

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 62825 - L2 Version 5  
Chandra X-Ray Center

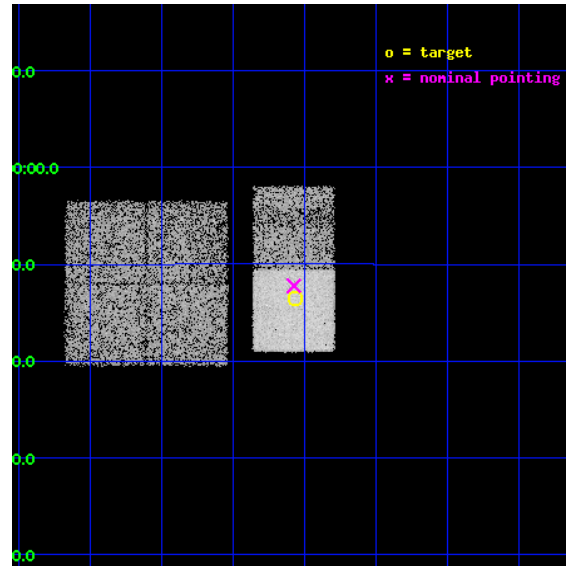
L2 Processing Date : Mar 7 2013

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# 1 Front

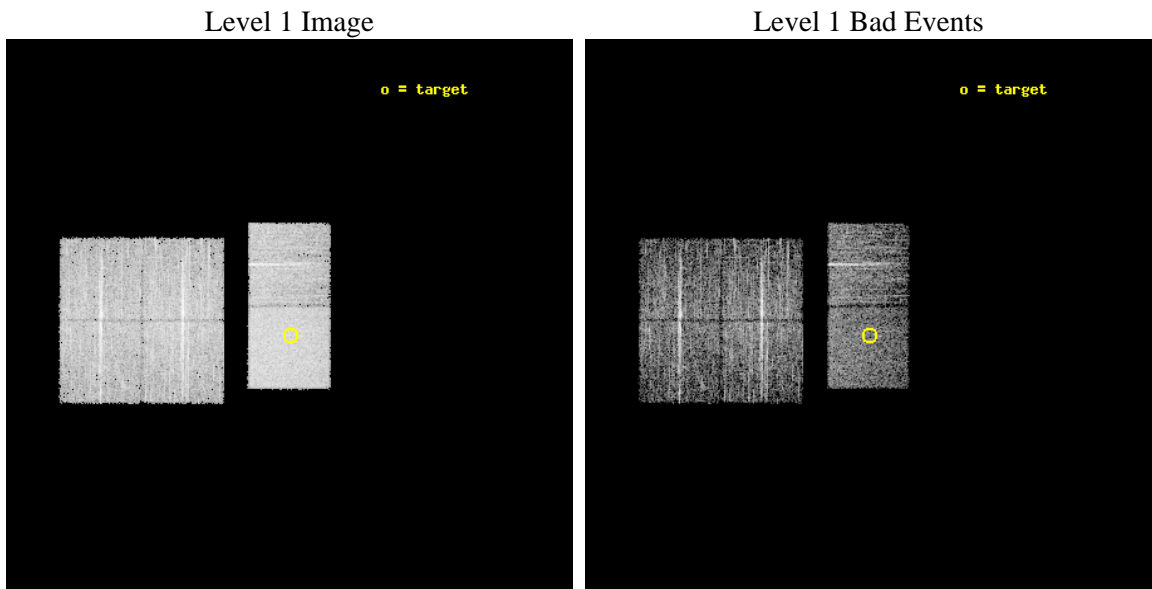
seq_num	800500	Sequence number
obs_id	62825	Observation id
title	A detailed study of a $z>1$ galaxy cluster	Proposal title
observer	Dr Laurence Jones	Principal investigator
object	XLSSJ022404.0-041328	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	36.017083	Observer's specified target RA [deg]
dec_targ	-4.224694	Observer's specified target Dec [deg]
ra_nom	36.018760547629	Nominal RA [deg]
dec_nom	-4.2039253807692	Nominal Dec [deg]
roll_nom	90.156755814908	Nominal Roll [deg]
revision	5	Processing version of data
ontime	6044.7999774814	Sum of GTIs [s]
livetime	5968.2570804249	Livetime [s]
ontime0	6044.7999774814	Sum of GTIs [s]
ontime1	6044.7999774814	Sum of GTIs [s]
ontime2	6044.7999774814	Sum of GTIs [s]
ontime3	6044.7999774814	Sum of GTIs [s]
ontime6	6044.7999774814	Sum of GTIs [s]
ontime7	6044.7999774814	Sum of GTIs [s]
l2events	58890	Number of level 2 events



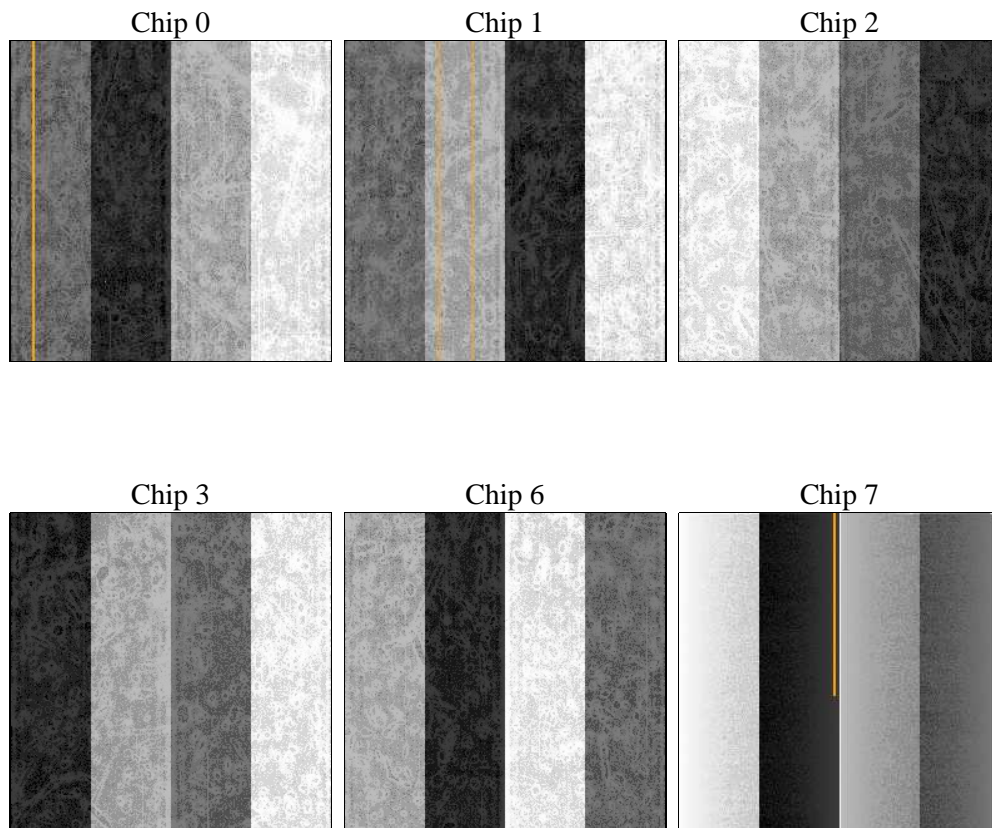
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8651	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	6044.7999774814	Sum of GTIs [s]
caldsver	4.5.6	&#160	ontime0	6044.7999774814	Sum of GTIs [s]
date	2013-03-08T01:44:58	Date and time of file creation	ontime1	6044.7999774814	Sum of GTIs [s]
revision	5	Processing version of data	ontime2	6044.7999774814	Sum of GTIs [s]
			ontime3	6044.7999774814	Sum of GTIs [s]
			ontime6	6044.7999774814	Sum of GTIs [s]
			ontime7	6044.7999774814	Sum of GTIs [s]
			l1events	246350	Number of level 1 events

