

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 95 - L2 Version 4  
Chandra X-Ray Center

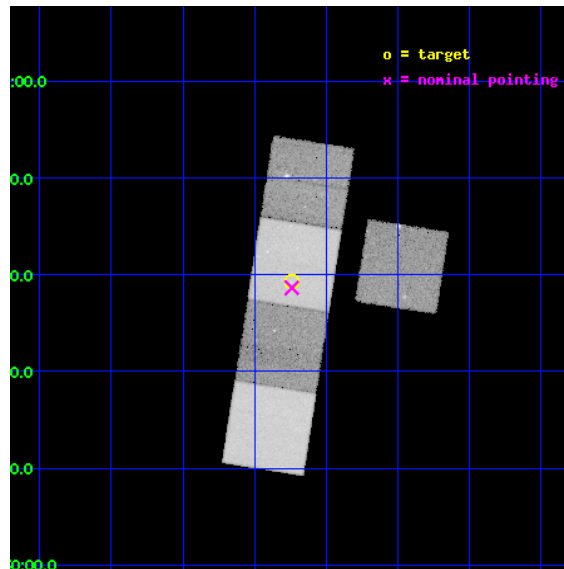
L2 Processing Date : Aug 23 2012

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# 1 Front

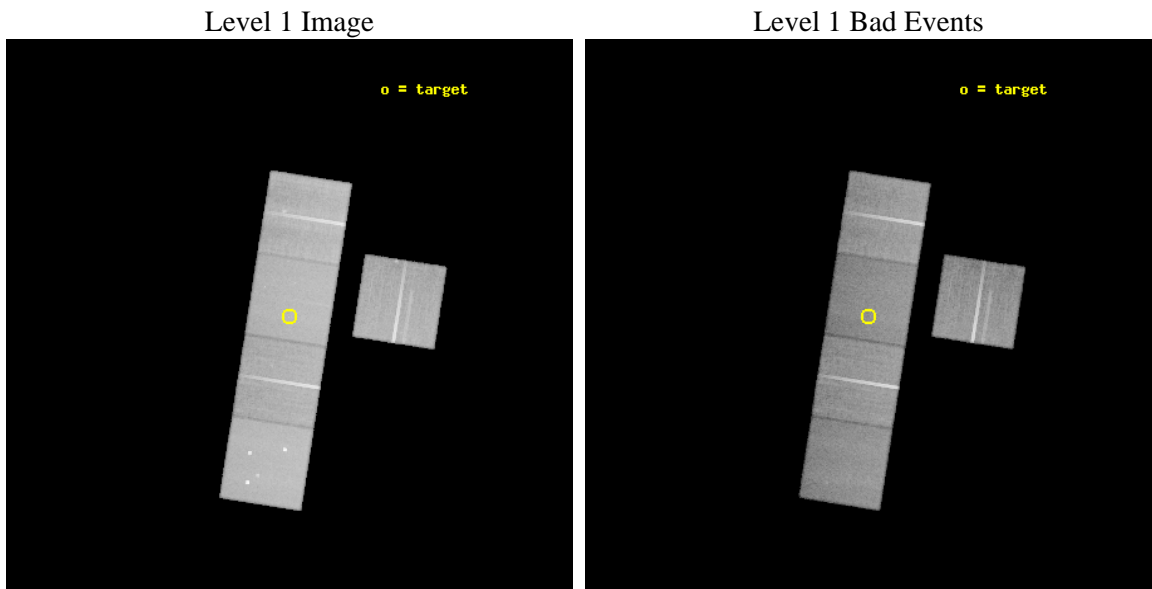
seq_num	400008	Sequence number
obs_id	95	Observation id
title	BLACK HOLE EVENT HORIZONS	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	A0620-00	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	95.685417	Observer's specified target RA [deg]
dec_targ	-0.34575	Observer's specified target Dec [deg]
ra_nom	95.685105381822	Nominal RA [deg]
dec_nom	-0.35585301379816	Nominal Dec [deg]
roll_nom	278.95889978165	Nominal Roll [deg]
revision	4	Processing version of data
ontime	42672.000039726	Sum of GTIs [s]
livetime	42131.66148123	Livetime [s]
ontime3	42668.759079501	Sum of GTIs [s]
ontime5	42672.000039726	Sum of GTIs [s]
ontime6	42672.000039726	Sum of GTIs [s]
ontime7	42672.000039726	Sum of GTIs [s]
ontime8	42668.759099409	Sum of GTIs [s]
l2events	432858	Number of level 2 events



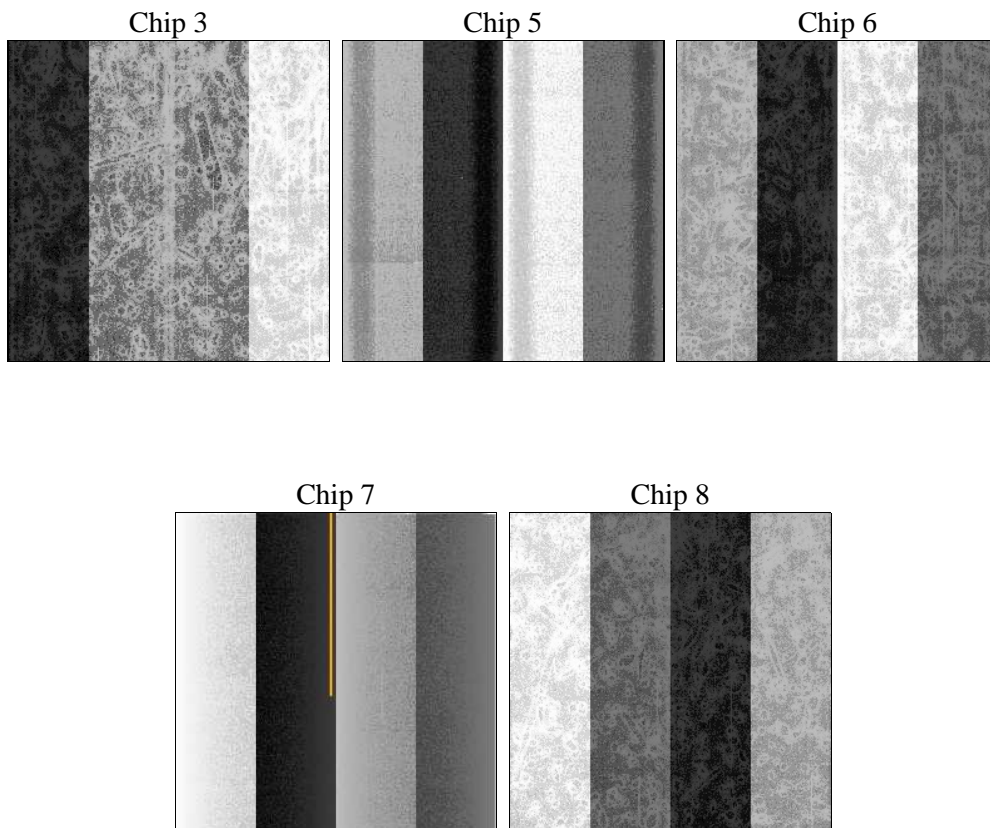
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	43500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	42672.000039726	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime3	42668.759079501	Sum of GTIs [s]
date	2012-08-23T17:46:26	Date and time of file creation	ontime5	42672.000039726	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	42672.000039726	Sum of GTIs [s]
			ontime7	42672.000039726	Sum of GTIs [s]
			ontime8	42668.759099409	Sum of GTIs [s]
			l1events	1801667	Number of level 1 events

