

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 1577 - L2 Version 3  
Chandra X-Ray Center

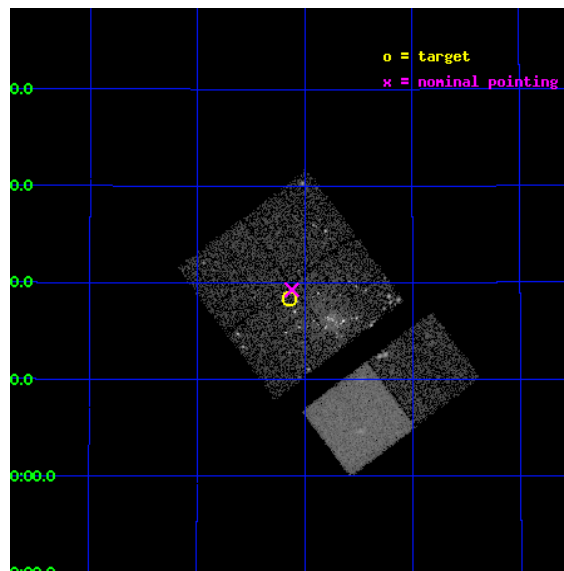
L2 Processing Date : Sep 23 2012

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# 1 Front

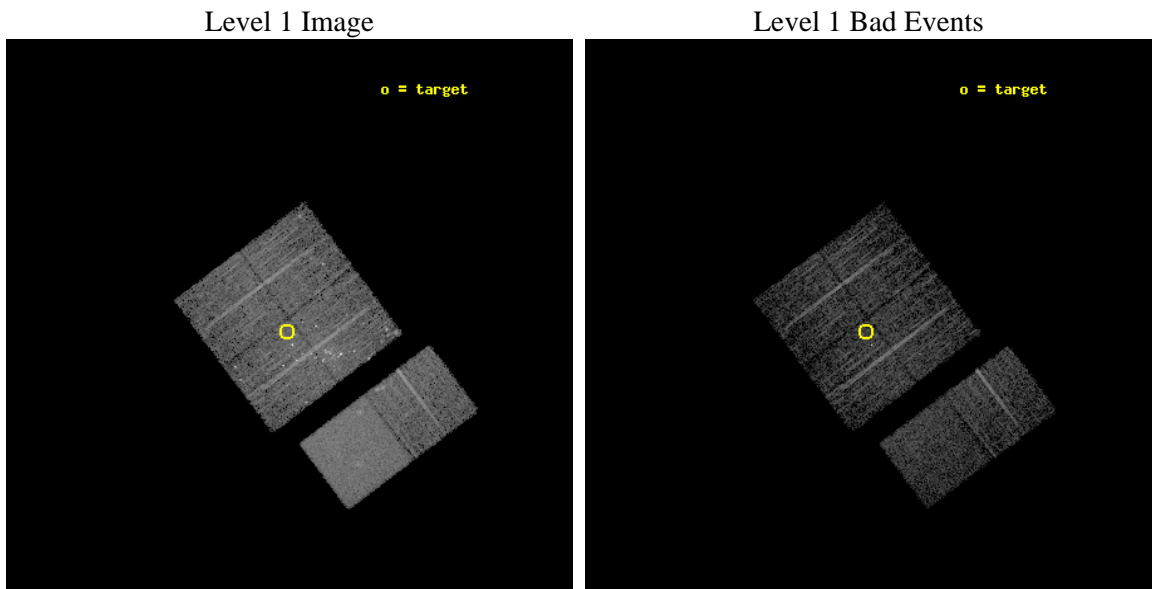
seq_num	600134	Sequence number
obs_id	1577	Observation id
title	M31 NUCLEAR REGION	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	M31 NUCLEUS	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	10.785417	Observer's specified target RA [deg]
dec_targ	41.305556	Observer's specified target Dec [deg]
ra_nom	10.780135090194	Nominal RA [deg]
dec_nom	41.321339559327	Nominal Dec [deg]
roll_nom	143.00020895937	Nominal Roll [deg]
revision	3	Processing version of data
ontime	4976.0000046194	Sum of GTIs [s]
livetime	4912.9908963734	Livetime [s]
ontime0	4972.7590144575	Sum of GTIs [s]
ontime1	4969.5181339681	Sum of GTIs [s]
ontime2	4976.0000046194	Sum of GTIs [s]
ontime3	4976.0000046194	Sum of GTIs [s]
ontime6	4976.0000046194	Sum of GTIs [s]
ontime7	4976.0000046194	Sum of GTIs [s]
l2events	57886	Number of level 2 events



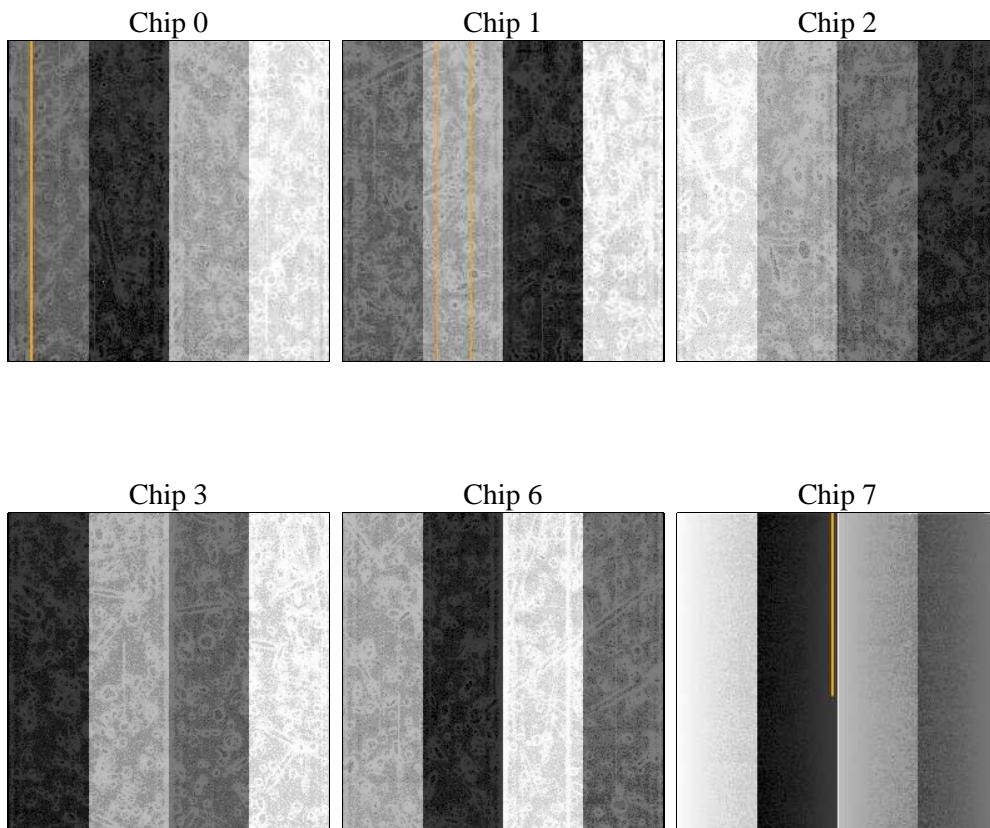
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5022.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	4976.0000046194	Sum of GTIs [s]
caldbver	4.5.1.1	&#160	ontime0	4972.7590144575	Sum of GTIs [s]
date	2012-09-23T13:04:07	Date and time of file creation	ontime1	4969.5181339681	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	4976.0000046194	Sum of GTIs [s]
			ontime3	4976.0000046194	Sum of GTIs [s]
			ontime6	4976.0000046194	Sum of GTIs [s]
			ontime7	4976.0000046194	Sum of GTIs [s]
			l1events	213460	Number of level 1 events