### 2.1.4 Events

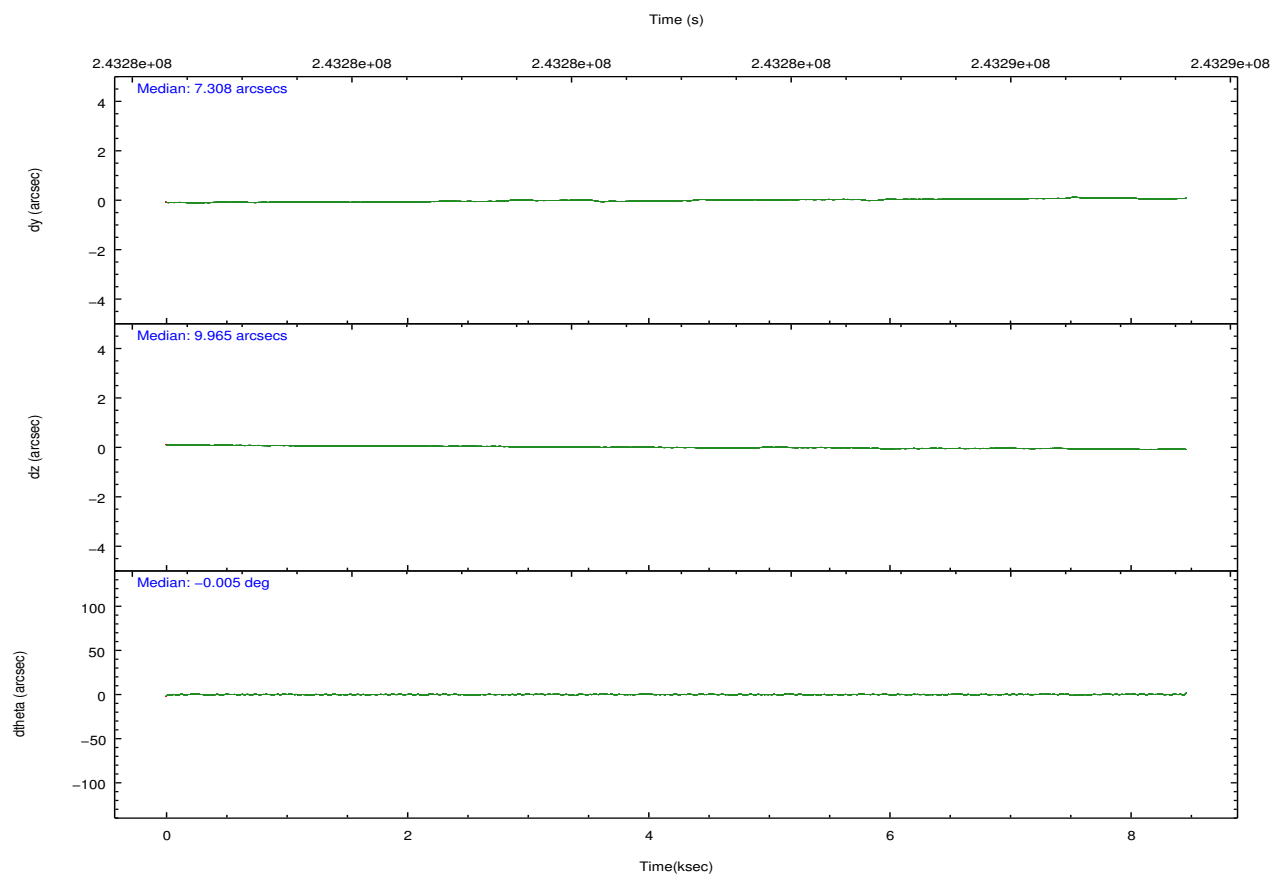
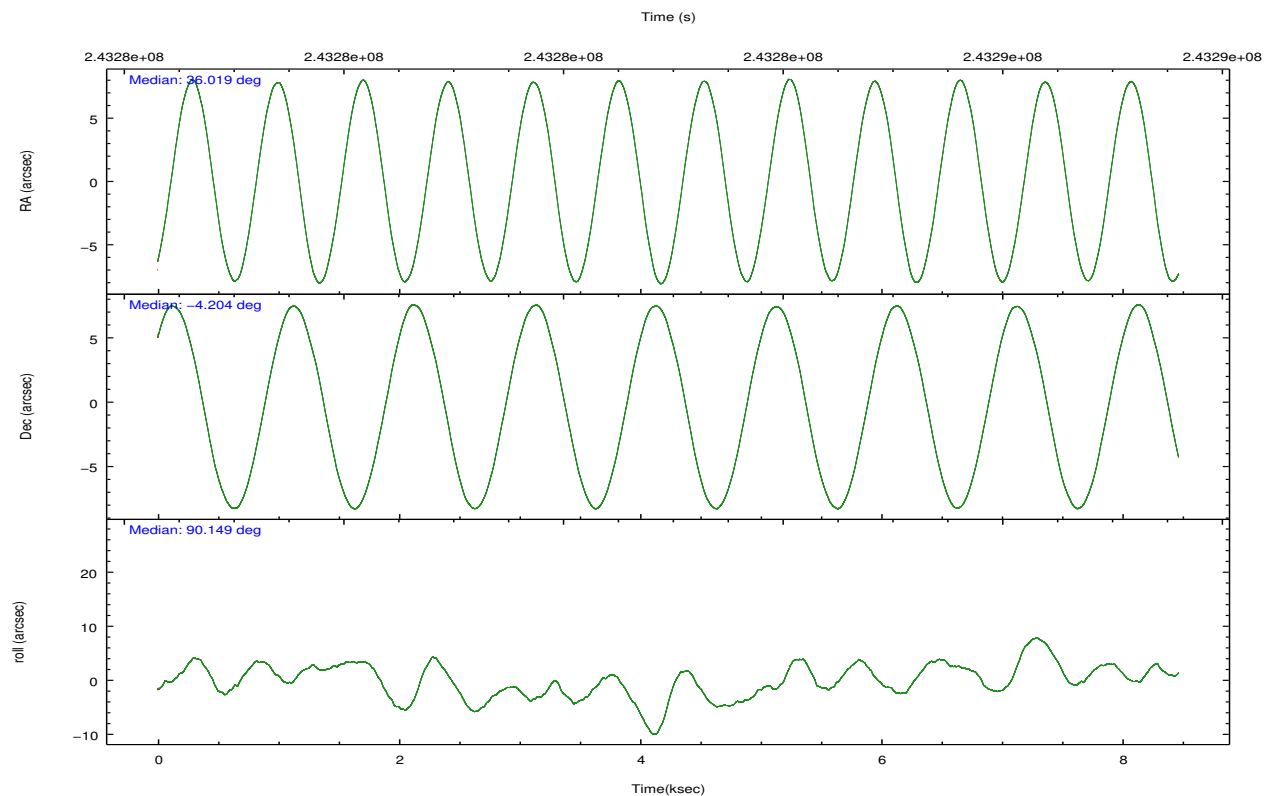
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	36347	35268	39897	38834	38953	57051	grade 0 events	3312	3224	3401	3128	3525	2907
rejected events	29249	27959	33006	32025	31465	28618		9%	9%	8%	8%	9%	5%
rejected %	80%	79%	82%	82%	80%	50%	grade 1 events	35	20	37	24	29	53
								0%	0%	0%	0%	0%	0%
							grade 2 events	1628	1689	1505	1493	1715	5475
								4%	4%	3%	3%	4%	9%
							grade 3 events	496	516	428	486	498	2534
								1%	1%	1%	1%	1%	4%
							grade 4 events	444	489	487	492	474	2450
								1%	1%	1%	1%	1%	4%
							grade 5 events	1429	1564	1396	1696	1618	4735
								3%	4%	3%	4%	4%	8%
							grade 6 events	1221	1395	1074	1213	1280	15087
								3%	3%	2%	3%	3%	26%
							grade 7 events	27782	26371	31569	30302	29814	23810
								76%	74%	79%	78%	76%	41%



## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	OVERRIDE	OVERRIDE
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	36.01876054500951	36.01876054762899	Subarray requested	NONE	NONE
[deg] Pointing Dec	-4.203953153270602	-4.203925380769243	Alternating exposures requested	N	N
[deg] Pointing Roll	90.15675580801933	90.15675581490774	[s] Primary exposure time	3.2	3.2
[mm] SIM focus pos	-0.6828225247311905	-0.6828225247311905			
[mm] SIM defocus	0.001444942264670179	0.001444942264670179			
[mm] SIM translation stage pos	-190.1425803652	-190.1425803652			
[mm] SIM translation stage offset	0.01005726123278805	0.01005726123278805			
[s] Observation start time (MET)	243278711.954747	243278711.954747			
Observation start date	2005-09-16T17:24:07	2005-09-16T17:25:11			
[s] Observation end time (MET)	243287362.955144	243287362.955144			
Observation end date	2005-09-16T19:48:18	2005-09-16T19:49:22			
Read mode	TIMED	TIMED			

## 2.3 Aspect

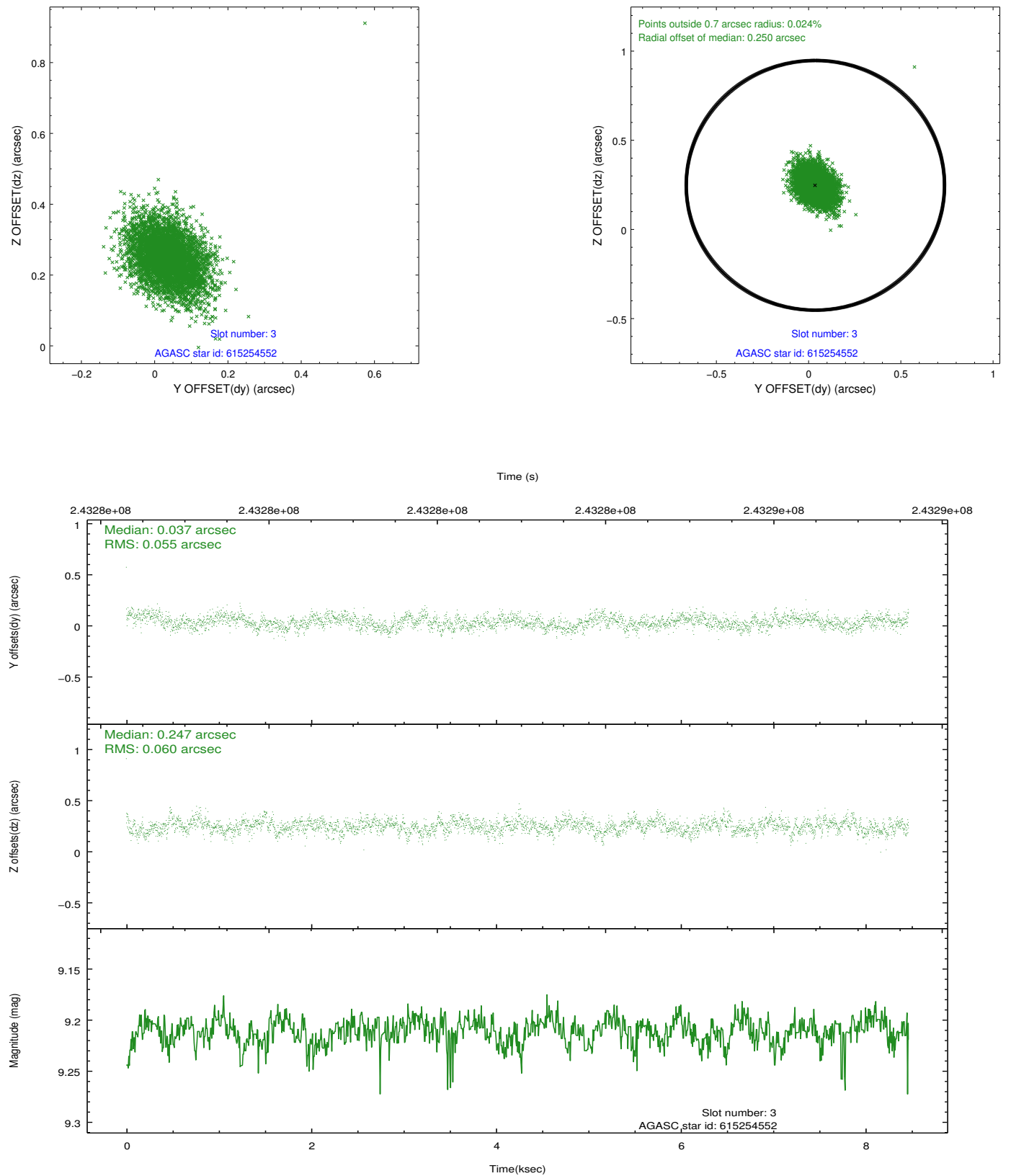


### Slot Statistics

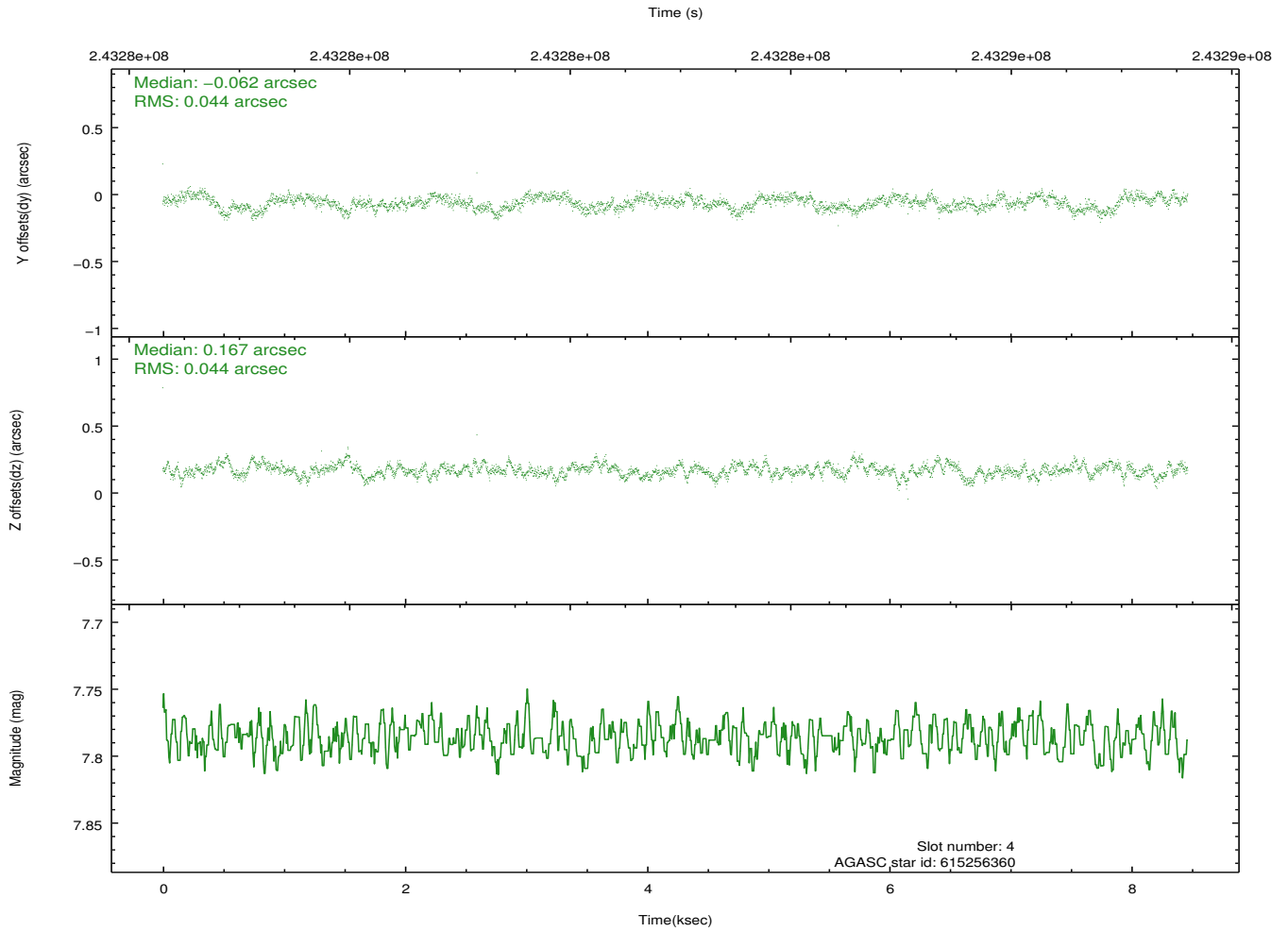
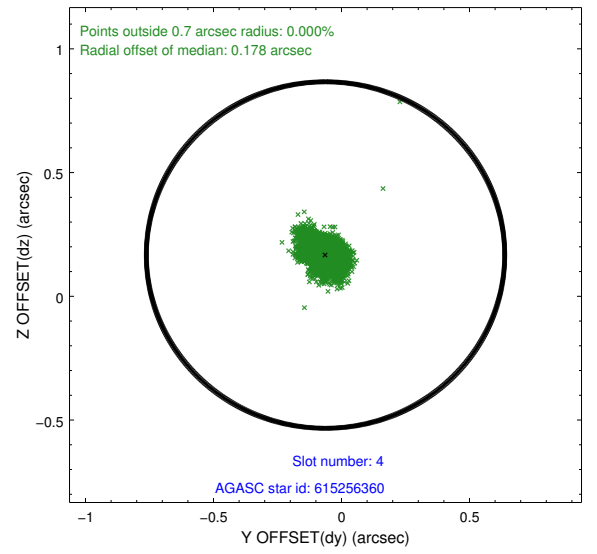
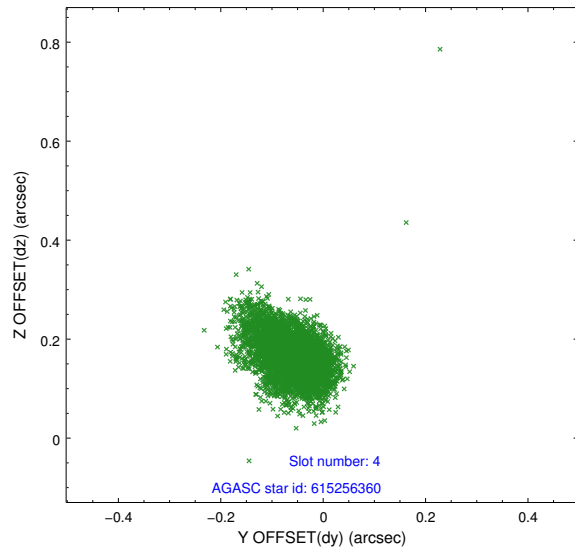
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	2065	-0.050	-0.033	0.007	0.011	0.000000	0.000000	-760.07	-1731.21
1	FID	ACIS-S-4	7.21	2064	0.111	0.033	0.006	0.010	0.000000	0.000000	2153.03	176.73
2	FID	ACIS-S-5	7.24	2065	-0.092	0.009	0.006	0.011	0.000000	0.000000	-1812.16	171.02
3	GUIDE	615254552	9.21	4126	0.037	0.247	0.084	0.142	36.600600	-3.877551	1258.90	-2038.73
4	GUIDE	615256360	7.79	4130	-0.062	0.167	0.065	0.107	36.286608	-3.875886	1265.54	-911.82
5	GUIDE	615256944	9.82	4126	0.155	-0.330	0.141	0.242	35.497386	-4.510719	-1020.57	1921.13
6	GUIDE	615260160	9.72	4123	0.059	-0.113	0.102	0.169	35.737387	-3.921265	1100.86	1061.61
7	GUIDE	615261280	10.29	4127	-0.176	0.037	0.192	0.317	36.528599	-4.553299	-1173.61	-1778.88

