

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11370 - L2 Version 2  
Chandra X-Ray Center

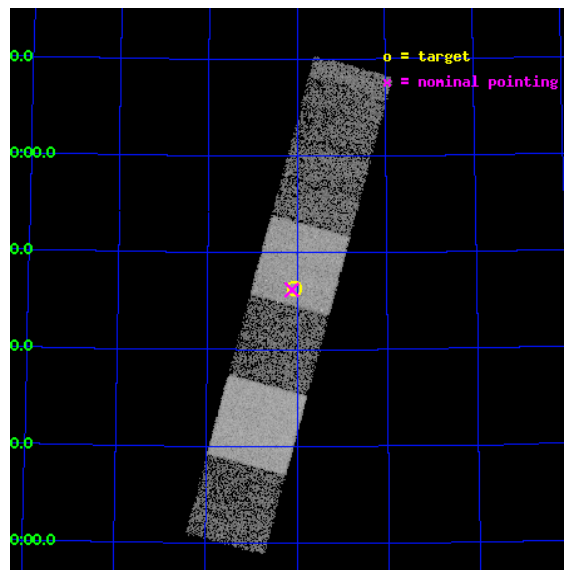
L2 Processing Date : Jun 29 2012

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

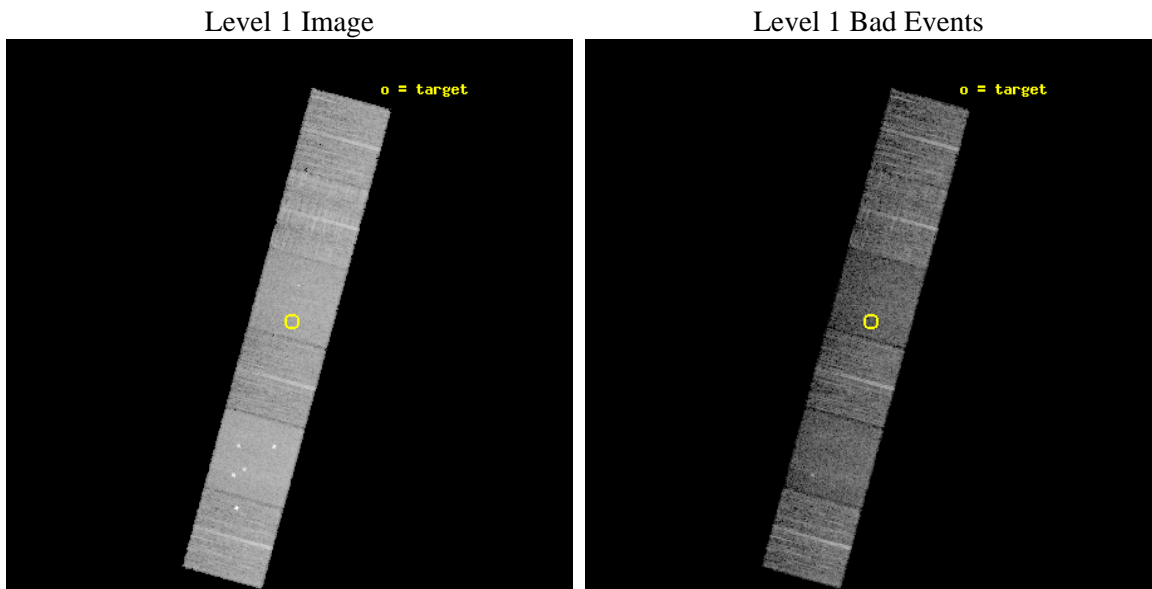
seq_num	600889	Sequence number
obs_id	11370	Observation id
title	Accretion onto nuclear black holes in early type galaxies: comparing field vs. clusters	Proposal title
observer	Elena Gallo	Principal investigator
object	UGC05955	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	163.018	Observer's specified target RA [deg]
dec_targ	71.77303	Observer's specified target Dec [deg]
ra_nom	163.02916372707	Nominal RA [deg]
dec_nom	71.769738490235	Nominal Dec [deg]
roll_nom	285.28540937198	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7643.5895096064	Sum of GTIs [s]
livetime	7546.8017768187	Livetime [s]
ontime4	7643.6305496097	Sum of GTIs [s]
ontime5	7643.5484696031	Sum of GTIs [s]
ontime6	7643.5074295998	Sum of GTIs [s]
ontime7	7643.5895096064	Sum of GTIs [s]
ontime8	7643.4663895965	Sum of GTIs [s]
ontime9	7643.4253495932	Sum of GTIs [s]
l2events	93089	Number of level 2 events



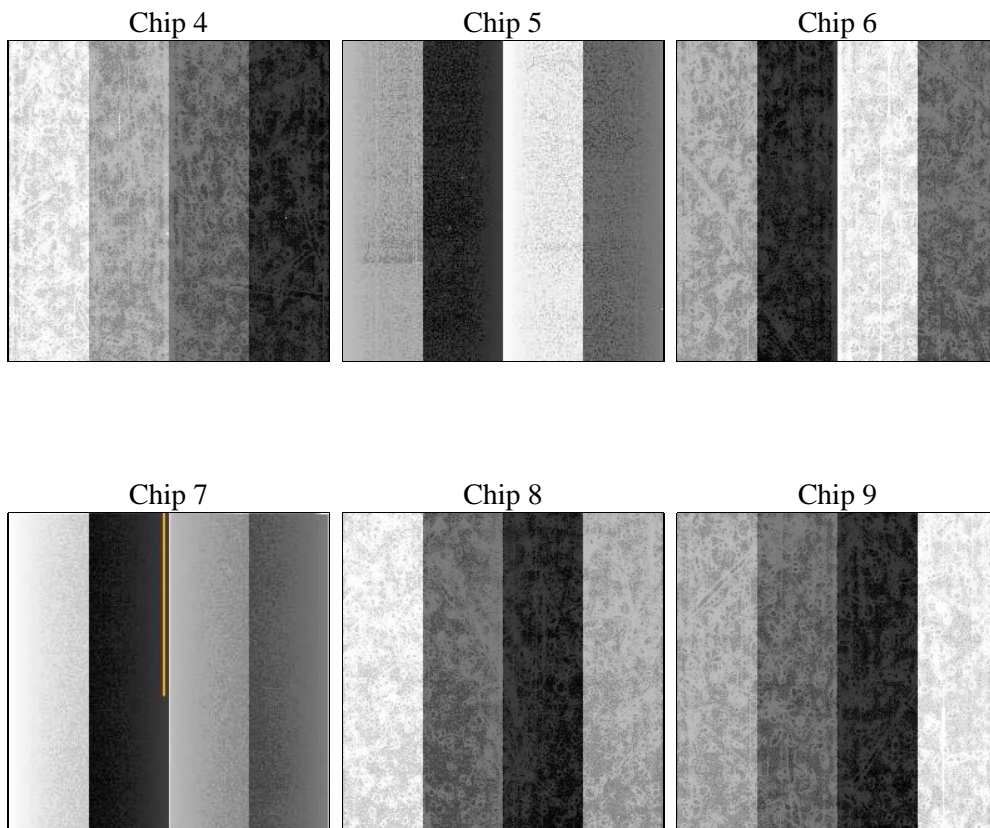
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7600.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7643.5895096064	Sum of GTIs [s]
caldbver	4.5.0	&#160	ontime4	7643.6305496097	Sum of GTIs [s]
date	2012-06-29T09:47:21	Date and time of file creation	ontime5	7643.5484696031	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	7643.5074295998	Sum of GTIs [s]
			ontime7	7643.5895096064	Sum of GTIs [s]
			ontime8	7643.4663895965	Sum of GTIs [s]
			ontime9	7643.4253495932	Sum of GTIs [s]
			l1events	413164	Number of level 1 events

