

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13961 - L2 Version 1  
Chandra X-Ray Center

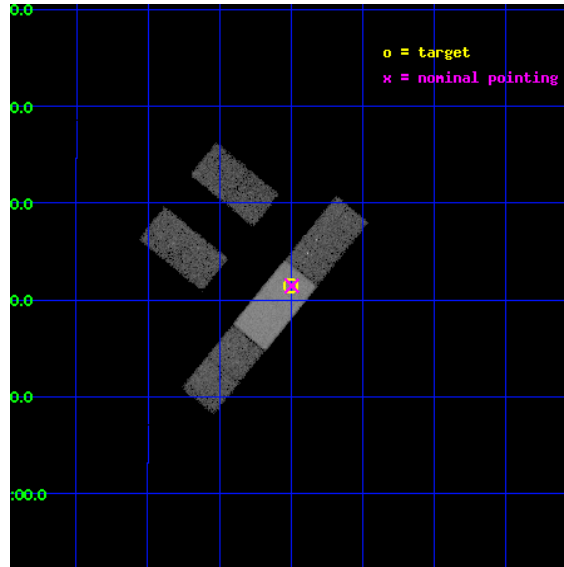
L2 Processing Date : Aug 3 2012

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# 1 Front

seq_num	702683	Sequence number
obs_id	13961	Observation id
title	Energy Dependent Microlensing in X-rays	Proposal title
observer	Prof. Xinyu Dai	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	340.12324921267	Nominal RA [deg]
dec_nom	3.3576535663815	Nominal Dec [deg]
roll_nom	129.17732103057	Nominal Roll [deg]
revision	1	Processing version of data
ontime	29942.099790096	Sum of GTIs [s]
livetime	29236.301086226	Livetime [s]
ontime2	29942.099790096	Sum of GTIs [s]
ontime3	29938.617709935	Sum of GTIs [s]
ontime6	29942.099790096	Sum of GTIs [s]
ontime7	29942.099790096	Sum of GTIs [s]
ontime8	29942.099790096	Sum of GTIs [s]
l2events	82168	Number of level 2 events

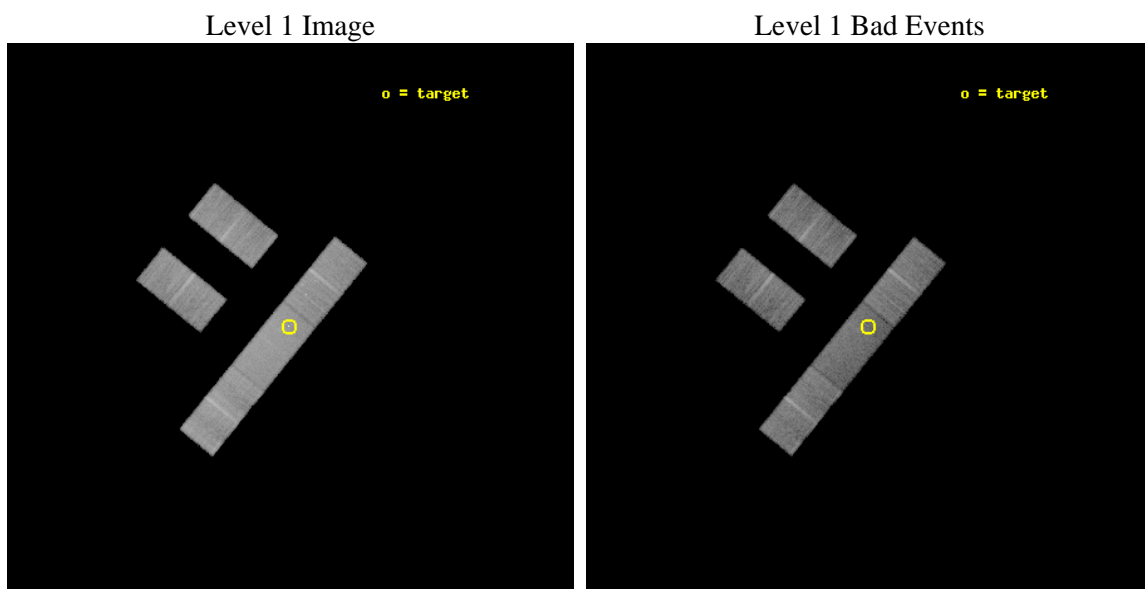




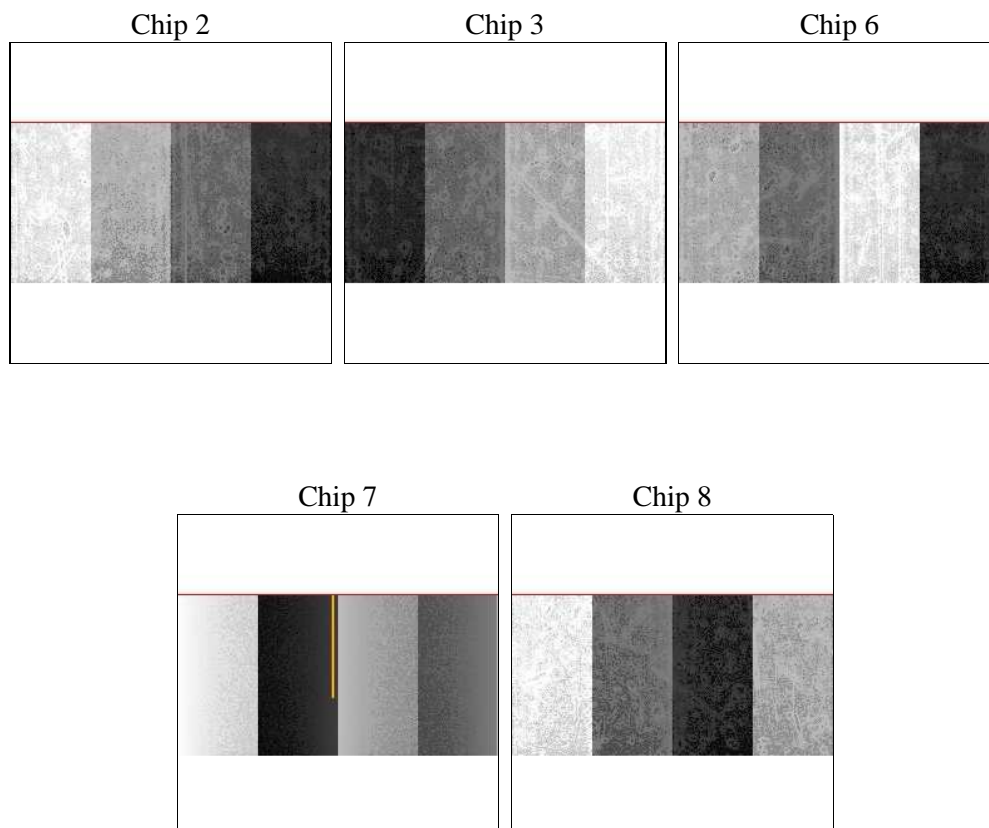
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29878.219000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	29942.099790096	Sum of GTIs [s]
caldsver	4.5.1	&#160	ontime2	29942.099790096	Sum of GTIs [s]
date	2012-08-03T20:37:19	Date and time of file creation	ontime3	29938.617709935	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	29942.099790096	Sum of GTIs [s]
			ontime7	29942.099790096	Sum of GTIs [s]
			ontime8	29942.099790096	Sum of GTIs [s]
			l1events	474774	Number of level 1 events

