

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 9697 - L2 Version 2  
Chandra X-Ray Center

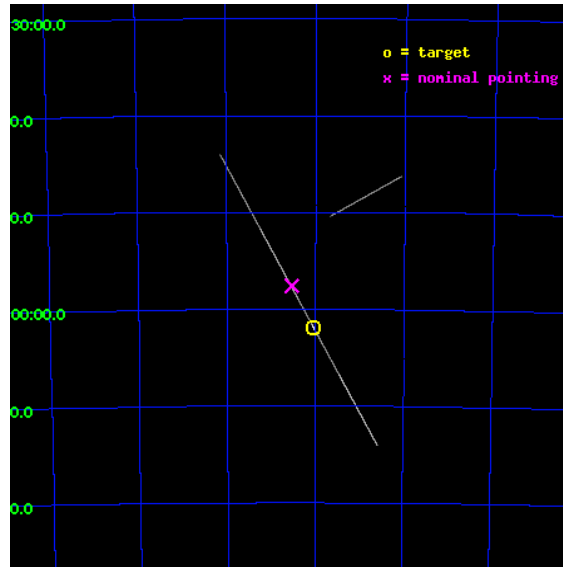
L2 Processing Date : May 9 2012

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# 1 Front

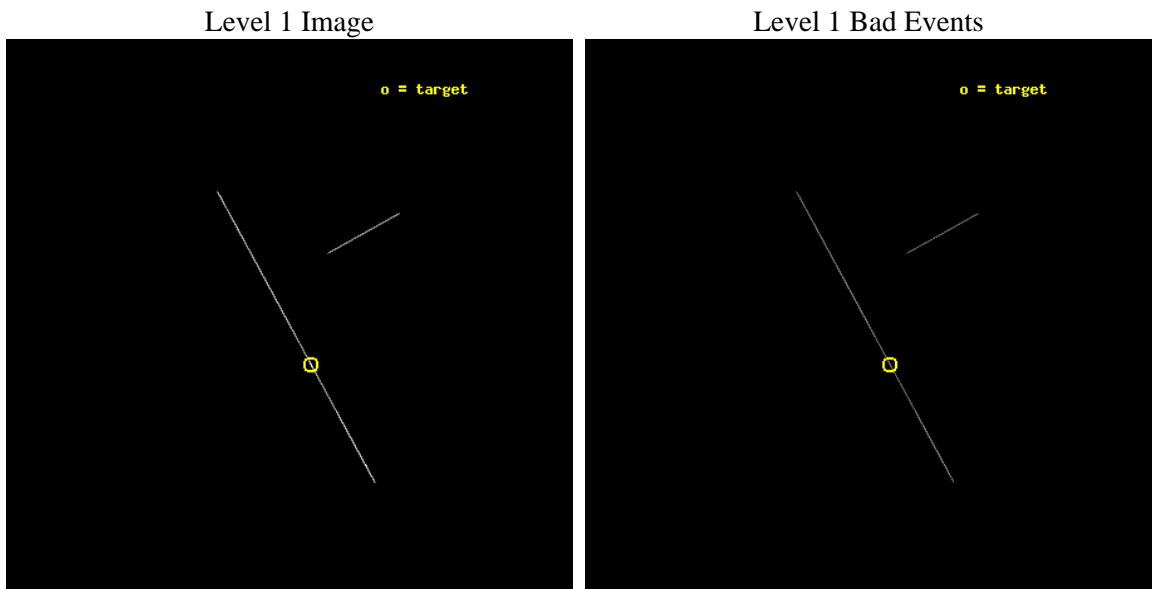
seq_num	590475	Sequence number
obs_id	9697	Observation id
title	AO9 Calibration Observations of E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72 S2,-120,5.15,0,0	Source name
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	16.13343008646	Nominal RA [deg]
dec_nom	-71.959695228965	Nominal Dec [deg]
roll_nom	241.27493948174	Nominal Roll [deg]
revision	2	Processing version of data
ontime	8102.5	Sum of GTIs [s]
livetime	8070.849609375	Livetime [s]
ontime3	8102.5	Sum of GTIs [s]
ontime5	8102.5	Sum of GTIs [s]
ontime6	8102.5	Sum of GTIs [s]
ontime7	8102.5	Sum of GTIs [s]
ontime8	8102.5	Sum of GTIs [s]
l2events	116926	Number of level 2 events



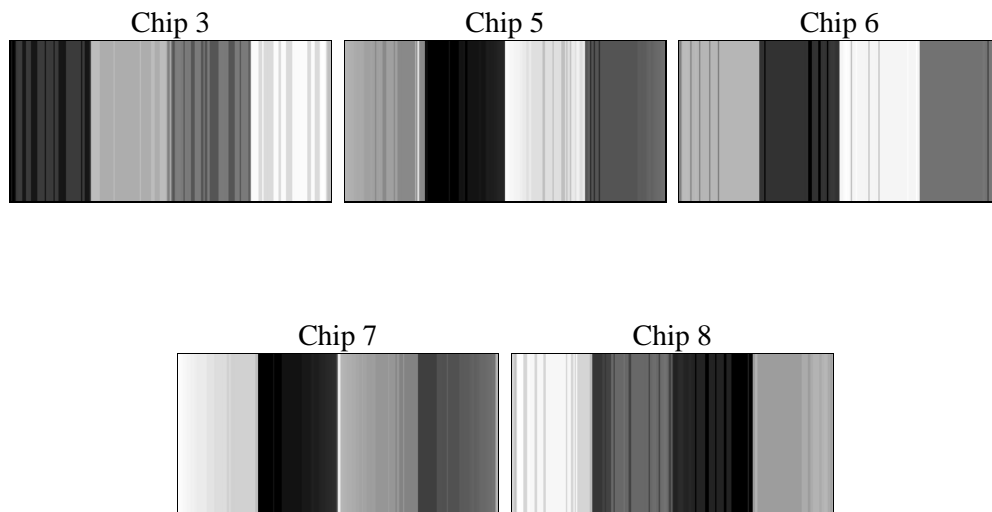
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	8102.5	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime3	8102.5	Sum of GTIs [s]
date	2012-05-09T04:01:47	Date and time of file creation	ontime5	8102.5	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	8102.5	Sum of GTIs [s]
			ontime7	8102.5	Sum of GTIs [s]
			ontime8	8102.5	Sum of GTIs [s]
			l1events	172470	Number of level 1 events

### 2.1.4 Events

	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	11938	57644	40296	32554	30038
rejected events	2343	5343	2462	5477	3601
rejected %	19%	9%	6%	16%	11%

