

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4014 - L2 Version 5  
Chandra X-Ray Center

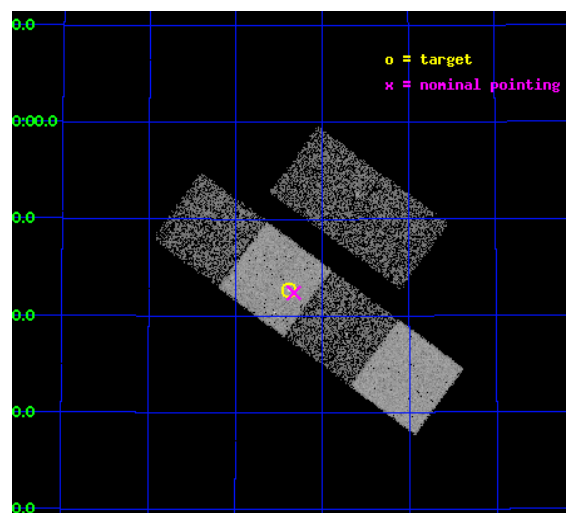
L2 Processing Date : Jan 8 2013

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# 1 Front

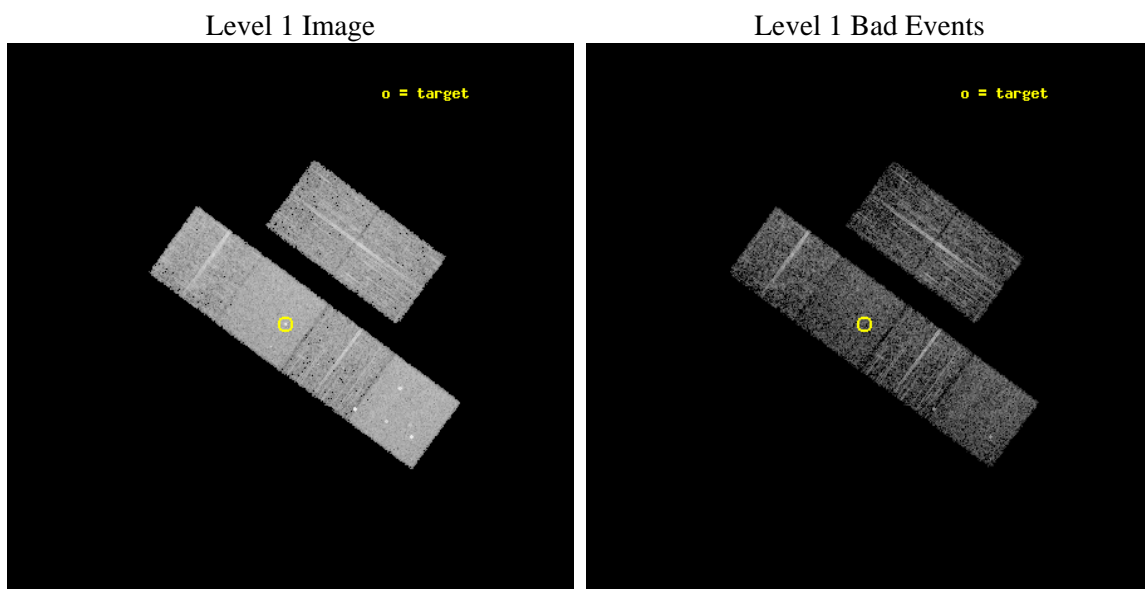
seq_num	700693	Sequence number
obs_id	4014	Observation id
title	A CHANDRA SURVEY OF INFRARED-BRIGHT LINER GALAXIES	Proposal title
observer	Dr. Shobita Satyapal	Principal investigator
object	NGC4102	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	181.59625	Observer's specified target RA [deg]
dec_targ	52.710833	Observer's specified target Dec [deg]
ra_nom	181.58190770651	Nominal RA [deg]
dec_nom	52.706561145159	Nominal Dec [deg]
roll_nom	216.36753926622	Nominal Roll [deg]
revision	5	Processing version of data
ontime	4966.2766495049	Sum of GTIs [s]
livetime	4903.3906642361	Livetime [s]
ontime2	4966.3176895082	Sum of GTIs [s]
ontime3	4966.153529495	Sum of GTIs [s]
ontime5	4966.2356095016	Sum of GTIs [s]
ontime6	4966.1945694983	Sum of GTIs [s]
ontime7	4966.2766495049	Sum of GTIs [s]
ontime8	4966.1124895215	Sum of GTIs [s]
l2events	55540	Number of level 2 events



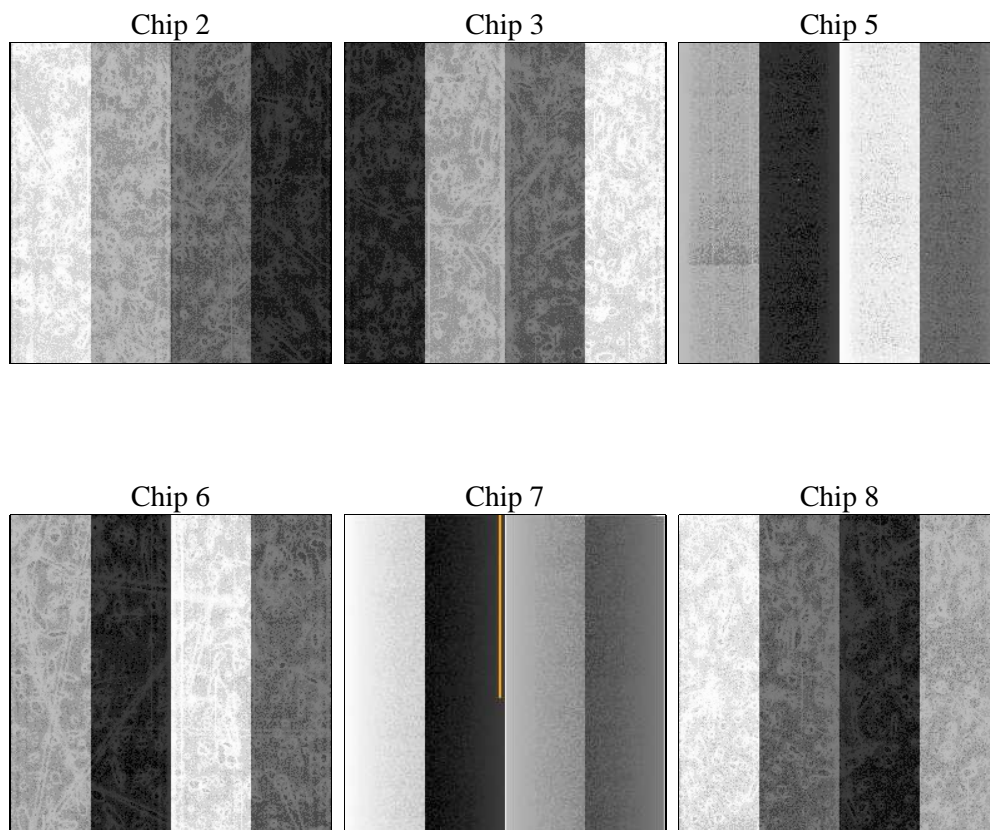
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4912.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	4966.2766495049	Sum of GTIs [s]
caldsver	4.5.5	&#160	ontime2	4966.3176895082	Sum of GTIs [s]
date	2013-01-07T22:36:33	Date and time of file creation	ontime3	4966.153529495	Sum of GTIs [s]
revision	5	Processing version of data	ontime5	4966.2356095016	Sum of GTIs [s]
			ontime6	4966.1945694983	Sum of GTIs [s]
			ontime7	4966.2766495049	Sum of GTIs [s]
			ontime8	4966.1124895215	Sum of GTIs [s]
			l1events	224810	Number of level 1 events

