

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 16225 - L2 Version 2
Chandra X-Ray Center

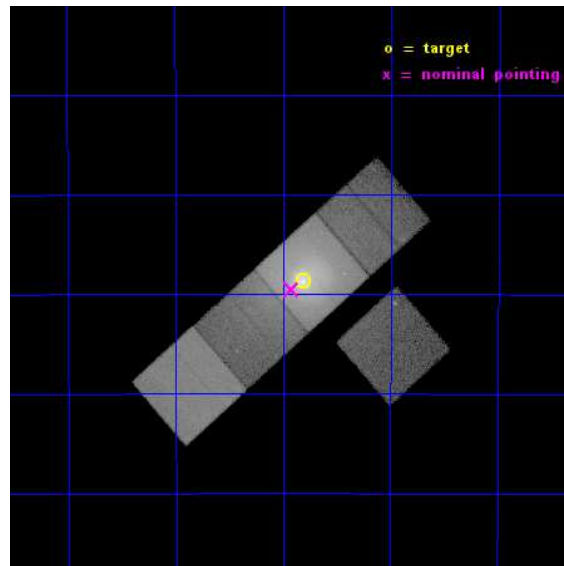
L2 Processing Date : Dec 11 2014

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1 Front

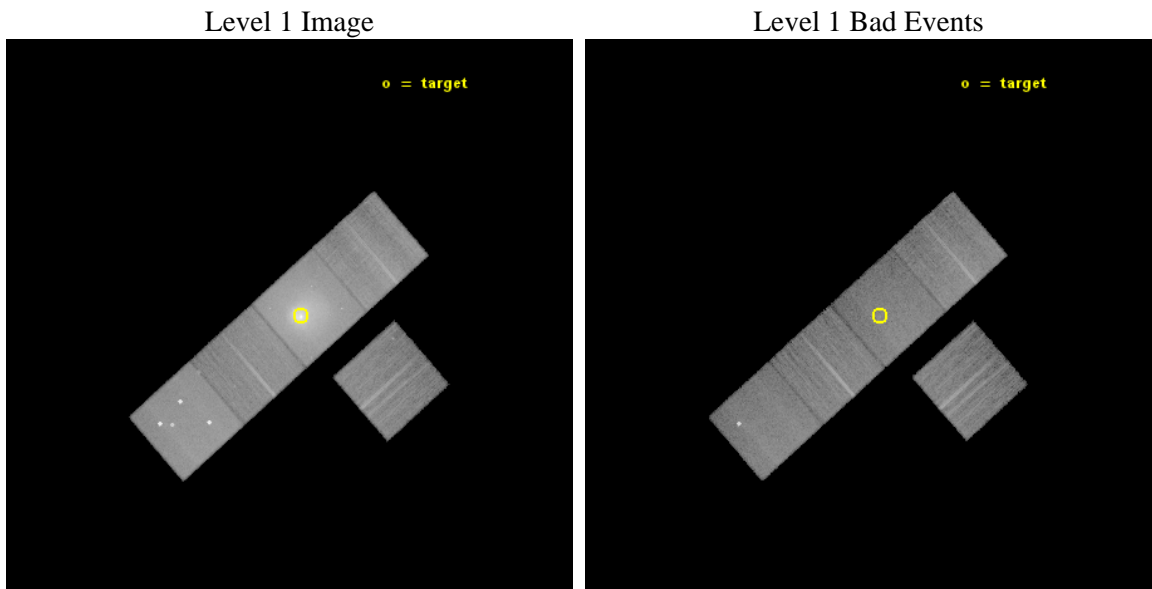
seq_num	801409	Sequence number
obs_id	16225	Observation id
title	Deep imaging and spectroscopy of the Centaurus cluster: metals and filaments	Proposal title
observer	Dr Jeremy Sanders	Principal investigator
object	Centaurus cluster	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	192.20375	Observer's specified target RA [deg]
dec_targ	-41.312167	Observer's specified target Dec [deg]
ra_nom	192.23072066121	Nominal RA [deg]
dec_nom	-41.325670902306	Nominal Dec [deg]
roll_nom	318.4744351562	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30497.800234556	Sum of GTIs [s]
livetime	30099.324022338	Livetime [s]
ontime3	30494.65916419	Sum of GTIs [s]
ontime5	30497.800234556	Sum of GTIs [s]
ontime6	30497.800234556	Sum of GTIs [s]
ontime7	30497.800234556	Sum of GTIs [s]
ontime8	30497.800234556	Sum of GTIs [s]
l2events	638061	Number of level 2 events



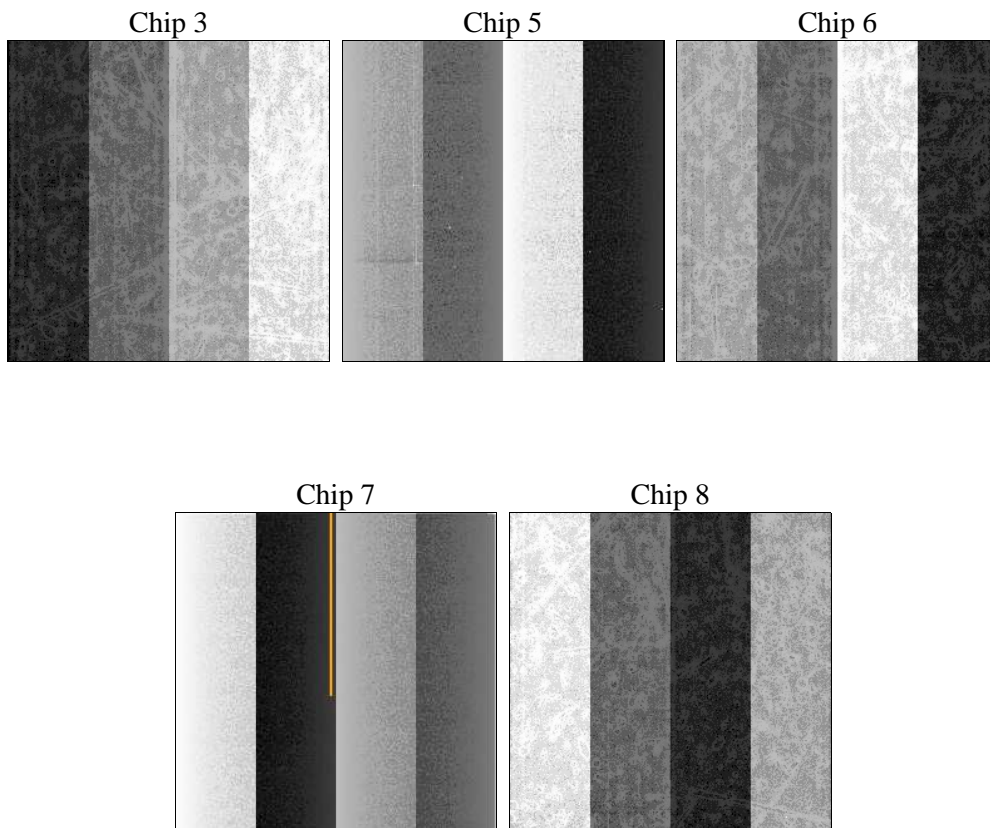
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30434.242000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	30497.800234556	Sum of GTIs [s]
caldbver	4.6.4	 	ontime3	30494.65916419	Sum of GTIs [s]
date	2014-12-11T09:42:02	Date and time of file creation	ontime5	30497.800234556	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	30497.800234556	Sum of GTIs [s]
			ontime7	30497.800234556	Sum of GTIs [s]
			ontime8	30497.800234556	Sum of GTIs [s]
			l1events	1353098	Number of level 1 events

