

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3519 - L2 Version 3  
Chandra X-Ray Center

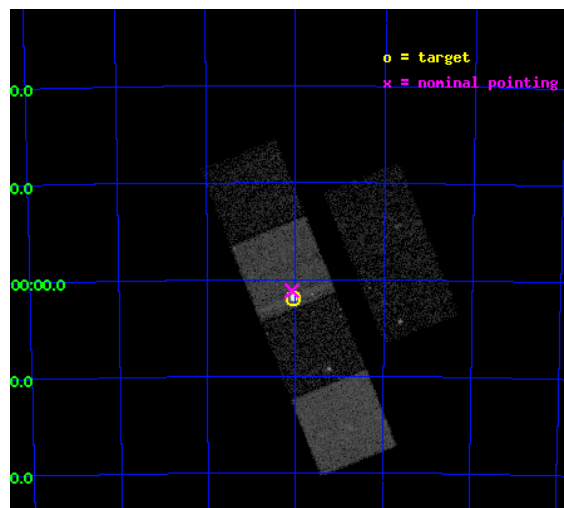
L2 Processing Date : Oct 22 2012

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# 1 Front

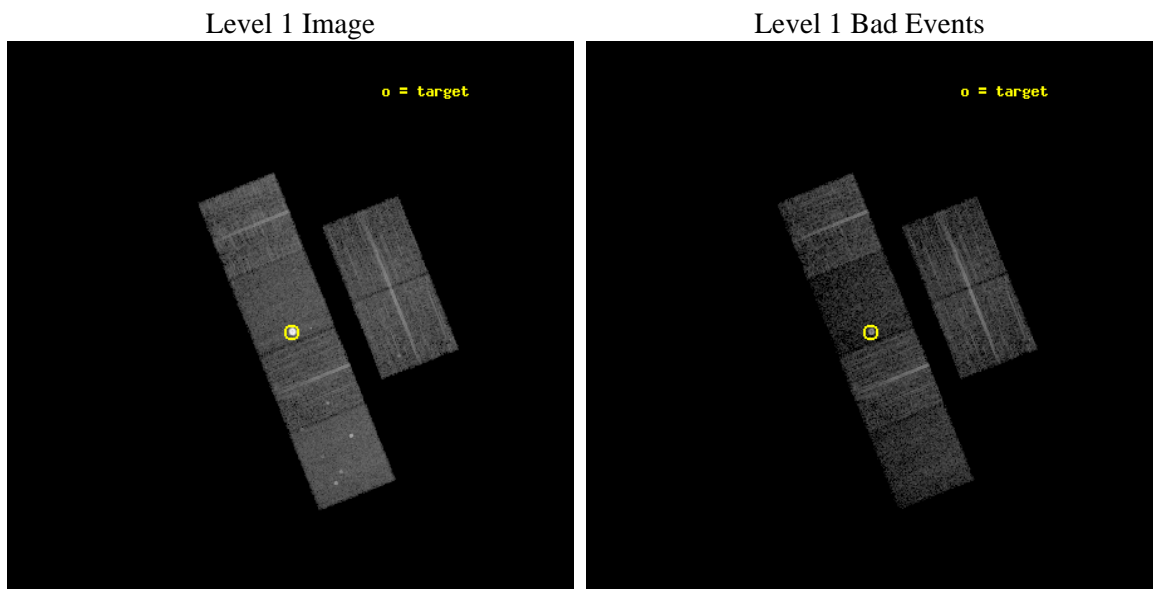
seq_num	590274	Sequence number
obs_id	3519	Observation id
title	AO4A ACIS-S CALIBRATION OBSERVATIONS OF E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72[S3,-120,1,0,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	16.020472115696	Nominal RA [deg]
dec_nom	-72.01967623197	Nominal Dec [deg]
roll_nom	248.19095633472	Nominal Roll [deg]
revision	3	Processing version of data
ontime	8111.9999697804	Sum of GTIs [s]
livetime	8009.2809417031	Livetime [s]
ontime2	8111.9999697804	Sum of GTIs [s]
ontime3	8111.9999697804	Sum of GTIs [s]
ontime5	8111.9999697804	Sum of GTIs [s]
ontime6	8111.9999697804	Sum of GTIs [s]
ontime7	8111.9999697804	Sum of GTIs [s]
ontime8	8108.7590095401	Sum of GTIs [s]
l2events	116977	Number of level 2 events



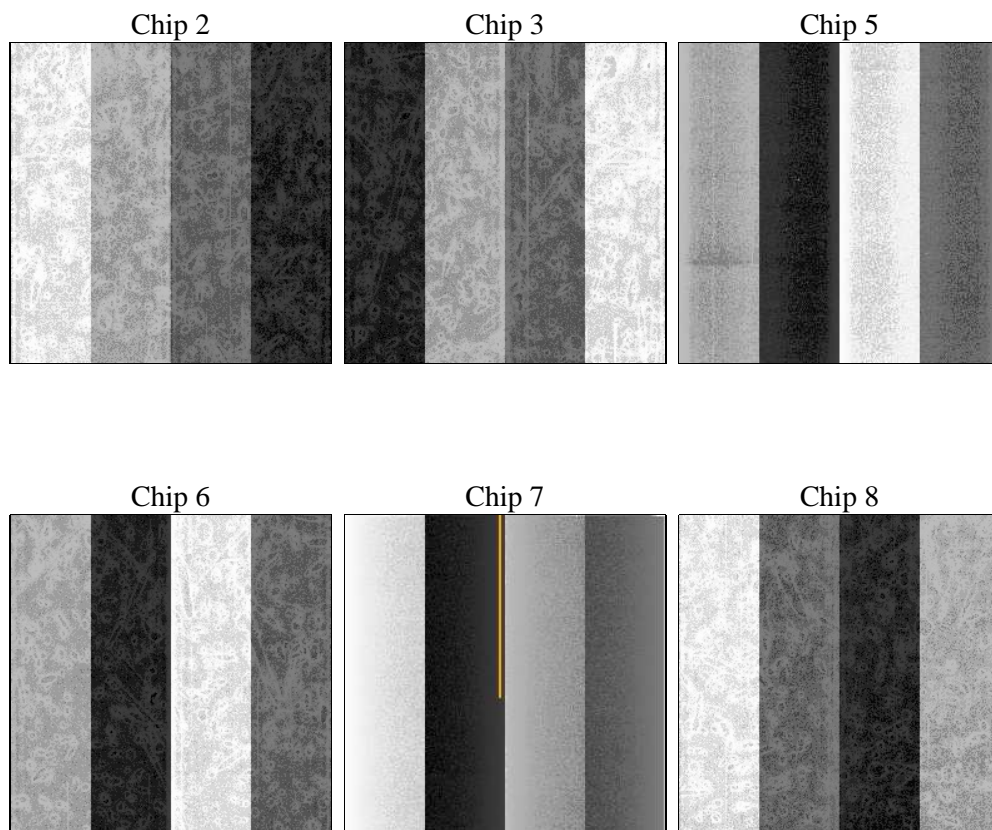
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7973.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	8111.9999697804	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime2	8111.9999697804	Sum of GTIs [s]
date	2012-10-22T03:58:42	Date and time of file creation	ontime3	8111.9999697804	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	8111.9999697804	Sum of GTIs [s]
			ontime6	8111.9999697804	Sum of GTIs [s]
			ontime7	8111.9999697804	Sum of GTIs [s]
			ontime8	8108.7590095401	Sum of GTIs [s]
			l1events	328886	Number of level 1 events

