

# V&V Reference Report

## L2 ASCDS Version : 10

Observation 14950 - L2 Version 2  
Chandra X-Ray Center

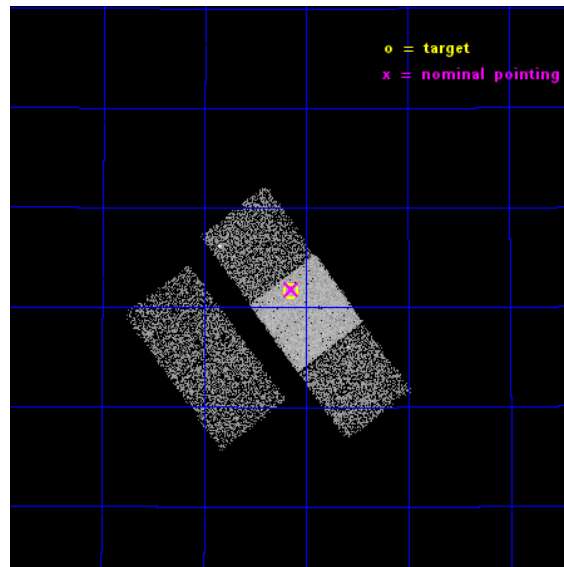
L2 Processing Date : Dec 6 2014

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# 1 Front

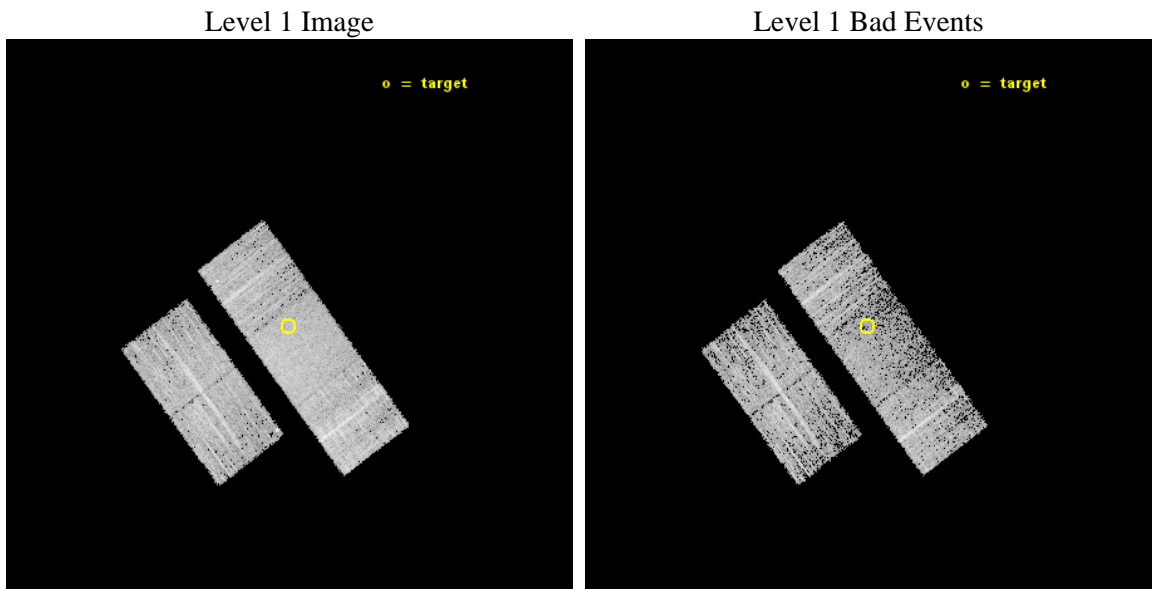
seq_num	702759	Sequence number
obs_id	14950	Observation id
title	Understanding the Nature of PHL 1811 Analogs	Proposal title
observer	Prof. William Brandt	Principal investigator
object	SDSS J0908+4441	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	137.037917	Observer's specified target RA [deg]
dec_targ	44.694111	Observer's specified target Dec [deg]
ra_nom	137.03639538153	Nominal RA [deg]
dec_nom	44.696934780012	Nominal Dec [deg]
roll_nom	53.418113401636	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6916.1000531912	Sum of GTIs [s]
livetime	6825.7361144375	Livetime [s]
ontime2	6916.0076790452	Sum of GTIs [s]
ontime3	6916.0897590518	Sum of GTIs [s]
ontime6	6916.1000531912	Sum of GTIs [s]
ontime7	6916.1000531912	Sum of GTIs [s]
ontime8	6916.0487190485	Sum of GTIs [s]
l2events	29369	Number of level 2 events



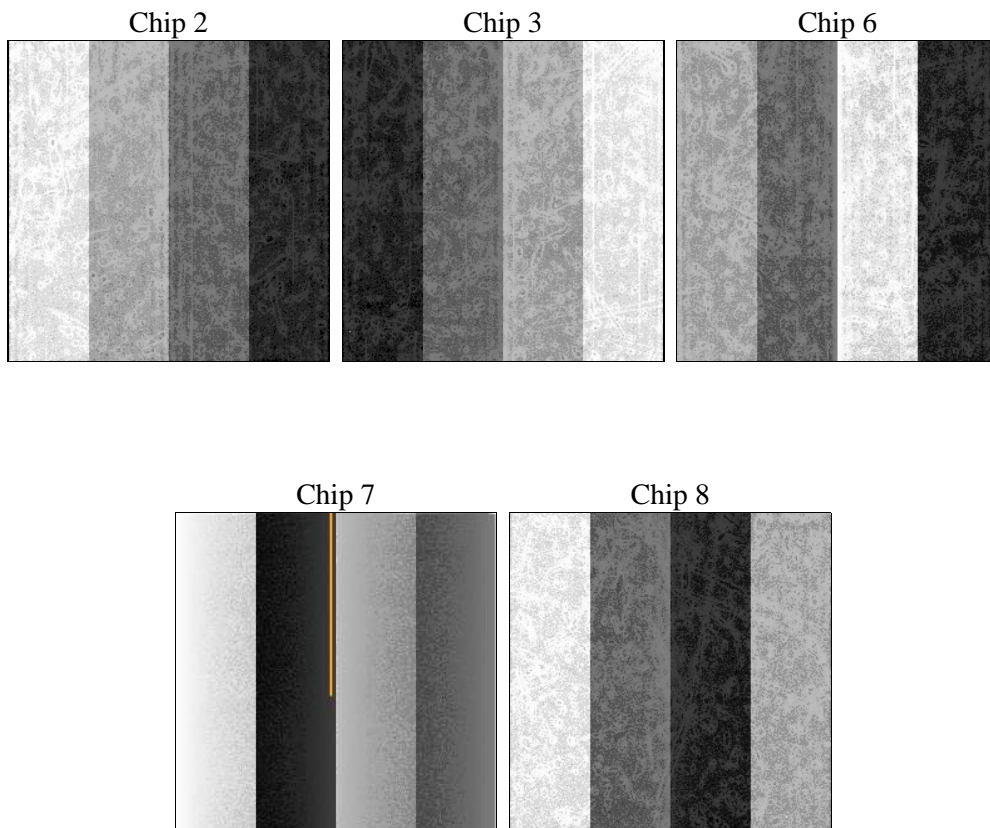
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6845.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	6916.1000531912	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime2	6916.0076790452	Sum of GTIs [s]
date	2014-12-06T22:04:19	Date and time of file creation	ontime3	6916.0897590518	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	6916.1000531912	Sum of GTIs [s]
			ontime7	6916.1000531912	Sum of GTIs [s]
			ontime8	6916.0487190485	Sum of GTIs [s]
			l1events	169754	Number of level 1 events

