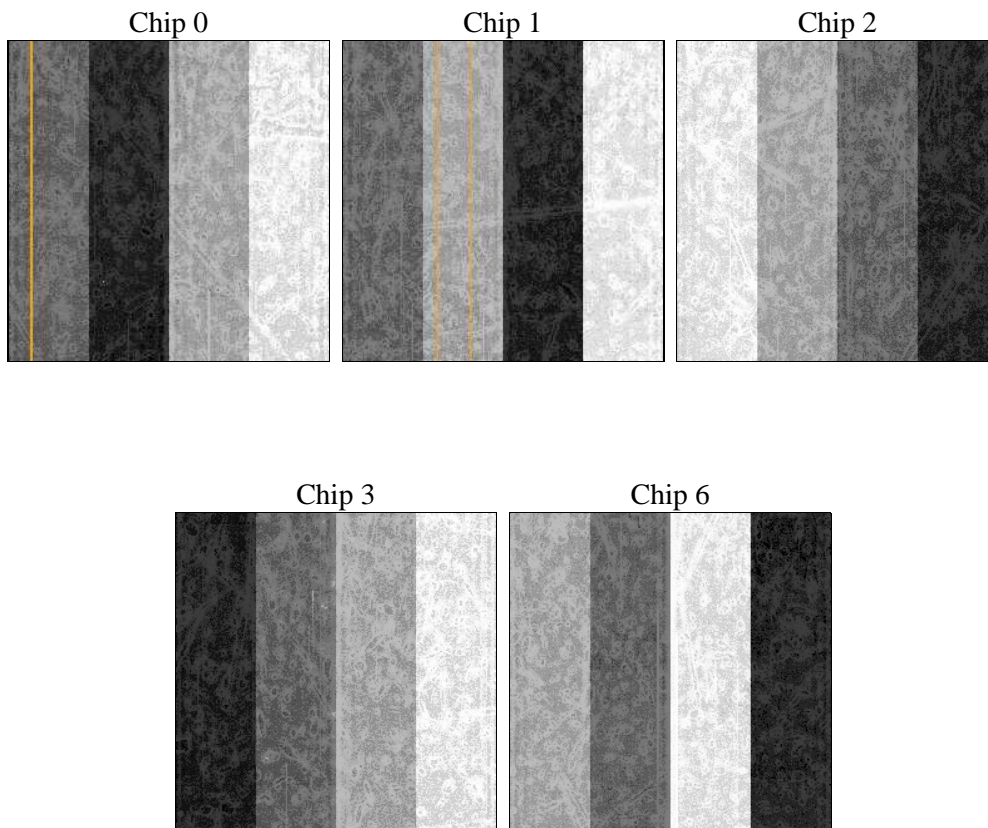
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	21300.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	21380.700164437	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	21377.55922395	Sum of GTIs [s]
date	2014-12-01T08:32:48	Date and time of file creation	ontime1	21380.700164437	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	21380.700164437	Sum of GTIs [s]
			ontime3	21380.700164437	Sum of GTIs [s]
			ontime6	21380.700164437	Sum of GTIs [s]
			l1events	563685	Number of level 1 events

2.1.4 Events

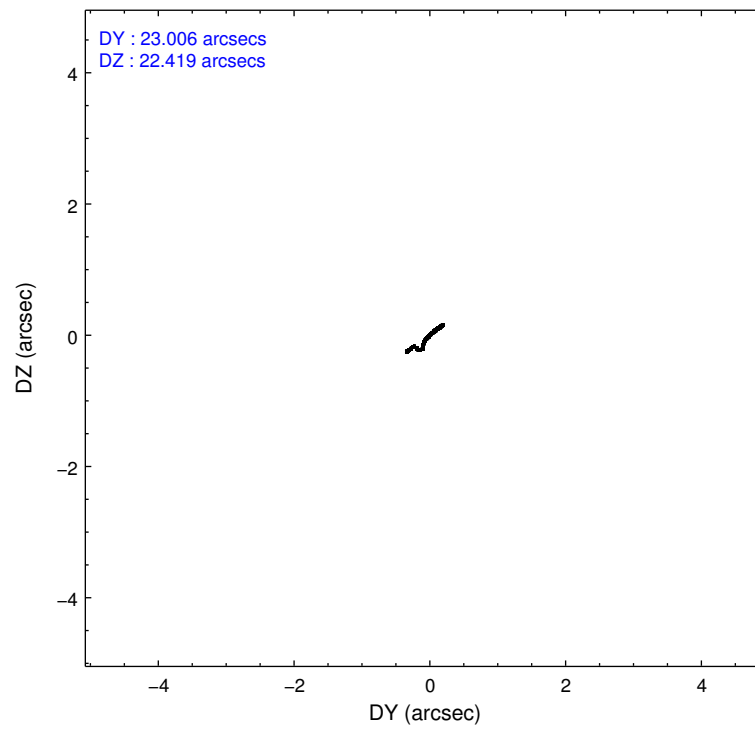
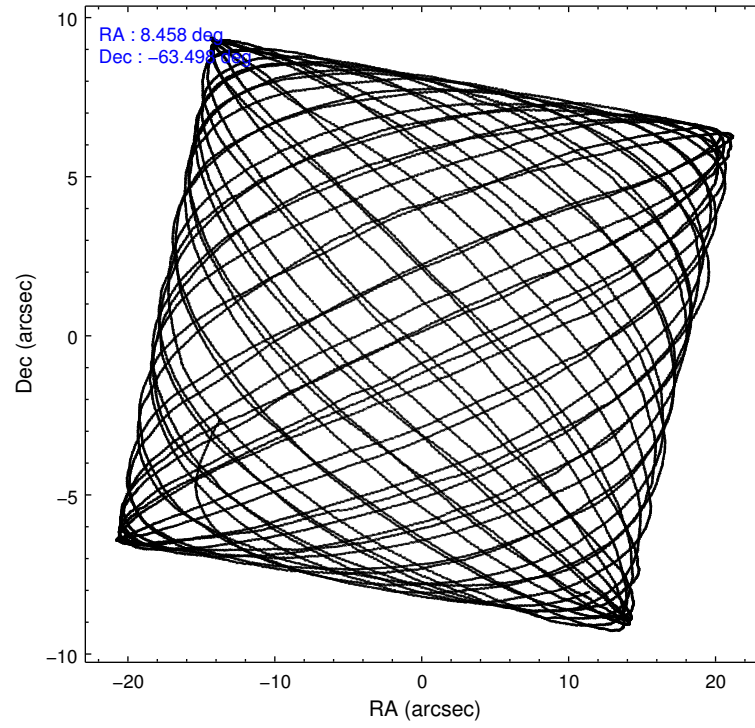
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	104133	109819	117890	113898	117945
rejected events	90293	94746	104058	100005	103485
rejected %	86%	86%	88%	87%	87%