### 2.1.4 Events

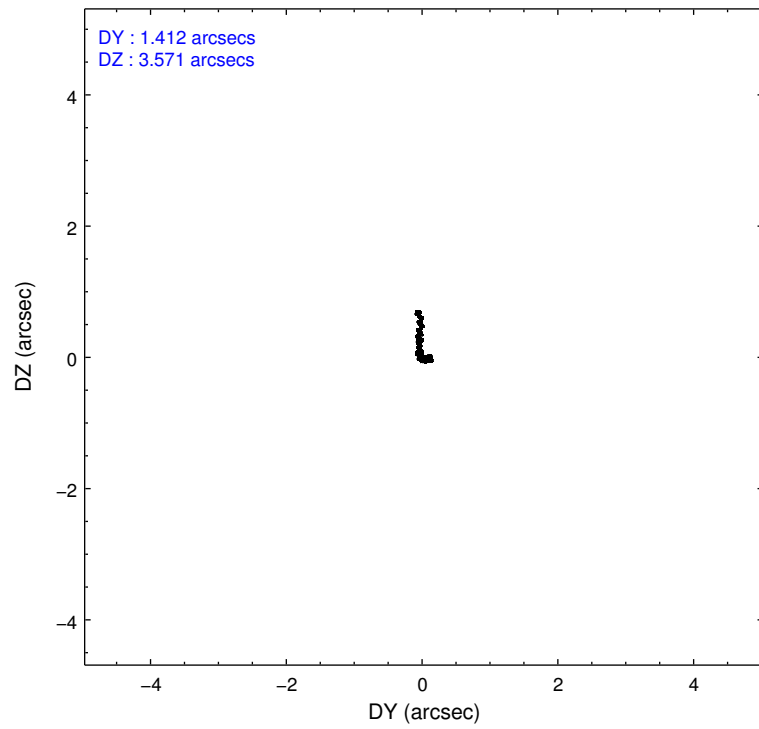
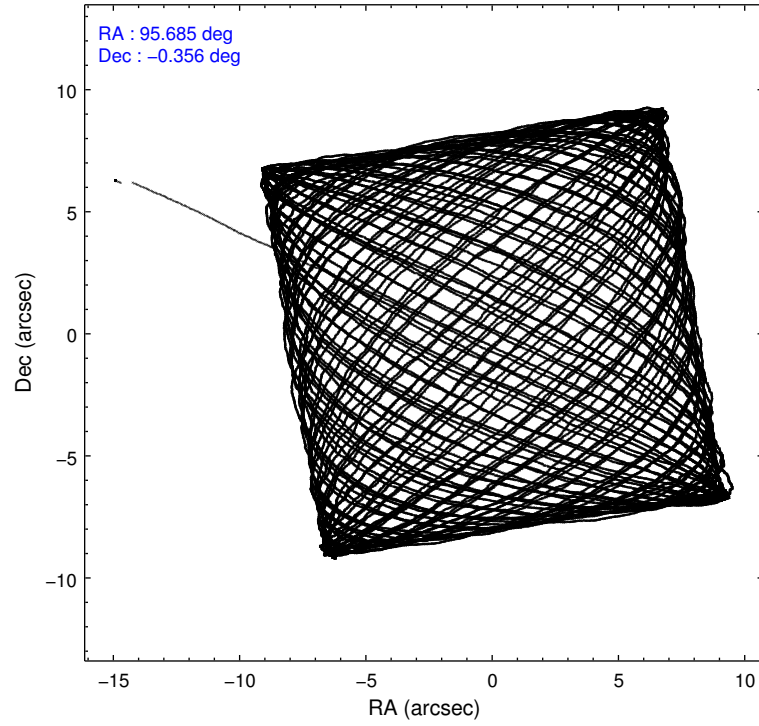
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	309488	414489	317578	372939	387173
rejected events	276849	213865	284175	209493	313076
rejected %	89%	51%	89%	56%	80%

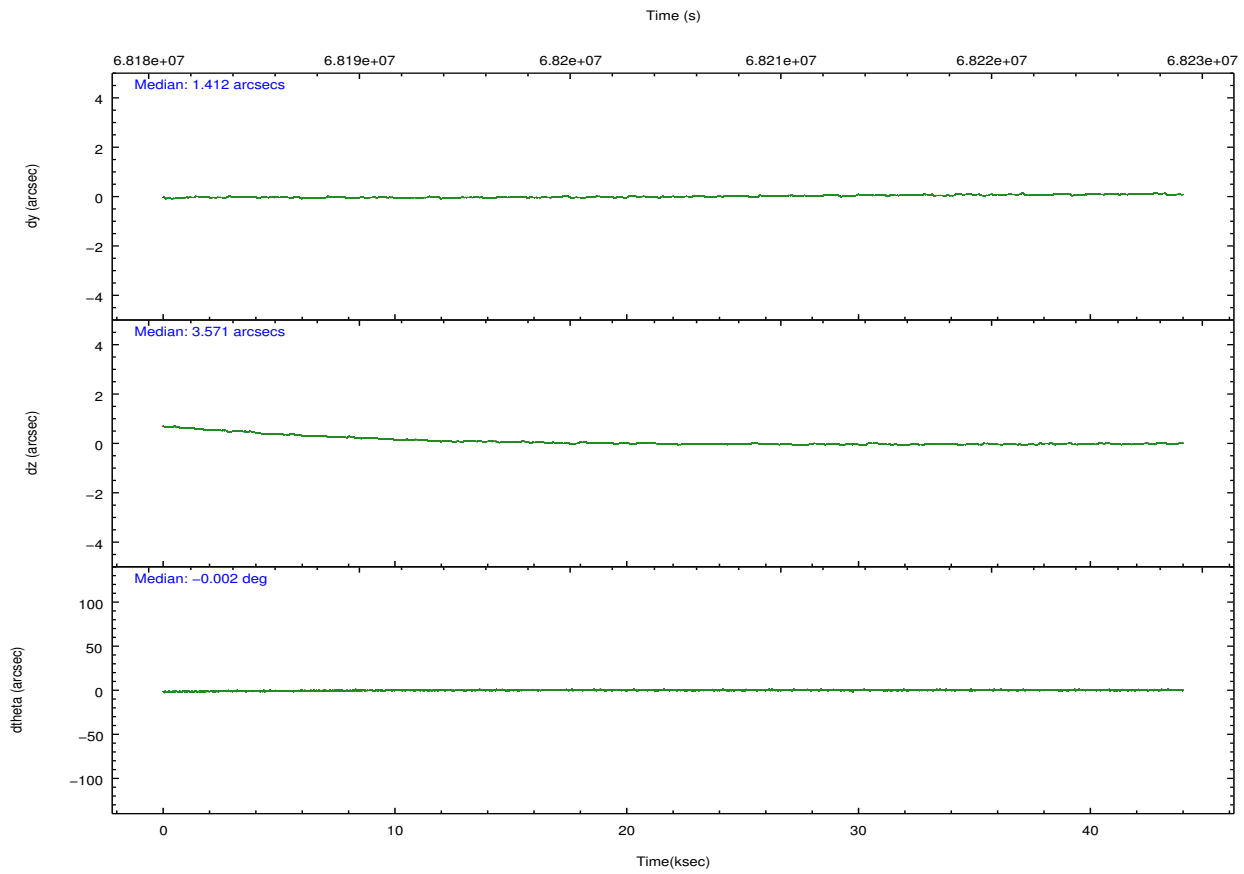
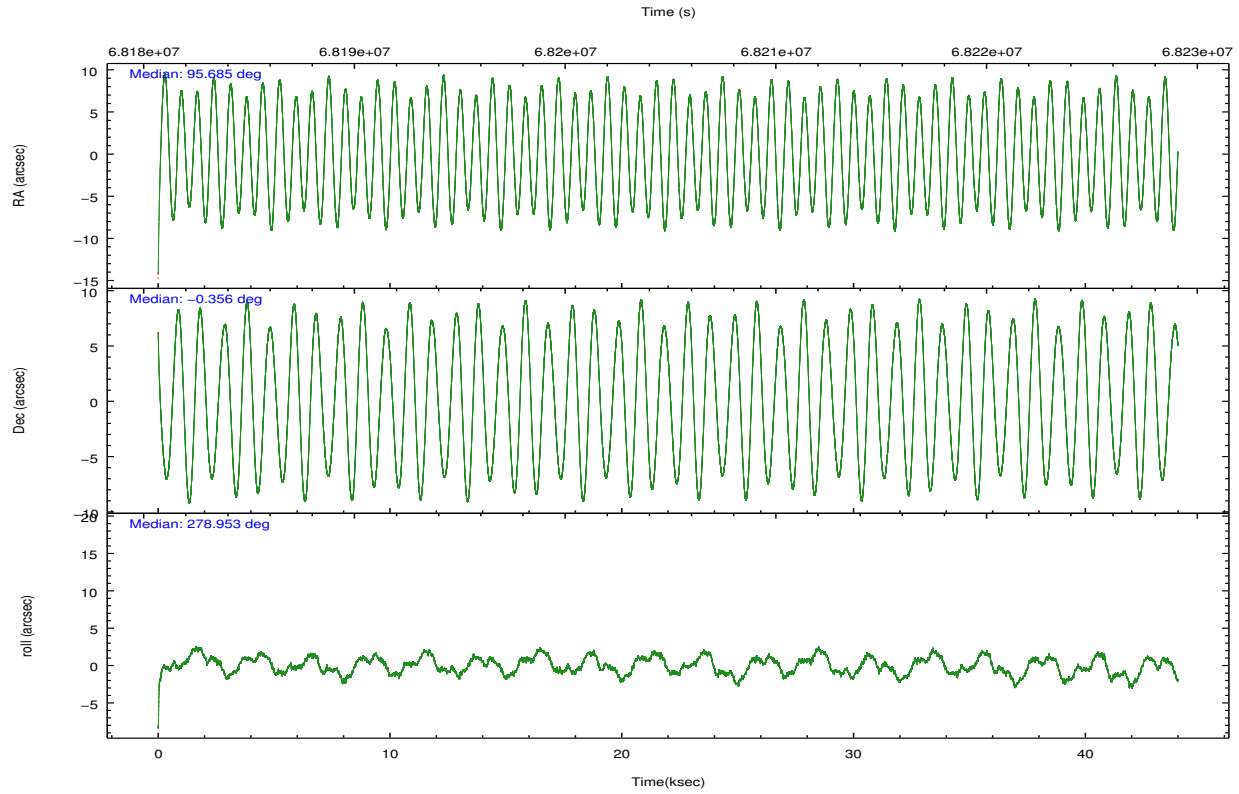
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	14447	29544	13754	16089	24689
	4%	7%	4%	4%	6%
grade 1 events	130	596	117	357	197
	0%	0%	0%	0%	0%
grade 2 events	6247	54889	6495	32329	15648
	2%	13%	2%	8%	4%
grade 3 events	3275	9166	3455	15091	8002
	1%	2%	1%	4%	2%
grade 4 events	3158	8763	3443	14807	7524
	1%	2%	1%	3%	1%
grade 5 events	10134	31164	11663	35199	14693
	3%	7%	3%	9%	3%
grade 6 events	5515	98275	6258	85144	18244
	1%	23%	1%	22%	4%
grade 7 events	266582	182092	272393	173923	298176
	86%	43%	85%	46%	77%

