

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10977 - L2 Version 2  
Chandra X-Ray Center

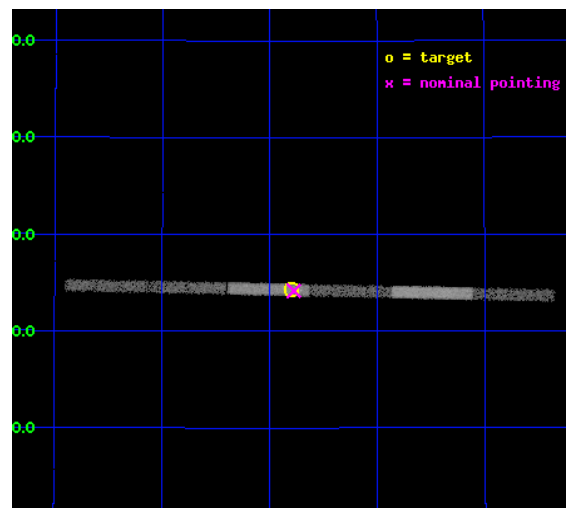
L2 Processing Date : Jun 14 2012

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# 1 Front

seq_num	200609	Sequence number
obs_id	10977	Observation id
title	Star-Planet Interaction in the upsilon Andromedae extrasolar planet system	Proposal title
observer	Dr. Katja Poppenhaeger	Principal investigator
object	HD 9826	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	24.199167	Observer's specified target RA [deg]
dec_targ	41.4055	Observer's specified target Dec [deg]
ra_nom	24.193727056181	Nominal RA [deg]
dec_nom	41.402886966926	Nominal Dec [deg]
roll_nom	181.16019771809	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15987.299727678	Sum of GTIs [s]
livetime	15101.897076237	Livetime [s]
ontime4	15987.299727678	Sum of GTIs [s]
ontime5	15987.299727678	Sum of GTIs [s]
ontime6	15987.299727678	Sum of GTIs [s]
ontime7	15987.299727678	Sum of GTIs [s]
ontime8	15986.558687687	Sum of GTIs [s]
ontime9	15987.299727678	Sum of GTIs [s]
l2events	21787	Number of level 2 events

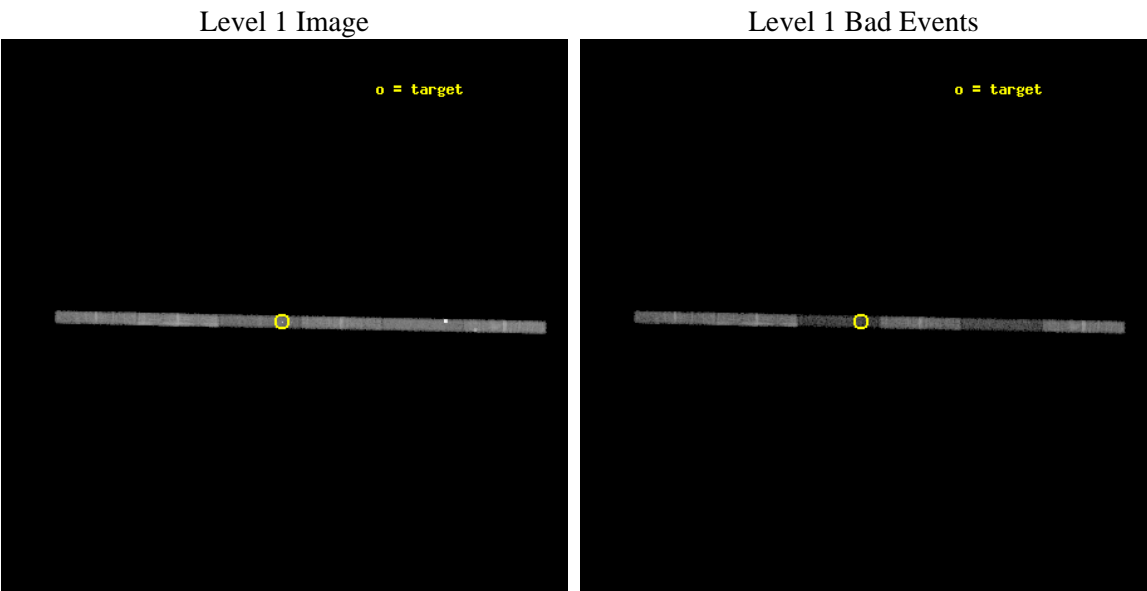




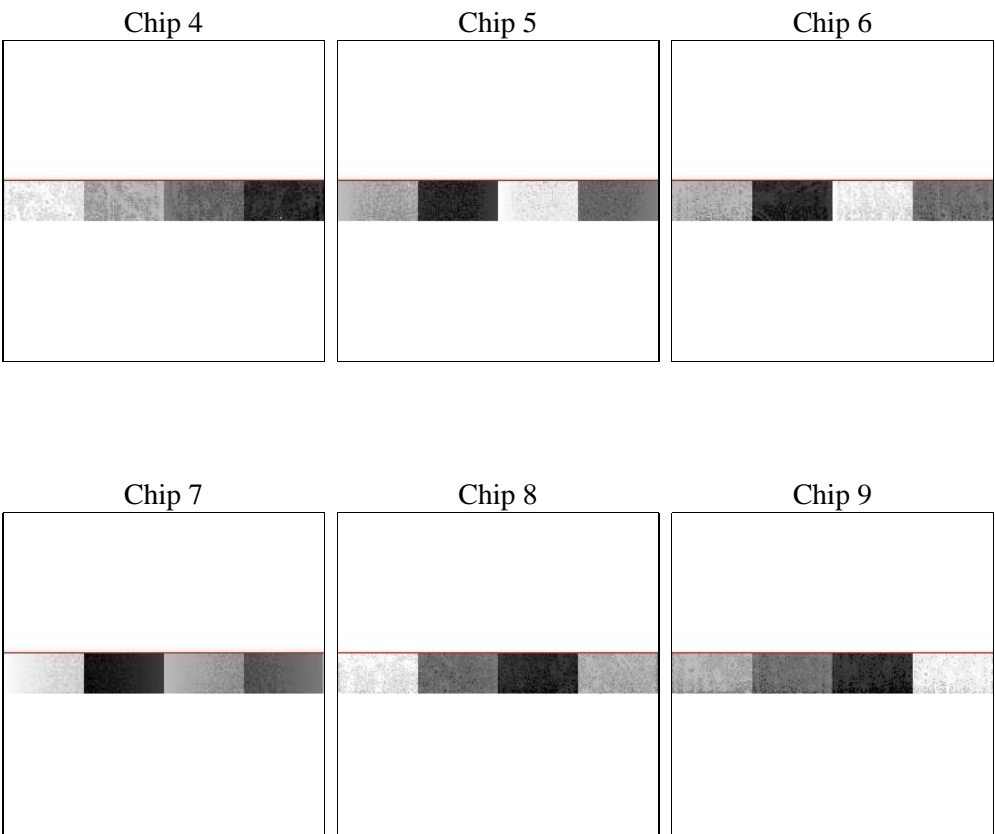
# 2 OBI

## 2.1 OBI

### 2.1.1 Images



### 2.1.2 Bias



Chip 7



Chip 8



Chip 9



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15803.462000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	15987.299727678	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime4	15987.299727678	Sum of GTIs [s]
date	2012-06-15T00:56:00	Date and time of file creation	ontime5	15987.299727678	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	15987.299727678	Sum of GTIs [s]
			ontime7	15987.299727678	Sum of GTIs [s]
			ontime8	15986.558687687	Sum of GTIs [s]
			ontime9	15987.299727678	Sum of GTIs [s]
			l1events	146946	Number of level 1 events

