

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11333 - L2 Version 2  
Chandra X-Ray Center

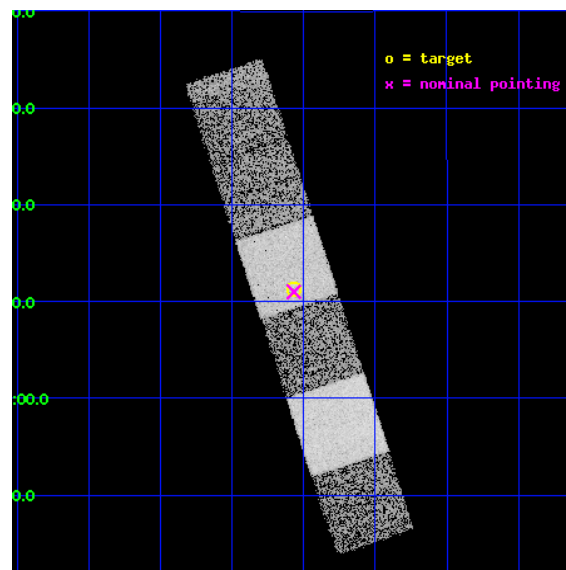
L2 Processing Date : Jul 1 2012

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# 1 Front

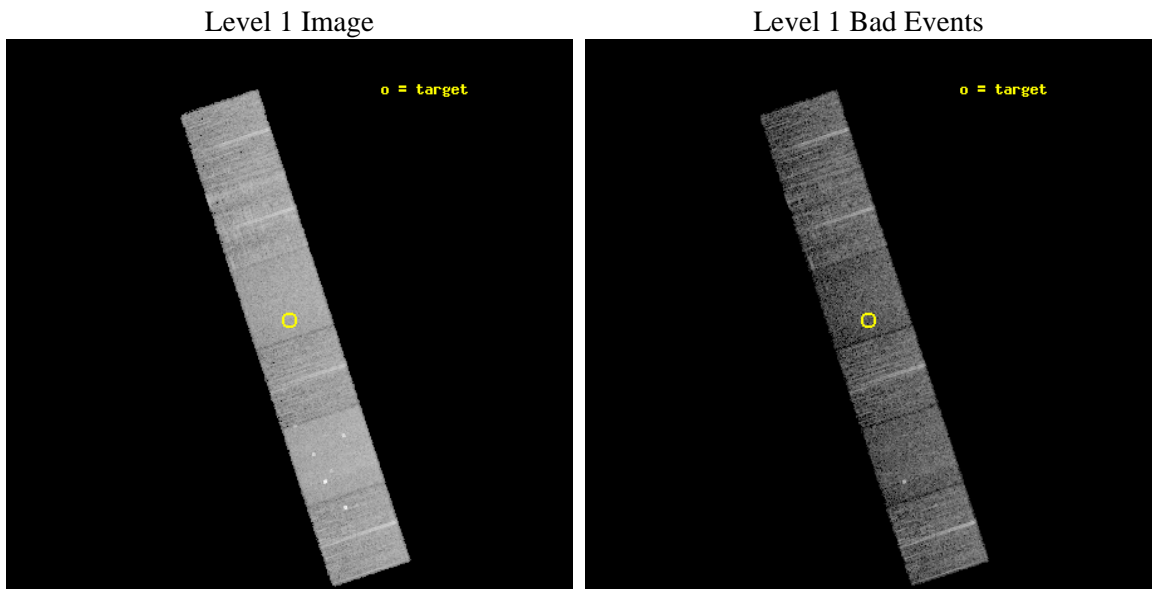
seq_num	600852	Sequence number
obs_id	11333	Observation id
title	Accretion onto nuclear black holes in early type galaxies: comparing field vs. clusters	Proposal title
observer	Elena Gallo	Principal investigator
object	PGC135829	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	202.891	Observer's specified target RA [deg]
dec_targ	2.1881	Observer's specified target Dec [deg]
ra_nom	202.89207405331	Nominal RA [deg]
dec_nom	2.1833598703469	Nominal Dec [deg]
roll_nom	251.83687077446	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6742.3999749422	Sum of GTIs [s]
livetime	6657.0236466736	Livetime [s]
ontime4	6742.3999749422	Sum of GTIs [s]
ontime5	6742.3999749422	Sum of GTIs [s]
ontime6	6742.3999749422	Sum of GTIs [s]
ontime7	6742.3999749422	Sum of GTIs [s]
ontime8	6742.3999749422	Sum of GTIs [s]
ontime9	6742.3999749422	Sum of GTIs [s]
l2events	81386	Number of level 2 events



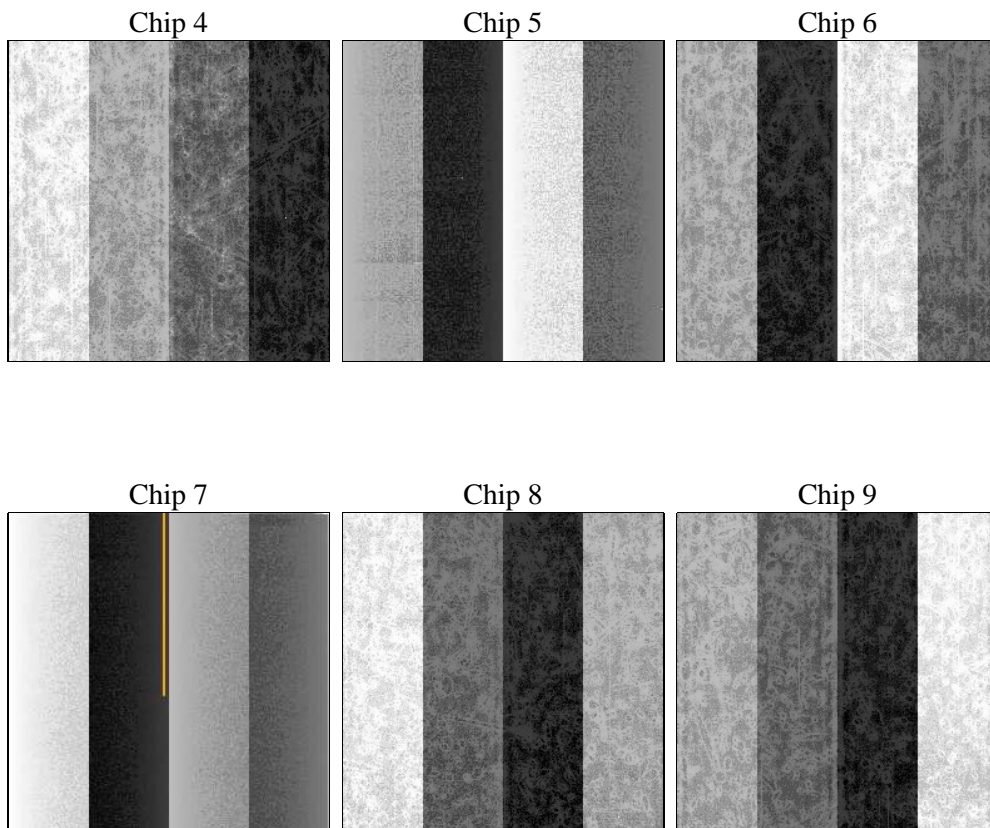
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6700.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	6742.3999749422	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime4	6742.3999749422	Sum of GTIs [s]
date	2012-07-01T02:13:56	Date and time of file creation	ontime5	6742.3999749422	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	6742.3999749422	Sum of GTIs [s]
			ontime7	6742.3999749422	Sum of GTIs [s]
			ontime8	6742.3999749422	Sum of GTIs [s]
			ontime9	6742.3999749422	Sum of GTIs [s]
			l1events	363665	Number of level 1 events

