

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11536 - L2 Version 2  
Chandra X-Ray Center

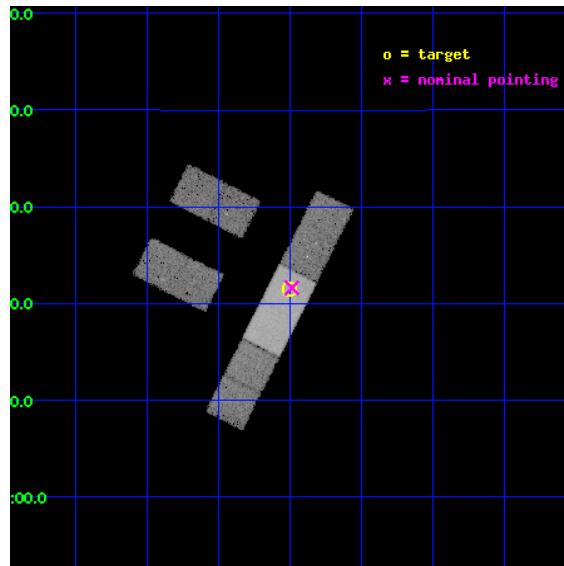
L2 Processing Date : Jun 29 2012

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# 1 Front

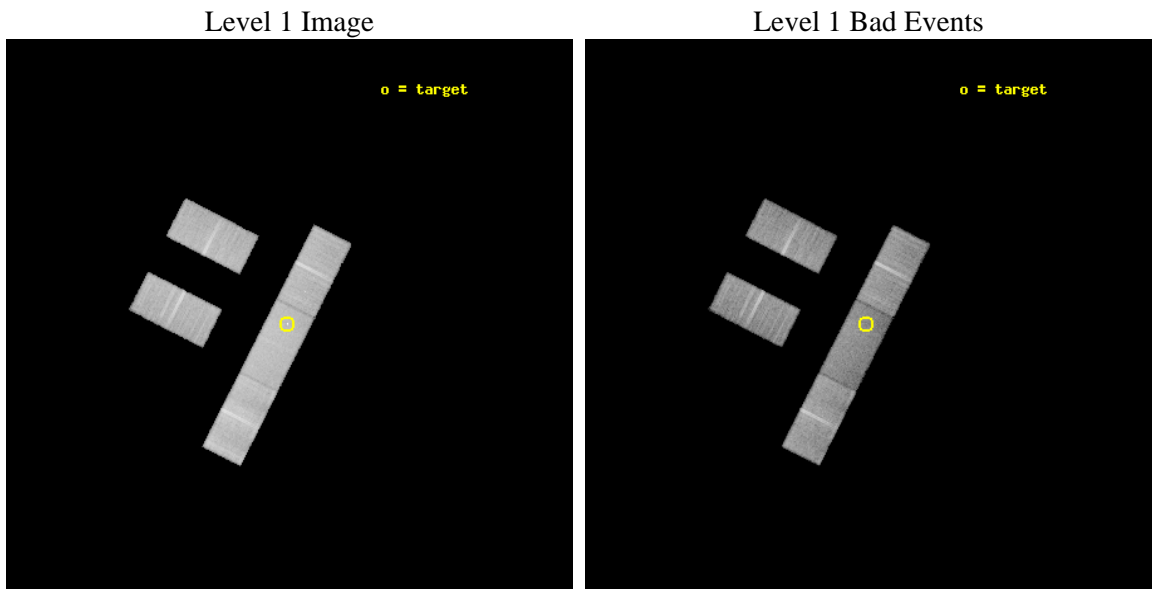
seq_num	702122	Sequence number
obs_id	11536	Observation id
title	The Size of Quasar Non-Thermal/X-ray Emission Regions	Proposal tit
observer	Prof. Christopher Kochanek	Principal investigator
object	Q2237+0305	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	340.12625	Observer's specified target RA [deg]
dec_targ	3.358	Observer's specified target Dec [deg]
ra_nom	340.12211159913	Nominal RA [deg]
dec_nom	3.3605098292334	Nominal Dec [deg]
roll_nom	116.98893274035	Nominal Roll [deg]
revision	2	Processing version of data
ontime	28564.503635049	Sum of GTIs [s]
livetime	27891.177790047	Livetime [s]
ontime2	28562.598444939	Sum of GTIs [s]
ontime3	28564.421555042	Sum of GTIs [s]
ontime6	28564.462595046	Sum of GTIs [s]
ontime7	28564.503635049	Sum of GTIs [s]
ontime8	28564.380515039	Sum of GTIs [s]
l2events	105815	Number of level 2 events



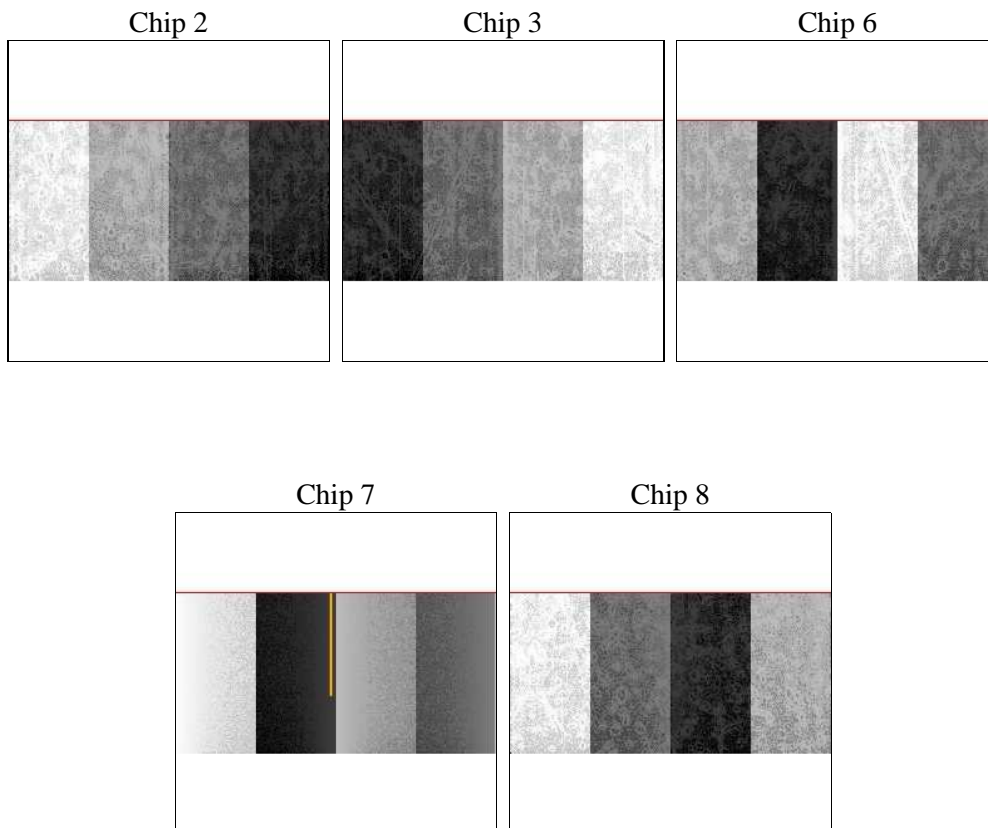
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	28500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	28564.503635049	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime2	28562.598444939	Sum of GTIs [s]
date	2012-06-29T10:13:08	Date and time of file creation	ontime3	28564.421555042	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	28564.462595046	Sum of GTIs [s]
			ontime7	28564.503635049	Sum of GTIs [s]
			ontime8	28564.380515039	Sum of GTIs [s]
			l1events	634313	Number of level 1 events