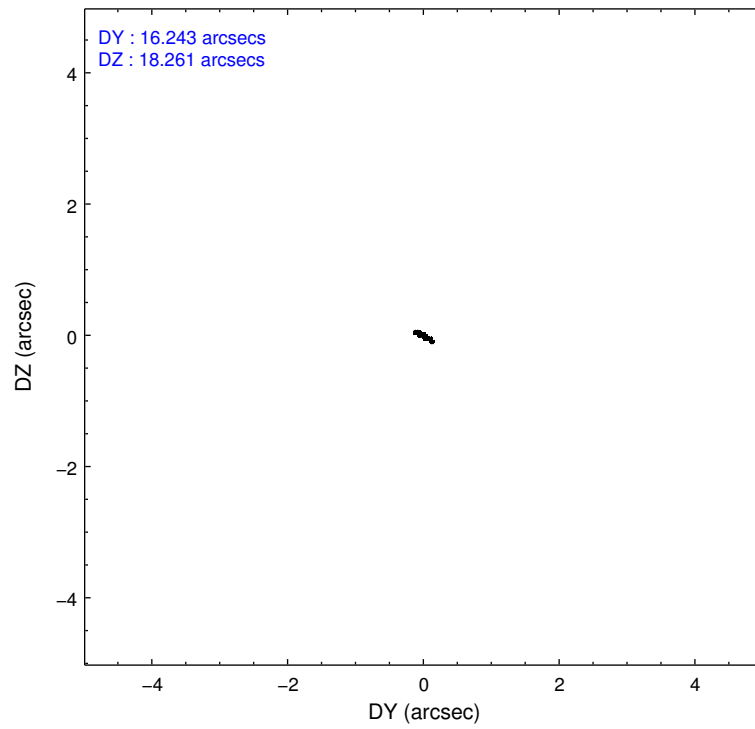
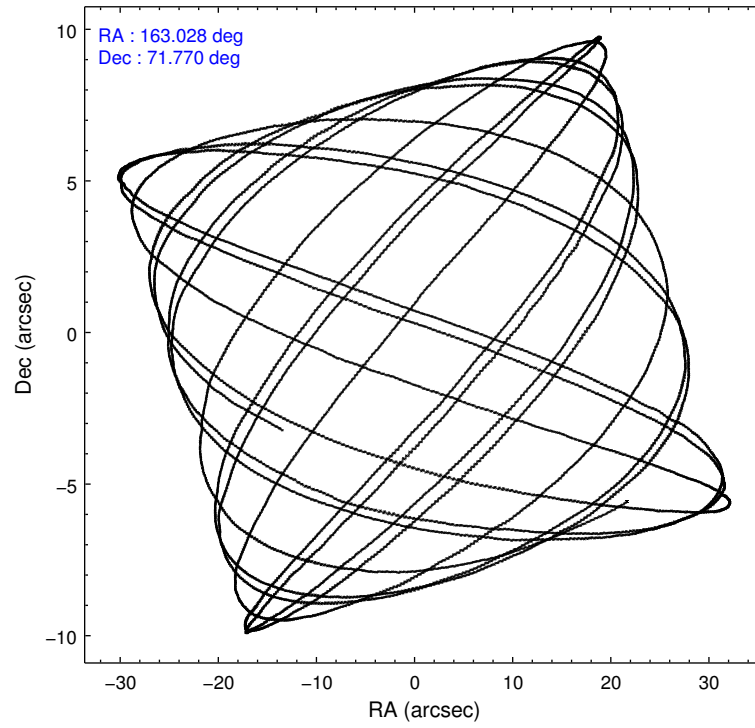
### 2.1.4 Events