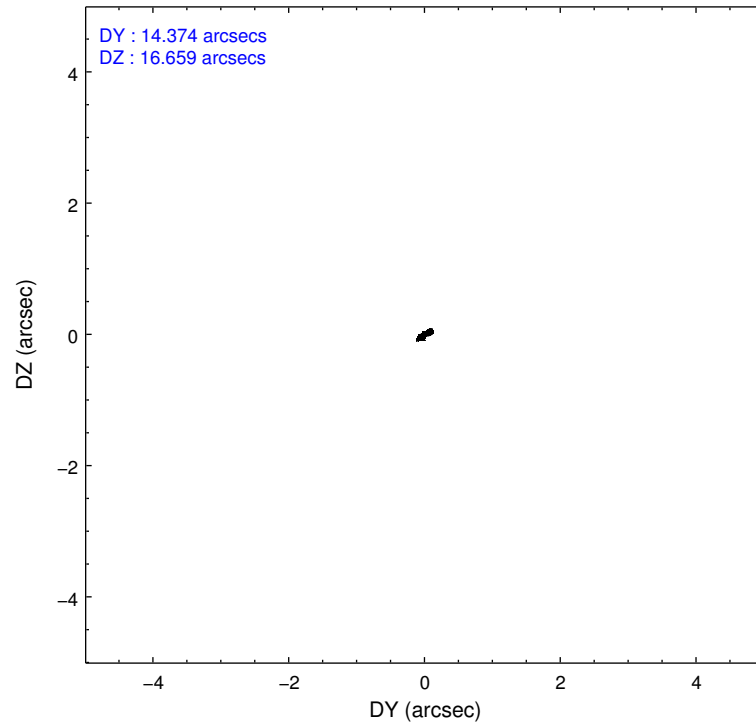
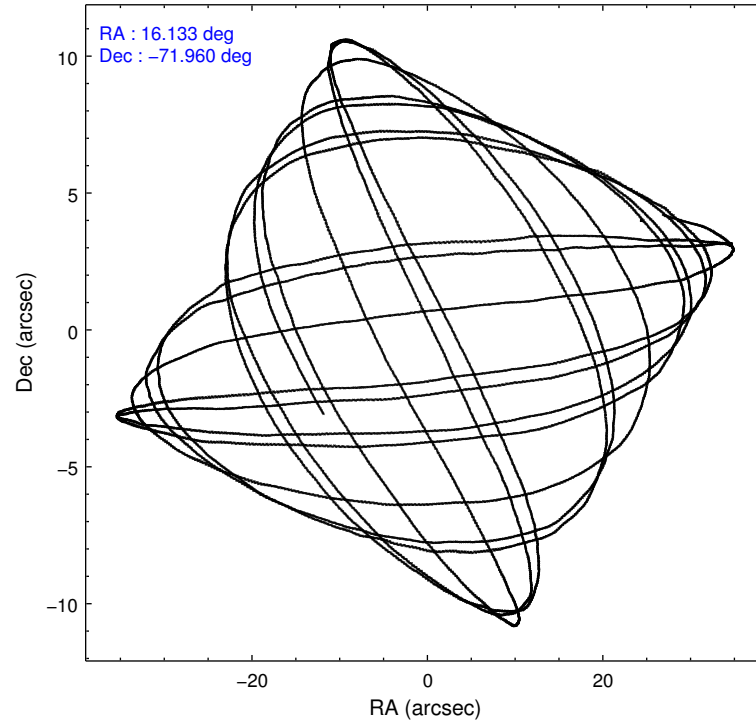
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	1279	12408	3456	2724	5414
	10%	21%	8%	8%	18%
grade 1 events	64	128	44	107	105
	0%	0%	0%	0%	0%
grade 2 events	3100	14610	28210	7146	7446
	25%	25%	70%	21%	24%
grade 3 events	1757	1404	1698	1983	3317
	14%	2%	4%	6%	11%
grade 4 events	1529	1279	1628	1891	3303
	12%	2%	4%	5%	10%
grade 5 events	2277	5192	2405	5350	3493
	19%	9%	5%	16%	11%
grade 6 events	1932	22623	2855	13353	6960
	16%	39%	7%	41%	23%
grade 7 events	0	0	0	0	0
	0%	0%	0%	0%	0%

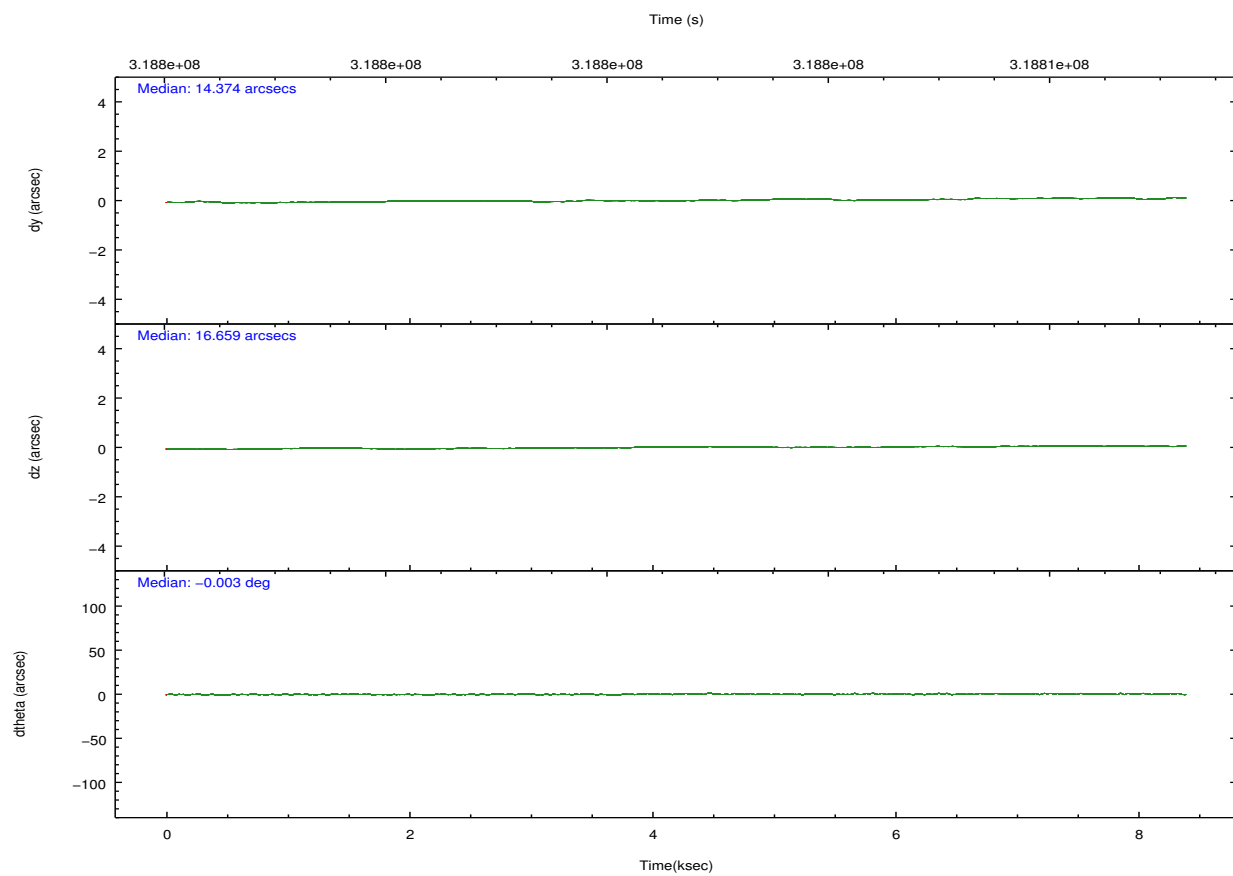
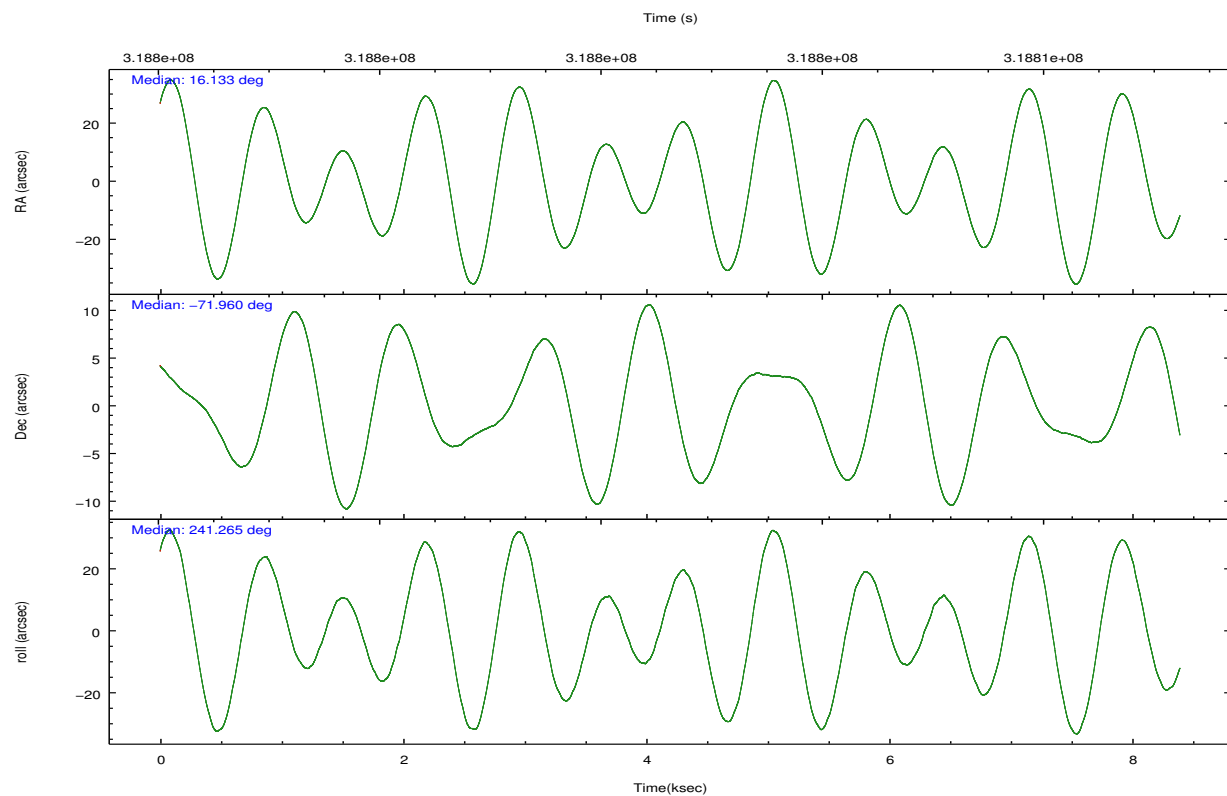


