

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 5132 - L2 Version 3  
Chandra X-Ray Center

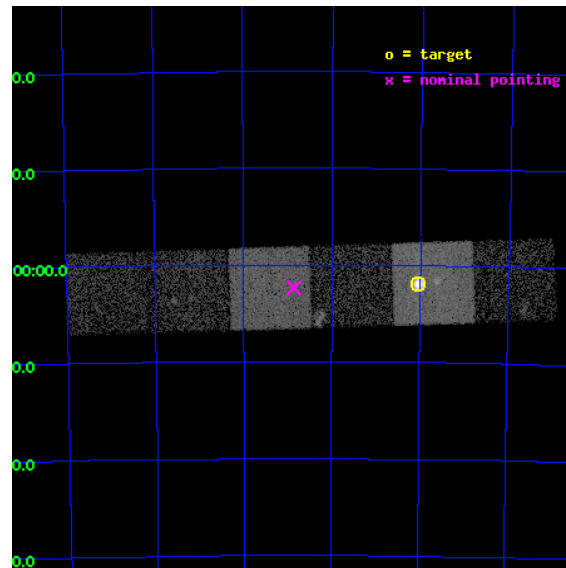
L2 Processing Date : Nov 30 2012

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# 1 Front

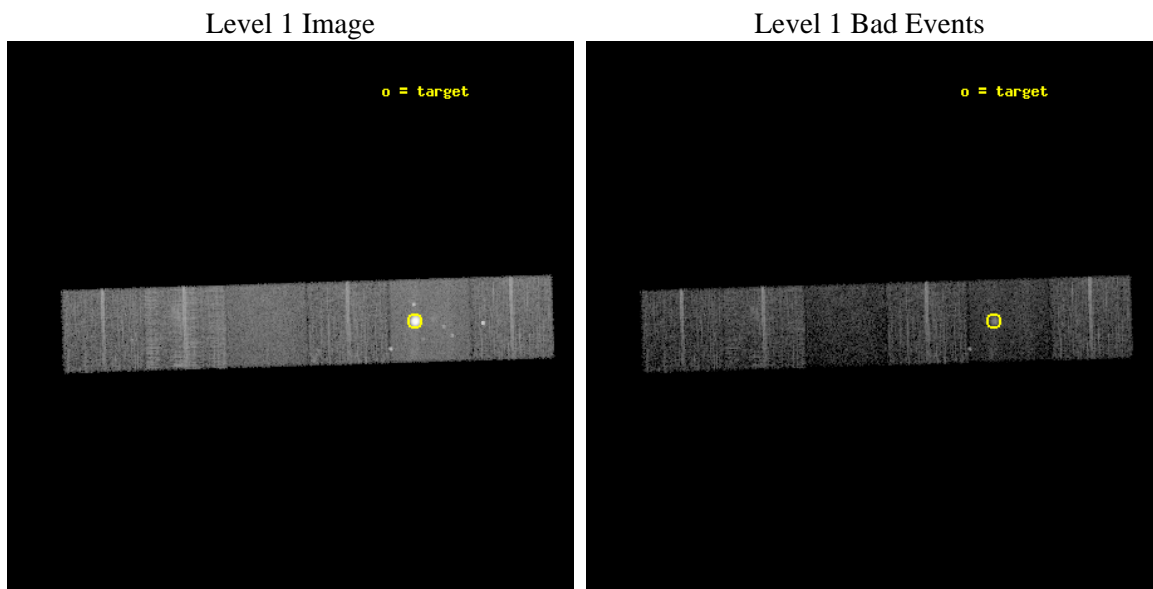
seq_num	590330	Sequence number
obs_id	5132	Observation id
title	AO5B ACIS-S Calibration Observations of E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72[S1,-120,13.29,0,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	16.714743626647	Nominal RA [deg]
dec_nom	-72.039071359586	Nominal Dec [deg]
roll_nom	178.21095136693	Nominal Roll [deg]
revision	3	Processing version of data
ontime	7596.3059922159	Sum of GTIs [s]
livetime	7500.1169917961	Livetime [s]
ontime4	7593.1471019387	Sum of GTIs [s]
ontime5	7596.3059922159	Sum of GTIs [s]
ontime6	7596.2649522126	Sum of GTIs [s]
ontime7	7596.3470322192	Sum of GTIs [s]
ontime8	7592.9829519391	Sum of GTIs [s]
ontime9	7596.1828722358	Sum of GTIs [s]
l2events	103094	Number of level 2 events



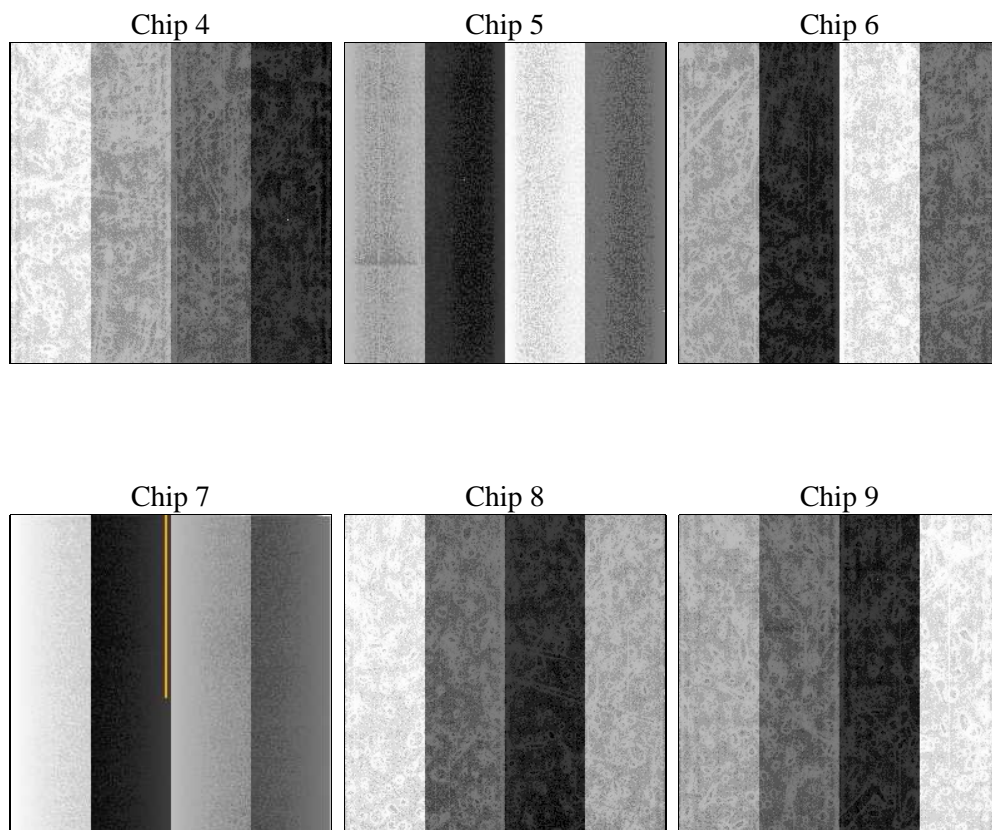
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7840.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7596.3059922159	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime4	7593.1471019387	Sum of GTIs [s]
date	2012-11-30T14:00:42	Date and time of file creation	ontime5	7596.3059922159	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	7596.2649522126	Sum of GTIs [s]
			ontime7	7596.3470322192	Sum of GTIs [s]
			ontime8	7592.9829519391	Sum of GTIs [s]
			ontime9	7596.1828722358	Sum of GTIs [s]
			l1events	333416	Number of level 1 events

