

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3474 - L2 Version 3  
Chandra X-Ray Center

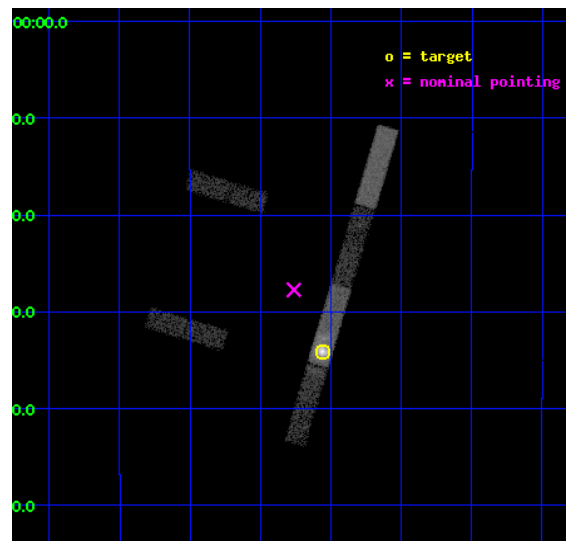
L2 Processing Date : Oct 7 2012

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# 1 Front

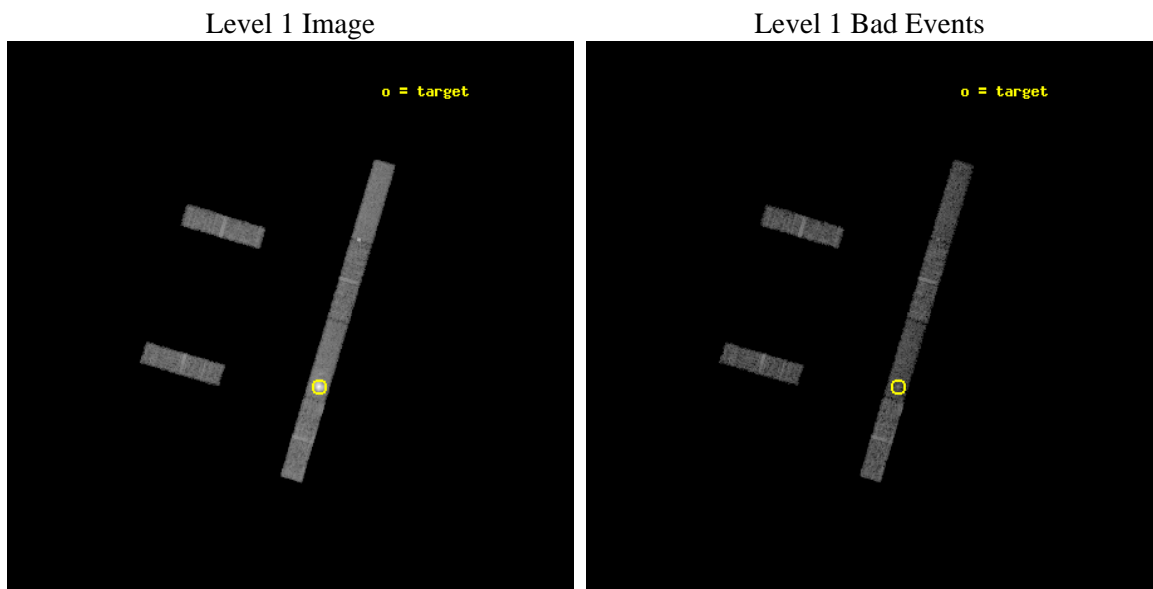
seq_num	590273	Sequence number
obs_id	3474	Observation id
title	AO3A CALIBRATION OBSERVATIONS THE STANDARD CANDLES CAS A AND G21.5-09	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-0.9 [Chip S3, T=120, Offsets=-1,0,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA [deg]
dec_targ	-10.568528	Observer's specified target Dec [deg]
ra_nom	278.44060517316	Nominal RA [deg]
dec_nom	-10.462411192013	Nominal Dec [deg]
roll_nom	106.70724938913	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9624.9999478161	Sum of GTIs [s]
livetime	9278.8157668423	Livetime [s]
ontime2	9624.9999478161	Sum of GTIs [s]
ontime3	9624.9999478161	Sum of GTIs [s]
ontime5	9624.9999478161	Sum of GTIs [s]
ontime6	9624.9999478161	Sum of GTIs [s]
ontime7	9624.9999478161	Sum of GTIs [s]
ontime8	9624.9999478161	Sum of GTIs [s]
l2events	54481	Number of level 2 events



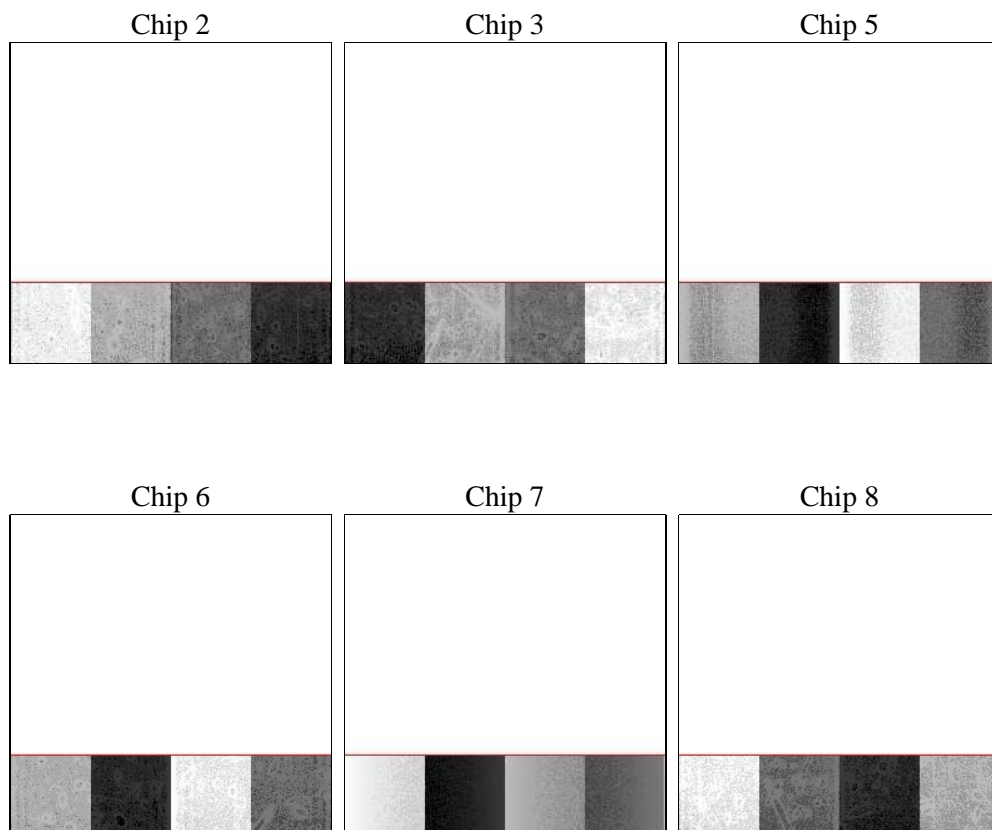
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	9500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	9624.9999478161	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime2	9624.9999478161	Sum of GTIs [s]
date	2012-10-07T11:28:05	Date and time of file creation	ontime3	9624.9999478161	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	9624.9999478161	Sum of GTIs [s]
			ontime6	9624.9999478161	Sum of GTIs [s]
			ontime7	9624.9999478161	Sum of GTIs [s]
			ontime8	9624.9999478161	Sum of GTIs [s]
			l1events	158890	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	20261	18117	24870	19182	50177	26283
rejected events	18187	16141	13553	16912	13058	21033
rejected %	89%	89%	54%	88%	26%	80%

