

# V&V Reference Report

## L2 ASCDS Version : 7.6.8

Observation 3810 - L2 Version 001  
Chandra X-Ray Center

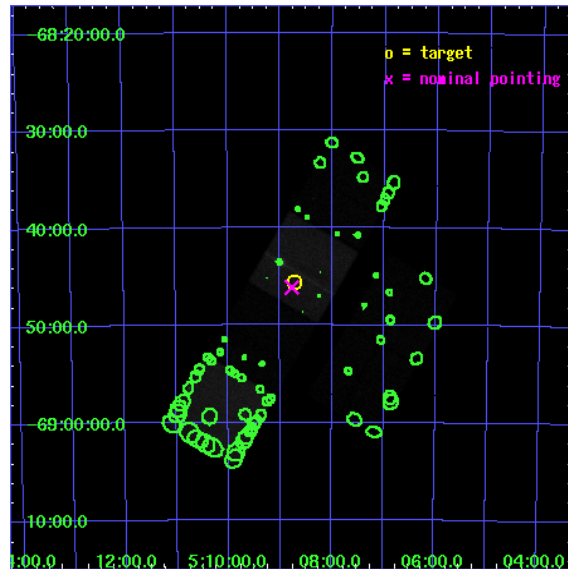
L2 Processing Date : Jul 20 2006

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# 1 Front

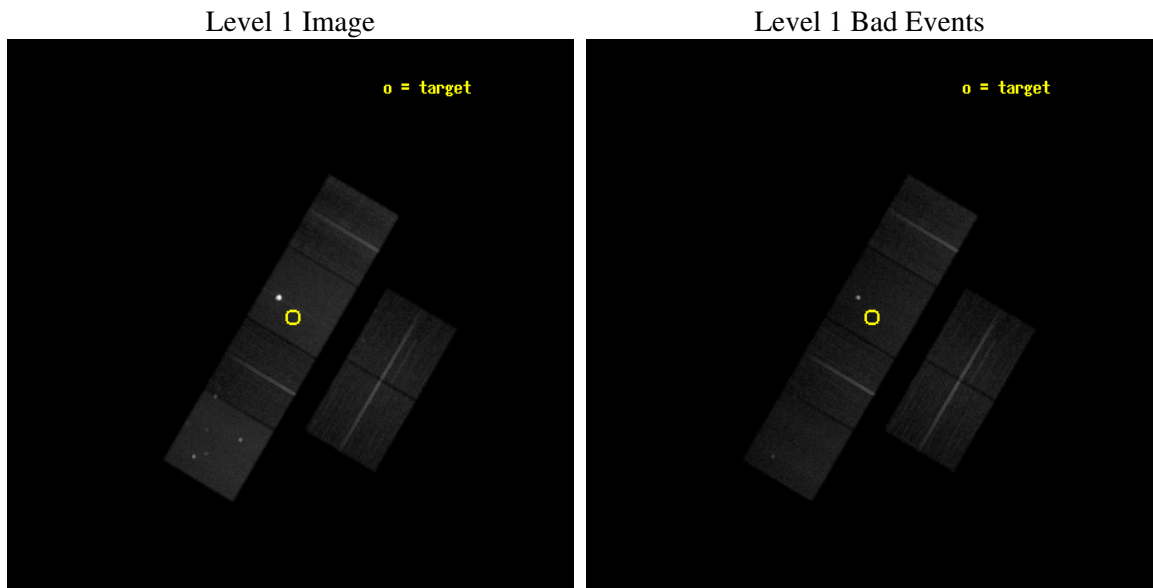
seq_num	400297
obs_id	3810
title	FINDING BLACK HOLES AND UNDERSTANDING STAR CLUSTER EVOLUTION WITH CHANDRA
observer	Dr. Simon Portegies Zwart
object	NGC 1850 A/B
dtcycle	0
cycle	P
ra_targ	77.183333
dec_targ	-68.76
ra_nom	77.192609885513
dec_nom	-68.769034085823
roll_nom	300.50907641283
revision	2
ontime	30054.399888039
livetime	29673.832980069
ontime2	30051.158927739
ontime3	30054.399888039
ontime5	30054.399888039
ontime6	30054.399888039
ontime7	30054.399888039
ontime8	30047.917937577
l2events	493193



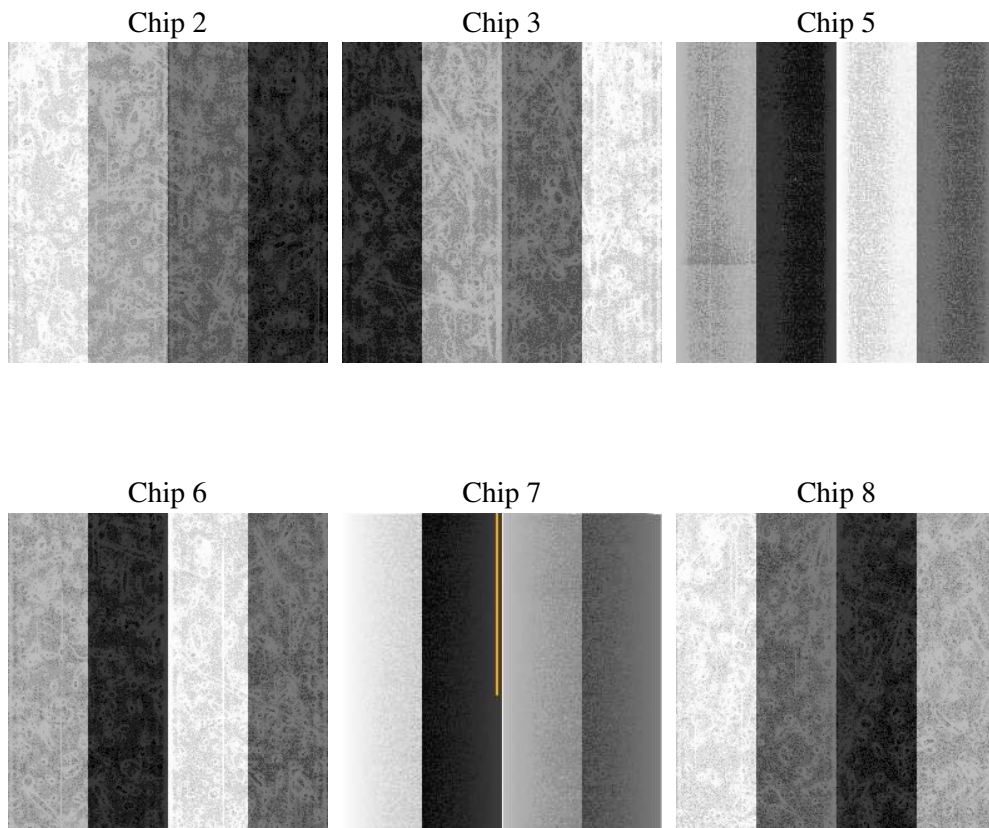
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.8
caldsver	3.2.2
date	2006-07-20T22:22:03
revision	2

sched_exp_time	30300.000000
ontime	30060.28082186
ontime2	30057.03986156
ontime3	30060.280791968
ontime5	30060.280791968
ontime6	30060.280791968
ontime7	30060.28082186
ontime8	30053.798741847
l1events	1589536

