

# V&V Reference Report

## L2 ASCDS Version : 10.1.1

Observation 14949 - L2 Version 2  
Chandra X-Ray Center

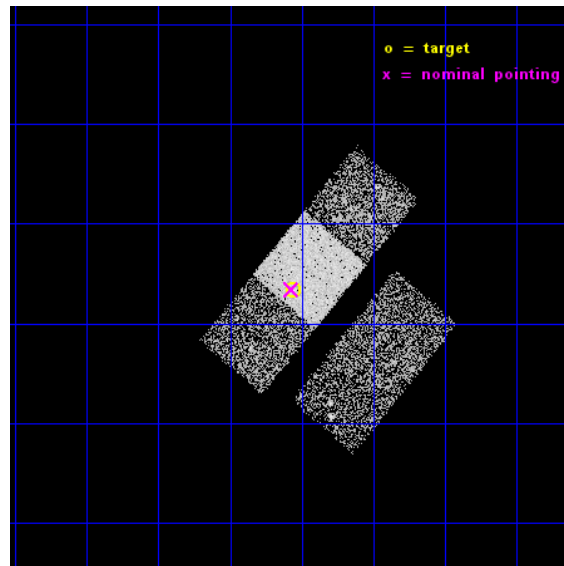
L2 Processing Date : Dec 7 2014

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# 1 Front

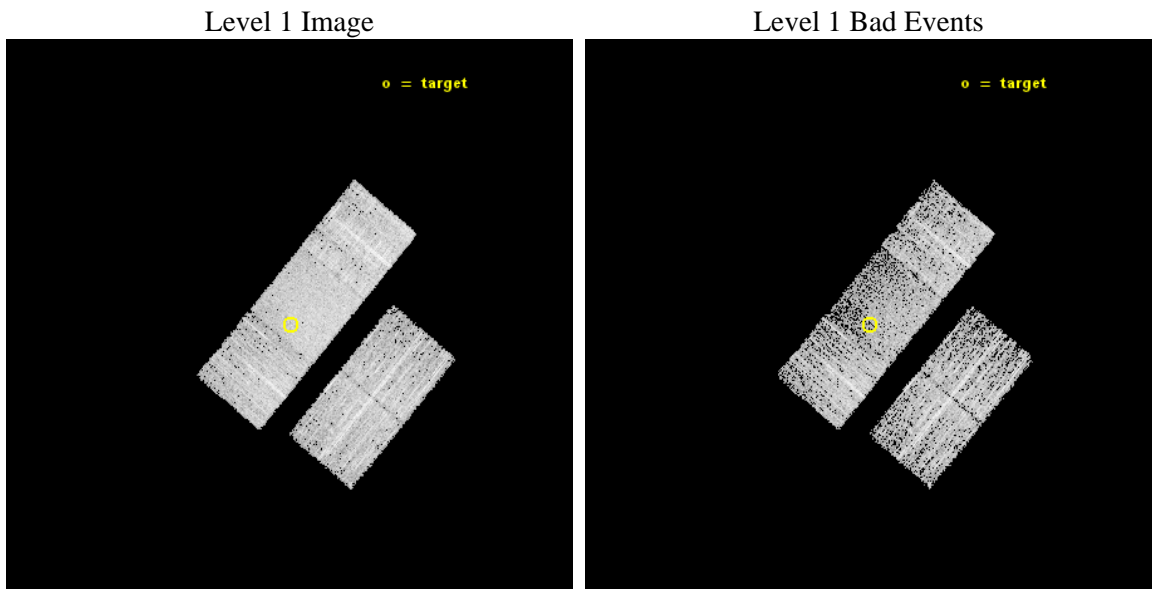
seq_num	702758	Sequence number
obs_id	14949	Observation id
title	Understanding the Nature of PHL 1811 Analogs	Proposal title
observer	Prof. William Brandt	Principal investigator
object	SDSS J0147+0003	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	26.89	Observer's specified target RA [deg]
dec_targ	0.056444	Observer's specified target Dec [deg]
ra_nom	26.893009795445	Nominal RA [deg]
dec_nom	0.056899253794271	Nominal Dec [deg]
roll_nom	309.88557237394	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6268.2000482082	Sum of GTIs [s]
livetime	6186.3013999967	Livetime [s]
ontime2	6265.0589778423	Sum of GTIs [s]
ontime3	6268.2000482082	Sum of GTIs [s]
ontime6	6268.2000482082	Sum of GTIs [s]
ontime7	6268.2000482082	Sum of GTIs [s]
ontime8	6268.2000482082	Sum of GTIs [s]
l2events	26317	Number of level 2 events



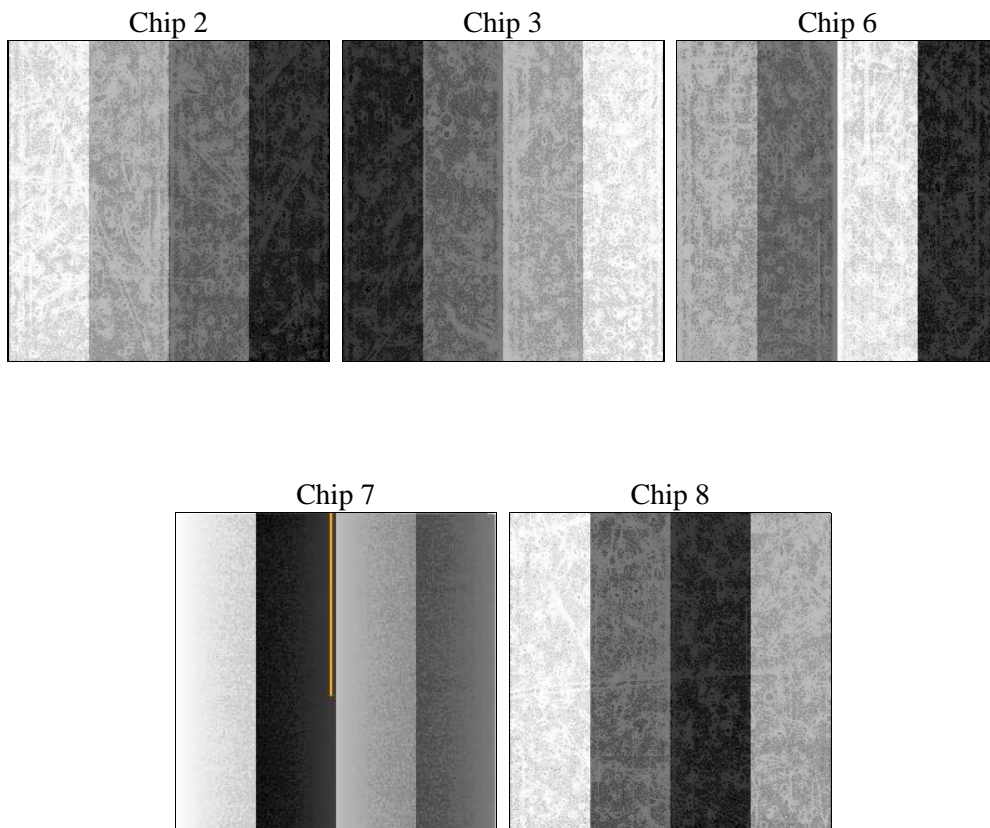
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6200.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	6268.2000482082	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime2	6265.0589778423	Sum of GTIs [s]
date	2014-12-08T02:12:31	Date and time of file creation	ontime3	6268.2000482082	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	6268.2000482082	Sum of GTIs [s]
			ontime7	6268.2000482082	Sum of GTIs [s]
			ontime8	6268.2000482082	Sum of GTIs [s]
			l1events	152714	Number of level 1 events

