

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10357 - L2 Version 3  
Chandra X-Ray Center

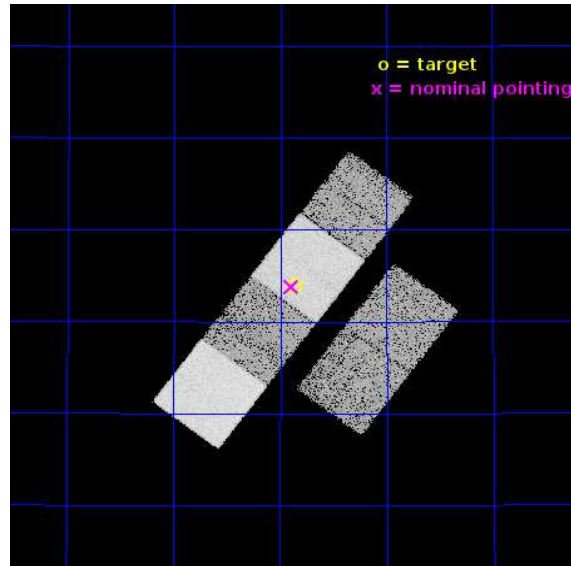
L2 Processing Date : Jul 17 2015

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# 1 Front

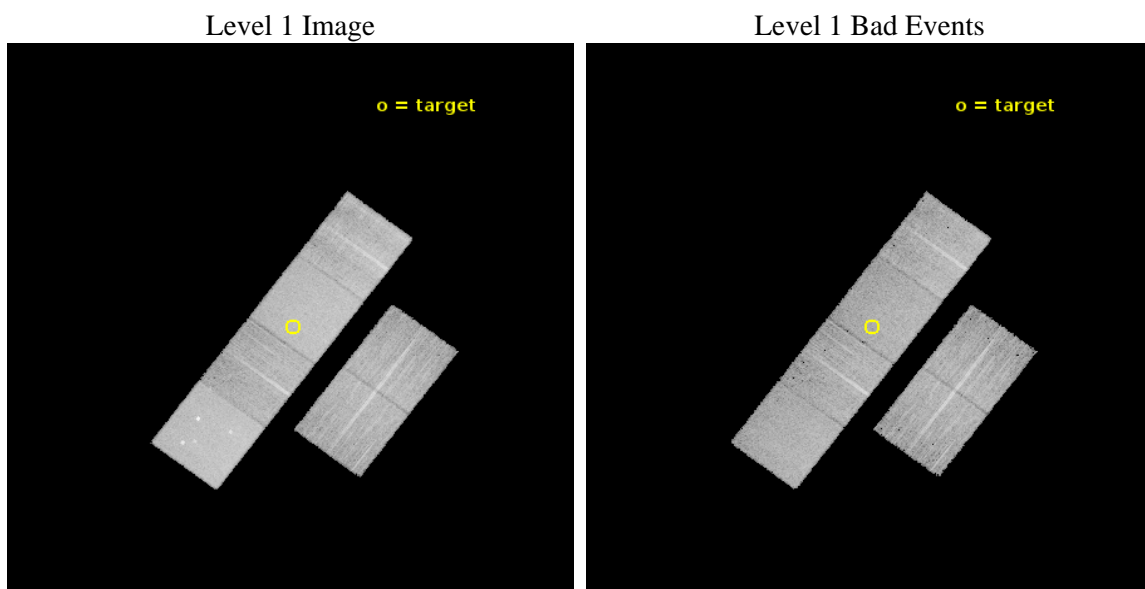
seq_num	701900	Sequence number
obs_id	10357	Observation id
title	Testing the Radiative-Driving Hypothesis of Quasar Outflows	Propos
observer	Dr. Rajib Ganguly	Principal investigator
object	SDSS J1539+4203	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	234.9675	Observer's specified target RA [deg]
dec_targ	42.065639	Observer's specified target Dec [deg]
ra_nom	234.97358359207	Nominal RA [deg]
dec_nom	42.063814562144	Nominal Dec [deg]
roll_nom	306.84716874596	Nominal Roll [deg]
revision	3	Processing version of data
ontime	8140.4186565876	Sum of GTIs [s]
livetime	8037.3397739862	Livetime [s]
ontime2	8140.4186565876	Sum of GTIs [s]
ontime3	8140.4186565876	Sum of GTIs [s]
ontime5	8140.4186565876	Sum of GTIs [s]
ontime6	8140.4186565876	Sum of GTIs [s]
ontime7	8140.4186565876	Sum of GTIs [s]
ontime8	8137.1776262522	Sum of GTIs [s]
l2events	144810	Number of level 2 events



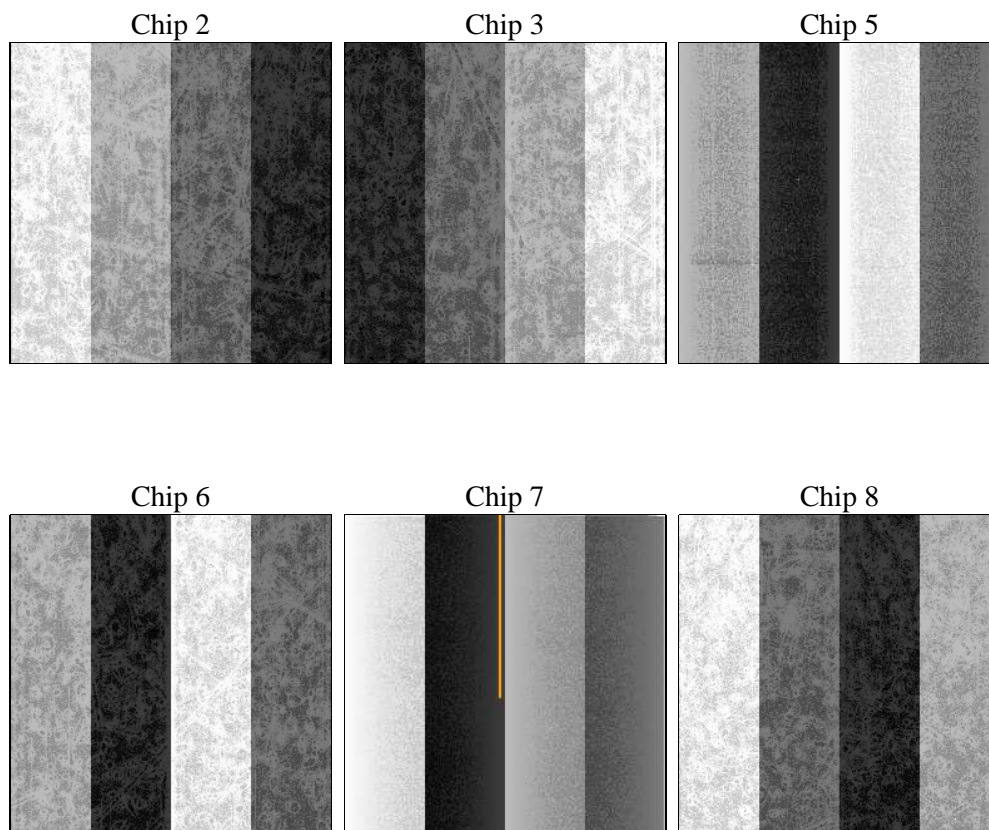
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.1	Processing system revision	ontime	8140.4186565876	Sum of GTIs [s]
caldsver	4.6.8	&#160	ontime2	8140.4186565876	Sum of GTIs [s]
date	2015-07-17T17:26:44	Date and time of file creation	ontime3	8140.4186565876	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	8140.4186565876	Sum of GTIs [s]
			ontime6	8140.4186565876	Sum of GTIs [s]
			ontime7	8140.4186565876	Sum of GTIs [s]
			ontime8	8137.1776262522	Sum of GTIs [s]
			l1events	634566	Number of level 1 events