### 2.1.4 Events

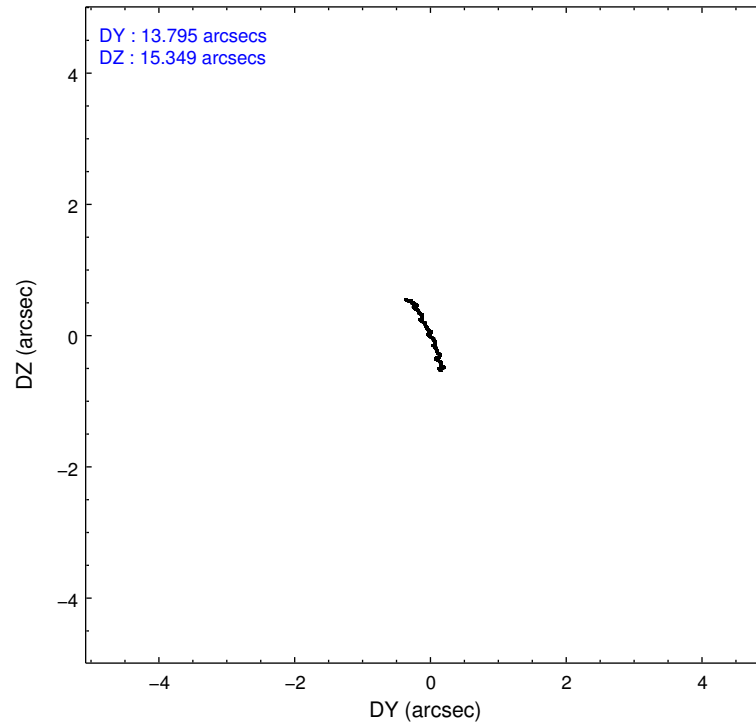
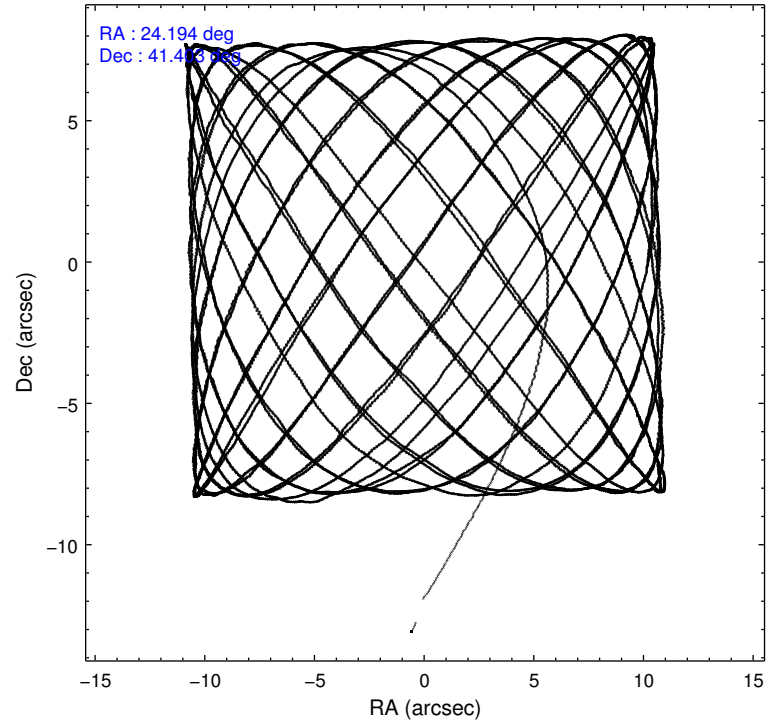
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	26498	38350	20624	12555	29680	19239
rejected events	23558	7705	18671	5093	23302	17348
rejected %	88%	20%	90%	40%	78%	90%

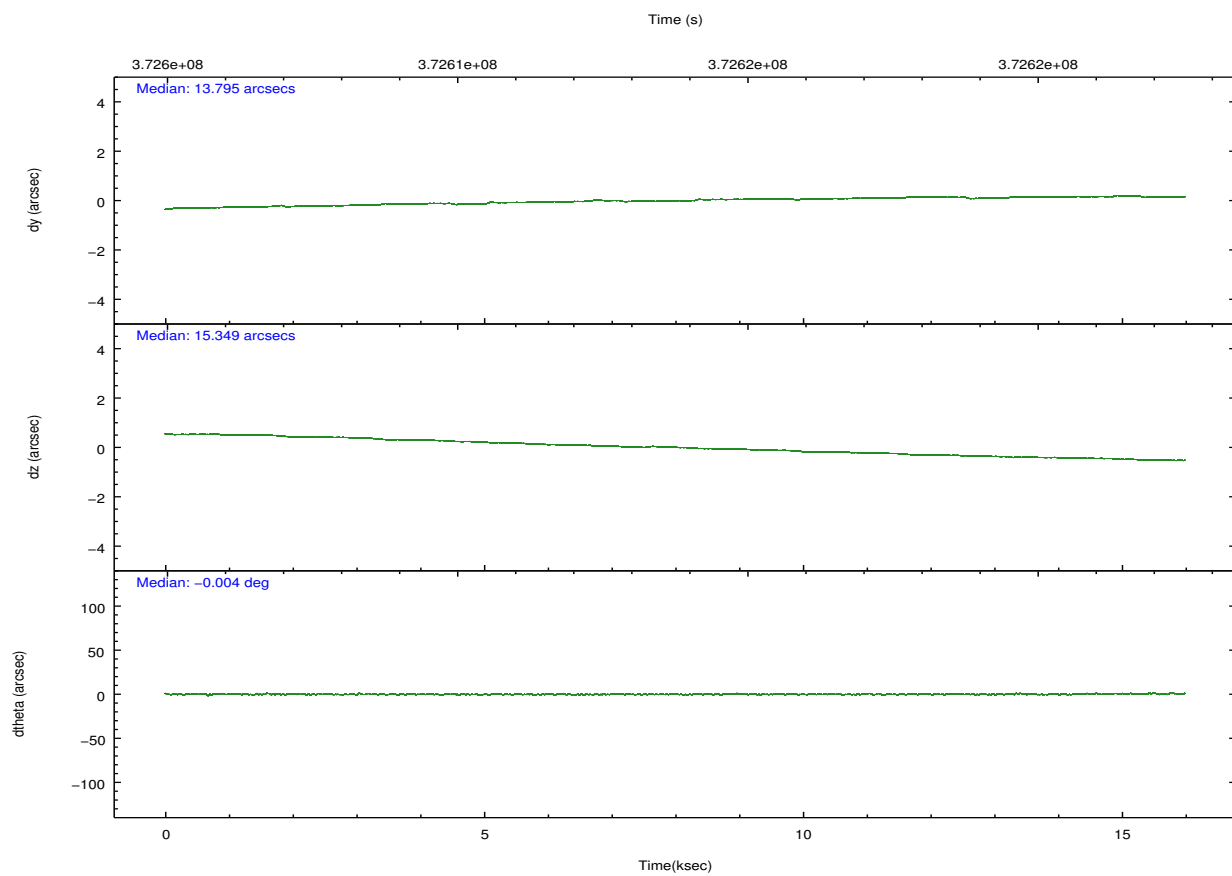
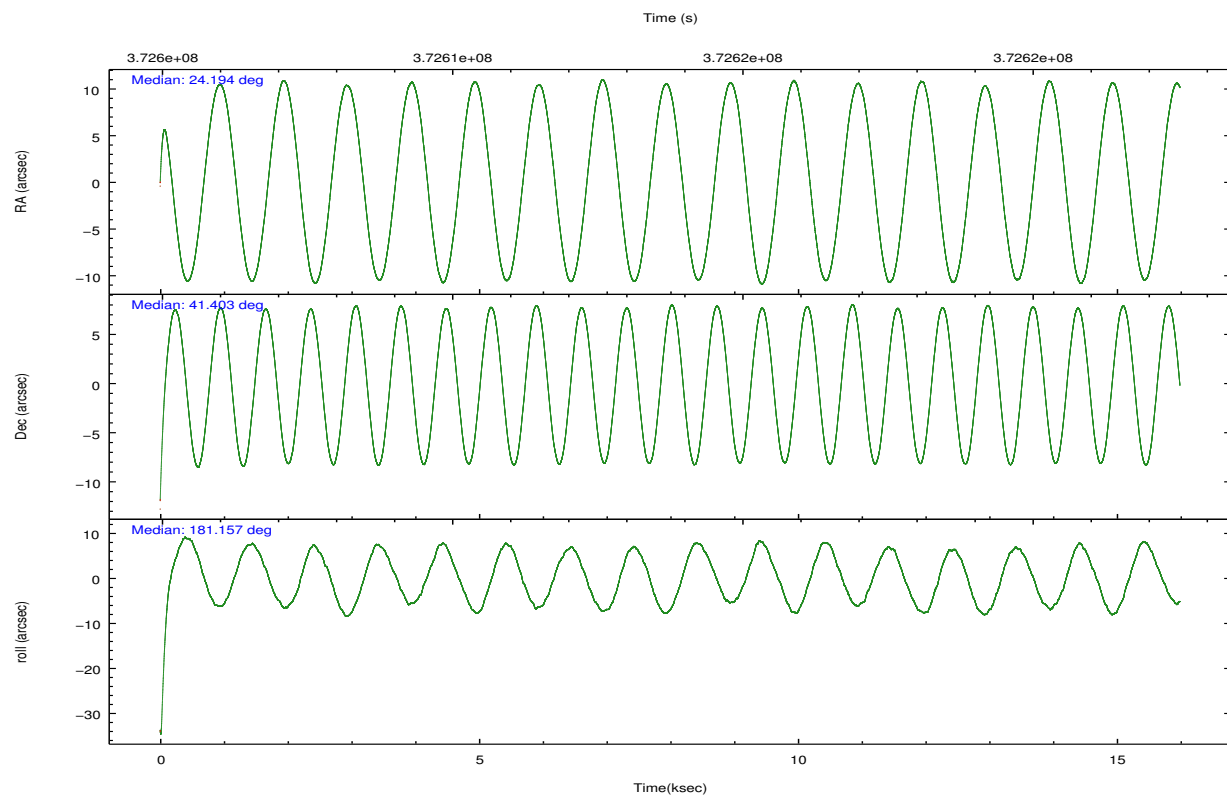
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	1463	12651	596	1368	1529	574
	5%	32%	2%	10%	5%	2%
grade 1 events	29	133	5	43	13	7
	0%	0%	0%	0%	0%	0%
grade 2 events	463	12949	345	1864	1460	345
	1%	33%	1%	14%	4%	1%
grade 3 events	391	852	381	1010	778	395
	1%	2%	1%	8%	2%	2%
grade 4 events	407	1237	436	1007	754	381
	1%	3%	2%	8%	2%	1%
grade 5 events	384	1561	330	1117	612	366
	1%	4%	1%	8%	2%	1%
grade 6 events	335	4159	277	2476	2169	270
	1%	10%	1%	19%	7%	1%
grade 7 events	23026	4808	18254	3670	22365	16901
	86%	12%	88%	29%	75%	87%