### 2.1.4 Events

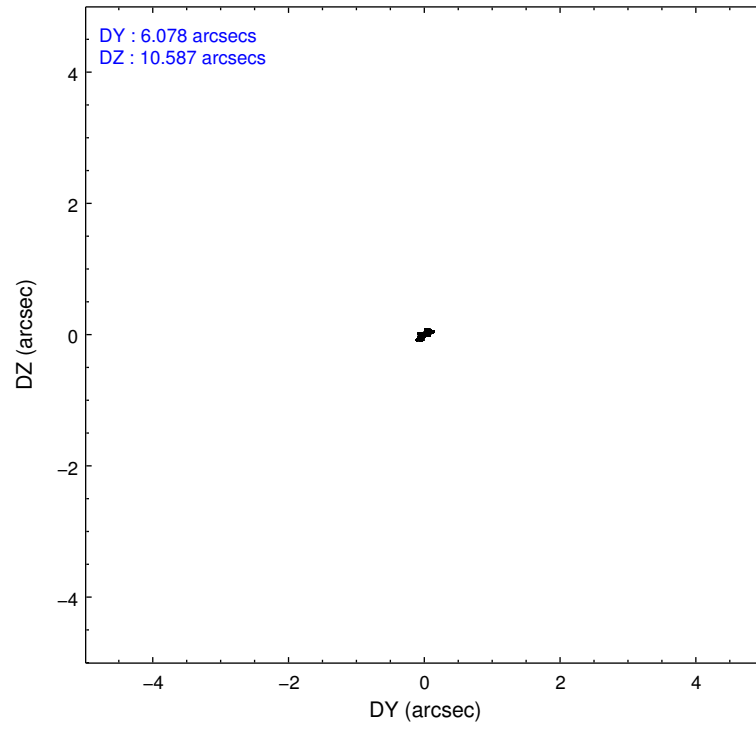
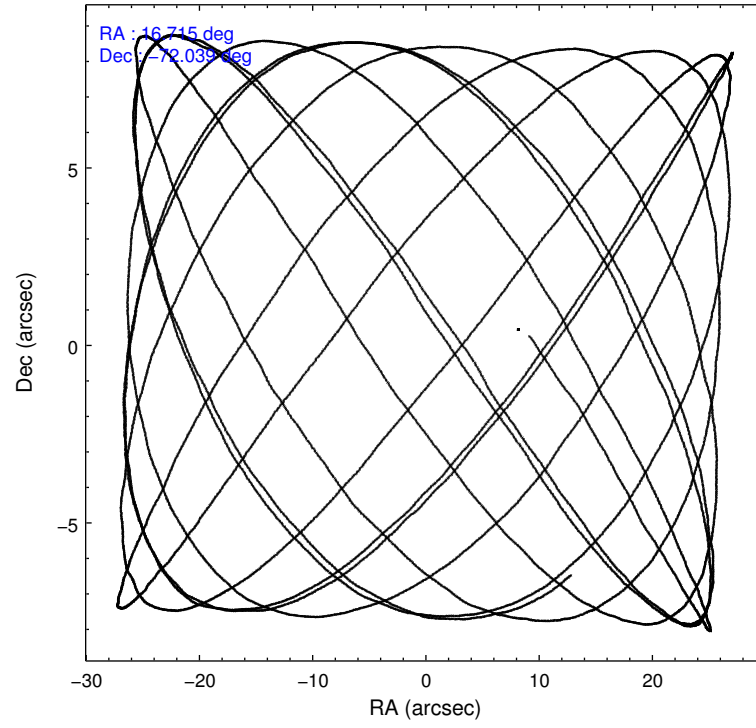
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	51134	97041	43903	40174	61250	39914	grade 0 events	4375	24259	2541	1963	6487	1846
rejected events	43864	25490	38539	20062	42700	35312		8%	24%	5%	4%	10%	4%
rejected %	85%	26%	87%	49%	69%	88%	grade 1 events	71	354	22	43	75	26
								0%	0%	0%	0%	0%	0%
							grade 2 events	1183	20108	1018	4294	2994	906
								2%	20%	2%	10%	4%	2%
							grade 3 events	501	5149	504	1931	2967	528
								0%	5%	1%	4%	4%	1%
							grade 4 events	514	5169	483	2021	2576	462
								1%	5%	1%	5%	4%	1%
							grade 5 events	1403	4806	1380	4241	2111	1619
								2%	4%	3%	10%	3%	4%
							grade 6 events	699	16894	819	9909	3528	862
								1%	17%	1%	24%	5%	2%
							grade 7 events	42388	20302	37136	15772	40512	33665
								82%	20%	84%	39%	66%	84%

