

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 7058 - L2 Version 3  
Chandra X-Ray Center

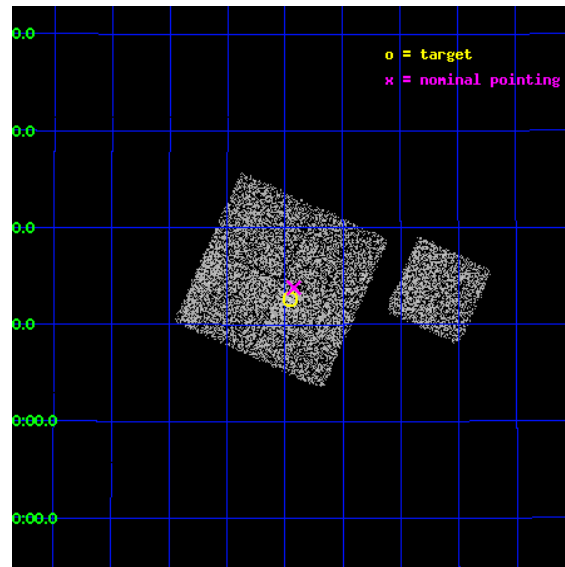
L2 Processing Date : Apr 19 2012

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# 1 Front

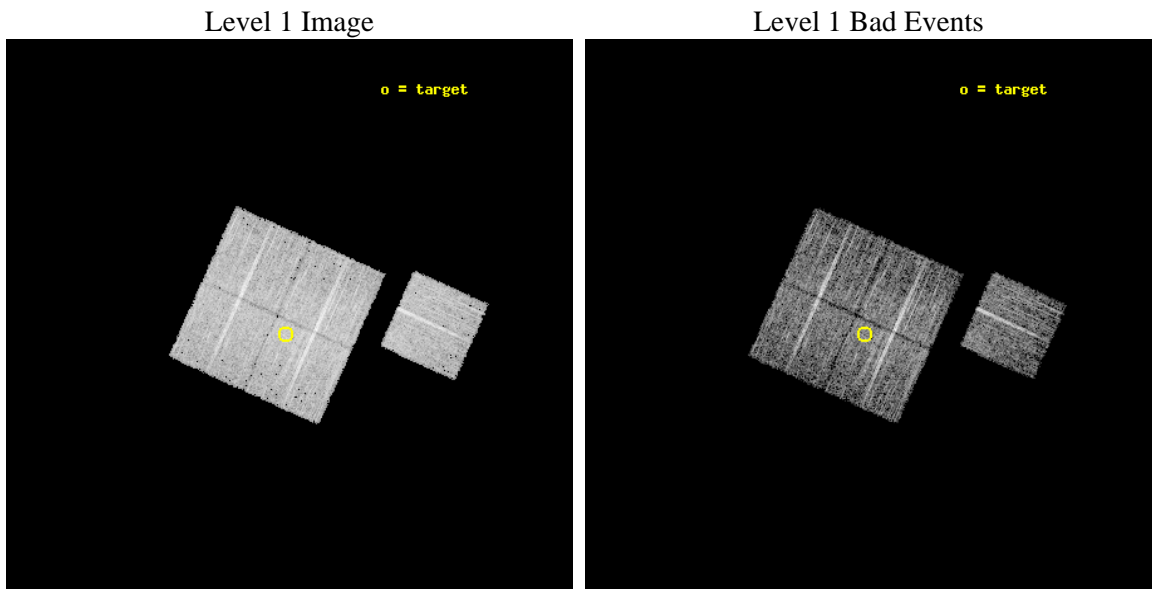
seq_num	600496	Sequence number
obs_id	7058	Observation id
title	Isolated Ellipticals	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	NGC7265	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	335.614583	Observer's specified target RA [deg]
dec_targ	36.210278	Observer's specified target Dec [deg]
ra_nom	335.60590876907	Nominal RA [deg]
dec_nom	36.230132919389	Nominal Dec [deg]
roll_nom	114.32088086495	Nominal Roll [deg]
revision	3	Processing version of data
ontime	5102.5999901593	Sum of GTIs [s]
livetime	5035.9307648084	Livetime [s]
ontime0	5102.5999901593	Sum of GTIs [s]
ontime1	5102.5999901593	Sum of GTIs [s]
ontime2	5102.5999901593	Sum of GTIs [s]
ontime3	5102.5999901593	Sum of GTIs [s]
ontime6	5102.5999901593	Sum of GTIs [s]
l2events	16823	Number of level 2 events



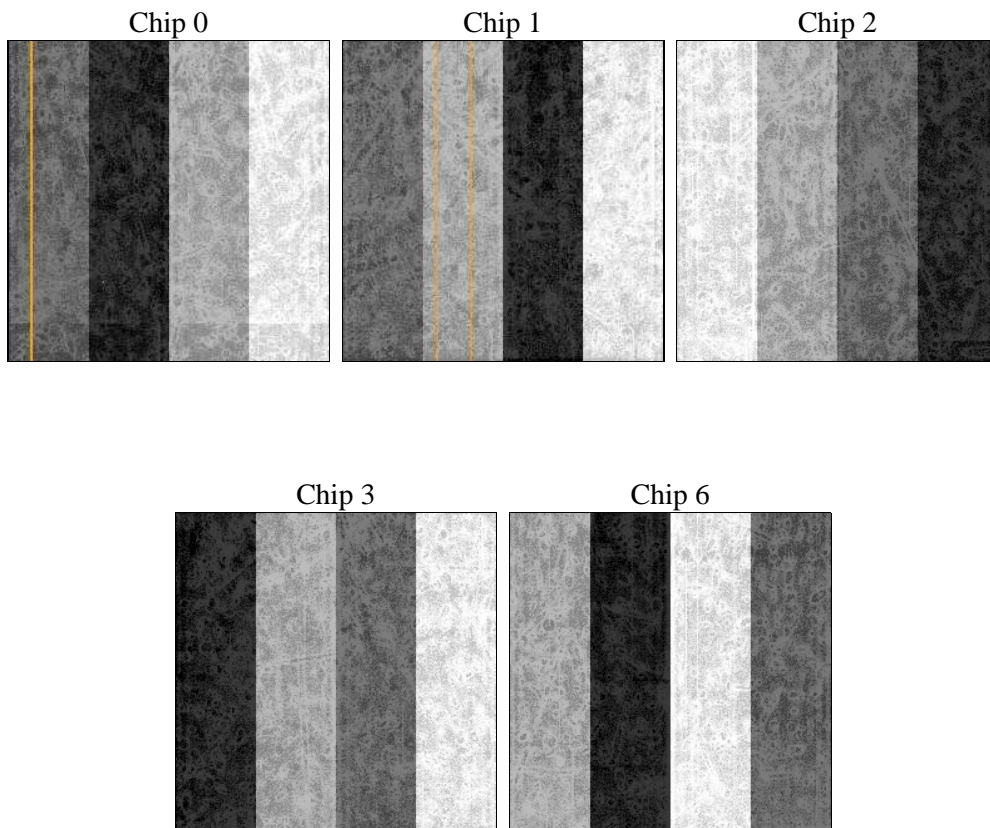
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	5102.5999901593	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	5102.5999901593	Sum of GTIs [s]
date	2012-04-19T21:30:41	Date and time of file creation	ontime1	5102.5999901593	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	5102.5999901593	Sum of GTIs [s]
			ontime3	5102.5999901593	Sum of GTIs [s]
			ontime6	5102.5999901593	Sum of GTIs [s]
			l1events	255268	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	49740	49503	54054	53320	48651
rejected events	45884	44973	50221	49198	44818
rejected %	92%	90%	92%	92%	92%