### 2.1.4 Events

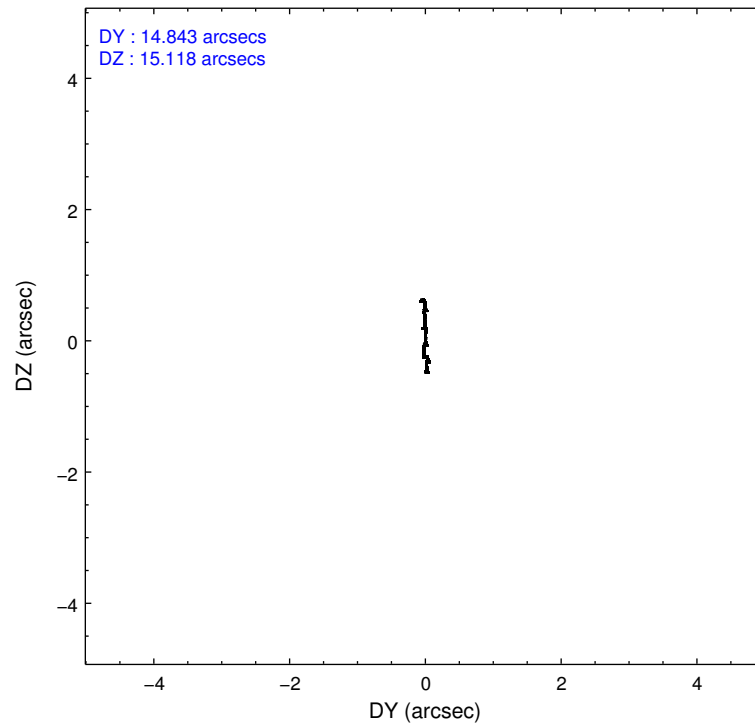
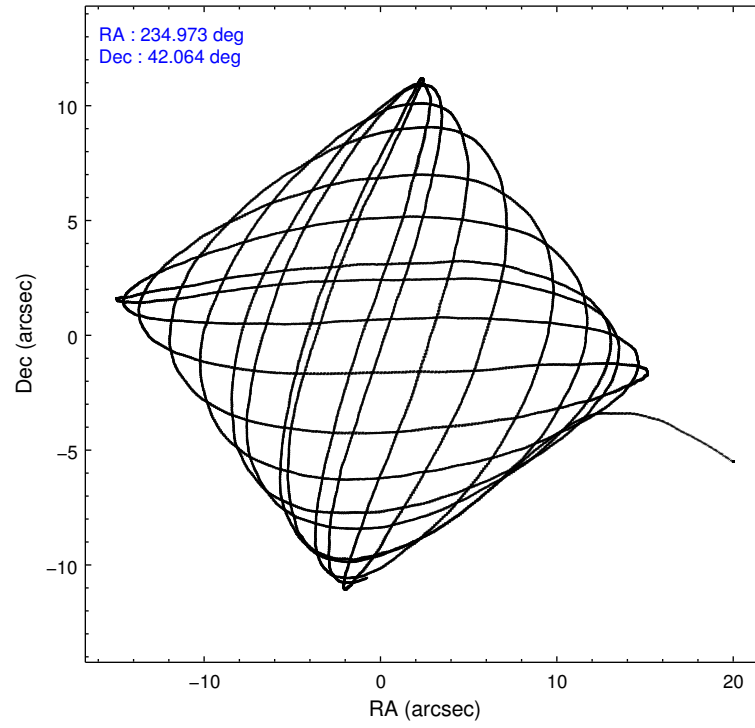
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	88794	85536	138651	86896	122871	111818	grade 0 events	4323	4524	6243	4065	4294	8182
rejected events	78501	75373	75604	76412	72950	85819		4%	5%	4%	4%	3%	7%
rejected %	88%	88%	54%	87%	59%	76%	grade 1 events	59	67	239	54	139	83
								0%	0%	0%	0%	0%	0%
							grade 2 events	2321	2108	19423	2466	10708	6297
								2%	2%	14%	2%	8%	5%
							grade 3 events	981	932	2175	950	4199	2689
								1%	1%	1%	1%	3%	2%
							grade 4 events	997	958	2029	972	4149	2521
								1%	1%	1%	1%	3%	2%
							grade 5 events	3740	4102	9476	4142	11483	5791
								4%	4%	6%	4%	9%	5%
							grade 6 events	1789	1808	34142	2173	27335	6772
								2%	2%	24%	2%	22%	6%
							grade 7 events	74584	71037	64924	72074	60564	79483
								83%	83%	46%	82%	49%	71%