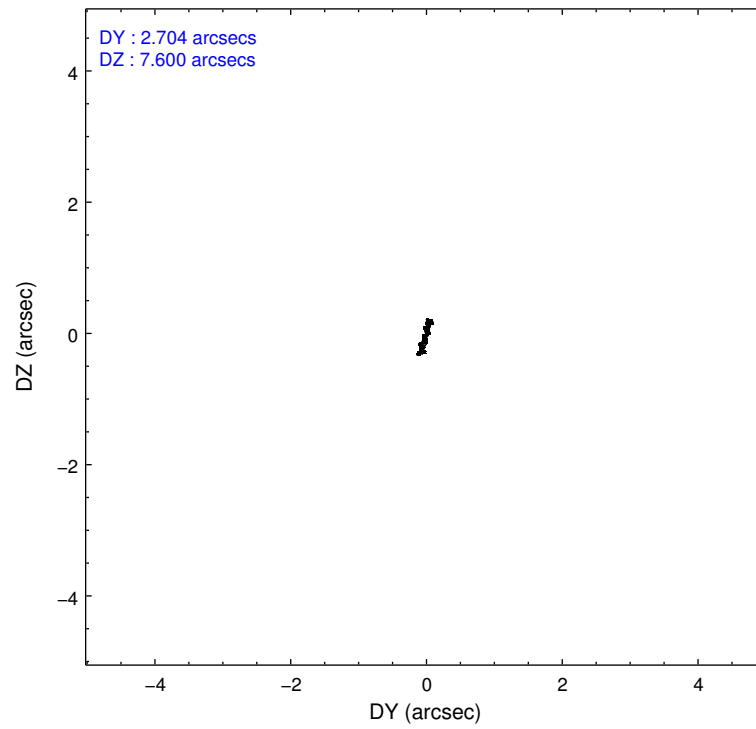
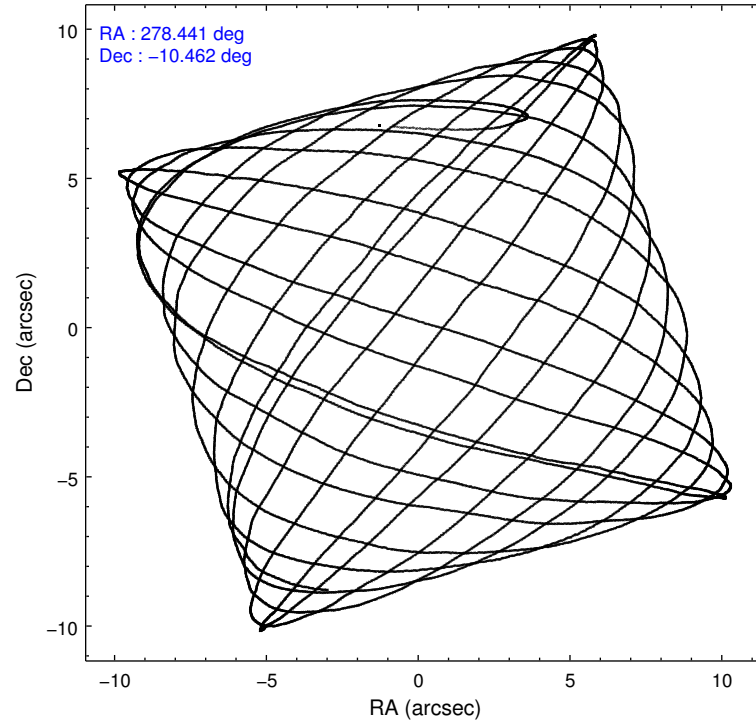
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	889	813	1837	999	6694	1881
	4%	4%	7%	5%	13%	7%
grade 1 events	4	10	200	5	29	6
	0%	0%	0%	0%	0%	0%
grade 2 events	389	357	3196	405	8971	1042
	1%	1%	12%	2%	17%	3%
grade 3 events	304	295	945	319	4305	662
	1%	1%	3%	1%	8%	2%
grade 4 events	288	300	957	304	4243	653
	1%	1%	3%	1%	8%	2%
grade 5 events	583	584	2133	665	2132	875
	2%	3%	8%	3%	4%	3%
grade 6 events	355	360	5466	403	14031	1378
	1%	1%	21%	2%	27%	5%
grade 7 events	17449	15398	10136	16082	9772	19786
	86%	84%	40%	83%	19%	75%