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	CC33_FAINT	CC33_FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	16.130215	16.13343008646011	CCD I2 on	N	N
[deg] Pointing Dec	-71.932413	-71.95969522896462	CCD I3 on	O1	Y
[deg] Pointing Roll	241.115256	241.2749394817433	CCD S0 on	N	N
[s] Window start time (MET)	312854465.184000	312854465.184000	CCD S1 on	Y	Y
[s] Window stop time (MET)	325900865.184000	325900865.184000	CCD S2 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S3 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S4 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S5 on	N	N
[mm] SIM translation stage offset	0	0.00754346686406393	Number of optional ACIS chips dropped	0	0
[s] Observation start time (MET)	318798819.184000	318798237.58617	On-chip summing requested	N	N
Observation start date	2008-02-07T19:12:34	2008-02-07T19:03:57	Subarray requested	NONE	NONE
[s] Observation end time (MET)	318806819.184000	318807703.46163	Alternating exposures requested	N	N
Observation end date	2008-02-07T21:25:54	2008-02-07T21:41:43	[s] Primary exposure time	0.000000	0
Read mode	CONTINUOUS	CONTINUOUS			

## 2.3 Aspect



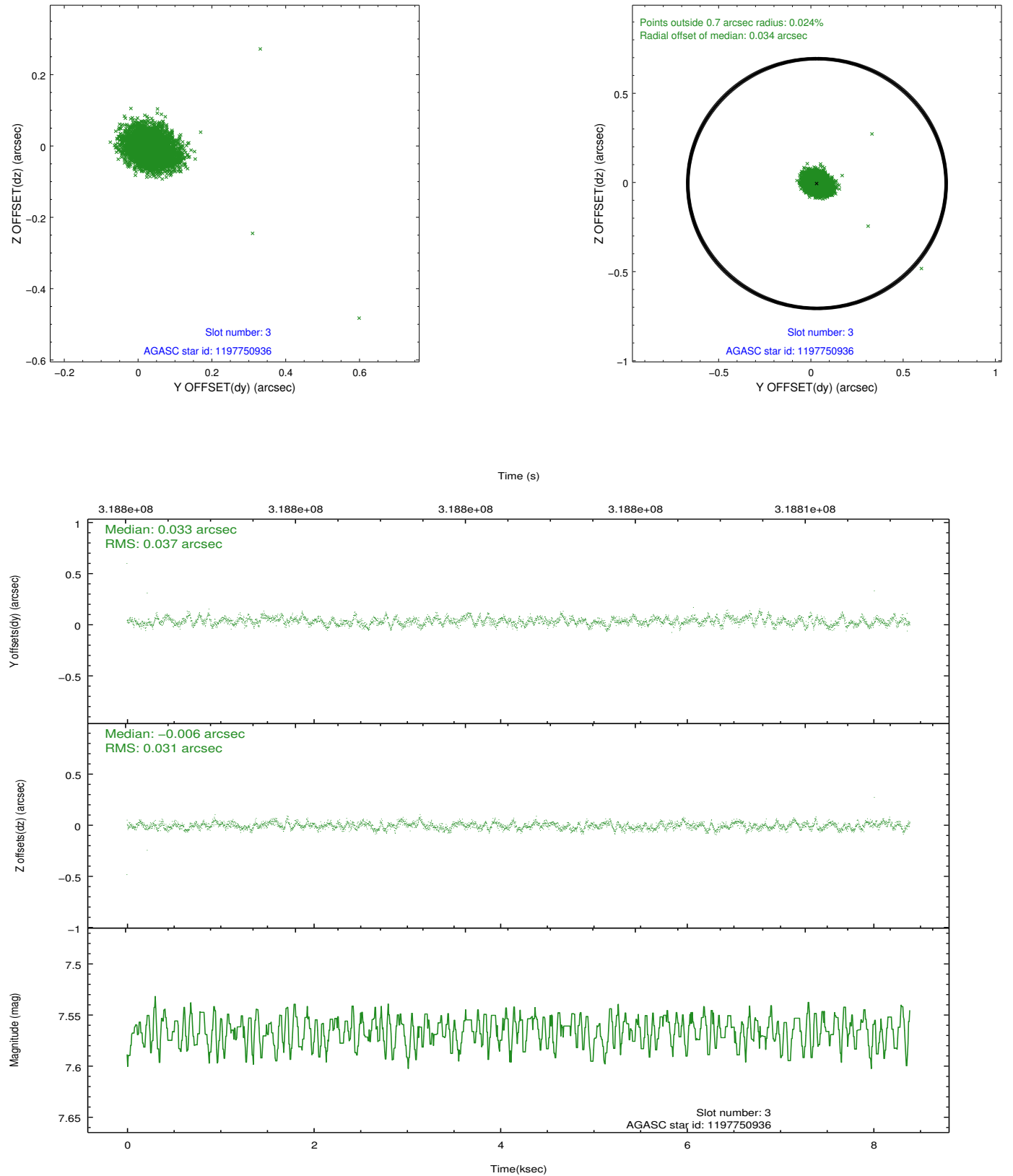


### Slot Statistics

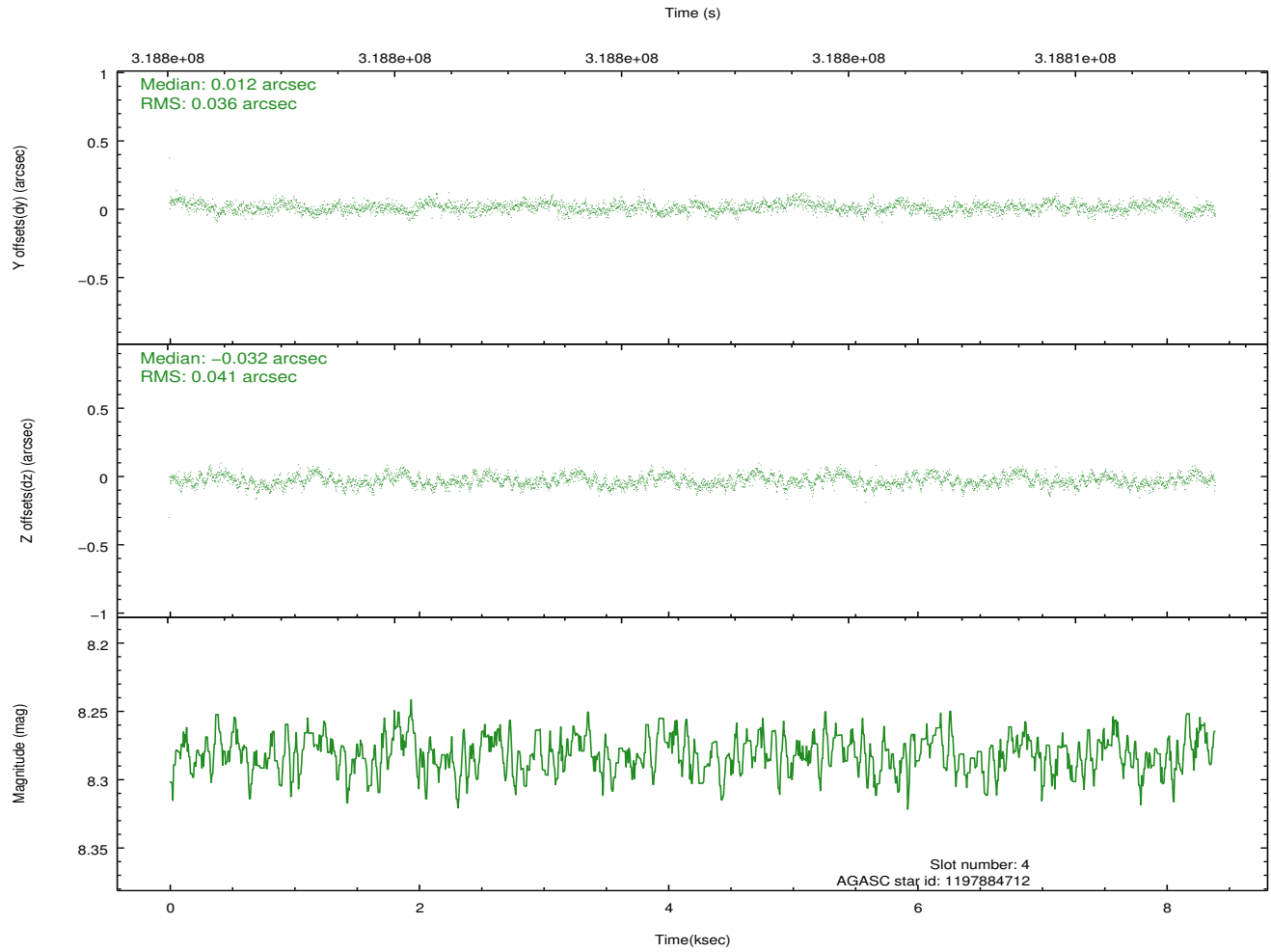
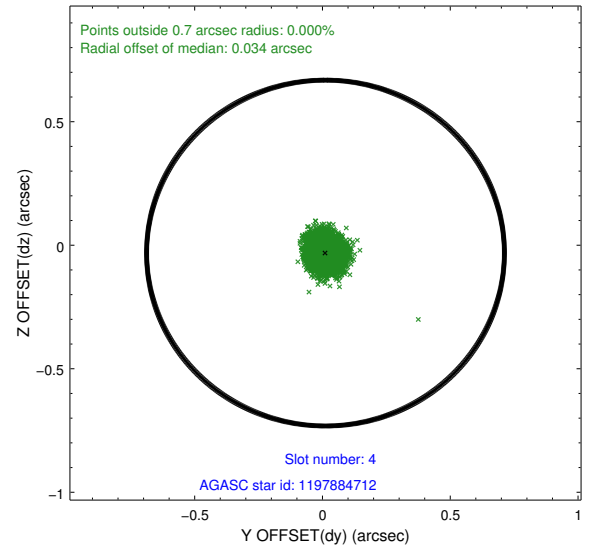
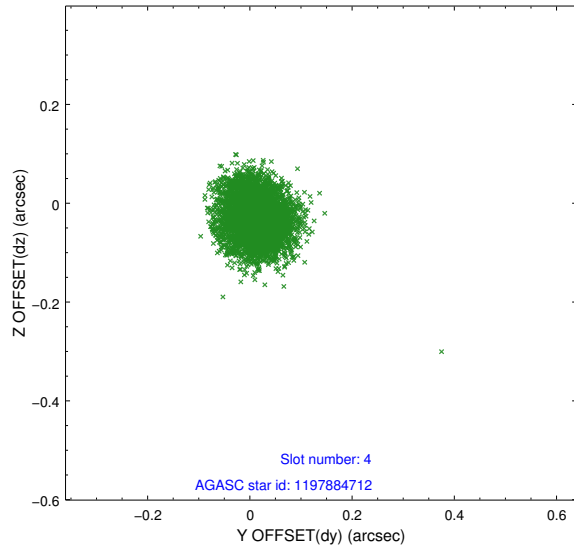
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.87	2048	-0.044	0.001	0.006	0.011	0.000000	0.000000	-767.40	-1738.07
1	FID	ACIS-S-4	6.95	2048	0.131	0.021	0.005	0.010	0.000000	0.000000	2145.77	169.71
2	FID	ACIS-S-5	6.98	2048	-0.119	-0.013	0.007	0.011	0.000000	0.000000	-1819.45	164.15
3	GUIDE	1197750936	7.56	4095	0.033	-0.006	0.050	0.079	15.387940	-71.549550	-792.80	-1403.63
4	GUIDE	1197884712	8.28	4091	0.012	-0.032	0.058	0.090	16.087398	-72.252690	1032.47	515.71
5	GUIDE	1197885104	9.37	4084	0.101	-0.045	0.105	0.167	17.845067	-72.189368	-77.49	2113.04
6	GUIDE	1197885328	7.24	4093	0.020	0.144	0.063	0.101	16.283090	-71.733943	-708.99	-192.88
7	GUIDE	1198283128	7.83	4094	-0.170	-0.064	0.059	0.096	17.272580	-72.642428	1655.40	2314.81

