

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13879 - L2 Version 2  
Chandra X-Ray Center

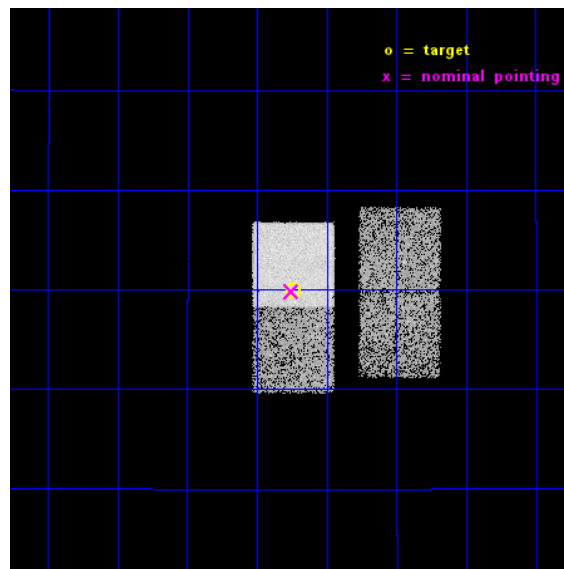
L2 Processing Date : Nov 29 2014

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# 1 Front

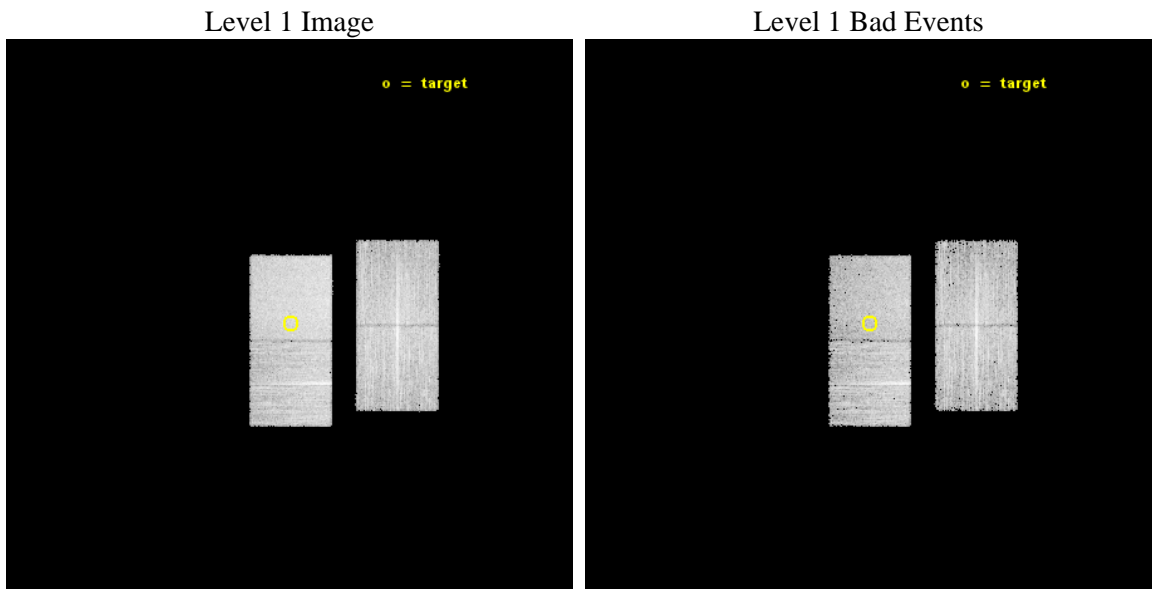
seq_num	702604	Sequence number
obs_id	13879	Observation id
title	Extending the Chandra 3C Snapshot Survey: Radio Galaxies with 0.3	Proposal title
observer	Dr. Francesco Massaro	Principal investigator
object	3c16	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	9.435833	Observer's specified target RA [deg]