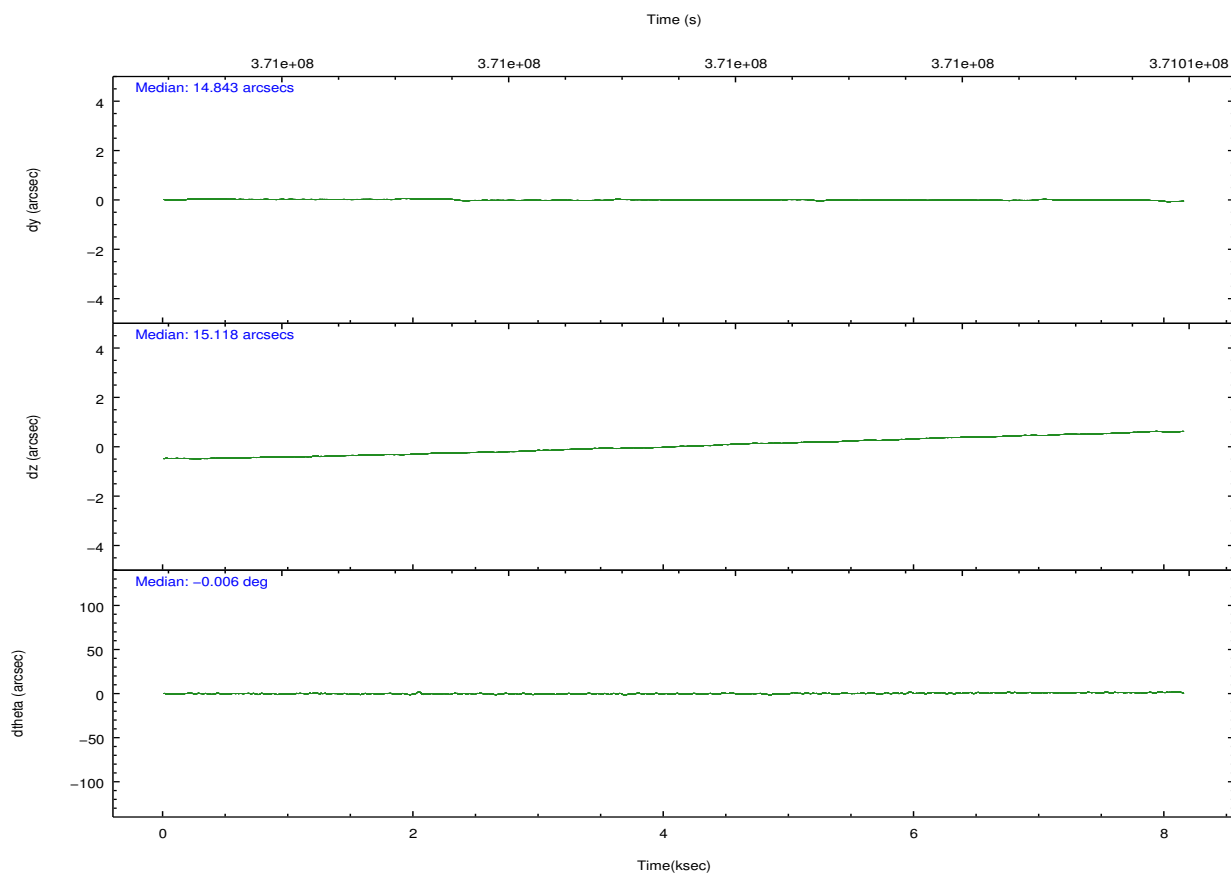
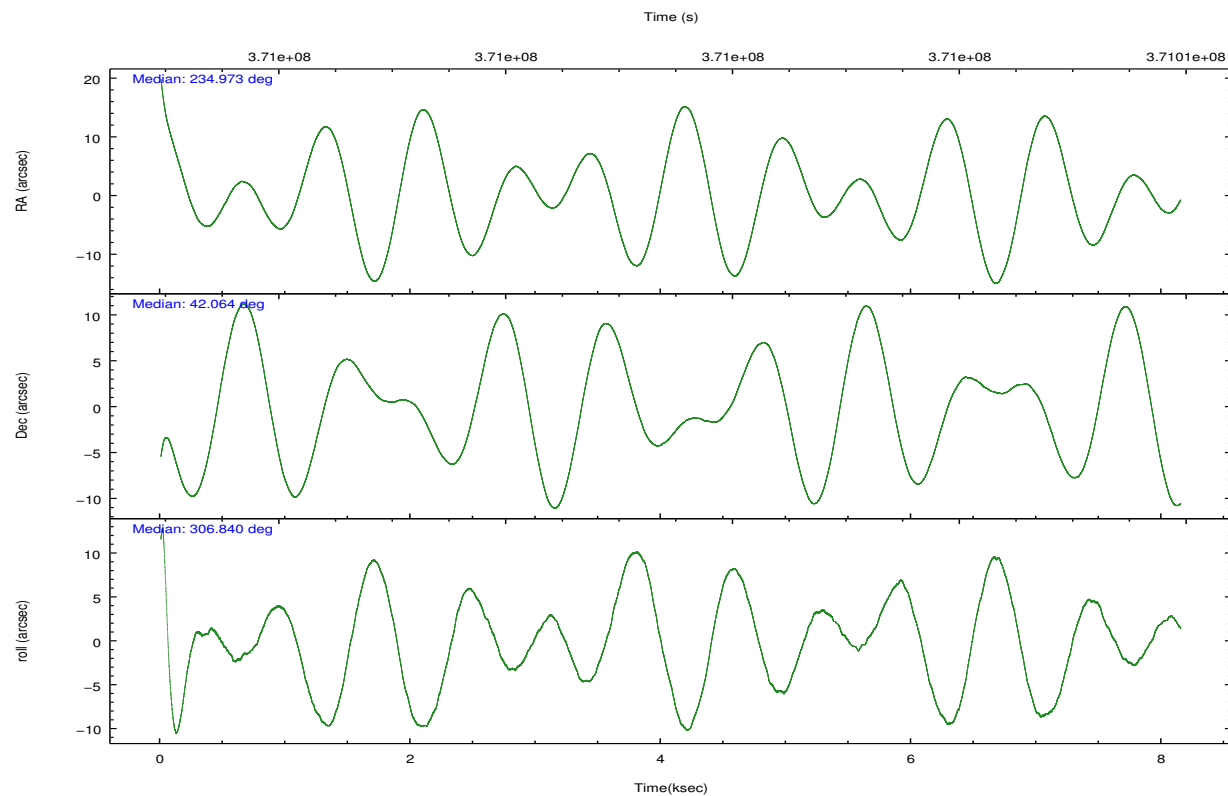


## 2.2 Compared Parameters

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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	234.939519	234.973583592072	CCD I2 on	O1	Y
[deg] Pointing Dec	42.074268	42.06381456214408	CCD I3 on	O2	Y
[deg] Pointing Roll	306.713324	306.8471687459552	CCD S0 on	N	N
[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	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	370997534.184000	370996273.71121	CCD S5 on	N	N
Observation start date	2009-10-03T22:51:08	2009-10-03T22:31:13	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	371005534.184000	371005846.18669	On-chip summing requested	N	N
Observation end date	2009-10-04T01:04:28	2009-10-04T01:10:46	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