### 2.1.4 Events

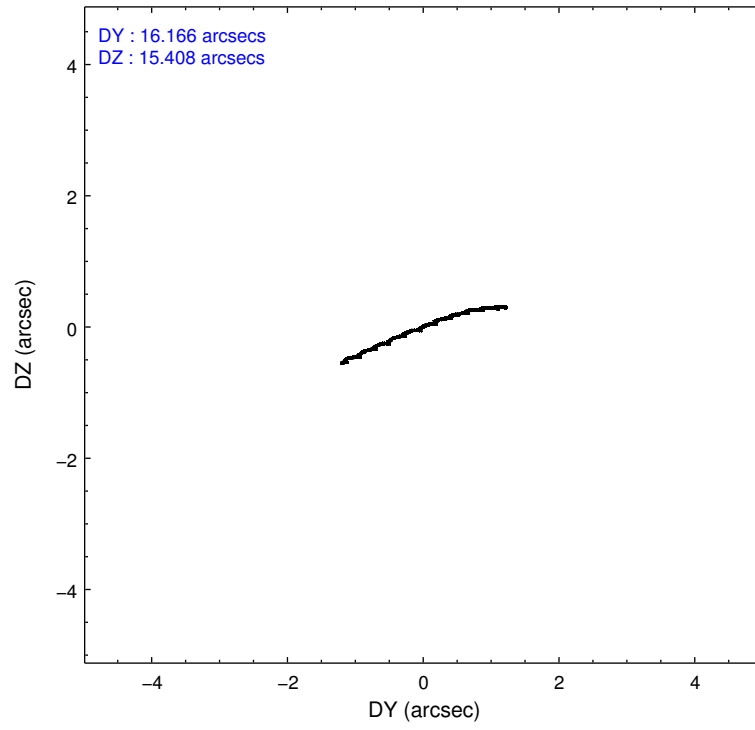
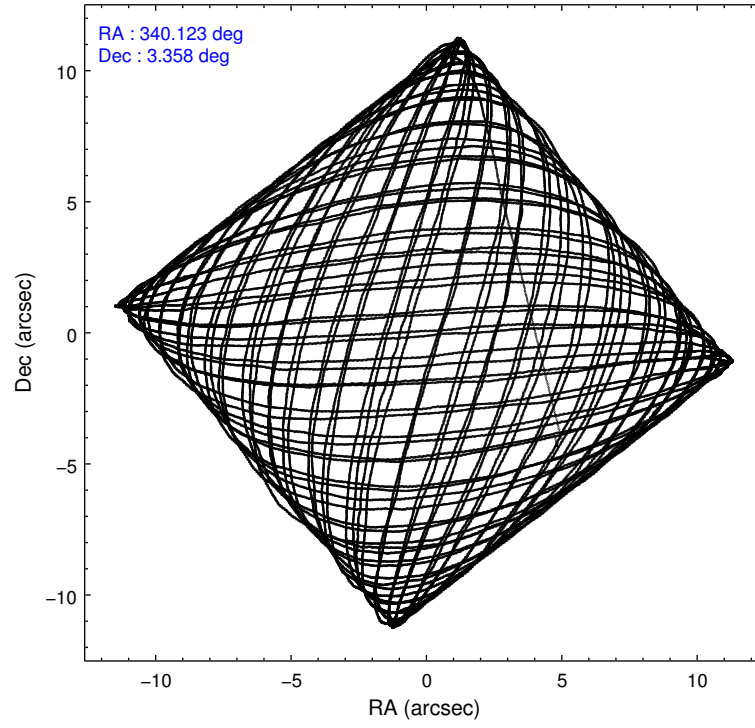
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	82639	82427	87843	108680	113185
rejected events	73424	73318	77065	59046	84510
rejected %	88%	88%	87%	54%	74%