### 2.1.4 Events

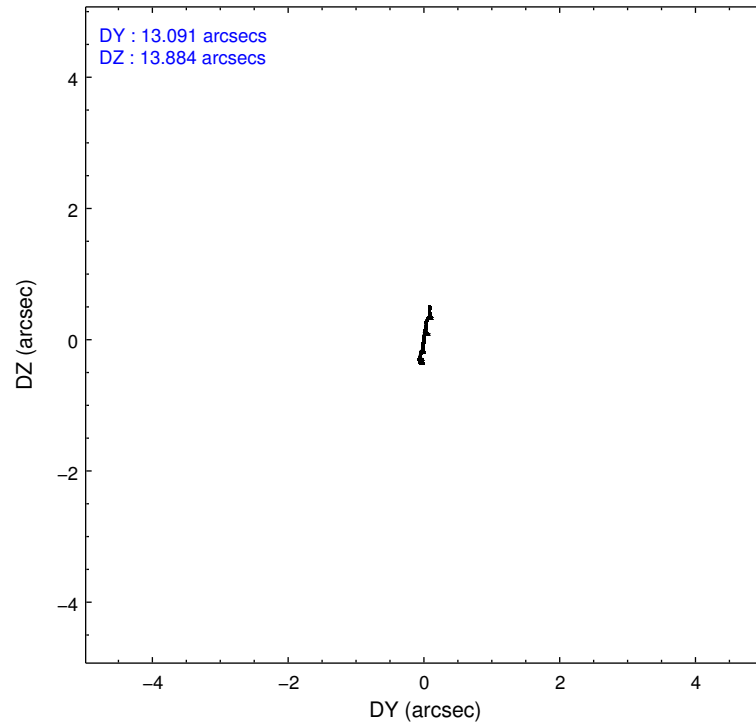
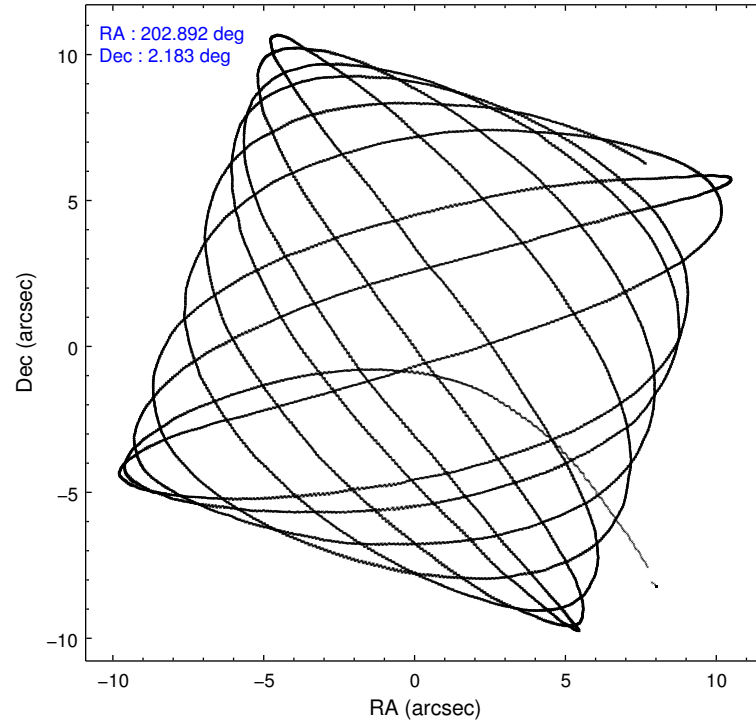
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	59259	77779	51007	61366	64415	49839	grade 0 events	3411	4798	1959	2531	4672	2291
rejected events	52192	39054	45477	34103	48296	43798		5%	6%	3%	4%	7%	4%
rejected %	88%	50%	89%	55%	74%	87%	grade 1 events	71	606	21	62	55	28
								0%	0%	0%	0%	0%	0%
							grade 2 events	1395	11505	1229	5599	3887	1314
								2%	14%	2%	9%	6%	2%
							grade 3 events	646	1341	558	2316	1700	638
								1%	1%	1%	3%	2%	1%
							grade 4 events	589	1265	592	2320	1600	610
								0%	1%	1%	3%	2%	1%
							grade 5 events	2279	5537	2156	6519	3165	2531
								3%	7%	4%	10%	4%	5%
							grade 6 events	1034	19841	1192	14507	4267	1191
								1%	25%	2%	23%	6%	2%
							grade 7 events	49834	32886	43300	27512	45069	41236
								84%	42%	84%	44%	69%	82%

