

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 903 - L2 Version 3  
Chandra X-Ray Center

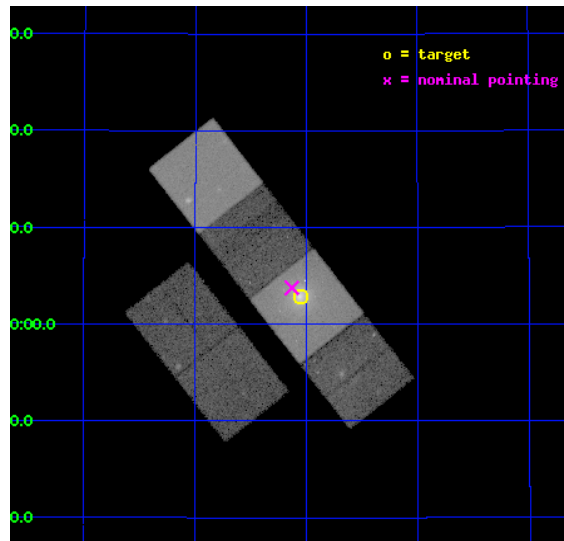
L2 Processing Date : Sep 2 2012

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# 1 Front

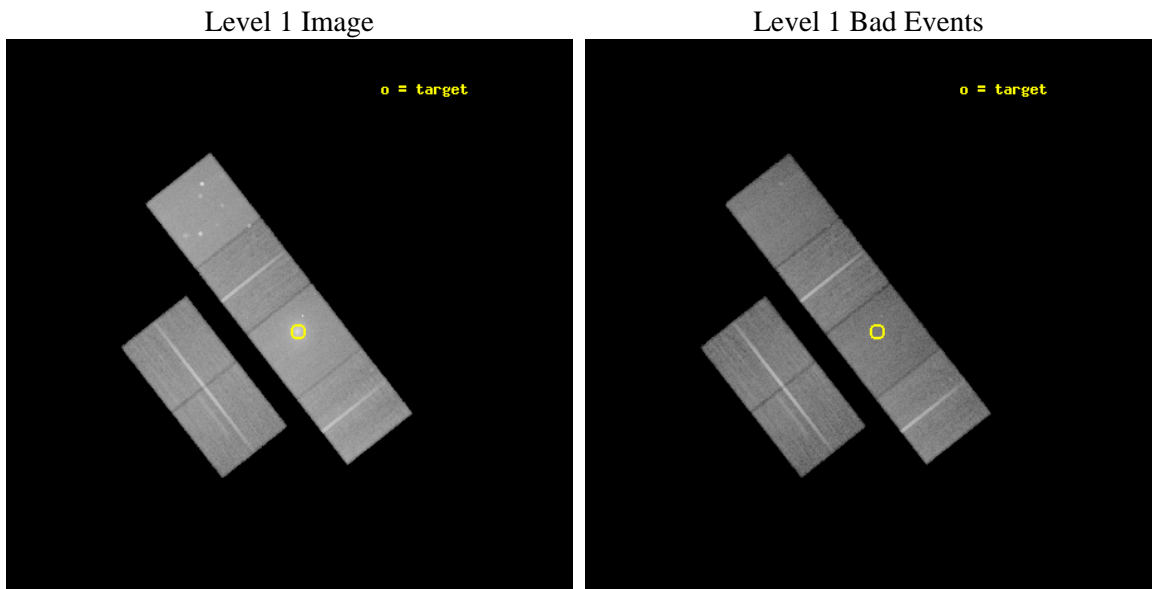
seq_num	800079	Sequence number
obs_id	903	Observation id
title	CLUSTER GRAVITATIONAL LENSES AND THE IMPACT OF COOLING FLOWS.	Prop
observer	Prof. Steven Allen	Principal investigator
object	ABELL 963	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	154.264167	Observer's specified target RA [deg]
dec_targ	39.0475	Observer's specified target Dec [deg]
ra_nom	154.28259579025	Nominal RA [deg]
dec_nom	39.062812625442	Nominal Dec [deg]
roll_nom	51.895374399279	Nominal Roll [deg]
revision	3	Processing version of data
ontime	36754.51783587	Sum of GTIs [s]
livetime	36289.110000119	Livetime [s]
ontime2	36748.076855704	Sum of GTIs [s]
ontime3	36754.394715875	Sum of GTIs [s]
ontime5	36754.476795867	Sum of GTIs [s]
ontime6	36754.435755879	Sum of GTIs [s]
ontime7	36754.51783587	Sum of GTIs [s]
ontime8	36751.112605929	Sum of GTIs [s]
l2events	404985	Number of level 2 events



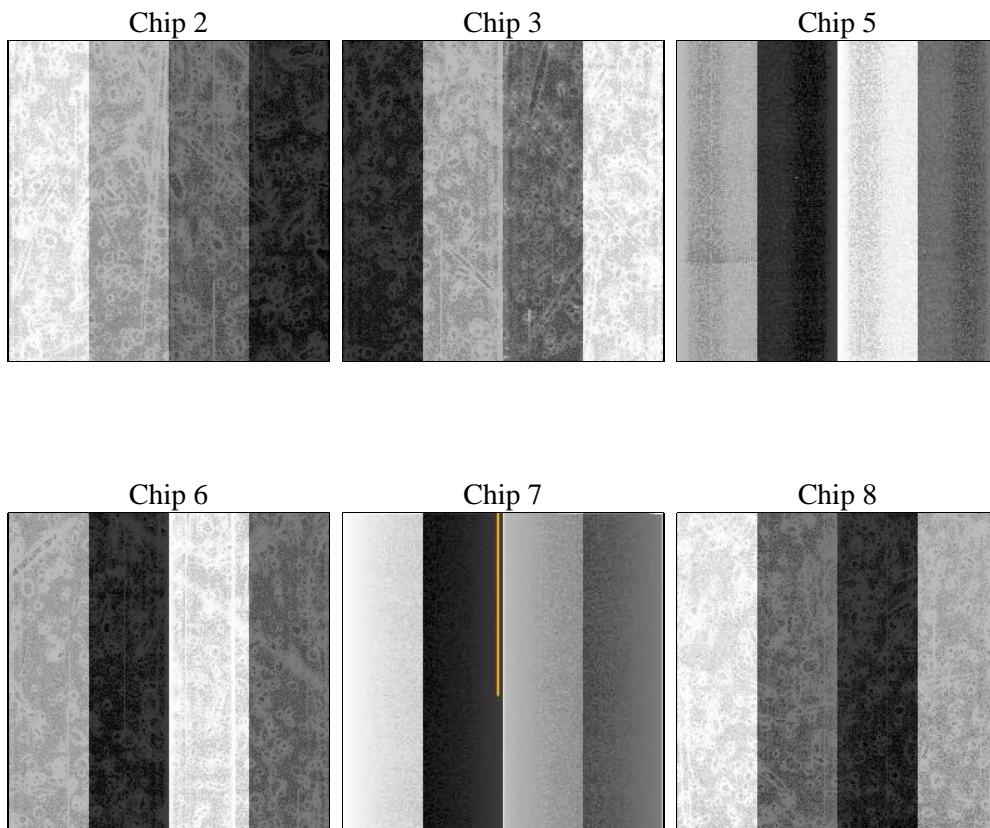
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	36754.51783587	Sum of GTIs [s]
caldbver	4.5.1.1	&#160	ontime2	36748.076855704	Sum of GTIs [s]
date	2012-09-02T10:21:28	Date and time of file creation	ontime3	36754.394715875	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	36754.476795867	Sum of GTIs [s]
			ontime6	36754.435755879	Sum of GTIs [s]
			ontime7	36754.51783587	Sum of GTIs [s]
			ontime8	36751.112605929	Sum of GTIs [s]
			l1events	1655277	Number of level 1 events