### 2.1.4 Events

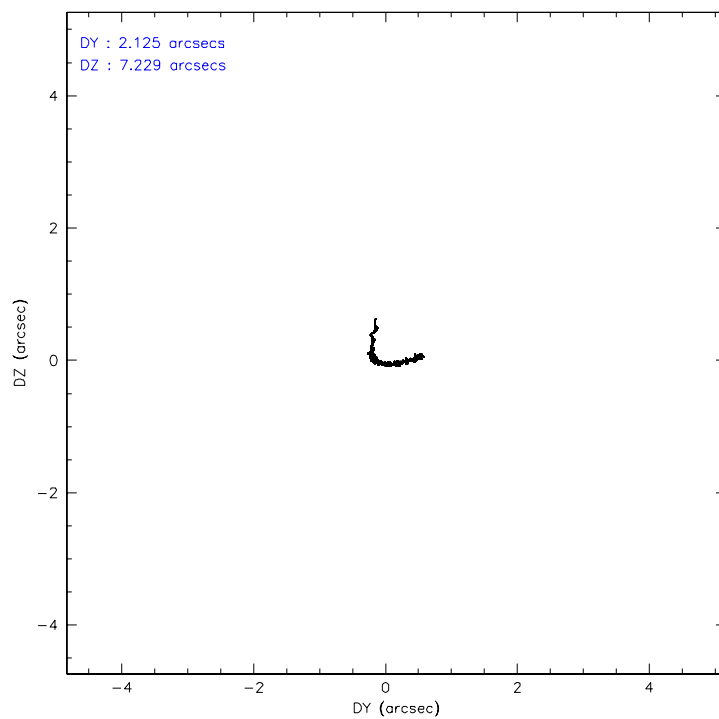
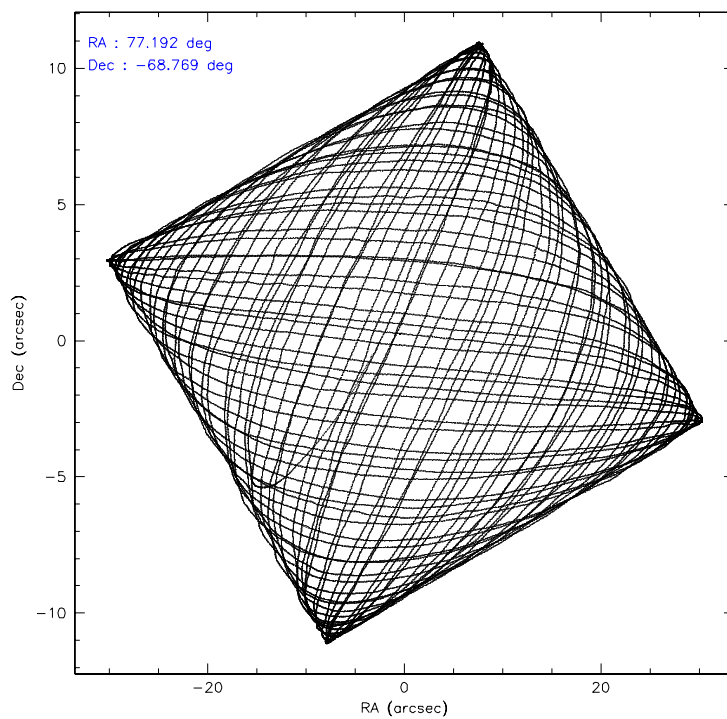
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	198612	194886	291697	199780	459417	245144
rejected events	174809	170510	160061	175889	170550	193729
rejected %	88%	87%	54%	88%	37%	79%

