

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13974 - L2 Version 2  
Chandra X-Ray Center

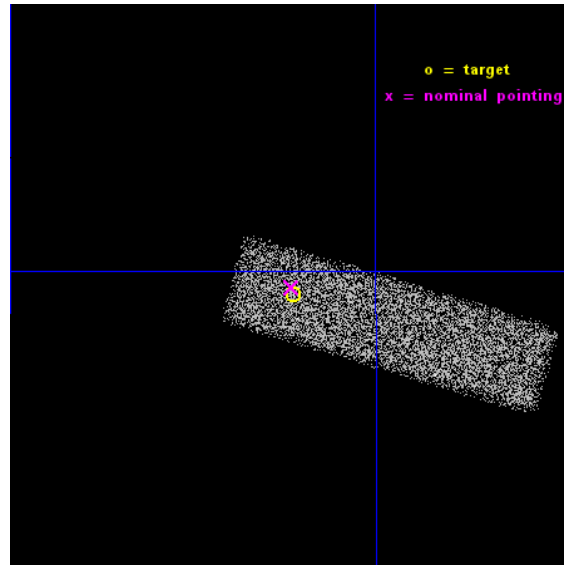
L2 Processing Date : Nov 27 2014

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# 1 Front

seq_num	702695	Sequence number
obs_id	13974	Observation id
title	Black Holes at the Centers of Nearby Dwarf Galaxies	Proposal title
observer	Dr. Edward Moran	Principal investigator
object	J1151+5009	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	177.805833	Observer's specified target RA [deg]
dec_targ	50.156889	Observer's specified target Dec [deg]
ra_nom	177.8071513872	Nominal RA [deg]
dec_nom	50.159818924583	Nominal Dec [deg]
roll_nom	16.034109166332	Nominal Roll [deg]
revision	2	Processing version of data
ontime	14851.937275827	Sum of GTIs [s]
livetime	14127.211334374	Livetime [s]
ontime7	14851.937275827	Sum of GTIs [s]
l2events	12795	Number of level 2 events

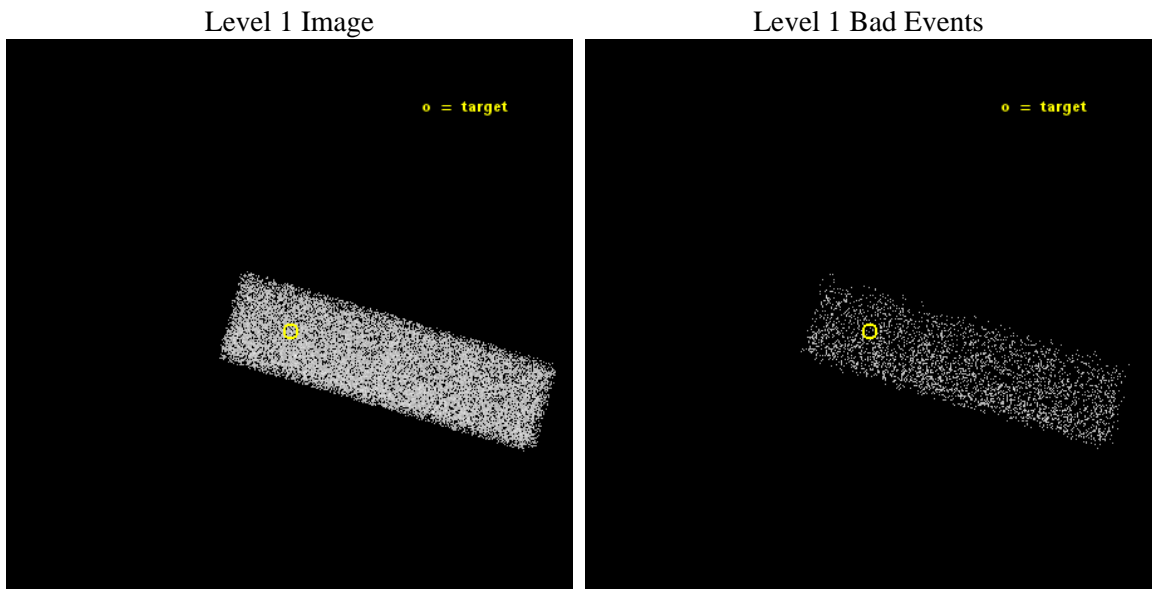




## 2 OBI

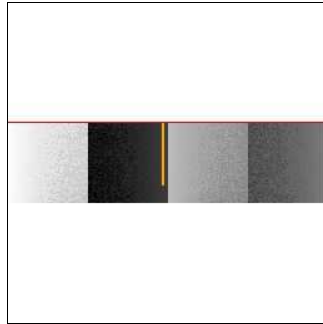
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	14851.937275827	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime7	14851.937275827	Sum of GTIs [s]
date	2014-11-27T22:46:54	Date and time of file creation	l1events	27075	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	27075
rejected events	13842
rejected %	51%

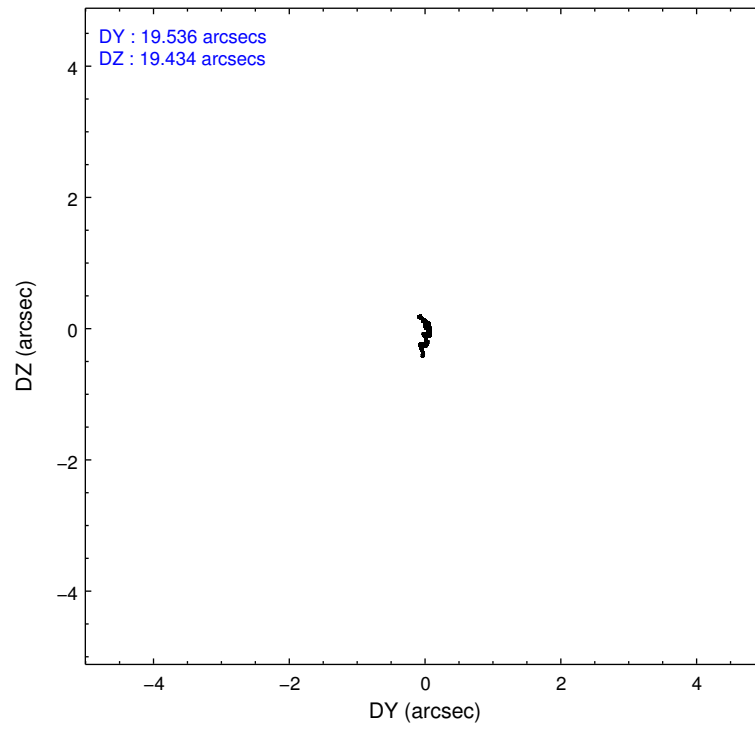
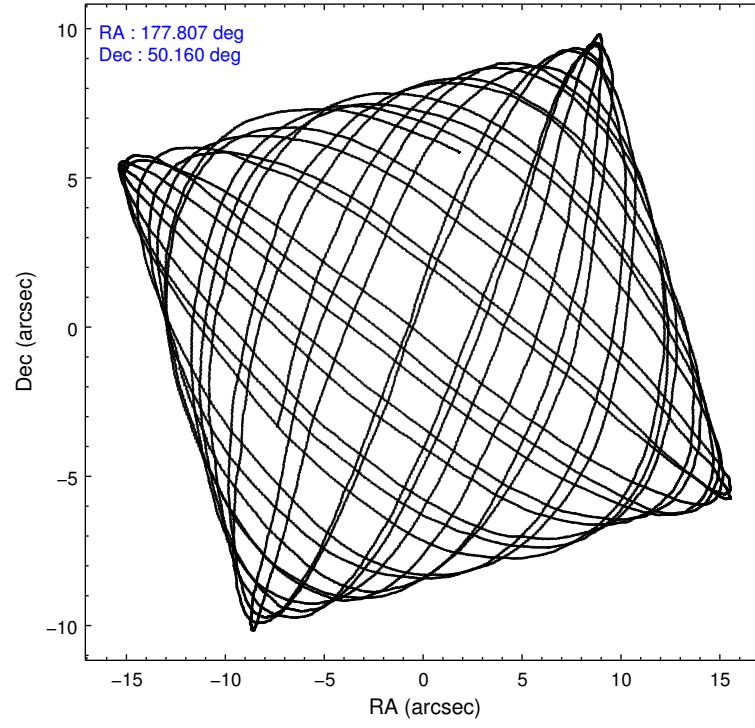
	<b>ccd 7</b>
grade 0 events	1402
	5%
grade 1 events	42
	0%
grade 2 events	2736
	10%
grade 3 events	1480
	5%
grade 4 events	1433
	5%
grade 5 events	2829
	10%
grade 6 events	6184
	22%
grade 7 events	10969
	40%