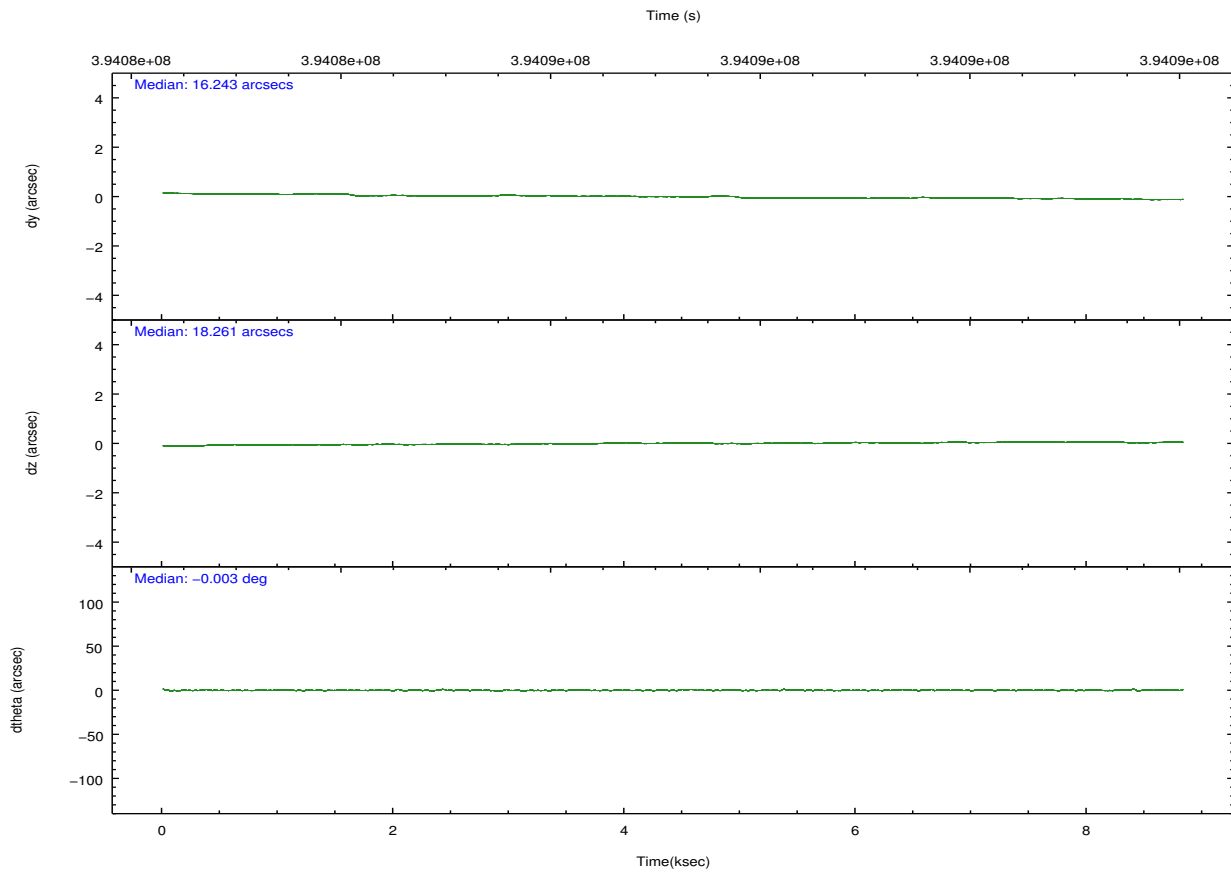
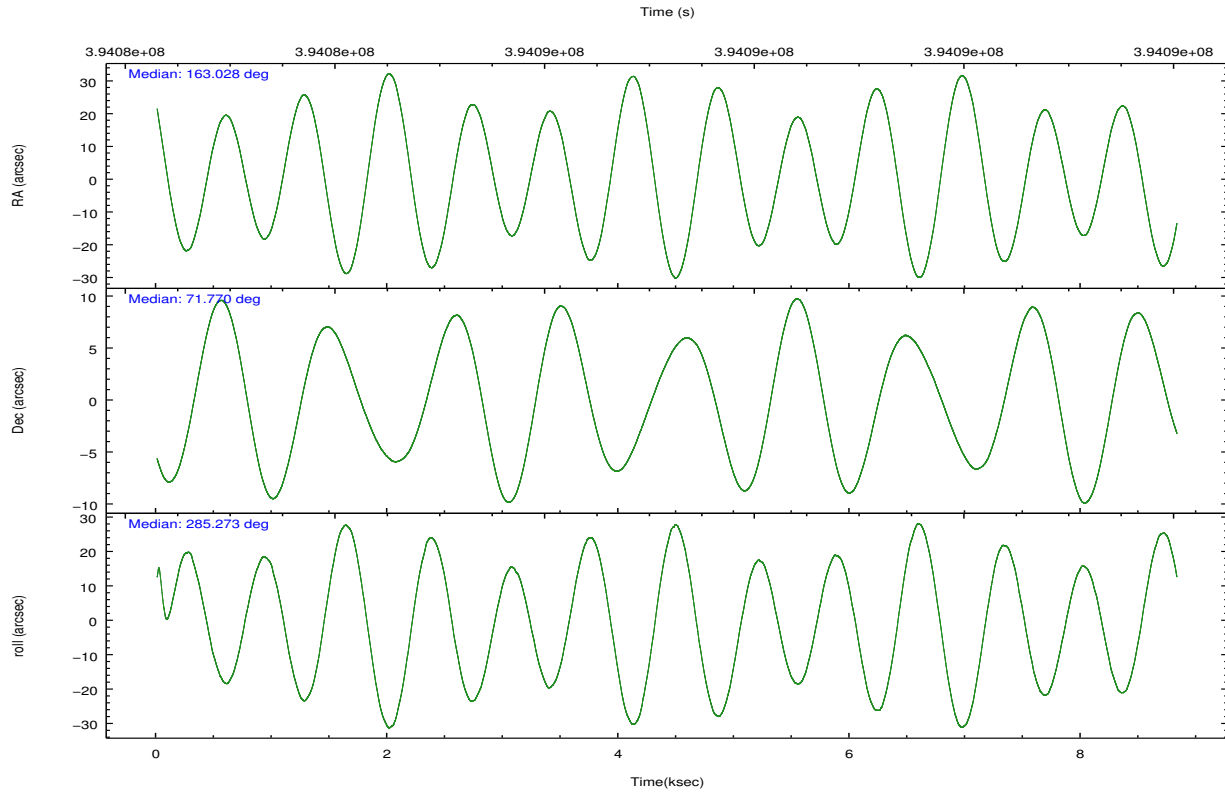
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	67075	87300	57220	69703	74708	57158	grade 0 events	4547	6307	2150	2987	5934	2528
rejected events	58338	43149	50880	37983	55582	50449		6%	7%	3%	4%	7%	4%
rejected %	86%	49%	88%	54%	74%	88%	grade 1 events	66	311	29	90	67	37
								0%	0%	0%	0%	0%	0%
							grade 2 events	1624	12465	1405	6534	4459	1470
								2%	14%	2%	9%	5%	2%
							grade 3 events	706	1758	691	2875	1970	674
								1%	2%	1%	4%	2%	1%
							grade 4 events	728	1606	678	2825	1841	633
								1%	1%	1%	4%	2%	1%
							grade 5 events	2561	6458	2550	7445	3887	2795
								3%	7%	4%	10%	5%	4%
							grade 6 events	1138	22053	1426	16531	4956	1412
								1%	25%	2%	23%	6%	2%
							grade 7 events	55705	36342	48291	30416	51594	47609
