

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16025 - L2 Version 2
Chandra X-Ray Center

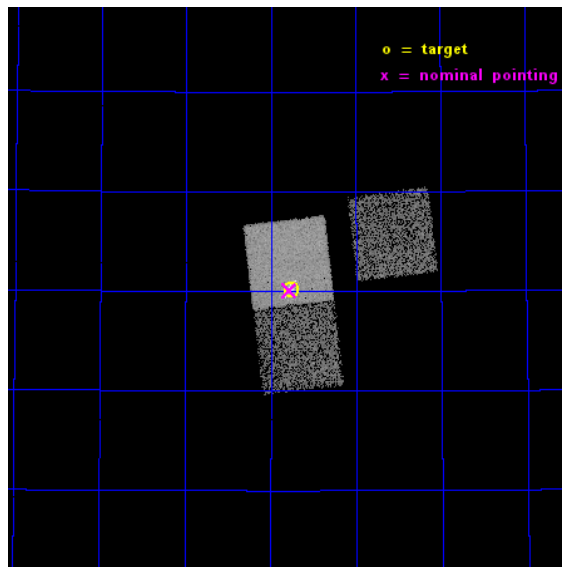
L2 Processing Date : Dec 11 2014

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1 Front

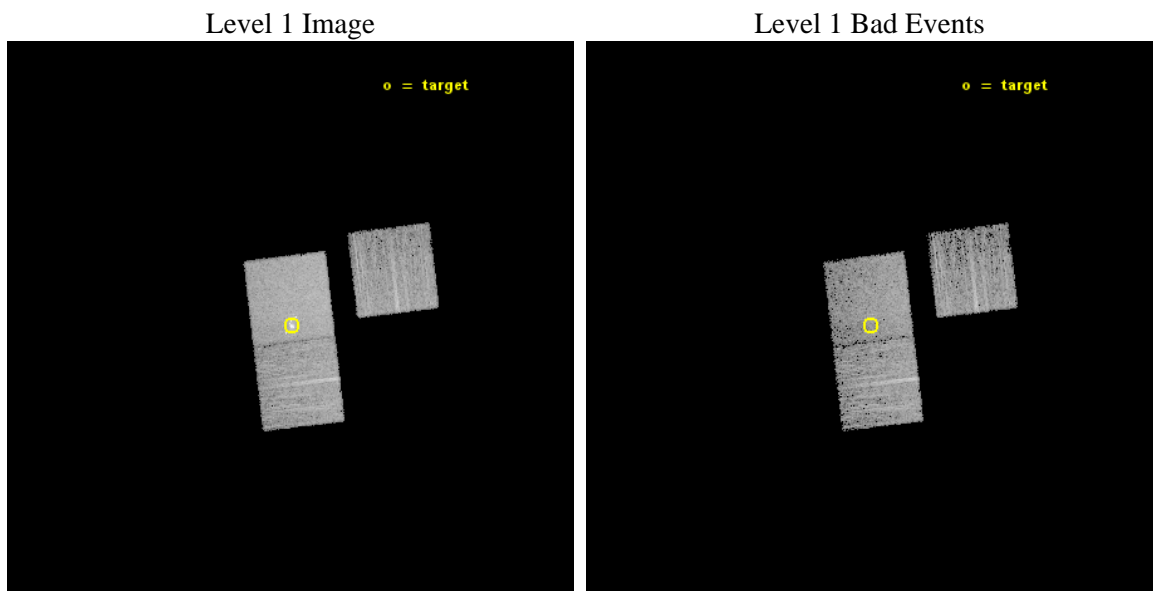
seq_num	601113	Sequence number
obs_id	16025	Observation id
title	0.5-30 KEV IMAGING OF STARBURSTS WITH CHANDRA AND NUSTAR	Proposal
observer	Dr. Ann Hornschemeier	Principal investigator
object	NGC 3310	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	159.69125	Observer's specified target RA [deg]
dec_targ	53.503278	Observer's specified target Dec [deg]
ra_nom	159.69520725704	Nominal RA [deg]
dec_nom	53.501336728594	Nominal Dec [deg]
roll_nom	263.1342966738	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10084.268353045	Sum of GTIs [s]
livetime	9952.5099630821	Livetime [s]
ontime3	10084.186273038	Sum of GTIs [s]
ontime6	10084.227313042	Sum of GTIs [s]
ontime7	10084.268353045	Sum of GTIs [s]
l2events	41062	Number of level 2 events



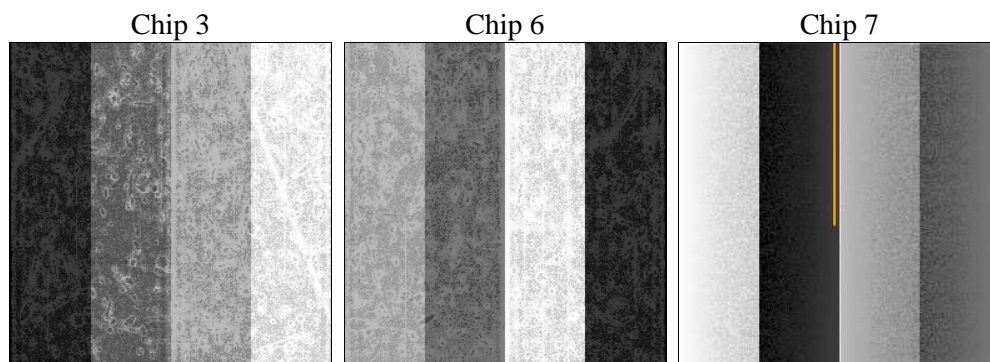
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9963.152000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	10084.268353045	Sum of GTIs [s]
caldsver	4.6.4	 	ontime3	10084.186273038	Sum of GTIs [s]
date	2014-12-12T02:39:55	Date and time of file creation	ontime6	10084.227313042	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	10084.268353045	Sum of GTIs [s]
			l1events	162168	Number of level 1 events

2.1.4 Events

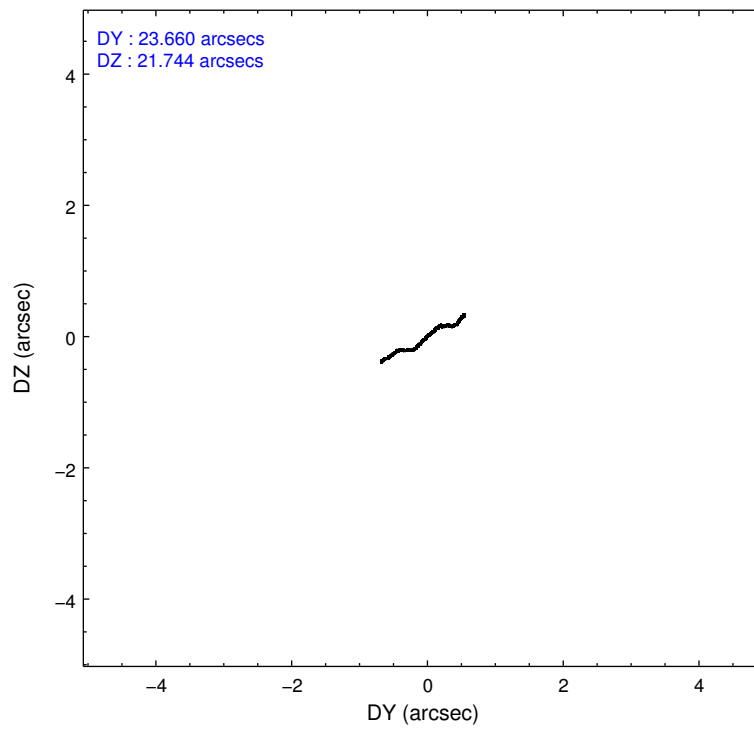
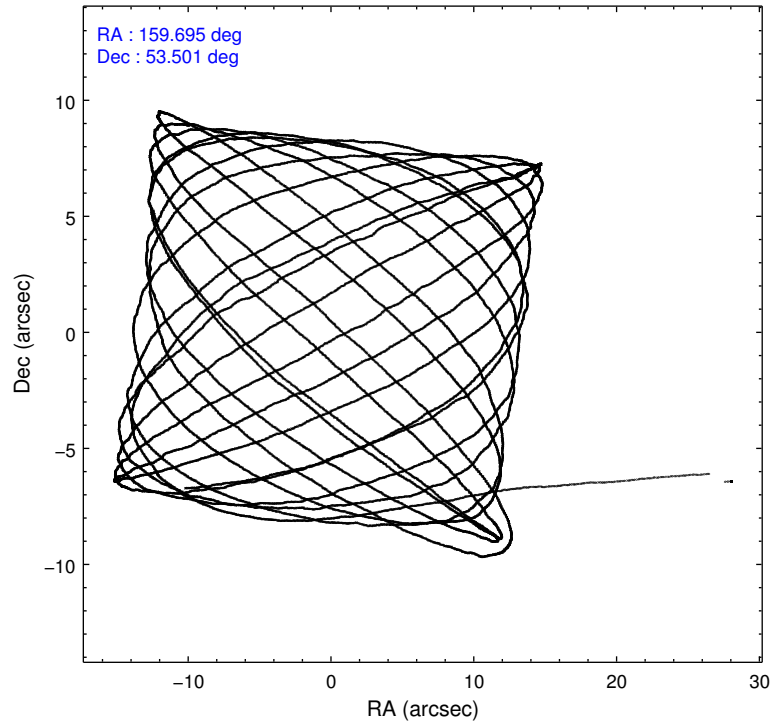
	ccd 3	ccd 6	ccd 7
level 1 events	44297	49233	68638
rejected events	38705	43323	37249
rejected %	87%	87%	54%