### 2.1.4 Events

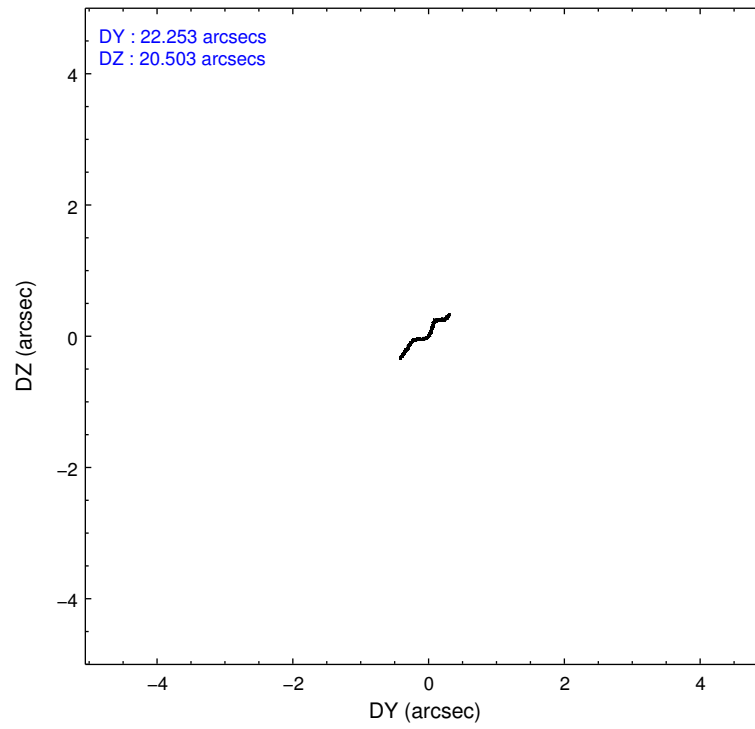
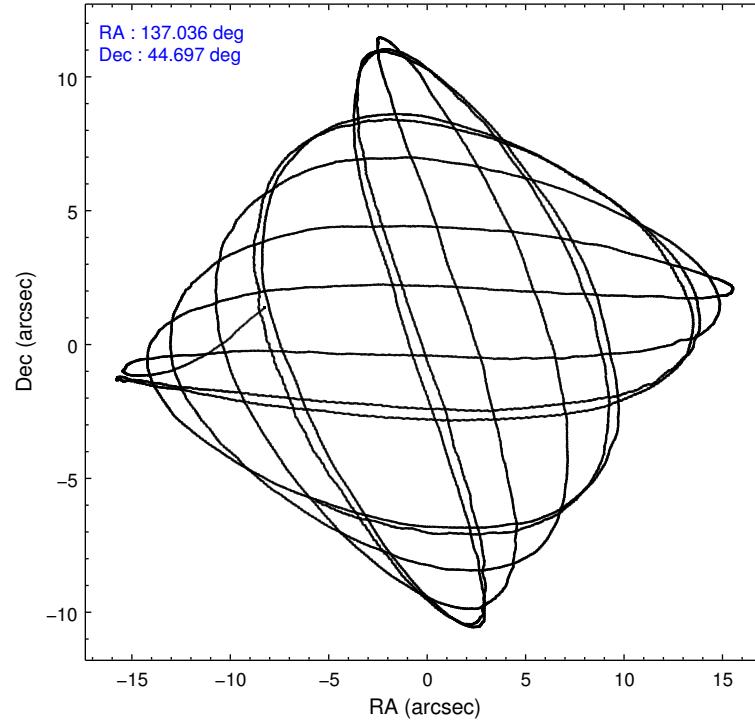
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	30728	30704	30956	36502	40864
rejected events	27174	27206	27013	19346	28790
rejected %	88%	88%	87%	52%	70%