								83%	41%	84%	43%	69%	83%

## 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	162.966321	163.0291637270661	CCD I2 on	N	N
[deg] Pointing Dec	71.788691	71.76973849023454	CCD I3 on	N	N
[deg] Pointing Roll	285.188479	285.2854093719794	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	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	394083991.184000	394082465.19347	CCD S5 on	O2	Y
Observation start date	2010-06-28T03:45:25	2010-06-28T03:21:05	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	394091591.184000	394092886.369	On-chip summing requested	N	N
Observation end date	2010-06-28T05:52:05	2010-06-28T06:14:46	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



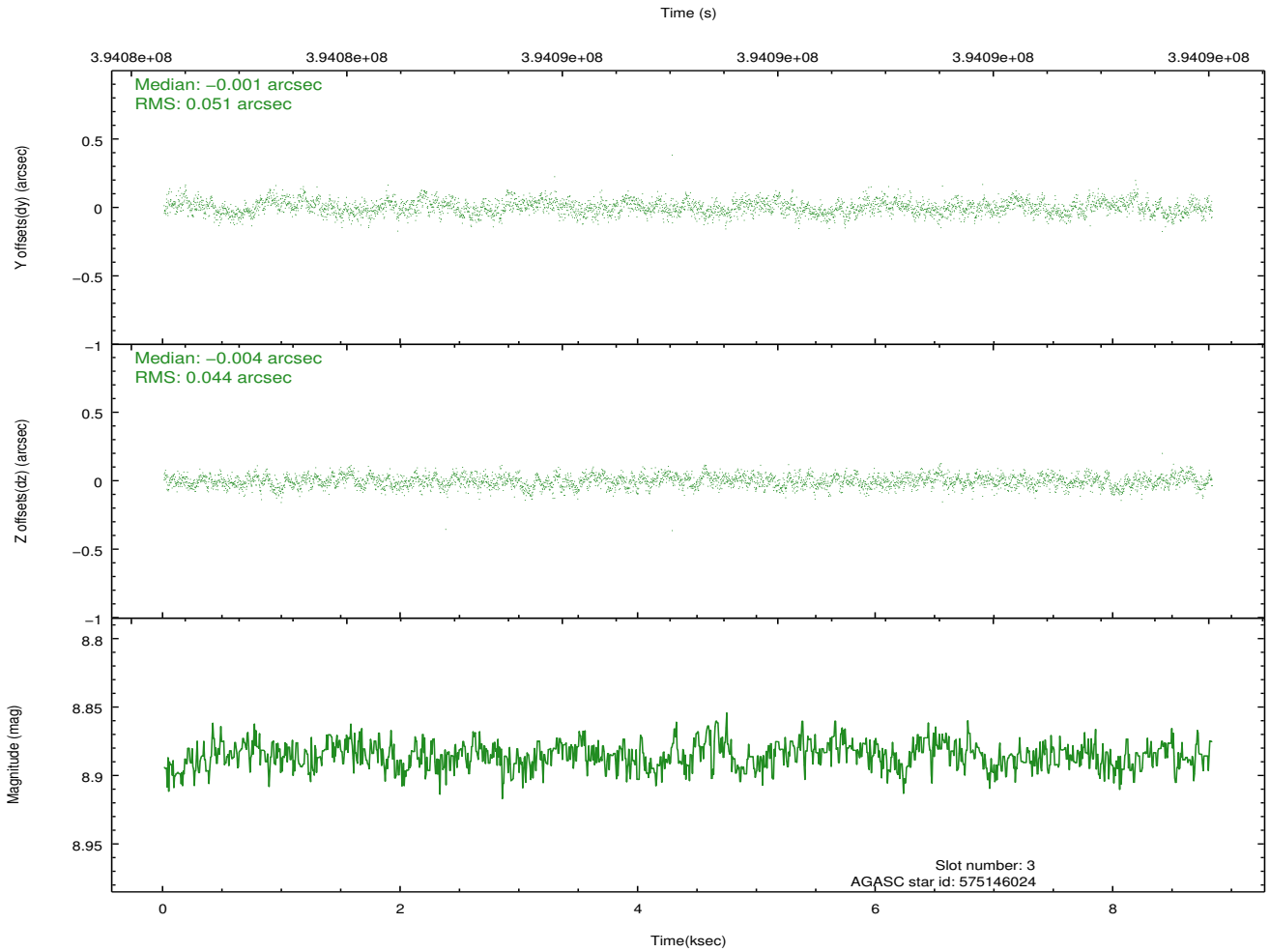
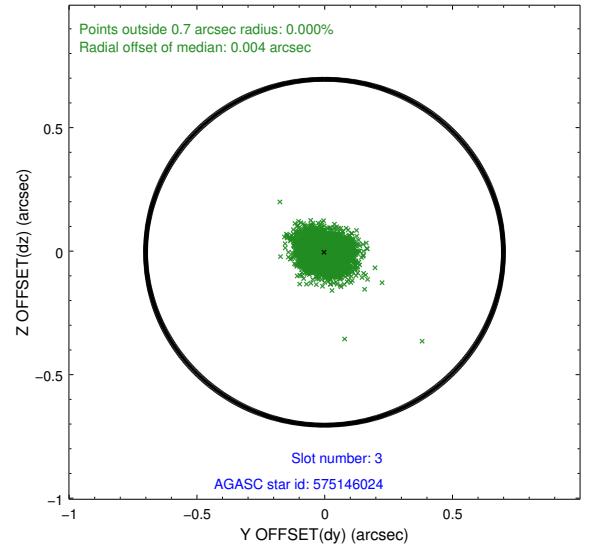
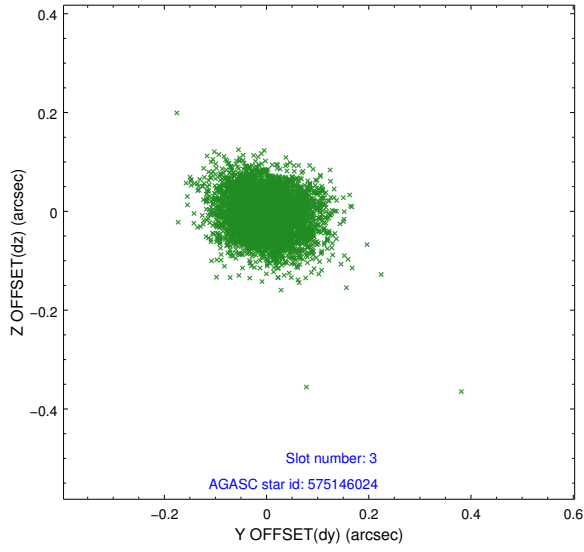