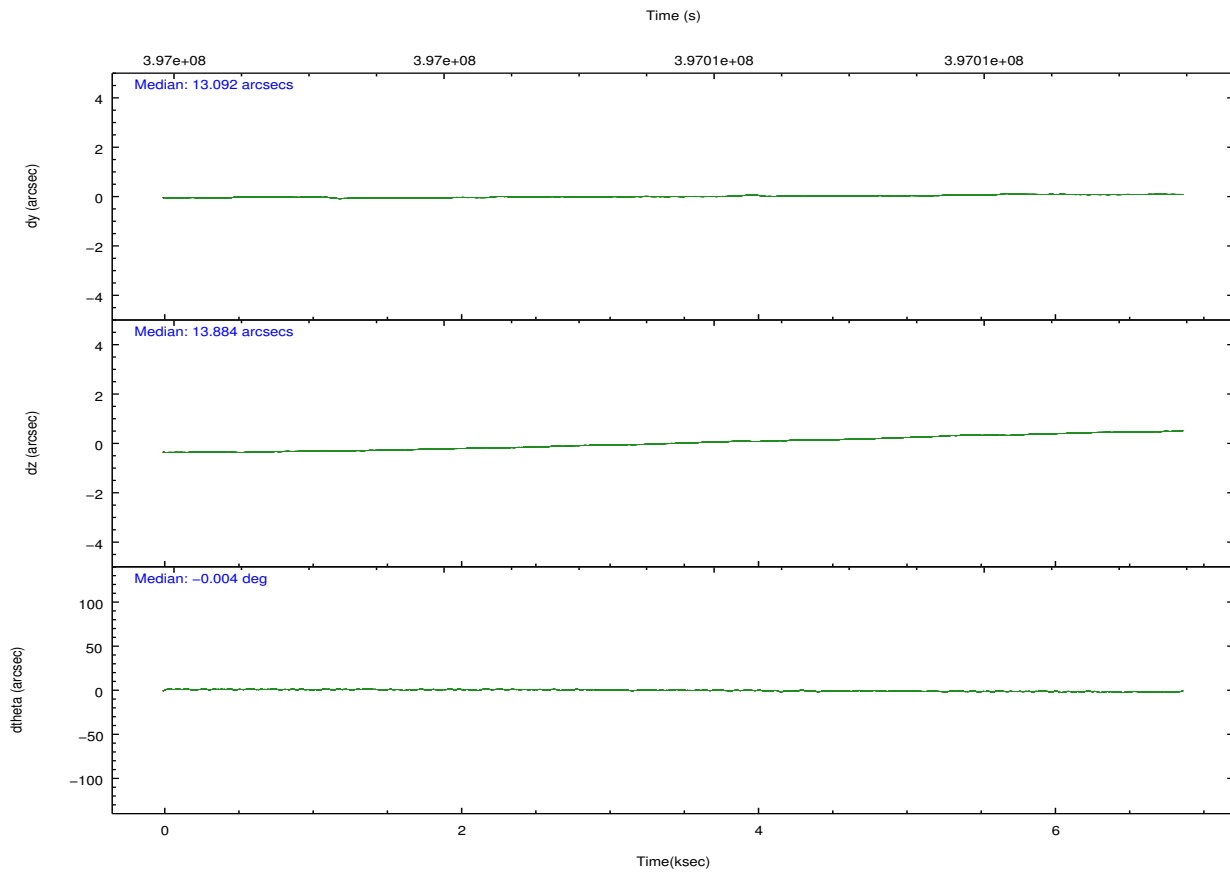
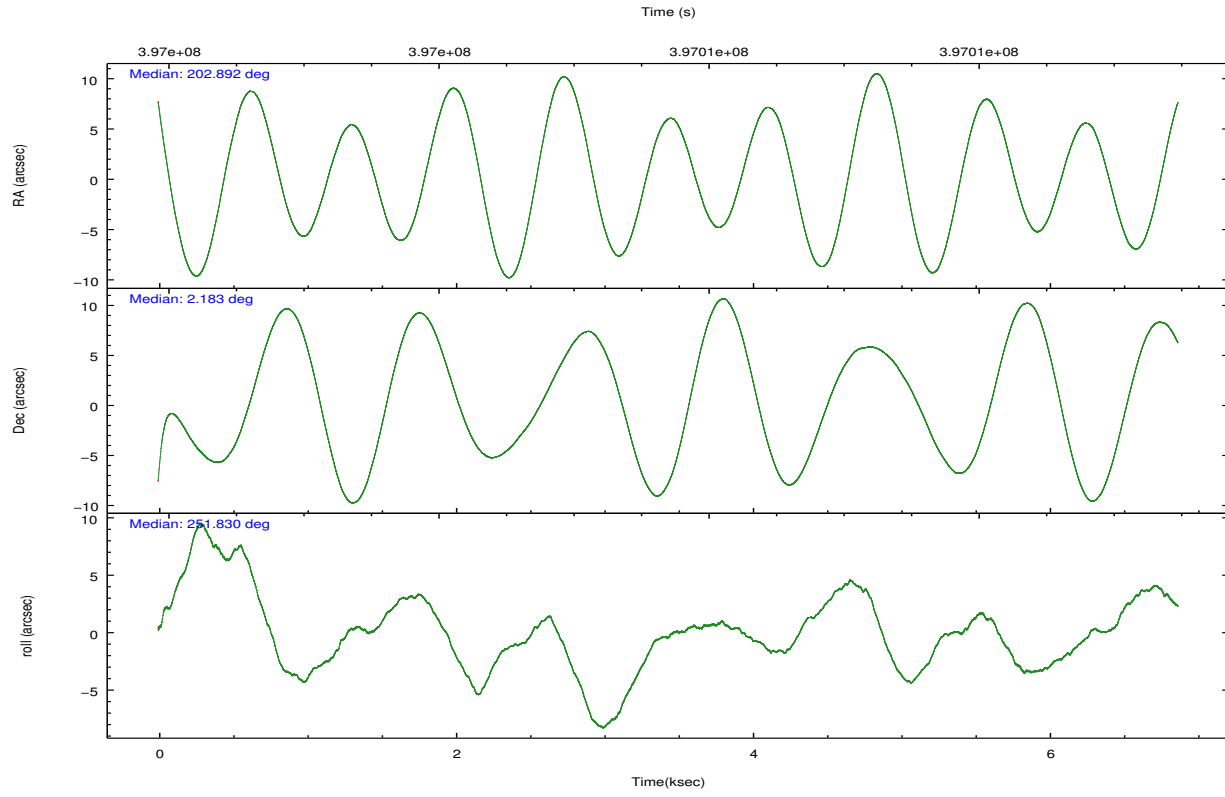


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	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	202.886156	202.8920740533076	CCD I2 on	N	N
[deg] Pointing Dec	2.210073	2.183359870346928	CCD I3 on	N	N
[deg] Pointing Roll	251.680479	251.8368707744566	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.145094680475	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01257209746719923	CCD S4 on	Y	Y
[s] Observation start time (MET)	397002431.184000	397001375.78012	CCD S5 on	O2	Y
Observation start date	2010-07-31T22:26:05	2010-07-31T22:09:35	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	397009131.184000	397009957.08056	On-chip summing requested	N	N
Observation end date	2010-08-01T00:17:45	2010-08-01T00:32:37	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



