

V&V Reference Report

L2 ASCDS Version : 10

Observation 14545 - L2 Version 2
Chandra X-Ray Center

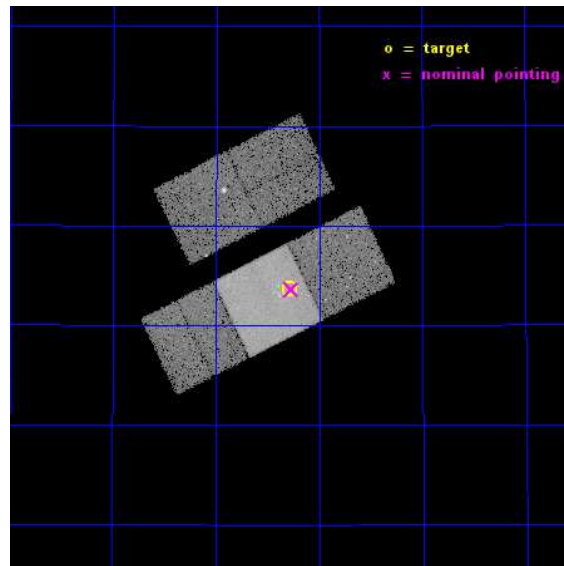
L2 Processing Date : Dec 4 2014

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

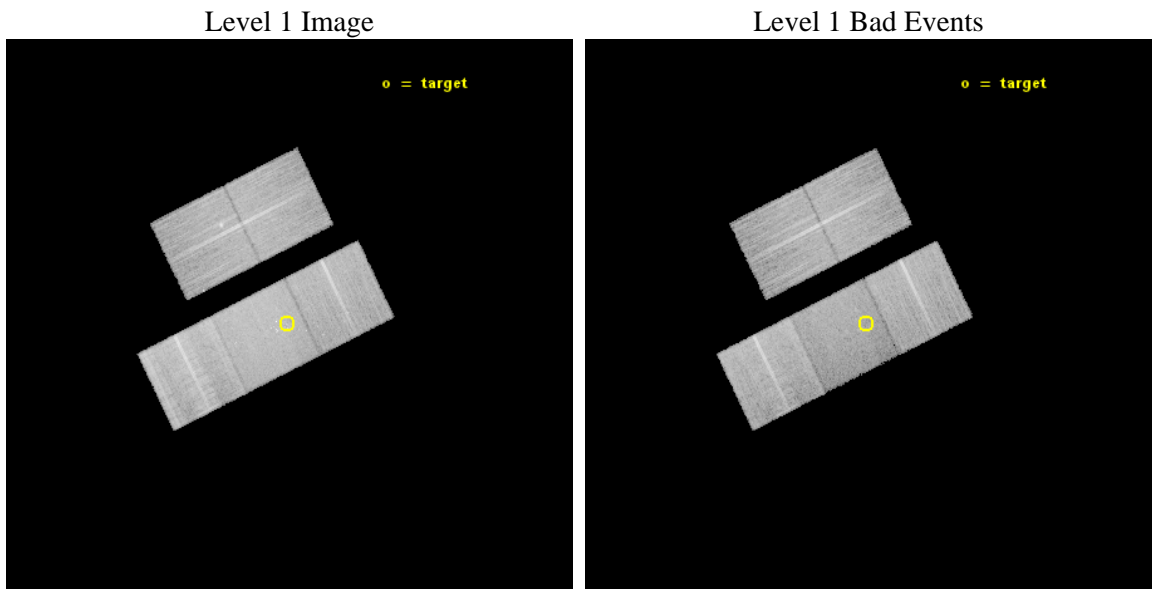
seq_num	200846	Sequence number
obs_id	14545	Observation id
title	The First FUor in Early X-Ray Outburst: HBC 722	Proposal title
observer	Prof. Manuel Guedel	Principal investigator
object	HBC 722	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	314.570833	Observer's specified target RA [deg]
dec_targ	43.895389	Observer's specified target Dec [deg]
ra_nom	314.56725383954	Nominal RA [deg]
dec_nom	43.893819681823	Nominal Dec [deg]
roll_nom	153.65910937932	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30070.000231266	Sum of GTIs [s]
livetime	29677.113541032	Livetime [s]
ontime2	30070.000231266	Sum of GTIs [s]
ontime3	30070.000231266	Sum of GTIs [s]
ontime6	30070.000231266	Sum of GTIs [s]
ontime7	30070.000231266	Sum of GTIs [s]
ontime8	30066.859360337	Sum of GTIs [s]
l2events	129145	Number of level 2 events



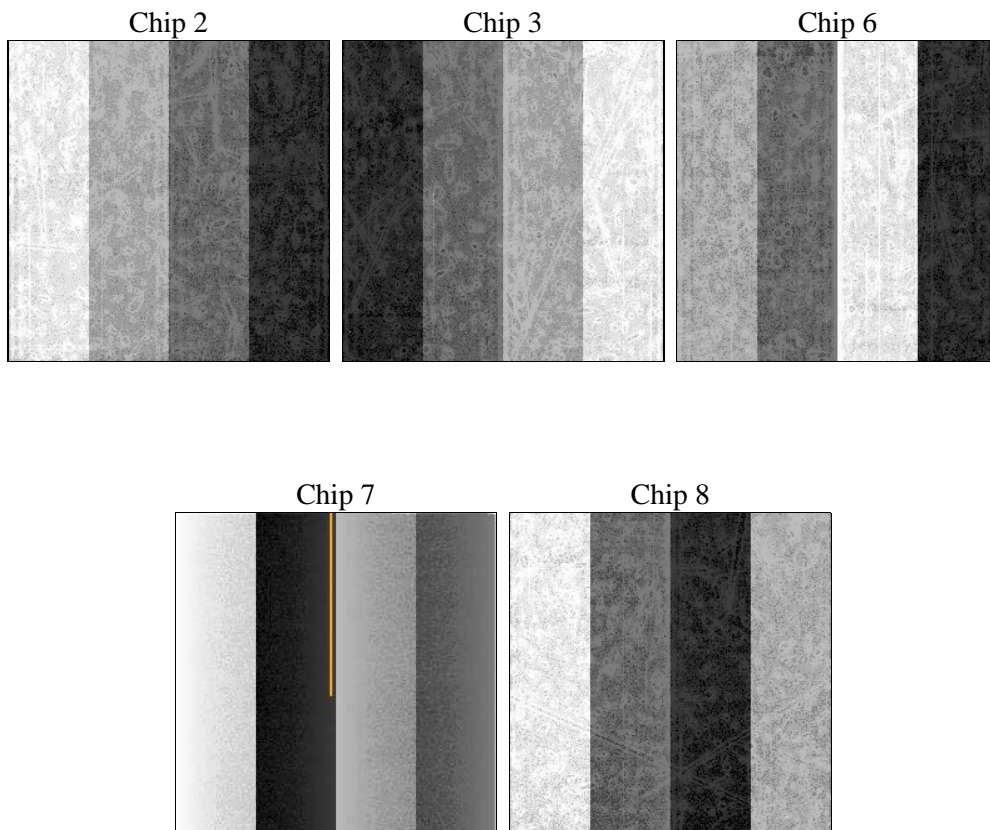
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	30070.000231266	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	30070.000231266	Sum of GTIs [s]
date	2014-12-04T18:56:36	Date and time of file creation	ontime3	30070.000231266	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	30070.000231266	Sum of GTIs [s]
			ontime7	30070.000231266	Sum of GTIs [s]
			ontime8	30066.859360337	Sum of GTIs [s]
			l1events	714574	Number of level 1 events