### 2.1.4 Events

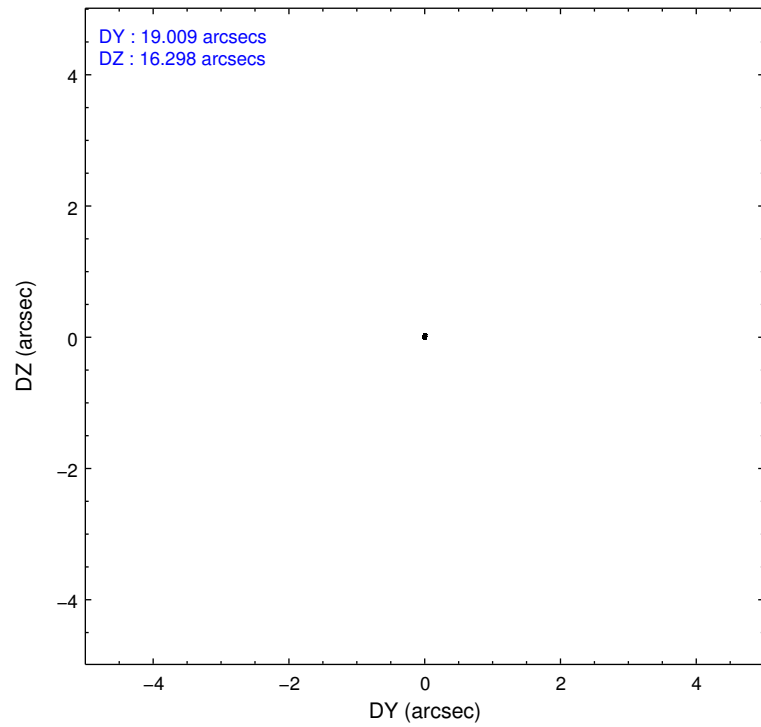
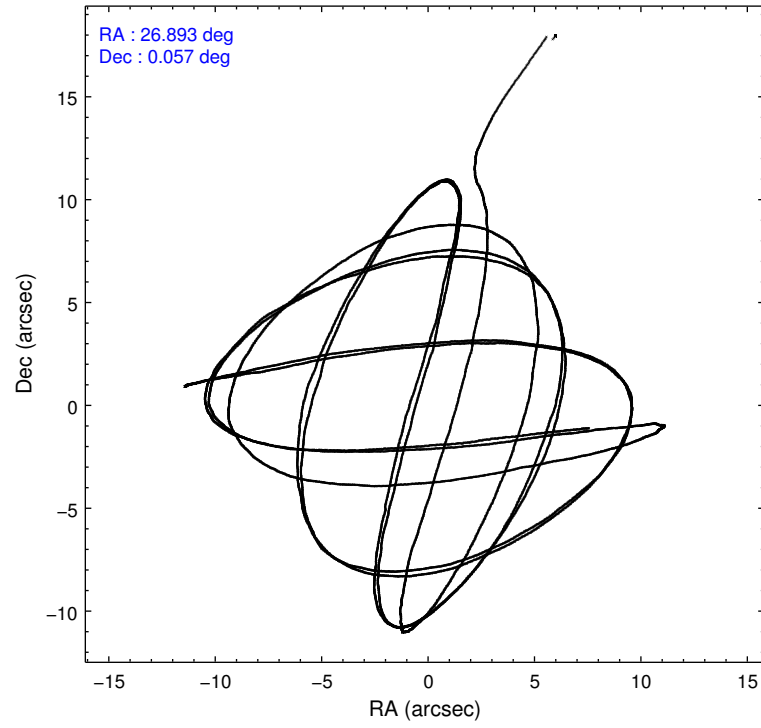
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	27827	26384	28410	33036	37057
rejected events	24659	23462	24960	17784	27060
rejected %	88%	88%	87%	53%	73%

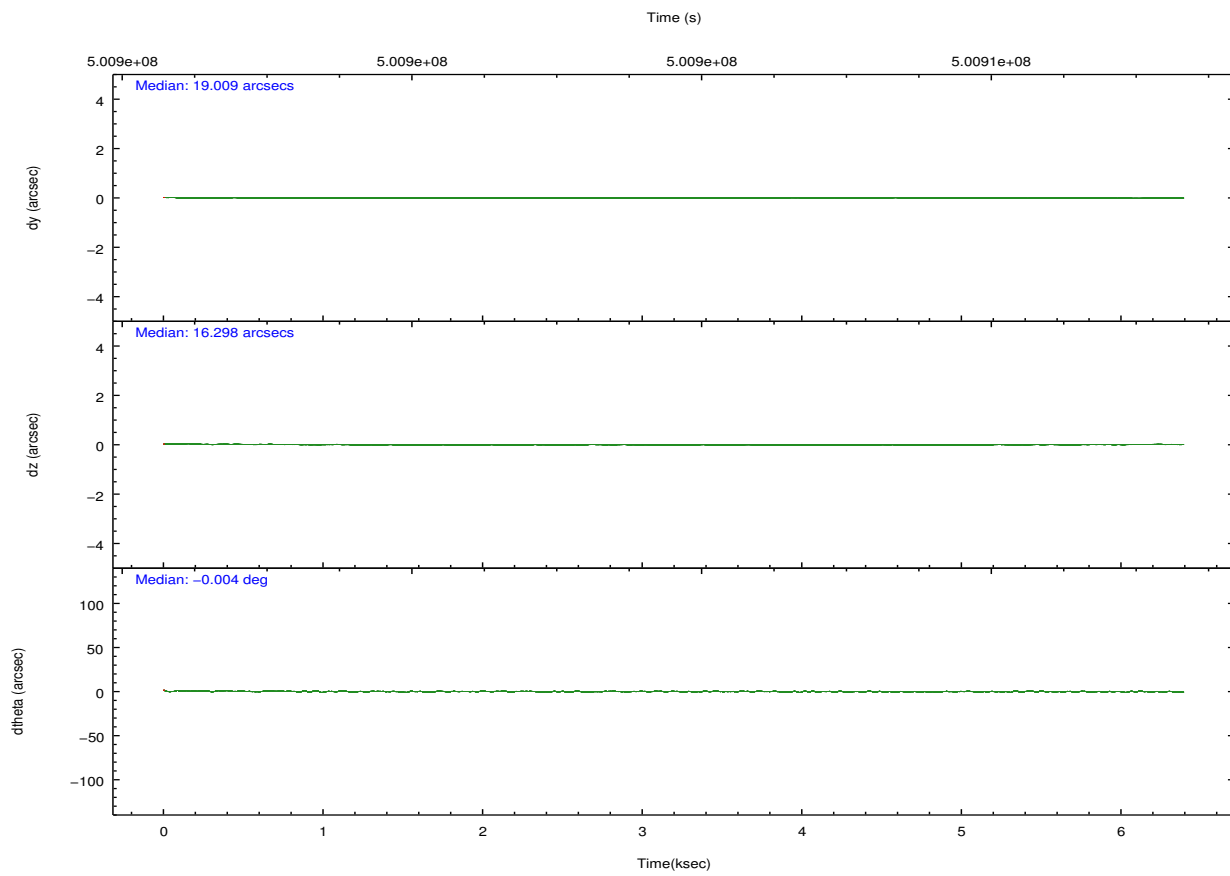
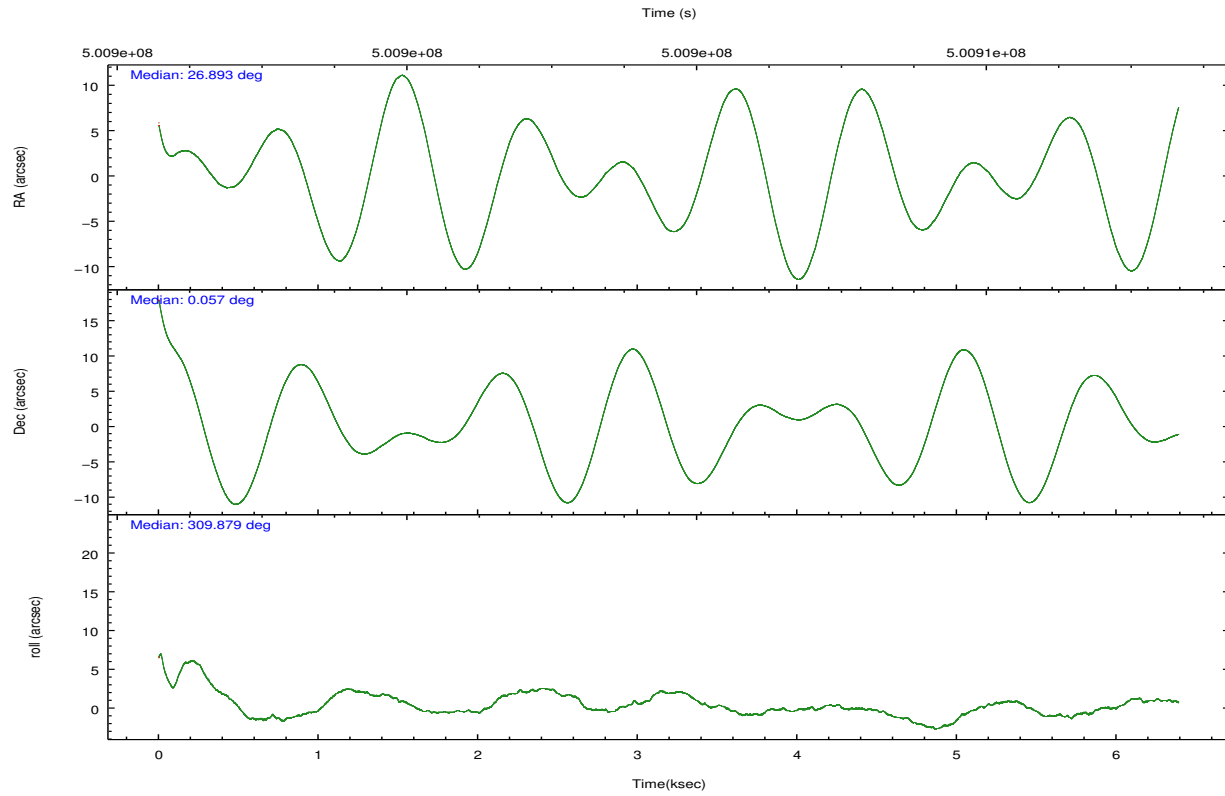
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	1231	1041	1245	1364	2992
	4%	3%	4%	4%	8%
grade 1 events	20	13	8	42	28
	0%	0%	0%	0%	0%
grade 2 events	730	646	755	3279	2377
	2%	2%	2%	9%	6%
grade 3 events	297	319	352	1290	1052
	1%	1%	1%	3%	2%
grade 4 events	316	309	291	1298	1063
	1%	1%	1%	3%	2%
grade 5 events	1038	1284	1321	3356	1946
	3%	4%	4%	10%	5%
grade 6 events	595	609	809	8031	2536
	2%	2%	2%	24%	6%
grade 7 events	23600	22163	23629	14376	25063
	84%	84%	83%	43%	67%