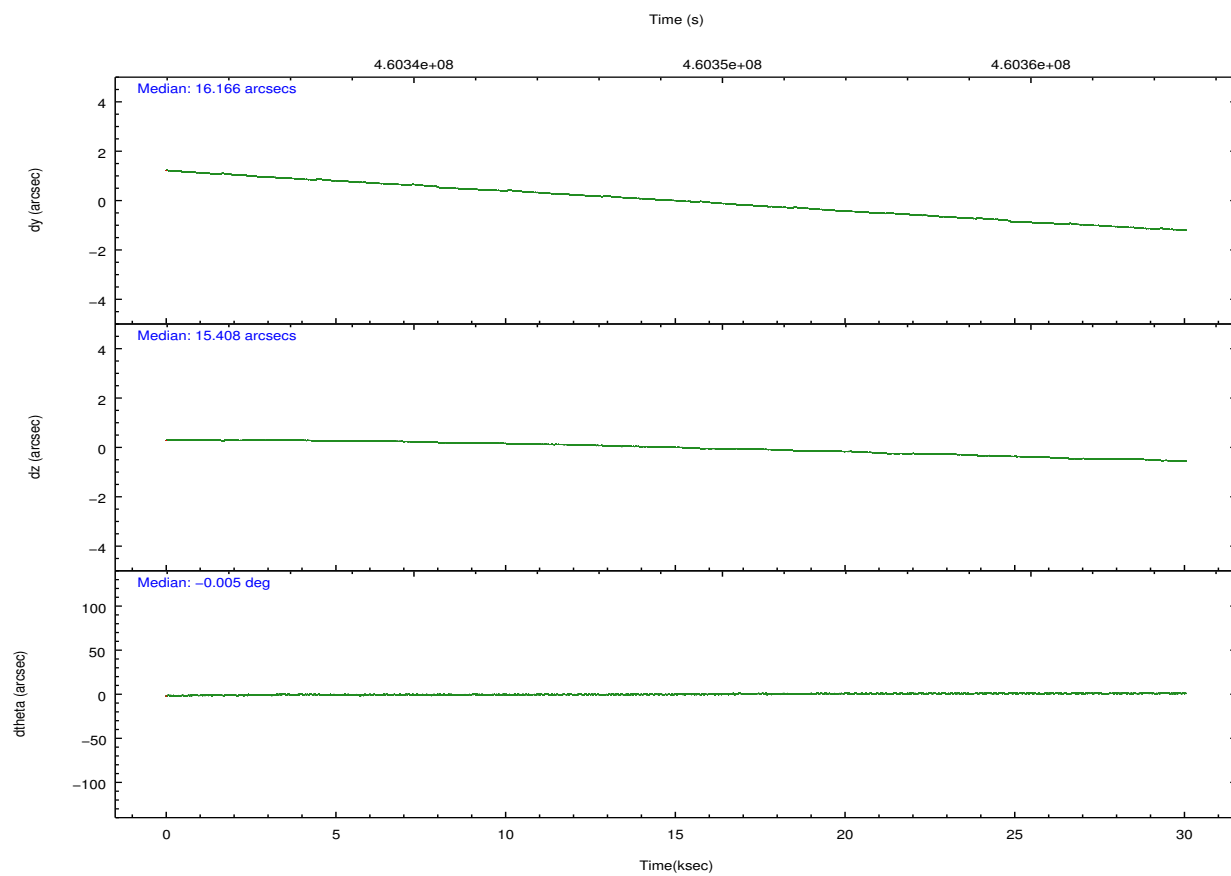
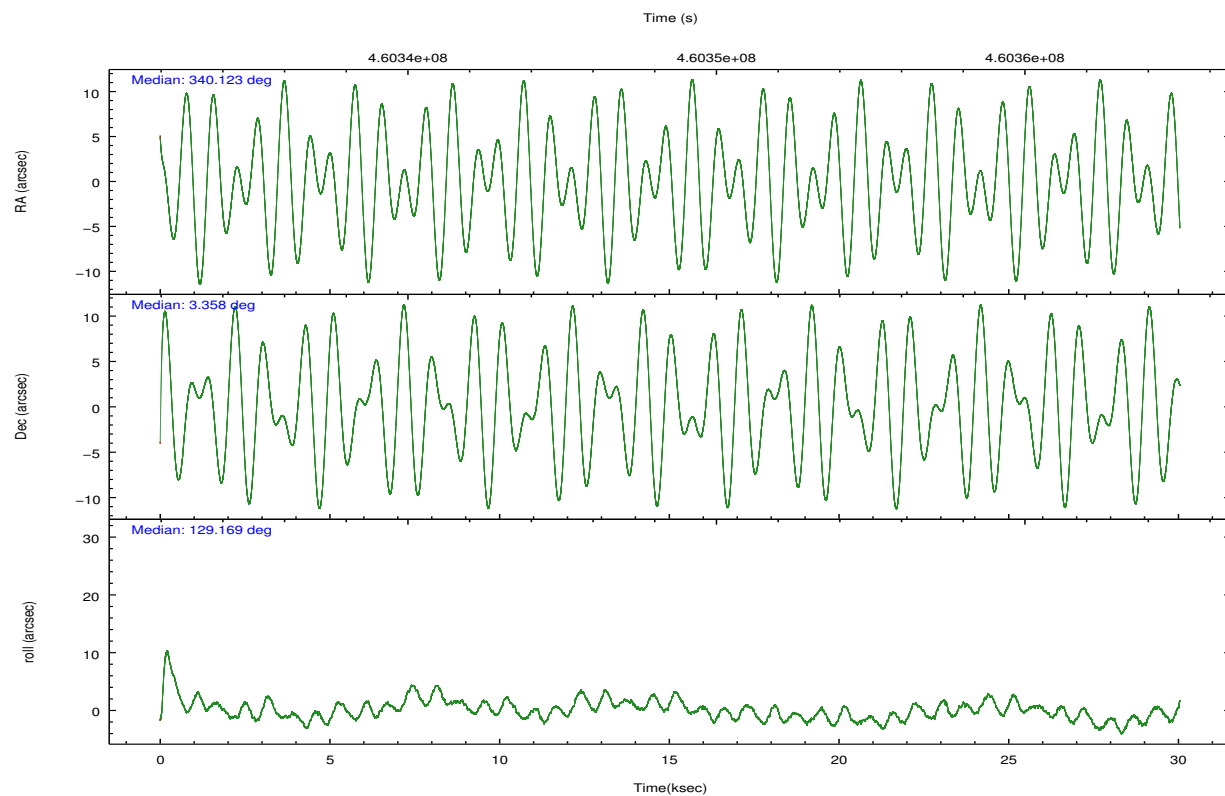
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	3055	3018	3721	5235	7871
	3%	3%	4%	4%	6%
grade 1 events	29	25	51	137	65
	0%	0%	0%	0%	0%
grade 2 events	2059	1884	2256	10164	6622
	2%	2%	2%	9%	5%
grade 3 events	1134	1202	1257	4794	3317
	1%	1%	1%	4%	2%
grade 4 events	1186	1186	1269	4719	3039
	1%	1%	1%	4%	2%
grade 5 events	3328	3976	4162	11463	5932
	4%	4%	4%	10%	5%
grade 6 events	1782	1819	2275	24730	7828
	2%	2%	2%	22%	6%
grade 7 events	70066	69317	72852	47438	78511
	84%	84%	82%	43%	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	340.148976	340.12324921267	CCD I2 on	O4	Y
[deg] Pointing Dec	3.348278	3.357653566381509	CCD I3 on	O3	Y
[deg] Pointing Roll	129.019190	129.1773210305652	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	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O2	Y
[s] Observation start time (MET)	460333638.184000	460331889.61556	CCD S5 on	N	N
Observation start date	2012-08-02T22:26:11	2012-08-02T21:58:09	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	460363516.184000	460363742.00476	On-chip summing requested	N	N
Observation end date	2012-08-03T06:44:09	2012-08-03T06:49:02	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