2.1.4 Events

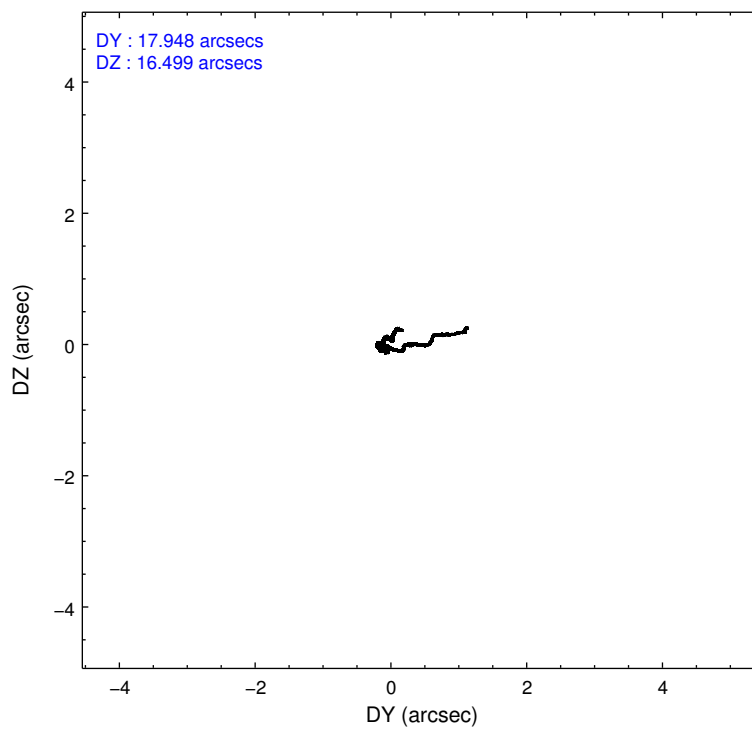
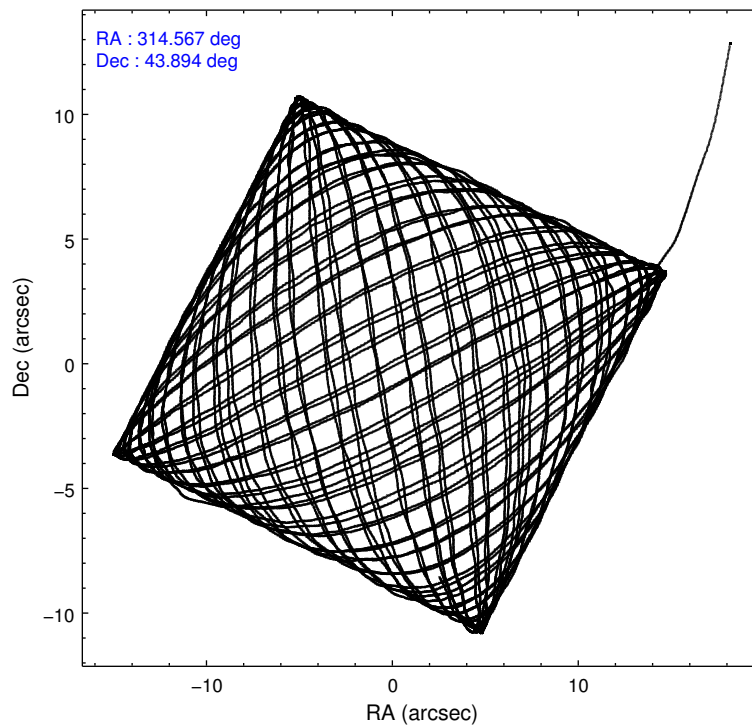
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	128656	123995	133465	158024	170434
rejected events	113812	108342	116696	82646	123337
rejected %	88%	87%	87%	52%	72%

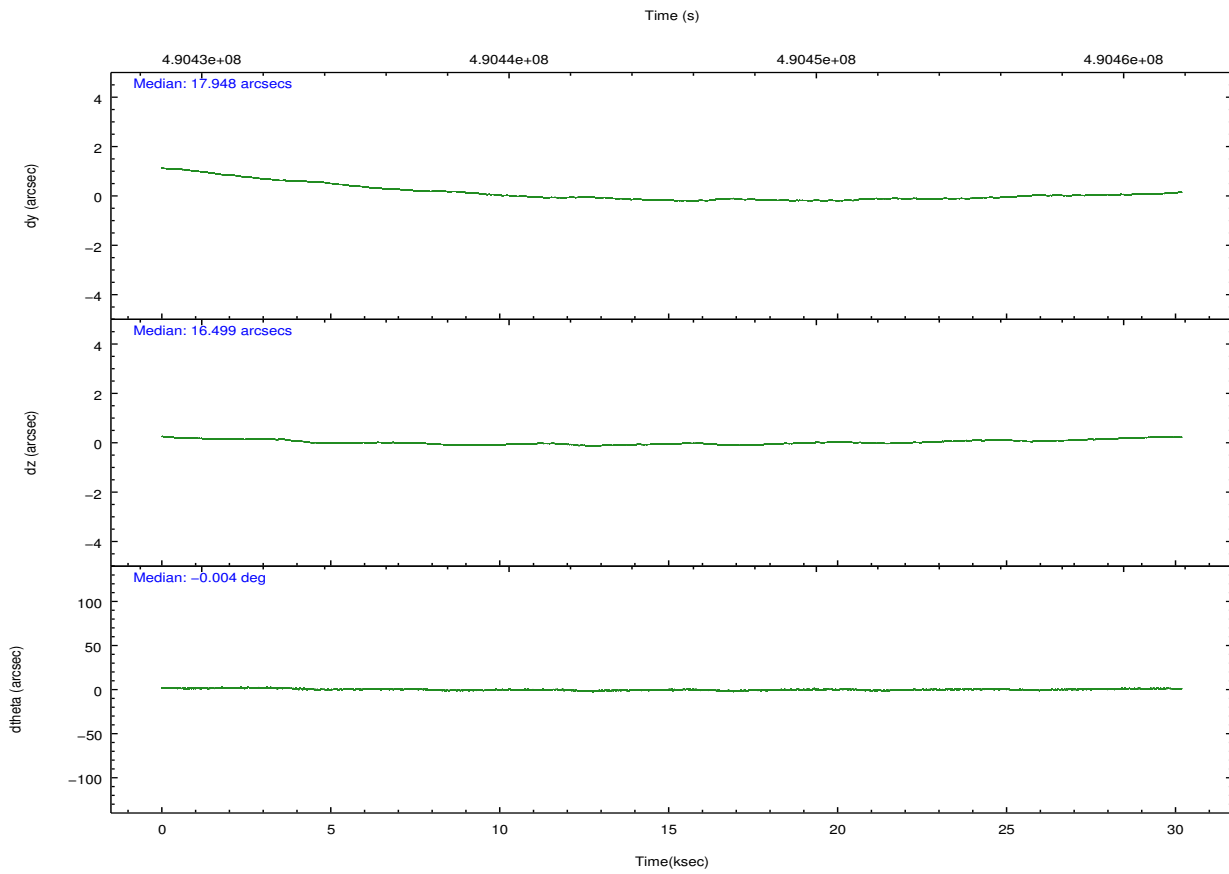
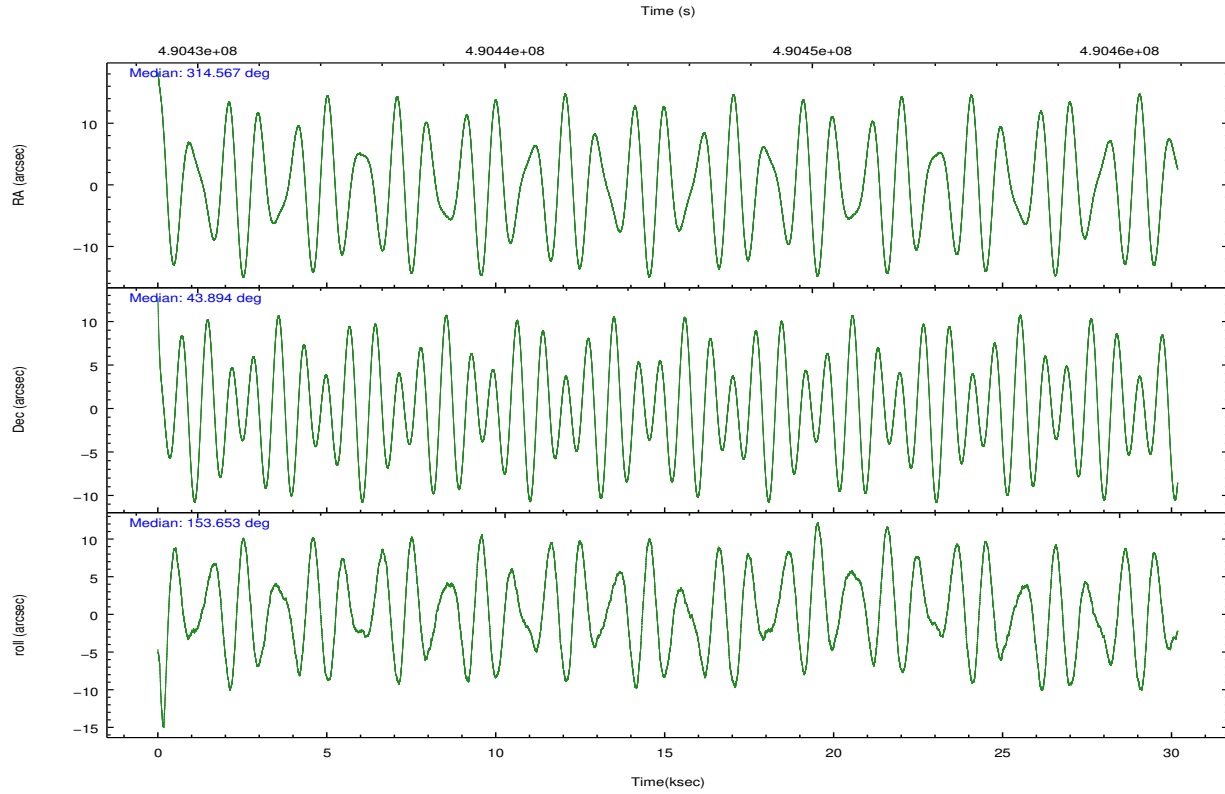
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	5620	6336	6266	7577	12797
	4%	5%	4%	4%	7%
grade 1 events	77	81	48	248	137
	0%	0%	0%	0%	0%
grade 2 events	3462	3350	3713	16254	11661
	2%	2%	2%	10%	6%
grade 3 events	1497	1590	1605	6746	4934
	1%	1%	1%	4%	2%
grade 4 events	1535	1482	1644	6471	4594
	1%	1%	1%	4%	2%
grade 5 events	4714	6115	6044	16711	9254
	3%	4%	4%	10%	5%
grade 6 events	2734	2897	3544	38343	13114
	2%	2%	2%	24%	7%
grade 7 events	109017	102144	110601	65674	113943
	84%	82%	82%	41%	66%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	314.605068	314.5672538395387	CCD I2 on	O1	Y
[deg] Pointing Dec	43.895930	43.89381968182256	CCD I3 on	O2	Y
[deg] Pointing Roll	153.476268	153.6591093793193	CCD S0 on	N	N
[s] Window start time (MET)	488937667.184000	488937667.184000	CCD S1 on	N	N
[s] Window stop time (MET)	491616067.184000	491616067.184000	CCD S2 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S3 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S4 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S5 on	N	N
[mm] SIM translation stage offset	0	0.00754346686406393	Number of optional ACIS chips dropped	0	0
[s] Observation start time (MET)	490430390.184000	490428996.47654	On-chip summing requested	N	N
Observation start date	2013-07-17T06:38:43	2013-07-17T06:16:36	Subarray requested	NONE	NONE
[s] Observation end time (MET)	490460390.184000	490461441.82831	Alternating exposures requested	N	N
Observation end date	2013-07-17T14:58:43	2013-07-17T15:17:21	[s] Primary exposure time	0.000000	3.1
Read mode	TIMED	TIMED			