## 2.4 Star Slots

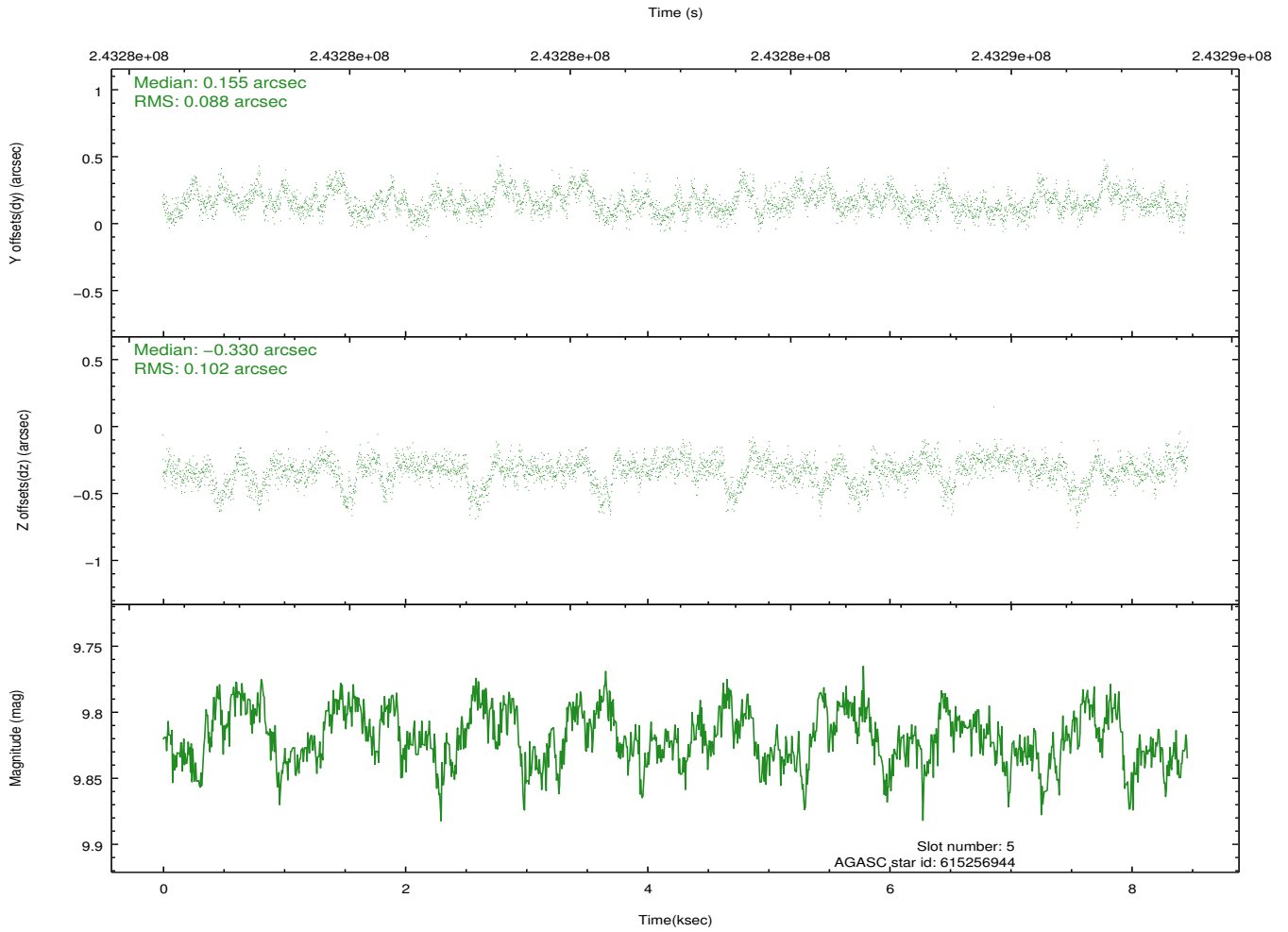
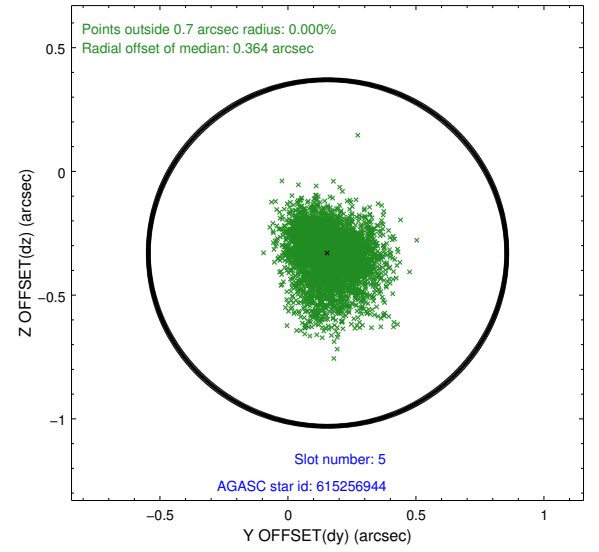
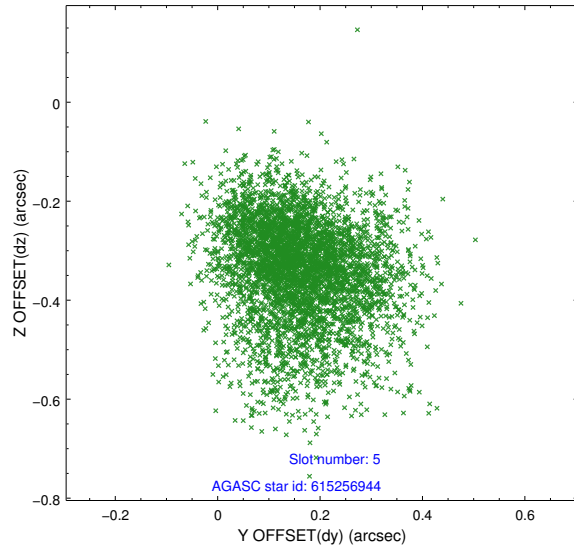
### 2.4.1 Slot 3