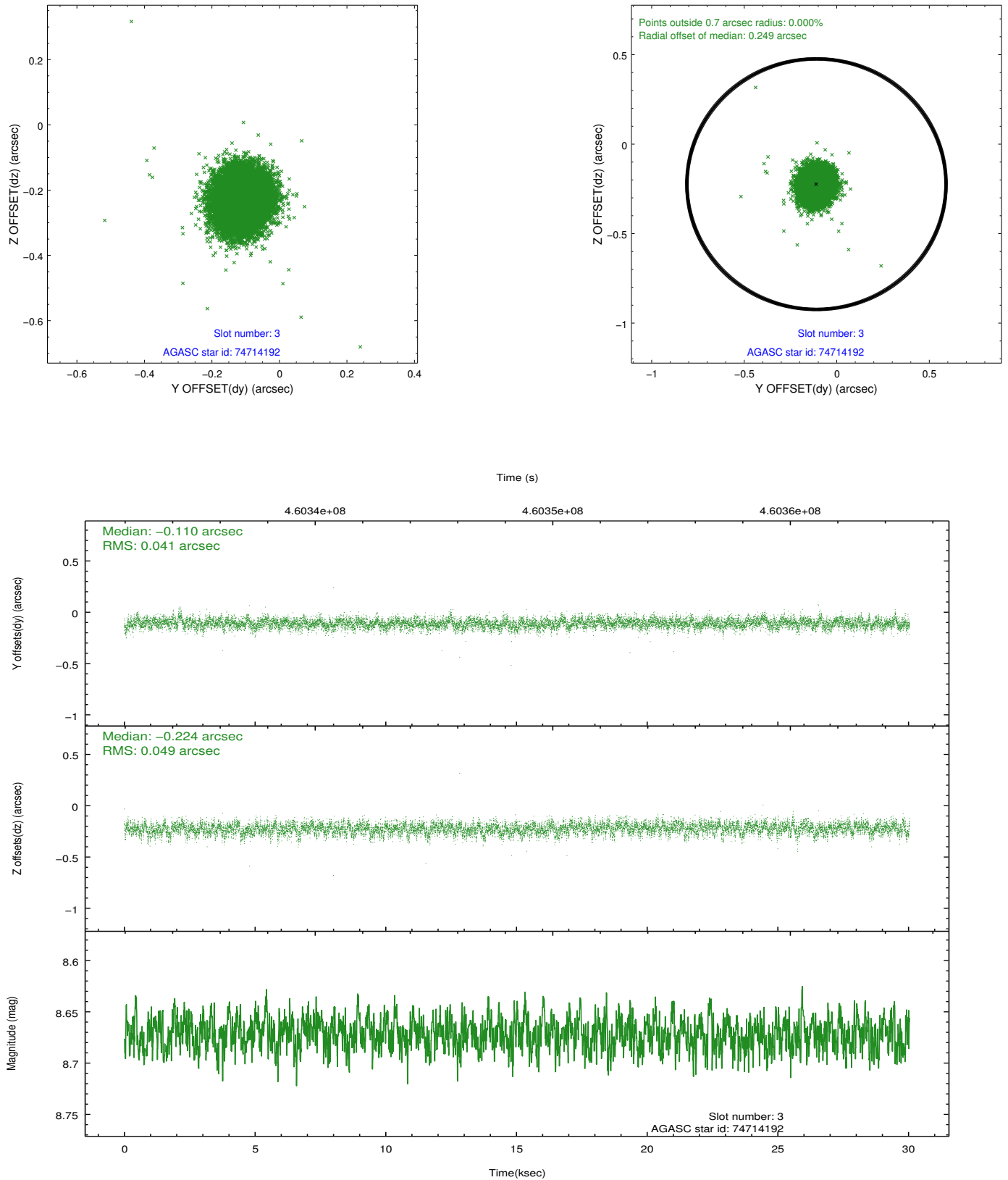


### Slot Statistics

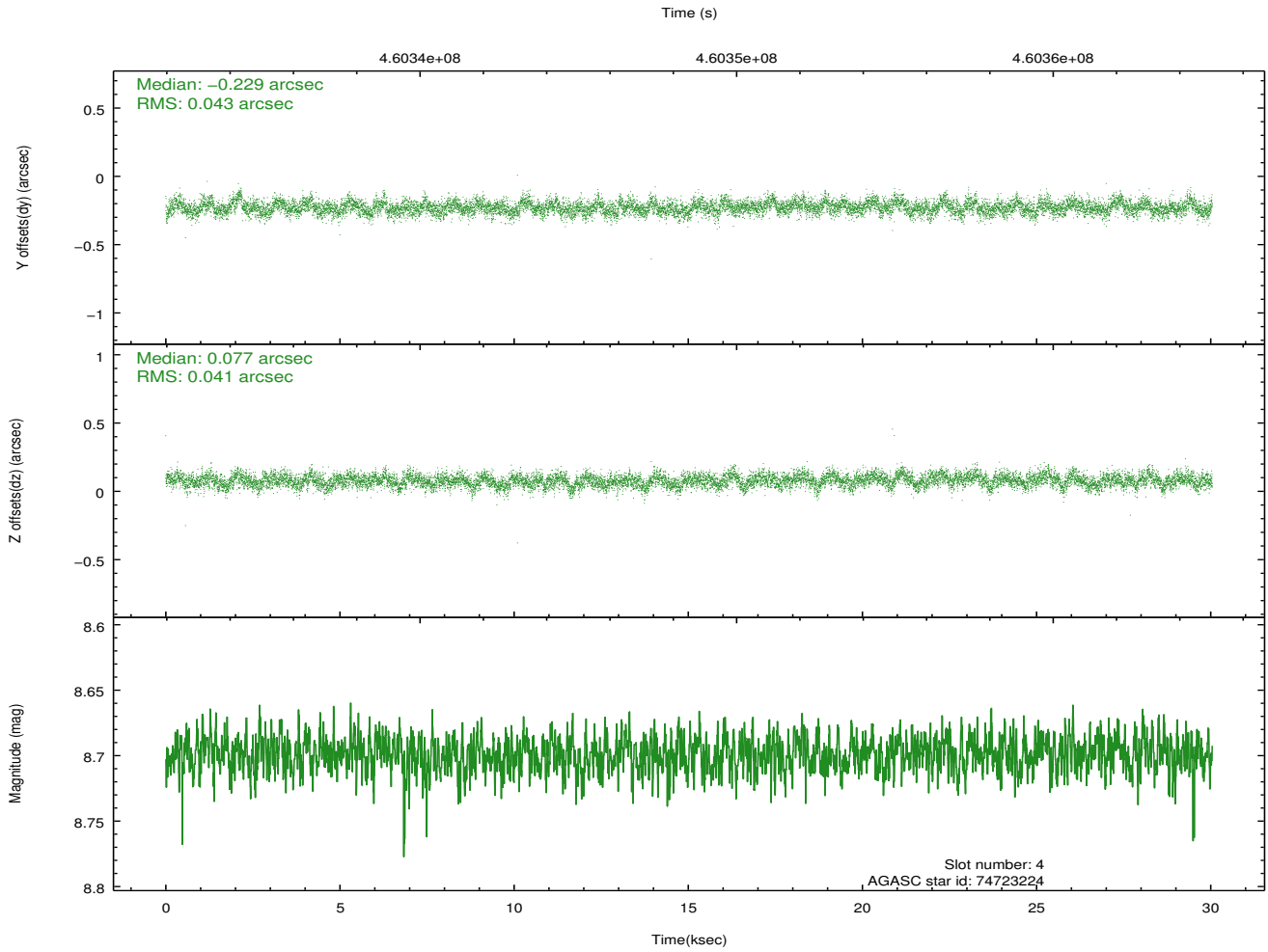
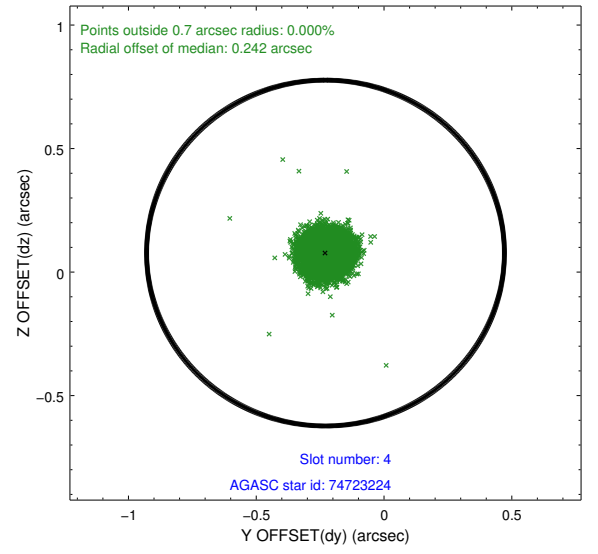
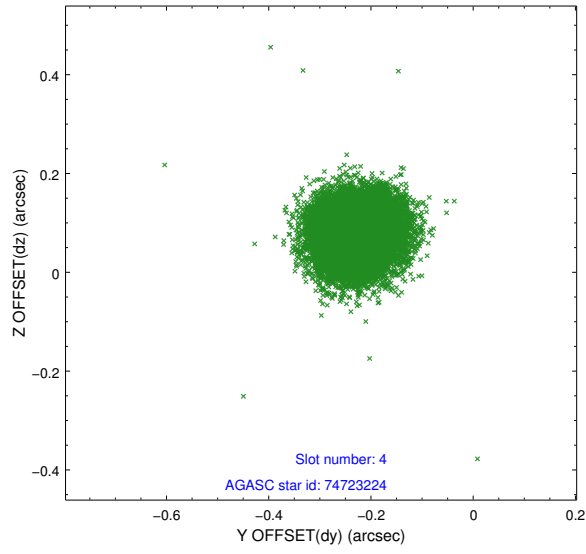
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.03	7328	-0.137	-0.026	0.014	0.021	0.000000	0.000000	-769.28	-1736.79
1	FID	ACIS-S-4	7.12	7329	0.272	0.073	0.016	0.023	0.000000	0.000000	2144.36	171.74
2	FID	ACIS-S-5	7.15	7328	-0.170	-0.037	0.013	0.022	0.000000	0.000000	-1822.08	165.35
3	GUIDE	74714192	8.67	14652	-0.110	-0.224	0.066	0.108	339.623837	3.342441	1172.15	1479.27
4	GUIDE	74723224	8.70	14652	-0.229	0.077	0.063	0.102	339.594650	3.574222	1886.25	1035.54
5	GUIDE	74842128	8.54	14586	0.368	-0.001	0.066	0.105	340.118134	3.132788	-532.25	574.97
6	GUIDE	74854992	8.27	14655	0.125	0.218	0.073	0.118	340.342808	3.603730	276.50	-1119.31
7	GUIDE	74855640	8.85	14644	-0.157	-0.069	0.091	0.144	340.341123	3.746937	680.81	-1439.84