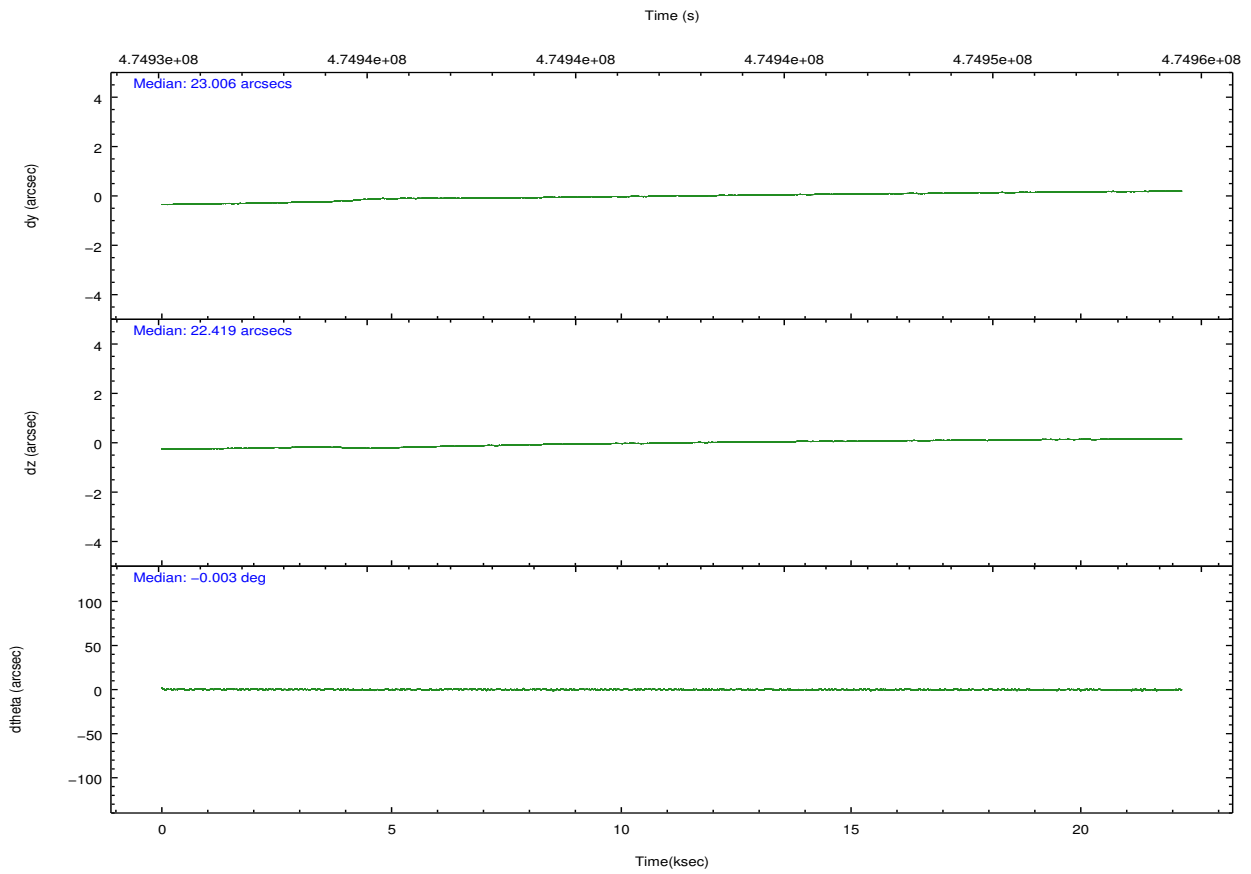
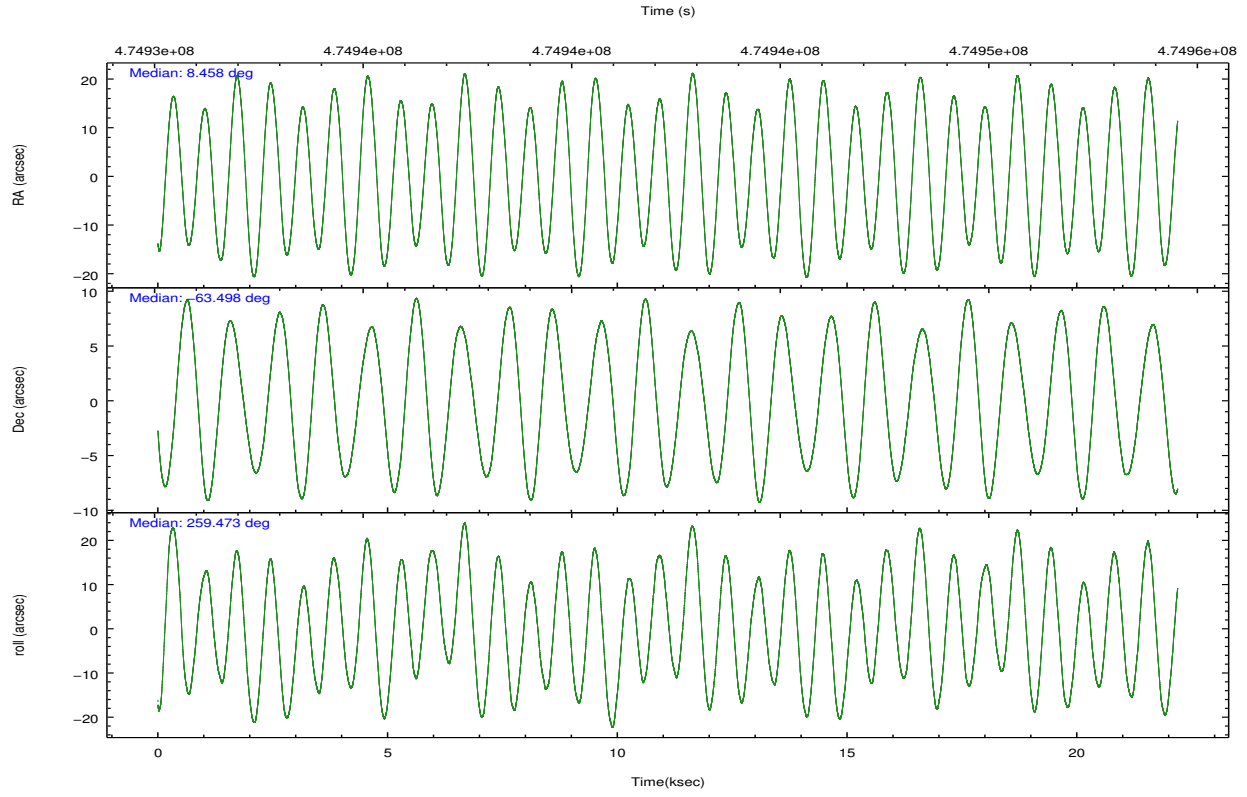
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5014	5286	5120	5295	5416
	4%	4%	4%	4%	4%
grade 1 events	60	54	64	71	73
	0%	0%	0%	0%	0%
grade 2 events	3492	3717	3486	3028	3177
	3%	3%	2%	2%	2%
grade 3 events	1391	1432	1312	1371	1404
	1%	1%	1%	1%	1%
grade 4 events	1350	1451	1410	1463	1382
	1%	1%	1%	1%	1%
grade 5 events	5114	5576	4812	5943	5465
	4%	5%	4%	5%	4%
grade 6 events	2598	3192	2507	2740	3086
	2%	2%	2%	2%	2%
grade 7 events	85114	89111	99179	93987	97942
	81%	81%	84%	82%	83%

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	8.437776	8.458522453704282	CCD I2 on	Y	Y
[deg] Pointing Dec	-63.471806	-63.49770099546305	CCD I3 on	Y	Y
[deg] Pointing Roll	259.257177	259.484420645114	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	-225.8458576473255	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.746595355604228	CCD S4 on	N	N
[s] Observation start time (MET)	474932096.184000	474930796.78704	CCD S5 on	N	N
Observation start date	2013-01-18T21:33:49	2013-01-18T21:13:16	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	474953396.184000	474954555.77582	On-chip summing requested	N	N
Observation end date	2013-01-19T03:28:49	2013-01-19T03:49:15	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





