

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11362 - L2 Version 2  
Chandra X-Ray Center

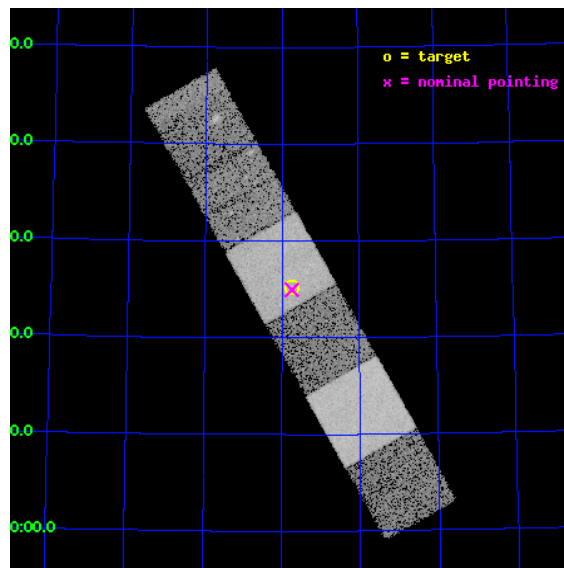
L2 Processing Date : Jun 28 2012

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# 1 Front

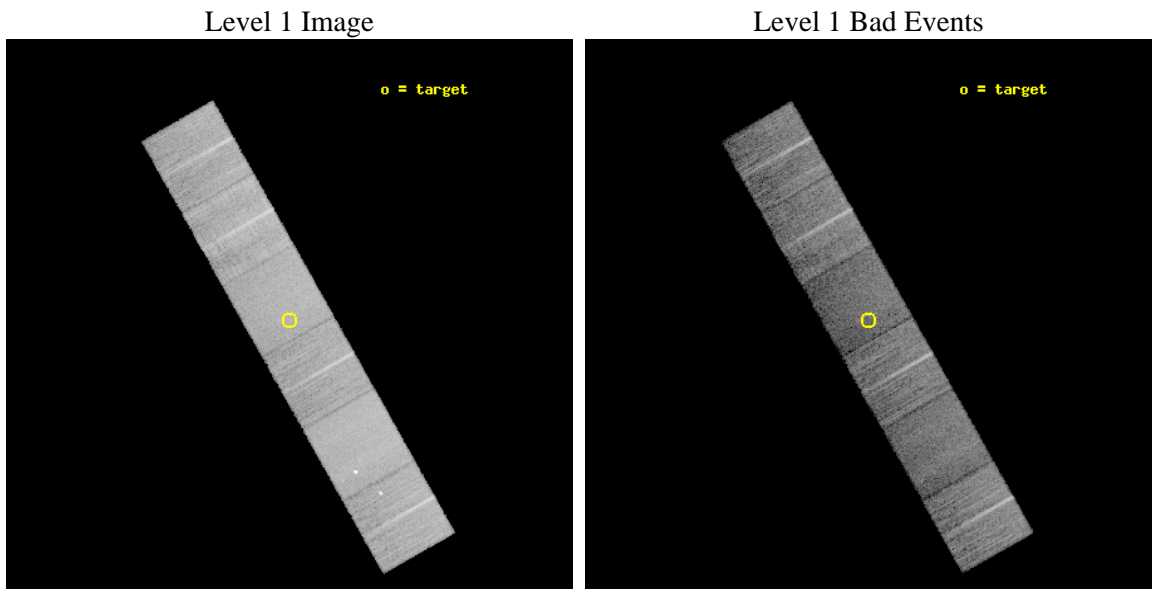
seq_num	600881	Sequence number
obs_id	11362	Observation id
title	Accretion onto nuclear black holes in early type galaxies: comparing field vs. clusters	Proposal title
observer	Elena Gallo	Principal investigator
object	NGC4648	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	190.435	Observer's specified target RA [deg]
dec_targ	74.42086	Observer's specified target Dec [deg]
ra_nom	190.43565371474	Nominal RA [deg]
dec_nom	74.416007059533	Nominal Dec [deg]
roll_nom	240.45742223716	Nominal Roll [deg]
revision	2	Processing version of data
ontime	11043.19995892	Sum of GTIs [s]
livetime	10903.364311624	Livetime [s]
ontime4	11039.958988667	Sum of GTIs [s]
ontime5	11043.19995892	Sum of GTIs [s]
ontime6	11043.19995892	Sum of GTIs [s]
ontime7	11043.19995892	Sum of GTIs [s]
ontime8	11039.958958685	Sum of GTIs [s]
ontime9	11043.19995892	Sum of GTIs [s]
l2events	134305	Number of level 2 events



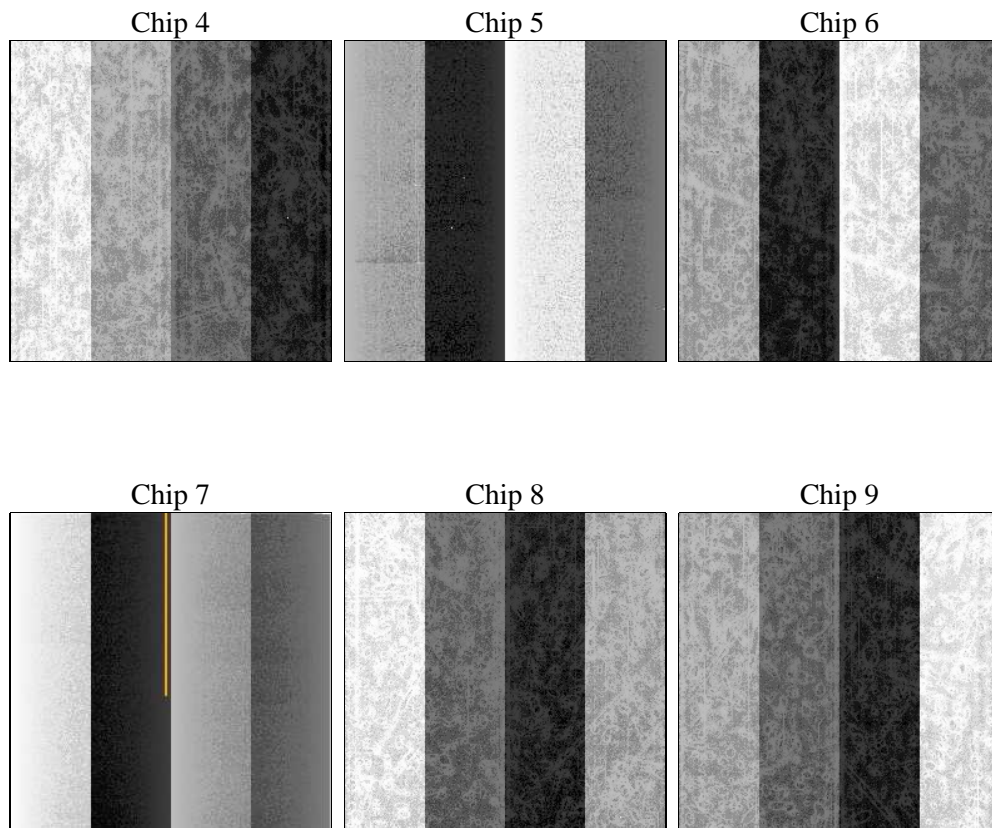
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	11000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	11043.19995892	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime4	11039.958988667	Sum of GTIs [s]
date	2012-06-28T04:07:30	Date and time of file creation	ontime5	11043.19995892	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	11043.19995892	Sum of GTIs [s]
			ontime7	11043.19995892	Sum of GTIs [s]
			ontime8	11039.958958685	Sum of GTIs [s]
			ontime9	11043.19995892	Sum of GTIs [s]
			l1events	598844	Number of level 1 events