## 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	24.224680	24.19372705618149	CCD I2 on	N	N
[deg] Pointing Dec	41.417338	41.40288696692554	CCD I3 on	N	N
[deg] Pointing Roll	180.983123	181.1601977180877	CCD S0 on	O2	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O4	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O5	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
Phase constraints	Y	Y	CCD S5 on	O1	Y
[d] Phase period	2.308560	2.308560	Number of optional ACIS chips dropped	0	0
[d] Phase epoch (MJD)	55198.505000	55198.505000	On-chip summing requested	N	N
Phase start	0.962000	0.962000	Subarray requested	CUSTOM	1/8
Phase end	0.038000	0.038000	Subarray start row	449	449
Phase start error	0.163000	0.163000	Subarray row count	128	128
Phase end error	0.163000	0.163000	Alternating exposures requested	N	N
[s] Observation start time (MET)	372605937.184000	372604833.96716	[s] Primary exposure time	0.000000	0.7
Observation start date	2009-10-22T13:37:51	2009-10-22T13:20:33			
[s] Observation end time (MET)	372621740.184000	372621964.28052			
Observation end date	2009-10-22T18:01:14	2009-10-22T18:06:04			
Read mode	TIMED	TIMED			

## 2.3 Aspect



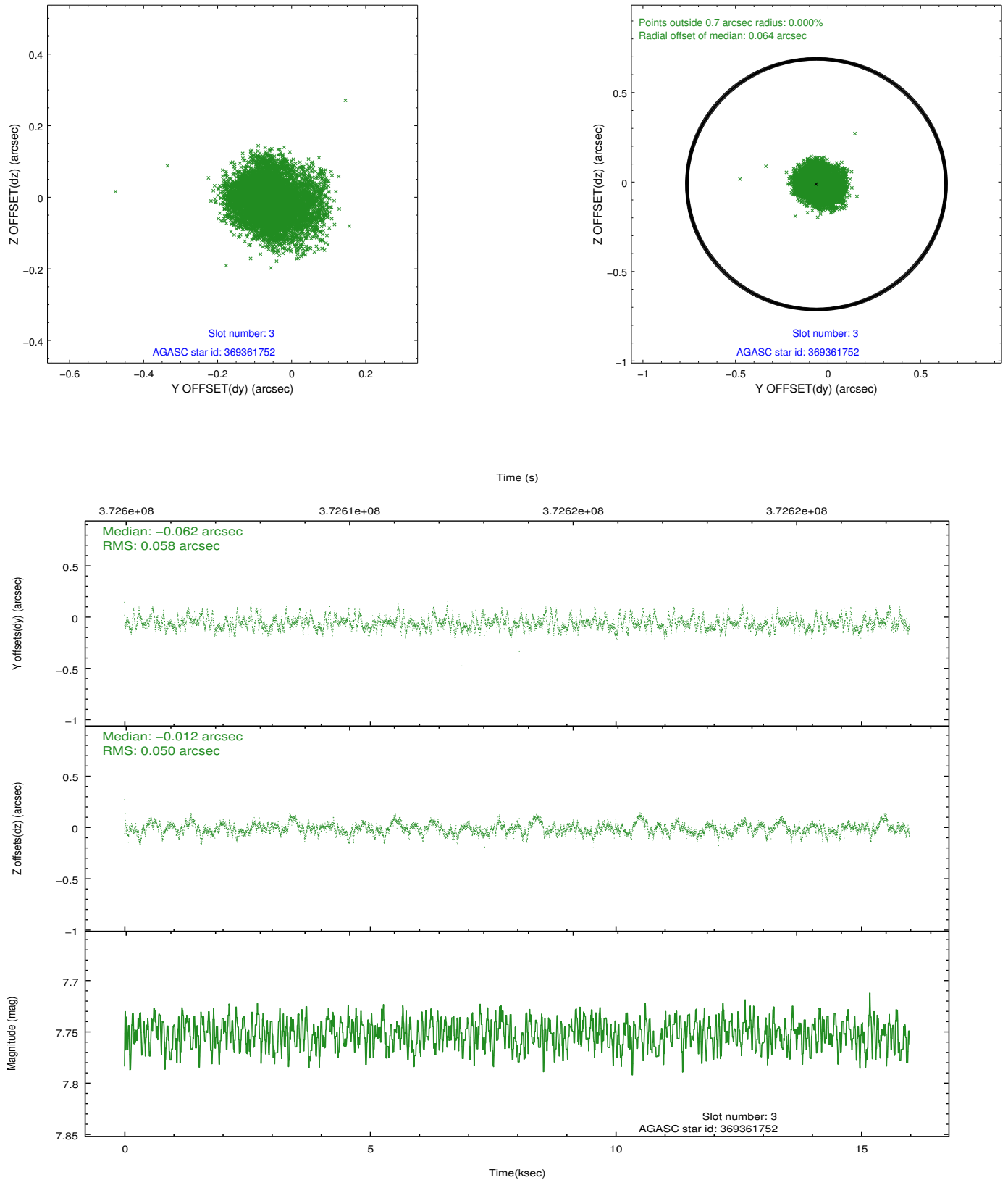


### Slot Statistics

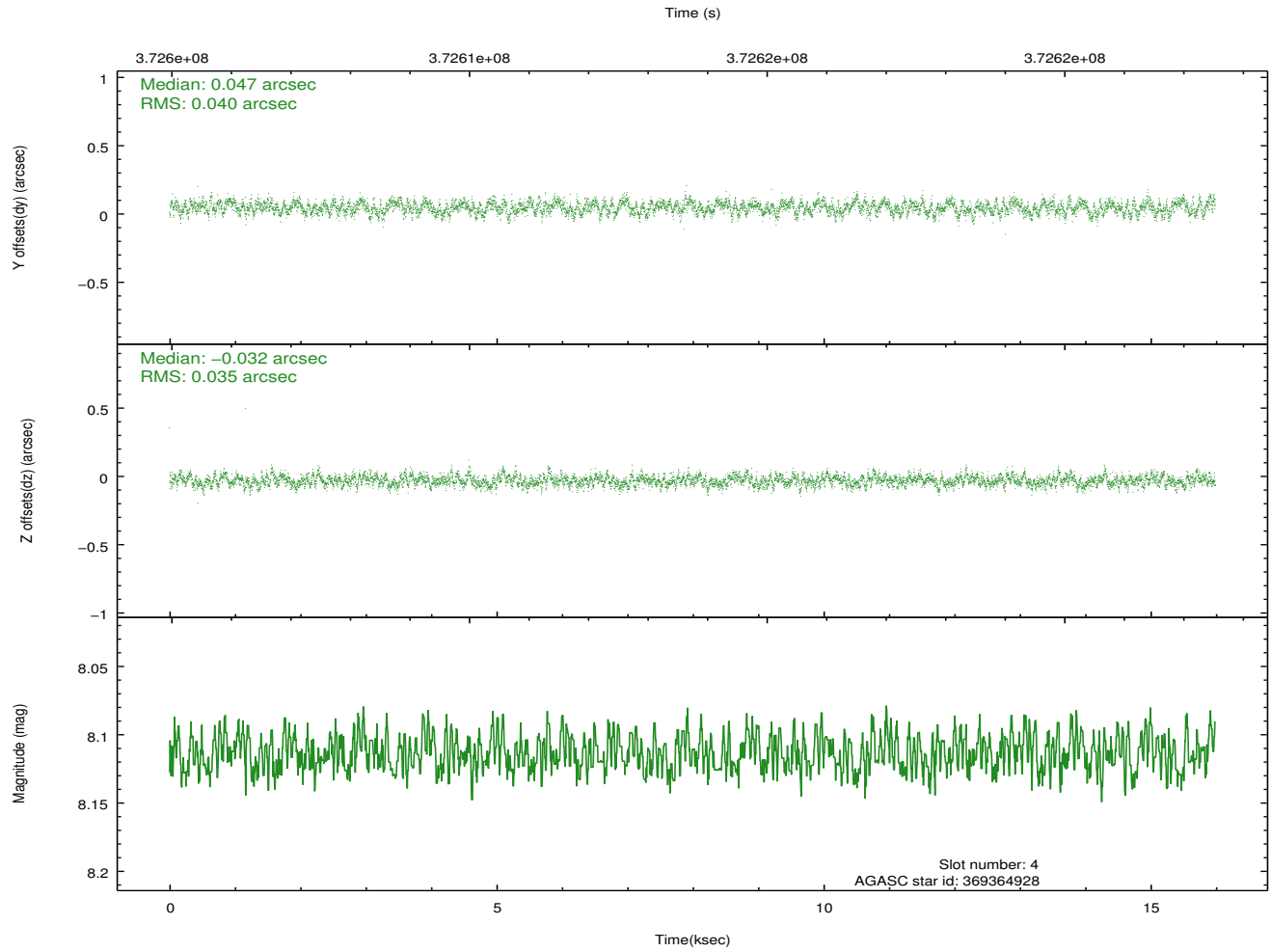
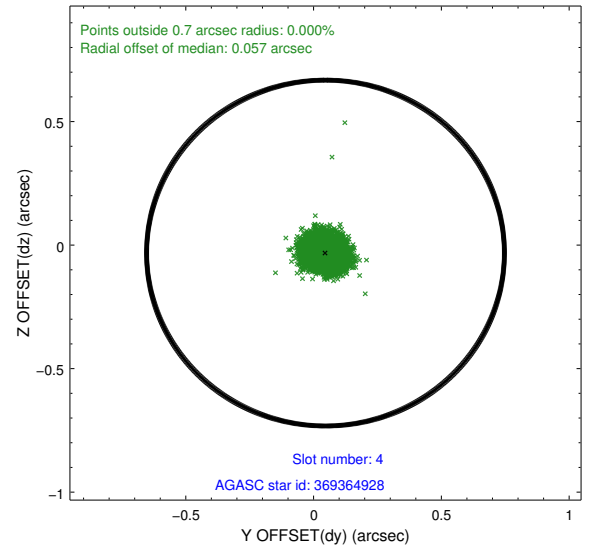
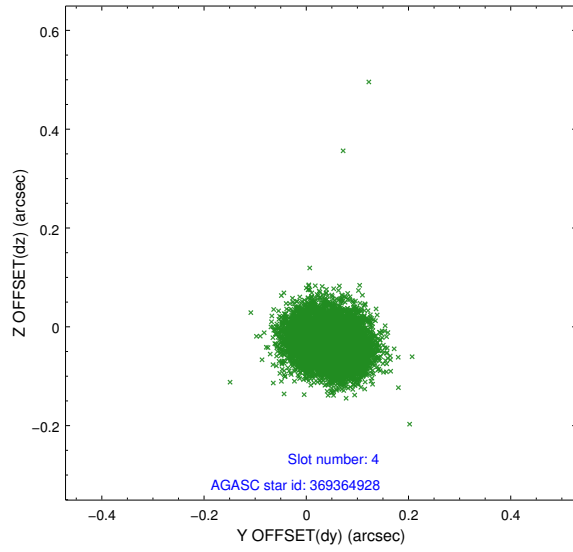
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	3899	-0.117	-0.080	0.012	0.022	0.000000	0.000000	-766.84	-1736.76
1	FID	ACIS-S-4	6.98	3900	0.126	0.059	0.011	0.018	0.000000	0.000000	2146.57	171.56
2	FID	ACIS-S-6	7.11	3900	-0.038	0.028	0.009	0.014	0.000000	0.000000	395.59	809.24
3	GUIDE	369361752	7.75	7798	-0.062	-0.012	0.082	0.132	24.775291	41.161068	-1476.51	943.53
4	GUIDE	369364928	8.11	7796	0.047	-0.032	0.057	0.090	24.519574	41.179125	-784.20	870.21
5	GUIDE	369366760	8.09	7797	-0.047	-0.043	0.056	0.091	23.401799	40.995064	2261.24	1471.54
6	GUIDE	369369280	7.67	7797	0.007	-0.045	0.055	0.100	23.391178	40.901488	2299.41	1807.82
7	GUIDE	369897952	8.85	7797	0.046	0.131	0.085	0.135	24.173292	41.947134	105.38	-1908.81