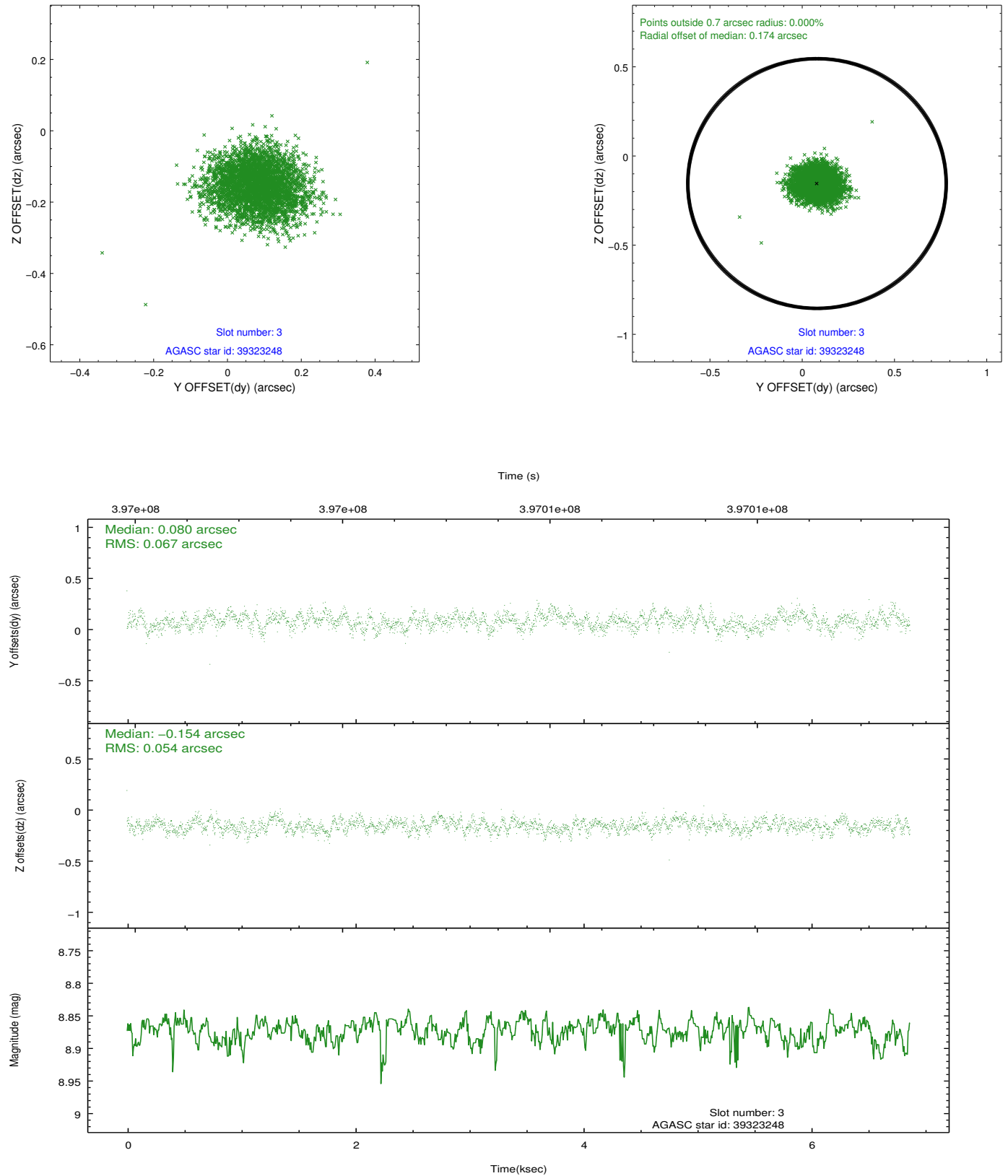


### Slot Statistics

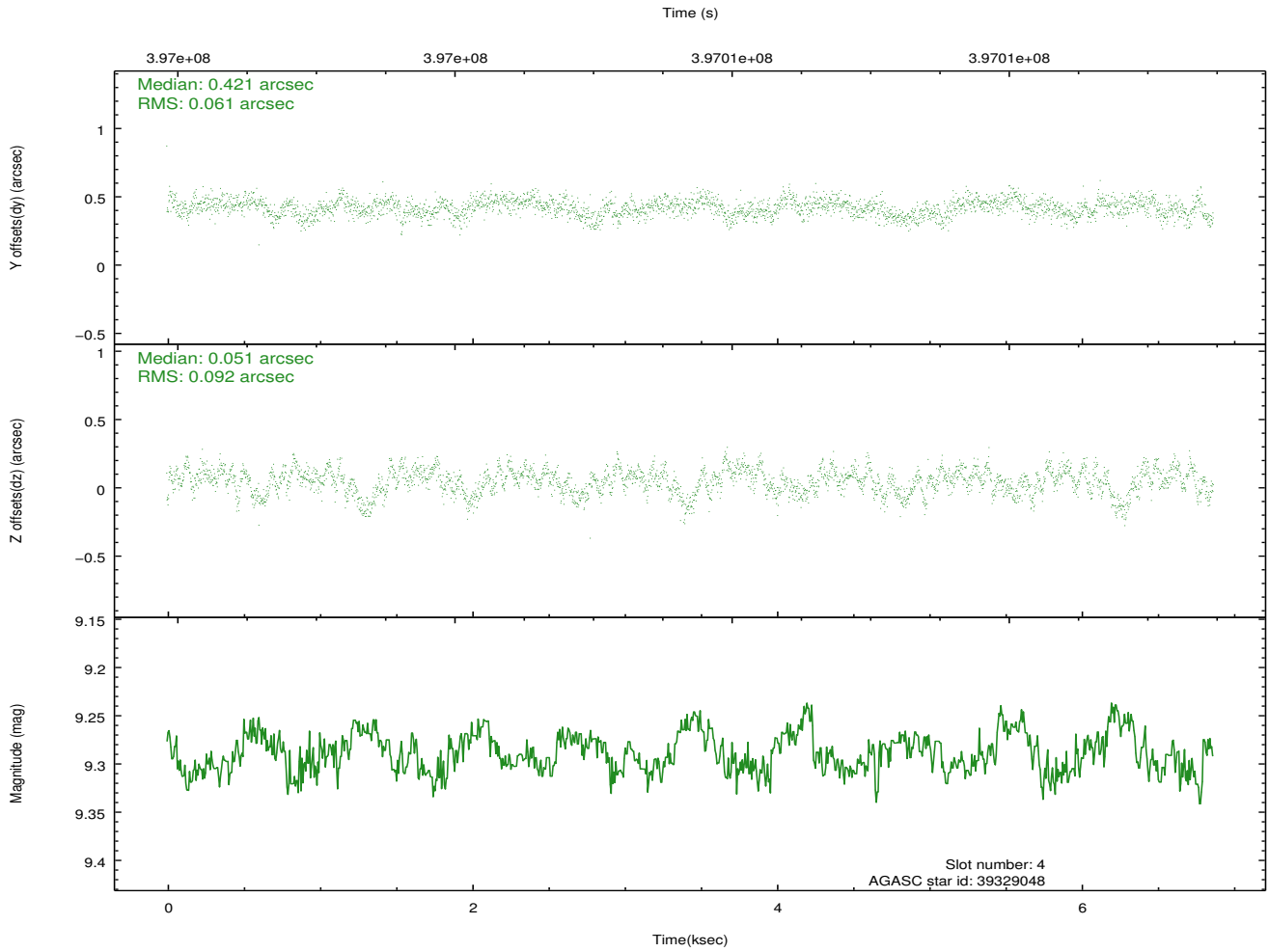
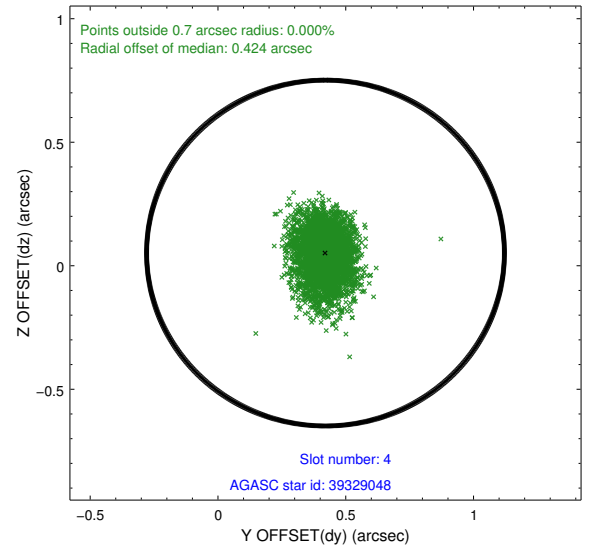
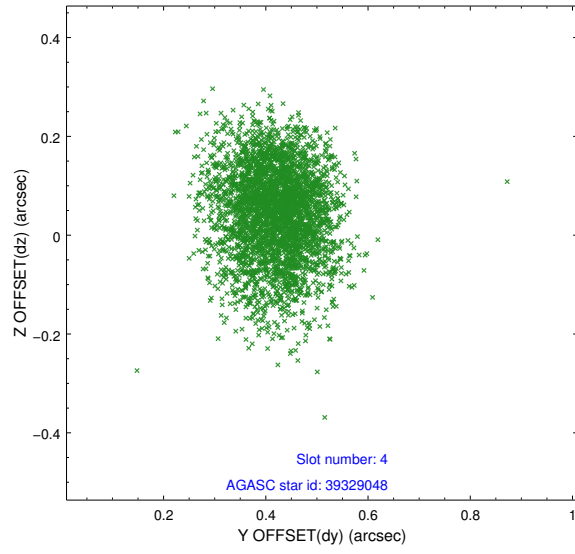
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.99	1676	-0.037	-0.066	0.011	0.018	0.000000	0.000000	-766.05	-1735.22
1	FID	ACIS-S-4	7.07	1676	0.180	0.035	0.008	0.015	0.000000	0.000000	2147.05	172.50
2	FID	ACIS-S-5	7.11	1676	-0.174	0.040	0.009	0.017	0.000000	0.000000	-1817.95	167.12
3	GUIDE	39323248	8.87	3349	0.080	-0.154	0.092	0.146	202.388344	1.708014	2279.54	-1132.21
4	GUIDE	39329048	9.29	3349	0.421	0.051	0.116	0.192	202.277315	2.158394	866.40	-2020.72
5	GUIDE	39722528	9.43	3349	-0.369	0.015	0.180	0.270	202.482984	2.757438	-1414.50	-1996.38
6	GUIDE	40239992	8.27	3351	-0.075	0.156	0.124	0.177	203.173767	2.065310	169.19	1146.06
7	GUIDE	40240312	9.07	3308	-0.068	-0.053	0.093	0.154	202.986645	1.720279	1561.10	898.10

