

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 1643 - L2 Version 3  
Chandra X-Ray Center

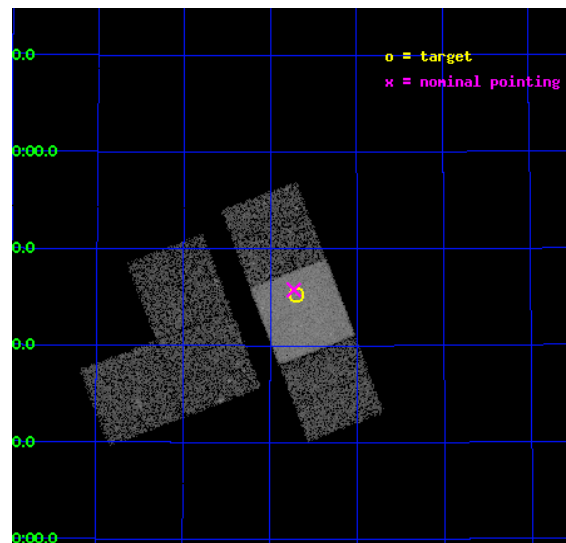
L2 Processing Date : Sep 2 2012

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# 1 Front

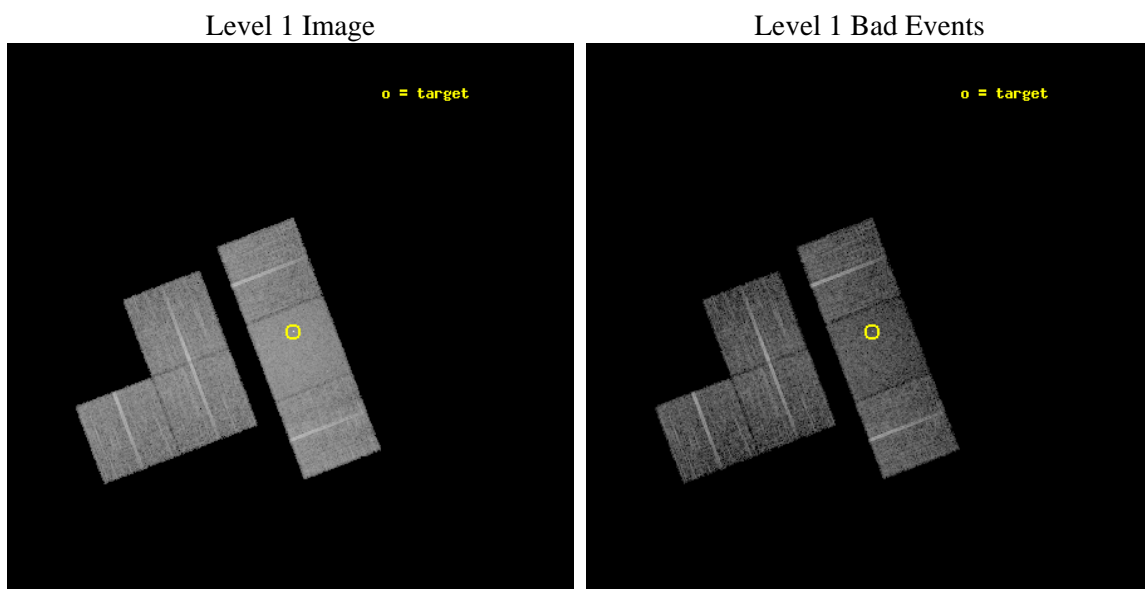
seq_num	700259	Sequence number
obs_id	1643	Observation id
title	CHANDRA OBSERVATIONS OF GRAVITATIONALLY LENSED QUASARS WITH INTRINSIC ABSORPTION	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	APM08279+5255	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	127.923333	Observer's specified target RA [deg]
dec_targ	52.754667	Observer's specified target Dec [deg]
ra_nom	127.93177208999	Nominal RA [deg]
dec_nom	52.76306479345	Nominal Dec [deg]
roll_nom	69.086536648144	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9251.200008601	Sum of GTIs [s]
livetime	9134.0557436882	Livetime [s]
ontime1	9251.200008601	Sum of GTIs [s]
ontime2	9251.200008601	Sum of GTIs [s]
ontime3	9251.200008601	Sum of GTIs [s]
ontime6	9247.9591680467	Sum of GTIs [s]
ontime7	9251.200008601	Sum of GTIs [s]
ontime8	9251.200008601	Sum of GTIs [s]
l2events	64268	Number of level 2 events



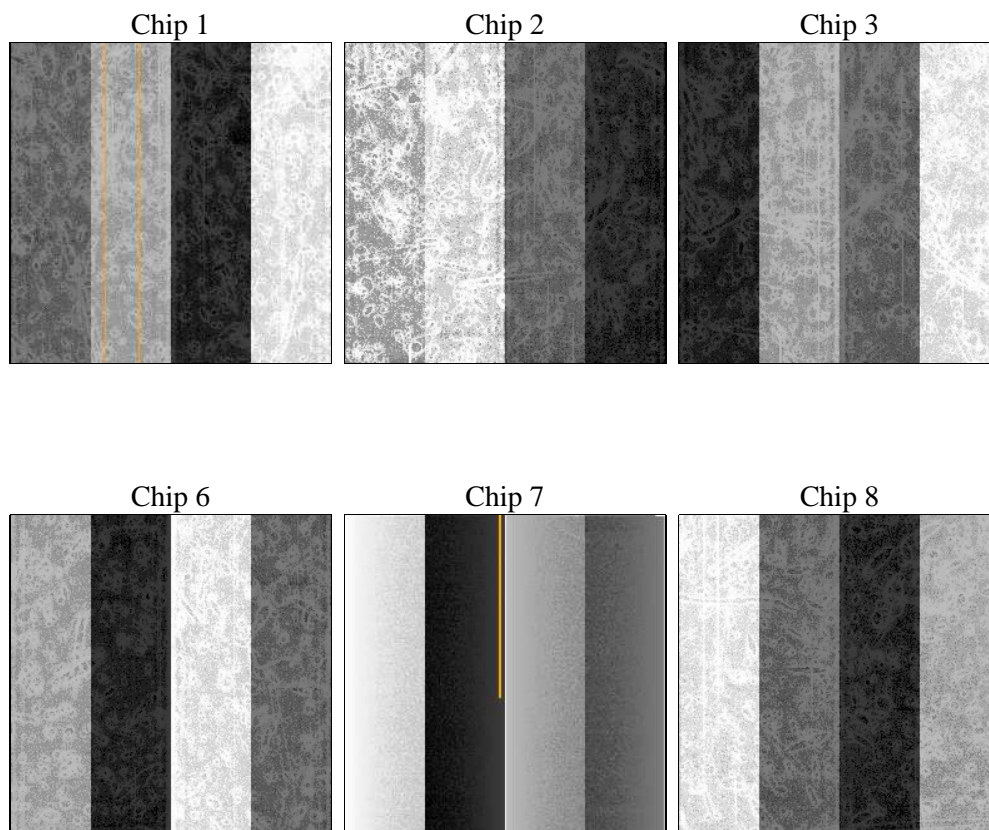
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9300.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	9251.200008601	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime1	9251.200008601	Sum of GTIs [s]
date	2012-09-02T09:40:47	Date and time of file creation	ontime2	9251.200008601	Sum of GTIs [s]
revision	3	Processing version of data	ontime3	9251.200008601	Sum of GTIs [s]
			ontime6	9247.9591680467	Sum of GTIs [s]
			ontime7	9251.200008601	Sum of GTIs [s]
			ontime8	9251.200008601	Sum of GTIs [s]
			l1events	383454	Number of level 1 events