## 2.4 Star Slots

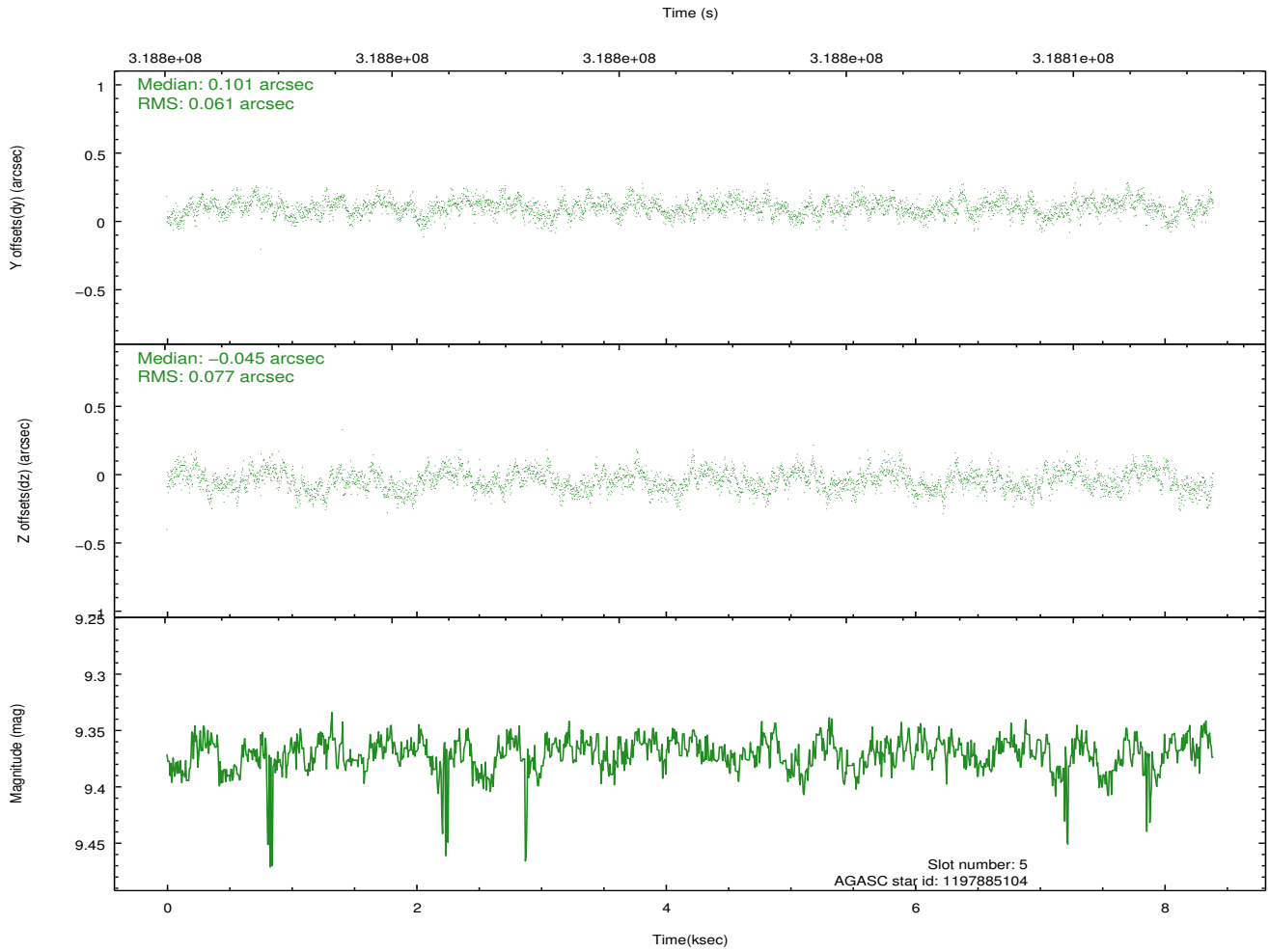
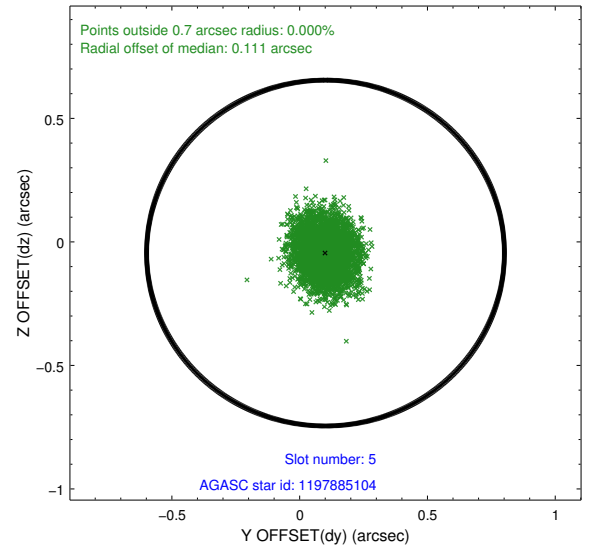
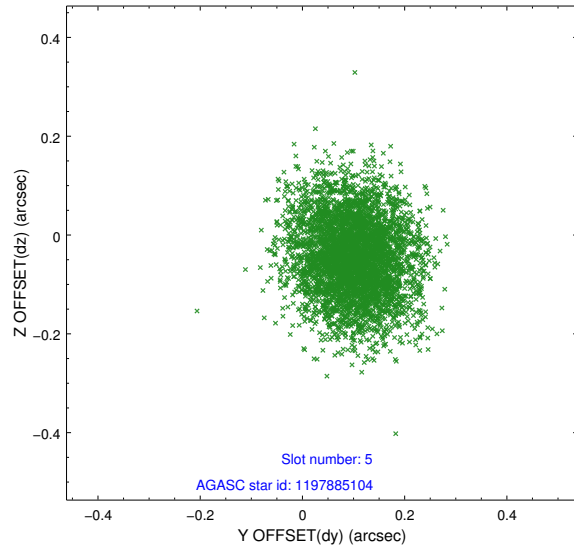
### 2.4.1 Slot 3