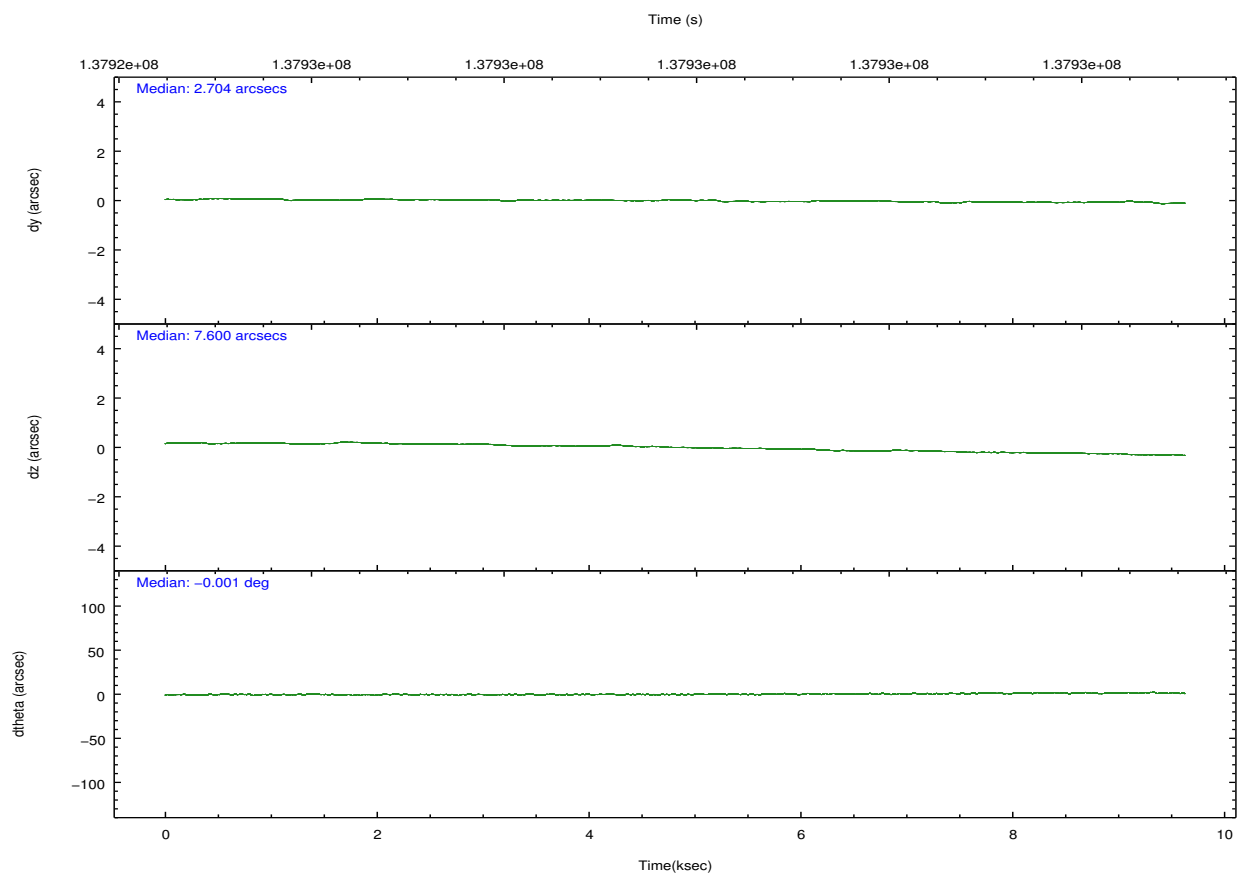
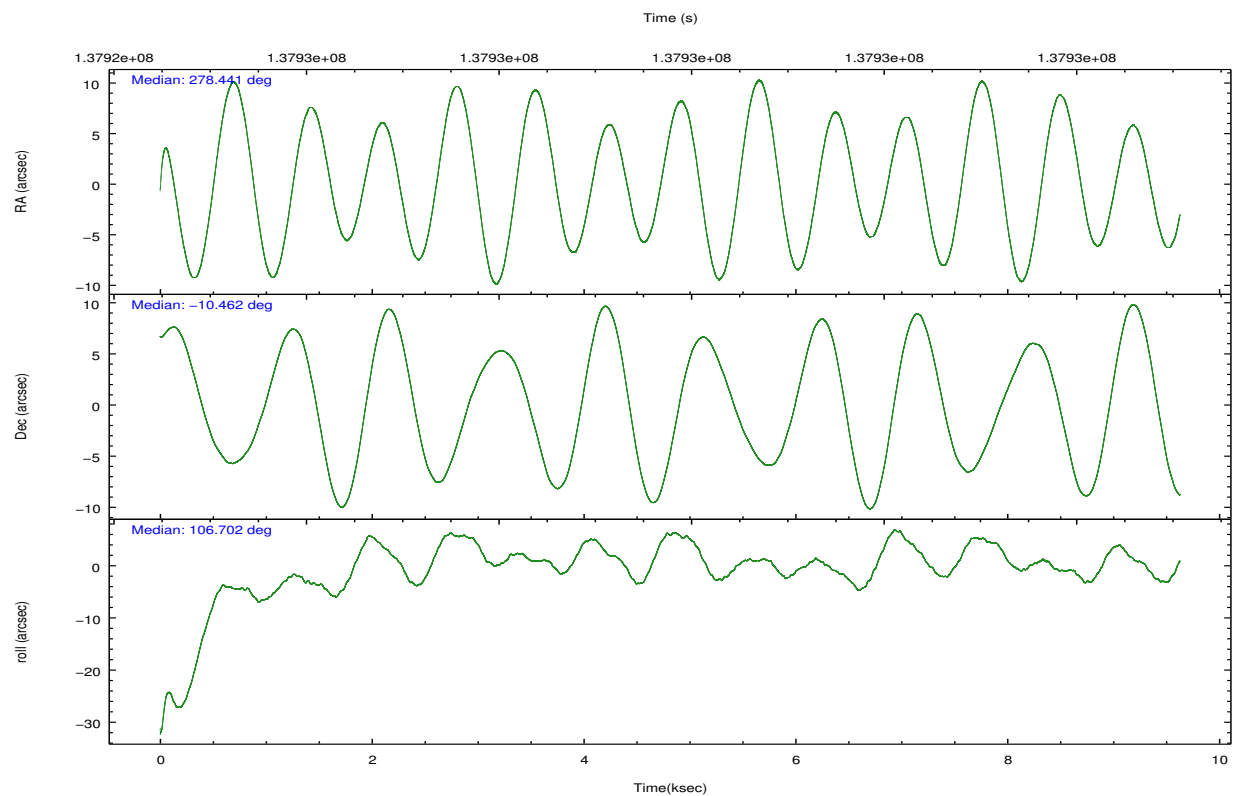


## 2.2 Compared Parameters

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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	278.461064	278.4406051731581	Subarray requested	CUSTOM	1/4
[deg] Pointing Dec	-10.480884	-10.46241119201274	Subarray start row	1	1
[deg] Pointing Roll	106.554352	106.7072493891285	Subarray row count	256	256
[s] Window start time (MET)	135216064.184000	135216064.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	139190464.184000	139190464.184000	[s] Primary exposure time	0.000000	1.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-194.422523	-194.4244593237301			
[mm] SIM translation stage offset	4.29	4.291936740722321			
[s] Observation start time (MET)	137925085.184000	137923966.54769			
Observation start date	2002-05-16T08:30:21	2002-05-16T08:12:46			
[s] Observation end time (MET)	137934585.184000	137935468.07316			
Observation end date	2002-05-16T11:08:41	2002-05-16T11:24:28			
Read mode	TIMED	TIMED			