### 2.1.4 Events

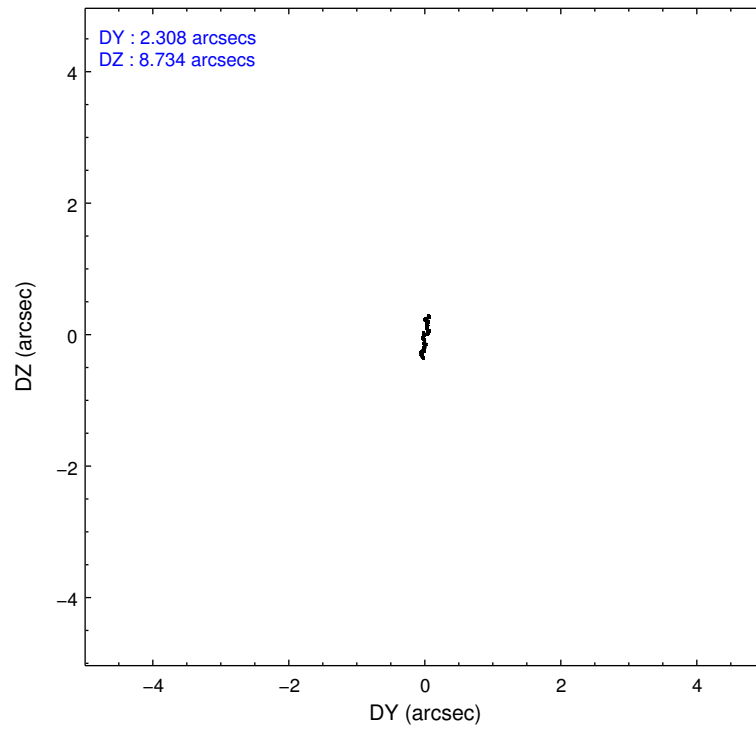
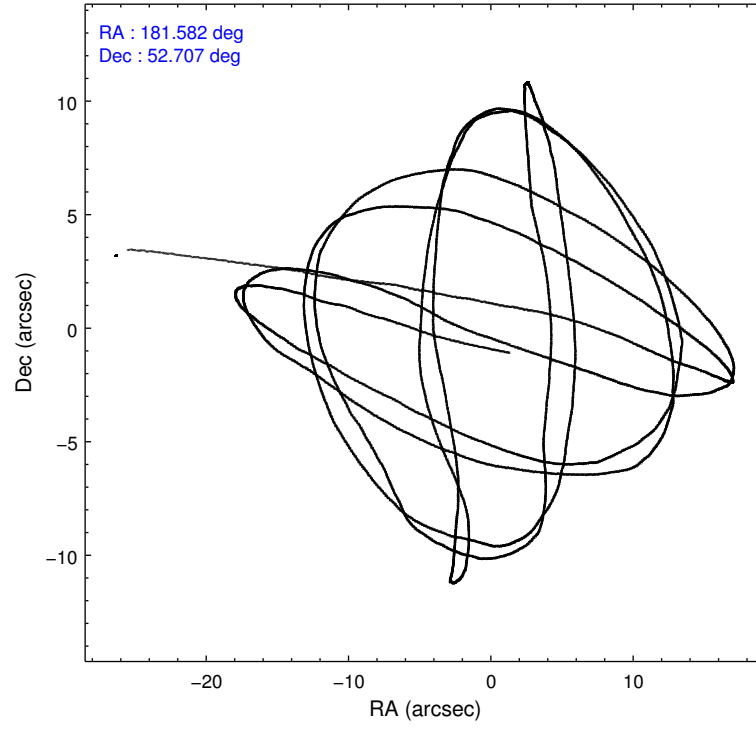
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	33471	28973	48556	31076	43700	39034	grade 0 events	2084	1993	3143	1987	2090	2940
rejected events	29188	24866	24891	26693	24047	30563		6%	6%	6%	6%	4%	7%
rejected %	87%	85%	51%	85%	55%	78%	grade 1 events	23	22	104	17	46	20
								0%	0%	0%	0%	0%	0%
							grade 2 events	815	683	6807	858	3773	1714
								2%	2%	14%	2%	8%	4%
							grade 3 events	373	396	1195	401	1766	916
								1%	1%	2%	1%	4%	2%
							grade 4 events	390	397	1046	362	1644	848
								1%	1%	2%	1%	3%	2%
							grade 5 events	1230	1361	3362	1354	4007	1800
								3%	4%	6%	4%	9%	4%
							grade 6 events	627	642	11497	786	10404	2060
								1%	2%	23%	2%	23%	5%
							grade 7 events	27929	23479	21402	25311	19970	28736
								83%	81%	44%	81%	45%	73%