## 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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	95.667816	95.68510538182231	Subarray requested	NONE	NONE
[deg] Pointing Dec	-0.334475	-0.355853013798159	Alternating exposures requested	N	N
[deg] Pointing Roll	278.802170	278.9588997816481	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	68183382.184000	68182344.237737			
Observation start date	2000-02-29T03:48:38	2000-02-29T03:32:24			
[s] Observation end time (MET)	68226882.184000	68227661.539391			
Observation end date	2000-02-29T15:53:38	2000-02-29T16:07:41			
Read mode	TIMED	TIMED			

## 2.3 Aspect



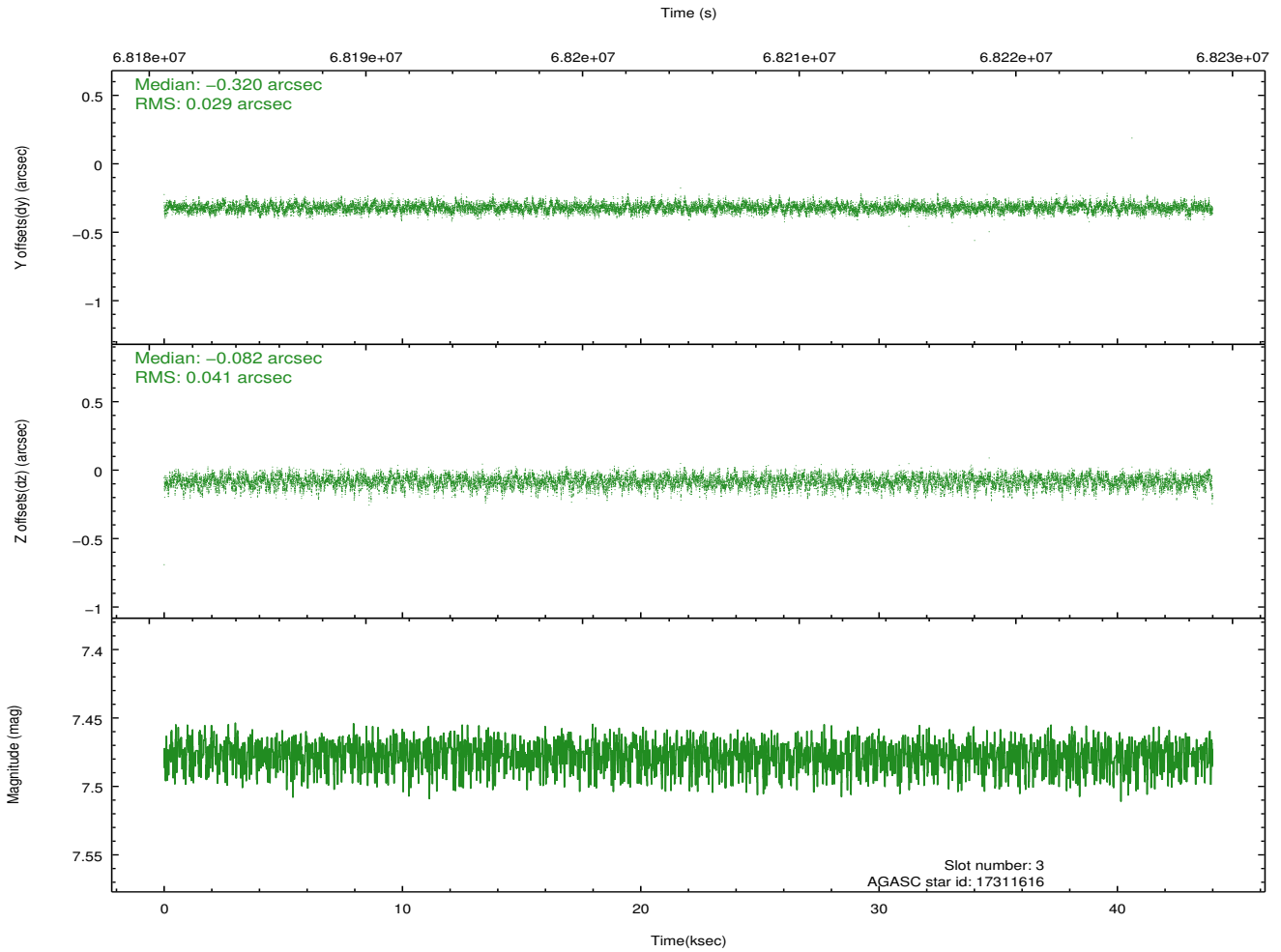
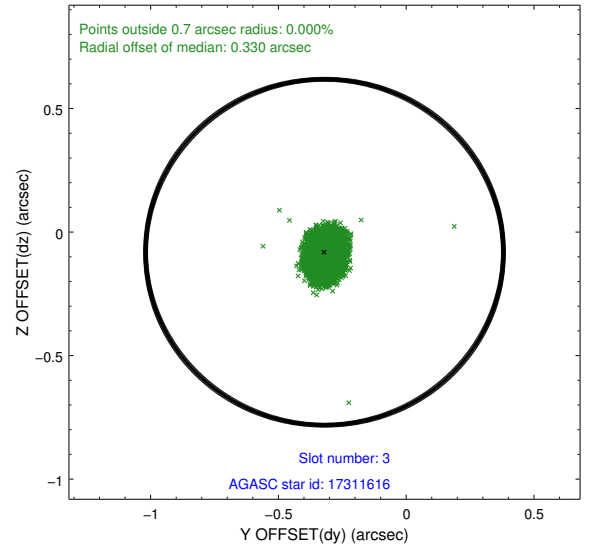
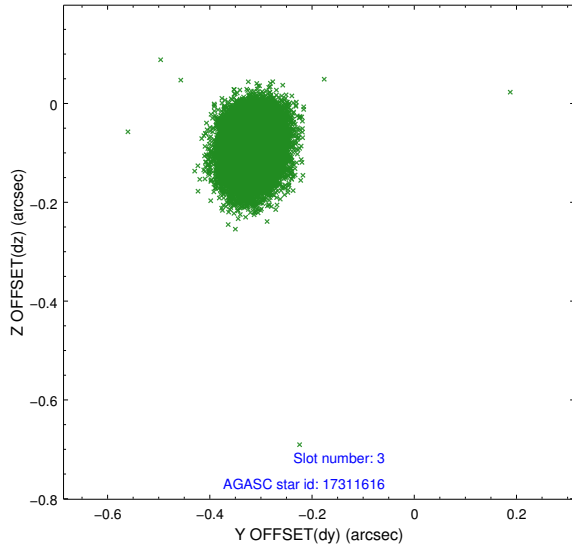