### Slot Statistics

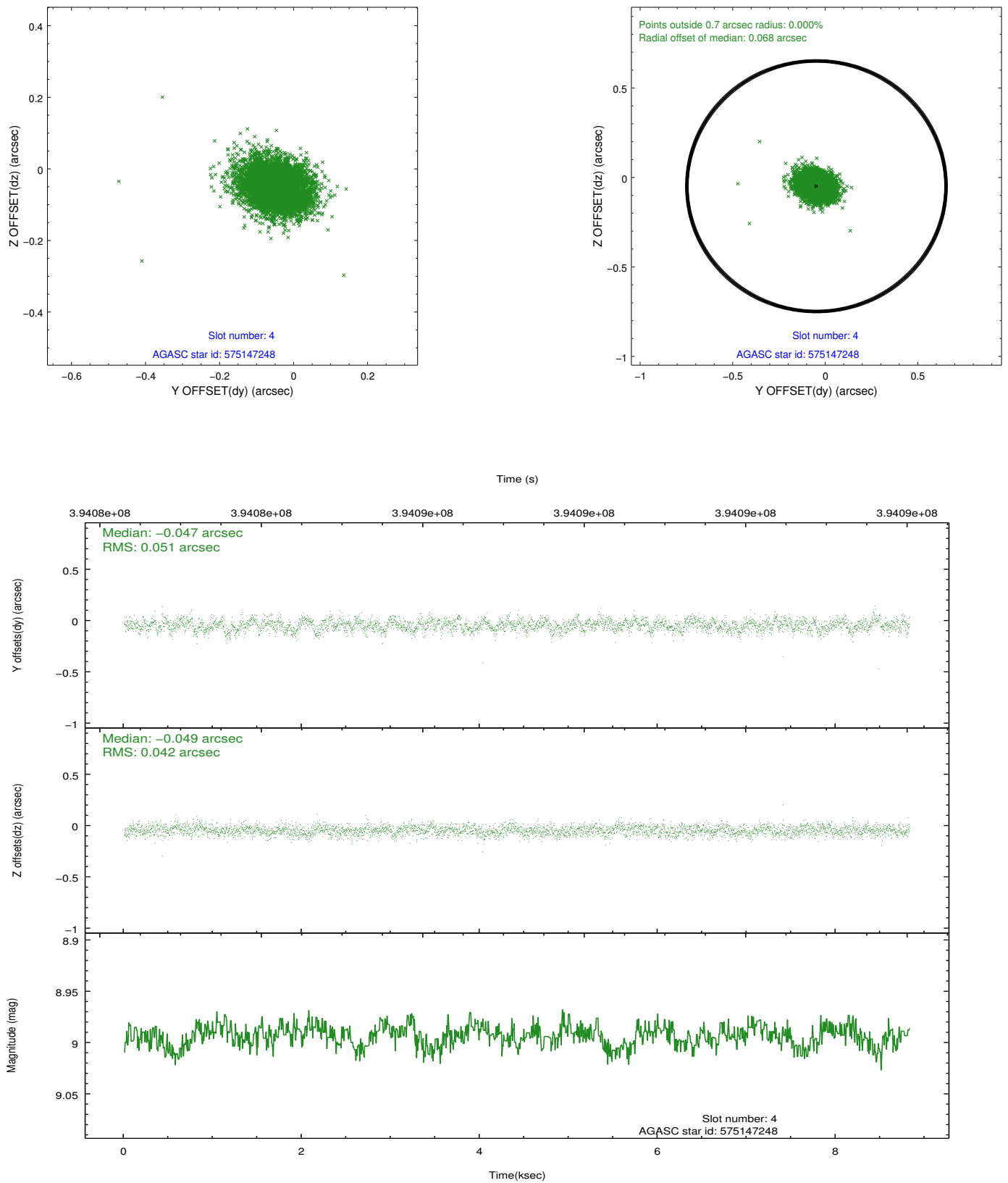
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.87	2153	-0.067	-0.029	0.007	0.010	0.000000	0.000000	-769.35	-1739.68
1	FID	ACIS-S-4	6.96	2153	0.145	0.040	0.005	0.010	0.000000	0.000000	2143.90	168.16
2	FID	ACIS-S-5	6.99	2153	-0.108	-0.003	0.006	0.011	0.000000	0.000000	-1821.39	162.58
3	GUIDE	575146024	8.89	4302	-0.001	-0.004	0.071	0.116	163.362574	72.405122	-2030.11	998.71
4	GUIDE	575147248	8.99	4302	-0.047	-0.049	0.069	0.111	163.689929	72.452230	-2104.54	1385.51
5	GUIDE	575157128	8.86	4304	0.081	-0.001	0.082	0.136	161.575083	71.951435	-988.90	-1338.61
6	GUIDE	575157152	8.49	4303	0.054	-0.063	0.086	0.138	161.909789	71.655870	138.35	-1277.82
7	GUIDE	575157904	6.44	4305	-0.088	0.114	0.055	0.086	161.466393	72.287952	-2184.16	-1108.84