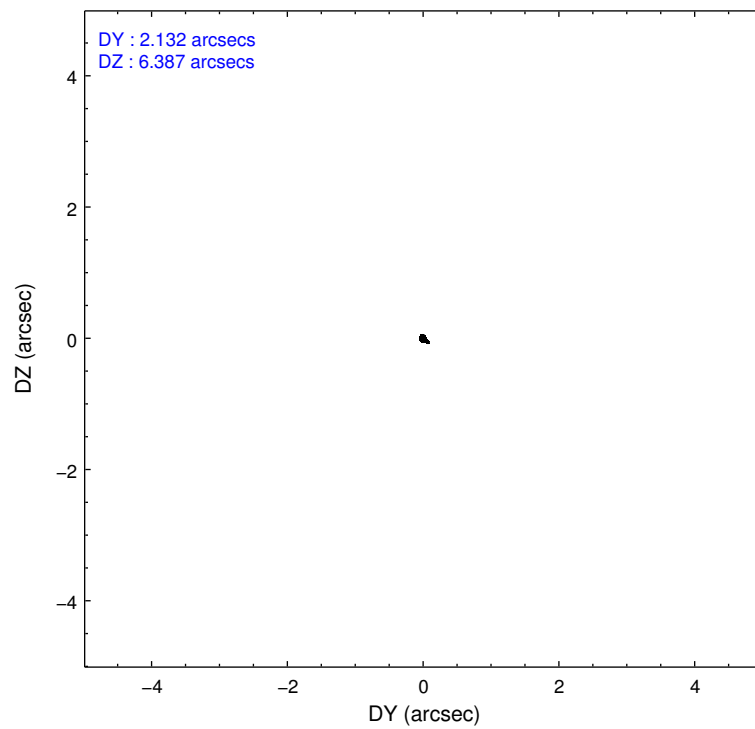
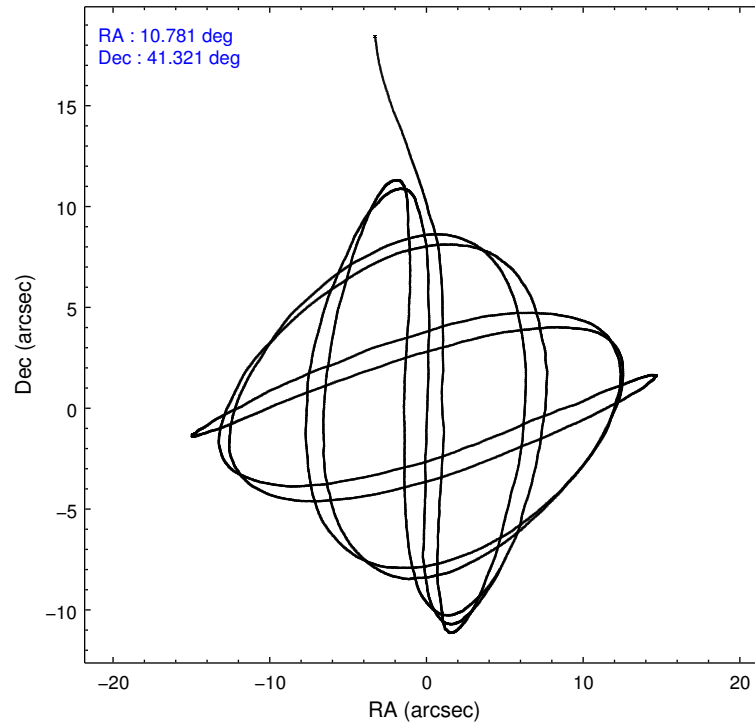
### 2.1.4 Events

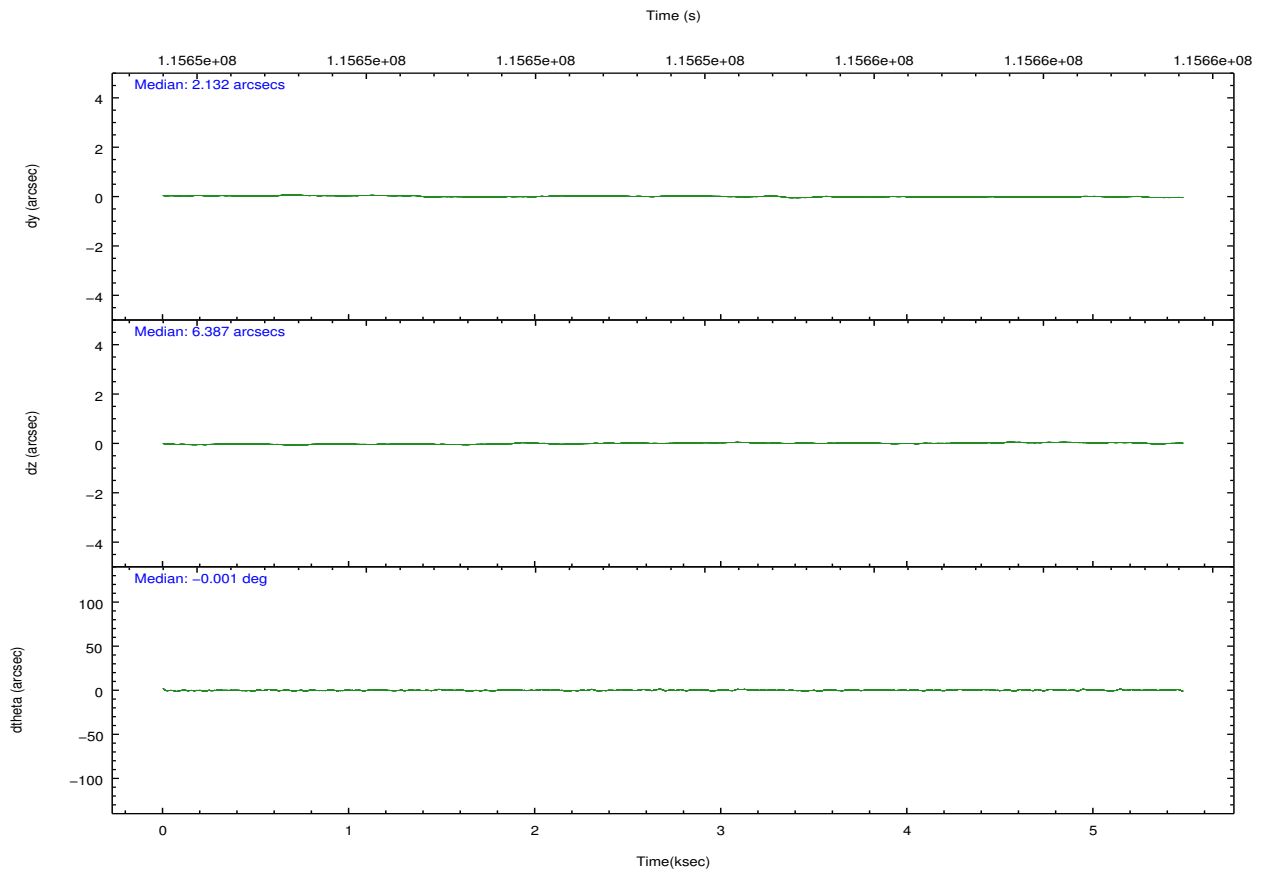
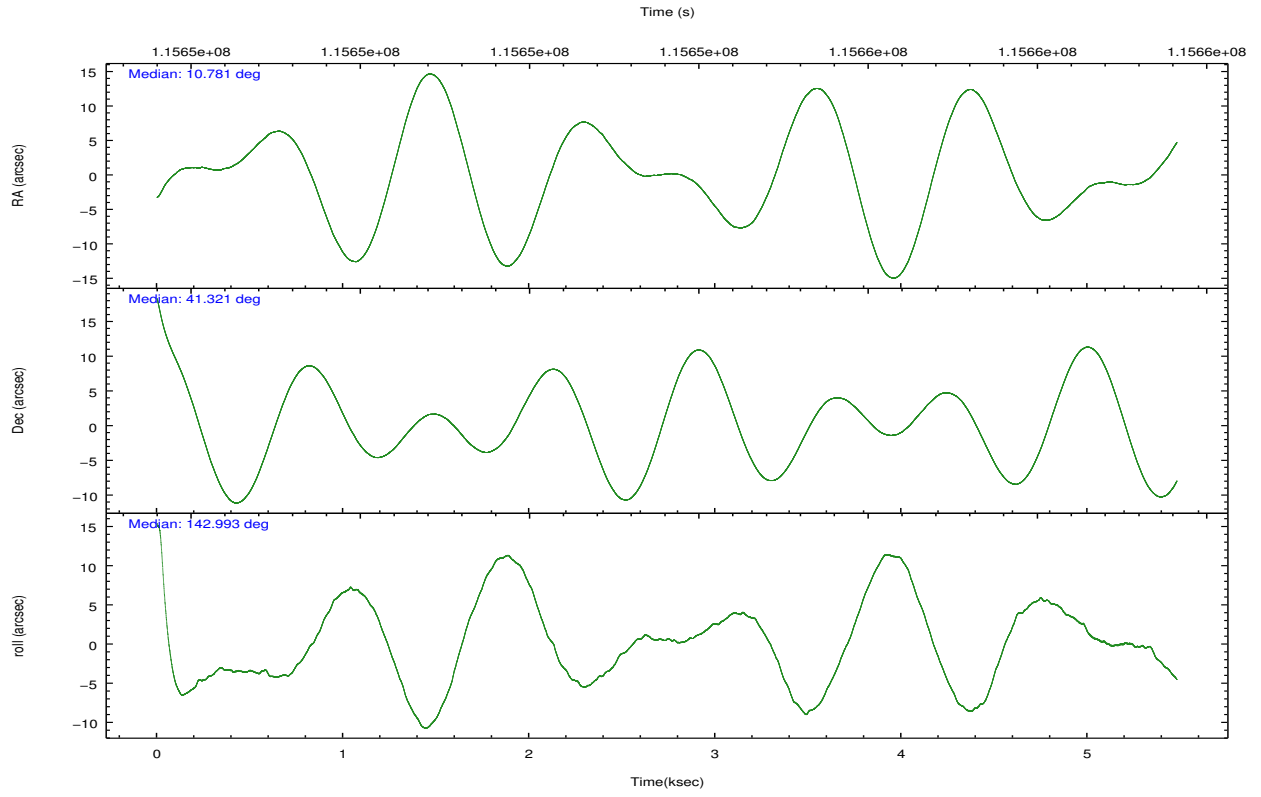
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	29759	28690	39478	36239	31362	47932	grade 0 events	2557	2087	9395	5691	2863	2847
rejected events	24899	24235	26408	27346	26241	22391		8%	7%	23%	15%	9%	5%
rejected %	83%	84%	66%	75%	83%	46%	grade 1 events	18	16	118	267	19	31
								0%	0%	0%	0%	0%	0%
							grade 2 events	943	882	1690	1314	836	4821
								3%	3%	4%	3%	2%	10%
							grade 3 events	362	385	609	523	341	2173
								1%	1%	1%	1%	1%	4%
							grade 4 events	332	369	595	534	371	2187
								1%	1%	1%	1%	1%	4%
							grade 5 events	1055	1142	1048	1341	1330	3689
								3%	3%	2%	3%	4%	7%
							grade 6 events	670	733	785	835	714	13525
								2%	2%	1%	2%	2%	28%
							grade 7 events	23822	23076	25238	25734	24888	18659
								80%	80%	63%	71%	79%	38%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	10.816408	10.78013509019432	Subarray requested	NONE	NONE
[deg] Pointing Dec	41.318050	41.32133955932651	Alternating exposures requested	N	N
[deg] Pointing Roll	142.767517	143.0002089593694	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	115257664.184000	115257664.184000			
[s] Window stop time (MET)	115776064.184000	115776064.184000			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	115651535.184000	115650436.8531			
Observation start date	2001-08-31T13:24:31	2001-08-31T13:07:16			
[s] Observation end time (MET)	115656557.184000	115657282.82837			
Observation end date	2001-08-31T14:48:13	2001-08-31T15:01:22			
Read mode	TIMED	TIMED			