## 2.4 Star Slots

### 2.4.1 Slot 3

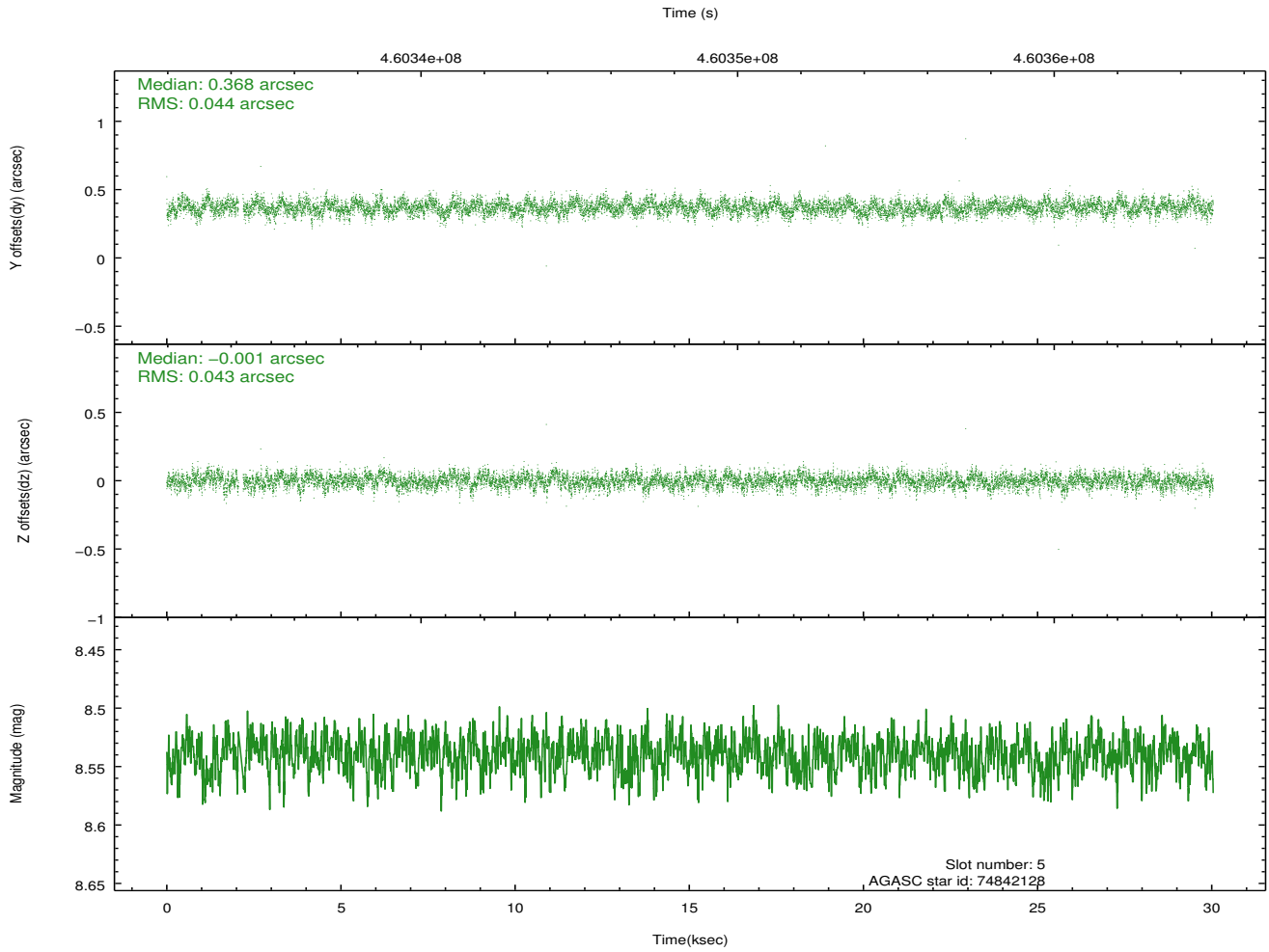
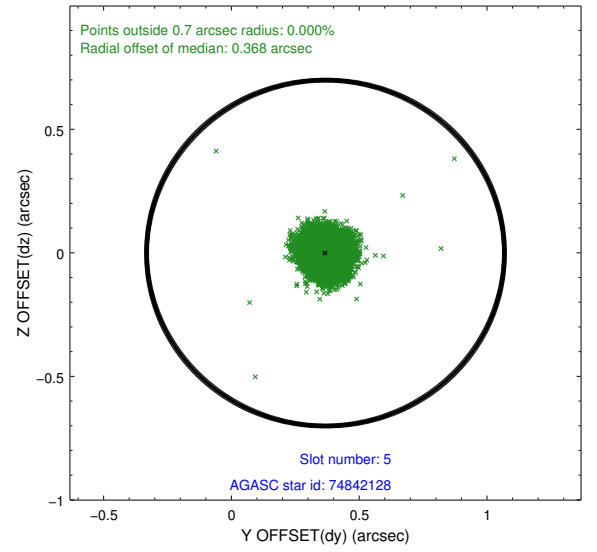
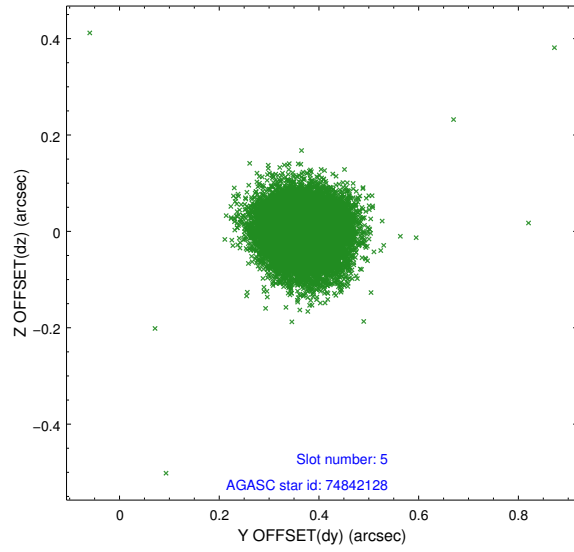