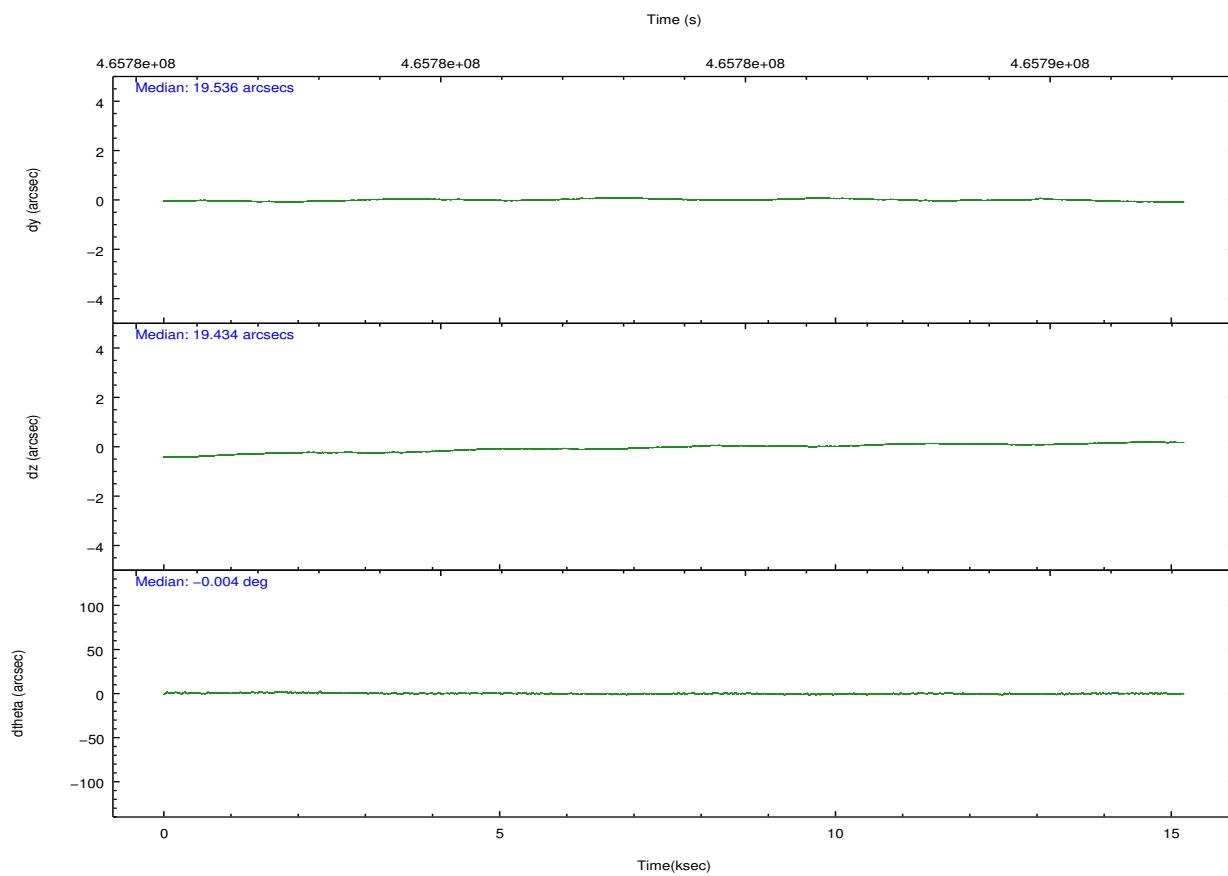
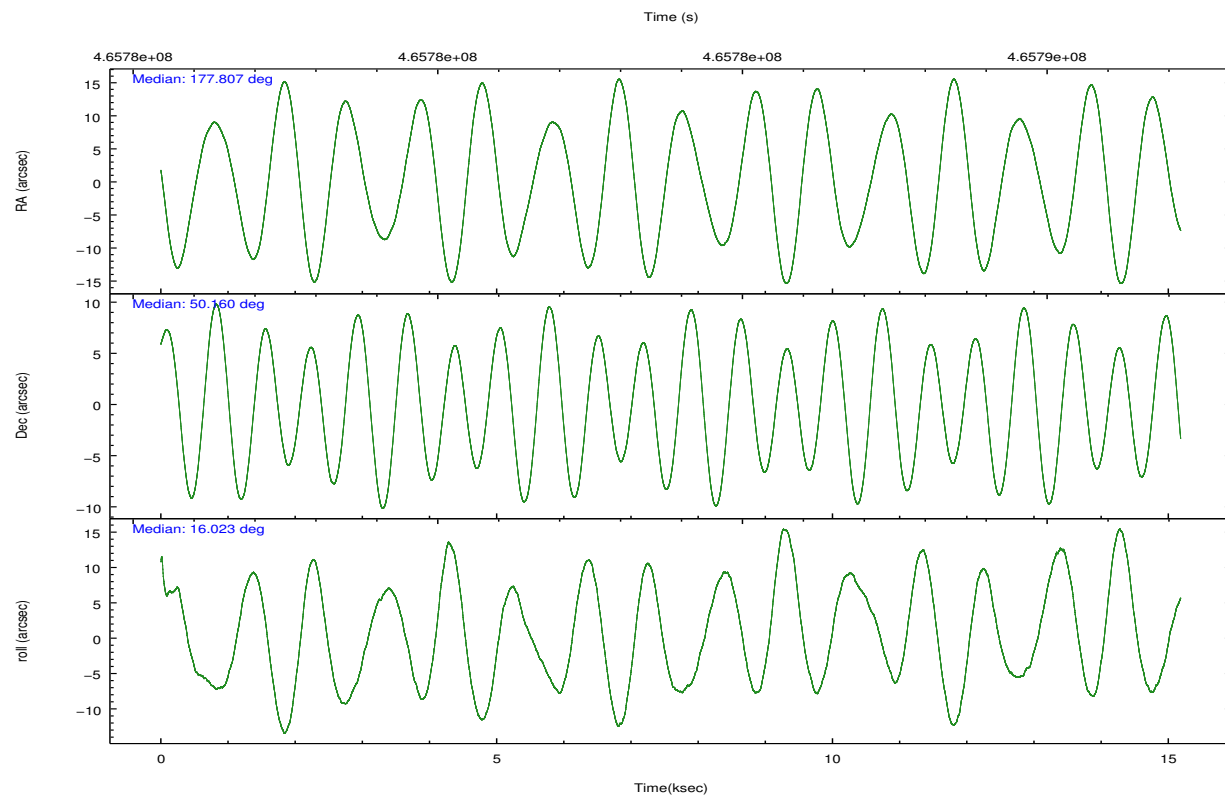
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-7	ACIS-7
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	177.777978	177.8071513872003
[deg] Pointing Dec	50.139844	50.15981892458326
[deg] Pointing Roll	15.899878	16.03410916633231
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.145094680475
[mm] SIM translation stage offset	0	0.01257209746719923
[s] Observation start time (MET)	465776409.184000	465775881.1821
Observation start date	2012-10-04T22:19:02	2012-10-04T22:11:21
[s] Observation end time (MET)	465791409.184000	465791849.14546
Observation end date	2012-10-05T02:29:02	2012-10-05T02:37:29
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/4
Subarray start row	385	385
Subarray row count	256	256
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	0.8