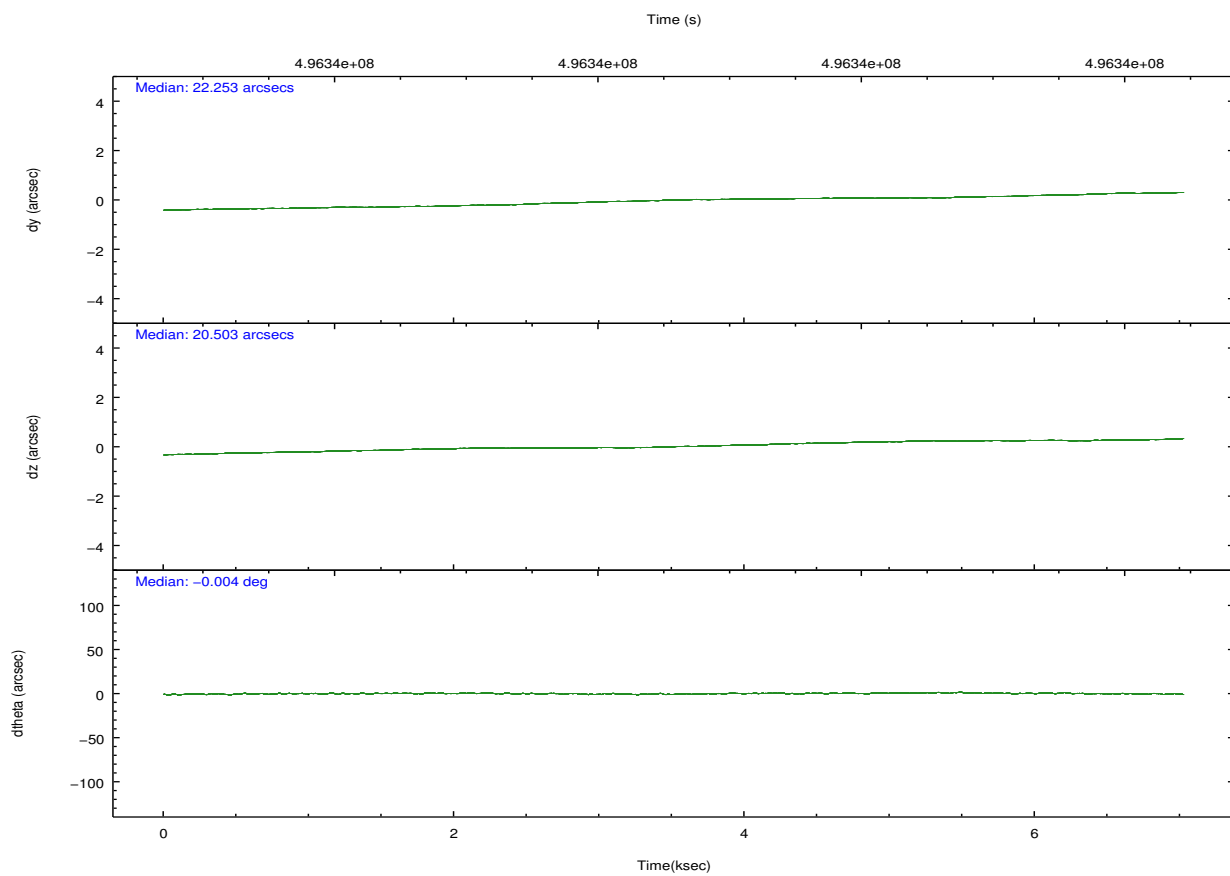
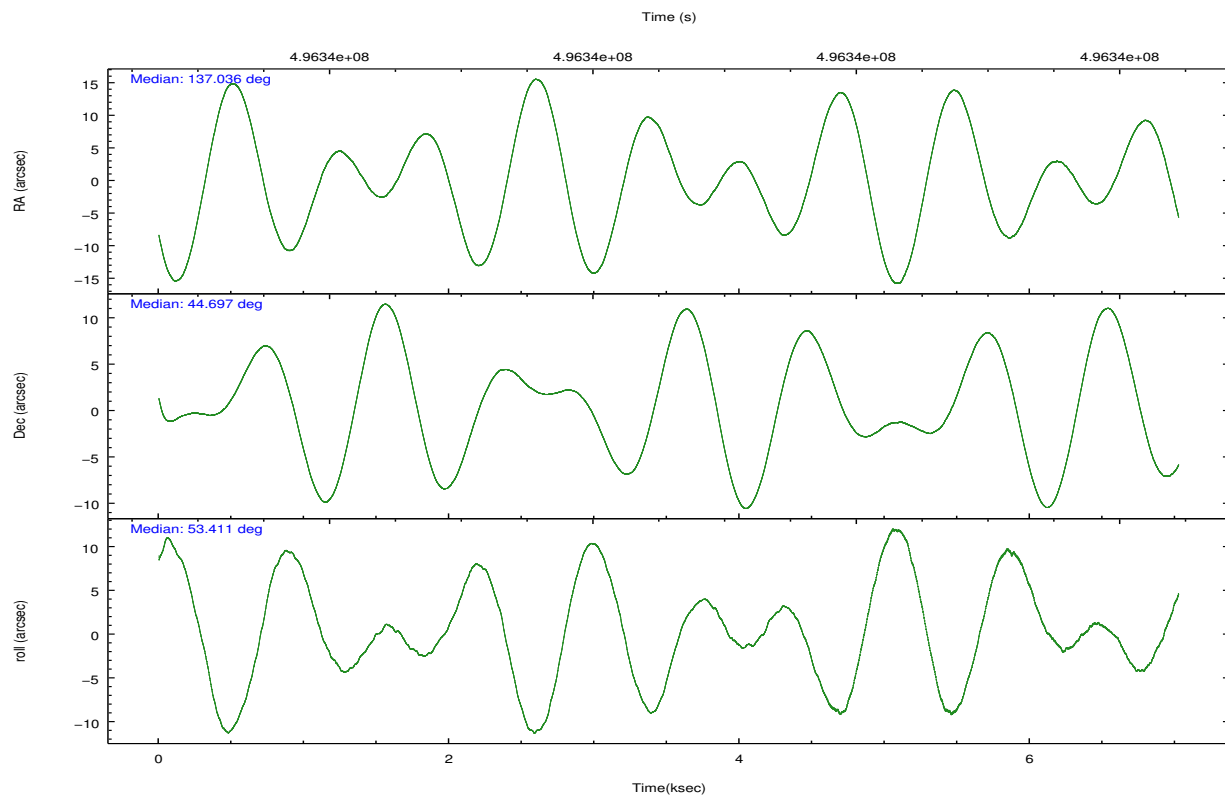
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	1263	1399	1514	1629	3161
	4%	4%	4%	4%	7%
grade 1 events	20	16	16	54	28
	0%	0%	0%	0%	0%
grade 2 events	892	743	877	3502	2866
	2%	2%	2%	9%	7%
grade 3 events	359	325	357	1525	1391
	1%	1%	1%	4%	3%
grade 4 events	356	367	377	1496	1245
	1%	1%	1%	4%	3%
grade 5 events	1156	1420	1483	3804	2134
	3%	4%	4%	10%	5%
grade 6 events	685	669	819	9012	3417
	2%	2%	2%	24%	8%
grade 7 events	25997	25765	25513	15480	26622
	84%	83%	82%	42%	65%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	137.032513	137.036395381526	CCD I2 on	O1	Y
[deg] Pointing Dec	44.669741	44.69693478001246	CCD I3 on	O2	Y
[deg] Pointing Roll	53.264222	53.41811340163585	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	496337240.184000	496335574.1611	CCD S5 on	N	N
Observation start date	2013-09-23T15:26:13	2013-09-23T14:59:34	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	496344085.184000	496345410.57414	On-chip summing requested	N	N
Observation end date	2013-09-23T17:20:18	2013-09-23T17:43:30	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