## 2.3 Aspect



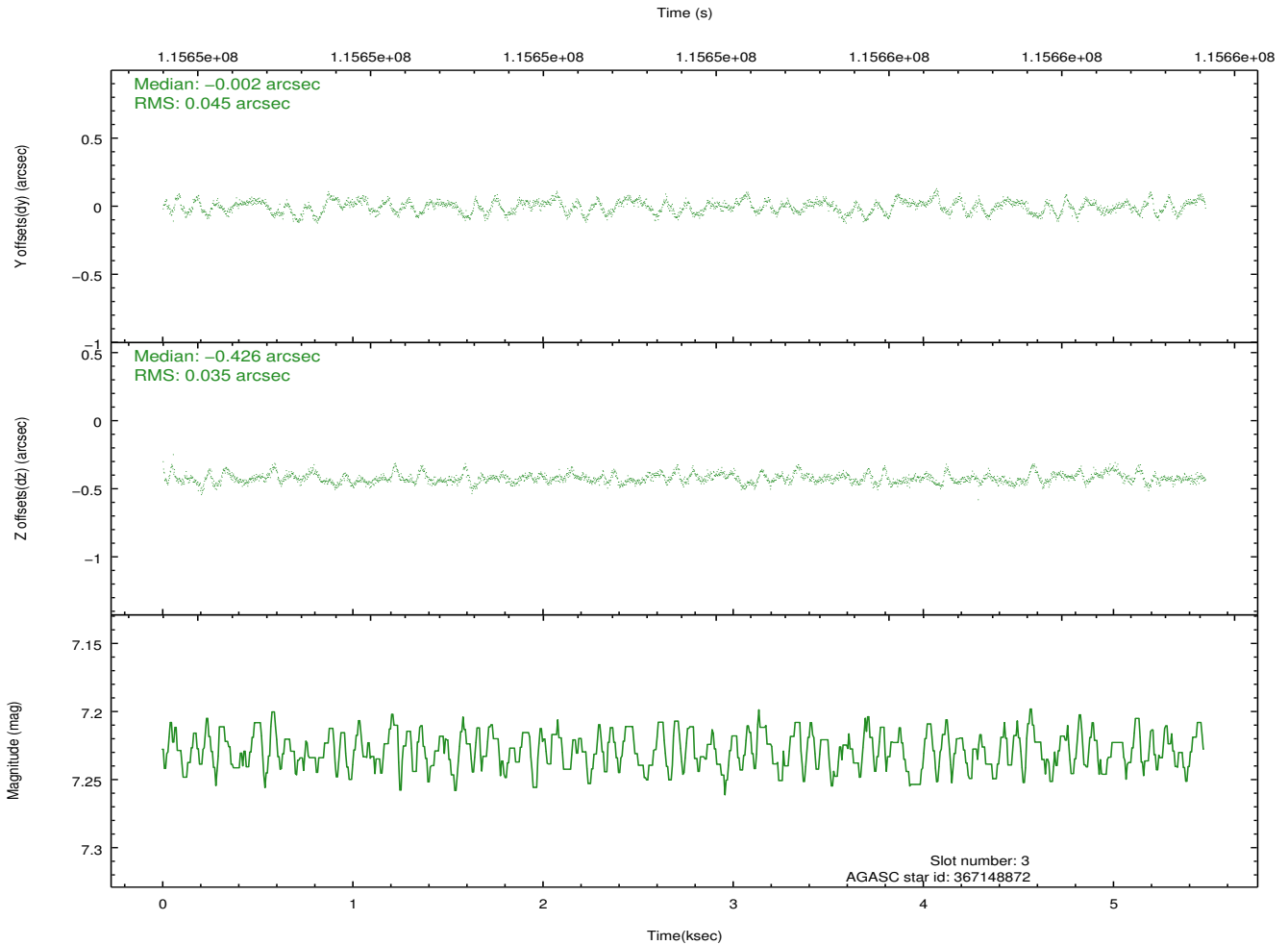
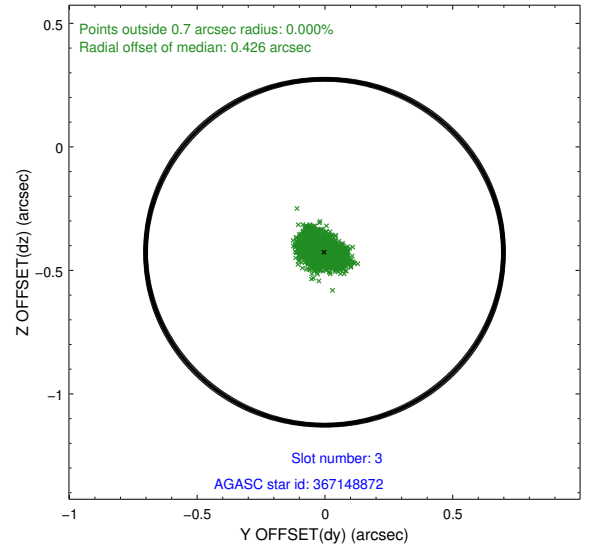
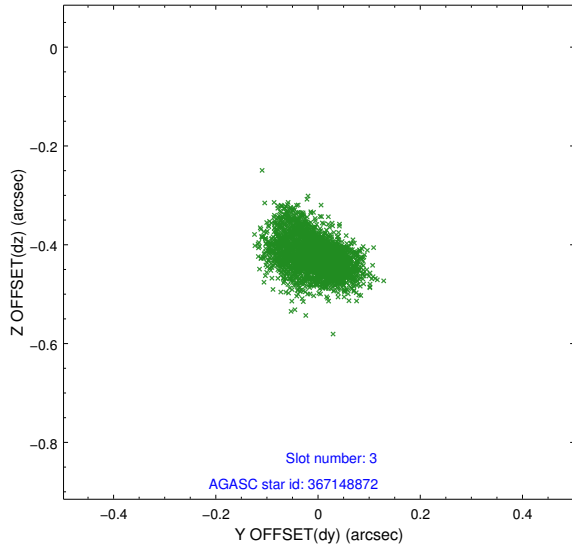