## 2.3 Aspect



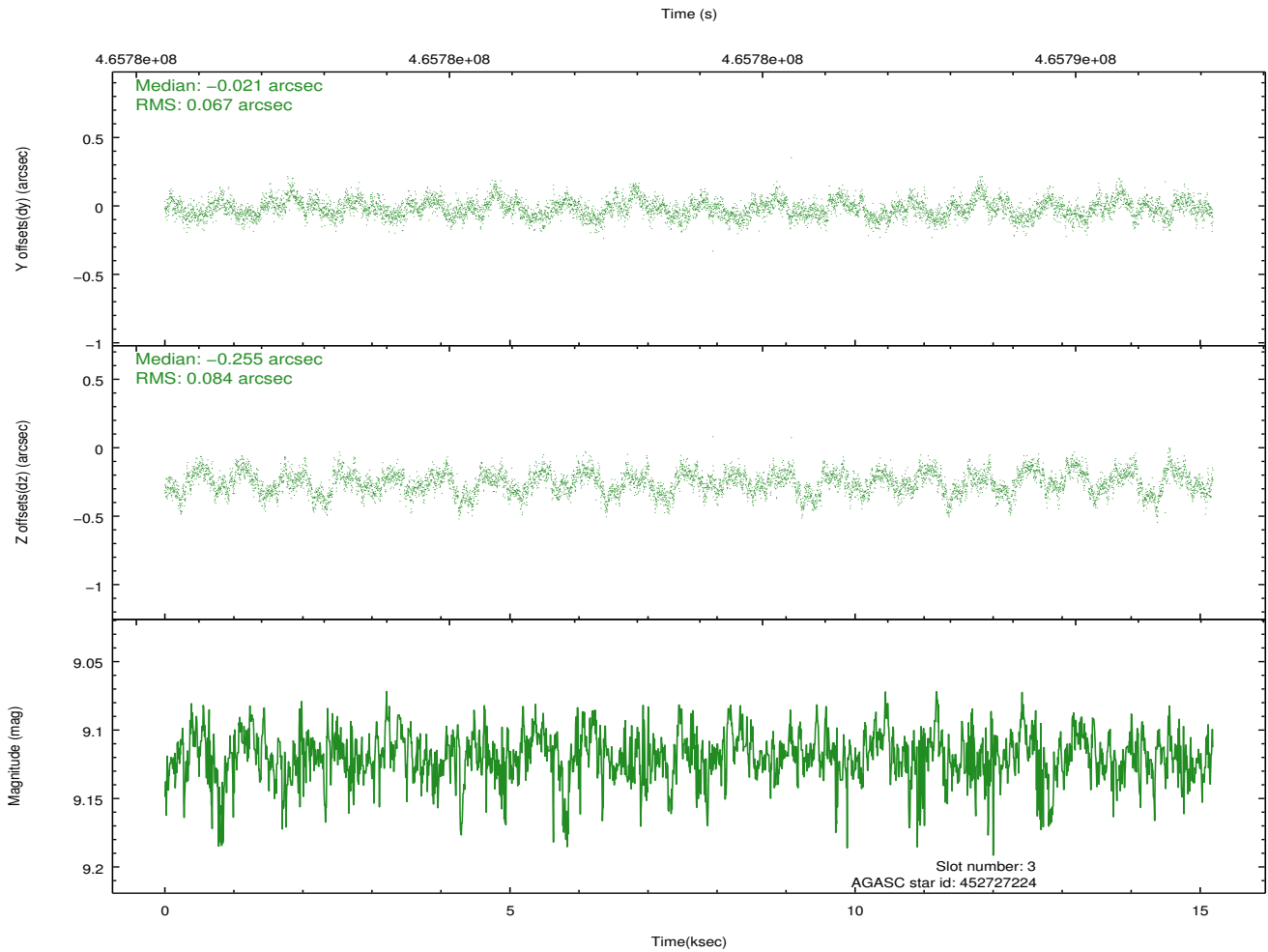
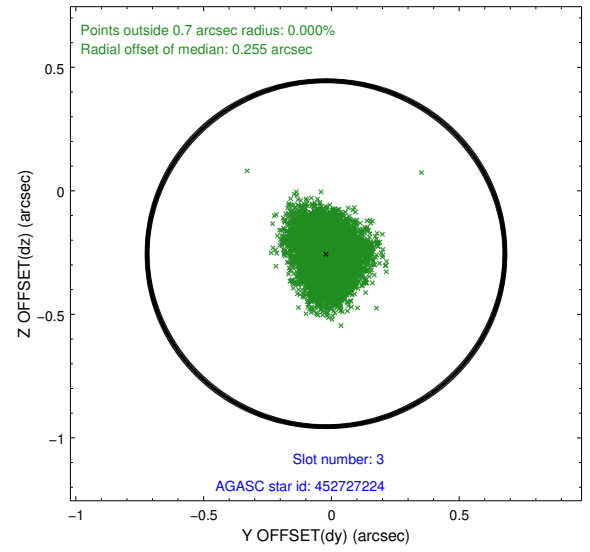
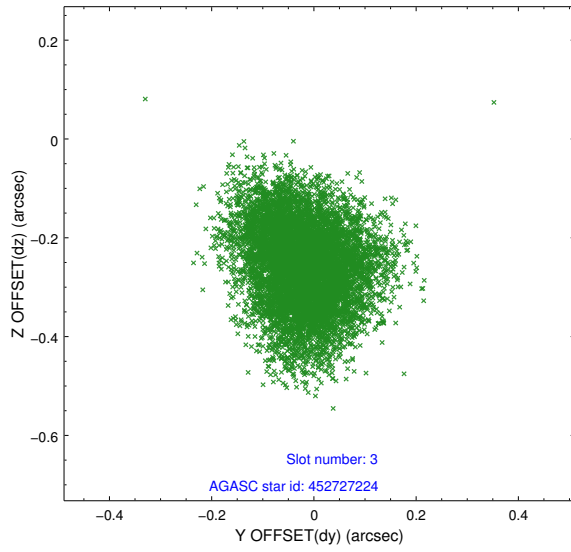