2.3 Aspect





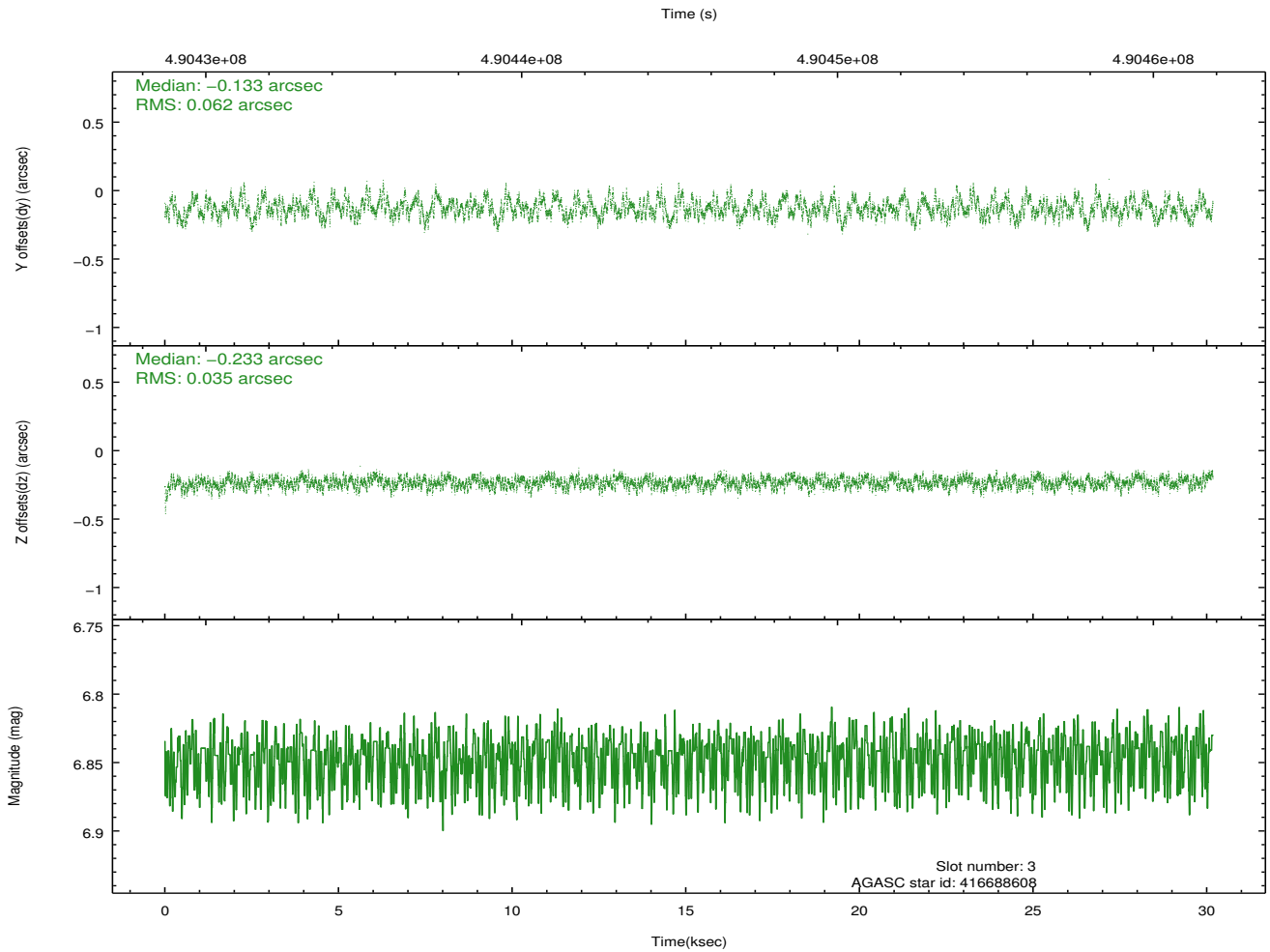
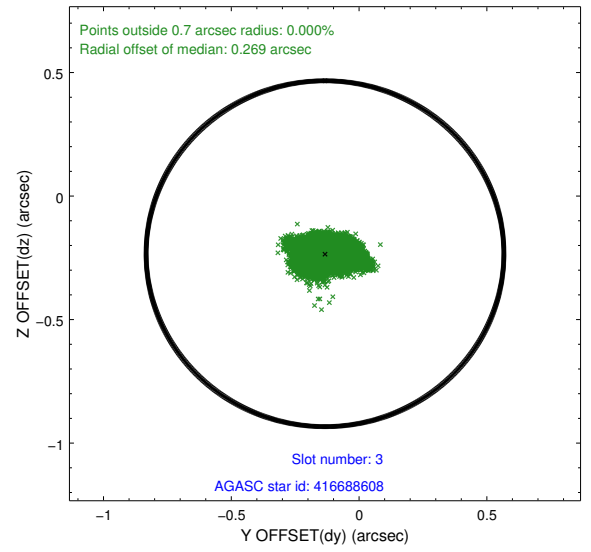
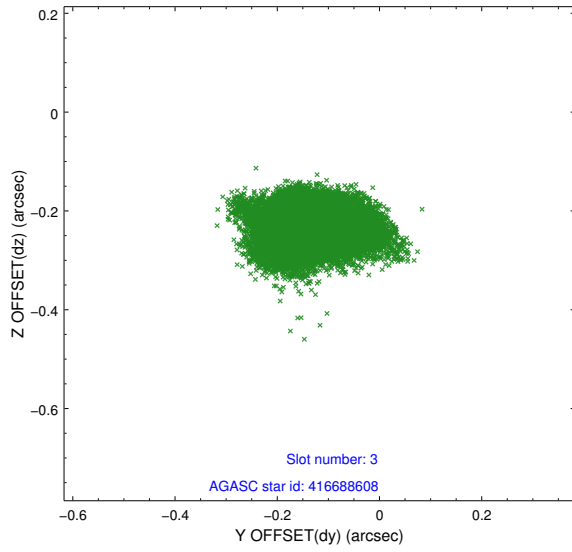
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.97	7361	-0.104	-0.012	0.011	0.021	0.000000	0.000000	-771.23	-1737.95
1	FID		ACIS-S-4	7.04	7361	0.260	0.053	0.013	0.035	0.000000	0.000000	2142.39	170.50
2	FID		ACIS-S-5	7.08	7361	-0.190	-0.032	0.011	0.020	0.000000	0.000000	-1824.06	164.19
3	GUIDE	used	416688608	6.85	14722	-0.133	-0.233	0.076	0.125	314.101872	43.900650	1177.19	564.54
4	GUIDE	used	416688704	7.36	14722	0.192	0.115	0.067	0.105	314.892883	44.226388	-131.77	-1396.52
5	GUIDE	used	416818224	8.17	14720	0.124	0.283	0.087	0.139	315.309666	43.721786	-1916.32	-264.52
6	GUIDE	used	416820880	7.05	14723	0.146	0.228	0.090	0.140	315.447766	44.186908	-1474.05	-1917.56
7	GUIDE	used	416684216	7.38	14720	-0.336	-0.394	0.088	0.137	314.048312	43.424312	546.05	2164.58