### Slot Statistics

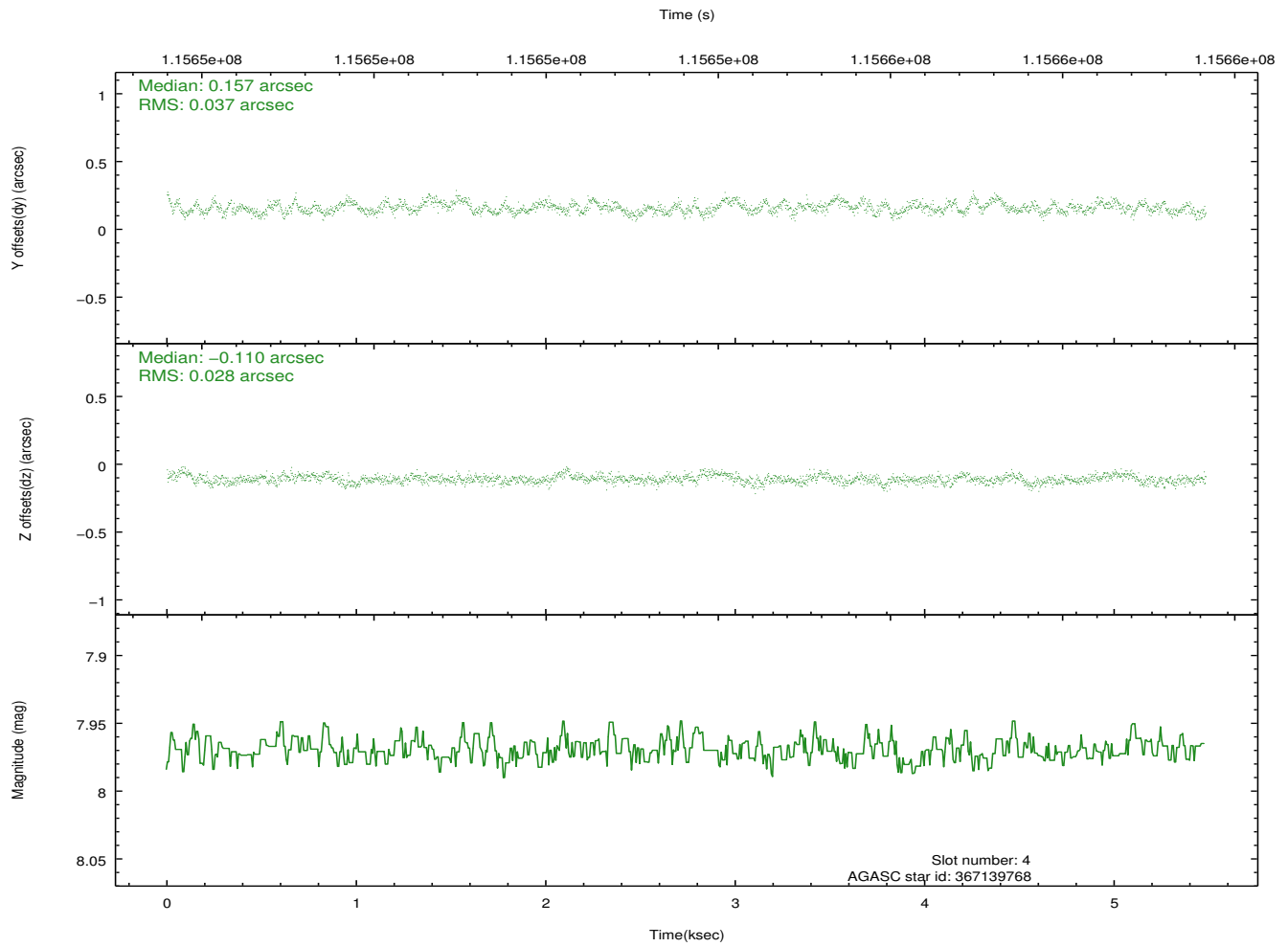
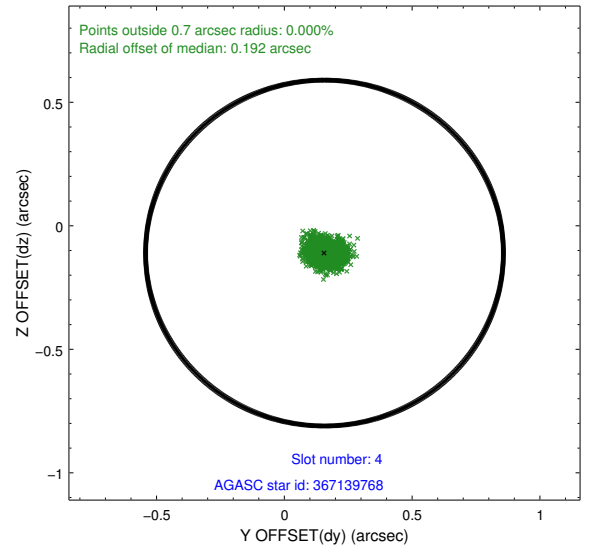
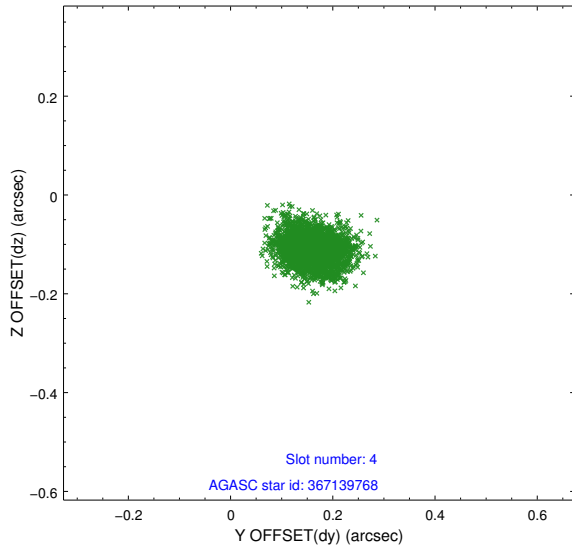
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	1336	-0.016	0.026	0.006	0.011	0.000000	0.000000	937.65	-829.75
1	FID	ACIS-I-5	7.23	1336	-0.029	0.042	0.006	0.011	0.000000	0.000000	-1809.83	1067.26
2	FID	ACIS-I-6	7.26	1337	-0.047	0.002	0.006	0.011	0.000000	0.000000	402.02	1712.93
3	GUIDE	367148872	7.23	2674	-0.002	-0.426	0.061	0.100	10.505940	40.688258	-694.77	2316.81
4	GUIDE	367139768	7.97	2674	0.157	-0.110	0.049	0.079	11.069715	40.685175	-1927.12	1395.85
5	GUIDE	367657272	8.40	2672	0.084	0.224	0.060	0.099	11.834471	41.298907	-2222.96	-1623.04
6	GUIDE	367674552	8.84	2671	-0.022	0.120	0.064	0.104	11.016238	41.570845	123.43	-1050.73
7	GUIDE	367671800	9.41	2668	-0.217	0.192	0.088	0.143	10.554735	41.964935	1969.09	-1430.73