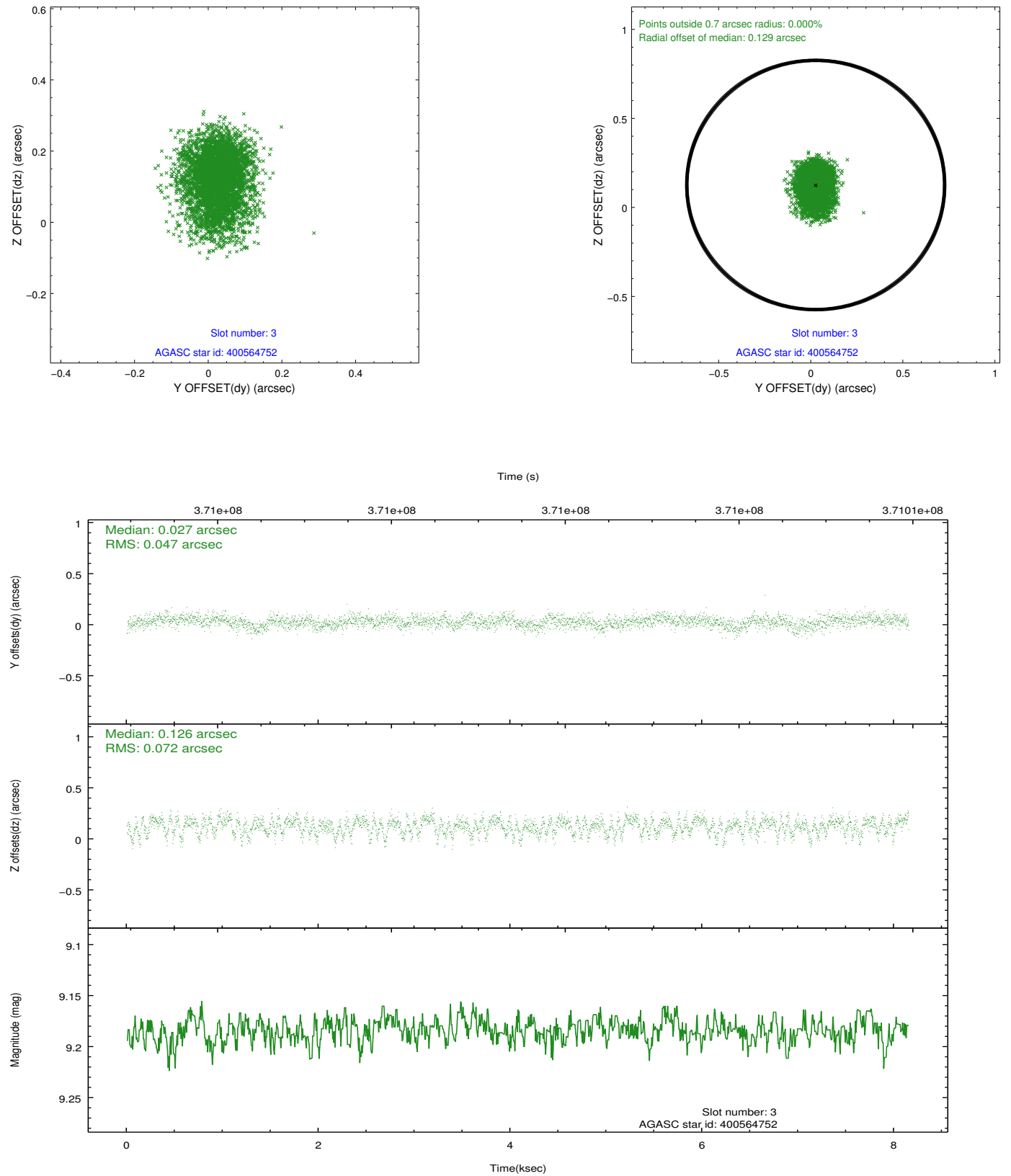


### Slot Statistics

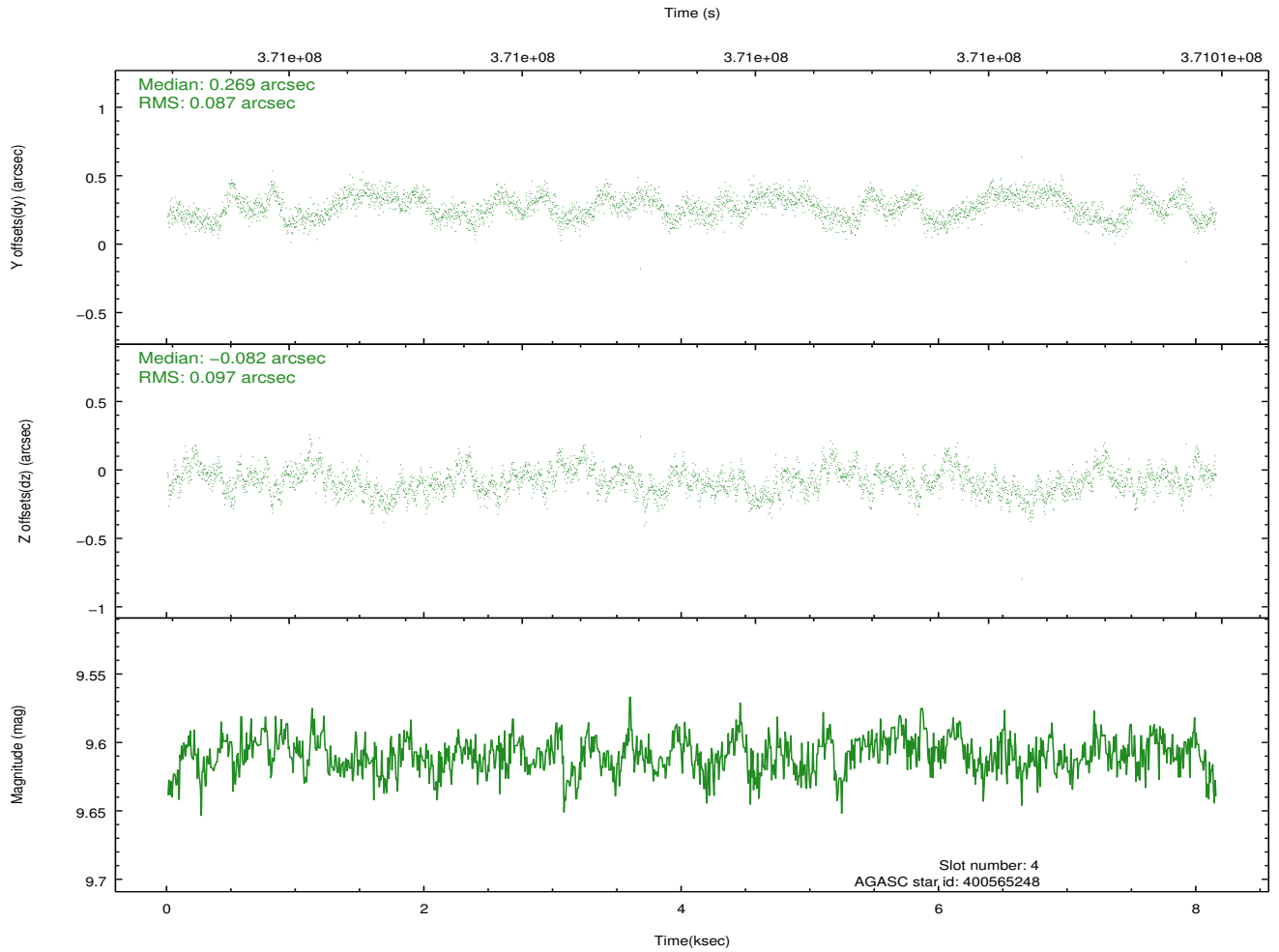
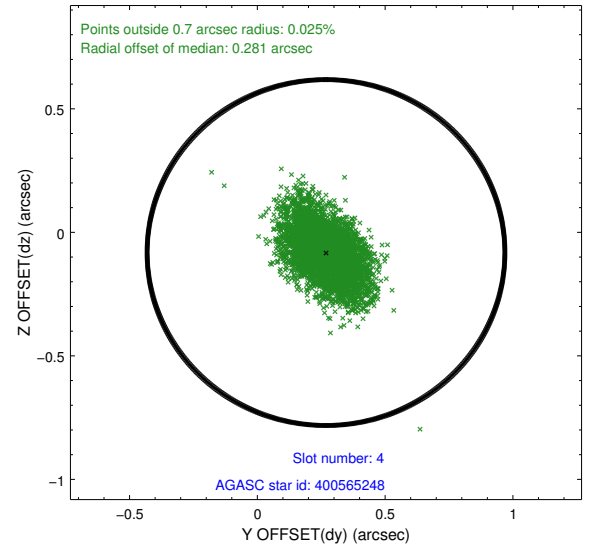
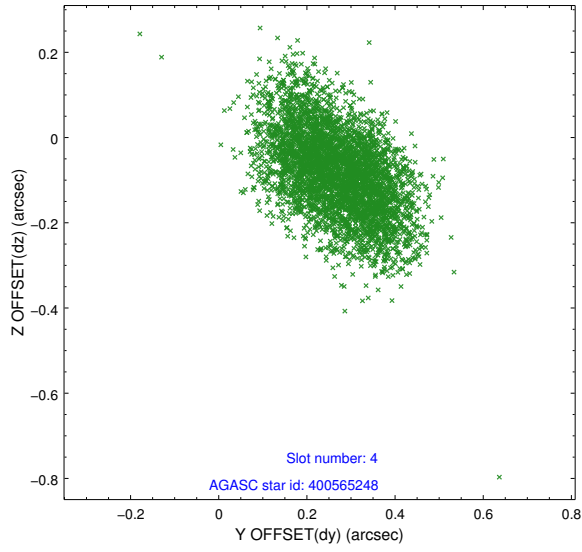
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.05	1988	0.063	-0.054	0.022	0.033	0.000000	0.000000	928.30	-1732.21
1	FID		ACIS-S-5	7.10	1988	-0.160	0.026	0.007	0.012	0.000000	0.000000	-1820.55	164.71
2	FID		ACIS-S-6	7.21	1986	0.075	0.043	0.020	0.030	0.000000	0.000000	393.11	809.47
3	GUIDE	used	400564752	9.18	3969	0.027	0.126	0.090	0.151	234.140629	42.130336	-1445.65	-1583.41
4	GUIDE	used	400565248	9.61	3969	0.269	-0.082	0.137	0.229	235.302363	42.467639	-560.93	1620.17
5	GUIDE	used	400961080	8.64	3974	-0.080	-0.011	0.083	0.136	234.853817	42.624698	-1724.42	1003.20
6	GUIDE	used	400961504	6.53	3976	-0.241	-0.041	0.041	0.067	234.883565	42.696946	-1886.32	1221.93
7	GUIDE	used	400565560	9.64	3969	0.026	0.010	0.134	0.211	234.941859	41.282935	2287.52	-1696.95

