

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11346 - L2 Version 2  
Chandra X-Ray Center

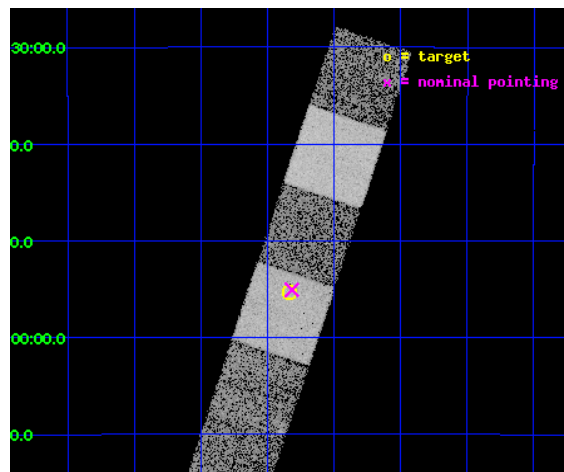
L2 Processing Date : Jul 1 2012

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

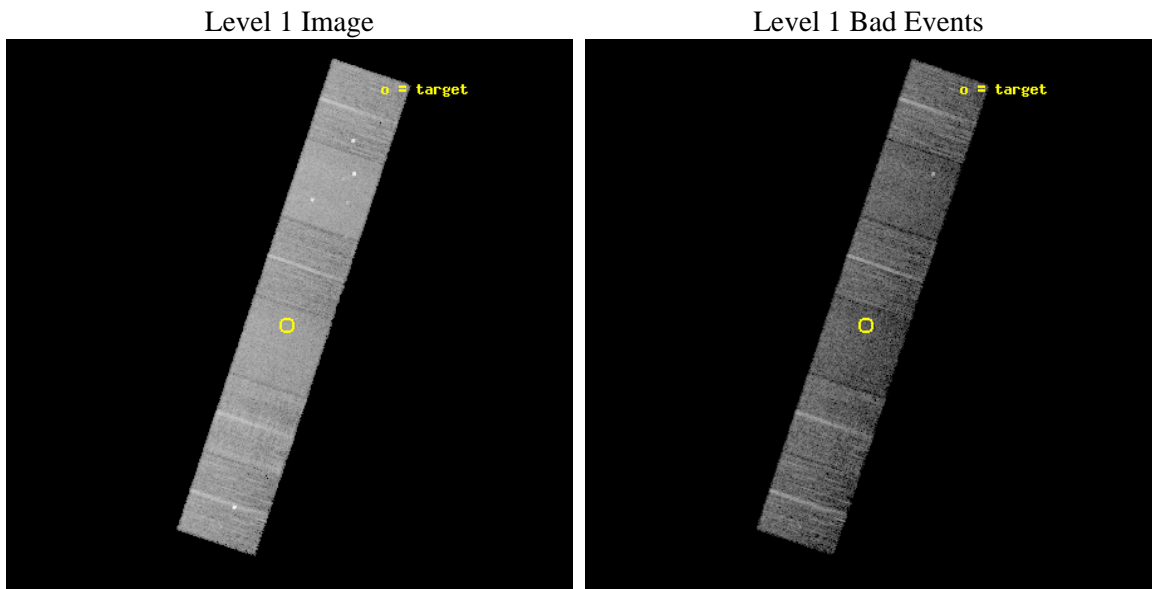
seq_num	600865	Sequence number
obs_id	11346	Observation id
title	Accretion onto nuclear black holes in early type galaxies: comparing field vs. clusters	Proposal title
observer	Elena Gallo	Principal investigator
object	NGC1439	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	56.2083	Observer's specified target RA [deg]
dec_targ	-21.921	Observer's specified target Dec [deg]
ra_nom	56.204275520923	Nominal RA [deg]
dec_nom	-21.917903113164	Nominal Dec [deg]
roll_nom	108.47170040103	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7545.5999719501	Sum of GTIs [s]
livetime	7450.0530416904	Livetime [s]
ontime4	7545.5999719501	Sum of GTIs [s]
ontime5	7545.5999719501	Sum of GTIs [s]
ontime6	7545.5999719501	Sum of GTIs [s]
ontime7	7545.5999719501	Sum of GTIs [s]
ontime8	7545.5999719501	Sum of GTIs [s]
ontime9	7542.3589717746	Sum of GTIs [s]
l2events	90036	Number of level 2 events



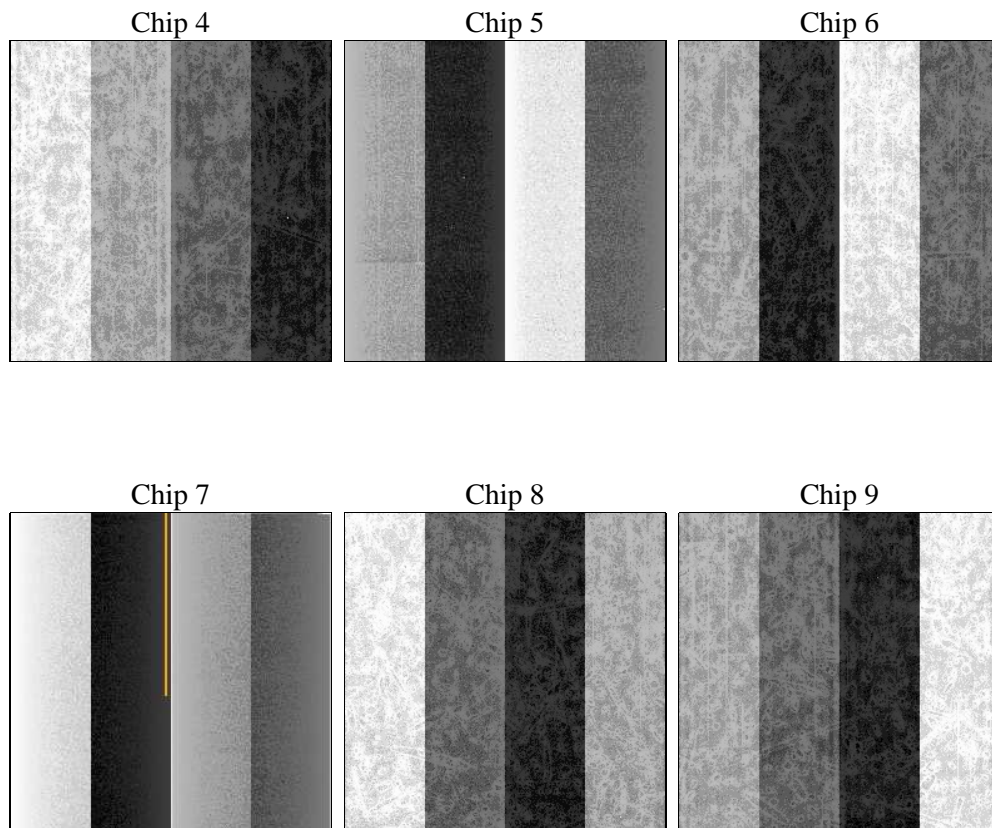
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7545.5999719501	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime4	7545.5999719501	Sum of GTIs [s]
date	2012-07-01T03:28:19	Date and time of file creation	ontime5	7545.5999719501	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	7545.5999719501	Sum of GTIs [s]
			ontime7	7545.5999719501	Sum of GTIs [s]
			ontime8	7545.5999719501	Sum of GTIs [s]
			ontime9	7542.3589717746	Sum of GTIs [s]
			l1events	399640	Number of level 1 events