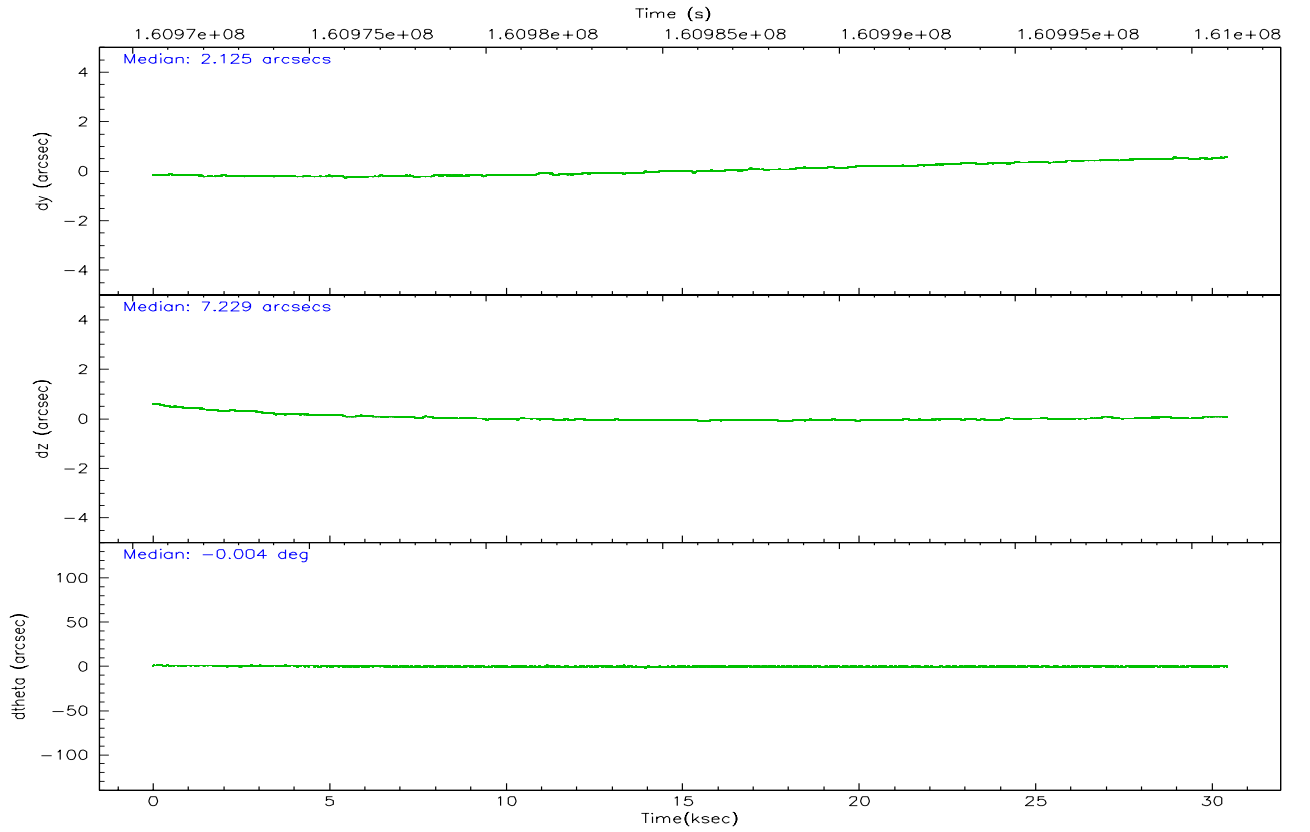
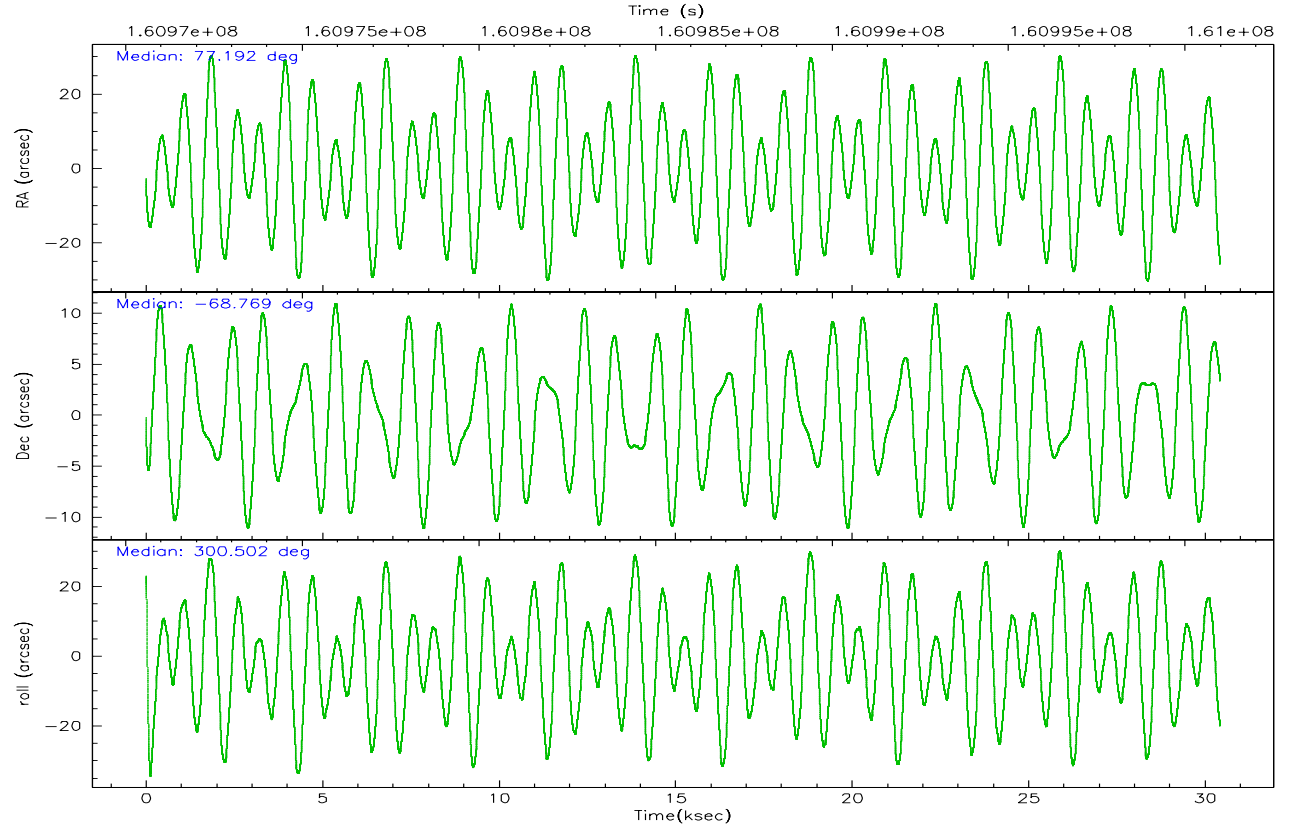
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	11180	11503	11610	10250	58928	16943
	5%	5%	3%	5%	12%	6%
grade 1 events	121	133	310	99	1845	181
	0%	0%	0%	0%	0%	0%
grade 2 events	4485	4315	41432	4712	77511	10965
	2%	2%	14%	2%	16%	4%
grade 3 events	2158	2311	3059	2288	28523	5443
	1%	1%	1%	1%	6%	2%
grade 4 events	2213	2195	3000	2209	27437	5101
	1%	1%	1%	1%	5%	2%
grade 5 events	7622	8334	13687	8698	21564	11246
	3%	4%	4%	4%	4%	4%
grade 6 events	3773	4055	72568	4435	96542	12977
	1%	2%	24%	2%	21%	5%
grade 7 events	167060	162040	146031	167089	147067	182288
	84%	83%	50%	83%	32%	74%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	NONE	NONE
Pointing RA	77.126729	77.19260988551341	Alternating exposures requested	N	N
Pointing Dec	-68.755974	-68.76903408582274	Primary exposure time	0.000000	3.2
Pointing Roll	300.291030	300.5090764128267			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	160970700.184000	160969879.92644			
Observation start date	2003-02-07T02:03:56	2003-02-07T01:51:19			
Observation end time	161001000.184000	161001890.16529			
Observation end date	2003-02-07T10:28:56	2003-02-07T10:44:50			
Read mode	TIMED	TIMED			