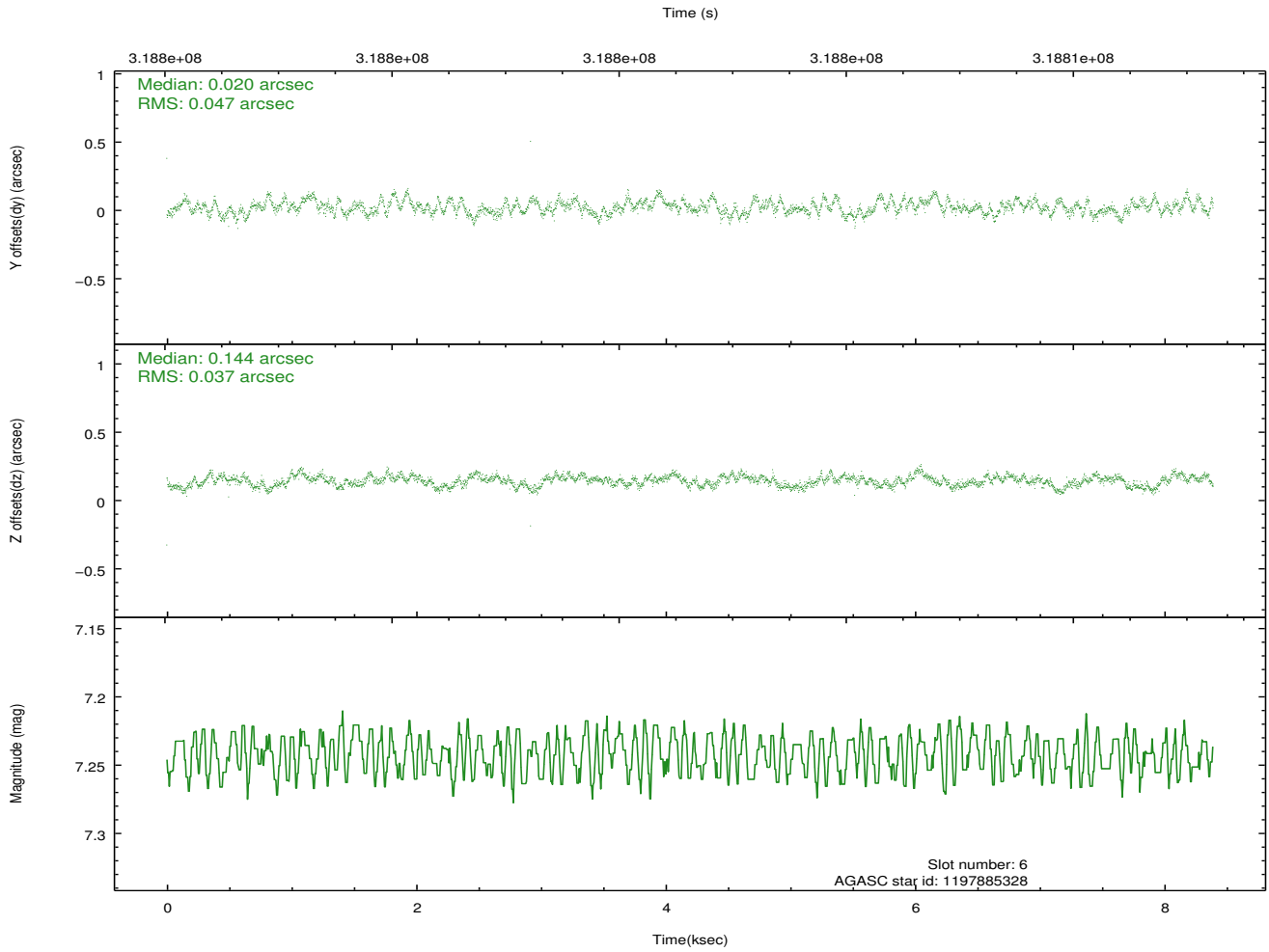
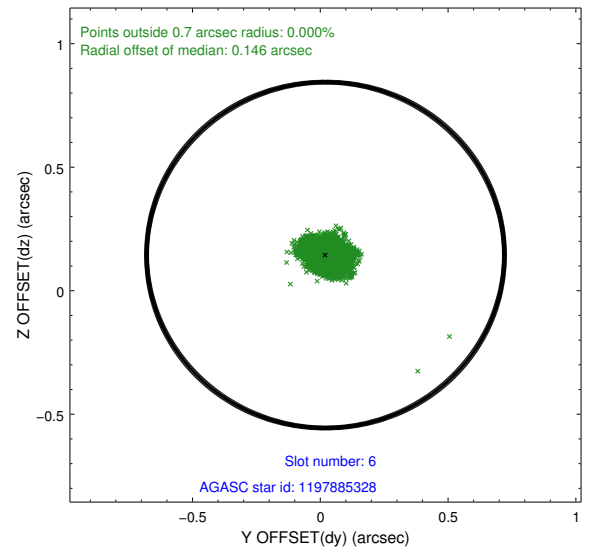
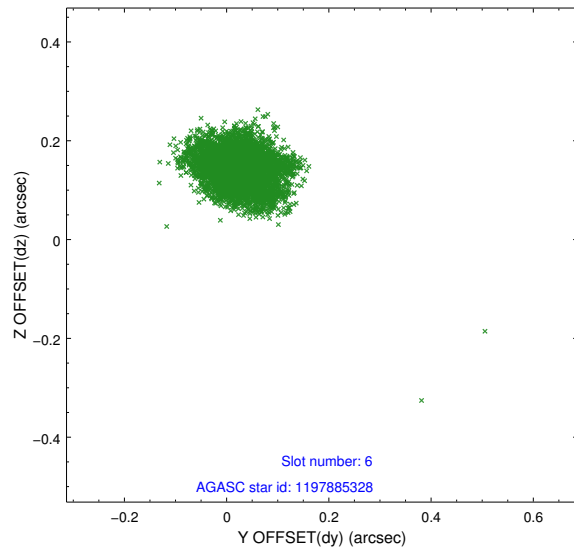
## 2.4.2 Slot 4



