

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13661 - L2 Version 2  
Chandra X-Ray Center

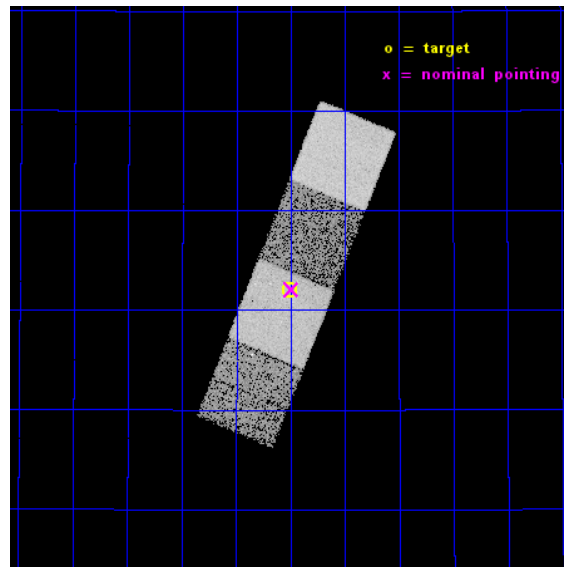
L2 Processing Date : Nov 29 2014

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# 1 Front

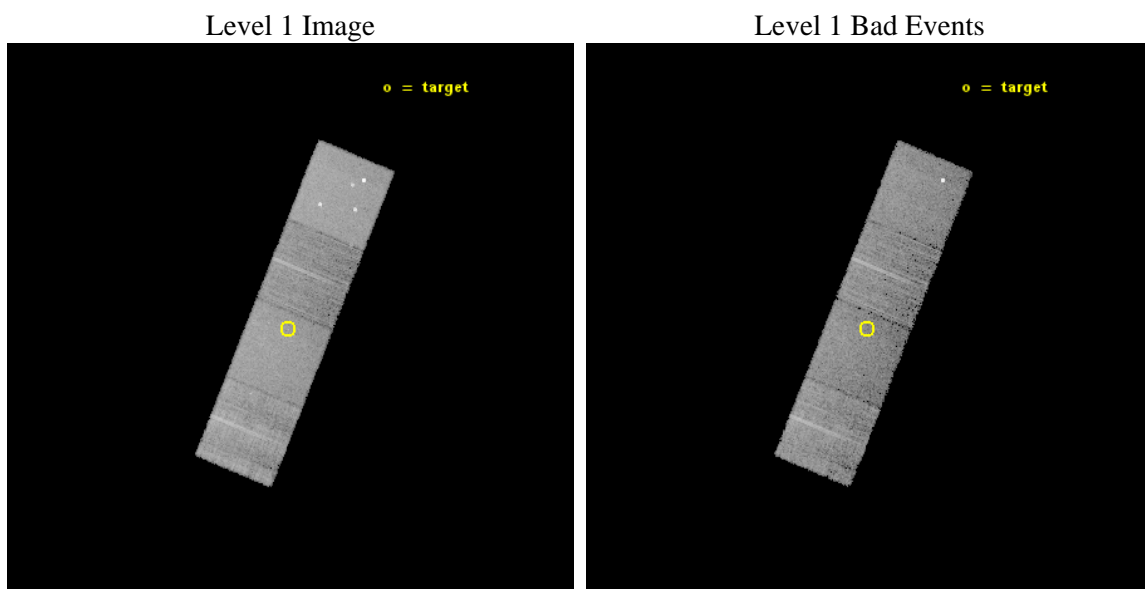
seq_num	200811	Sequence number
obs_id	13661	Observation id
title	Testing Star-Planet Interaction in Solar Analogs	Proposal title
observer	Brendan Miller	Principal investigator
object	HD 49674	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	102.877083	Observer's specified target RA [deg]
dec_targ	40.86775	Observer's specified target Dec [deg]
ra_nom	102.87310414083	Nominal RA [deg]
dec_nom	40.868291935417	Nominal Dec [deg]
roll_nom	112.1436572773	Nominal Roll [deg]
revision	2	Processing version of data
ontime	12071.40009284	Sum of GTIs [s]
livetime	11913.678363792	Livetime [s]
ontime5	12071.40009284	Sum of GTIs [s]
ontime6	12071.40009284	Sum of GTIs [s]
ontime7	12071.40009284	Sum of GTIs [s]
ontime8	12071.40009284	Sum of GTIs [s]
l2events	95333	Number of level 2 events



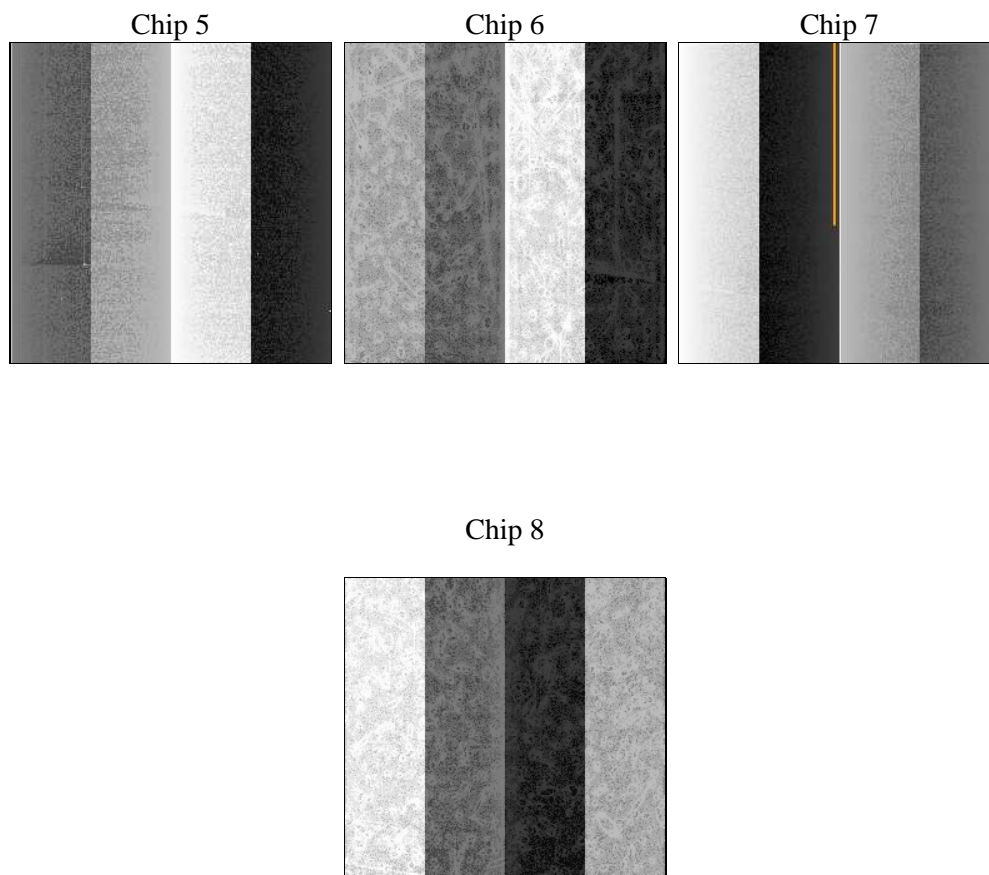
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	12000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	12071.40009284	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime5	12071.40009284	Sum of GTIs [s]
date	2014-11-30T00:31:19	Date and time of file creation	ontime6	12071.40009284	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	12071.40009284	Sum of GTIs [s]
			ontime8	12071.40009284	Sum of GTIs [s]
			l1events	334123	Number of level 1 events

### 2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	107675	59699	82323	84426
rejected events	55569	52380	46048	61457
rejected %	51%	87%	55%	72%