### 2.1.4 Events

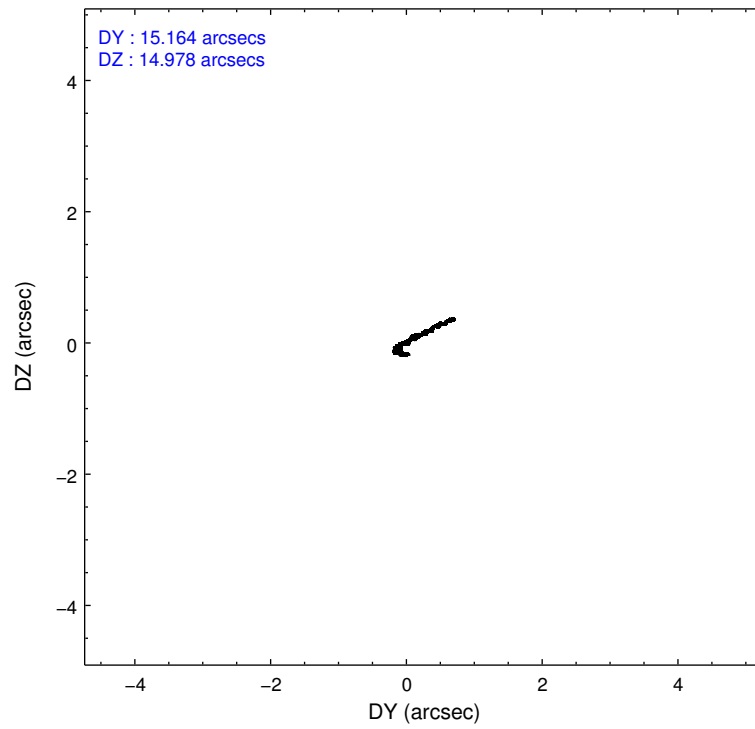
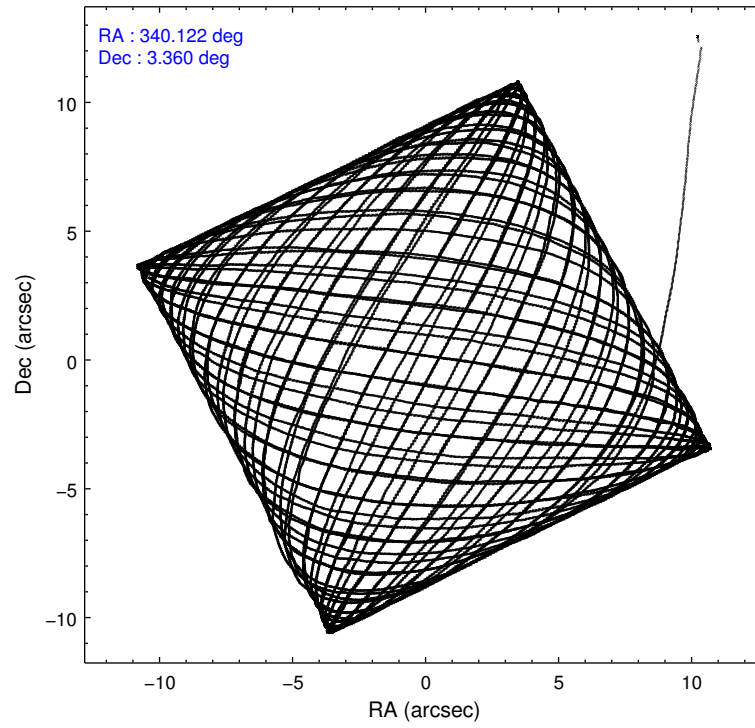
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	113584	110058	118506	136118	156047
rejected events	101276	98323	104820	72536	116291
rejected %	89%	89%	88%	53%	74%

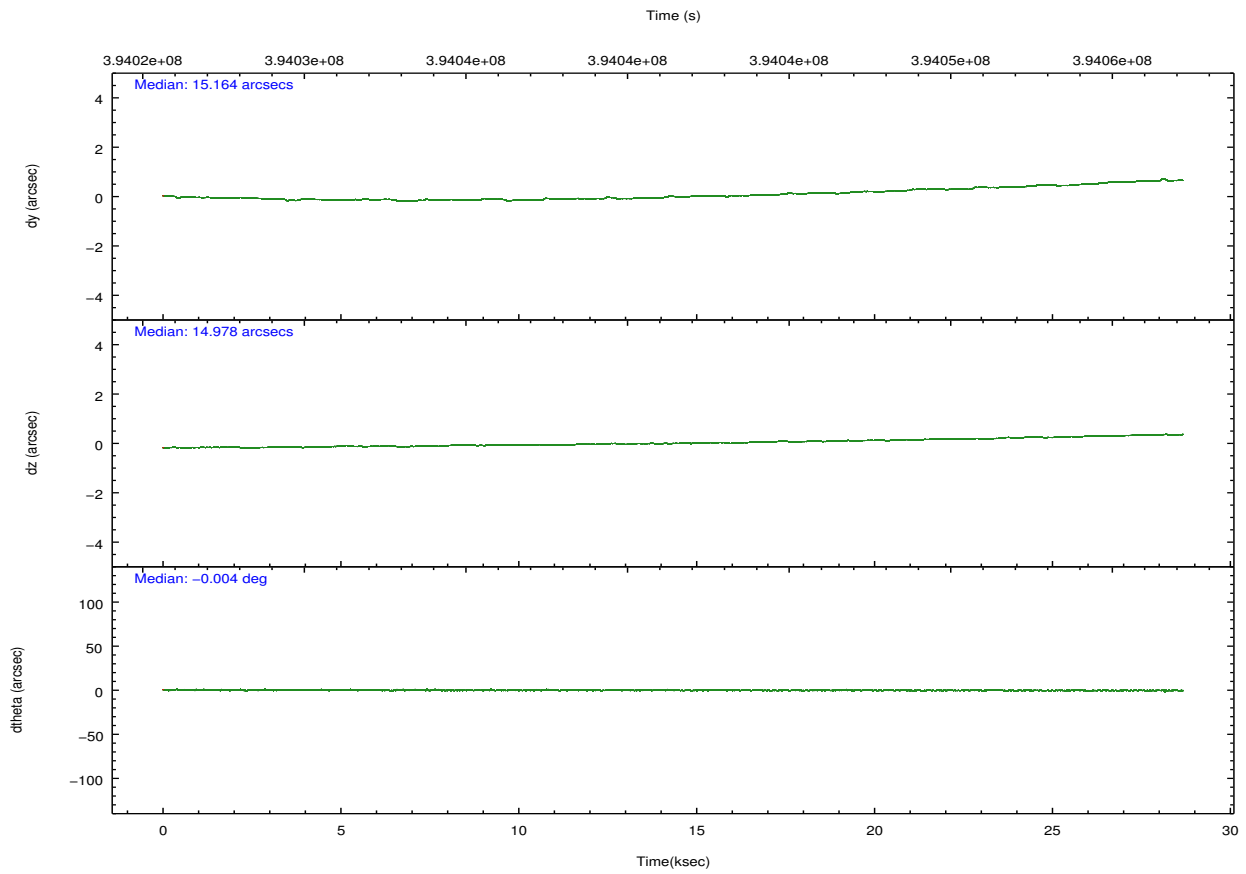
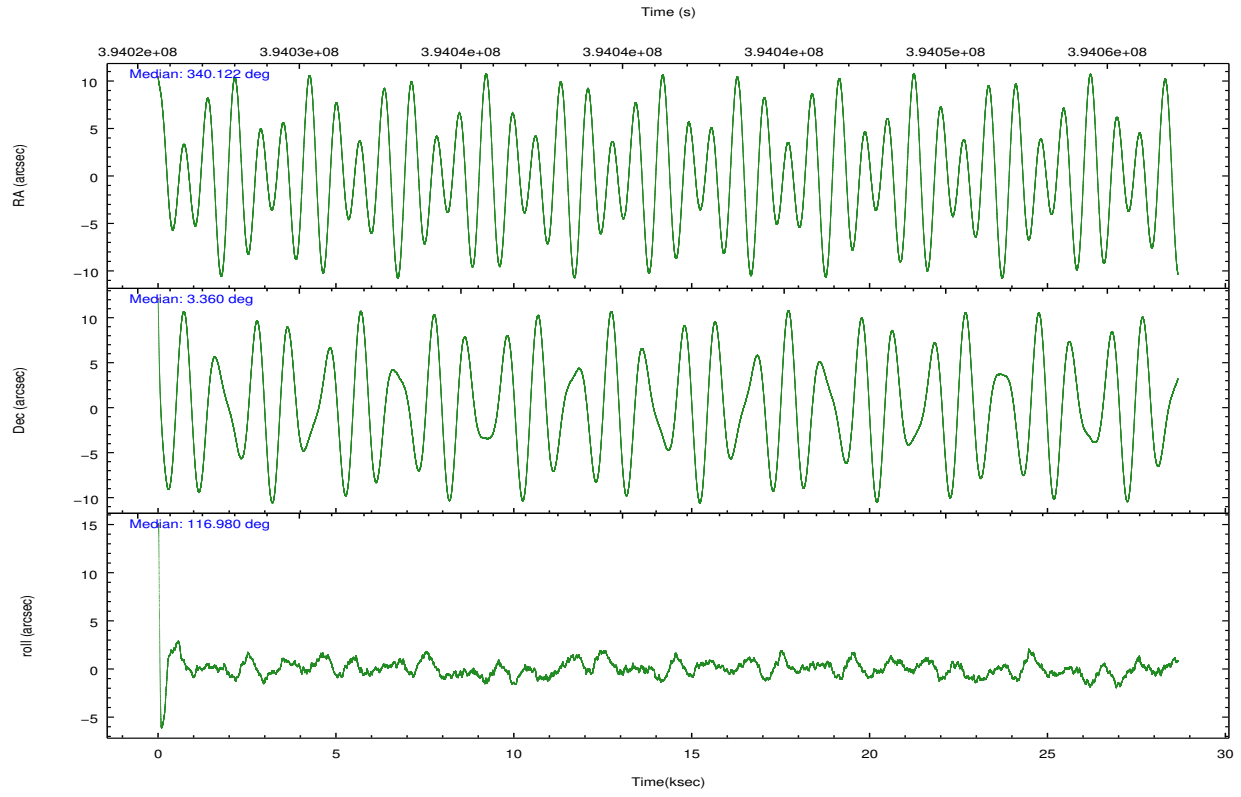
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	4203	3727	4673	6487	11265
	3%	3%	3%	4%	7%
grade 1 events	45	41	42	177	88
	0%	0%	0%	0%	0%
grade 2 events	2807	2639	2943	13370	9149
	2%	2%	2%	9%	5%
grade 3 events	1507	1570	1647	6317	4514
	1%	1%	1%	4%	2%
grade 4 events	1613	1474	1651	6270	4122
	1%	1%	1%	4%	2%
grade 5 events	3912	4904	5088	14392	7204
	3%	4%	4%	10%	4%
grade 6 events	2178	2325	2773	31140	10708
	1%	2%	2%	22%	6%
grade 7 events	97319	93378	99689	57965	108997
	85%	84%	84%	42%	69%