## 2.4 Star Slots

### 2.4.1 Slot 3

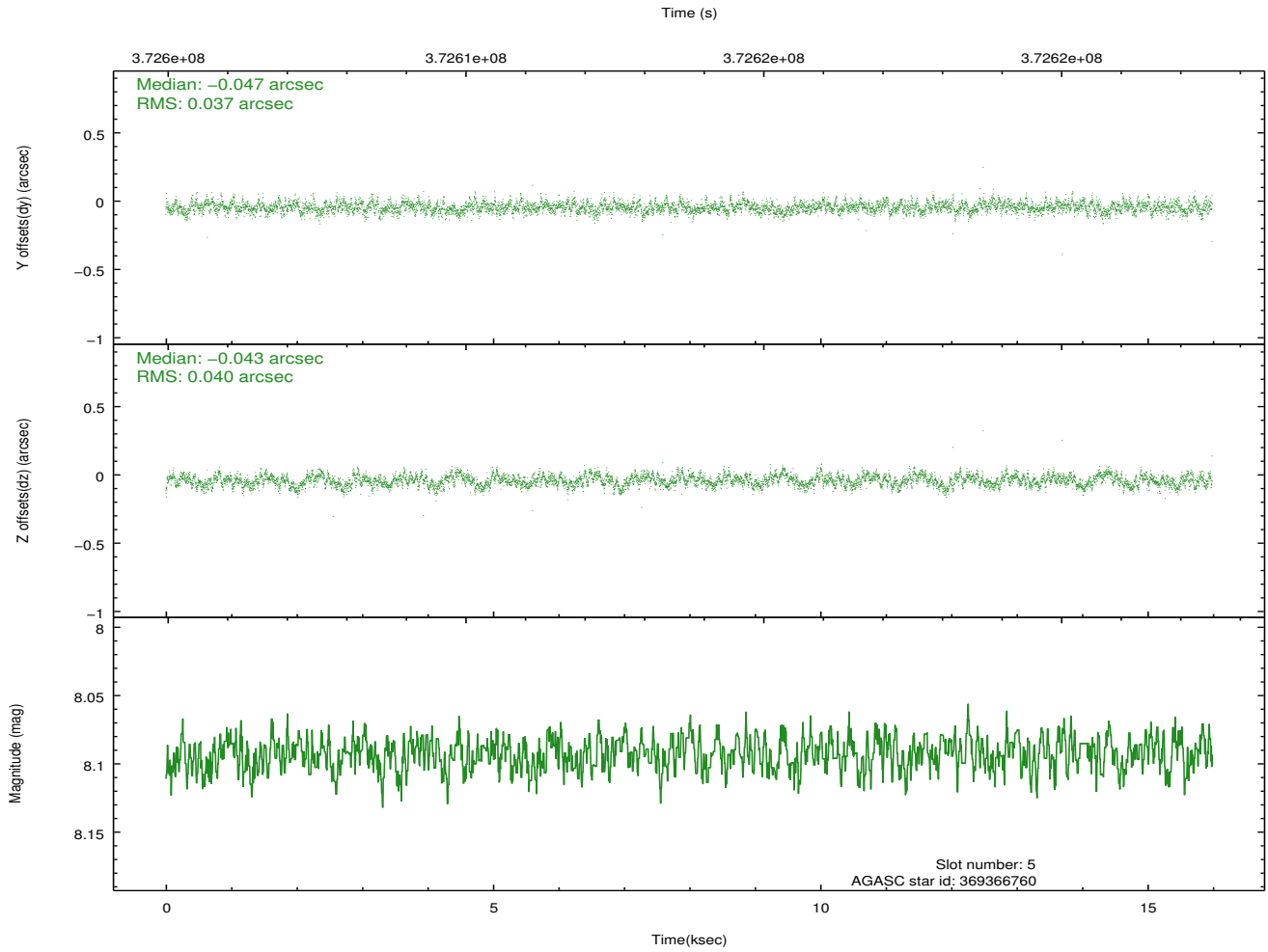
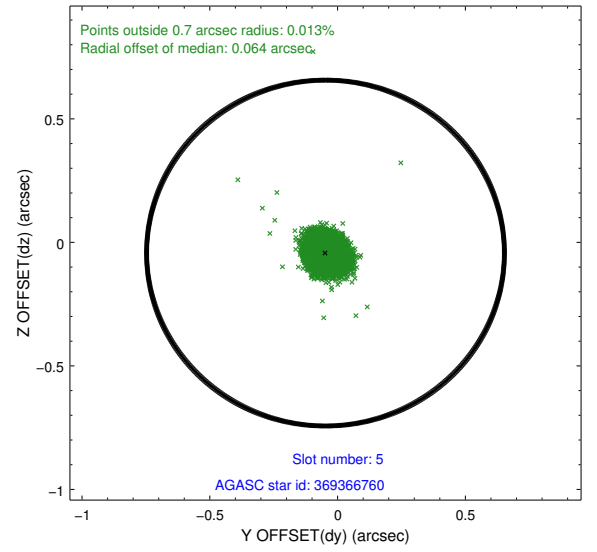
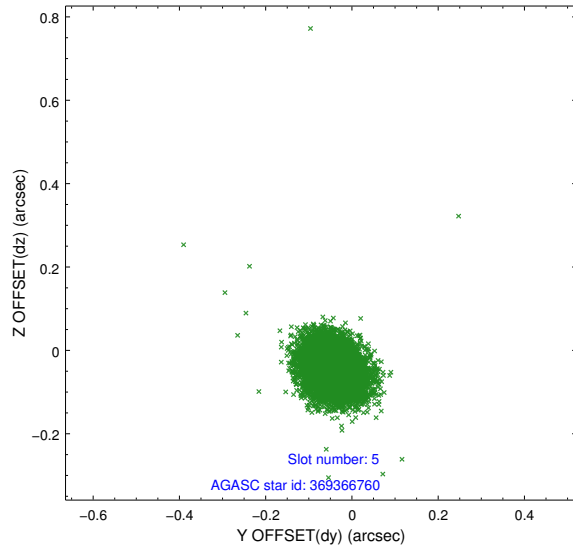