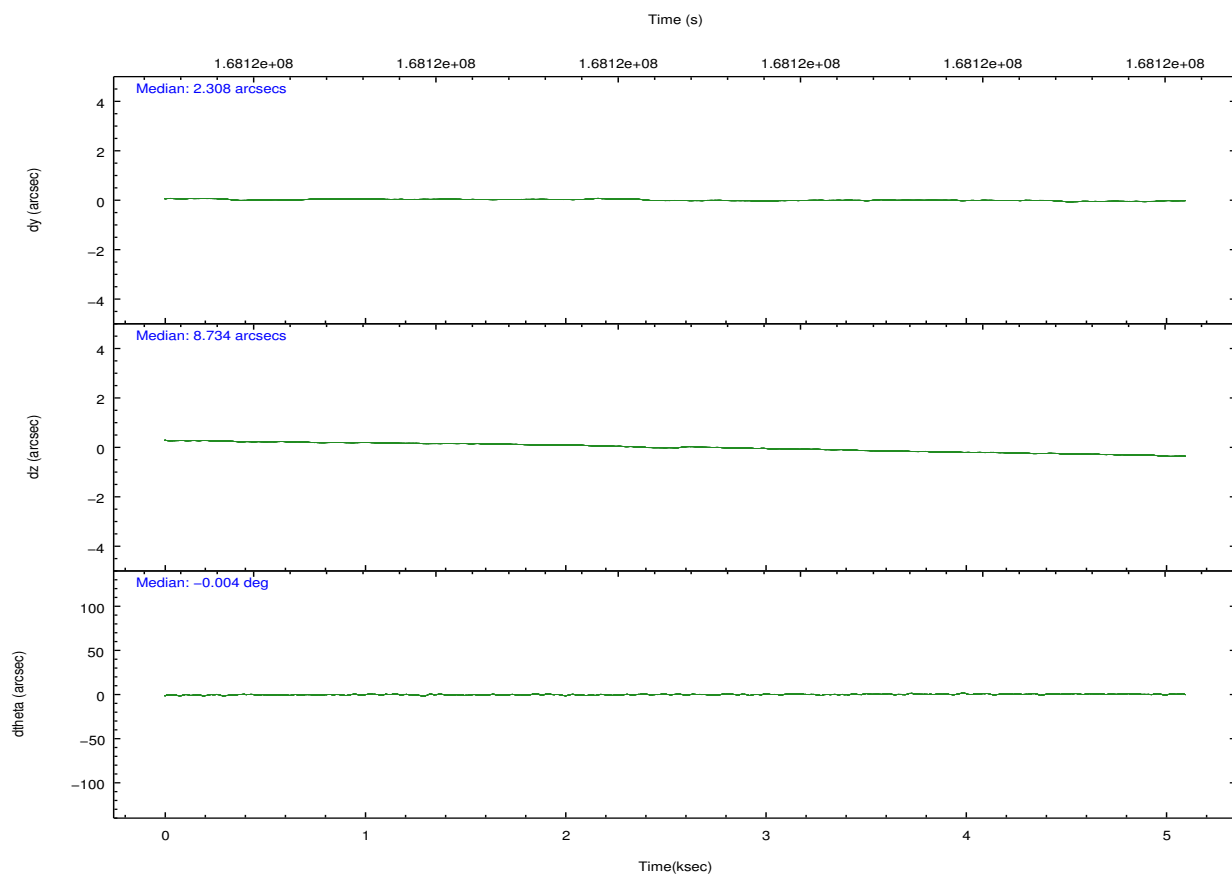
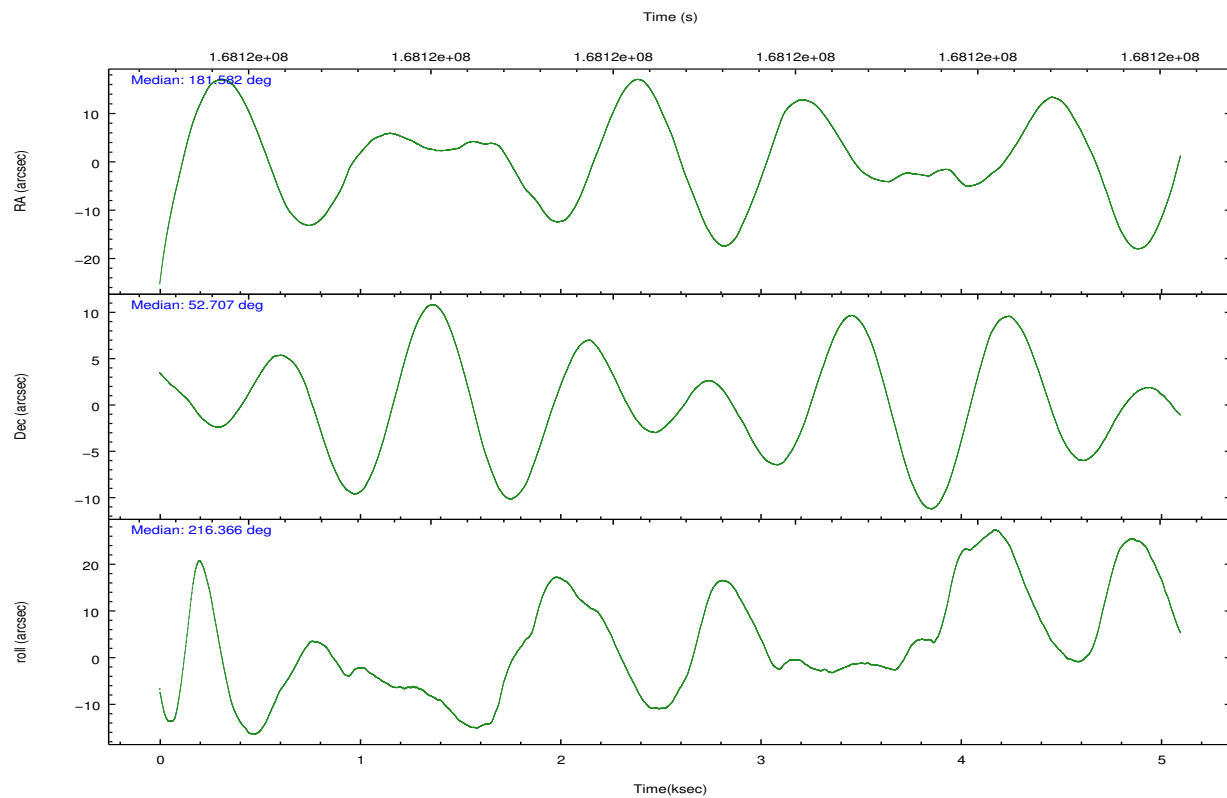