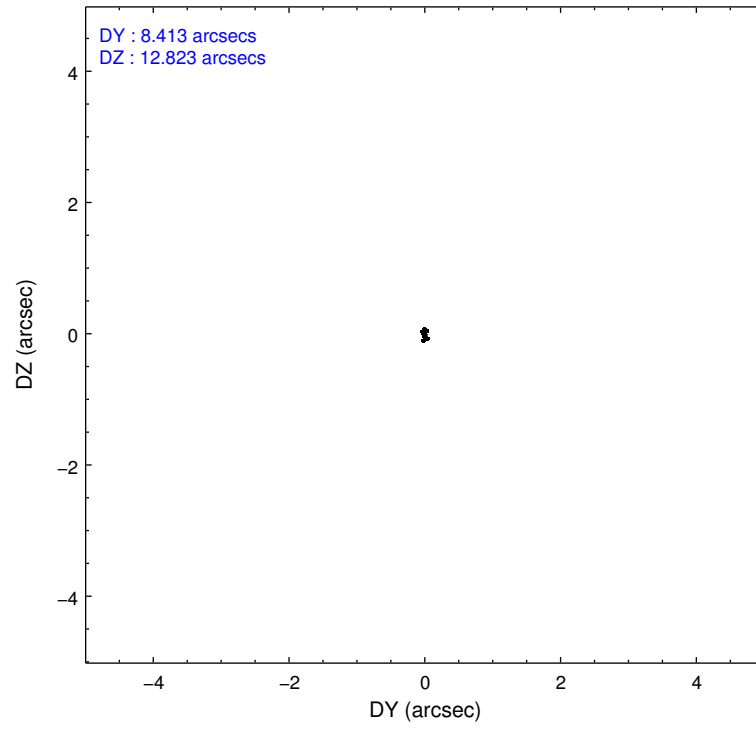
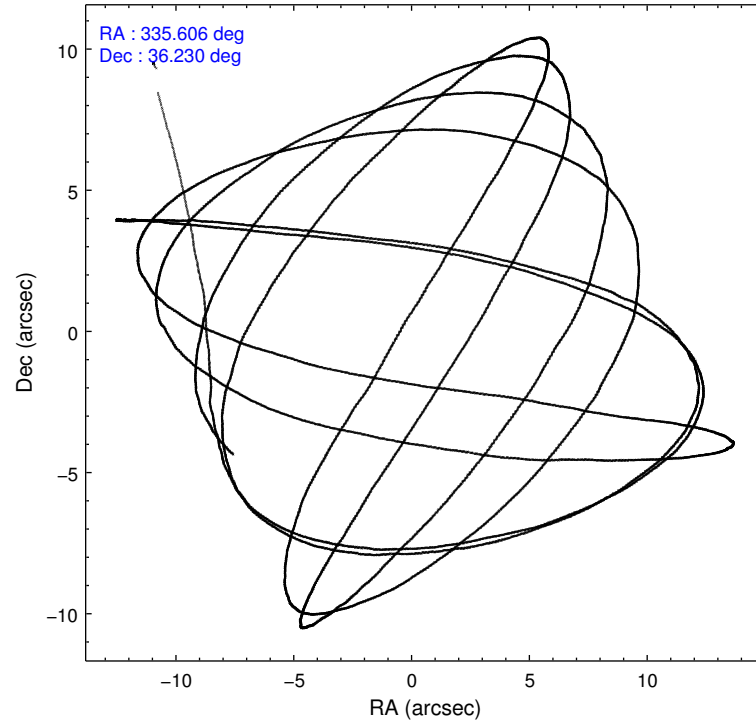
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1813	2106	1759	2124	1720
	3%	4%	3%	3%	3%
grade 1 events	23	22	32	36	20
	0%	0%	0%	0%	0%
grade 2 events	1185	1288	1194	1123	990
	2%	2%	2%	2%	2%
grade 3 events	562	622	519	521	570
	1%	1%	0%	0%	1%
grade 4 events	534	650	502	506	592
	1%	1%	0%	0%	1%
grade 5 events	1583	1975	1568	2106	1946
	3%	3%	2%	3%	3%
grade 6 events	899	1088	845	921	1044
	1%	2%	1%	1%	2%
grade 7 events	43141	41752	47635	45983	41769
	86%	84%	88%	86%	85%