### 2.1.4 Events

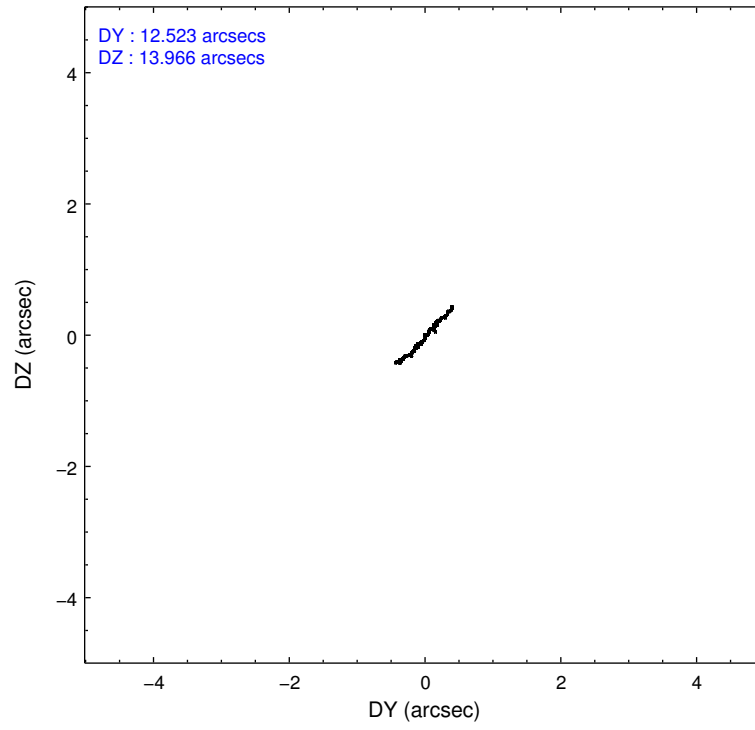
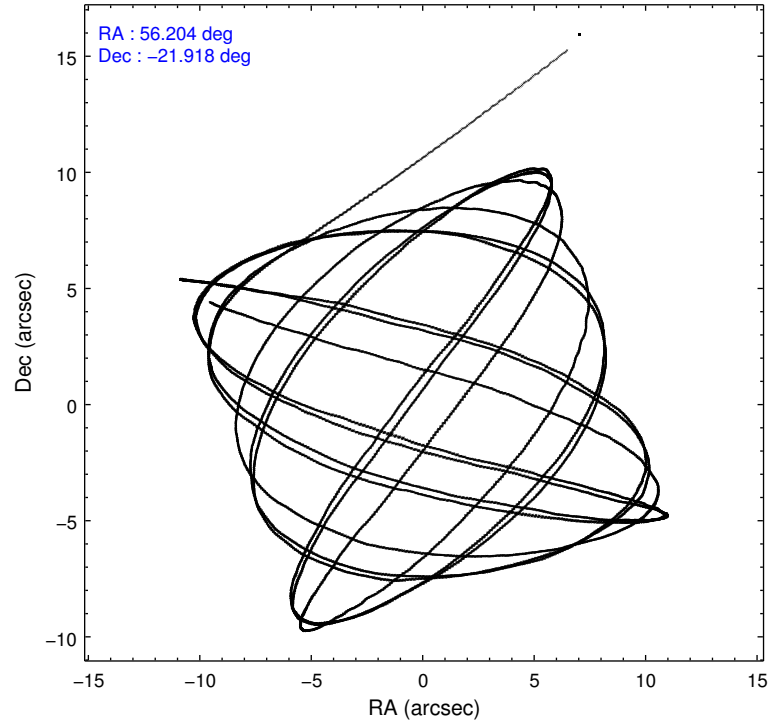
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	64590	83779	55562	66487	70970	58252	grade 0 events	3911	4680	2194	2828	5421	4721
rejected events	56543	41914	49403	36417	52658	49496		6%	5%	3%	4%	7%	8%
rejected %	87%	50%	88%	54%	74%	84%	grade 1 events	49	377	22	78	58	55
								0%	0%	0%	0%	0%	0%
							grade 2 events	1655	12793	1379	6159	4470	1312
								2%	15%	2%	9%	6%	2%
							grade 3 events	706	1493	602	2634	1760	685
								1%	1%	1%	3%	2%	1%
							grade 4 events	689	1472	654	2586	1709	667
								1%	1%	1%	3%	2%	1%
							grade 5 events	2560	6224	2445	7032	3552	2694
								3%	7%	4%	10%	5%	4%
							grade 6 events	1092	21459	1335	15885	4959	1384
								1%	25%	2%	23%	6%	2%
							grade 7 events	53928	35281	46931	29285	49041	46734
								83%	42%	84%	44%	69%	80%