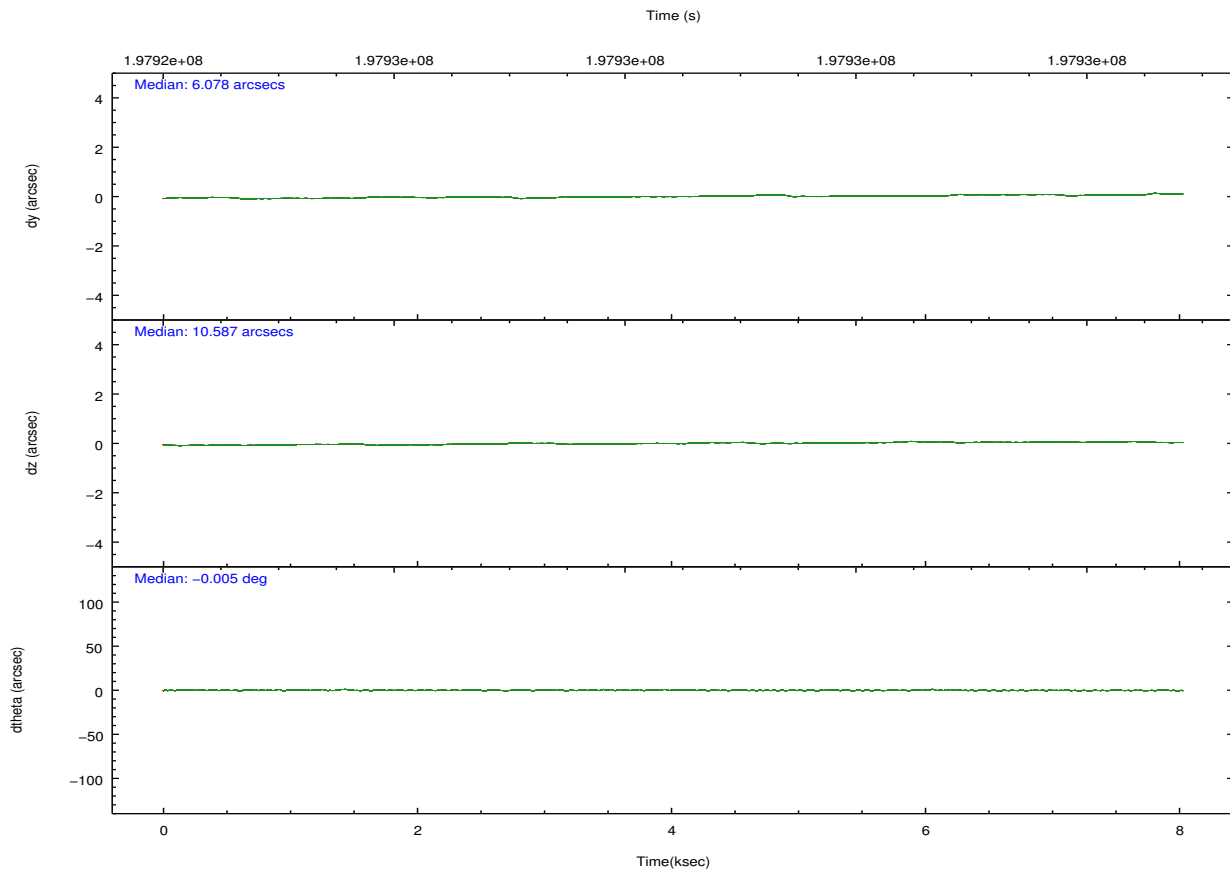
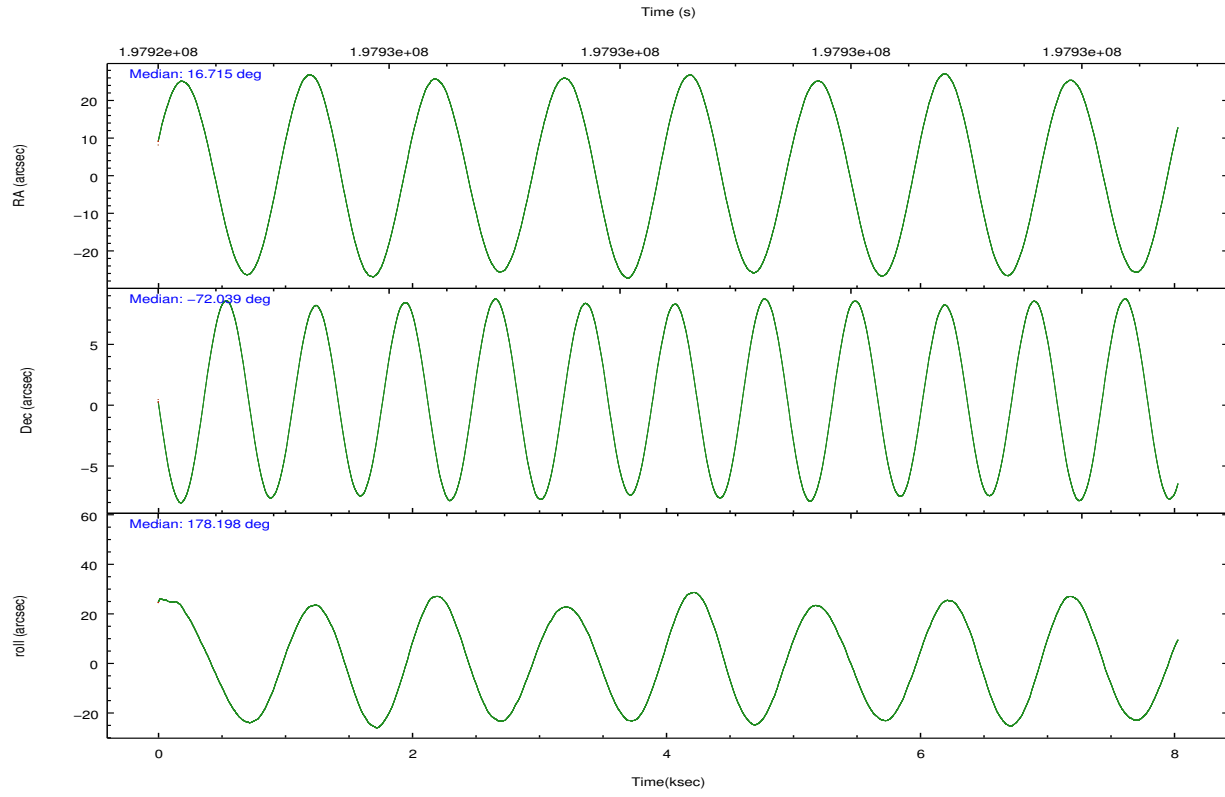


## 2.2 Compared Parameters

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	16.791947	16.71474362664714	Subarray requested	NONE	NONE
[deg] Pointing Dec	-72.025819	-72.03907135958616	Alternating exposures requested	N	N
[deg] Pointing Roll	178.127756	178.2109513669337	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	197164864.184000	197164864.184000			
[s] Window stop time (MET)	199670464.184000	199670464.184000			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	197924587.184000	197924211.12526			
Observation start date	2004-04-09T19:02:03	2004-04-09T18:56:51			
[s] Observation end time (MET)	197932427.184000	197932561.80063			
Observation end date	2004-04-09T21:12:43	2004-04-09T21:16:01			
Read mode	TIMED	TIMED			