## 2.4 Star Slots

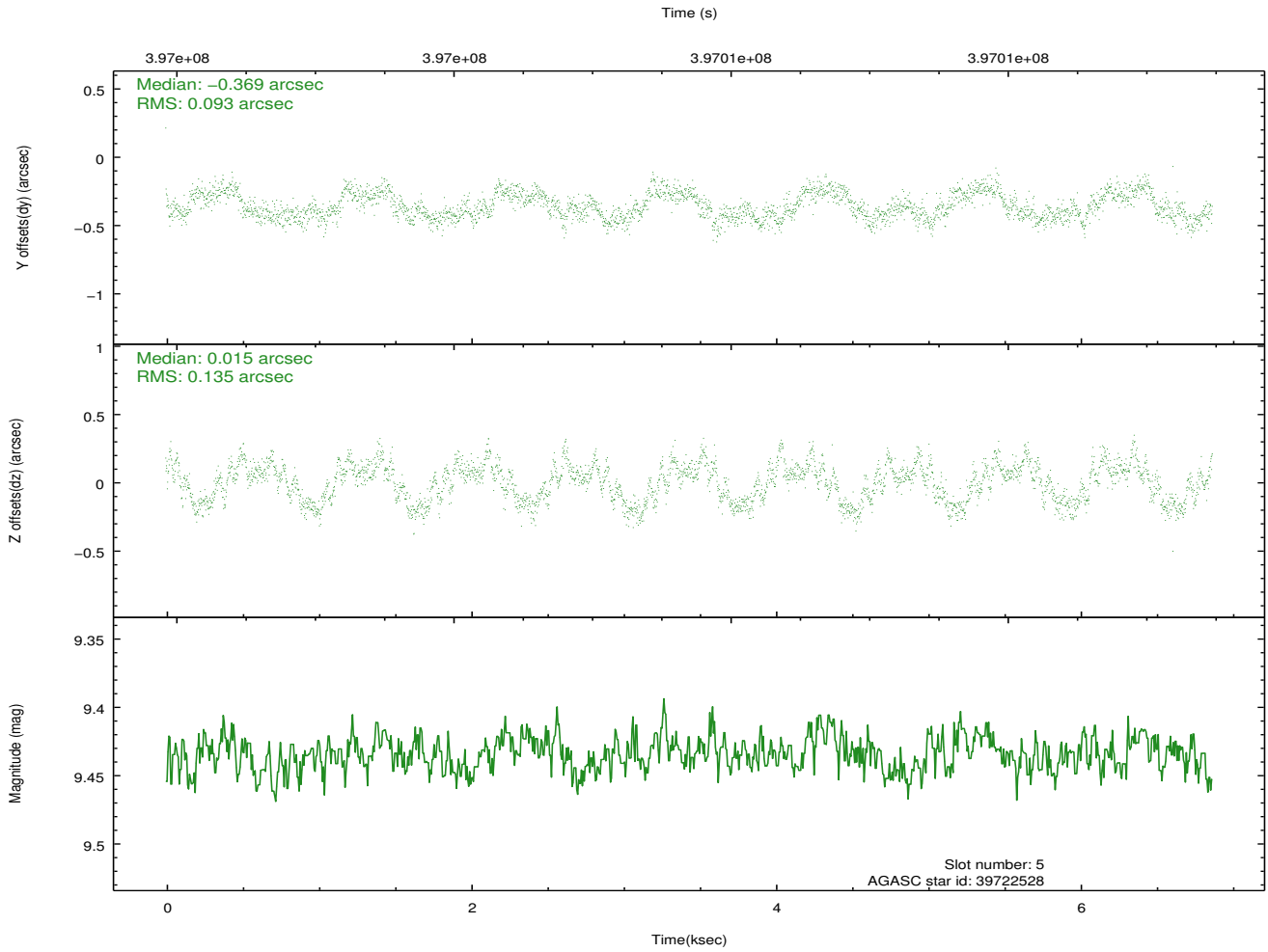
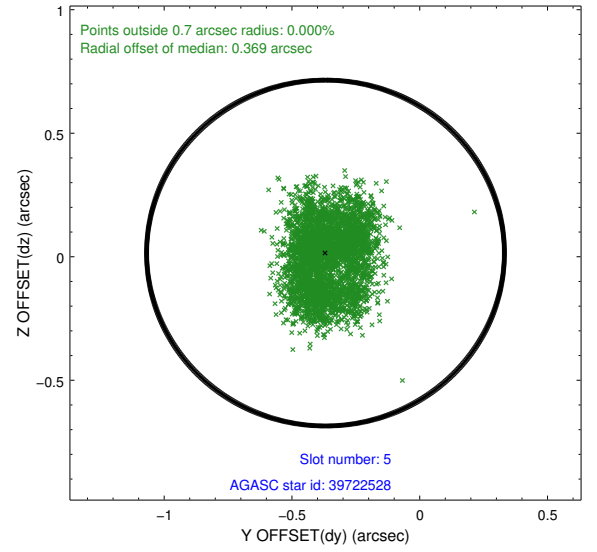
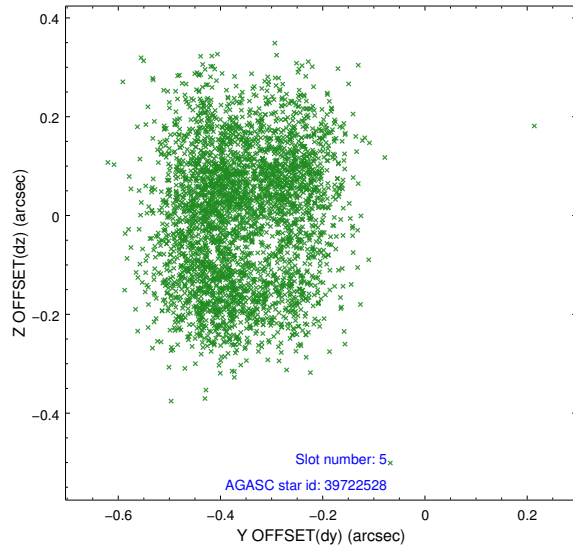
### 2.4.1 Slot 3