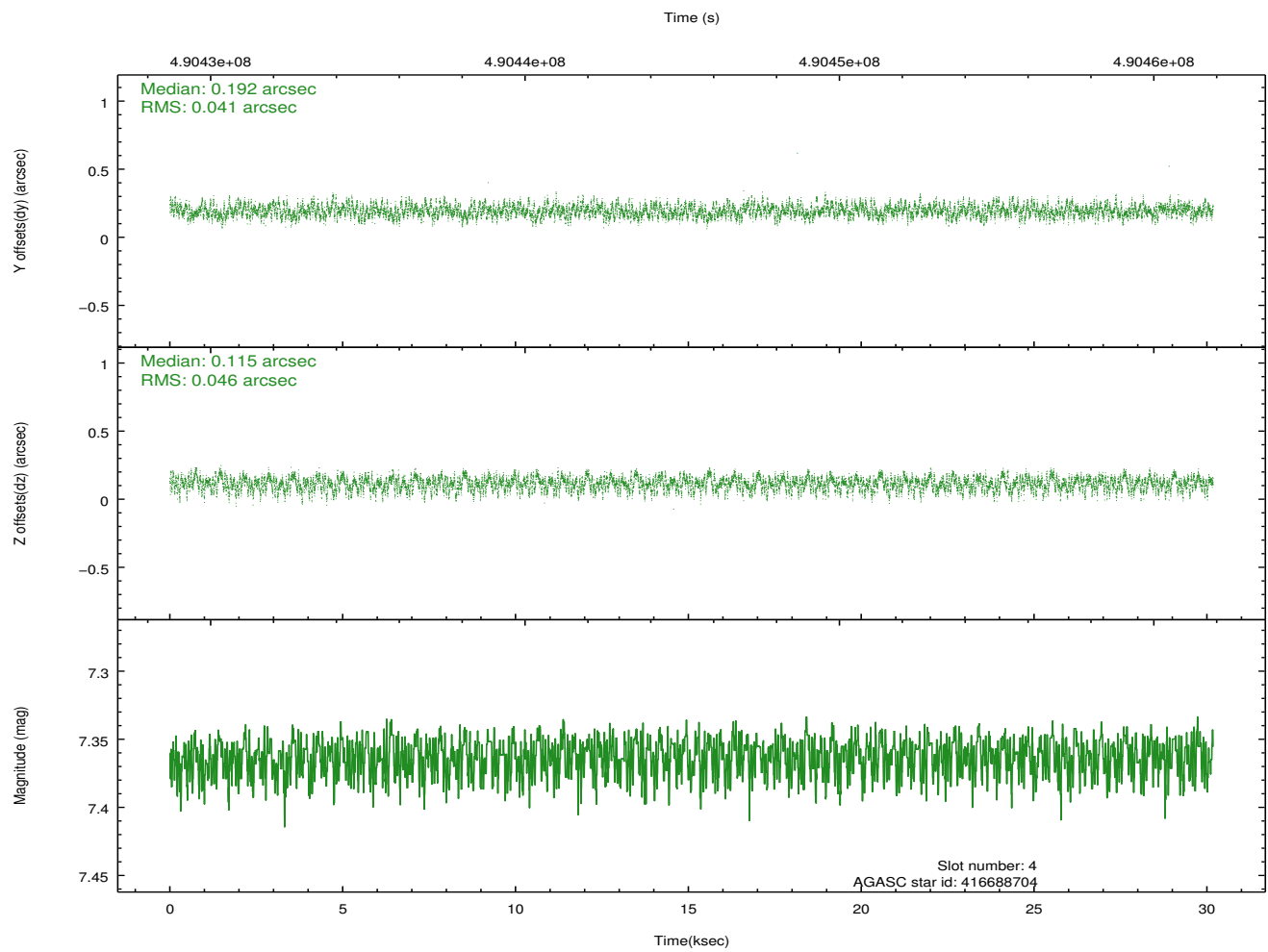
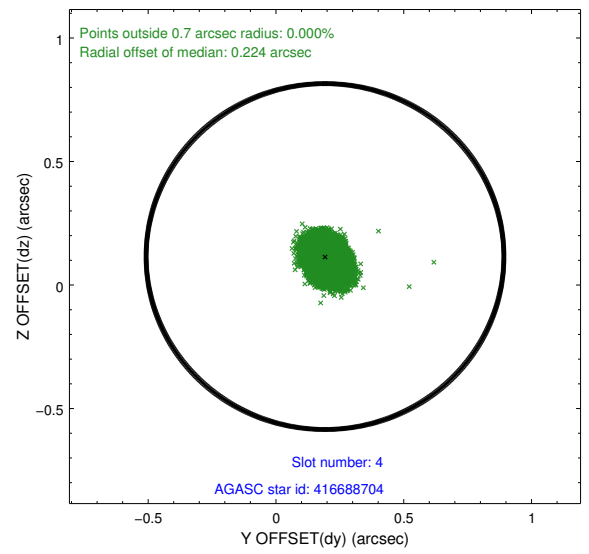
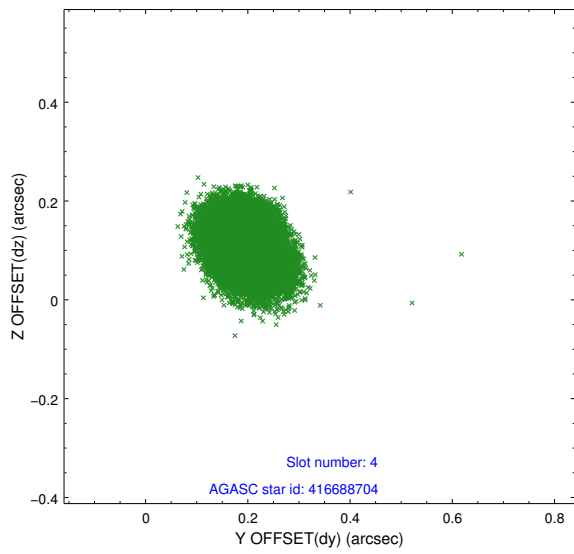
∞