## 2.3 Aspect



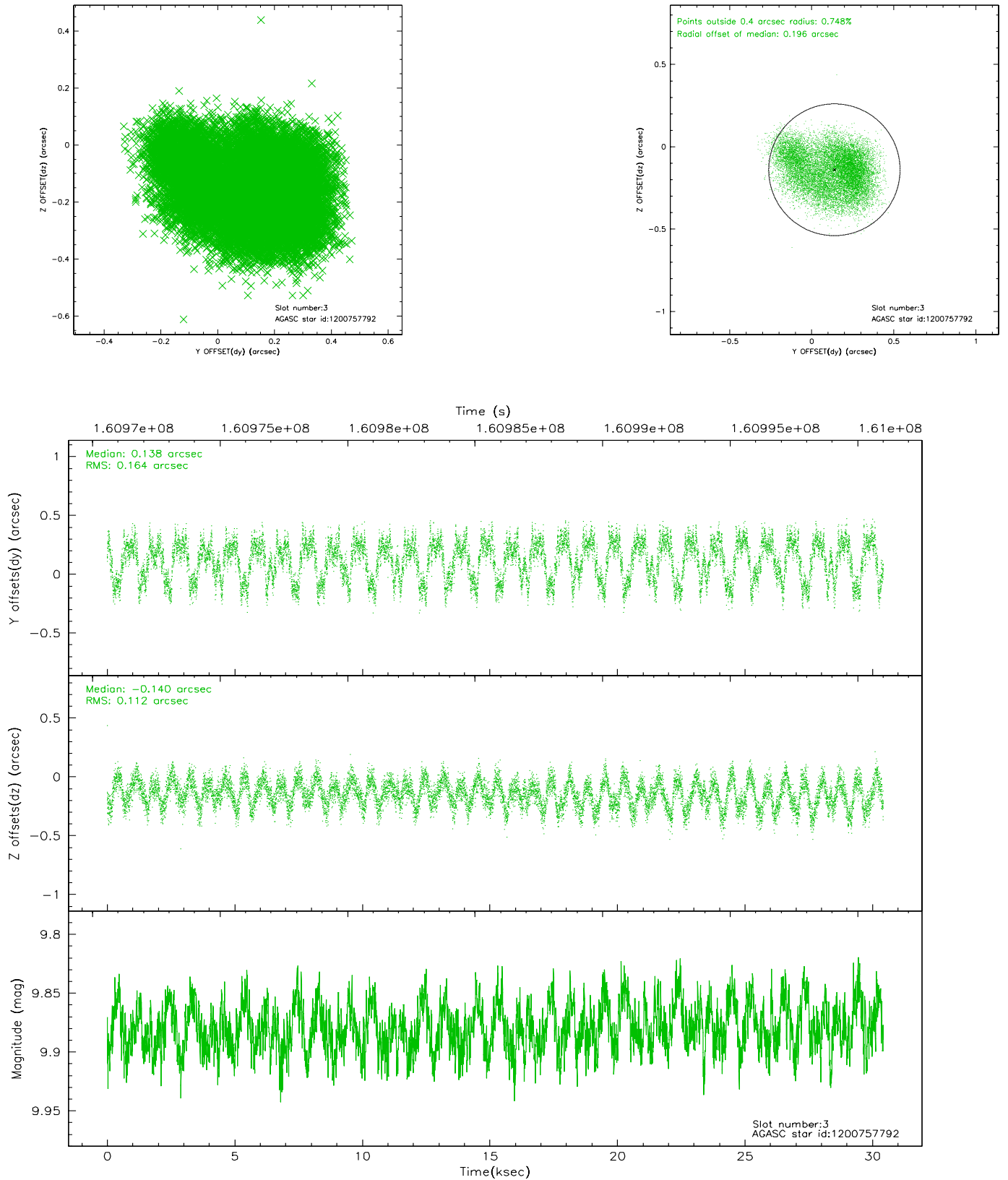


### Slot Statistics

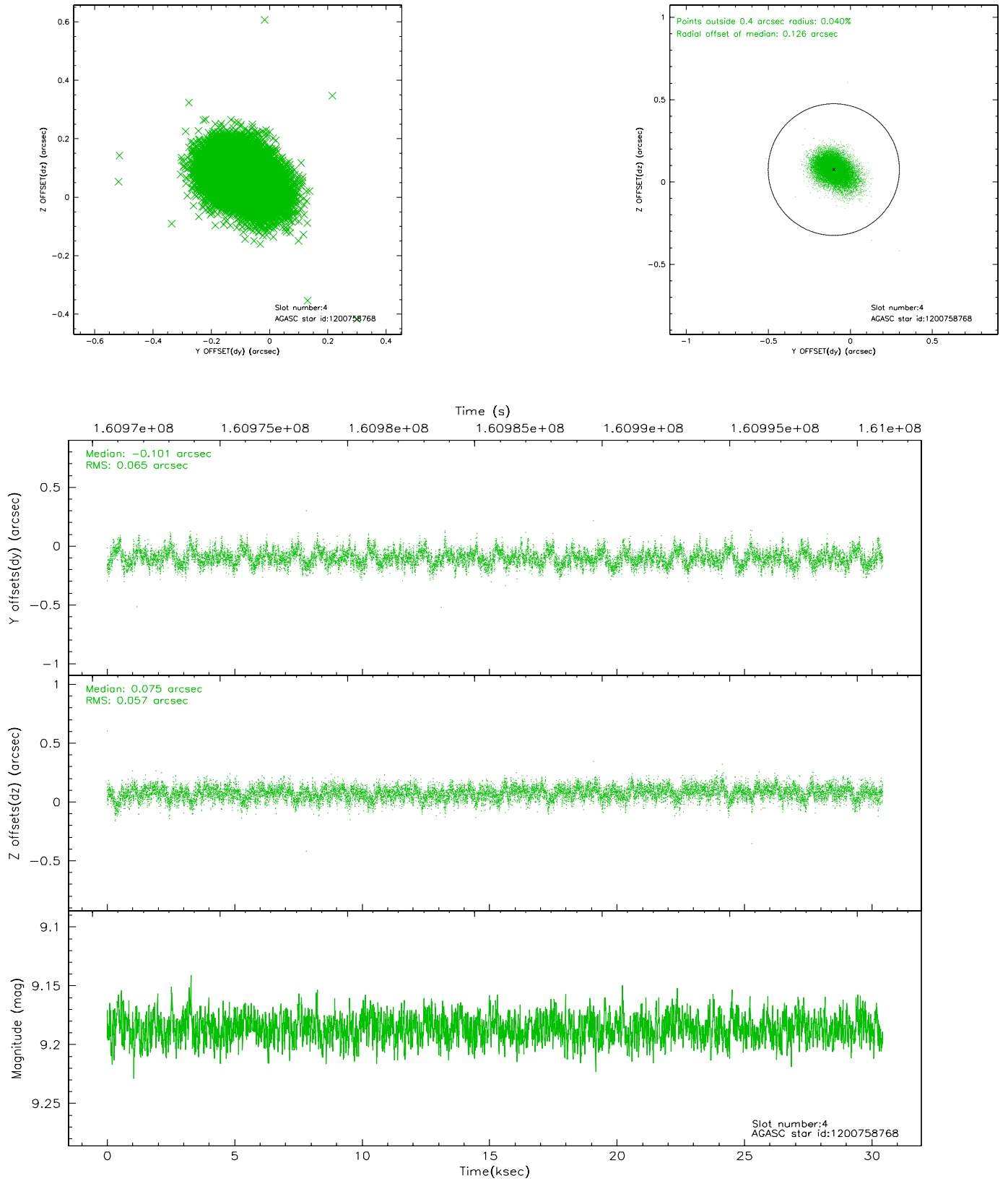
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	7421	-0.015	0.018	0.013	0.019	0.000000	0.000000	-754.82	-1728.44
1	FID	ACIS-S-4	7.20	7421	-0.059	0.002	0.015	0.021	0.000000	0.000000	2158.38	179.97
2	FID	ACIS-S-5	7.24	7421	0.042	-0.012	0.009	0.017	0.000000	0.000000	-1807.52	173.69
3	GUIDE	1200757792	9.88	14831	0.138	-0.140	0.217	0.333	77.665138	-68.247752	-1214.55	1541.39
4	GUIDE	1200758768	9.19	14834	-0.101	0.075	0.090	0.152	76.222937	-69.168878	707.65	-1752.69
5	GUIDE	1200758808	9.20	14773	0.076	0.037	0.084	0.132	75.766621	-68.511245	-1647.52	-1114.27
6	GUIDE	1200760024	8.48	14837	-0.061	0.073	0.081	0.127	77.625244	-69.320410	2076.72	-478.53
7	GUIDE	1200888464	9.46	14828	-0.029	-0.035	0.095	0.159	78.430687	-69.005633	1640.06	990.09