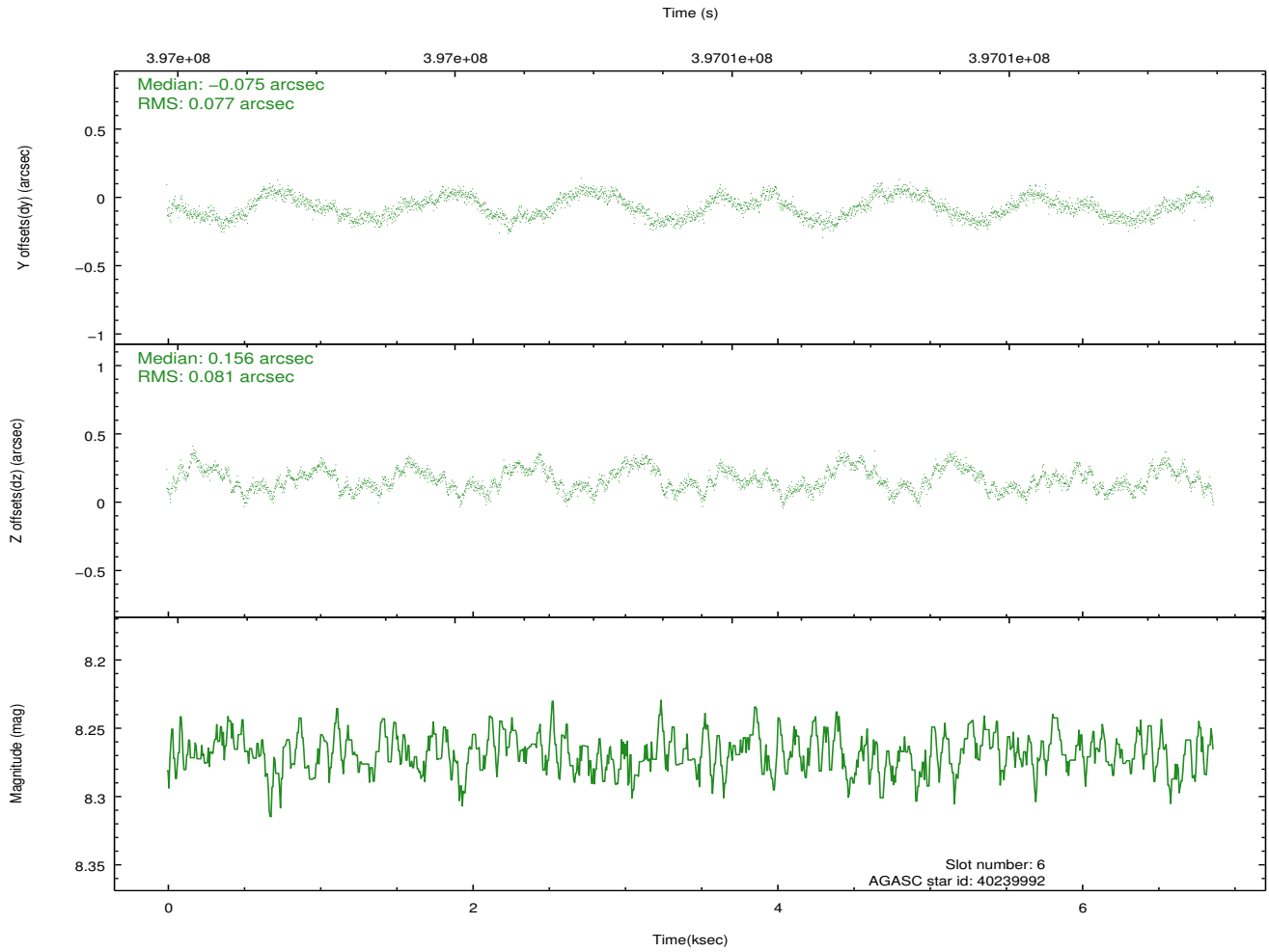
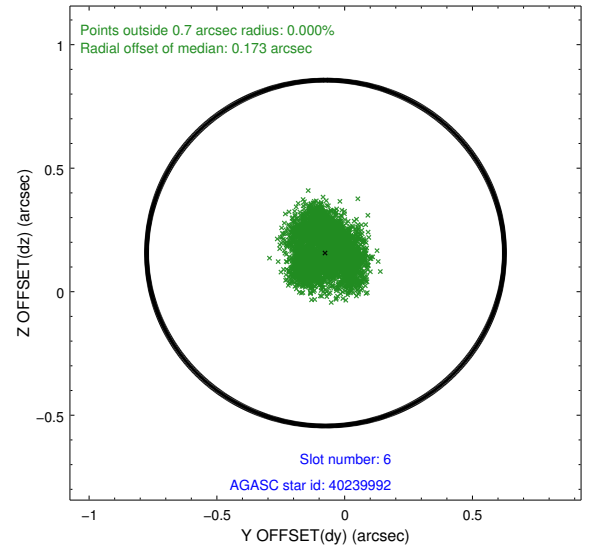
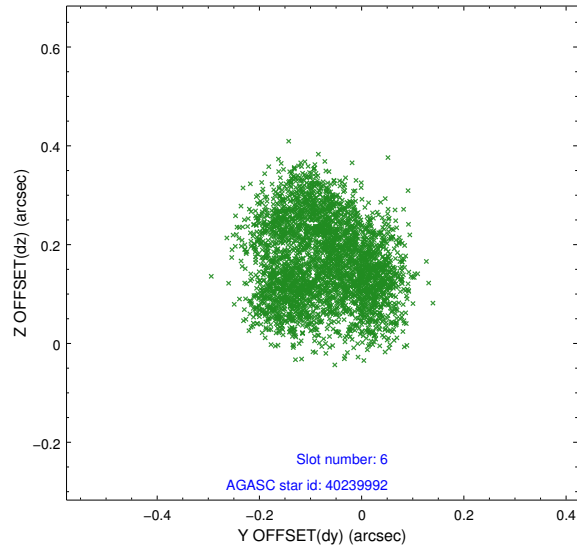
## 2.4.2 Slot 4