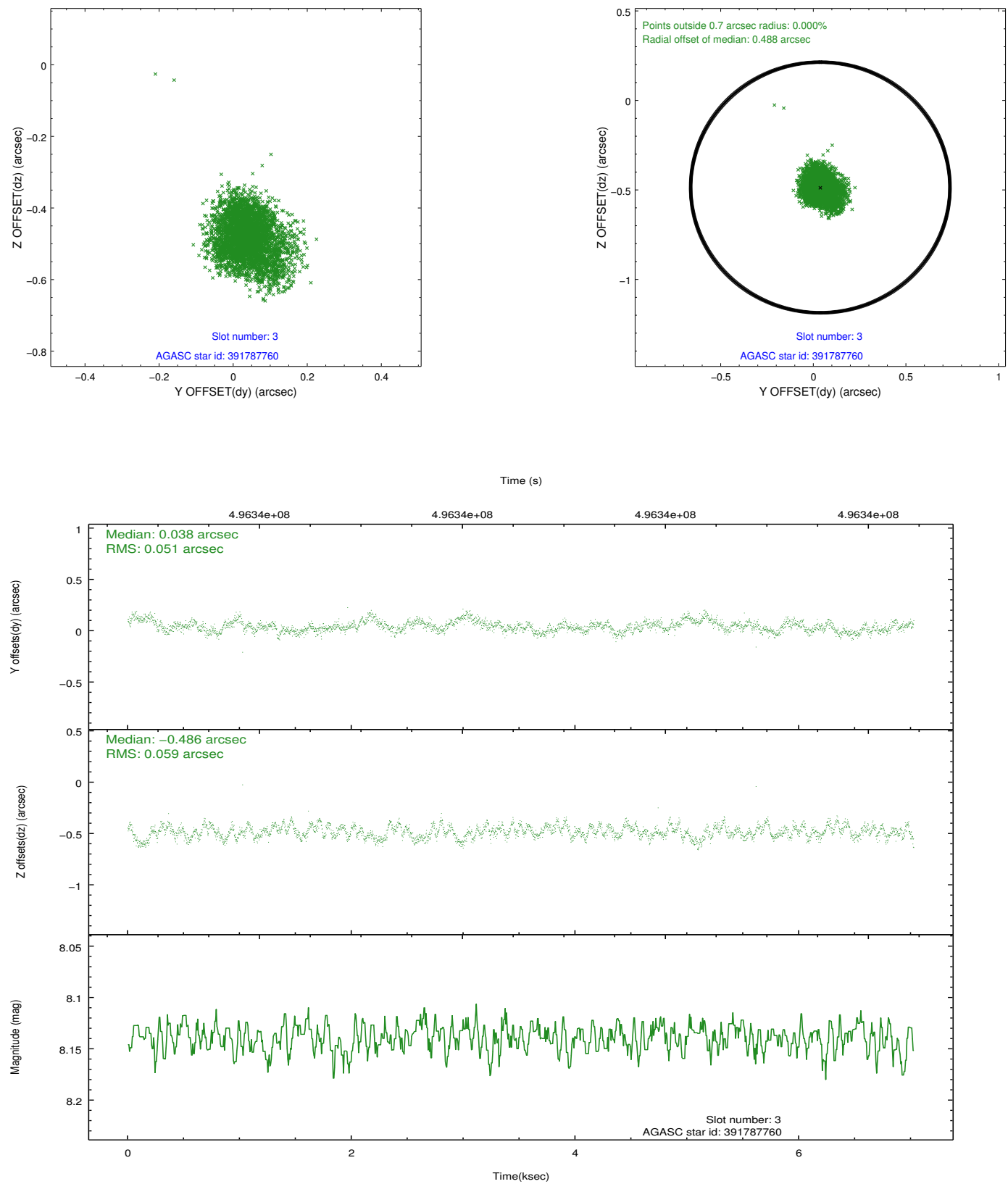


### Slot Statistics

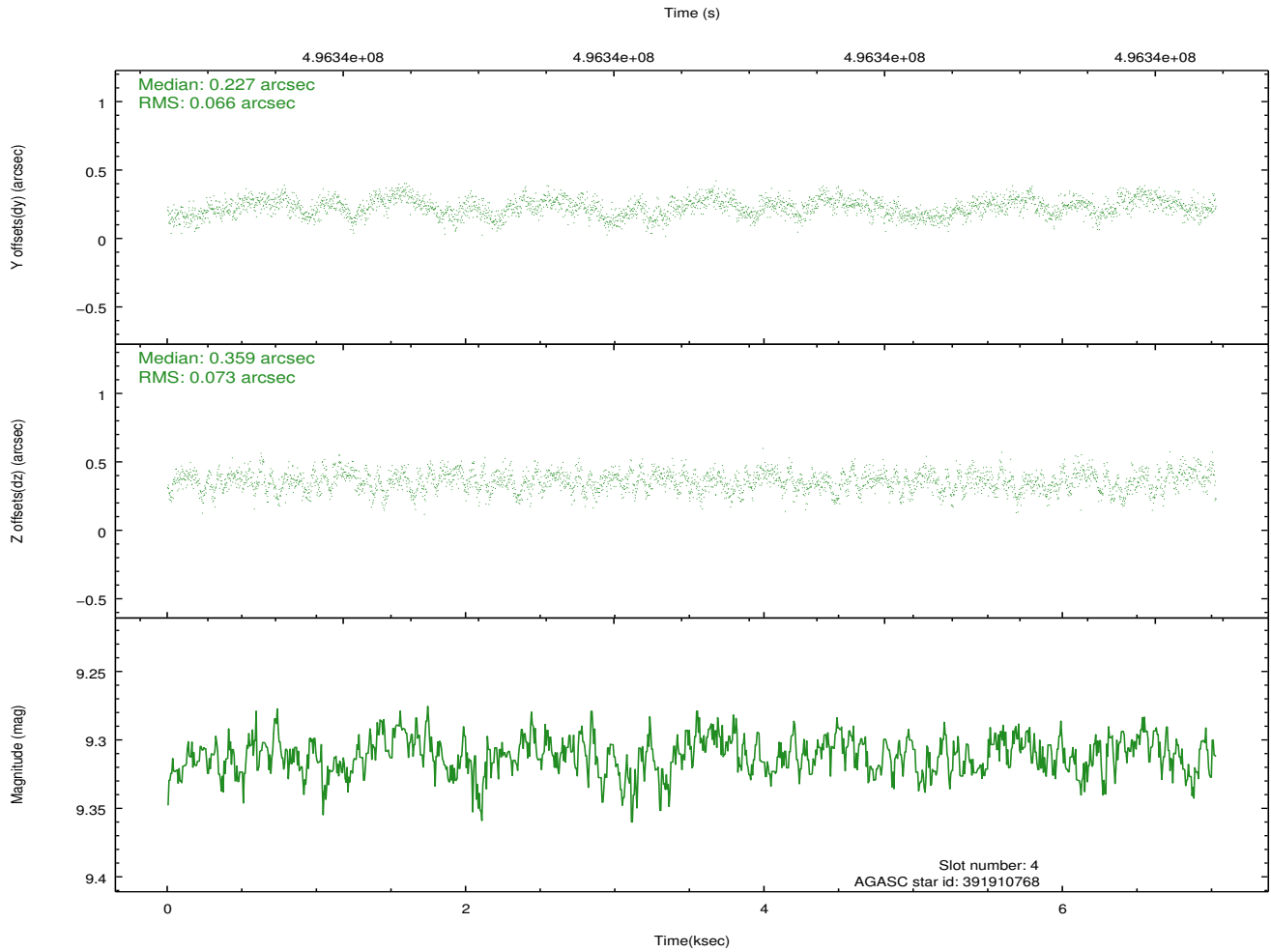
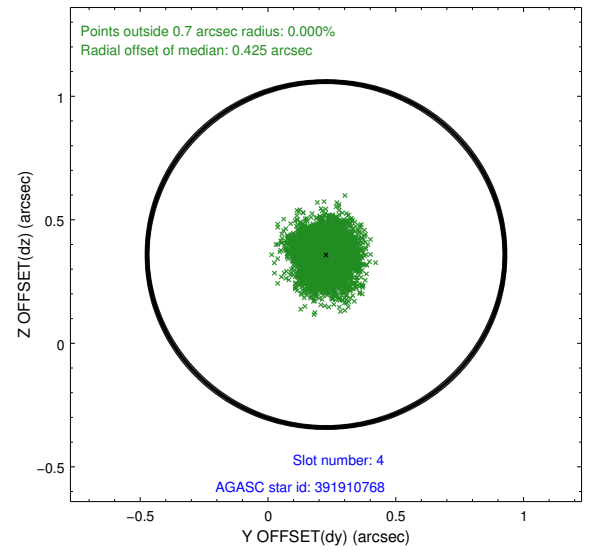
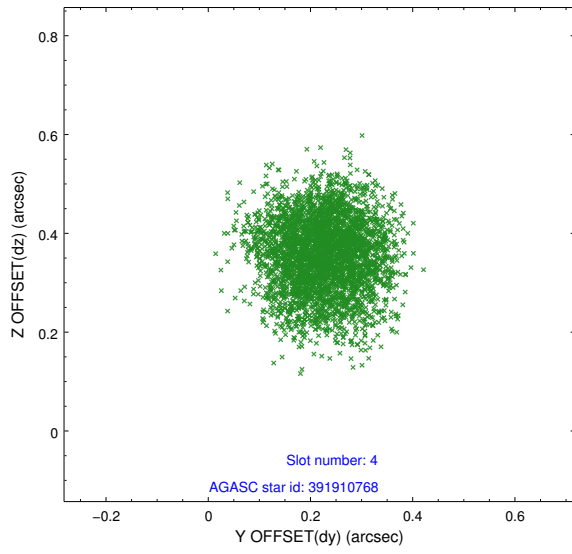
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.94	1714	-0.104	0.004	0.007	0.012	0.000000	0.000000	-775.45	-1742.06
1	FID		ACIS-S-4	7.02	1714	0.227	0.049	0.009	0.015	0.000000	0.000000	2137.76	165.63
2	FID		ACIS-S-5	7.05	1714	-0.155	-0.044	0.012	0.018	0.000000	0.000000	-1827.31	160.12
3	GUIDE	used	391787760	8.14	3428	0.038	-0.486	0.083	0.131	136.552478	44.876171	-133.68	1427.54
4	GUIDE	used	391910768	9.31	3428	0.227	0.359	0.107	0.165	137.251794	44.053262	-1438.03	-1780.30
5	GUIDE	used	391914680	9.13	3424	0.201	0.434	0.109	0.173	137.632373	44.195358	-437.93	-2259.01
6	GUIDE	used	391917976	7.12	3428	-0.195	0.087	0.062	0.100	137.943549	44.824070	1846.84	-1524.24
7	GUIDE	used	448791896	8.74	3425	-0.275	-0.391	0.083	0.130	136.831335	45.175986	1155.16	1499.13