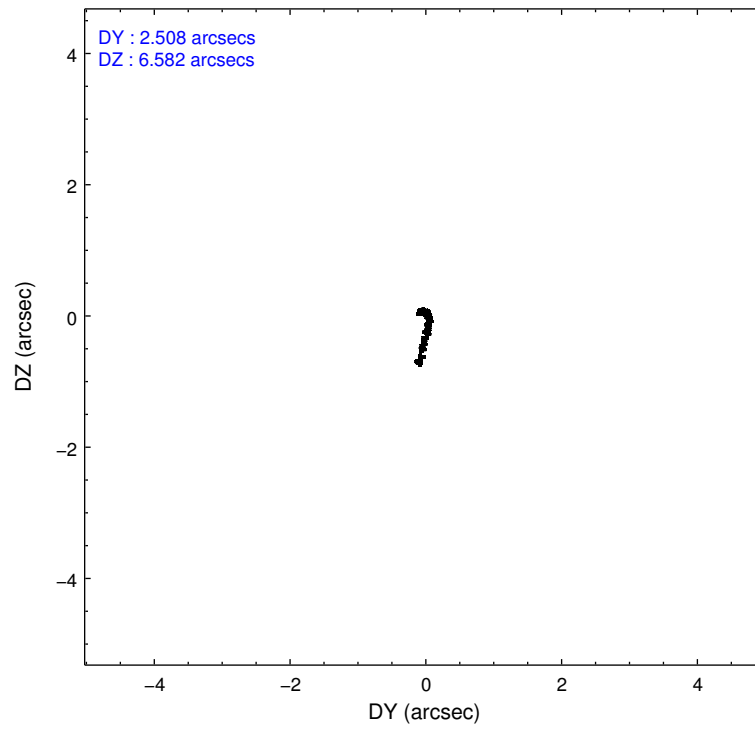
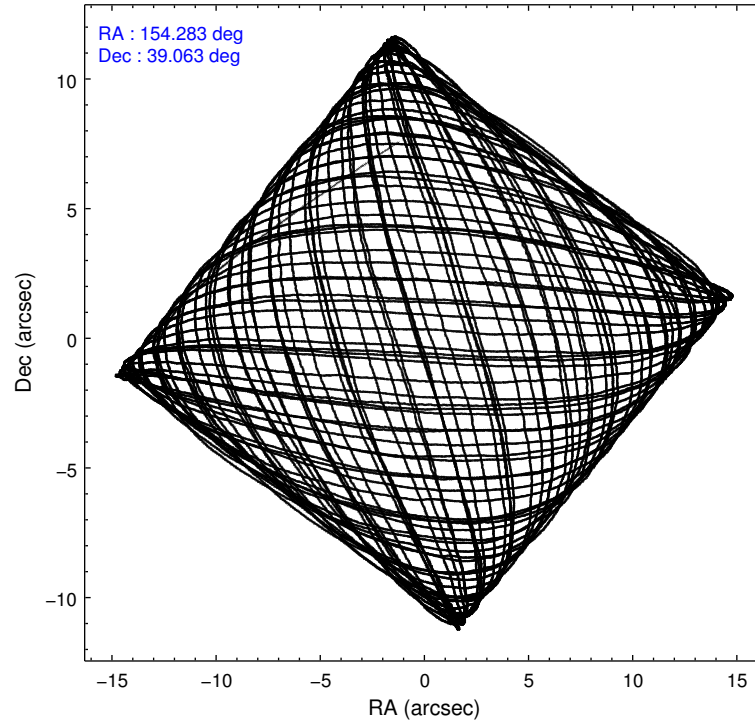
### 2.1.4 Events

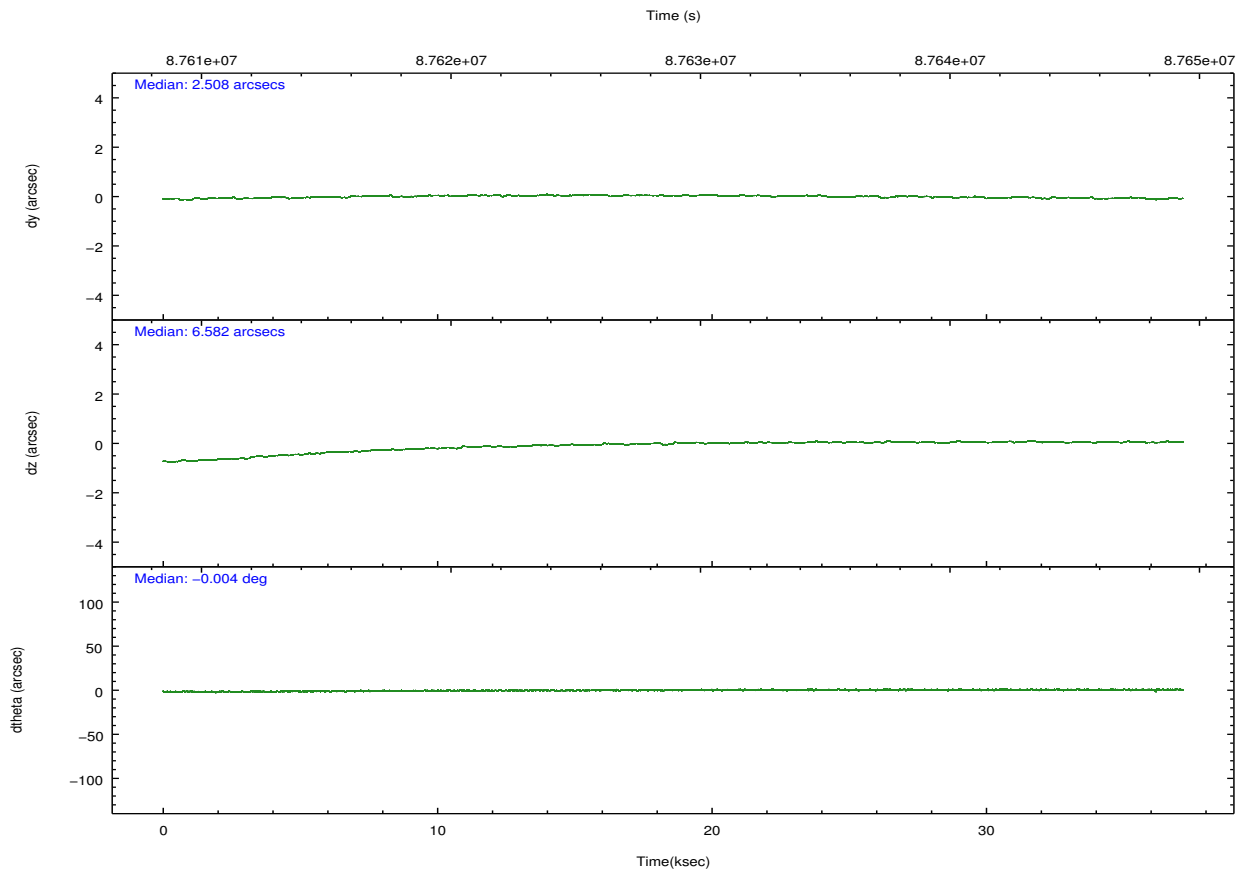
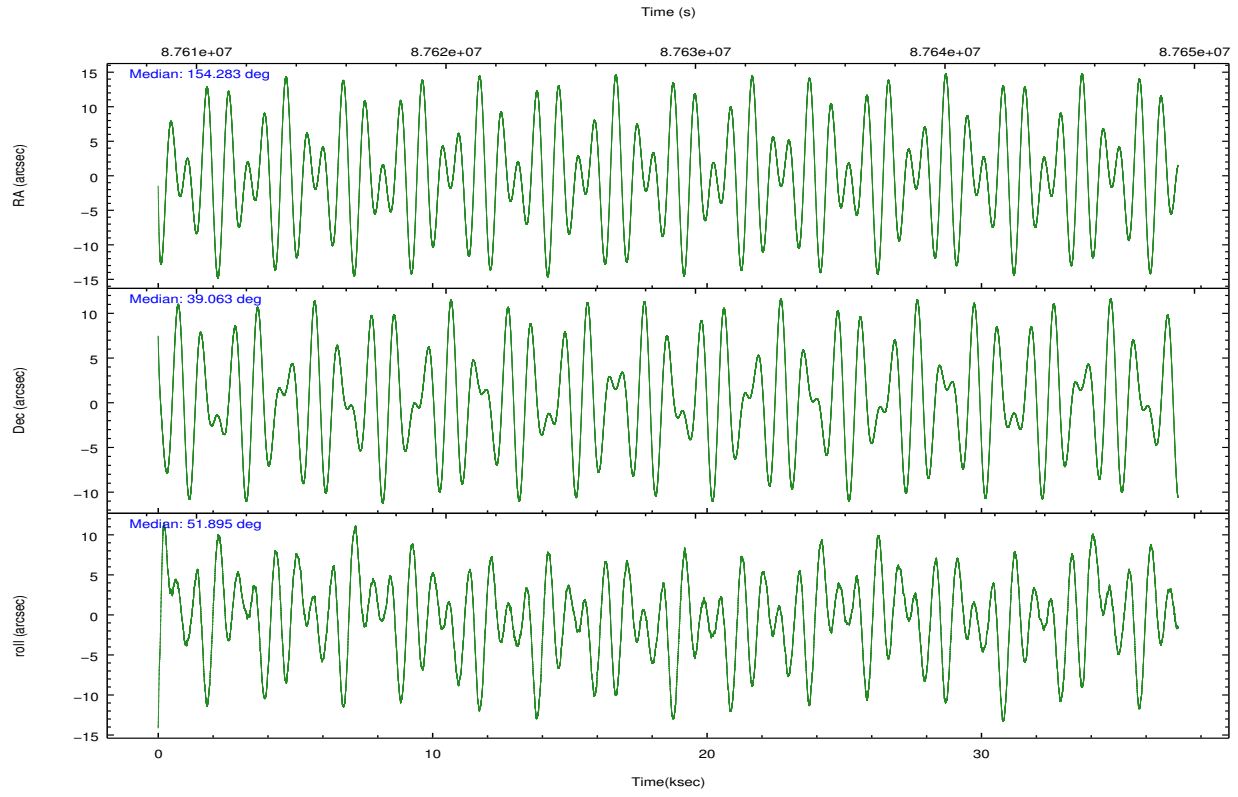
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	239411	228885	317100	233674	344544	291663	grade 0 events	11207	10520	18875	11294	32911	19330
rejected events	213593	204343	169783	207011	164961	234199		4%	4%	5%	4%	9%	6%
rejected %	89%	89%	53%	88%	47%	80%	grade 1 events	126	100	659	128	305	145
								0%	0%	0%	0%	0%	0%
							grade 2 events	5271	4800	41532	5233	38632	12006
								2%	2%	13%	2%	11%	4%
							grade 3 events	2433	2505	6483	2573	17572	6001
								1%	1%	2%	1%	5%	2%
							grade 4 events	2416	2386	6138	2622	17387	5685
								1%	1%	1%	1%	5%	1%
							grade 5 events	7669	8243	23983	9148	27267	11588
								3%	3%	7%	3%	7%	3%
							grade 6 events	4492	4335	74319	4942	73113	14446
								1%	1%	23%	2%	21%	4%
							grade 7 events	205797	195996	145111	197734	137357	222462
								85%	85%	45%	84%	39%	76%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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	154.277881	154.282595790246	Subarray requested	NONE	NONE
[deg] Pointing Dec	39.035701	39.06281262544168	Alternating exposures requested	N	N
[deg] Pointing Roll	51.741717	51.89537439927854	[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)	87610478.184000	87609678.869188			
Observation start date	2000-10-11T00:13:34	2000-10-11T00:01:18			
[s] Observation end time (MET)	87647478.184000	87647837.570628			
Observation end date	2000-10-11T10:30:14	2000-10-11T10:37:17			
Read mode	TIMED	TIMED			