## 2.4 Star Slots

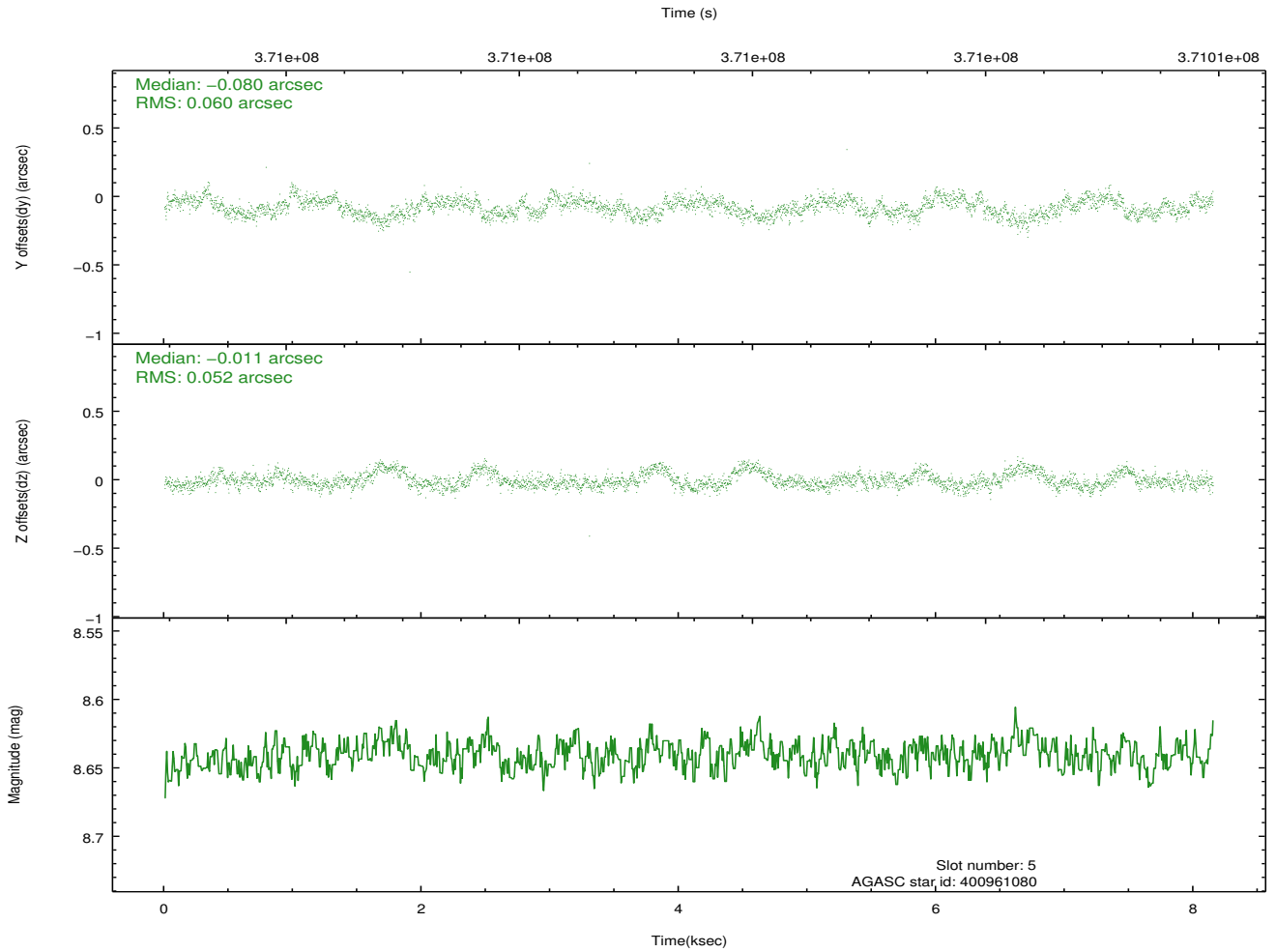
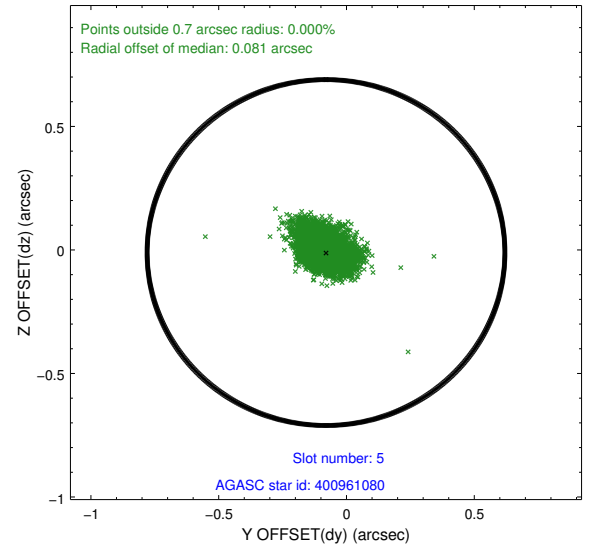
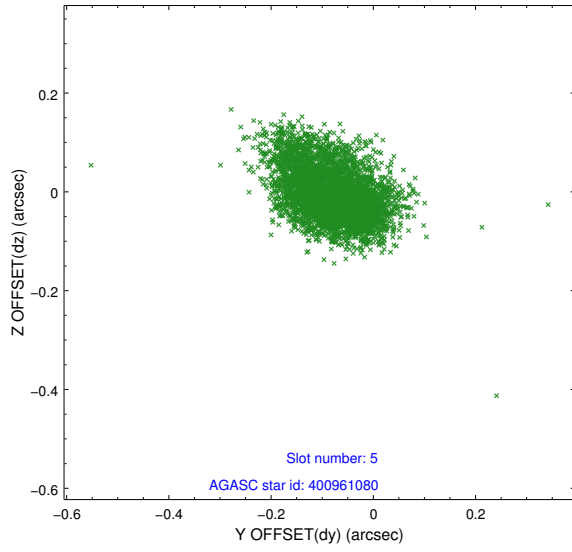
### 2.4.1 Slot 3