## 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	26.867200	26.89300979544516	CCD I2 on	O1	Y
[deg] Pointing Dec	0.065891	0.05689925379427119	CCD I3 on	O2	Y
[deg] Pointing Roll	309.728960	309.8855723739413	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	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	500900802.184000	500899770.2609	CCD S5 on	N	N
Observation start date	2013-11-15T11:05:35	2013-11-15T10:49:30	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	500907002.184000	500907782.68634	On-chip summing requested	N	N
Observation end date	2013-11-15T12:48:55	2013-11-15T13:03:02	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





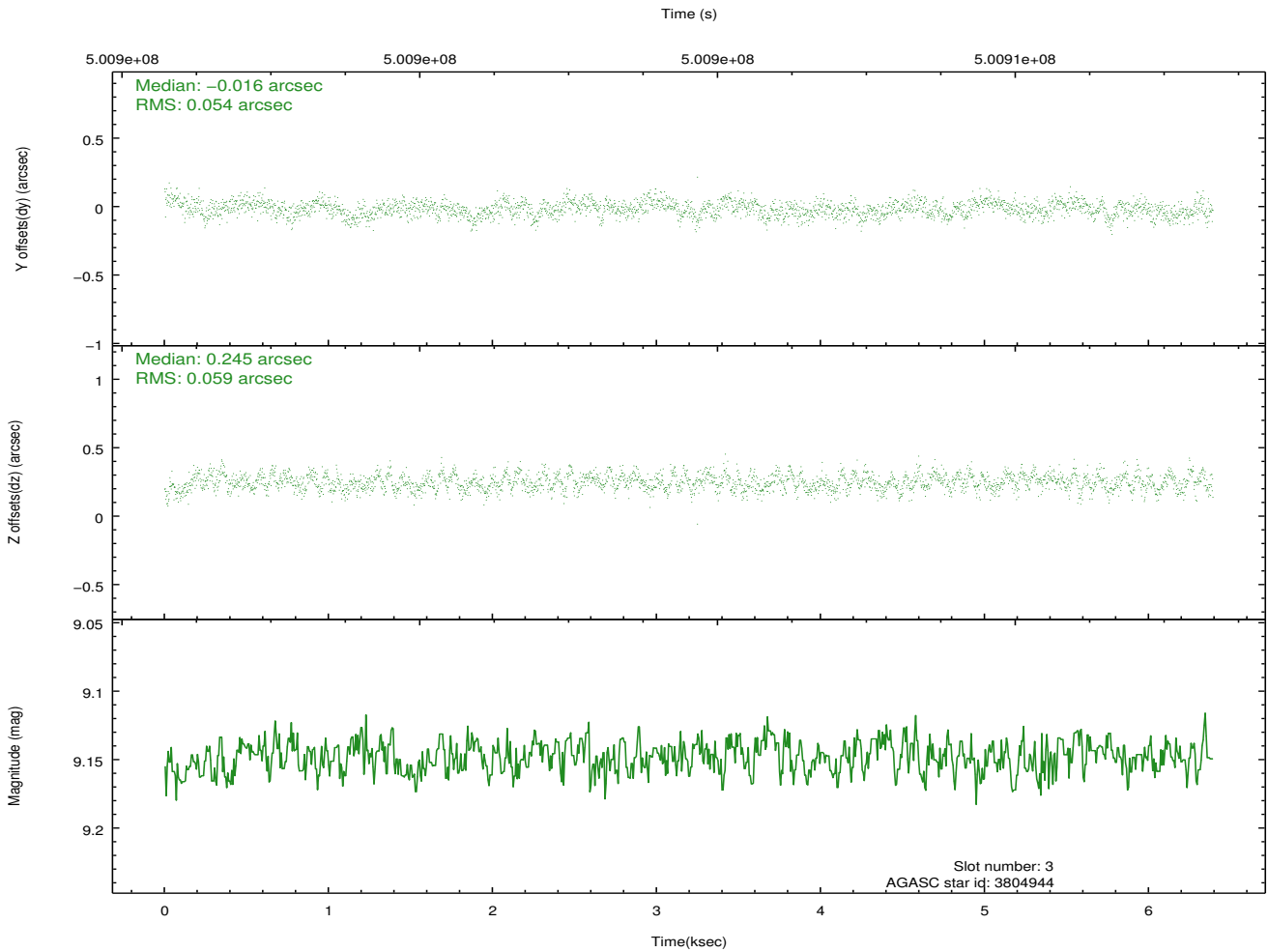
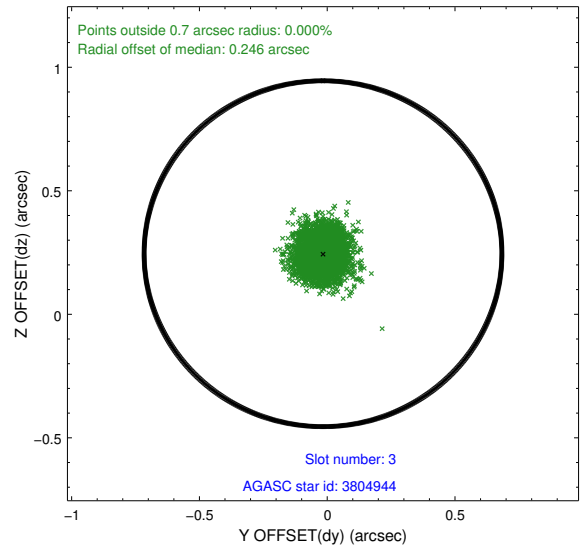
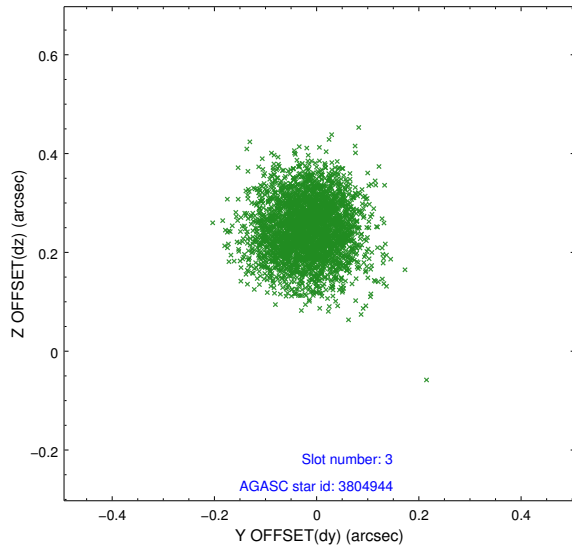
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.08	1559	-0.128	-0.015	0.007	0.010	0.000000	0.000000	-772.22	-1737.73
1	FID		ACIS-S-4	7.17	1559	0.291	0.066	0.005	0.010	0.000000	0.000000	2141.06	169.88
2	FID		ACIS-S-5	7.20	1559	-0.194	-0.042	0.006	0.011	0.000000	0.000000	-1823.95	164.49
3	GUIDE	used	3804944	9.15	3118	-0.016	0.245	0.085	0.135	26.479606	0.233641	-1355.64	-686.93
4	GUIDE	used	3805672	8.36	3118	0.061	0.080	0.067	0.105	26.586457	0.073060	-665.40	-760.93
5	GUIDE	used	3808216	7.90	3117	-0.141	-0.127	0.101	0.155	27.071052	0.452147	-600.42	1453.03
6	GUIDE	used	3808952	7.66	3117	-0.057	-0.213	0.075	0.119	26.899438	0.155228	-172.97	295.06
7	GUIDE	used	614213736	9.17	3115	0.140	0.010	0.110	0.171	27.170208	-0.361551	1881.23	-144.21