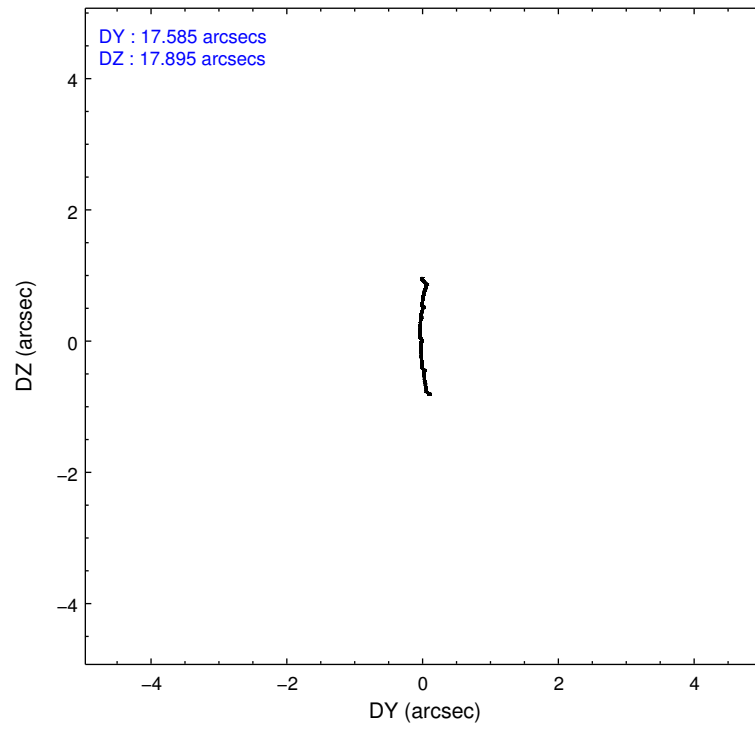
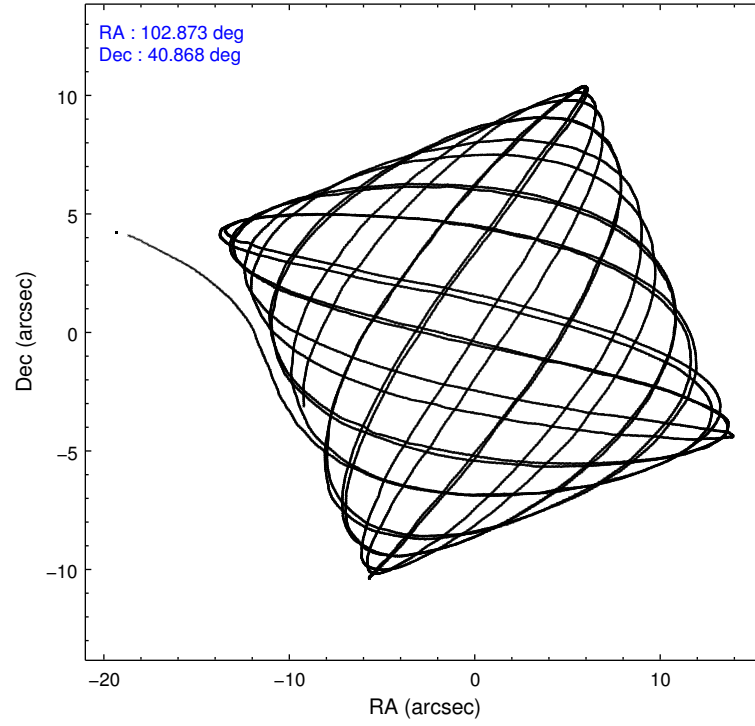
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	7702	2426	3070	6462
	7%	4%	3%	7%
grade 1 events	188	28	110	70
	0%	0%	0%	0%
grade 2 events	14671	1646	7412	5461
	13%	2%	9%	6%
grade 3 events	2049	792	3141	2300
	1%	1%	3%	2%
grade 4 events	1664	724	3057	2169
	1%	1%	3%	2%
grade 5 events	10545	3119	8422	4498
	9%	5%	10%	5%
grade 6 events	26034	1735	19600	6578
	24%	2%	23%	7%
grade 7 events	44822	49229	37511	56888
	41%	82%	45%	67%

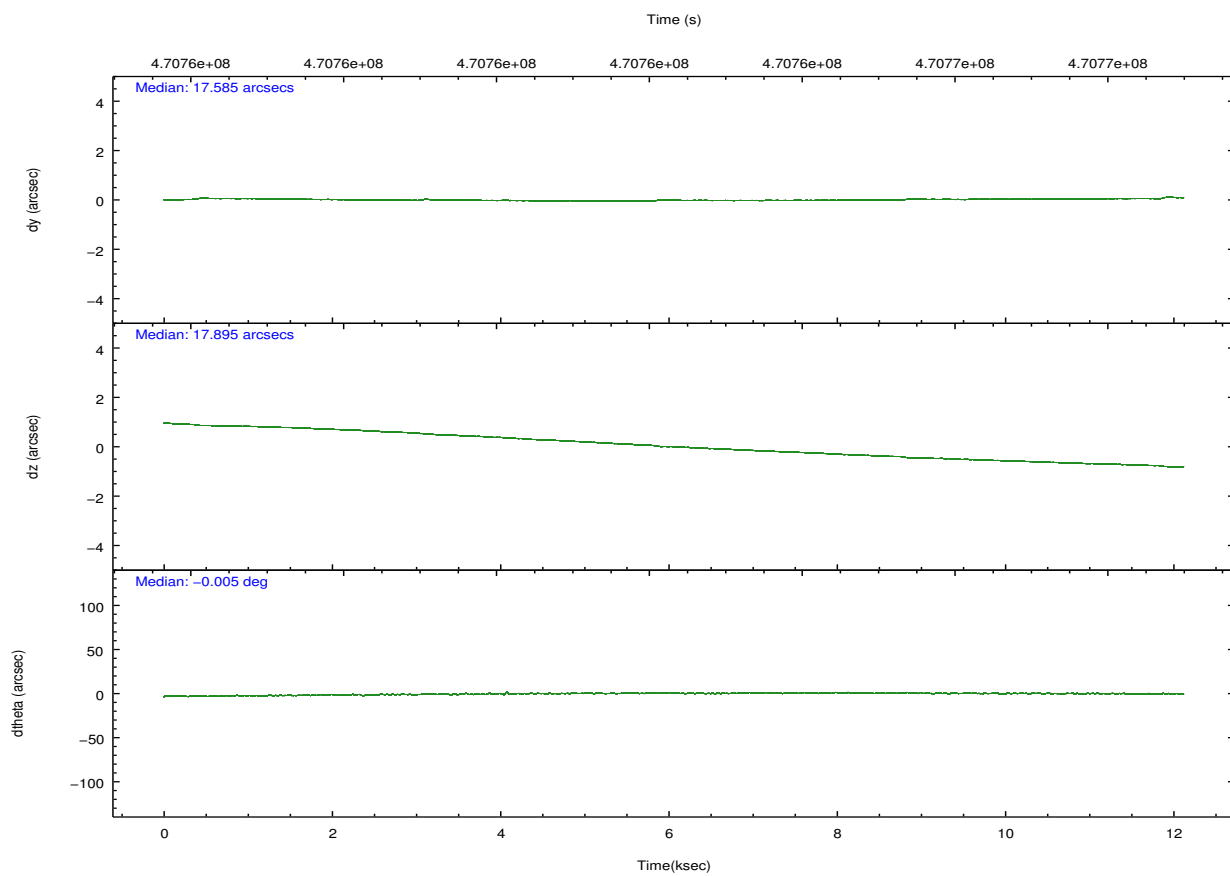
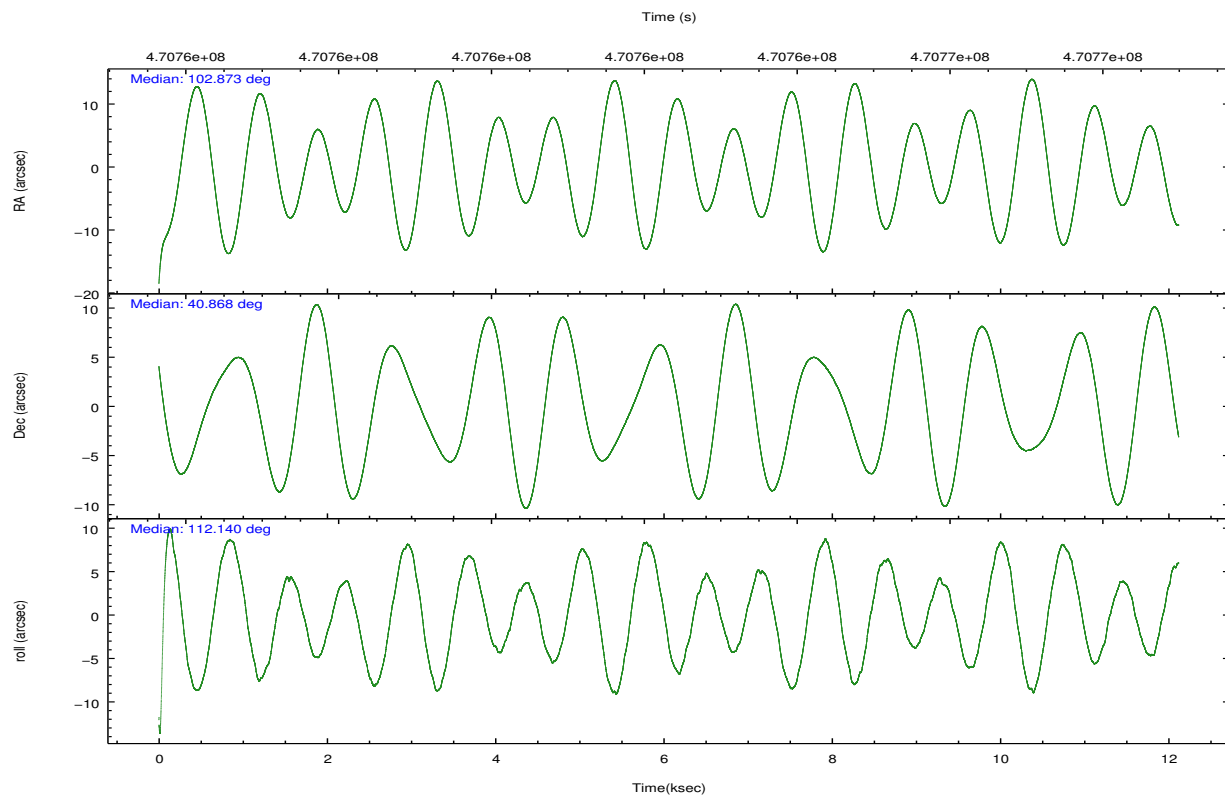