## 2.4.2 Slot 4

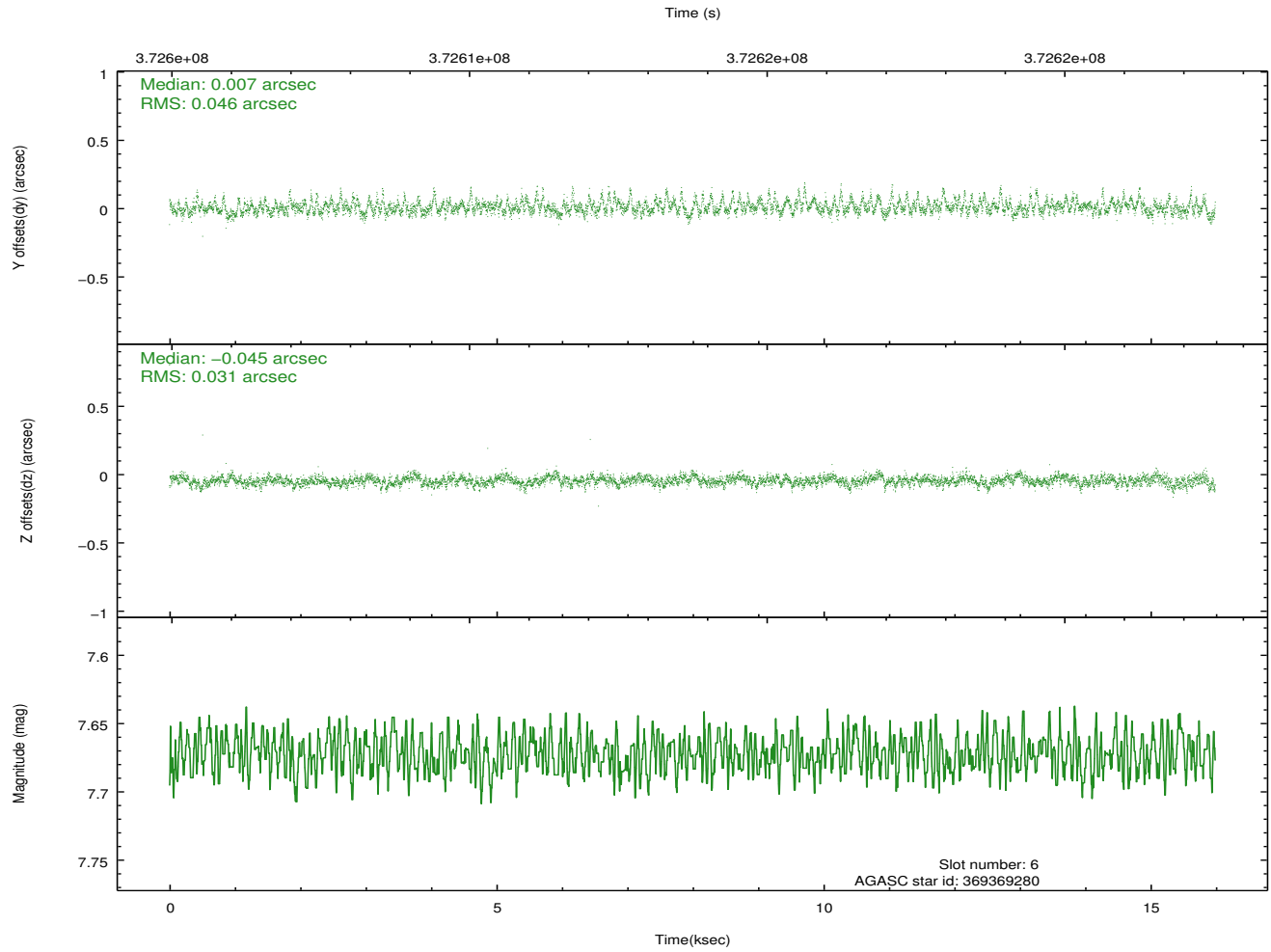
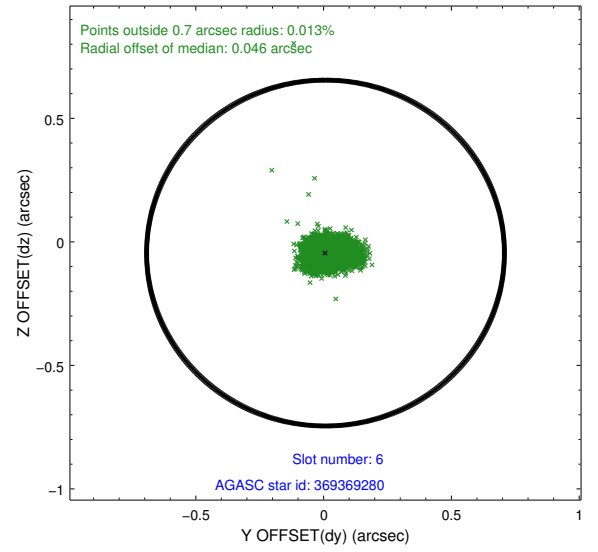
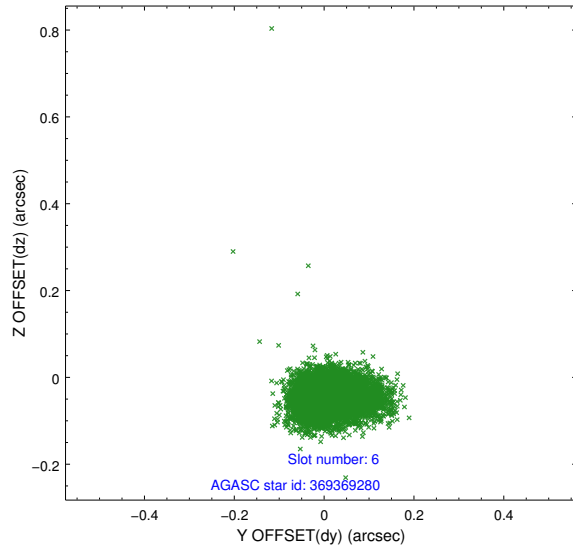