## 2.3 Aspect



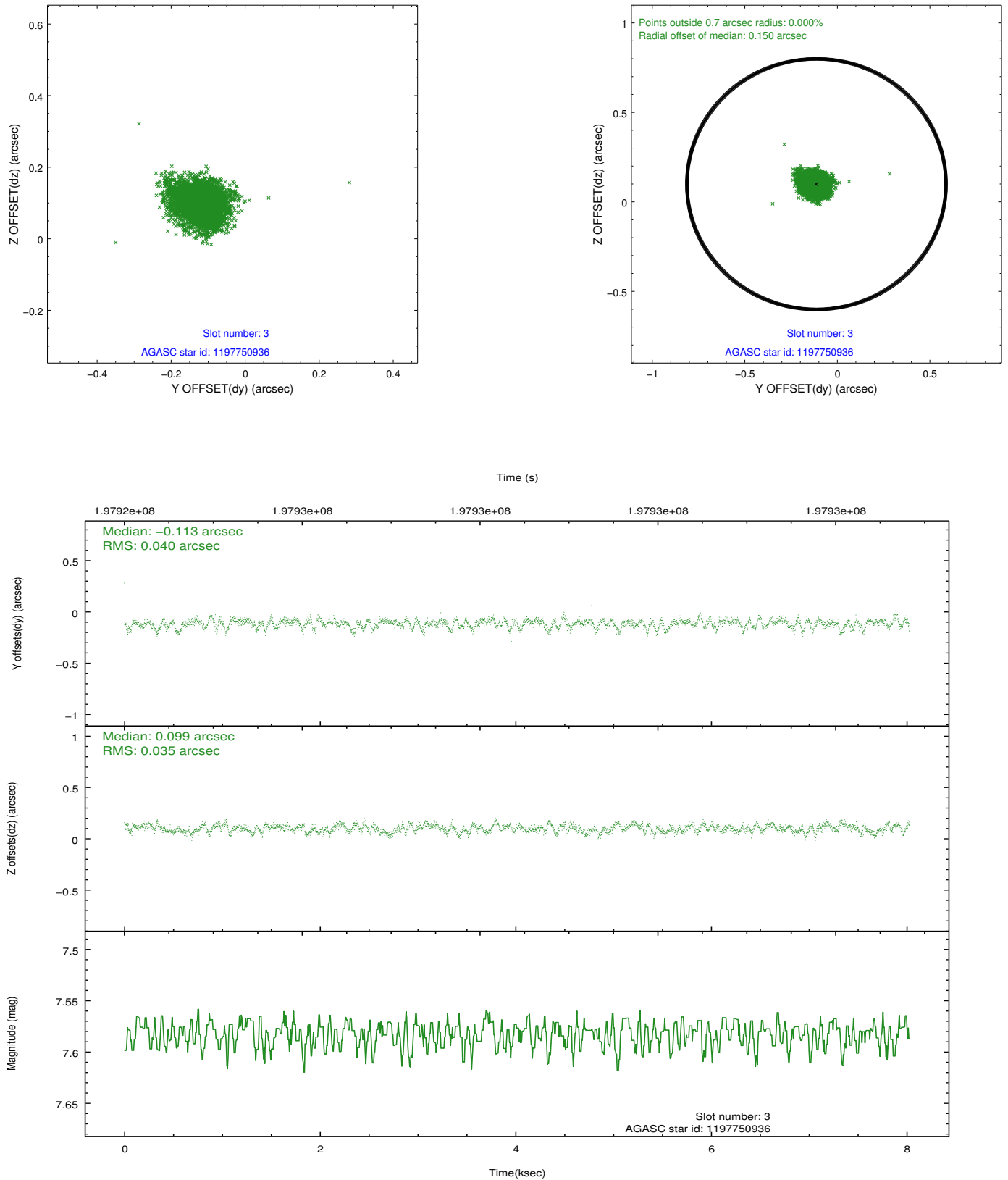


### Slot Statistics

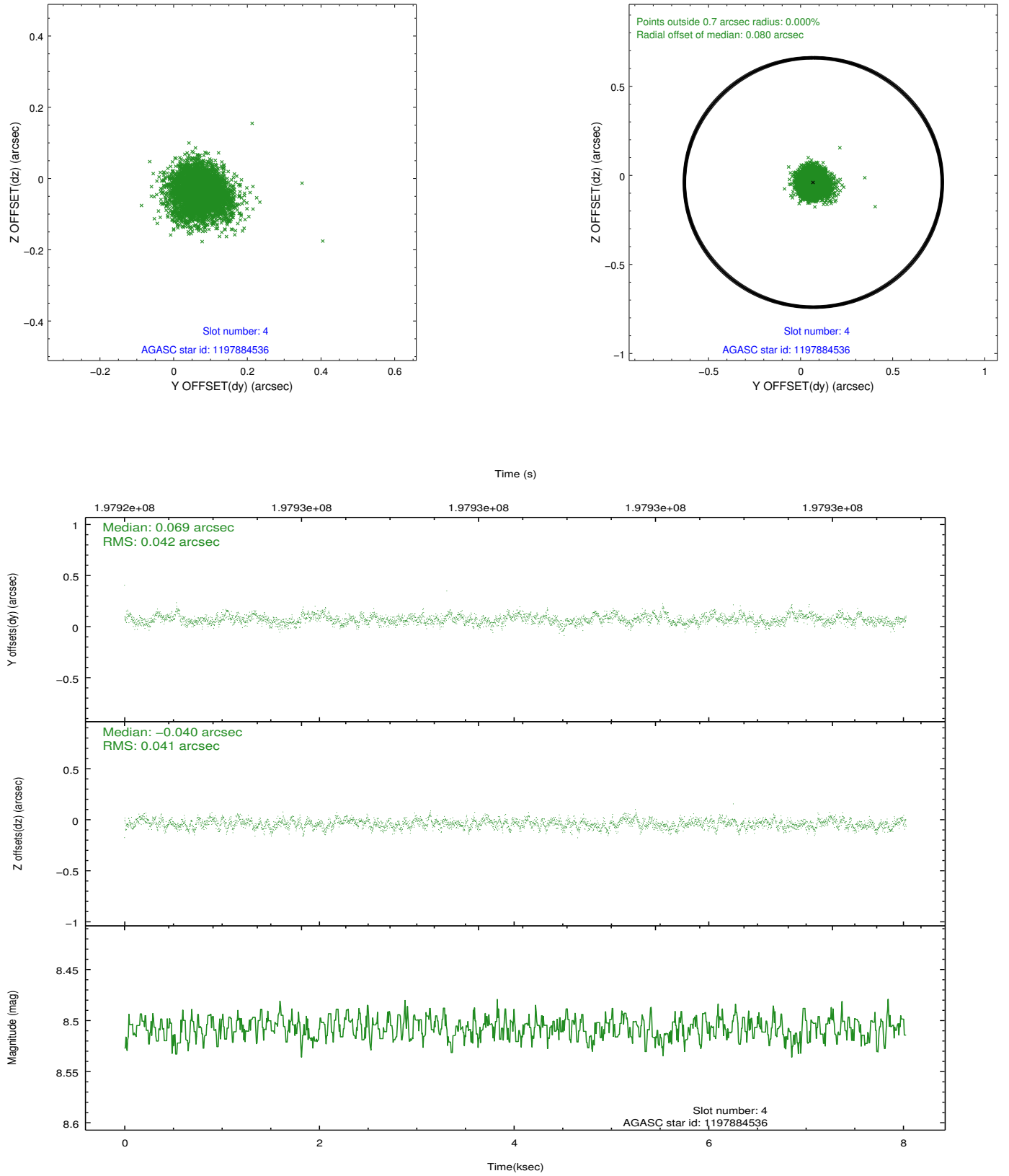
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	1959	-0.069	-0.018	0.007	0.011	0.000000	0.000000	-758.85	-1731.88
1	FID	ACIS-S-4	7.20	1959	0.091	0.038	0.006	0.011	0.000000	0.000000	2154.24	175.98
2	FID	ACIS-S-5	7.23	1959	-0.053	-0.011	0.006	0.011	0.000000	0.000000	-1810.80	170.34
3	GUIDE	1197750936	7.58	3918	-0.113	0.099	0.055	0.092	15.387940	-71.549550	1654.62	-1642.22
4	GUIDE	1197884536	8.51	3917	0.069	-0.040	0.062	0.100	17.160729	-71.835289	-390.33	-698.41
5	GUIDE	1197884712	8.30	3918	-0.054	-0.080	0.059	0.098	16.087398	-72.252690	745.82	845.96
6	GUIDE	1197885104	9.36	3915	0.113	-0.020	0.092	0.154	17.845067	-72.189368	-1177.89	560.86
7	GUIDE	1197885328	7.23	3917	-0.012	0.044	0.055	0.088	16.283090	-71.733943	607.91	-1028.97