2.1.4 Events

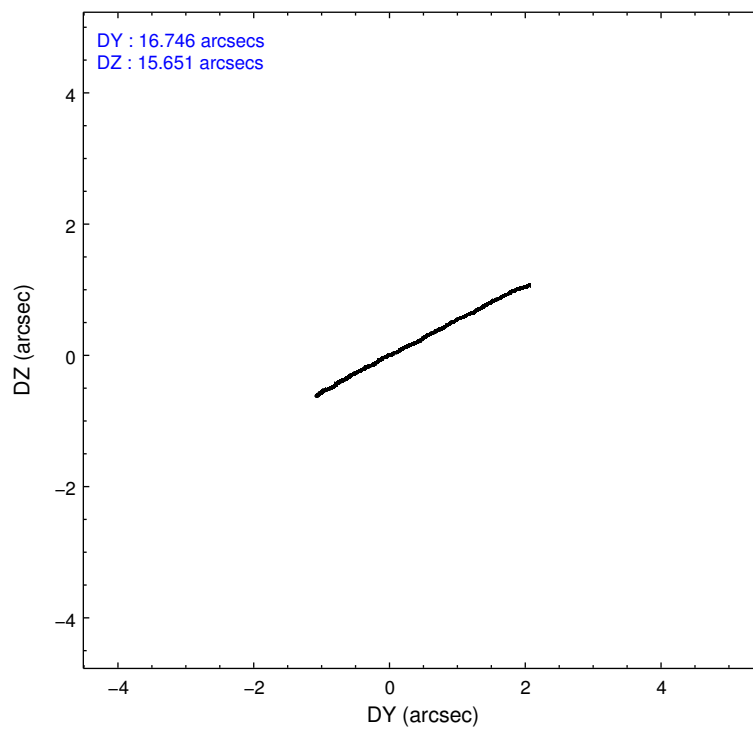
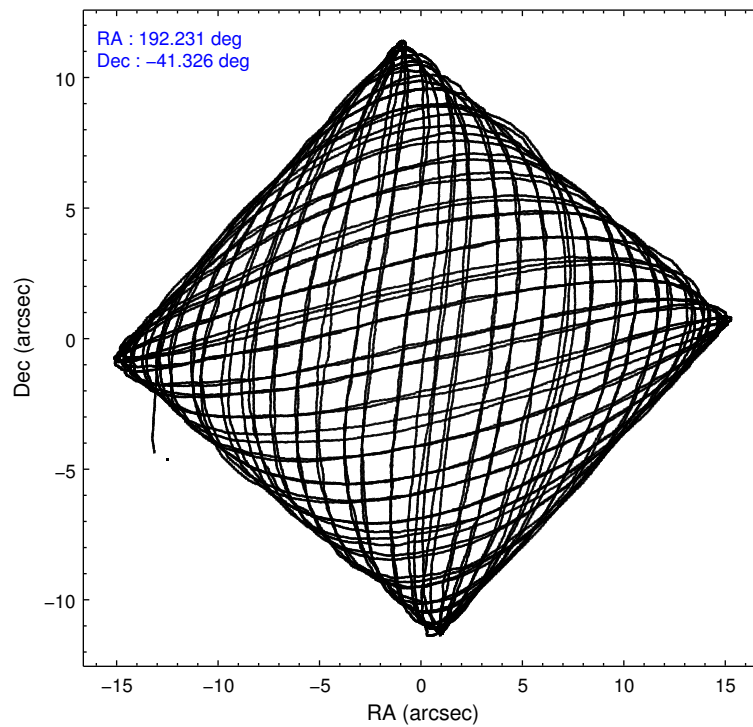
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	152319	283200	201572	496690	219317
rejected events	122184	130117	131109	117660	142351
rejected %	80%	45%	65%	23%	64%

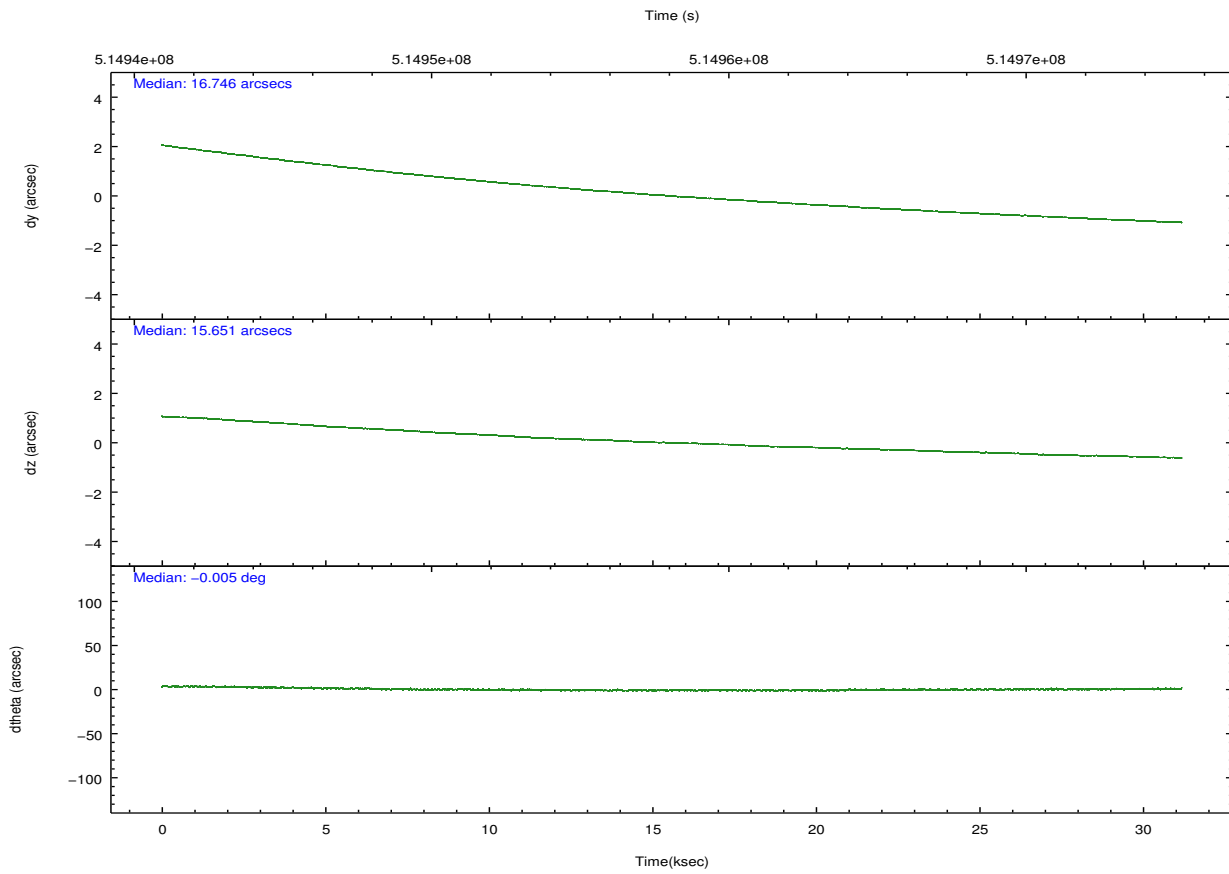
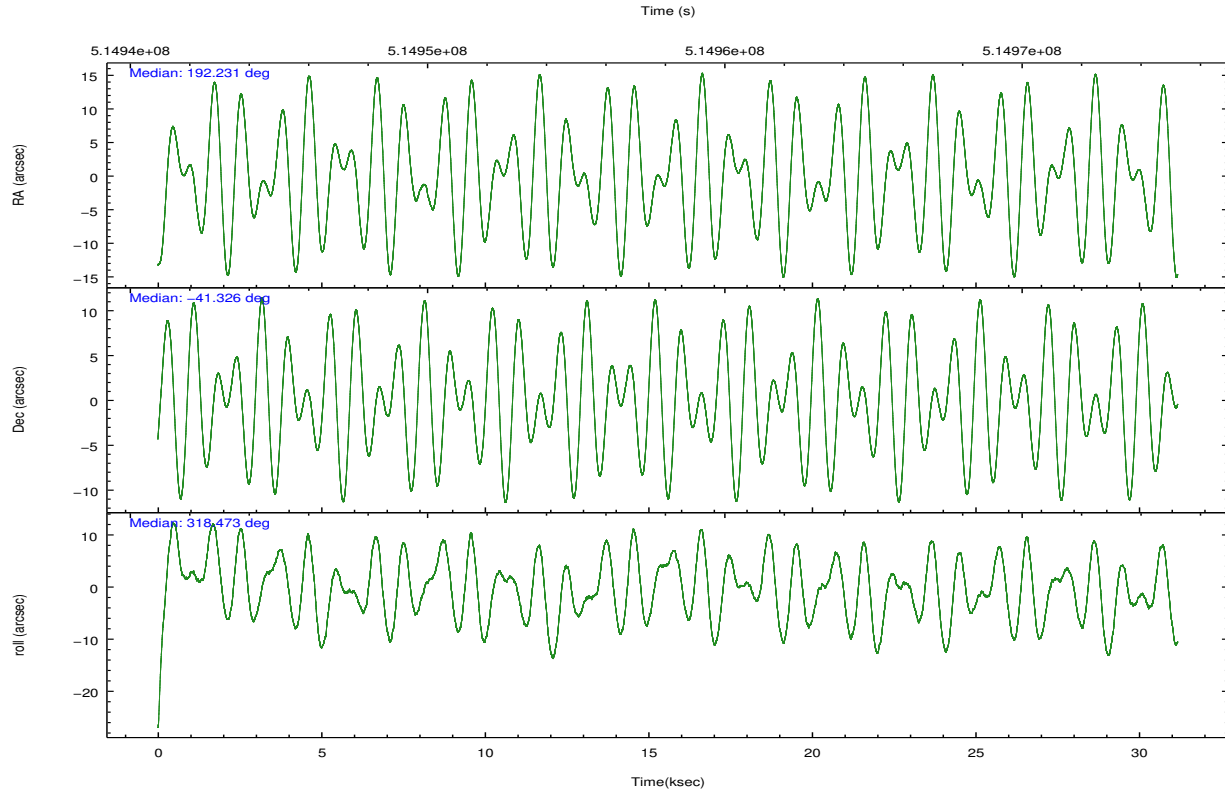
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	17298	33806	48358	90096	37526
	11%	11%	23%	18%	17%
grade 1 events	108	1702	181	293	202
	0%	0%	0%	0%	0%
grade 2 events	4827	42642	9794	97903	14536
	3%	15%	4%	19%	6%
grade 3 events	2096	5011	3311	40489	5605
	1%	1%	1%	8%	2%
grade 4 events	2151	4806	3263	39792	5419
	1%	1%	1%	8%	2%
grade 5 events	7583	17876	7623	21645	10885
	4%	6%	3%	4%	4%
grade 6 events	3765	66833	5743	110783	13888
	2%	23%	2%	22%	6%
grade 7 events	114491	110524	123299	95689	131256
	75%	39%	61%	19%	59%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	192.194966	192.2307206612099	CCD I2 on	N	N
[deg] Pointing Dec	-41.320566	-41.32567090230632	CCD I3 on	O1	Y
[deg] Pointing Roll	318.294199	318.4744351561952	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	O2	Y
[s] Observation start time (MET)	514943228.184000	514942008.63327	CCD S5 on	N	N
Observation start date	2014-04-26T23:46:01	2014-04-26T23:26:48	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	514973662.184000	514973888.69753	On-chip summing requested	N	N
Observation end date	2014-04-27T08:13:15	2014-04-27T08:18:08	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