## 2.4 Star Slots

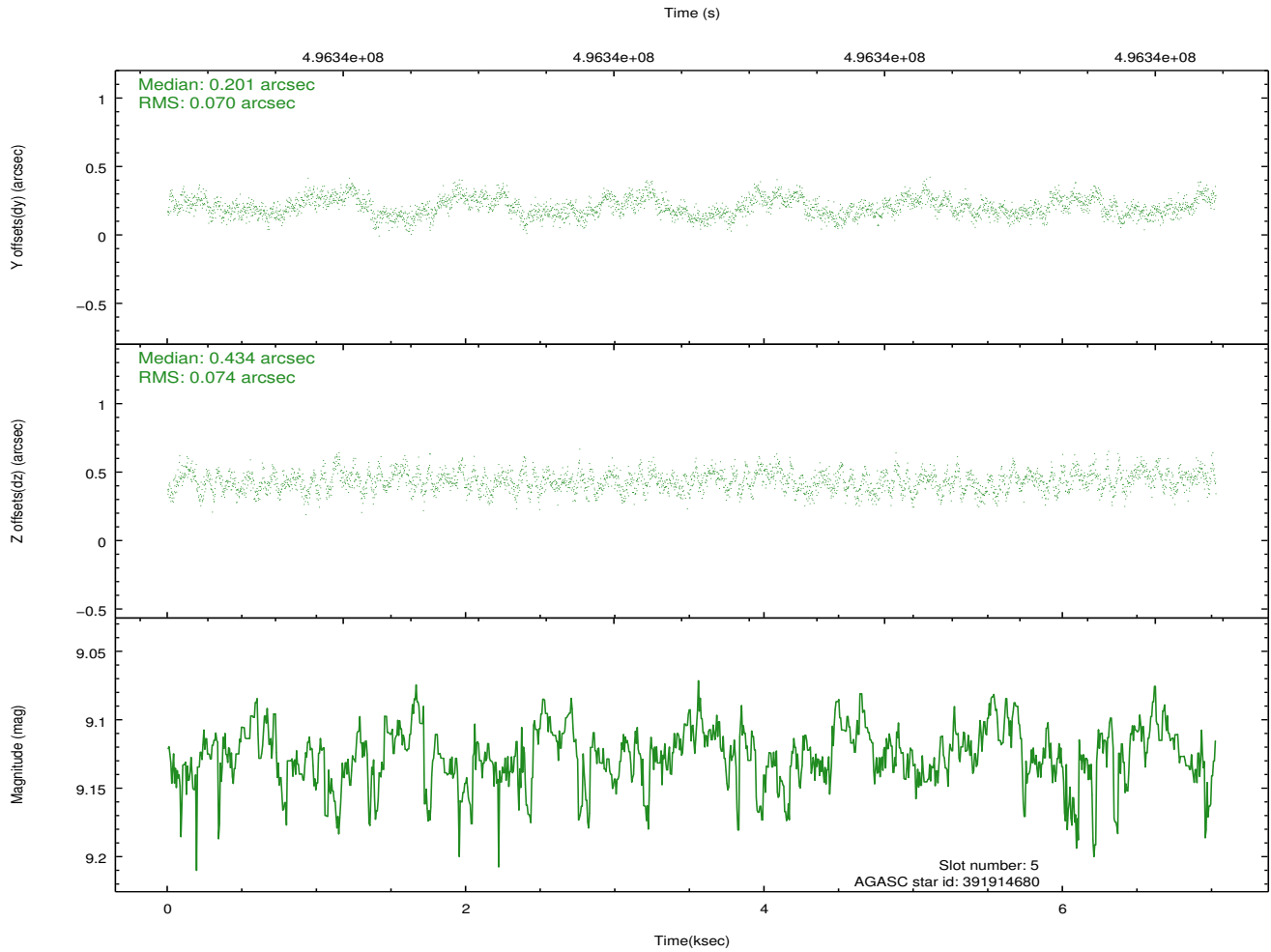
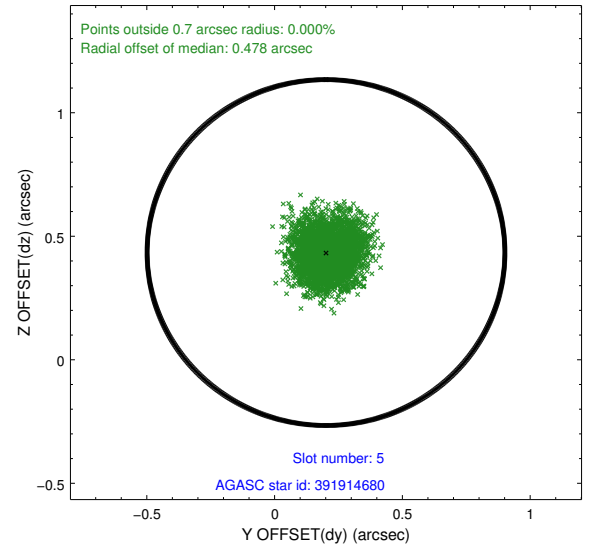
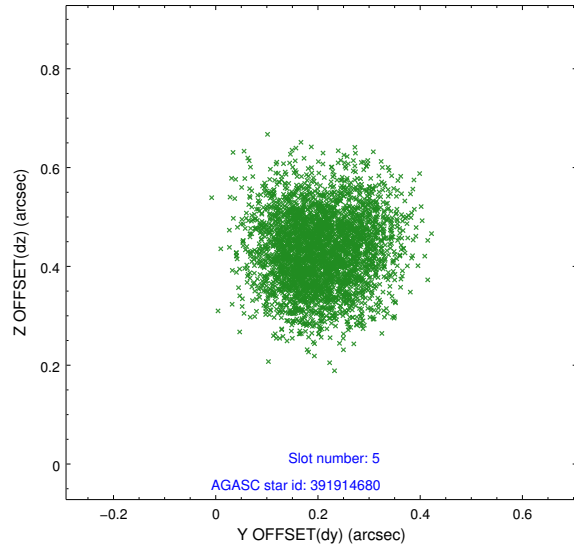
### 2.4.1 Slot 3