## 2.4 Star Slots

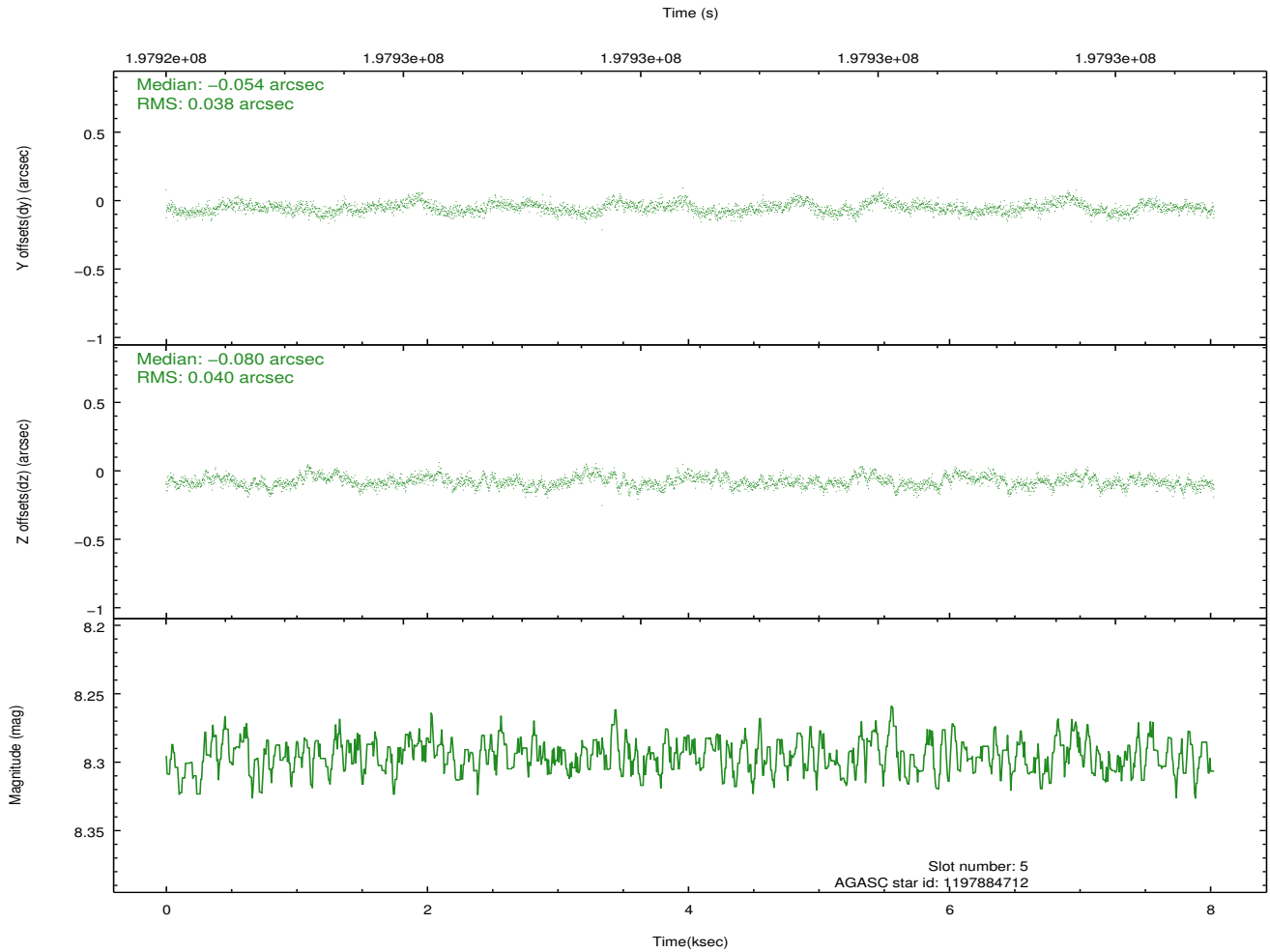
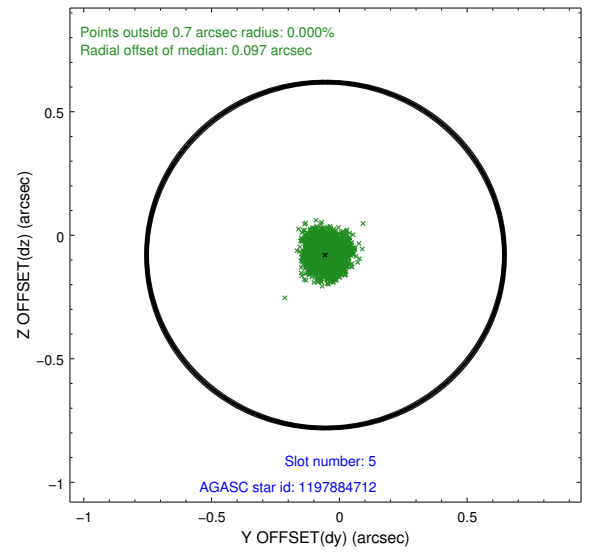
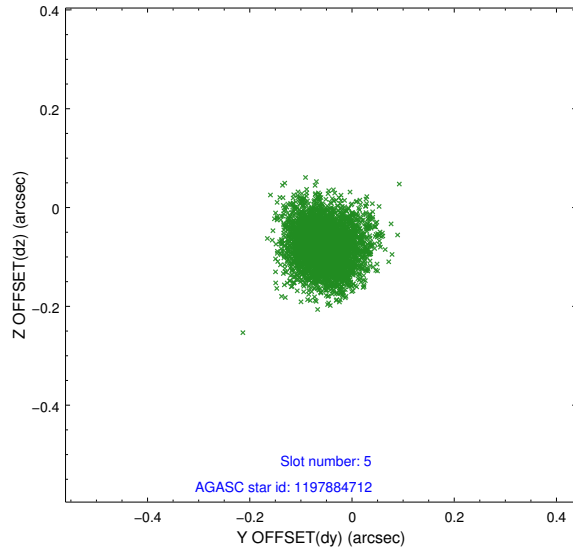
### 2.4.1 Slot 3