2.4 Star Slots

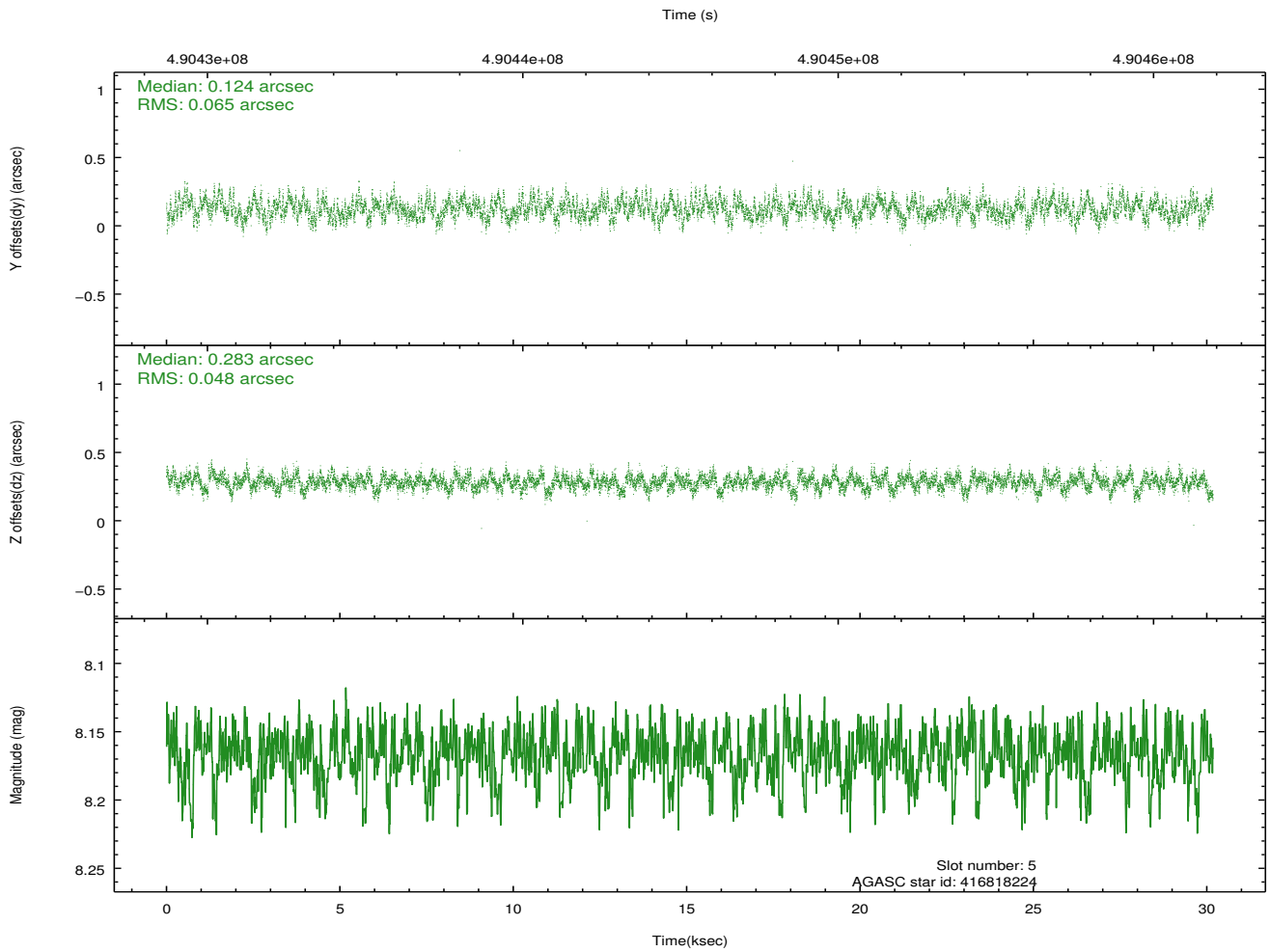
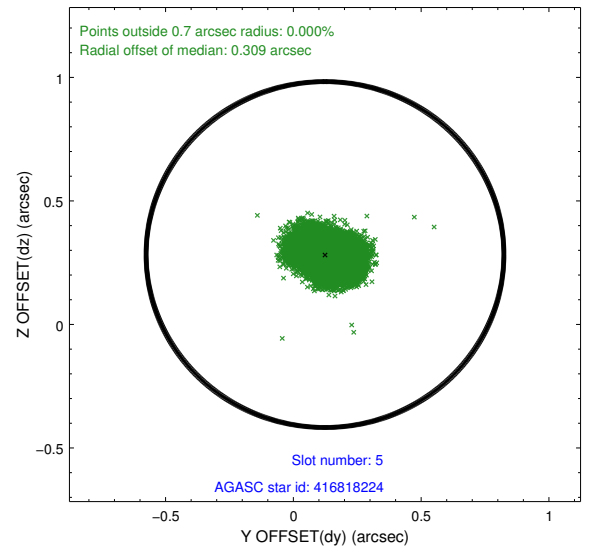
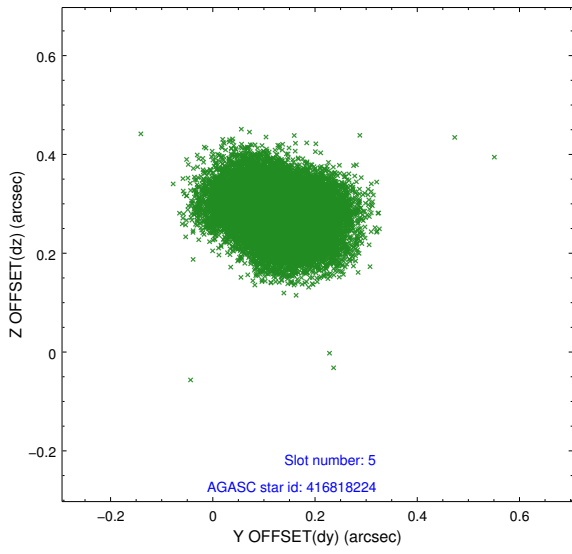
2.4.1 Slot 3