### Slot Statistics

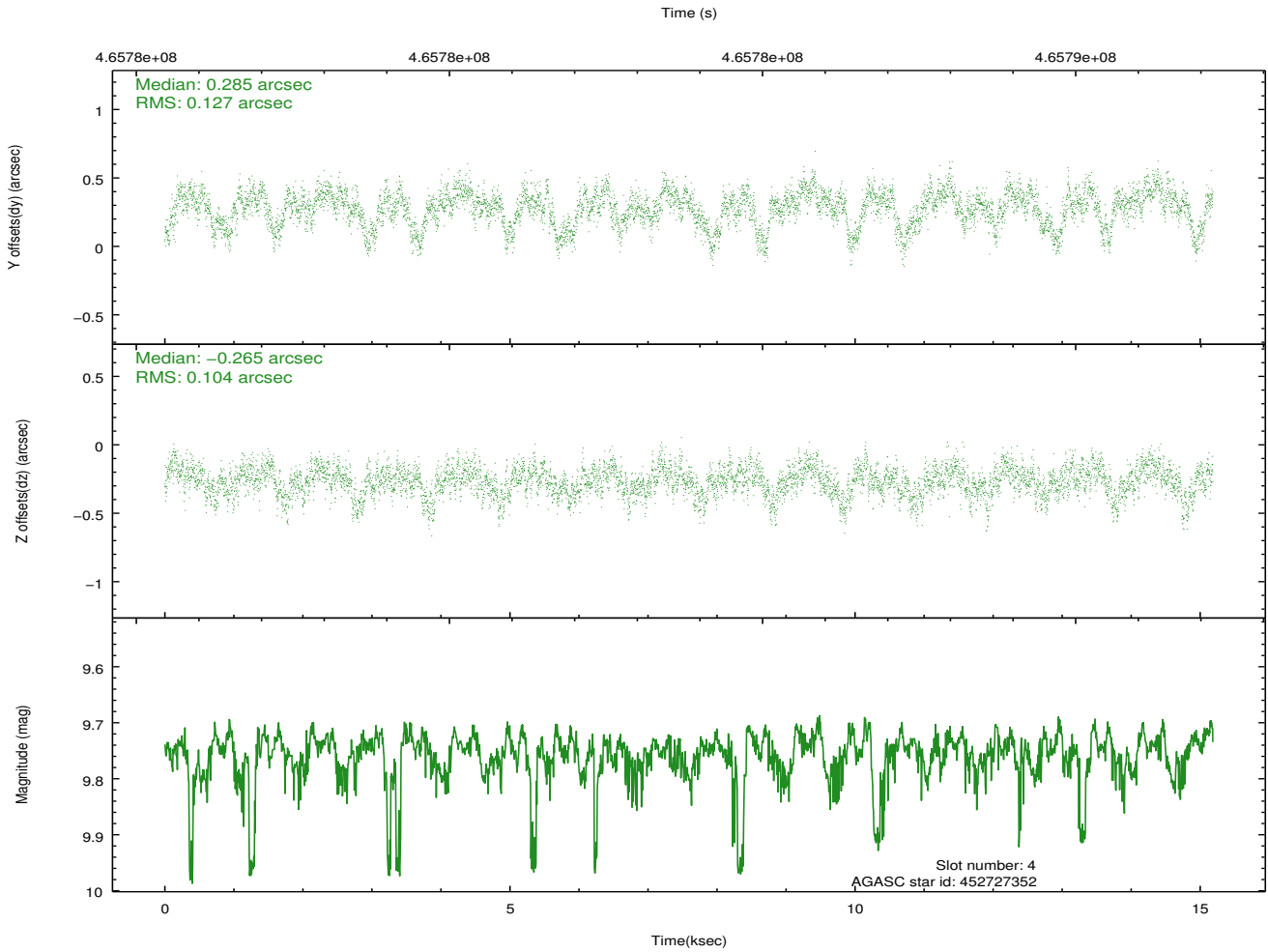
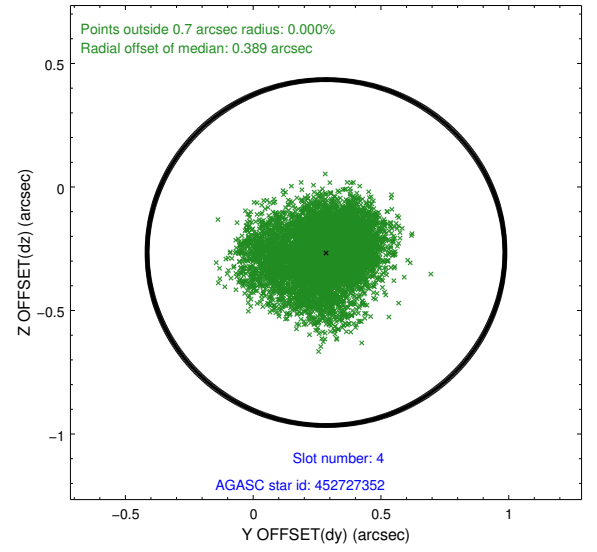
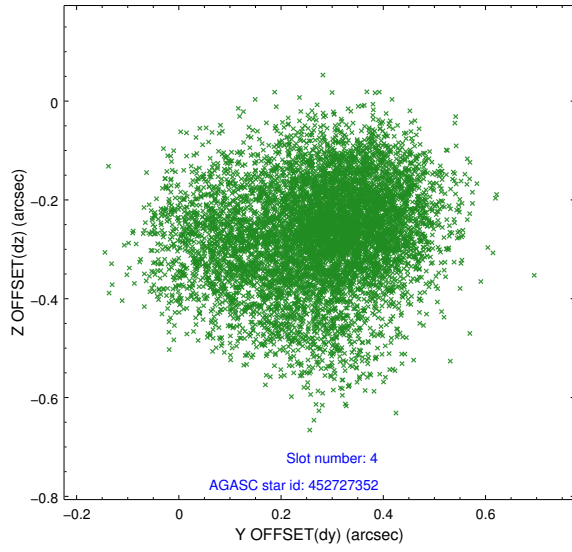
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.92	3704	-0.123	-0.033	0.010	0.020	0.000000	0.000000	-772.76	-1740.81
1	FID		ACIS-S-4	7.00	3704	0.263	0.068	0.008	0.014	0.000000	0.000000	2140.78	167.45
2	FID		ACIS-S-5	7.03	3704	-0.172	-0.026	0.011	0.023	0.000000	0.000000	-1825.26	161.39
3	GUIDE	used	452727224	9.12	7383	-0.021	-0.255	0.115	0.182	177.980948	50.241216	549.87	223.56
4	GUIDE	used	452727352	9.75	7369	0.285	-0.265	0.176	0.286	178.046876	50.618774	1063.78	1491.12
5	GUIDE	used	452731944	6.79	7408	0.030	0.030	0.104	0.165	178.059893	49.931691	423.66	-897.54
6	GUIDE	used	452736584	7.99	7407	-0.472	0.078	0.121	0.199	176.535690	50.563566	-2308.27	2267.85
7	GUIDE	used	452731232	9.64	7398	0.189	0.410	0.138	0.221	177.502586	49.389178	-1361.43	-2419.70