### 2.4.3 Slot 5

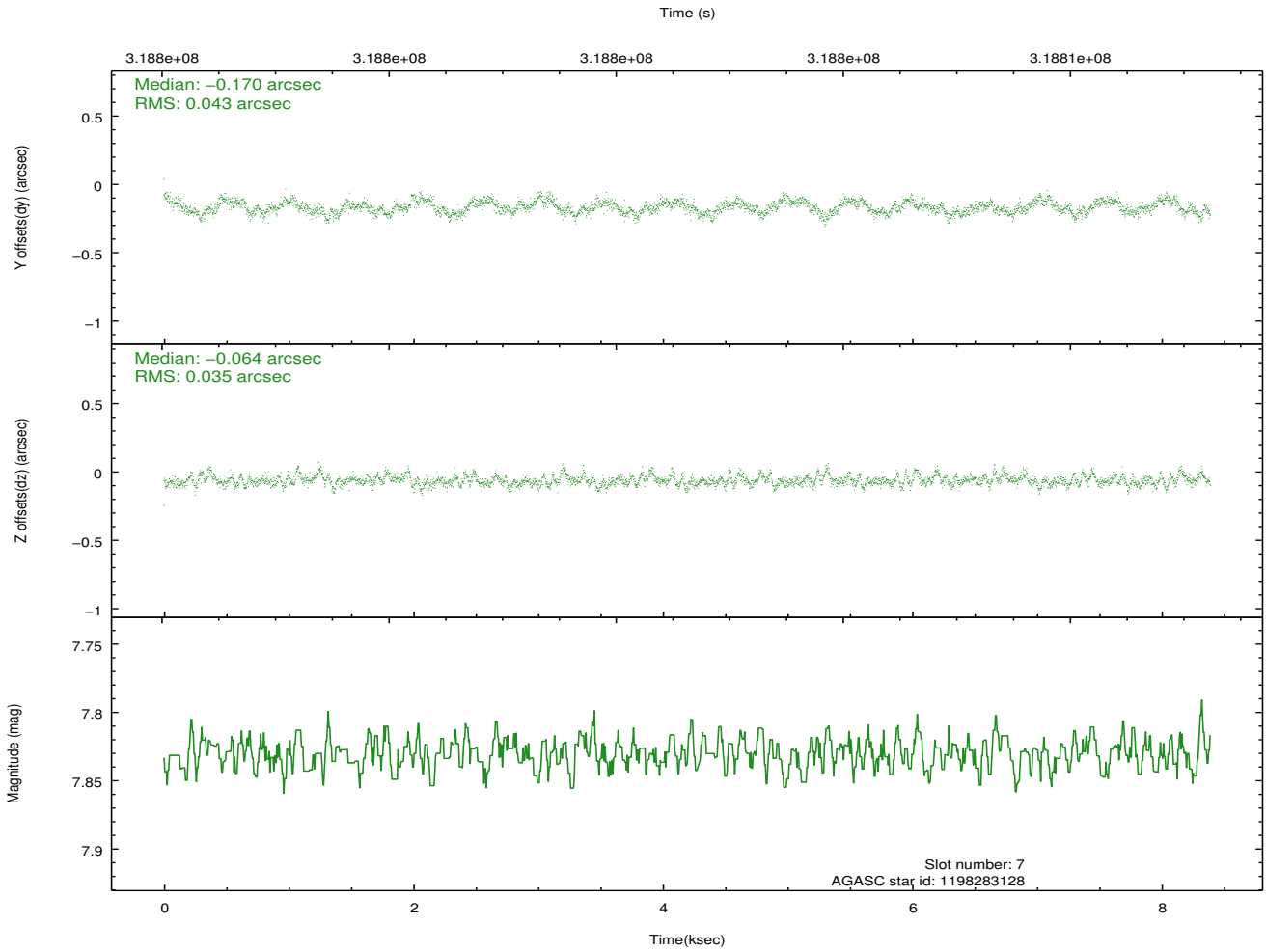
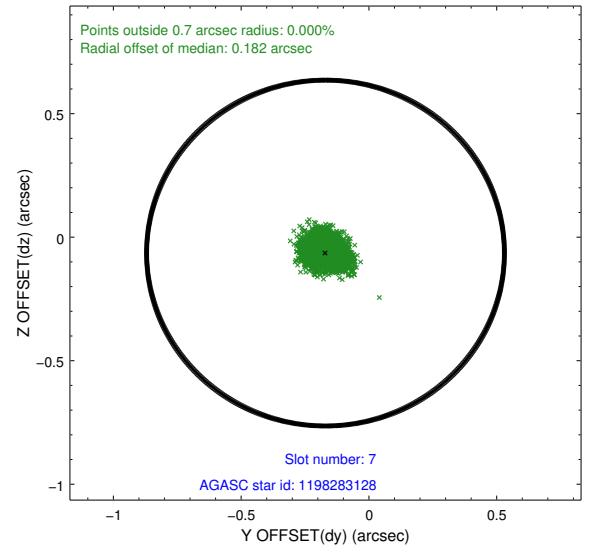
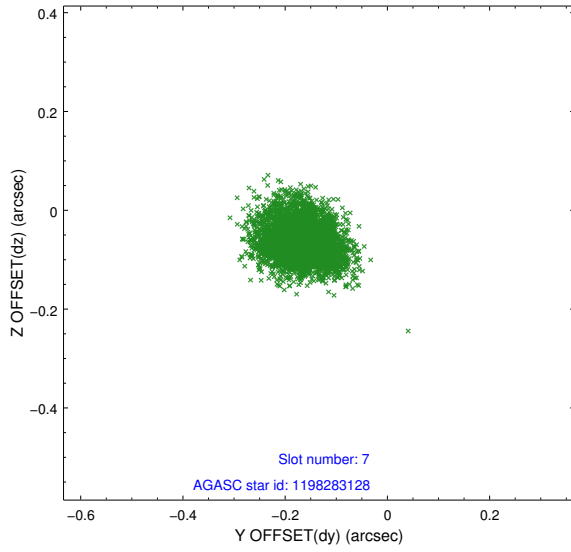