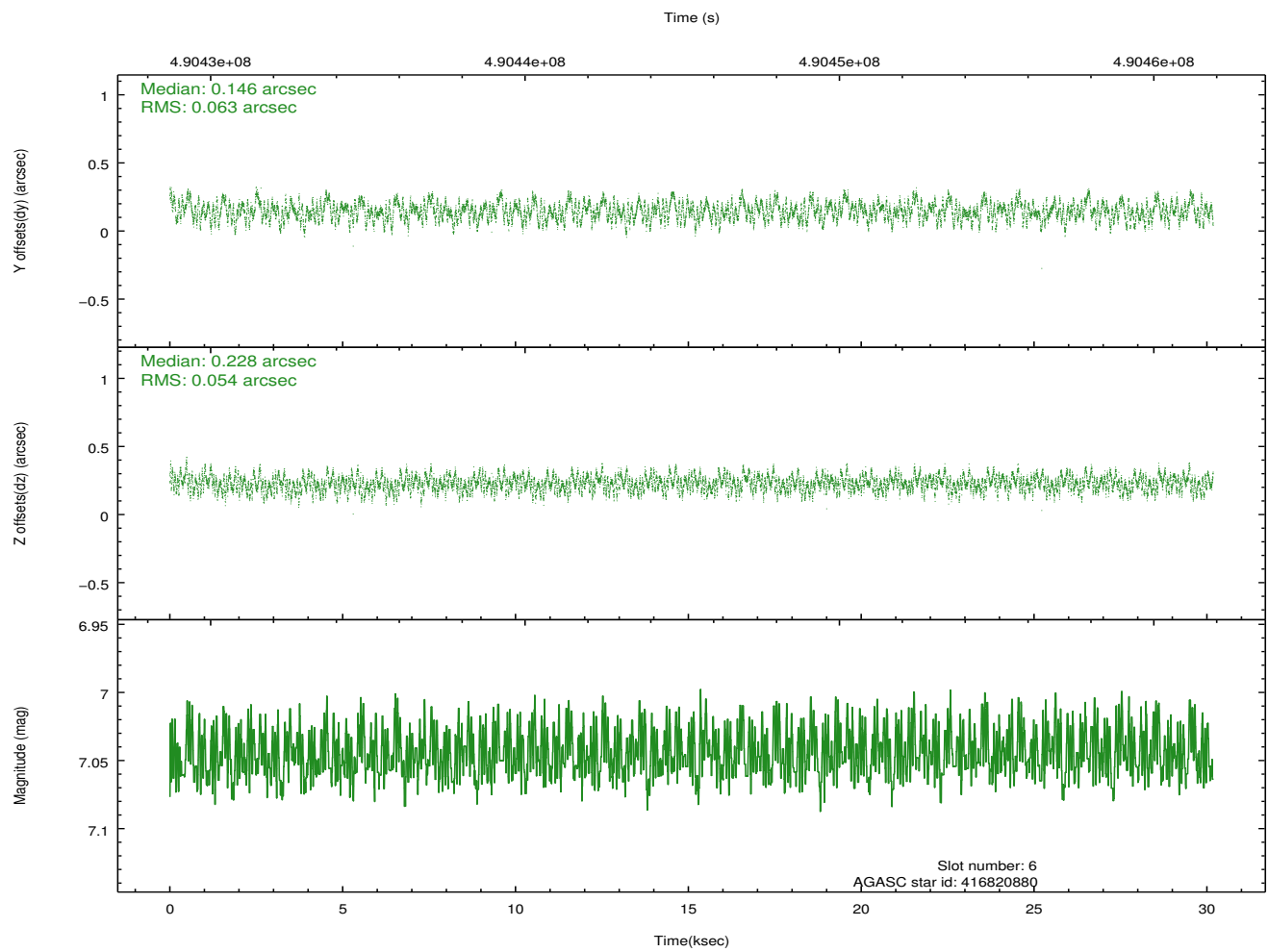
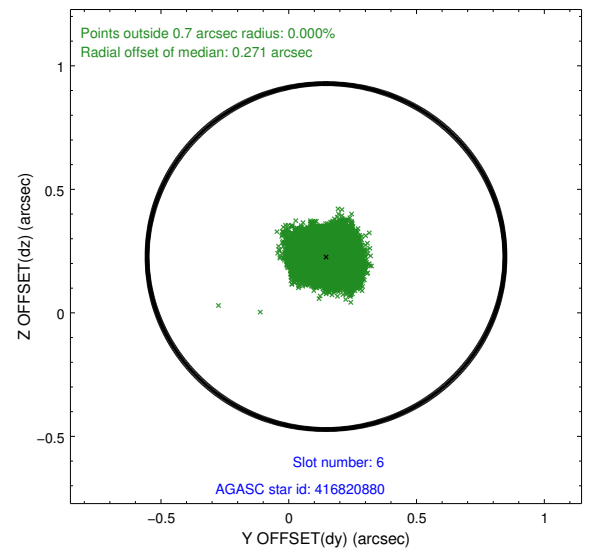
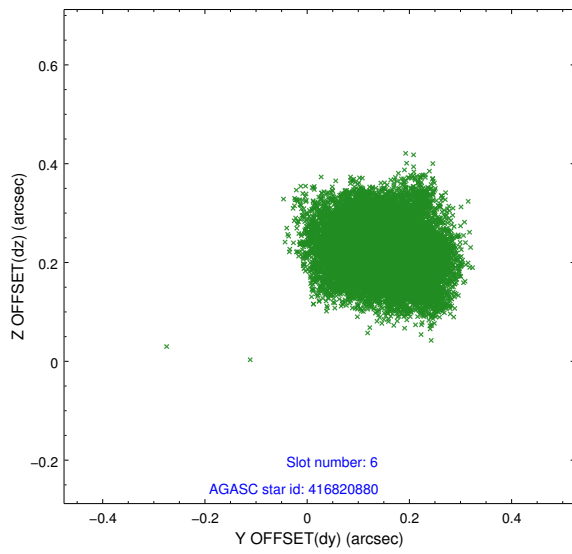
2.4.2 Slot 4



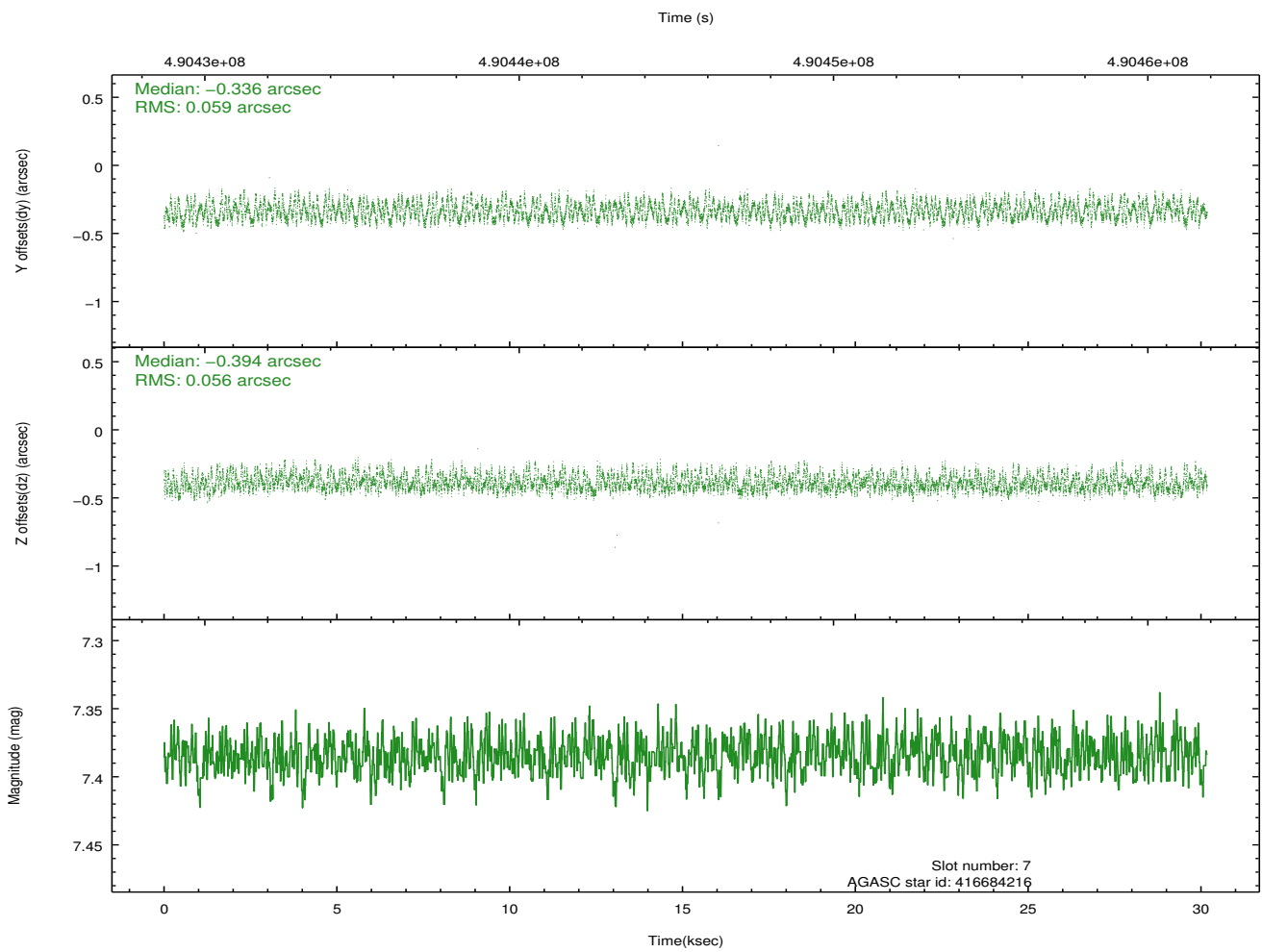
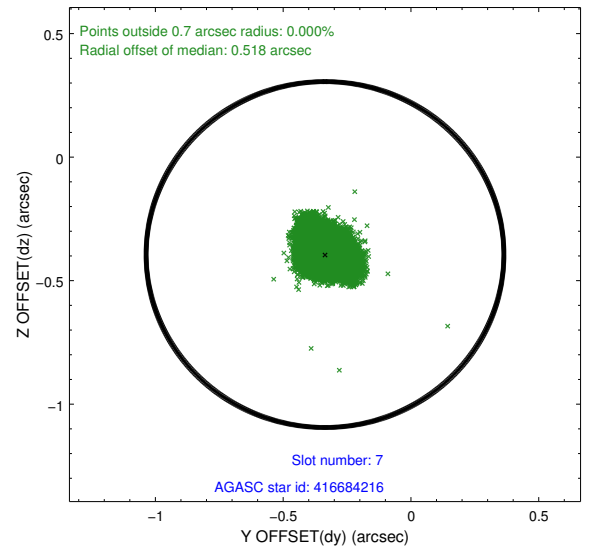
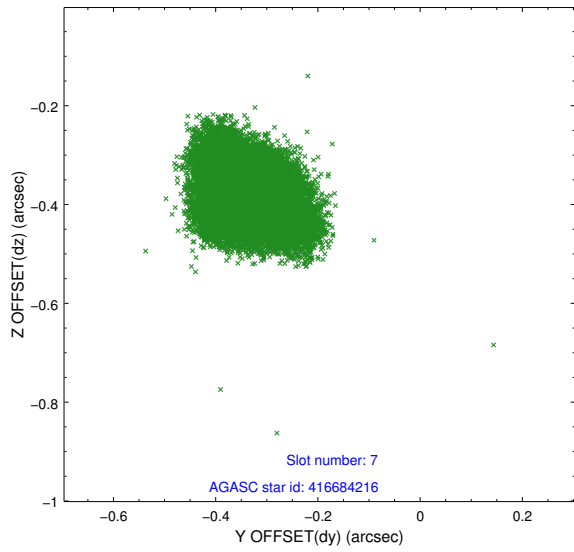
2.4.3 Slot 5