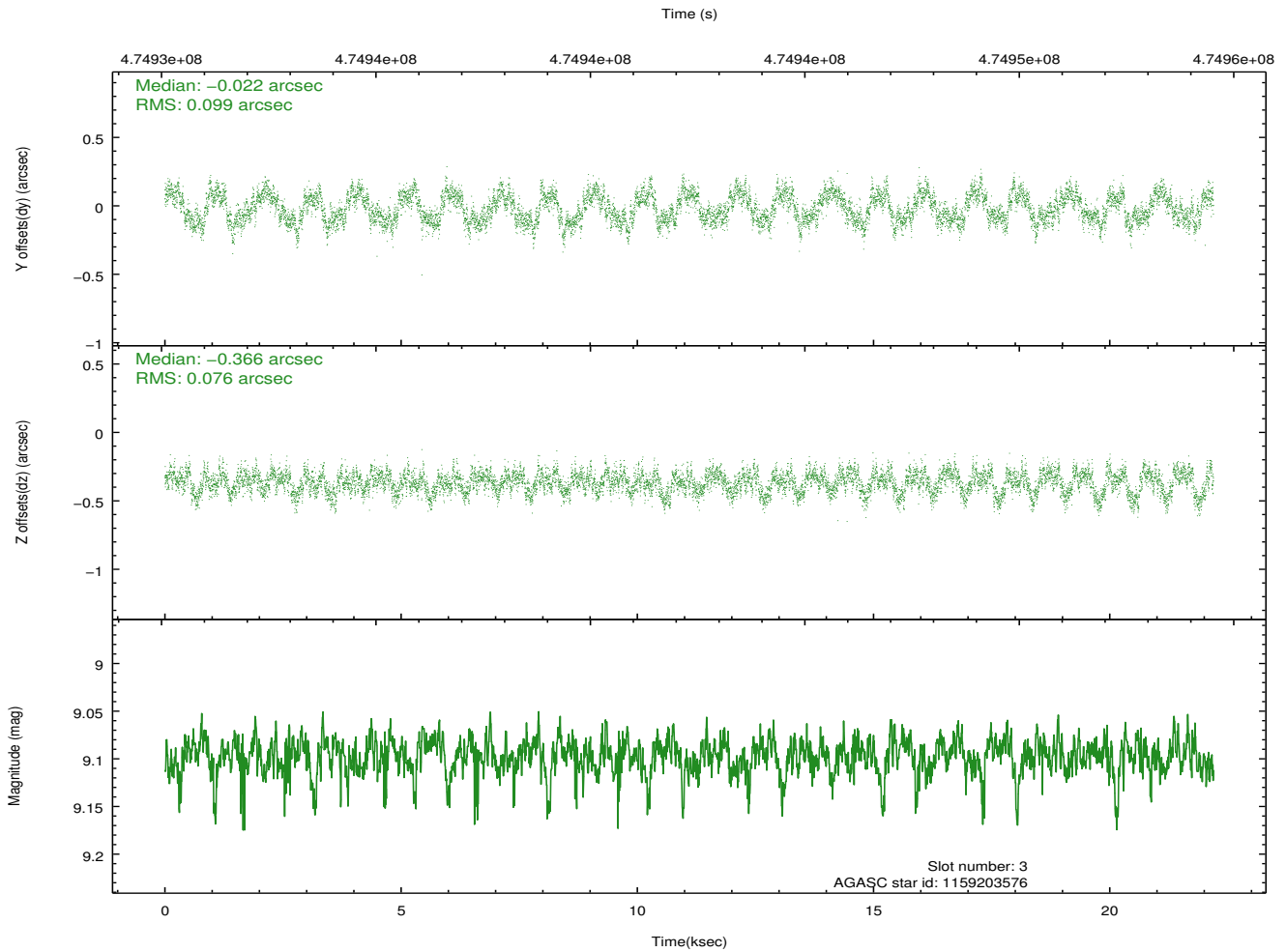
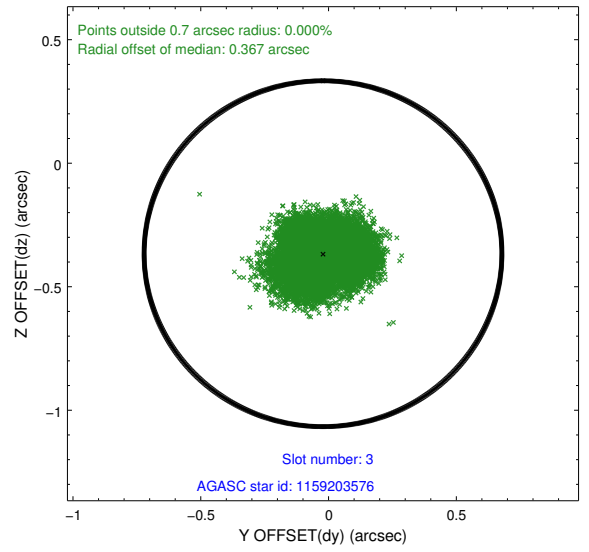
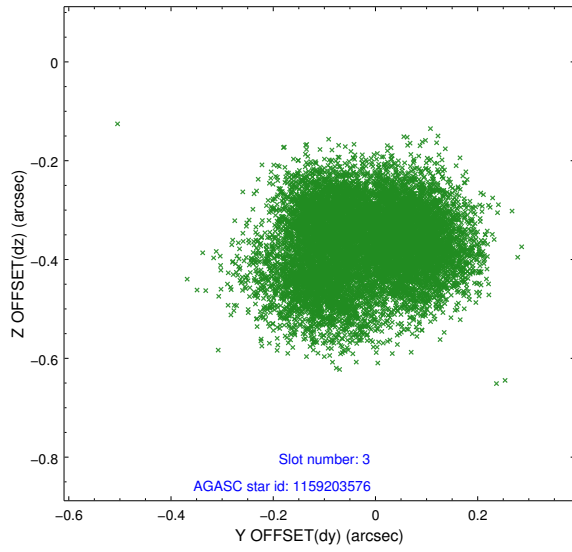
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.05	5414	0.125	-0.051	0.008	0.014	0.000000	0.000000	916.25	-1005.25
1	FID		ACIS-I-5	7.04	5414	-0.329	0.099	0.009	0.016	0.000000	0.000000	-1832.25	892.25
2	FID		ACIS-I-6	7.05	5414	0.113	0.024	0.011	0.017	0.000000	0.000000	381.58	1536.88
3	GUIDE	used	1159203576	9.10	10821	-0.022	-0.366	0.136	0.205	8.298809	-63.908212	1584.89	77.24
4	GUIDE	used	1159203952	9.60	10783	-0.198	0.371	0.138	0.221	7.109314	-63.706254	1246.47	-1918.80
5	GUIDE	used	1159204000	10.13	10598	0.068	0.077	0.226	0.368	6.857895	-63.751879	1491.02	-2276.76
6	GUIDE	used	1159204120	7.57	10827	-0.007	-0.273	0.077	0.130	9.856439	-63.118791	-1653.76	2036.06
7	GUIDE	used	1159205112	10.07	10736	0.165	0.199	0.188	0.328	8.414251	-63.108520	-1276.79	-279.85