### 2.1.4 Events

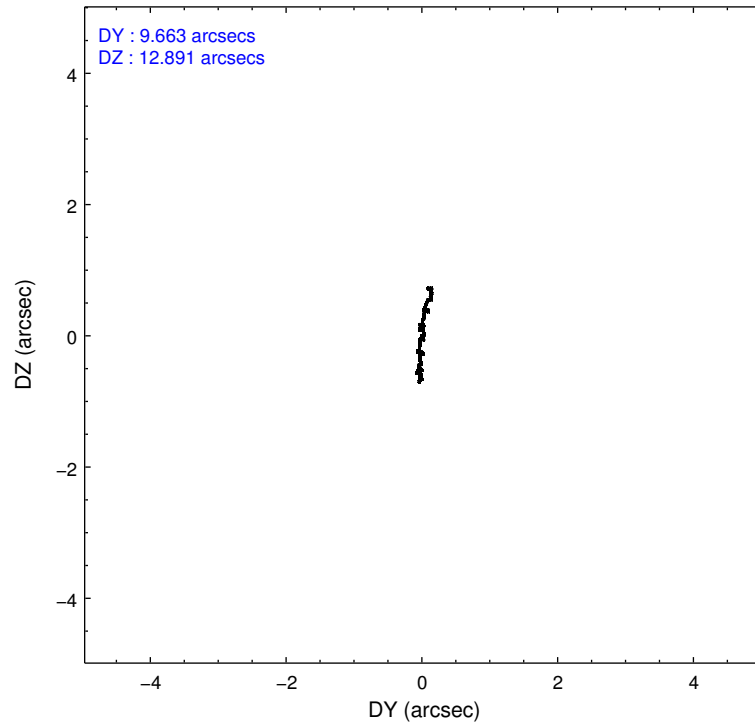
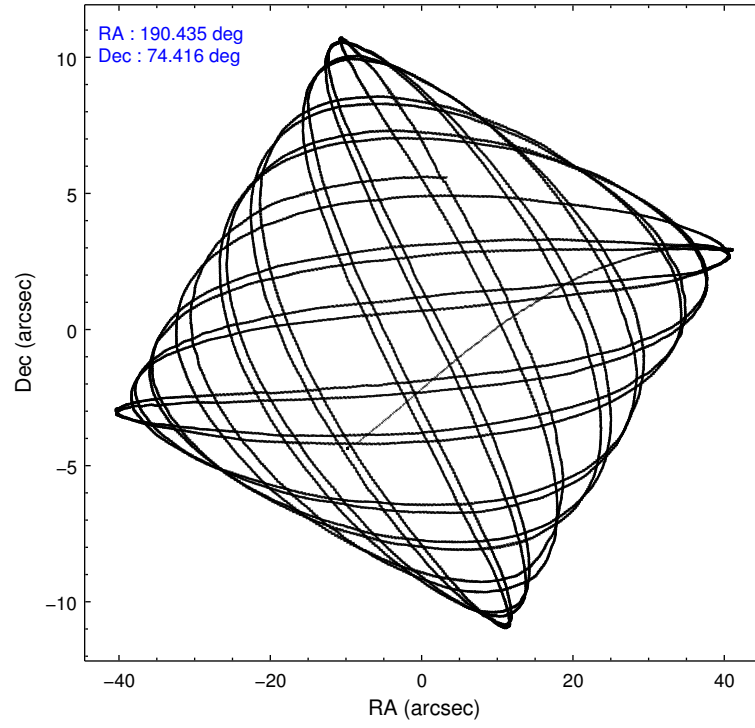
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	100069	122626	85191	99642	107009	84307	grade 0 events	4706	5265	3102	4088	8021	3945
rejected events	89467	62634	76190	54719	80477	74192		4%	4%	3%	4%	7%	4%
rejected %	89%	51%	89%	54%	75%	88%	grade 1 events	99	282	36	129	72	52
								0%	0%	0%	0%	0%	0%
							grade 2 events	2344	17786	1983	9186	6201	2057
								2%	14%	2%	9%	5%	2%
							grade 3 events	978	2205	986	3822	2685	989
								0%	1%	1%	3%	2%	1%
							grade 4 events	1031	2091	887	3882	2571	1068
								1%	1%	1%	3%	2%	1%
							grade 5 events	3613	8961	3505	10342	5359	4028
								3%	7%	4%	10%	5%	4%
							grade 6 events	1545	32662	2044	23956	7058	2061
								1%	26%	2%	24%	6%	2%
							grade 7 events	85753	53374	72648	44237	75042	70107
								85%	43%	85%	44%	70%	83%