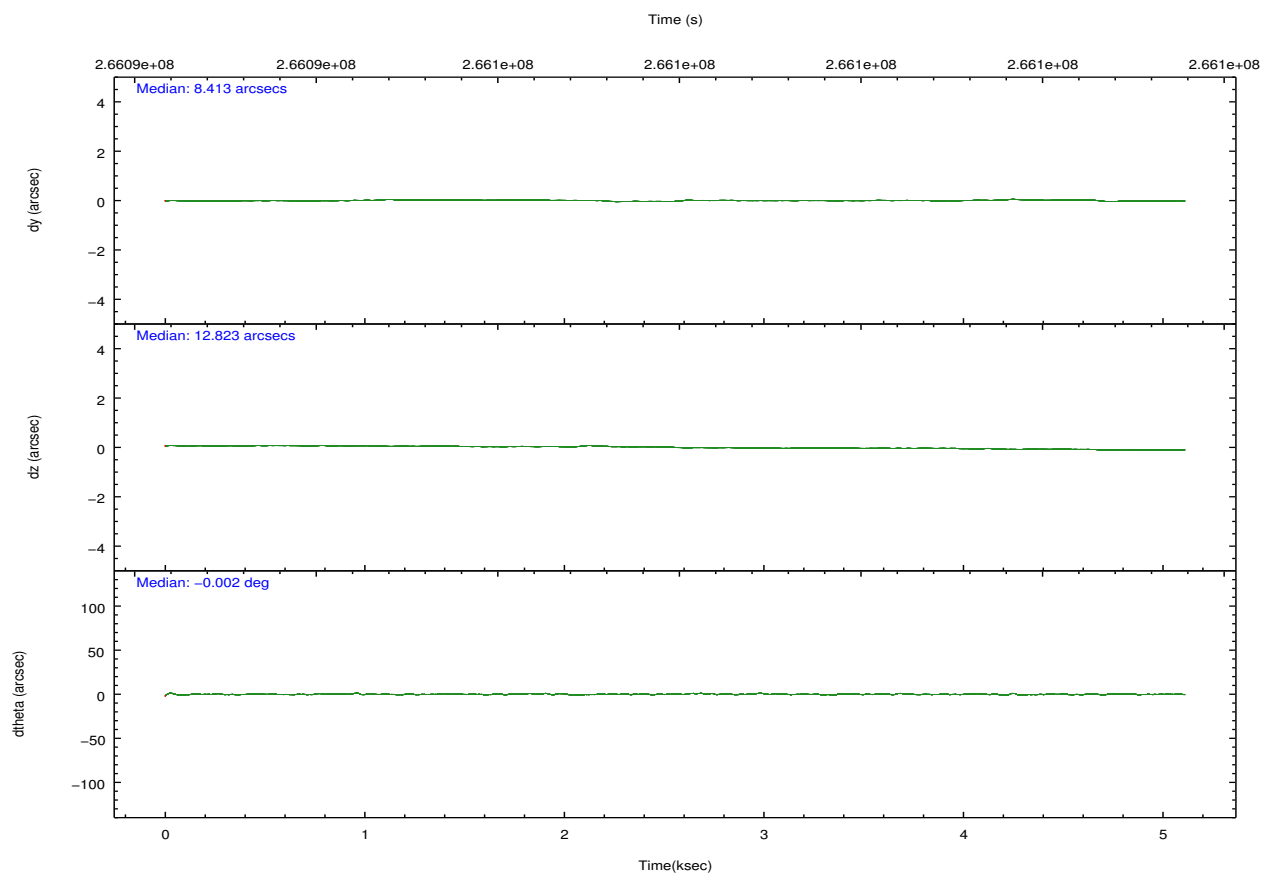
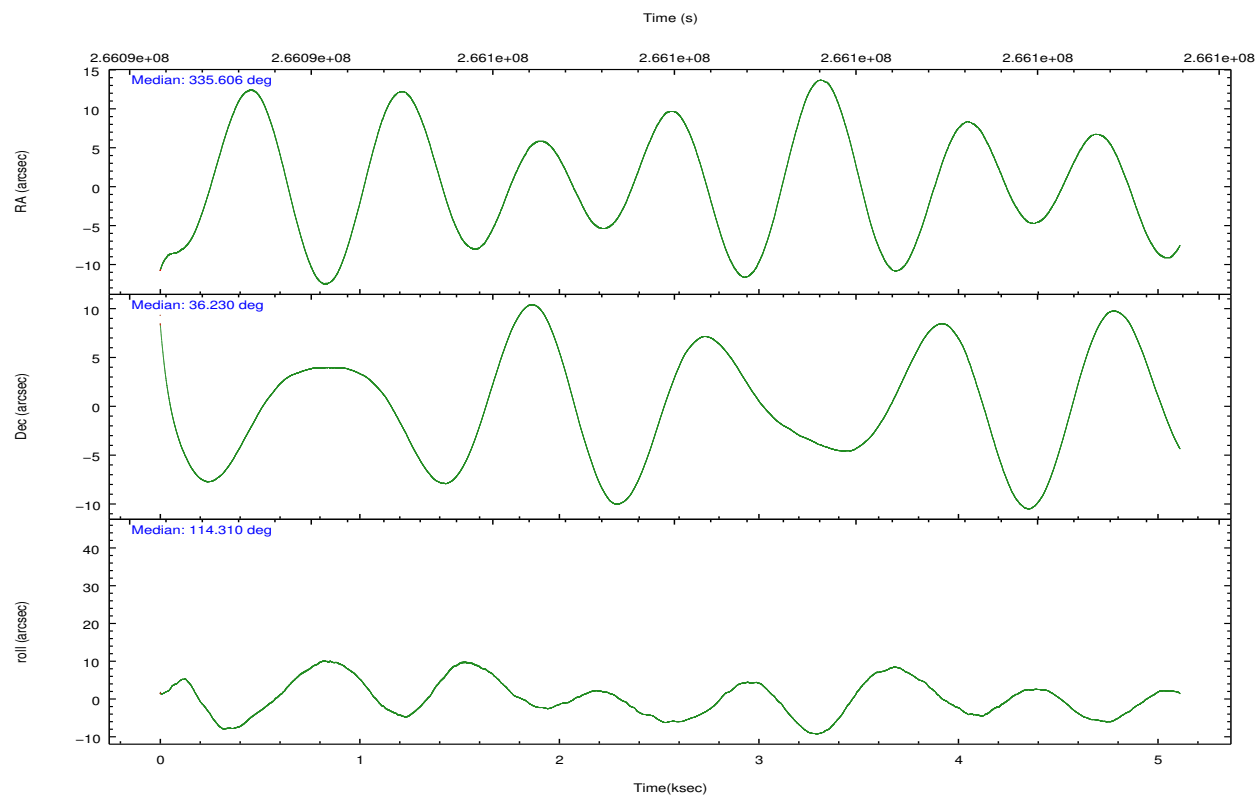


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	335.633663	335.6059087690692	Subarray requested	NONE	NONE
[deg] Pointing Dec	36.214243	36.23013291938862	Alternating exposures requested	N	N
[deg] Pointing Roll	114.095802	114.3208808649506	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-231.092463	-231.0932336816812			
[mm] SIM translation stage offset	-2.5	-2.499219321248518			
[s] Observation start time (MET)	266093535.184000	266091855.62514			
Observation start date	2006-06-07T18:51:10	2006-06-07T18:24:15			
[s] Observation end time (MET)	266098535.184000	266099303.78799			
Observation end date	2006-06-07T20:14:30	2006-06-07T20:28:23			
Read mode	TIMED	TIMED			