## 2.4 Star Slots

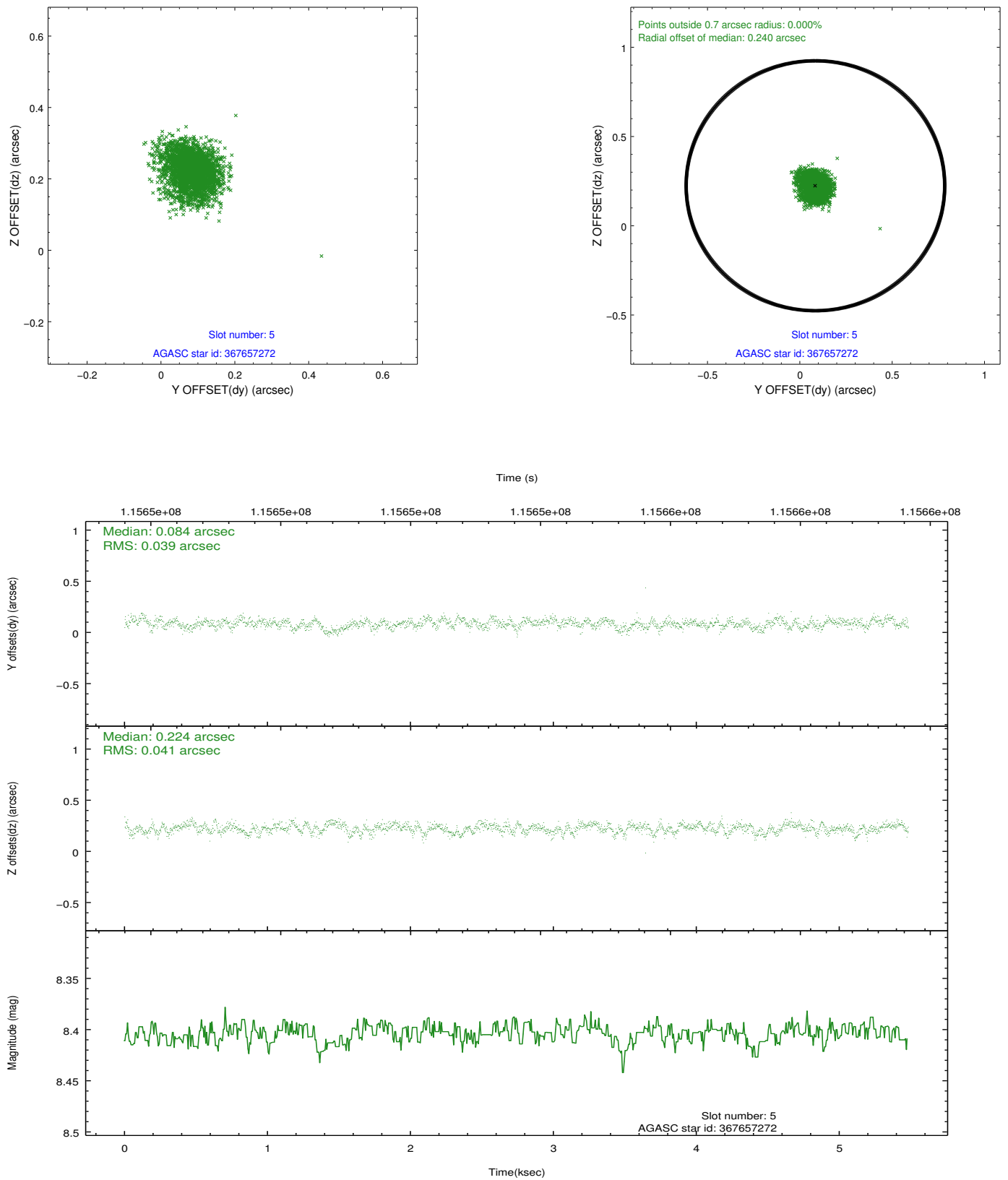
### 2.4.1 Slot 3



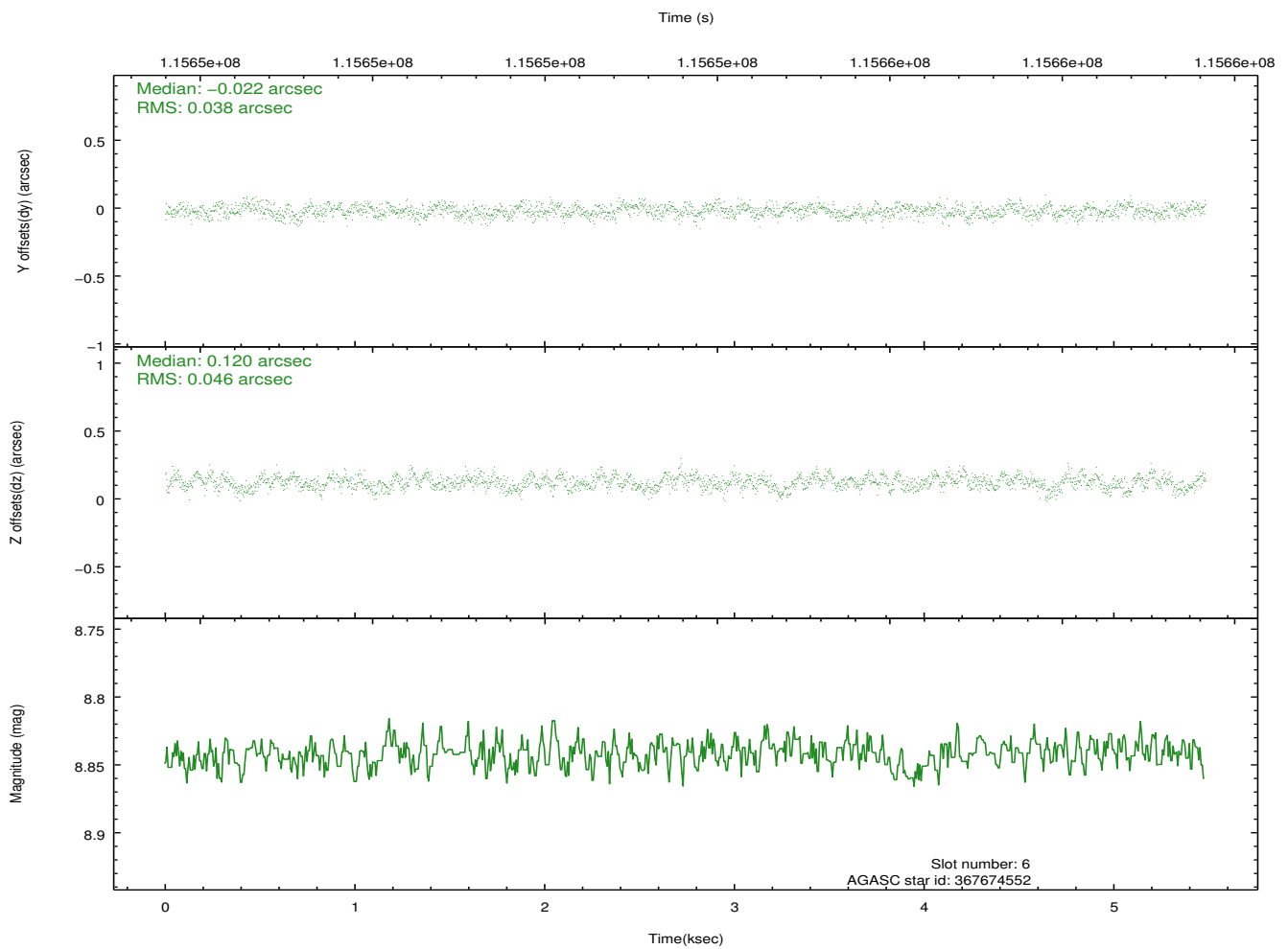
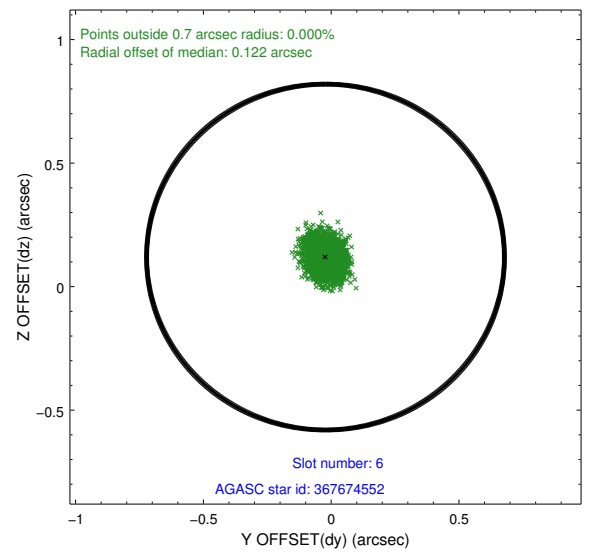