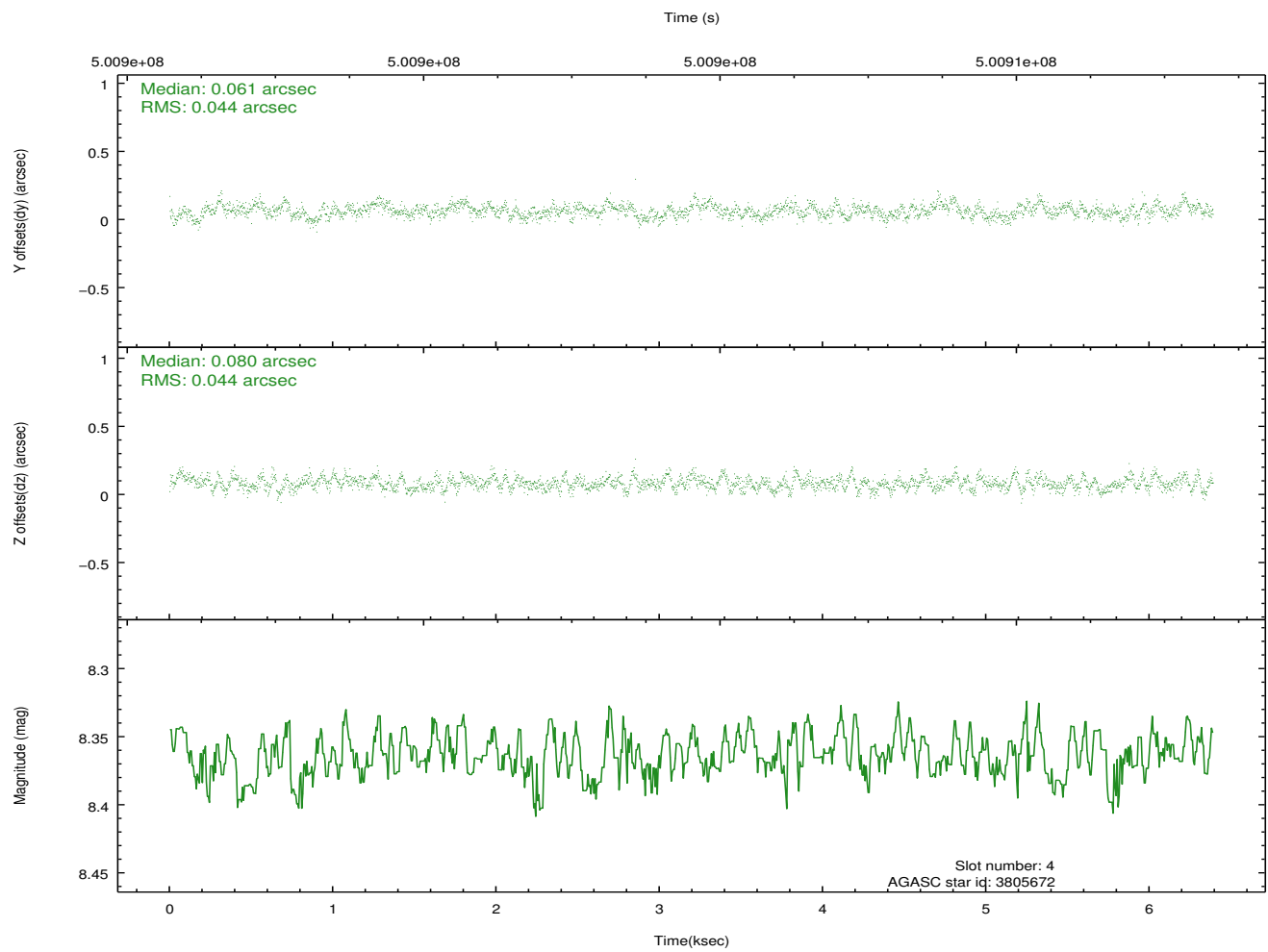
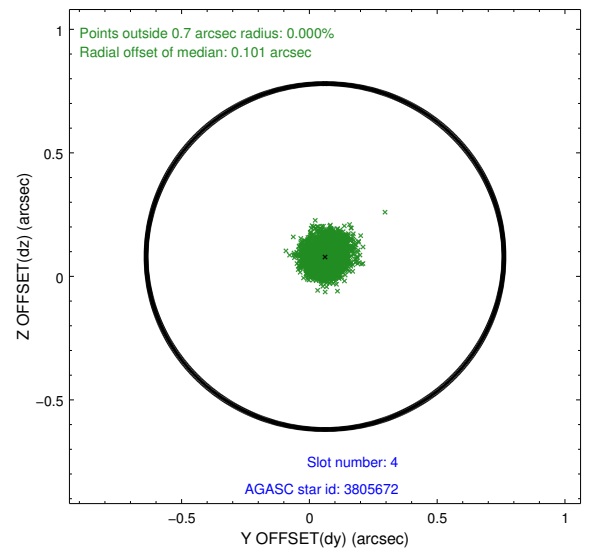
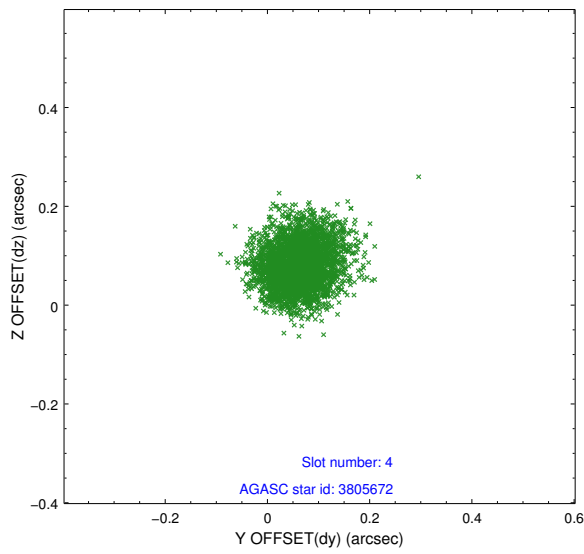
∞