## 2.4 Star Slots

### 2.4.1 Slot 3

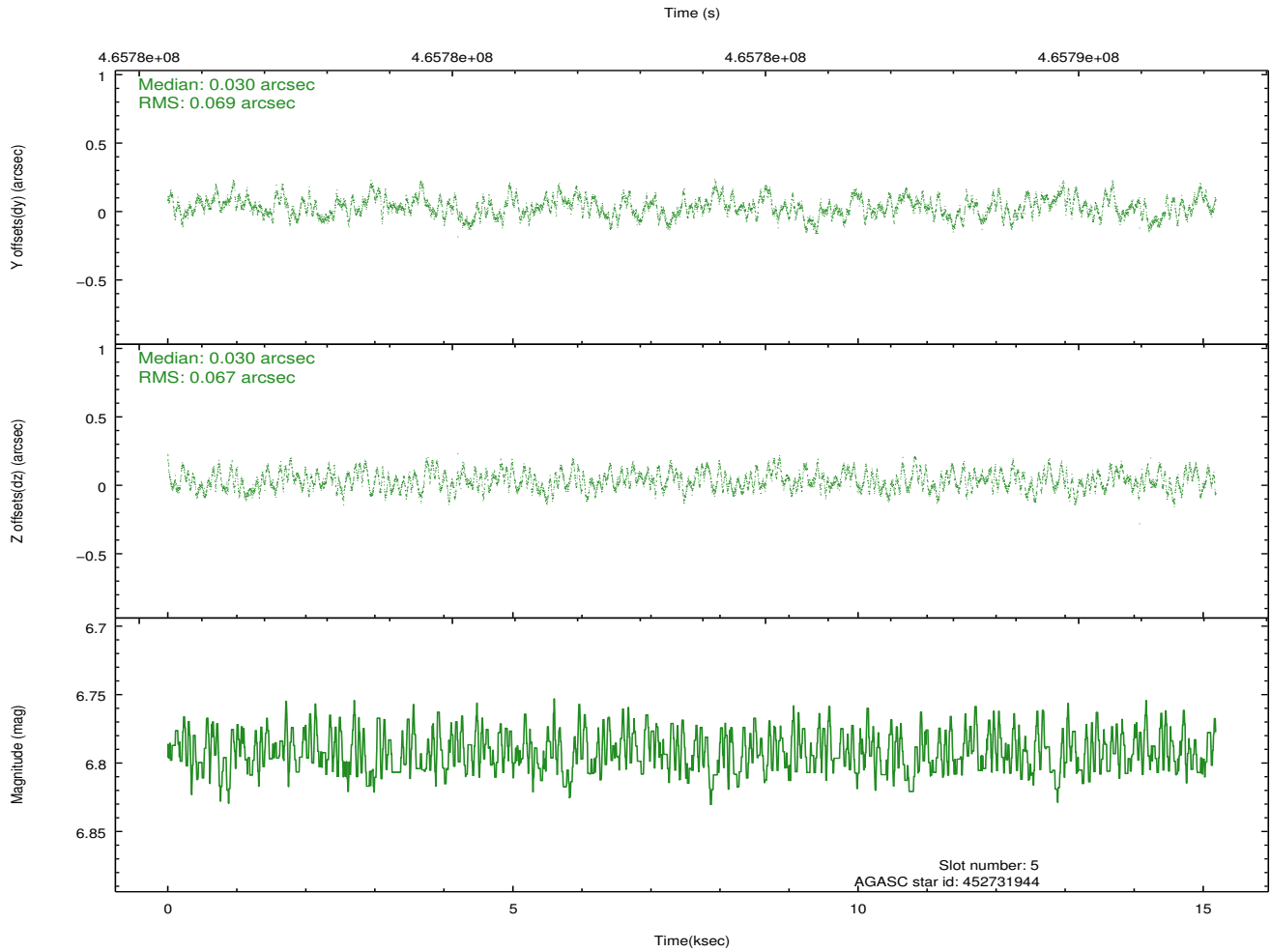
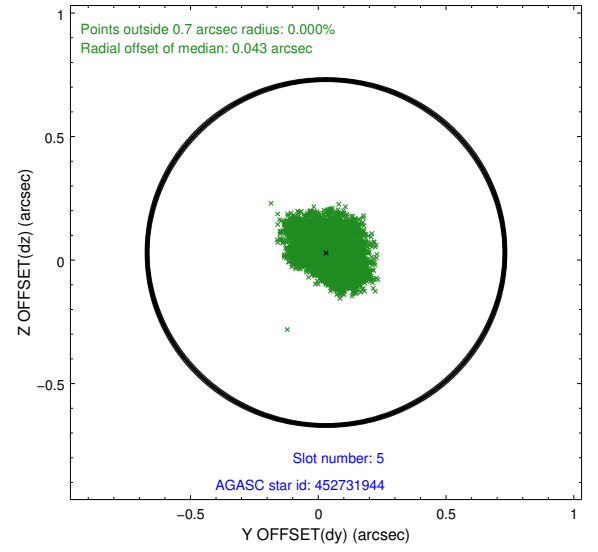
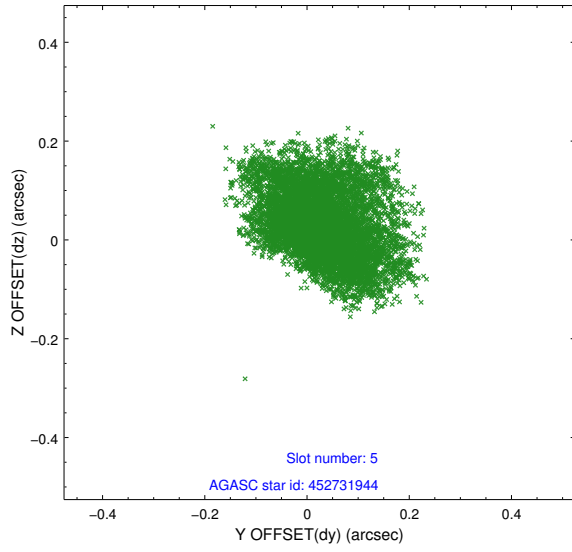