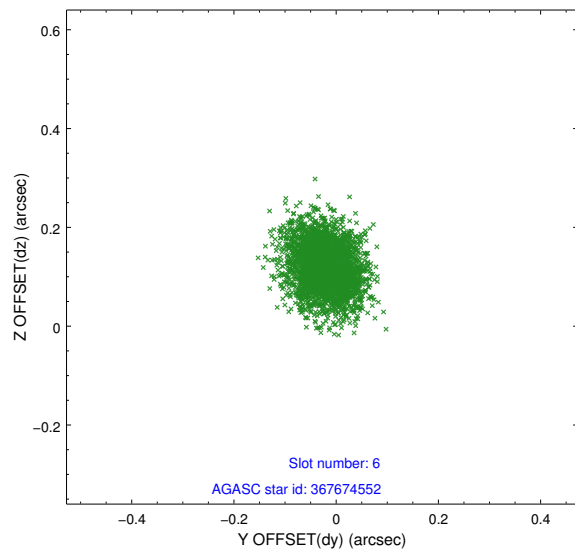
## 2.4.2 Slot 4



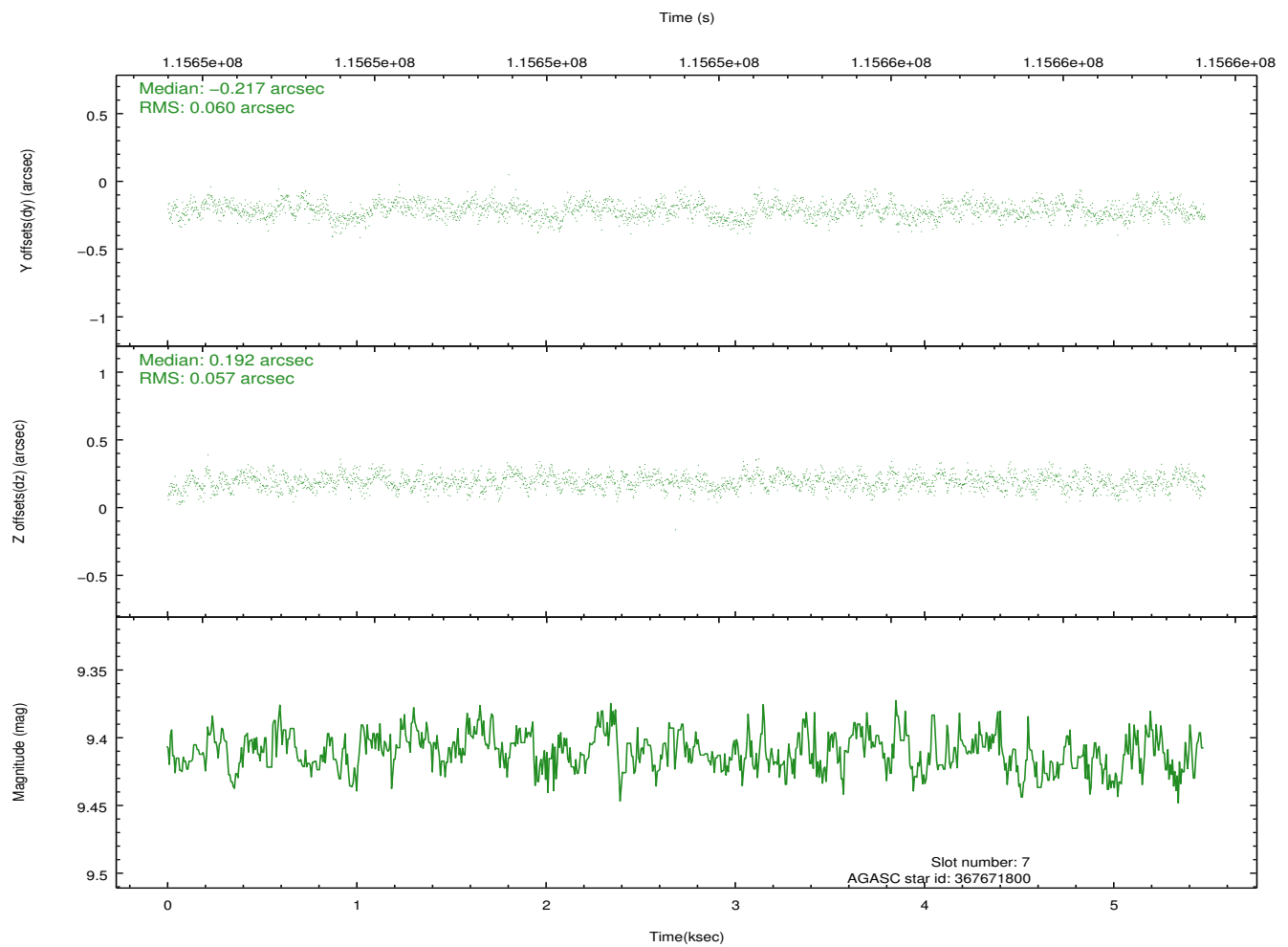
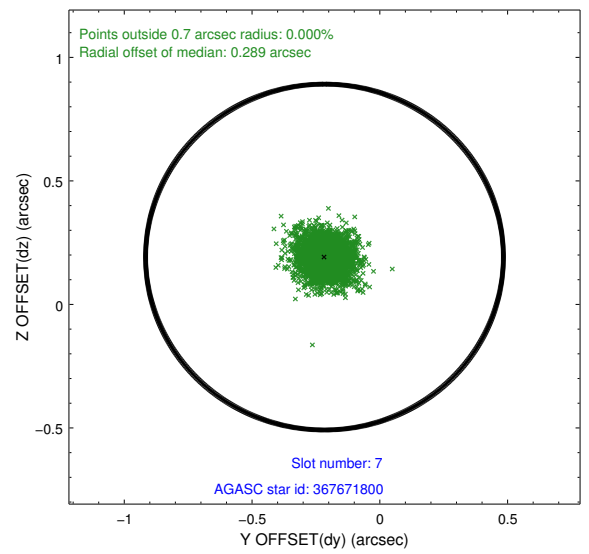
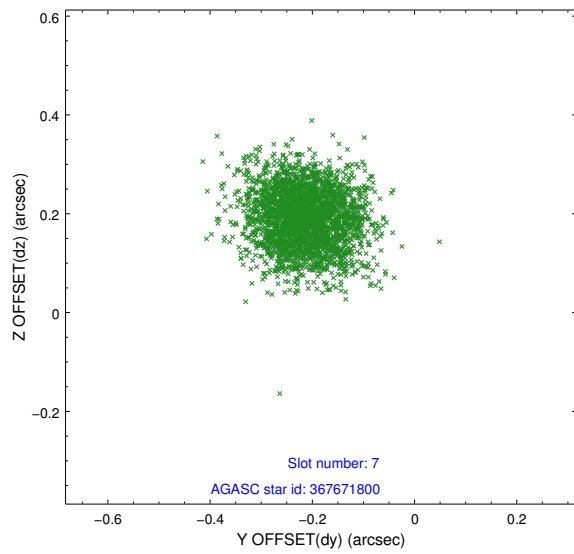
### 2.4.3 Slot 5