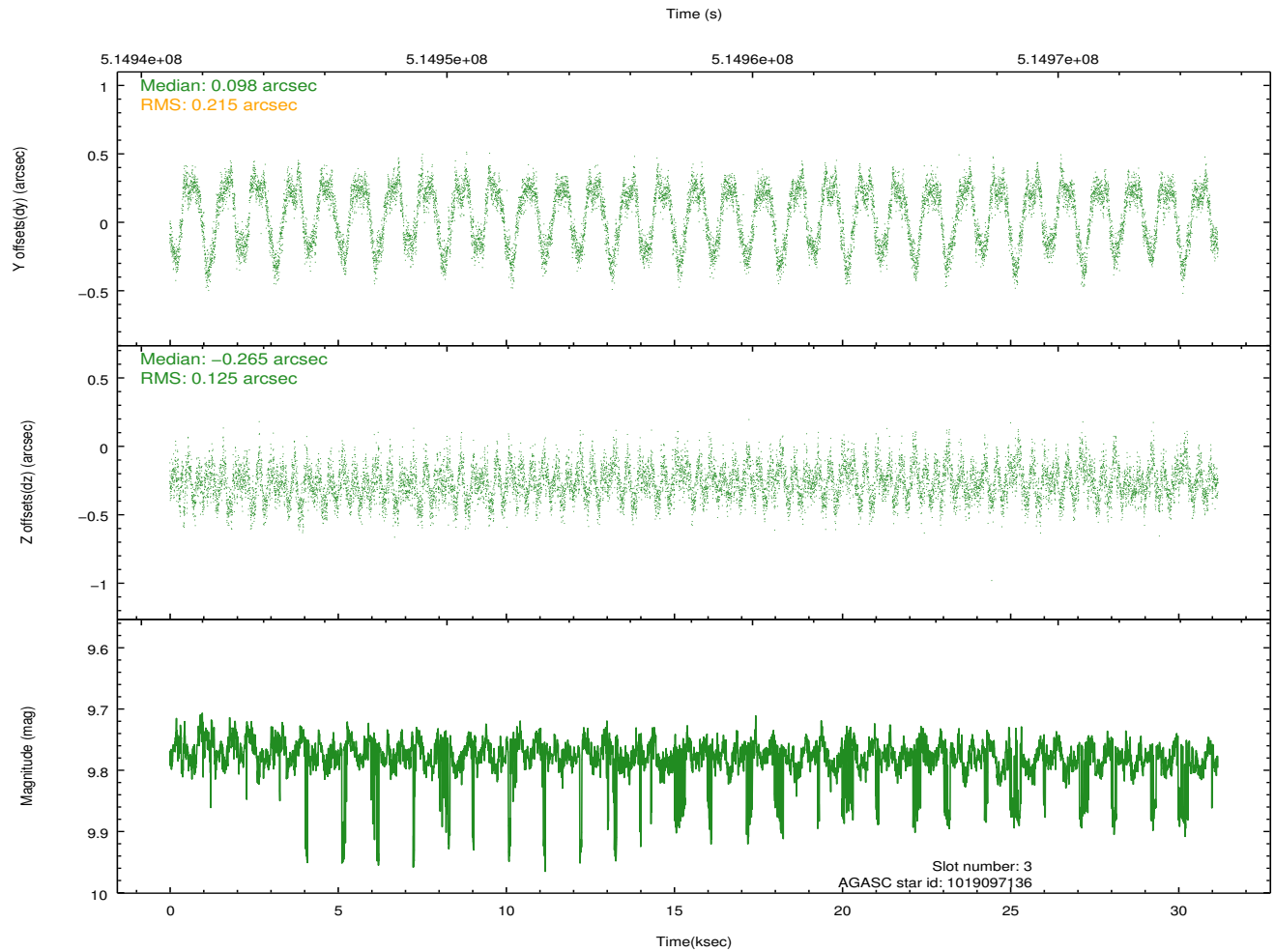
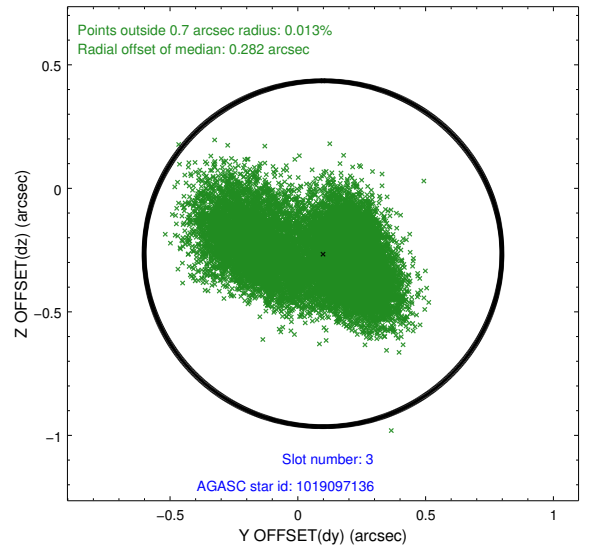
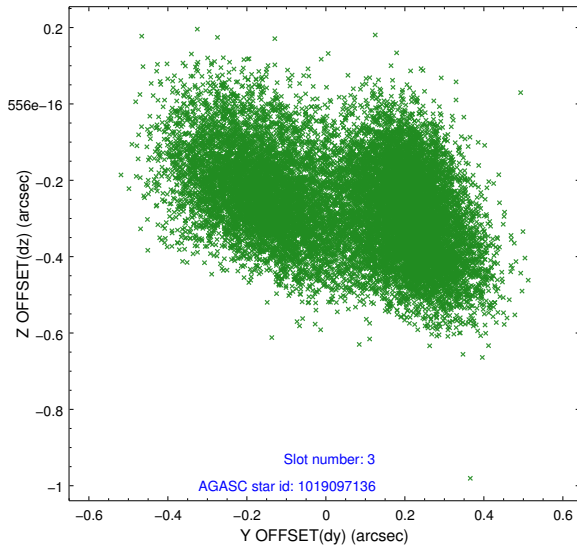
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.10	7605	-0.130	-0.032	0.014	0.021	0.000000	0.000000	-770.05	-1737.12
1	FID		ACIS-S-4	7.19	7605	0.285	0.071	0.014	0.043	0.000000	0.000000	2143.60	171.42
2	FID		ACIS-S-5	7.22	7605	-0.181	-0.032	0.020	0.055	0.000000	0.000000	-1822.88	165.03
3	GUIDE	used	1019097136	9.78	15196	0.098	-0.265	0.263	0.432	192.313055	-40.632524	-1406.59	2063.52
4	GUIDE	used	1019221952	9.56	15194	-0.105	-0.206	0.173	0.273	192.906873	-41.032646	759.12	2054.15
5	GUIDE	used	1019615024	8.47	15201	0.029	0.380	0.076	0.123	191.349086	-41.365736	-1590.02	-1649.67
6	GUIDE	used	1019740808	8.78	15204	0.021	-0.086	0.113	0.180	192.766173	-41.251253	991.67	1210.72
7	GUIDE	used	1019743536	8.65	15203	0.015	0.174	0.130	0.193	192.632057	-41.696442	1780.15	-230.58