### 2.4.3 Slot 5

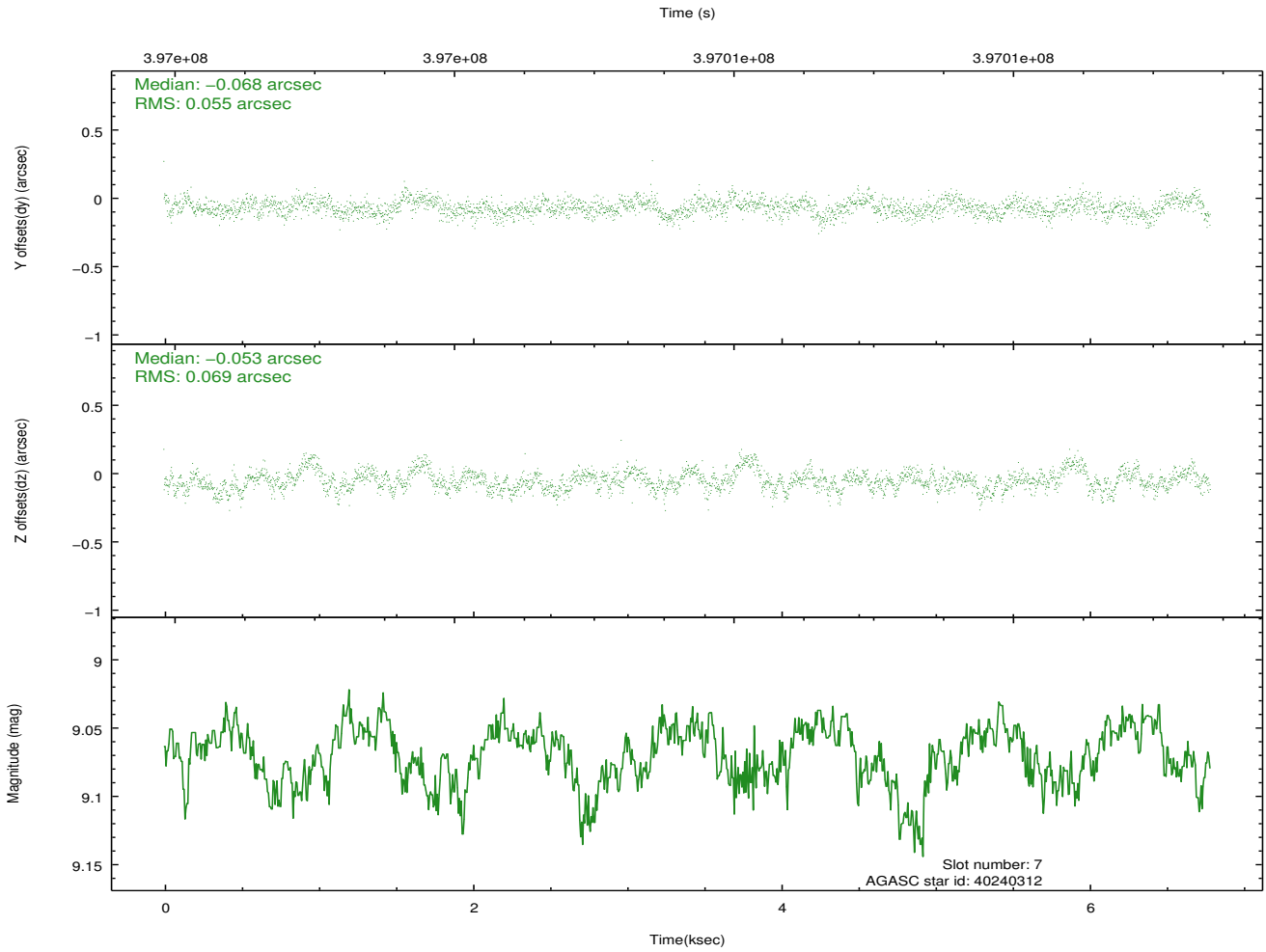
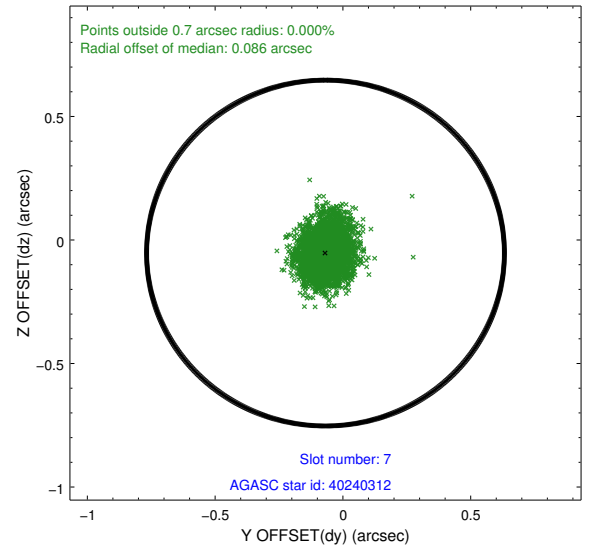
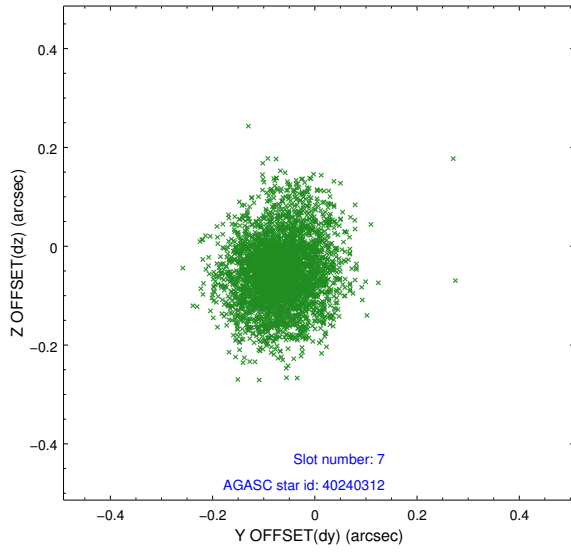