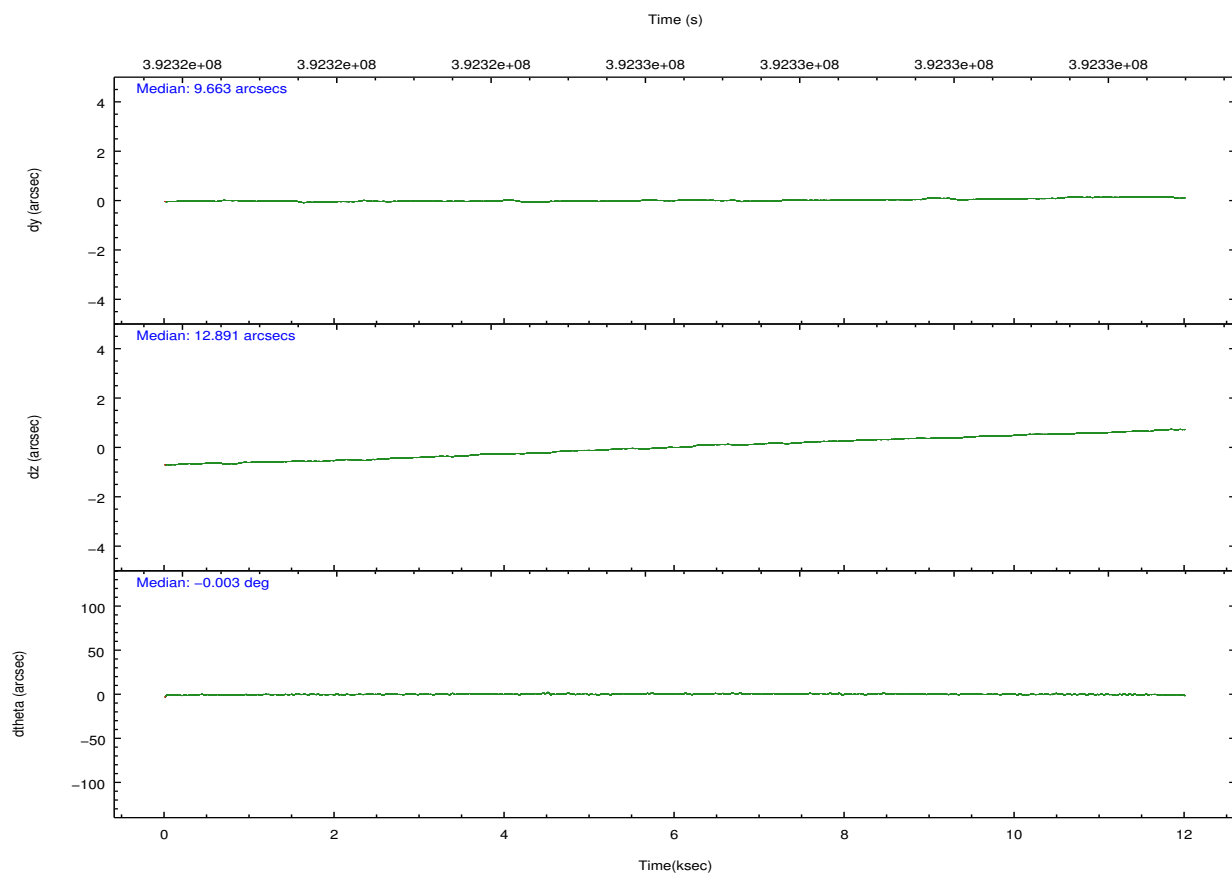
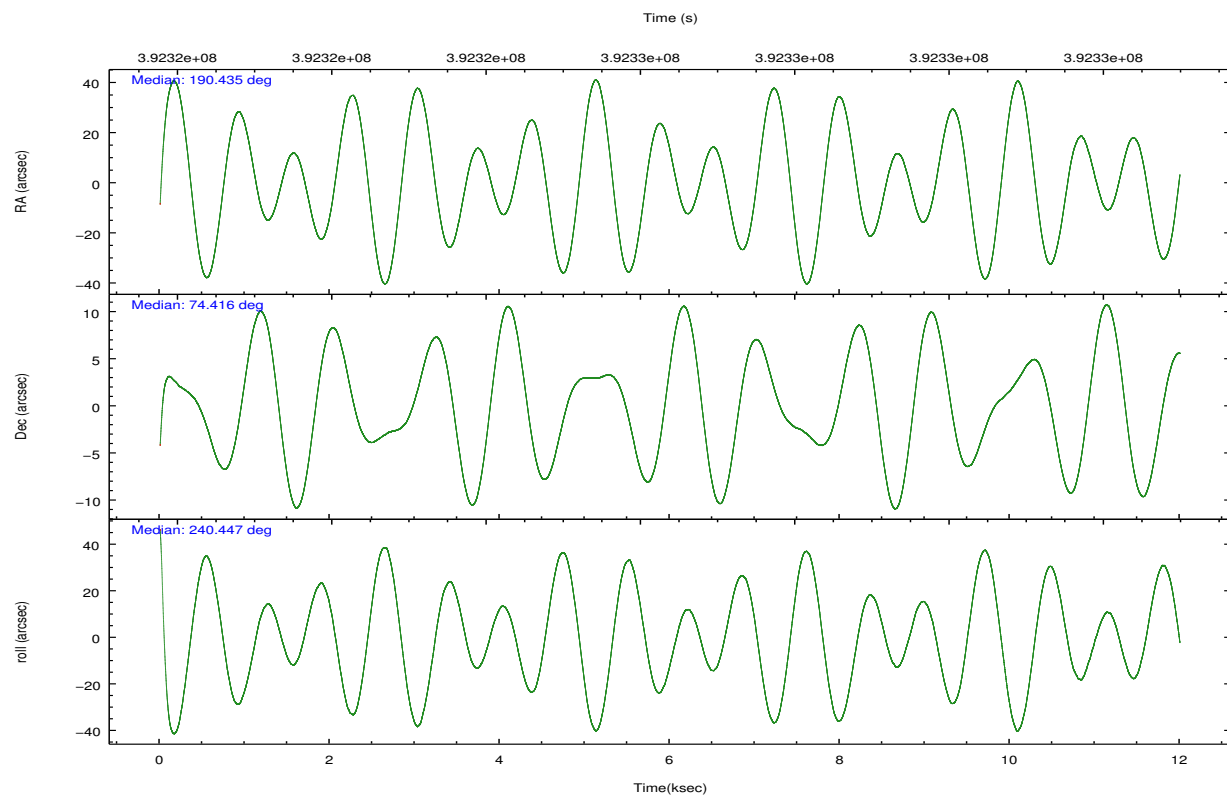


## 2.2 Compared Parameters

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	190.433454	190.4356537147398	CCD I2 on	N	N
[deg] Pointing Dec	74.443361	74.41600705953286	CCD I3 on	N	N
[deg] Pointing Roll	240.302871	240.457422237162	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	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	392321393.184000	392319443.57852	CCD S5 on	O2	Y
Observation start date	2010-06-07T18:08:47	2010-06-07T17:37:23	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	392332393.184000	392333012.01672	On-chip summing requested	N	N
Observation end date	2010-06-07T21:12:07	2010-06-07T21:23:32	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