dec_targ	13.331944	Observer's specified target Dec [deg]
ra_nom	9.4384847233594	Nominal RA [deg]
dec_nom	13.330337490705	Nominal Dec [deg]
roll_nom	270.14672467041	Nominal Roll [deg]
revision	2	Processing version of data
ontime	12077.600092888	Sum of GTIs [s]
livetime	11919.797356274	Livetime [s]
ontime2	12077.600092888	Sum of GTIs [s]
ontime3	12071.318162143	Sum of GTIs [s]
ontime6	12077.600092888	Sum of GTIs [s]
ontime7	12077.600092888	Sum of GTIs [s]
l2events	55680	Number of level 2 events



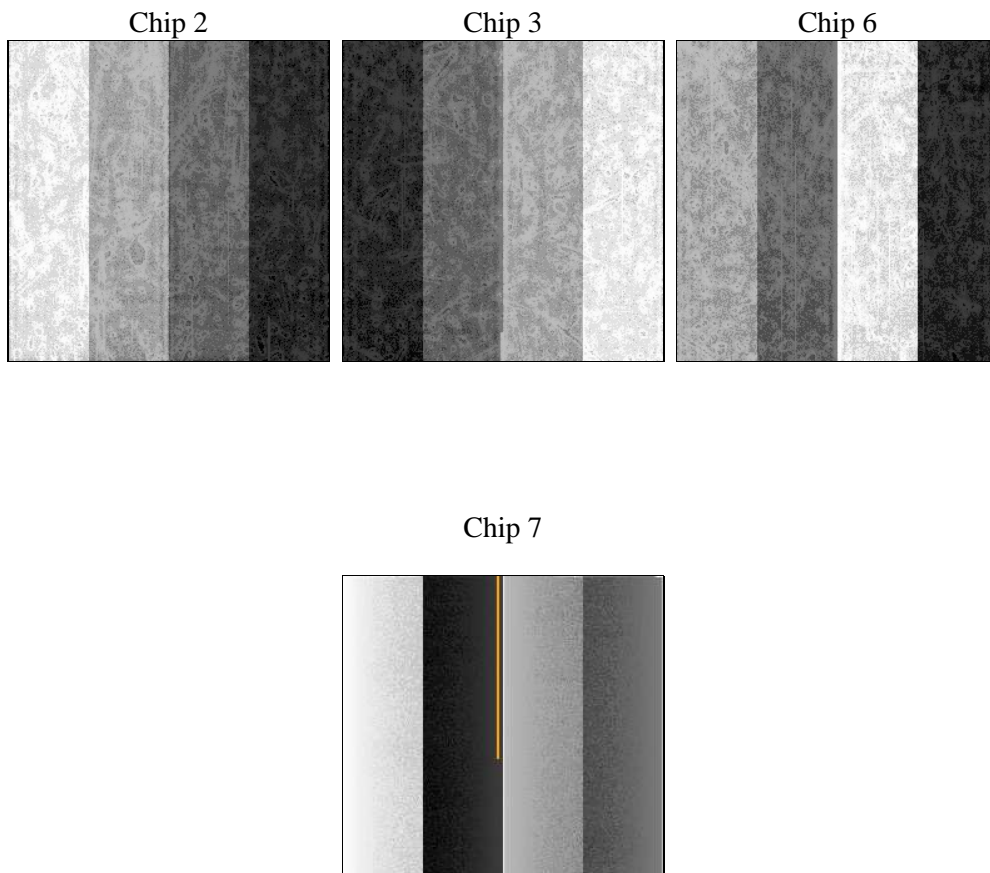
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	12000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	12077.600092888	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime2	12077.600092888	Sum of GTIs [s]
date	2014-11-28T19:00:39	Date and time of file creation	ontime3	12071.318162143	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	12077.600092888	Sum of GTIs [s]
			ontime7	12077.600092888	Sum of GTIs [s]
			l1events	271510	Number of level 1 events