## 2.4.4 Slot 6



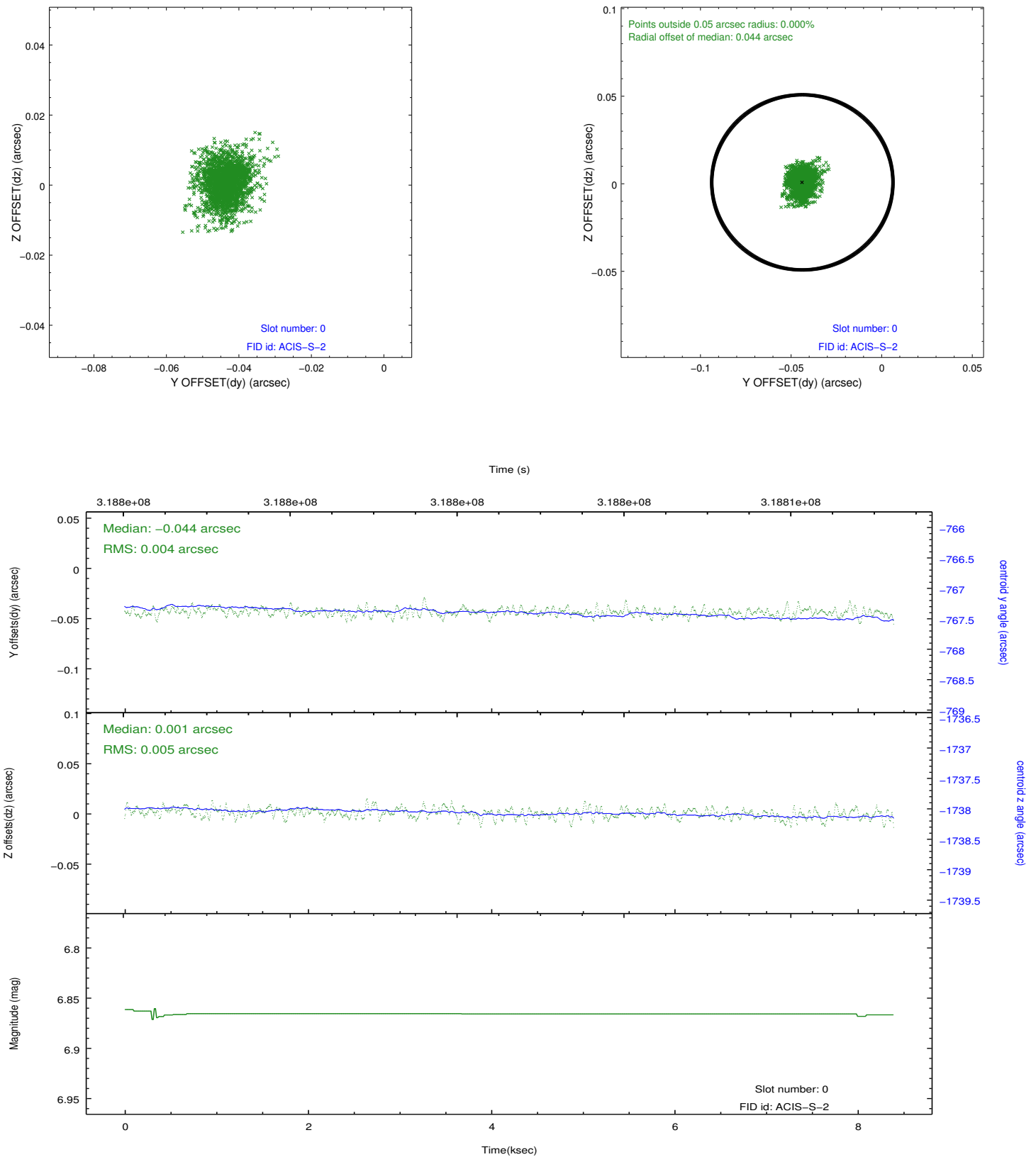


## 2.4.5 Slot 7

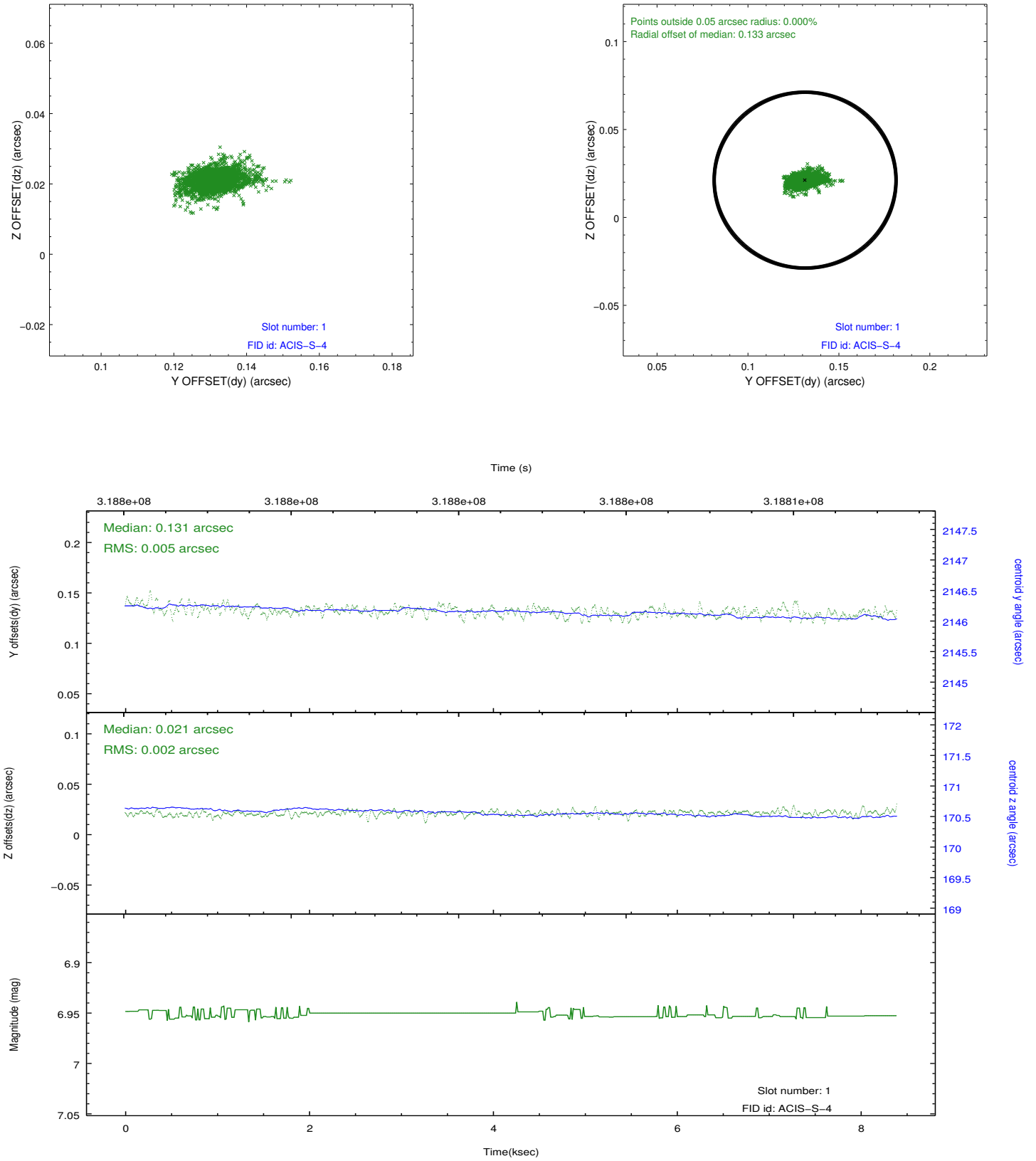


## 2.5 FID Slots

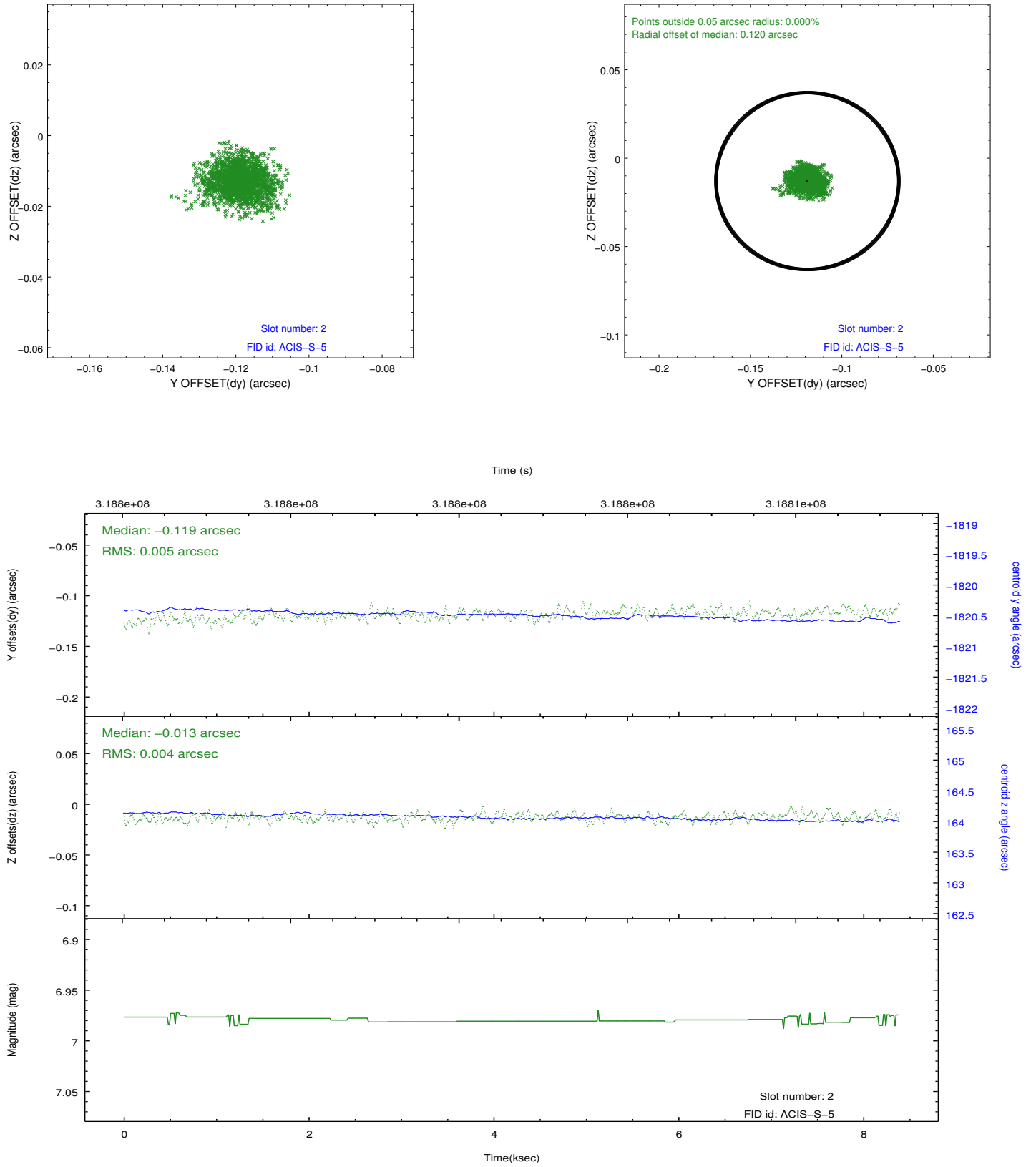
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.05.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.1025

### A.2 Comments

Target on chip S2, deliberately off-axis for calibration purposes.