## 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	340.145266	340.1221115991345	CCD I2 on	O4	Y
[deg] Pointing Dec	3.345936	3.360509829233397	CCD I3 on	O3	Y
[deg] Pointing Roll	116.830943	116.988932740351	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	O2	Y
[s] Observation start time (MET)	394027238.184000	394026310.0531	CCD S5 on	N	N
Observation start date	2010-06-27T11:59:32	2010-06-27T11:45:10	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	394055738.184000	394056862.74216	On-chip summing requested	N	N
Observation end date	2010-06-27T19:54:32	2010-06-27T20:14:22	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	257	257
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.7

## 2.3 Aspect



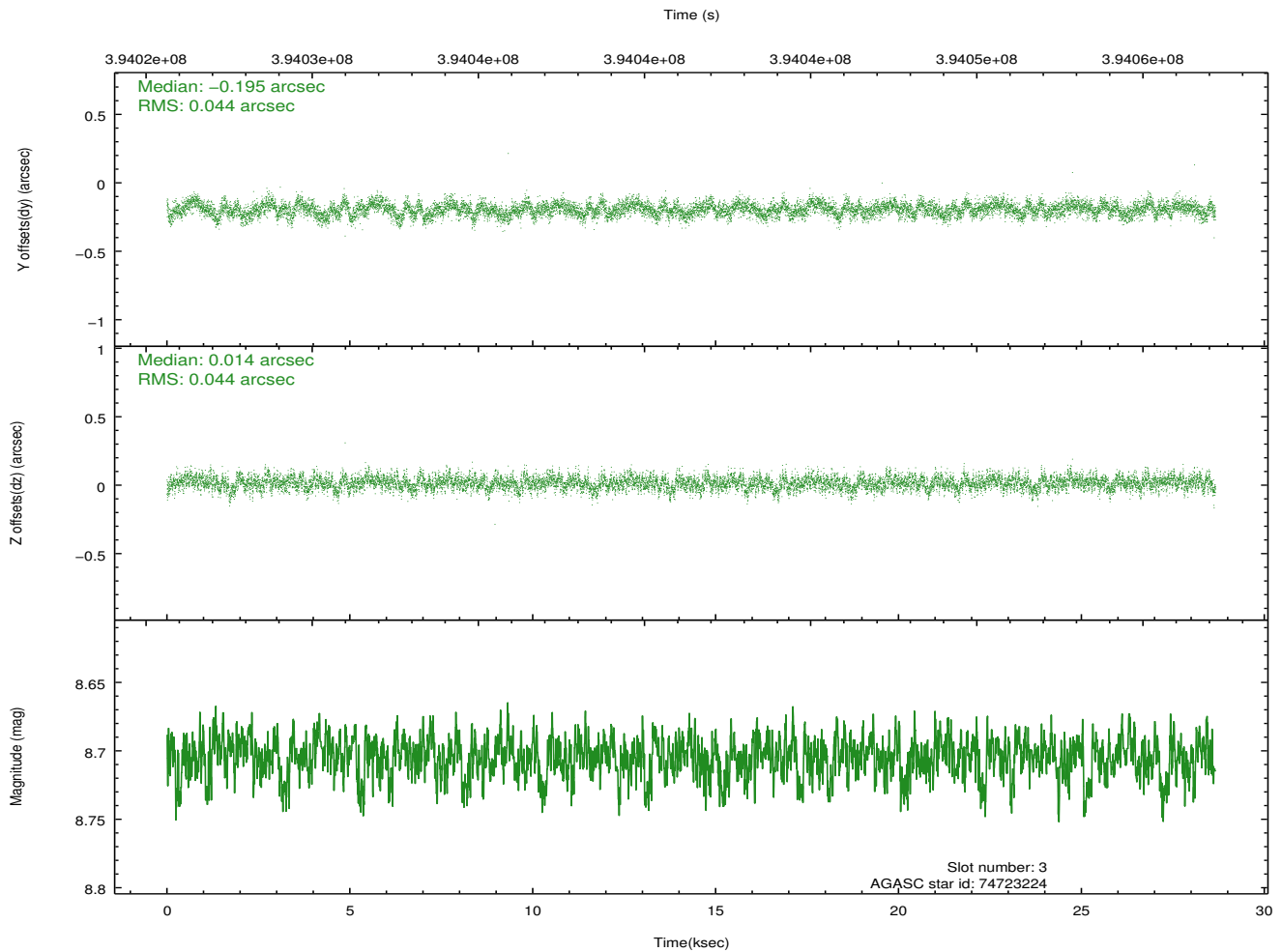
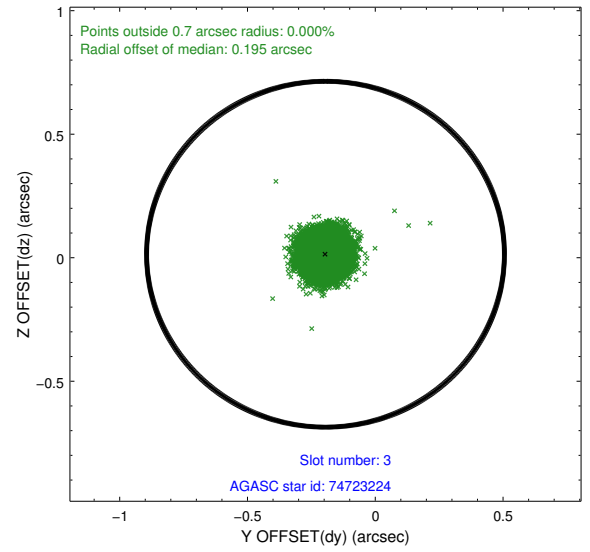
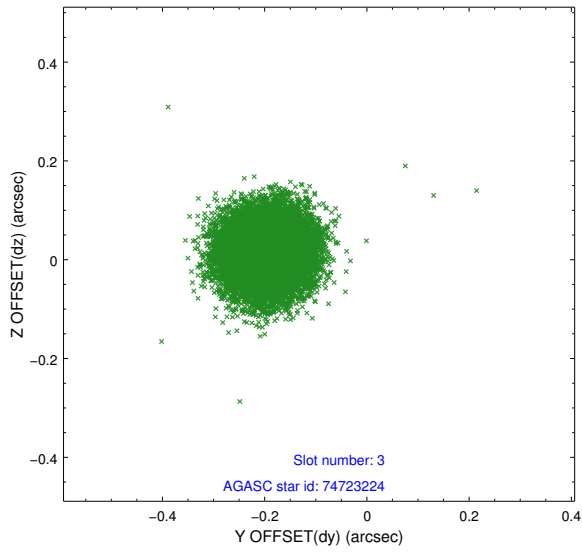