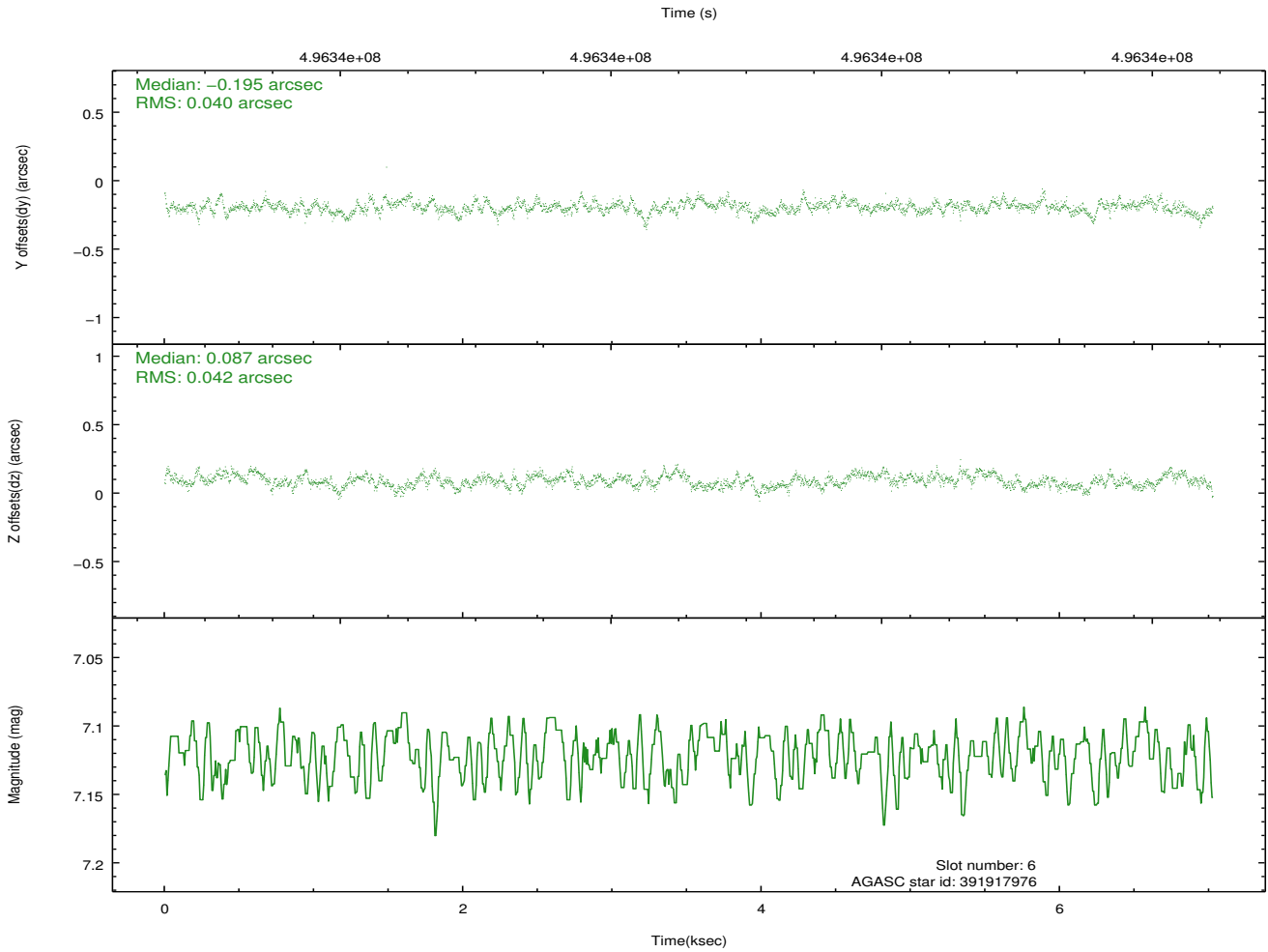
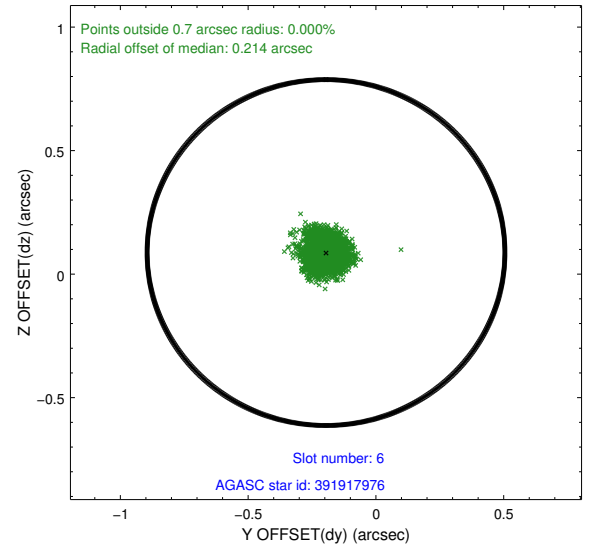
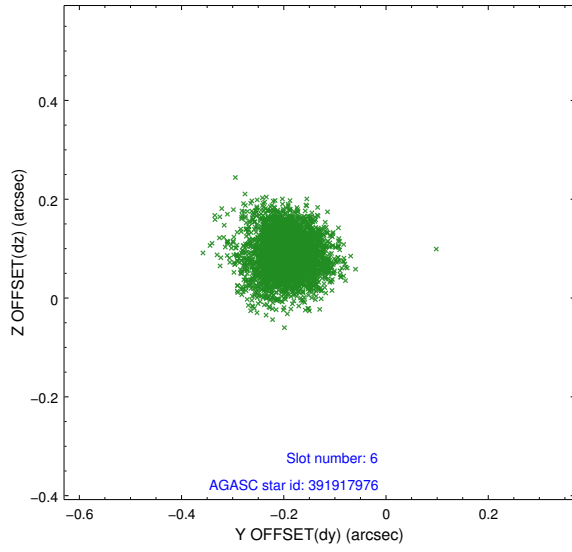
## 2.4.2 Slot 4