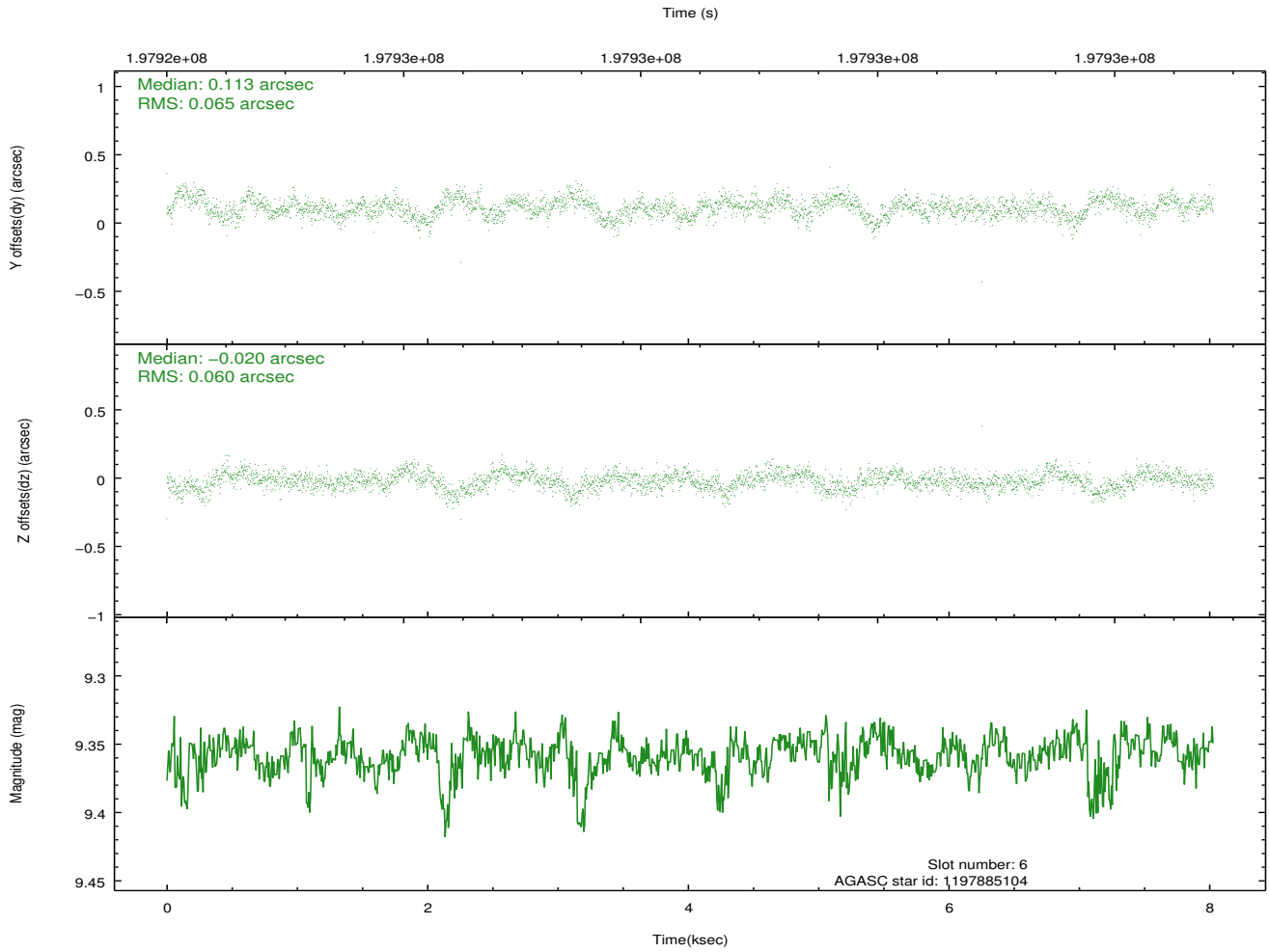
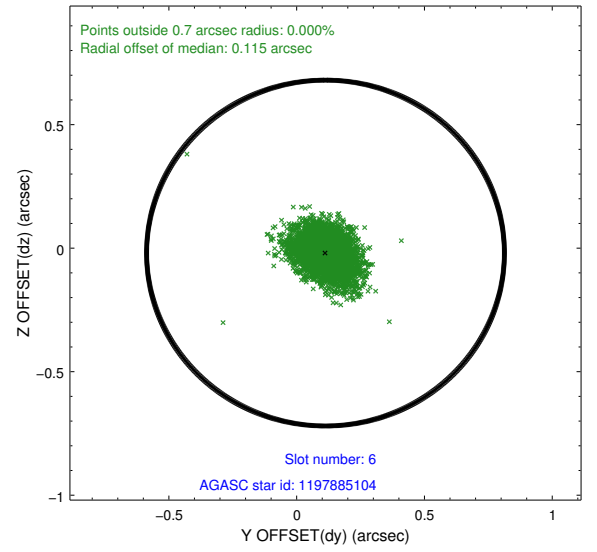
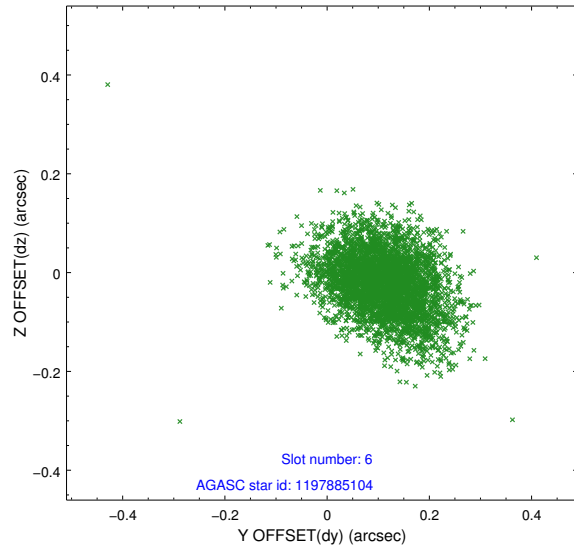
