

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13149 - L2 Version 2  
Chandra X-Ray Center

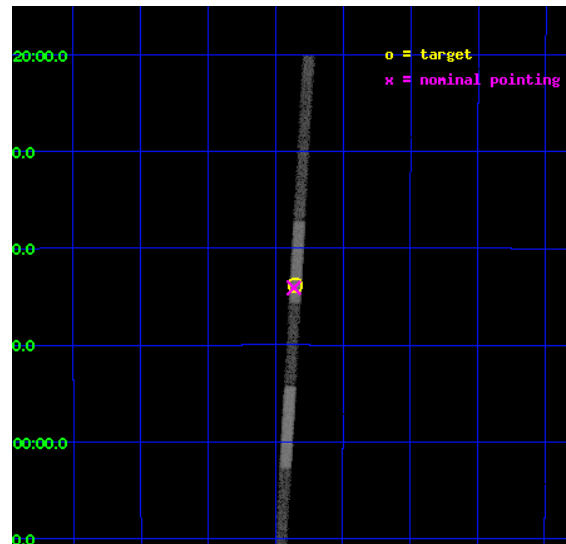
L2 Processing Date : Jul 5 2012

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# 1 Front

seq_num	501535	Sequence number
obs_id	13149	Observation id
title	Unveiling the nature of cyclic behavior in the period evolution of the Anomalous X ray Pulsar XTE j1810-197	Proposal title
observer	Dr. Federico Bernardini	Principal investigator
object	XTE J1810-197	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	272.462917	Observer's specified target RA [deg]
dec_targ	-19.731083	Observer's specified target Dec [deg]
ra_nom	272.46586400639	Nominal RA [deg]
dec_nom	-19.73501421343	Nominal Dec [deg]
roll_nom	273.24181063104	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15459.499736667	Sum of GTIs [s]
livetime	14603.327506837	Livetime [s]
ontime4	15459.499736667	Sum of GTIs [s]
ontime5	15459.499736667	Sum of GTIs [s]
ontime6	15459.499736667	Sum of GTIs [s]
ontime7	15459.499736667	Sum of GTIs [s]
ontime8	15459.499736667	Sum of GTIs [s]
ontime9	15459.499736667	Sum of GTIs [s]
l2events	30207	Number of level 2 events

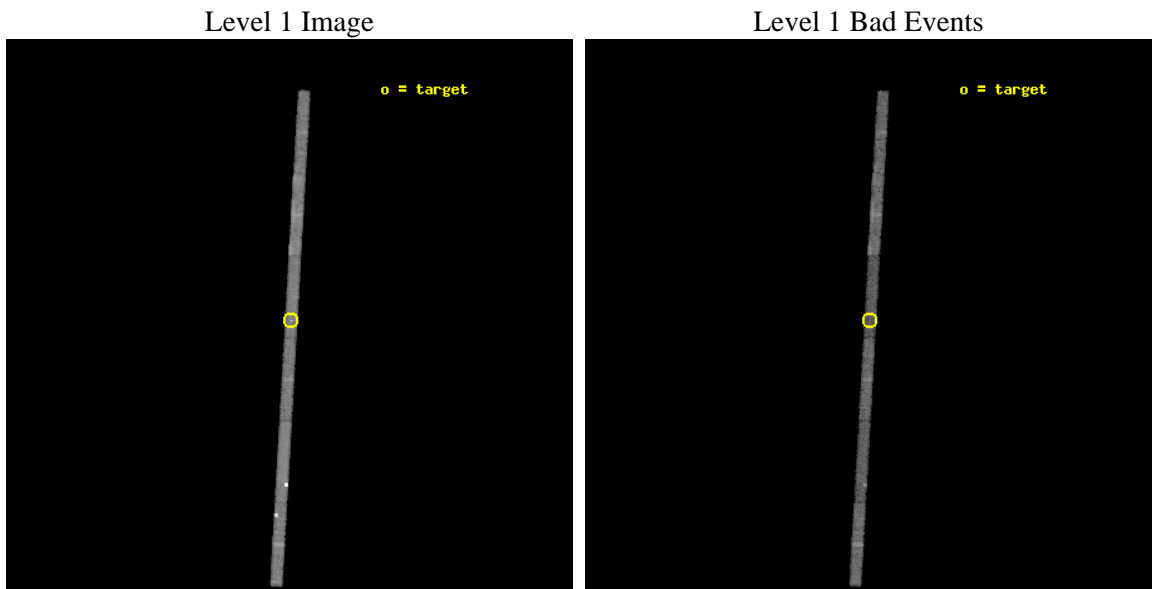




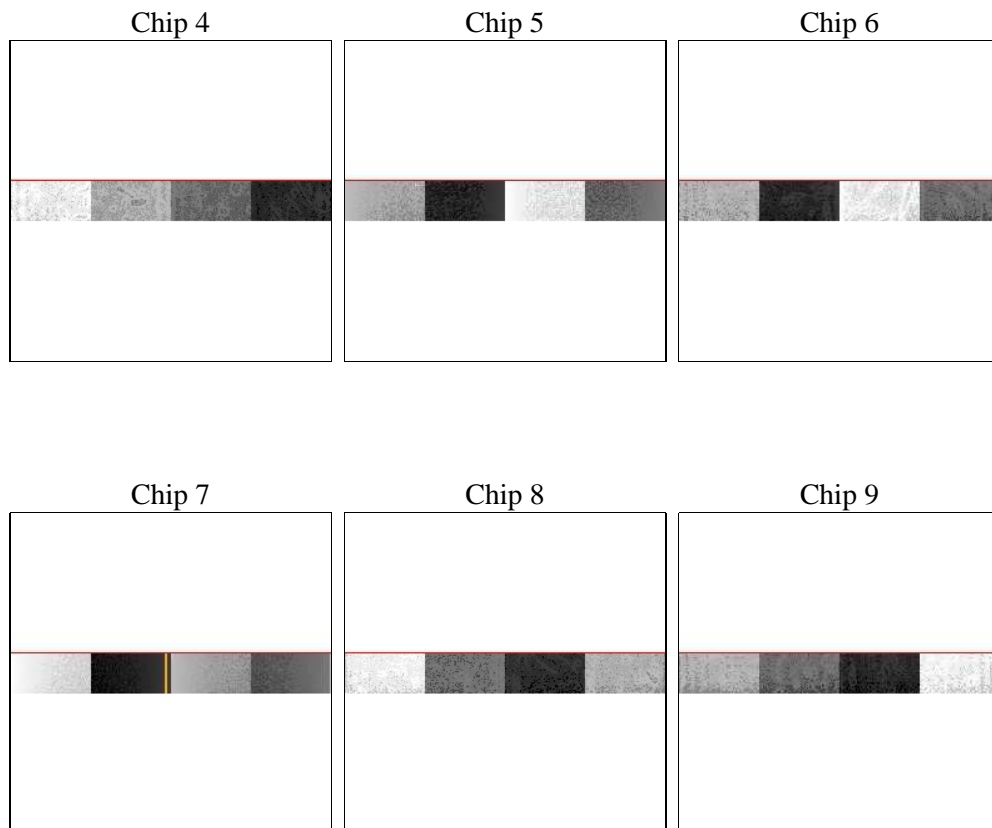
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15394.993000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	15459.499736667	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime4	15459.499736667	Sum of GTIs [s]
date	2012-07-05T20:46:12	Date and time of file creation	ontime5	15459.499736667	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	15459.499736667	Sum of GTIs [s]
			ontime7	15459.499736667	Sum of GTIs [s]
			ontime8	15459.499736667	Sum of GTIs [s]
			ontime9	15459.499736667	Sum of GTIs [s]
			l1events	157385	Number of level 1 events