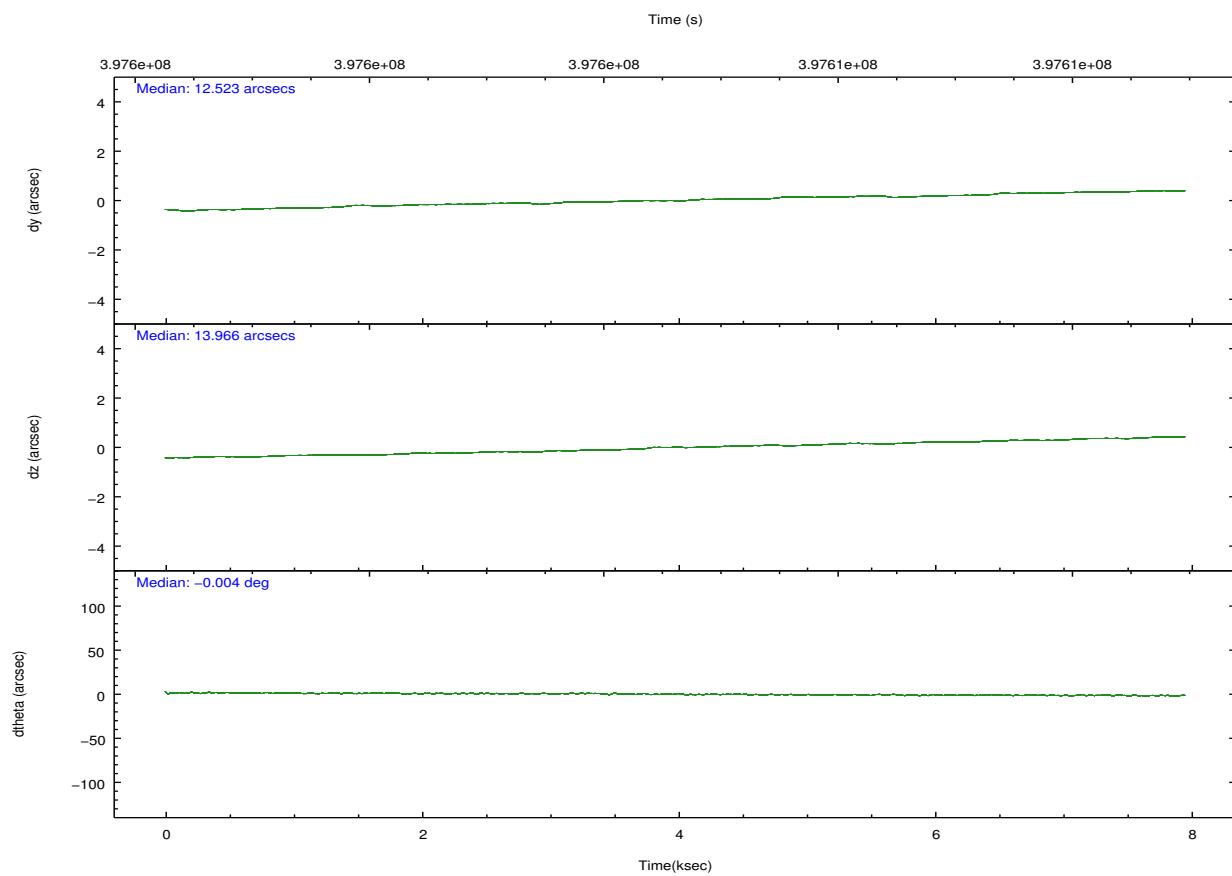
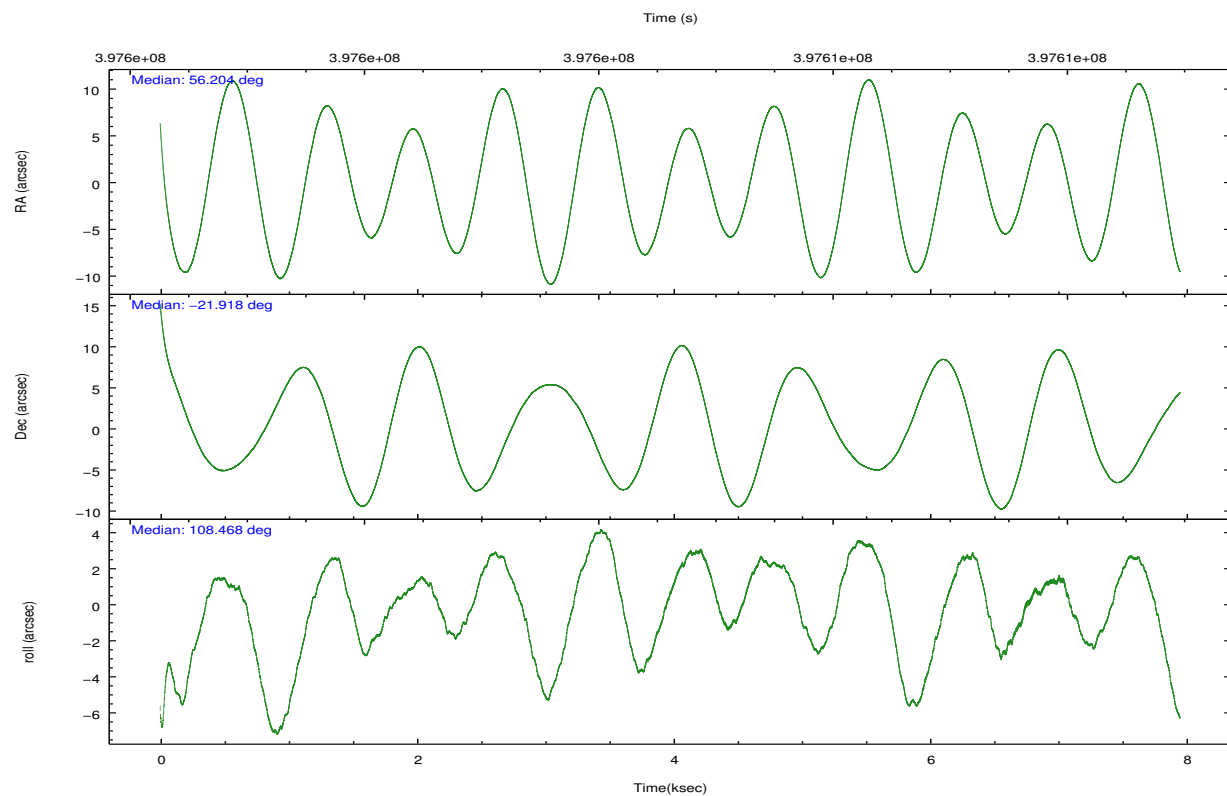


## 2.2 Compared Parameters

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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	56.226616	56.20427552092313	CCD I2 on	N	N
[deg] Pointing Dec	-21.935741	-21.91790311316425	CCD I3 on	N	N
[deg] Pointing Roll	108.323430	108.4717004010328	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	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	Y	Y
[s] Observation start time (MET)	397601083.184000	397599931.22324	CCD S5 on	O2	Y
Observation start date	2010-08-07T20:43:37	2010-08-07T20:25:31	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	397608583.184000	397609490.88623	On-chip summing requested	N	N
Observation end date	2010-08-07T22:48:37	2010-08-07T23:04:50	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