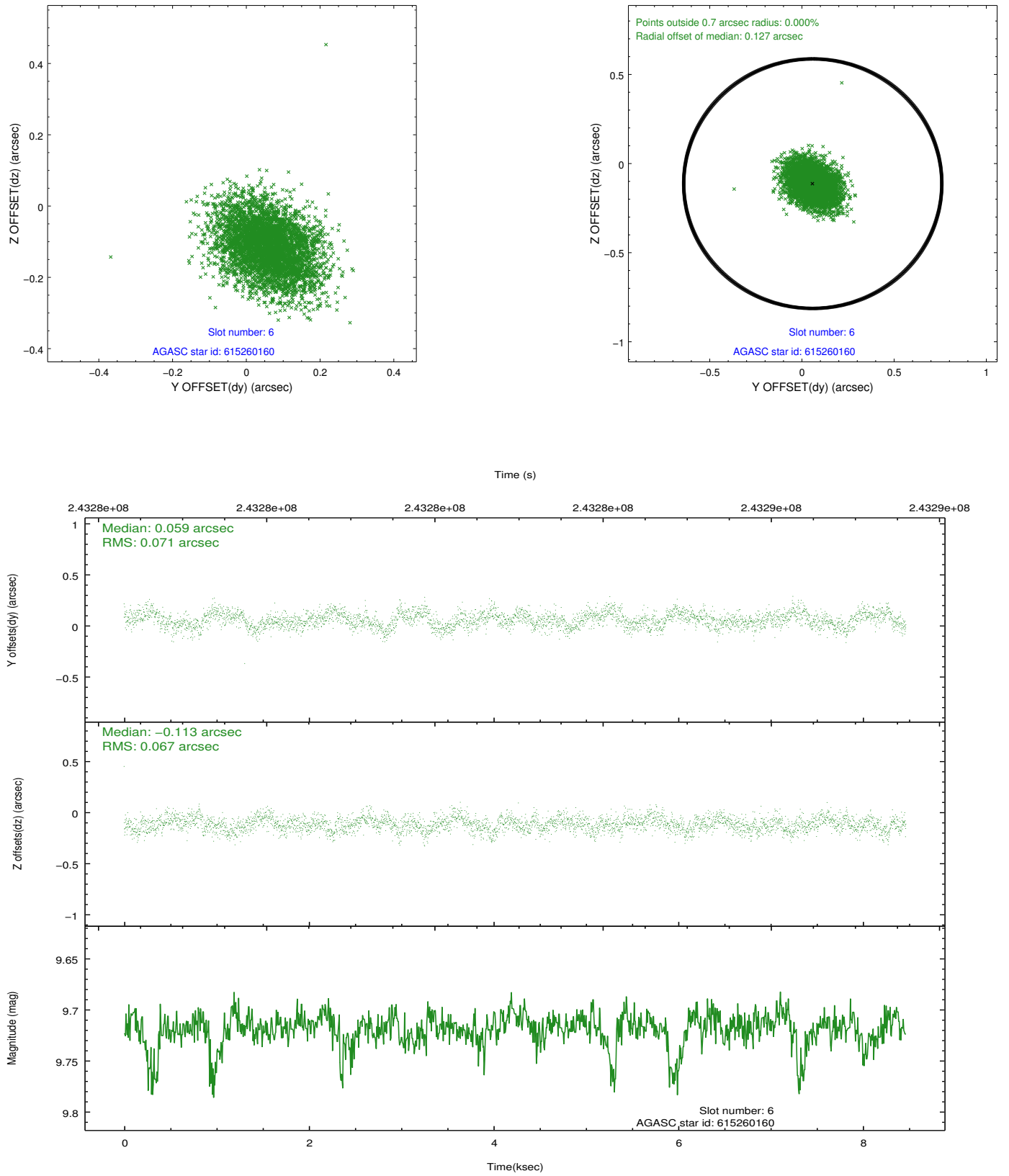
## 2.4.2 Slot 4



### 2.4.3 Slot 5

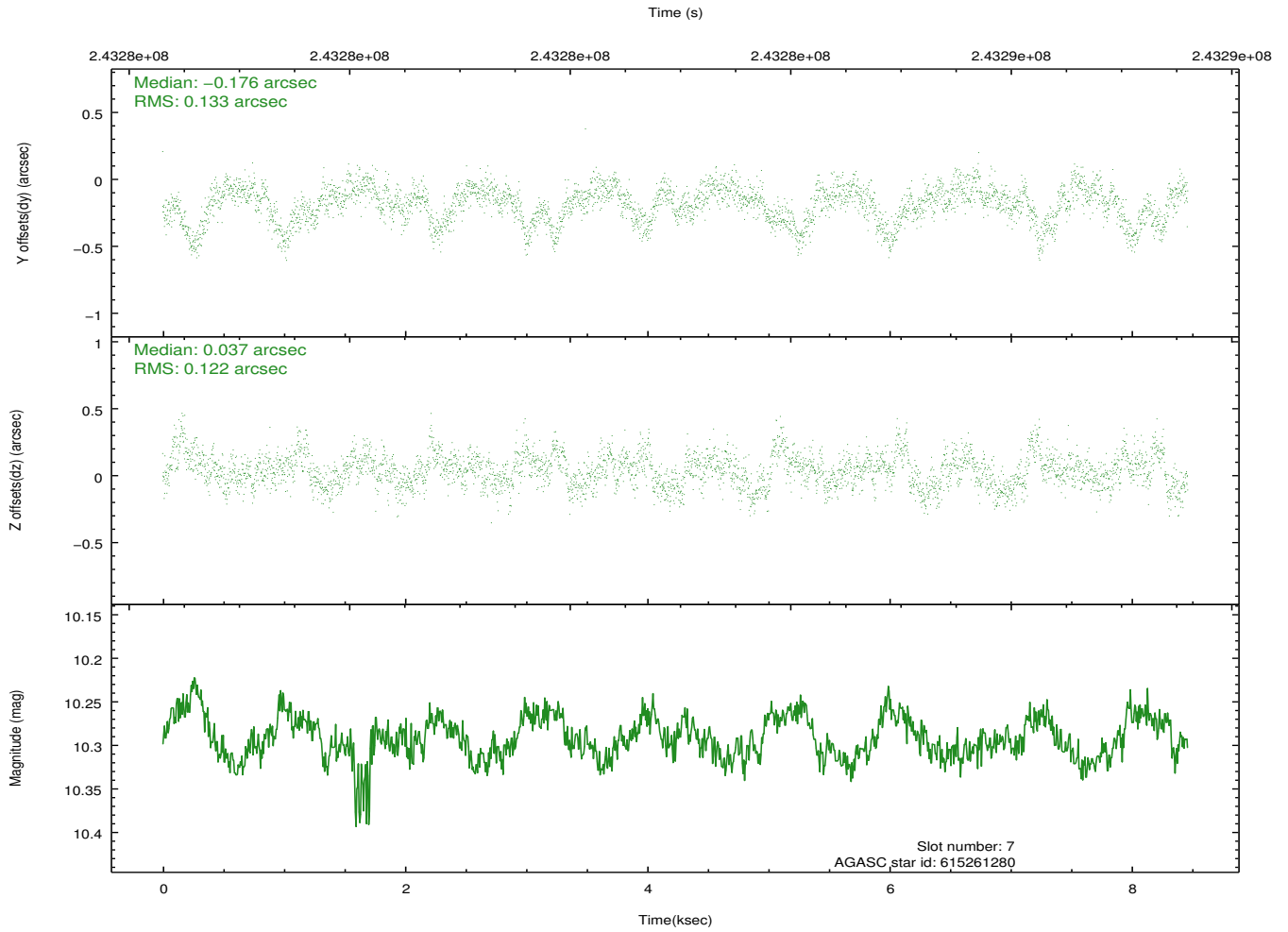
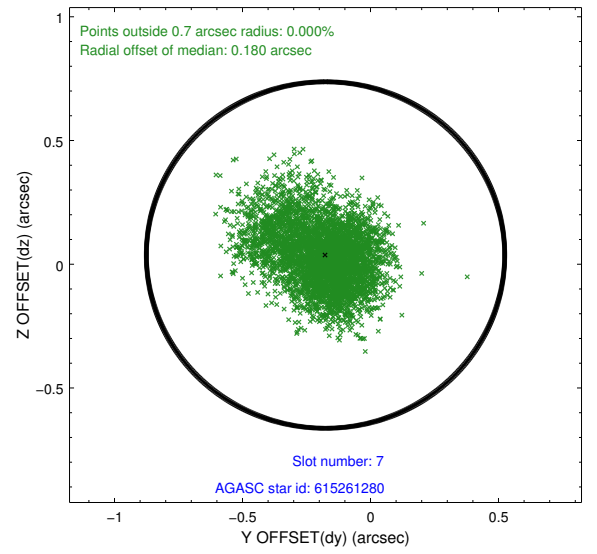
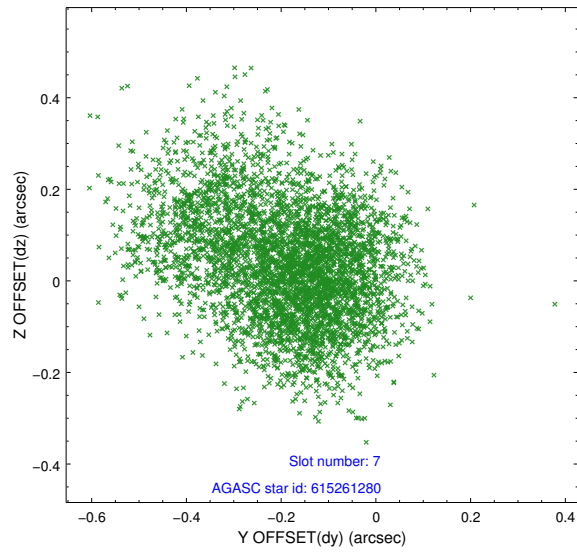