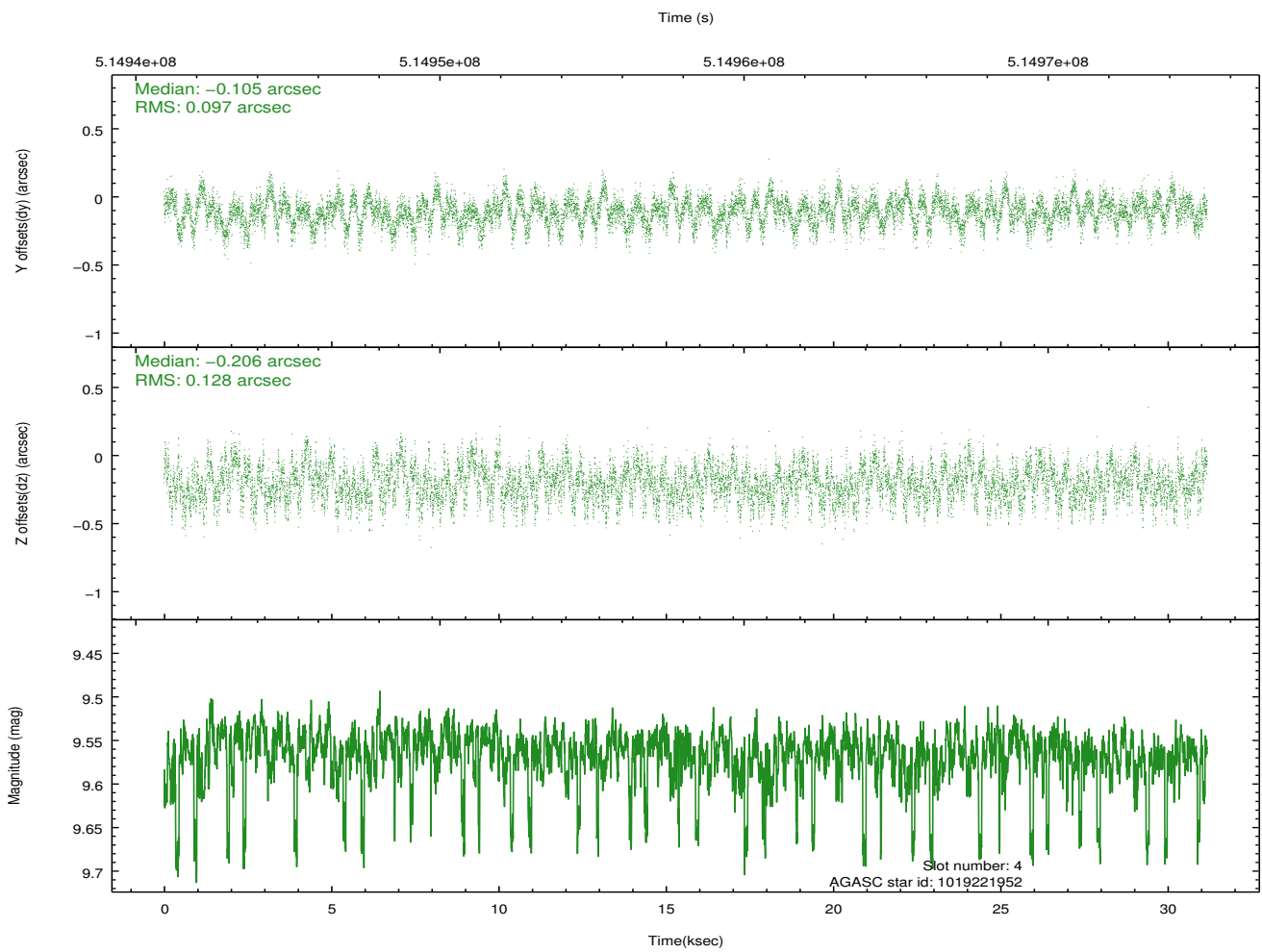
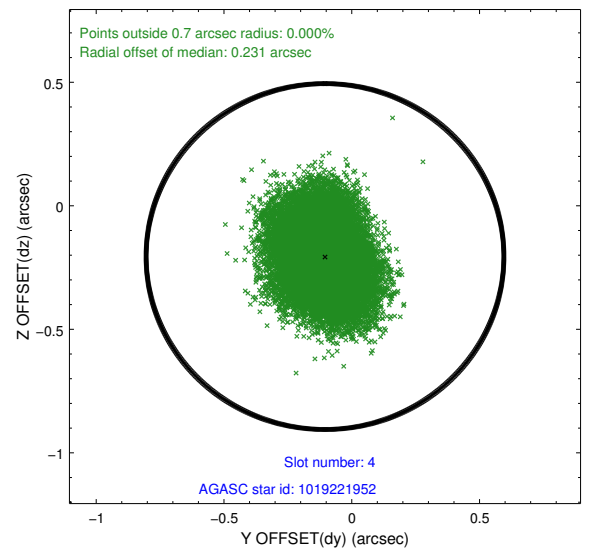
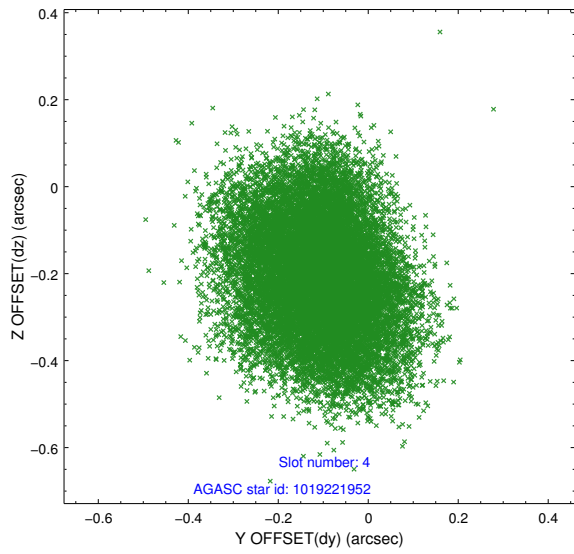
∞