## 2.4 Star Slots

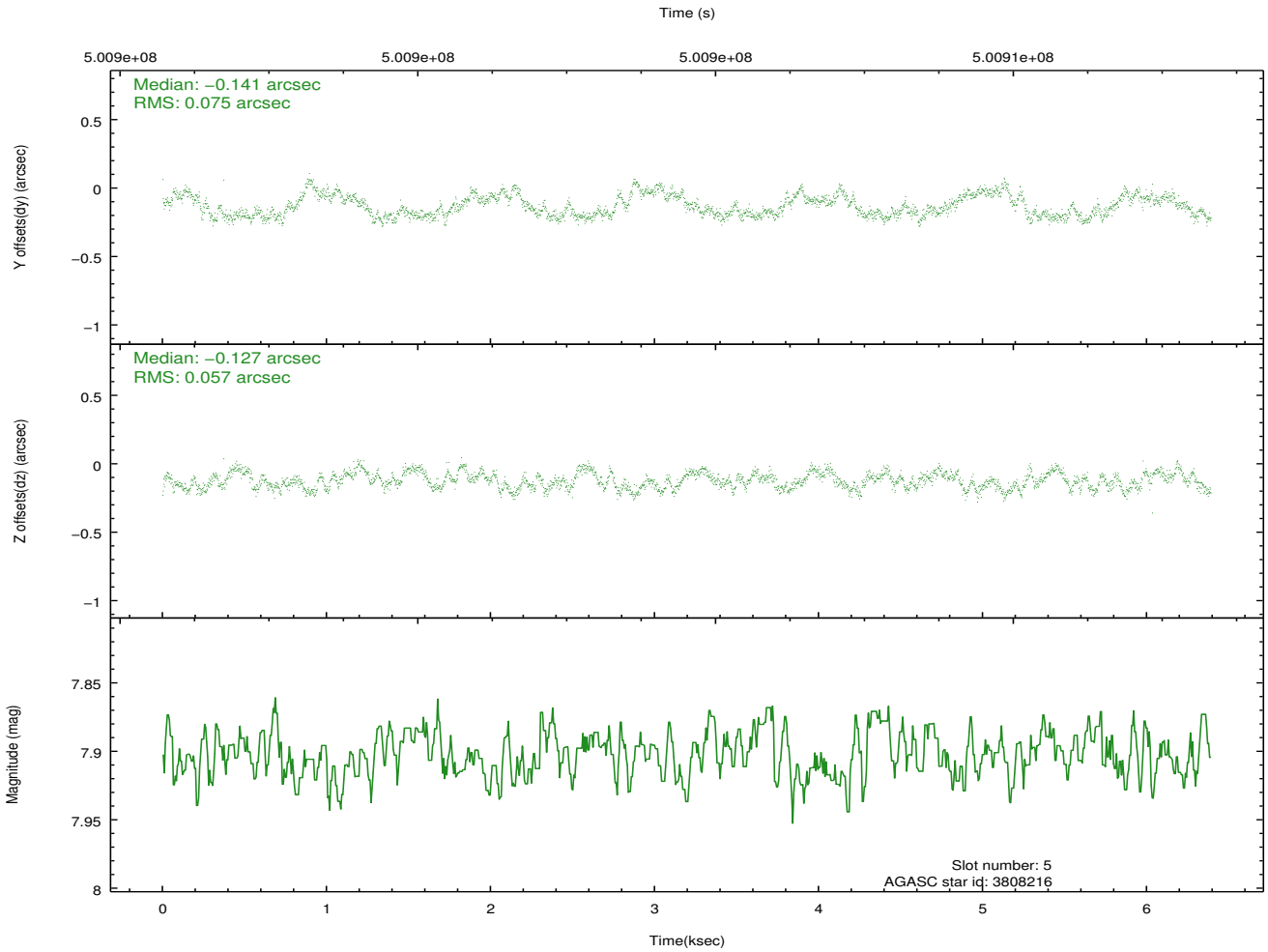
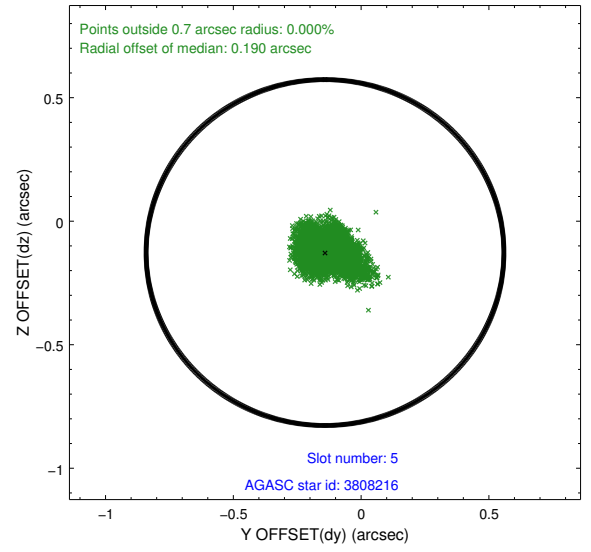
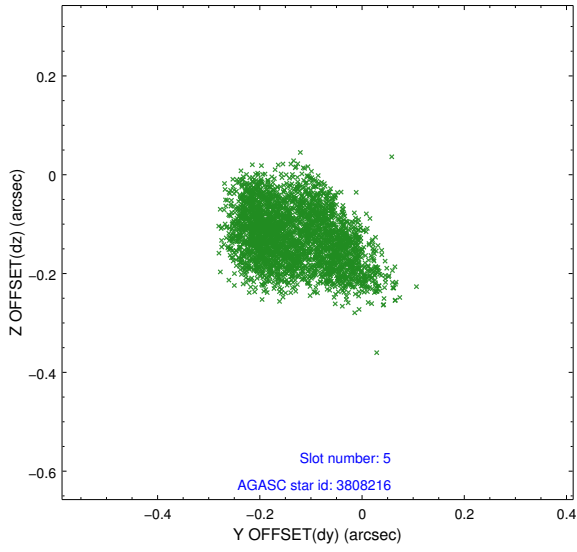
### 2.4.1 Slot 3



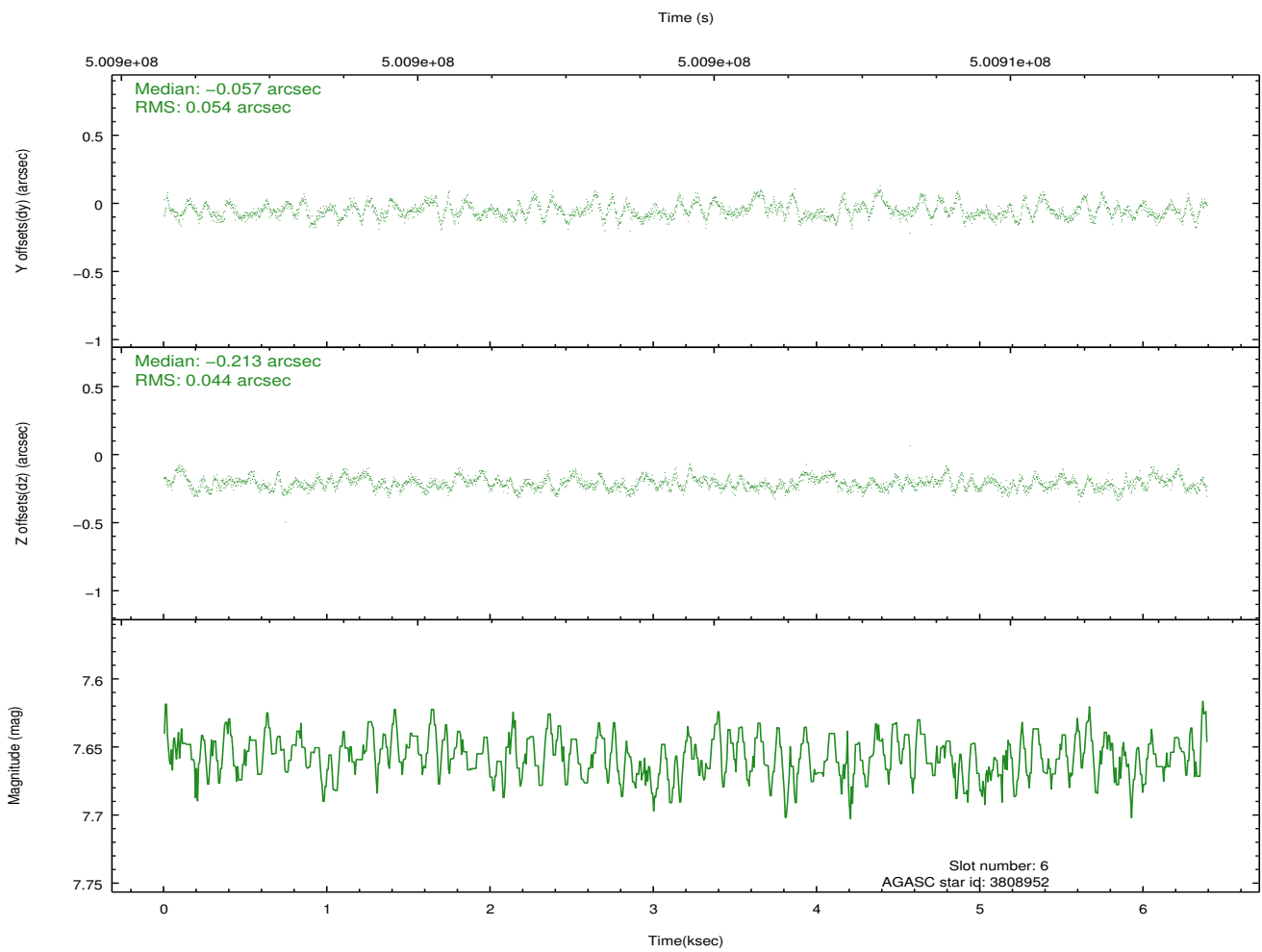
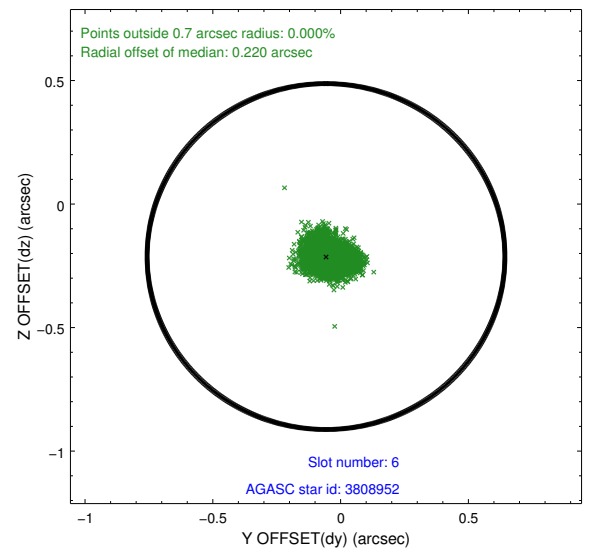
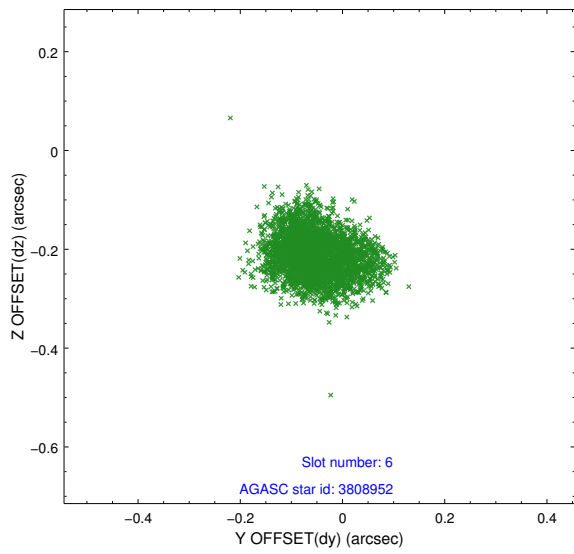
## 2.4.2 Slot 4