### Slot Statistics

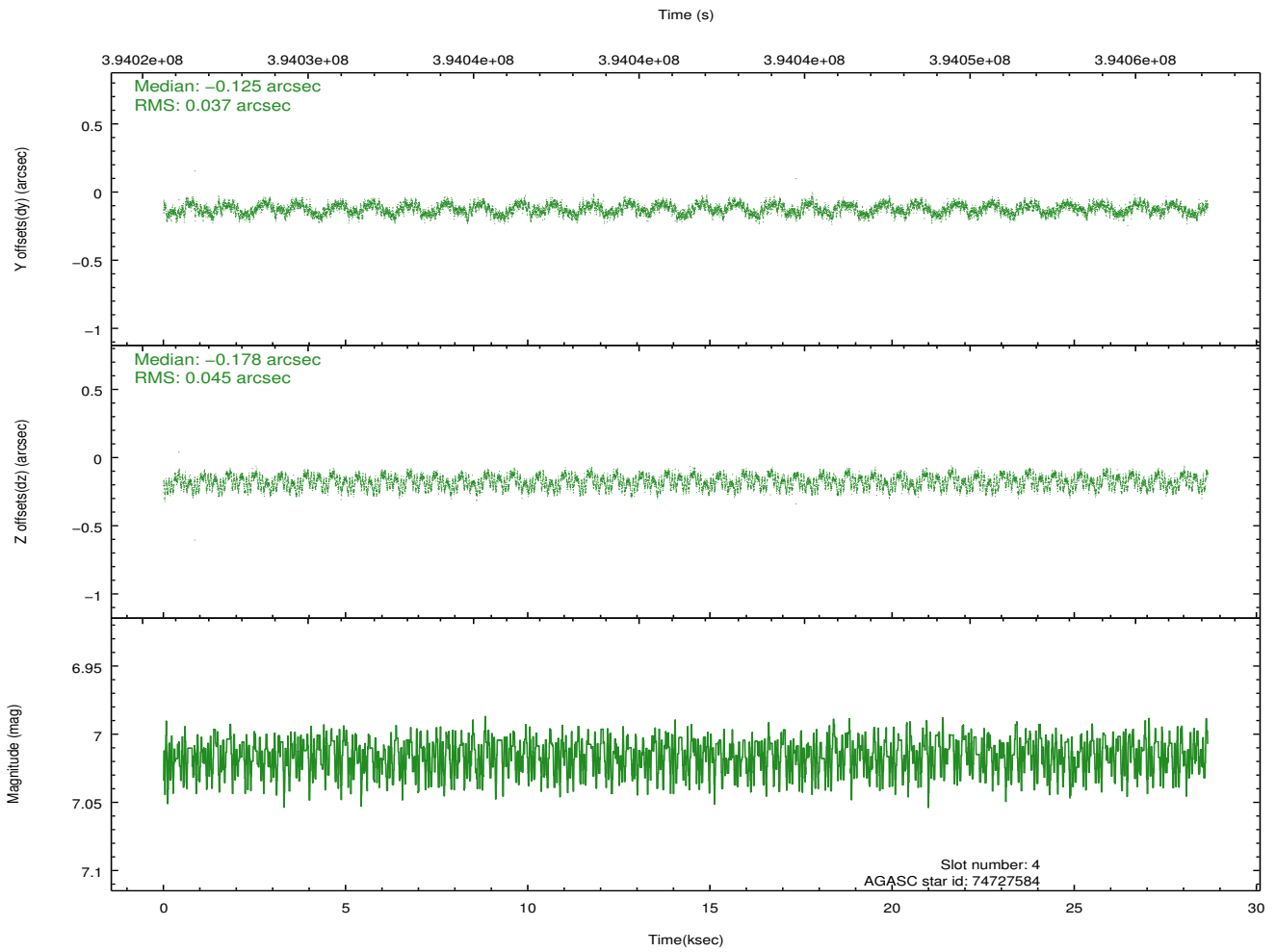
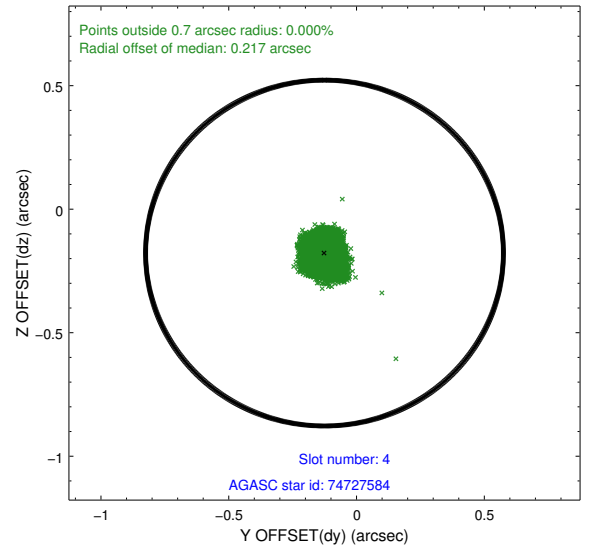
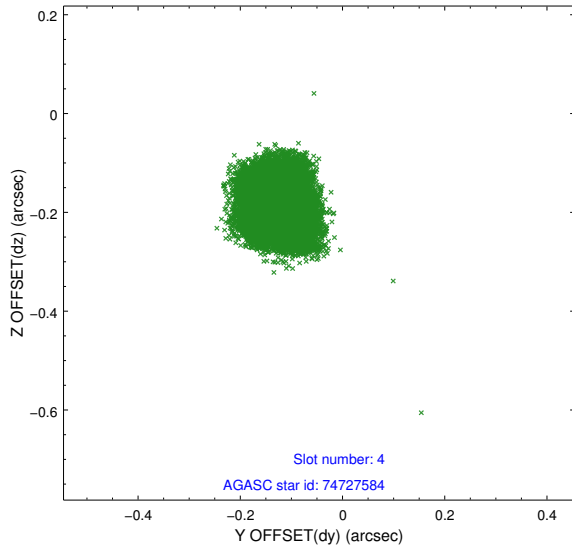
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.92	6992	-0.102	-0.030	0.008	0.012	0.000000	0.000000	-768.33	-1736.38
1	FID	ACIS-S-4	7.01	6992	0.211	0.057	0.007	0.013	0.000000	0.000000	2145.21	172.13
2	FID	ACIS-S-5	7.03	6991	-0.141	-0.018	0.010	0.017	0.000000	0.000000	-1821.11	165.79
3	GUIDE	74723224	8.70	13965	-0.195	0.014	0.067	0.107	339.594650	3.574222	1626.70	1394.52
4	GUIDE	74727584	7.01	13982	-0.125	-0.178	0.064	0.093	339.633744	3.463732	1208.55	1448.76
5	GUIDE	74842128	8.52	13972	0.398	0.027	0.073	0.120	340.118134	3.132788	-640.07	433.73
6	GUIDE	74854992	8.28	13978	0.061	0.208	0.078	0.129	340.342808	3.603730	508.19	-1051.60
7	GUIDE	74855640	8.84	13961	-0.137	-0.074	0.093	0.144	340.341123	3.746937	971.06	-1279.43