### 2.1.4 Events

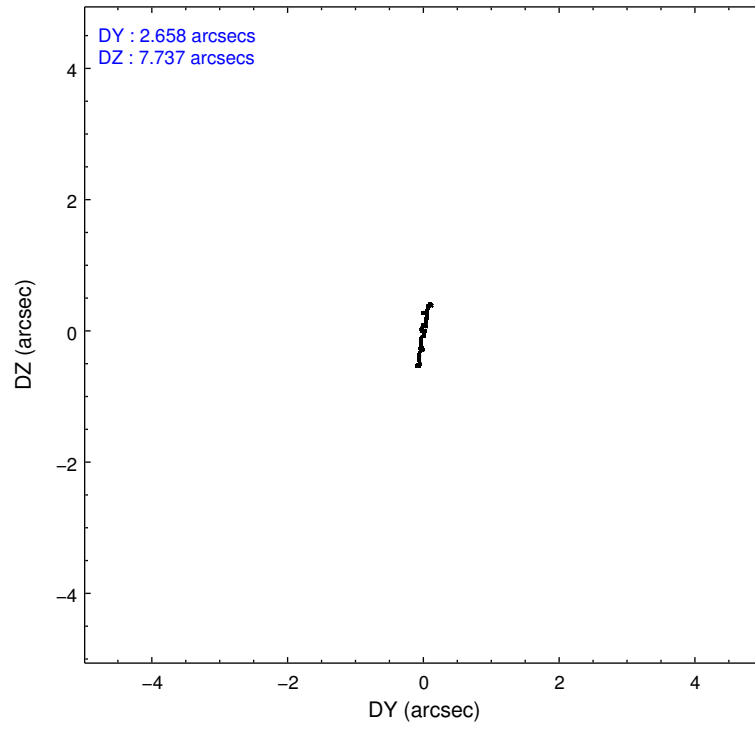
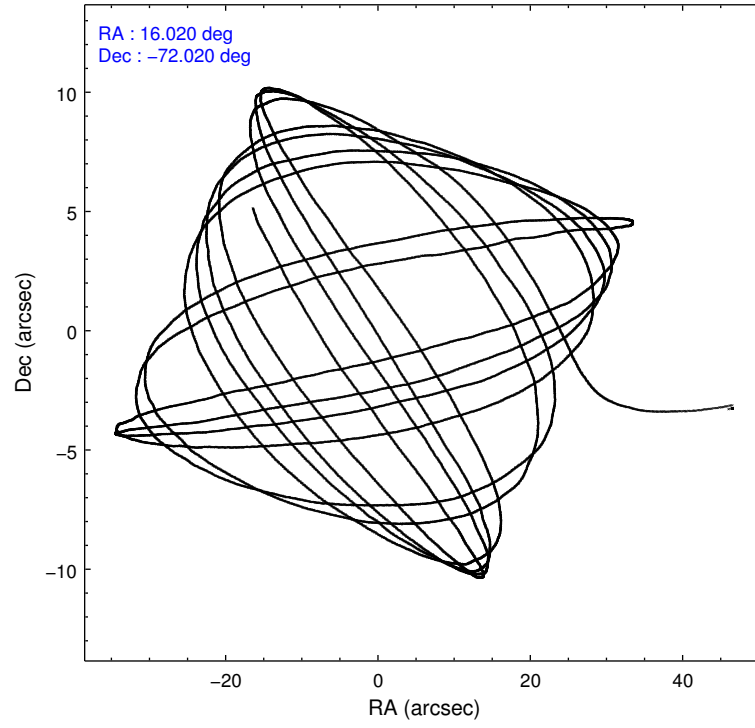
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	45861	39869	50378	42655	100305	49818	grade 0 events	1776	1537	4197	2369	20464	2996
rejected events	41616	36037	23199	37622	21877	38879		3%	3%	8%	5%	20%	6%
rejected %	90%	90%	46%	88%	21%	78%	grade 1 events	28	19	96	18	393	41
								0%	0%	0%	0%	0%	0%
							grade 2 events	945	775	7951	921	20901	2557
								2%	1%	15%	2%	20%	5%
							grade 3 events	466	407	1290	480	9544	1276
								1%	1%	2%	1%	9%	2%
							grade 4 events	453	439	1250	499	9078	1211
								0%	1%	2%	1%	9%	2%
							grade 5 events	1127	1325	4076	1327	5204	1894
								2%	3%	8%	3%	5%	3%
							grade 6 events	641	700	12686	823	19084	3003
								1%	1%	25%	1%	19%	6%
							grade 7 events	40425	34667	18832	36218	15637	36840
								88%	86%	37%	84%	15%	73%

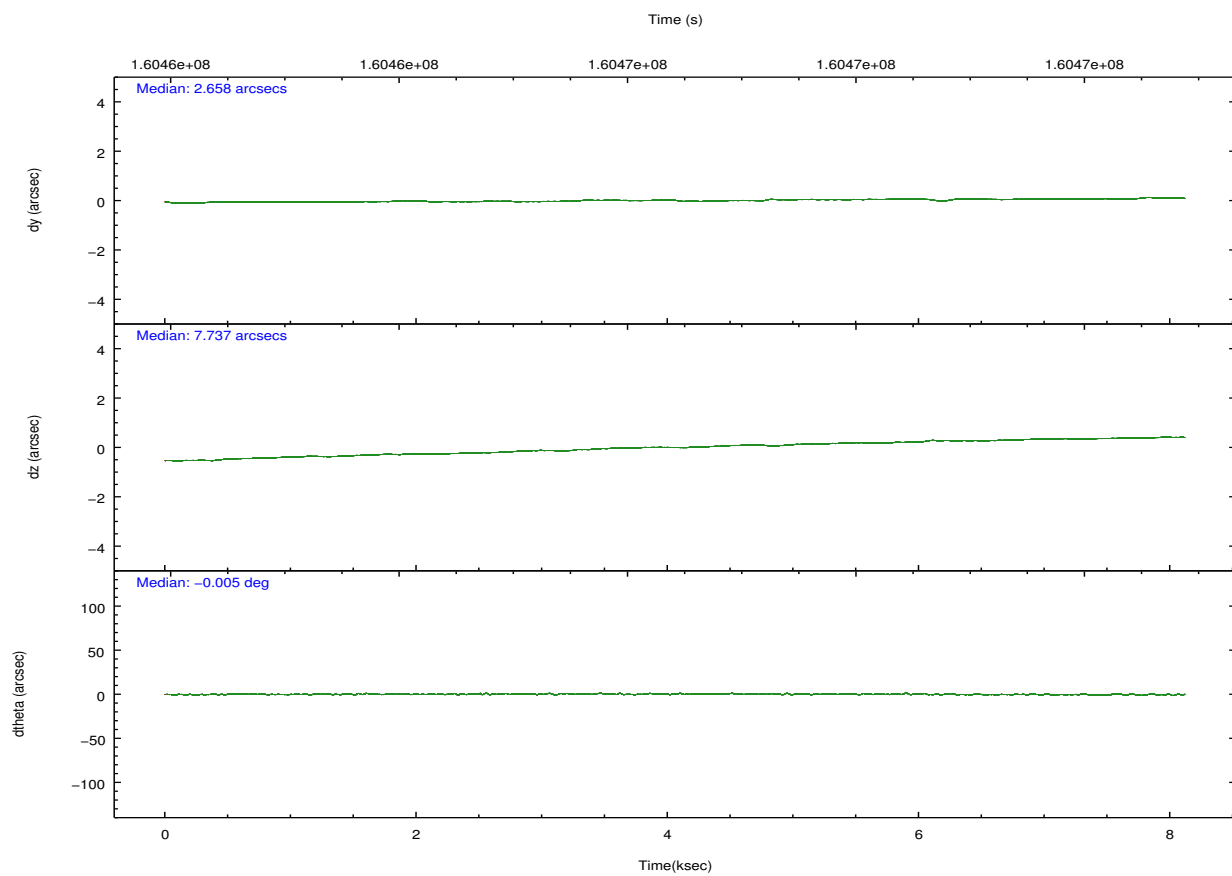
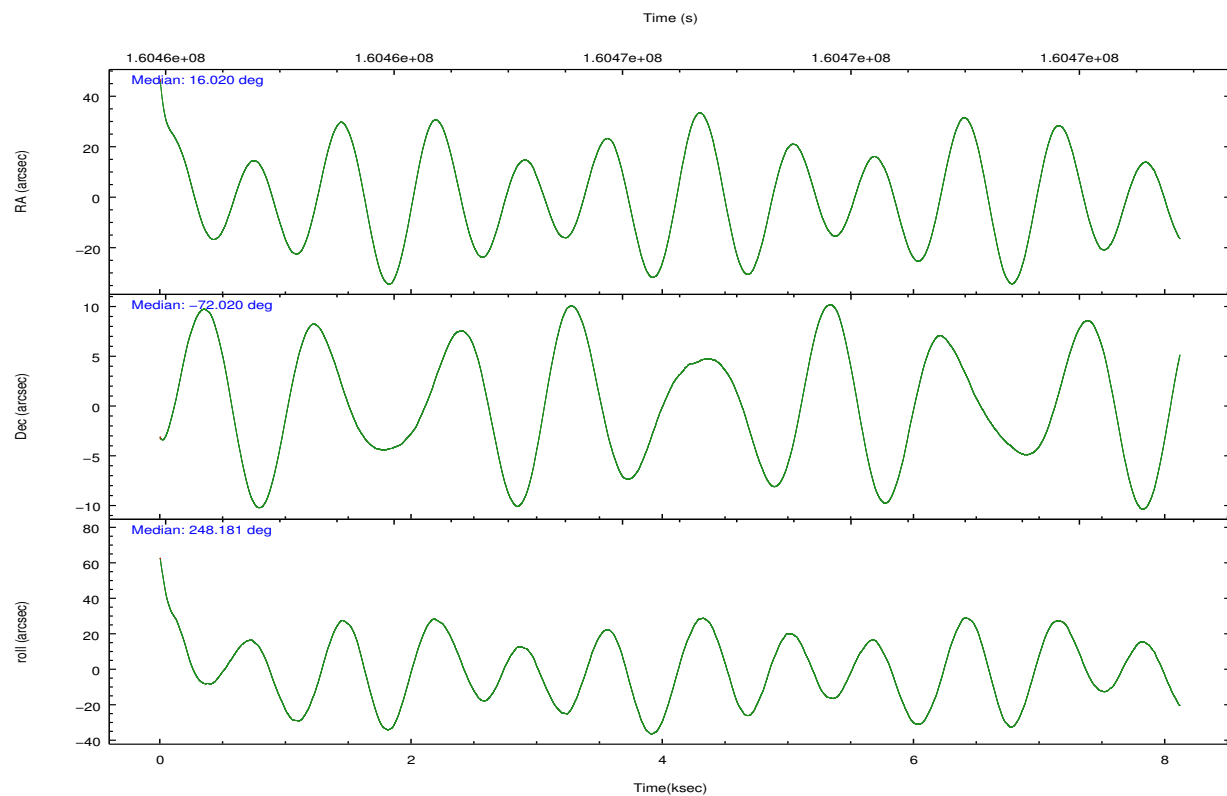