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	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	102.901989	102.8731041408264	CCD I2 on	N	N
[deg] Pointing Dec	40.851811	40.86829193541686	CCD I3 on	N	N
[deg] Pointing Roll	111.968161	112.1436572773017	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O2	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	O3	Y
[s] Observation start time (MET)	470756371.184000	470755172.57462	CCD S5 on	N	N
Observation start date	2012-12-01T13:38:24	2012-12-01T13:19:32	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	470768371.184000	470769007.51287	On-chip summing requested	N	N
Observation end date	2012-12-01T16:58:24	2012-12-01T17:10:07	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



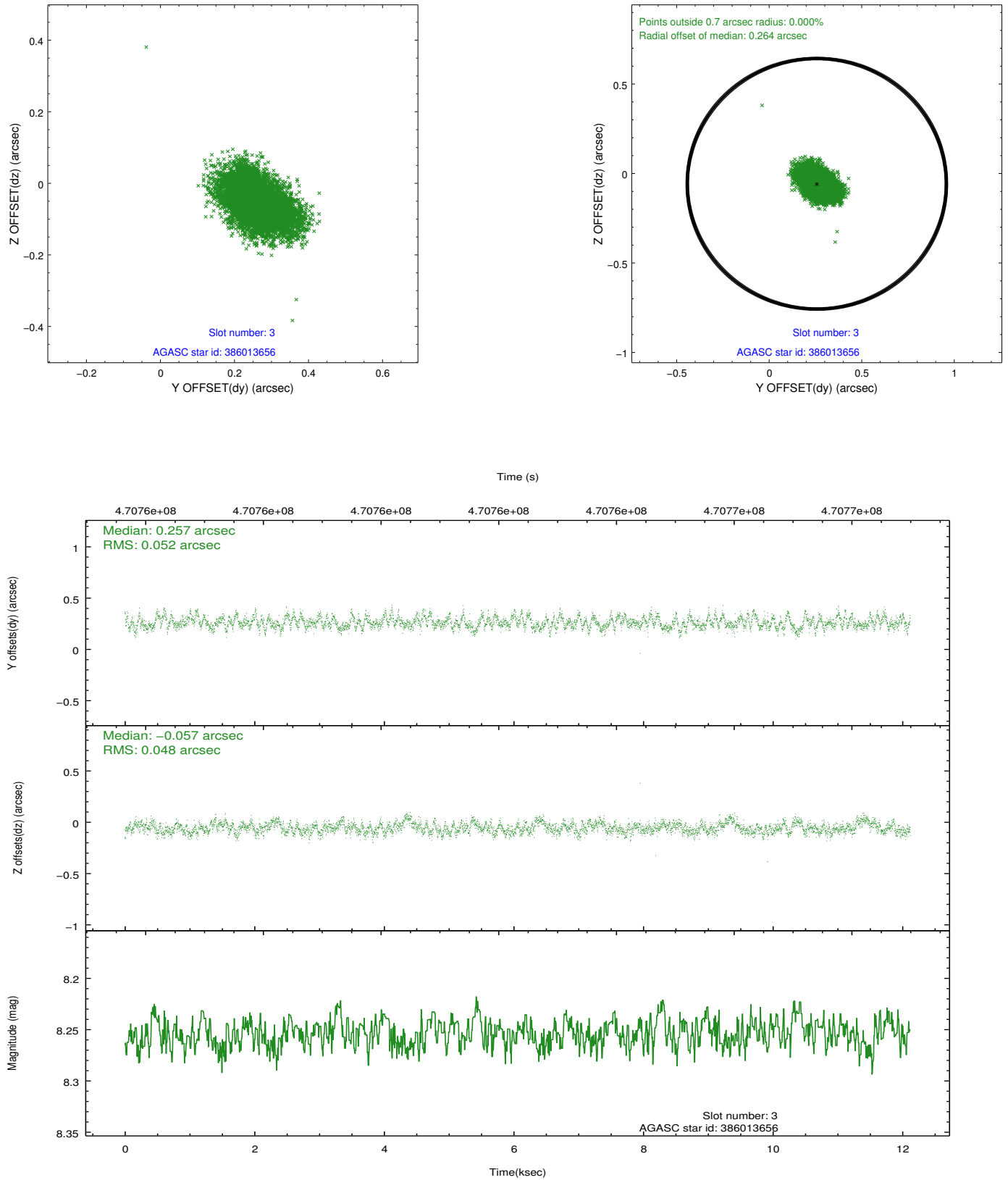


### Slot Statistics

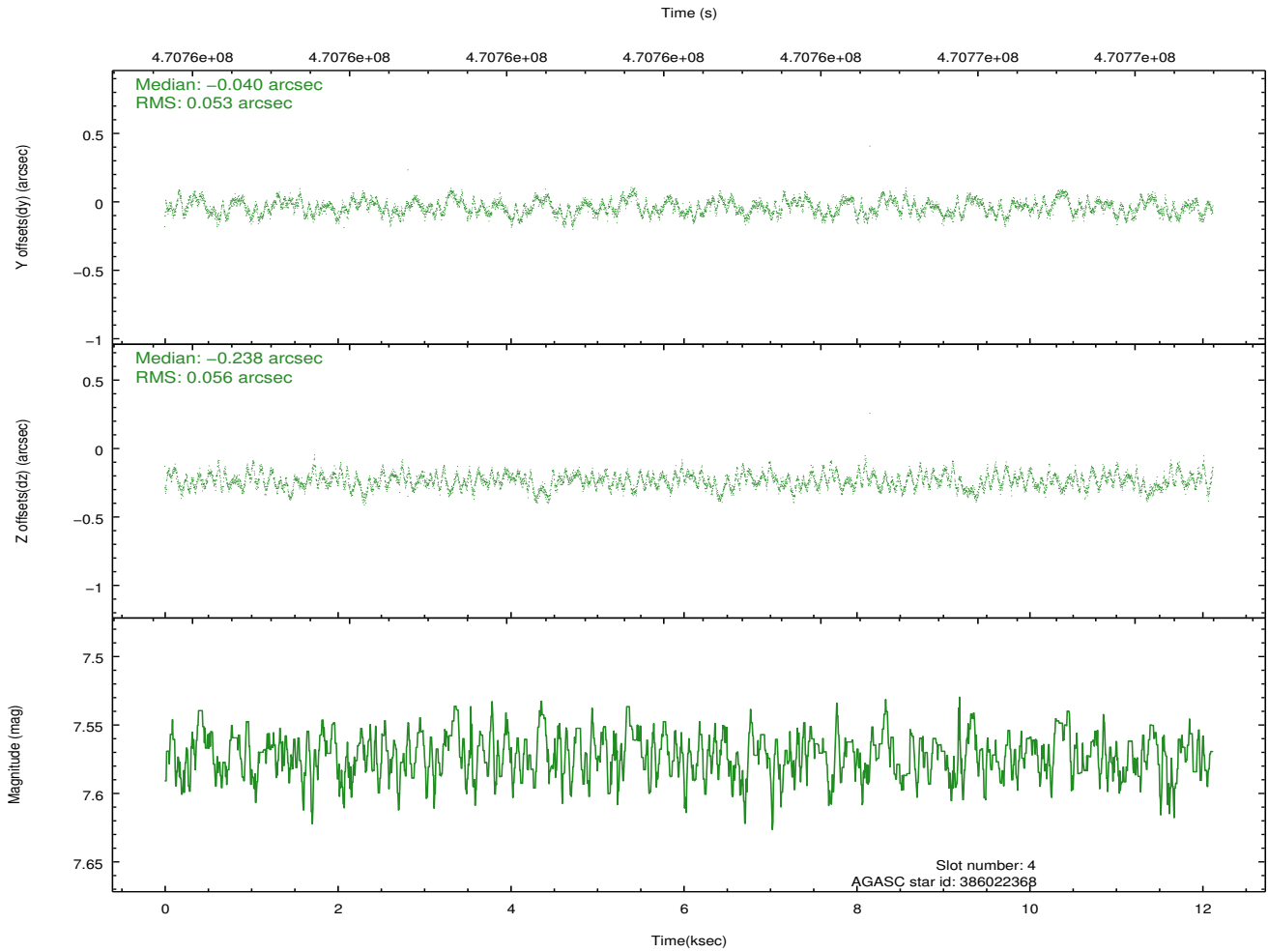
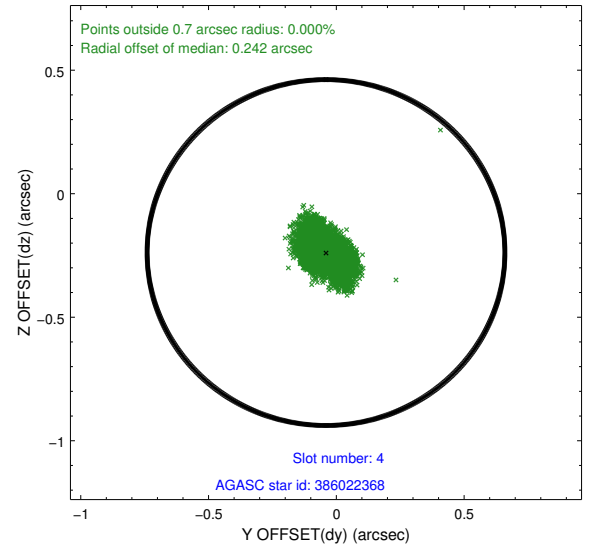
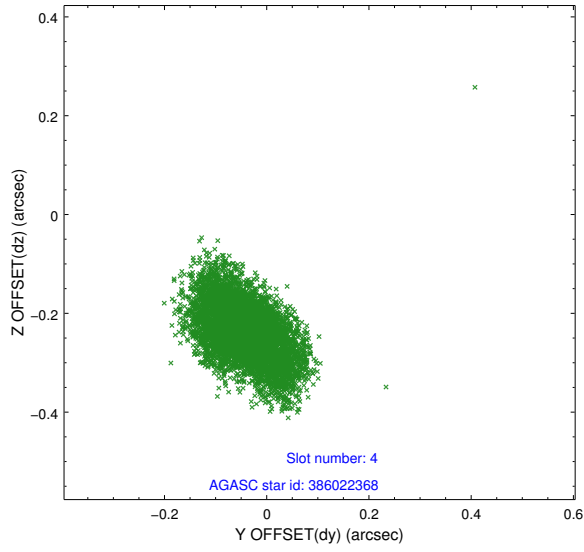
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.00	2956	0.085	-0.018	0.028	0.038	0.000000	0.000000	925.46	-1735.00
1	FID		ACIS-S-4	7.01	2955	0.134	-0.025	0.016	0.028	0.000000	0.000000	2143.16	168.72
2	FID		ACIS-S-5	7.04	2957	-0.245	0.056	0.012	0.019	0.000000	0.000000	-1823.19	162.89
3	GUIDE	used	386013656	8.25	5912	0.257	-0.057	0.075	0.123	102.391428	40.175524	-1730.55	2211.41
4	GUIDE	used	386022368	7.57	5909	-0.040	-0.238	0.081	0.133	102.179533	40.727396	329.01	1992.67
5	GUIDE	used	386141240	8.02	5911	0.232	0.319	0.060	0.096	103.547243	40.890064	-524.13	-1682.52
6	GUIDE	used	386533944	6.97	5910	-0.320	-0.171	0.077	0.121	102.090515	41.302324	2334.11	1424.44
7	GUIDE	used	386672552	8.03	5907	-0.131	0.144	0.081	0.128	102.962086	41.576315	2360.02	-1124.89