## 2.4 Star Slots

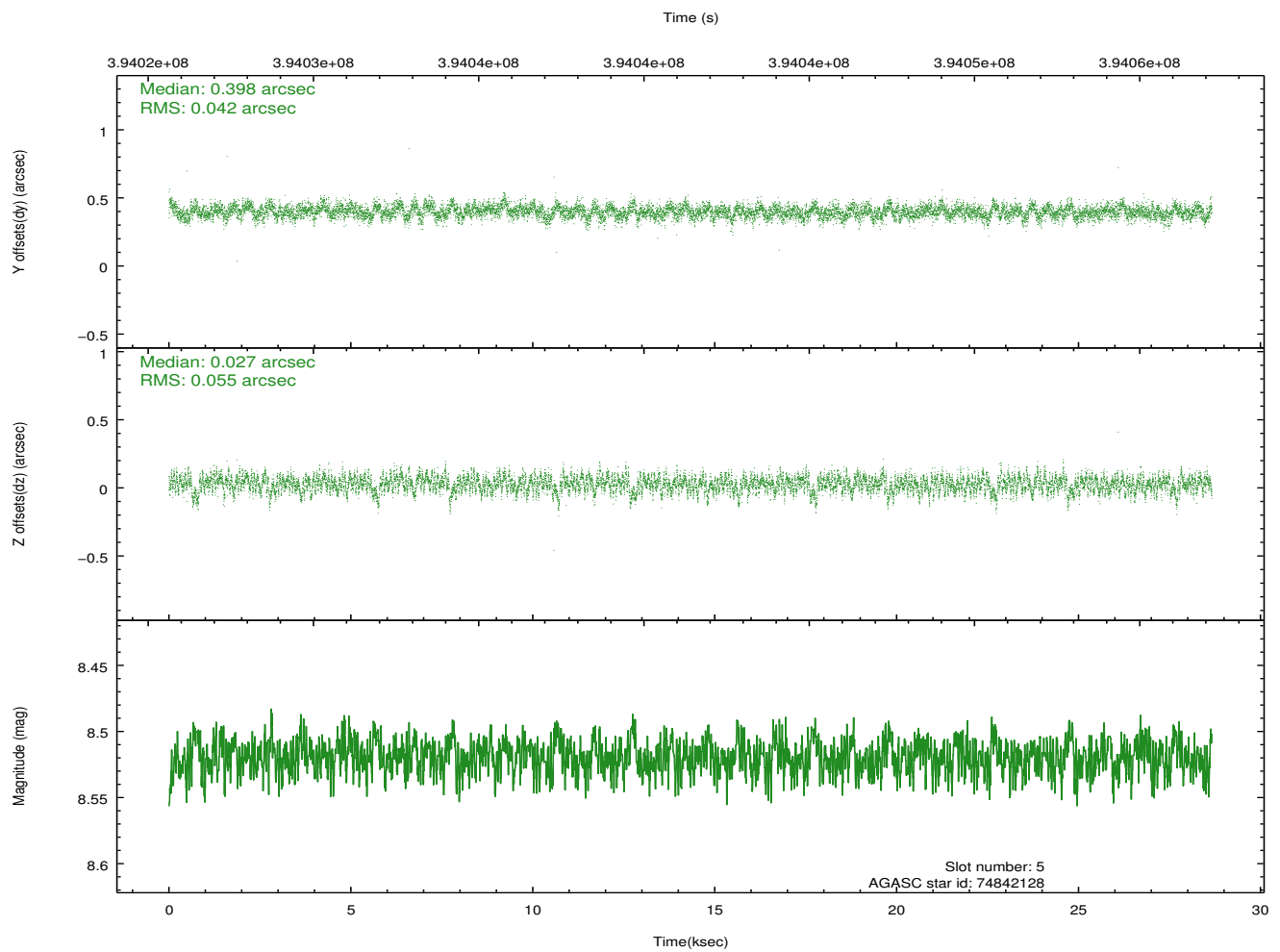
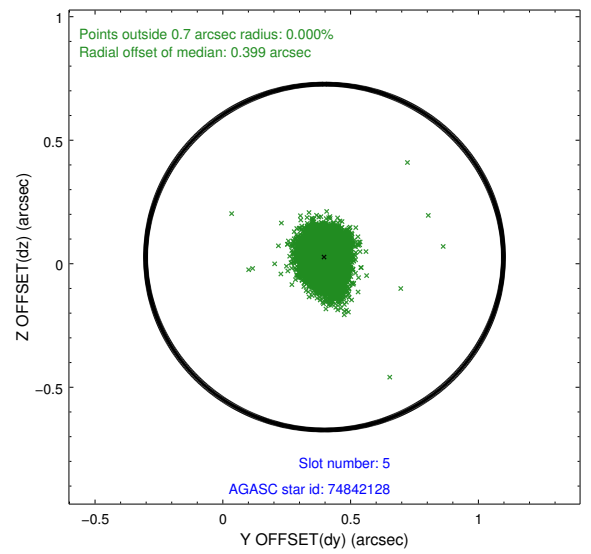
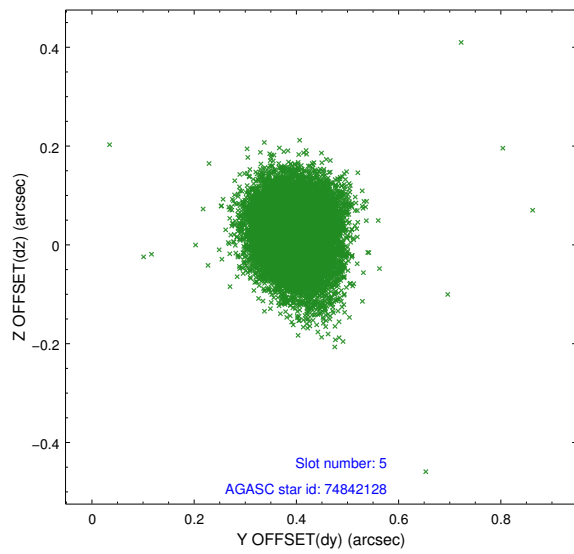
### 2.4.1 Slot 3



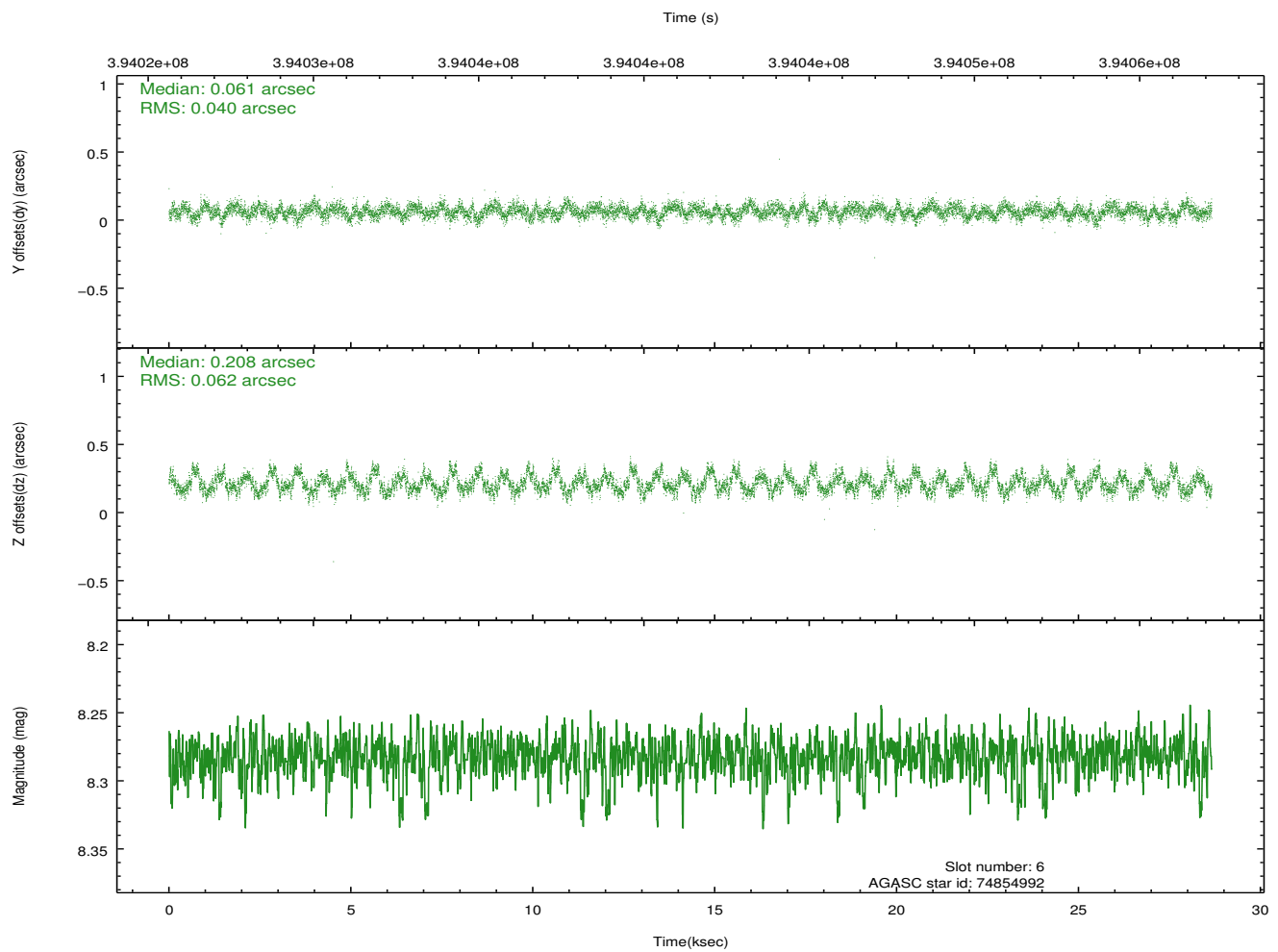
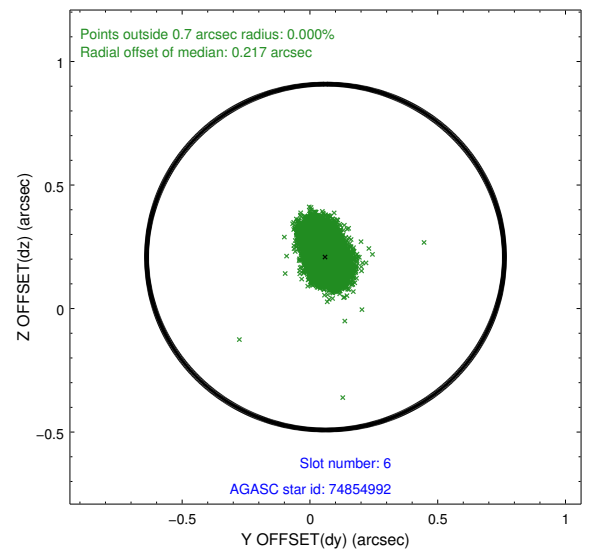
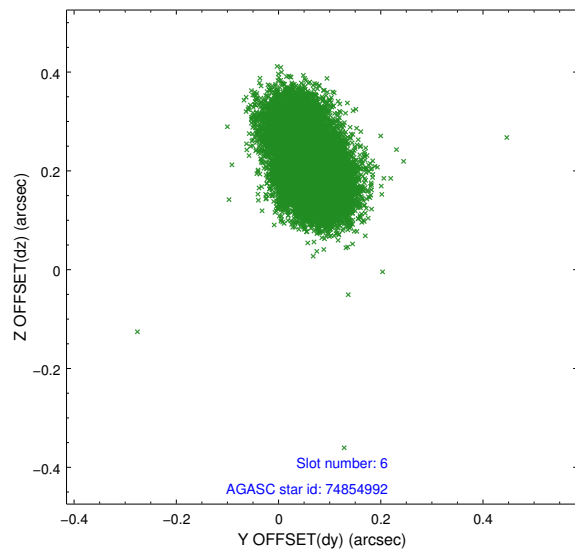
## 2.4.2 Slot 4