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	16.006582	16.0204721156959	Subarray requested	NONE	NONE
[deg] Pointing Dec	-71.992772	-72.01967623197008	Alternating exposures requested	N	N
[deg] Pointing Roll	248.021098	248.1909563347209	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	158976064.184000	158976064.184000			
[s] Window stop time (MET)	161654464.184000	161654464.184000			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	160462501.184000	160461420.9676			
Observation start date	2003-02-01T04:53:57	2003-02-01T04:37:00			
[s] Observation end time (MET)	160470474.184000	160470608.04298			
Observation end date	2003-02-01T07:06:50	2003-02-01T07:10:08			
Read mode	TIMED	TIMED			

## 2.3 Aspect



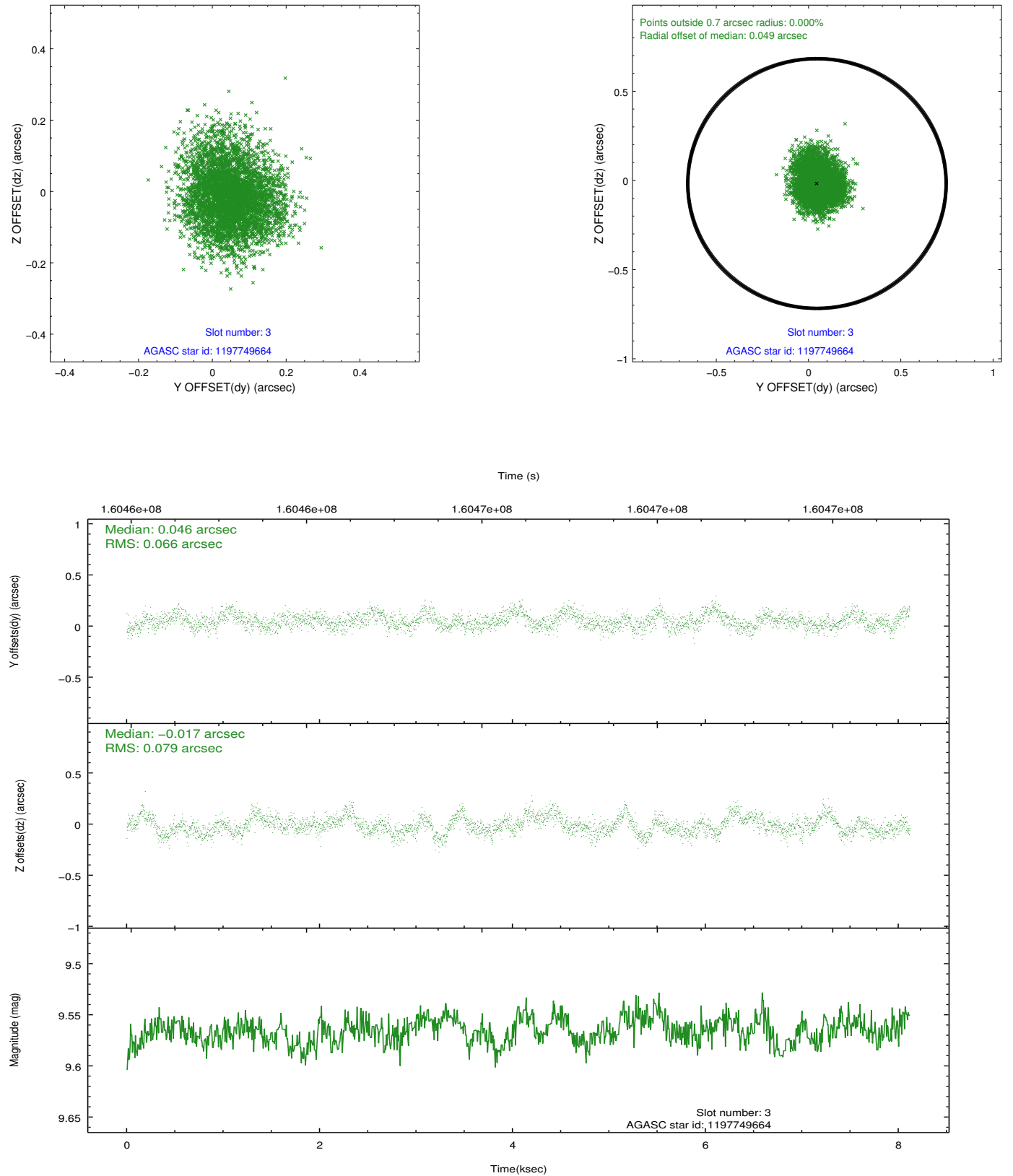


### Slot Statistics

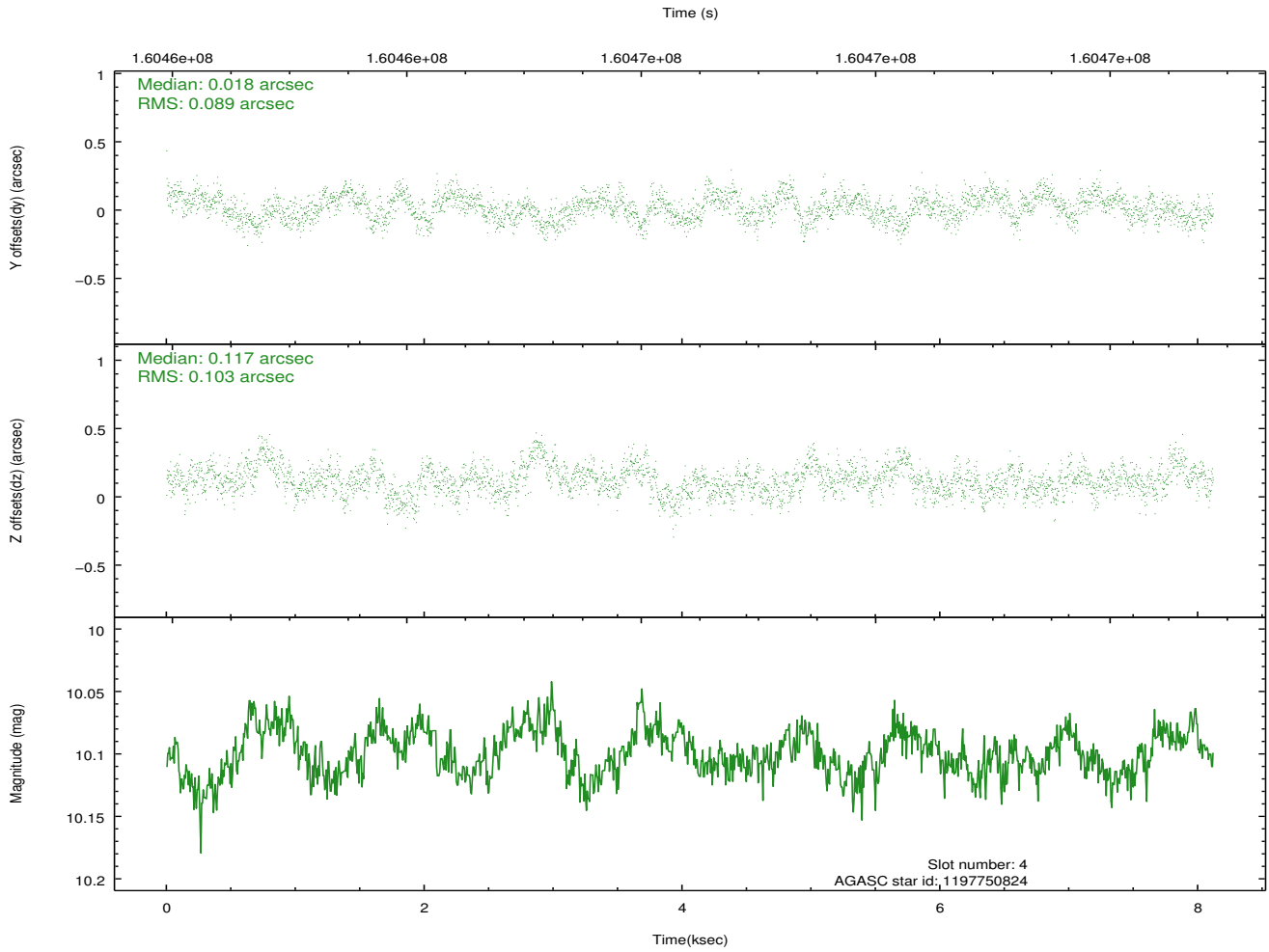
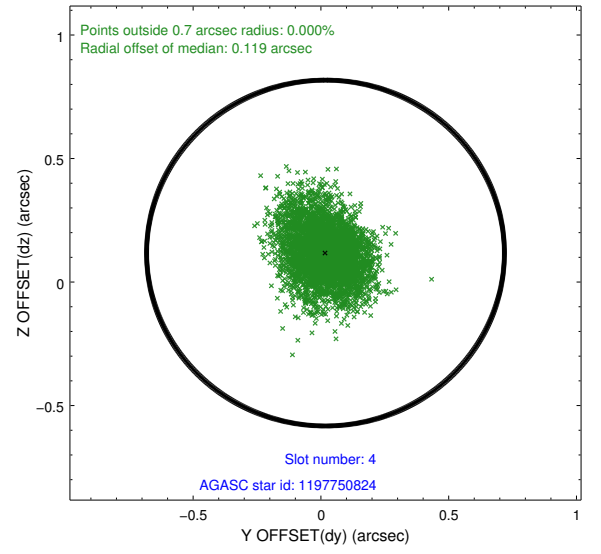
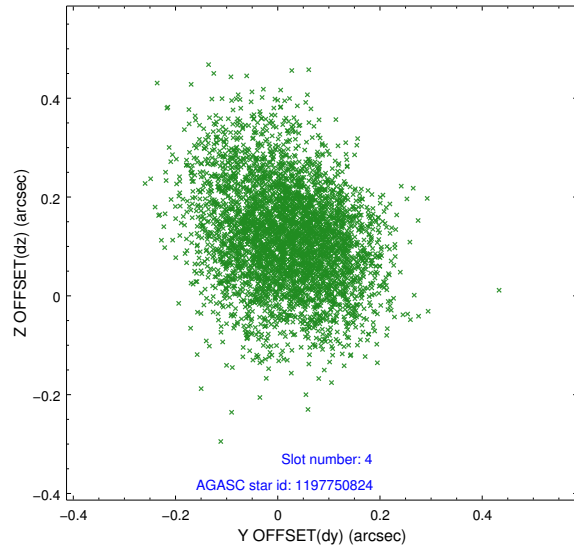
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.19	1981	0.043	-0.034	0.014	0.022	0.000000	0.000000	940.76	-1724.53
1	FID	ACIS-S-5	7.24	1980	-0.025	0.047	0.007	0.011	0.000000	0.000000	-1807.89	172.44
2	FID	ACIS-S-6	7.35	1981	-0.039	-0.002	0.016	0.026	0.000000	0.000000	405.53	817.10
3	GUIDE	1197749664	9.57	3956	0.046	-0.017	0.110	0.179	15.809015	-72.366369	1328.37	304.21
4	GUIDE	1197750824	10.10	3956	0.018	0.117	0.144	0.239	14.791487	-71.393477	-1464.37	-2096.25
5	GUIDE	1197884536	8.50	3961	-0.072	0.012	0.072	0.114	17.160729	-71.835289	-999.36	993.11
6	GUIDE	1197750936	7.56	3961	0.025	-0.018	0.077	0.120	15.387940	-71.549550	-1212.15	-1249.09
7	GUIDE	1197885104	9.38	3956	-0.026	-0.100	0.101	0.164	17.845067	-72.189368	-72.83	2153.24