## 2.3 Aspect



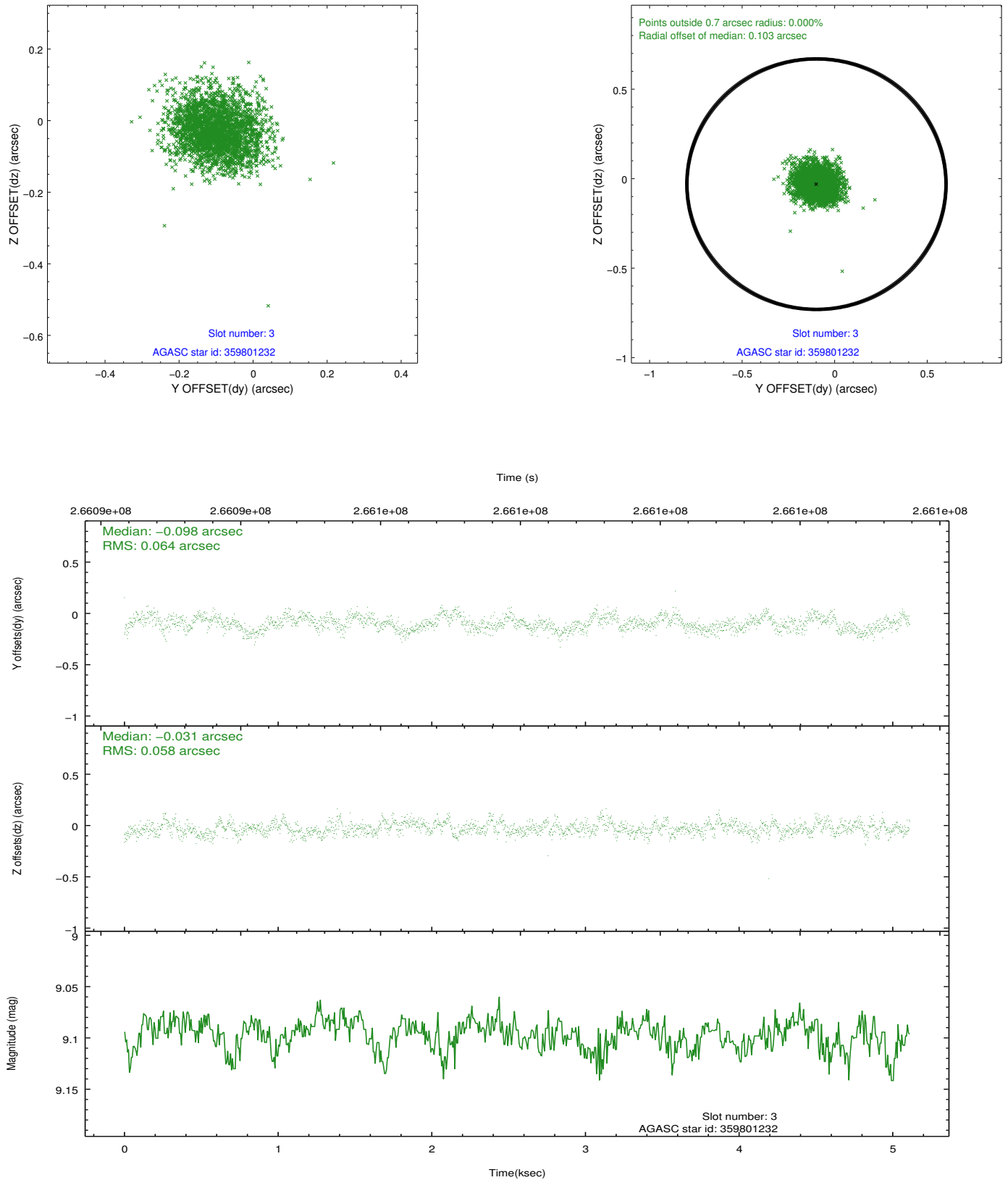


### Slot Statistics

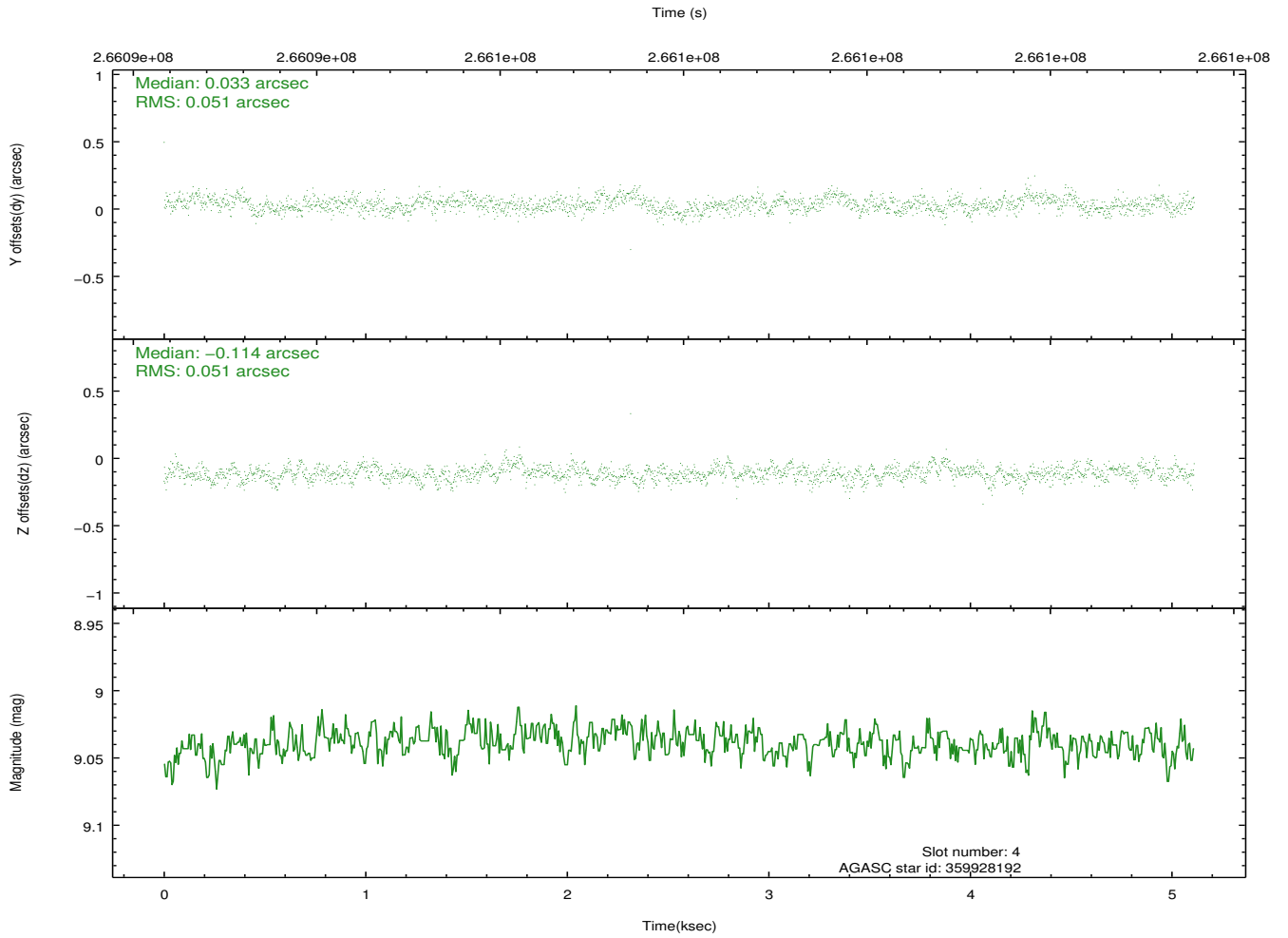
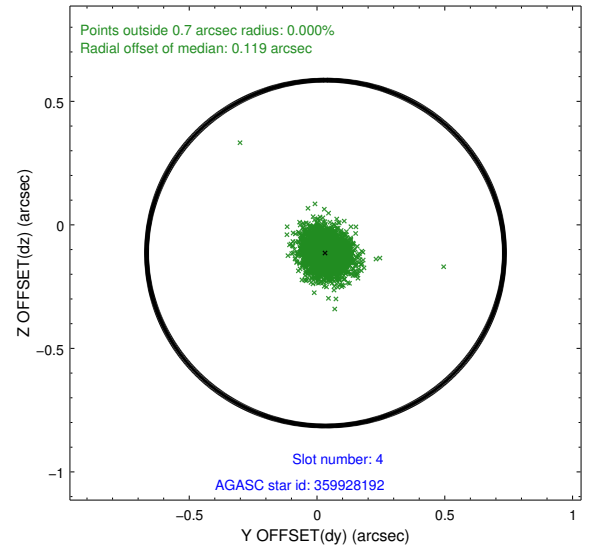
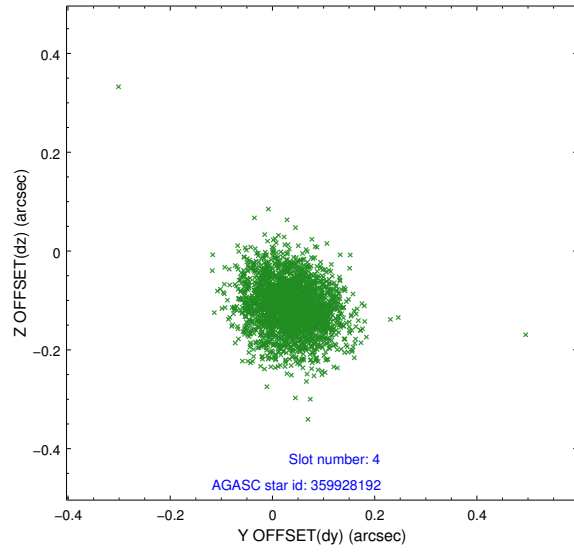
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	1247	0.030	0.006	0.006	0.011	0.000000	0.000000	931.22	-887.59
1	FID	ACIS-I-5	7.23	1247	-0.216	0.035	0.006	0.010	0.000000	0.000000	-1816.49	1009.28
2	FID	ACIS-I-6	7.26	1247	0.095	0.030	0.007	0.011	0.000000	0.000000	395.52	1655.13
3	GUIDE	359801232	9.10	2493	-0.098	-0.031	0.092	0.147	335.097383	36.306621	942.52	1282.63
4	GUIDE	359928192	9.04	2494	0.033	-0.114	0.076	0.122	335.473459	36.456550	986.62	67.36
5	GUIDE	359934704	9.30	2492	0.059	0.217	0.116	0.186	335.906358	36.257411	-179.52	-786.72
6	GUIDE	359938488	6.33	2494	0.058	0.018	0.053	0.090	335.709507	36.659048	1372.77	-854.19
7	GUIDE	359797456	9.57	2493	-0.050	-0.091	0.103	0.174	334.586340	36.462288	2068.44	2396.33