## 2.4.2 Slot 4

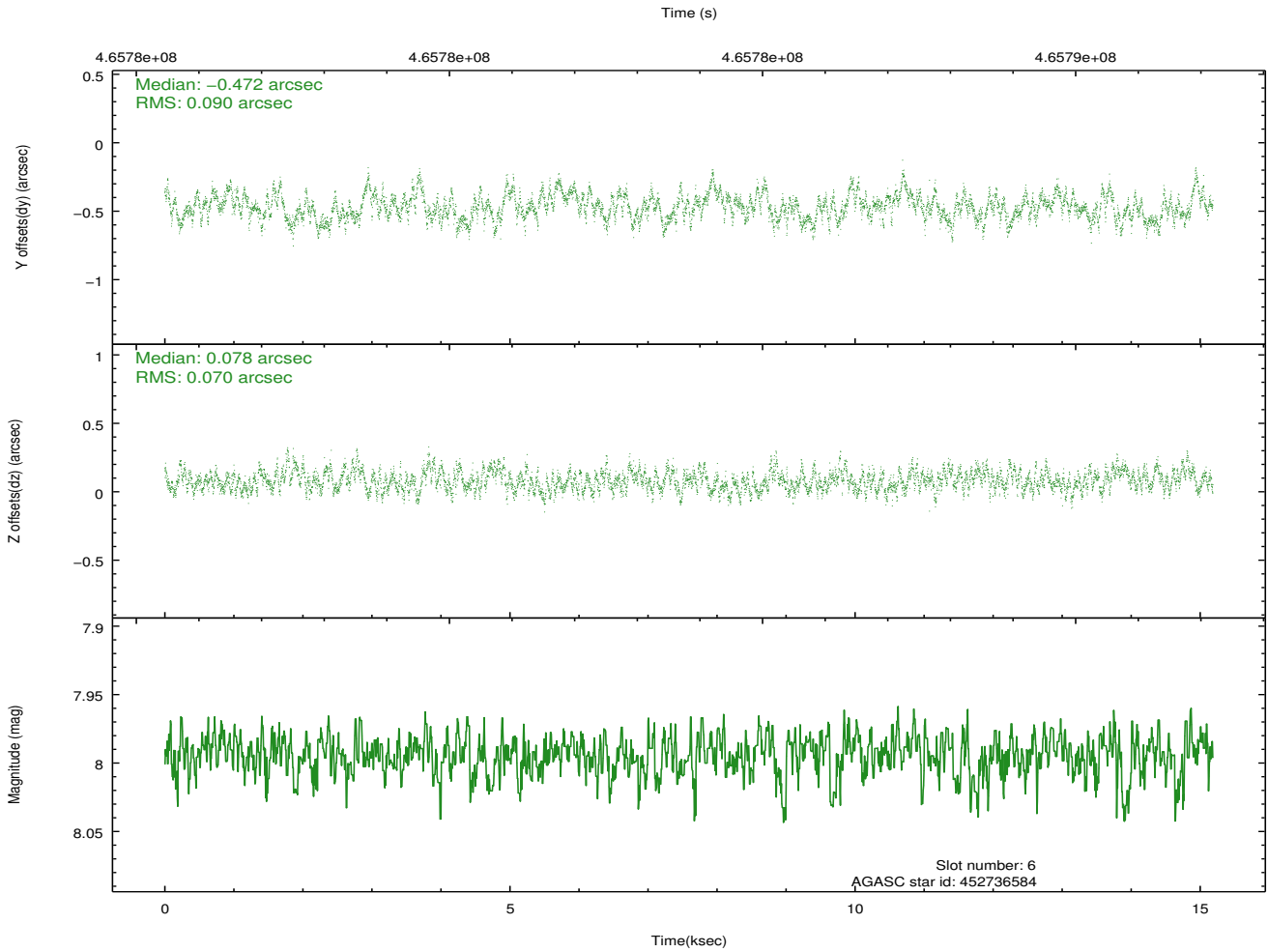
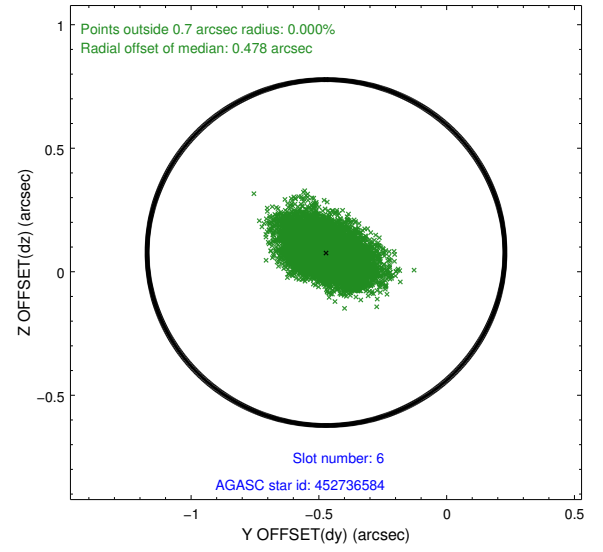
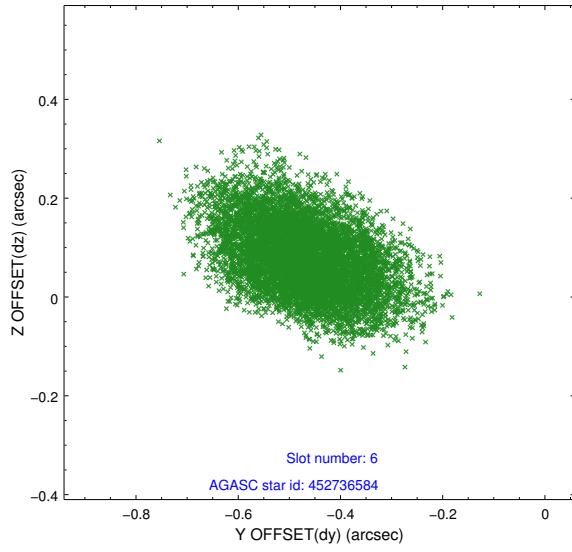




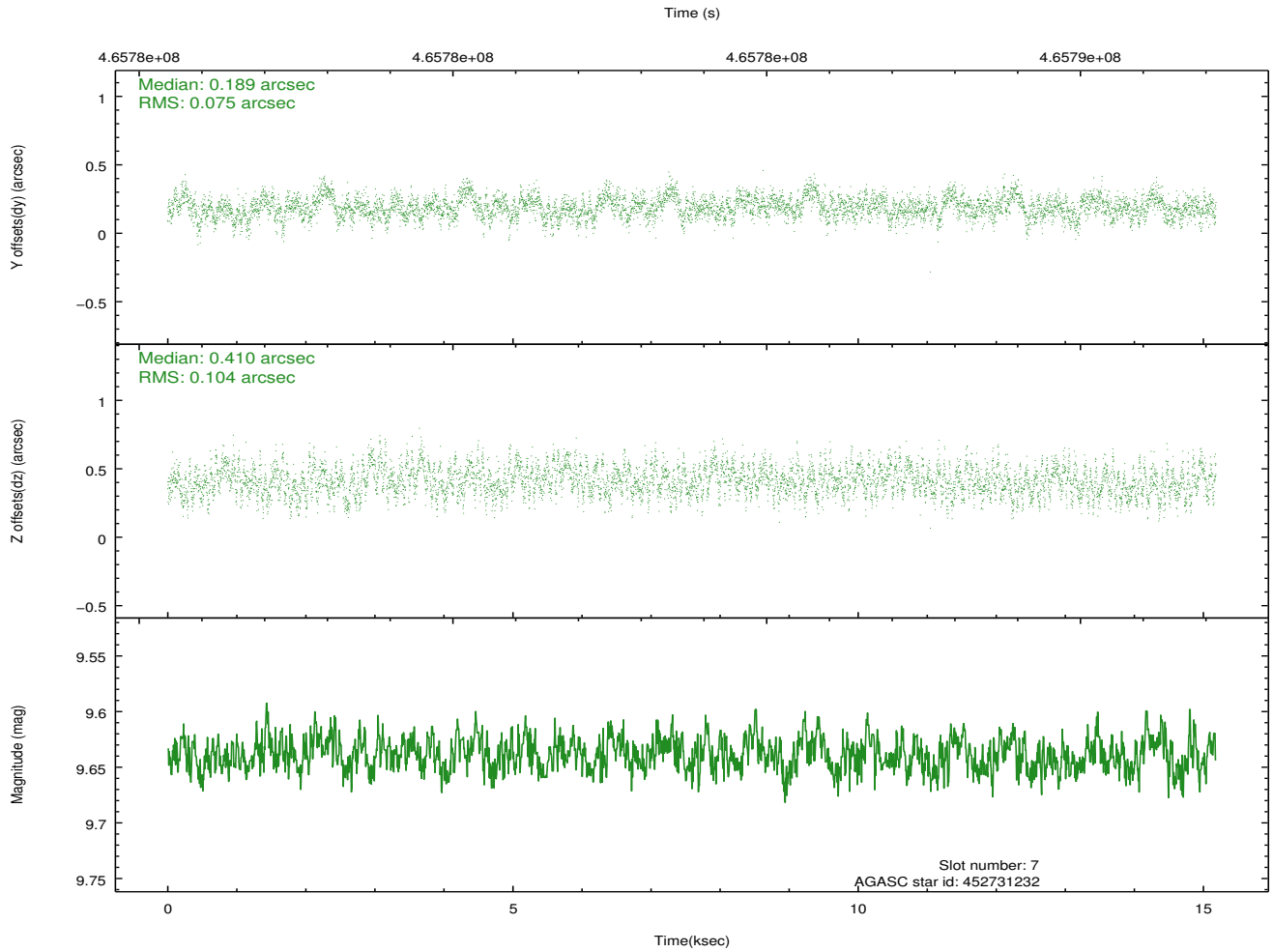
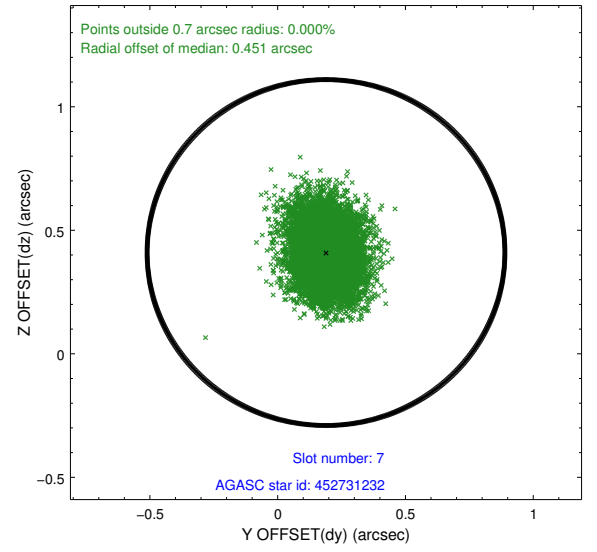
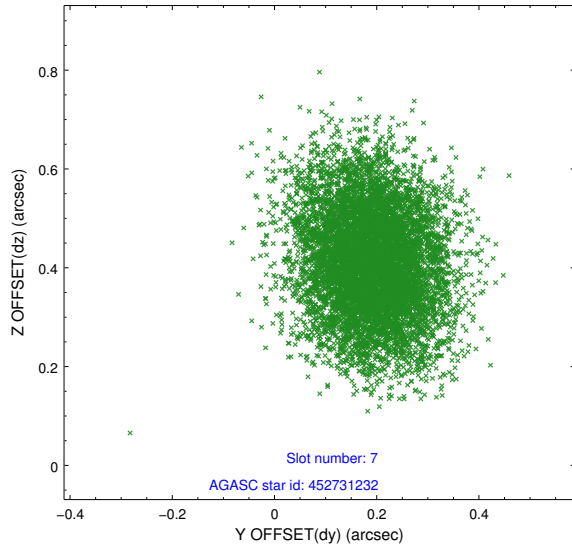
### 2.4.3 Slot 5