## 2.4 Star Slots

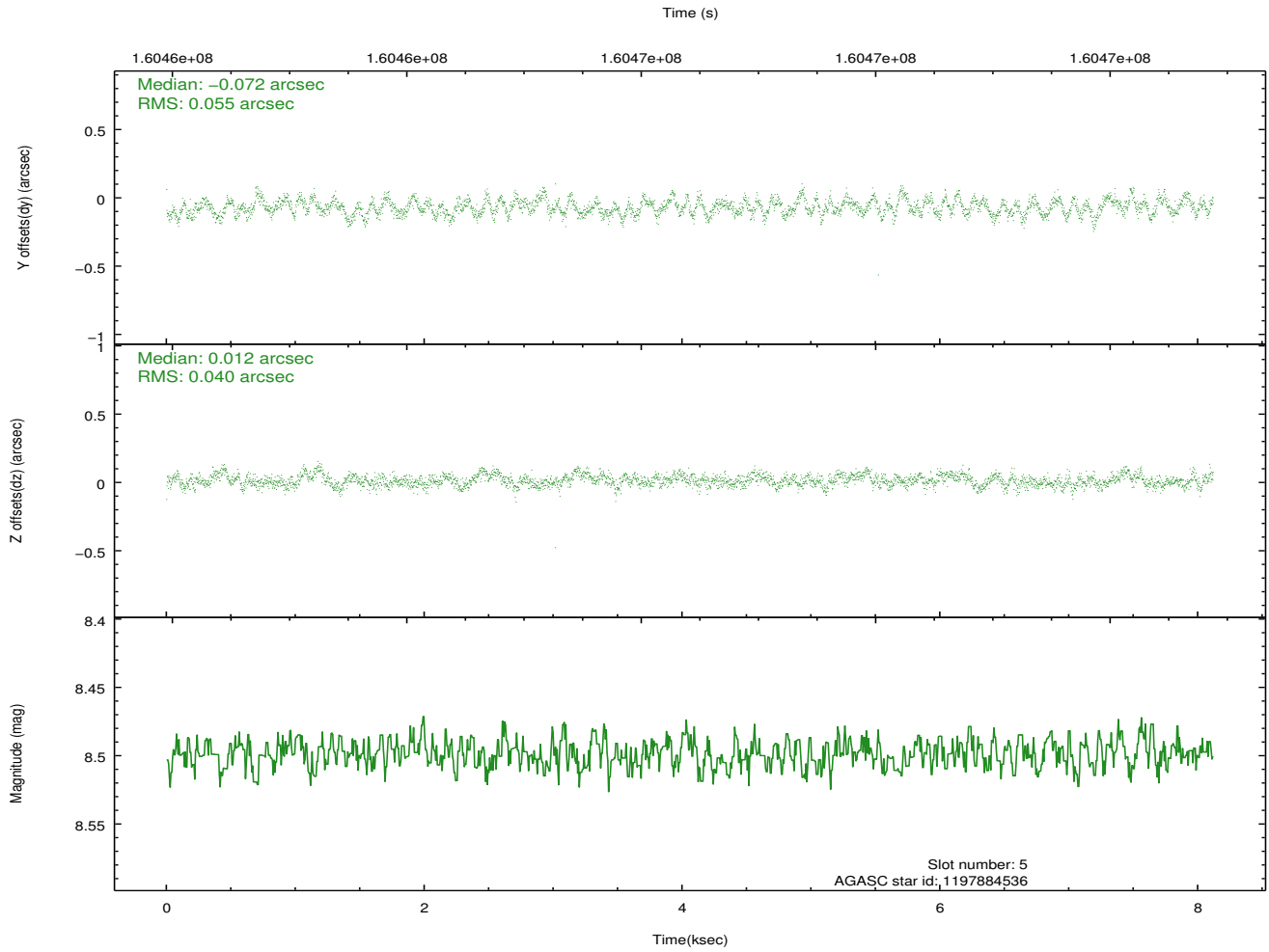
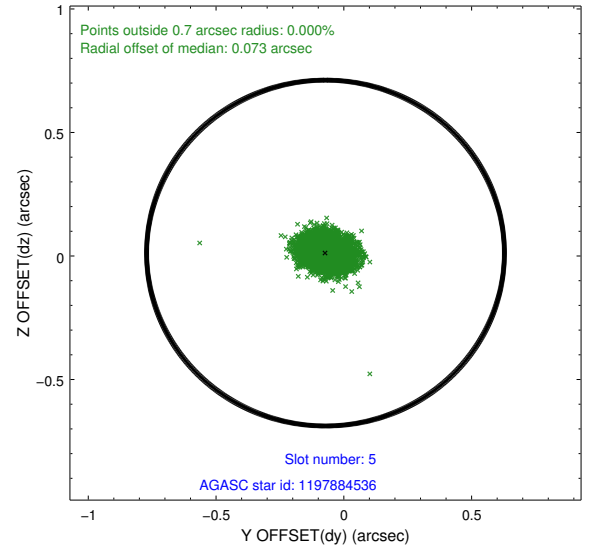
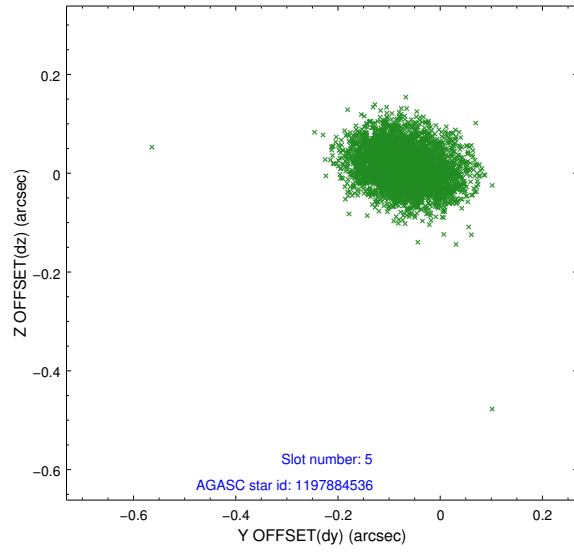
### 2.4.1 Slot 3