## 2.4 Star Slots

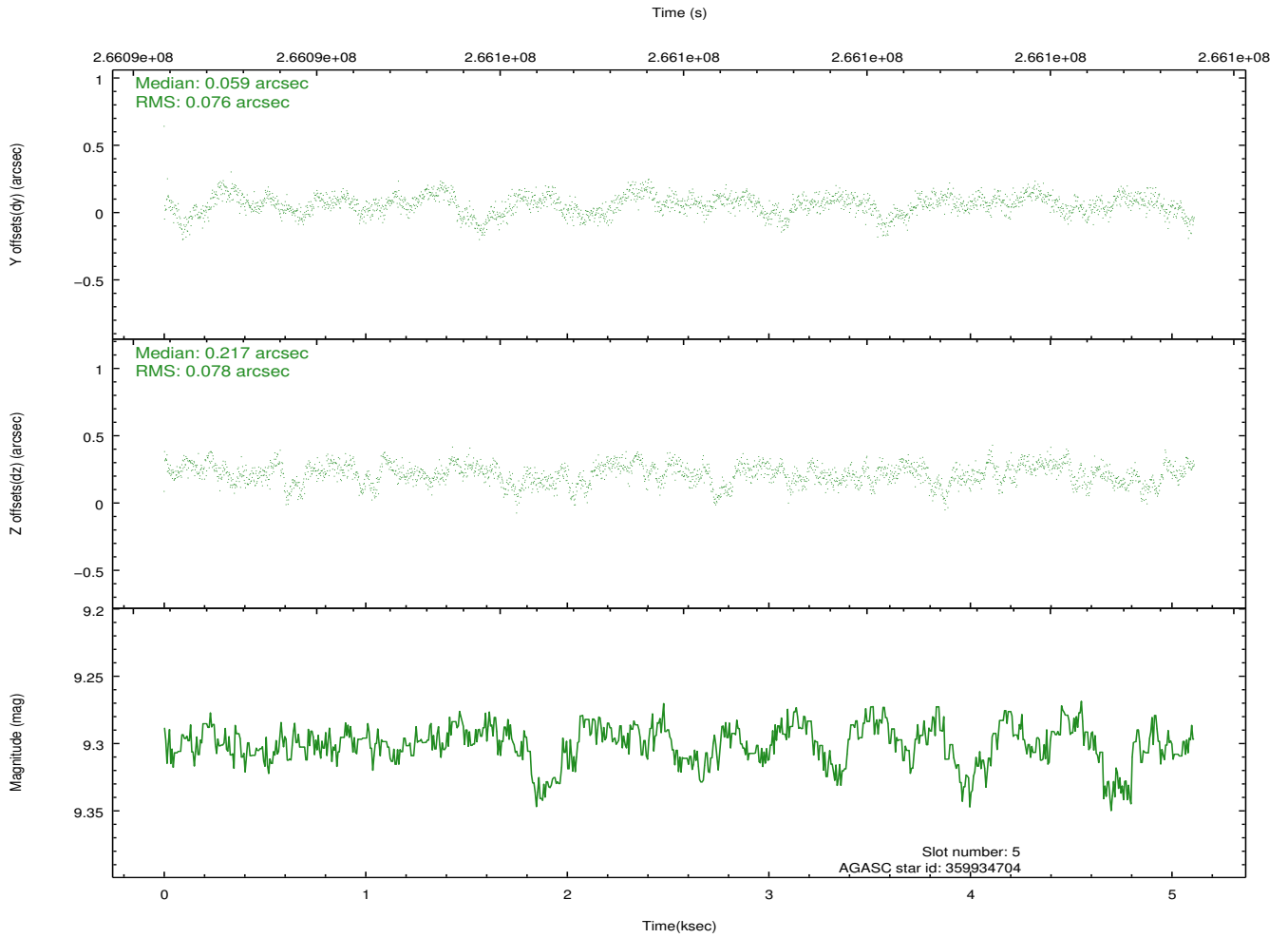
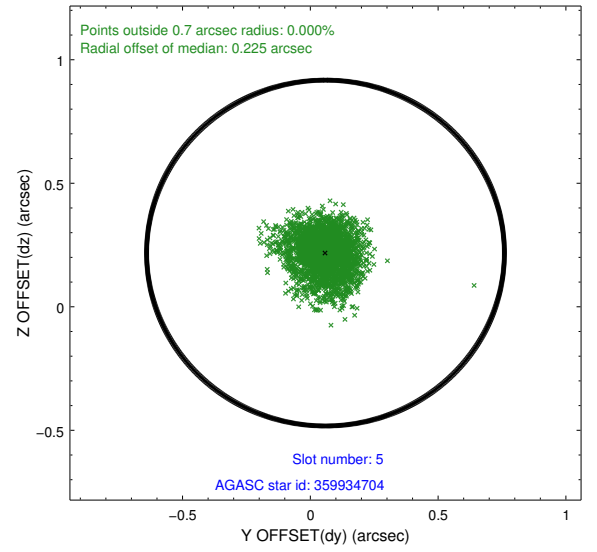
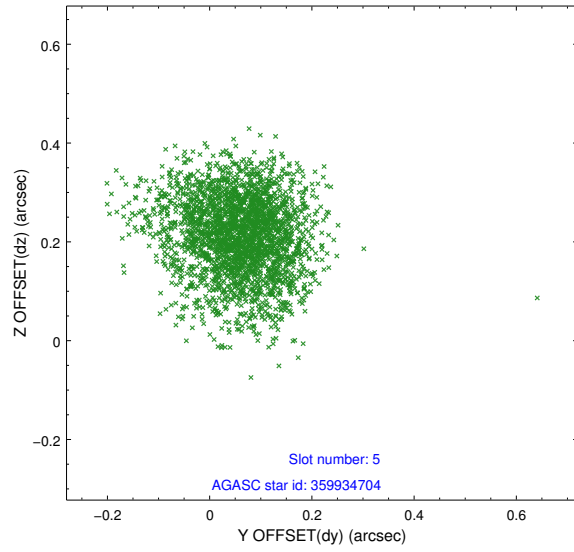
### 2.4.1 Slot 3