2.4 Star Slots

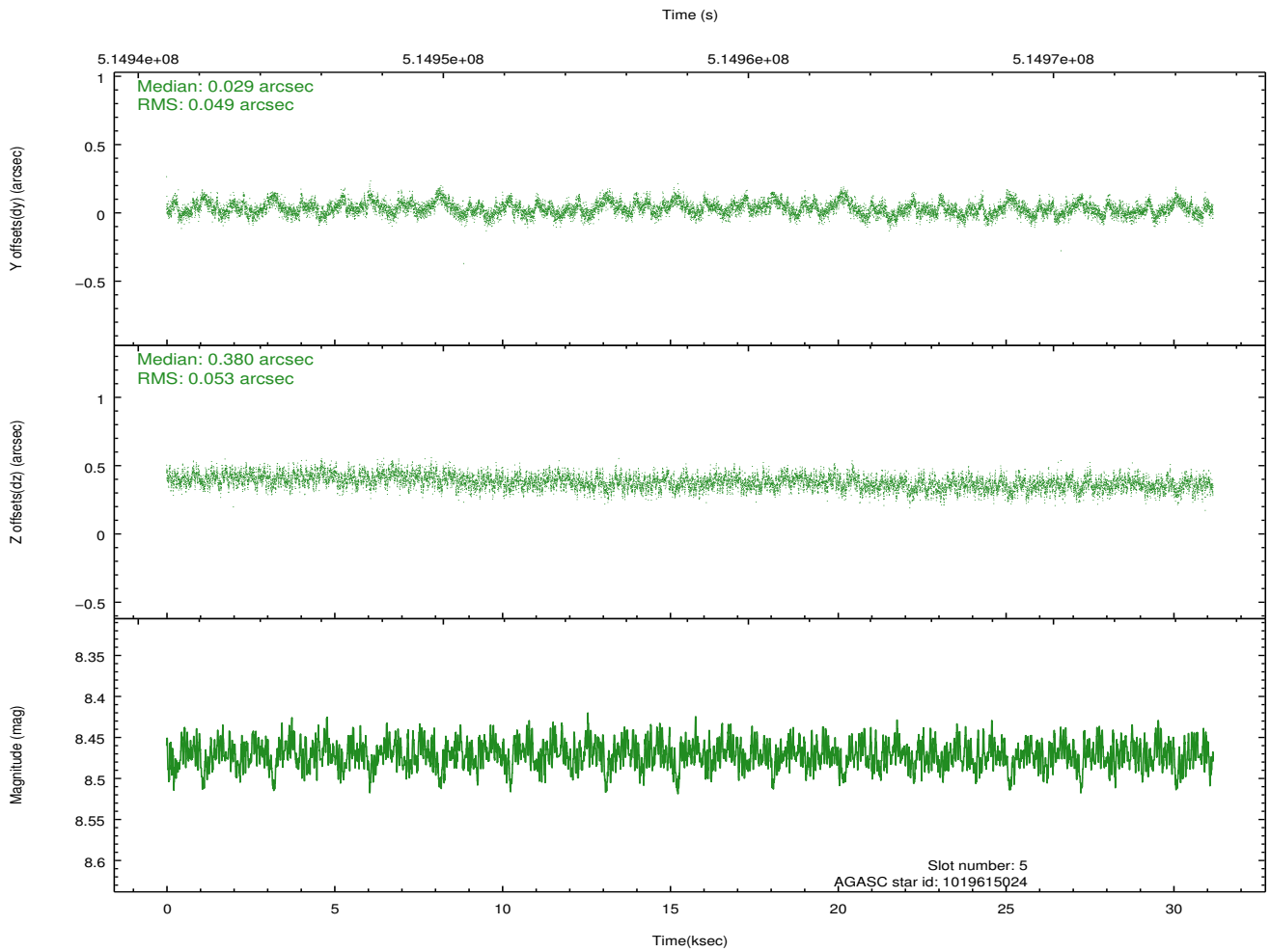
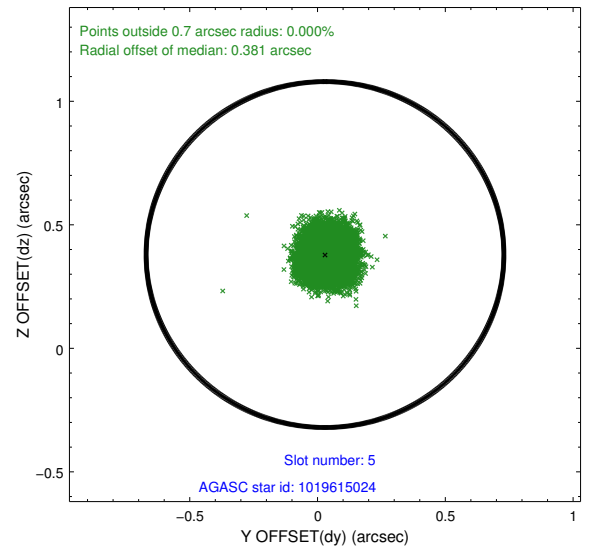
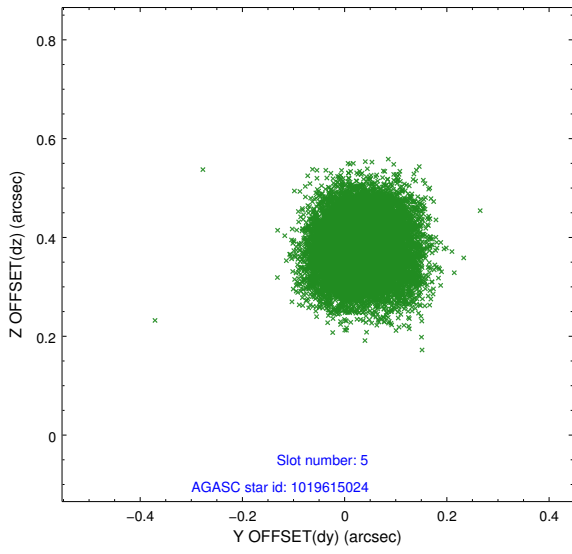
2.4.1 Slot 3



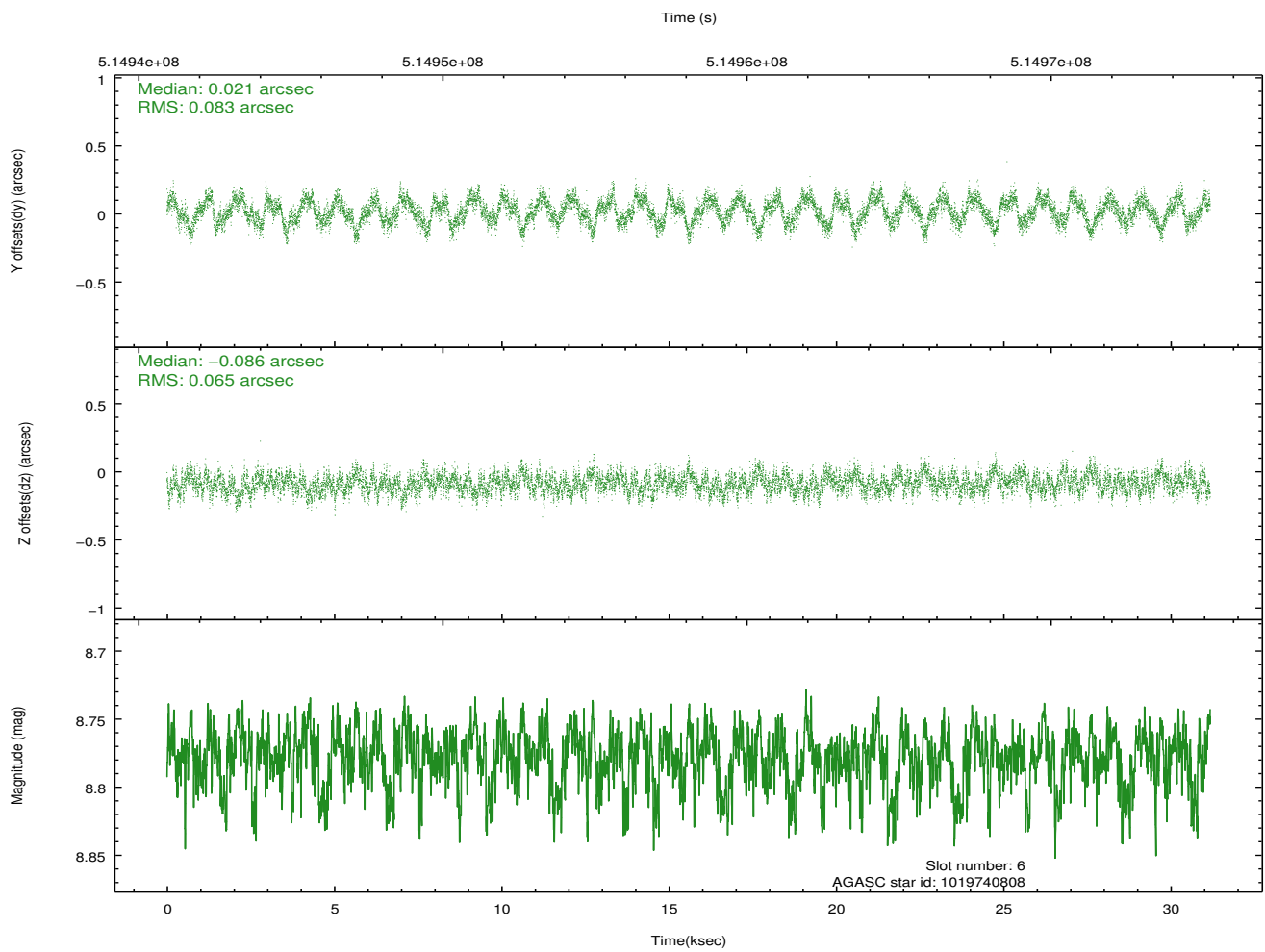
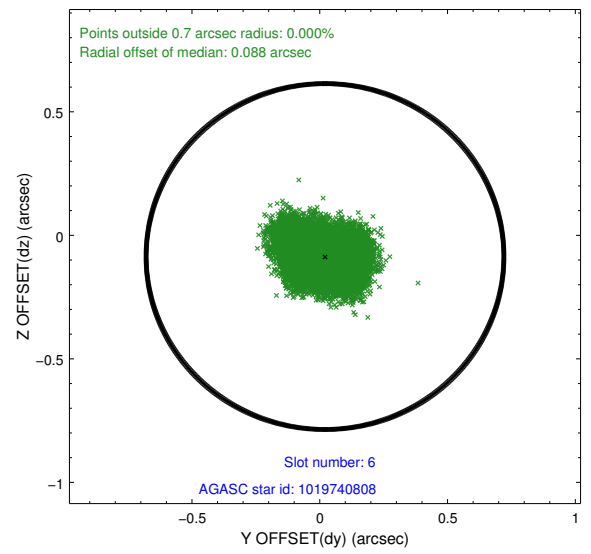
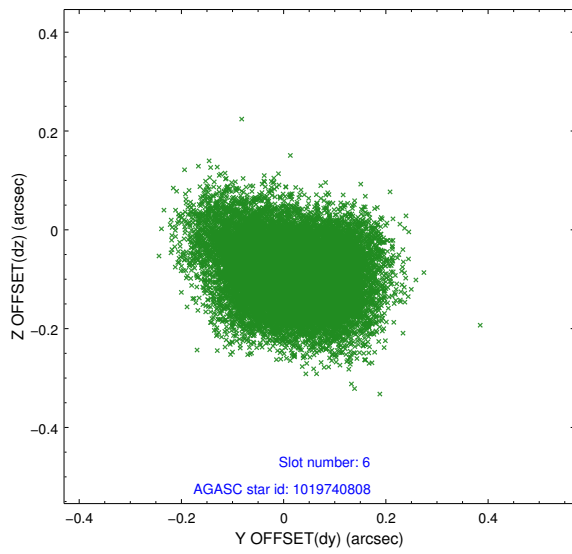
2.4.2 Slot 4