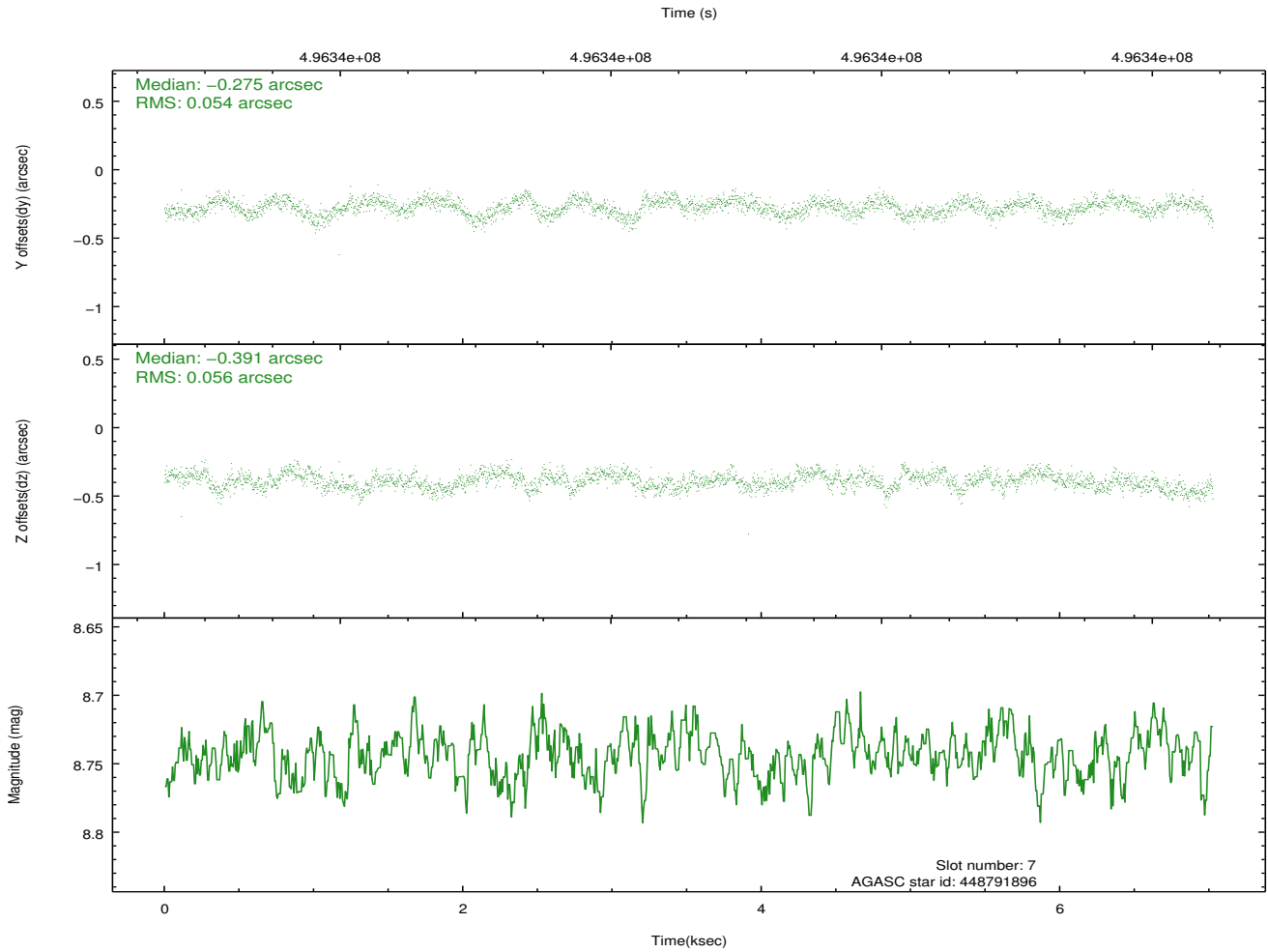
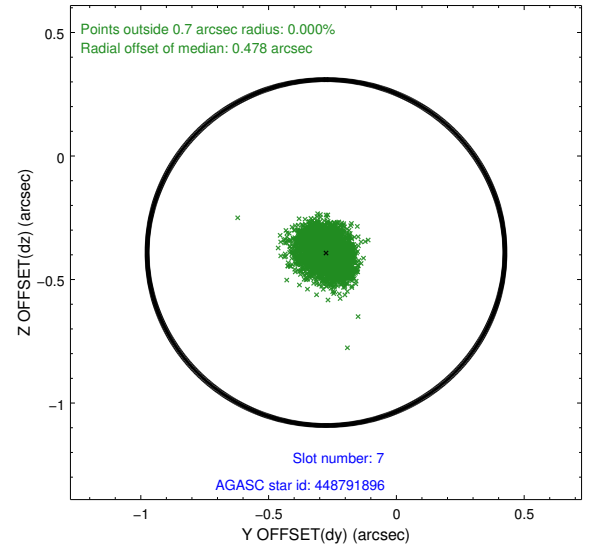
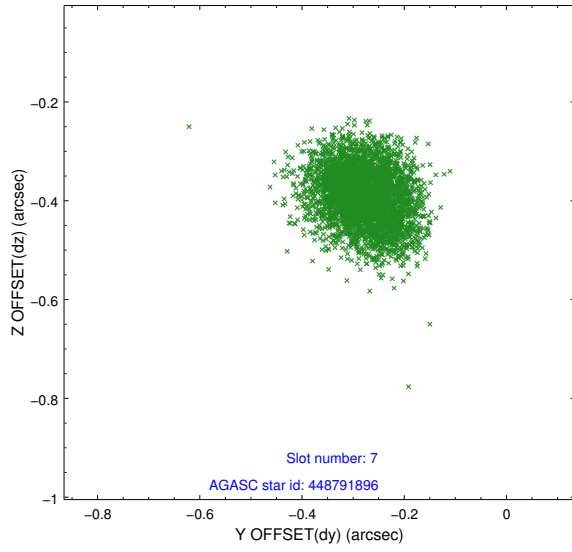
### 2.4.3 Slot 5