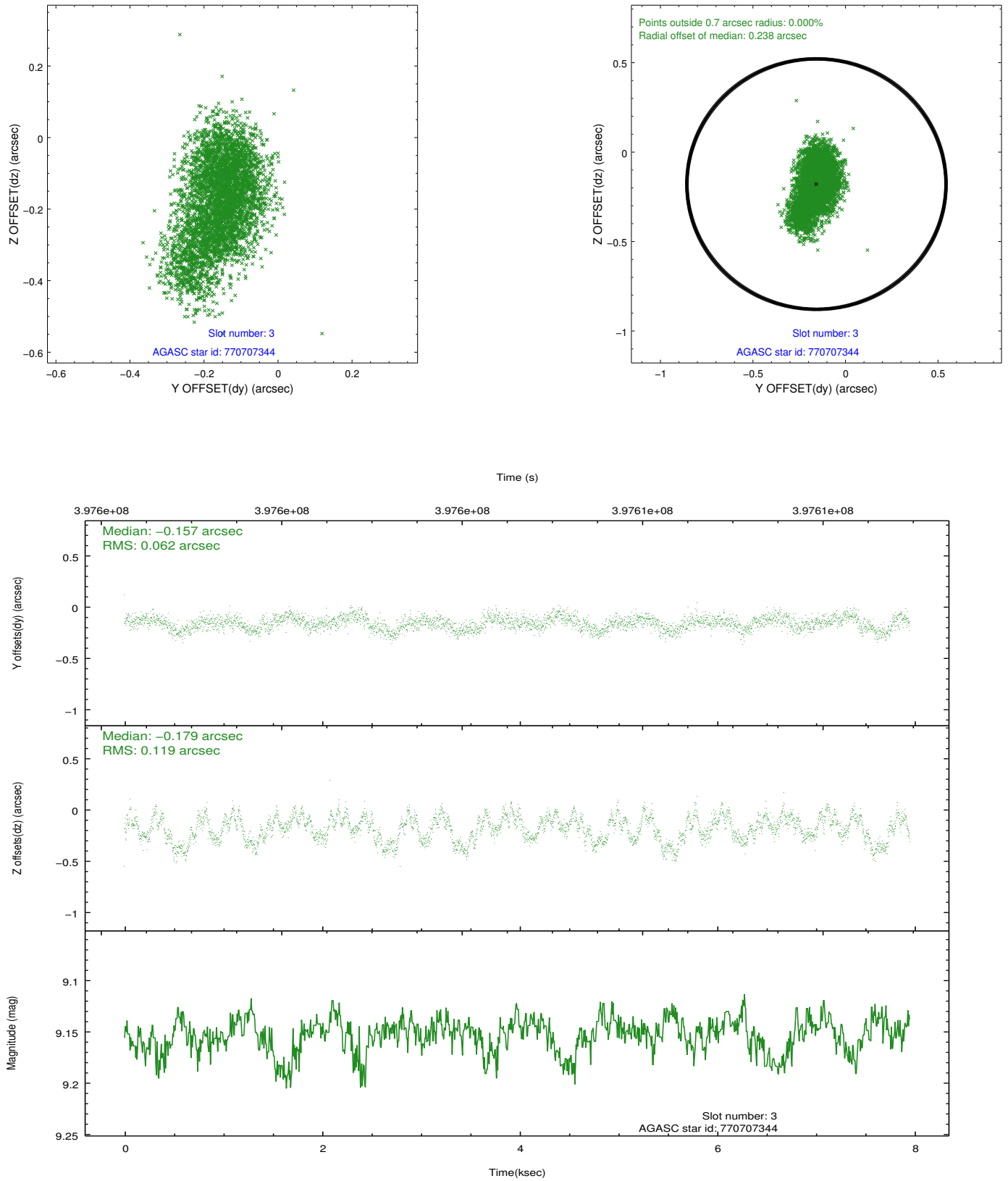


### Slot Statistics

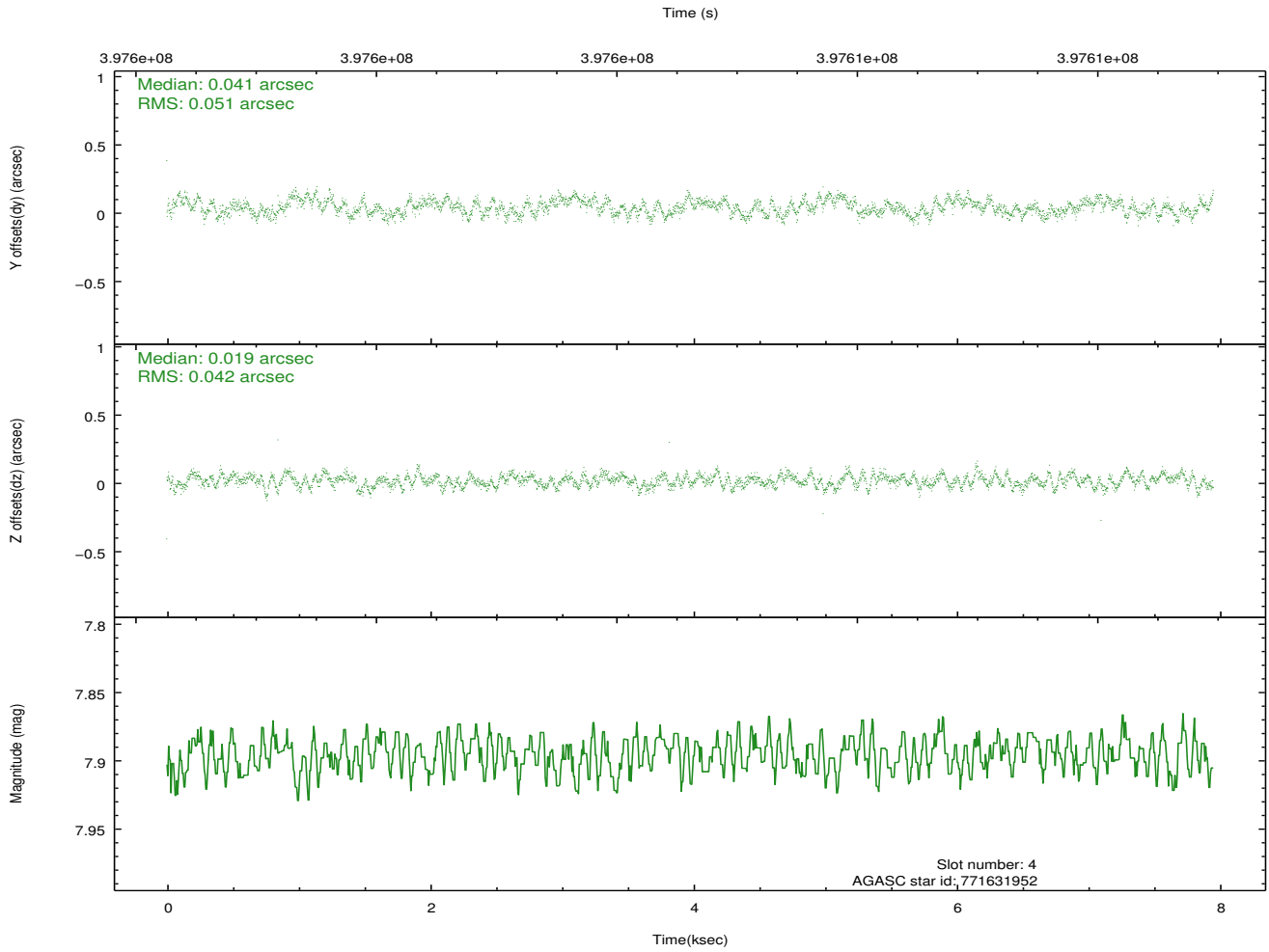
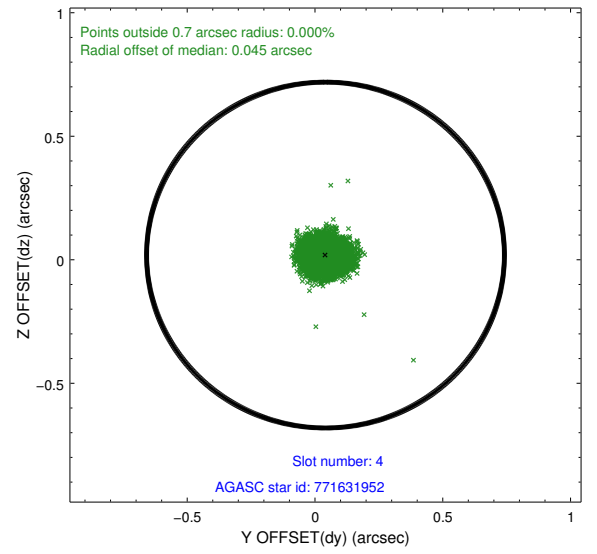
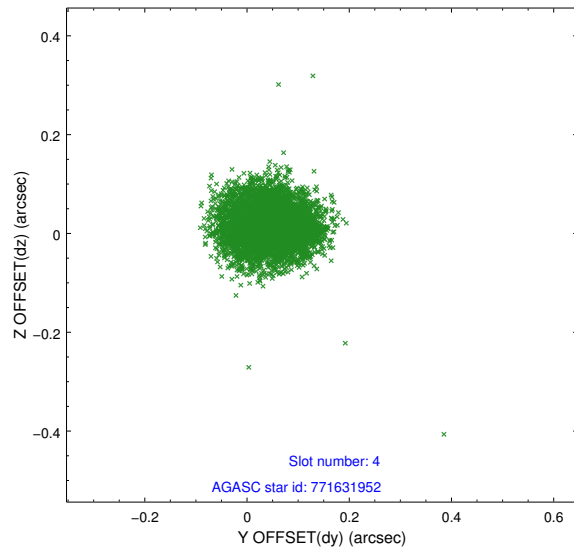
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.91	1940	-0.031	-0.048	0.010	0.016	0.000000	0.000000	-765.46	-1735.30
1	FID	ACIS-S-4	6.99	1940	0.157	0.028	0.017	0.030	0.000000	0.000000	2147.68	172.54
2	FID	ACIS-S-5	7.03	1940	-0.158	0.028	0.011	0.018	0.000000	0.000000	-1817.52	167.00
3	GUIDE	770707344	9.15	3878	-0.157	-0.179	0.142	0.239	55.977679	-21.936568	258.11	790.37
4	GUIDE	771631952	7.89	3879	0.041	0.019	0.071	0.106	56.370335	-22.114115	-760.51	-253.03
5	GUIDE	771631960	9.03	3871	0.146	0.031	0.097	0.161	57.090731	-22.253062	-1996.98	-2371.57
6	GUIDE	771632112	9.22	3870	-0.085	-0.034	0.098	0.162	56.370633	-21.229687	2260.57	-1258.23
7	GUIDE	771626096	8.18	3874	0.058	0.172	0.073	0.116	57.086980	-22.193379	-1788.71	-2428.51