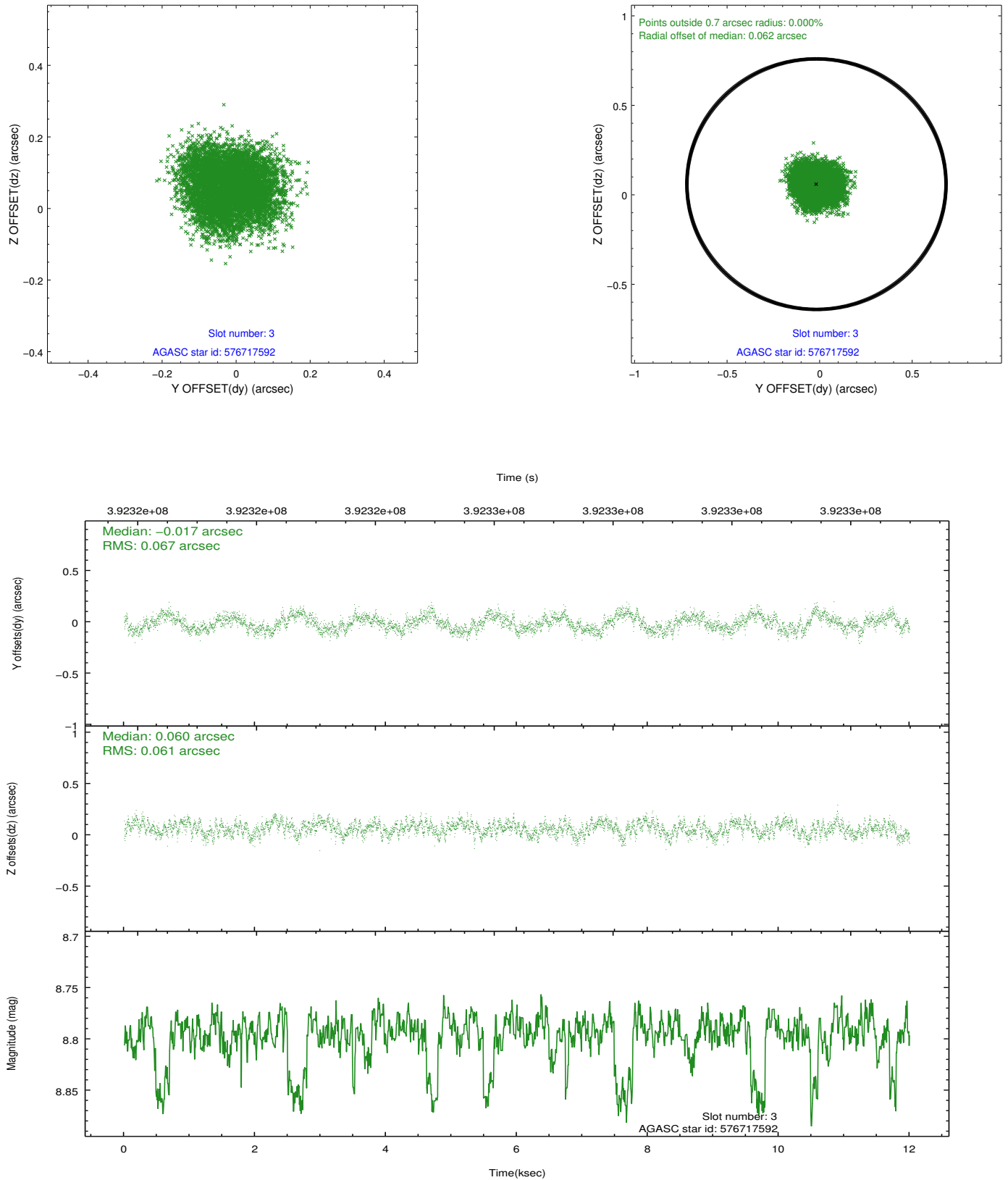


### Slot Statistics

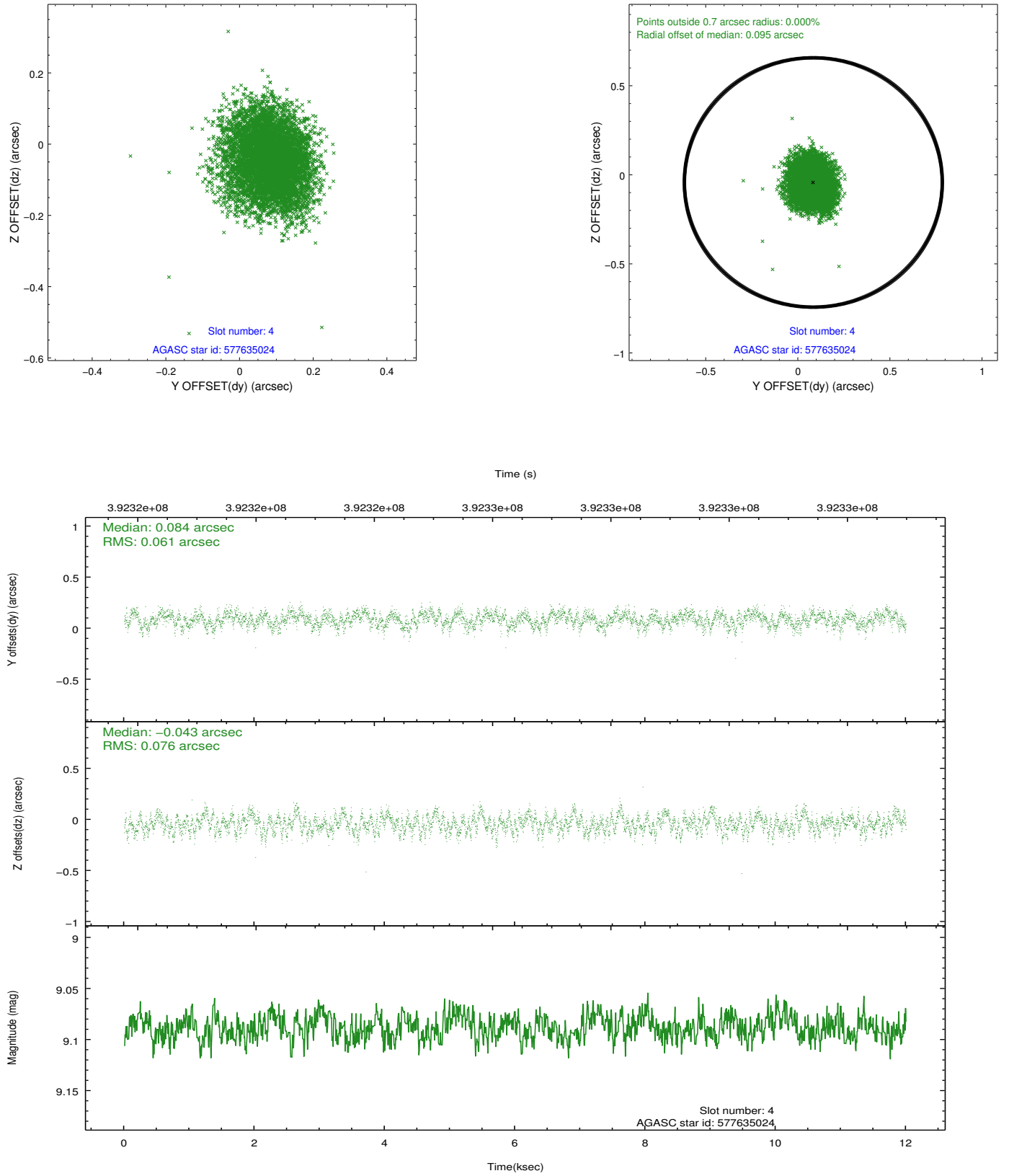
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.92	2927	-0.021	-0.035	0.014	0.022	0.000000	0.000000	-762.55	-1734.23
1	FID	ACIS-S-4	7.00	2927	0.144	0.019	0.011	0.020	0.000000	0.000000	2150.73	173.83
2	FID	ACIS-S-5	7.03	2927	-0.155	0.024	0.011	0.019	0.000000	0.000000	-1814.96	168.03
3	GUIDE	576717592	8.80	5847	-0.017	0.060	0.099	0.149	188.029943	74.489547	962.68	-2115.39
4	GUIDE	577635024	9.09	5850	0.084	-0.043	0.105	0.164	192.405336	74.216146	-273.60	2066.39
5	GUIDE	577636264	8.72	5841	-0.088	-0.043	0.081	0.127	192.840271	74.362655	-945.93	2149.55
6	GUIDE	577636440	8.65	5851	0.040	-0.156	0.093	0.158	193.475954	74.660617	-2179.16	2092.15
7	GUIDE	596521816	9.03	5850	-0.029	0.189	0.095	0.149	190.182501	75.002368	-1632.74	-1199.95