### 2.1.4 Events

	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8		ccd 1	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	55947	57356	58506	60076	77741	73828	grade 0 events	2907	2853	2893	2909	3872	4873
rejected events	48839	50840	51996	53208	42157	58981		5%	4%	4%	4%	4%	6%
rejected %	87%	88%	88%	88%	54%	79%	grade 1 events	32	24	30	27	76	38
								0%	0%	0%	0%	0%	0%
							grade 2 events	1442	1332	1307	1328	7044	3011
								2%	2%	2%	2%	9%	4%
							grade 3 events	708	578	620	675	3249	1618
								1%	1%	1%	1%	4%	2%
							grade 4 events	722	628	626	623	3158	1447
								1%	1%	1%	1%	4%	1%
							grade 5 events	2181	1804	1972	2383	6986	2862
								3%	3%	3%	3%	8%	3%
							grade 6 events	1331	1127	1067	1334	18275	3939
								2%	1%	1%	2%	23%	5%
							grade 7 events	46624	49010	49991	50797	35081	56040
								83%	85%	85%	84%	45%	75%

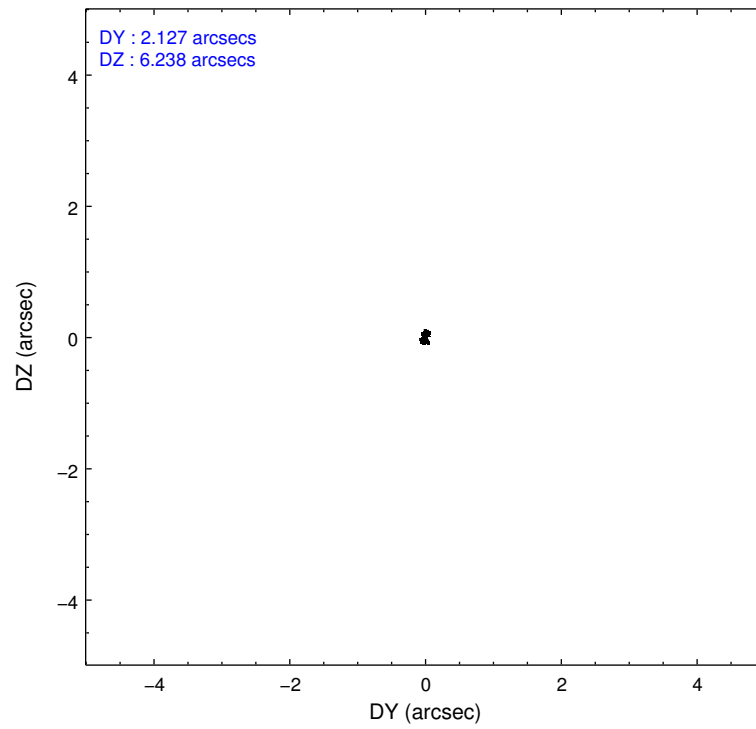
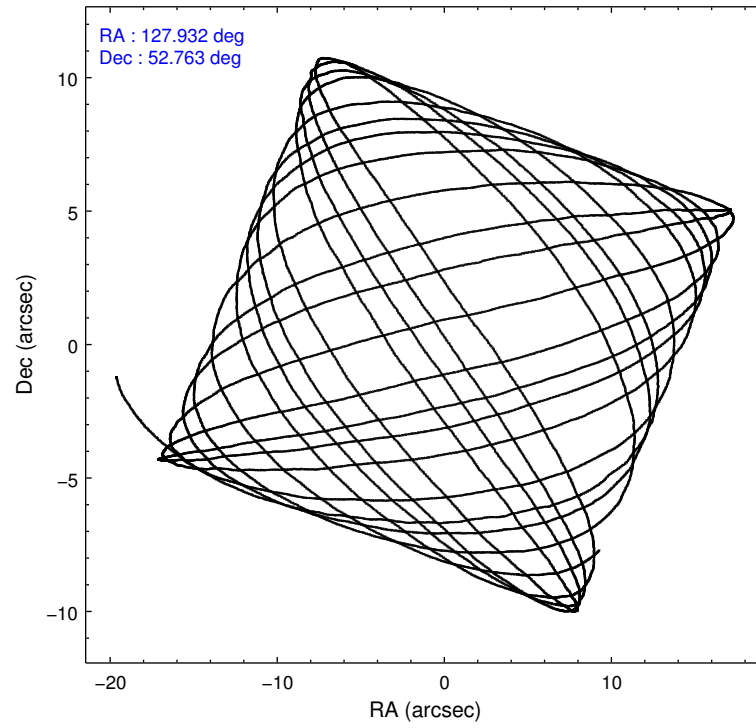