## 2.4.4 Slot 6

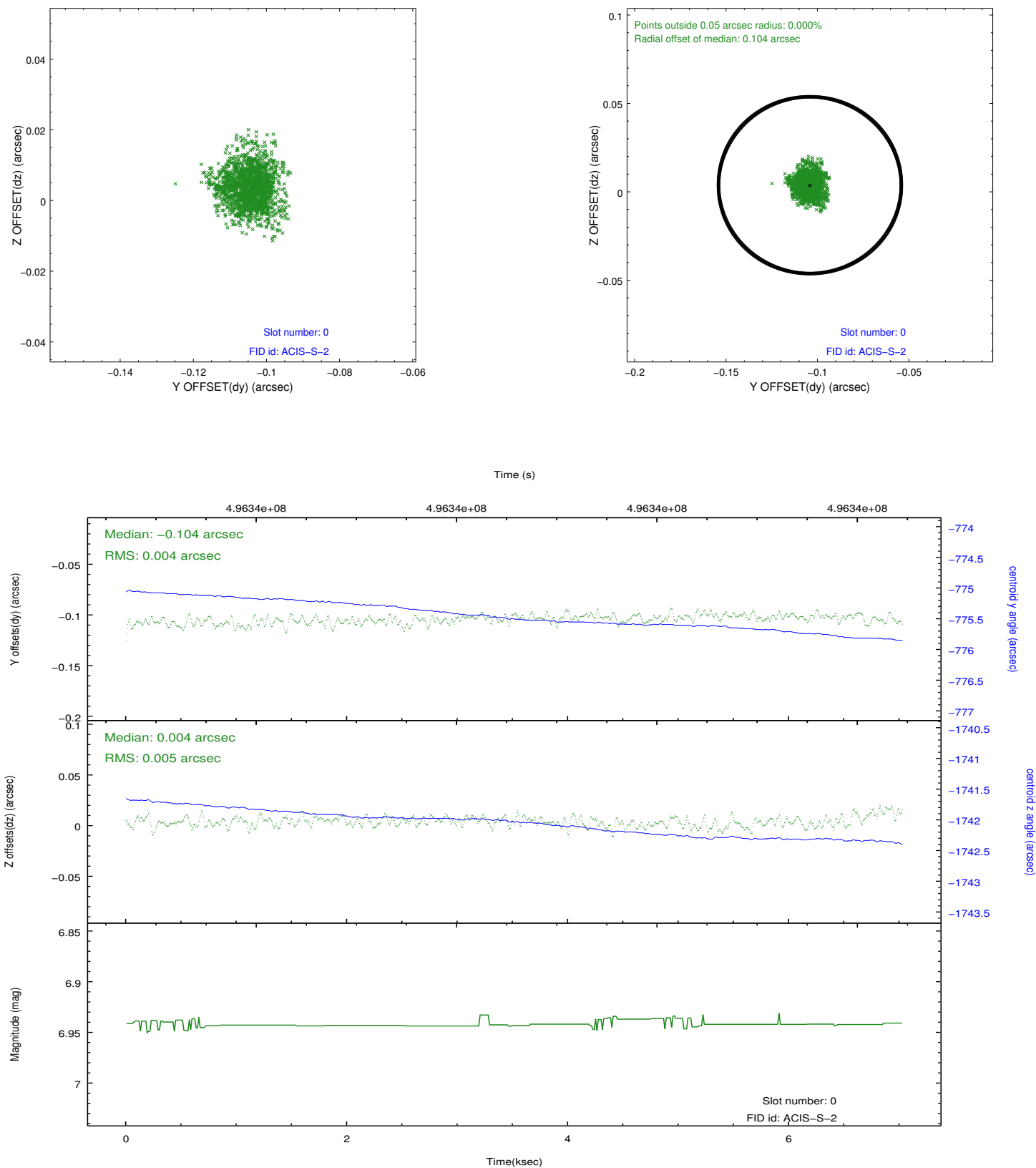


## 2.4.5 Slot 7

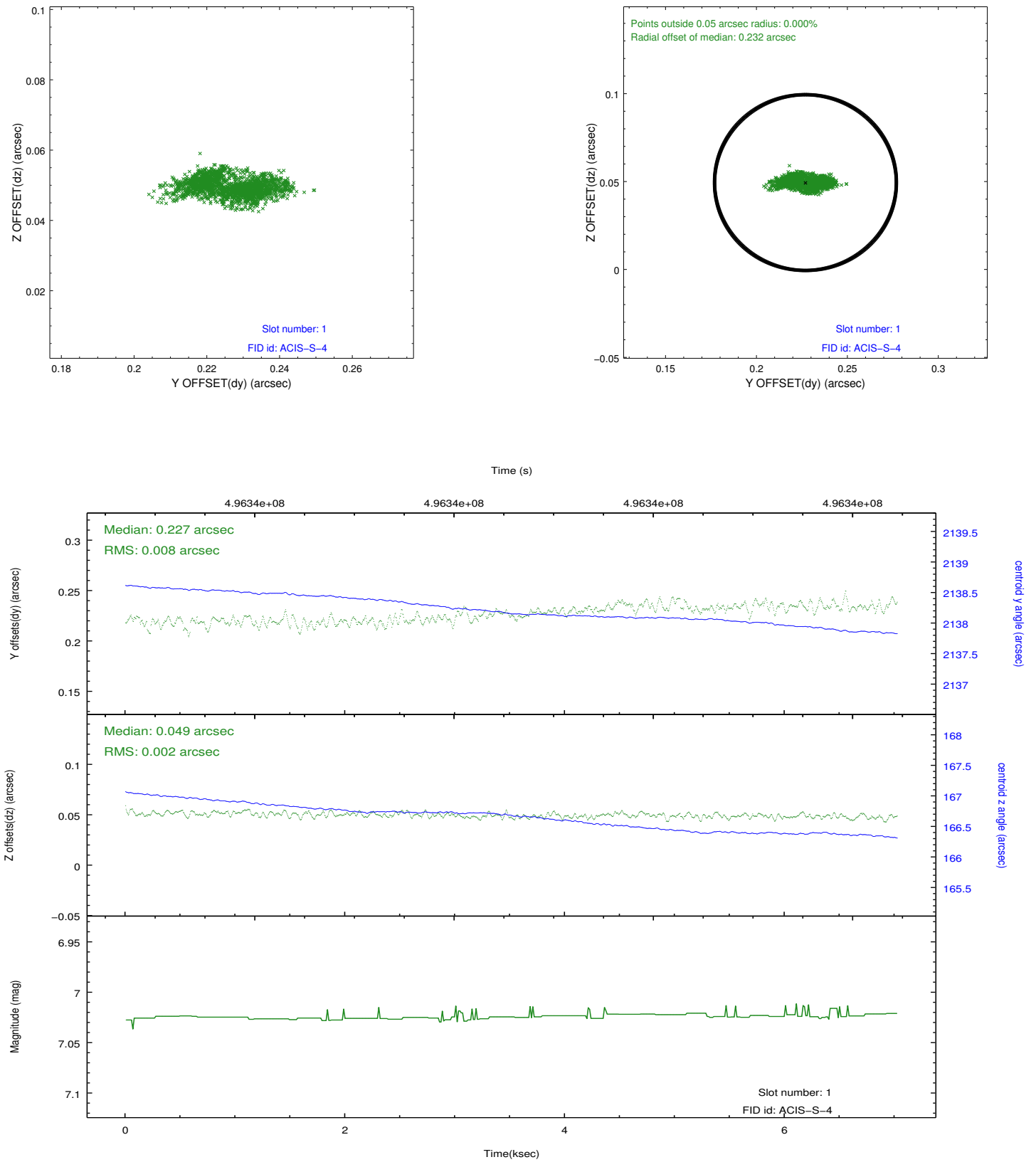


## 2.5 FID Slots

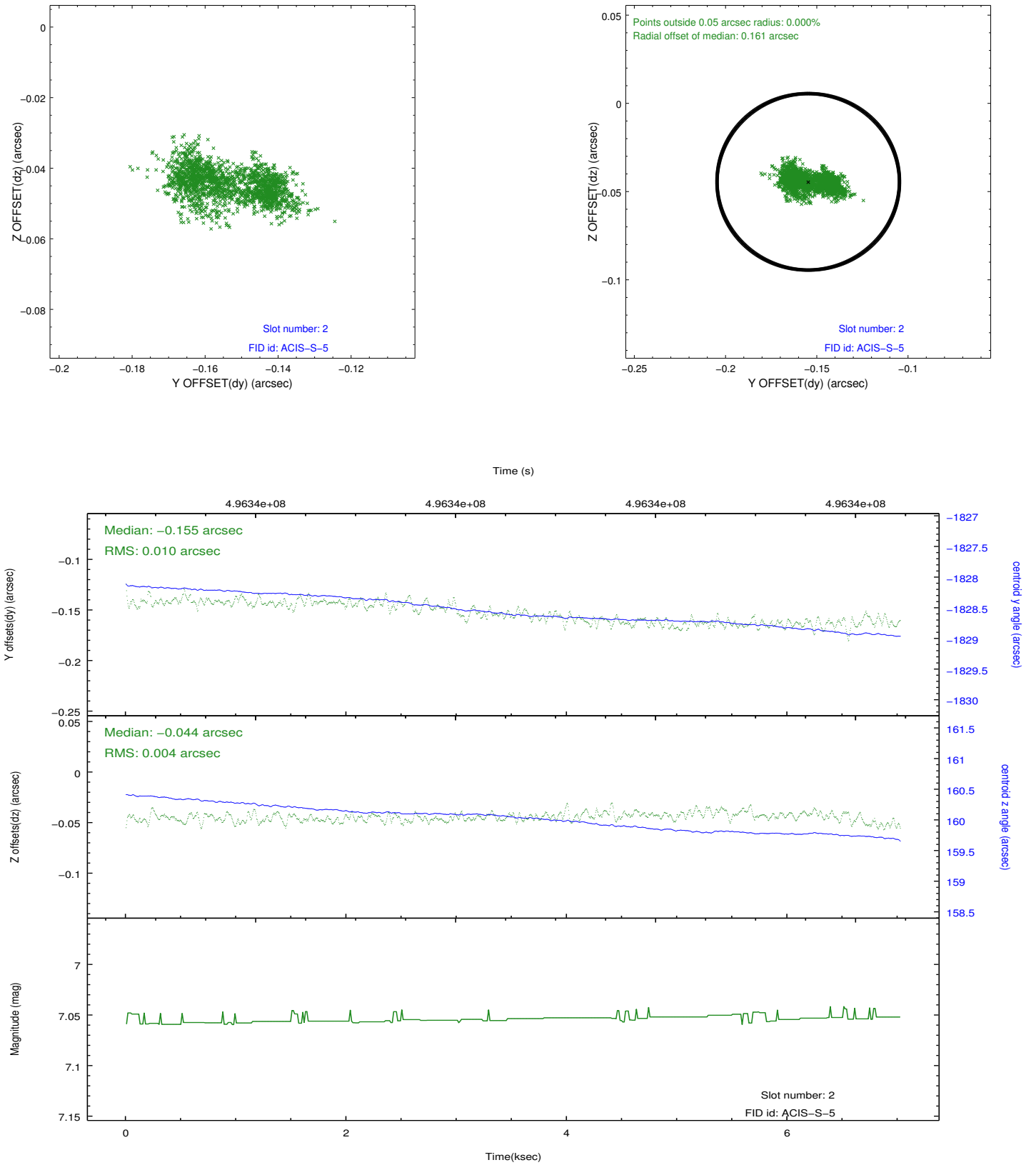
### 2.5.1 Slot 0



## 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)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.9161000531912

## A.2 Comments

Observation coordinated with Hobby-Eberly Telescope.

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.