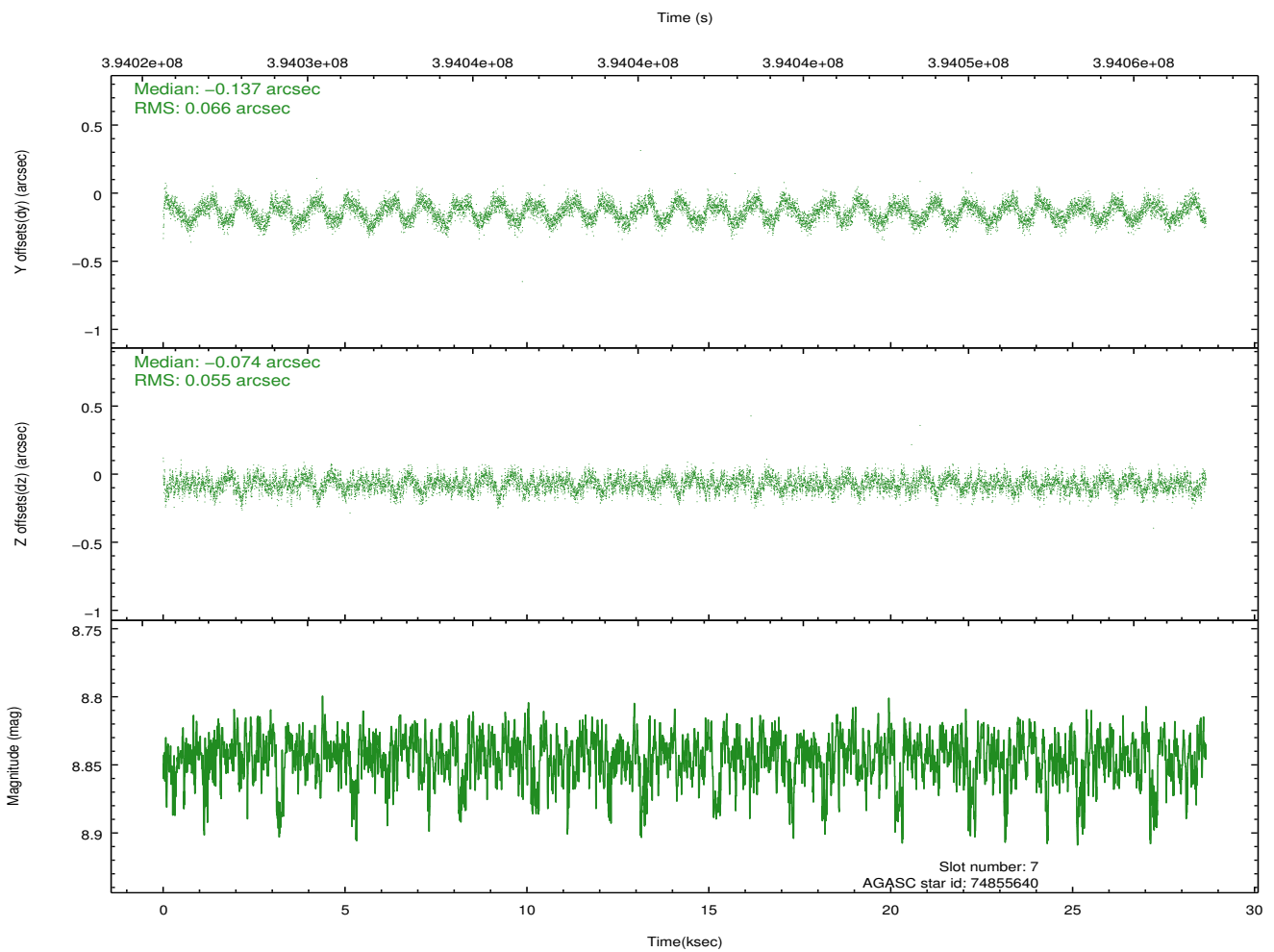
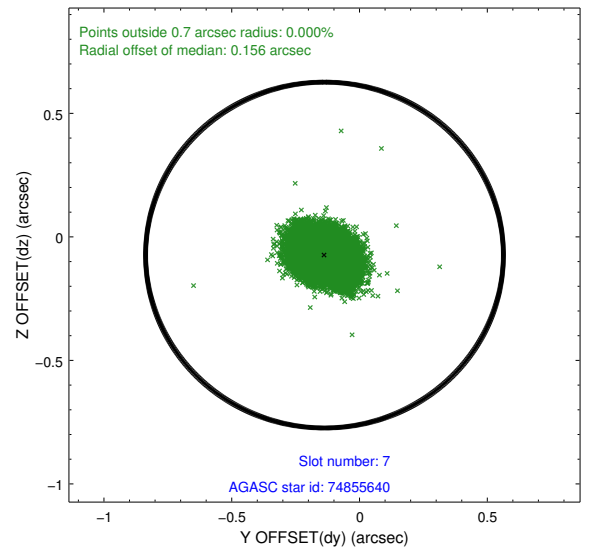
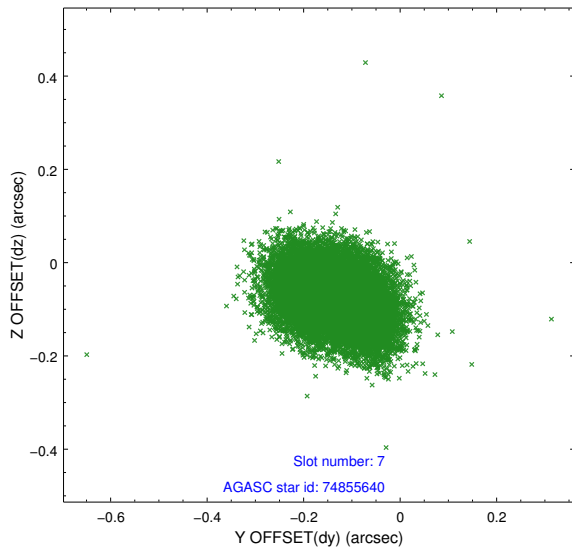
### 2.4.3 Slot 5