## 2.4 Star Slots

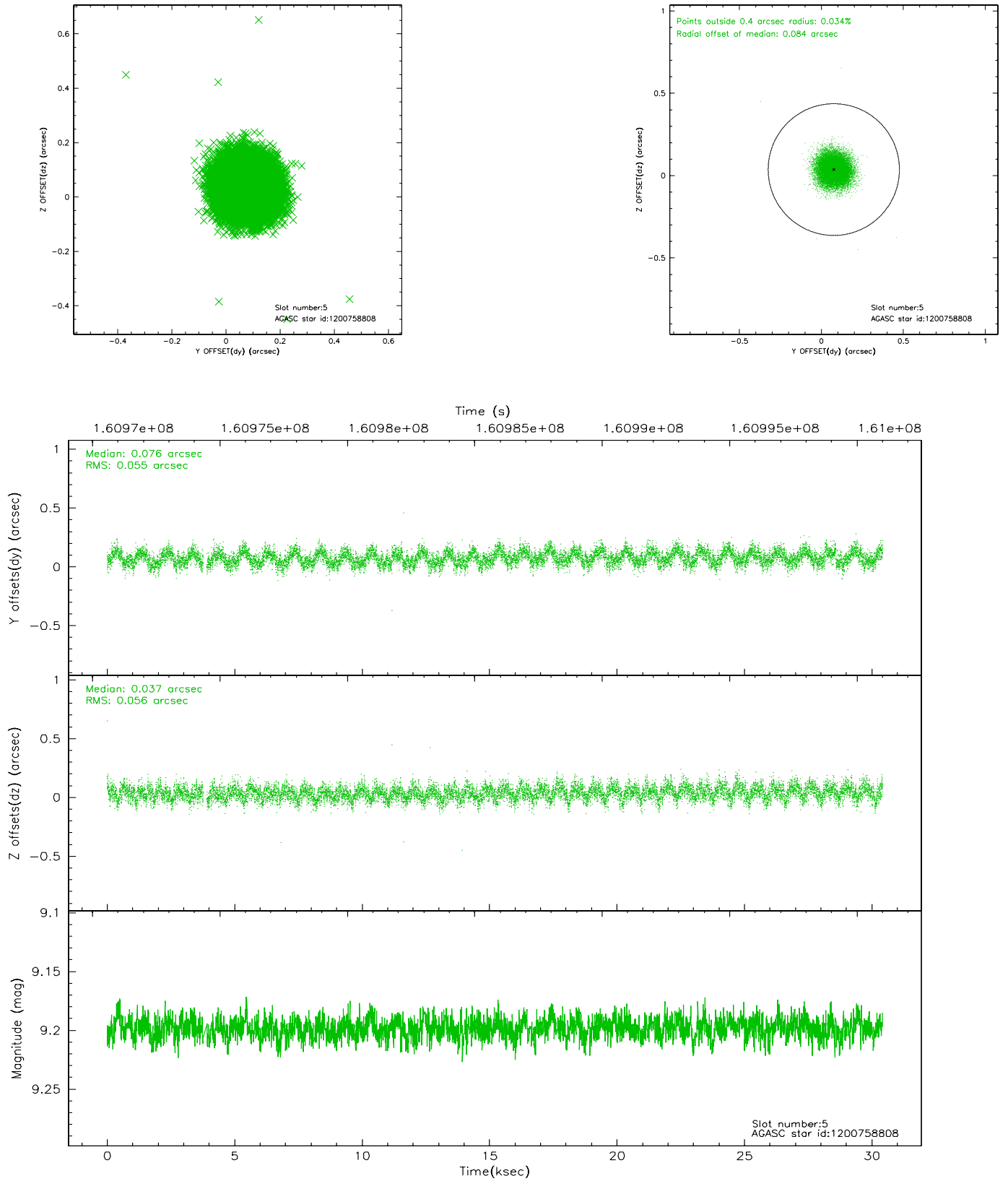
### 2.4.1 Slot 3



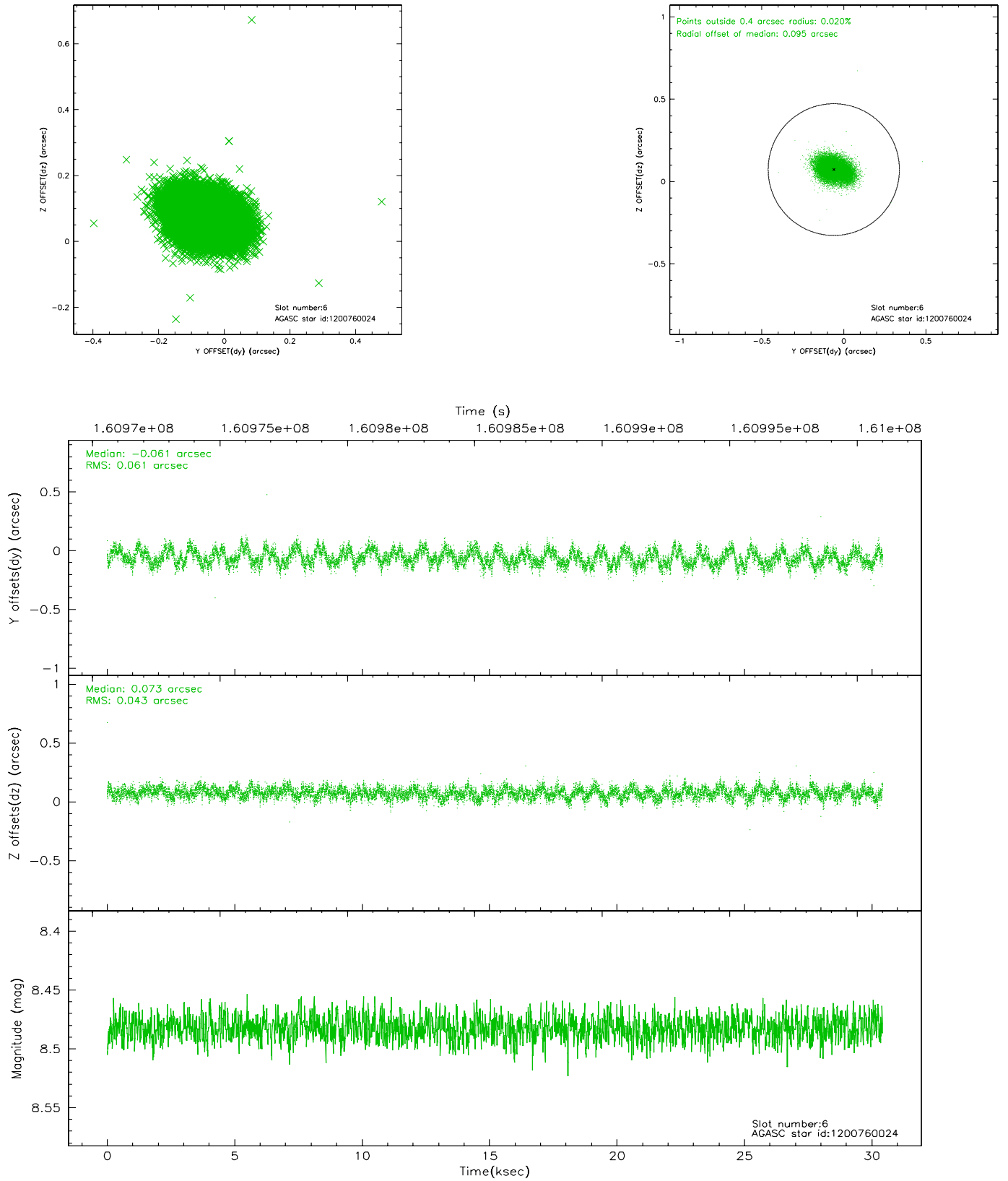
## 2.4.2 Slot 4



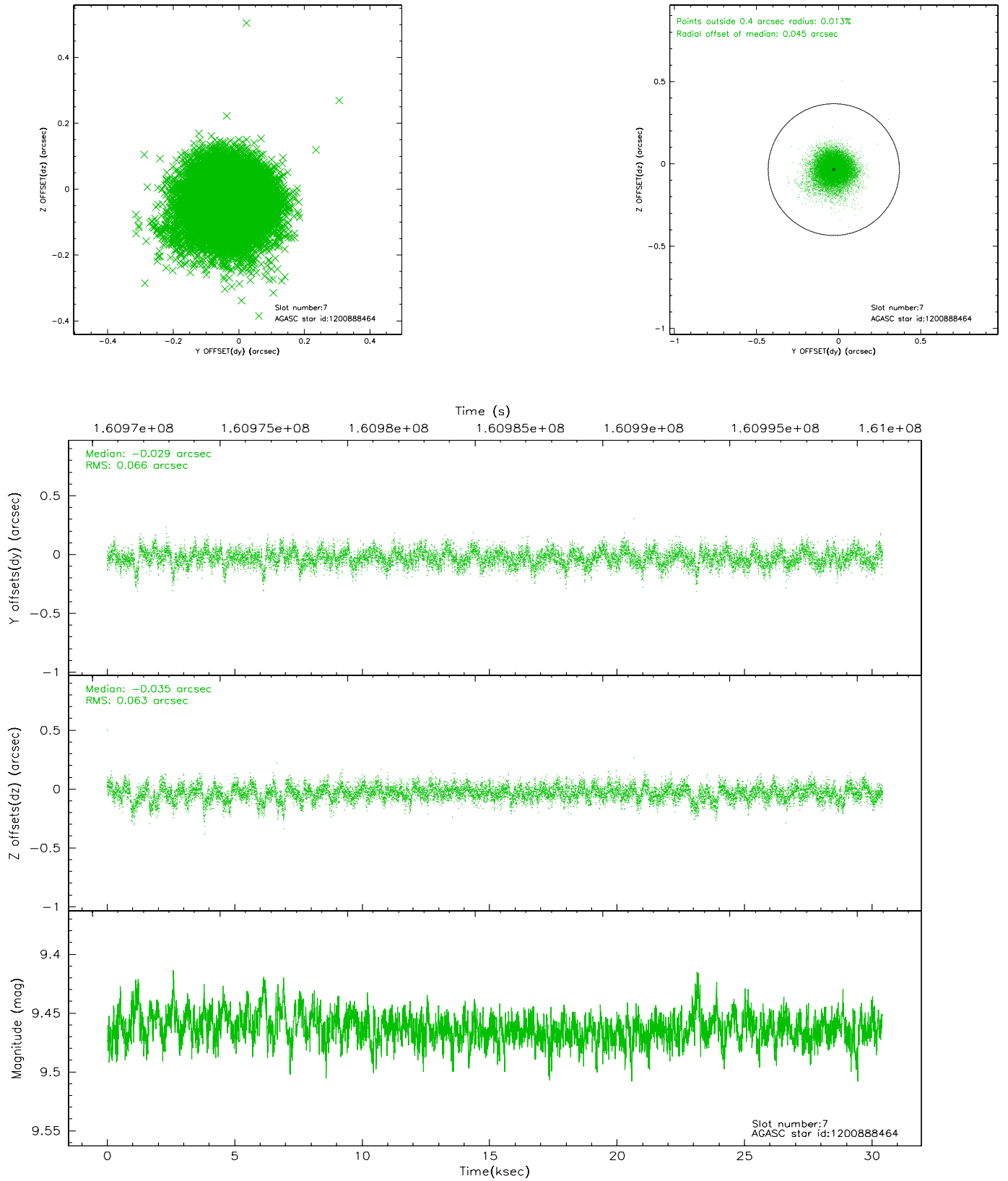