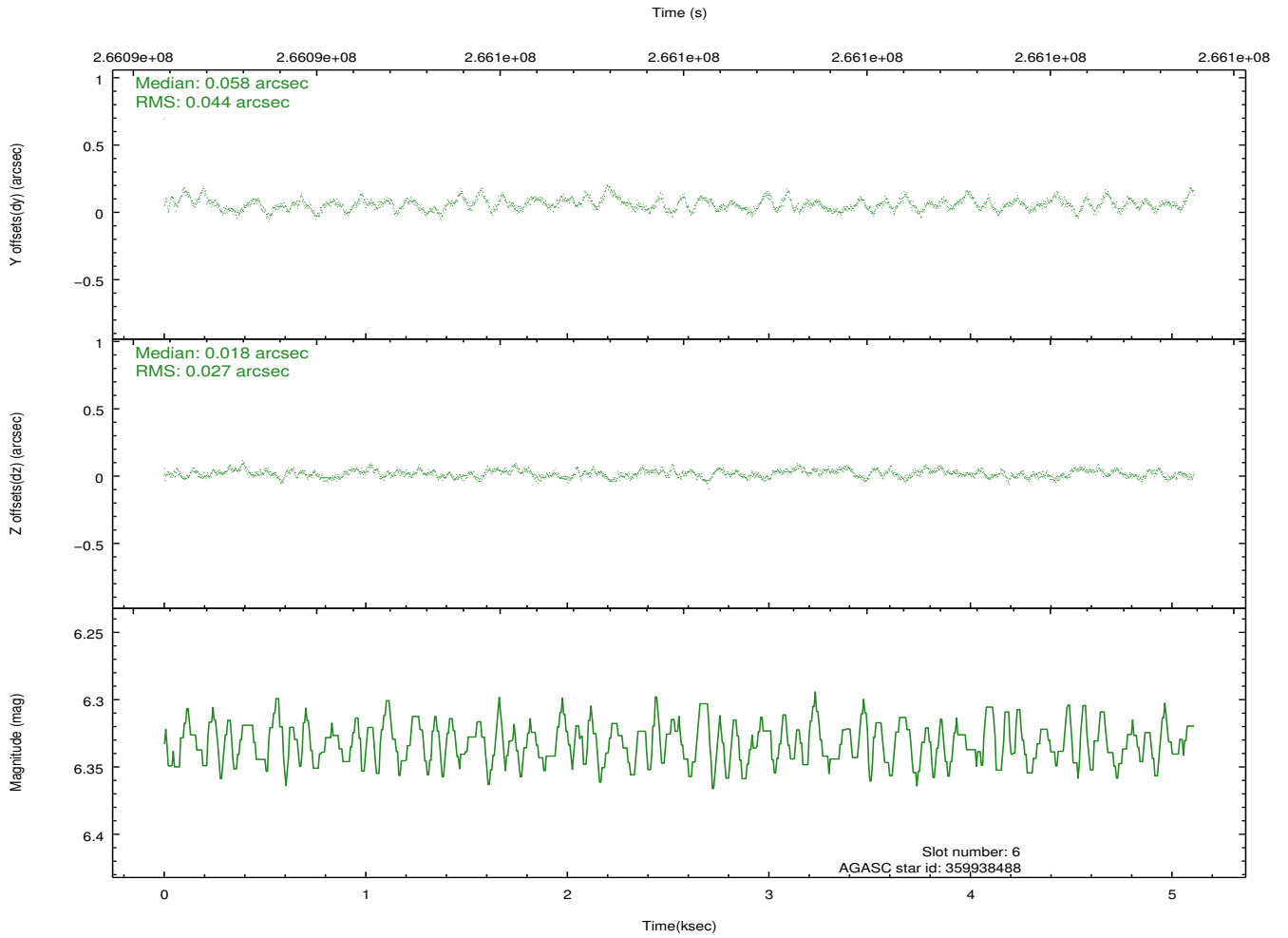
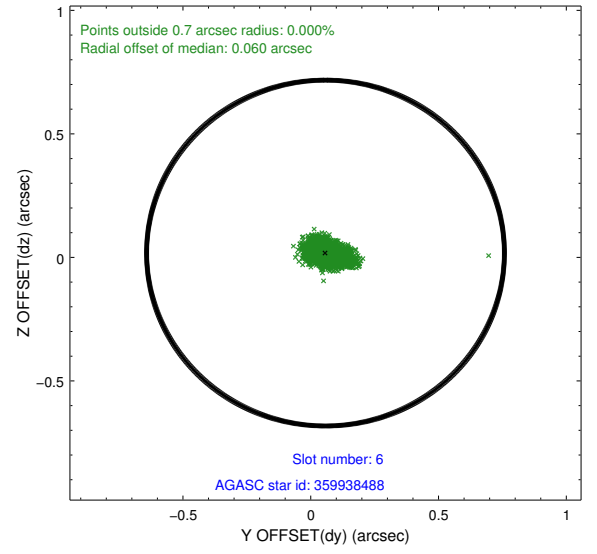
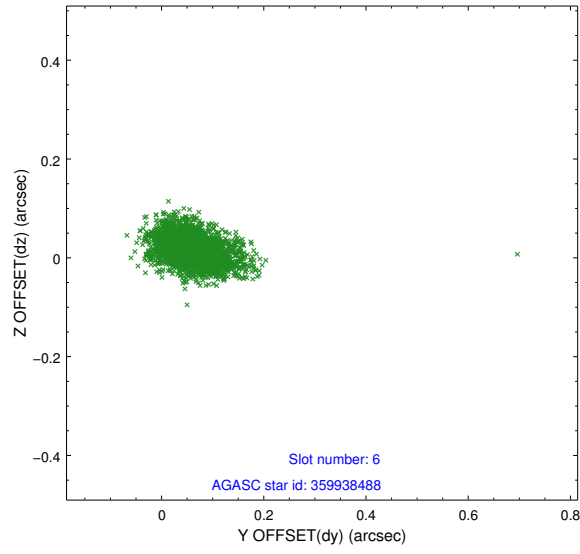
## 2.4.2 Slot 4



### 2.4.3 Slot 5

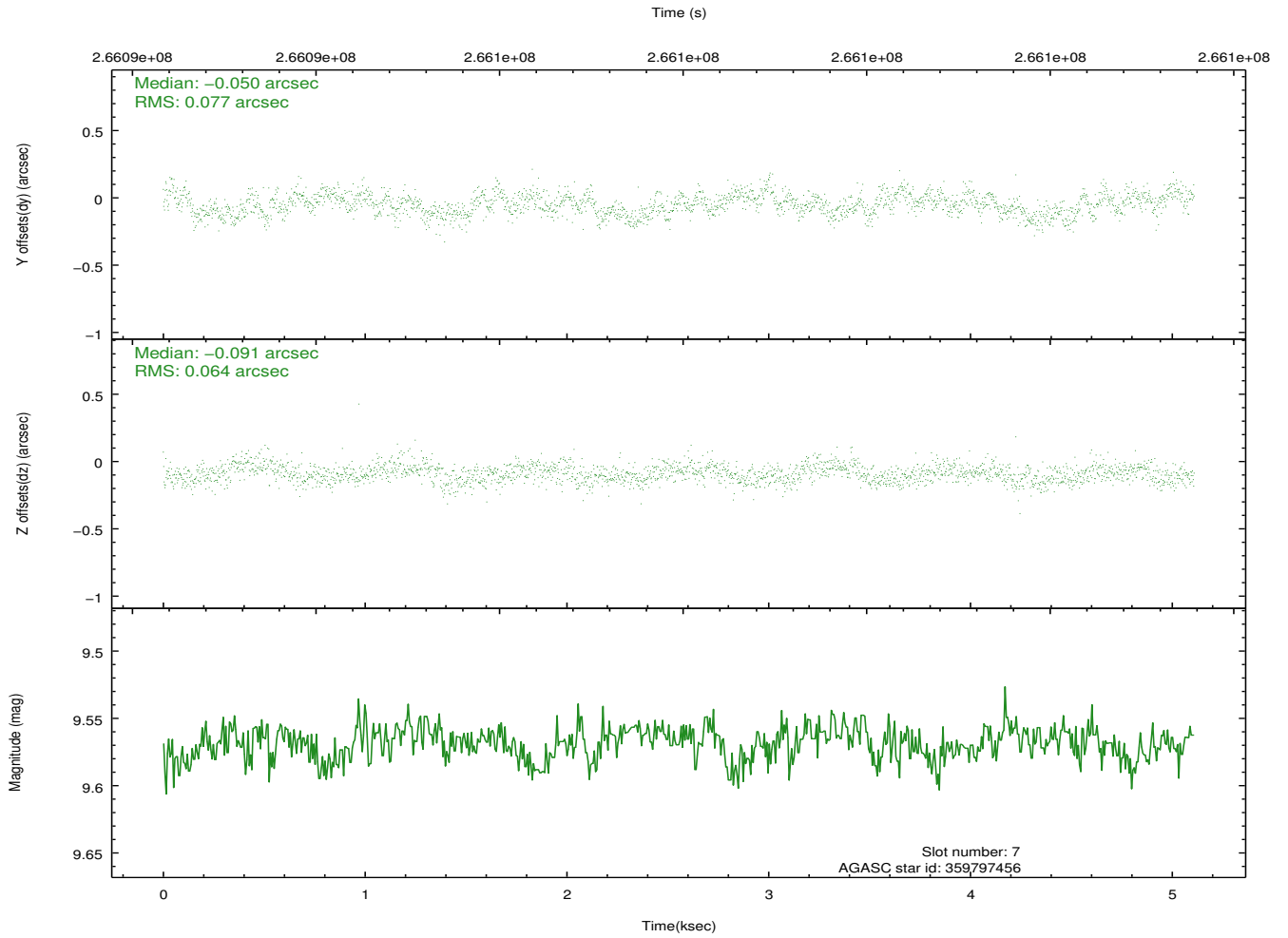
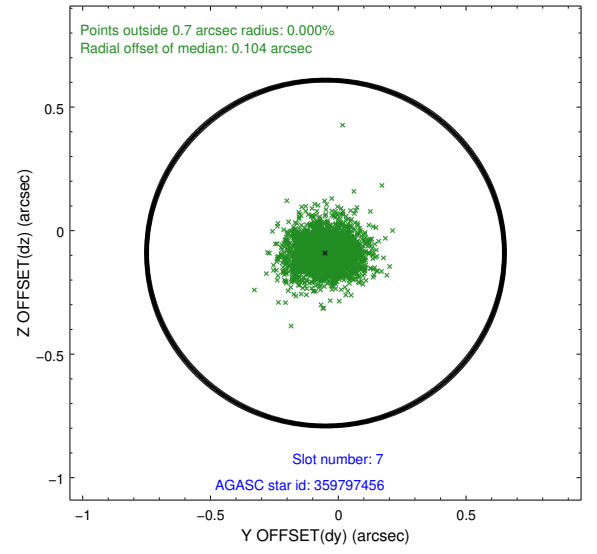
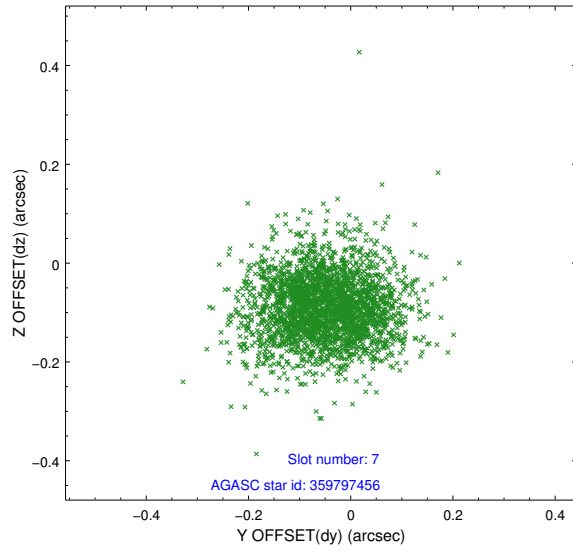