## 2.4 Star Slots

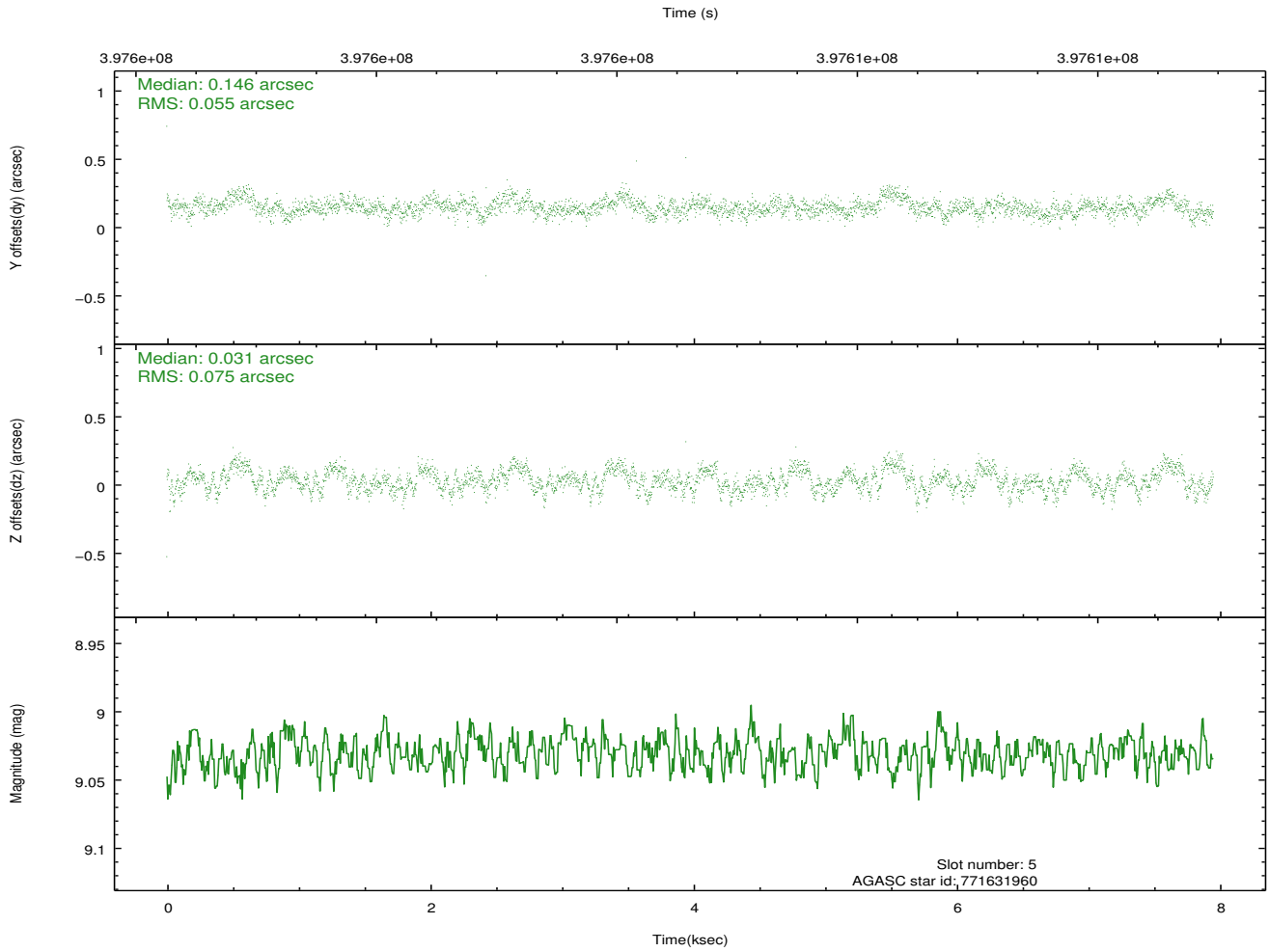
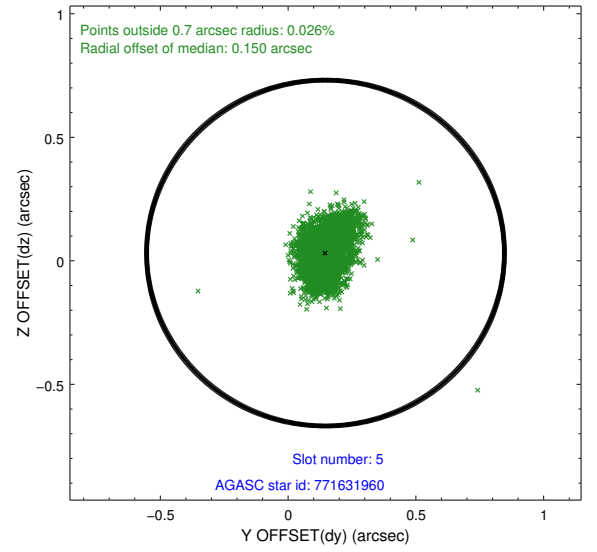
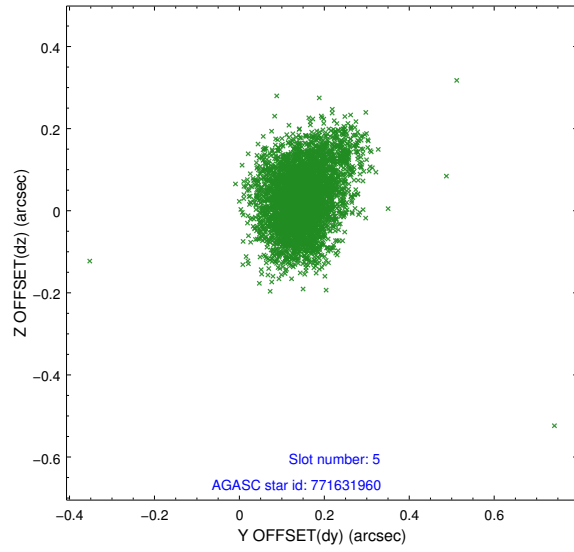
### 2.4.1 Slot 3