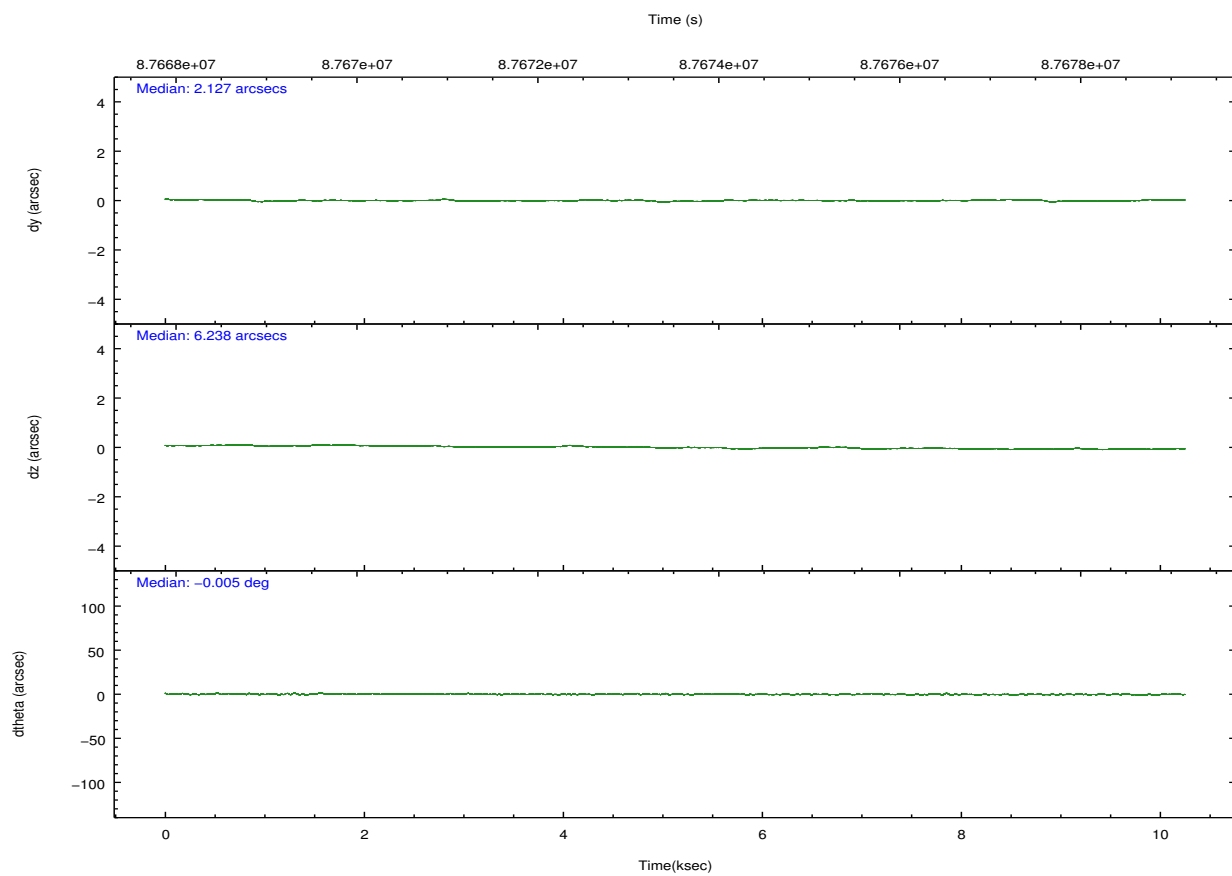
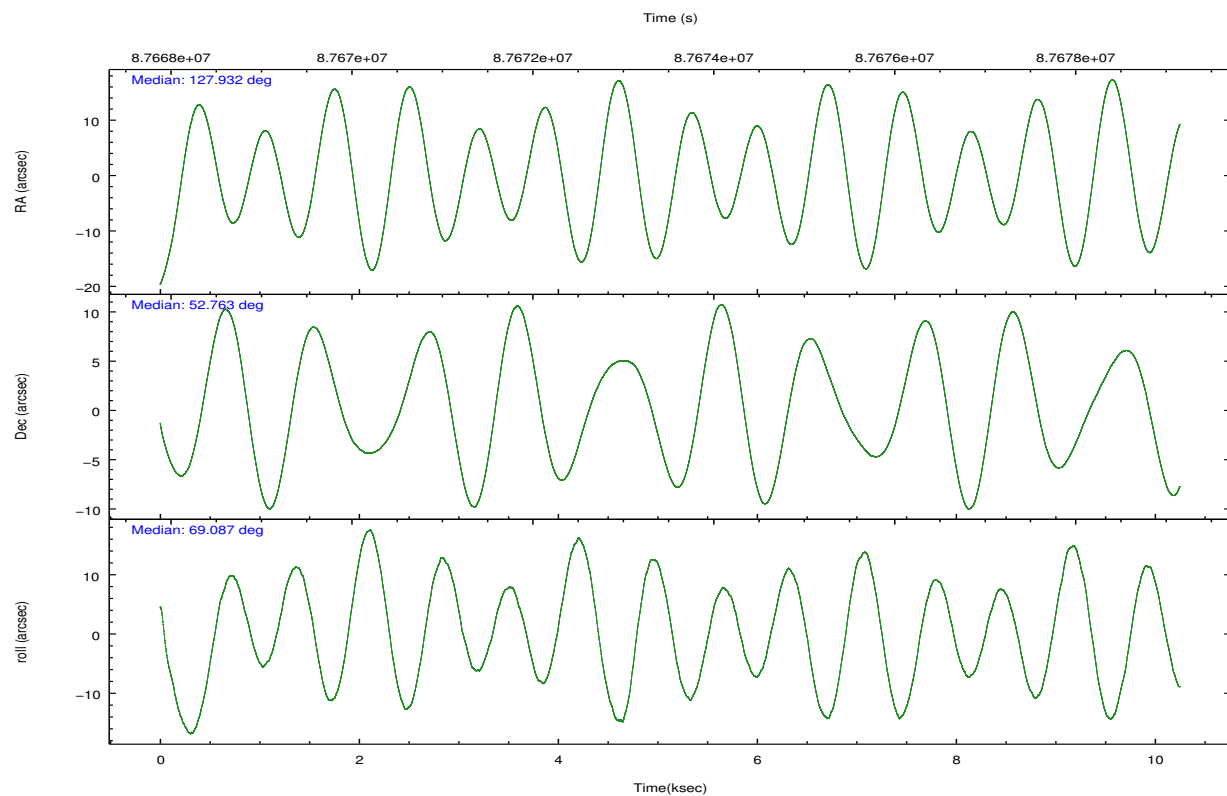
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-123678	ACIS-123678
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	127.939272	127.9317720899874
[deg] Pointing Dec	52.736126	52.76306479345033
[deg] Pointing Roll	68.923944	69.08653664814408
[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)	87669338.184000	87667996.758889
Observation start date	2000-10-11T16:34:34	2000-10-11T16:13:16
[s] Observation end time (MET)	87678638.184000	87679481.371823
Observation end date	2000-10-11T19:09:34	2000-10-11T19:24:41
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