## 2.3 Aspect



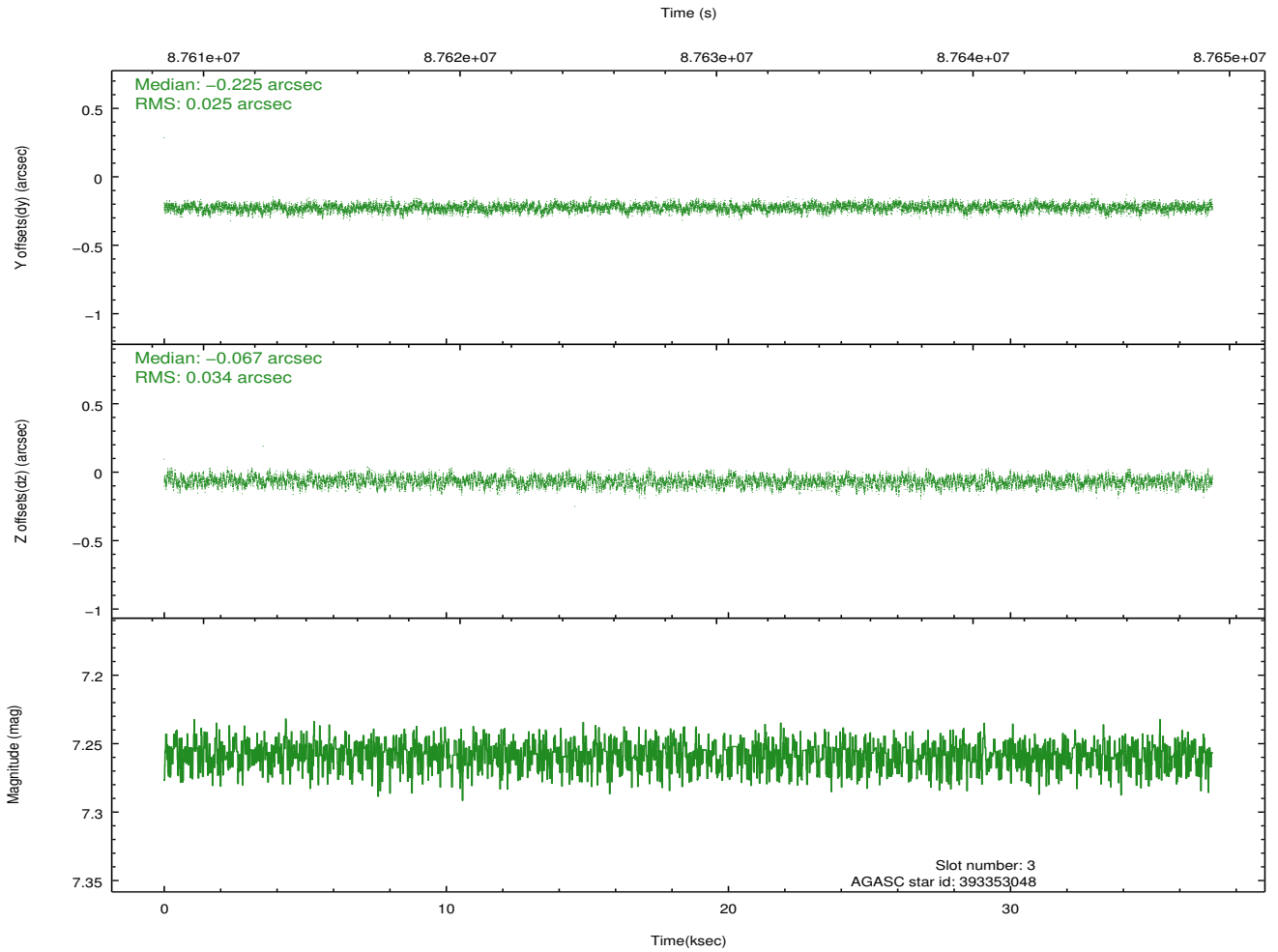
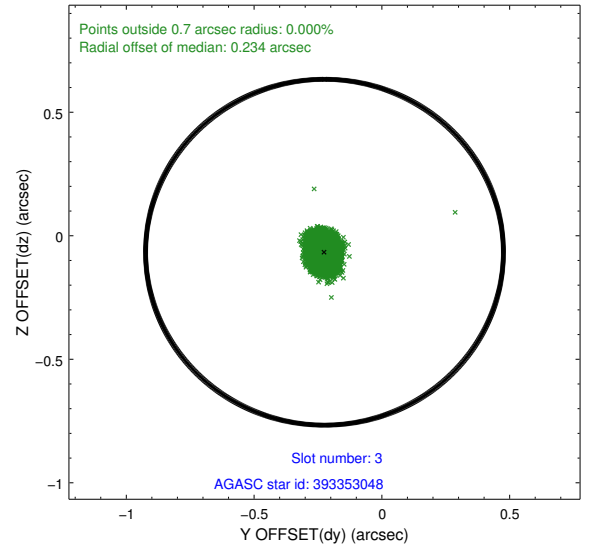
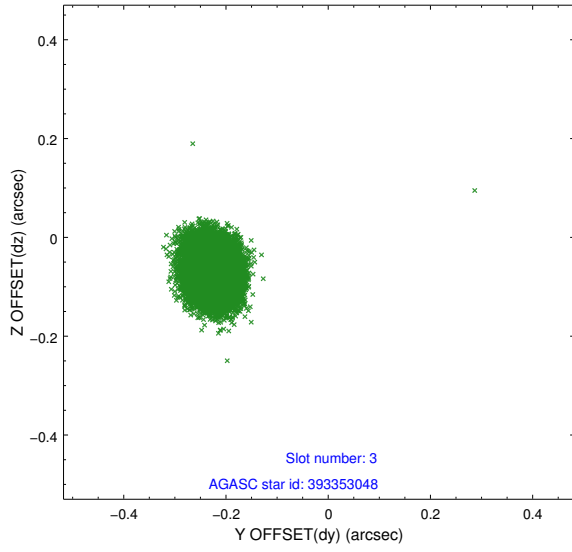