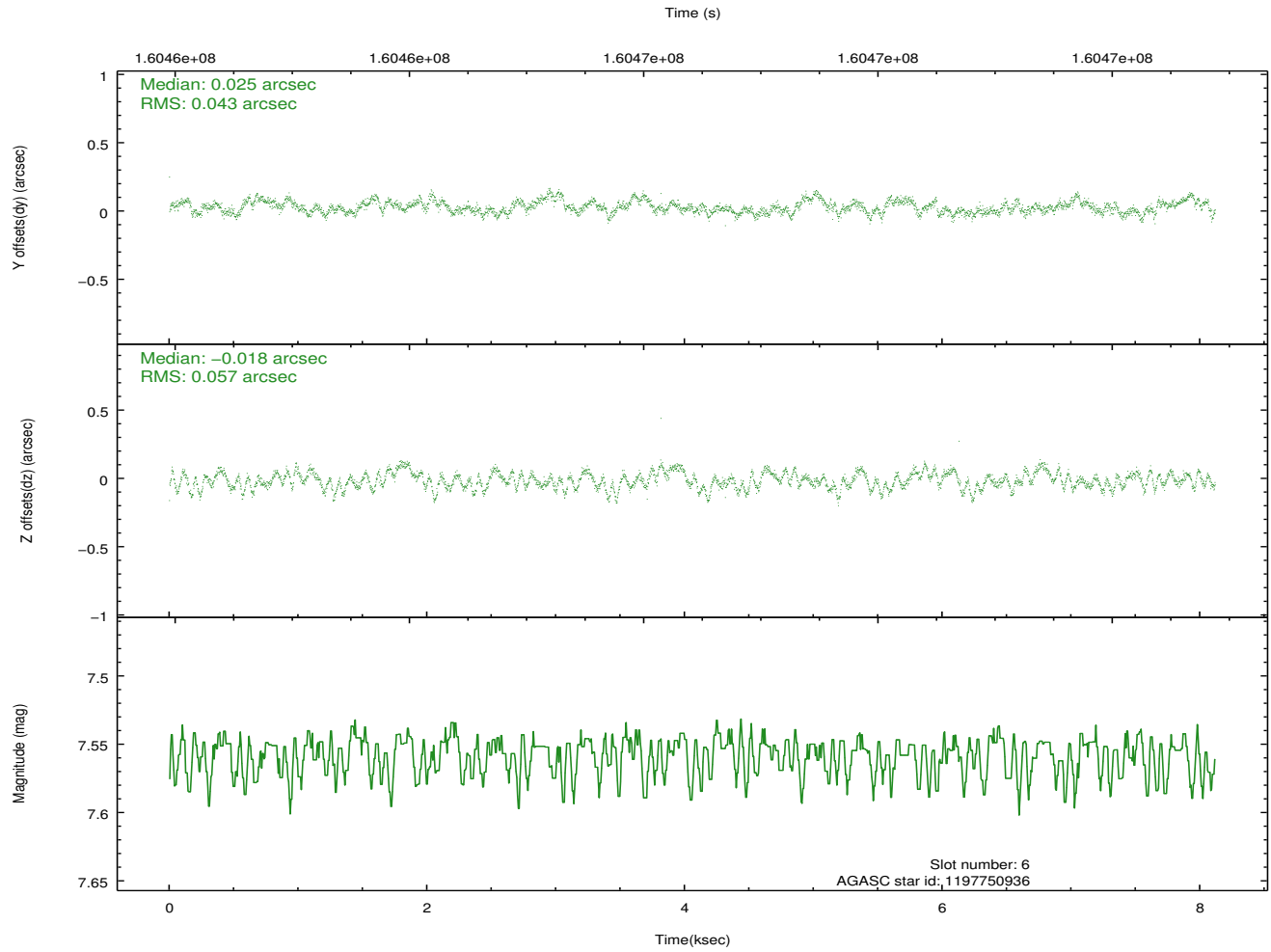
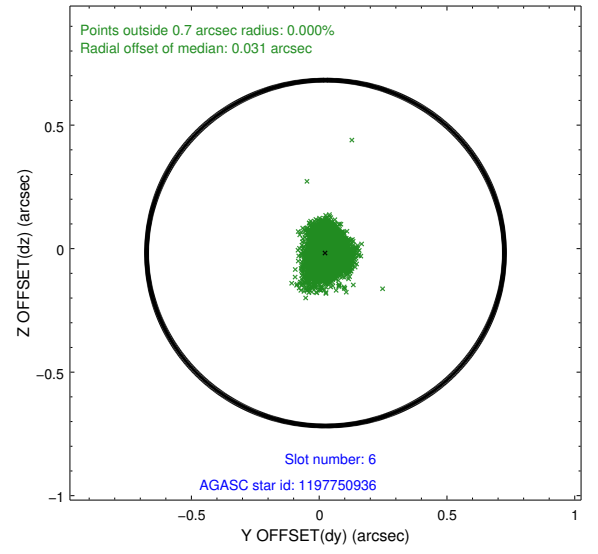
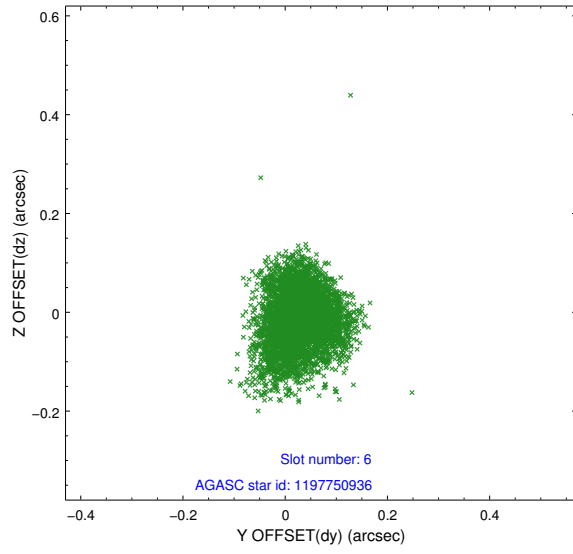