### 2.1.4 Events

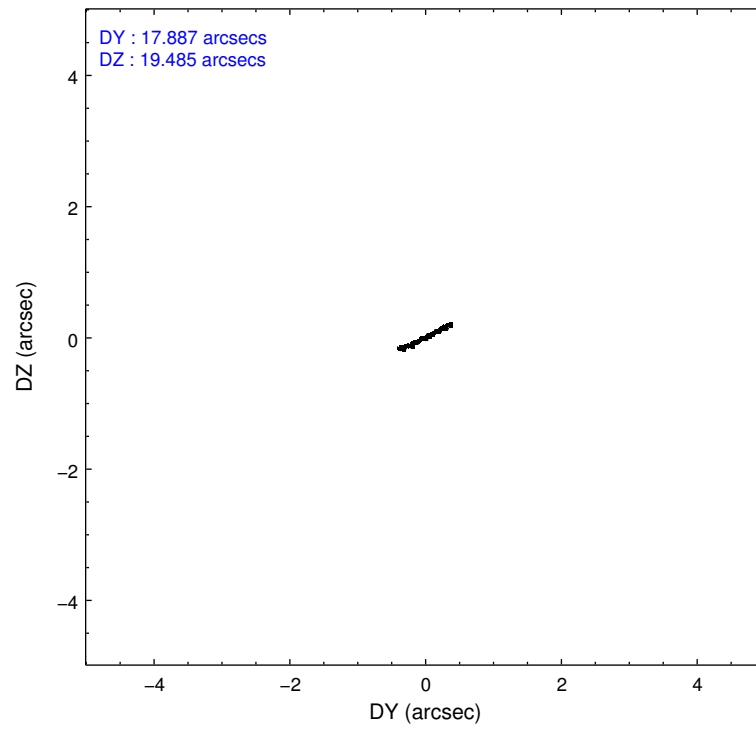
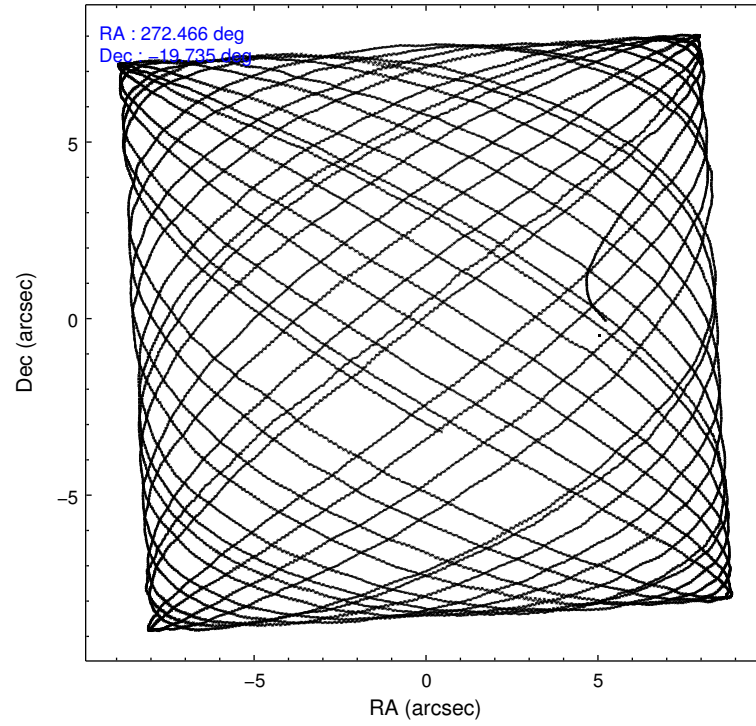
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	28363	43511	18338	22449	27320	17404
rejected events	19305	11898	16218	10456	21124	15075
rejected %	68%	27%	88%	46%	77%	86%

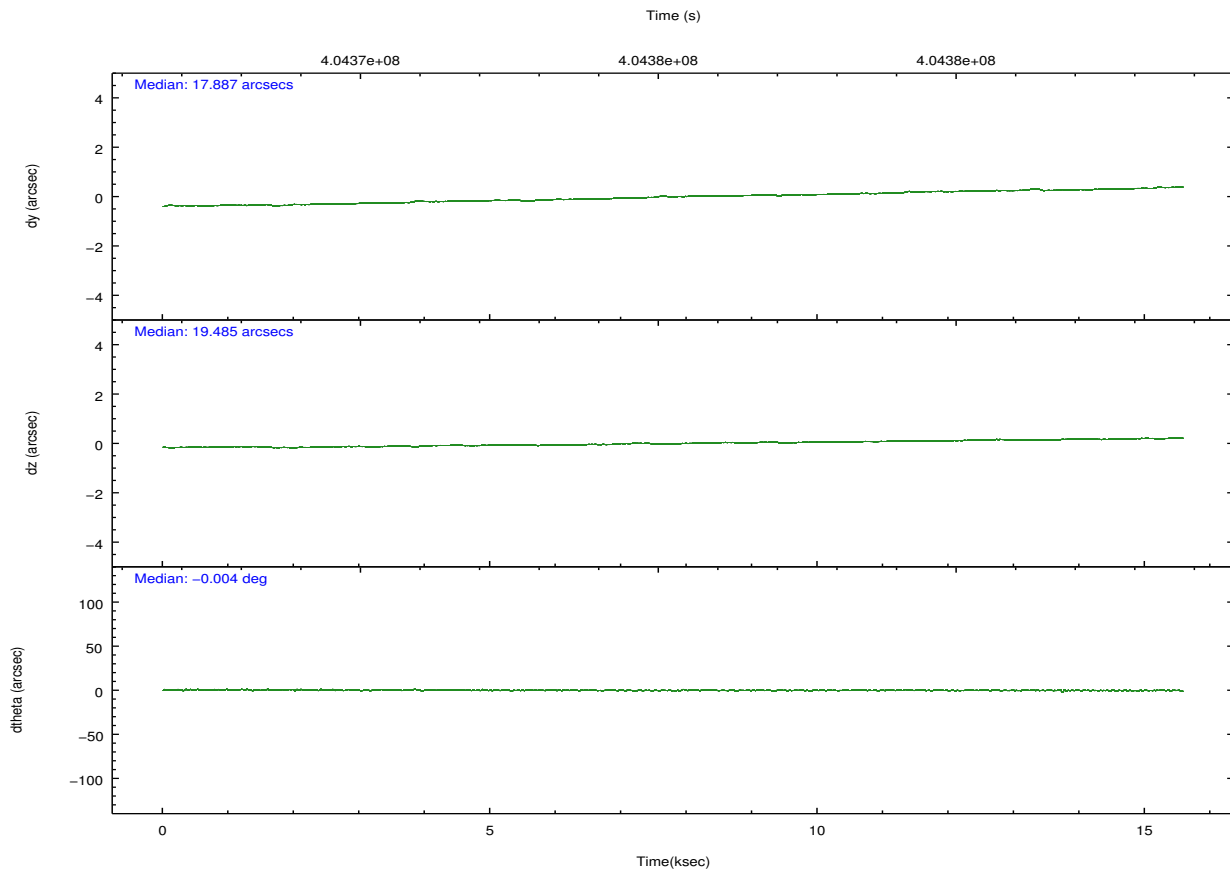
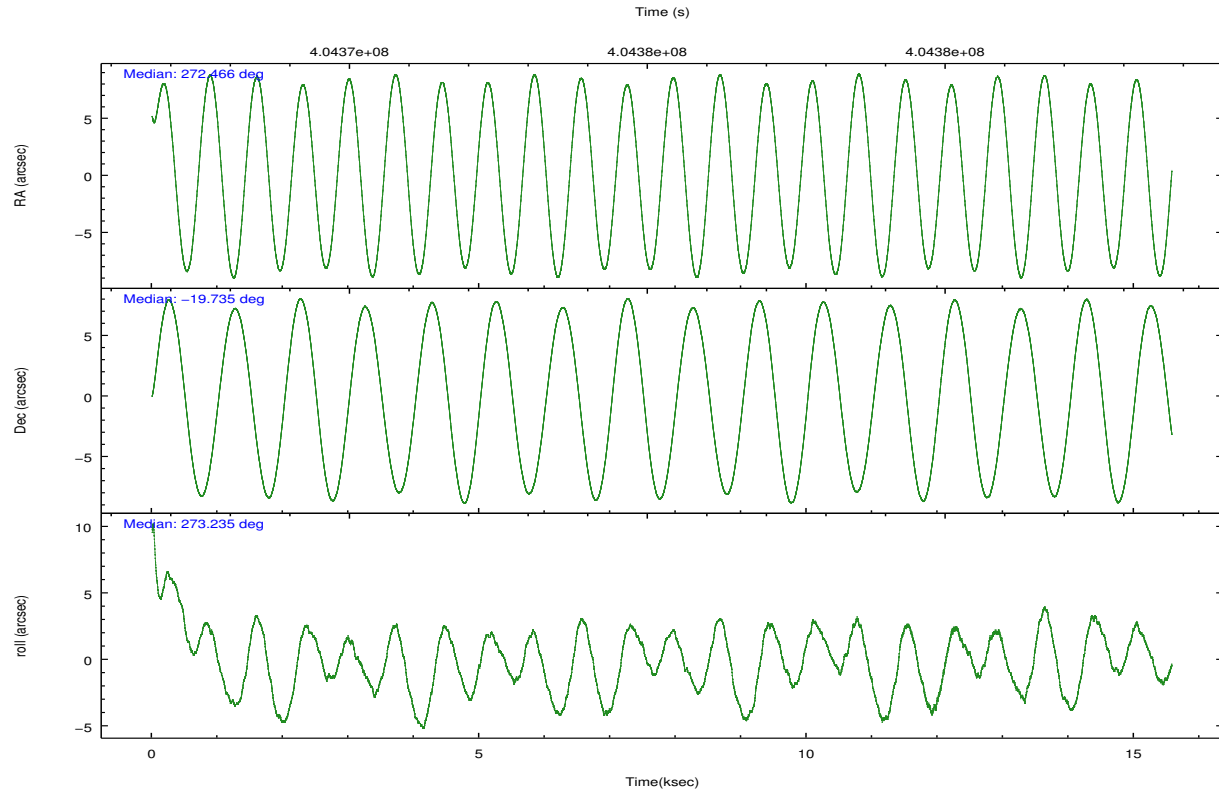
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	7459	18377	627	1844	1644	869
	26%	42%	3%	8%	6%	4%
grade 1 events	30	500	6	35	9	6
	0%	1%	0%	0%	0%	0%
grade 2 events	489	5347	378	2658	1327	395
	1%	12%	2%	11%	4%	2%
grade 3 events	326	861	363	1466	709	363
	1%	1%	1%	6%	2%	2%
grade 4 events	363	1410	370	1383	632	336
	1%	3%	2%	6%	2%	1%
grade 5 events	708	2134	647	2033	975	667
	2%	4%	3%	9%	3%	3%
grade 6 events	421	5622	382	4644	1884	366
	1%	12%	2%	20%	6%	2%
grade 7 events	18567	9260	15565	8386	20140	14402
	65%	21%	84%	37%	73%	82%