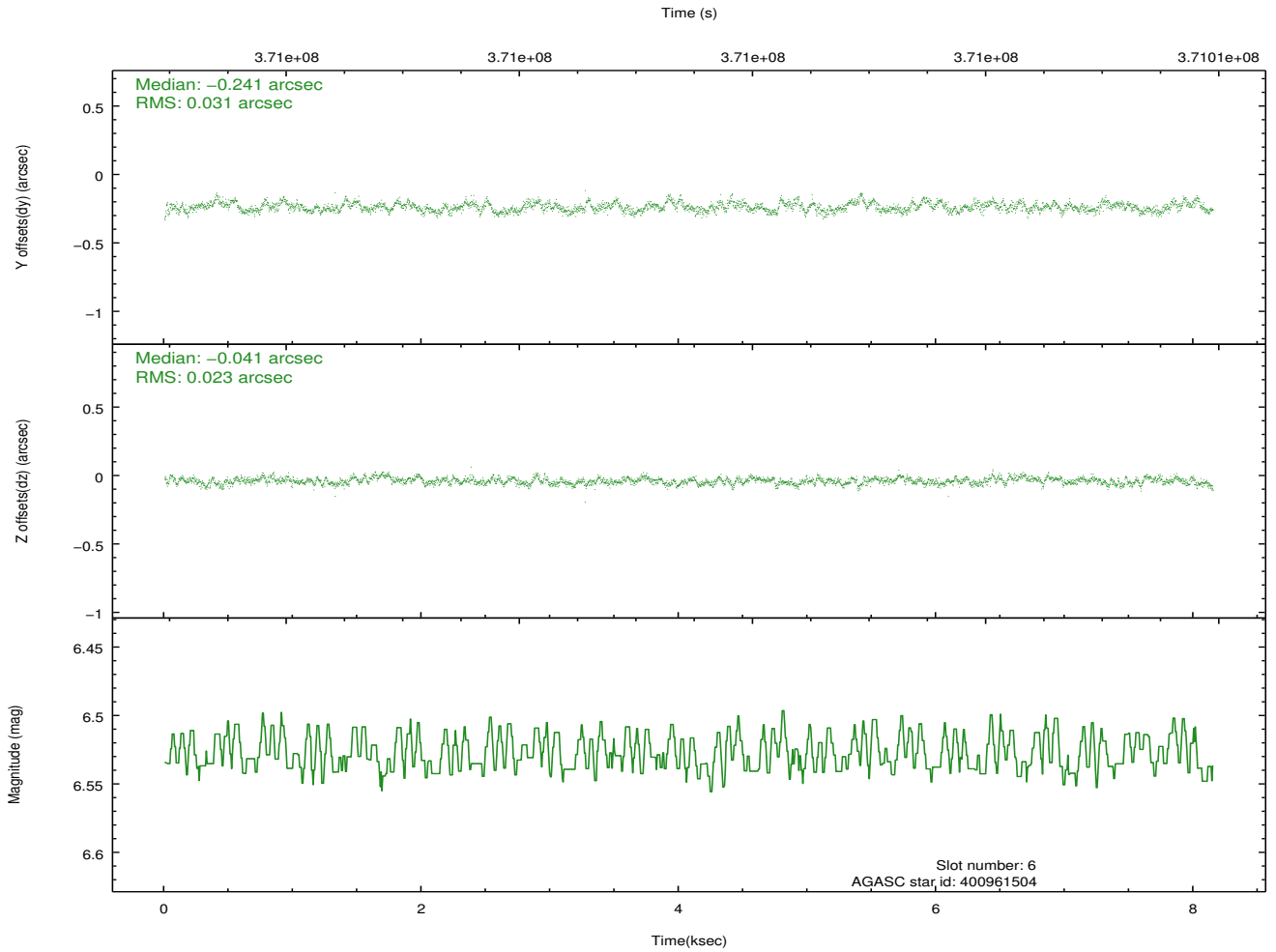
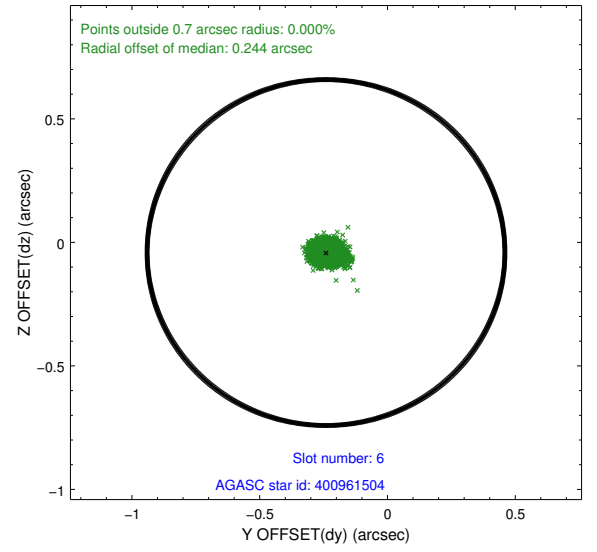
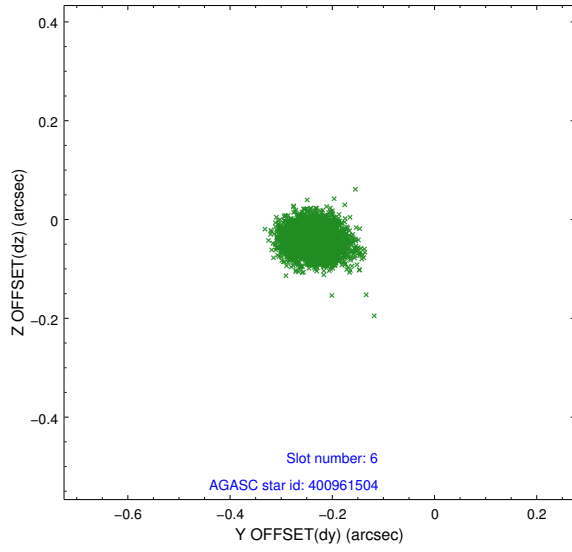
## 2.4.2 Slot 4