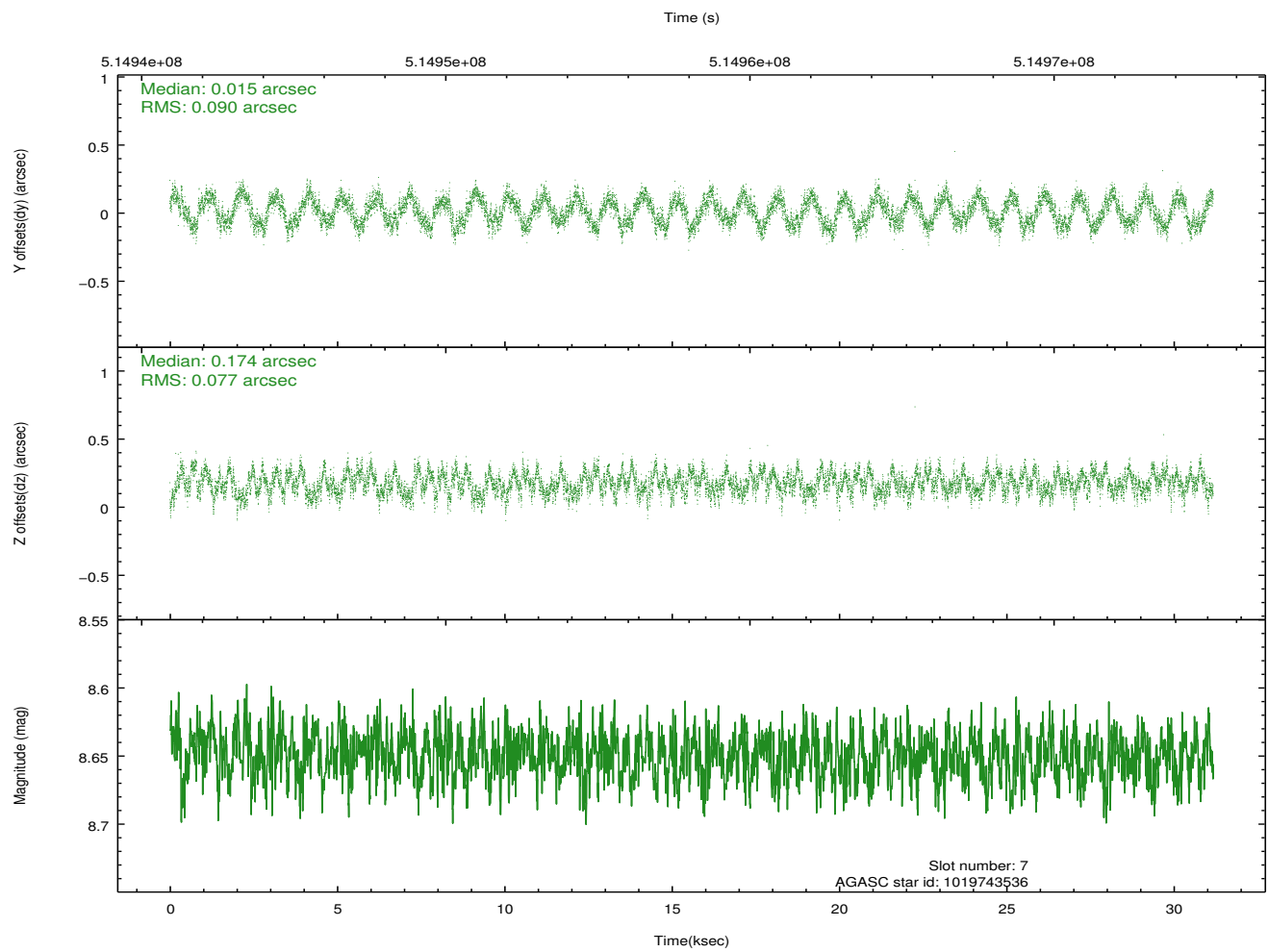
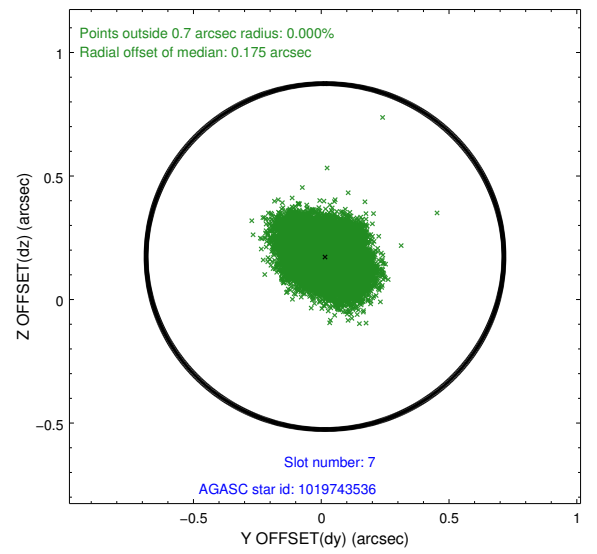
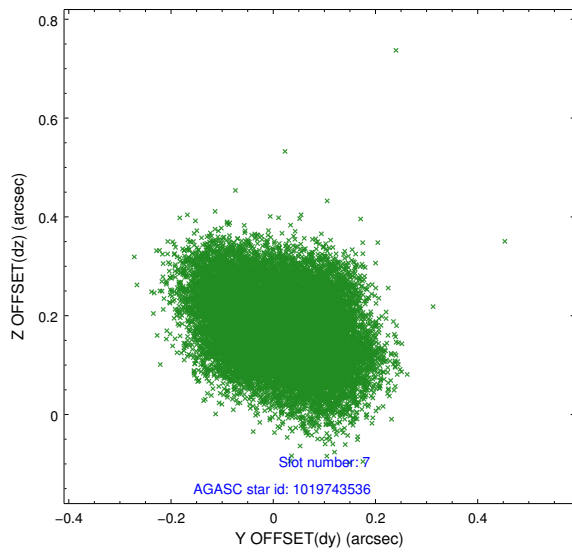
2.4.3 Slot 5