## 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	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	272.449612	272.4658640063882	CCD I2 on	N	N
[deg] Pointing Dec	-19.712395	-19.7350142134296	CCD I3 on	N	N
[deg] Pointing Roll	273.079702	273.2418106310389	CCD S0 on	O1	Y
[s] Window start time (MET)	402796866.184000	402796866.184000	CCD S1 on	O2	Y
[s] Window stop time (MET)	405648066.184000	405648066.184000	CCD S2 on	O3	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S3 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S4 on	O4	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S5 on	O5	Y
[mm] SIM translation stage offset	0	0.00754346686406393	Number of optional ACIS chips dropped	0	0
[s] Observation start time (MET)	404367652.184000	404366446.00796	On-chip summing requested	N	N
Observation start date	2010-10-25T04:19:46	2010-10-25T04:00:46	Subarray requested	CUSTOM	1/8
[s] Observation end time (MET)	404383047.184000	404383272.40883	Subarray start row	449	449
Observation end date	2010-10-25T08:36:21	2010-10-25T08:41:12	Subarray row count	128	128
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	0.7

## 2.3 Aspect



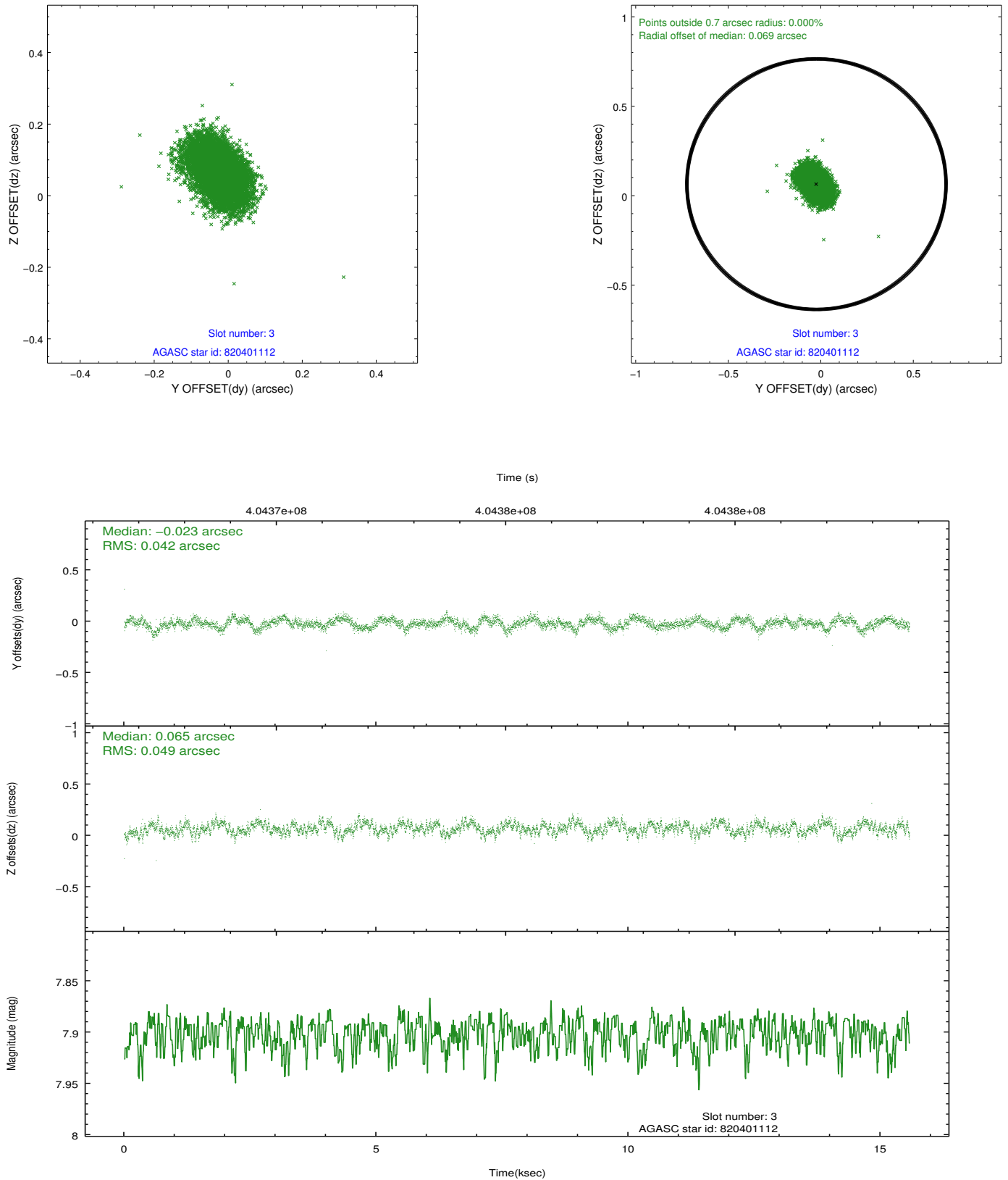


### Slot Statistics

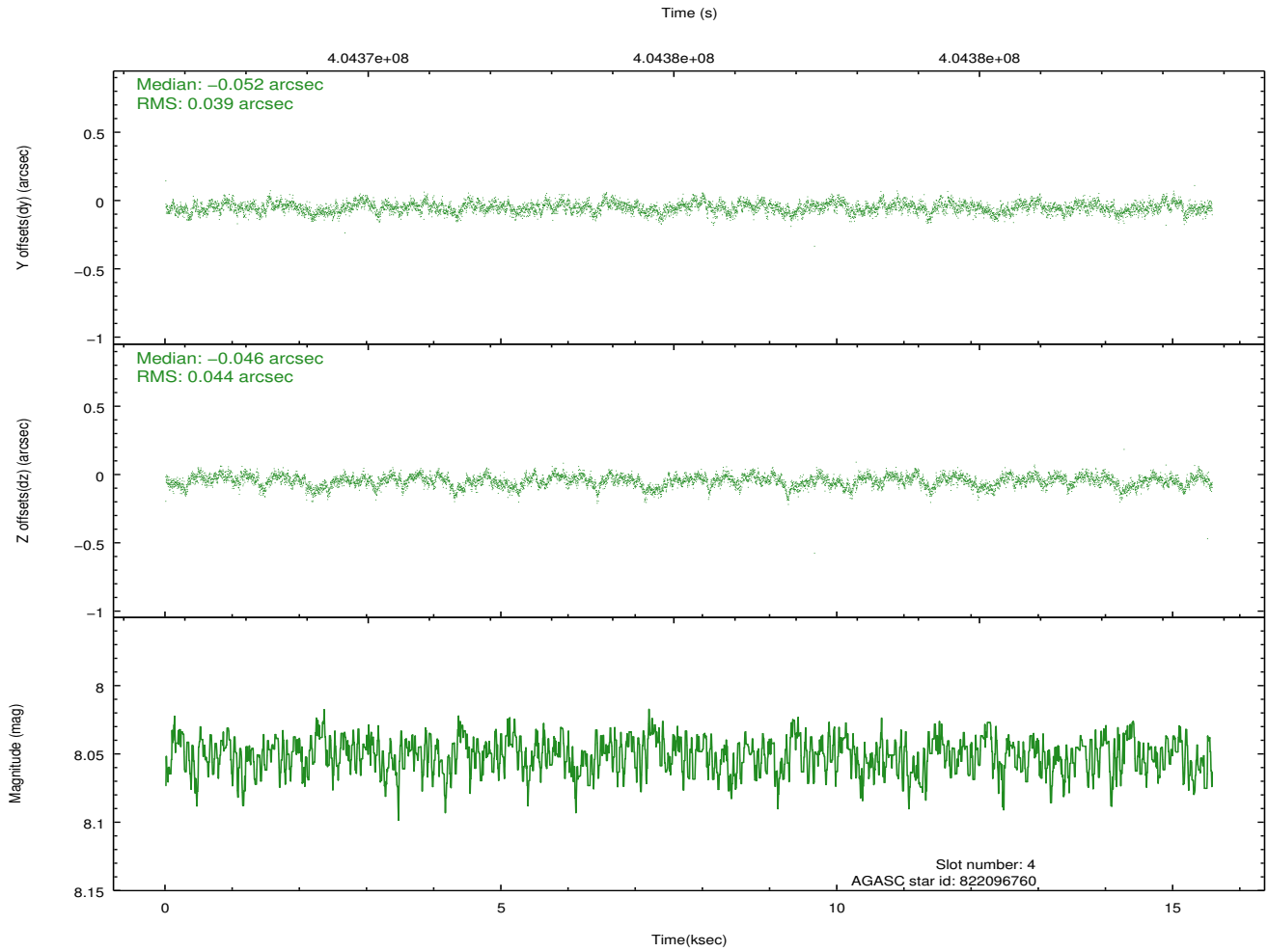
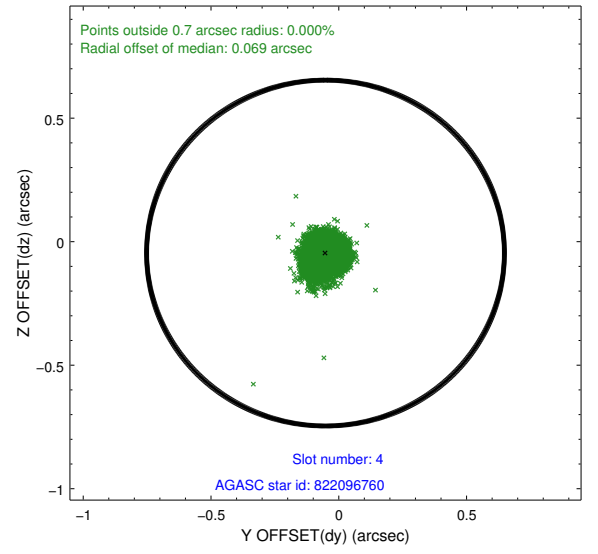
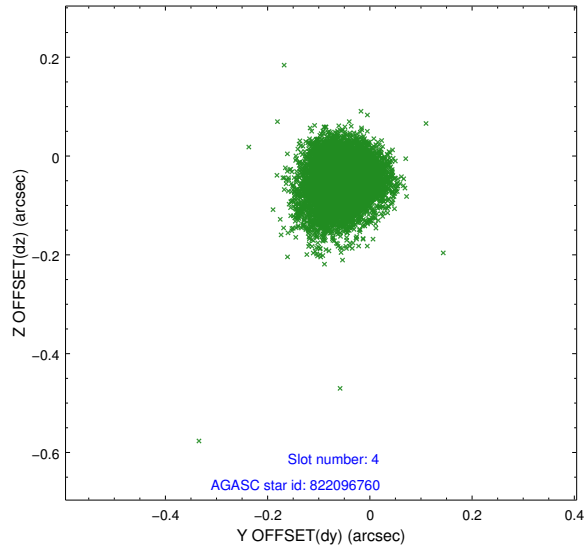
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	3799	-0.086	-0.029	0.008	0.014	0.000000	0.000000	-771.00	-1741.01
1	FID	ACIS-S-4	6.97	3800	0.206	0.049	0.012	0.020	0.000000	0.000000	2142.44	167.25
2	FID	ACIS-S-5	7.00	3799	-0.152	-0.012	0.009	0.015	0.000000	0.000000	-1823.54	161.19
3	GUIDE	820401112	7.90	7599	-0.023	0.065	0.069	0.110	271.884761	-19.293988	-1603.46	-1835.66
4	GUIDE	822096760	8.05	7598	-0.052	-0.046	0.061	0.100	272.830526	-19.438690	-913.01	1343.97
5	GUIDE	822101160	8.45	7596	0.091	-0.069	0.069	0.109	272.245889	-20.018987	1066.02	-746.95
6	GUIDE	822102416	7.49	7599	0.100	-0.047	0.057	0.096	272.173216	-20.087156	1298.55	-1005.44
7	GUIDE	822085152	8.99	7592	-0.112	0.094	0.116	0.190	272.974056	-19.057083	-2256.93	1908.60