2.4.4 Slot 6

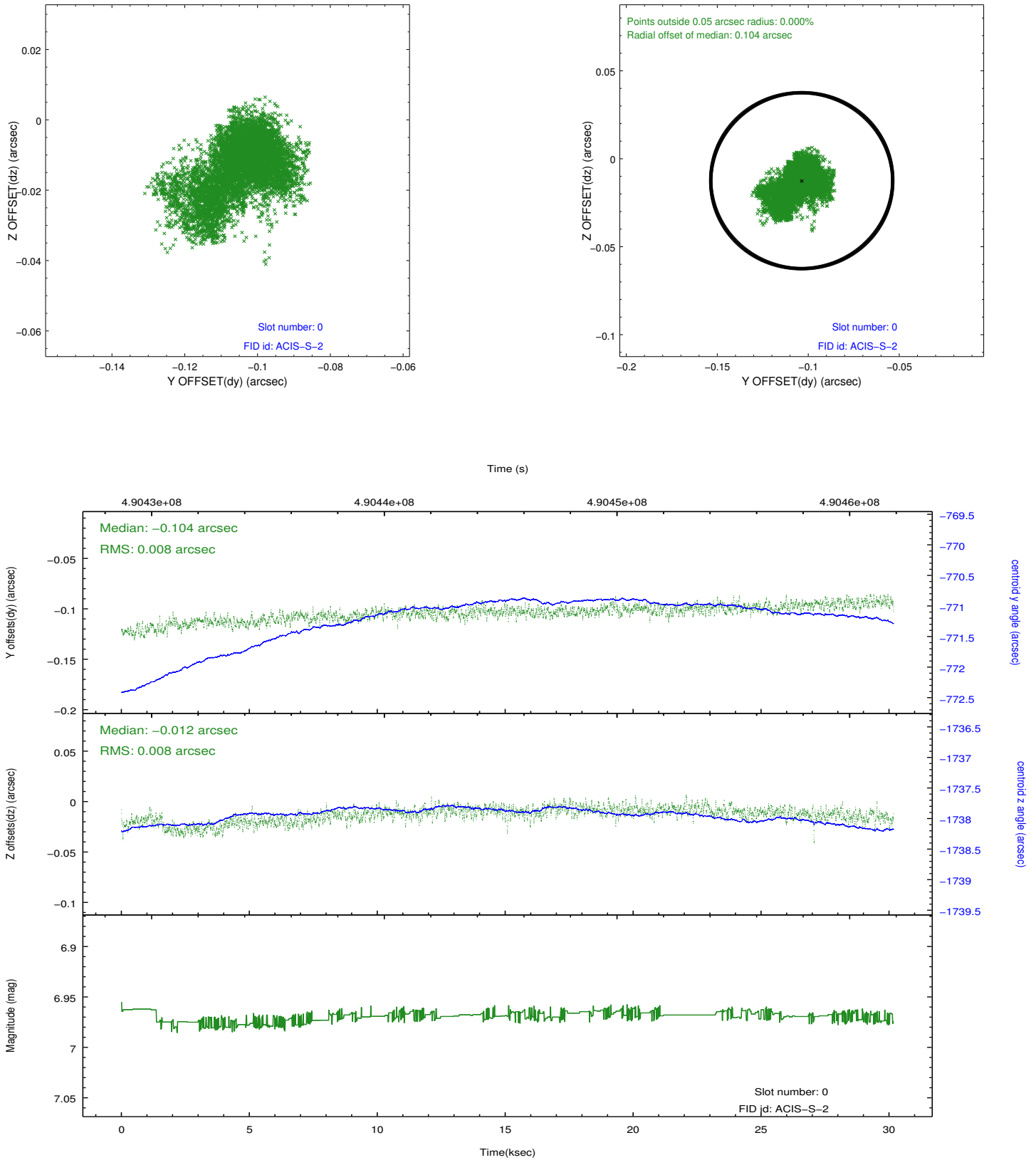


2.4.5 Slot 7

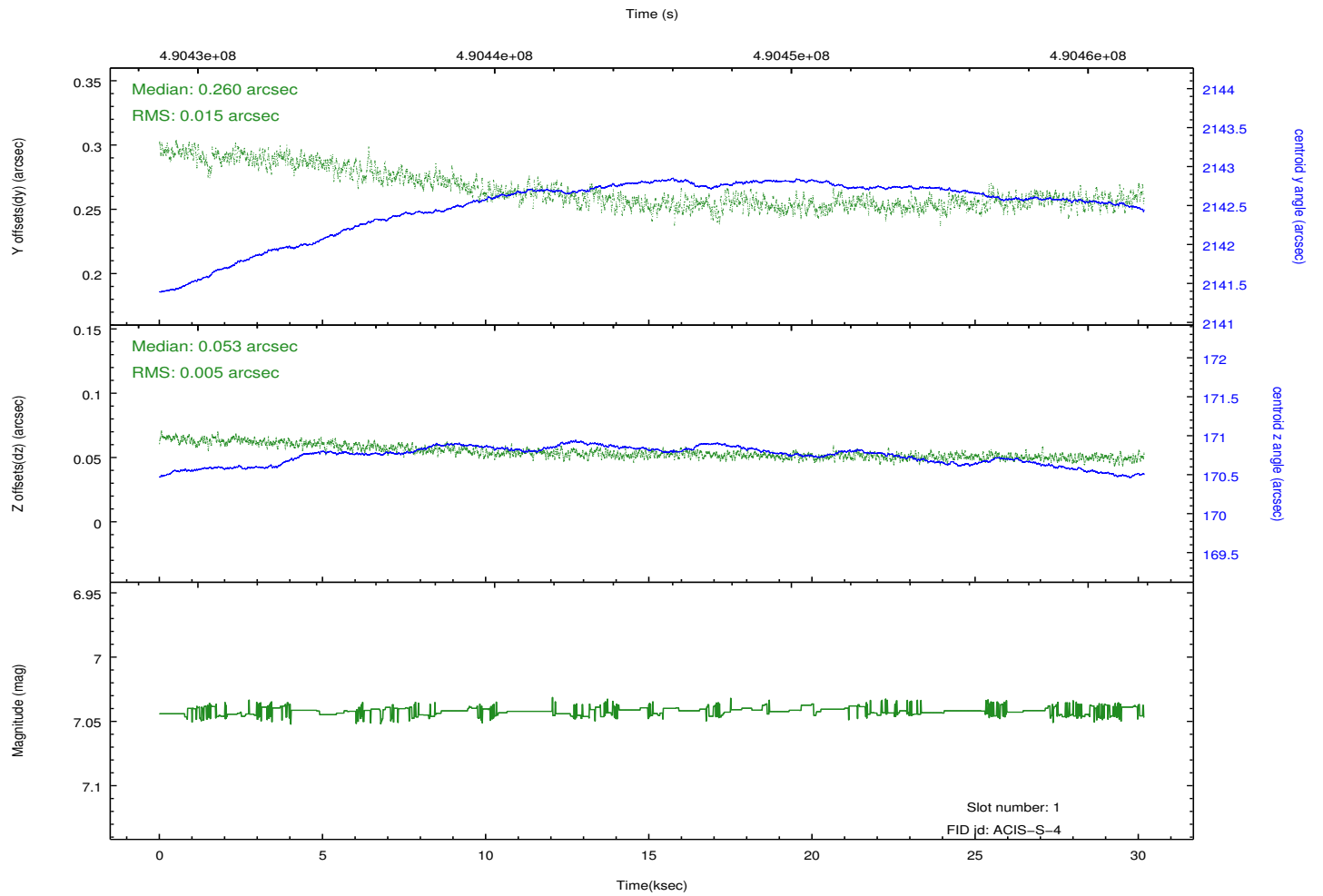
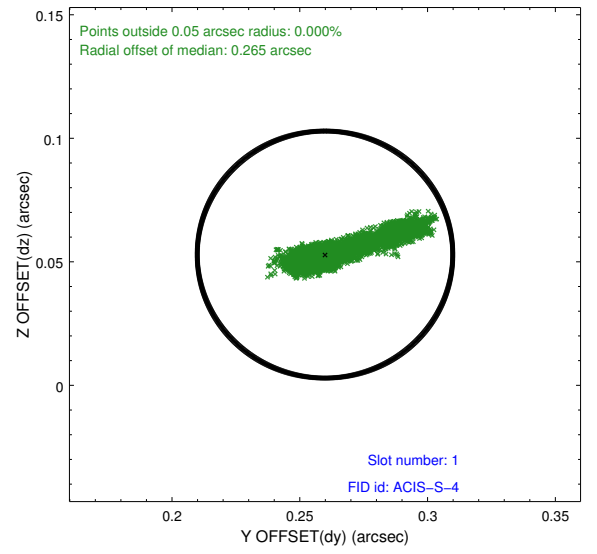
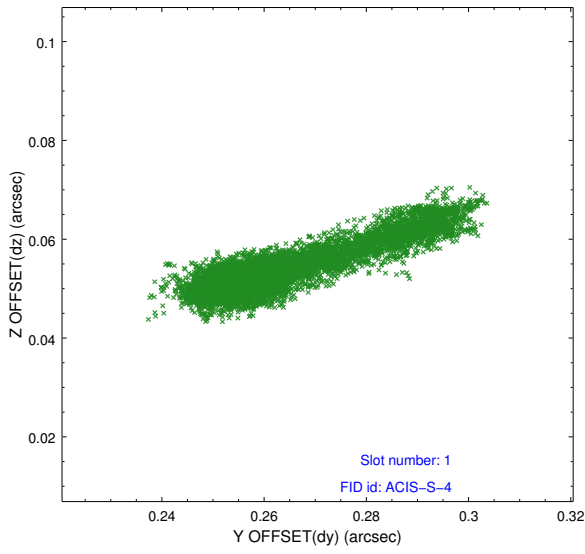