## 2.4 Star Slots

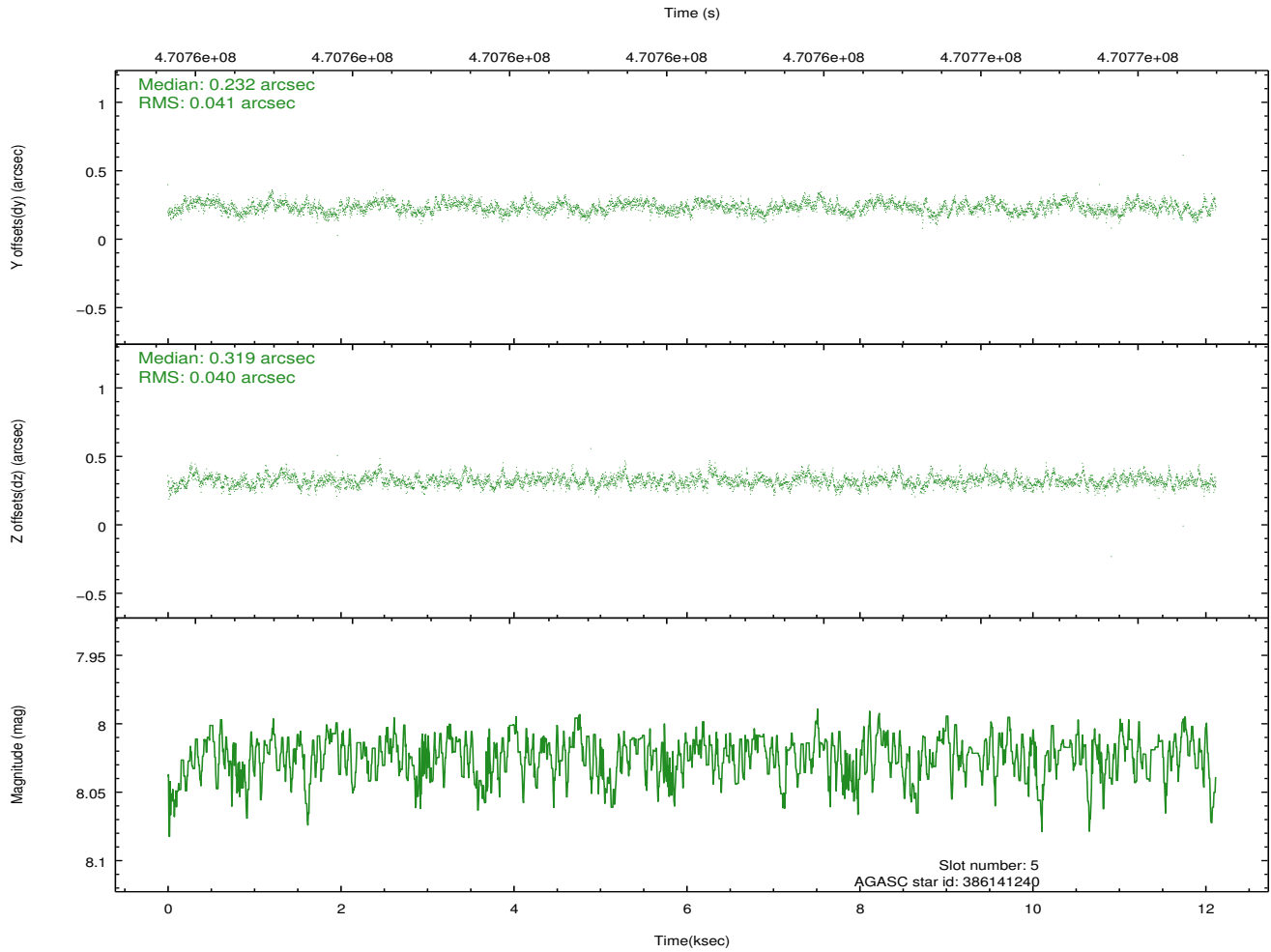
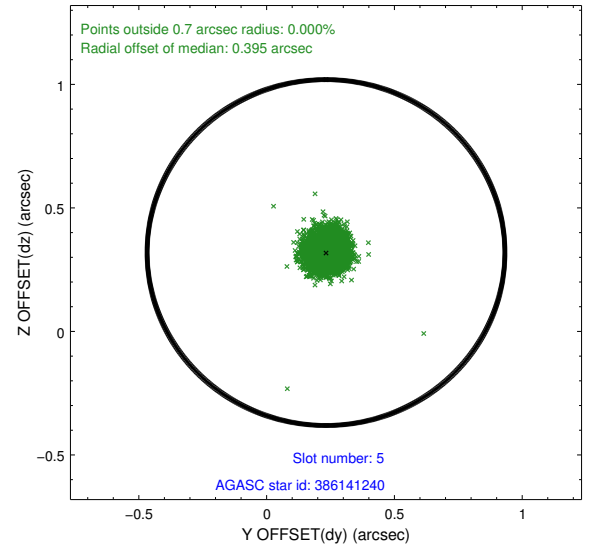
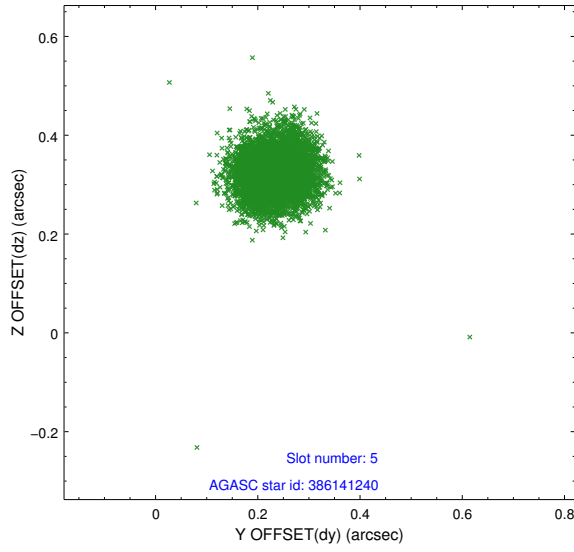
### 2.4.1 Slot 3