## 2.4 Star Slots

### 2.4.1 Slot 3

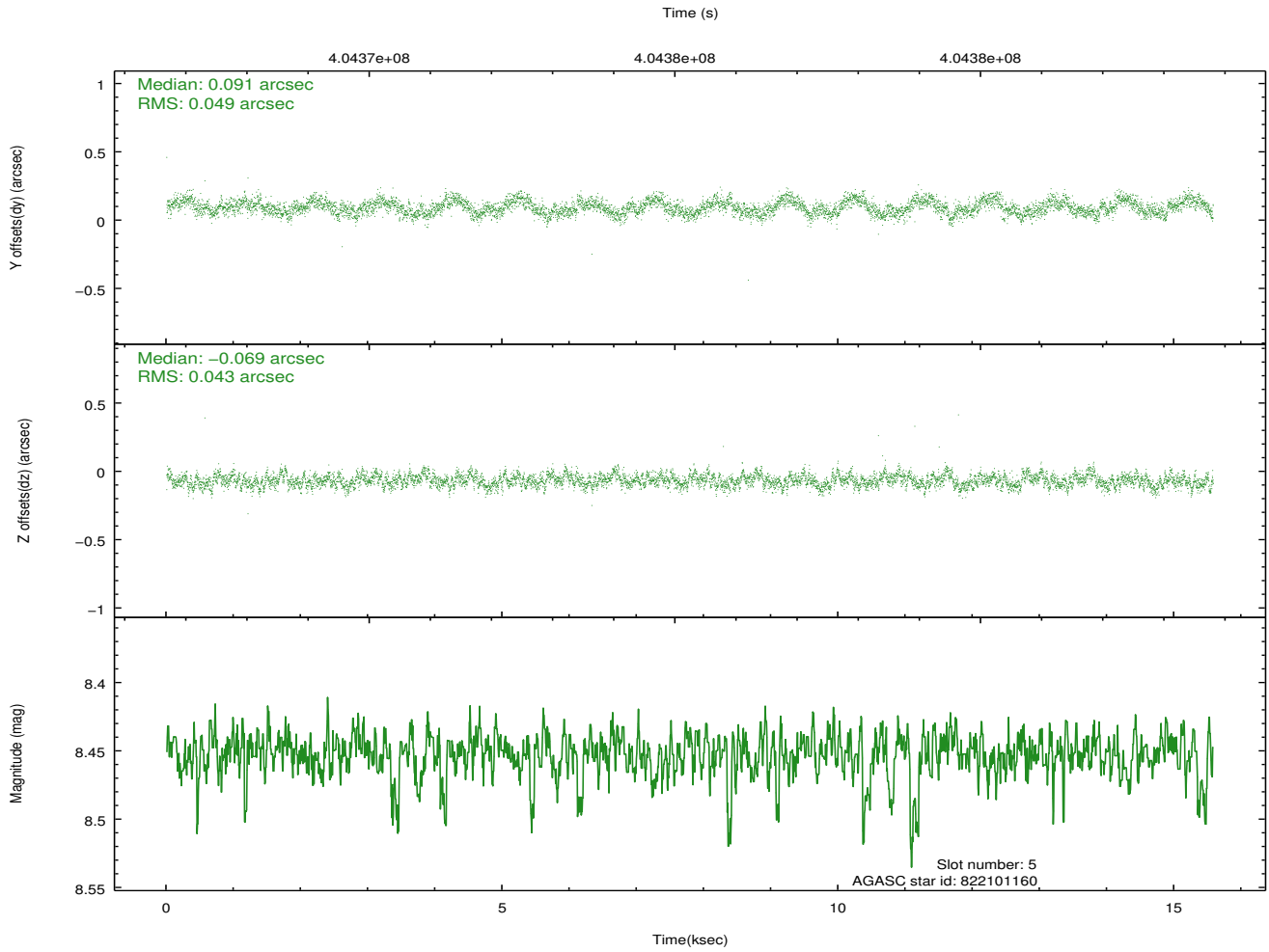
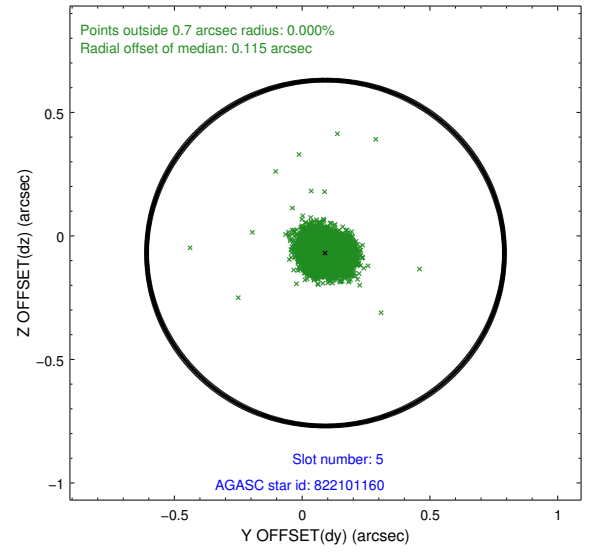
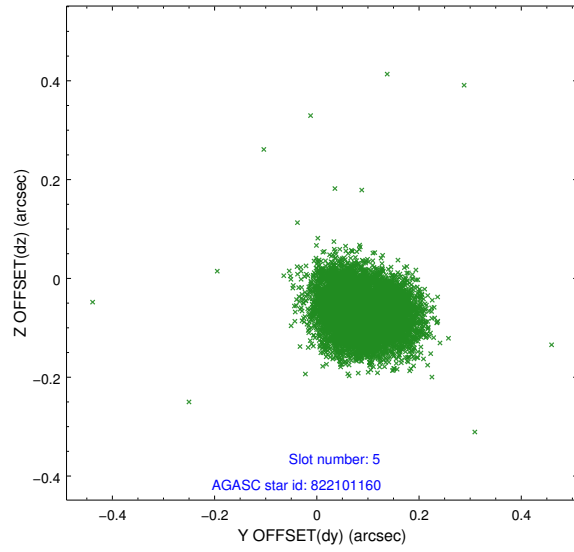