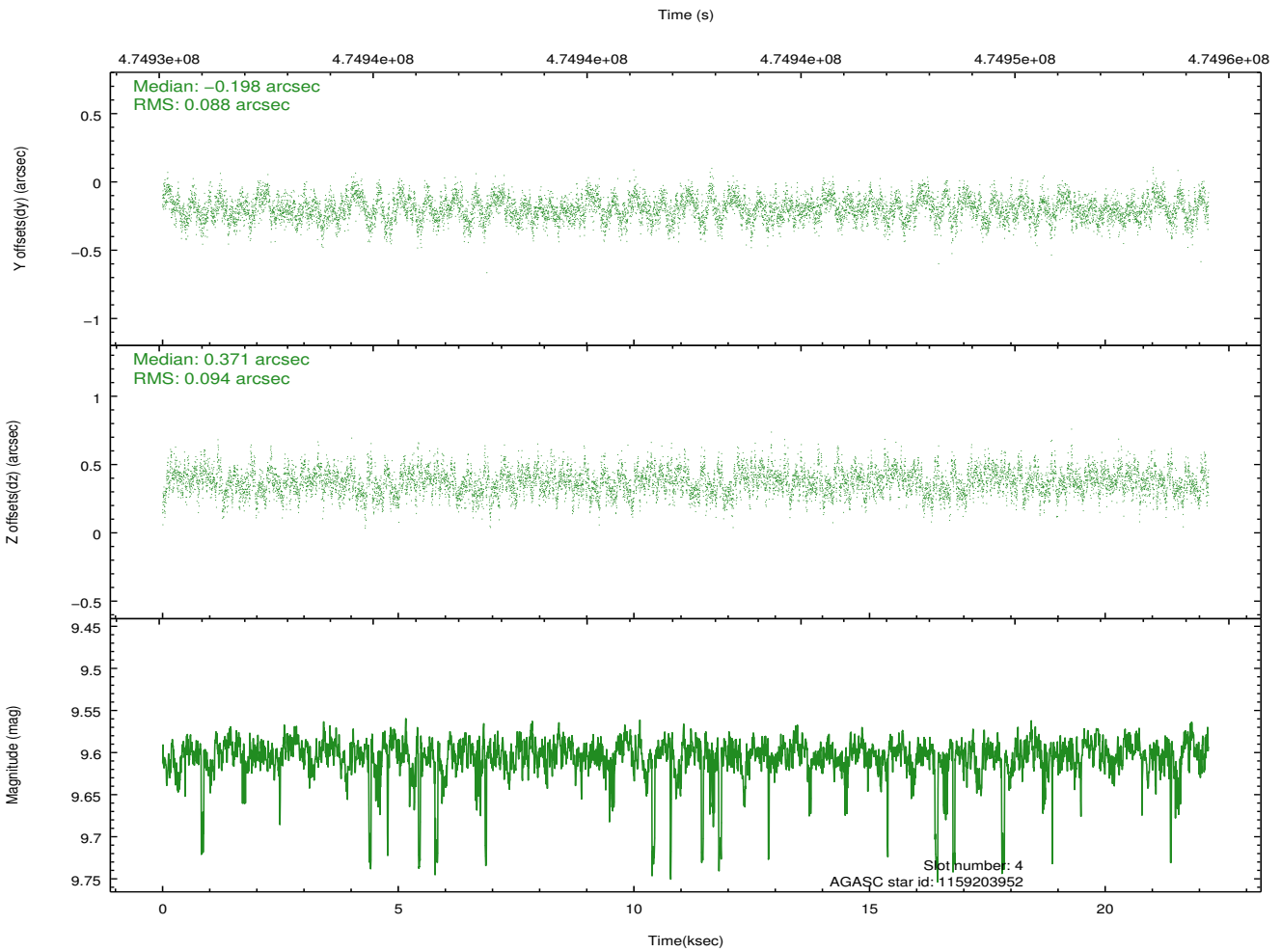
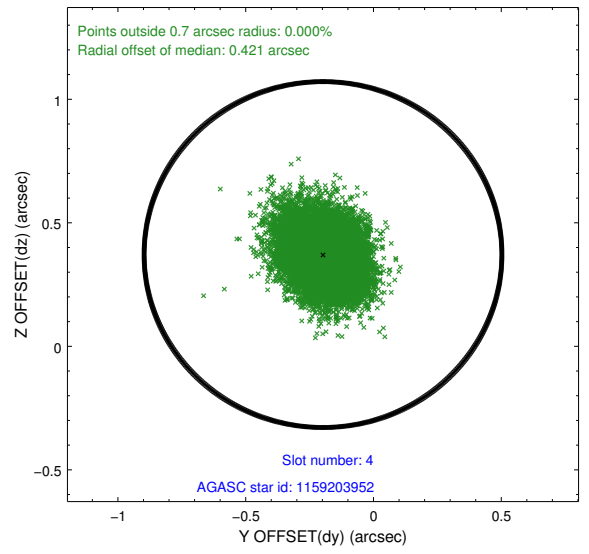
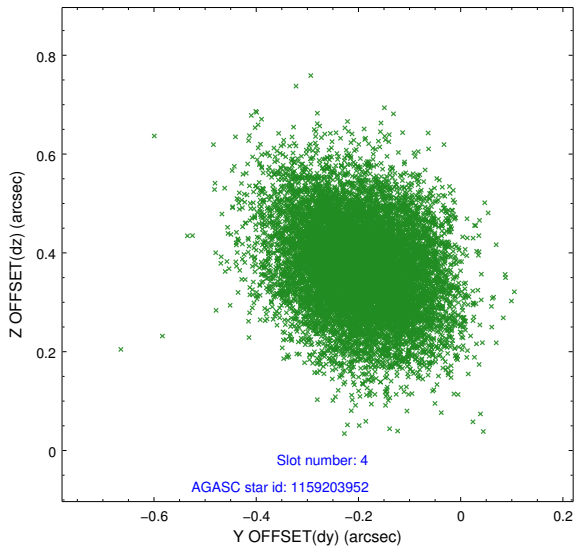
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2.4 Star Slots

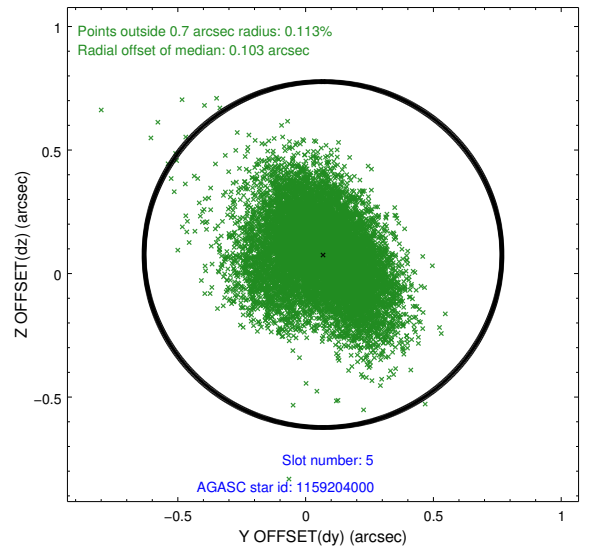
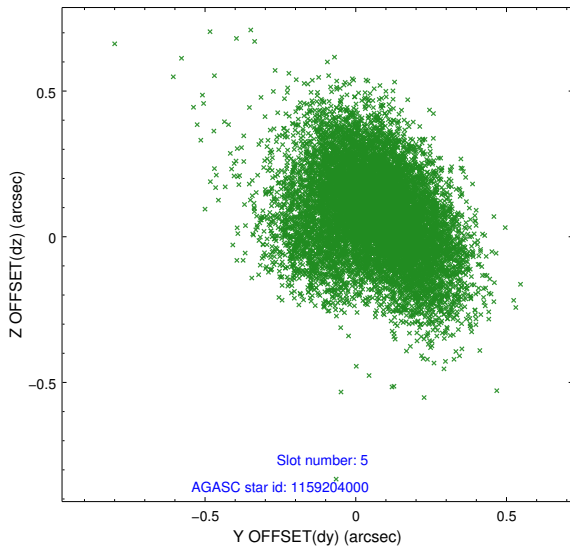
2.4.1 Slot 3