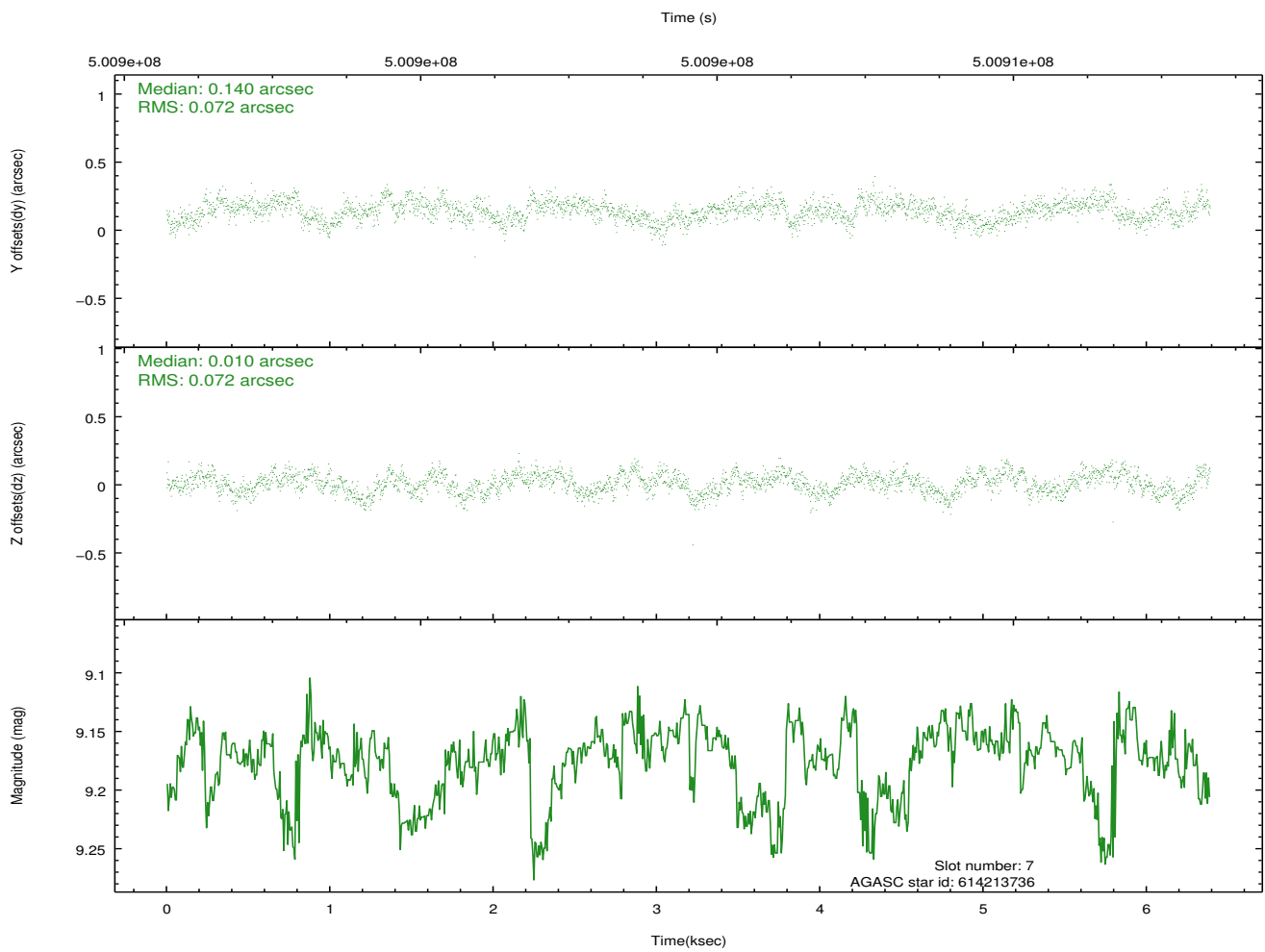
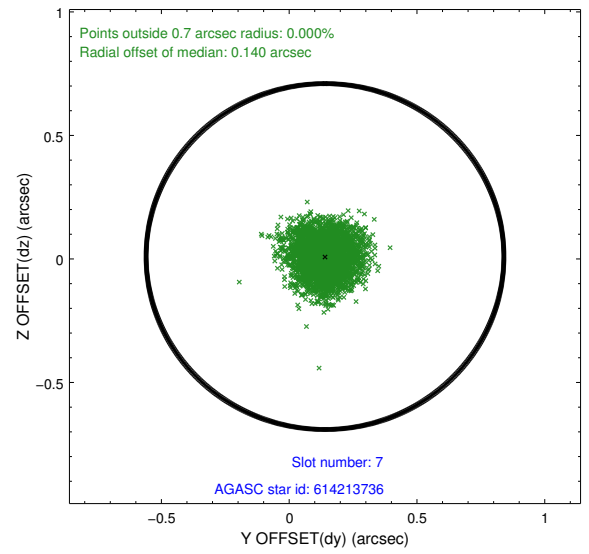
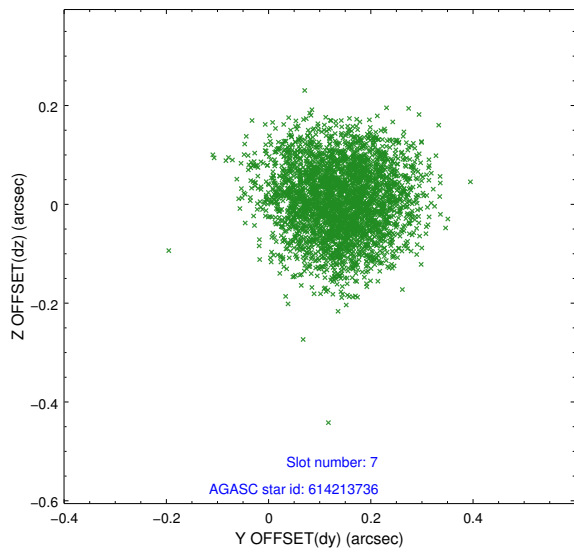
### 2.4.3 Slot 5