### Slot Statistics

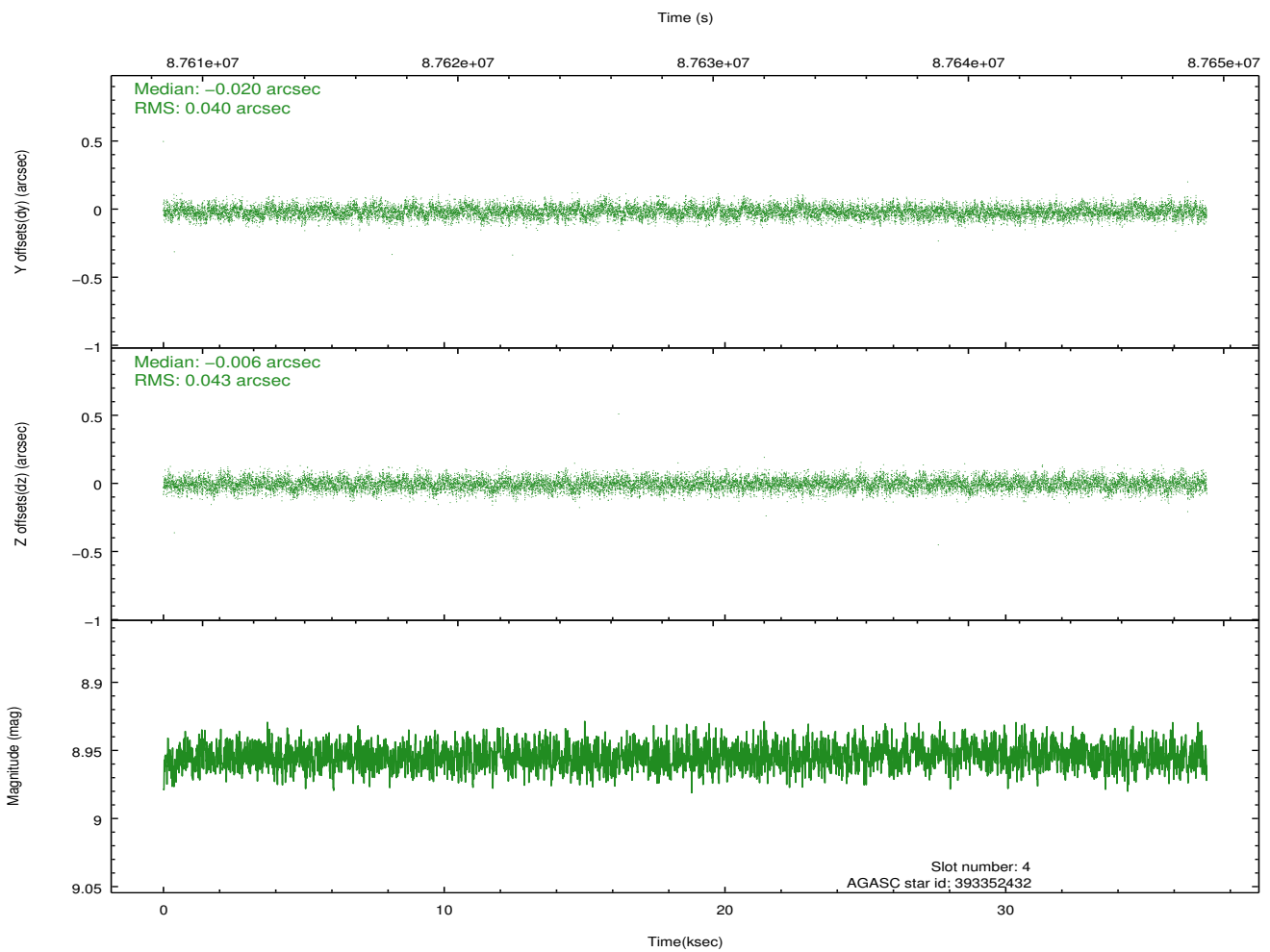
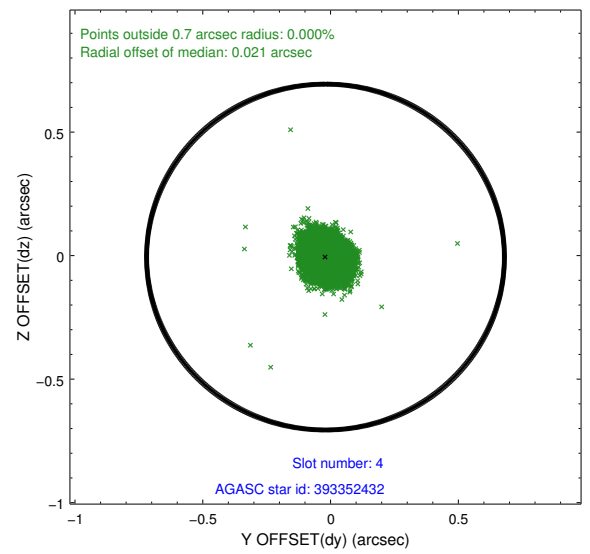
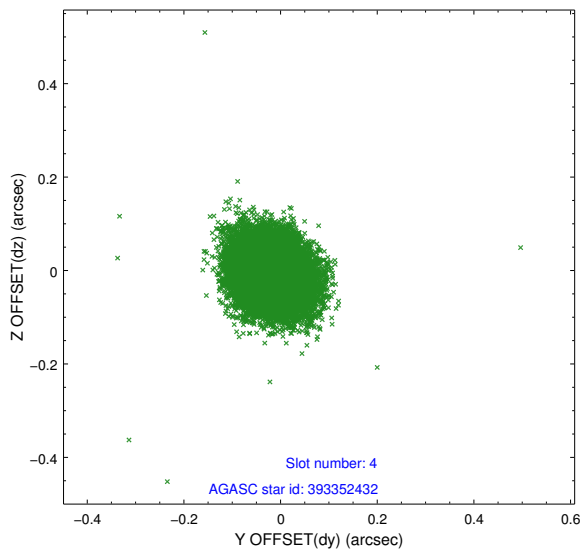
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	9063	-0.031	-0.002	0.009	0.014	0.000000	0.000000	-755.14	-1727.57
1	FID	ACIS-S-4	7.20	9064	-0.014	0.015	0.008	0.016	0.000000	0.000000	2158.12	180.93
2	FID	ACIS-S-5	7.23	9064	0.014	-0.005	0.007	0.011	0.000000	0.000000	-1807.92	174.58
3	GUIDE	393353048	7.26	18125	-0.225	-0.067	0.044	0.072	154.693543	39.311519	1498.91	-292.38
4	GUIDE	393352432	8.95	18123	-0.020	-0.006	0.062	0.100	154.550258	38.814649	-150.37	-1091.69
5	GUIDE	393354032	9.04	18124	0.113	0.063	0.065	0.107	154.259481	38.515802	-1501.21	-1118.03
6	GUIDE	393352408	8.84	18117	0.062	0.243	0.057	0.092	154.638748	39.110529	837.63	-622.89
7	GUIDE	393349328	9.62	18114	0.069	-0.231	0.092	0.151	154.266762	39.147048	296.11	272.64