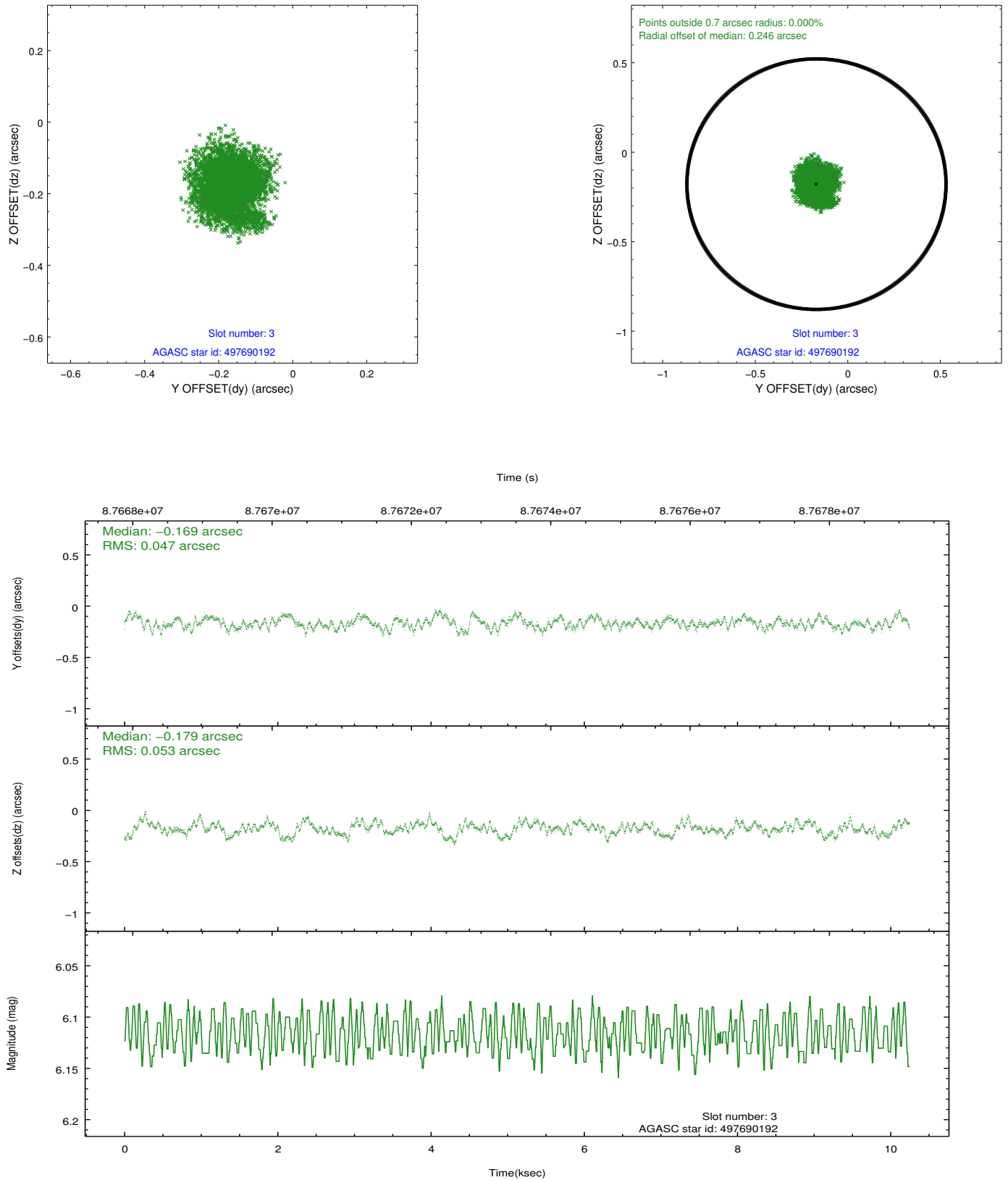


### Slot Statistics

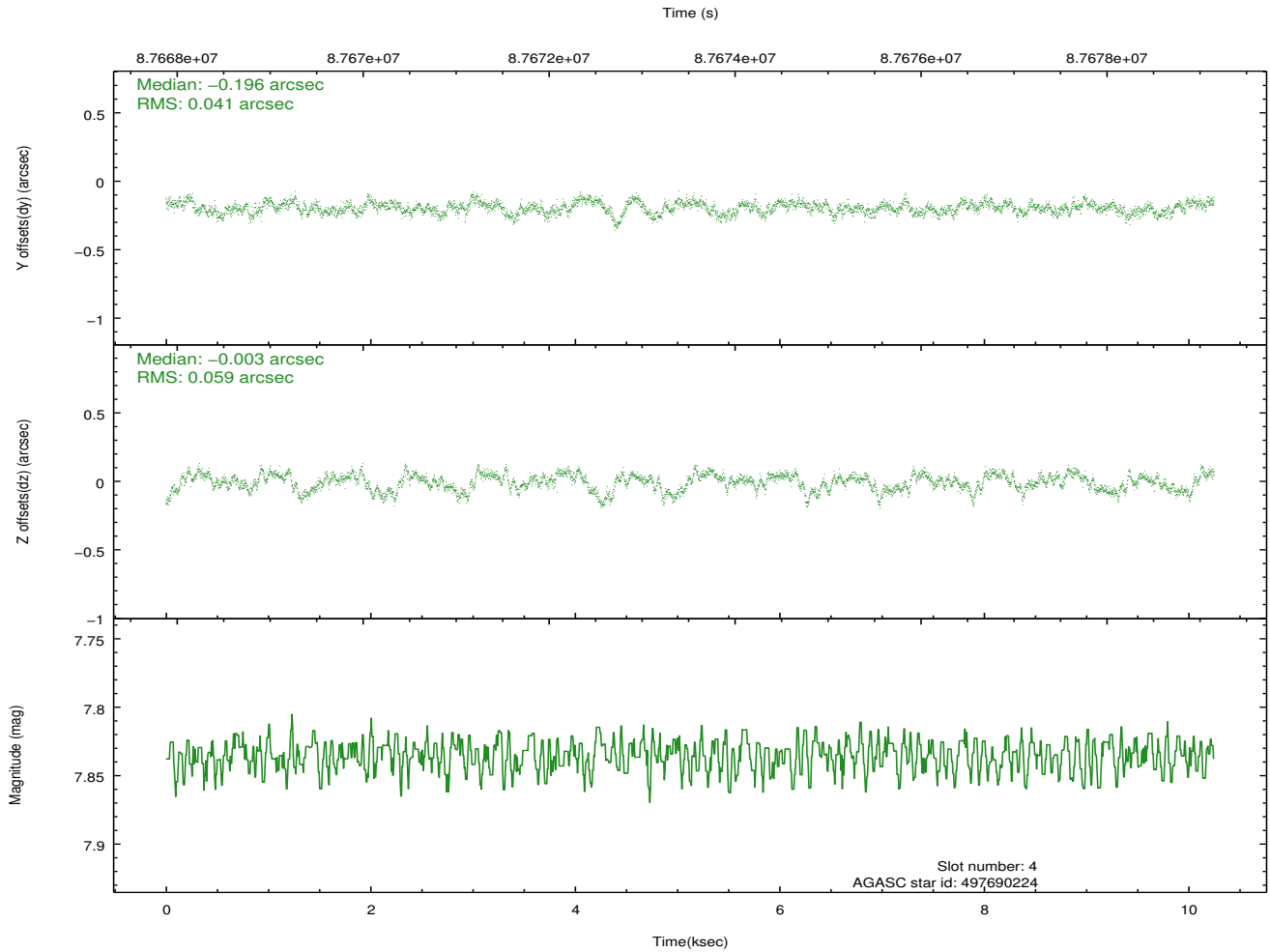
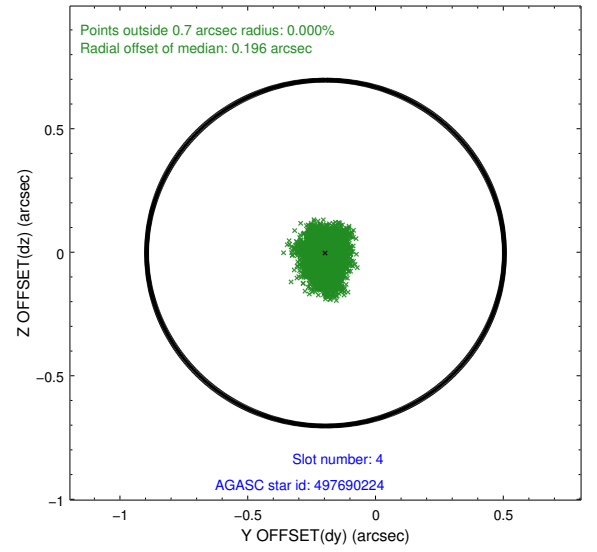
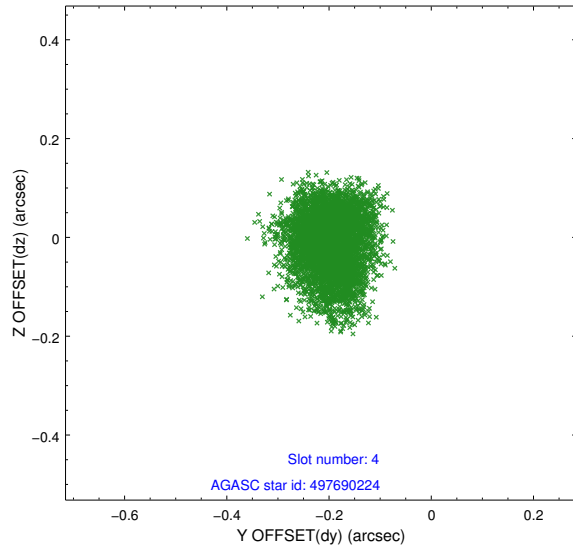
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	2500	-0.038	0.002	0.006	0.011	0.000000	0.000000	-754.76	-1727.34
1	FID	ACIS-S-4	7.20	2500	-0.019	0.018	0.005	0.010	0.000000	0.000000	2158.28	180.66
2	FID	ACIS-S-5	7.24	2500	0.026	-0.011	0.006	0.010	0.000000	0.000000	-1806.90	174.84
3	GUIDE	497690192	6.12	5001	-0.169	-0.179	0.076	0.122	128.139362	53.114846	1427.79	87.32
4	GUIDE	497690224	7.84	5000	-0.196	-0.003	0.076	0.124	127.850163	53.122165	1227.53	679.90
5	GUIDE	497694904	9.26	5000	-0.066	-0.097	0.086	0.143	127.234002	52.830882	-226.33	1557.20
6	GUIDE	448532272	10.49	4931	0.246	0.067	0.255	0.423	128.003569	52.087402	-2127.91	-971.77
7	GUIDE	448529208	10.23	4994	0.193	0.205	0.131	0.218	128.453979	51.954933	-2210.23	-2075.01