## 2.4.4 Slot 6

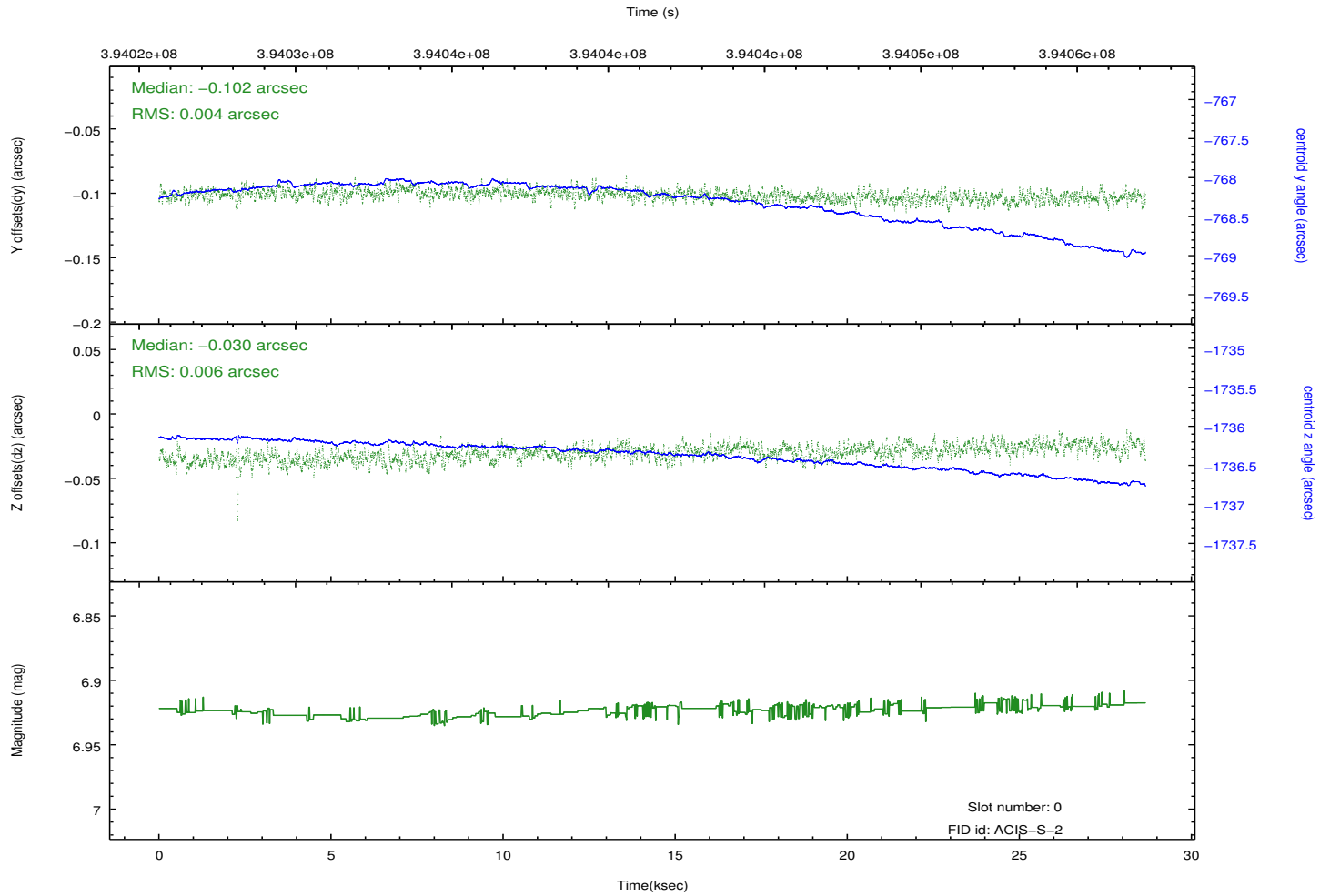
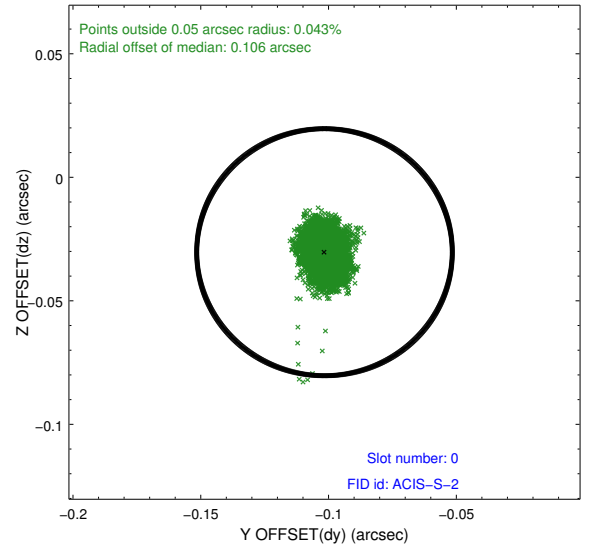
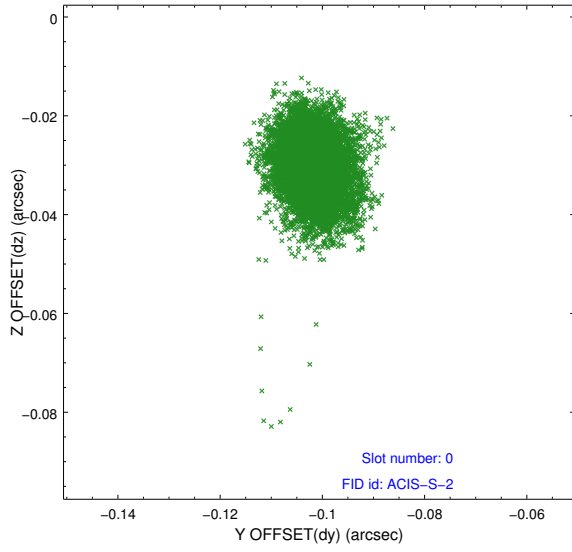


## 2.4.5 Slot 7

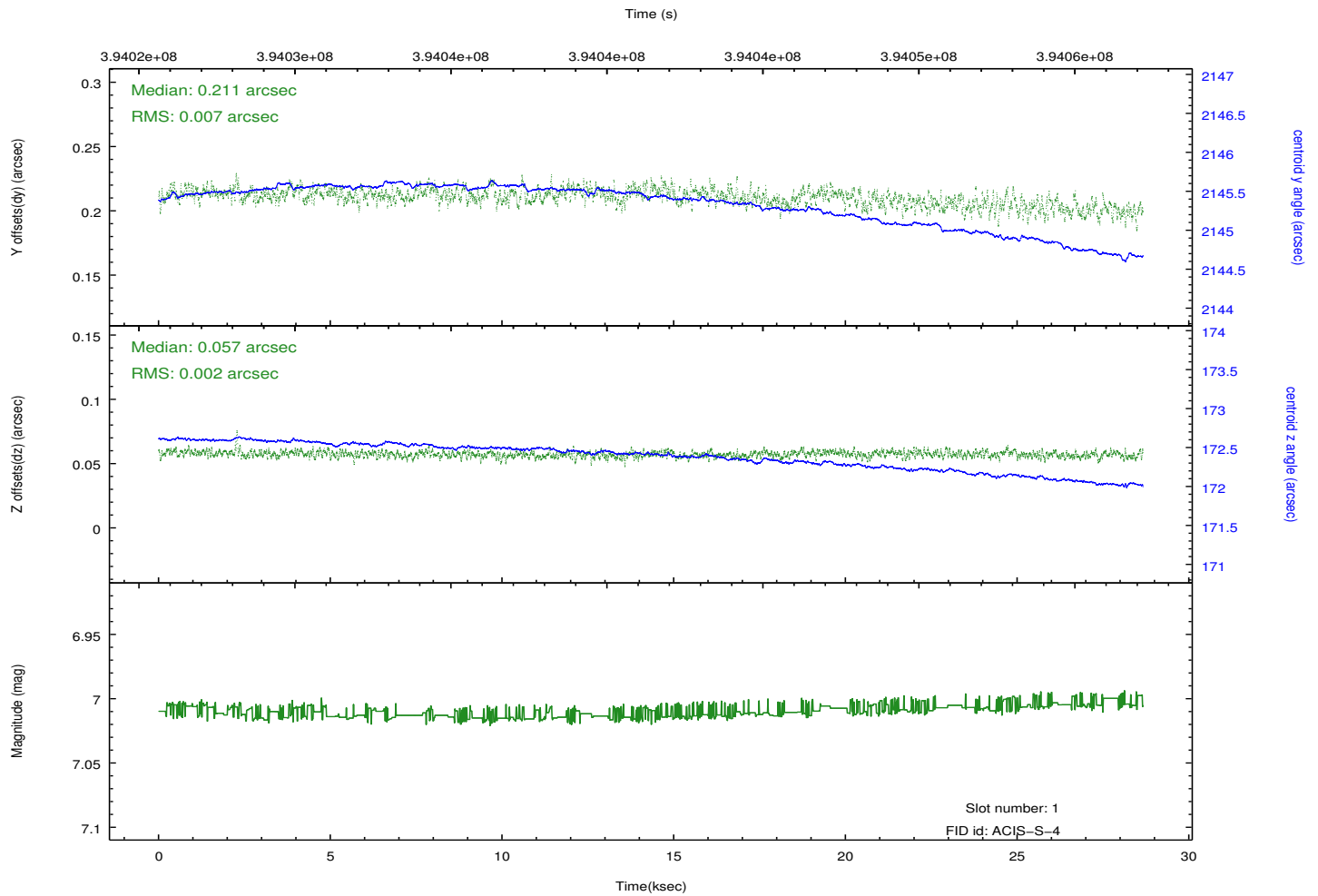
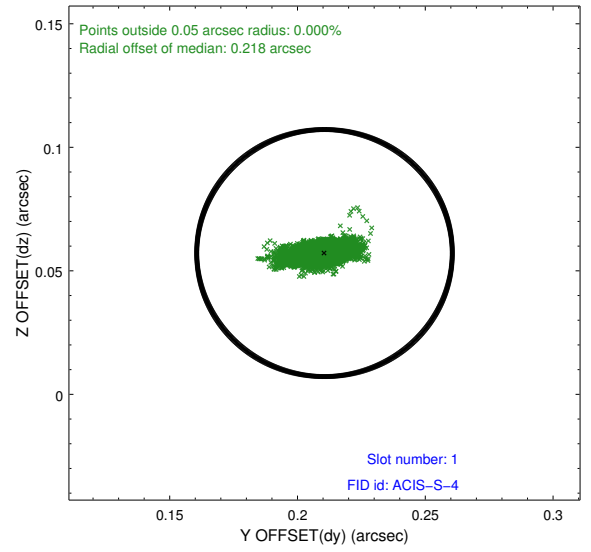
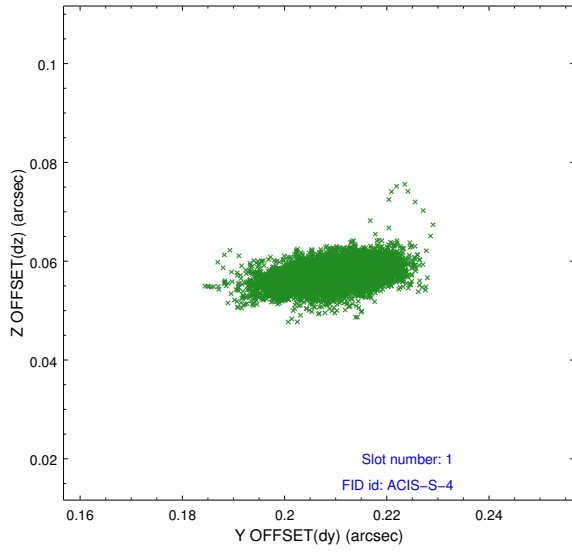