## 2.4.4 Slot 6

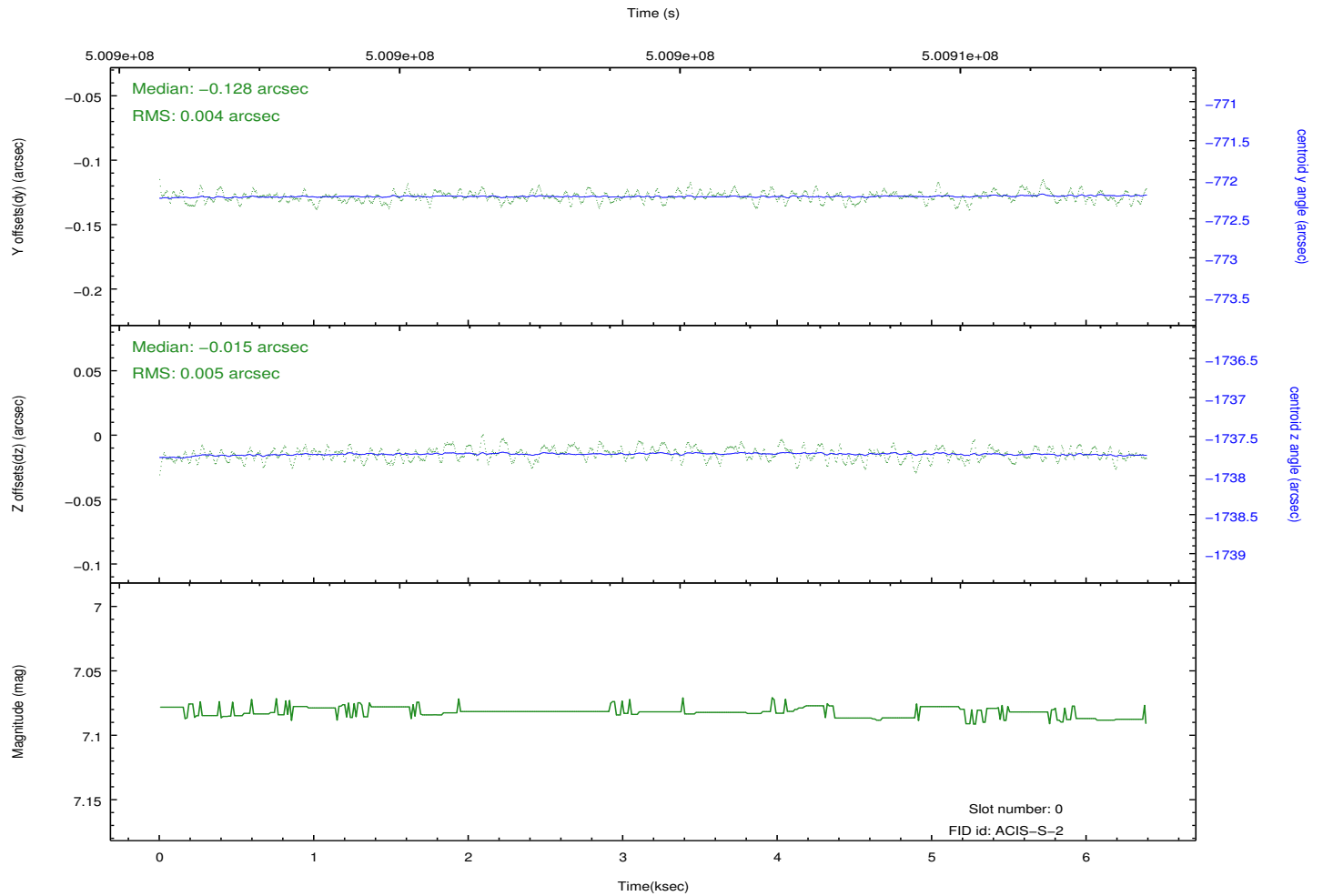
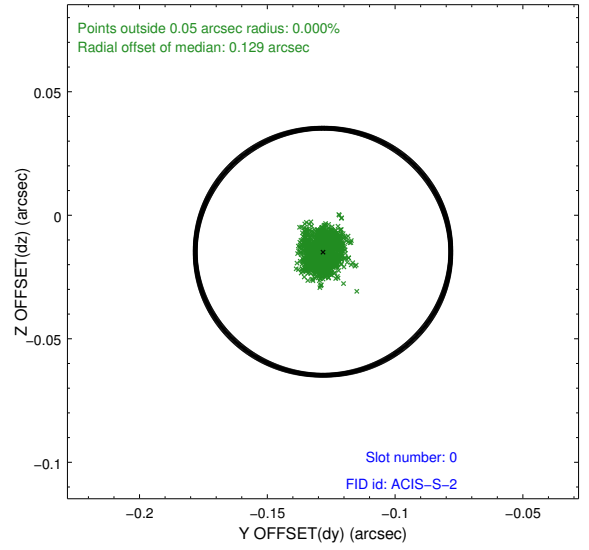
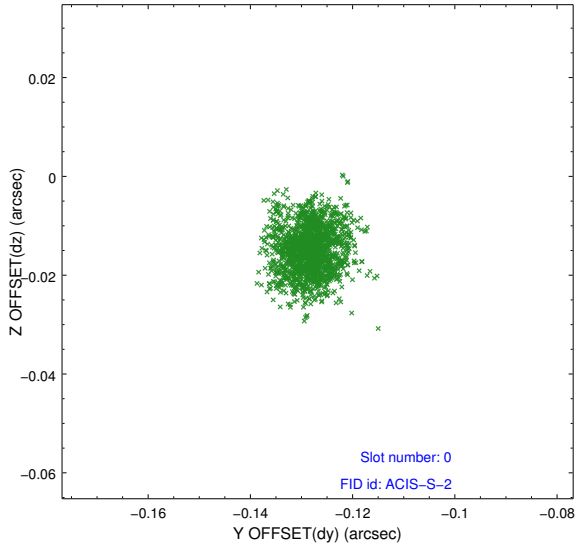


## 2.4.5 Slot 7

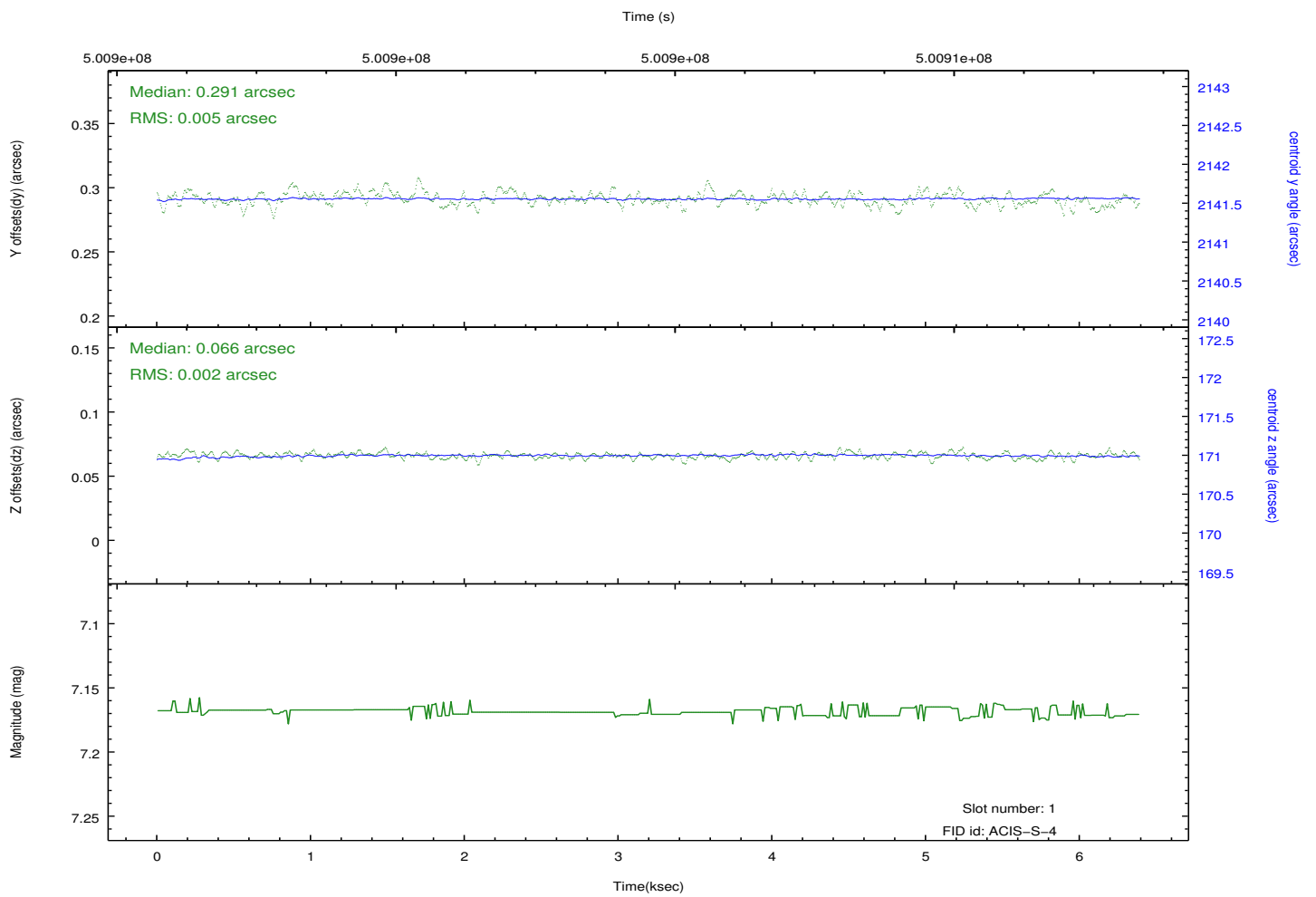
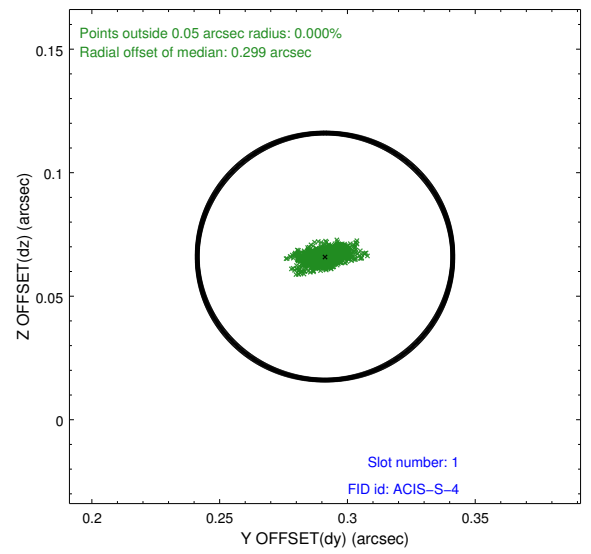
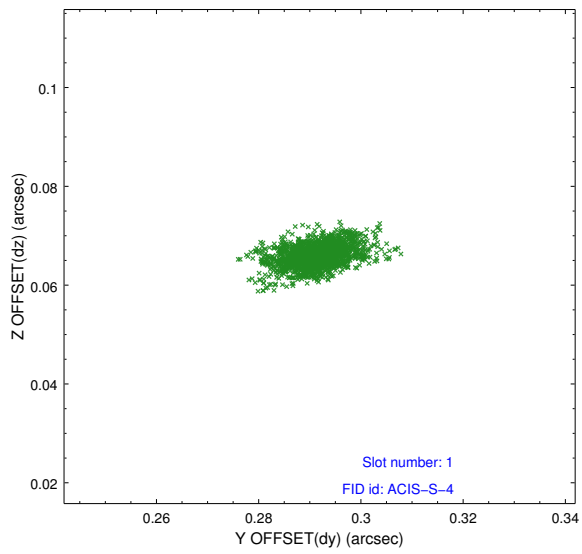