## 2.3 Aspect



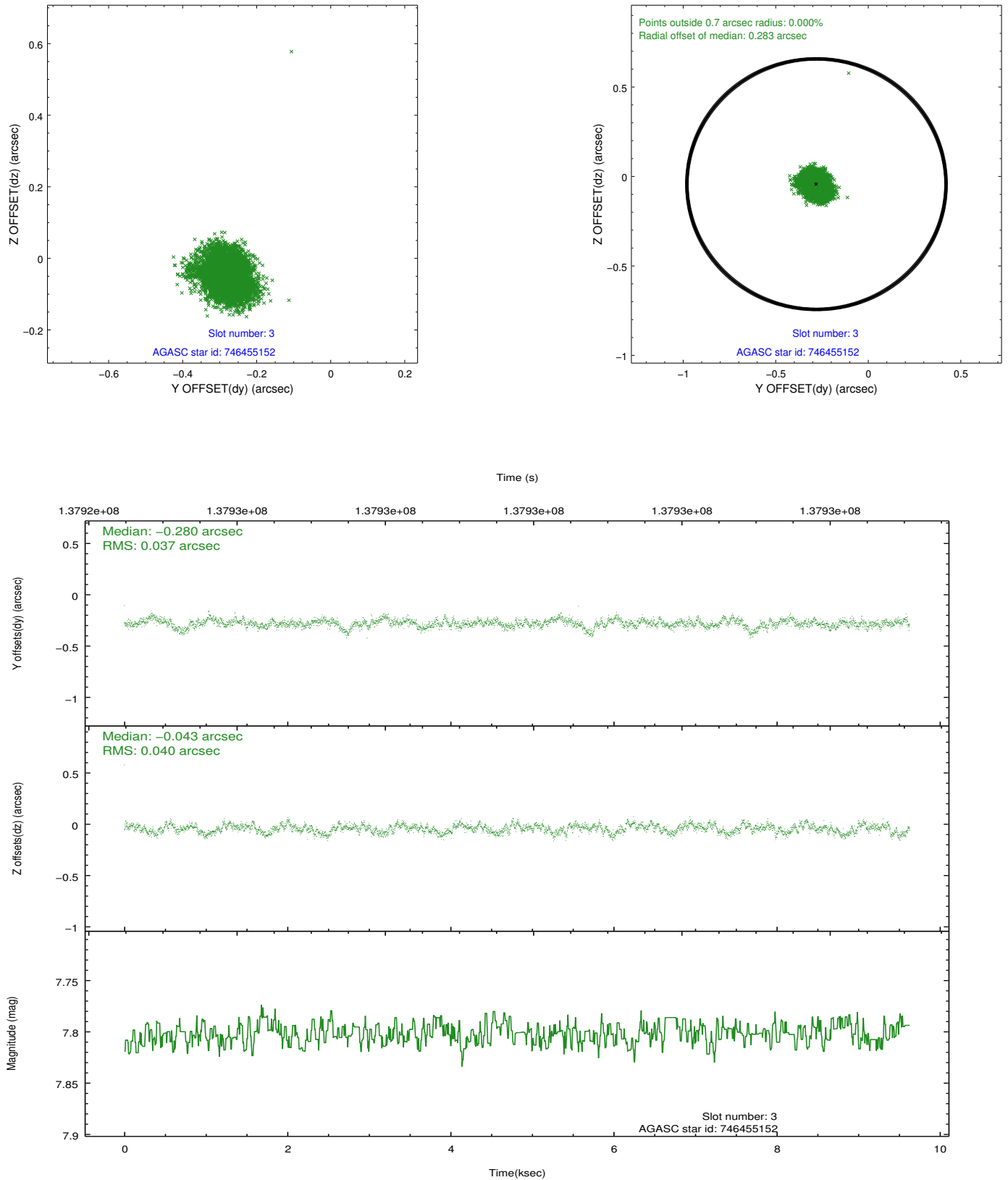


### Slot Statistics

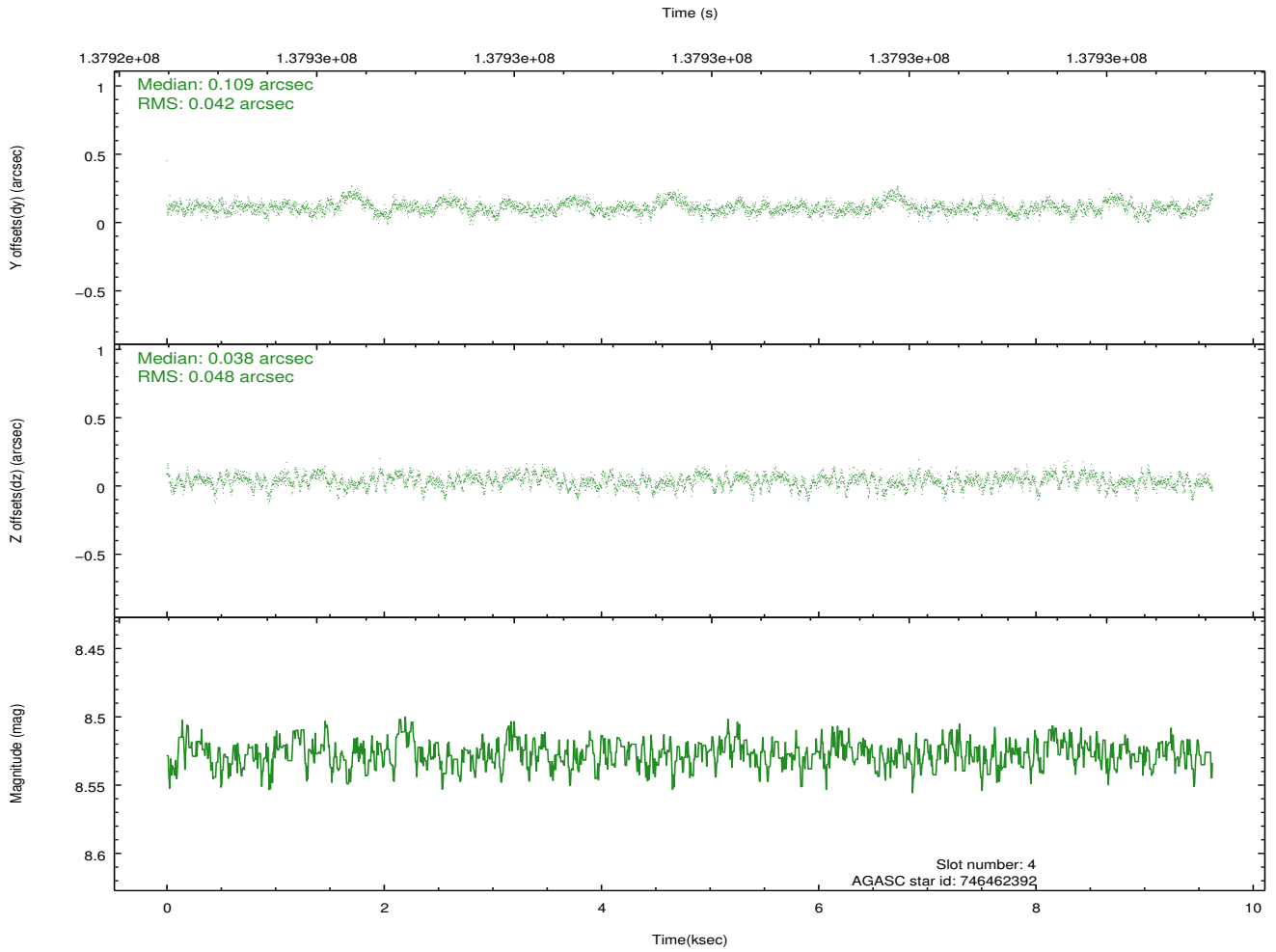
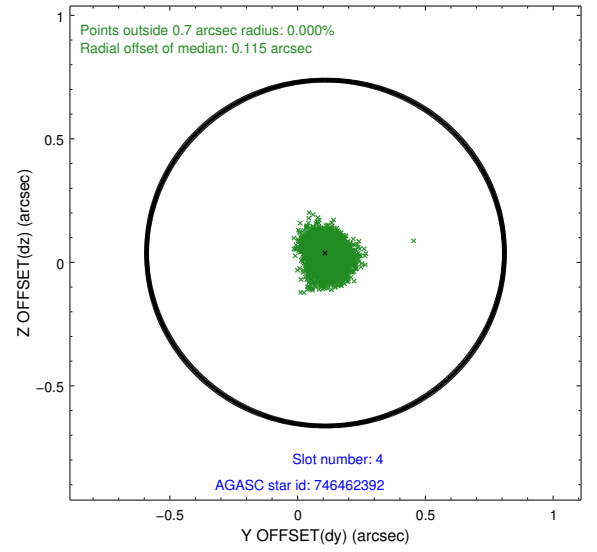
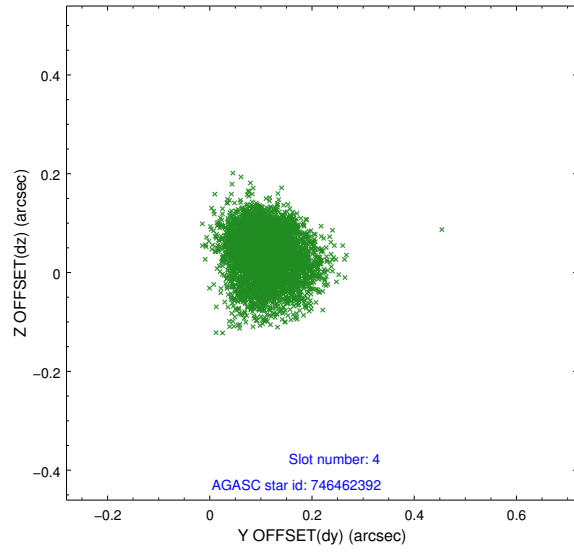
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-3	7.36	2348	-0.061	0.011	0.012	0.019	0.000000	0.000000	57.45	-1769.50
1	FID	ACIS-S-4	7.20	2348	0.028	0.028	0.008	0.013	0.000000	0.000000	2157.81	267.38
2	FID	ACIS-S-5	7.24	2349	0.004	-0.029	0.009	0.014	0.000000	0.000000	-1807.71	261.87
3	GUIDE	746455152	7.80	4698	-0.280	-0.043	0.057	0.093	278.447893	-9.976732	1752.34	-472.58
4	GUIDE	746462392	8.53	4697	0.109	0.038	0.068	0.110	279.038421	-10.890715	-1998.00	-1536.31
5	GUIDE	746455112	8.93	4695	0.080	0.023	0.074	0.120	278.266531	-10.703234	-572.28	886.92
6	GUIDE	746460328	9.81	4688	-0.058	-0.005	0.131	0.212	278.603974	-9.898096	1865.86	-1083.48
7	GUIDE	746461728	9.77	4691	0.148	-0.012	0.097	0.160	278.986921	-10.530755	-703.66	-1733.08