## 2.4.2 Slot 4



### 2.4.3 Slot 5

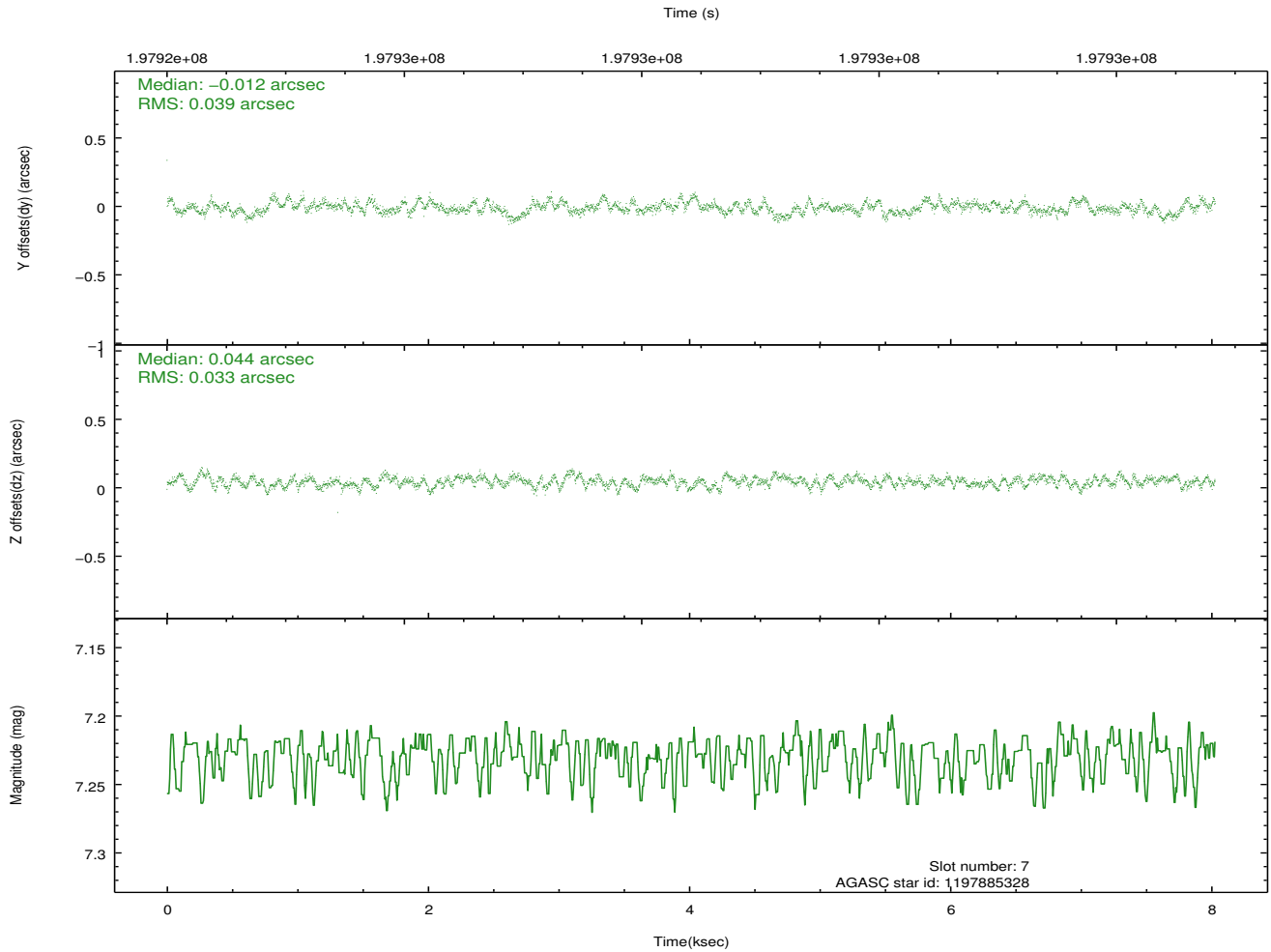
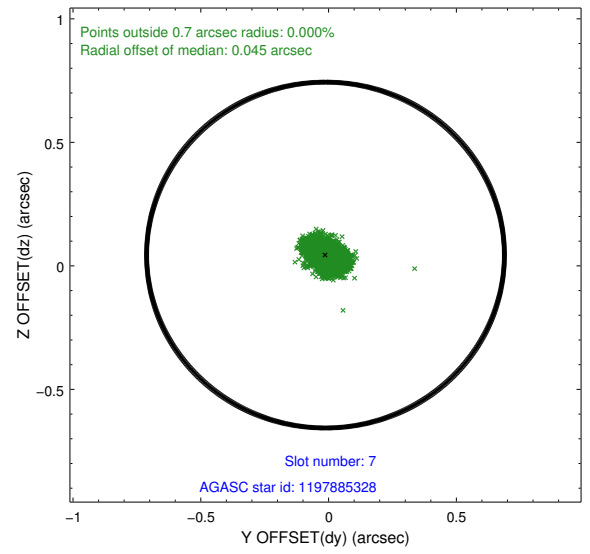
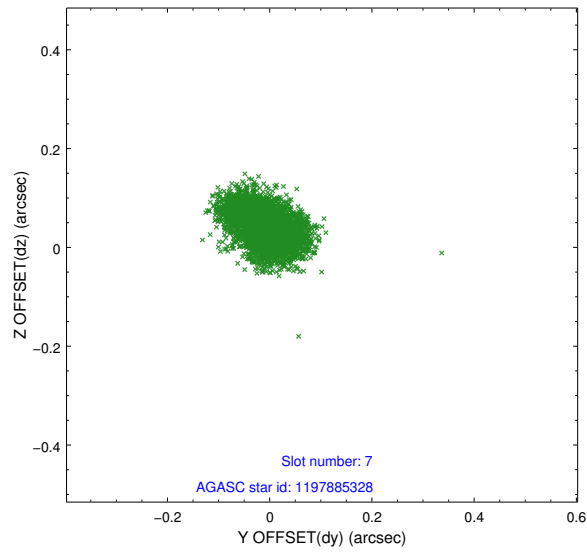