## 2.4 Star Slots

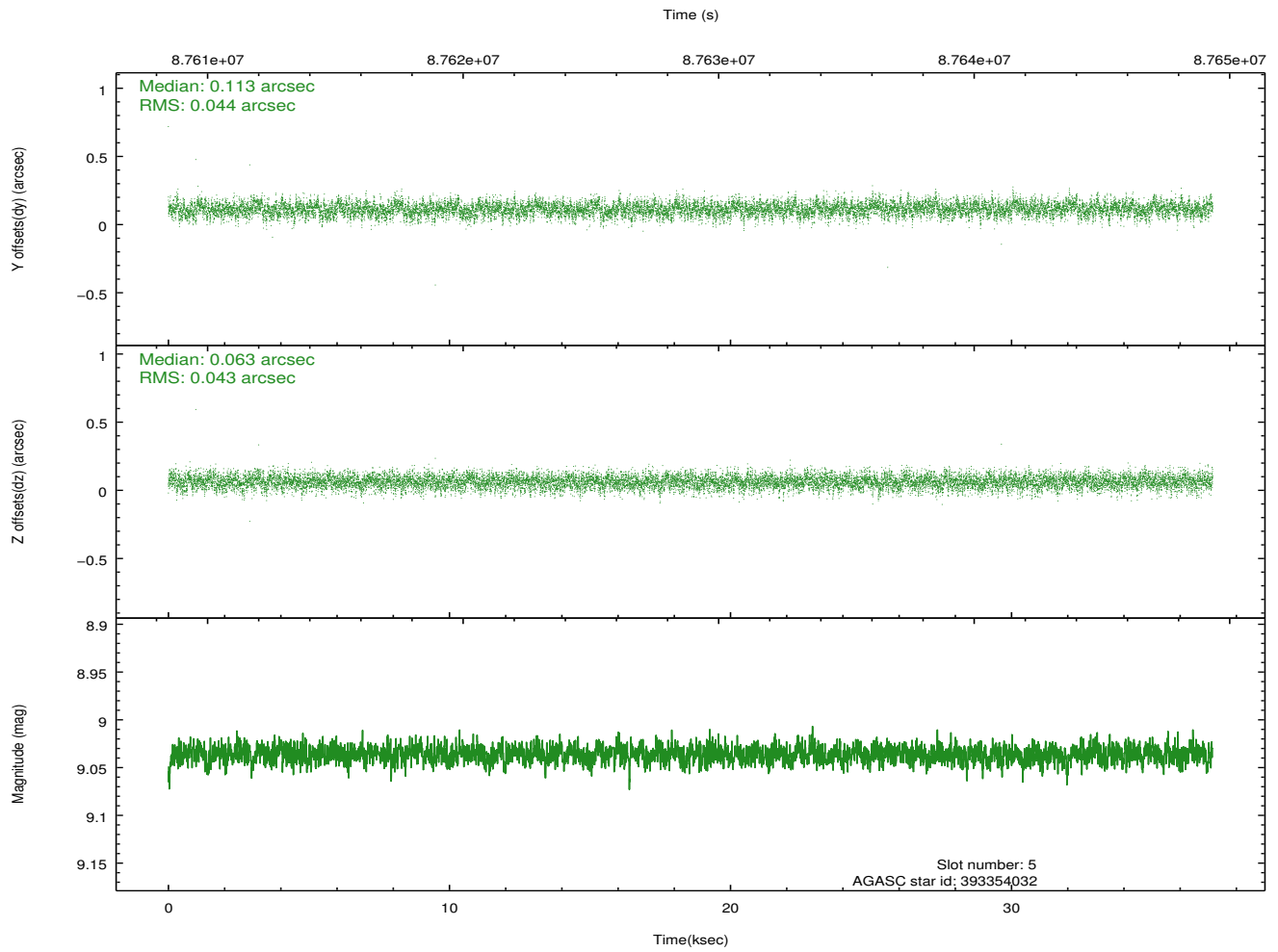
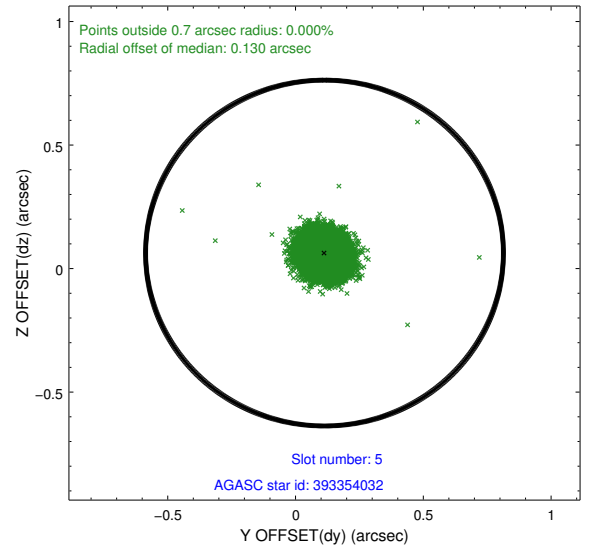
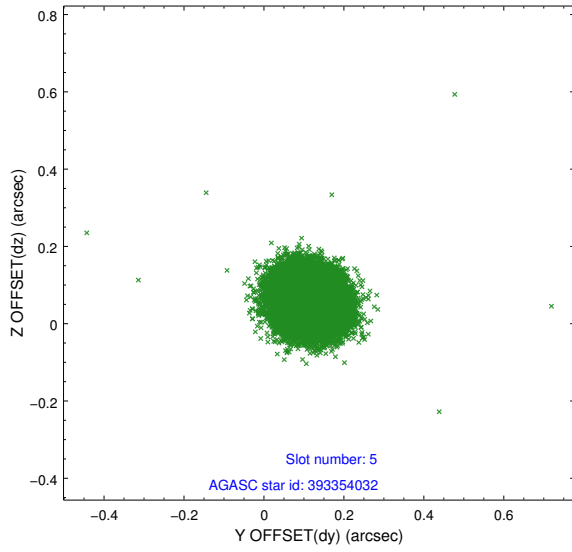
### 2.4.1 Slot 3



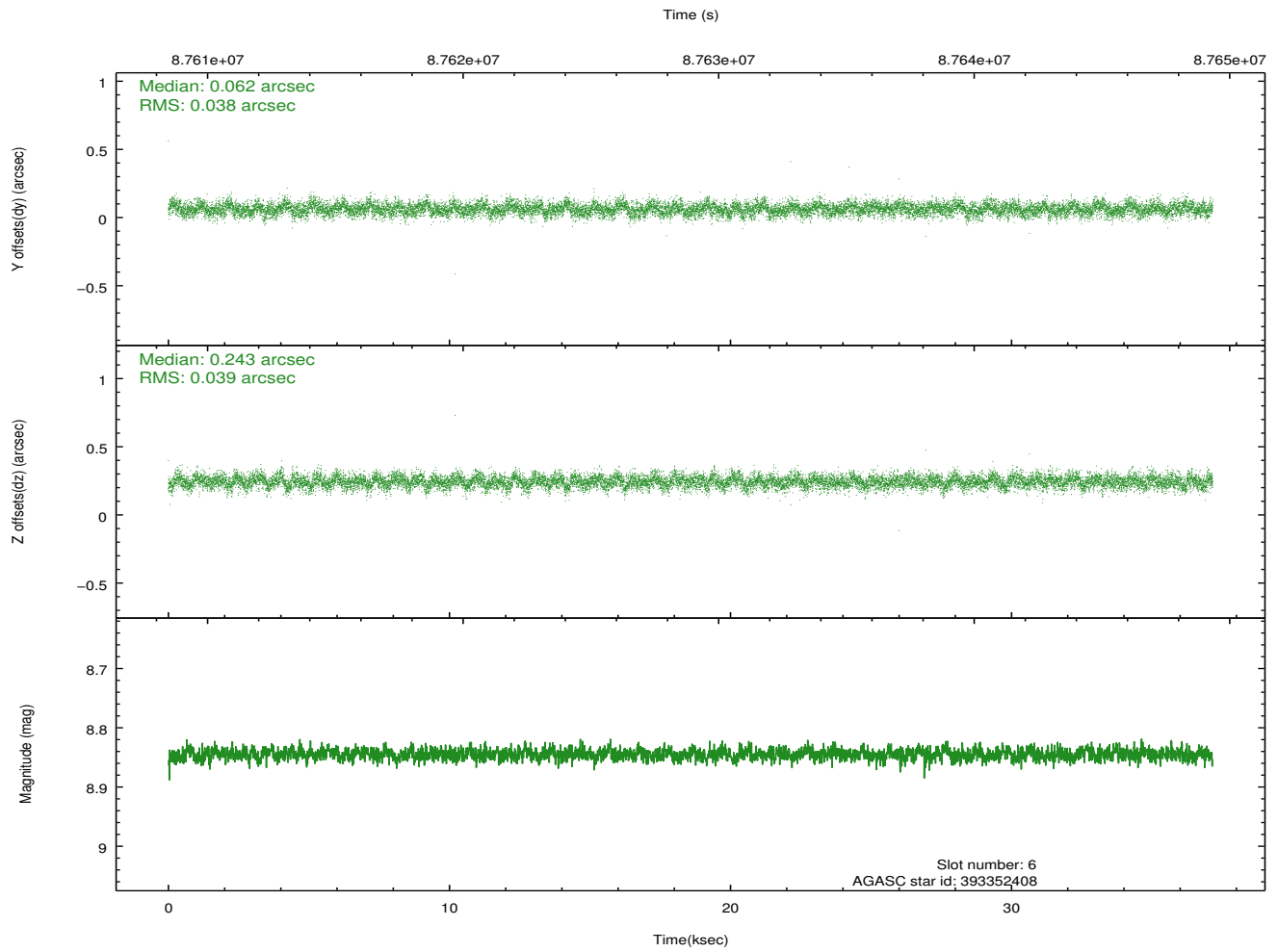
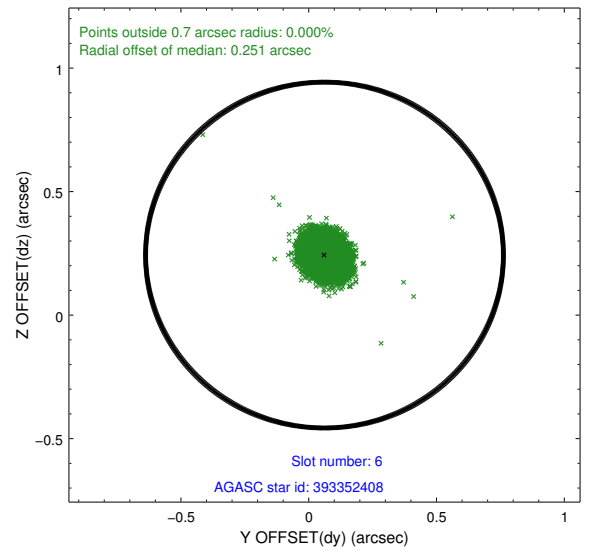
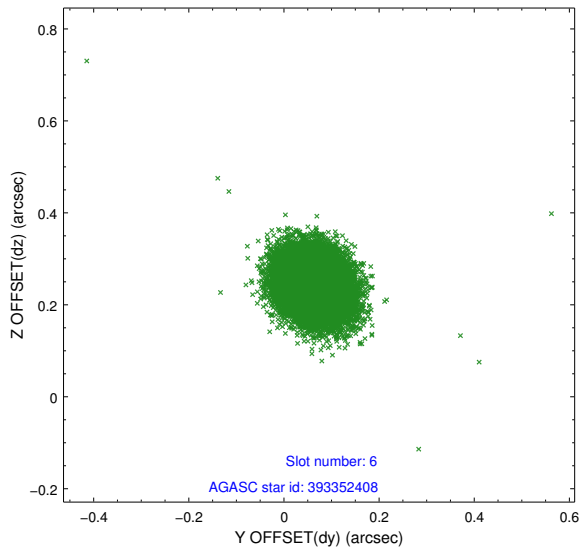
## 2.4.2 Slot 4