### 2.1.4 Events

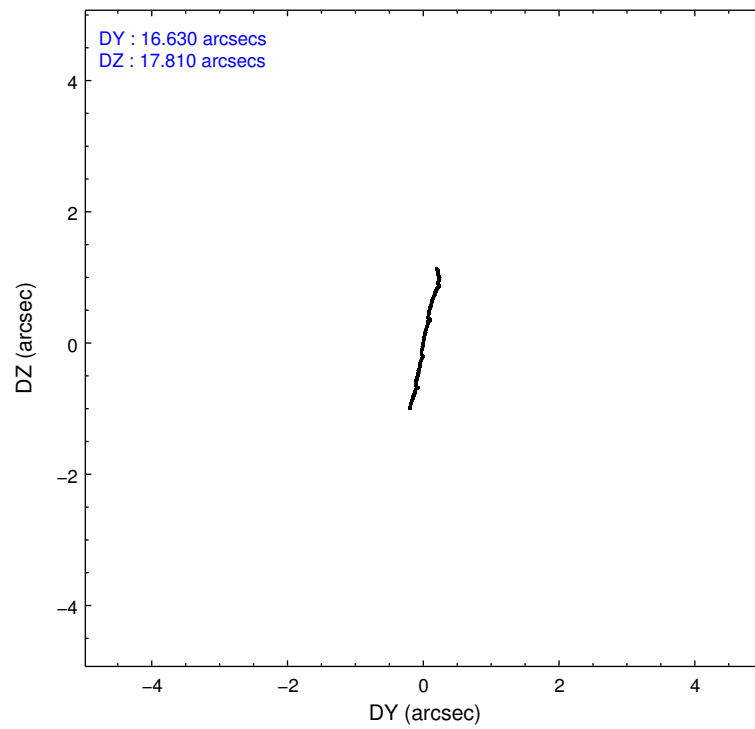
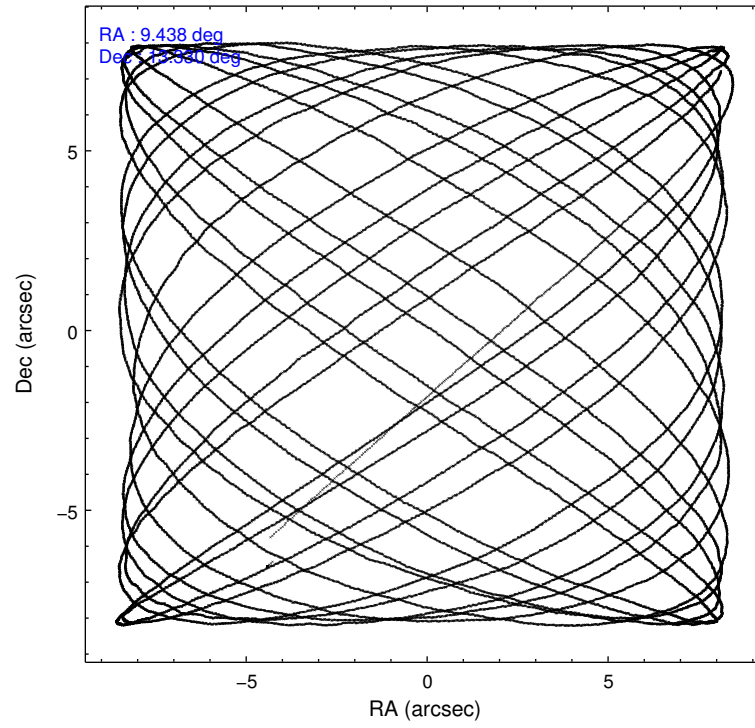
	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	62301	59150	64348	85711
rejected events	55224	52185	56665	47981
rejected %	88%	88%	88%	55%

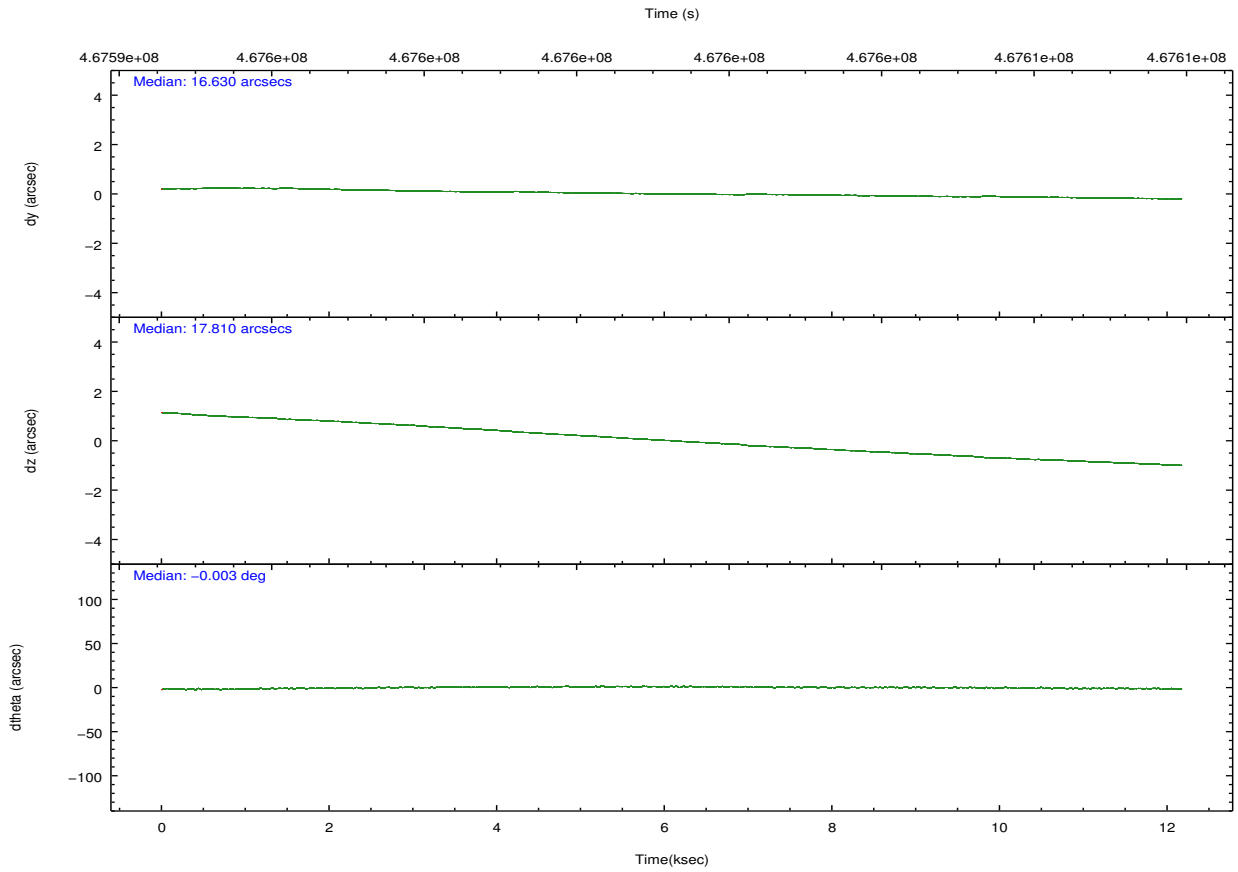
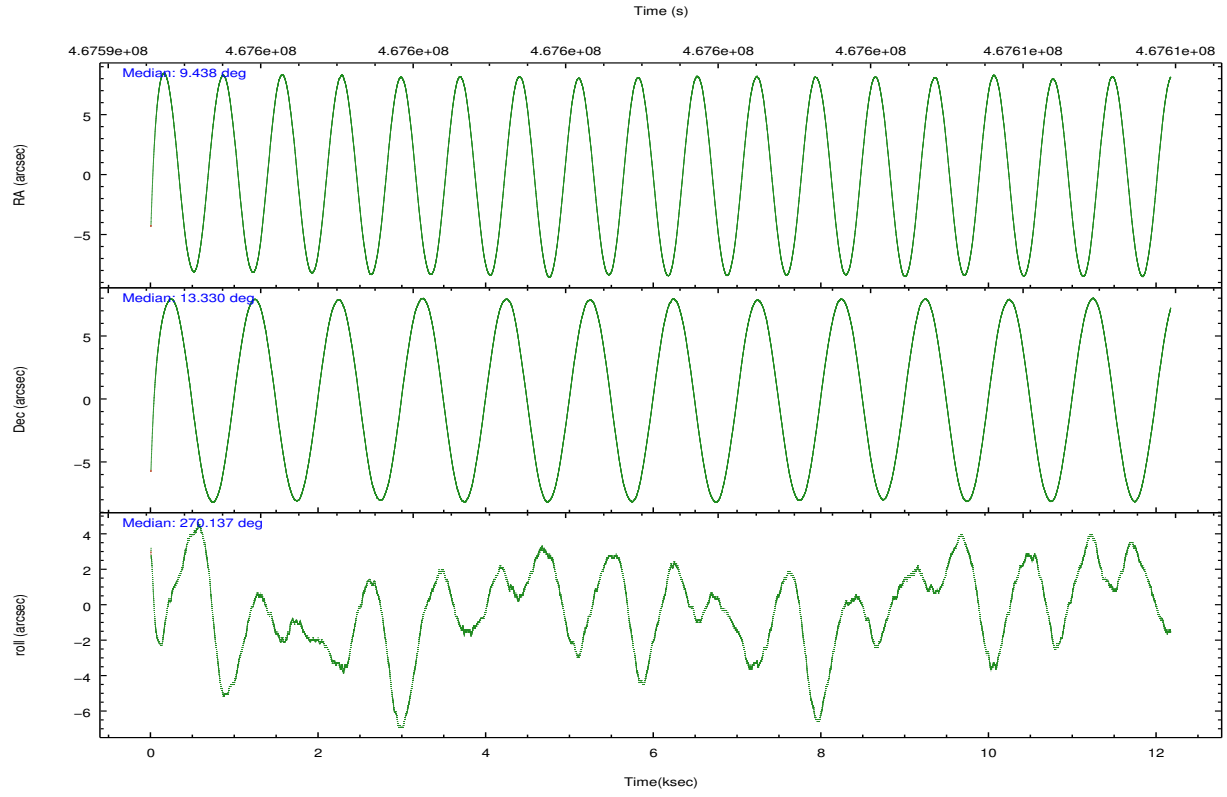
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	2545	2397	2733	3377
	4%	4%	4%	3%
grade 1 events	29	29	28	117
	0%	0%	0%	0%
grade 2 events	1715	1528	1707	7668
	2%	2%	2%	8%
grade 3 events	692	741	776	3296
	1%	1%	1%	3%