## 2.4 Star Slots

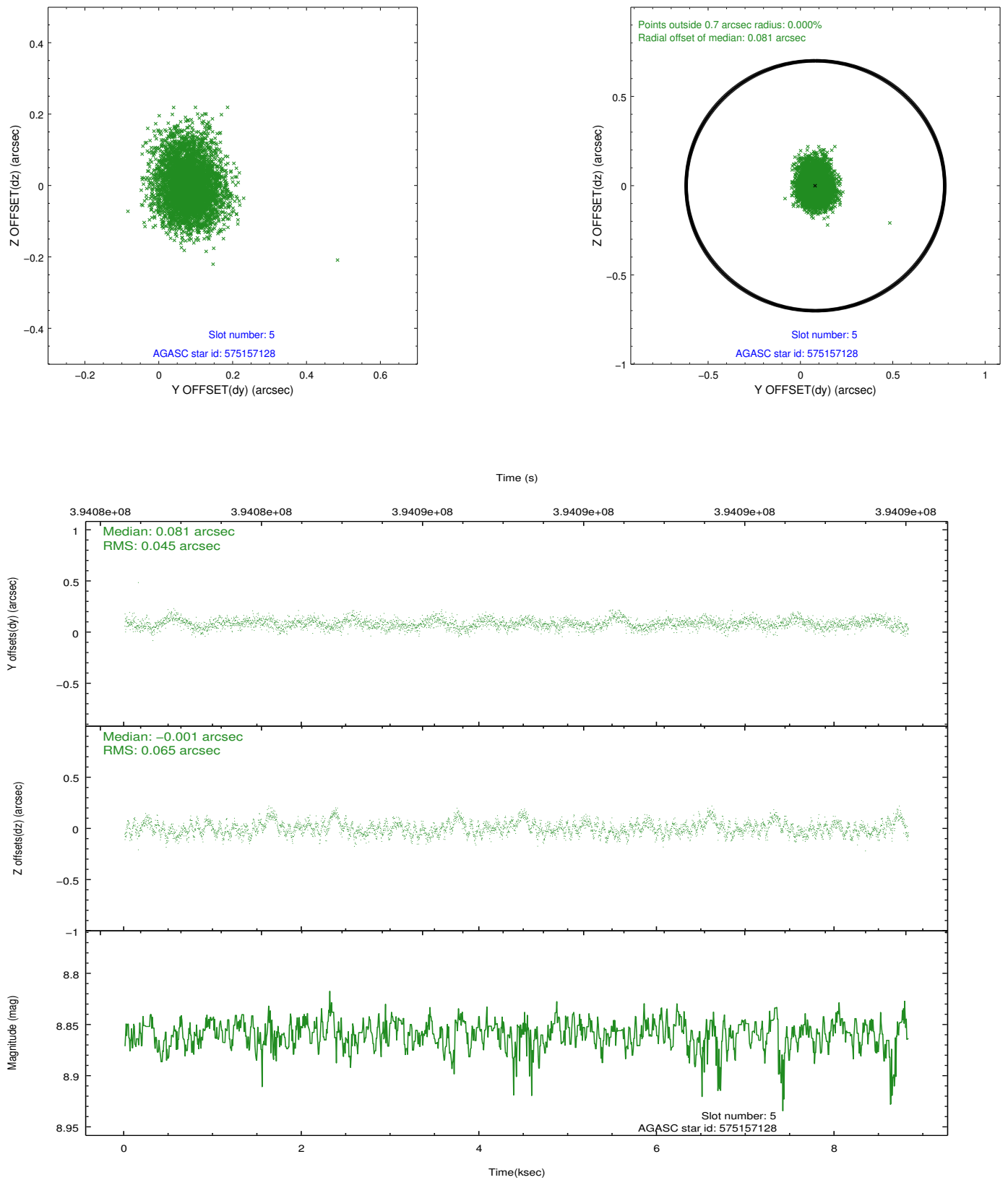
### 2.4.1 Slot 3



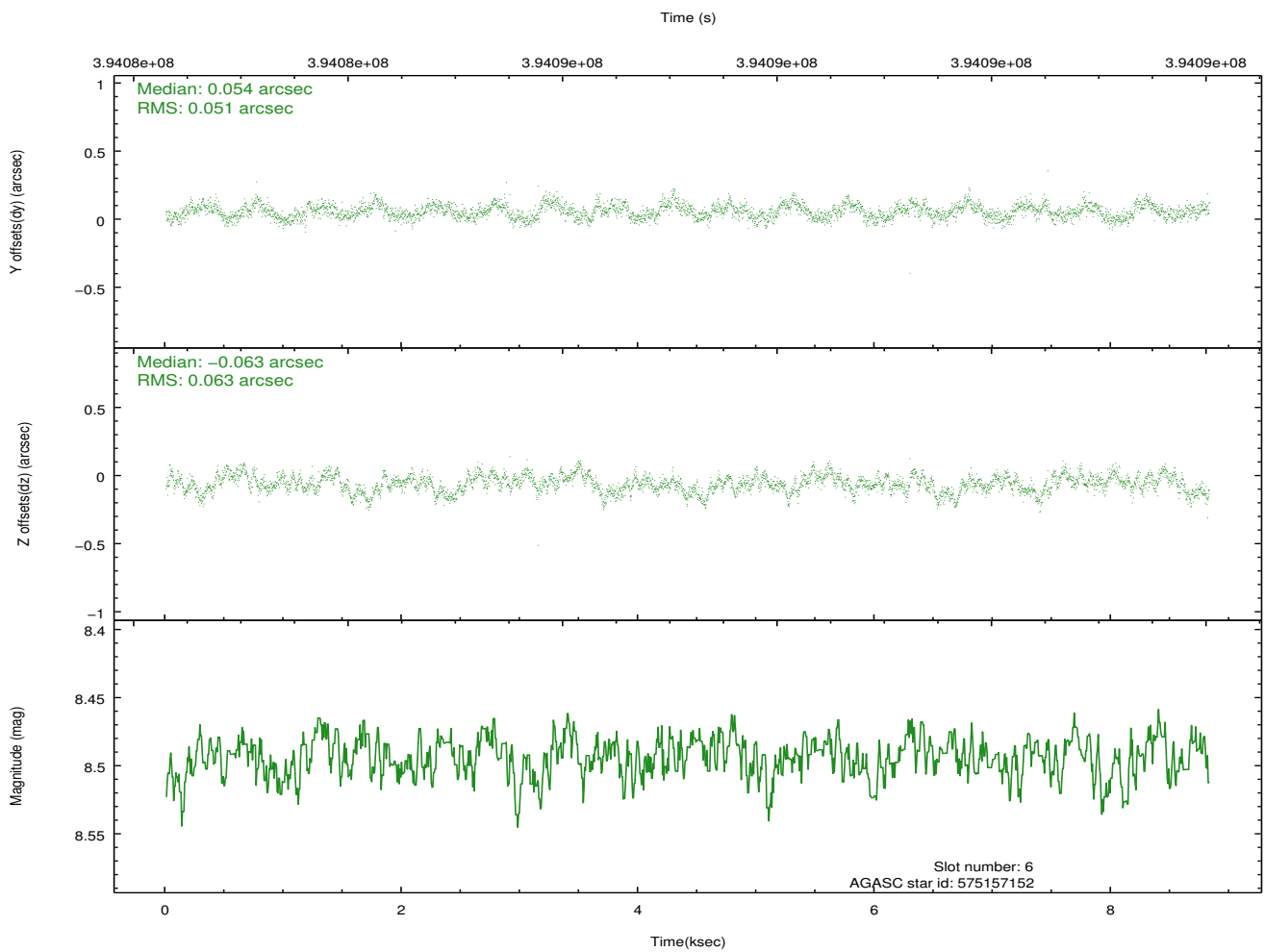
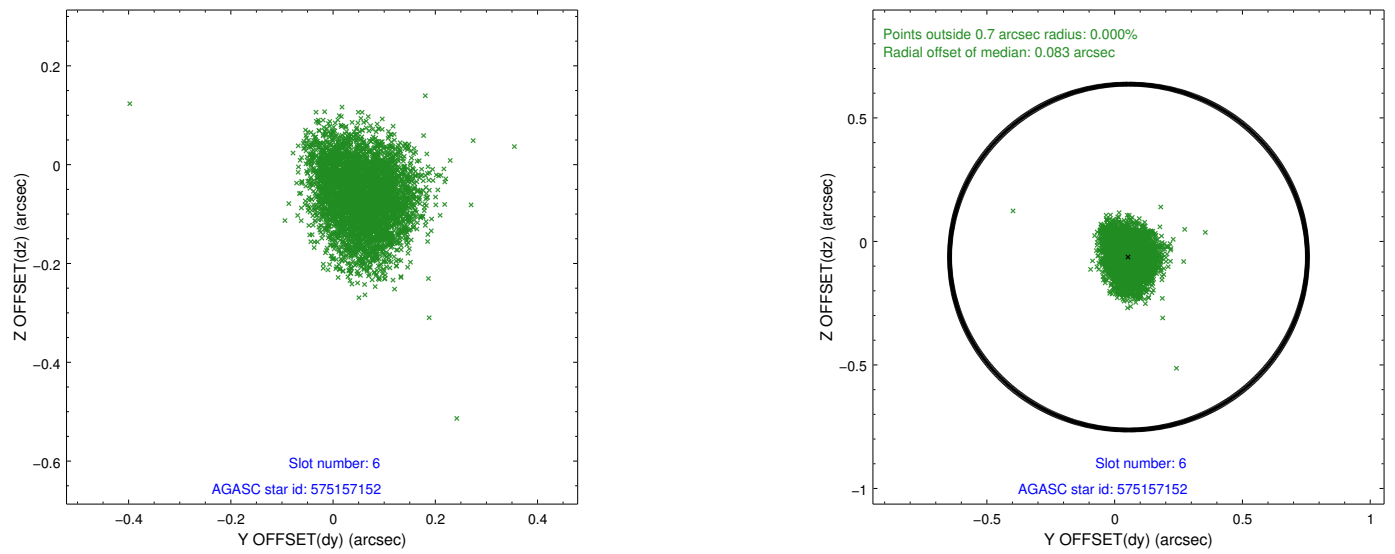
## 2.4.2 Slot 4