### Slot Statistics

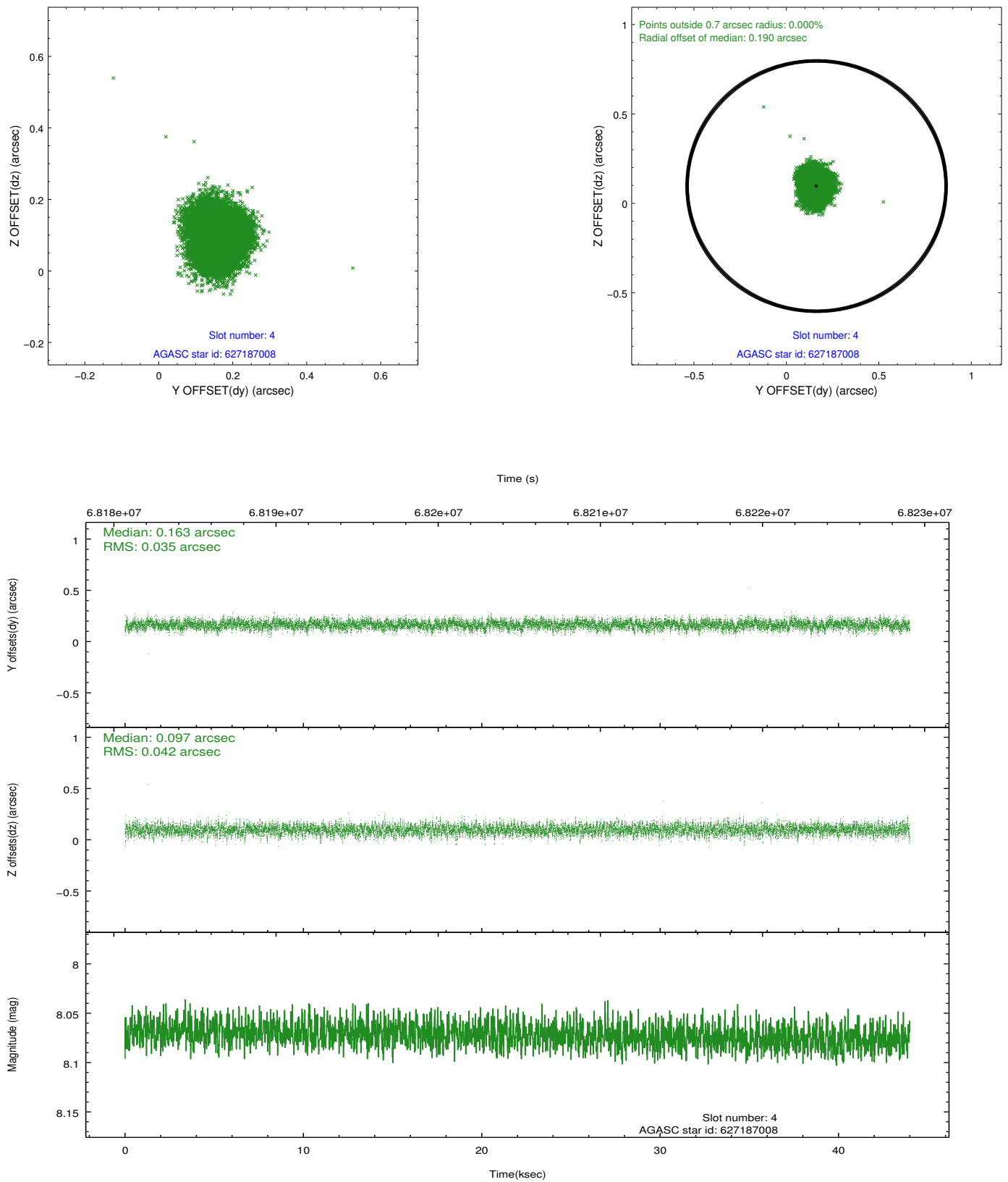
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	10729	-0.006	-0.020	0.007	0.012	0.000000	0.000000	-754.08	-1724.68
1	FID	ACIS-S-4	7.21	10727	0.003	0.008	0.006	0.011	0.000000	0.000000	2159.26	183.75
2	FID	ACIS-S-5	7.23	10730	-0.028	0.021	0.007	0.012	0.000000	0.000000	-1806.89	177.54
3	GUIDE	17311616	7.48	21457	-0.320	-0.082	0.053	0.088	95.246573	0.239559	-2274.38	-1182.91
4	GUIDE	627187008	8.07	21458	0.163	0.097	0.058	0.094	95.706759	-0.833093	1795.48	-136.09
5	GUIDE	627190856	8.99	21447	0.022	0.127	0.096	0.156	96.254788	-0.358116	407.49	2075.15
6	GUIDE	17435032	9.34	21454	-0.222	0.179	0.125	0.198	96.013796	0.317836	-2130.38	1590.18
7	GUIDE	627067592	9.67	21444	0.351	-0.327	0.112	0.188	95.130377	-1.089305	2390.11	-2327.81