2.4.4 Slot 6

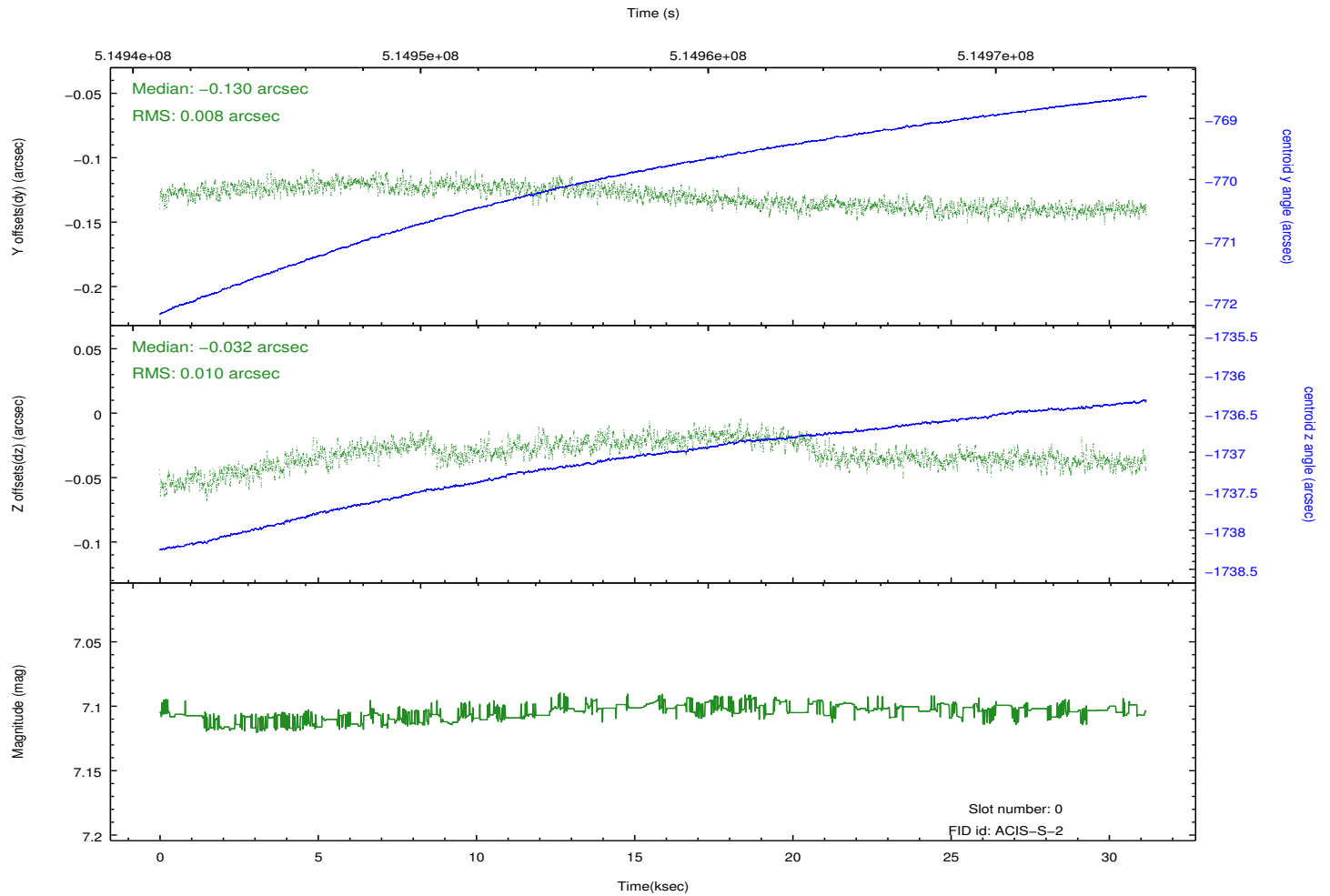
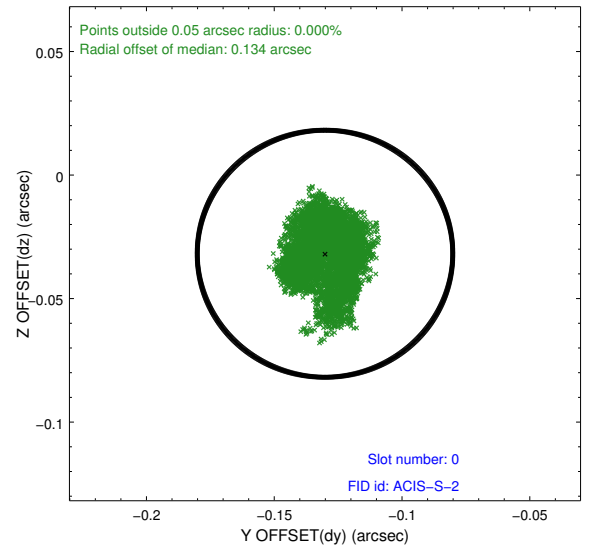
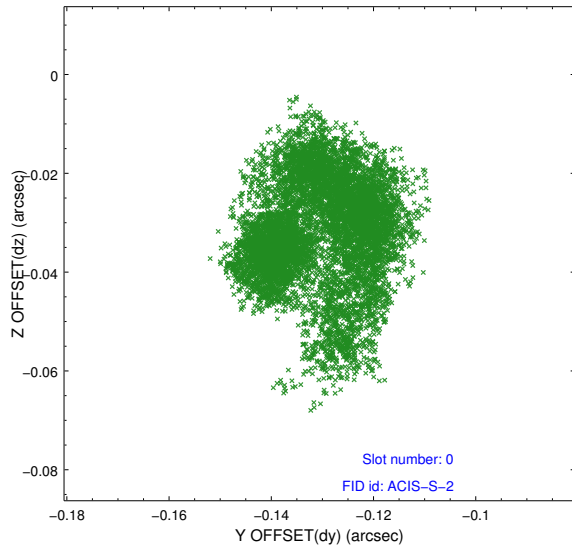


2.4.5 Slot 7

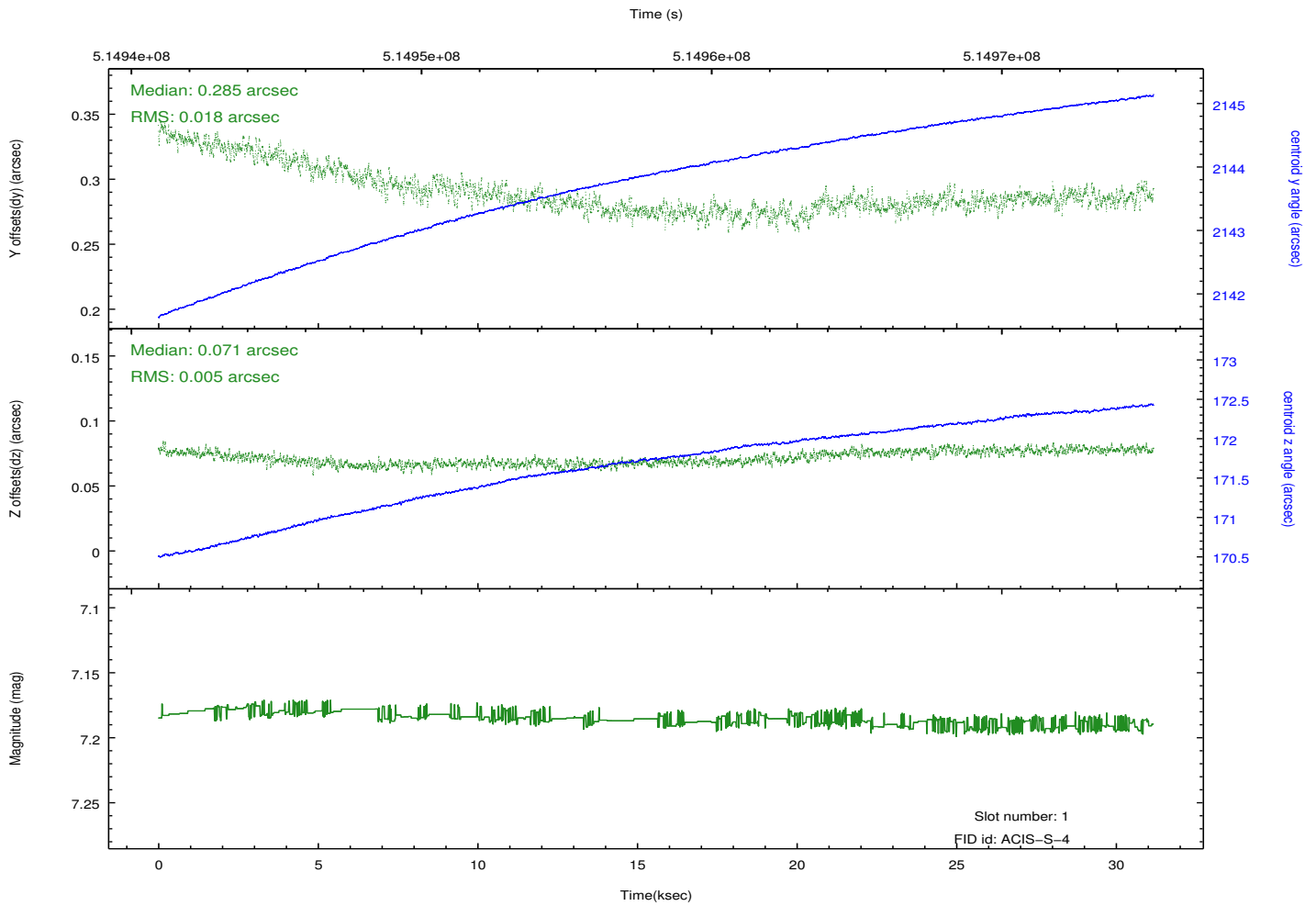
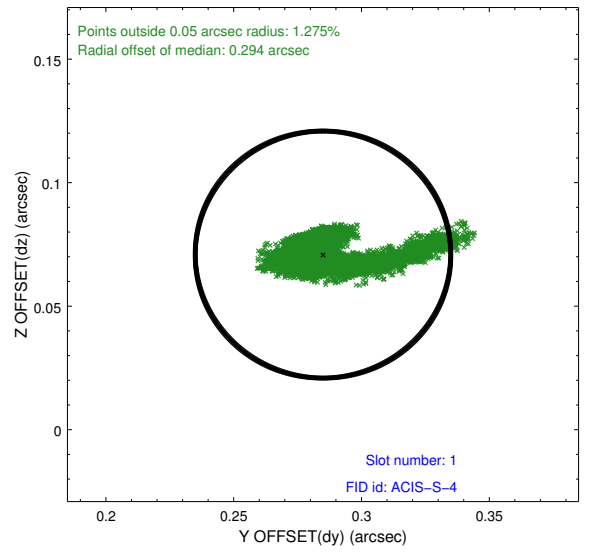
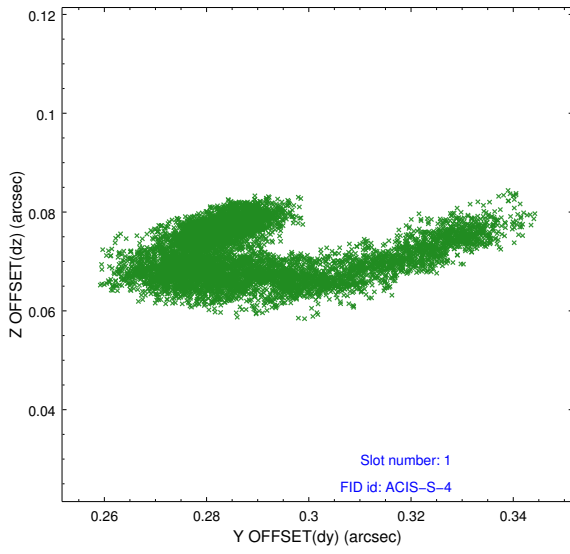