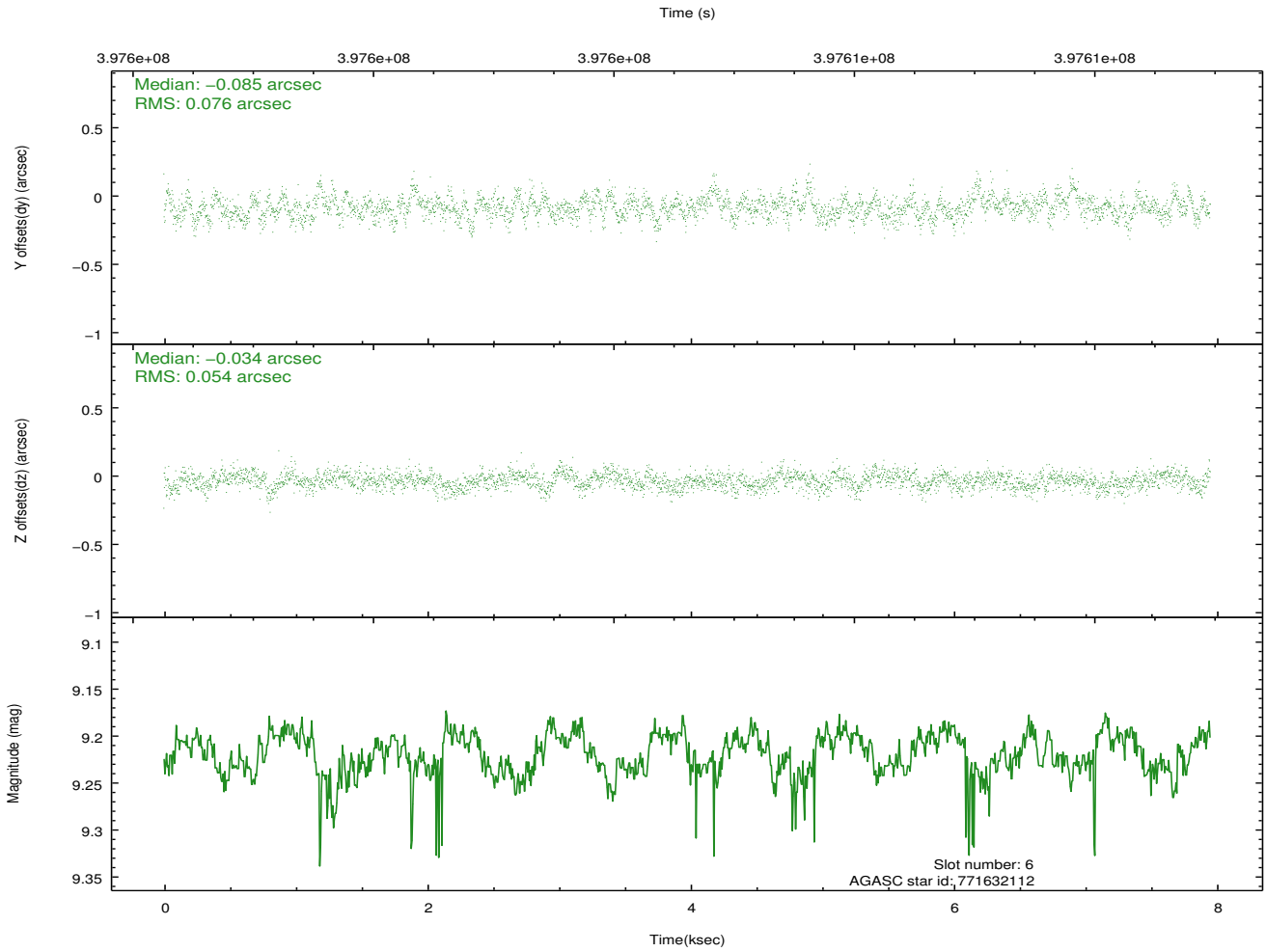
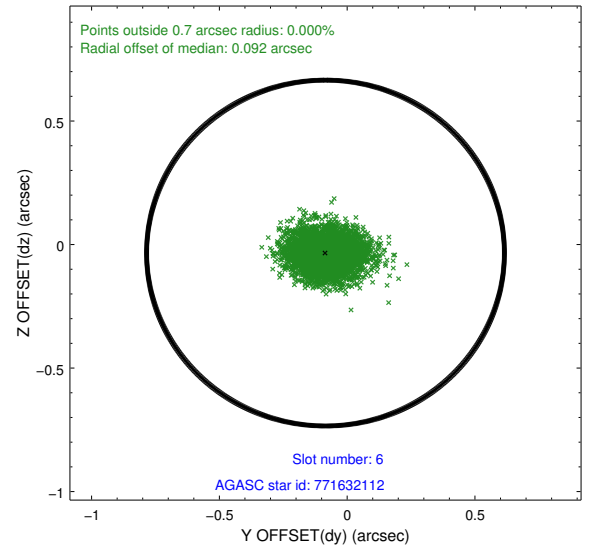
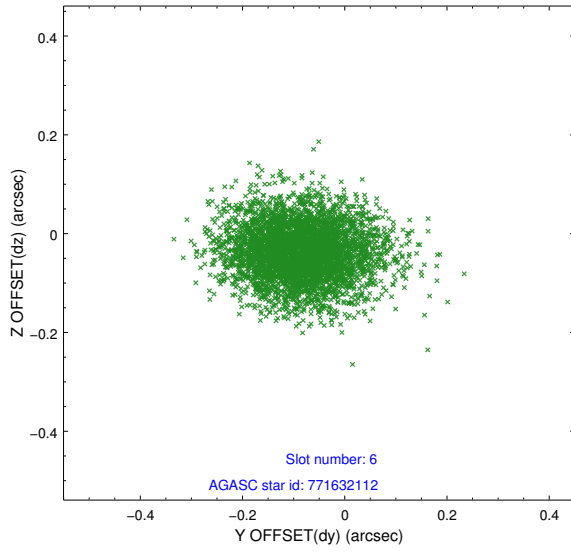
## 2.4.2 Slot 4