## 2.4 Star Slots

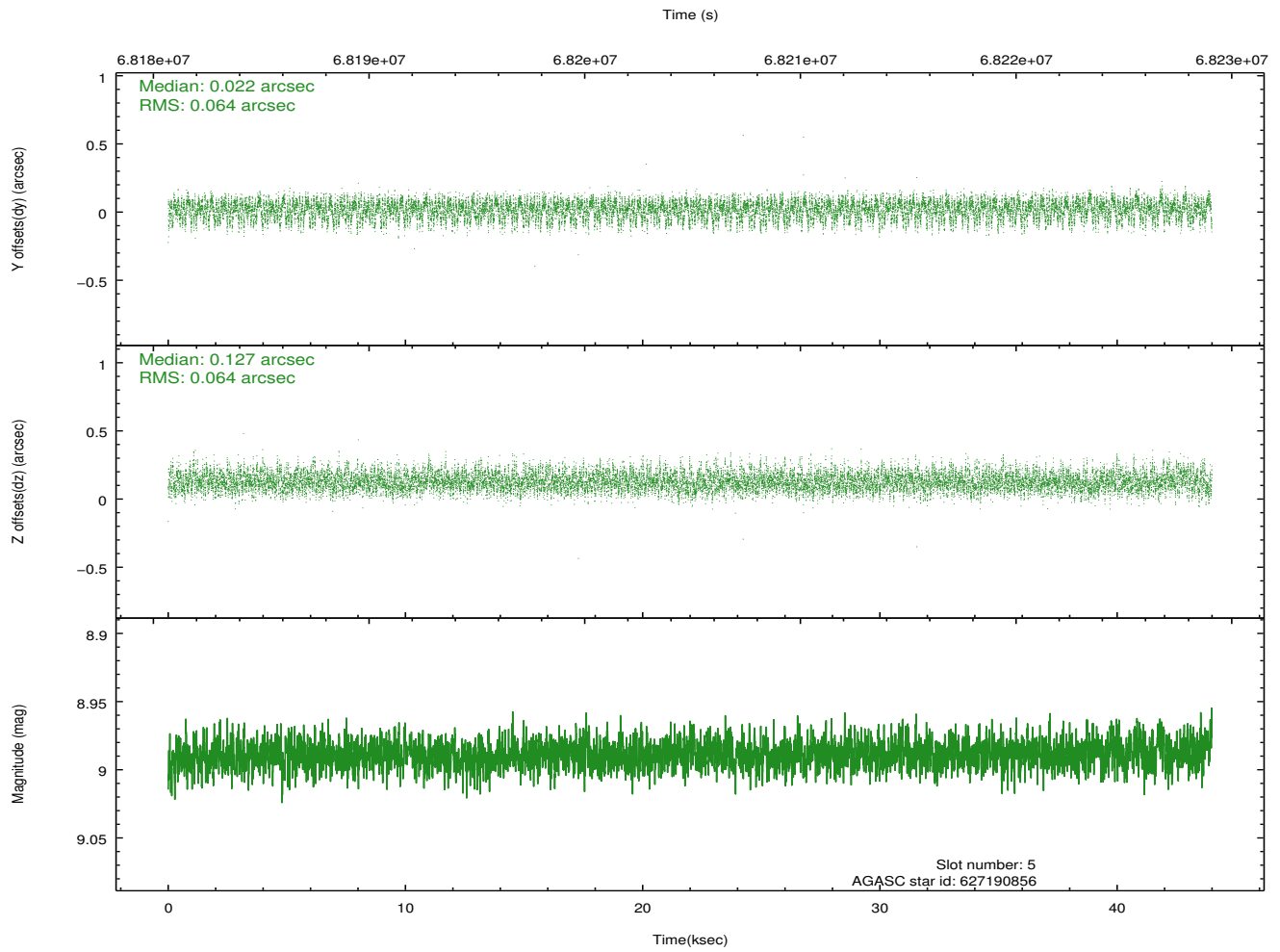
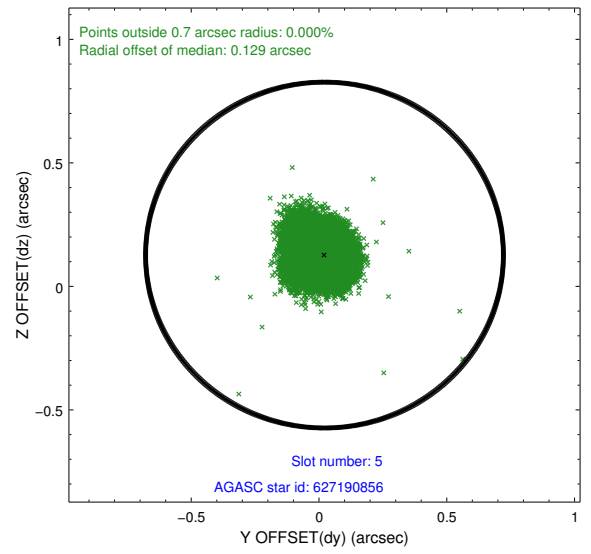
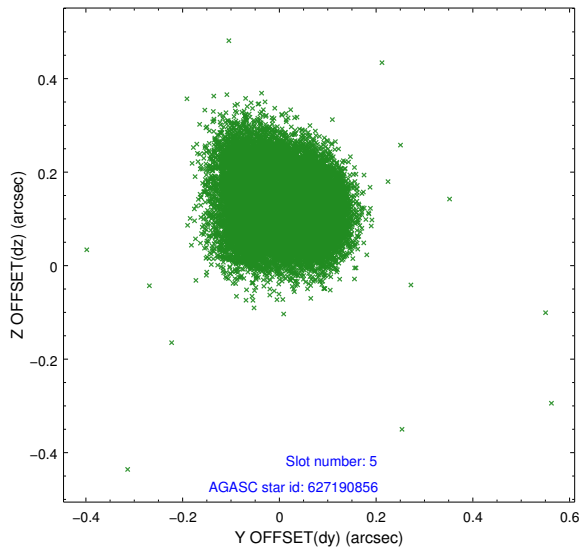
### 2.4.1 Slot 3



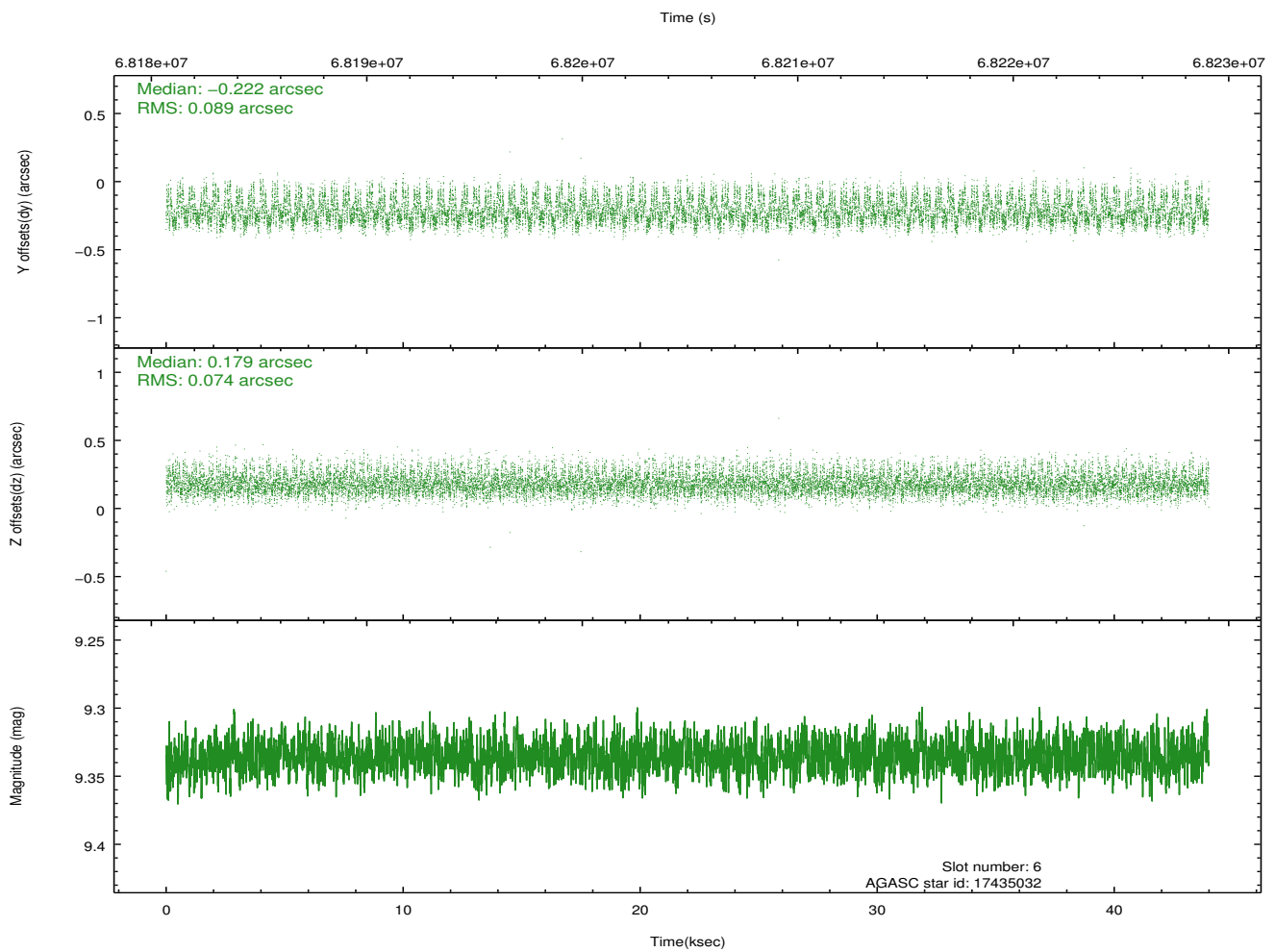
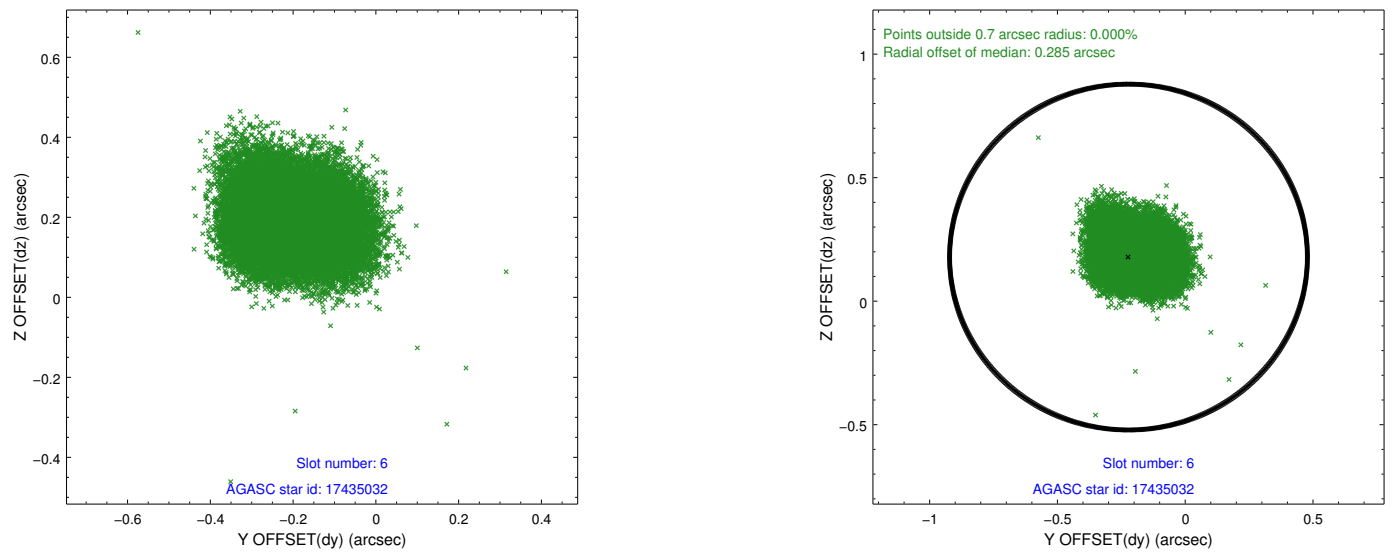
## 2.4.2 Slot 4