### 2.4.3 Slot 5



## 2.4.4 Slot 6

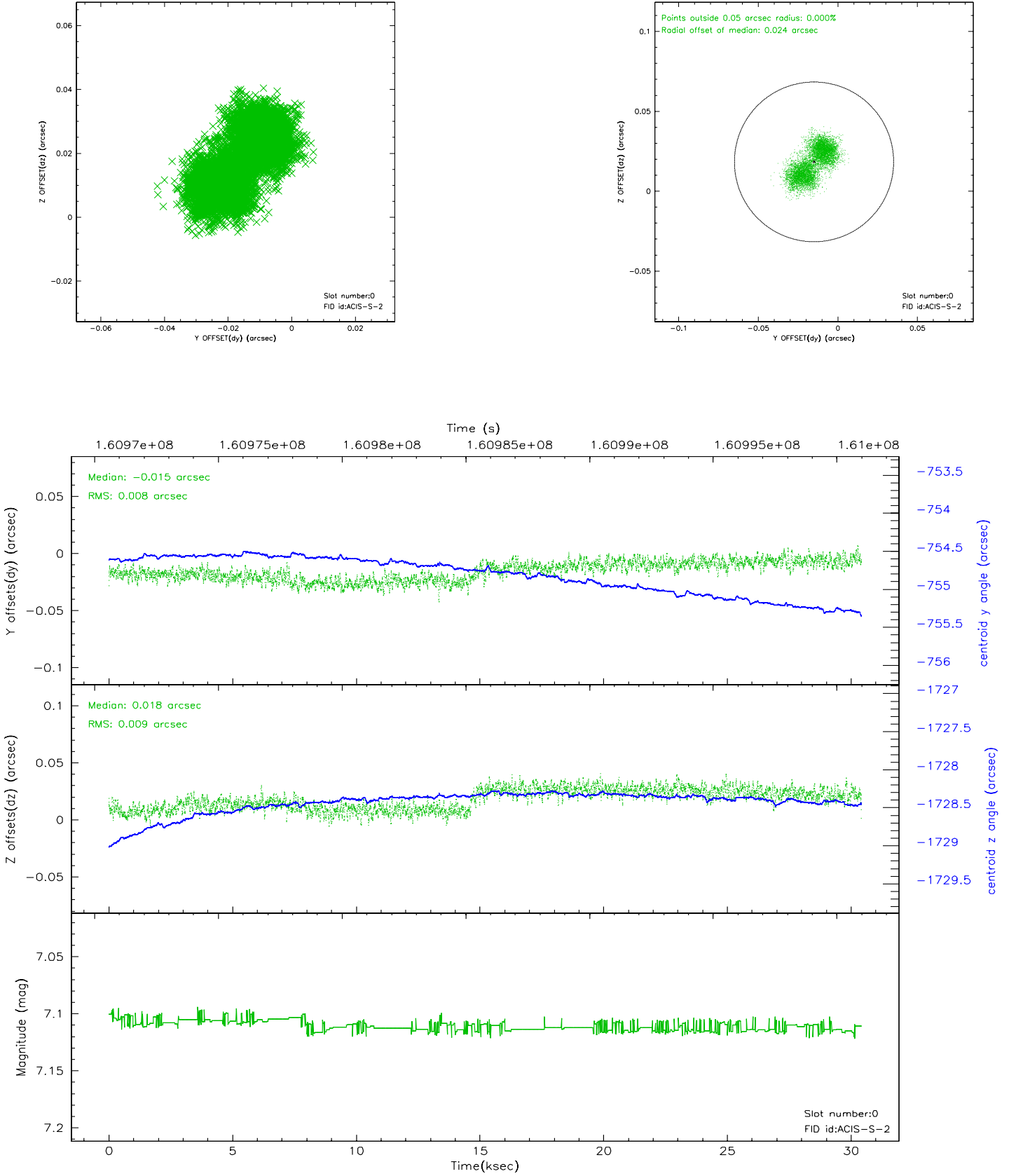


## 2.4.5 Slot 7

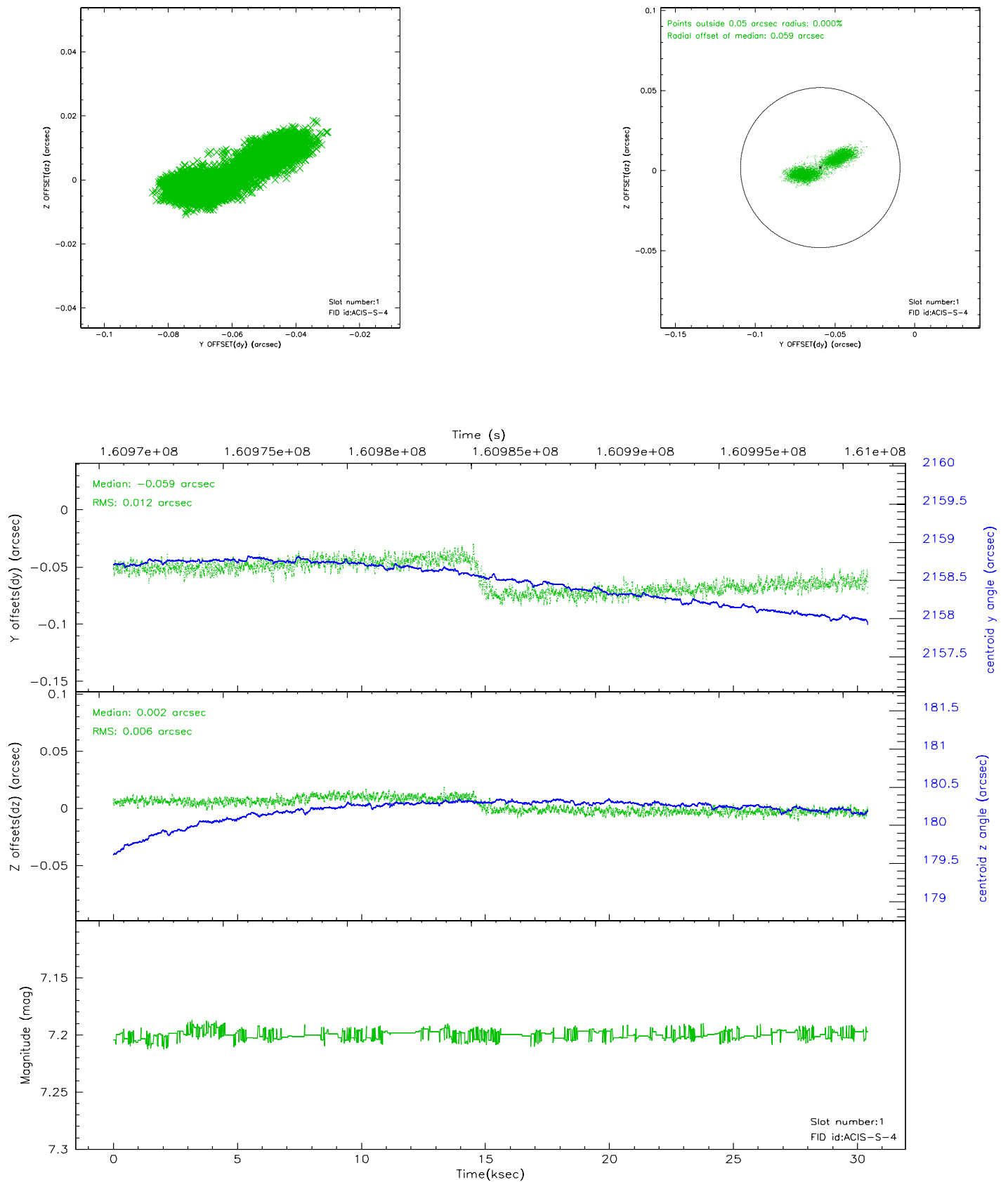