## 2.4.4 Slot 6

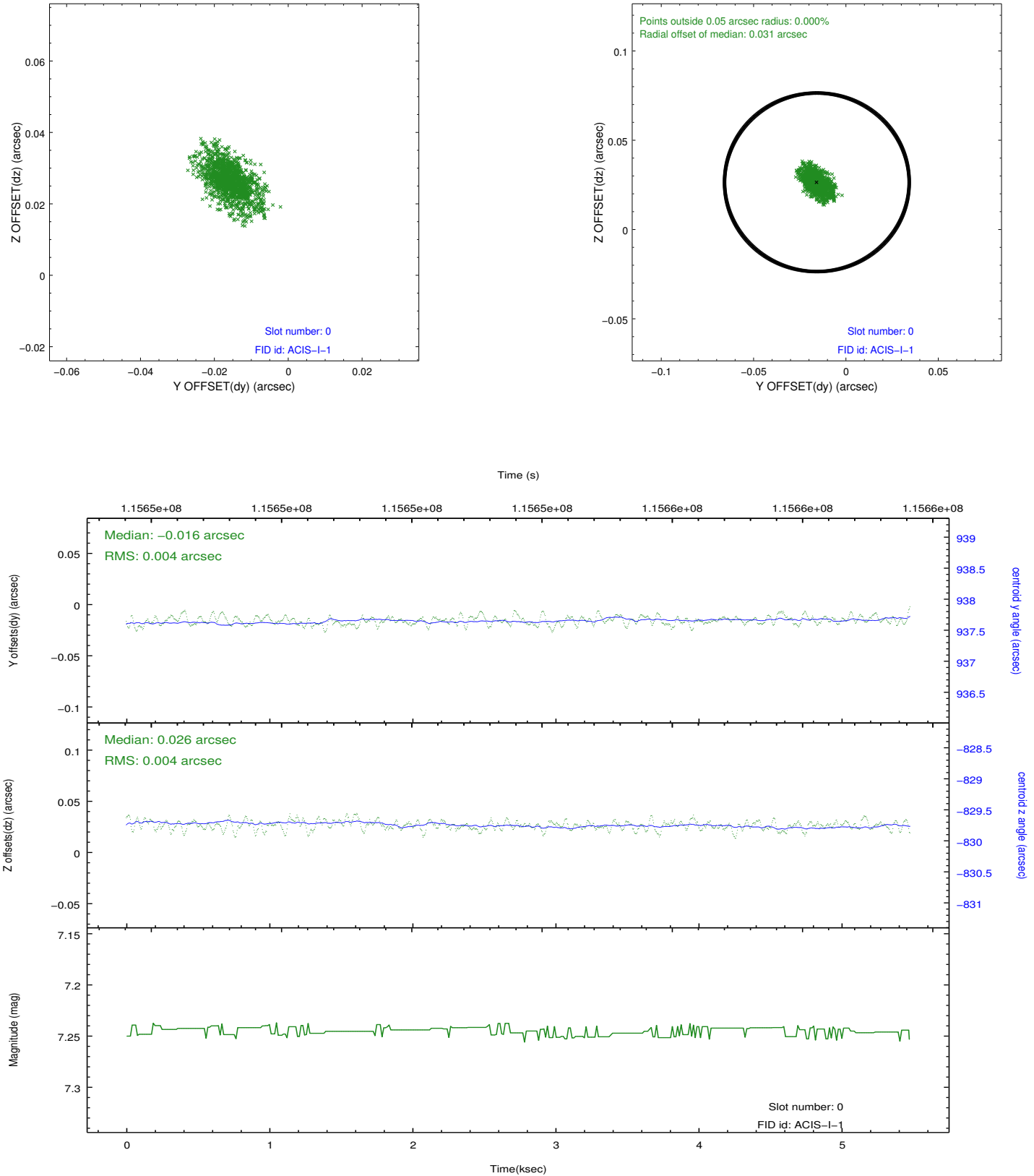


## 2.4.5 Slot 7

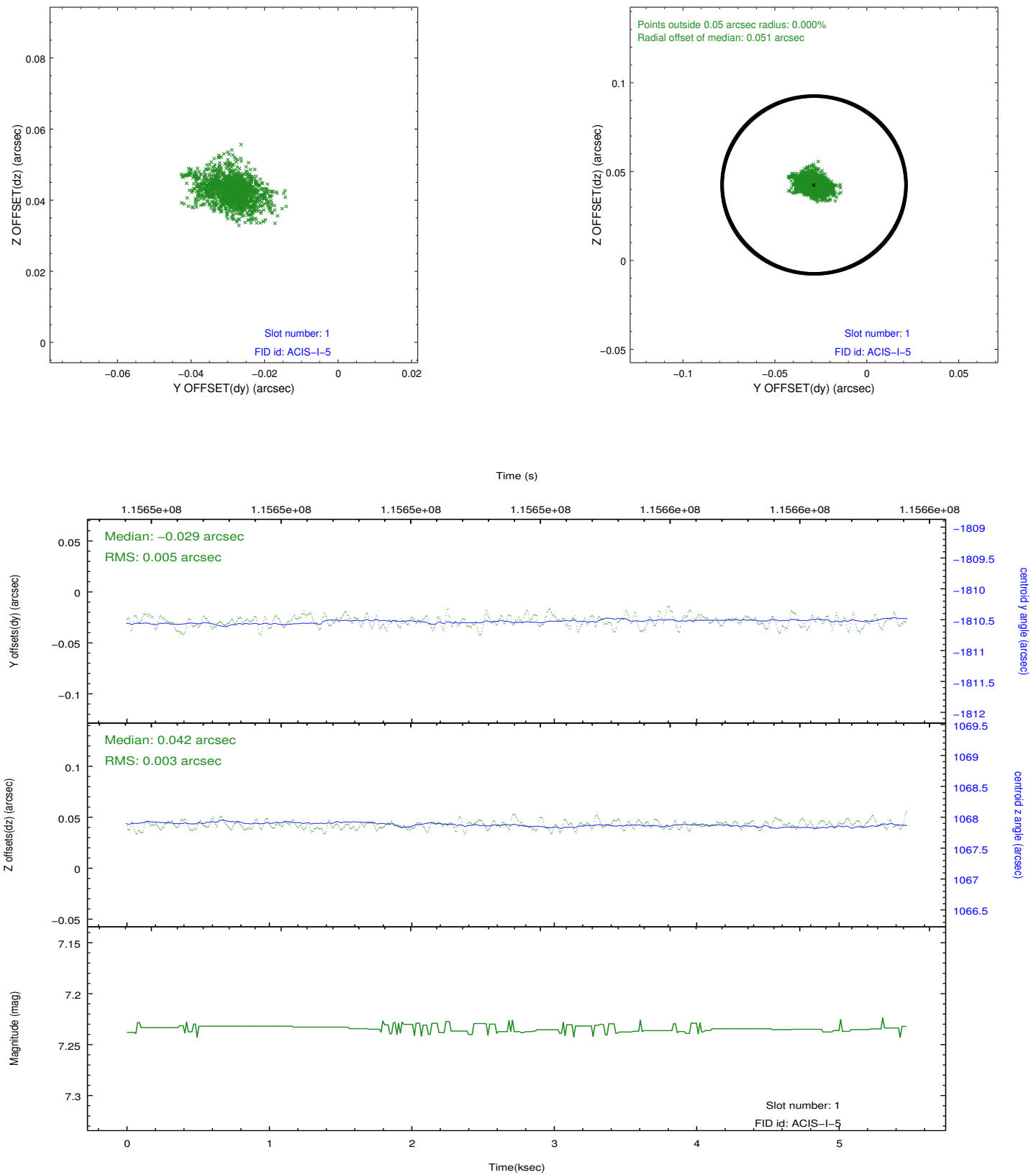


## 2.5 FID Slots

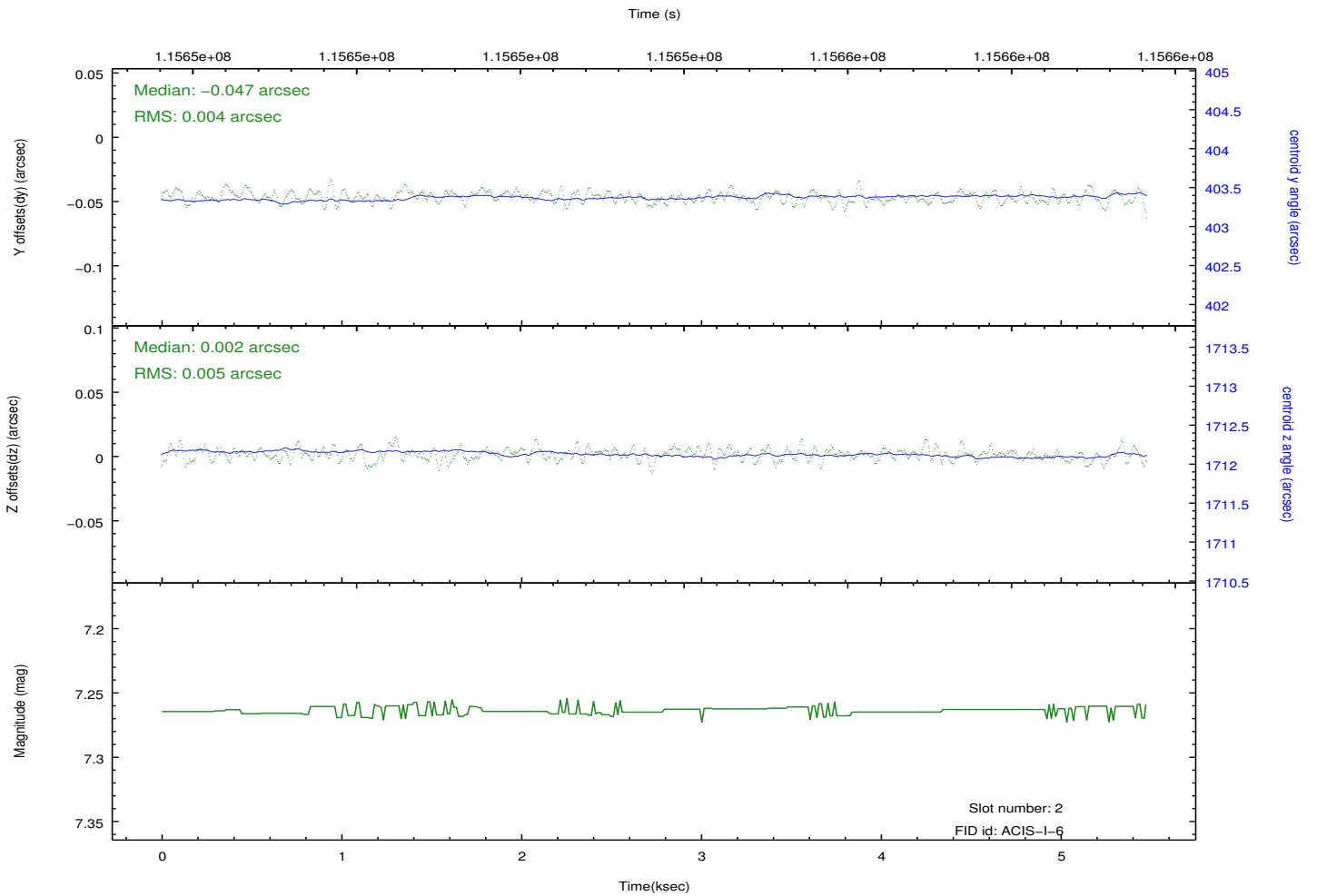
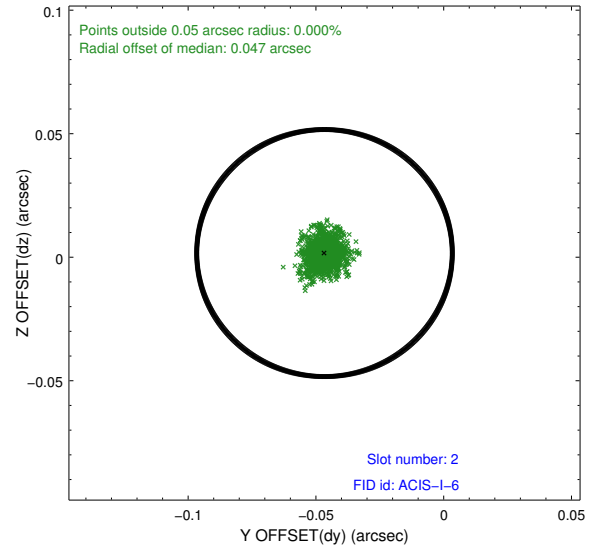
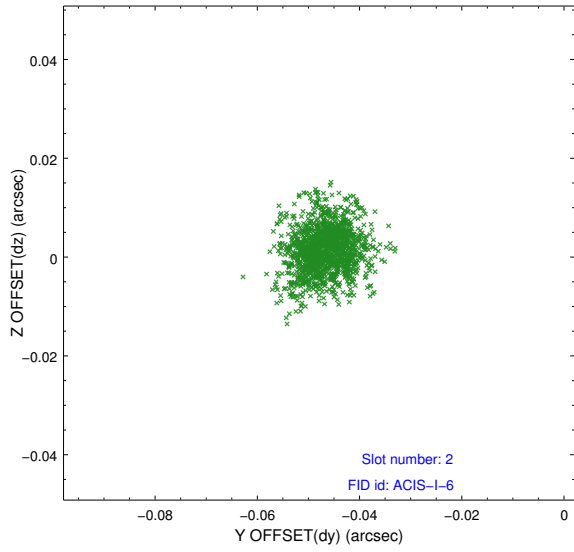
### 2.5.1 Slot 0



## 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)	2012.09.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.979

## A.2 Comments

Window constraint met.