2.5 FID Slots

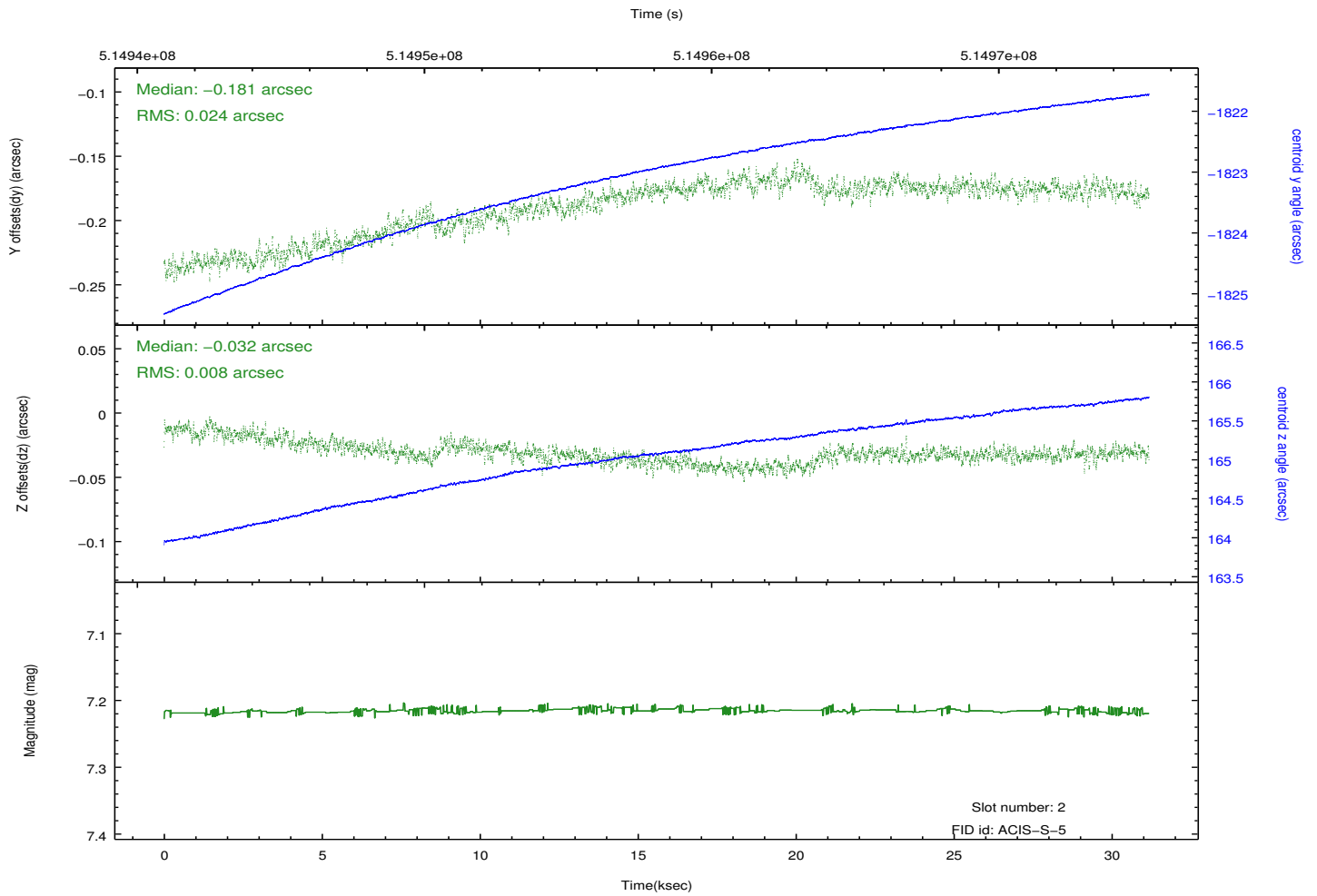
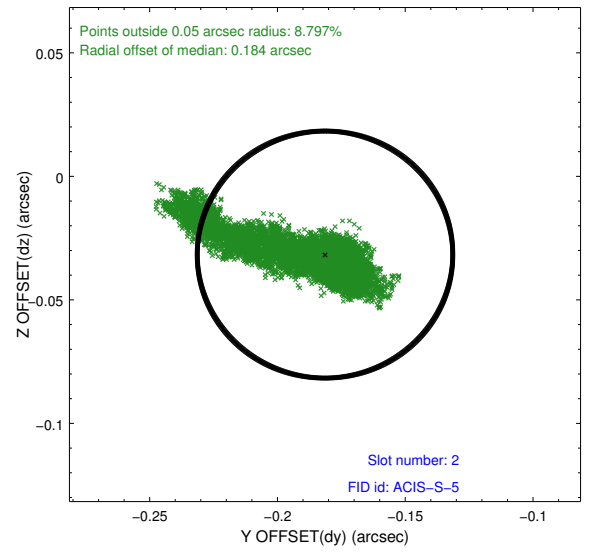
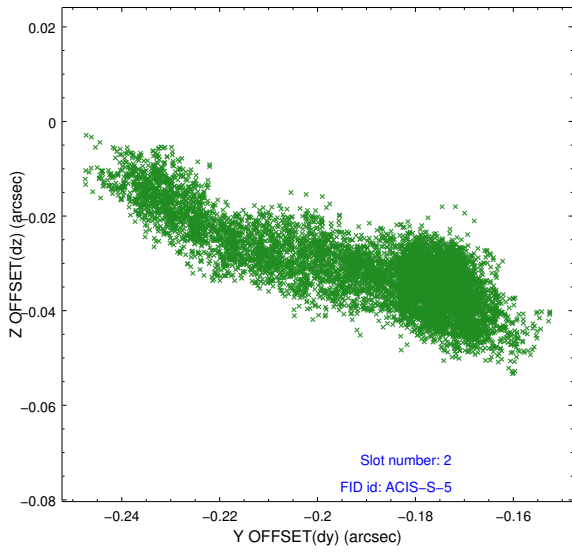
2.5.1 Slot 0



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)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.497800234556

A.2 Comments

Joint proposal with NRAO.

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.