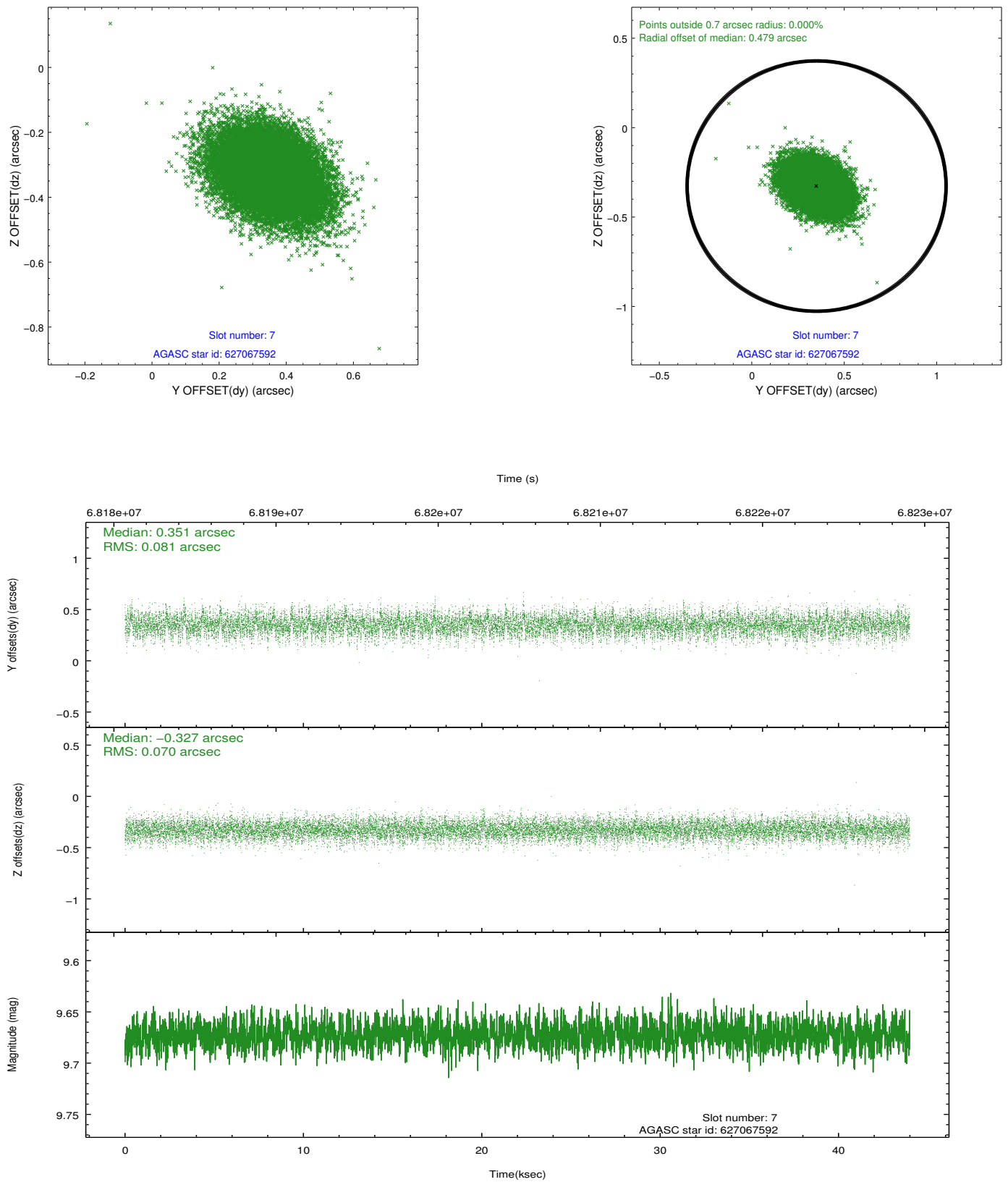
### 2.4.3 Slot 5



## 2.4.4 Slot 6

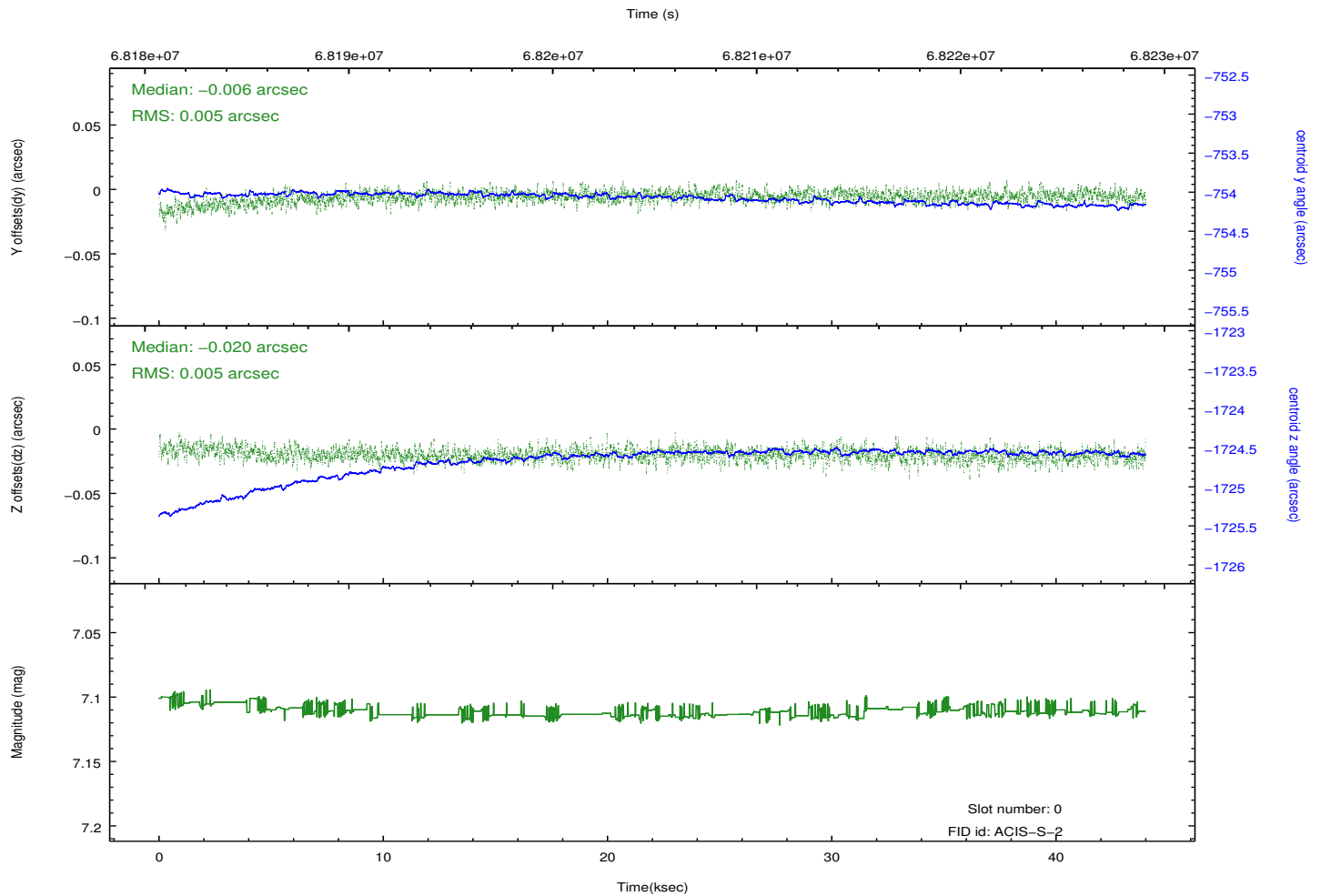
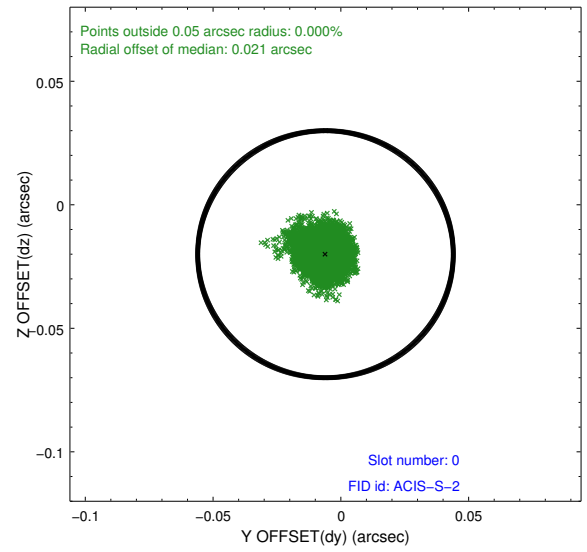