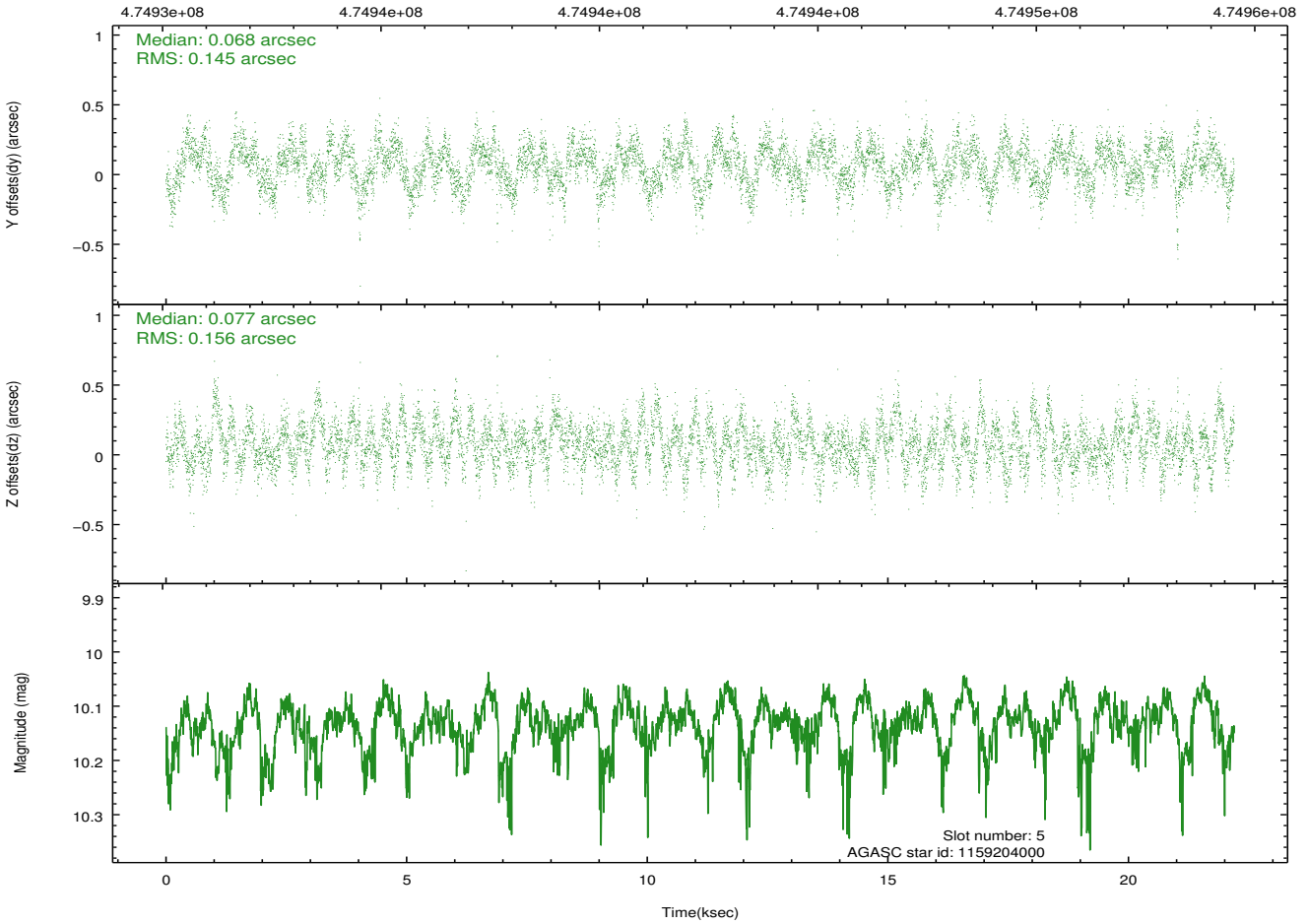
2.4.2 Slot 4



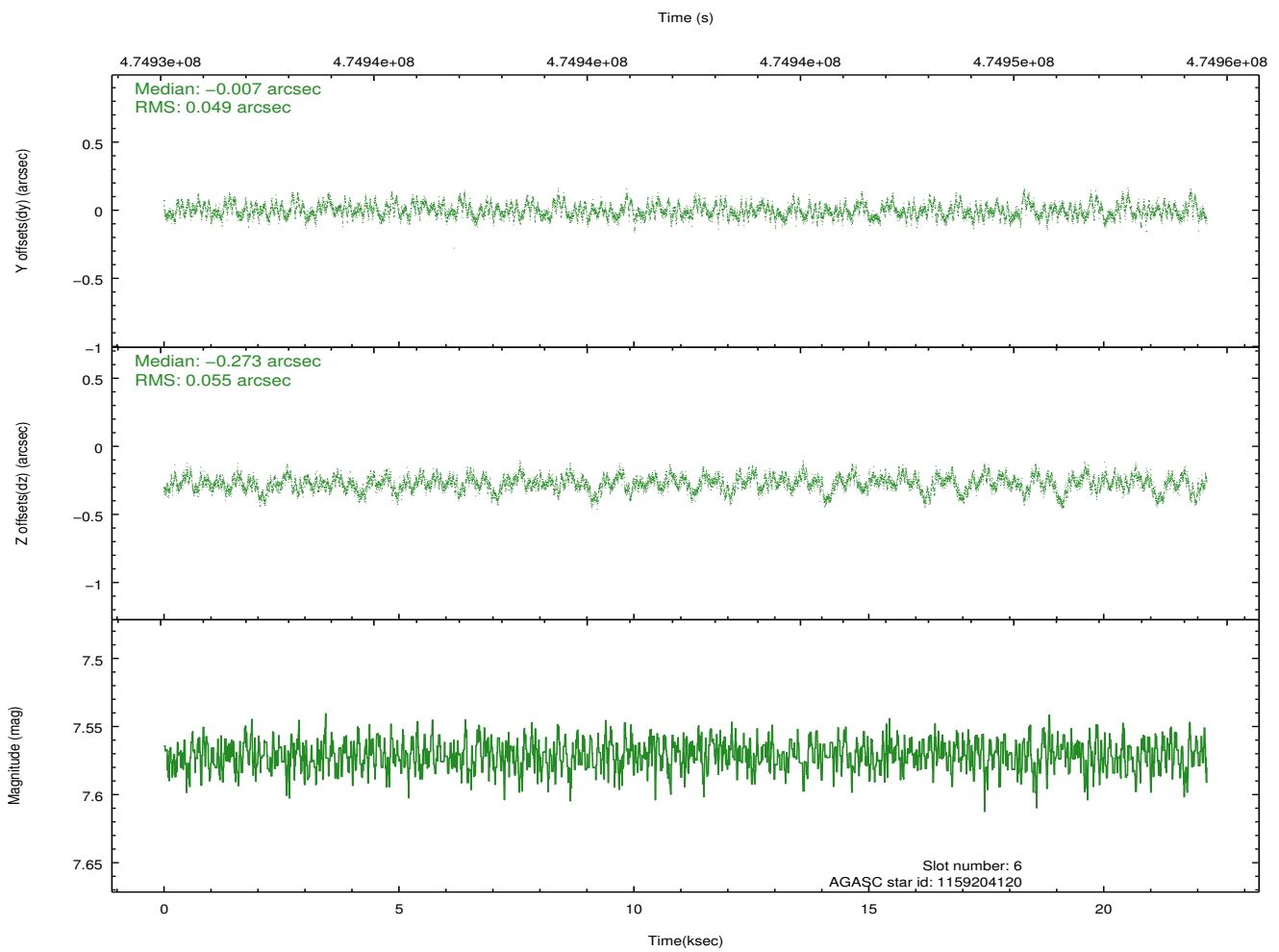
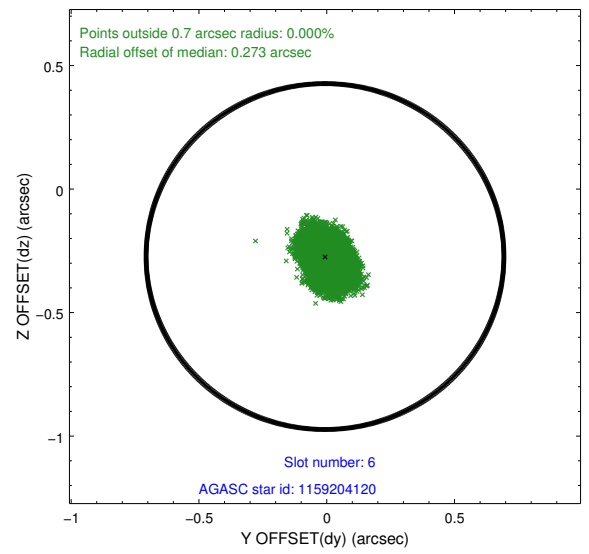
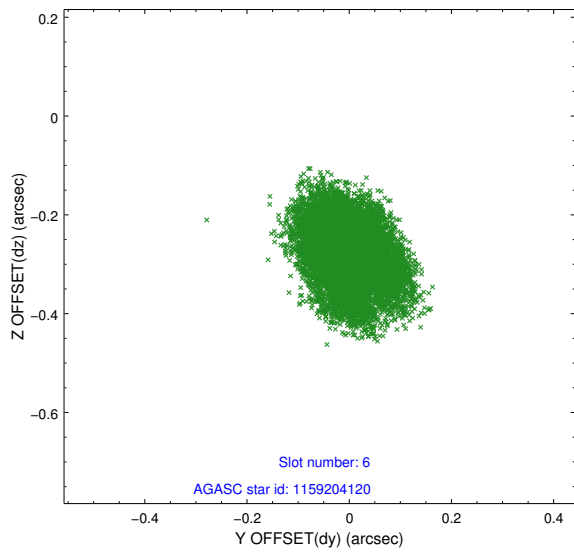
2.4.3 Slot 5