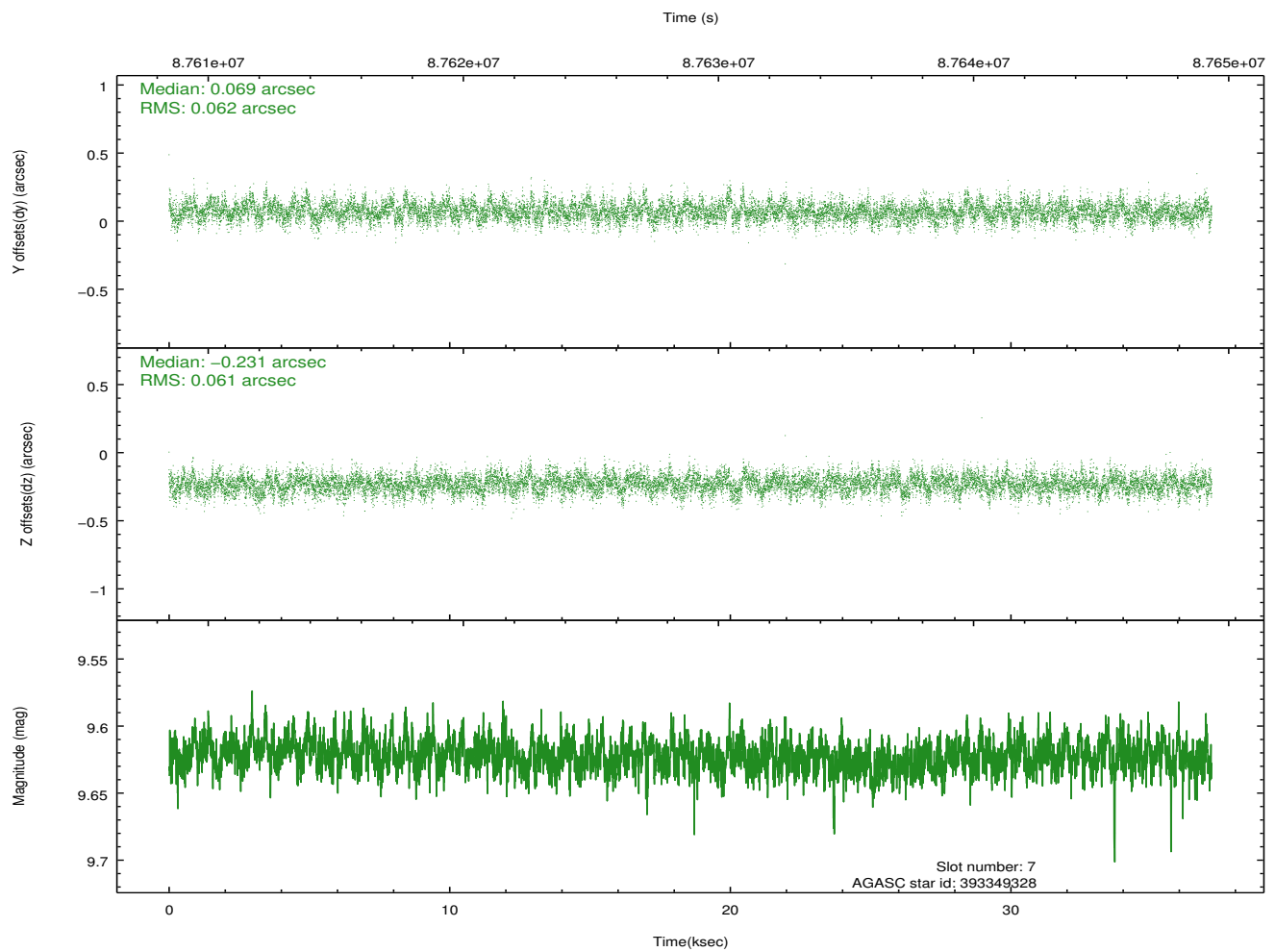
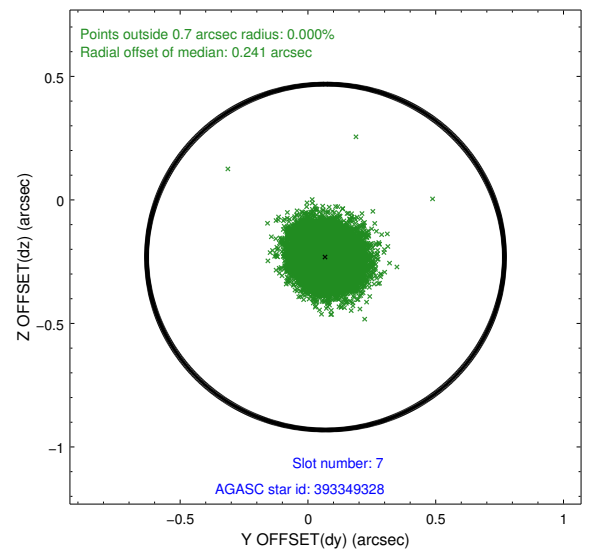
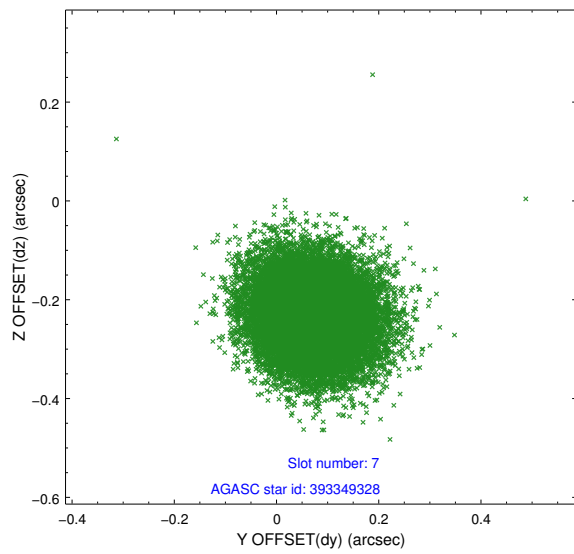
### 2.4.3 Slot 5