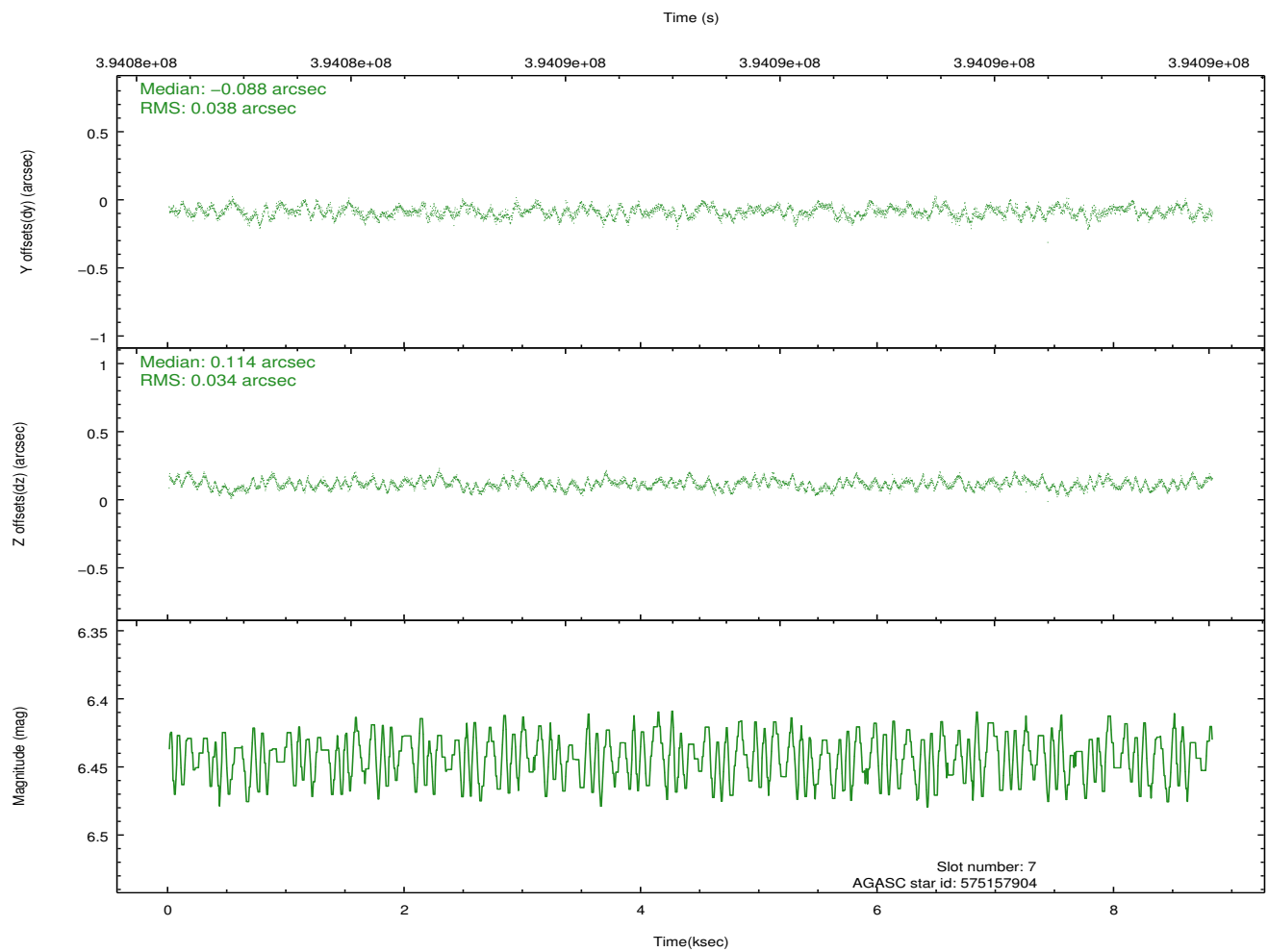
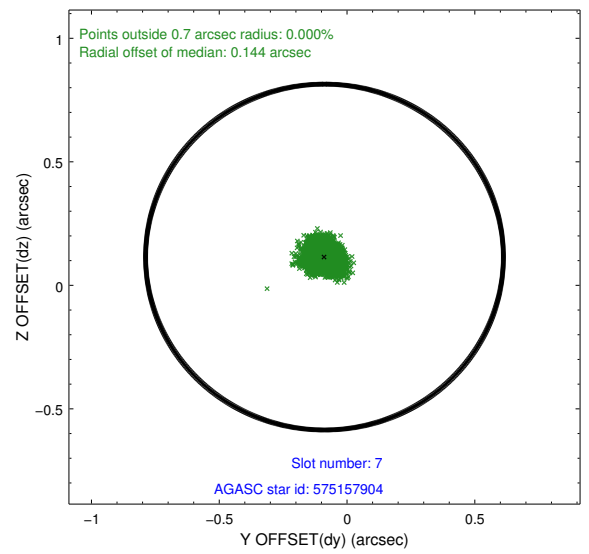
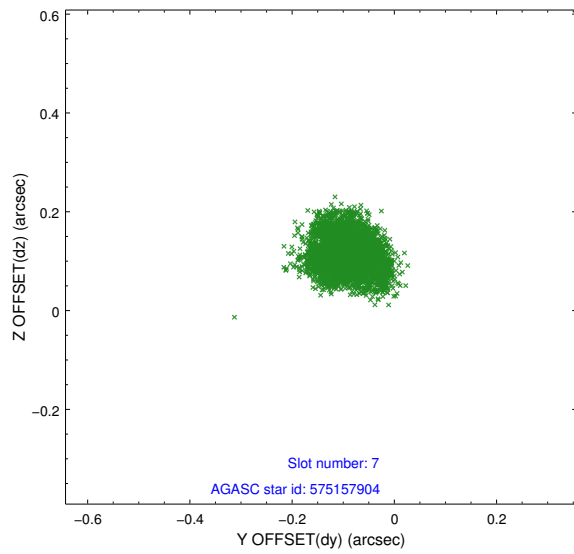
### 2.4.3 Slot 5