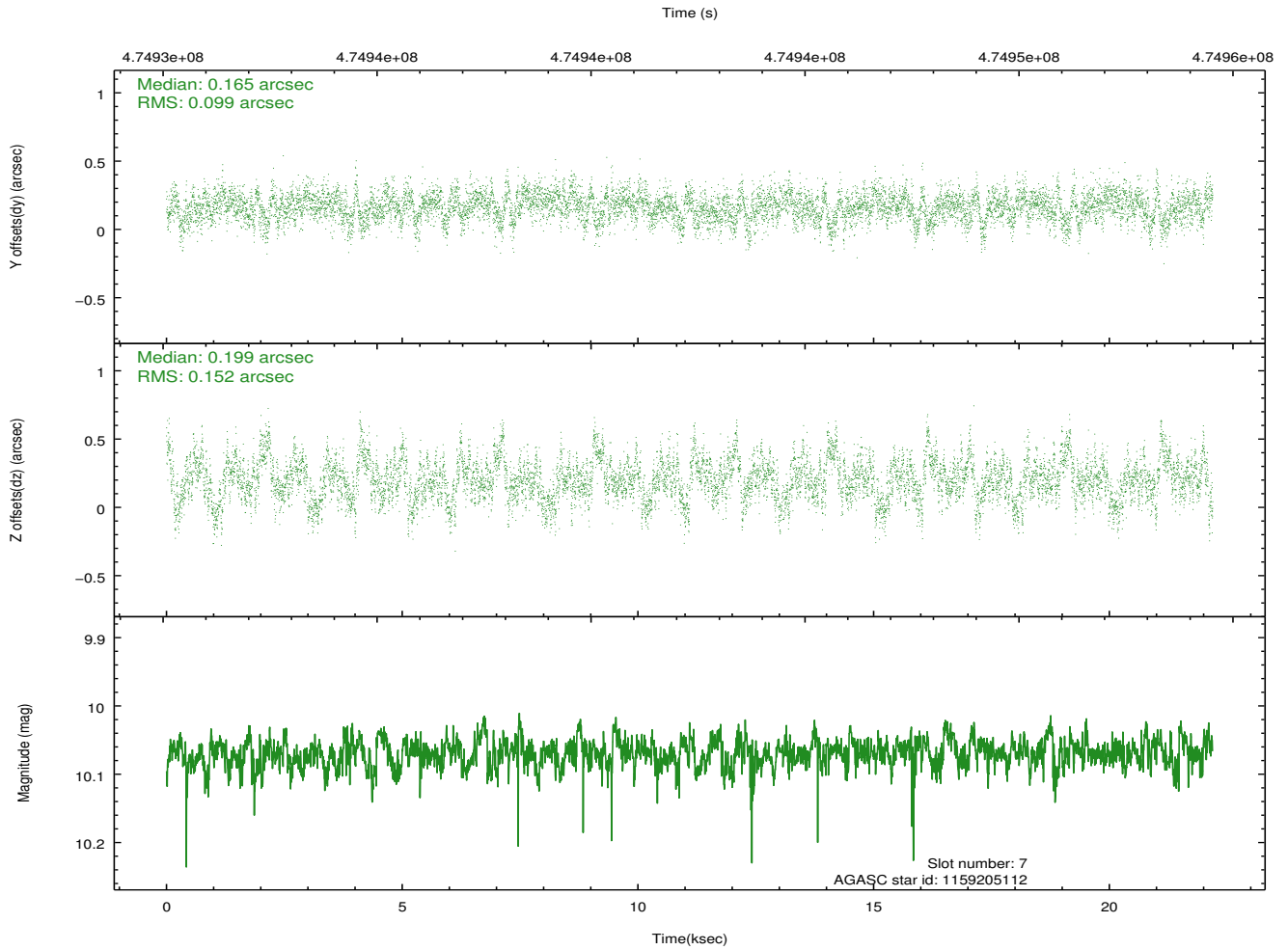
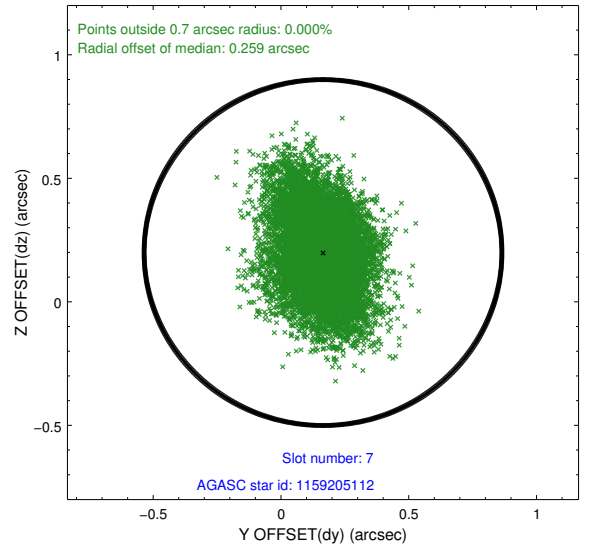
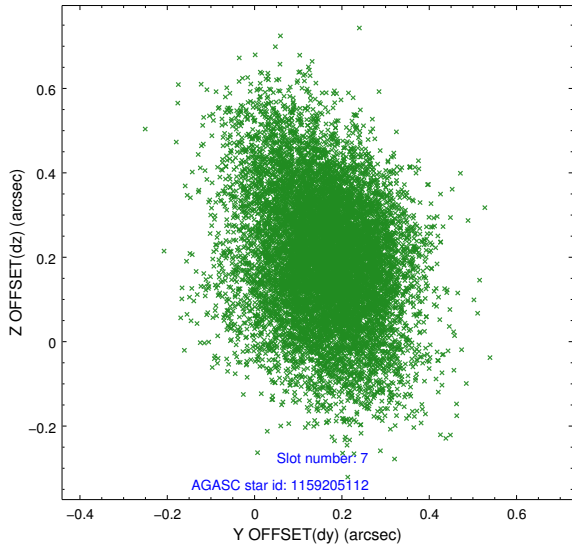
Time (s)