### 2.4.4 Slot 6

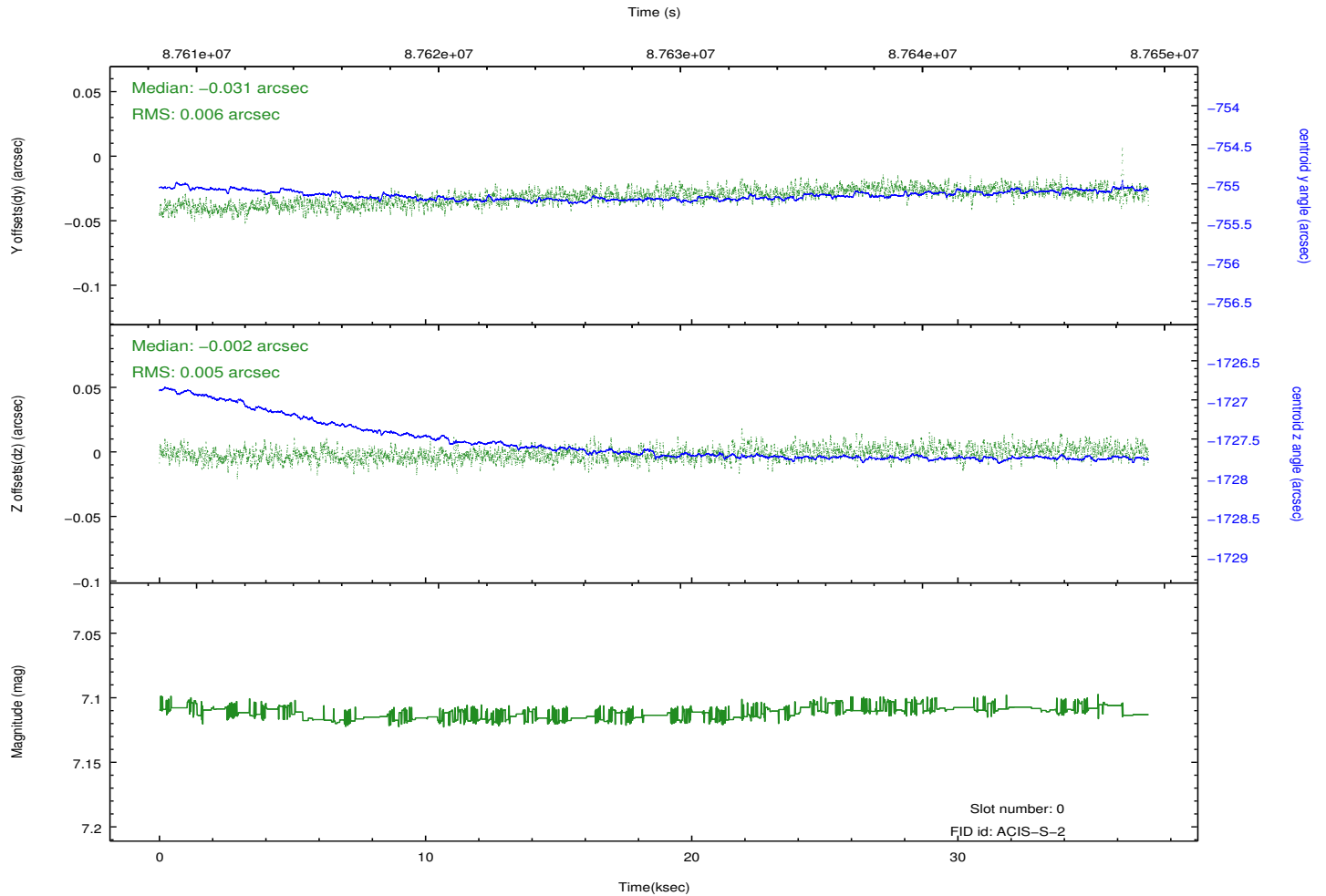
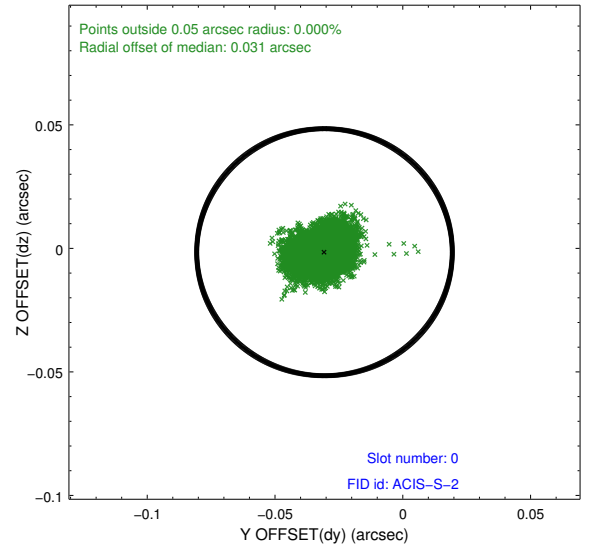
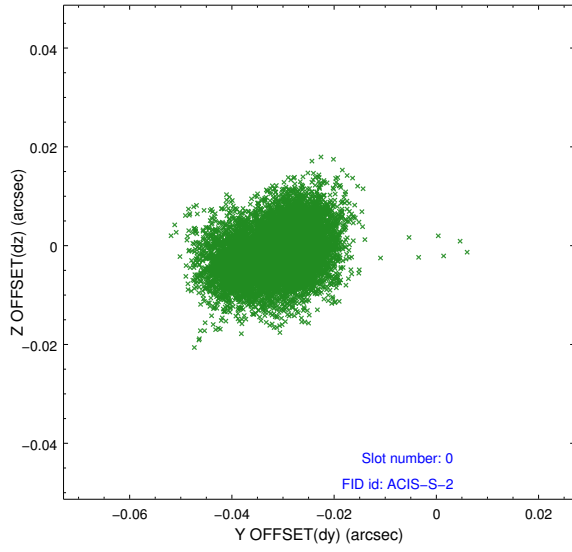


## 2.4.5 Slot 7

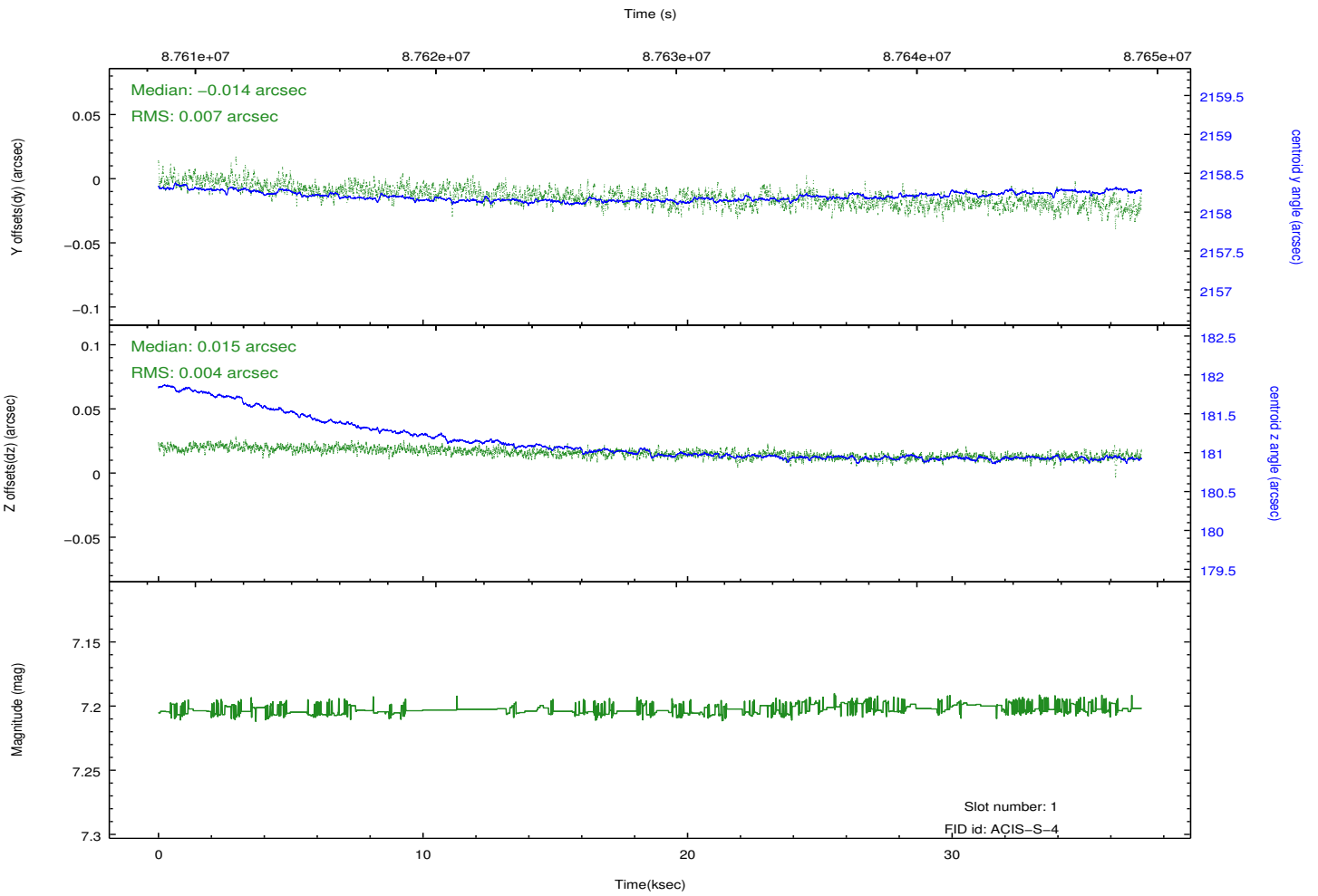
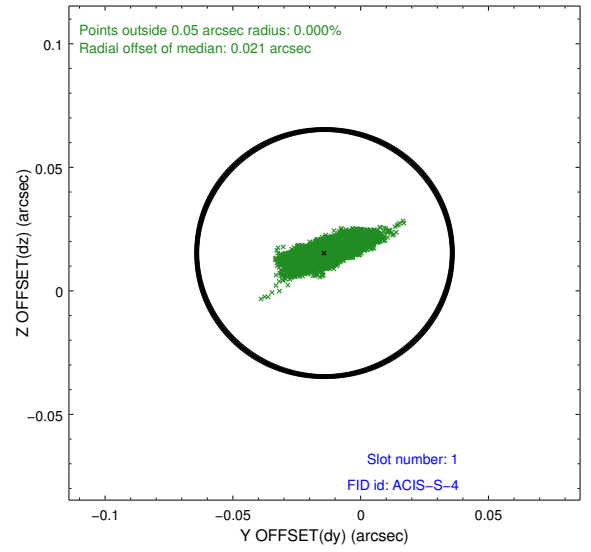
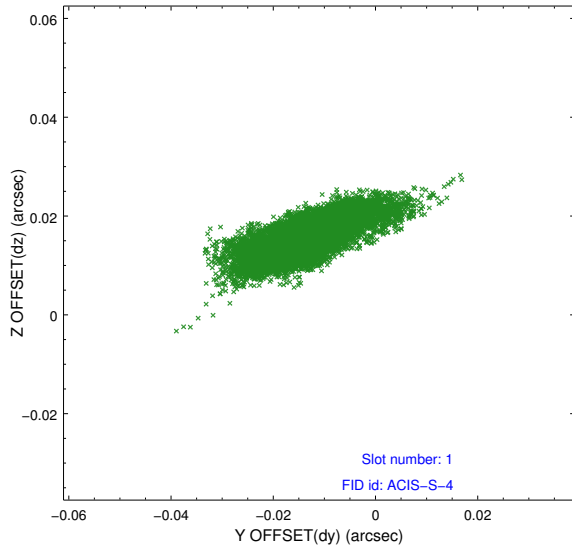