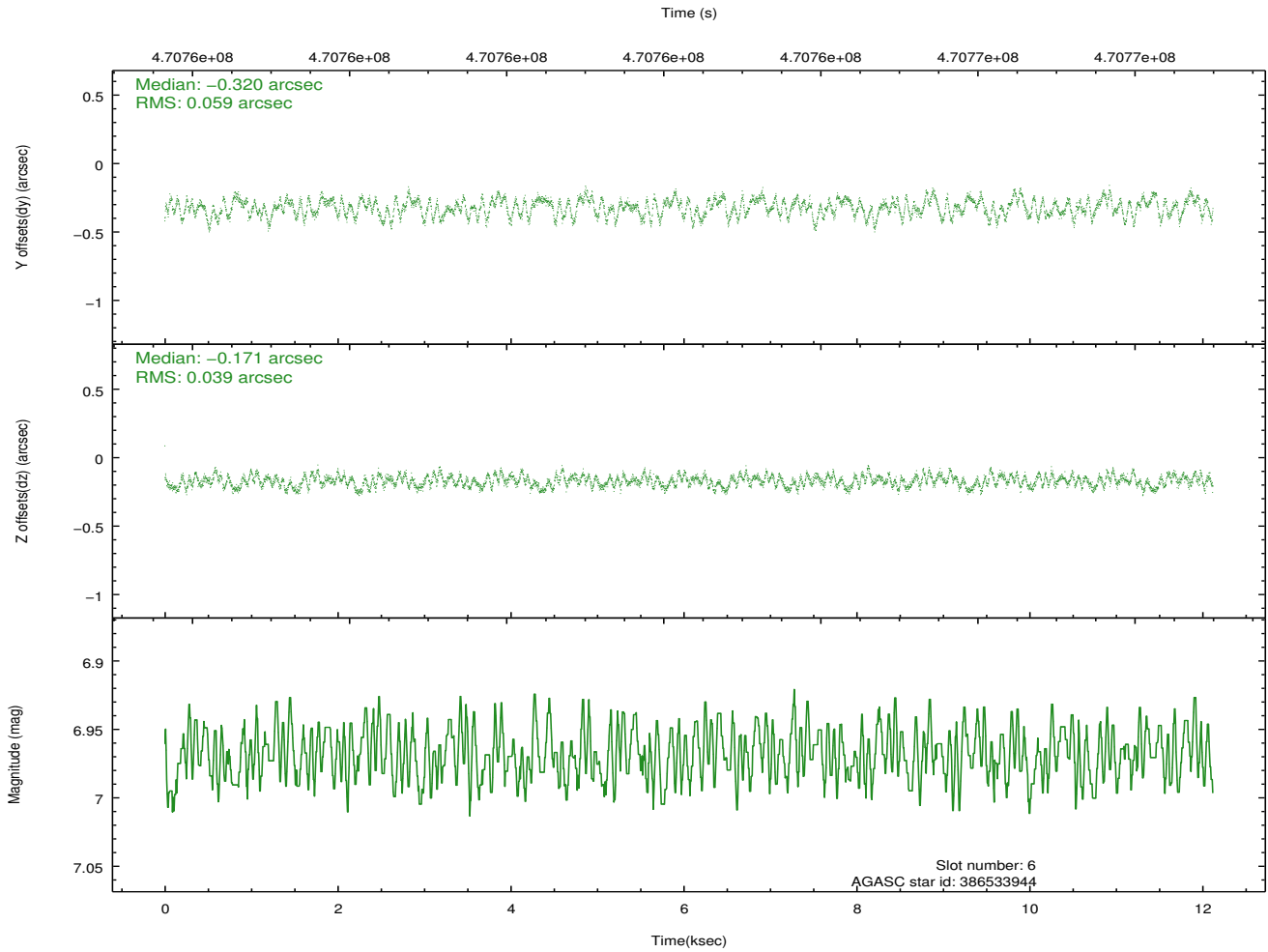
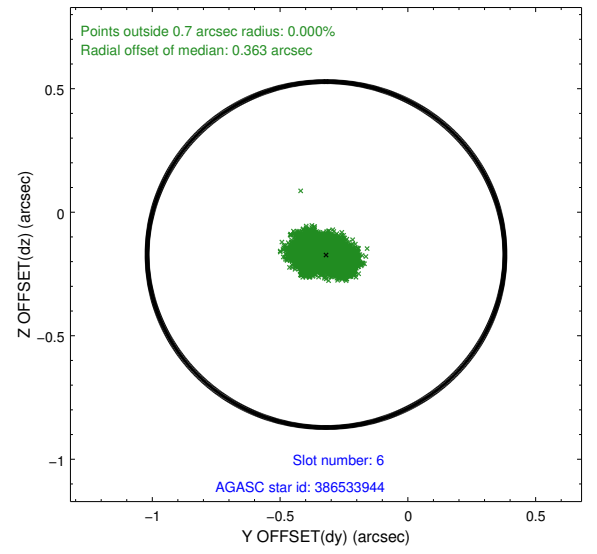
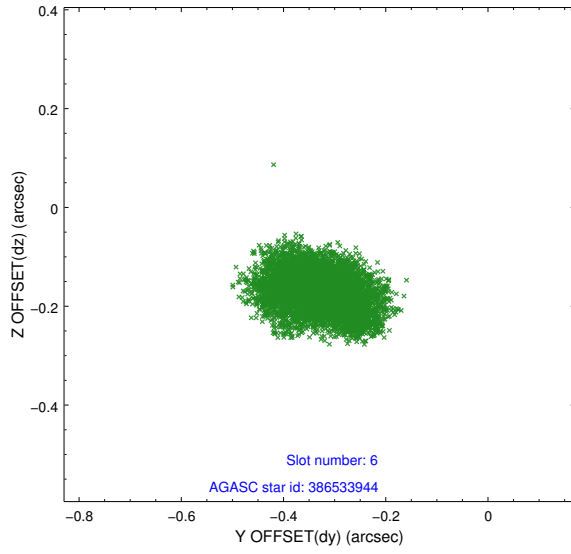