2.4.4 Slot 6

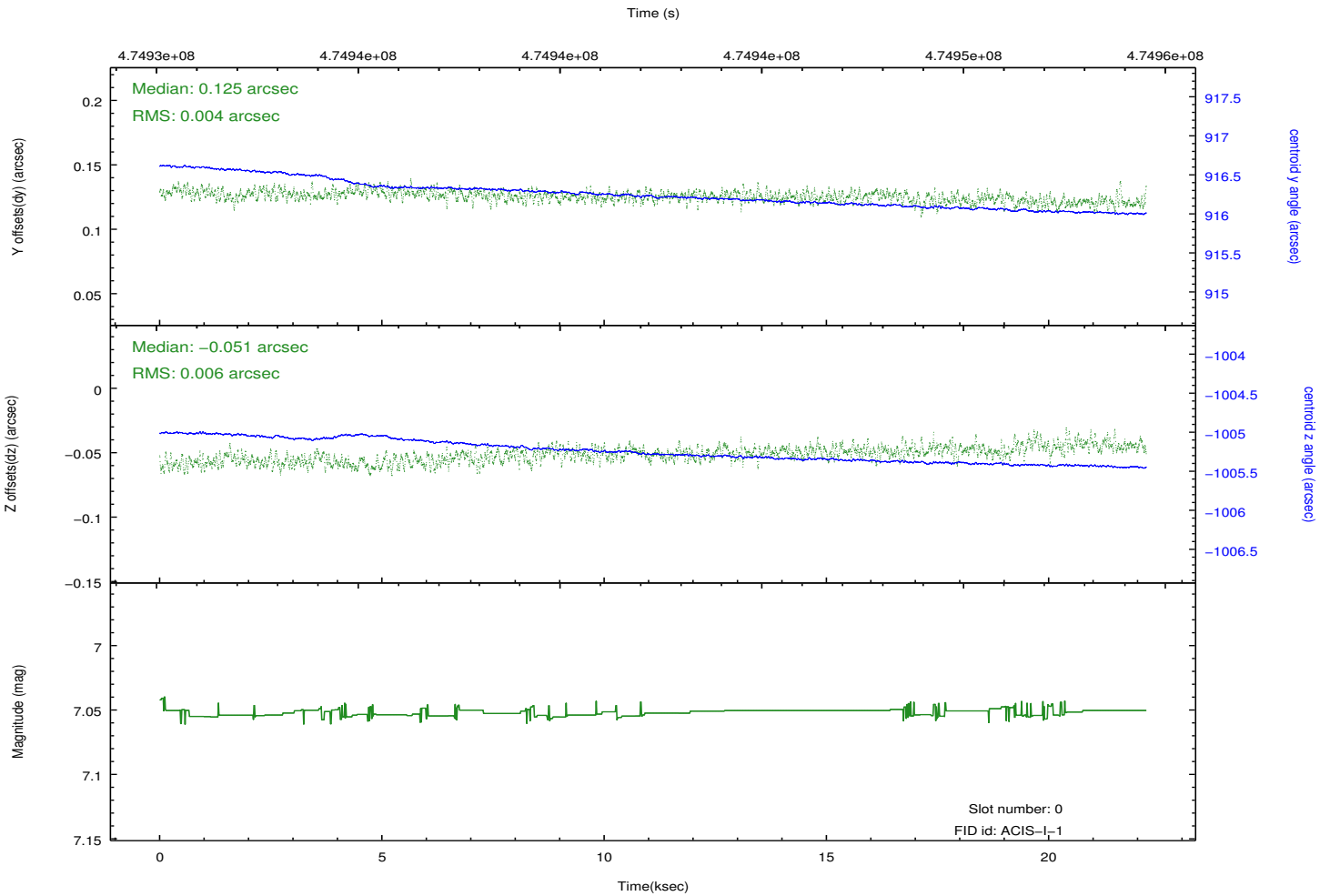
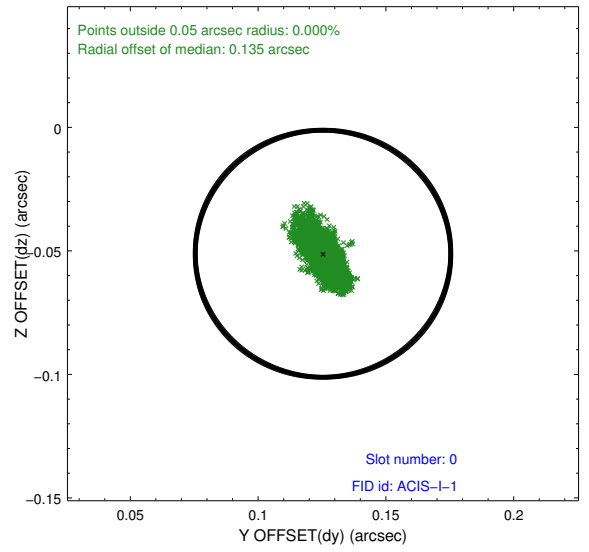
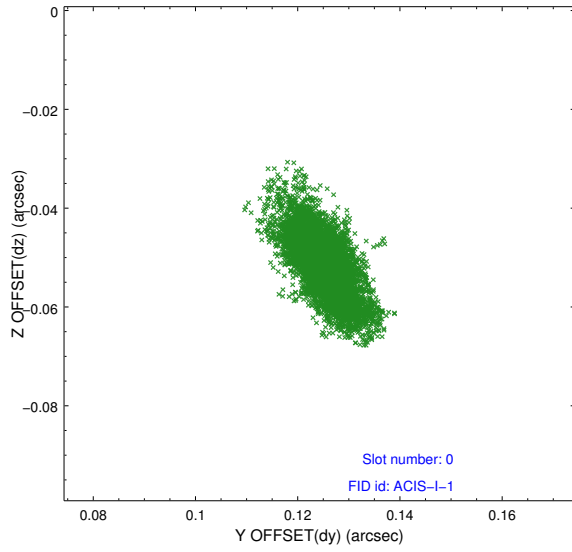


2.4.5 Slot 7

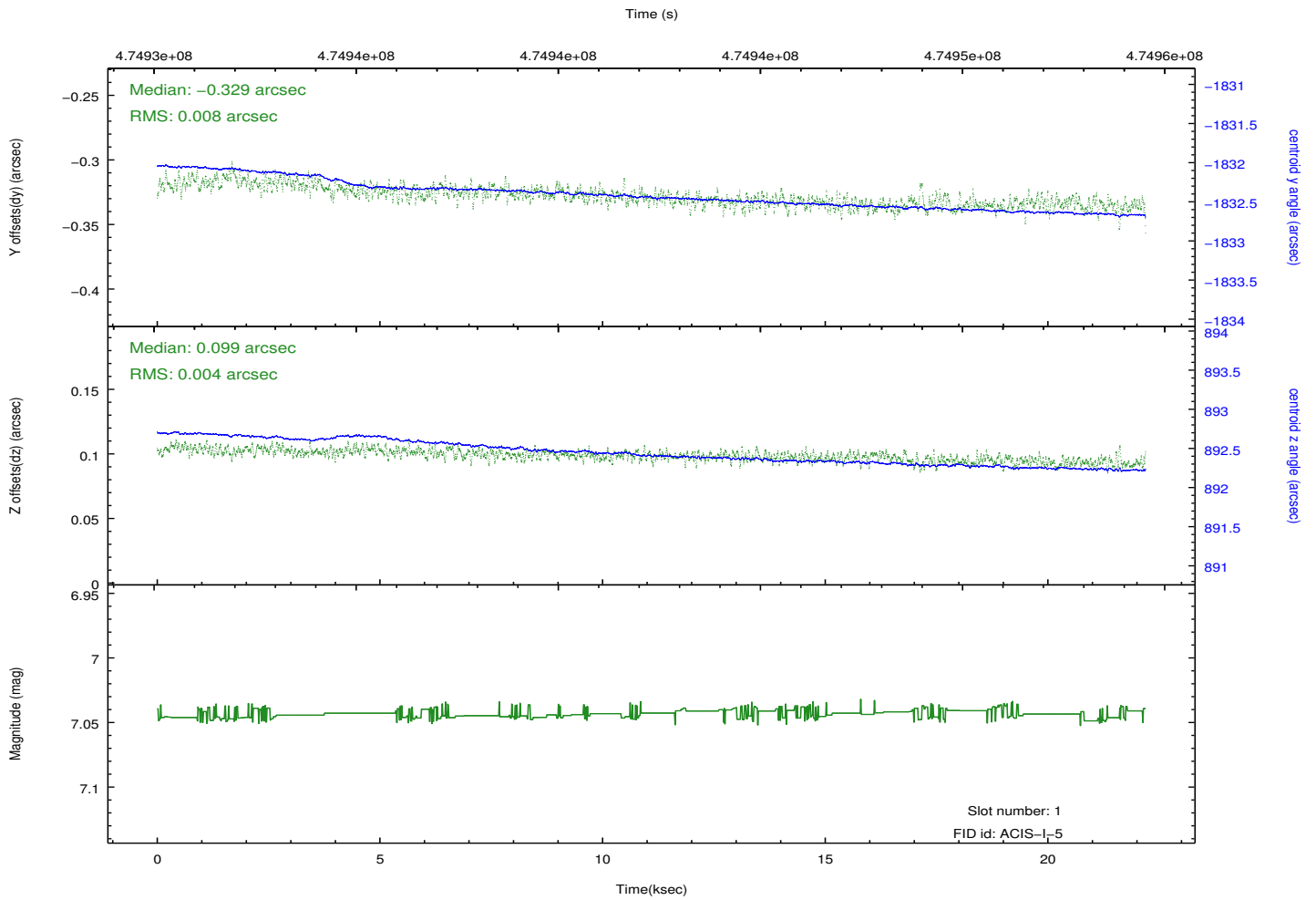
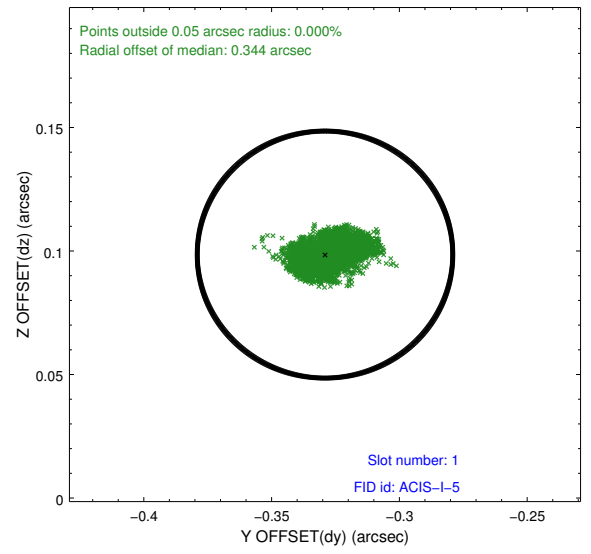
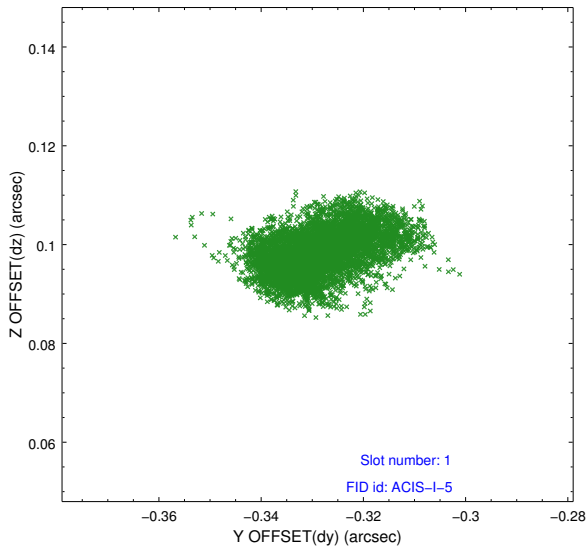