## 2.4.2 Slot 4



### 2.4.3 Slot 5

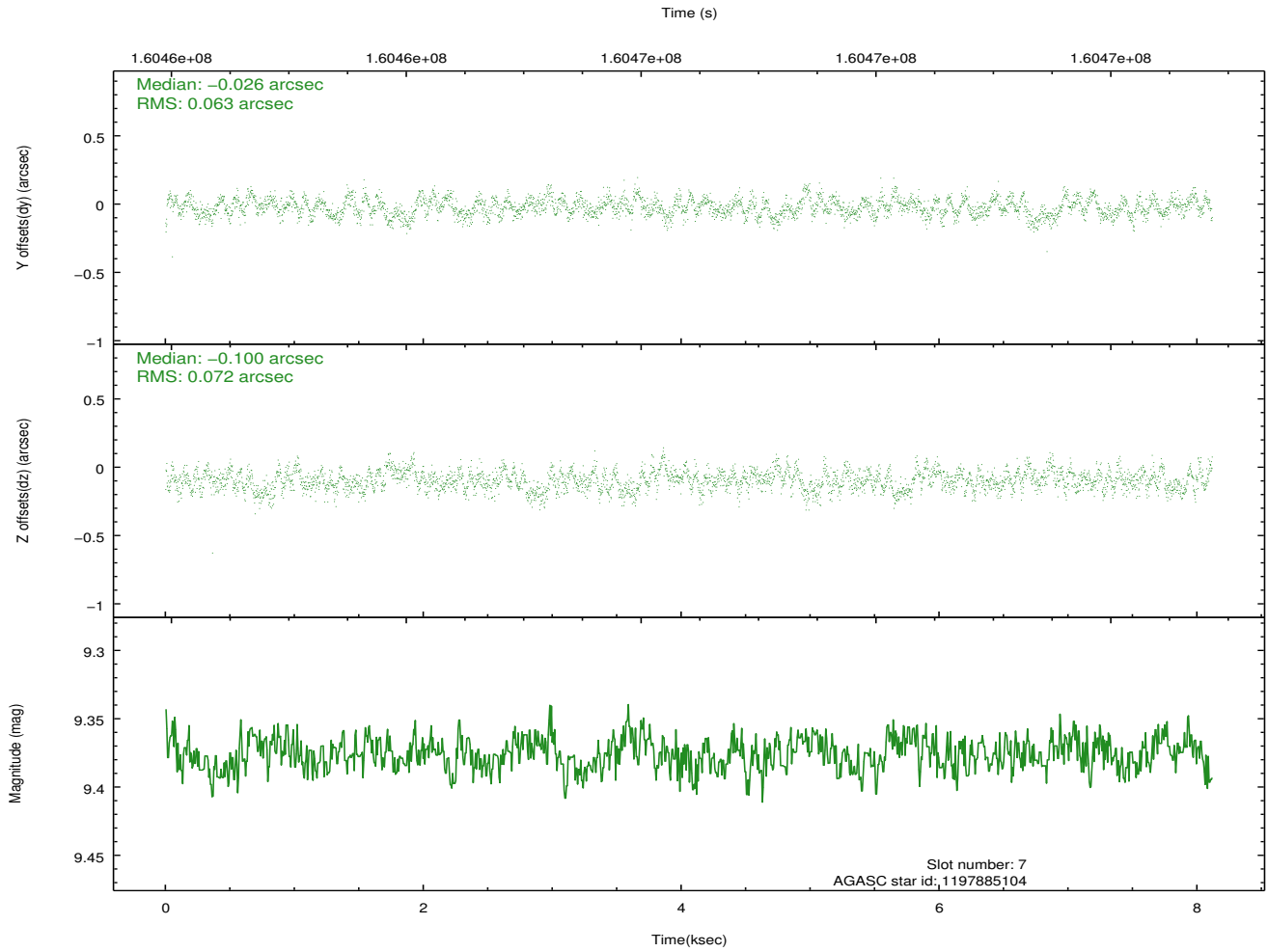
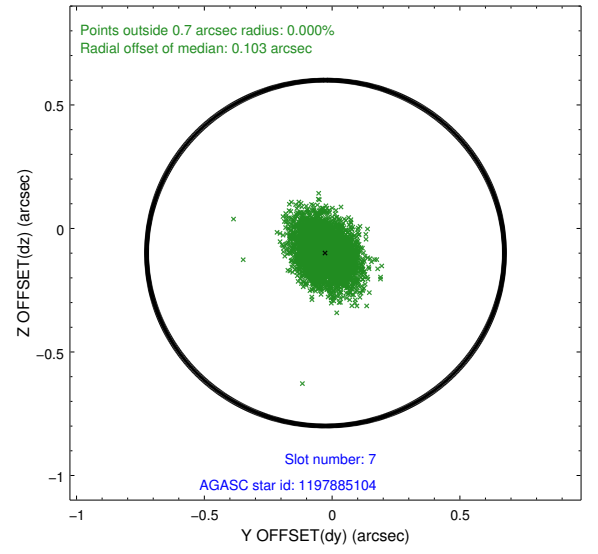
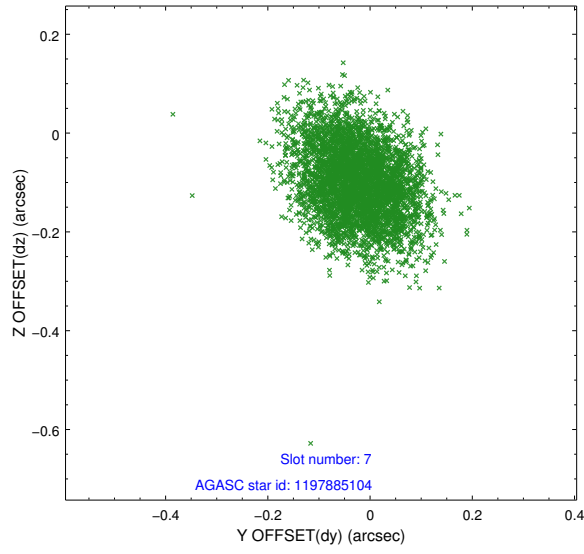