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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	181.599405	181.5819077065099	Subarray requested	NONE	NONE
[deg] Pointing Dec	52.731653	52.70656114515945	Alternating exposures requested	N	N
[deg] Pointing Roll	216.196998	216.3675392662193	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	168118950.184000	168117941.69018			
Observation start date	2003-04-30T19:41:26	2003-04-30T19:25:41			
[s] Observation end time (MET)	168123862.184000	168124319.75295			
Observation end date	2003-04-30T21:03:18	2003-04-30T21:11:59			
Read mode	TIMED	TIMED			

## 2.3 Aspect



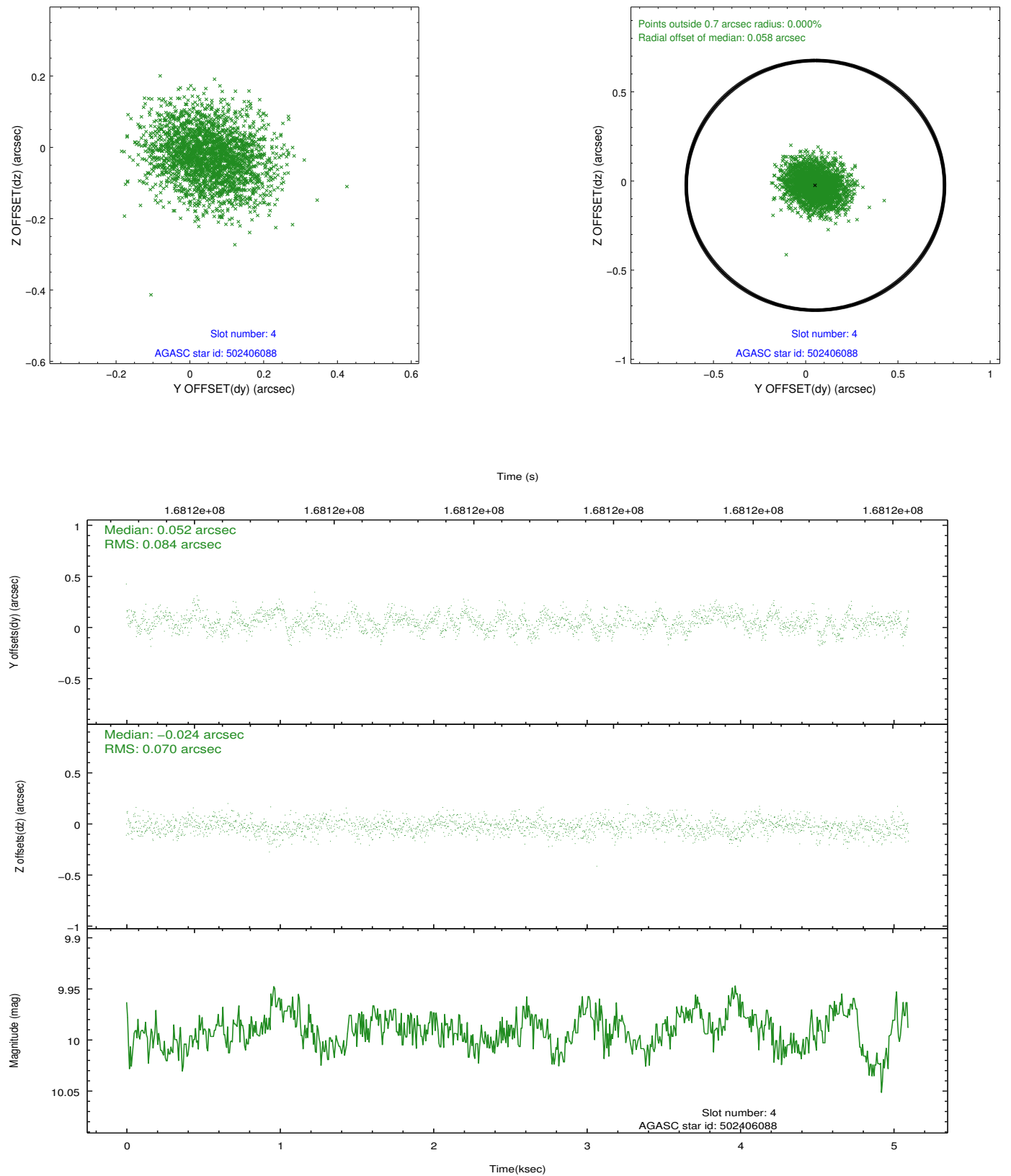


### Slot Statistics

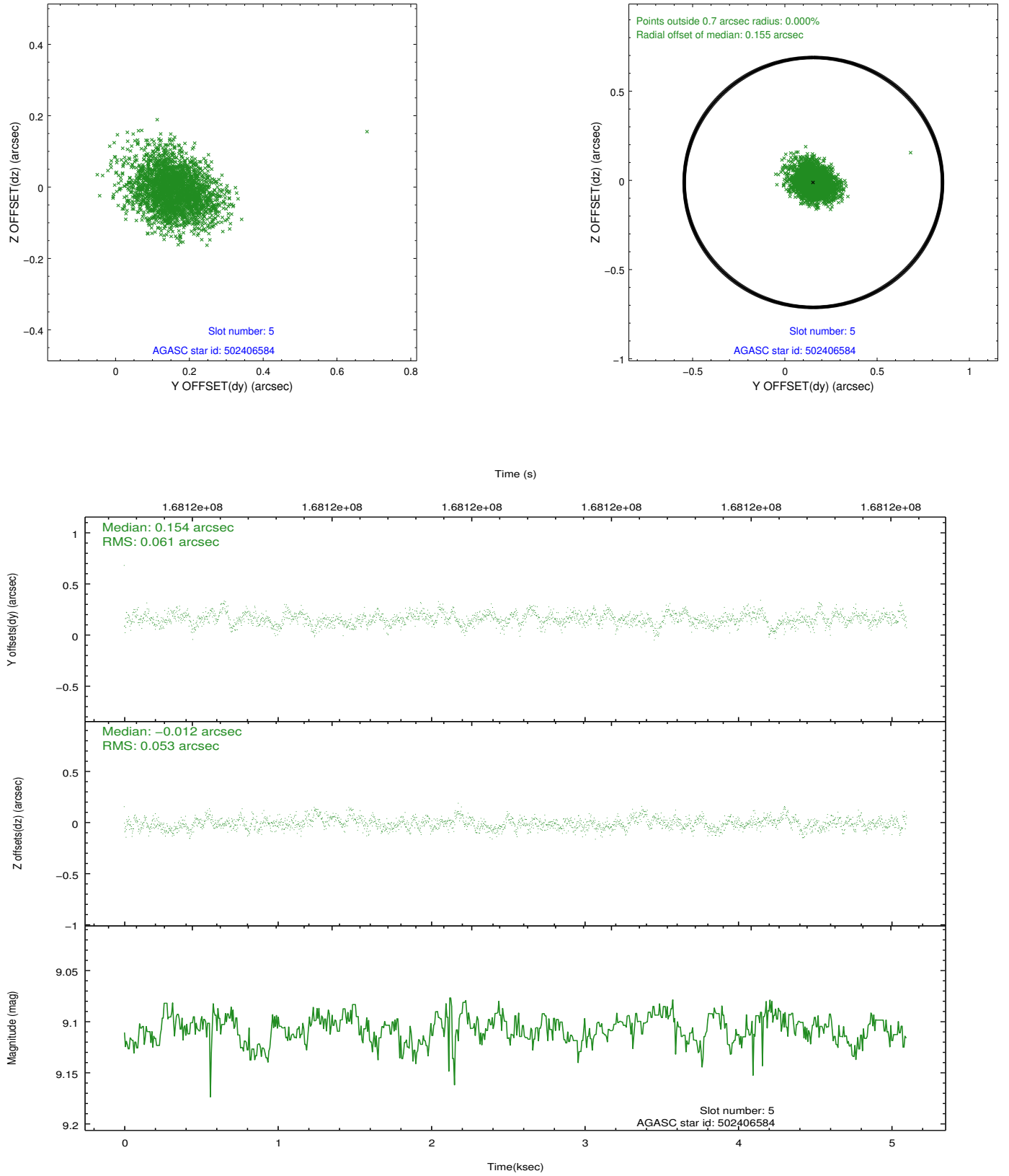
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	1244	-0.018	0.006	0.006	0.011	0.000000	0.000000	-754.95	-1729.88
1	FID	ACIS-S-4	7.20	1244	0.000	0.019	0.006	0.010	0.000000	0.000000	2157.80	177.40
2	FID	ACIS-S-6	7.35	1244	-0.009	-0.018	0.007	0.011	0.000000	0.000000	408.56	816.10
3	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
4	GUIDE	502406088	9.99	2419	0.052	-0.024	0.116	0.189	181.997289	52.721139	-679.18	541.69
5	GUIDE	502406584	9.11	2485	0.154	-0.012	0.085	0.142	180.309368	52.804990	2095.22	-1890.70
6	GUIDE	502531816	9.43	2487	-0.064	0.085	0.080	0.132	182.338444	52.570567	-965.88	1416.18
7	GUIDE	502402704	8.01	2487	-0.140	-0.048	0.067	0.109	181.438982	53.483713	-1321.75	-2387.46