## 2.4.2 Slot 4

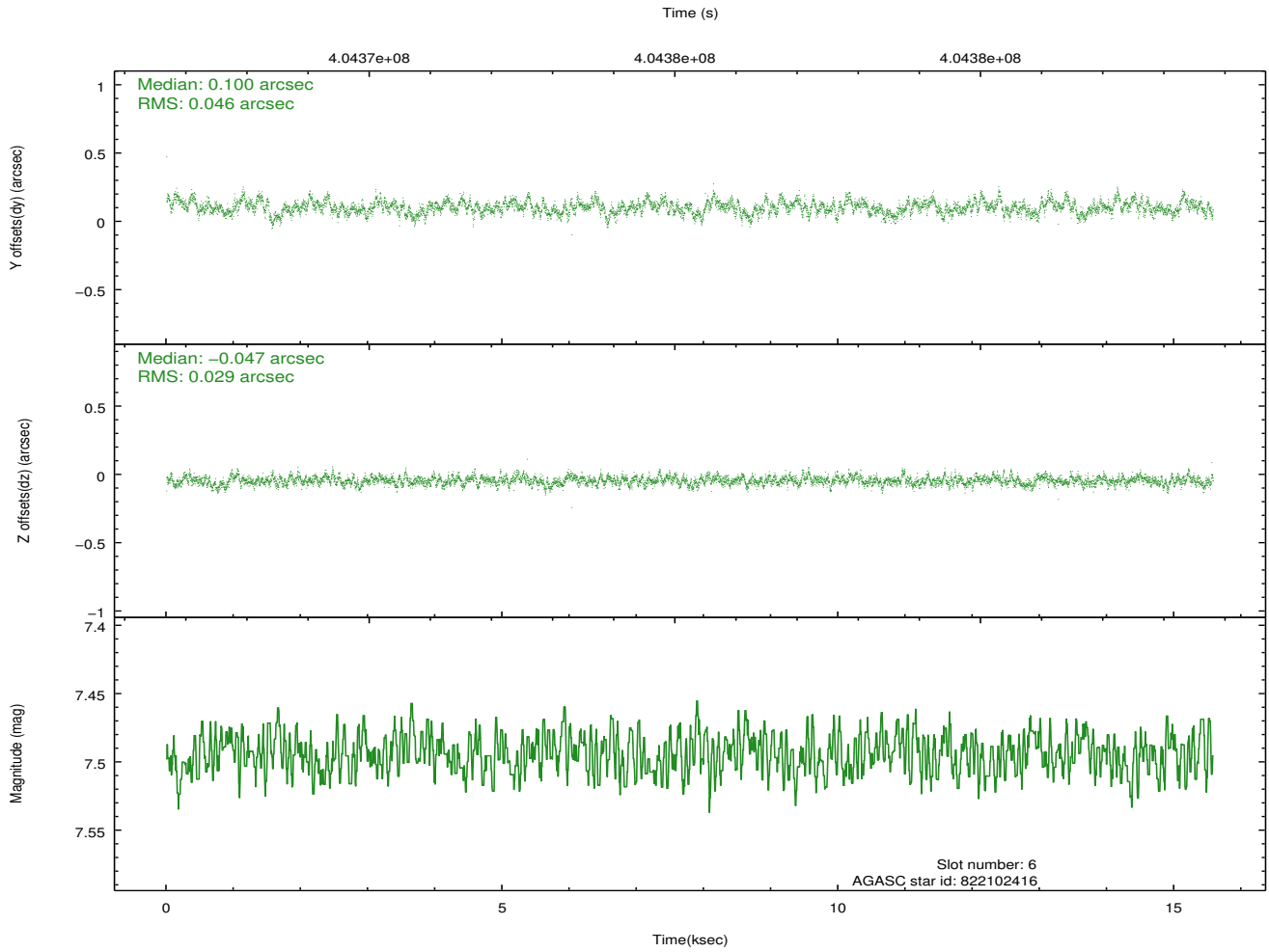
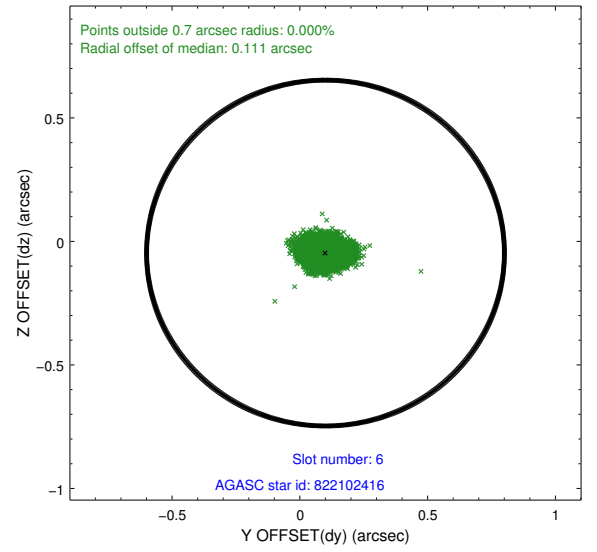
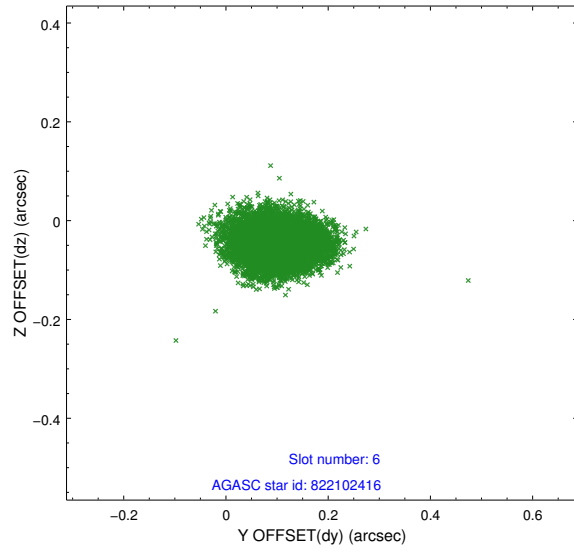