## 2.4 Star Slots

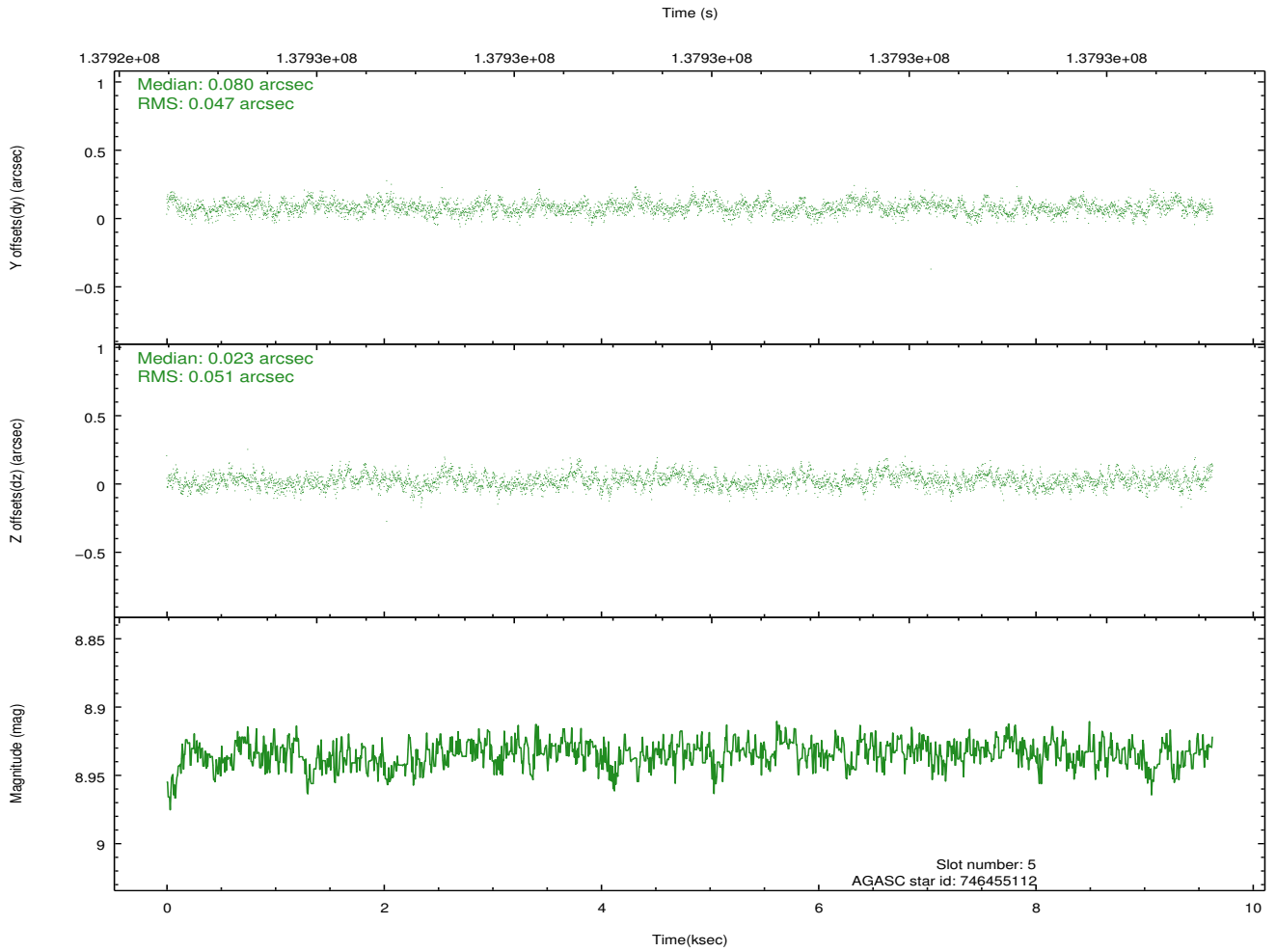
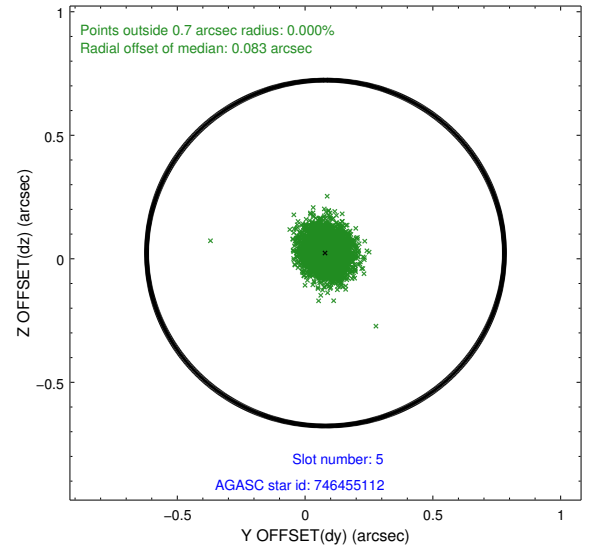
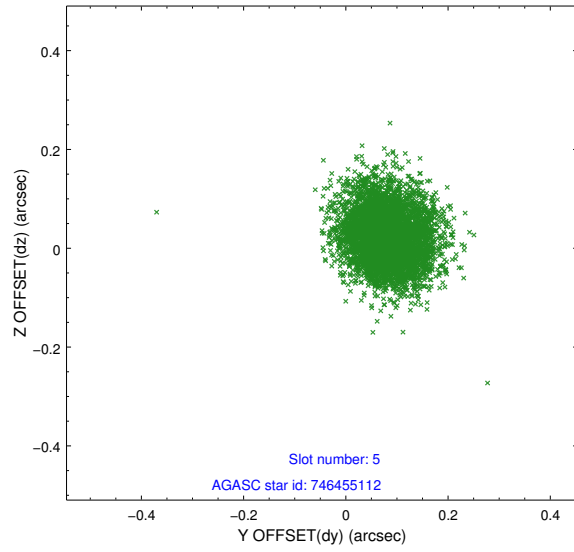
### 2.4.1 Slot 3