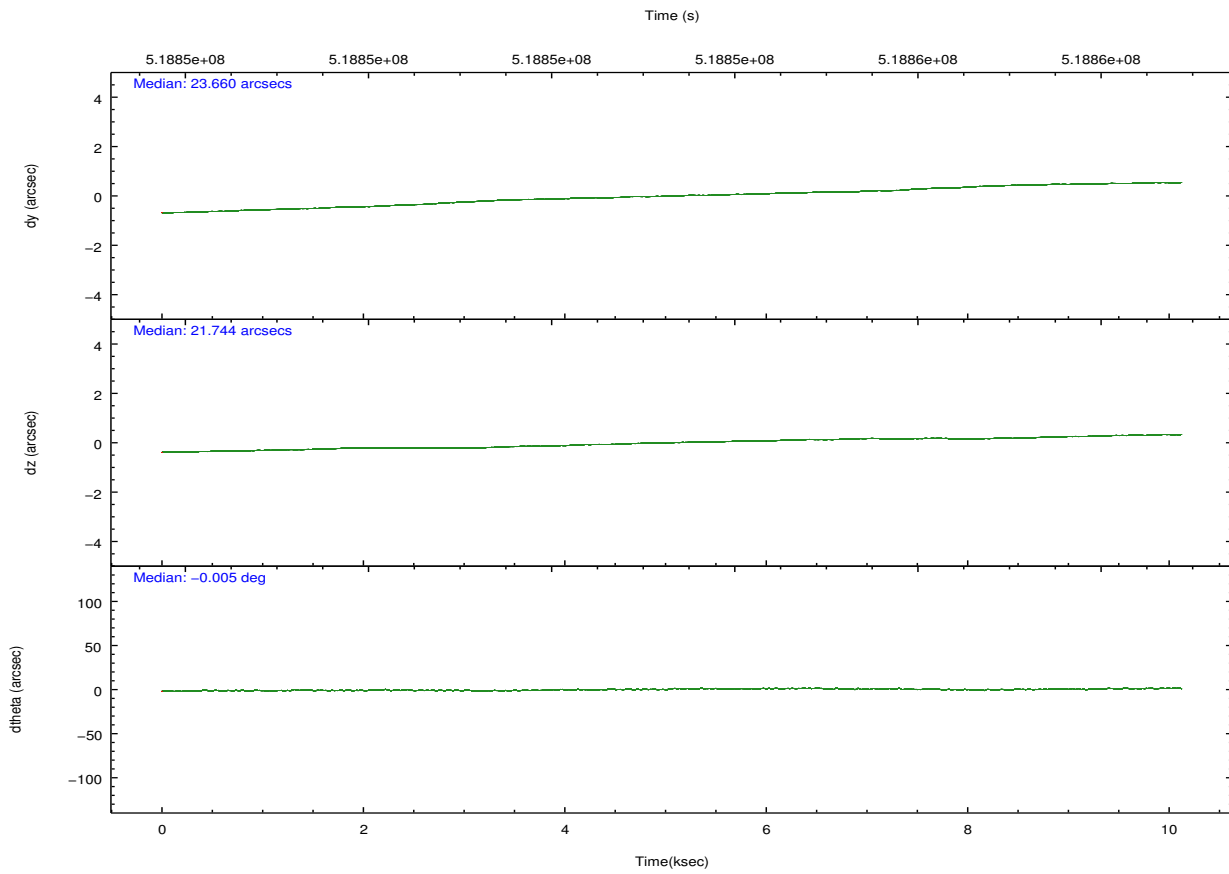
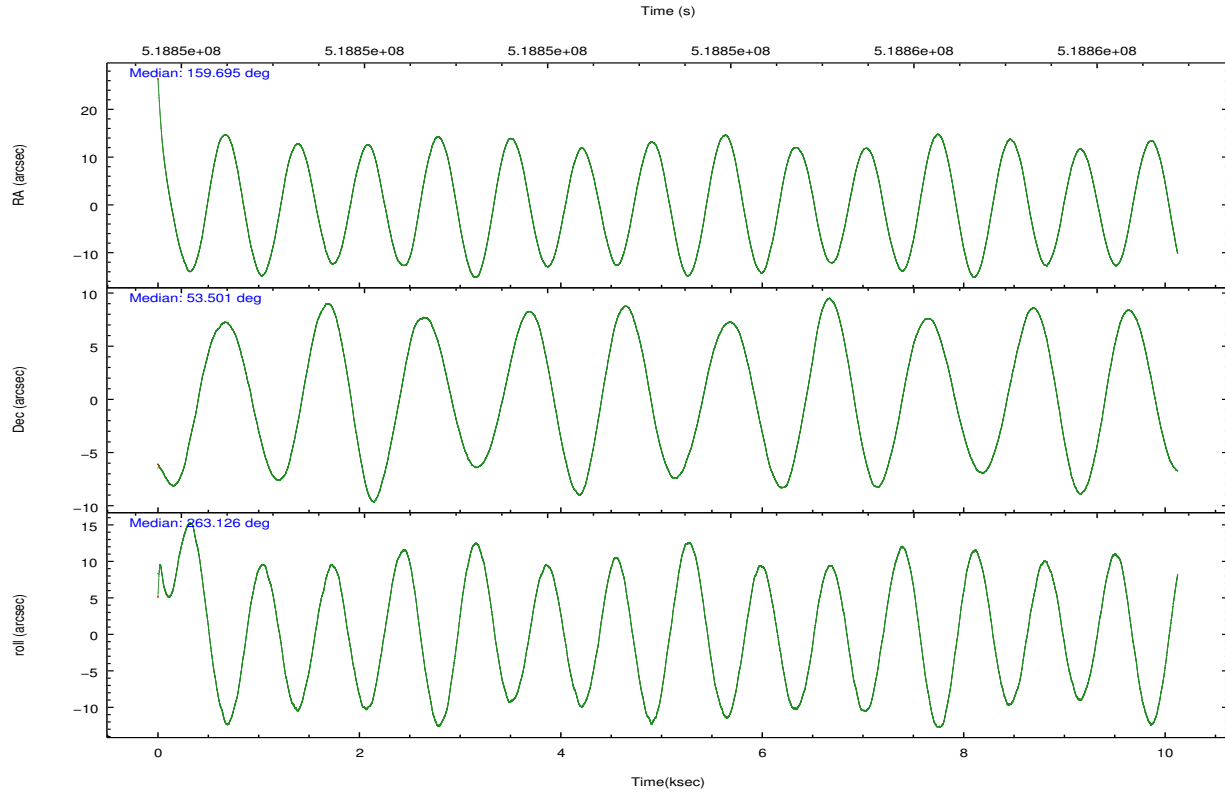
	ccd 3	ccd 6	ccd 7
grade 0 events	2005	1991	3223
	4%	4%	4%
grade 1 events	26	20	89
	0%	0%	0%
grade 2 events	1217	1349	6596
	2%	2%	9%
grade 3 events	579	590	2718
	1%	1%	3%
grade 4 events	609	590	2601
	1%	1%	3%
grade 5 events	2557	2606	6655
	5%	5%	9%
grade 6 events	1183	1395	16265
	2%	2%	23%
grade 7 events	36121	40692	30491
	81%	82%	44%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-367	ACIS-367	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	159.676534	159.6952072570409	CCD I2 on	N	N
[deg] Pointing Dec	53.526357	53.50133672859431	CCD I3 on	O2	Y
[deg] Pointing Roll	262.992673	263.1342966737989	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O1	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	N	N
[s] Observation start time (MET)	518848418.184000	518847564.299	CCD S5 on	N	N
Observation start date	2014-06-11T04:32:31	2014-06-11T04:19:24	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	518858381.184000	518858610.72461	On-chip summing requested	N	N
Observation end date	2014-06-11T07:18:34	2014-06-11T07:23:30	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