## 2.4 Star Slots

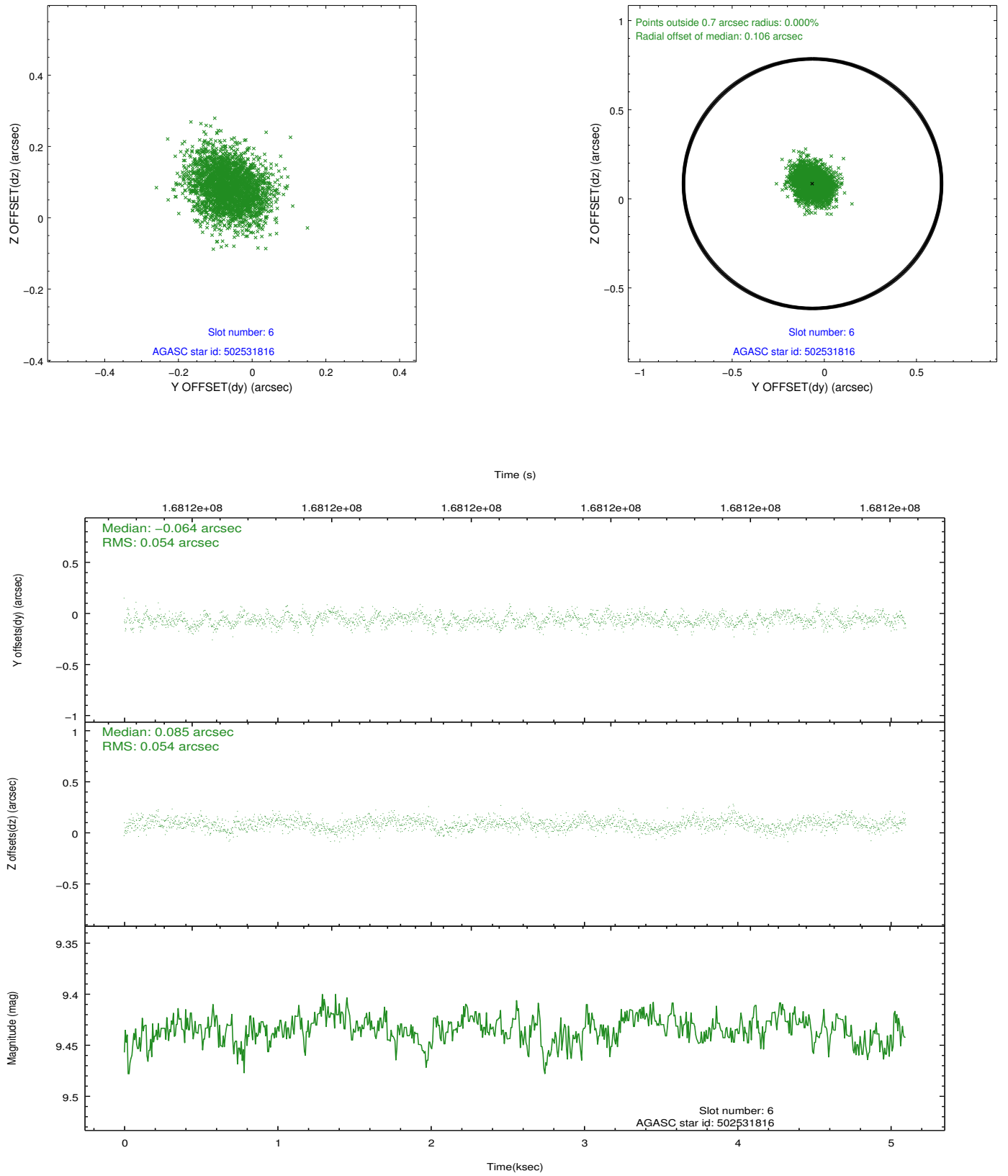
### 2.4.1 Slot 4



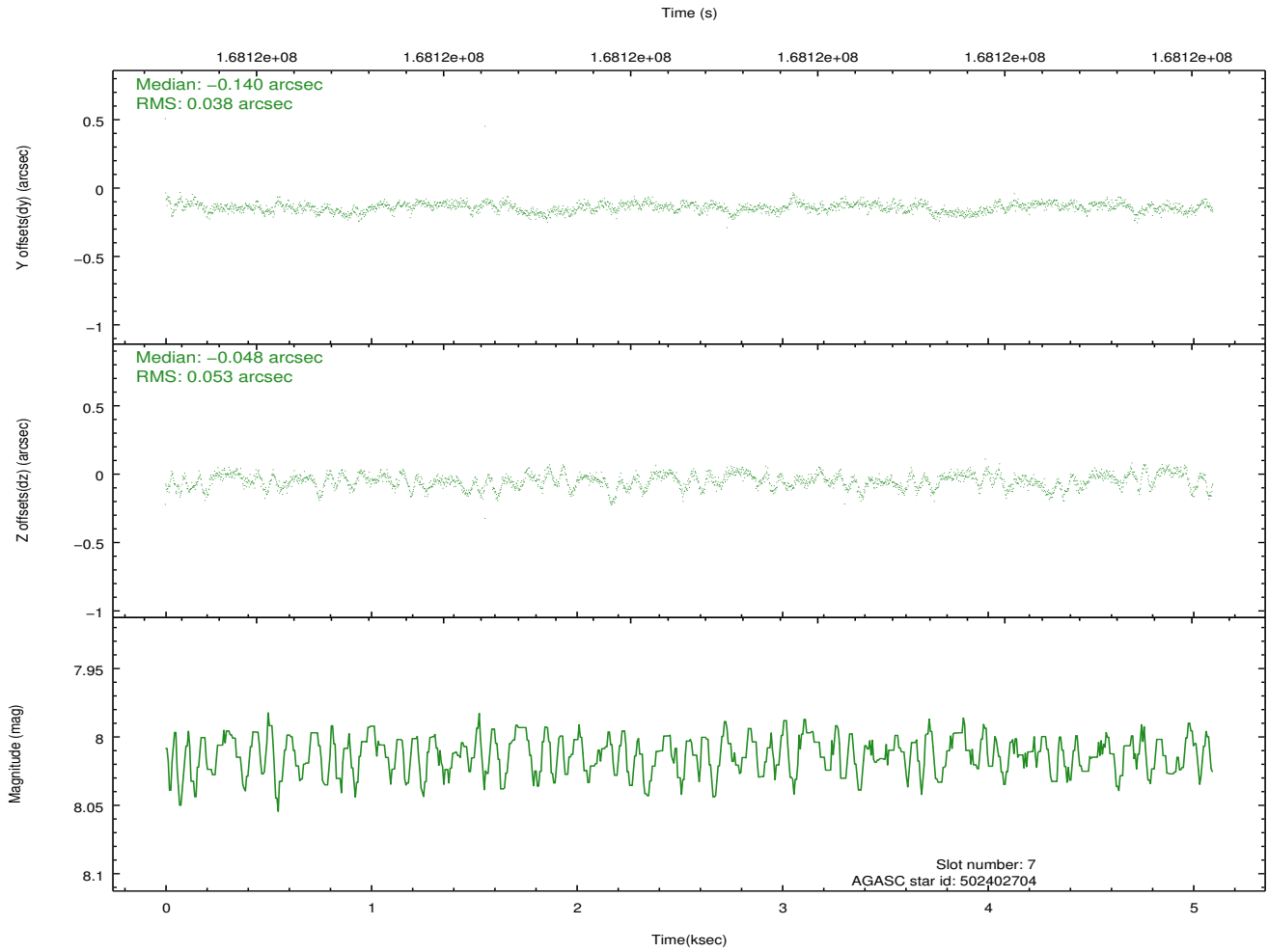