2.5 FID Slots

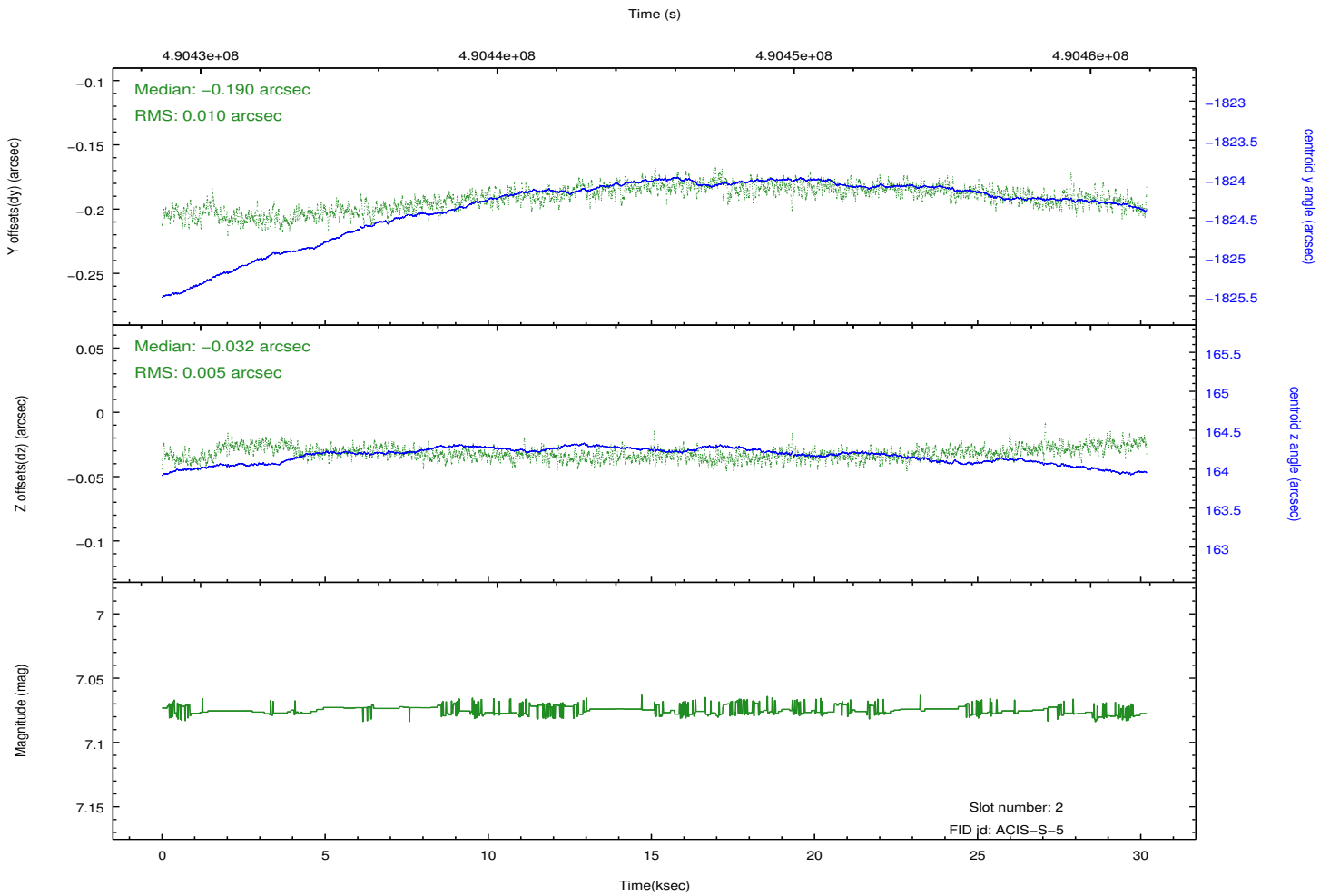
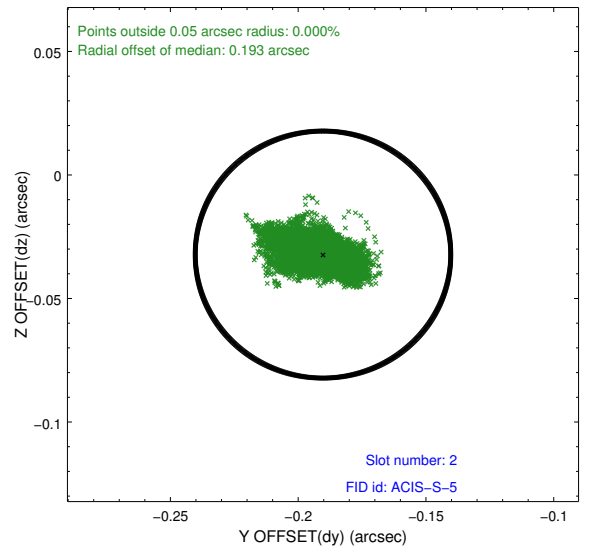
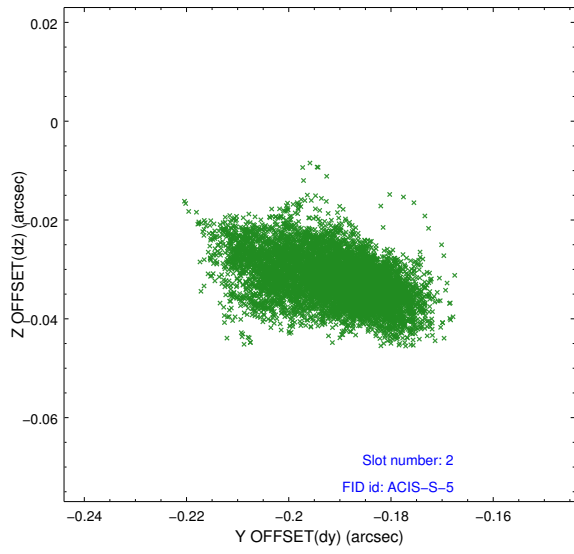
2.5.1 Slot 0



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)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.070000231266

A.2 Comments

Window preference met.

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.