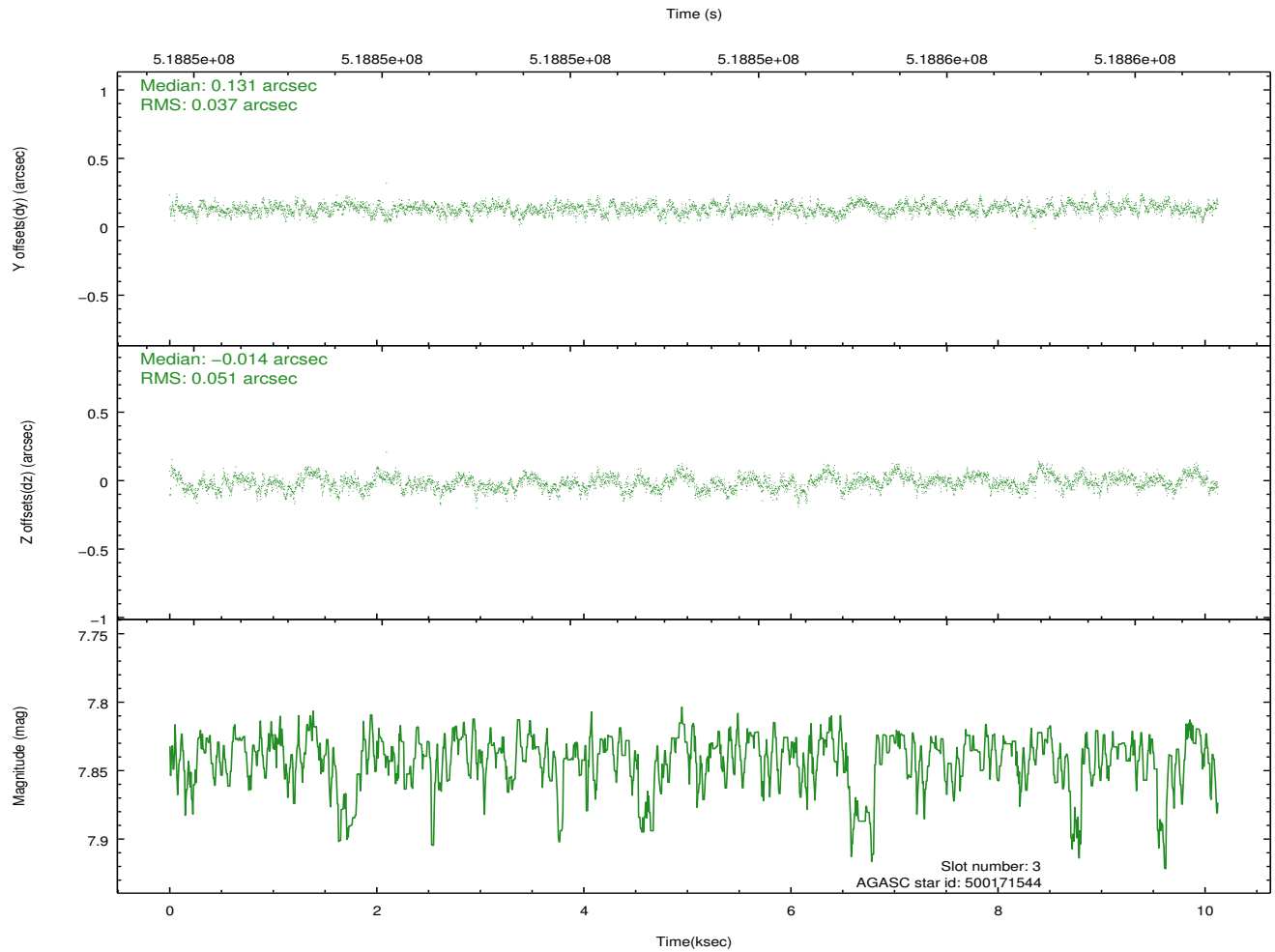
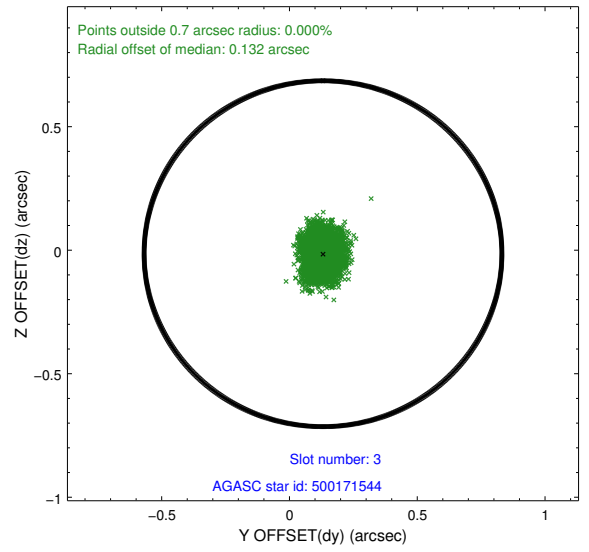
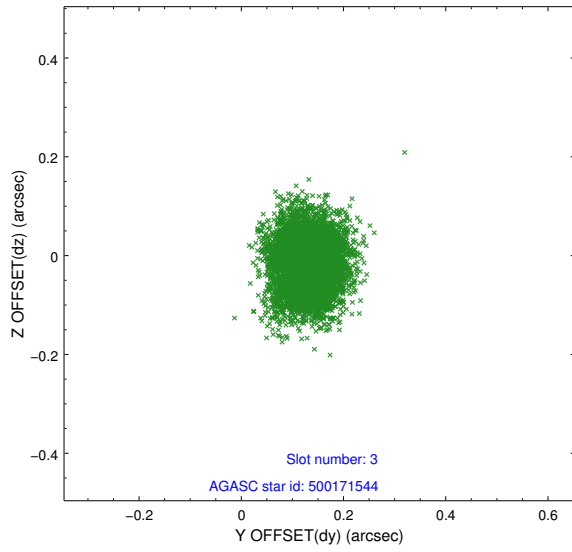