## 2.4 Star Slots

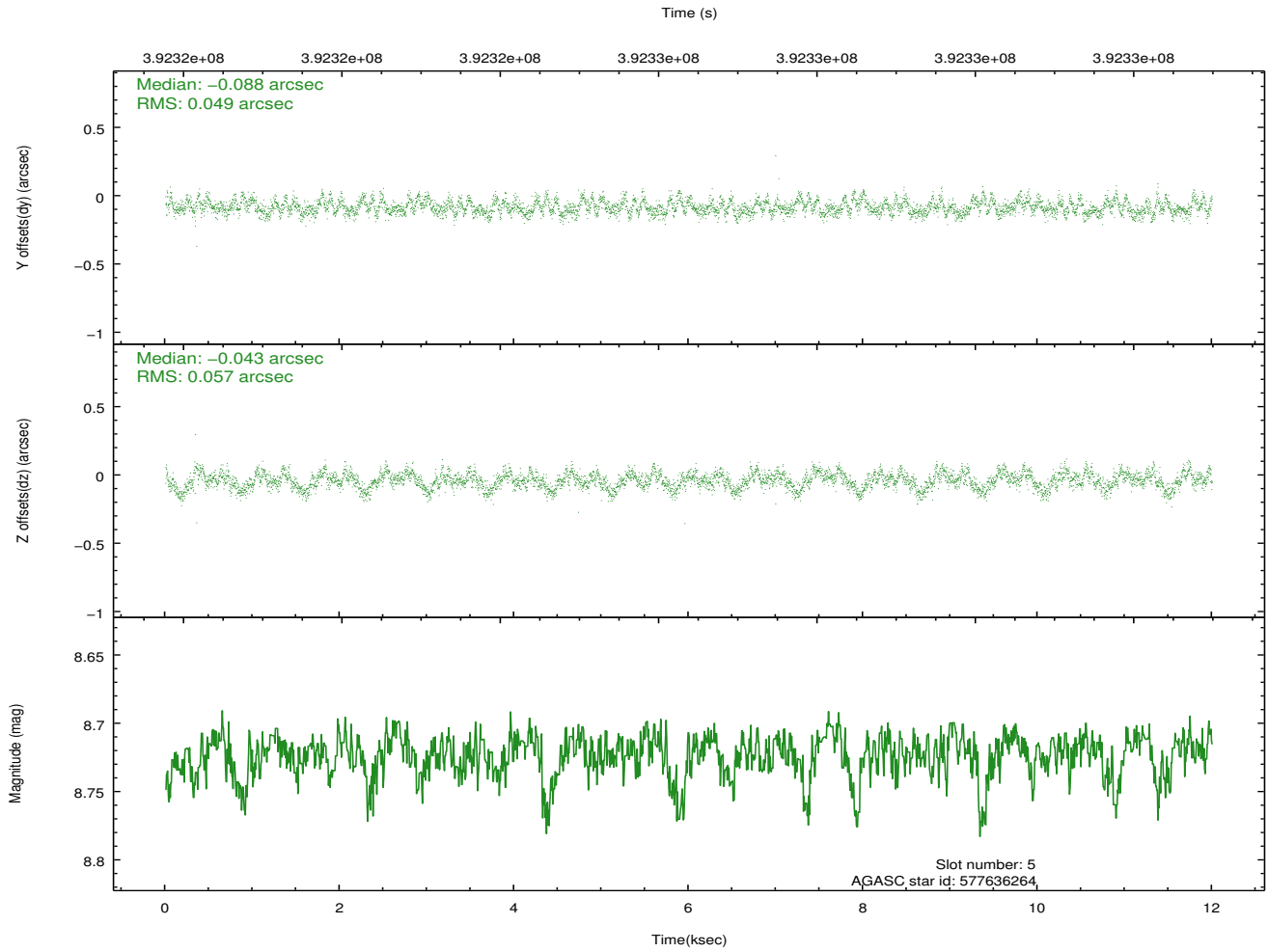
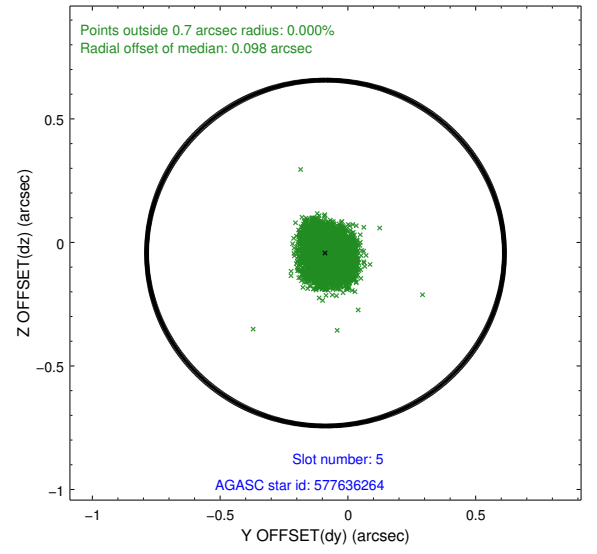
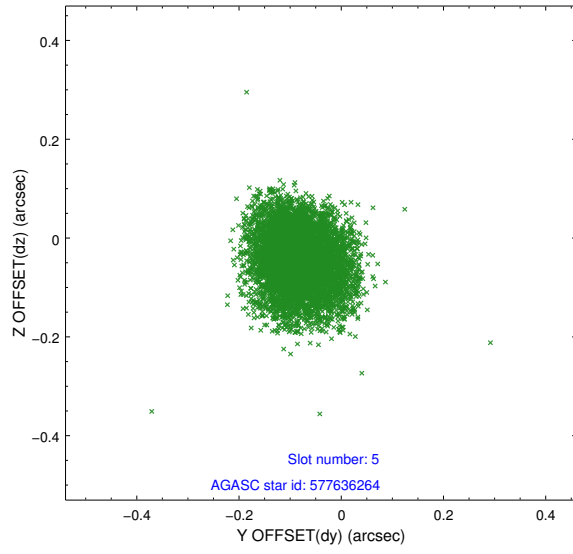
### 2.4.1 Slot 3