## 2.5 FID Slots

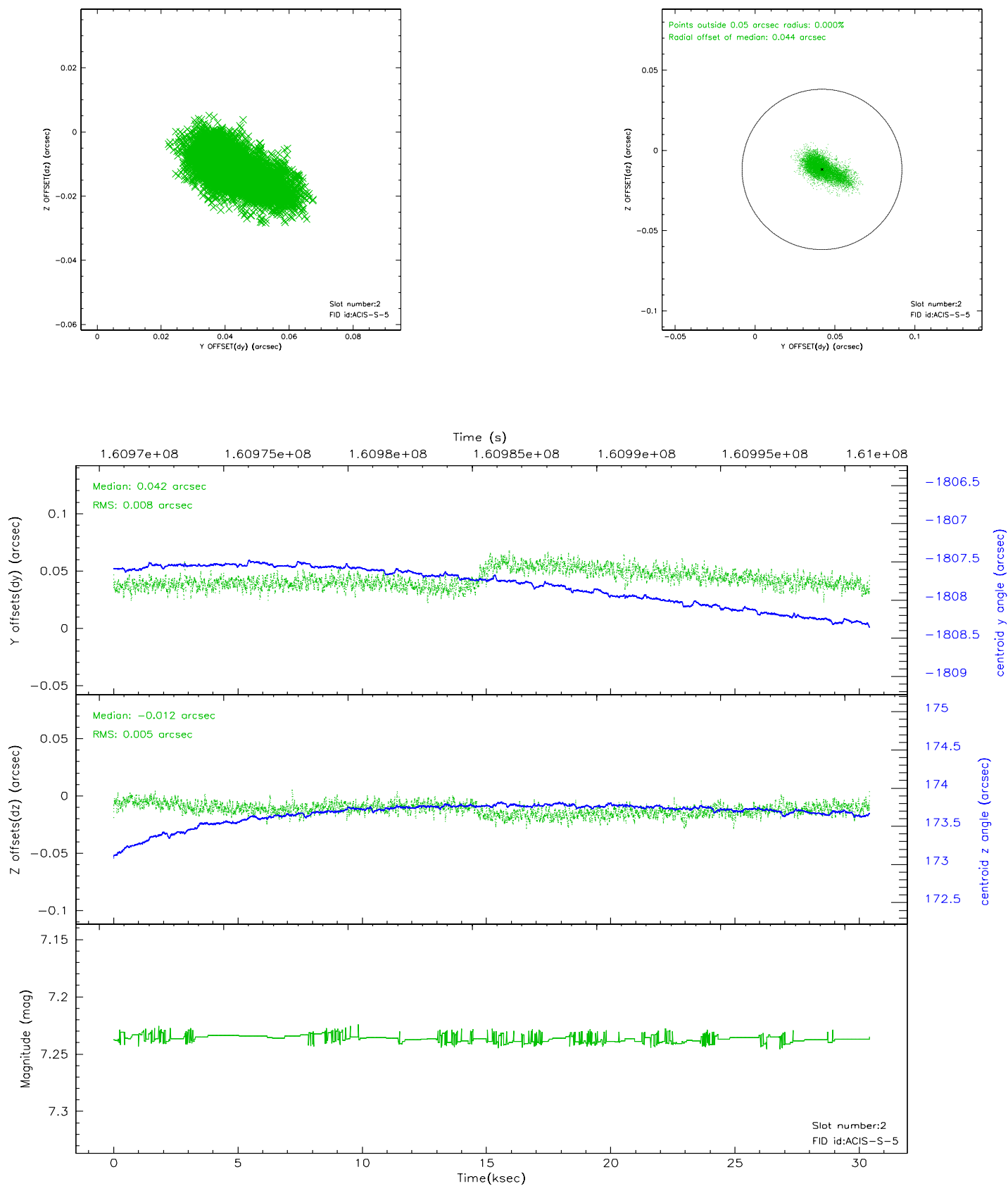
### 2.5.1 Slot 0



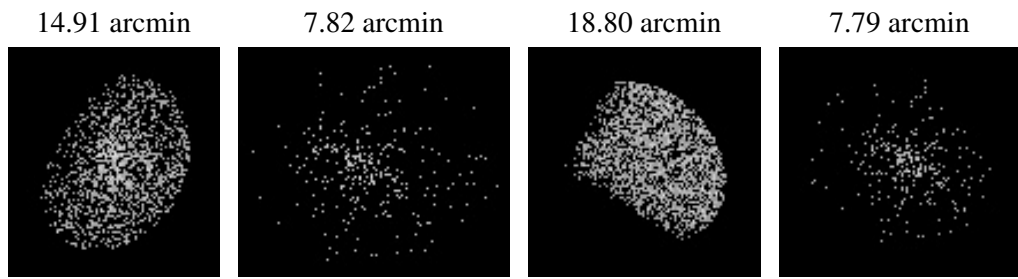
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources



## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.07.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.058

### A.2 Comments