Slot Statistics

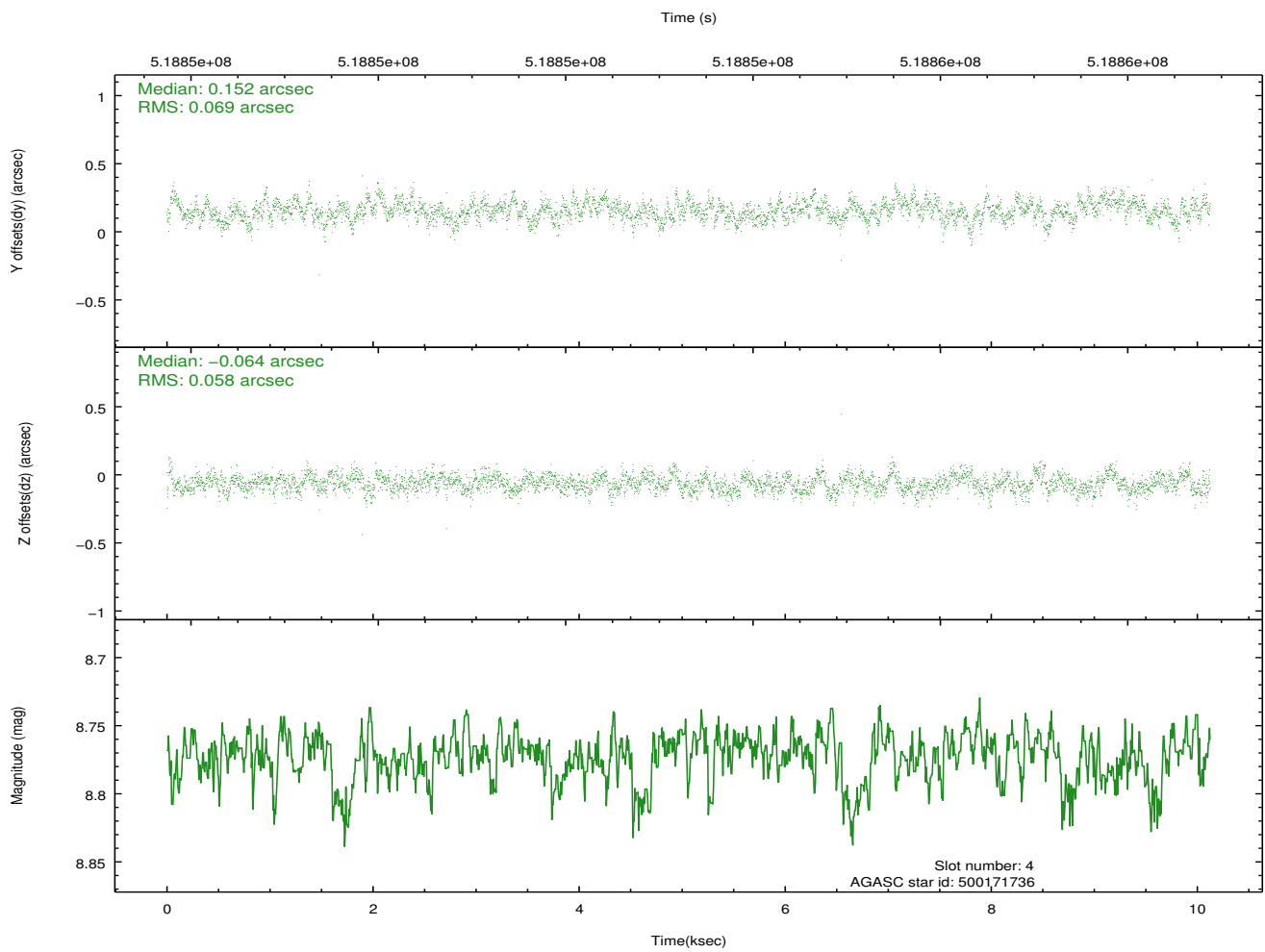
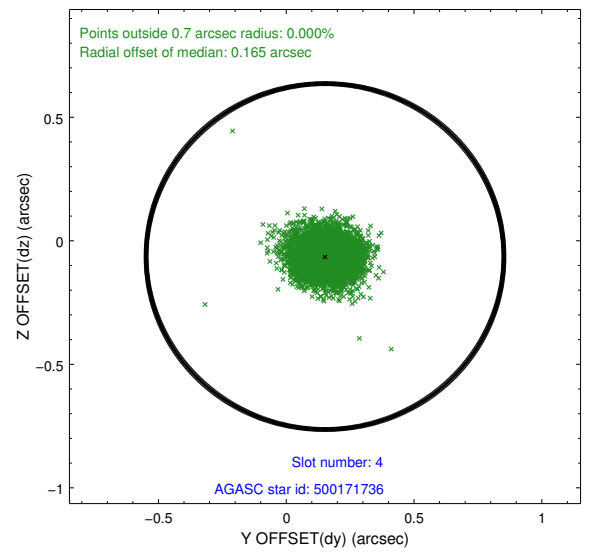
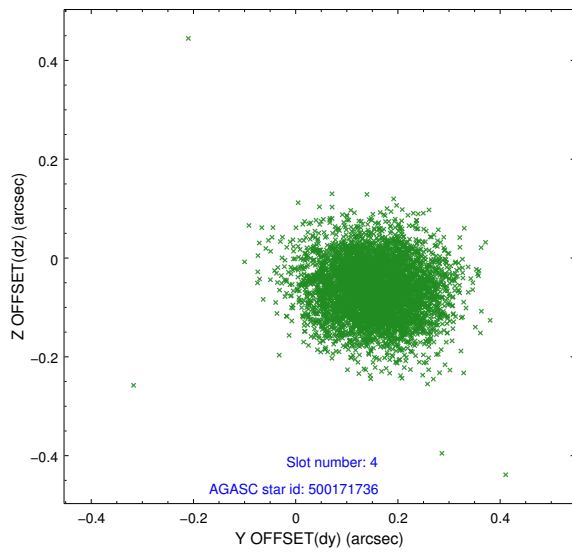
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.02	2470	0.032	-0.029	0.020	0.034	0.000000	0.000000	919.21	-1738.89
1	FID		ACIS-S-4	7.03	2470	0.225	0.009	0.010	0.022	0.000000	0.000000	2137.10	164.75
2	FID		ACIS-S-5	7.06	2470	-0.275	0.033	0.015	0.023	0.000000	0.000000	-1829.29	158.96
3	GUIDE	used	500171544	7.84	4940	0.131	-0.014	0.068	0.110	158.880107	53.772629	-681.85	-1791.16
4	GUIDE	used	500171736	8.77	4937	0.152	-0.064	0.095	0.154	158.648618	53.141434	1631.17	-2035.80
5	GUIDE	used	500173248	8.24	4939	0.021	0.338	0.075	0.122	158.840876	53.953250	-1318.81	-1945.89
6	GUIDE	used	501092928	7.77	4939	-0.112	0.014	0.084	0.137	160.280177	53.627423	-523.86	1234.20
7	GUIDE	used	501091392	7.57	4939	-0.195	-0.269	0.099	0.153	160.324146	52.970595	1808.27	1636.59