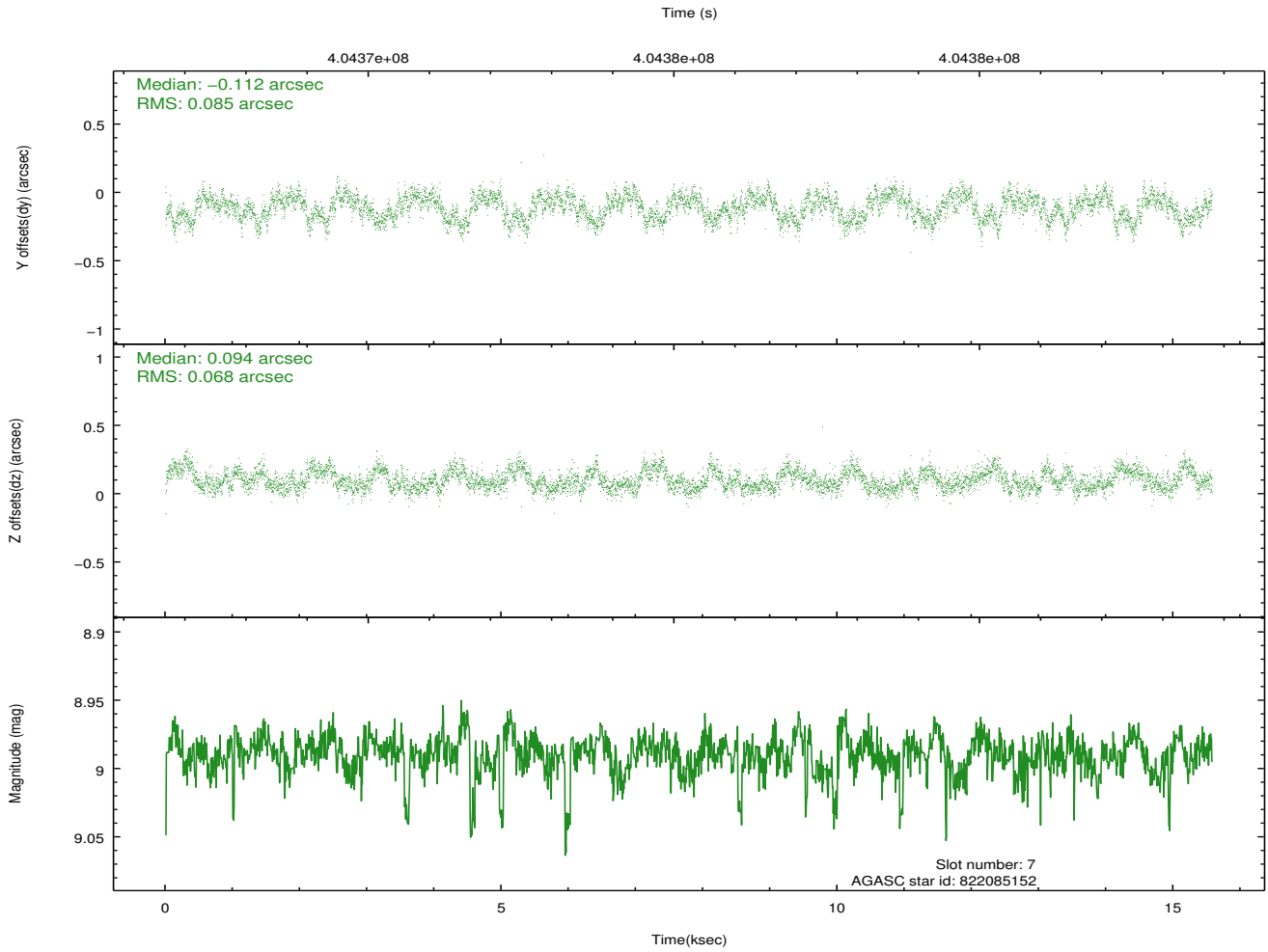
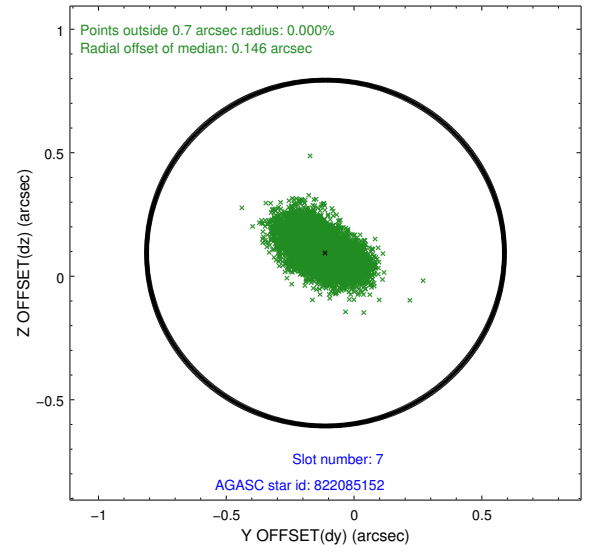
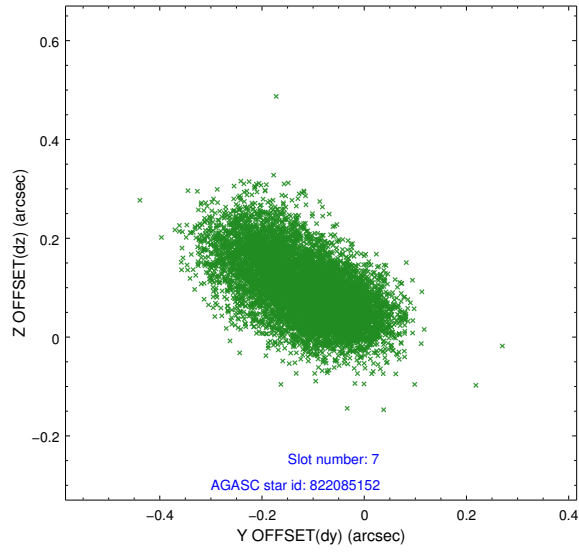
### 2.4.3 Slot 5