## 2.4.2 Slot 4

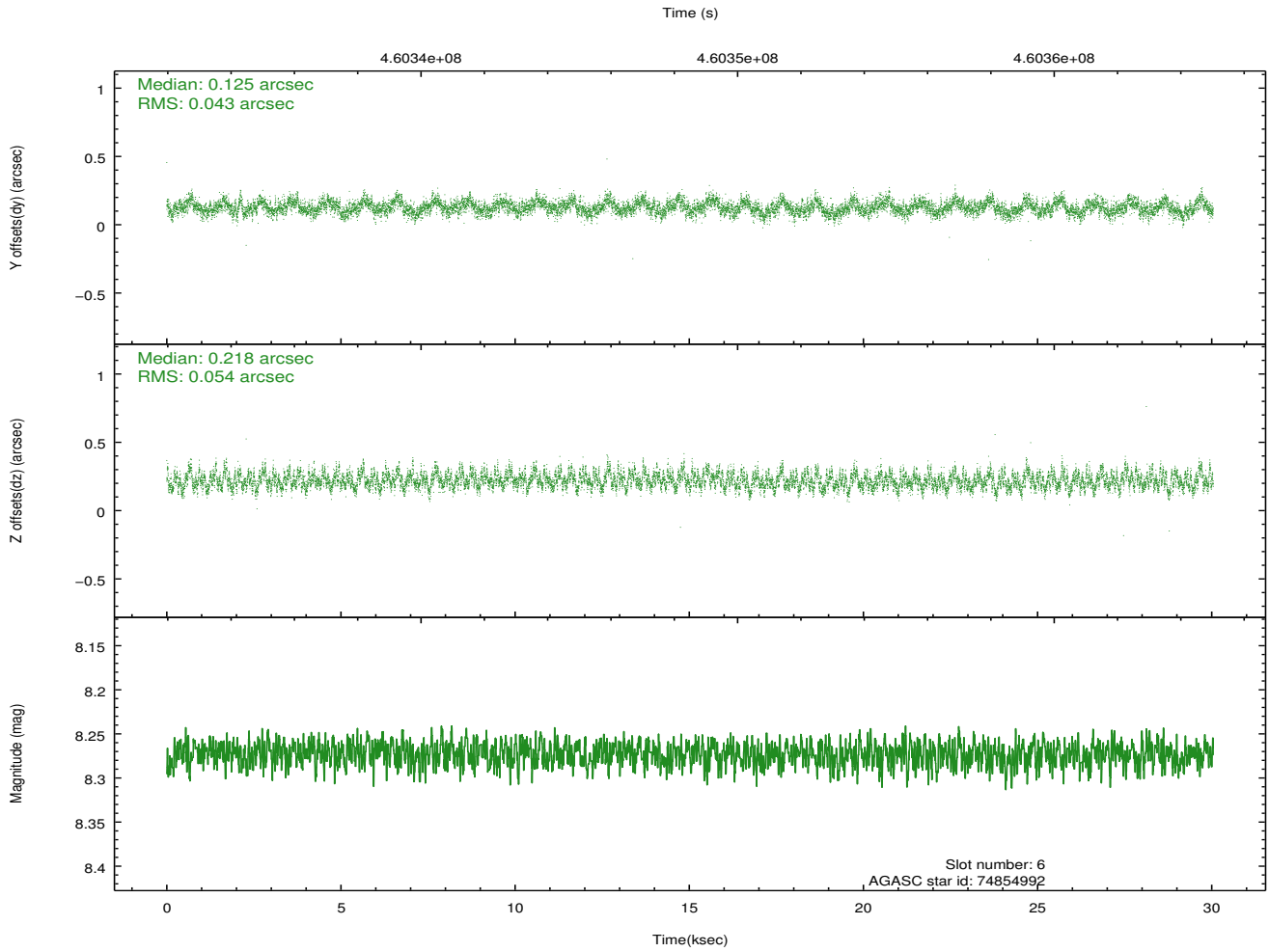
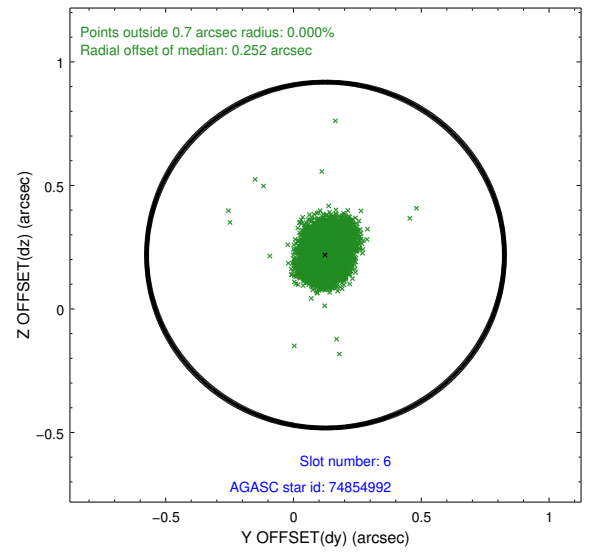
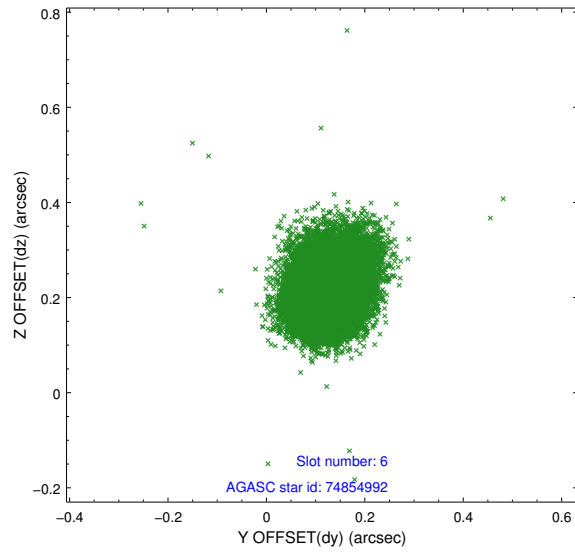