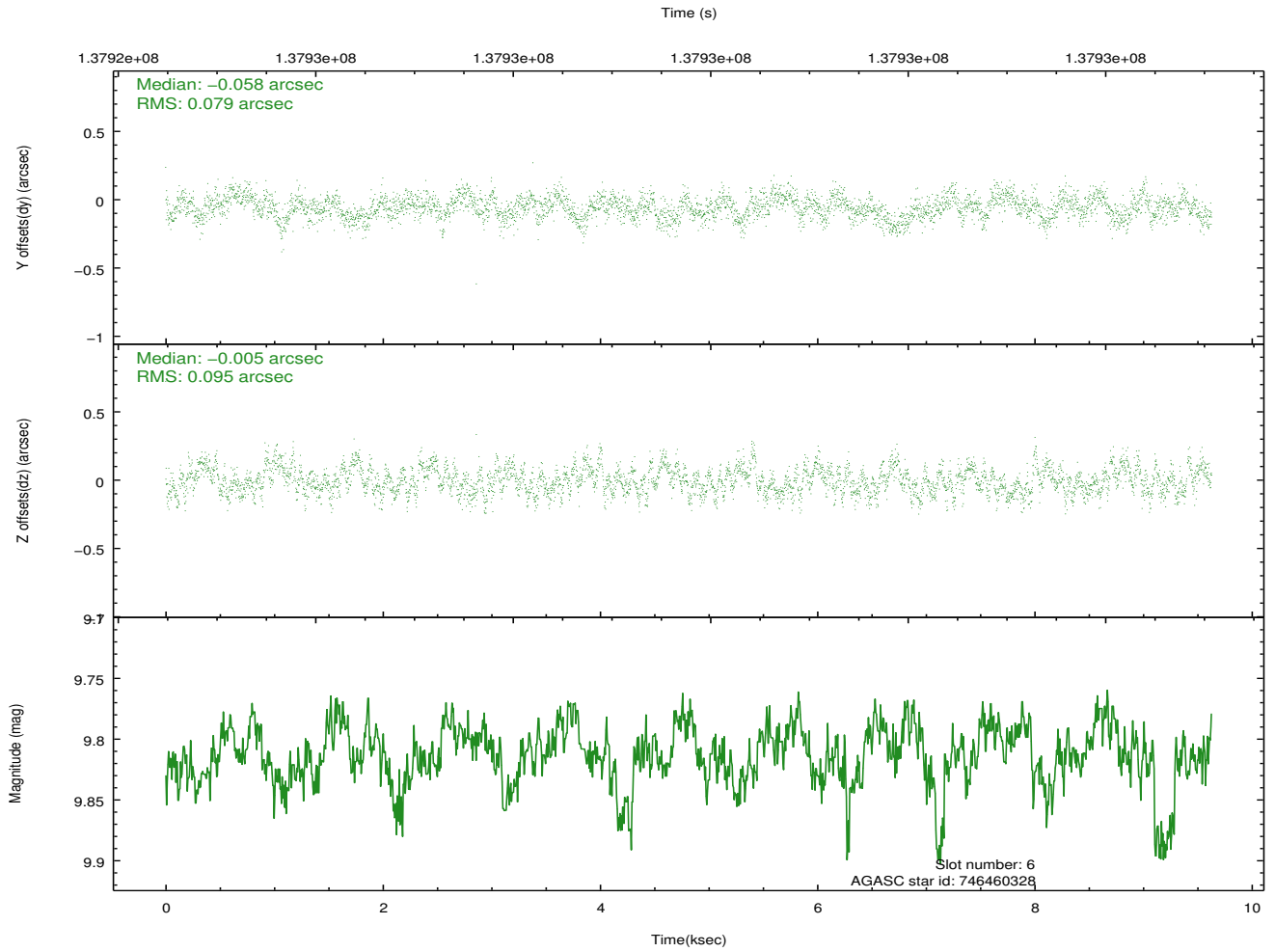
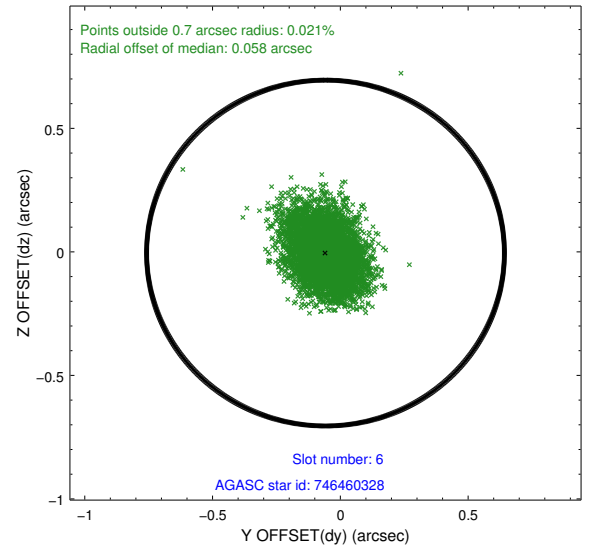
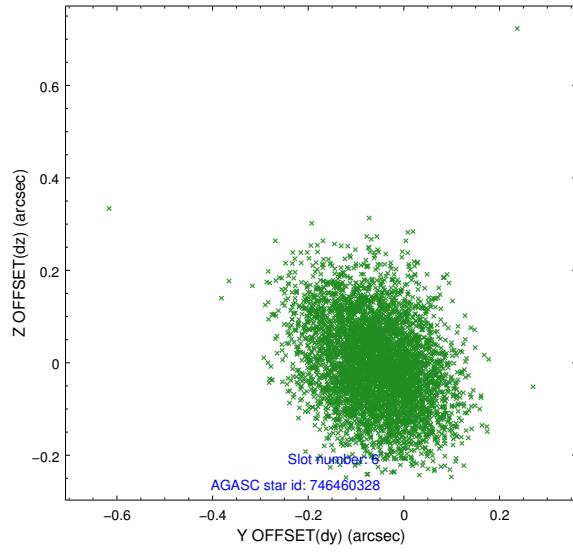
## 2.4.2 Slot 4