2.4 Star Slots

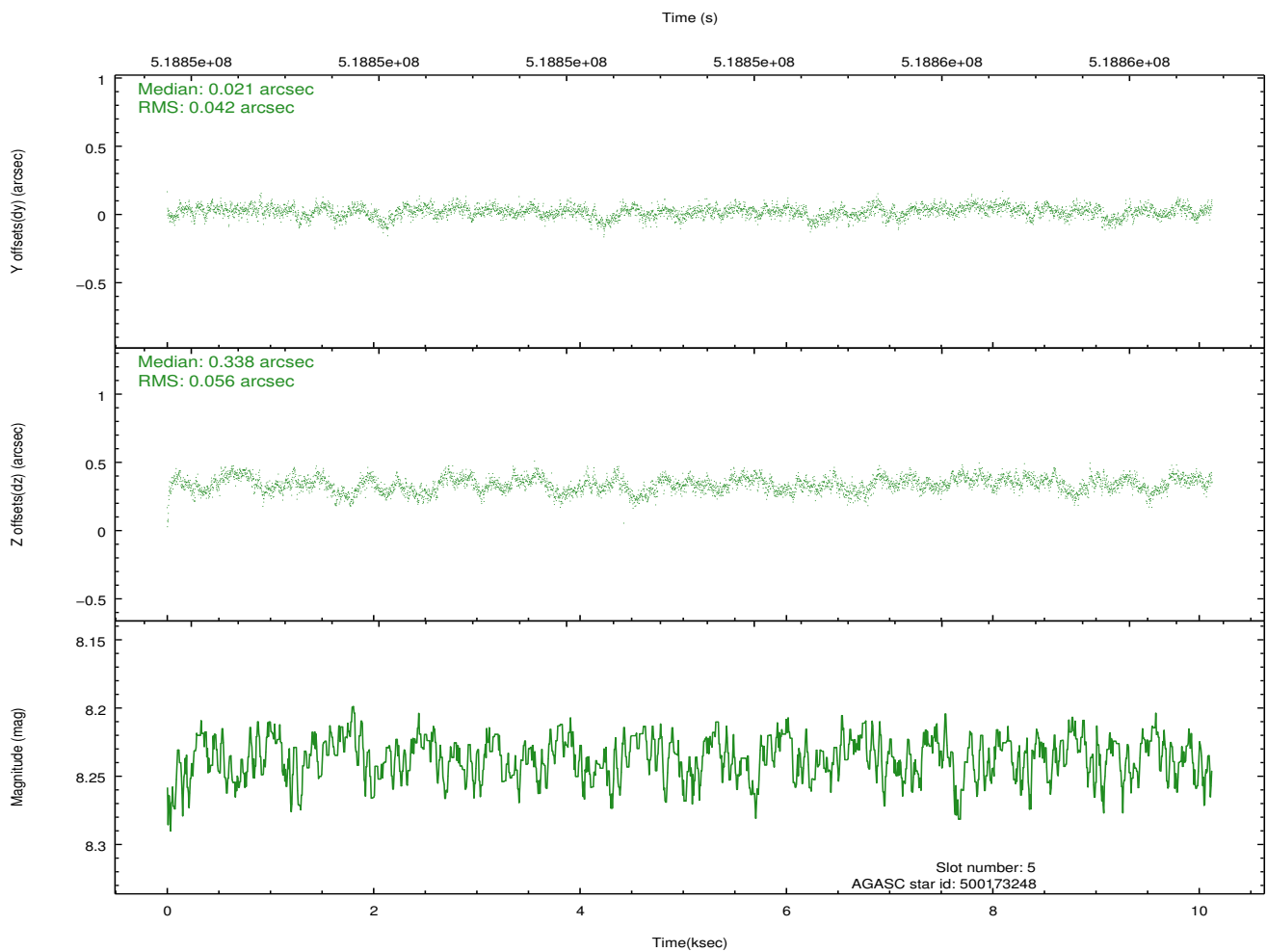
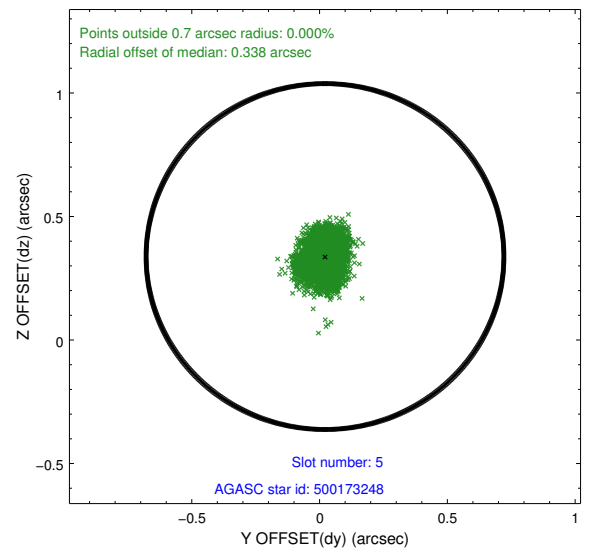
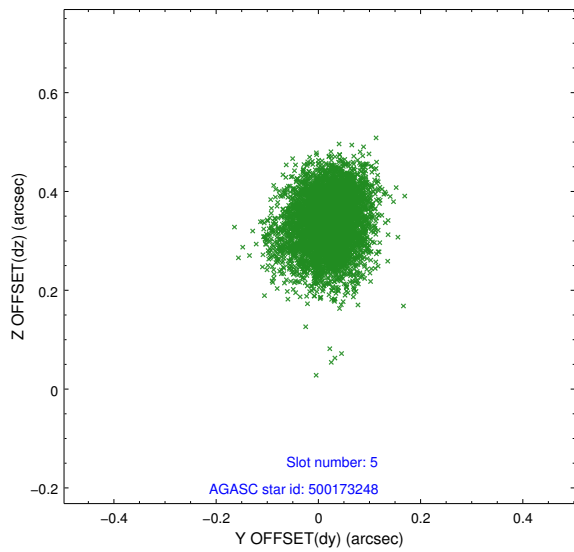
2.4.1 Slot 3



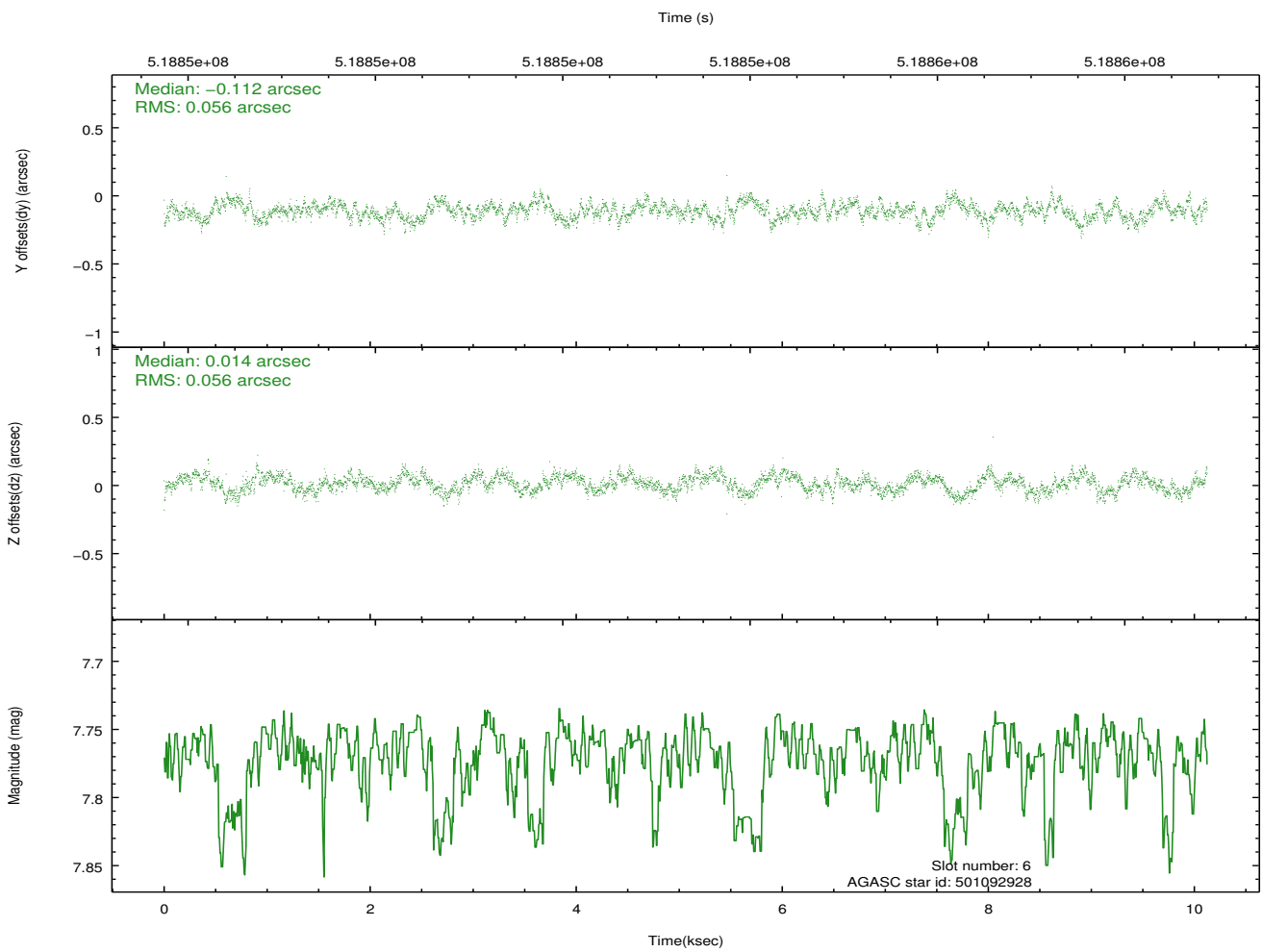
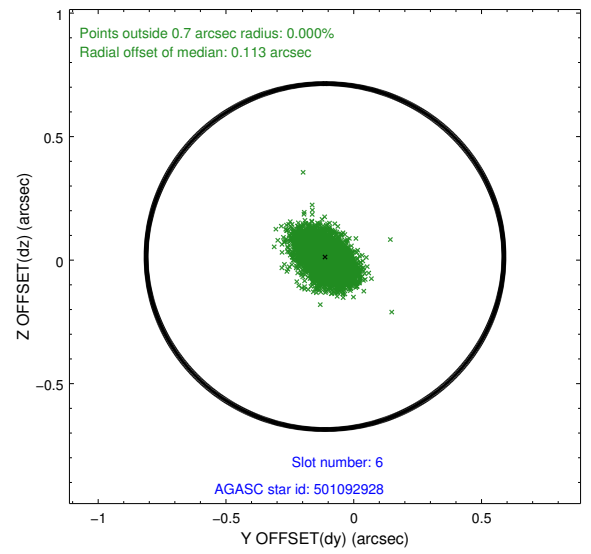
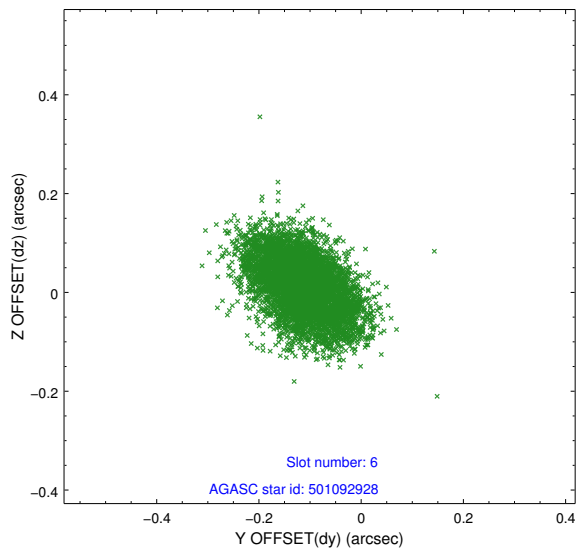
2.4.2 Slot 4