### 2.4.3 Slot 5

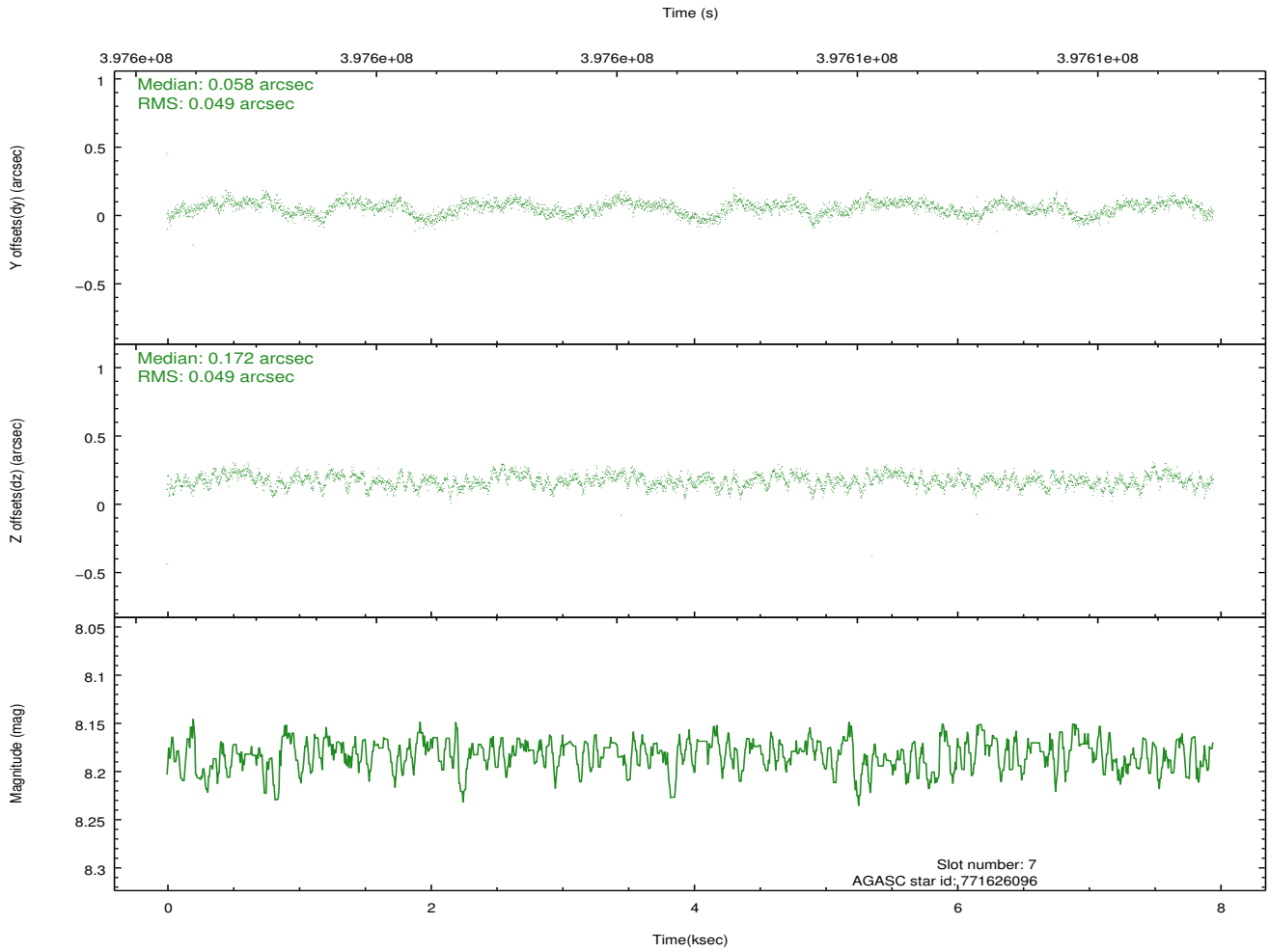
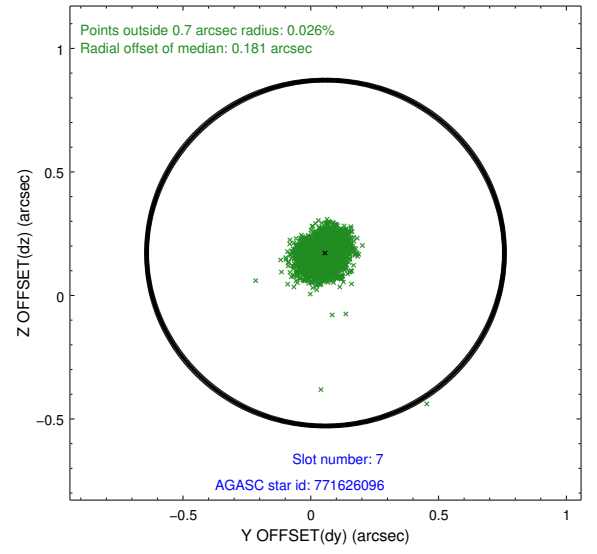
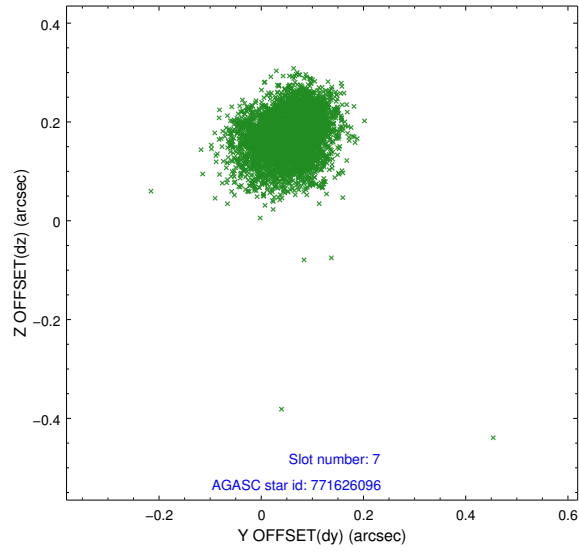