## 2.4.4 Slot 6

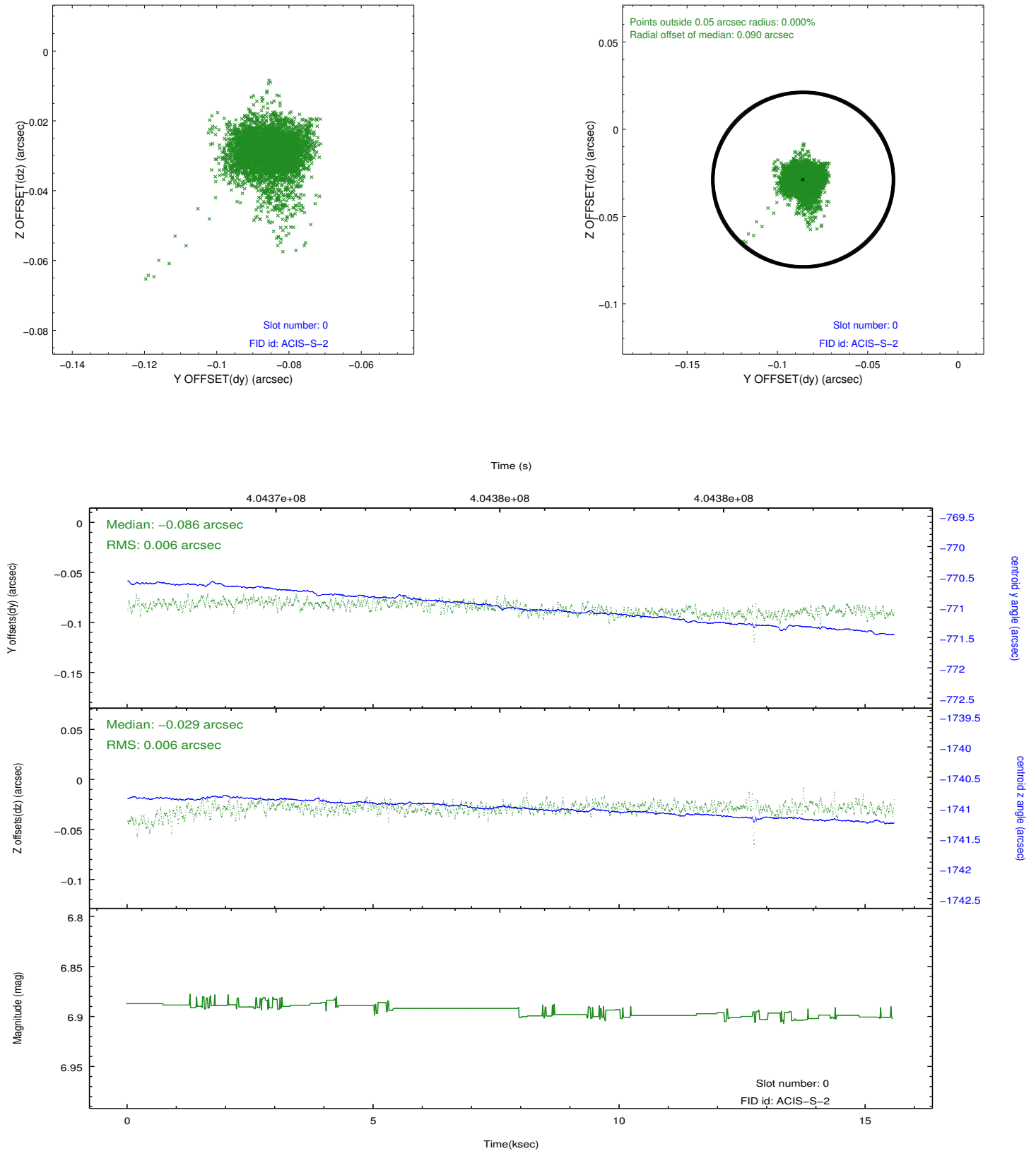


## 2.4.5 Slot 7

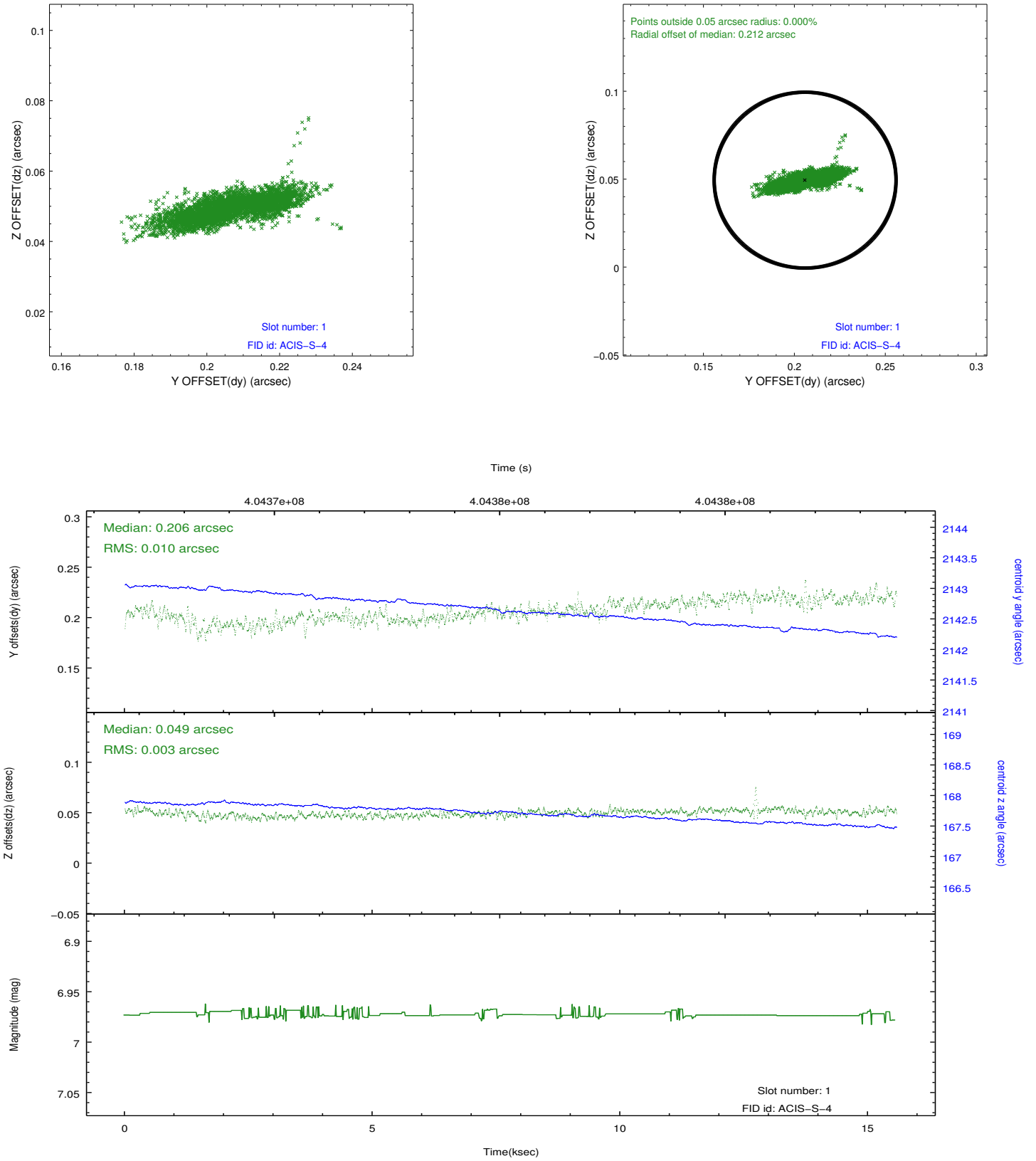


## 2.5 FID Slots

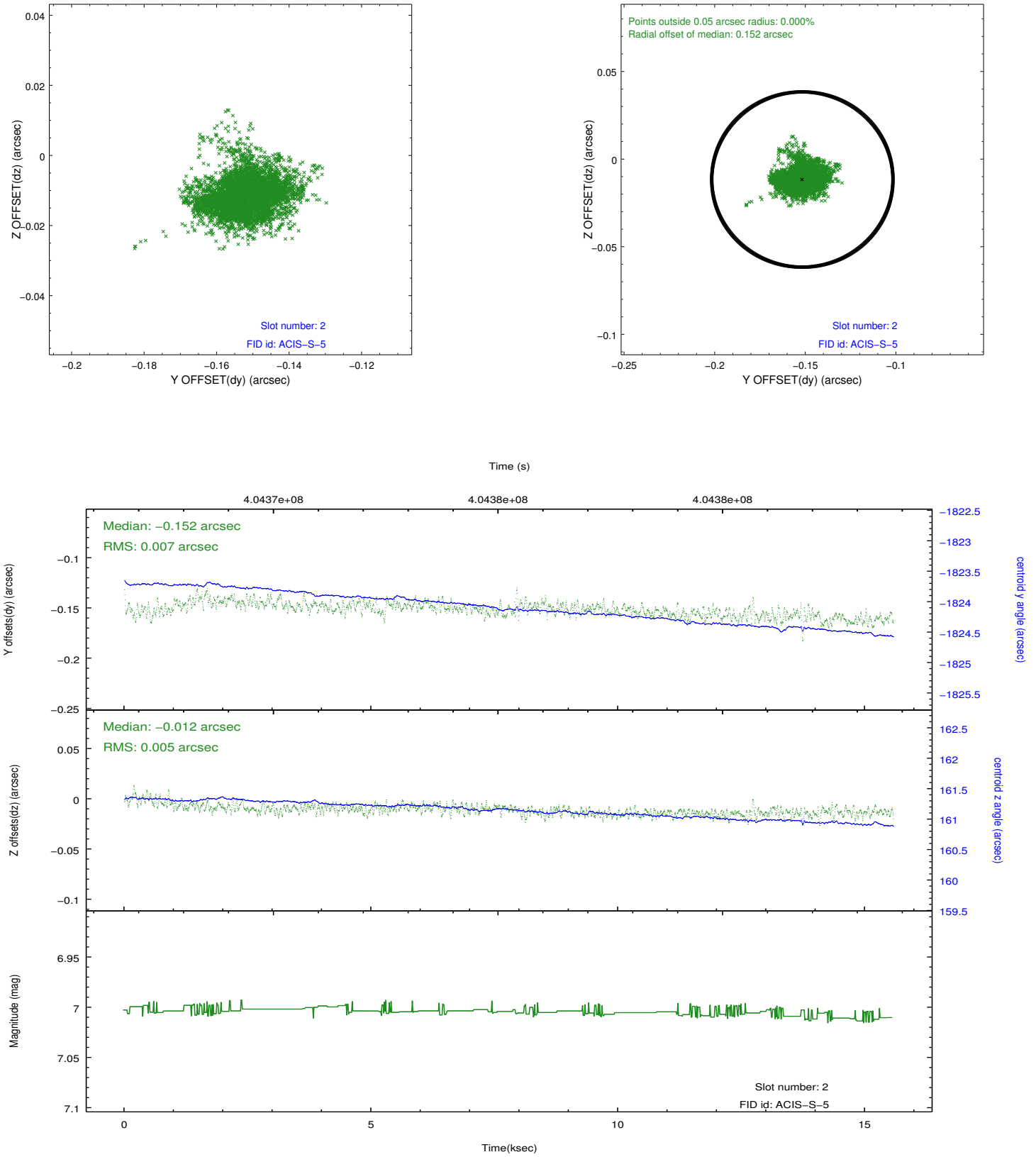
### 2.5.1 Slot 0



## 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)	2012.07.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.459499736667

### A.2 Comments

Window constraint met.