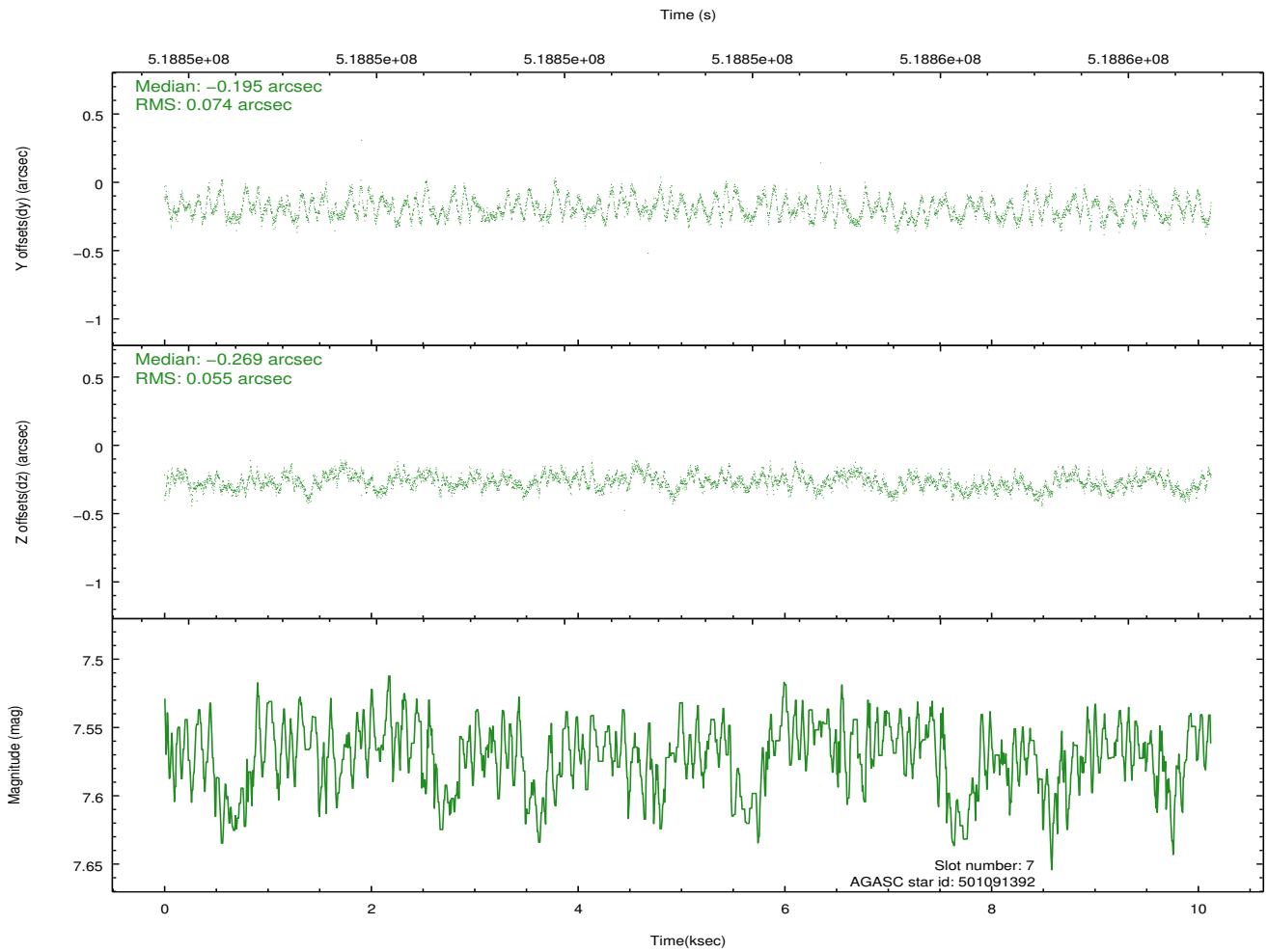
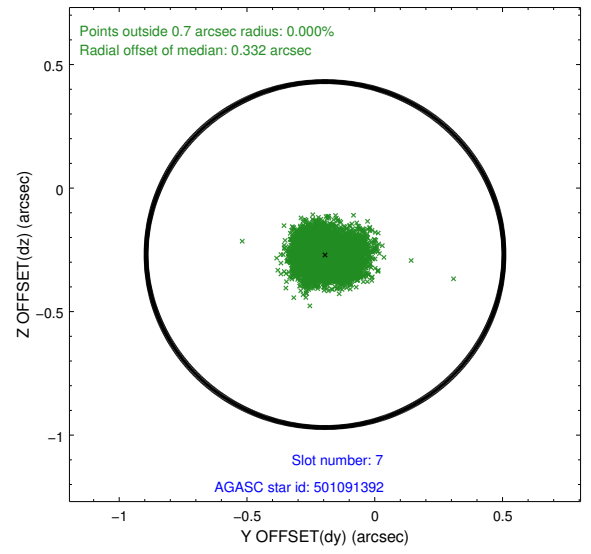
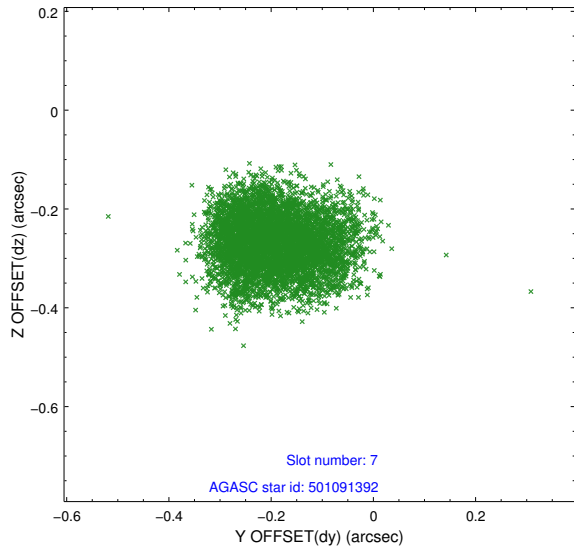
2.4.3 Slot 5