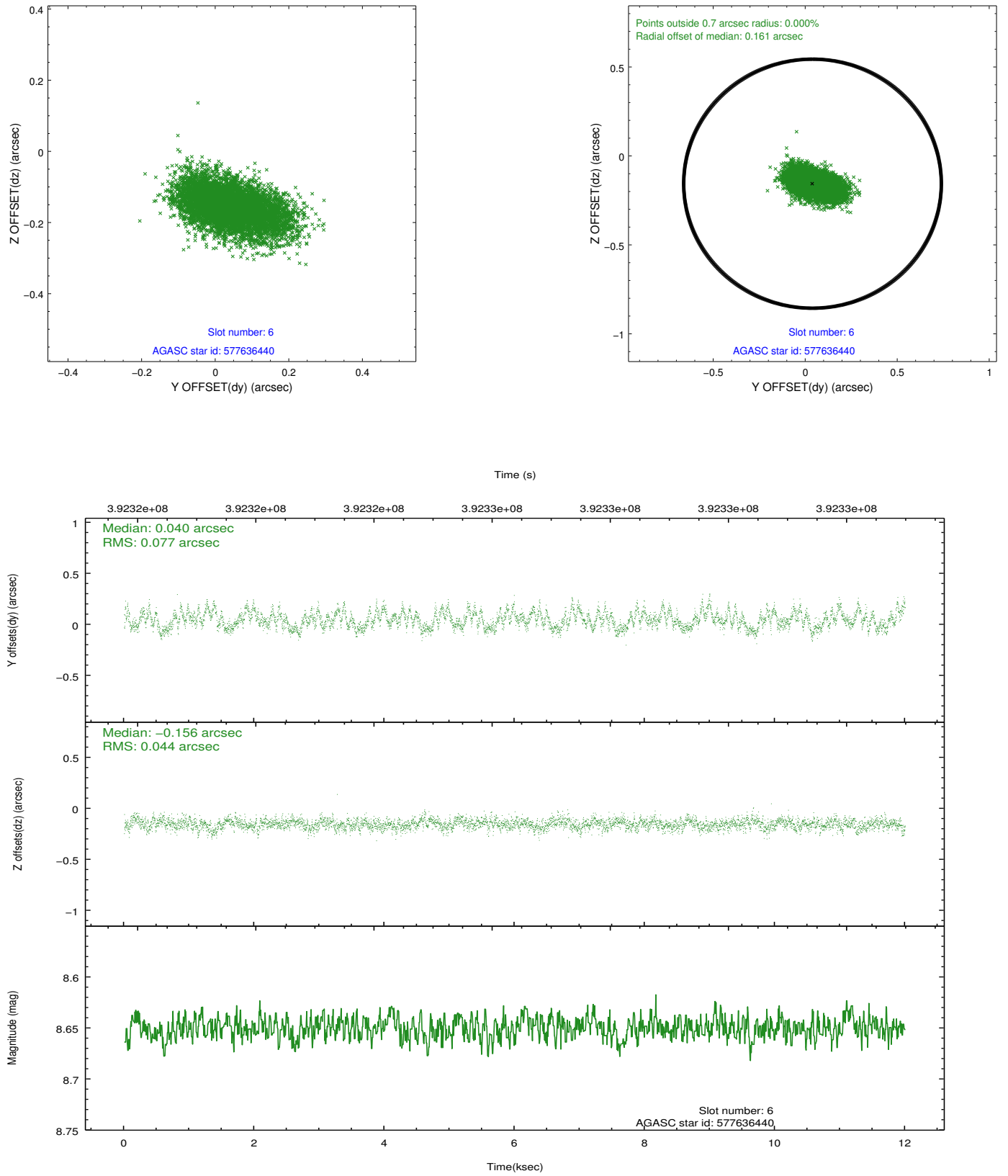
## 2.4.2 Slot 4



### 2.4.3 Slot 5

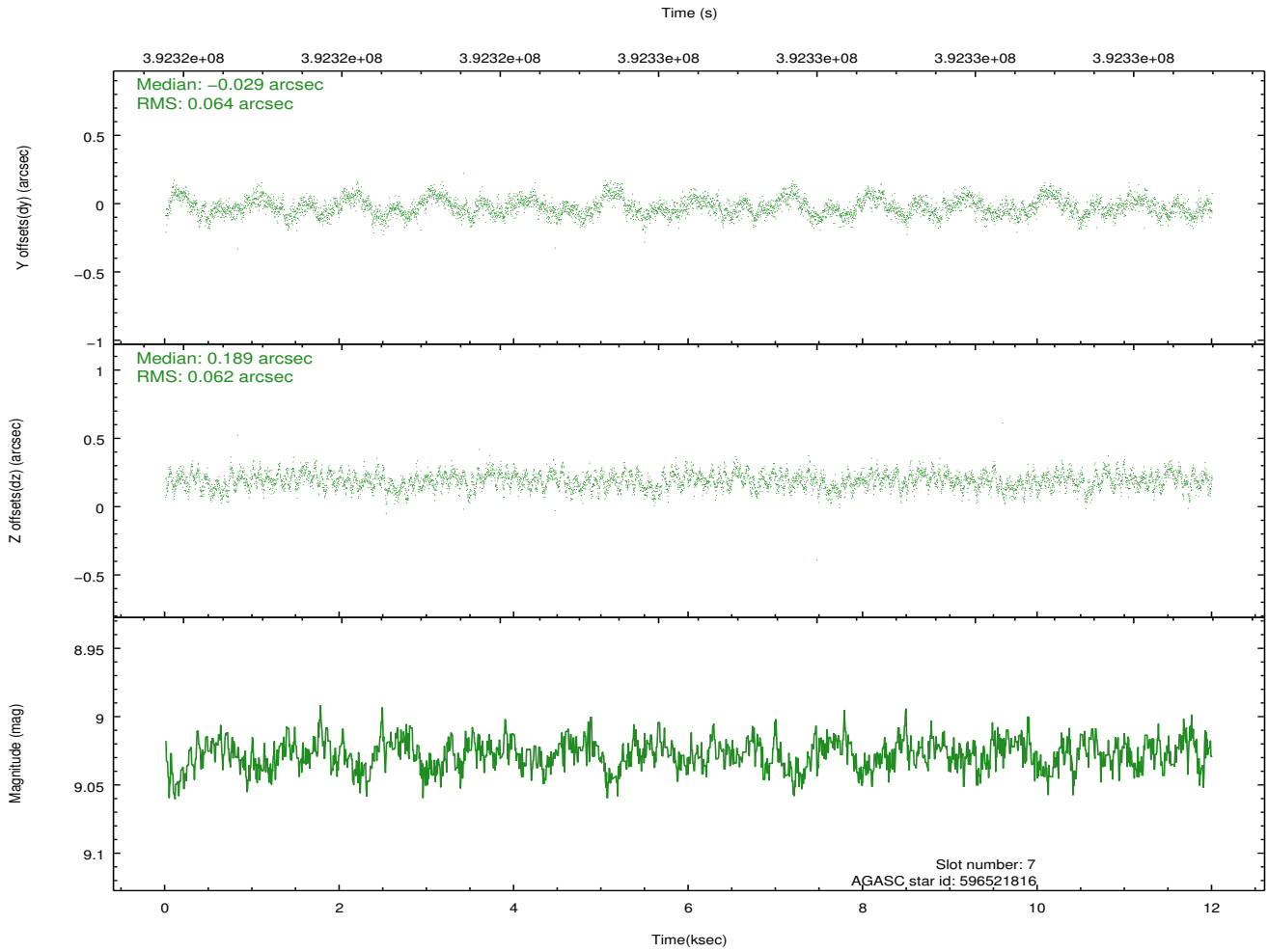
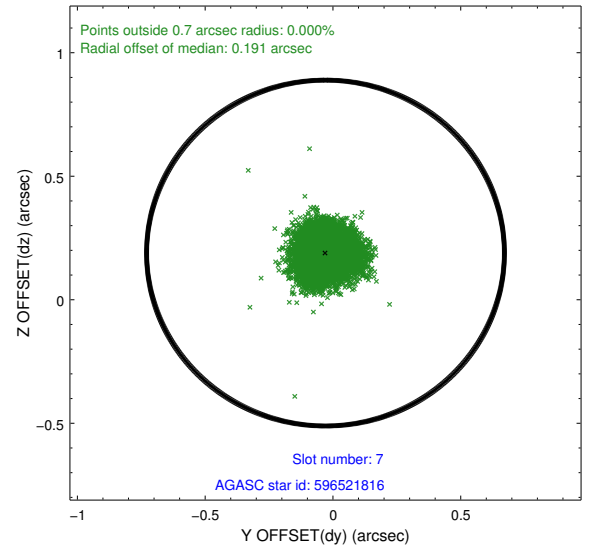
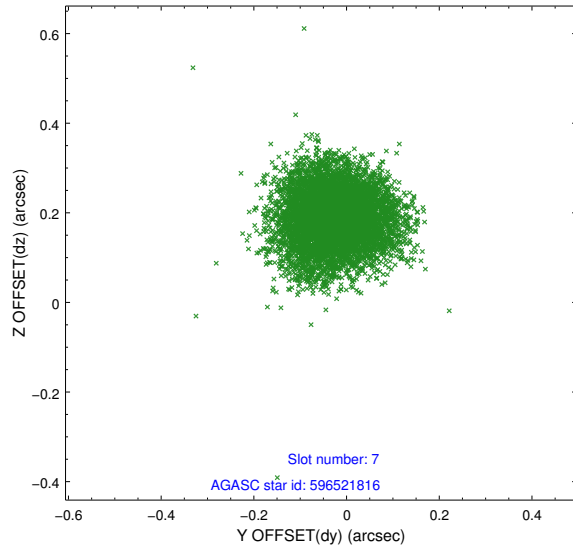