## 2.4.2 Slot 4



### 2.4.3 Slot 5

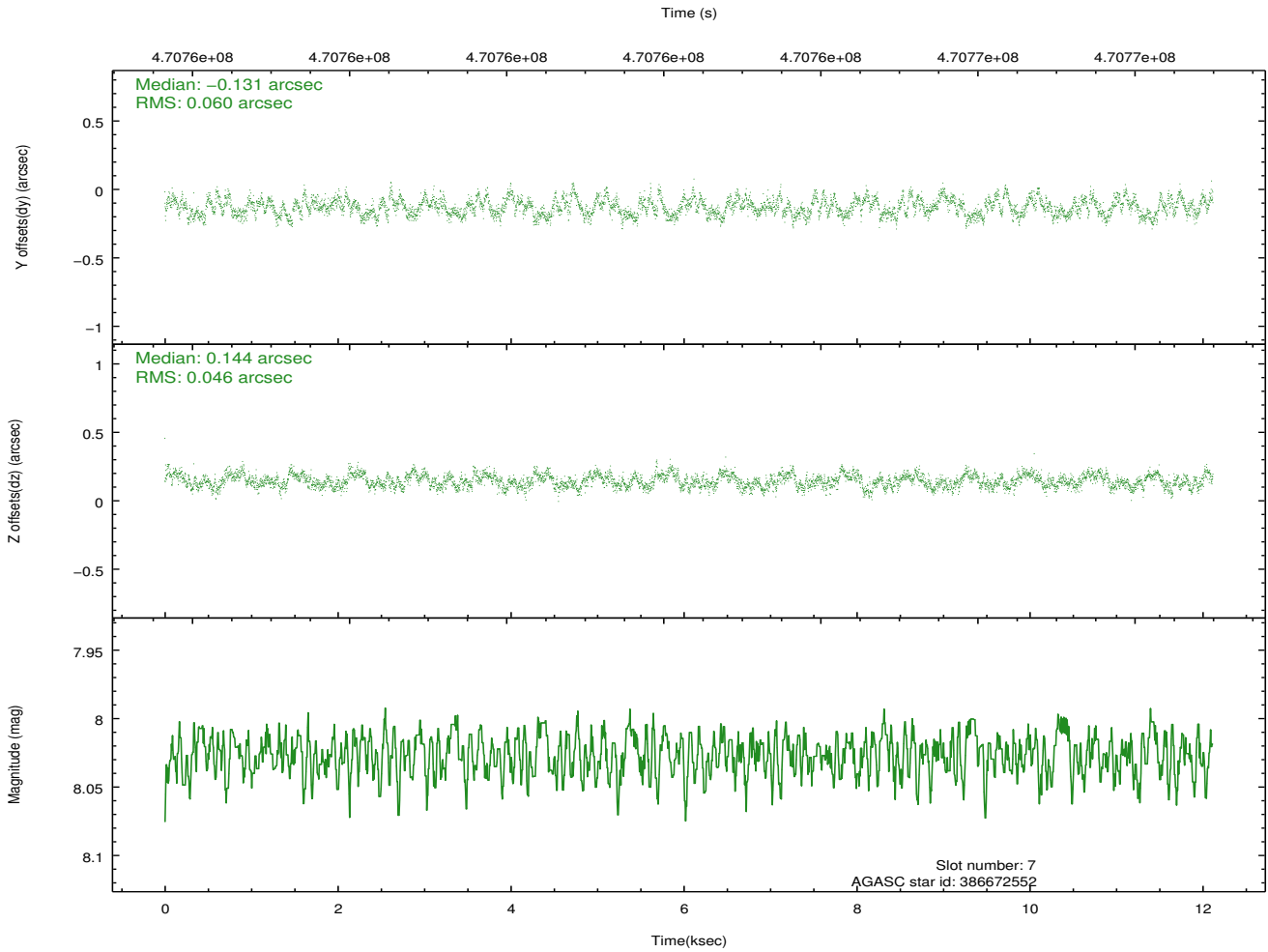
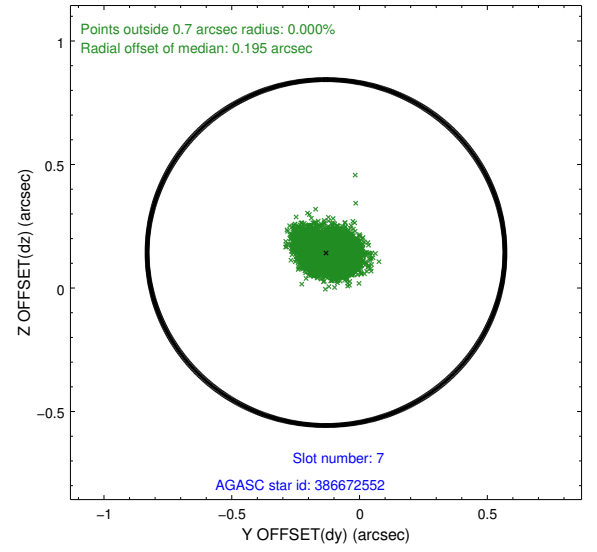
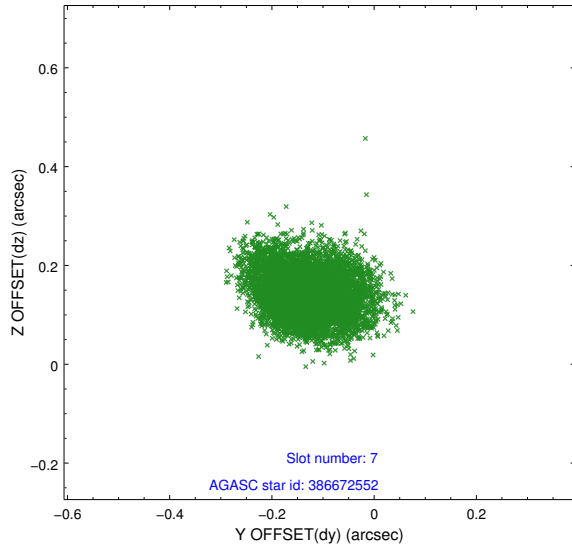