## 2.4.4 Slot 6



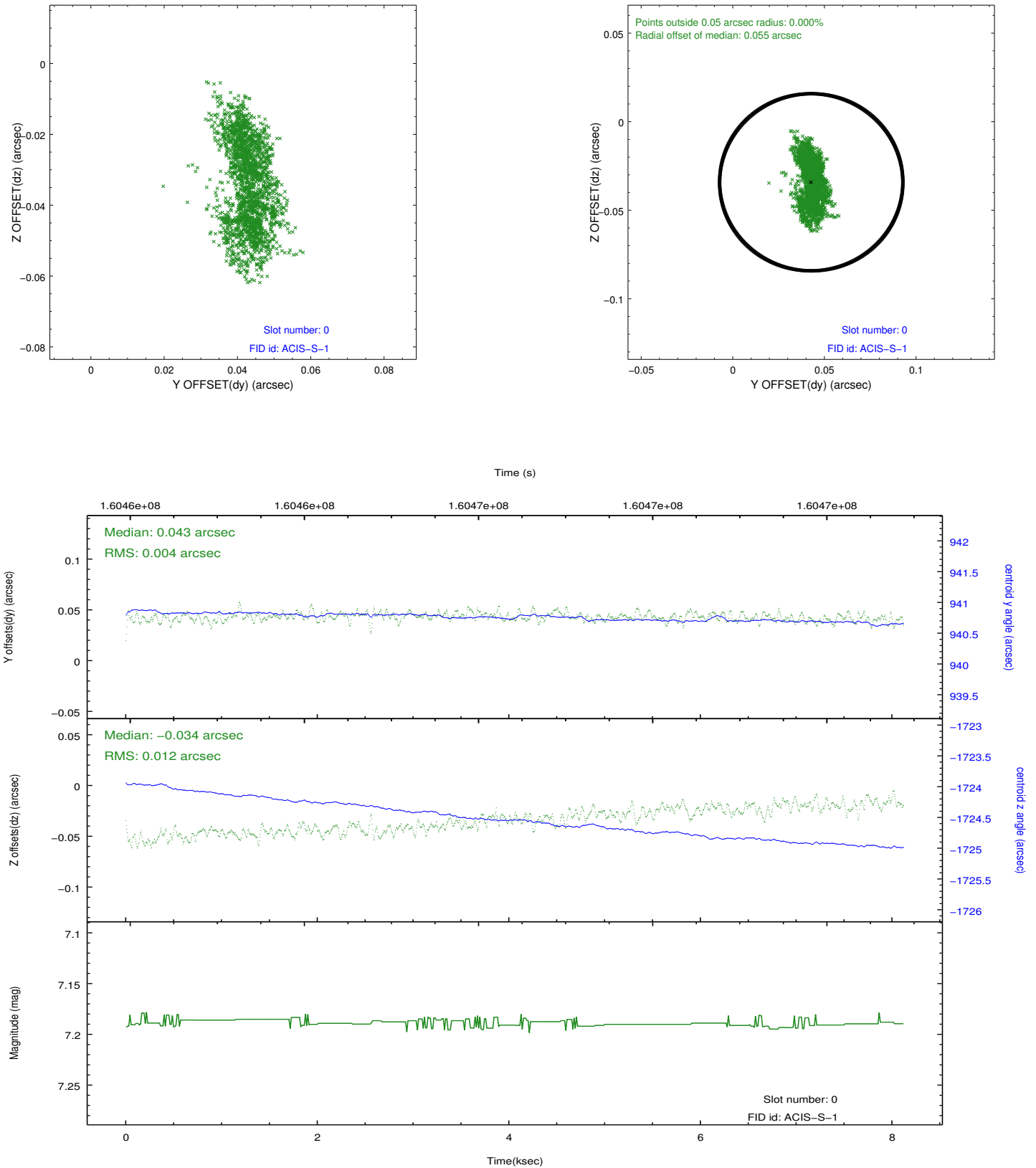


### 2.4.5 Slot 7

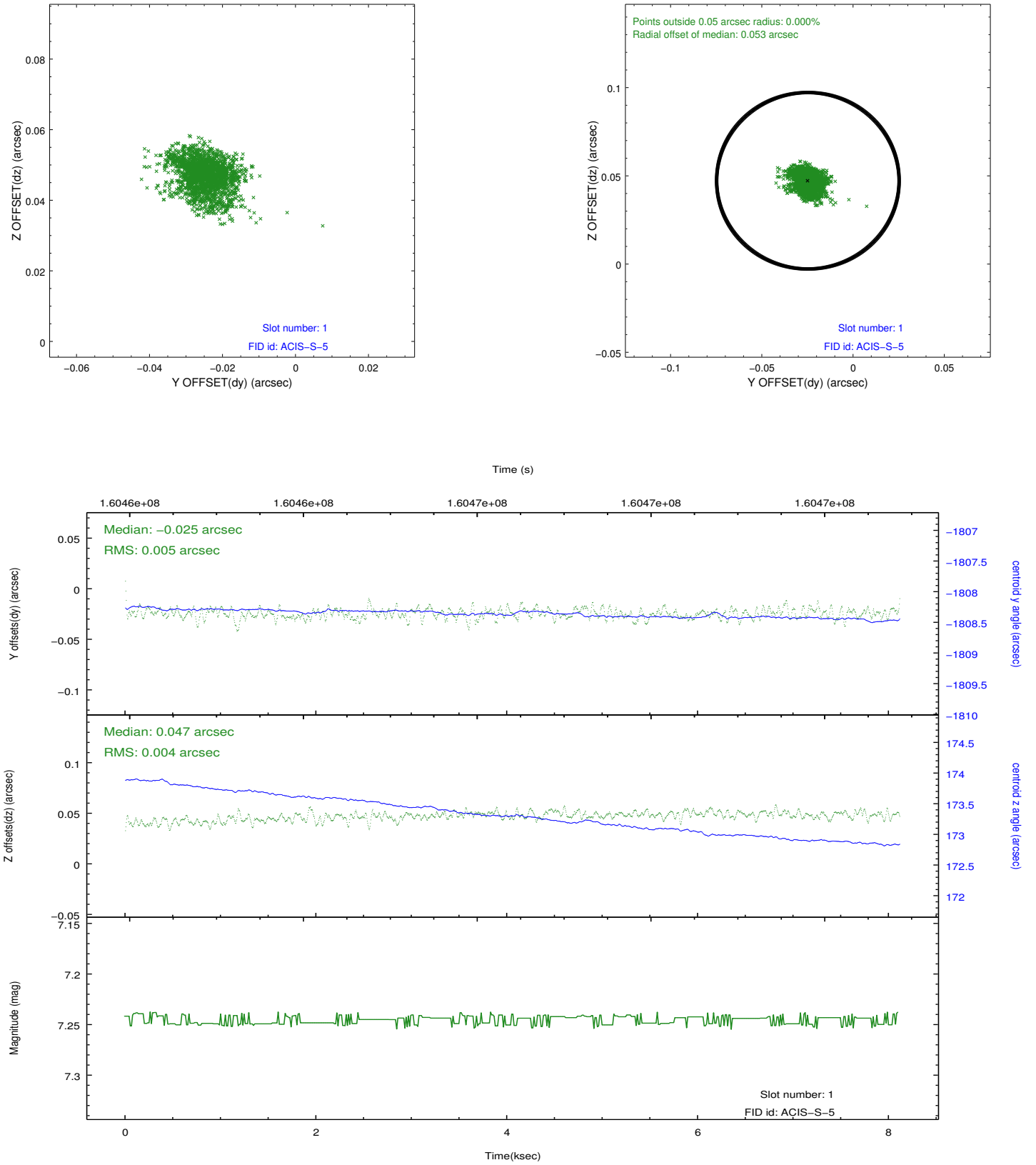


## 2.5 FID Slots

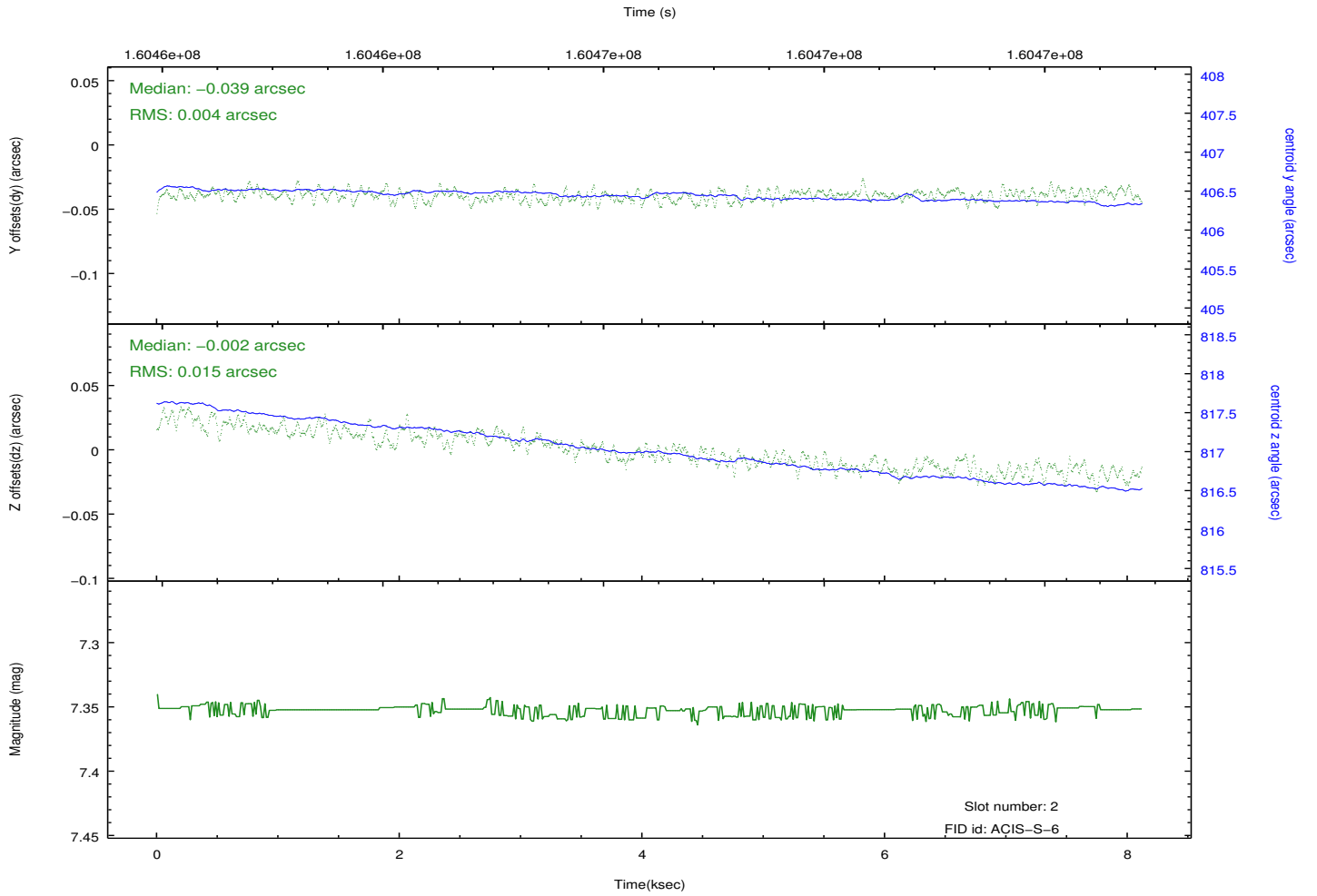
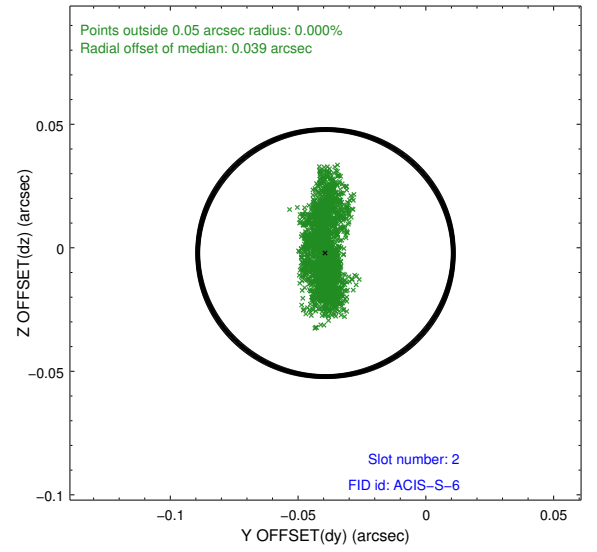
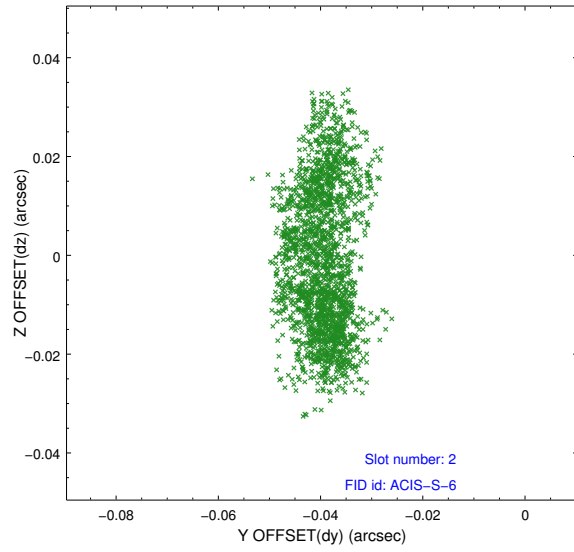
### 2.5.1 Slot 0



## 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)	2012.11.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.111

### A.2 Comments

Window constraint met.