### 2.4.3 Slot 5

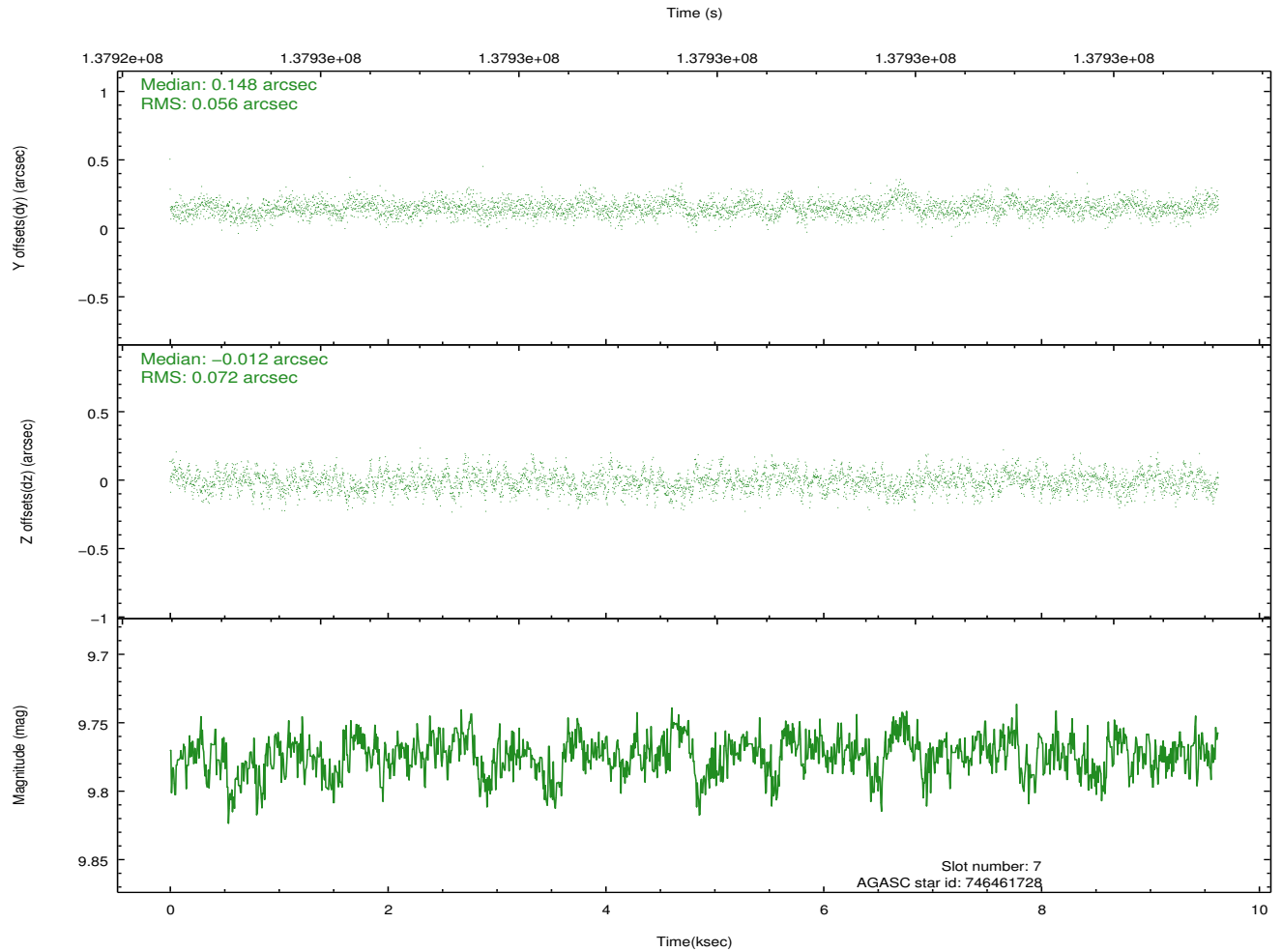
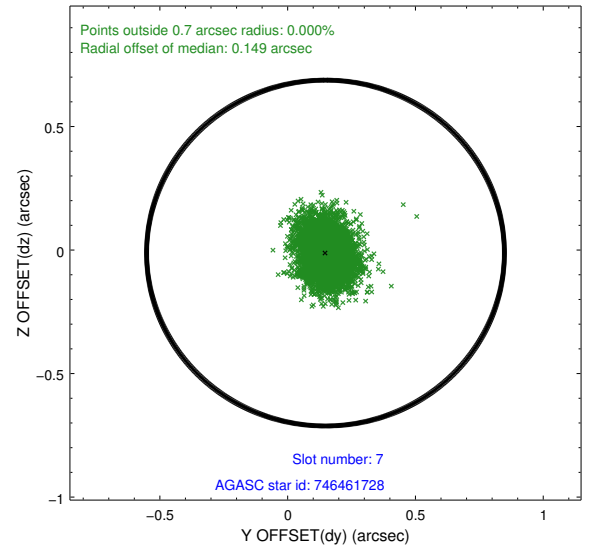
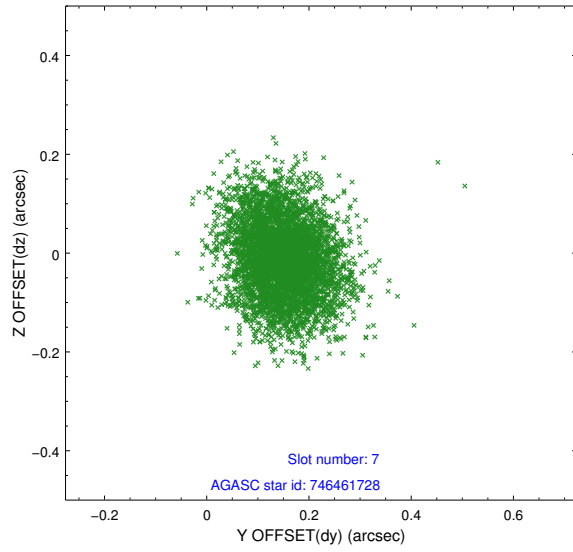