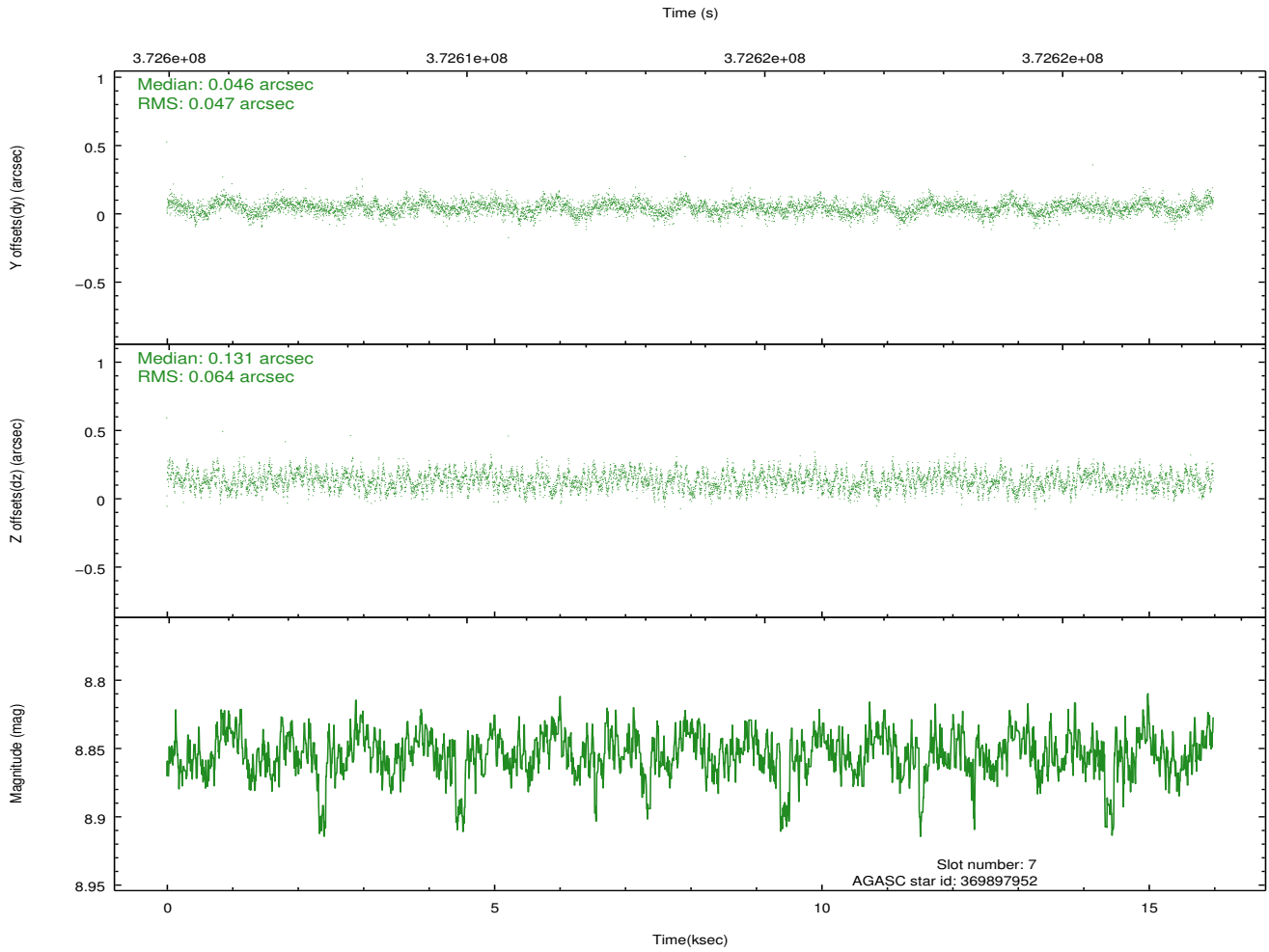
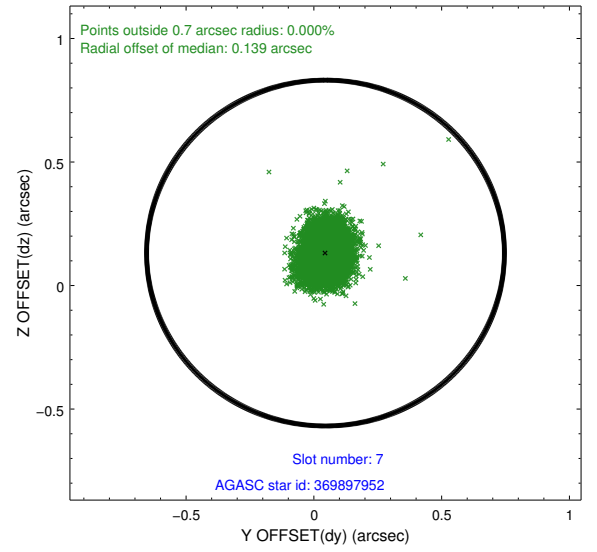
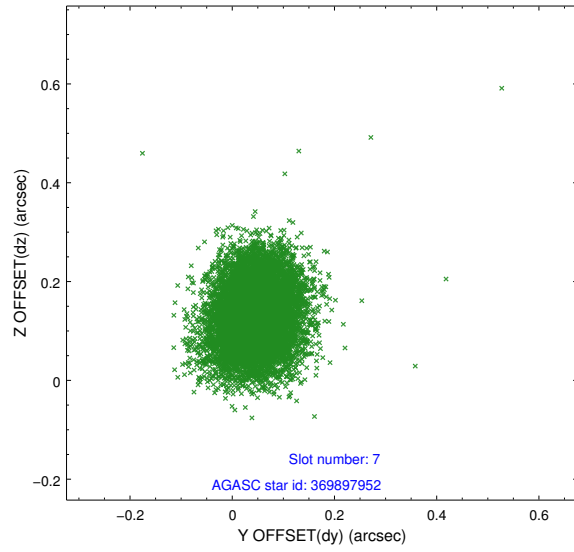
### 2.4.3 Slot 5