2.4.4 Slot 6

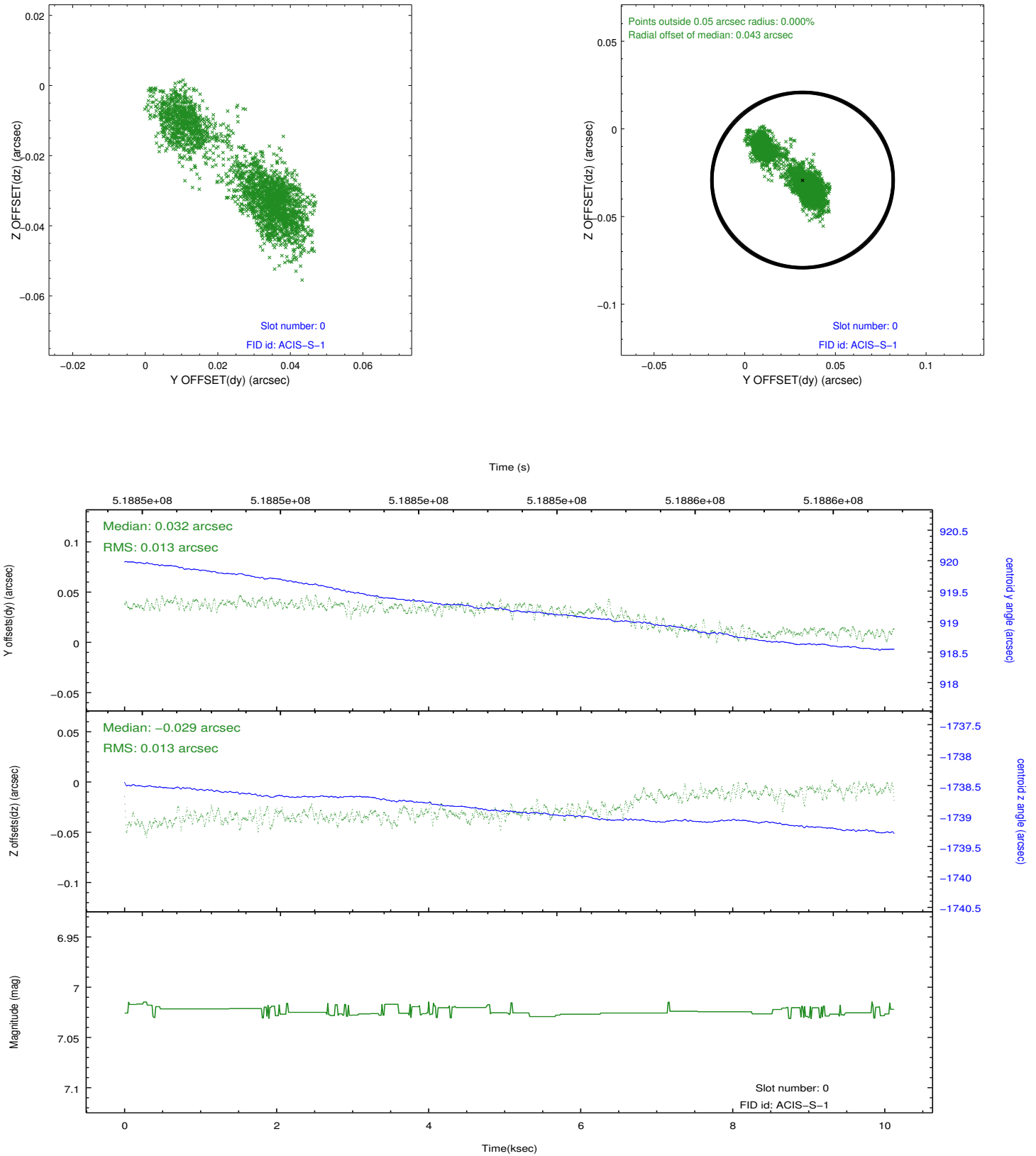


2.4.5 Slot 7

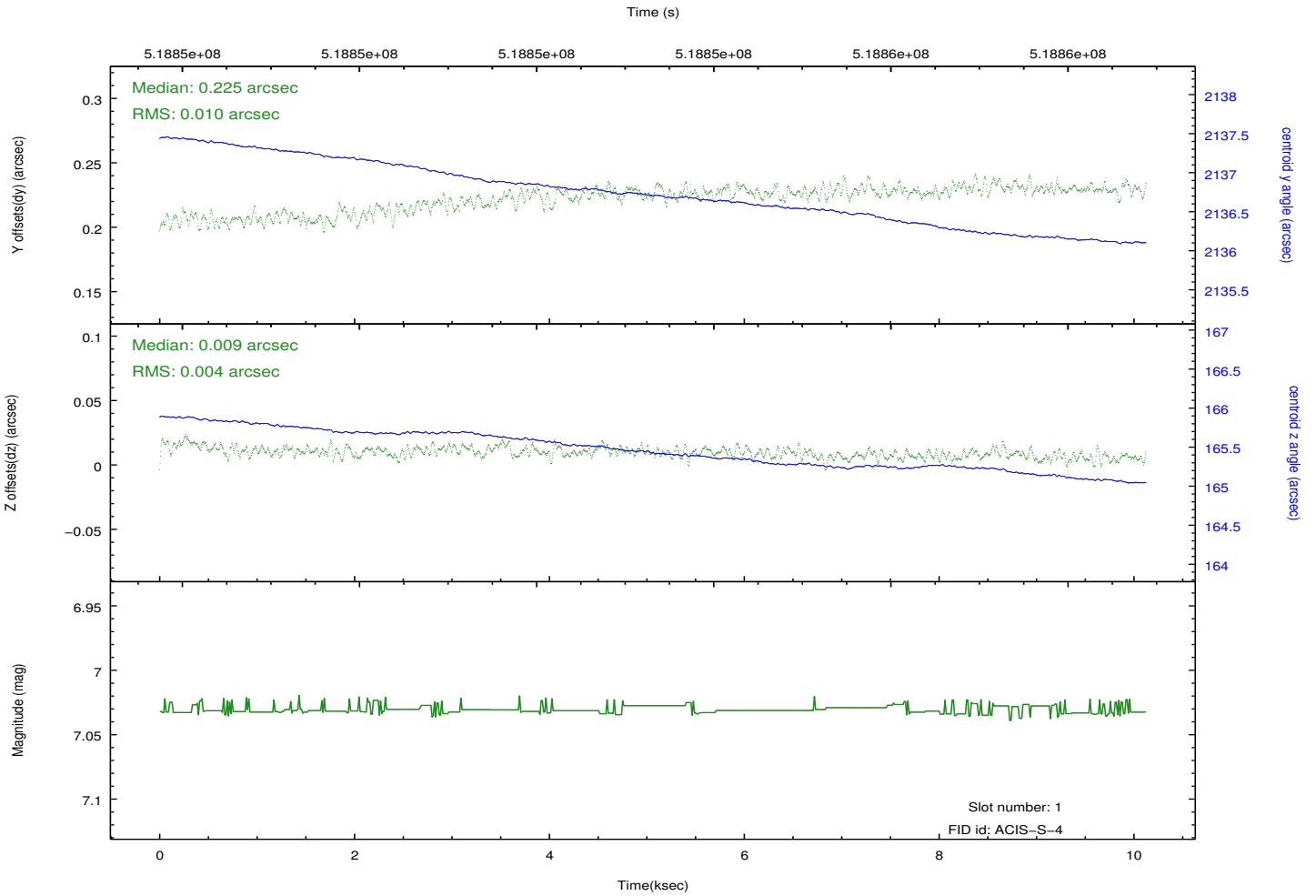
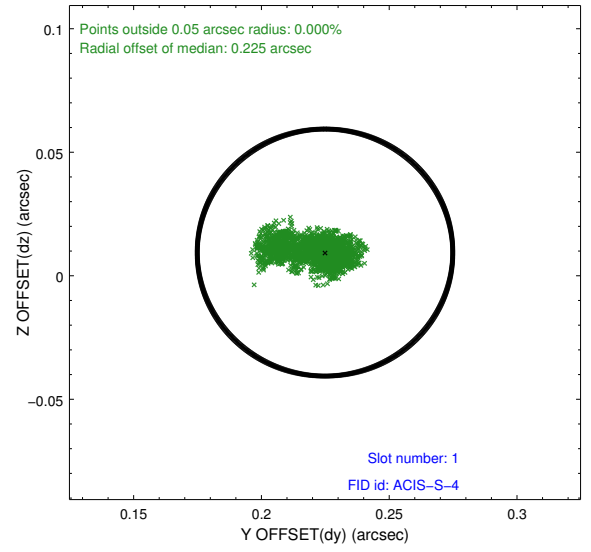
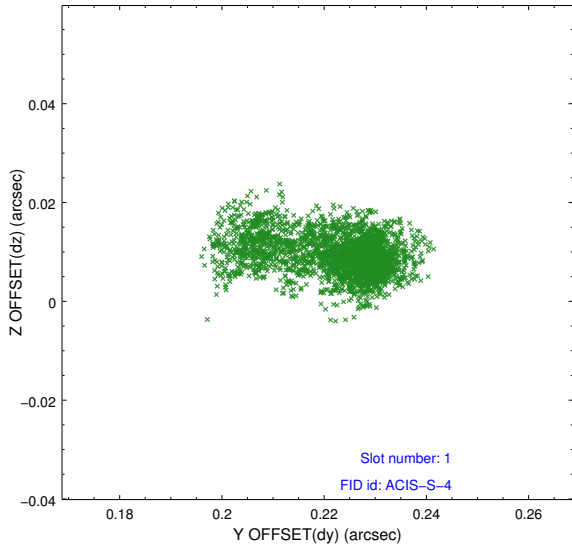