## 2.4.4 Slot 6



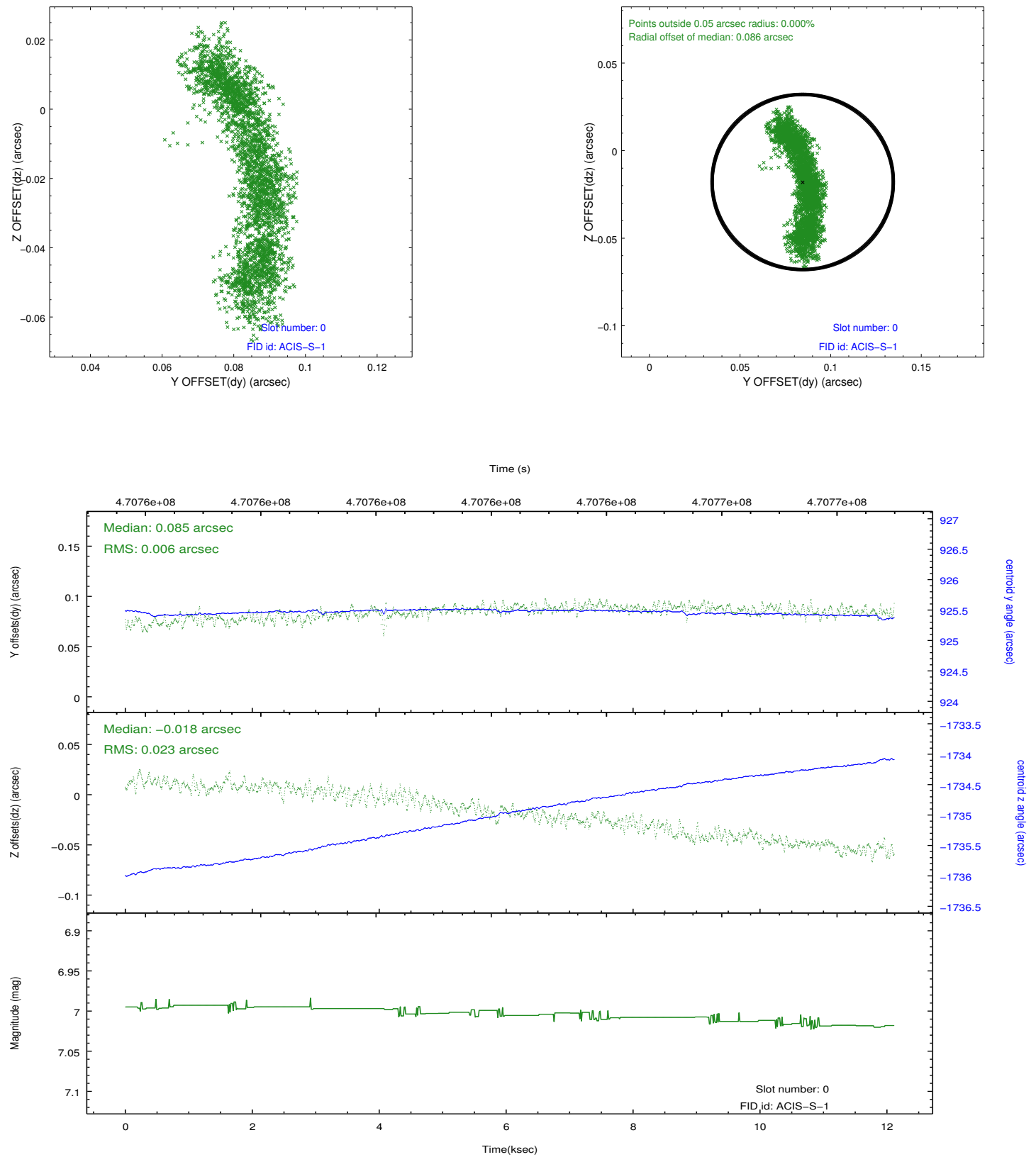


## 2.4.5 Slot 7

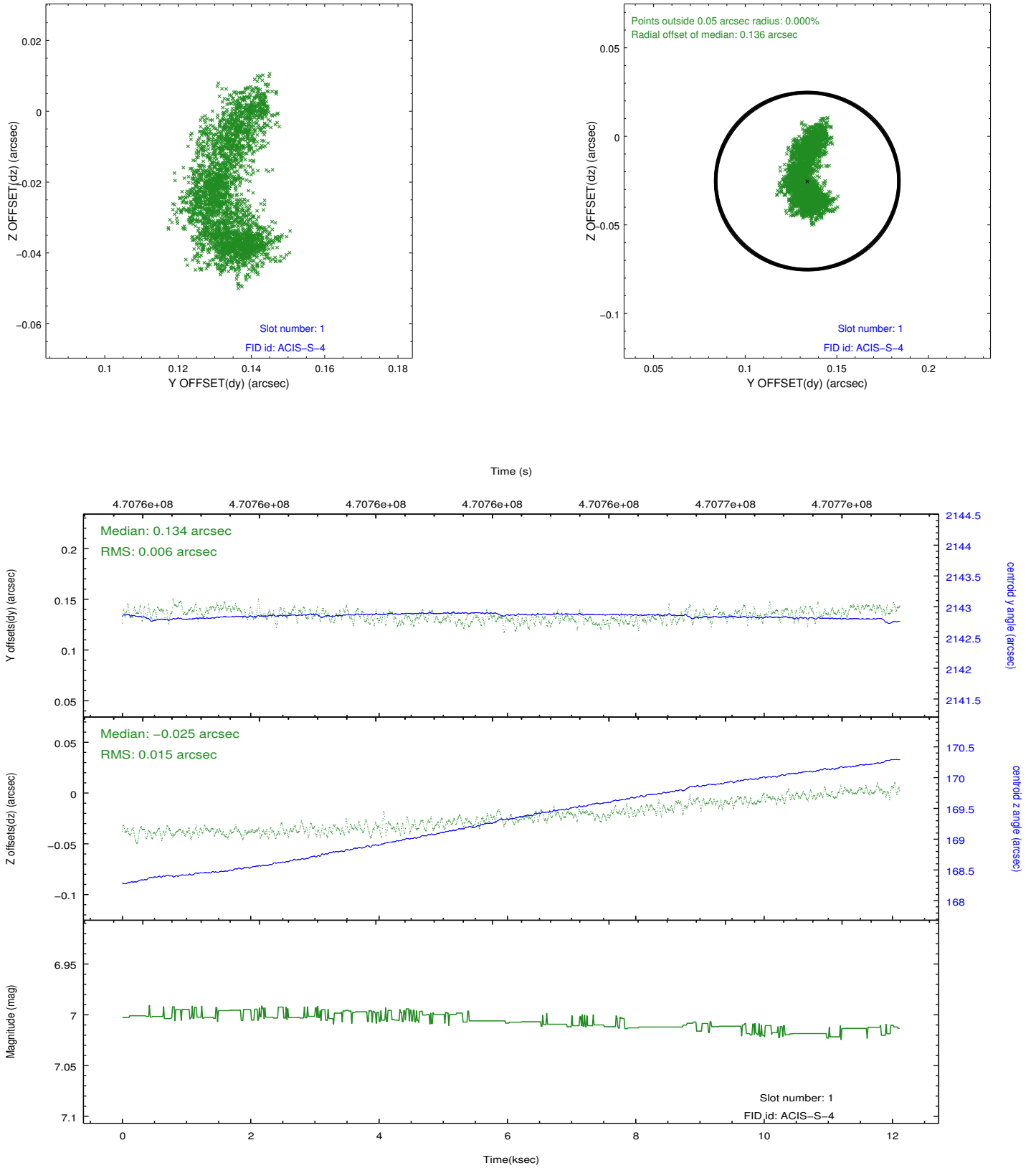


## 2.5 FID Slots

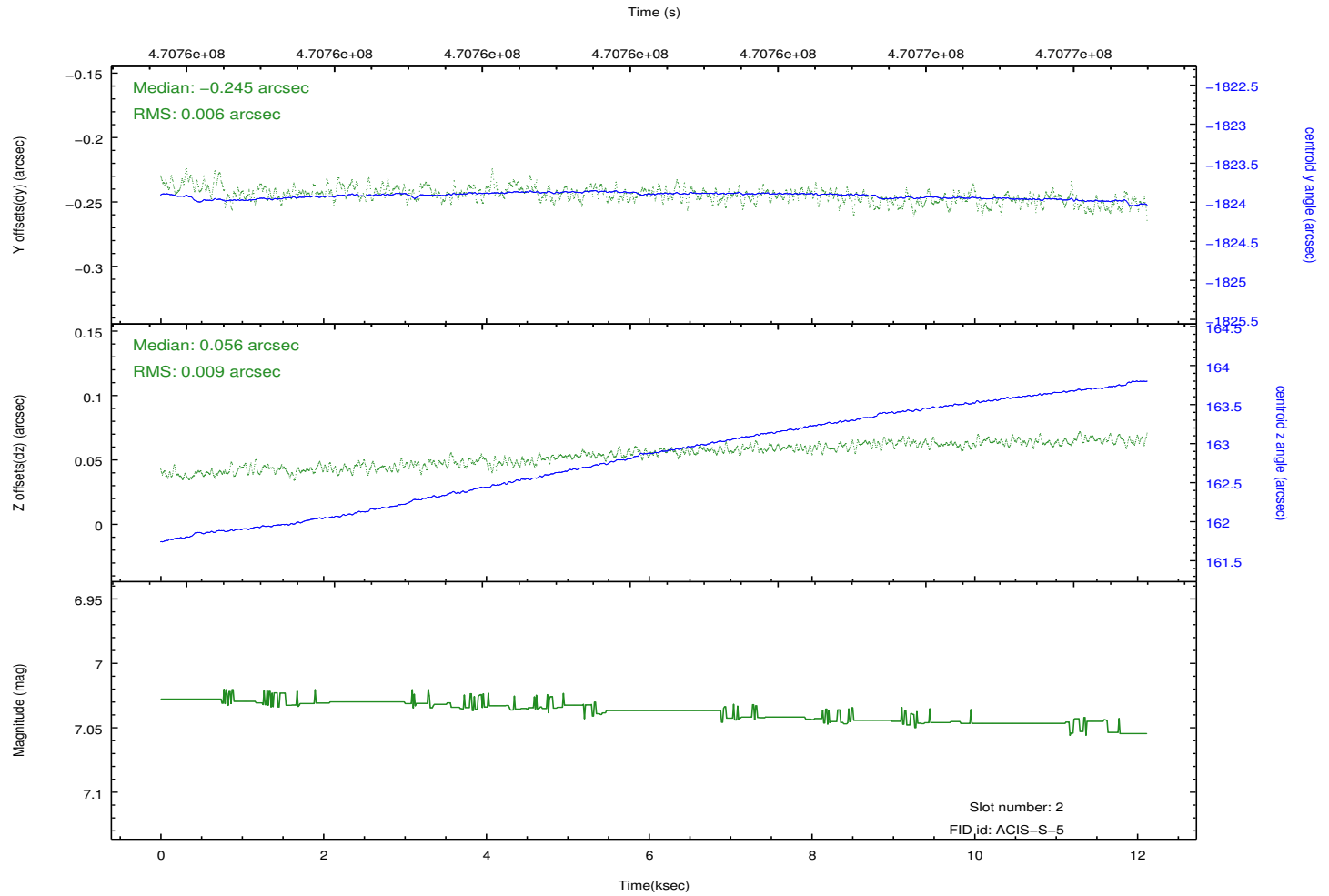
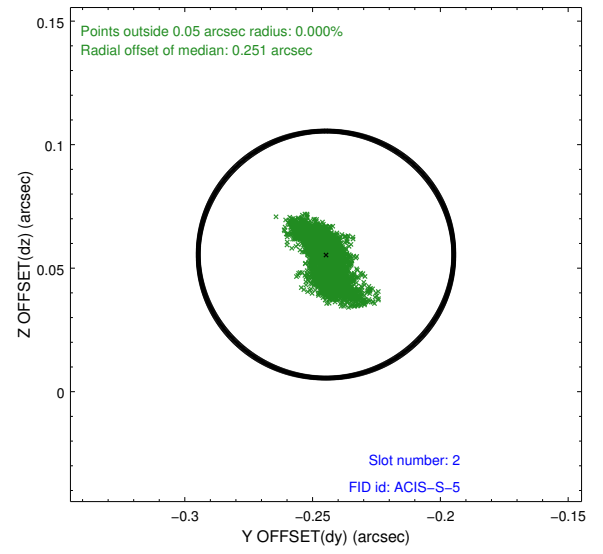
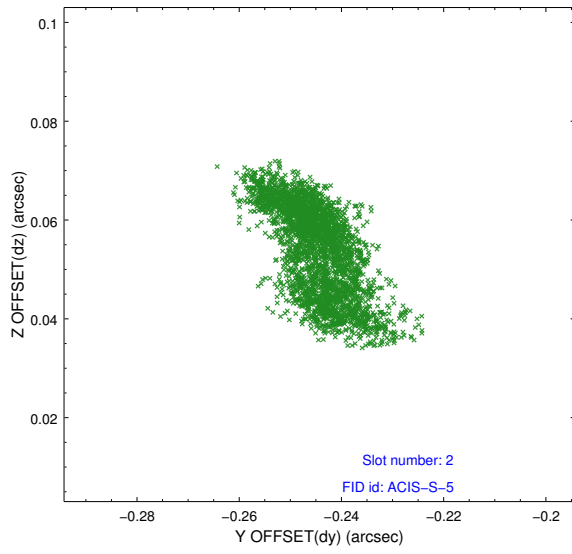
### 2.5.1 Slot 0



## 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)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	12.07140009284

## 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.