## 2.4.4 Slot 6

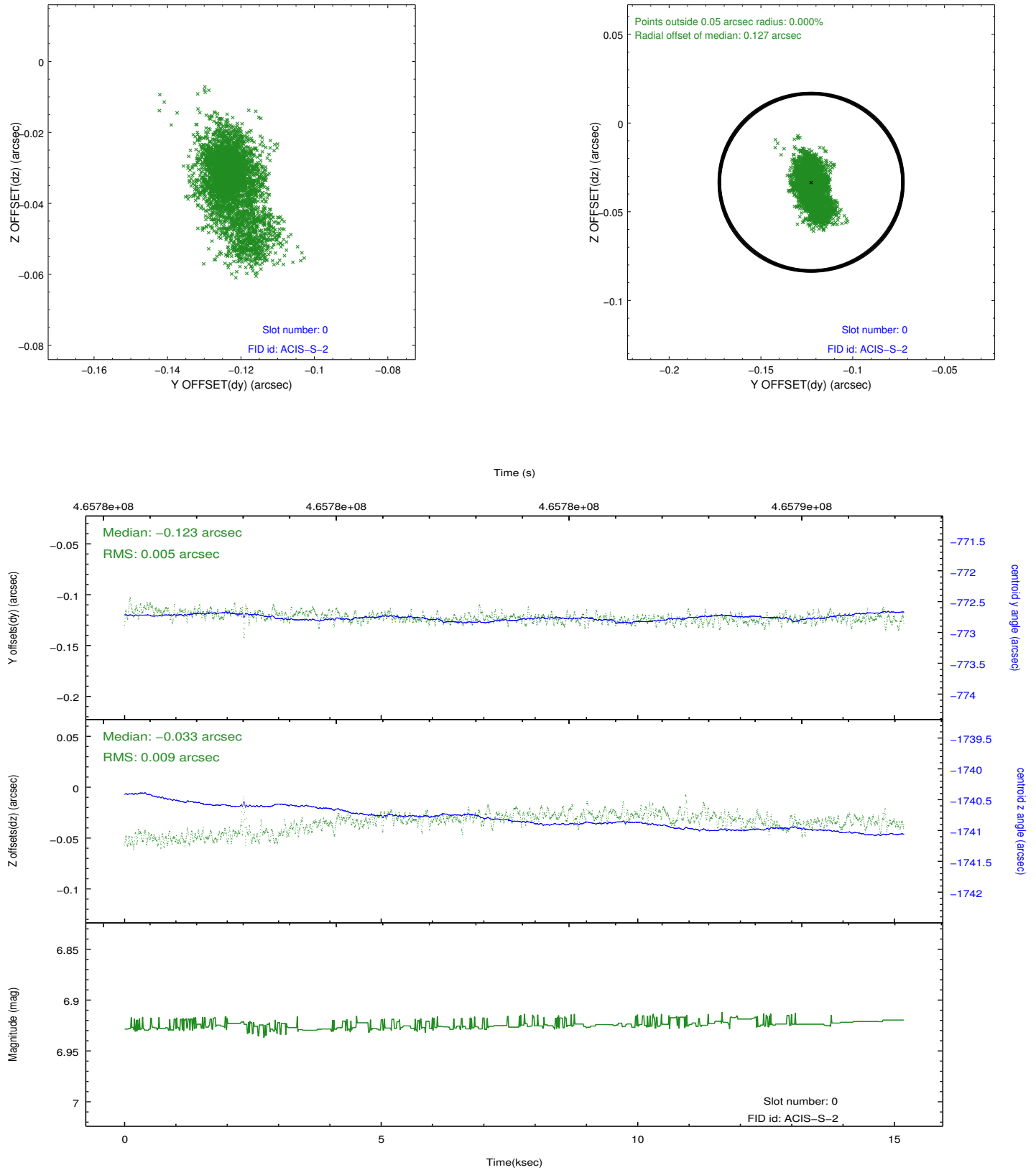


## 2.4.5 Slot 7

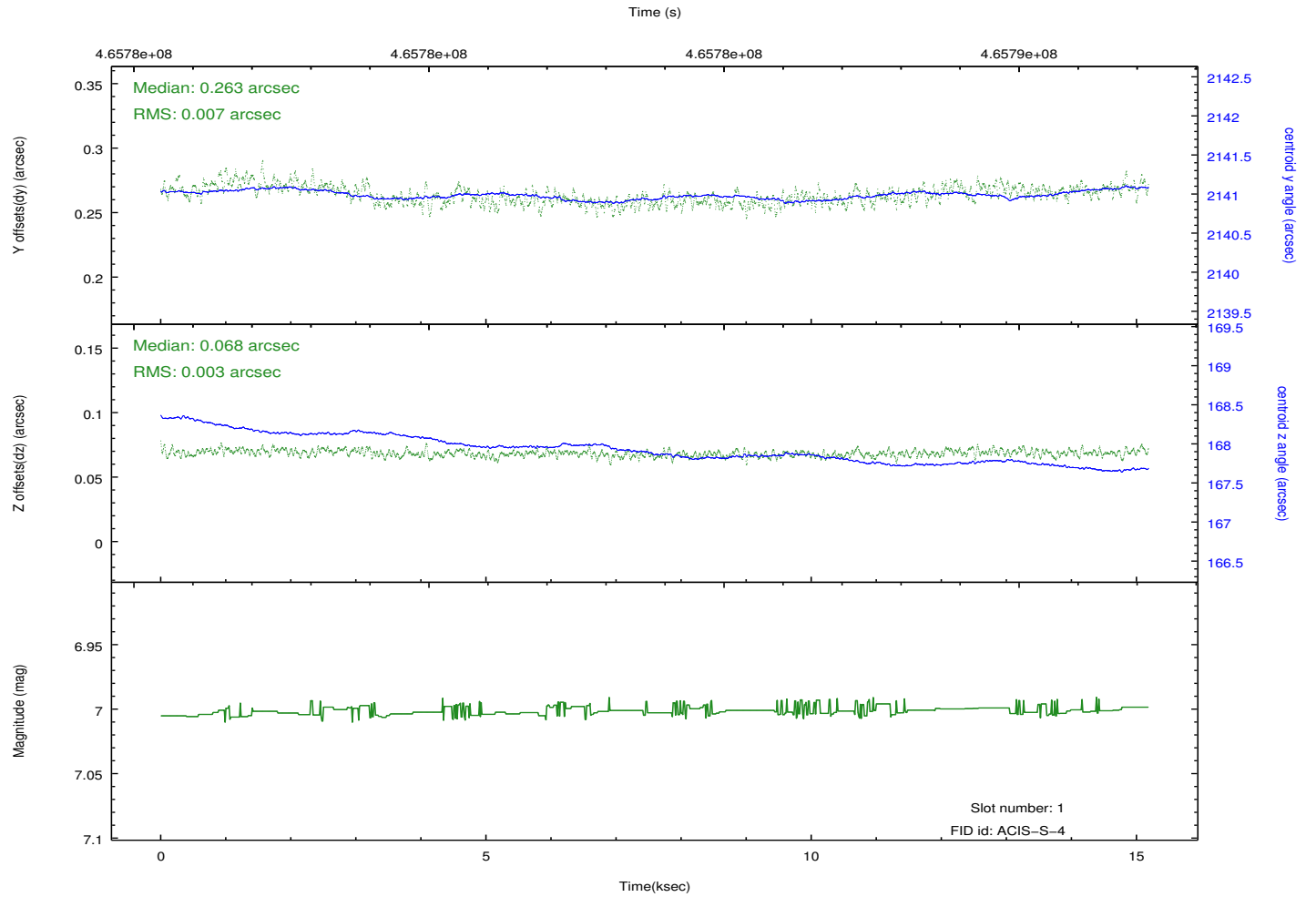
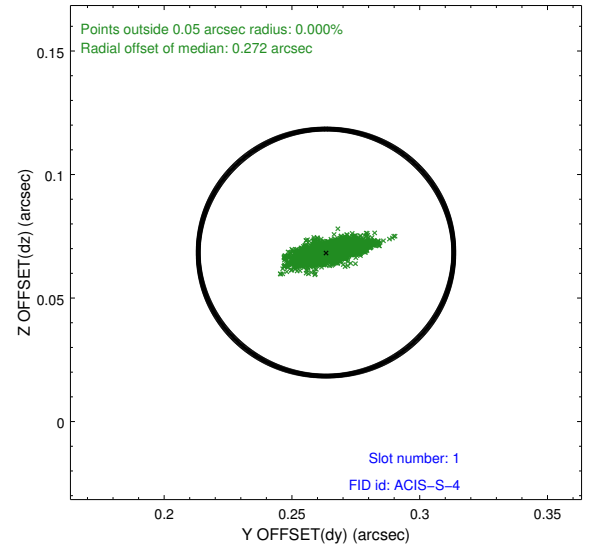
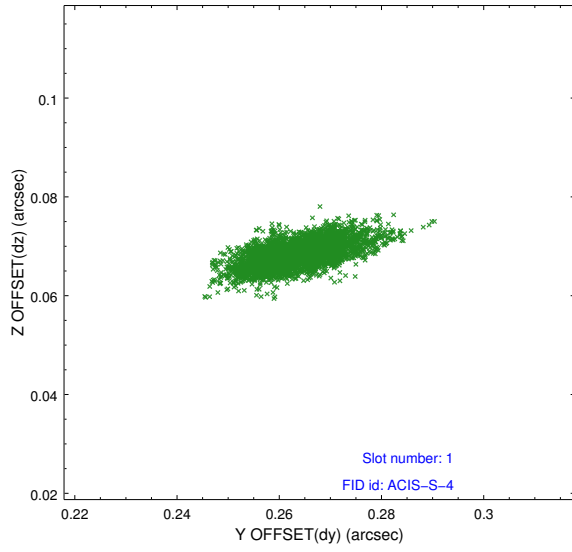


## 2.5 FID Slots

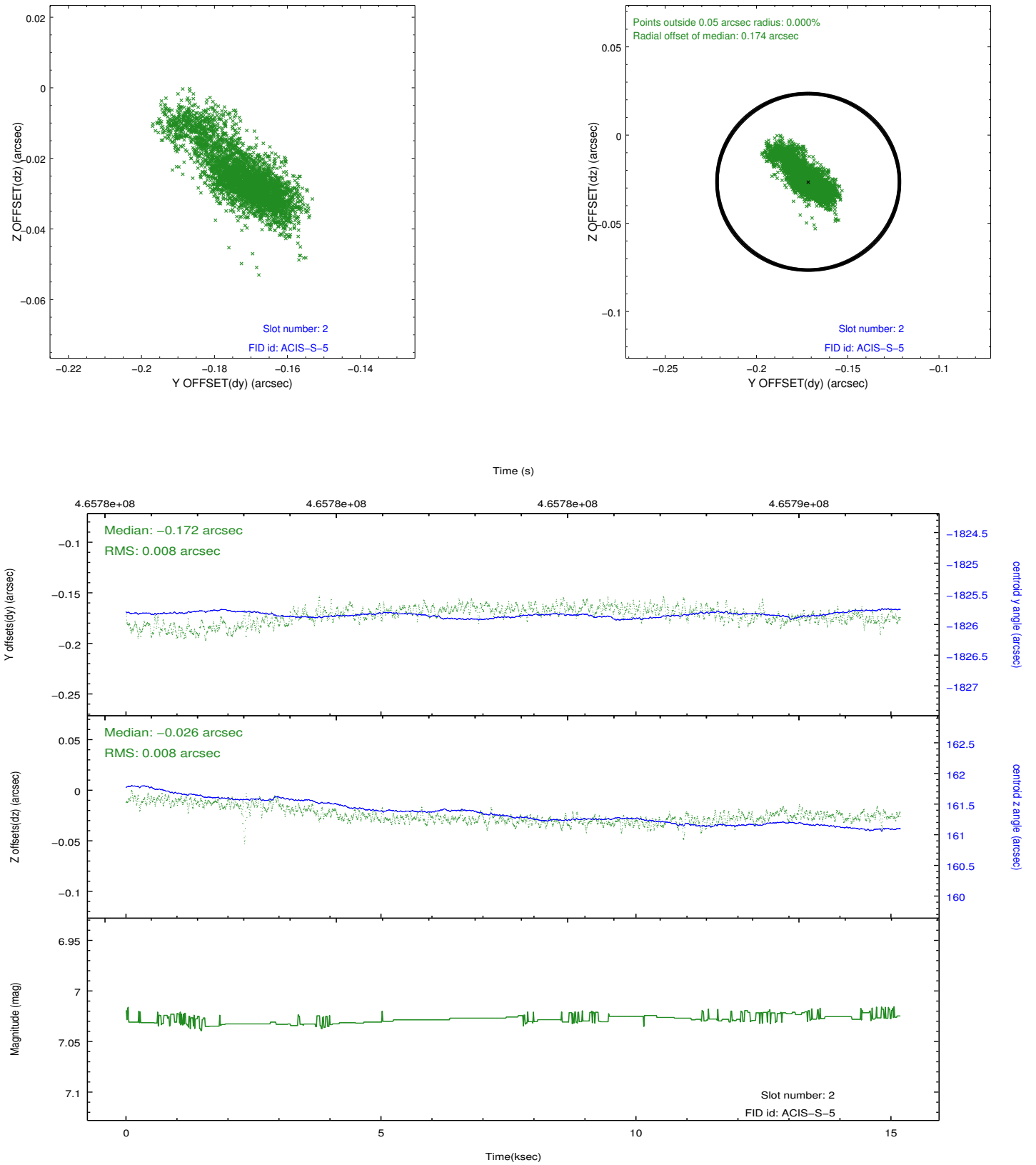
### 2.5.1 Slot 0



## 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)	2014.12.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.851937275827

## A.2 Comments

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.