## 2.4.4 Slot 6



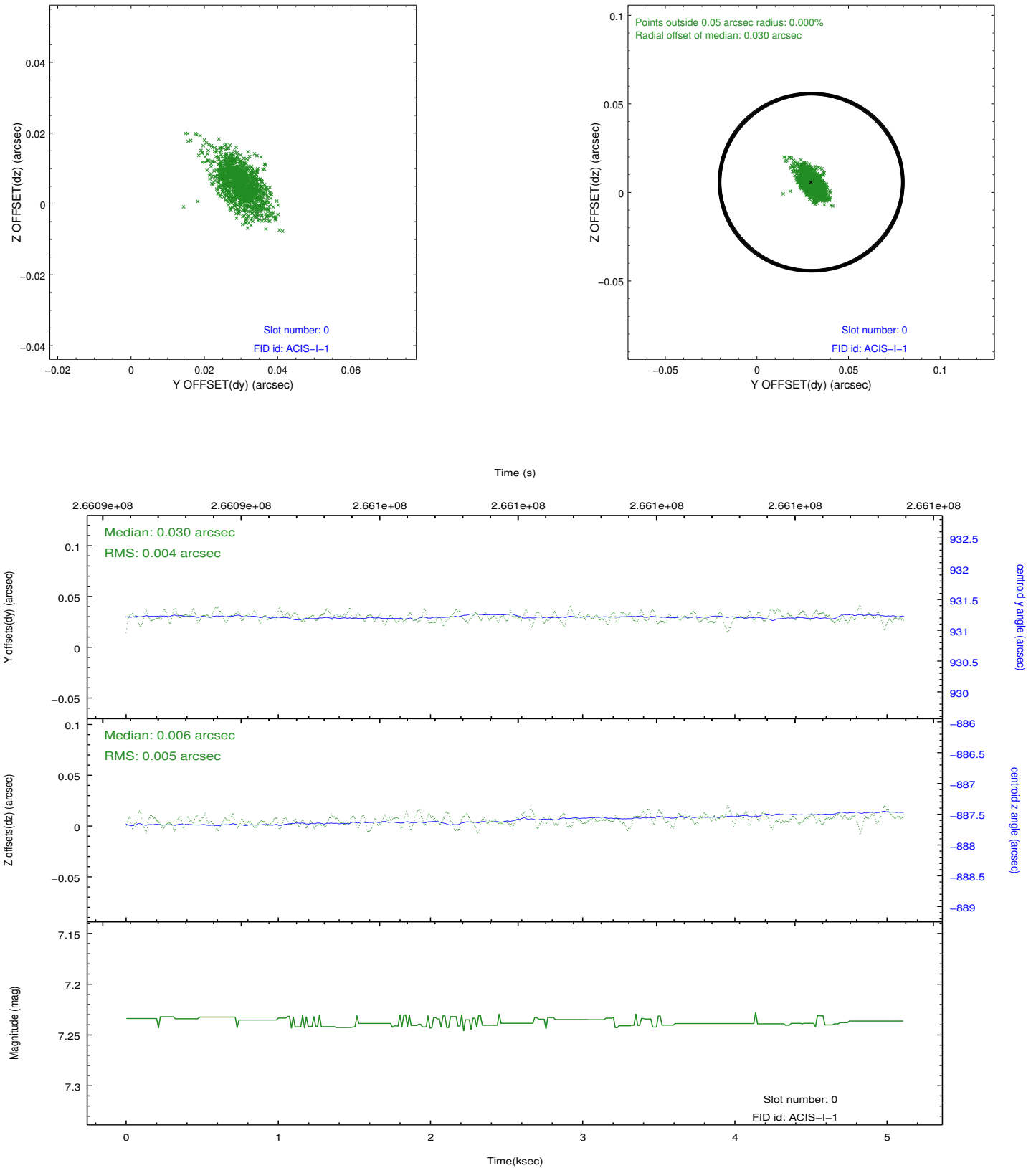


## 2.4.5 Slot 7

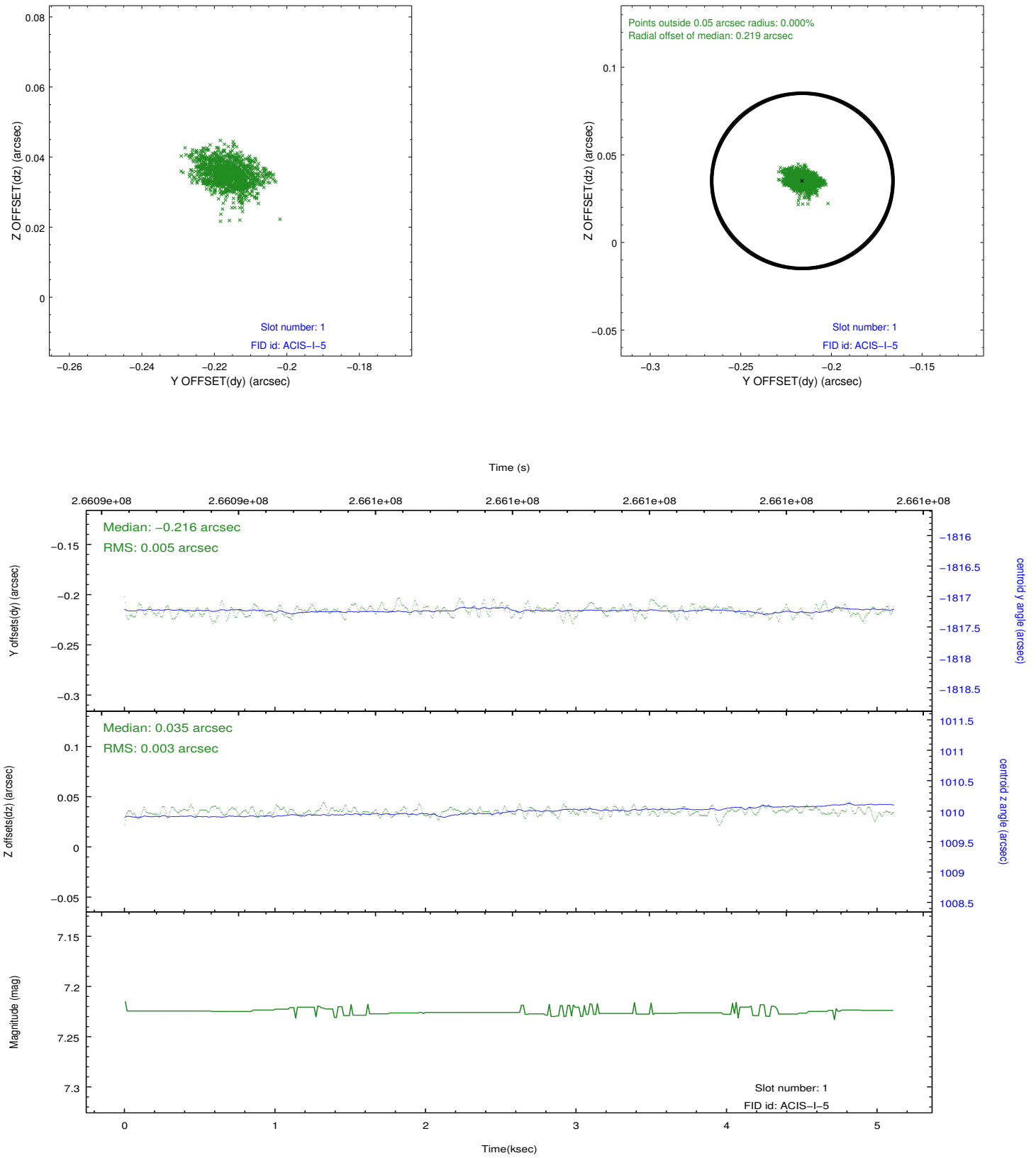


## 2.5 FID Slots

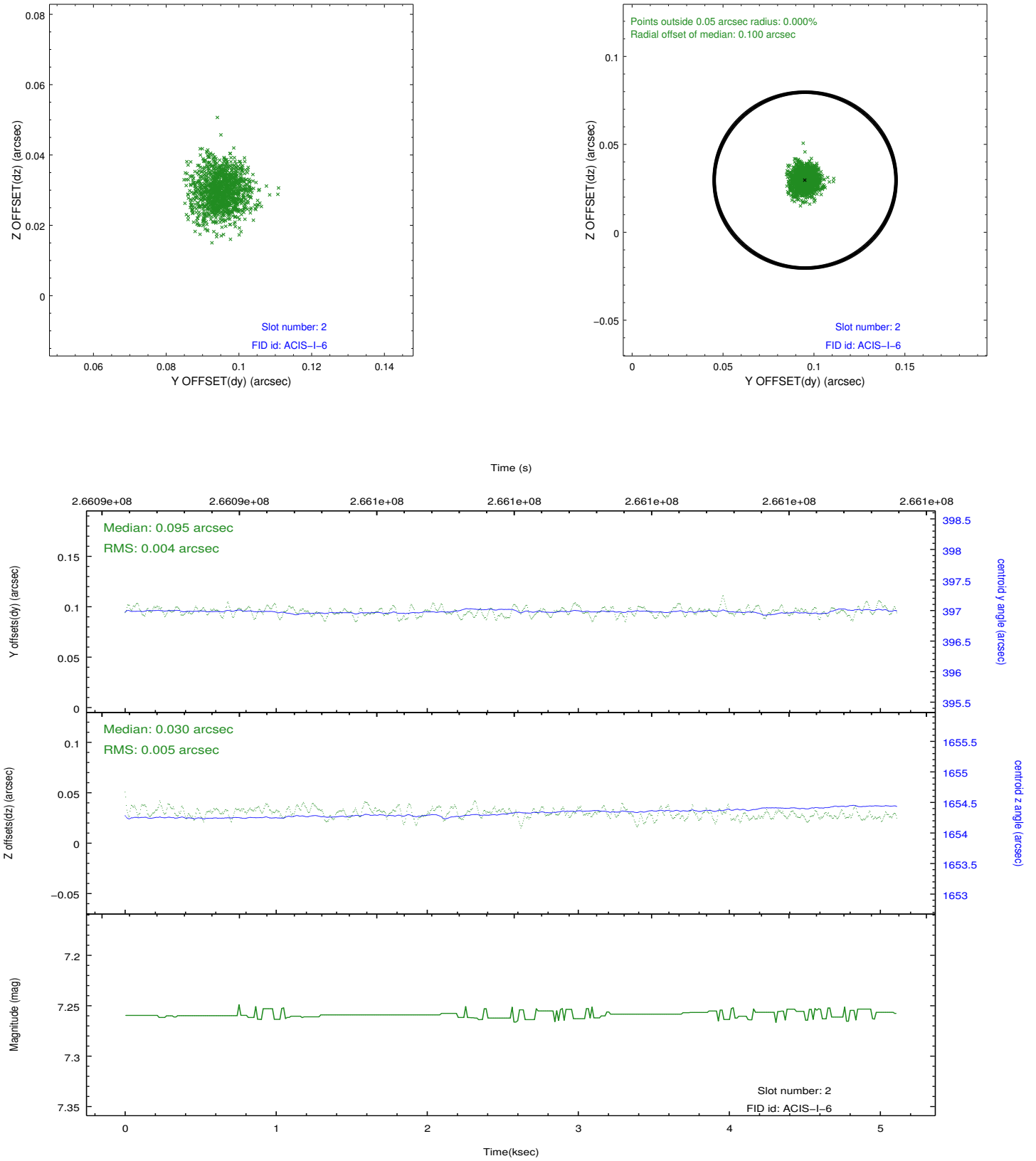
### 2.5.1 Slot 0



## 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)	2012.04.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.10259999

## A.2 Comments

Bias files for this observation were adversely affected by a light leak from a bright optical source. Bias maps for CCDs = 0 and 2 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small ( $\sim 20$  eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias maps for CCDs = 0 and 2 have been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:

CCD 0:

(335.72017,36.42964), (335.56207,36.37255), (335.57037,36.35777), (335.72845,36.41485)

CCD 2:

(335.55845,36.37126), (335.40093,36.31334), (335.40548,36.30527), (335.56298,36.36318)

Please note that analyses of data at or very near the event threshold will be problematic because some events that should have been telemetered will not have been due to the light leak. There is no way to fix this problem. As long as lowest-energy data are ignored for spectral analyses this issue should not be a problem.