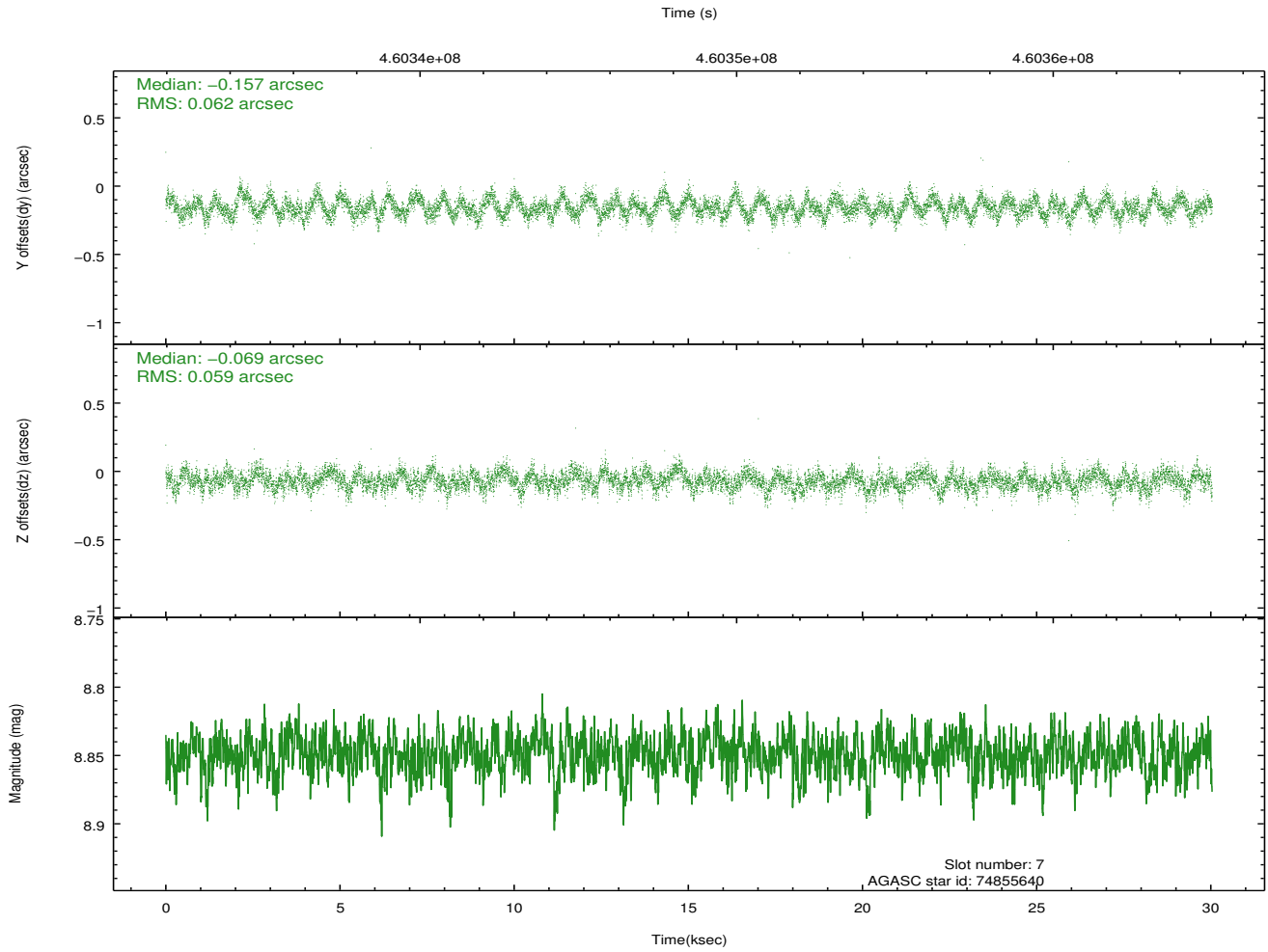
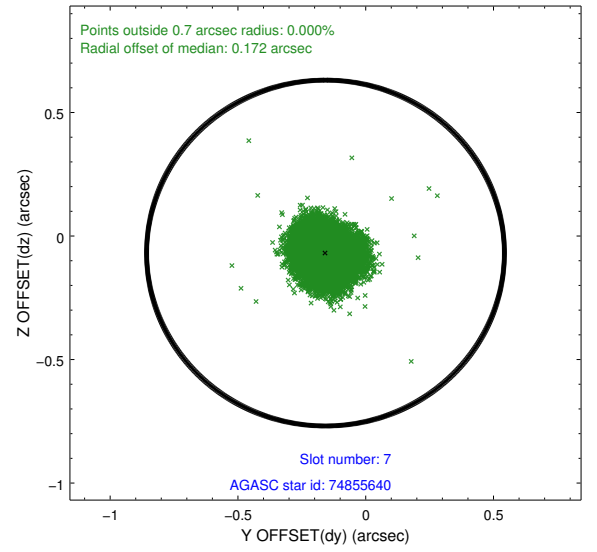
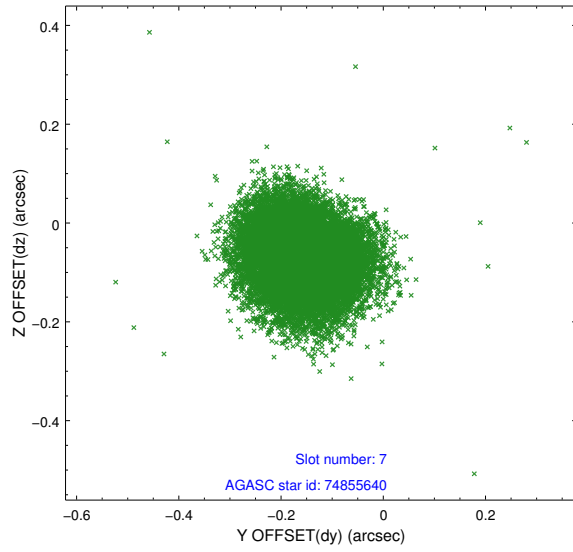
### 2.4.3 Slot 5