### 2.4.3 Slot 5

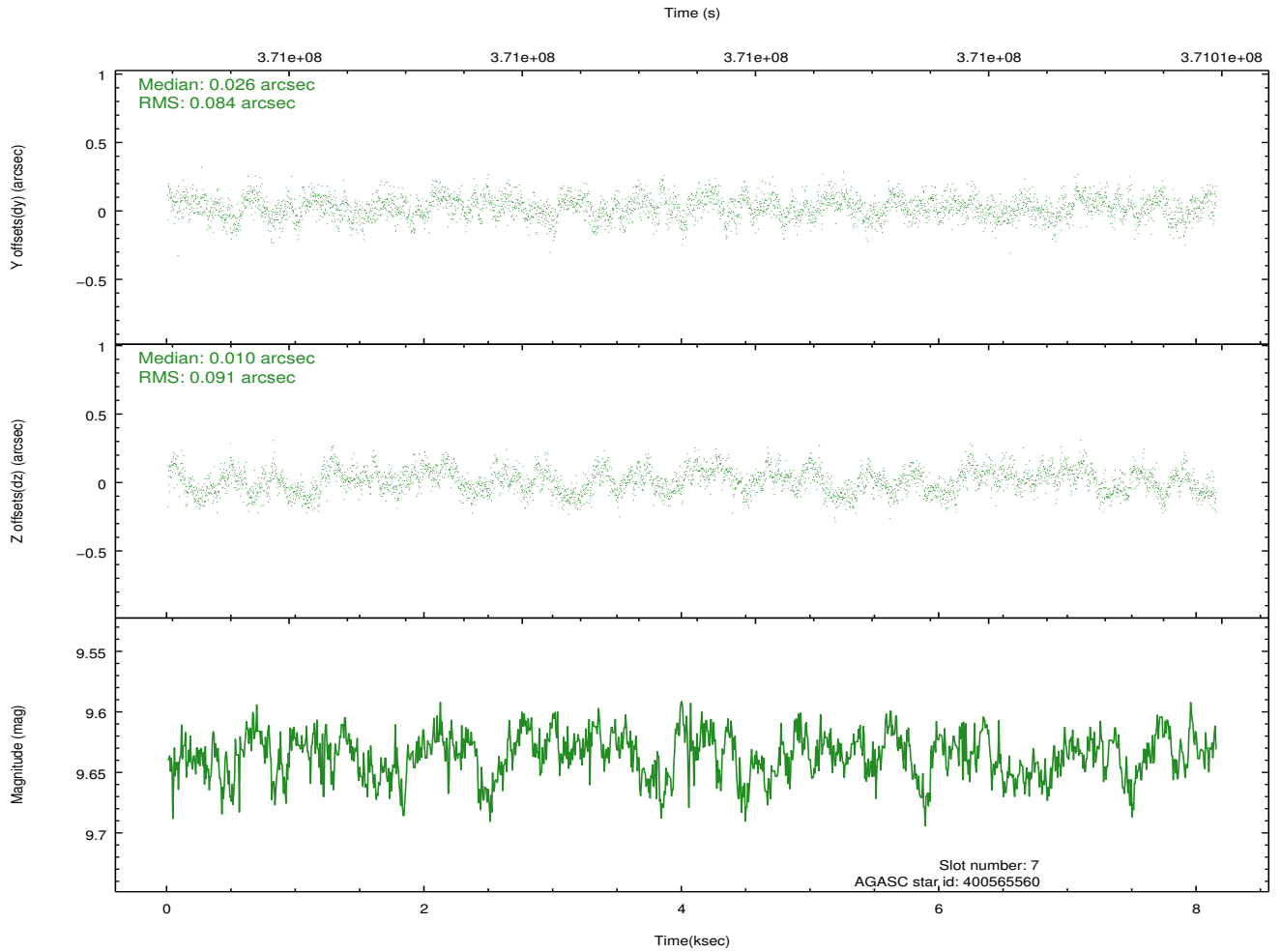
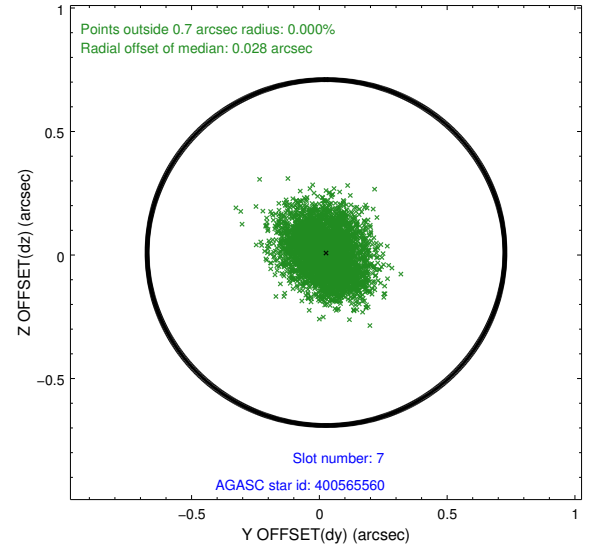
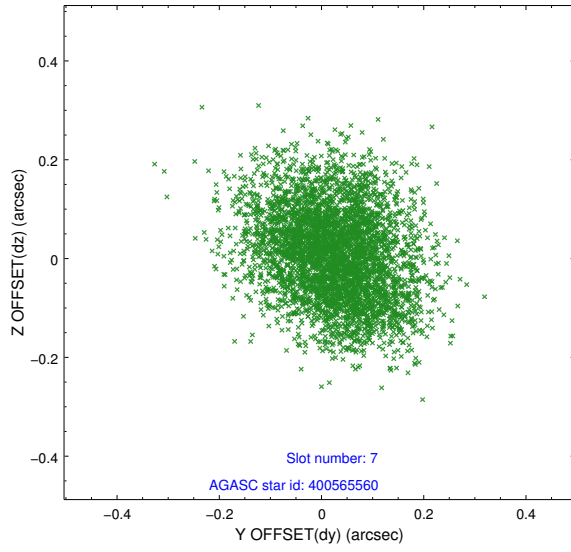