## 2.4.4 Slot 6

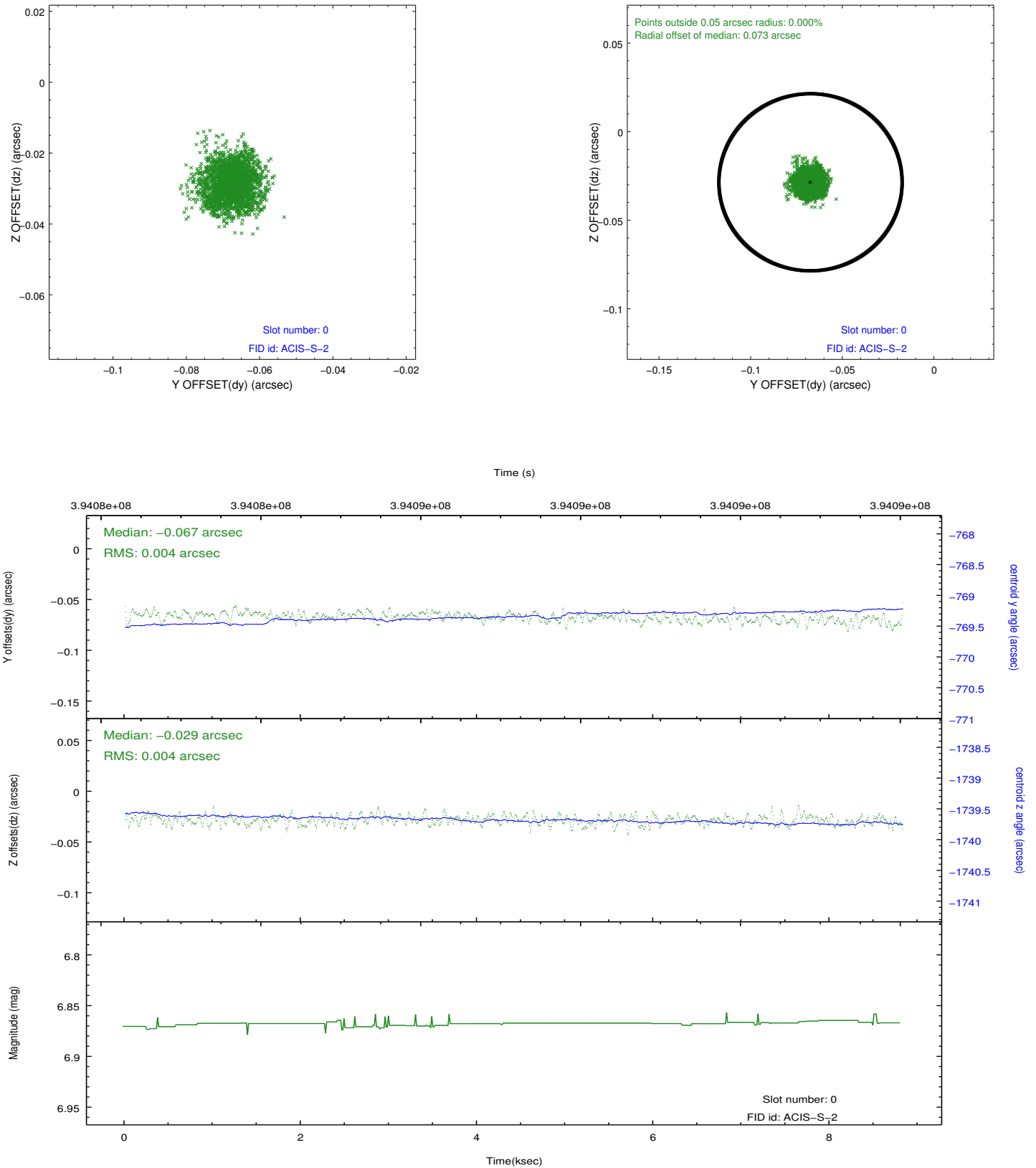


## 2.4.5 Slot 7

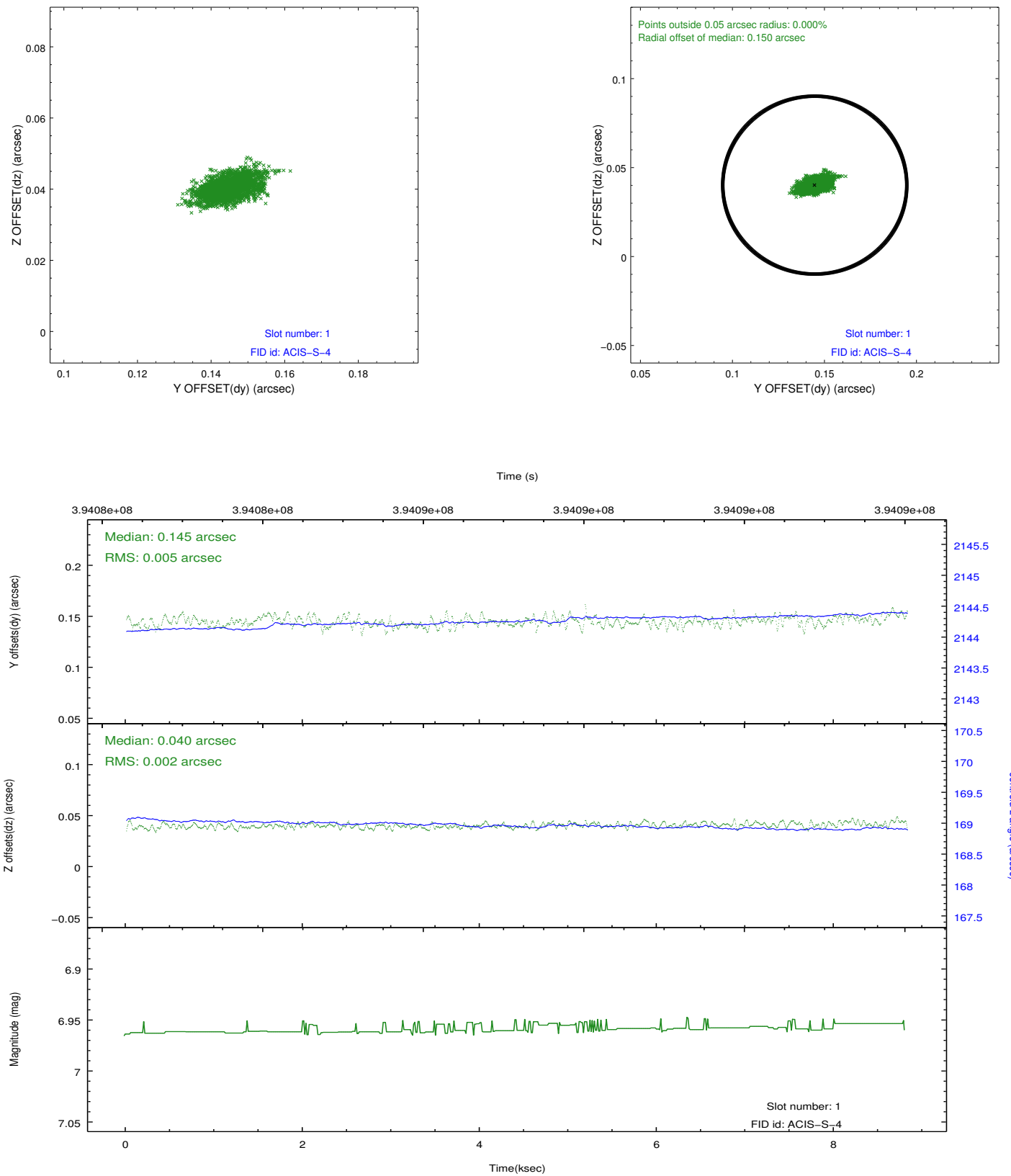


## 2.5 FID Slots

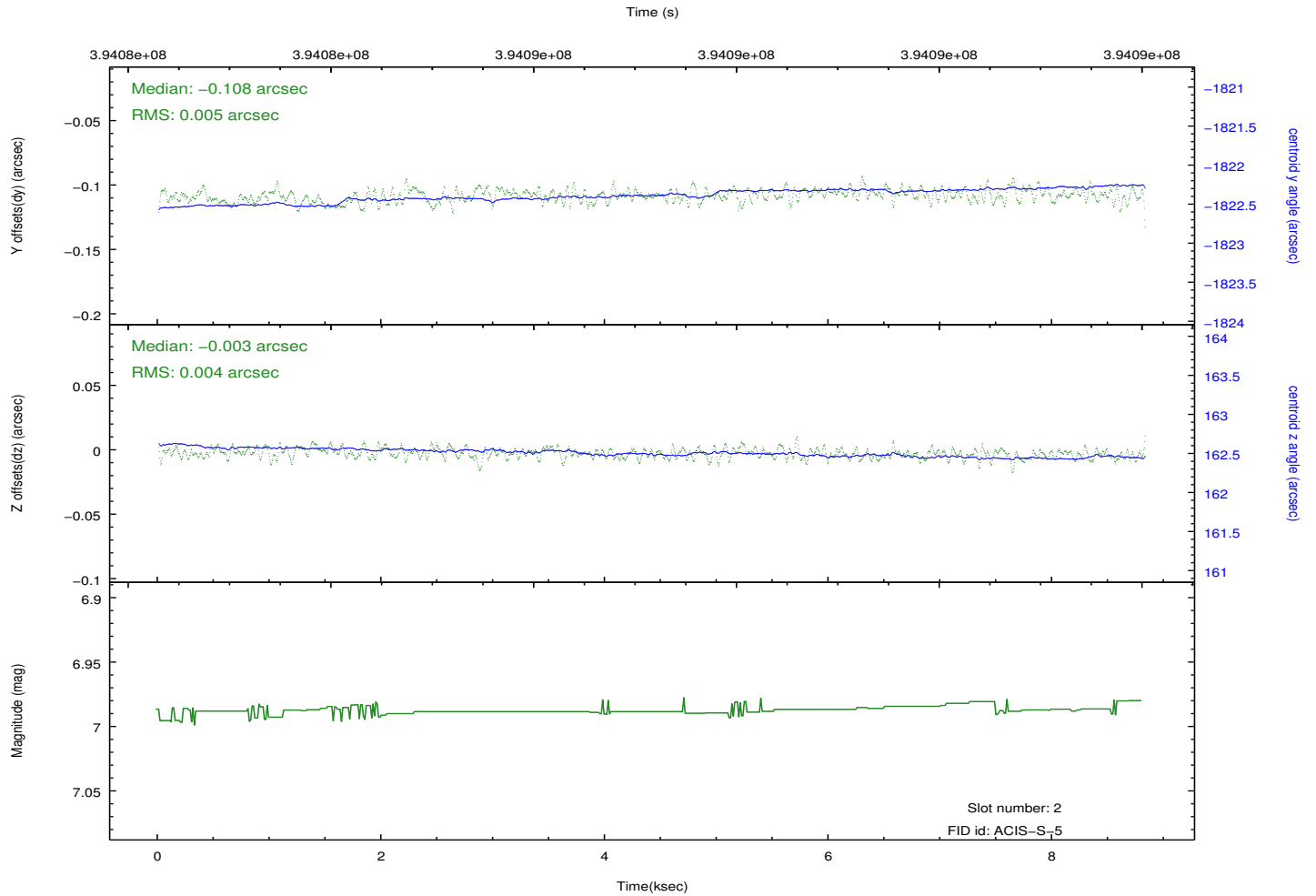
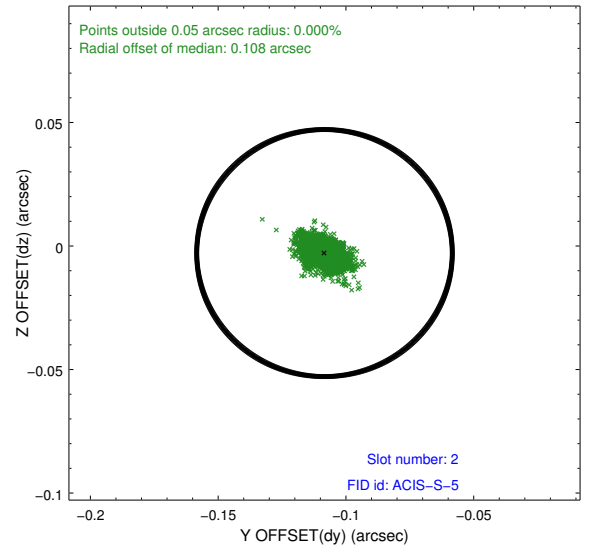
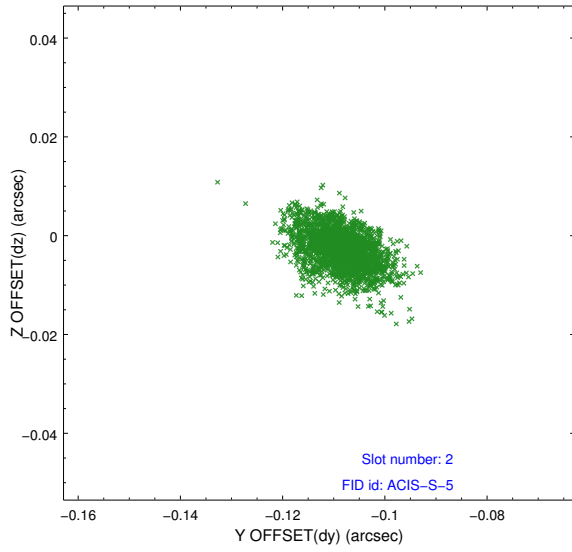
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.07.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.6435895082951

### A.2 Comments