## 2.4.4 Slot 6



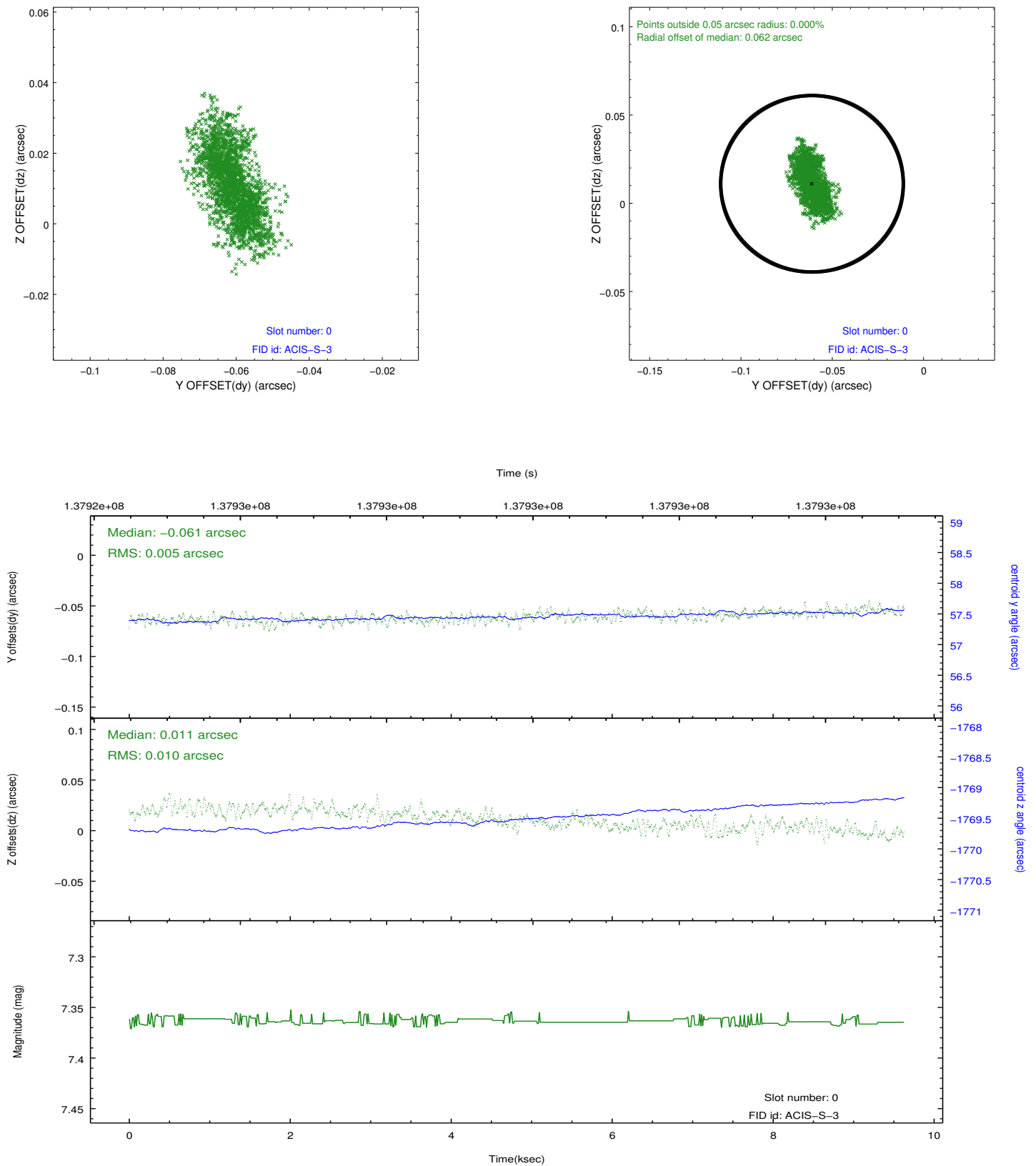


## 2.4.5 Slot 7

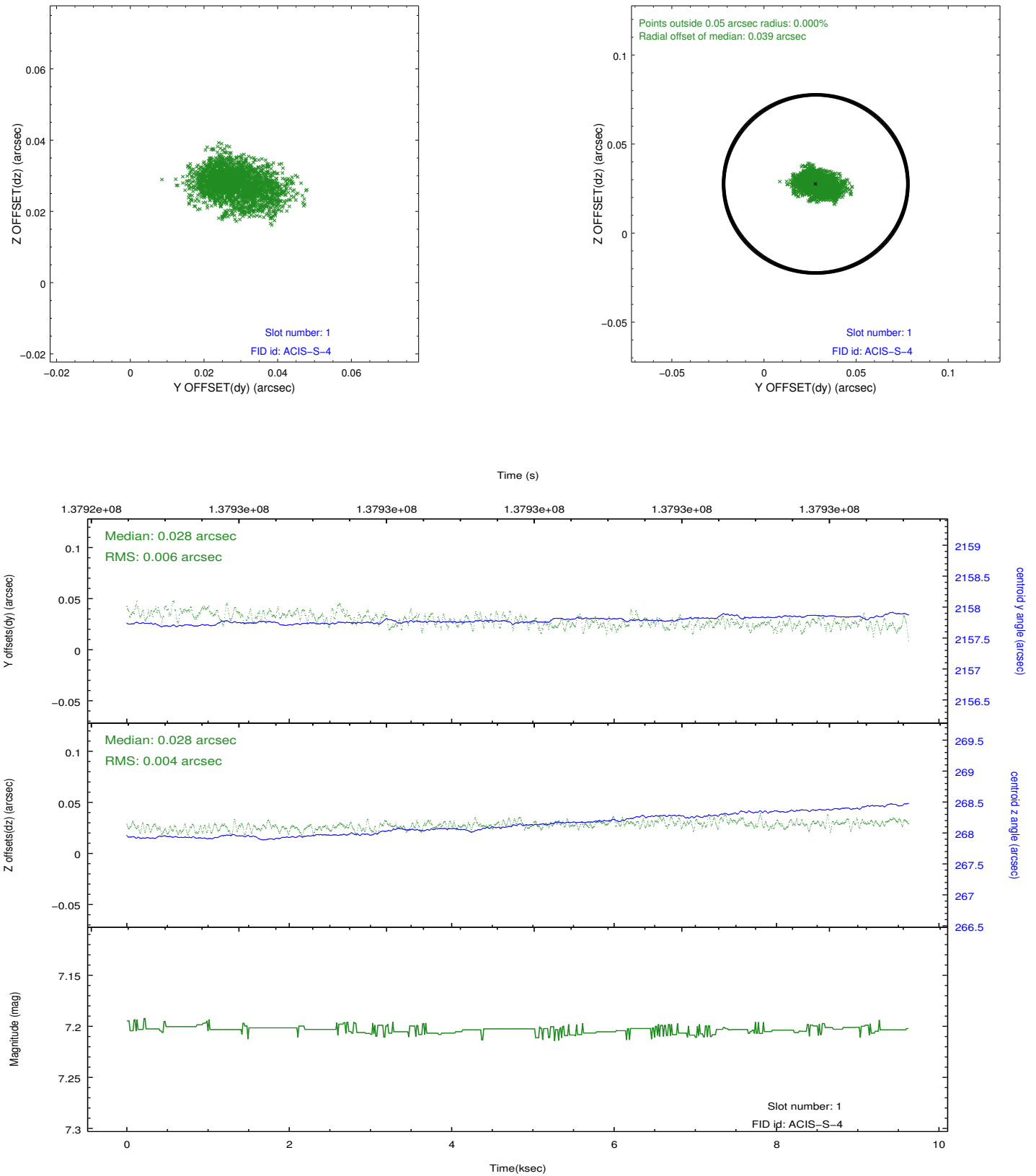


## 2.5 FID Slots

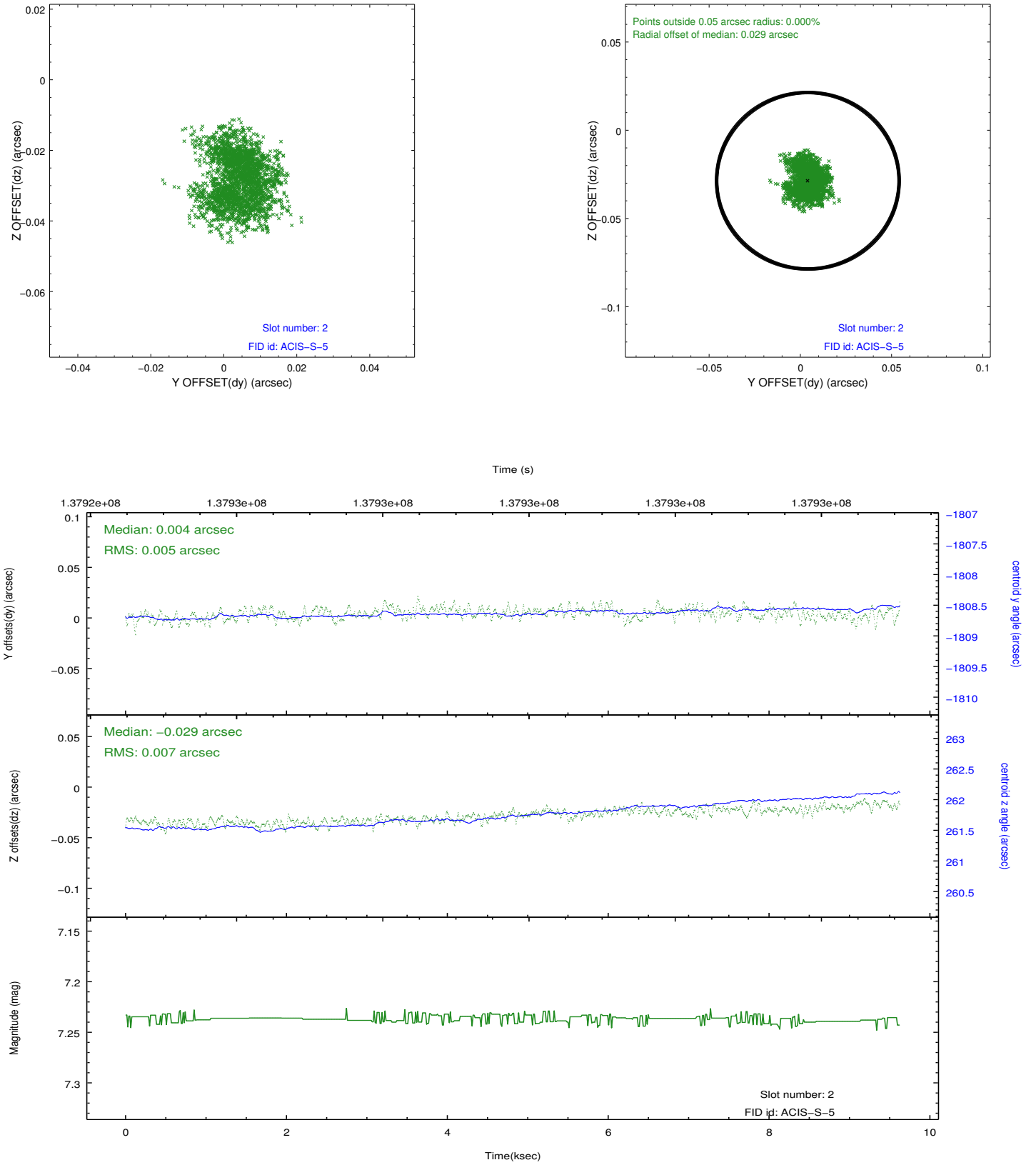
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.10.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.625

### A.2 Comments

Window preference met.