## 2.5 FID Slots

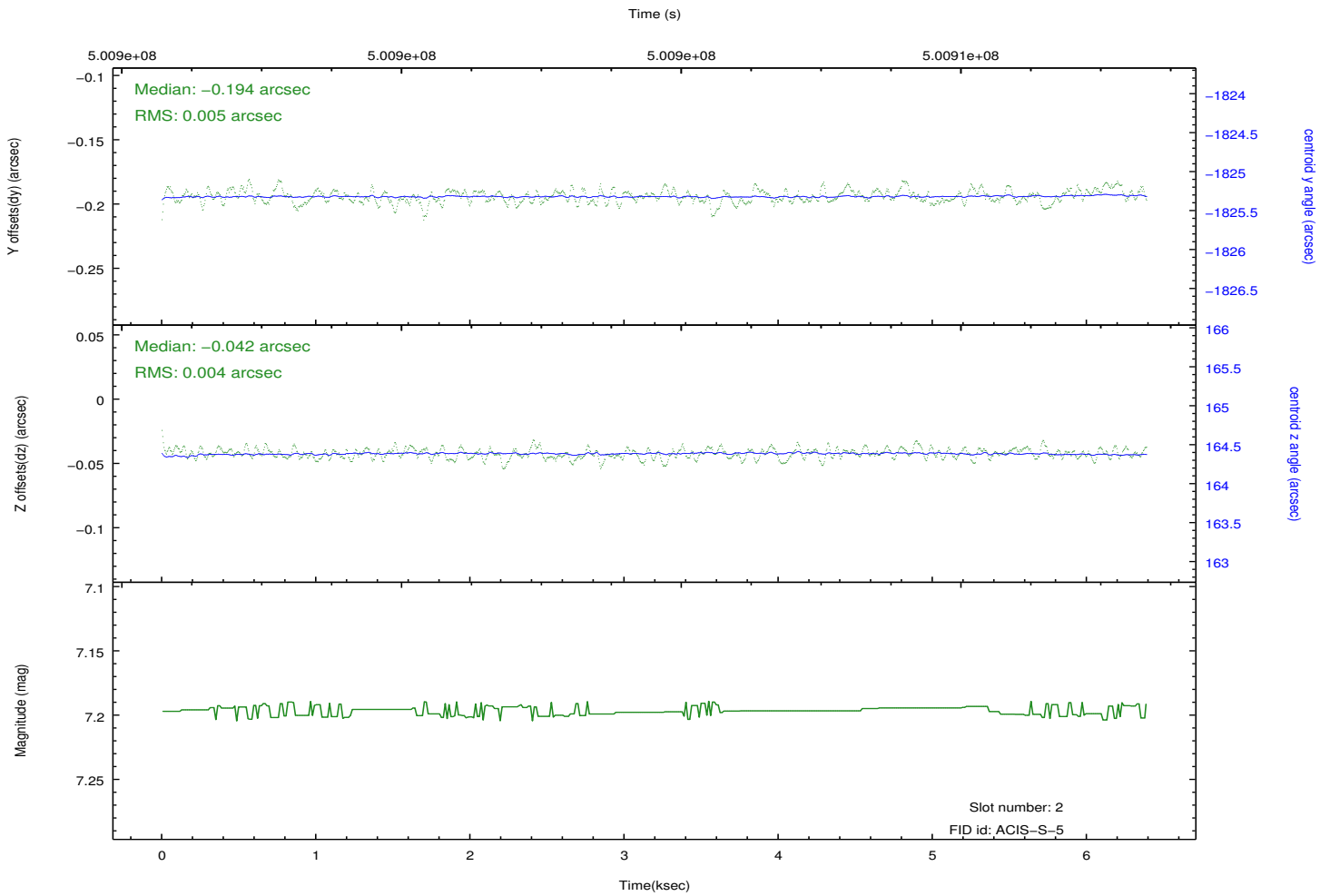
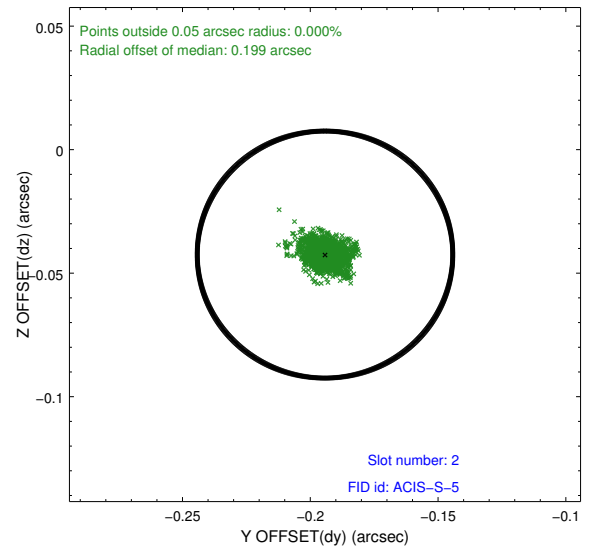
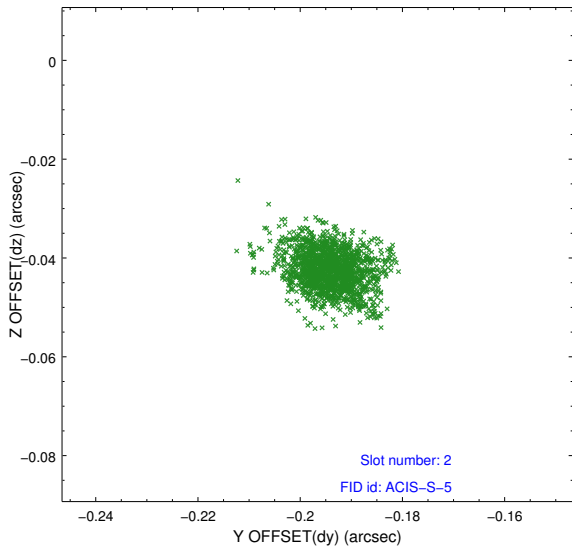
### 2.5.1 Slot 0



## 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)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.2682000482082

## 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.