## 2.4 Star Slots

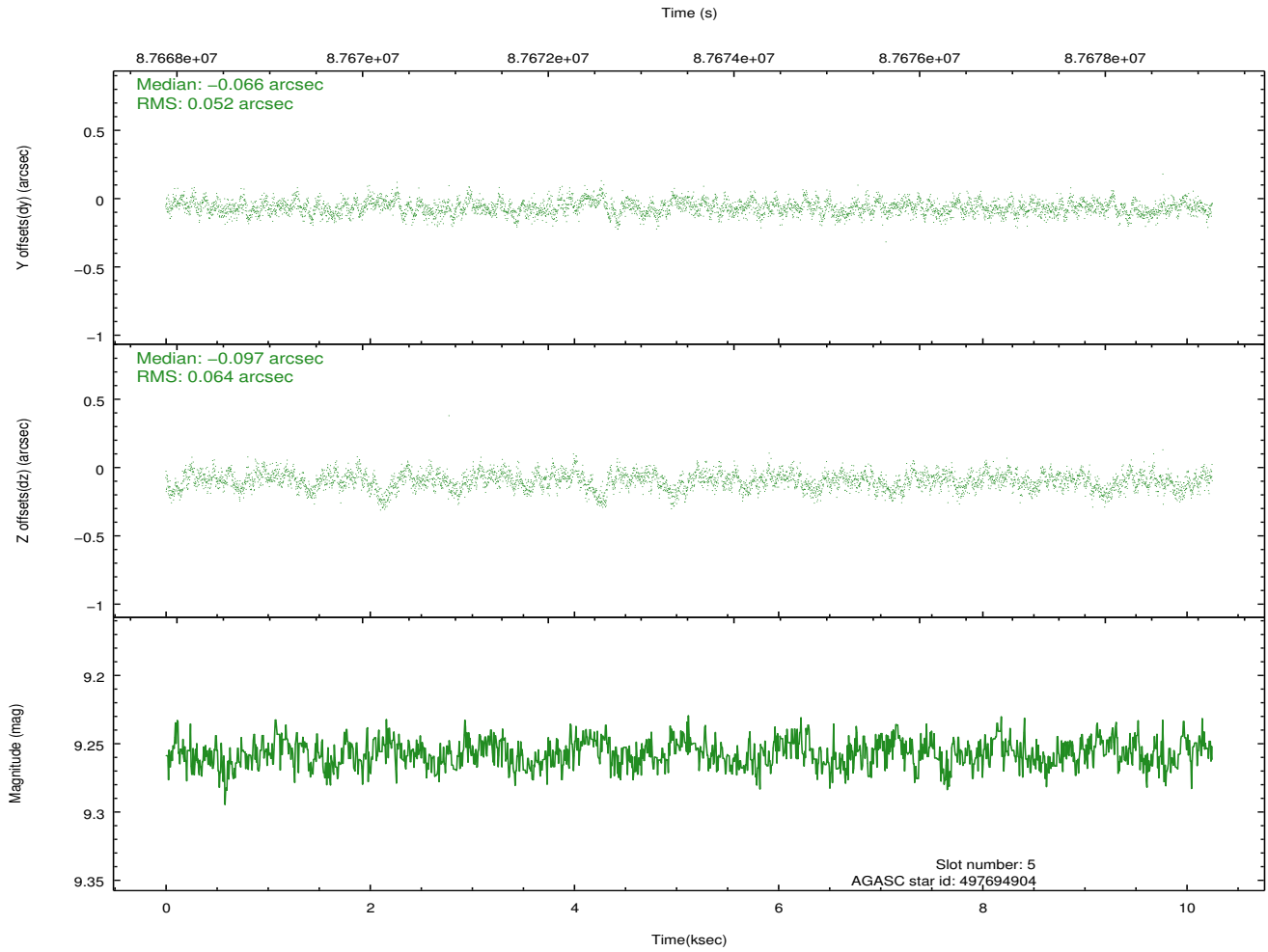
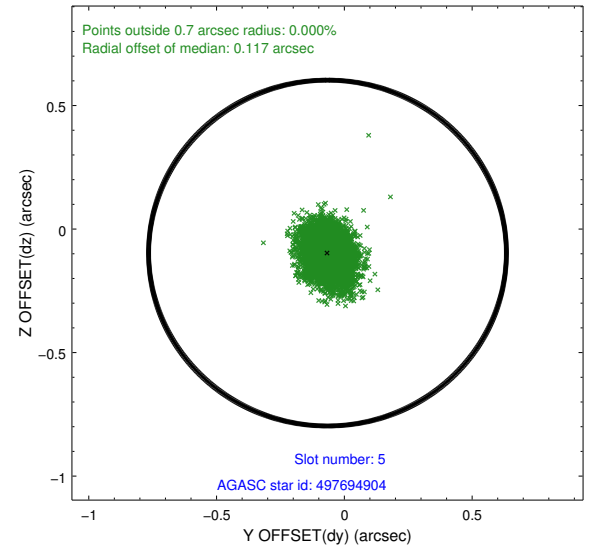
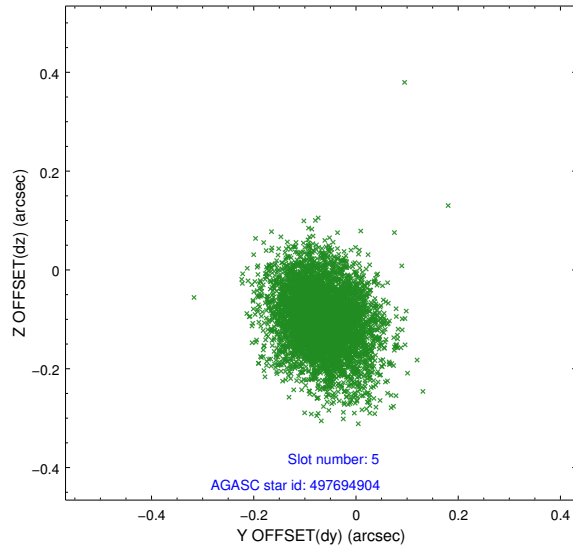
### 2.4.1 Slot 3