## 2.4.4 Slot 6

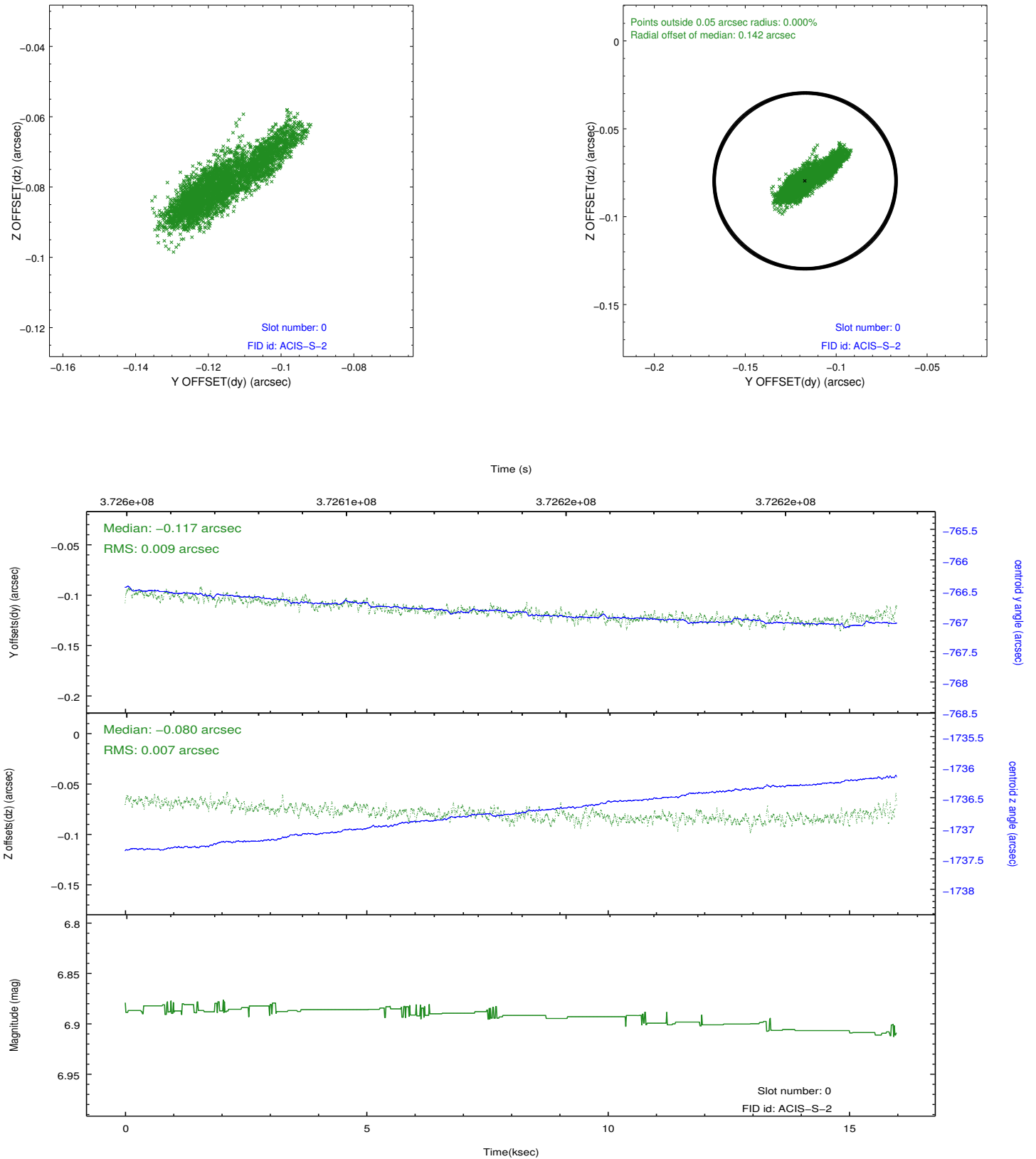


## 2.4.5 Slot 7

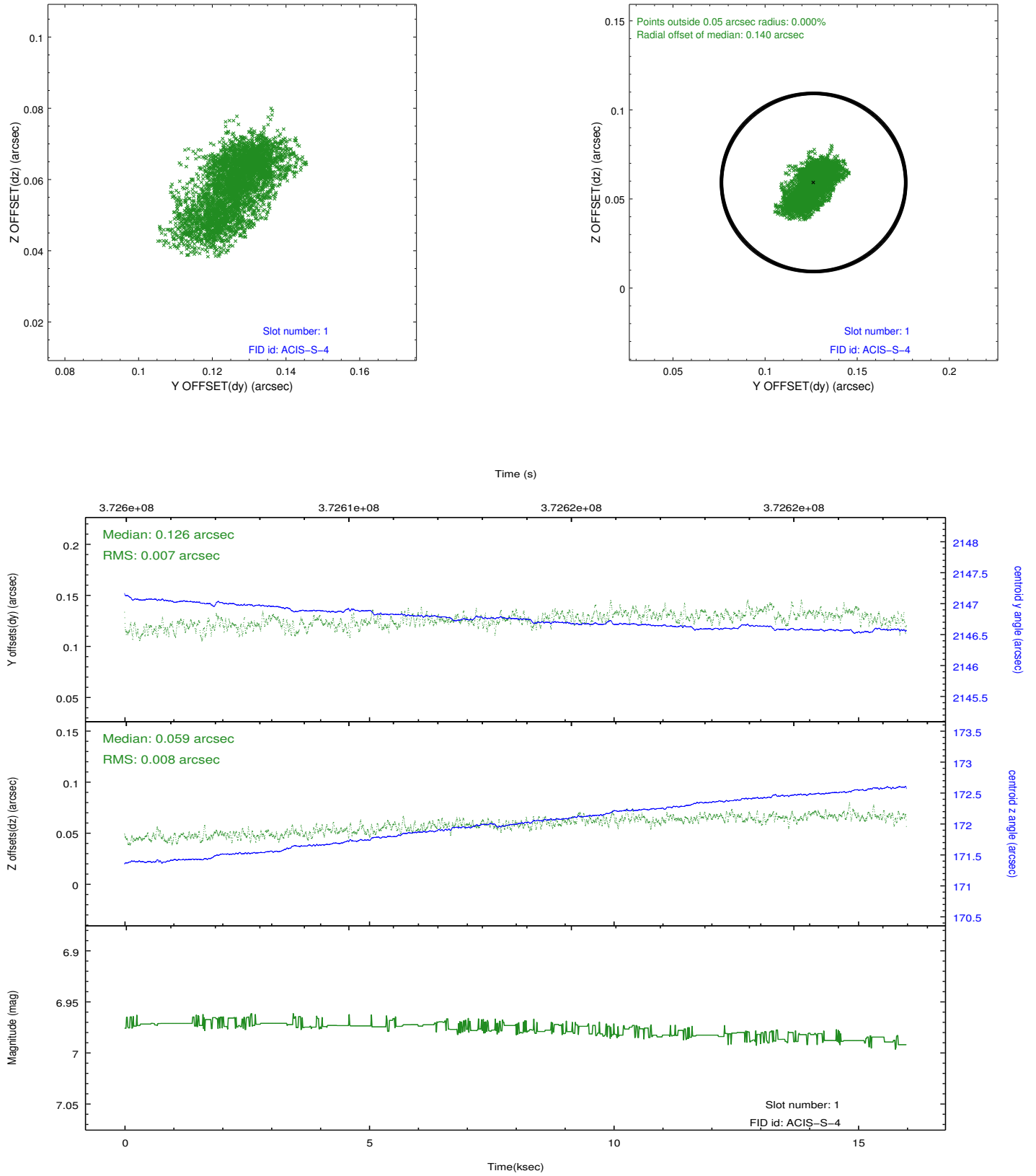


## 2.5 FID Slots

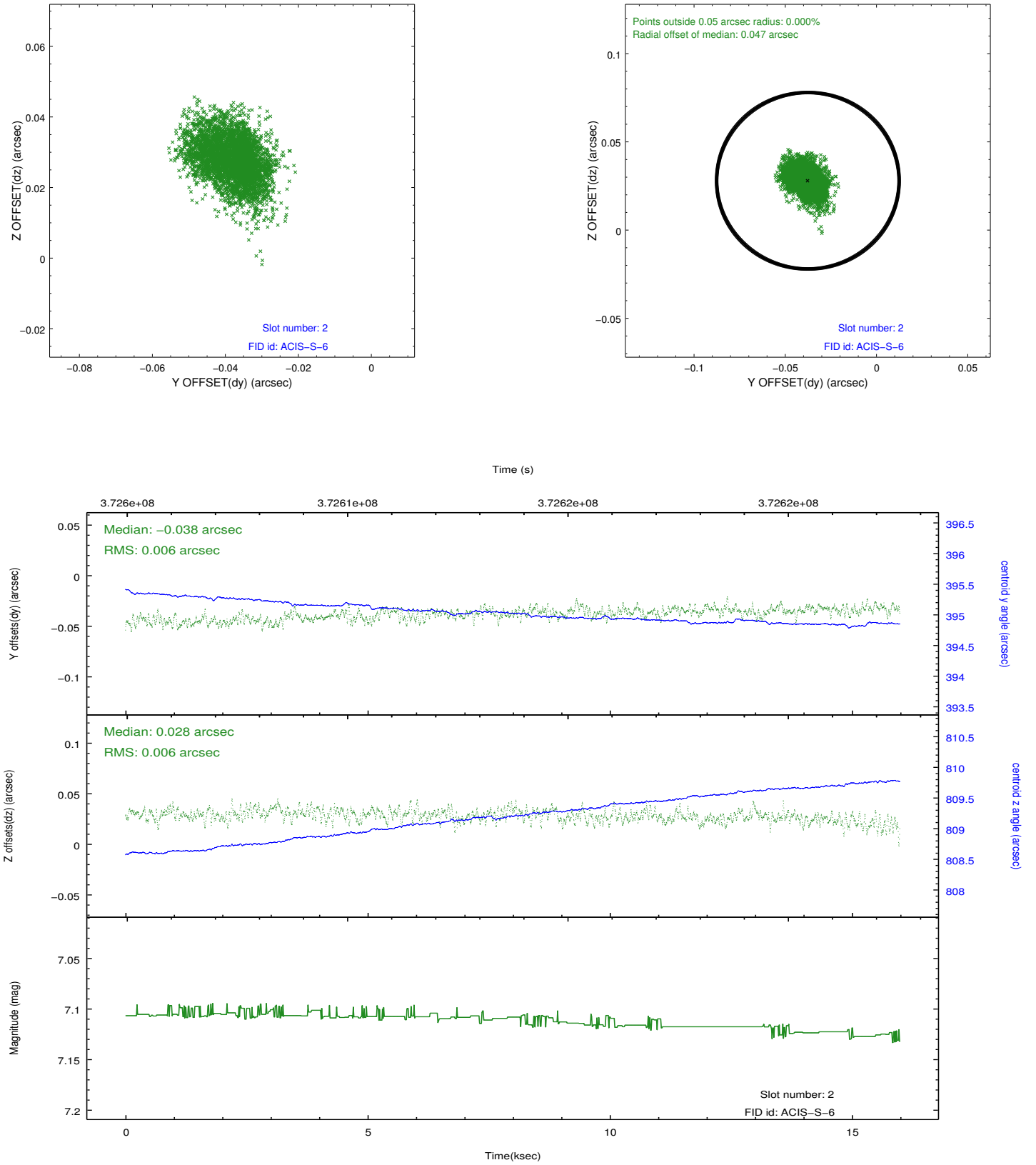
### 2.5.1 Slot 0



## 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)	2012.06.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.987299727678

### A.2 Comments

Monitor constraint met.