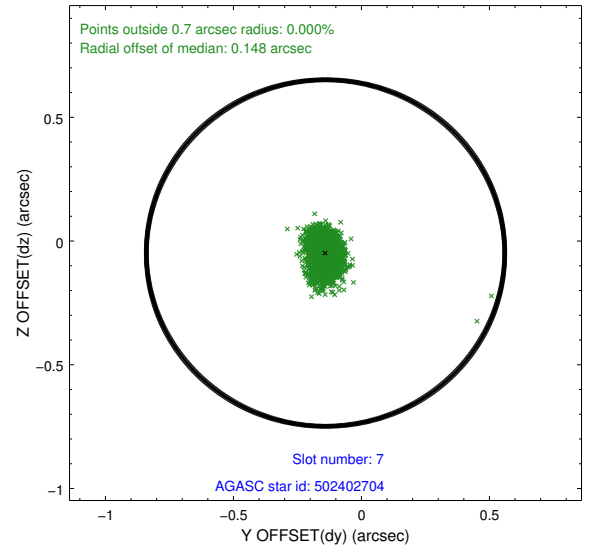
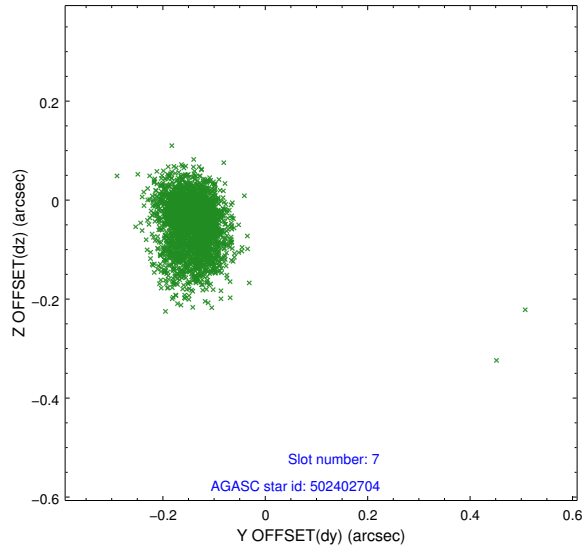
## 2.4.2 Slot 5