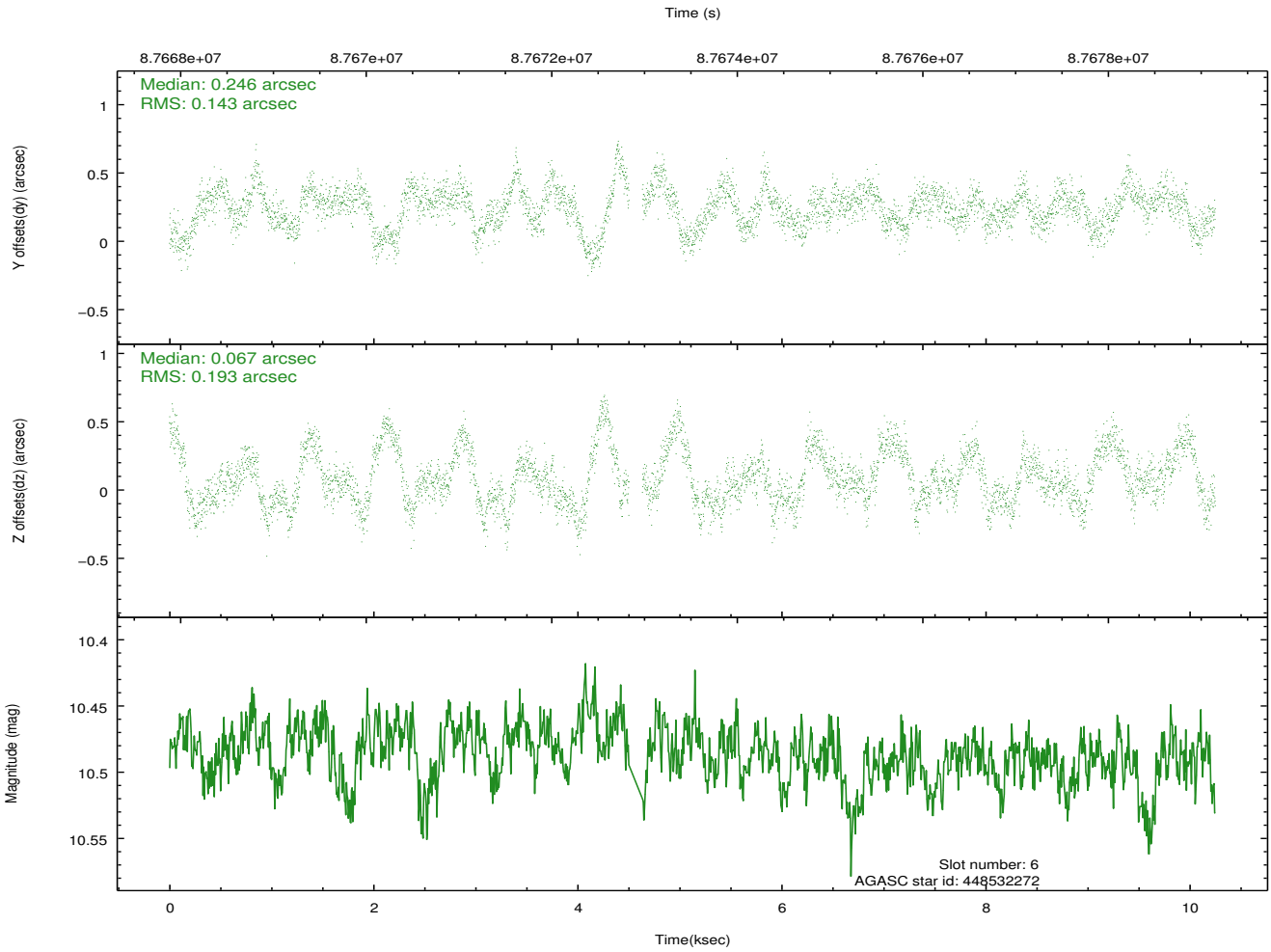
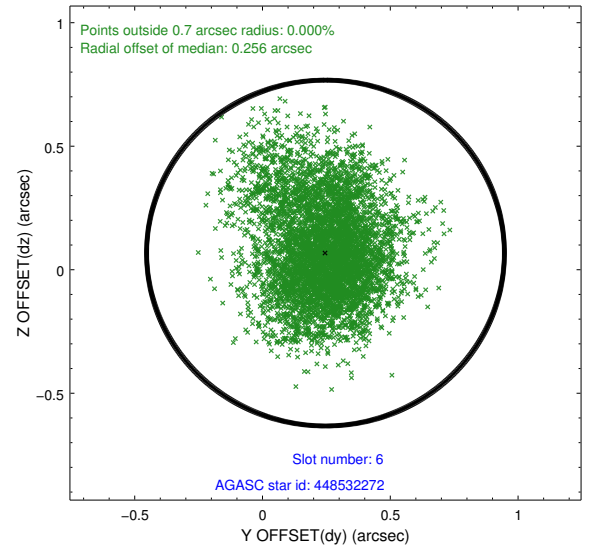
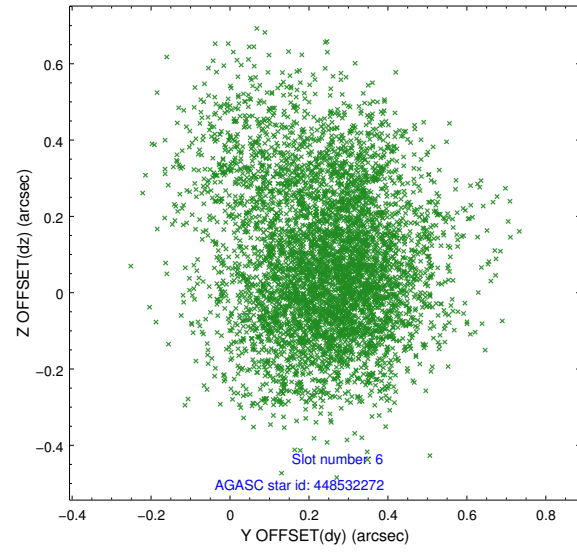
## 2.4.2 Slot 4