## 2.4.4 Slot 6



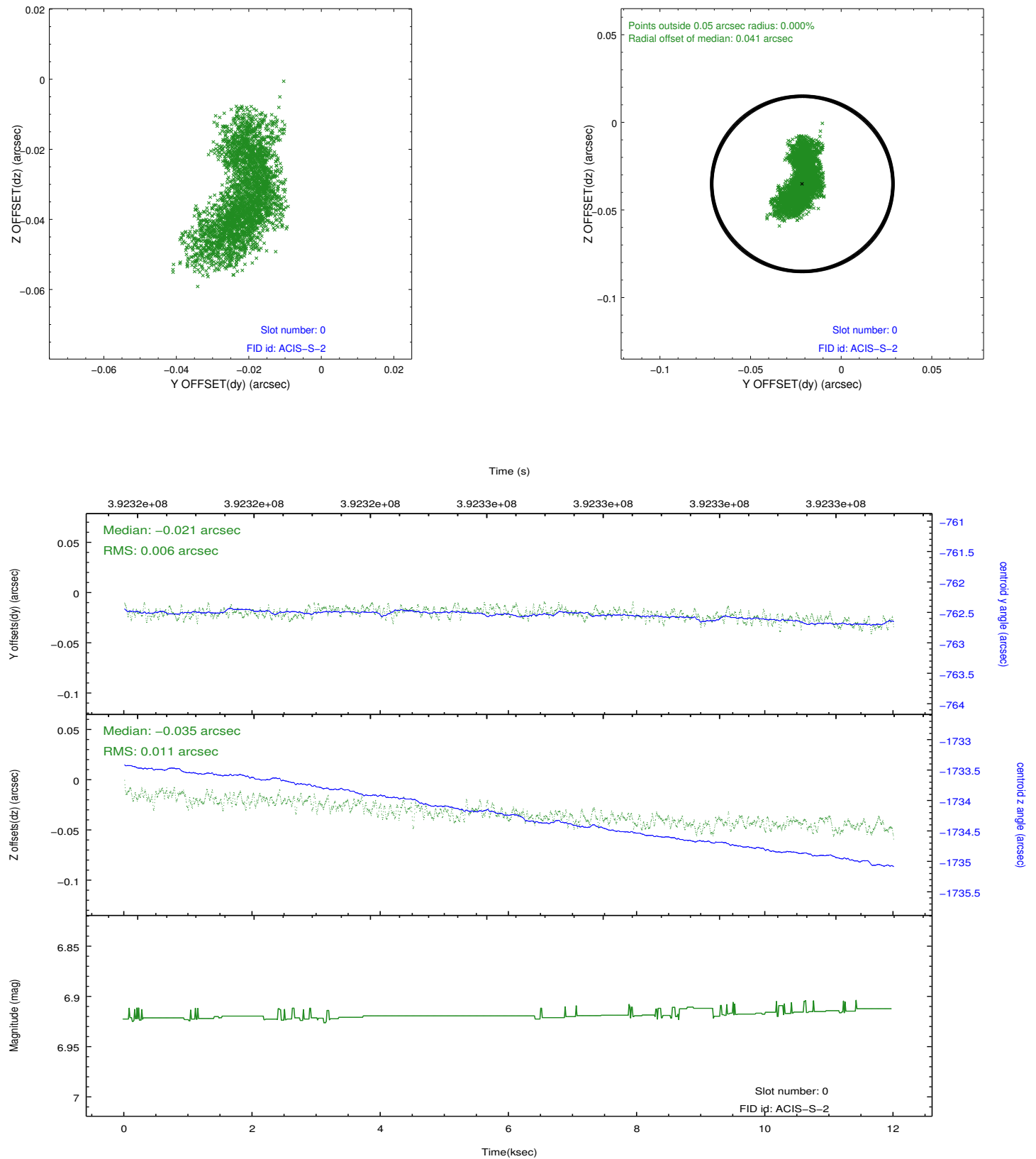


## 2.4.5 Slot 7

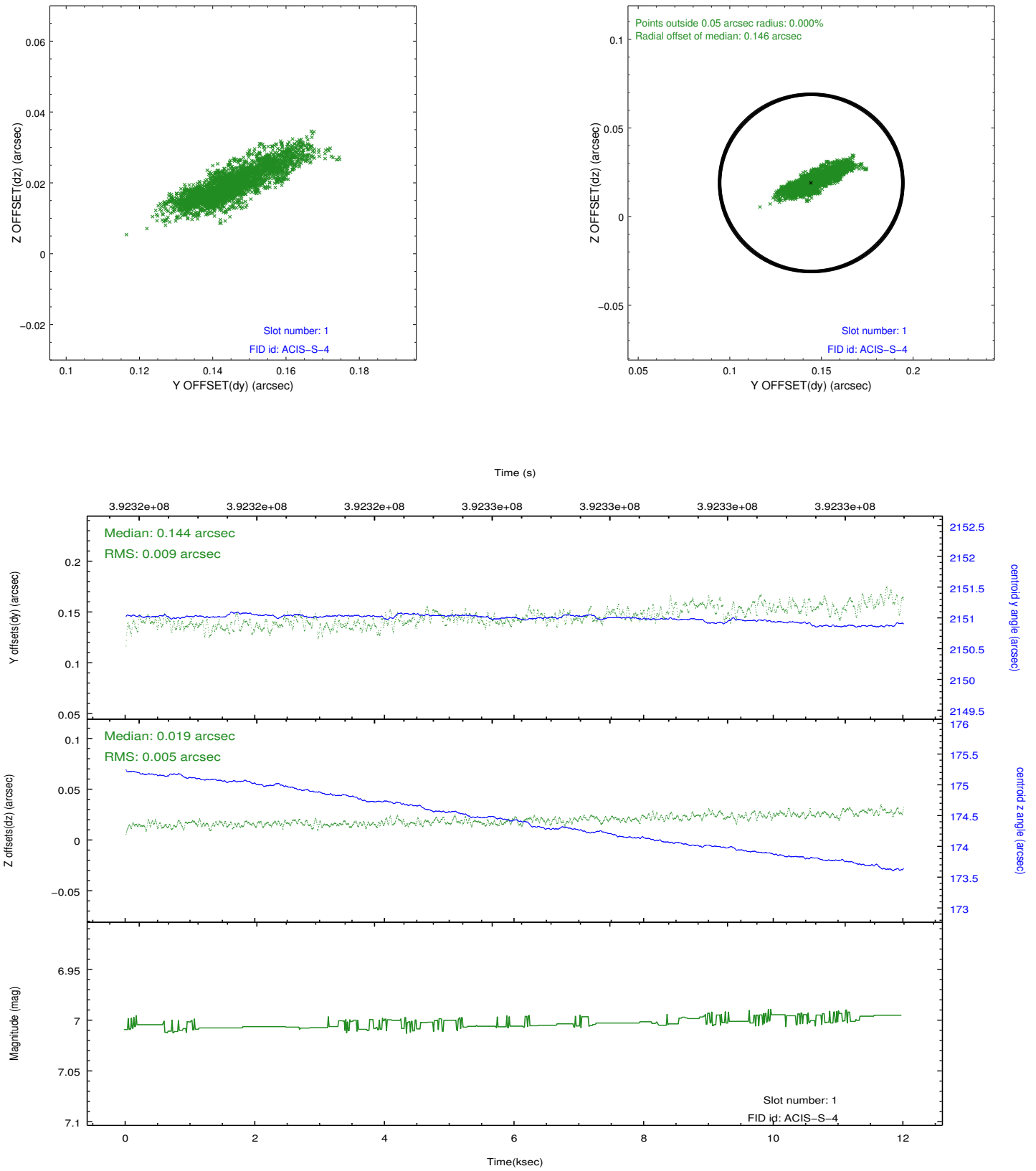


## 2.5 FID Slots

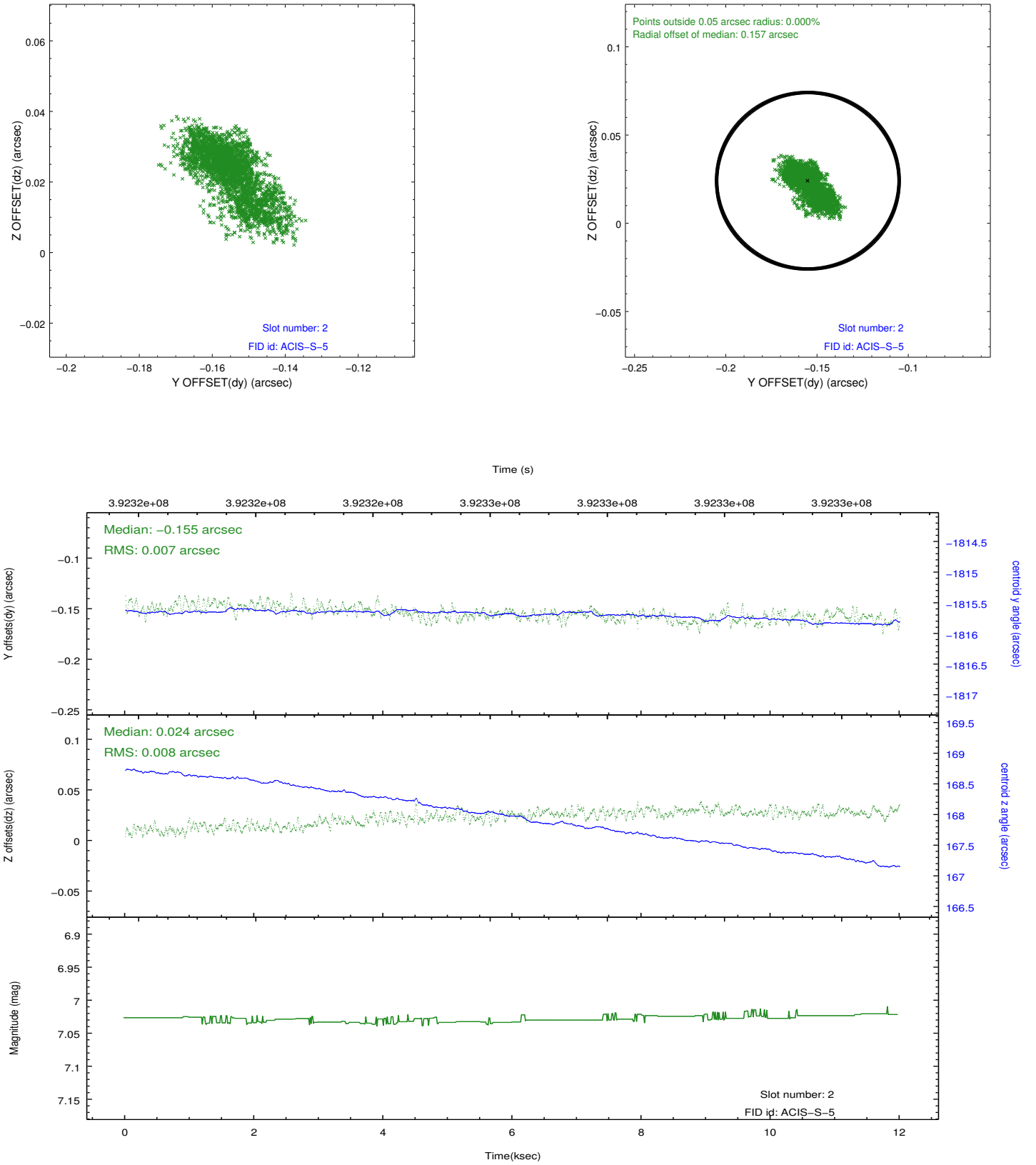
### 2.5.1 Slot 0



## 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)	2012.07.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	11.04319995892

### **A.2 Comments**