### 2.4.3 Slot 6



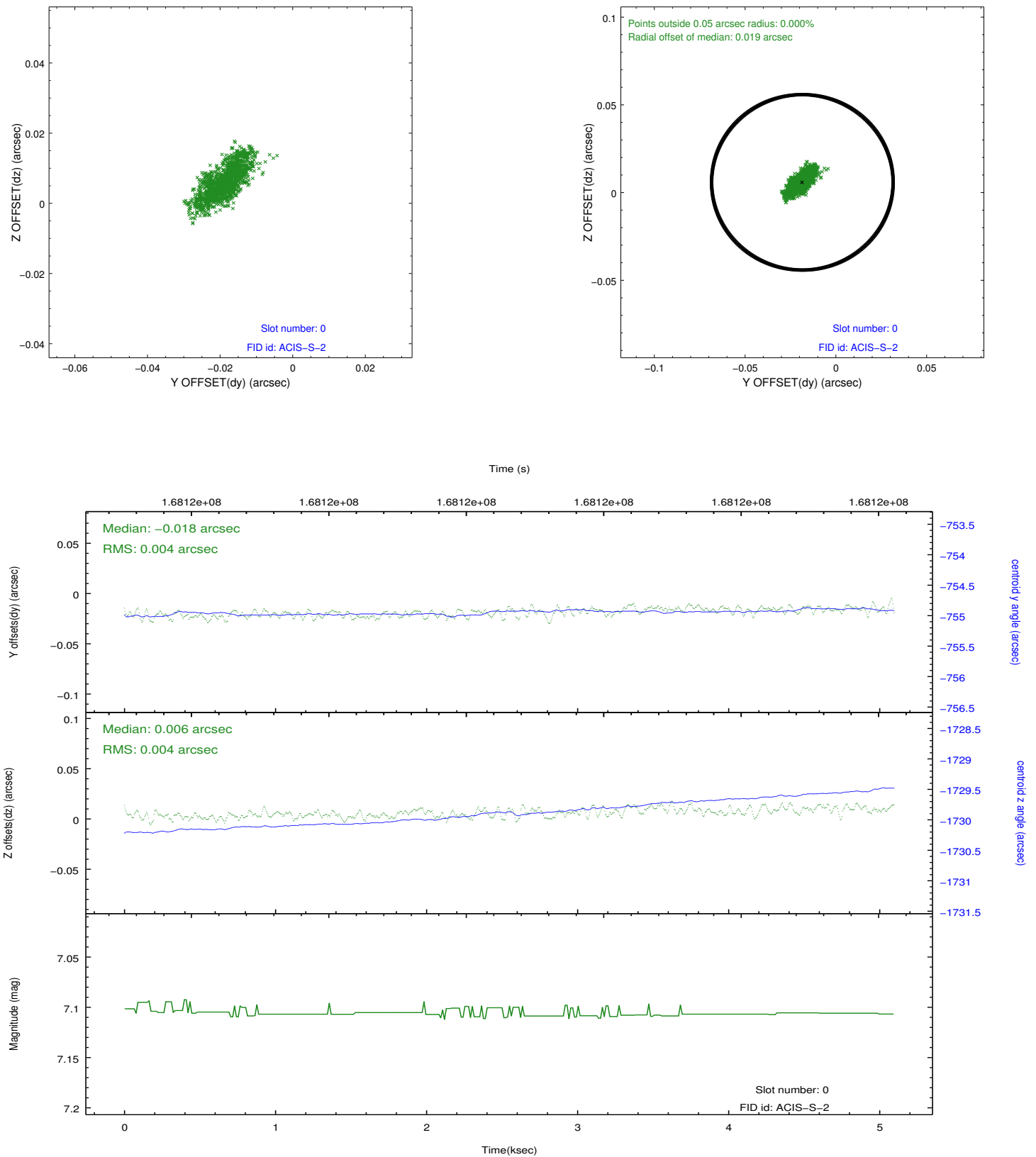
## 2.4.4 Slot 7



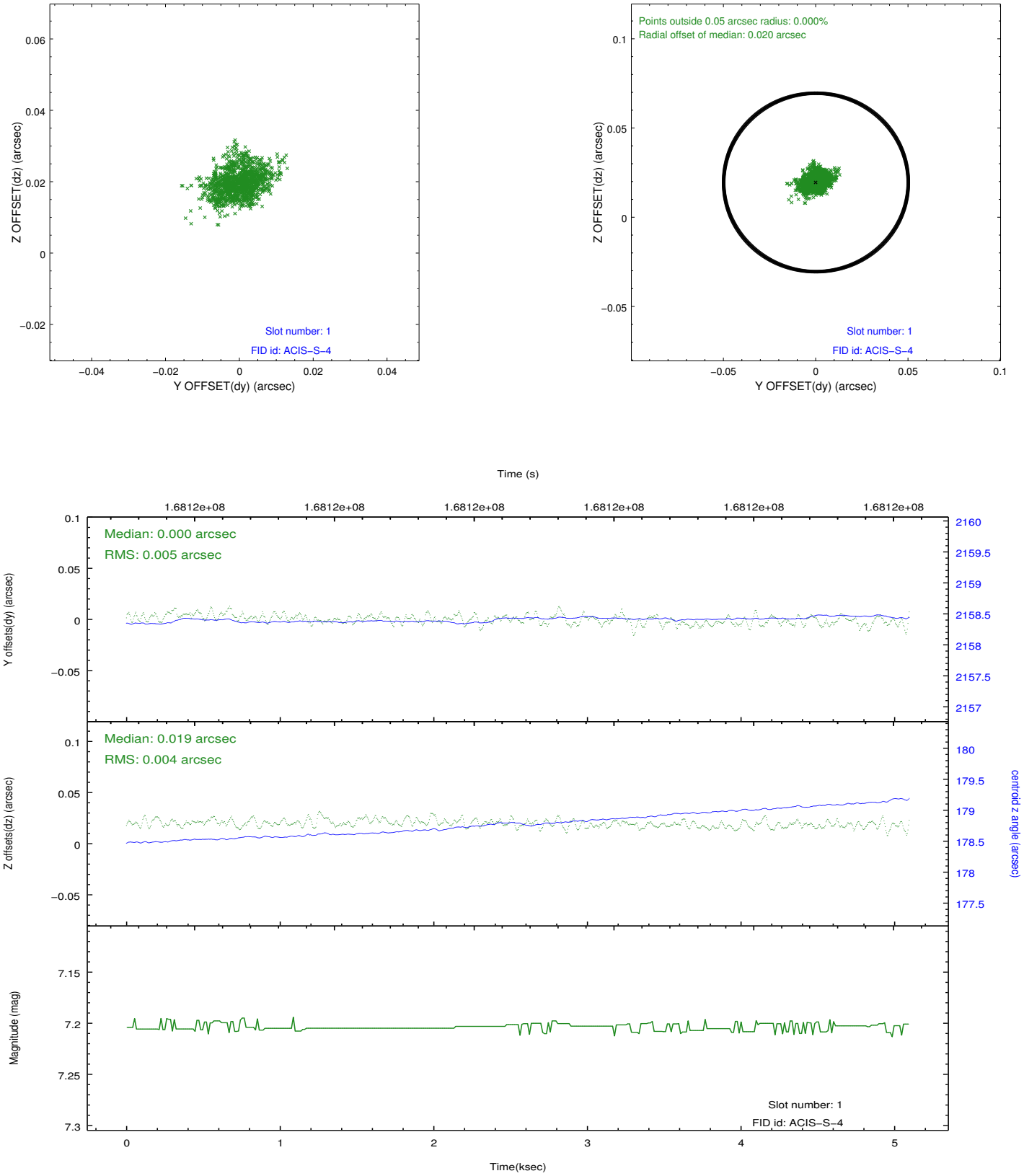


## 2.5 FID Slots

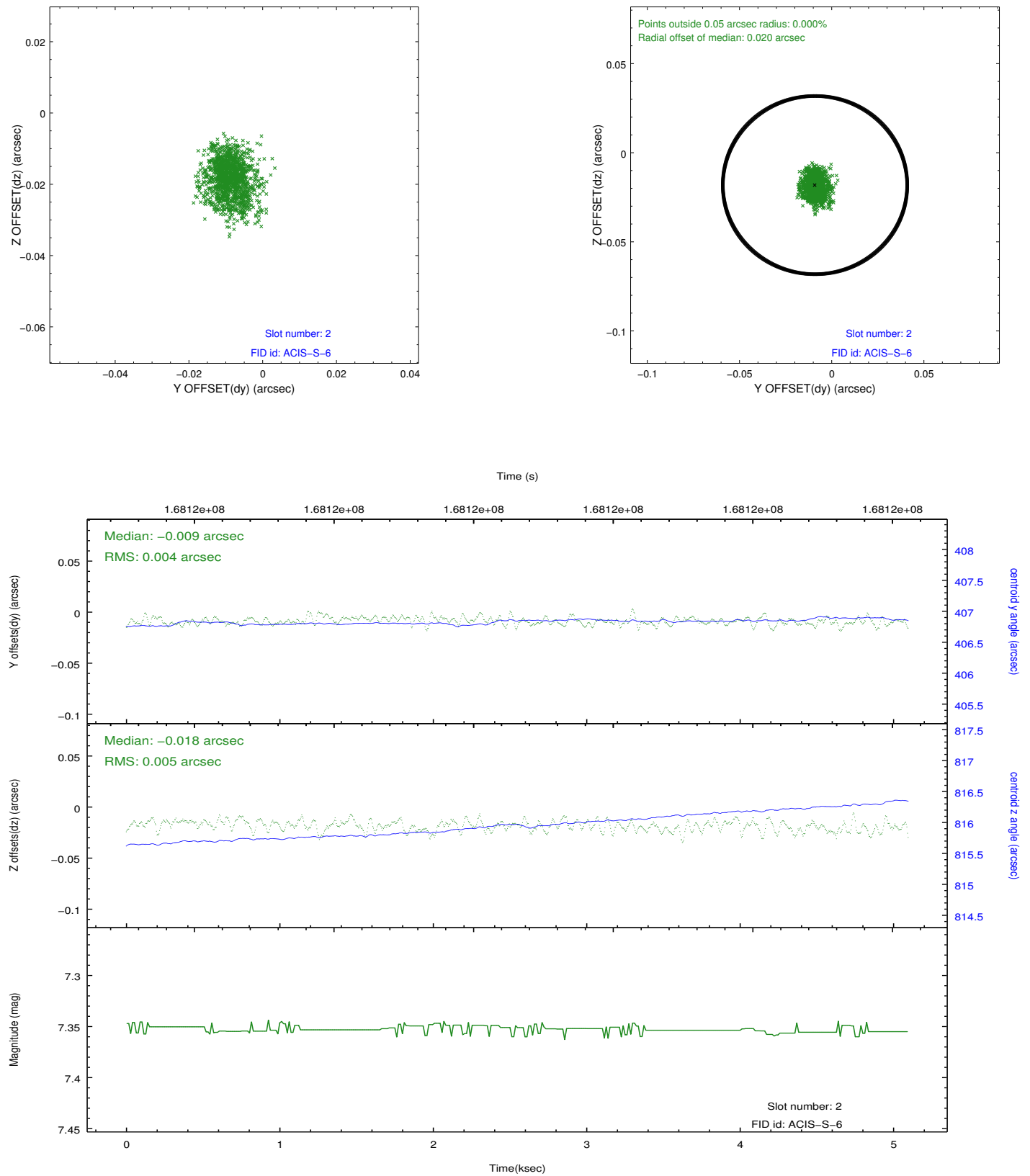
### 2.5.1 Slot 0



## 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)	2013.01.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.966

## A.2 Comments

The guide star in slot 3 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.