2.5 FID Slots

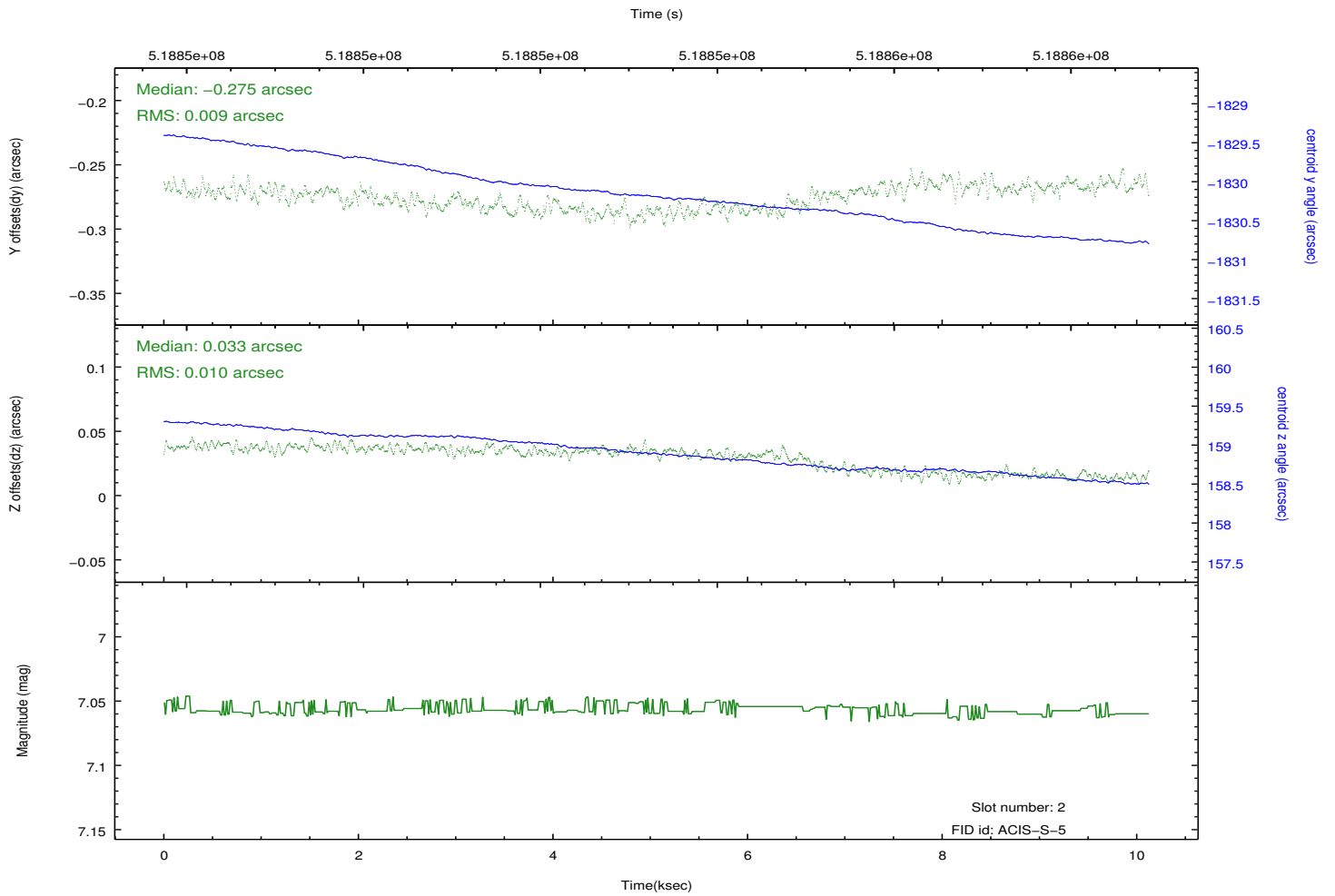
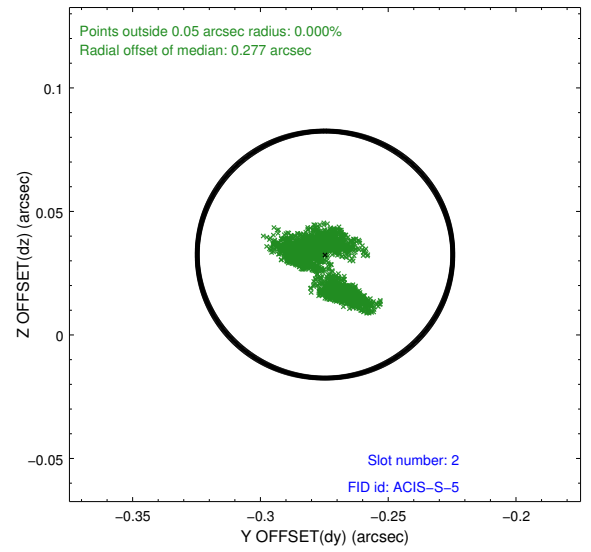
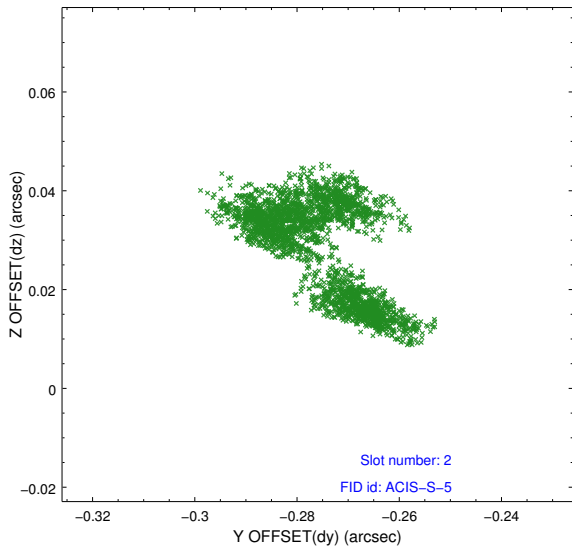
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.084268353045

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.