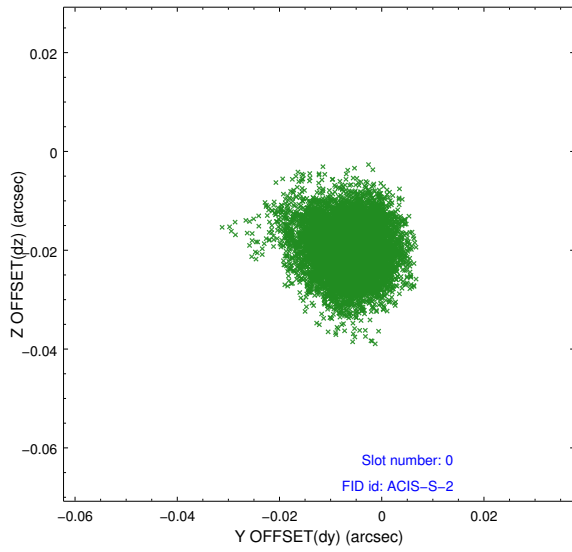


## 2.4.5 Slot 7

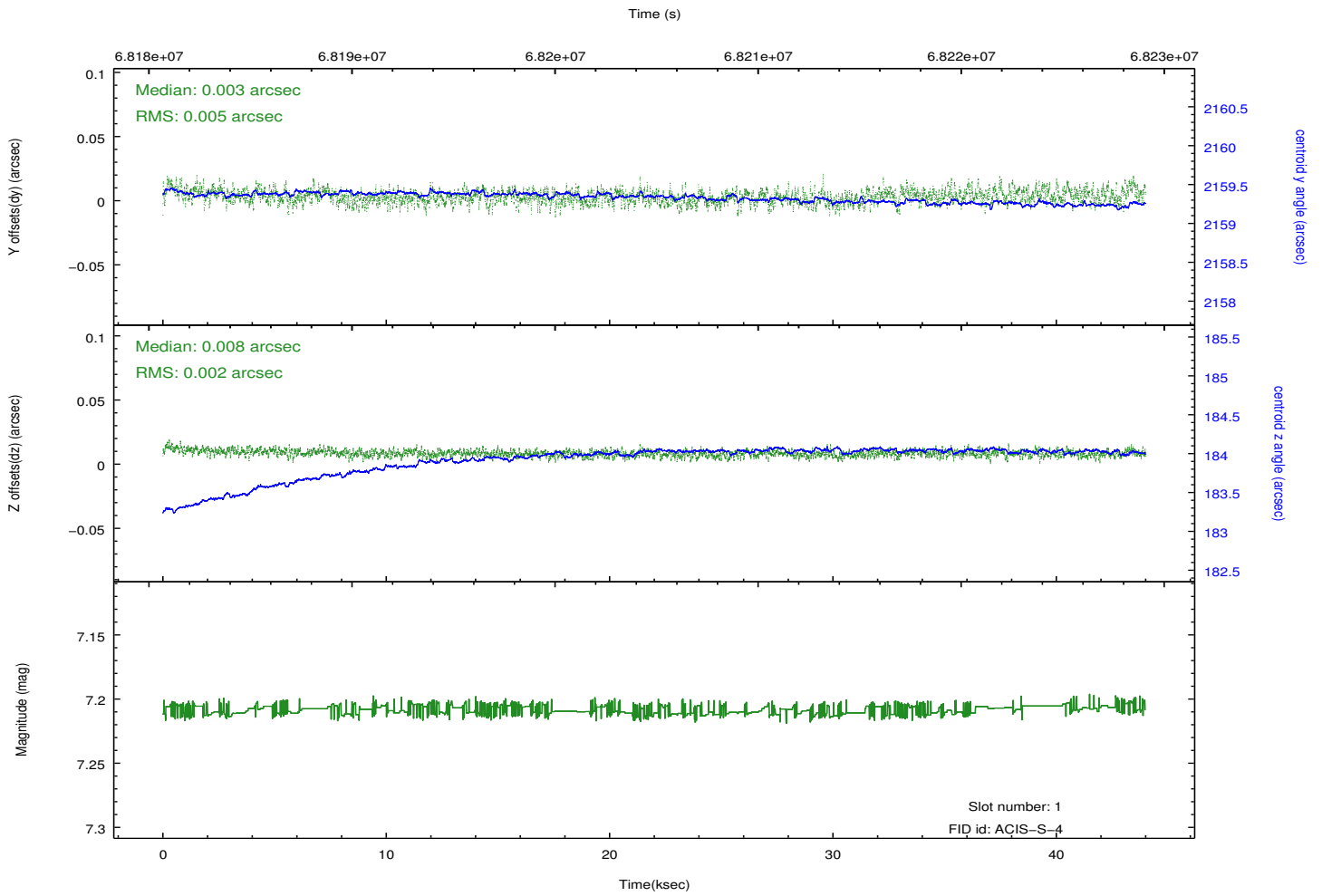
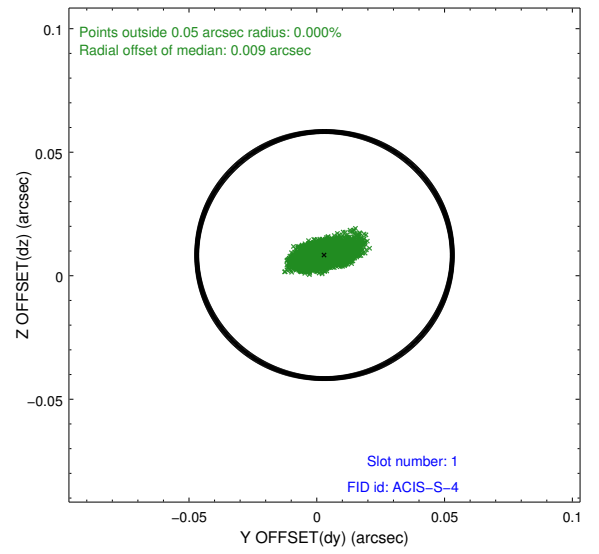
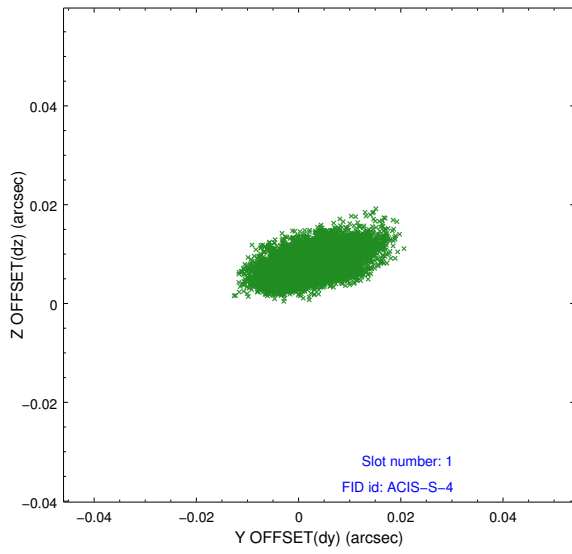