## 2.4.4 Slot 6



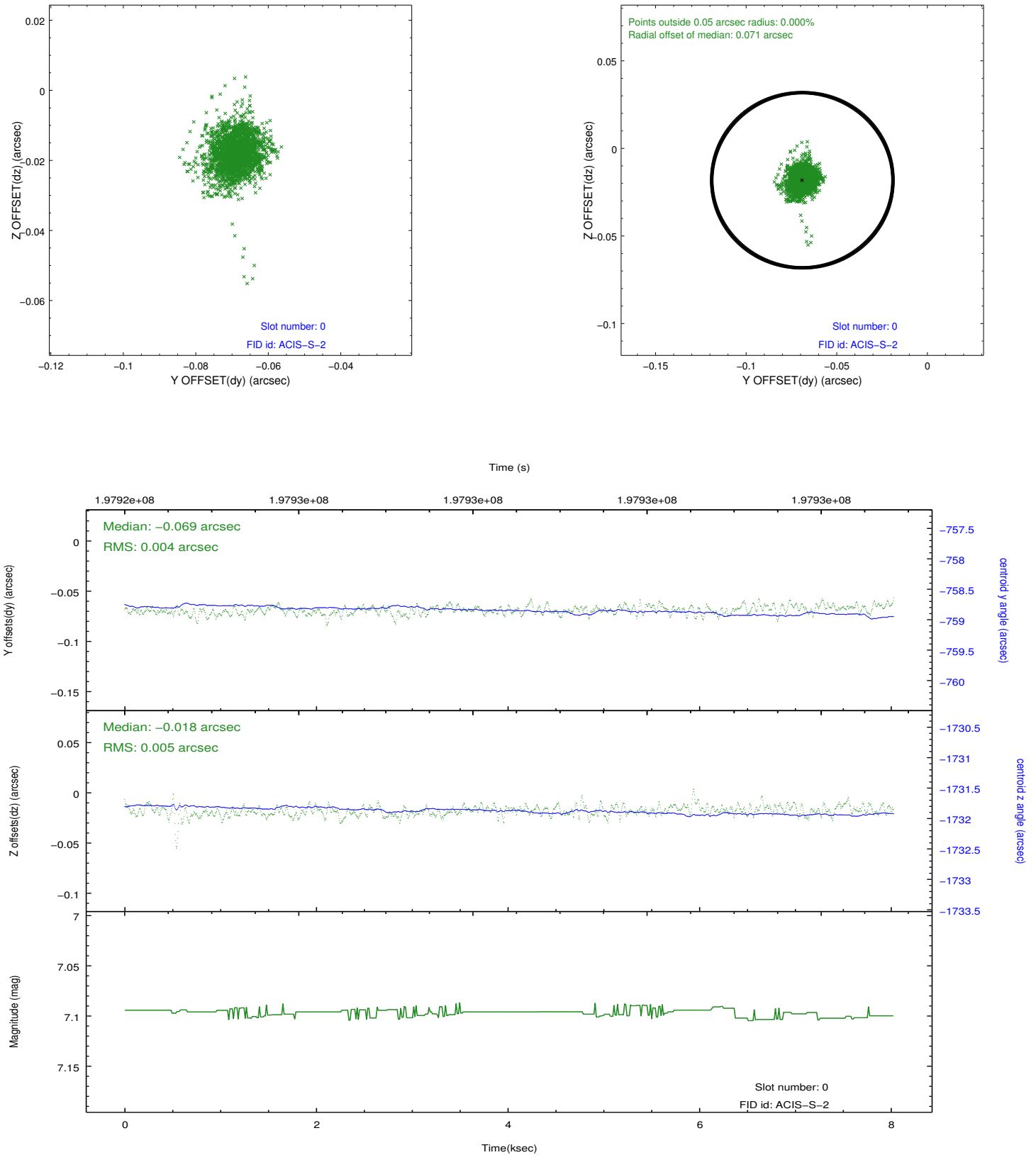


## 2.4.5 Slot 7

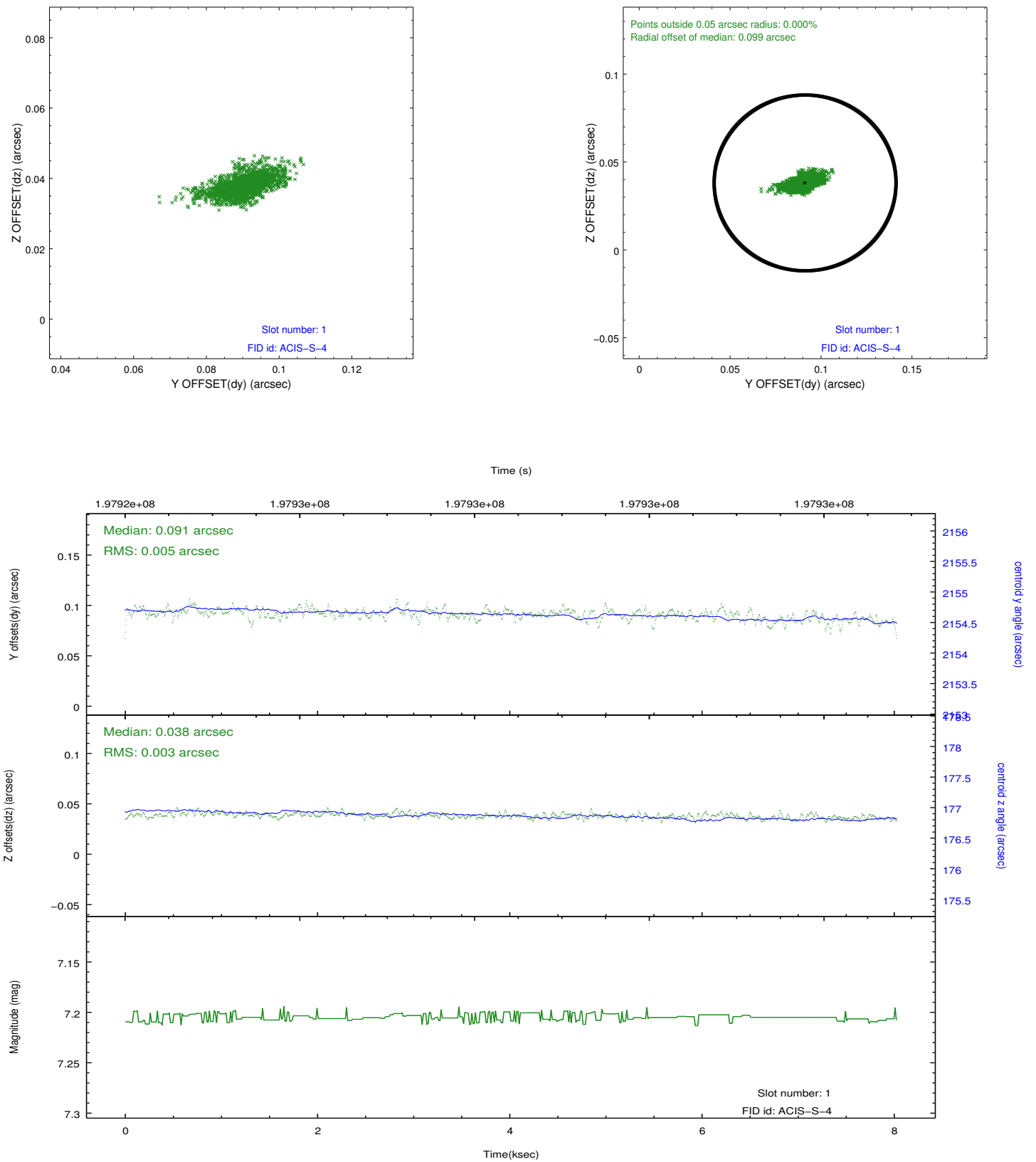


## 2.5 FID Slots

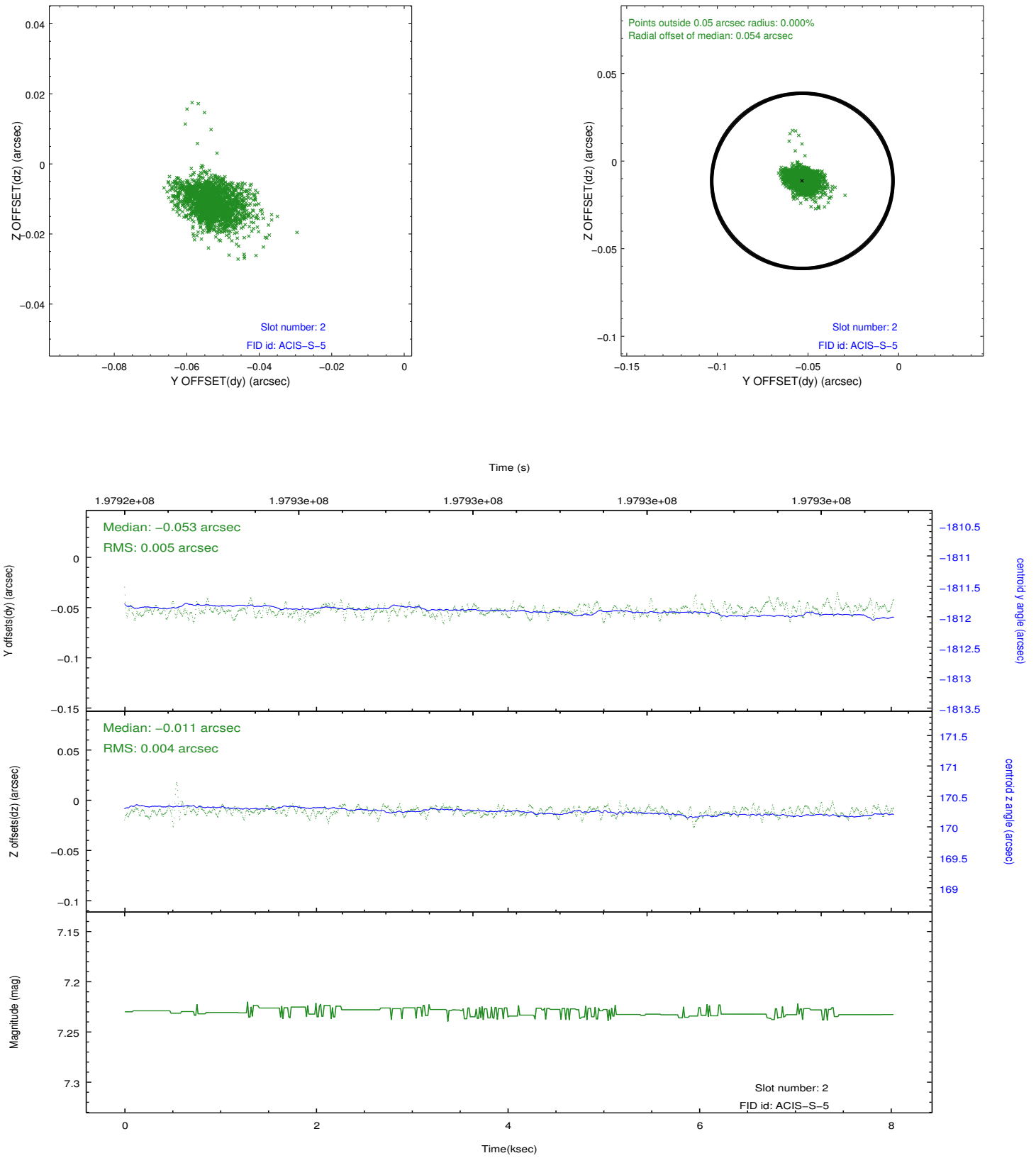
### 2.5.1 Slot 0



## 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)	2012.12.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.596

### A.2 Comments

Window constraint met.