## 2.4.4 Slot 6

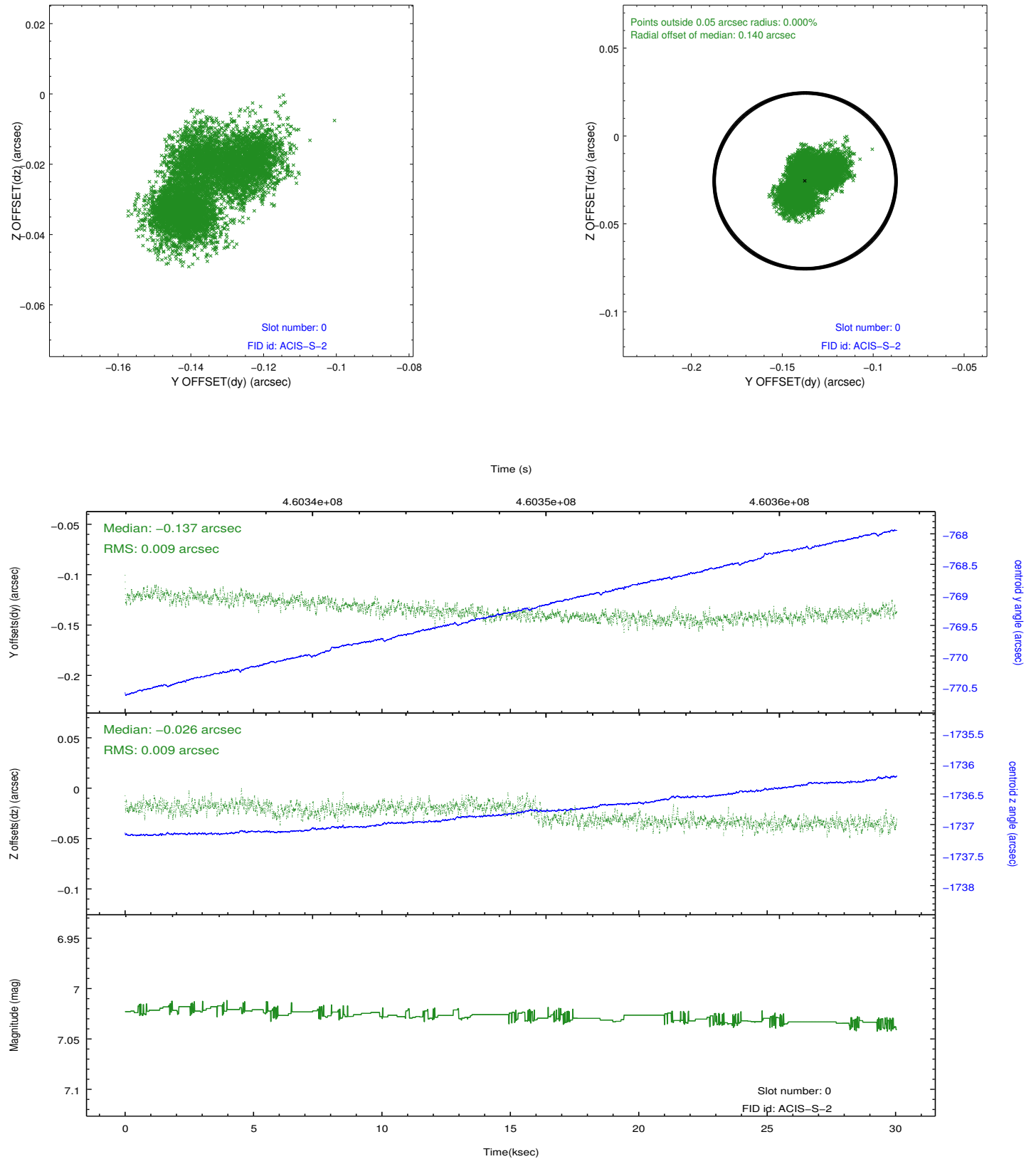


## 2.4.5 Slot 7

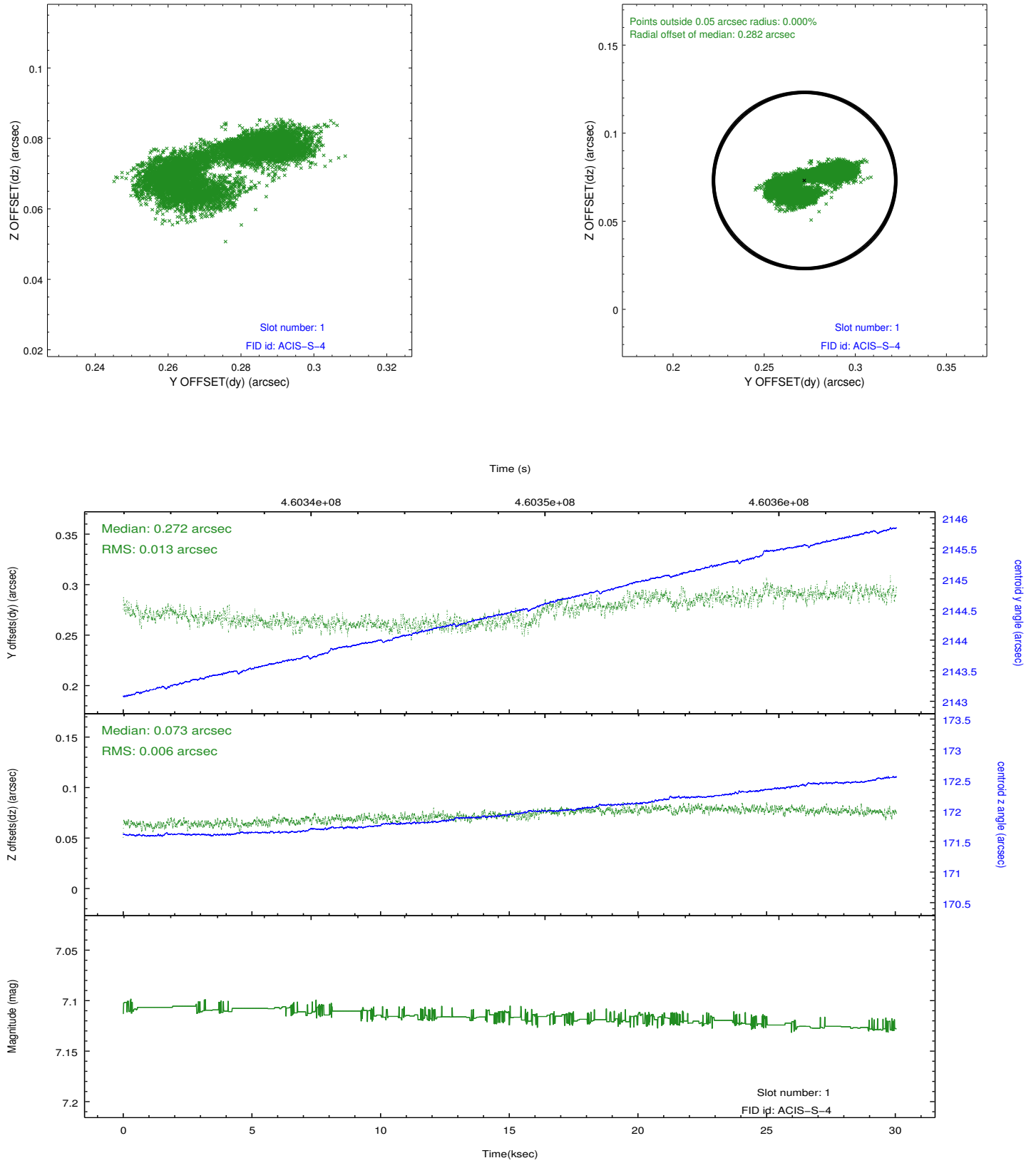


## 2.5 FID Slots

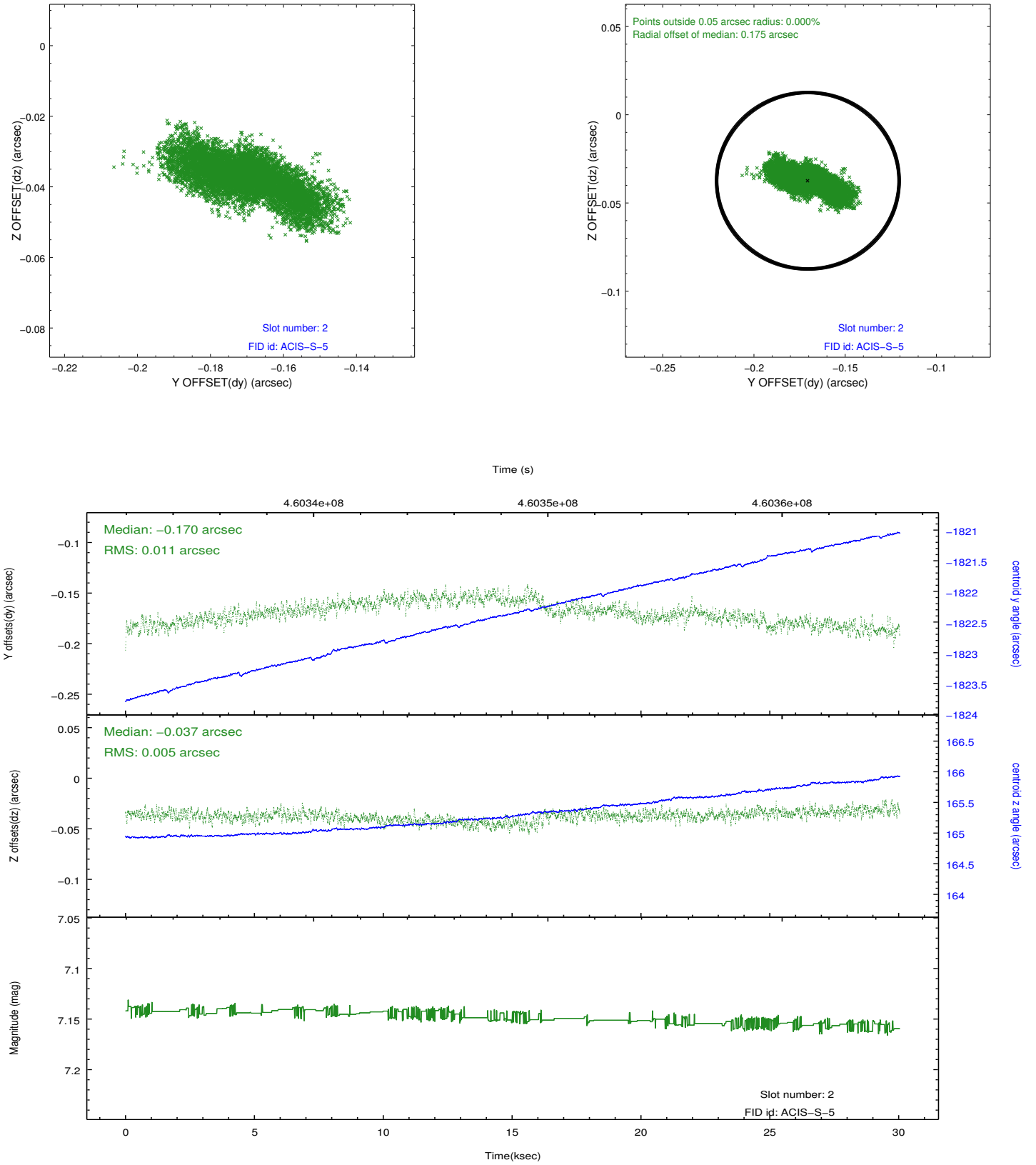
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.08.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.942099790096

### A.2 Comments