## 2.4.4 Slot 6



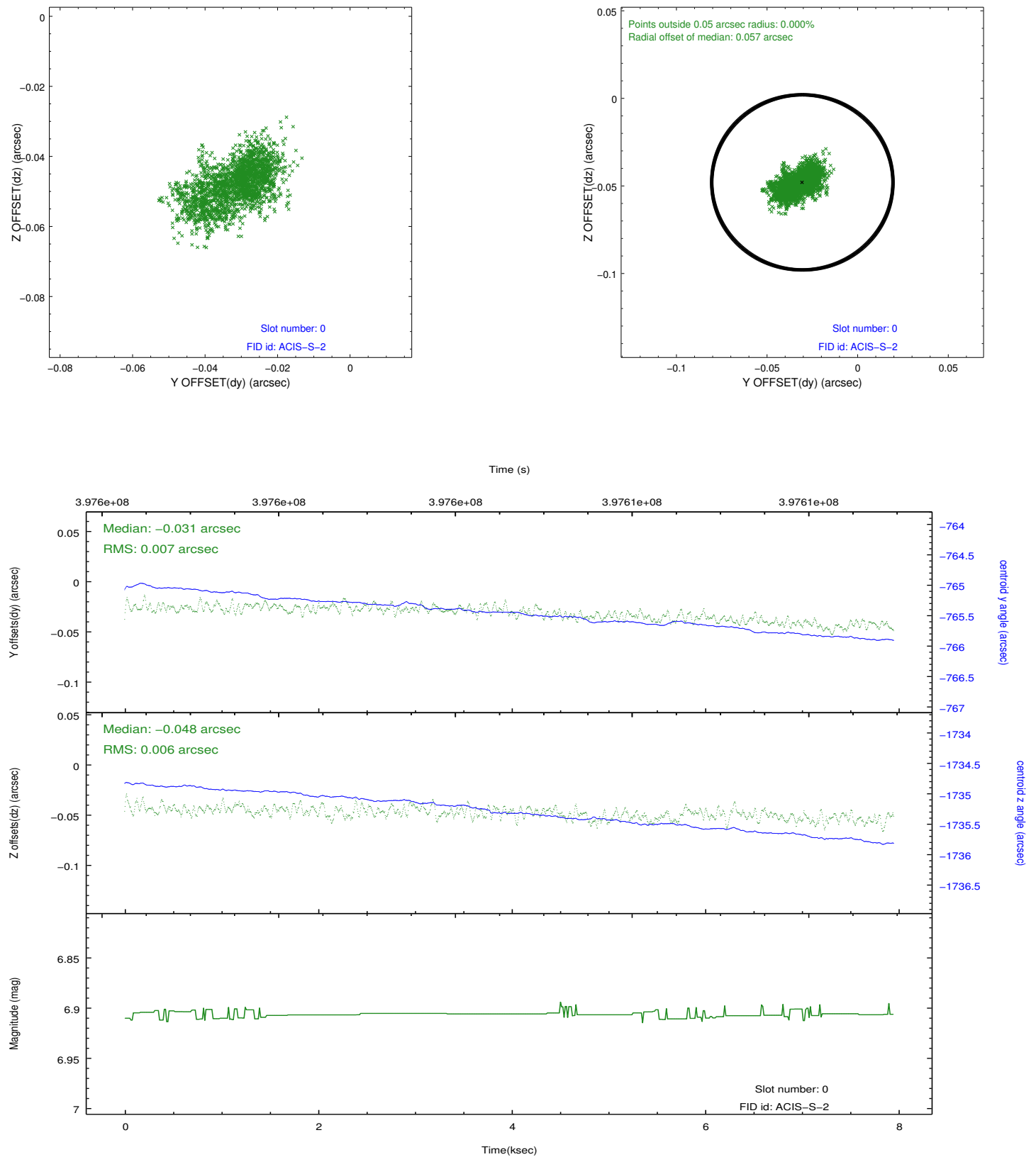


## 2.4.5 Slot 7

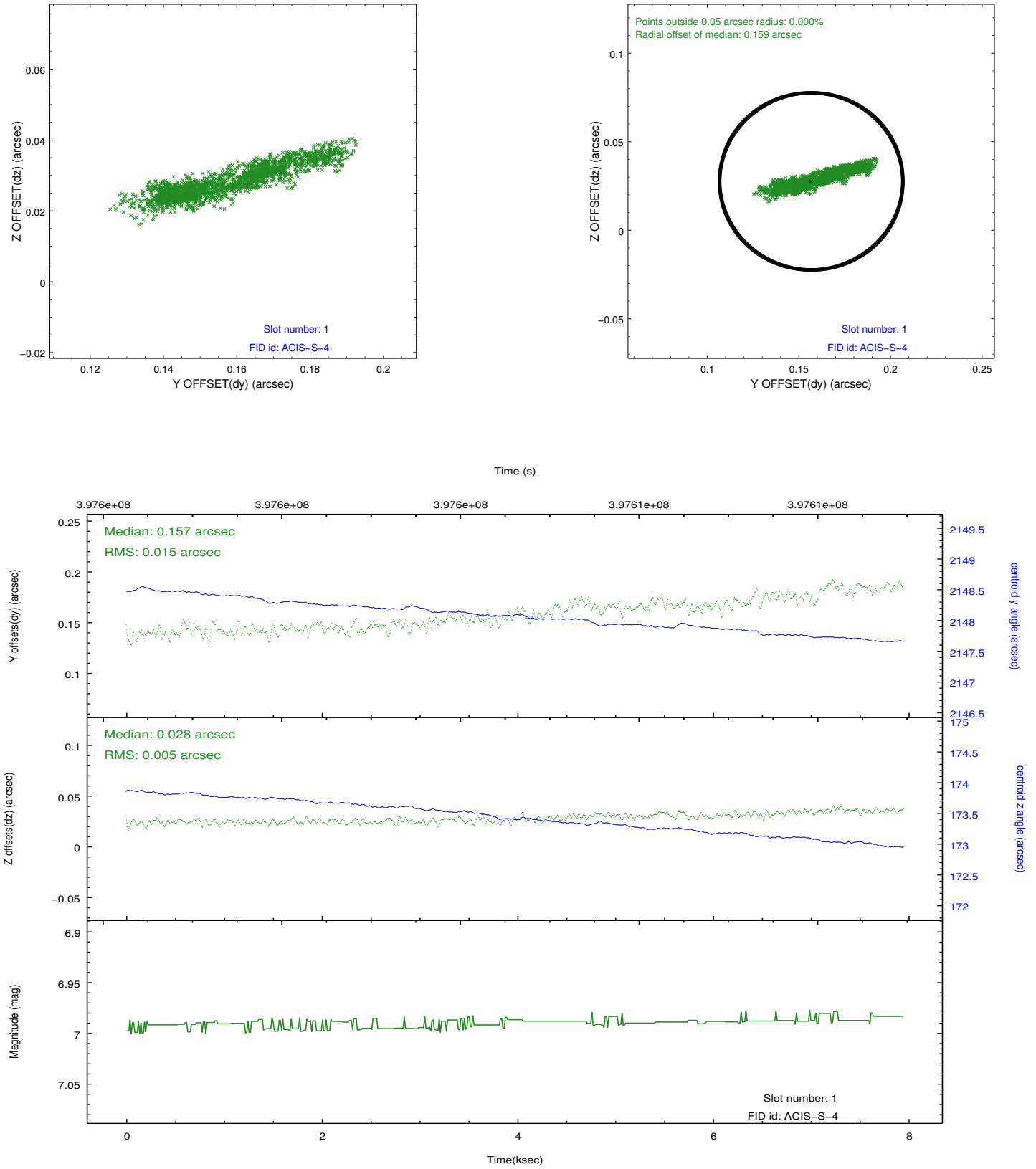


## 2.5 FID Slots

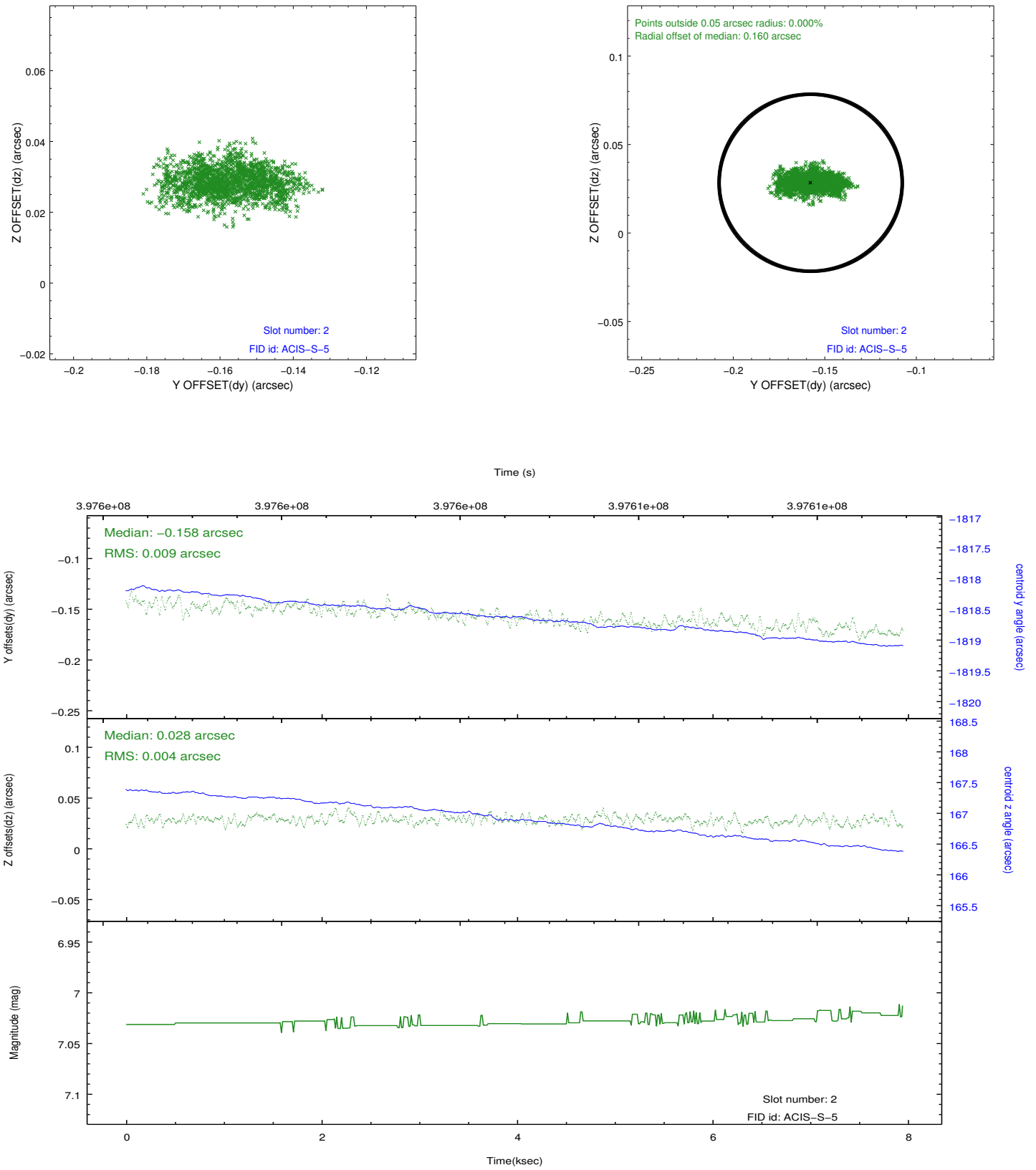
### 2.5.1 Slot 0



## 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)	2012.07.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.5455999719501

### A.2 Comments