## 2.4.4 Slot 6



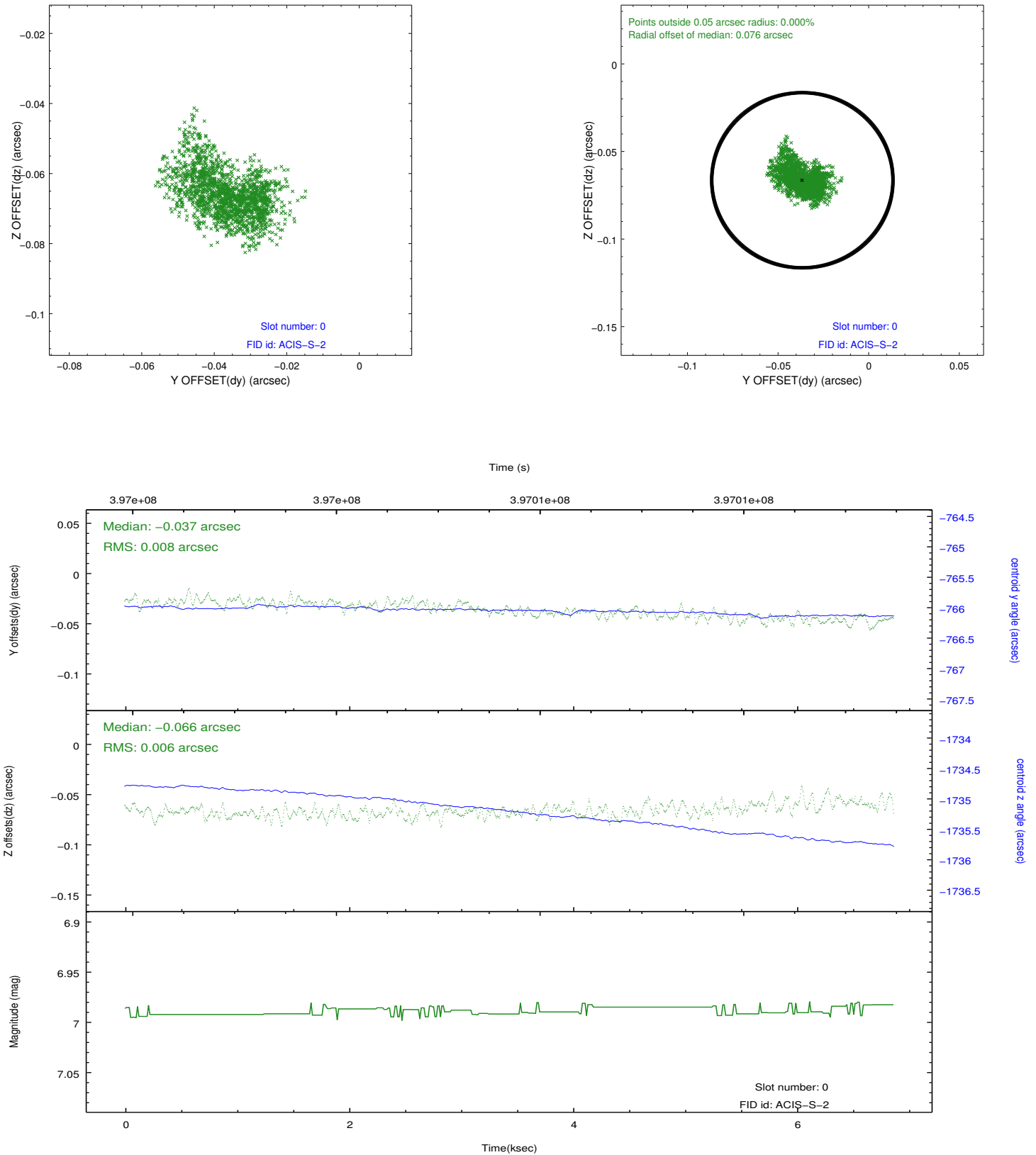


## 2.4.5 Slot 7

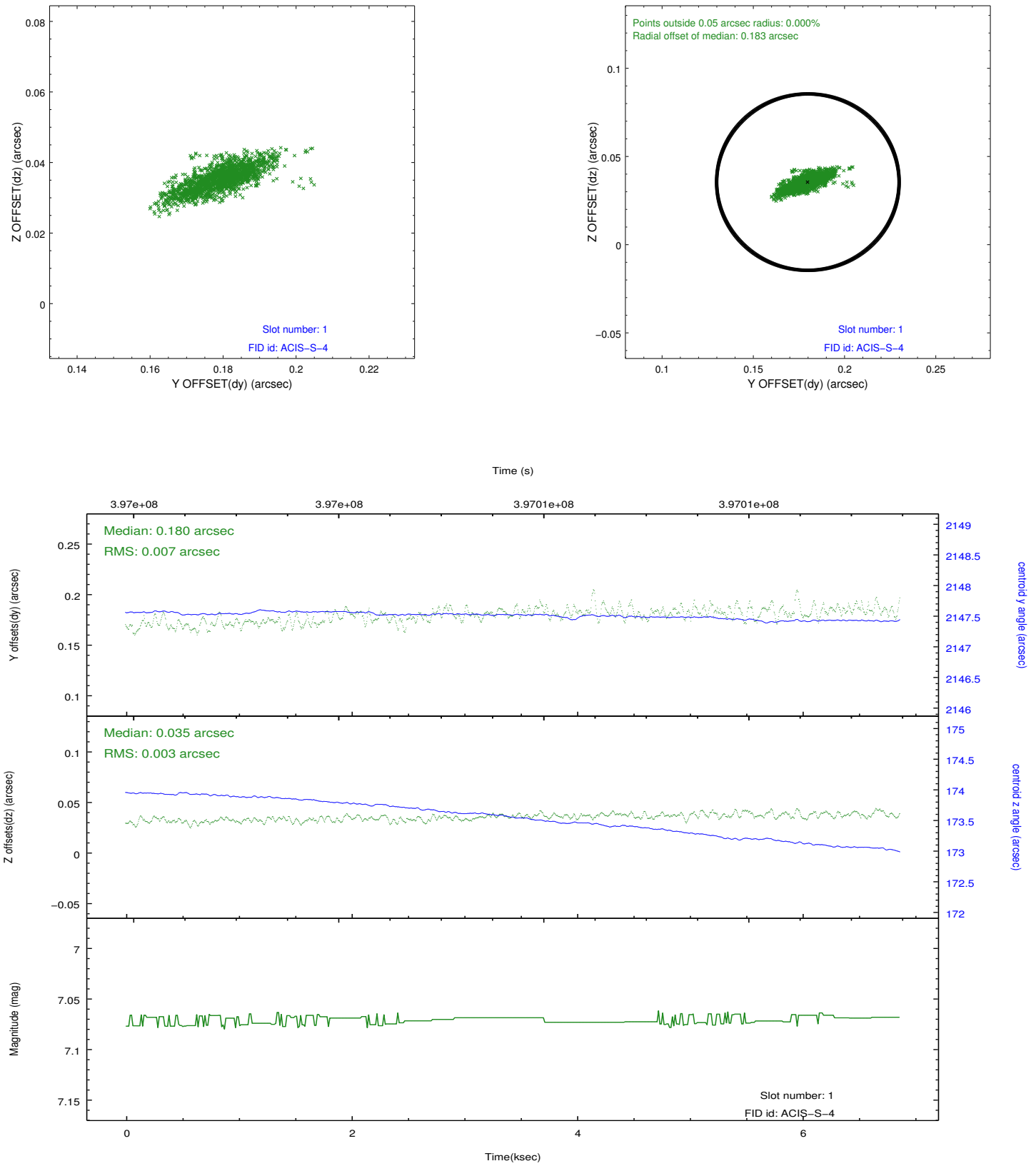


## 2.5 FID Slots

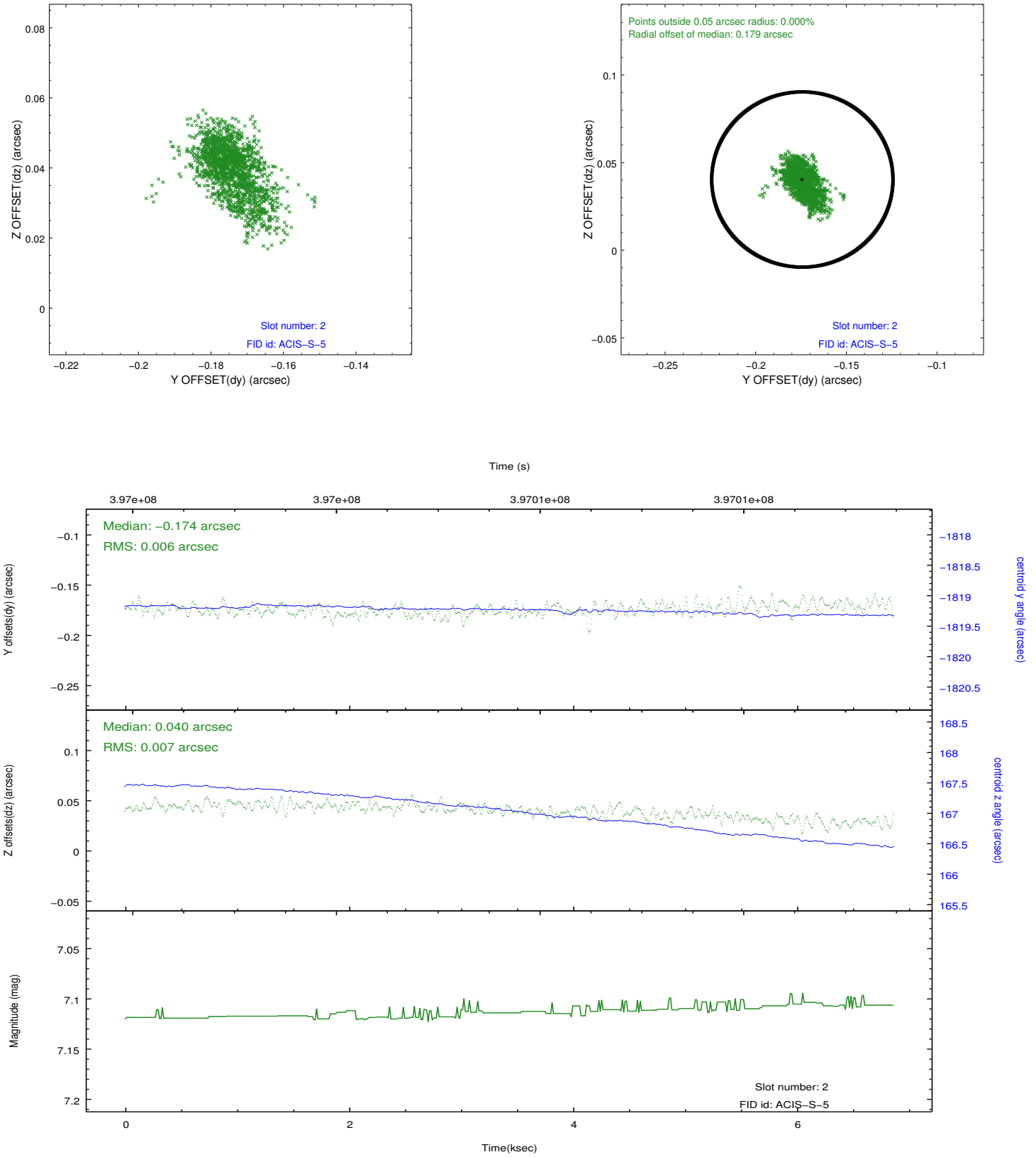
### 2.5.1 Slot 0



## 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)	2012.07.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.7423999749422

### A.2 Comments