### 2.4.3 Slot 5

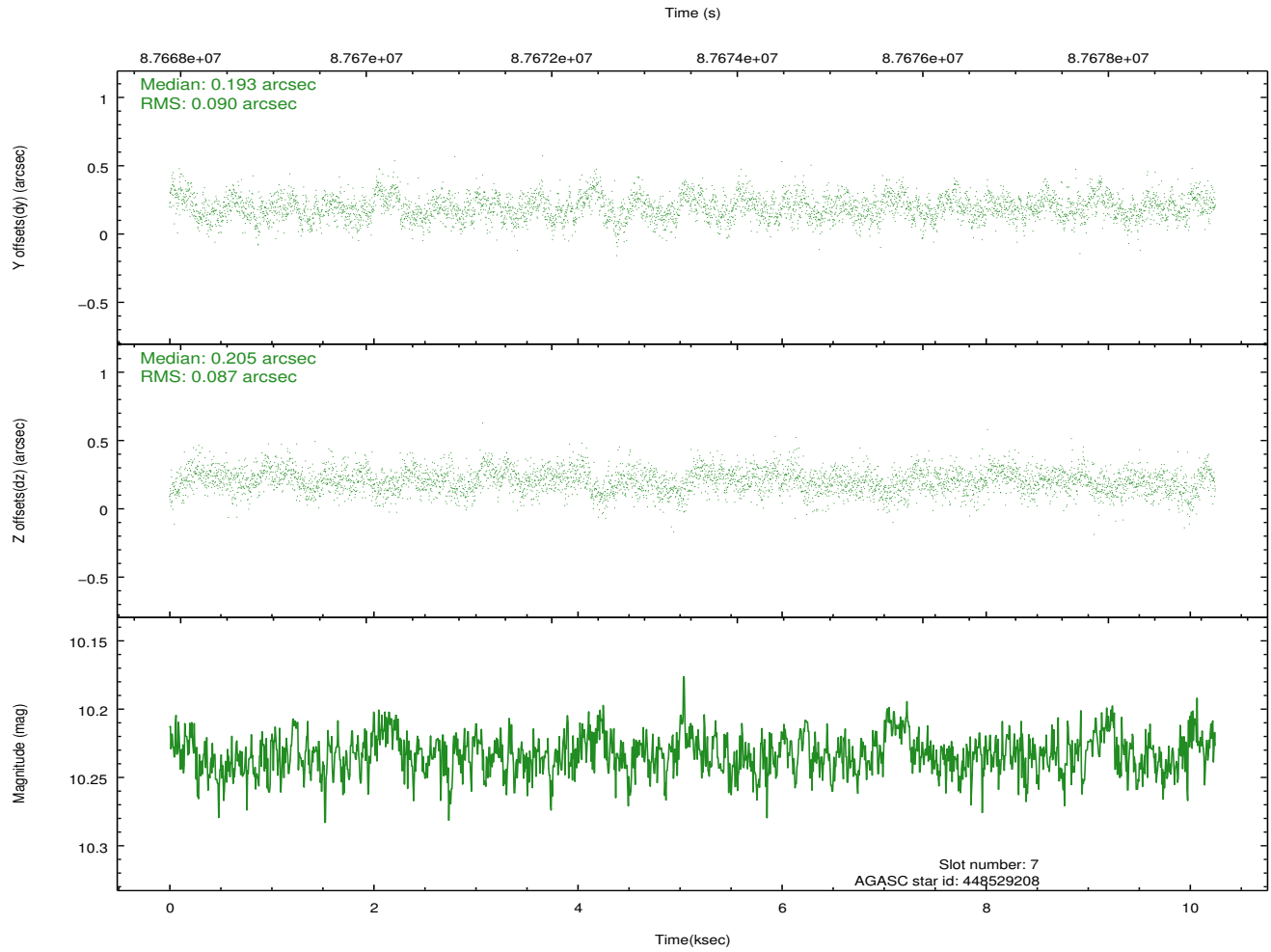
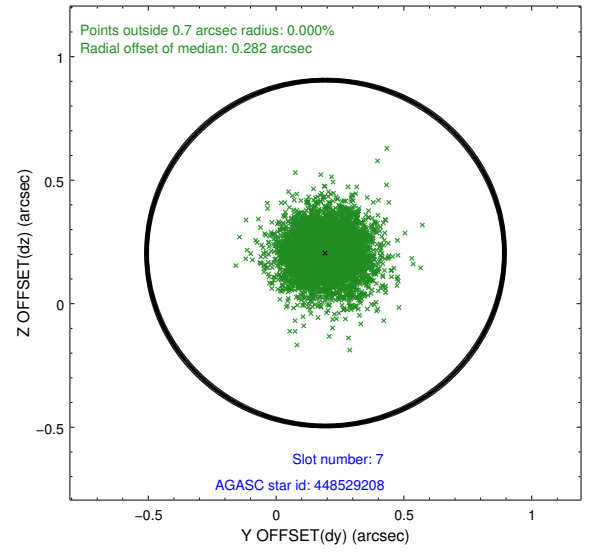
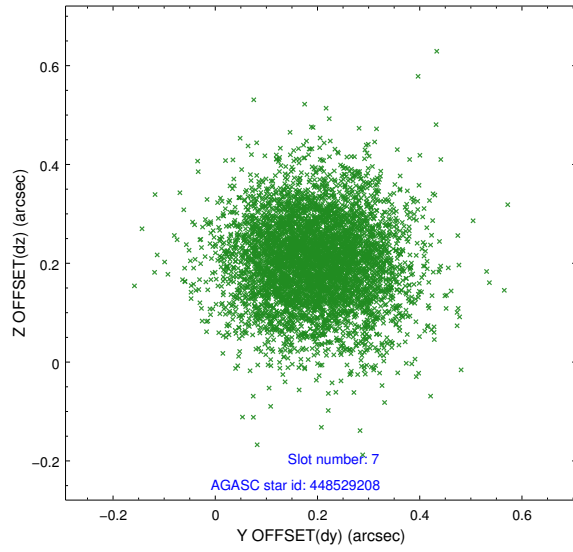