## 2.5 FID Slots

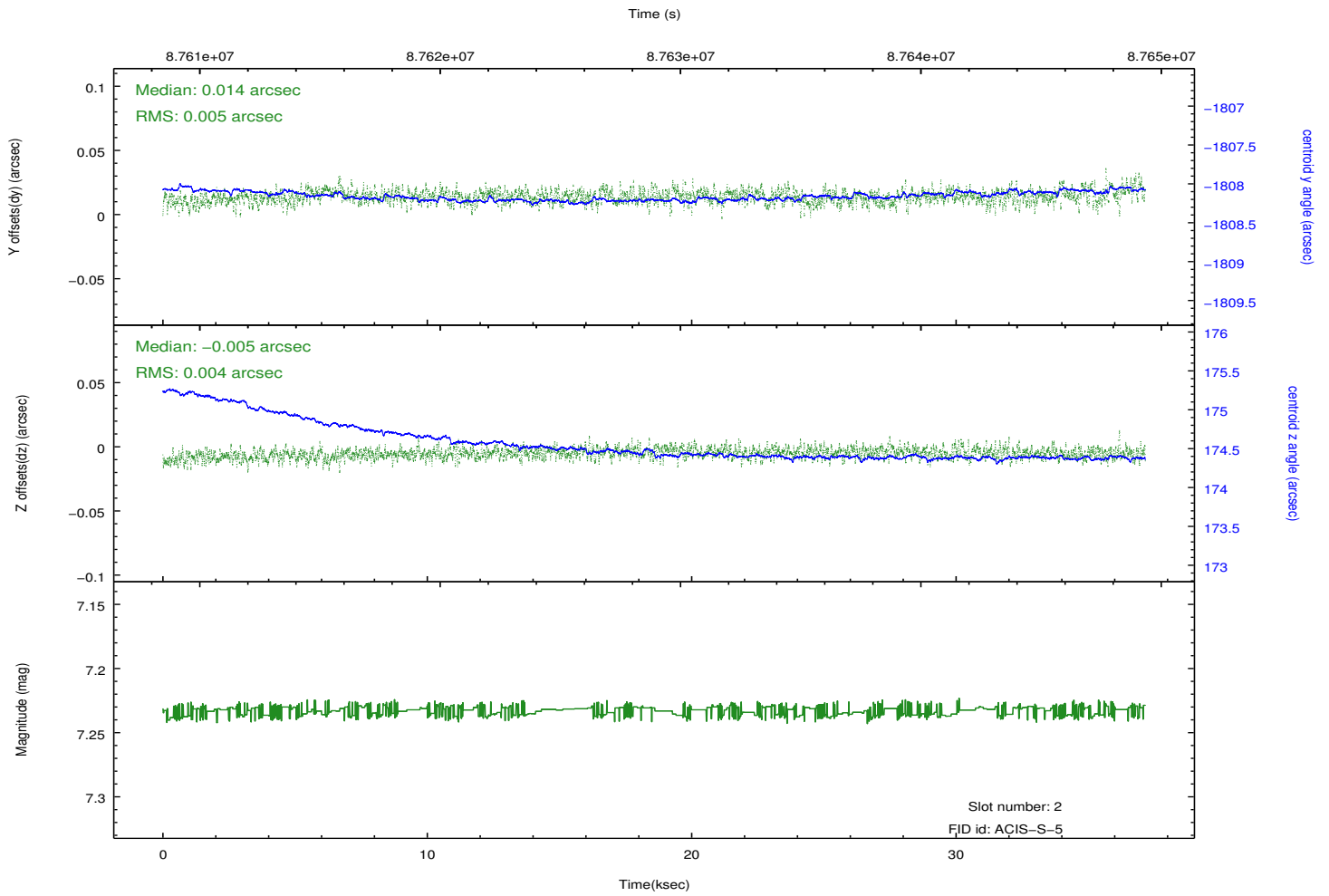
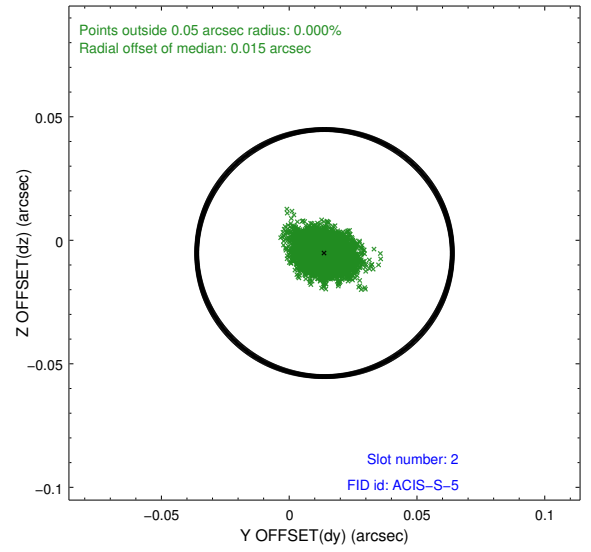
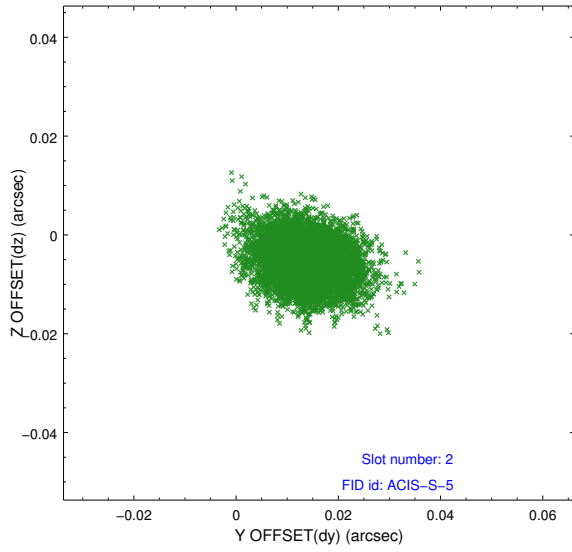
### 2.5.1 Slot 0



## 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)	2012.09.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.755

### **A.2 Comments**