2.5 FID Slots

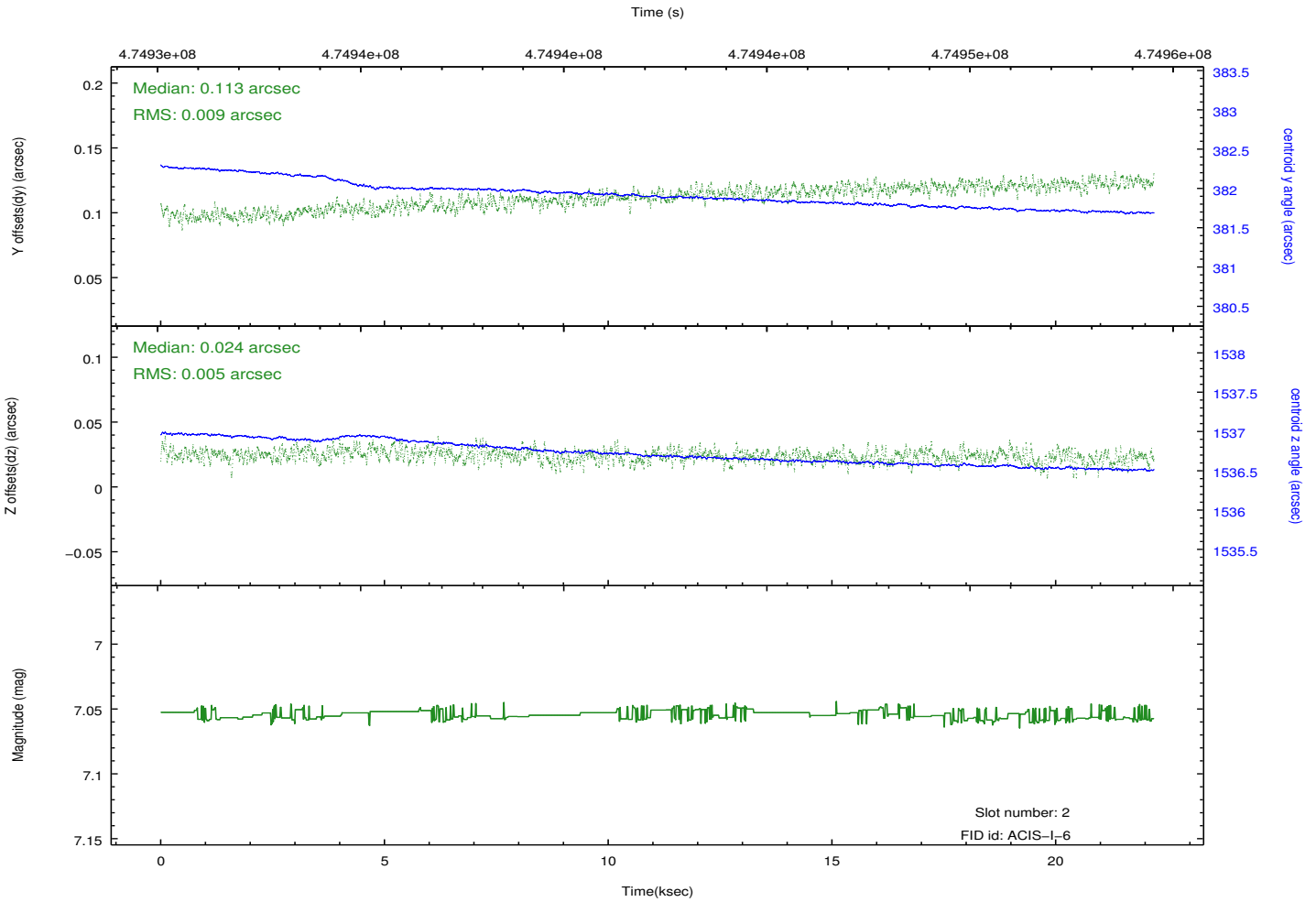
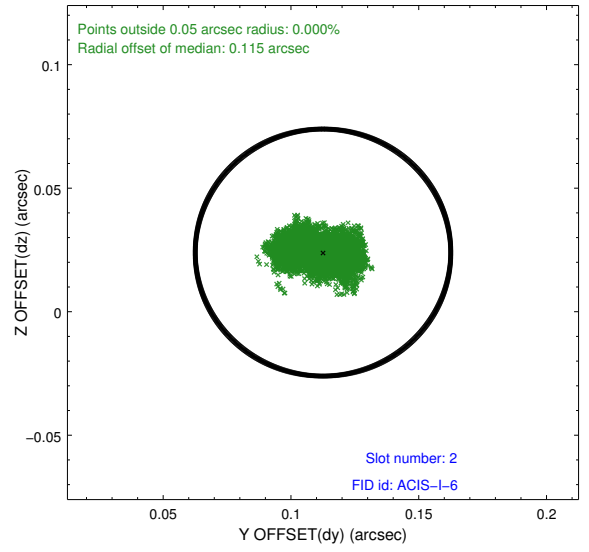
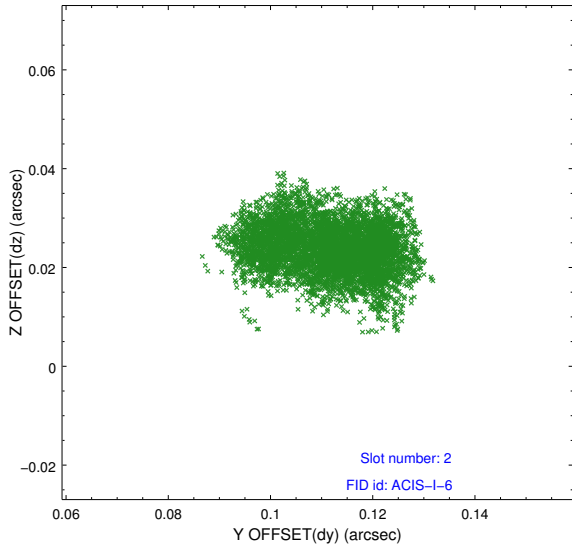
2.5.1 Slot 0



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)	2014.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	21.380700164437

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.