## 2.5 FID Slots

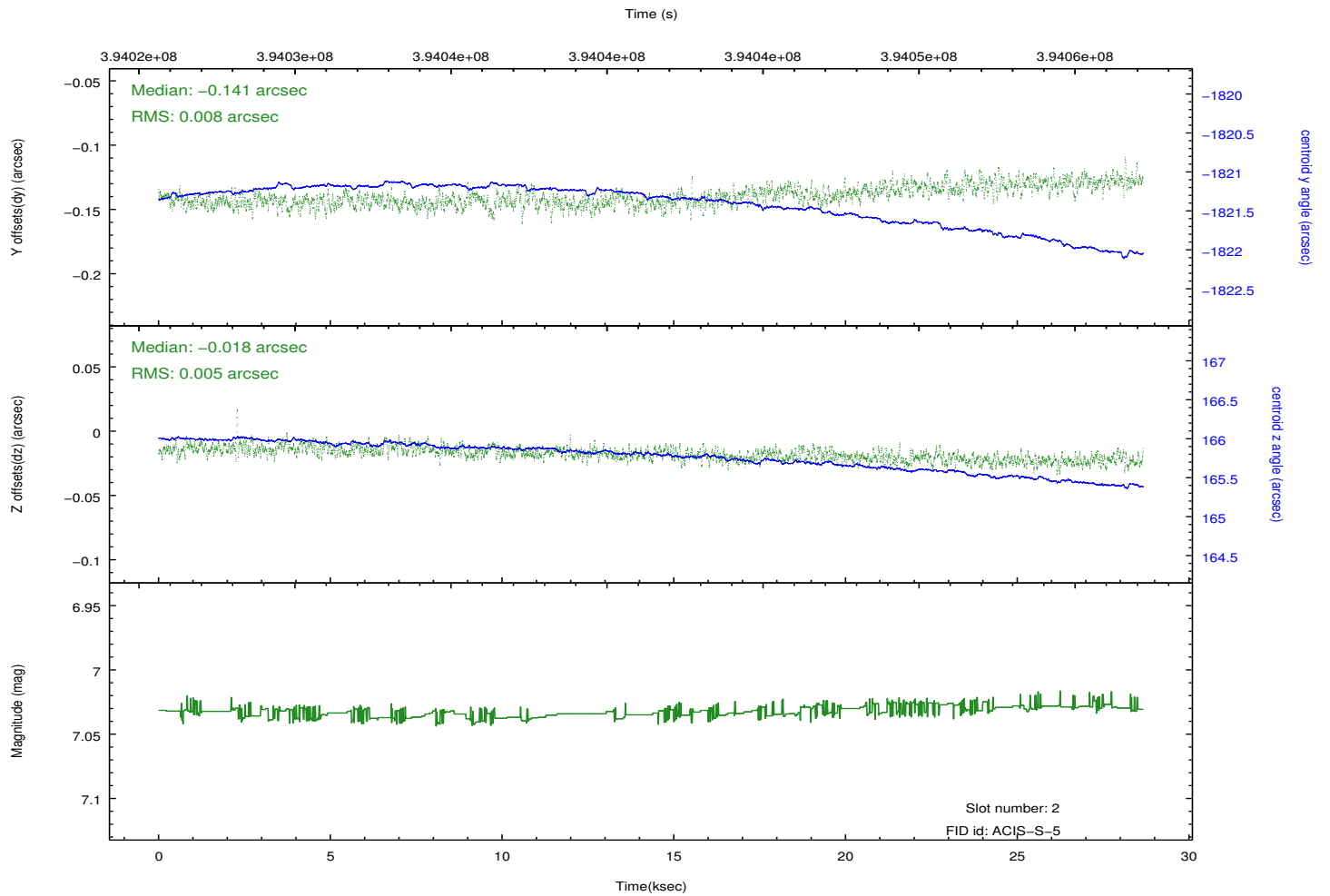
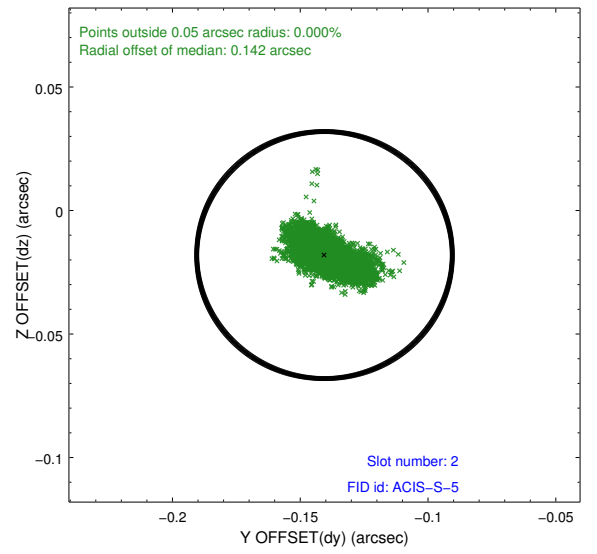
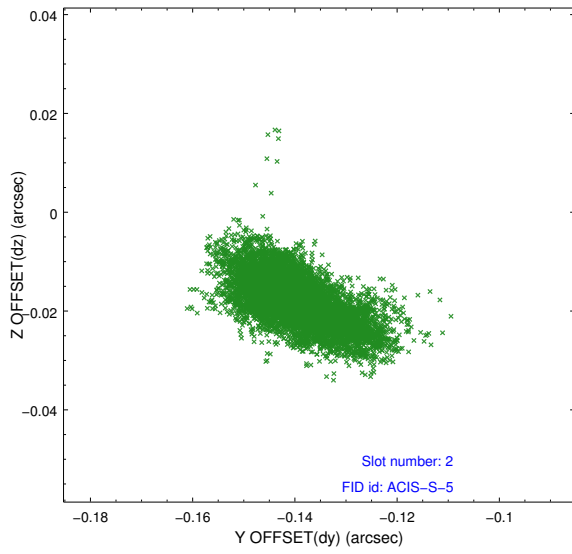
### 2.5.1 Slot 0



## 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)	2012.07.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	28.564503635883

### A.2 Comments