## 2.4.4 Slot 6



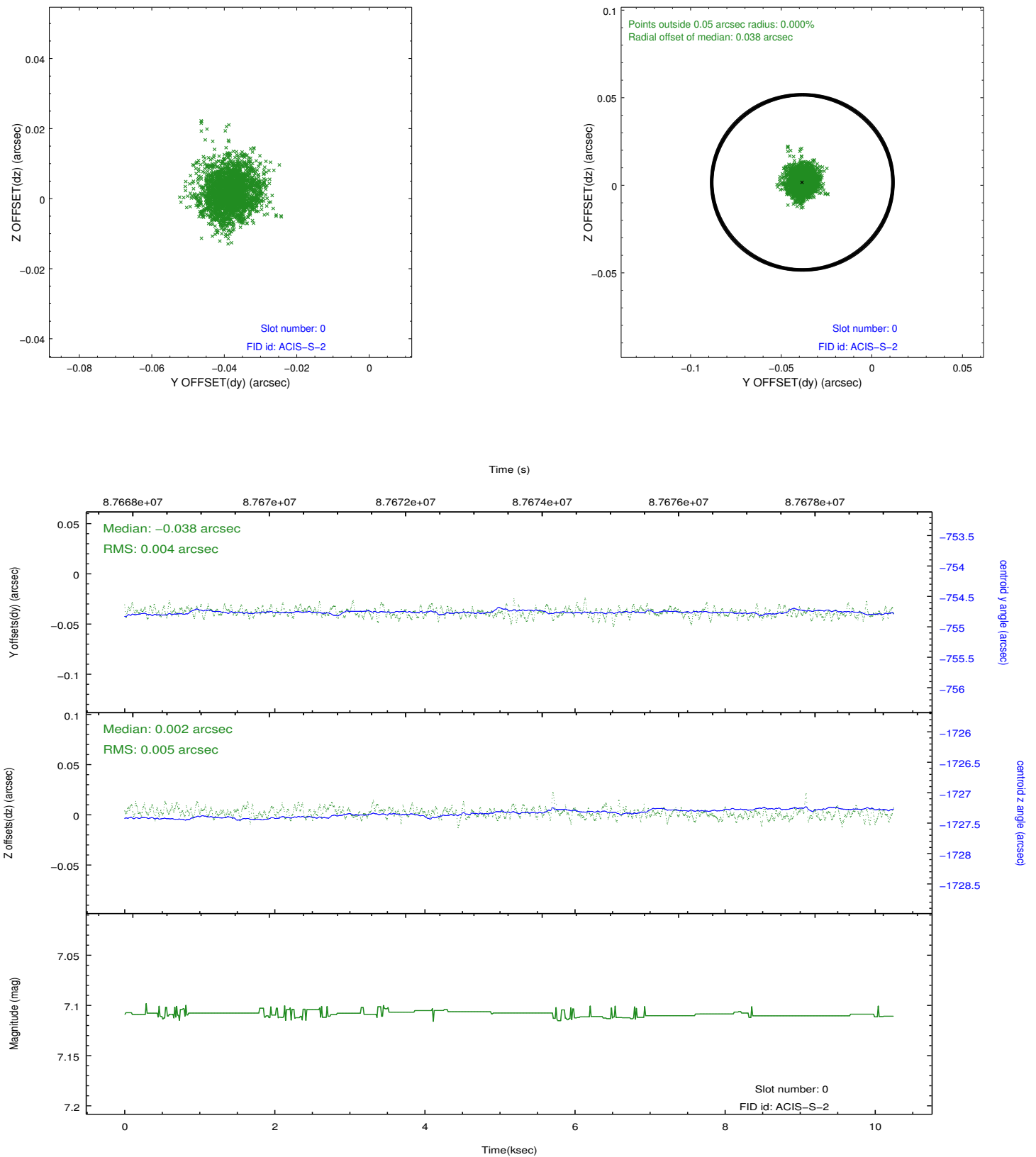


## 2.4.5 Slot 7

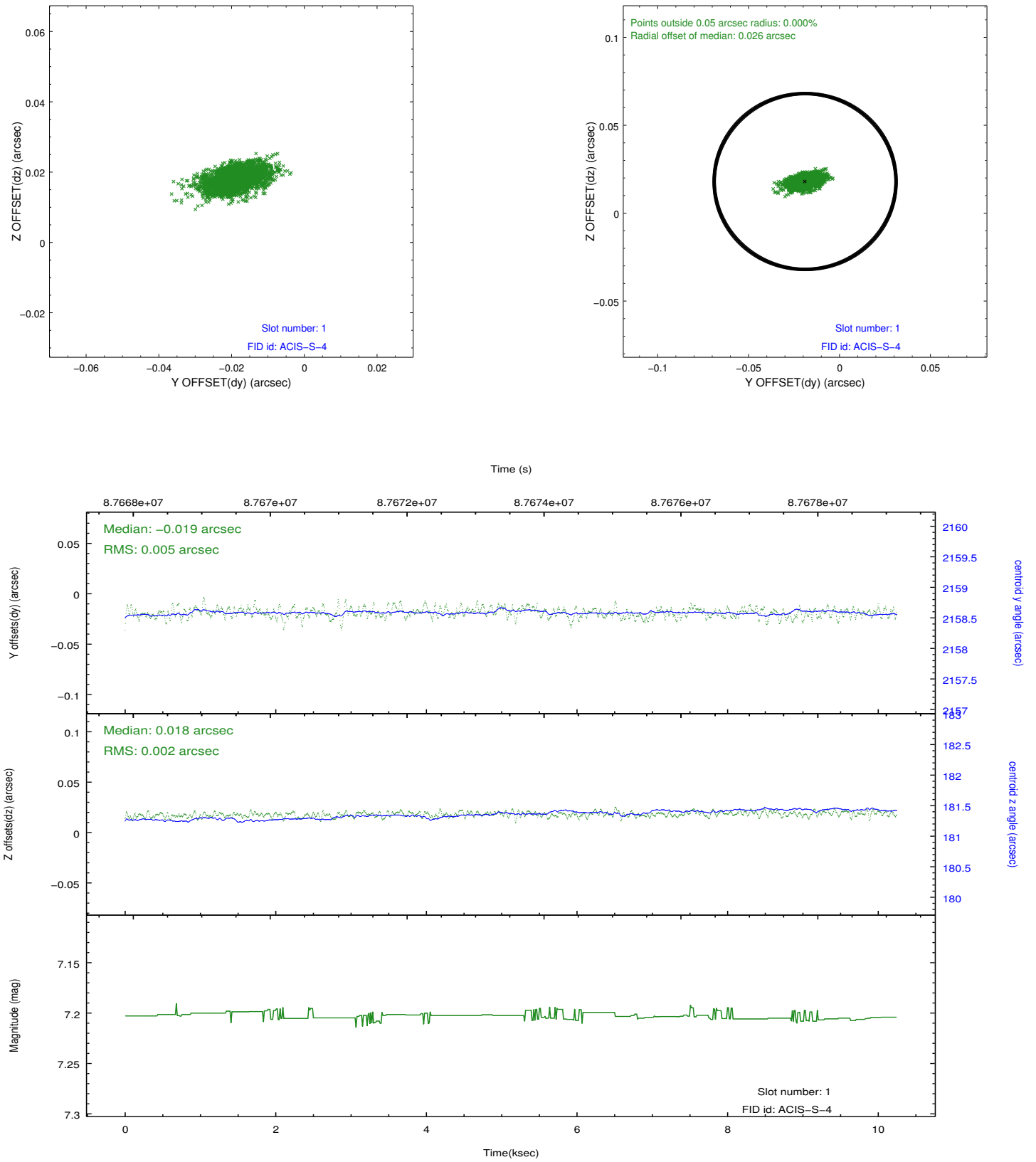


## 2.5 FID Slots

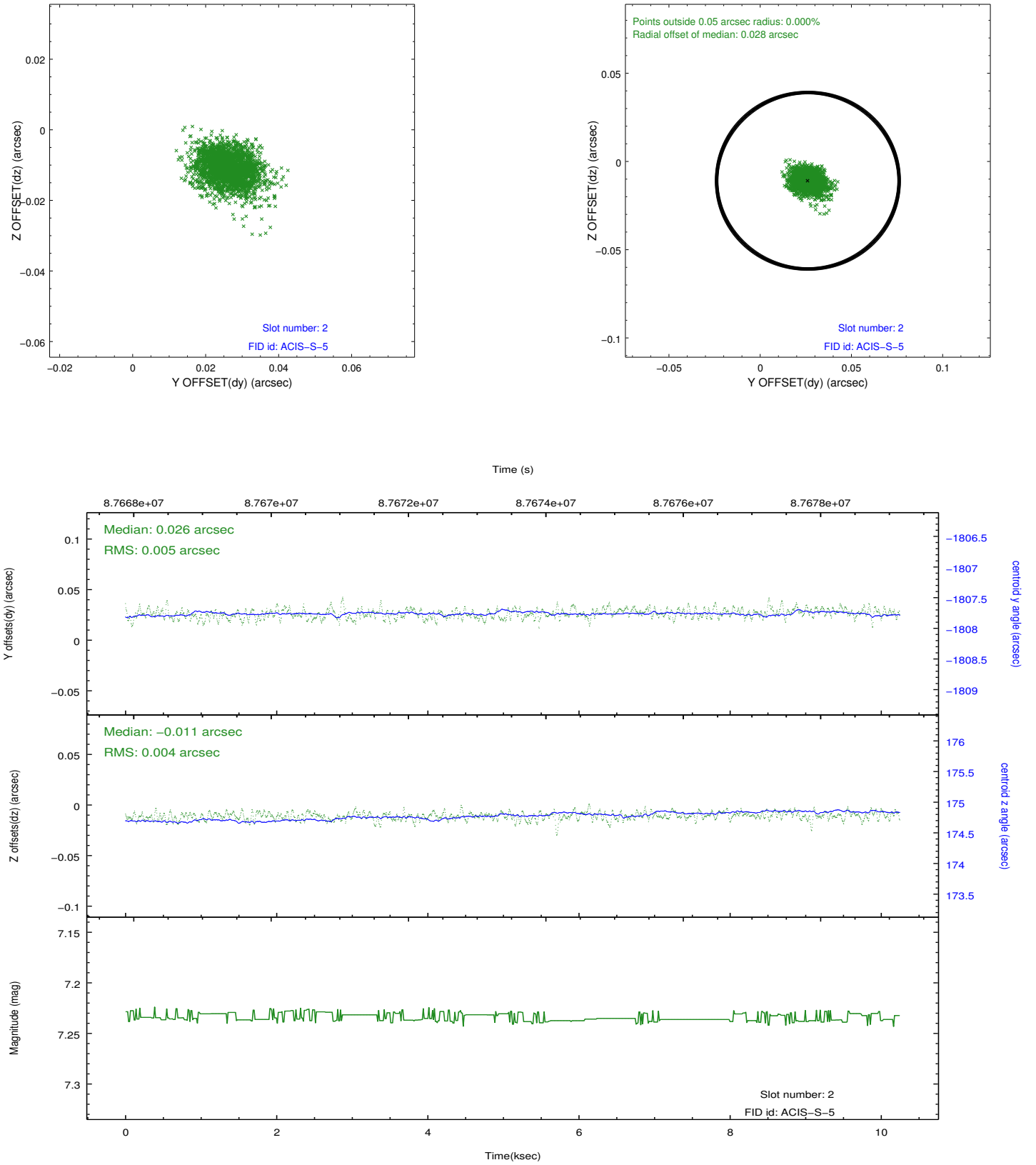
### 2.5.1 Slot 0



## 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	9.254

### A.2 Comments