## 2.4.4 Slot 6



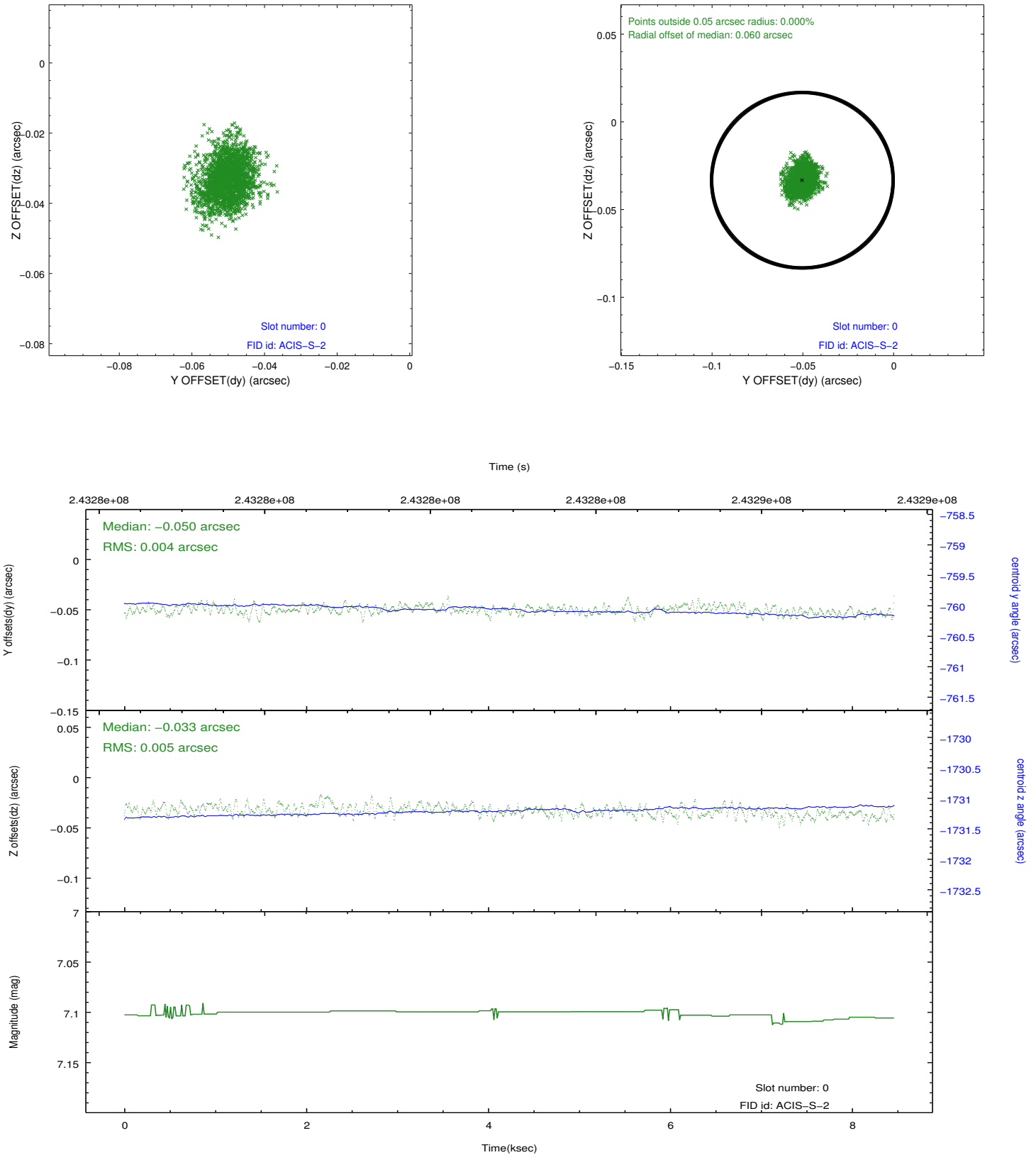


## 2.4.5 Slot 7

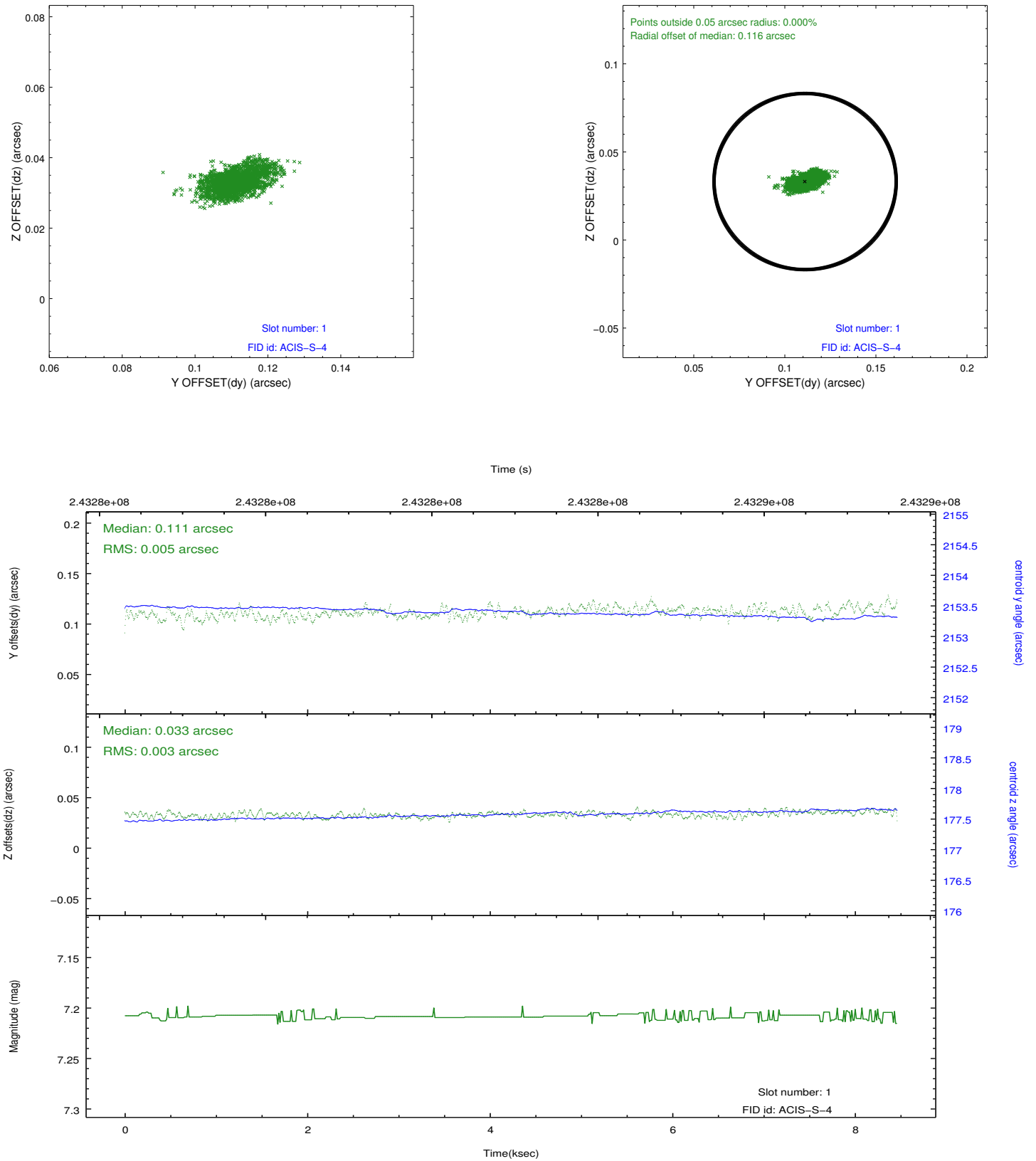


## 2.5 FID Slots

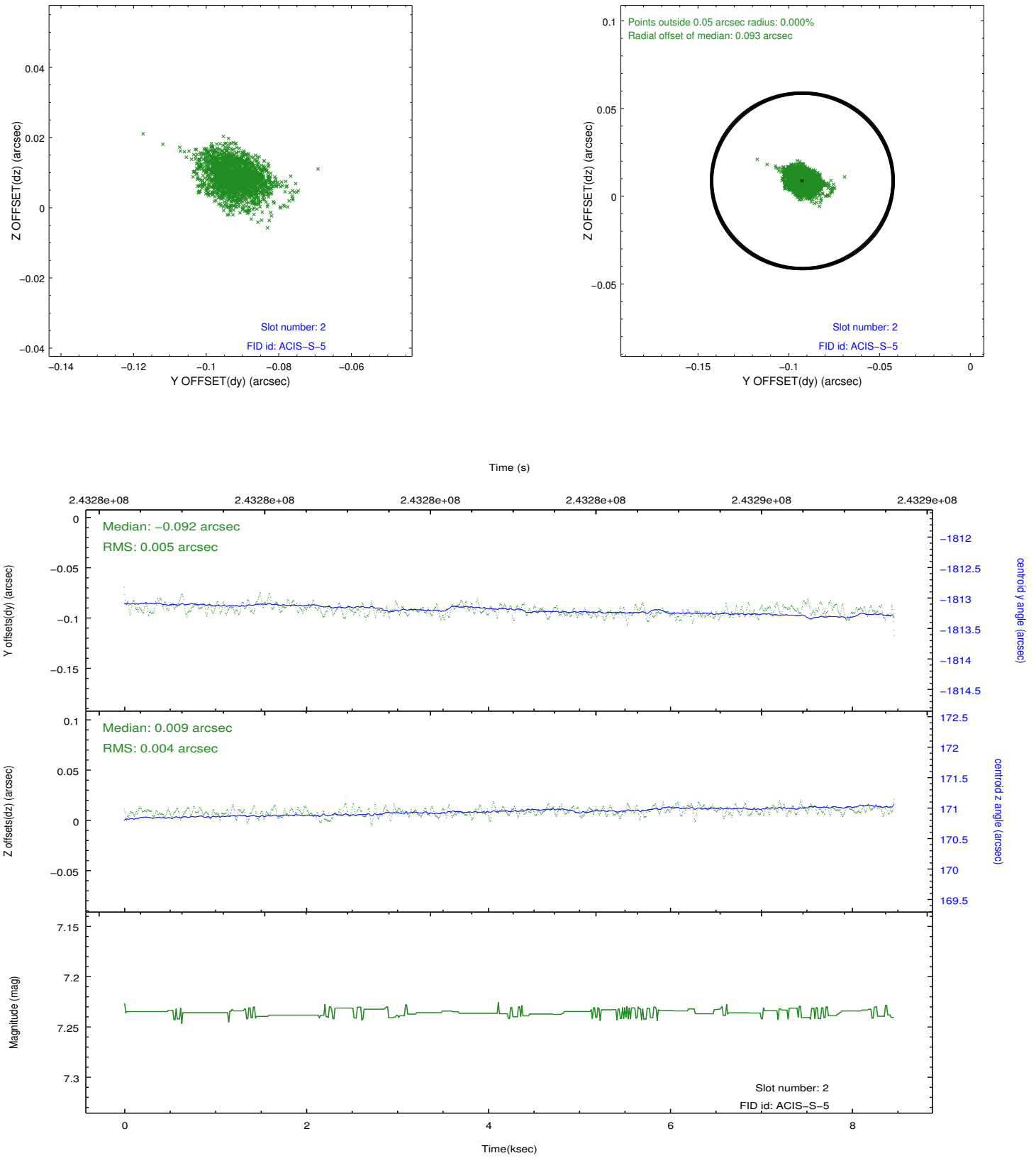
### 2.5.1 Slot 0



## 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)	2013.03.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.0447999774814

## A.2 Comments

As a consequence of the DEA-A shutdown anomaly on Sep 15th (DOY258), the reported value of the ACIS FP temperature was ~1.3 degrees warmer than the actual temperature. The value for FP temperature reported in the headers of the Level 2 event file and the Mission Timeline files are incorrect by this amount for this processing. However, the temperature is corrected in the processing in order to obtain the correct temperature for the CTI correction. So the calibrated data are correct. If using the FP temp values in the headers of data files (some CIAO tools require this information), investigators should subtract 1.3 degrees from the reported temperature to determine the true temperature.

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This observation was taken to verify the ACIS recovery from a DEA anomaly. ACIS was in the focal plane and pointing was at the position of XLSSJ022404.0-041328. The chip configuration is different from that requested by the PI, and the ACIS mode is FAINT as opposed to VFAINT. The stars file used was that of obs5787.