## 2.5 FID Slots

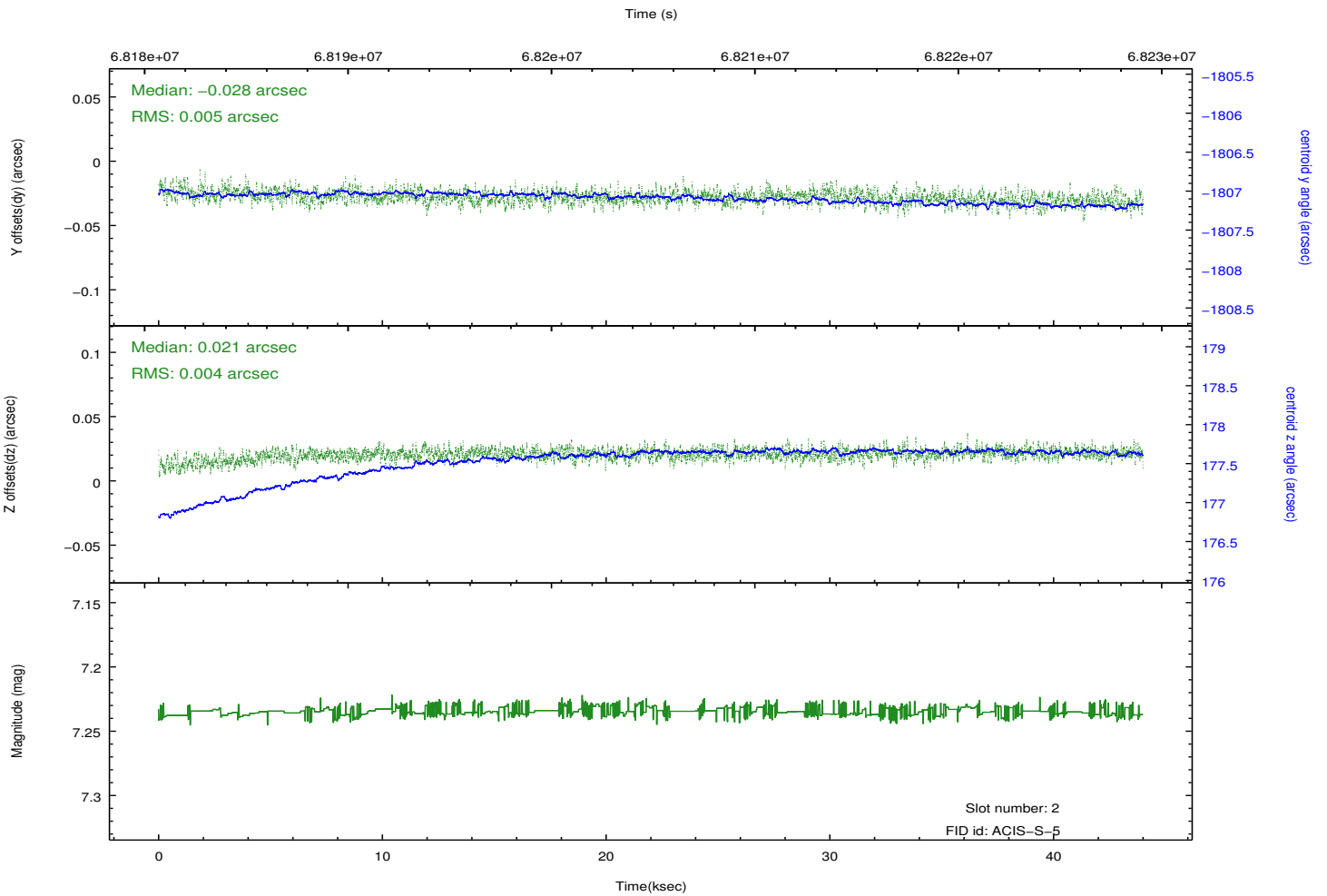
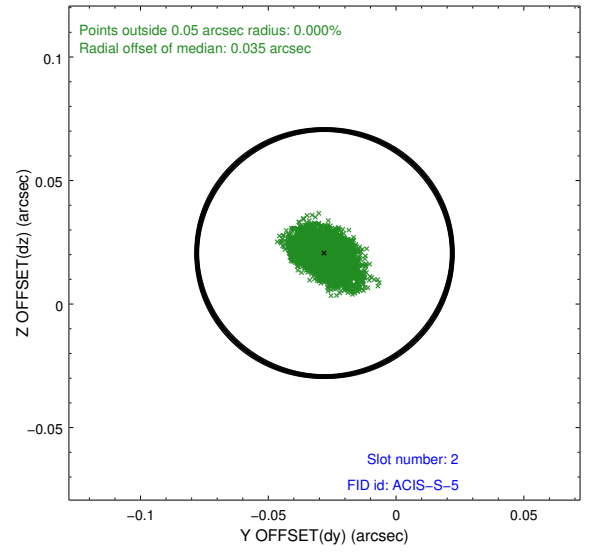
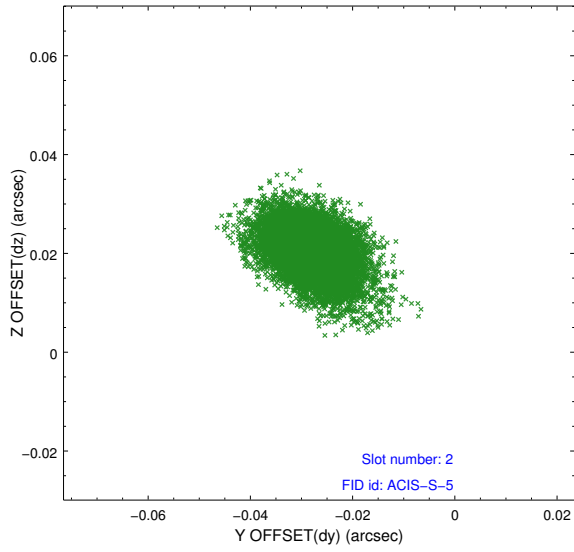
### 2.5.1 Slot 0



## 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)	2012.08.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	42.675

### **A.2 Comments**