## 2.4.4 Slot 6



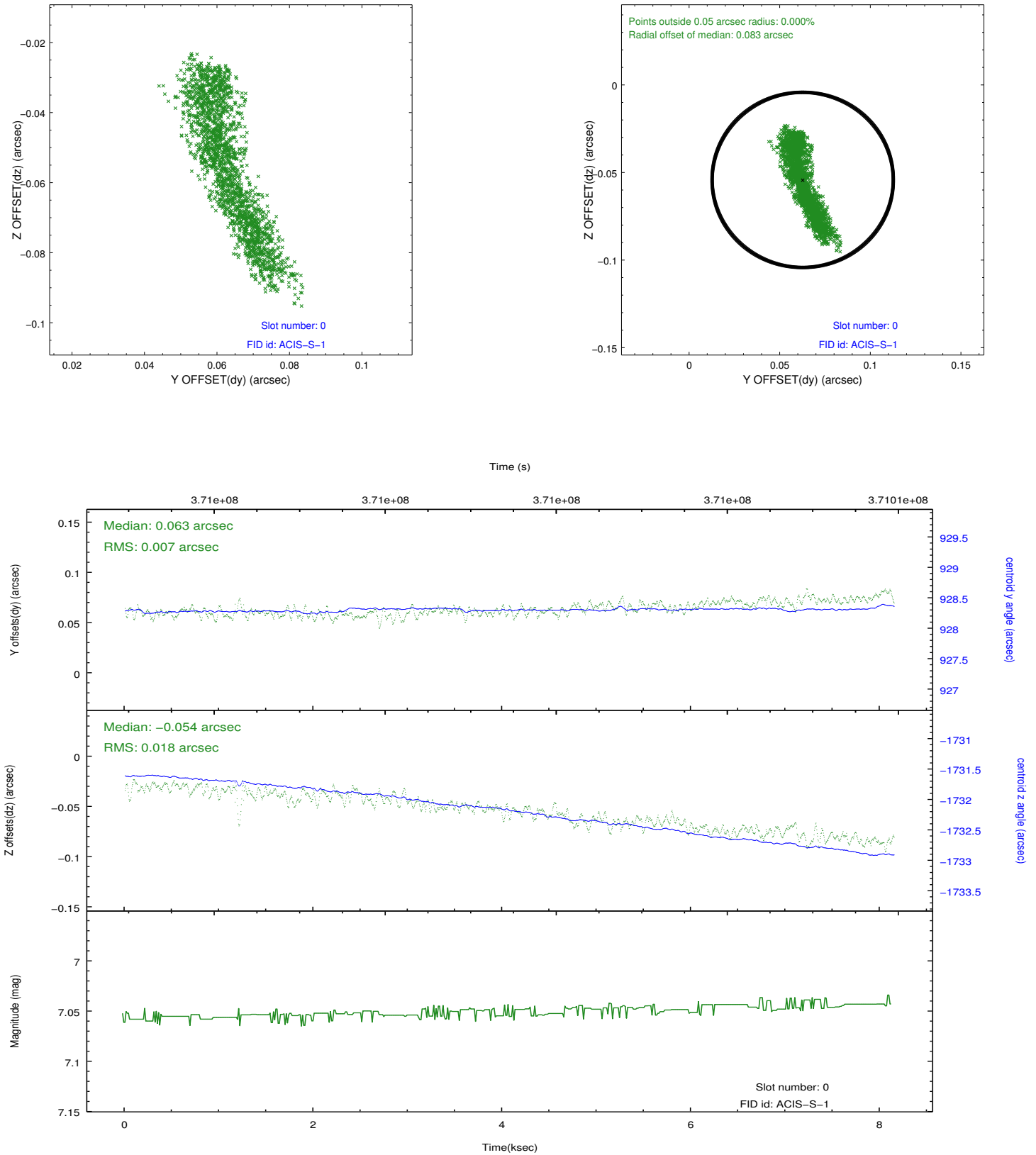


### 2.4.5 Slot 7

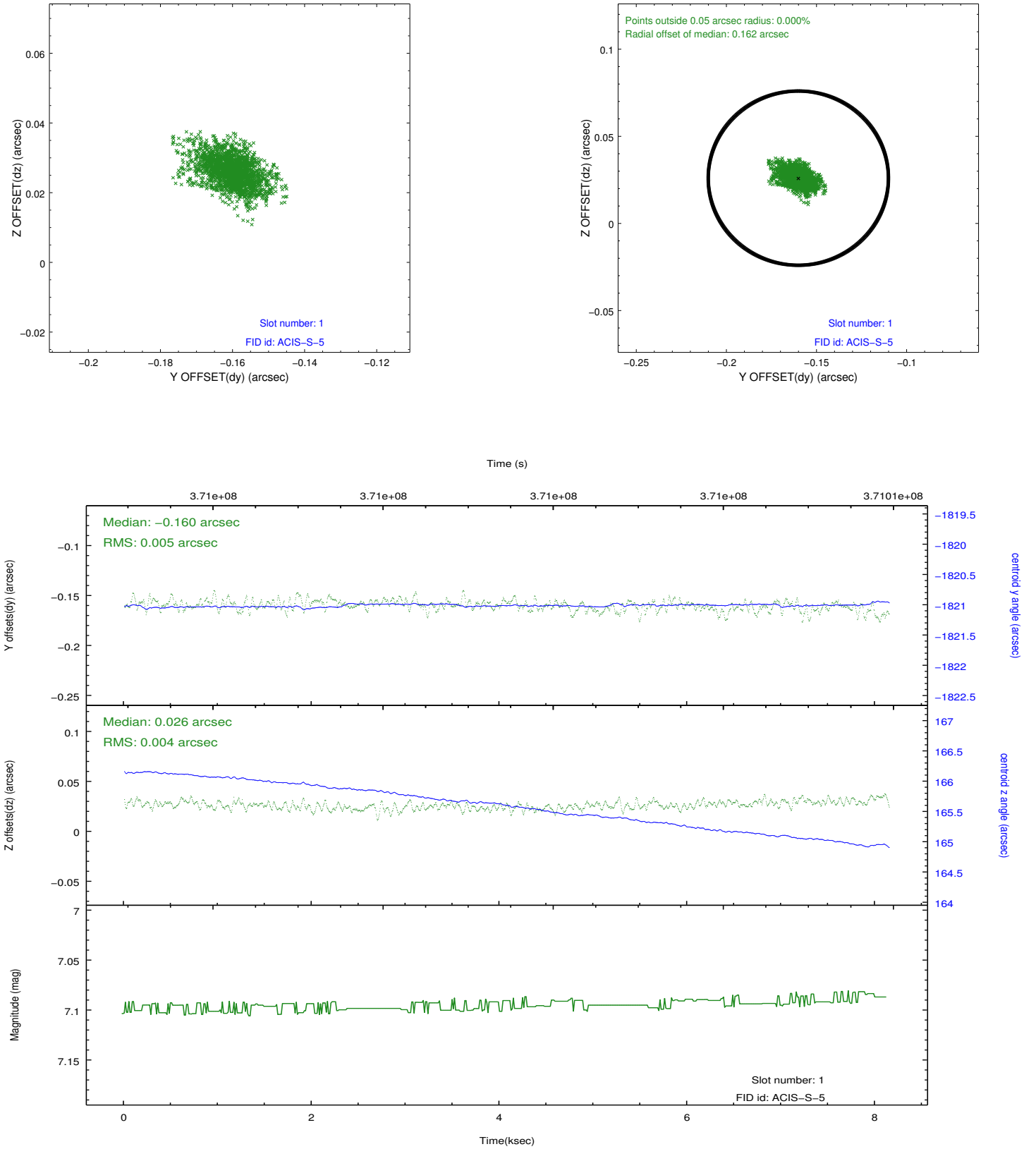


## 2.5 FID Slots

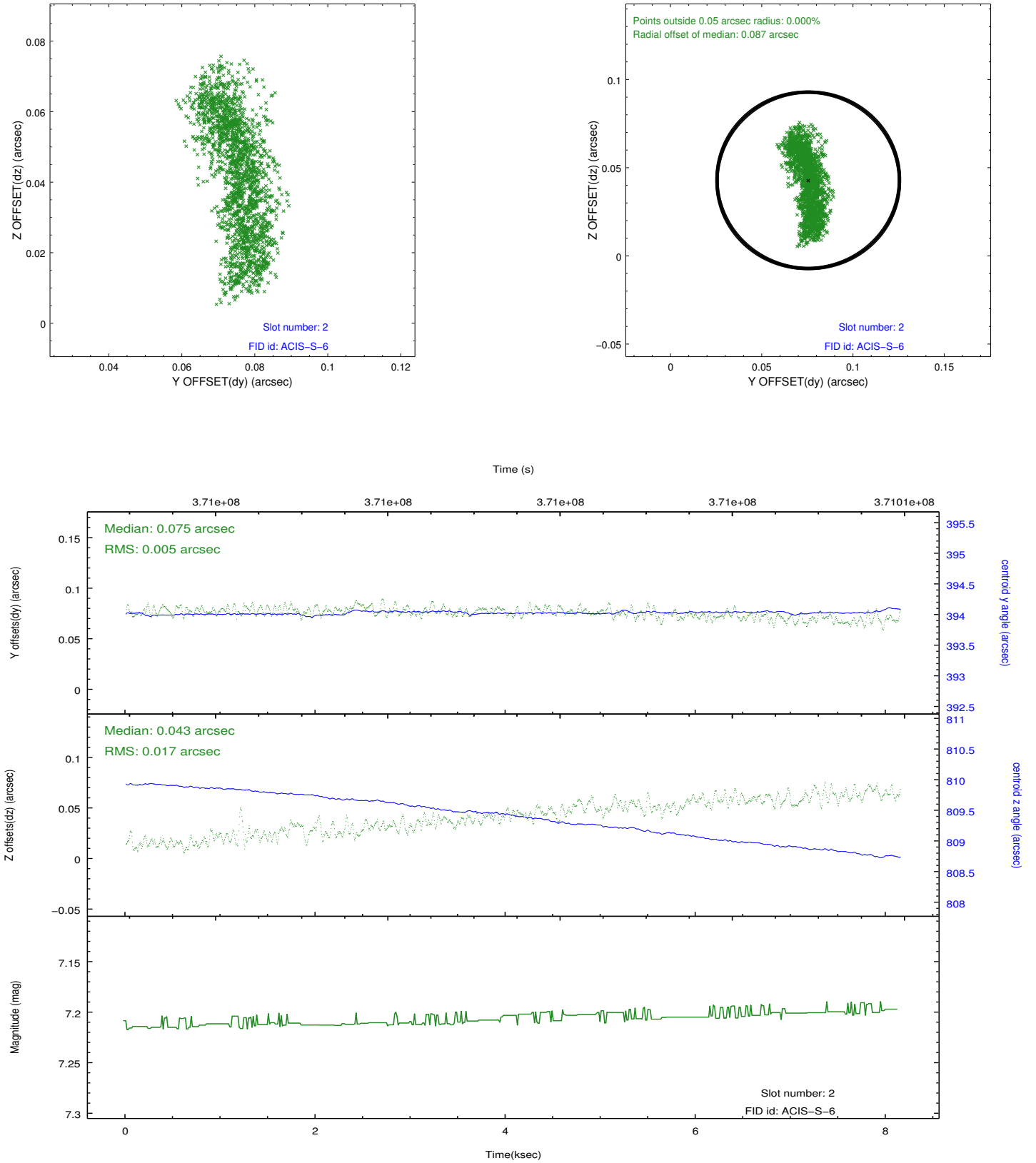
### 2.5.1 Slot 0



## 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)	2015.07.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.1407999697328

## A.2 Comments

Because an aspect solution is determined in a finite time interval, a small number of events registered within the delta time before the first aspect solution do not have proper sky coordinates. We apply a manual workaround to exclude those events with incorrect sky positions until the complete s/w resolution is obtained.