grade 4 events	713	777	745	3258
	1%	1%	1%	3%
grade 5 events	2732	3245	3311	8954
	4%	5%	5%	10%
grade 6 events	1418	1526	1724	20139
	2%	2%	2%	23%
grade 7 events	52457	48907	53324	38902
	84%	82%	82%	45%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-2367	ACIS-2367	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	9.424015	9.438484723359409	CCD I2 on	O1	Y
[deg] Pointing Dec	13.353774	13.33033749070452	CCD I3 on	O2	Y
[deg] Pointing Roll	269.993431	270.1467246704139	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.145094680475	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01257209746719923	CCD S4 on	N	N
[s] Observation start time (MET)	467595343.184000	467594031.40469	CCD S5 on	N	N
Observation start date	2012-10-25T23:34:36	2012-10-25T23:13:51	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	467607343.184000	467608332.20546	On-chip summing requested	N	N
Observation end date	2012-10-26T02:54:36	2012-10-26T03:12:12	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



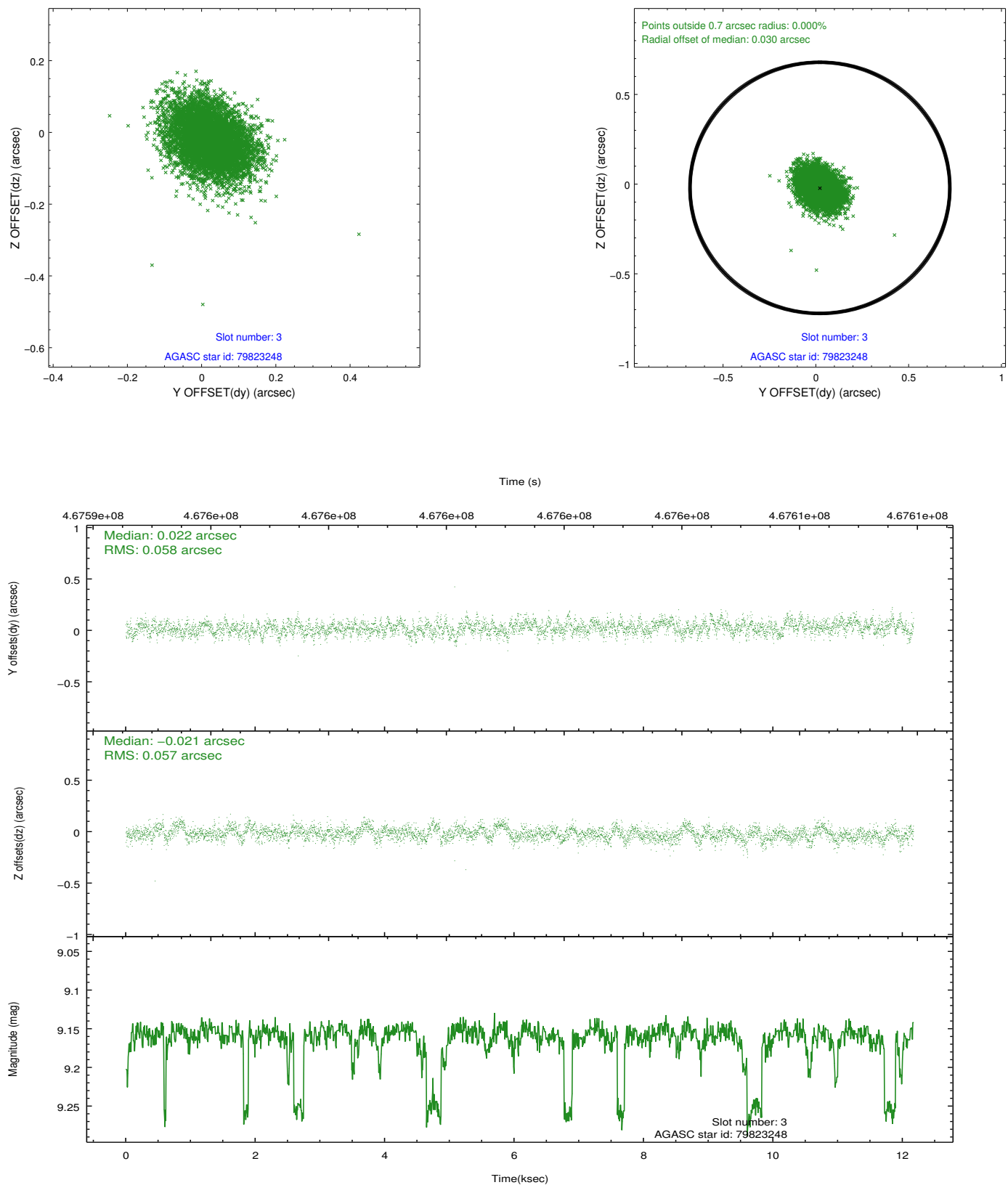


### Slot Statistics

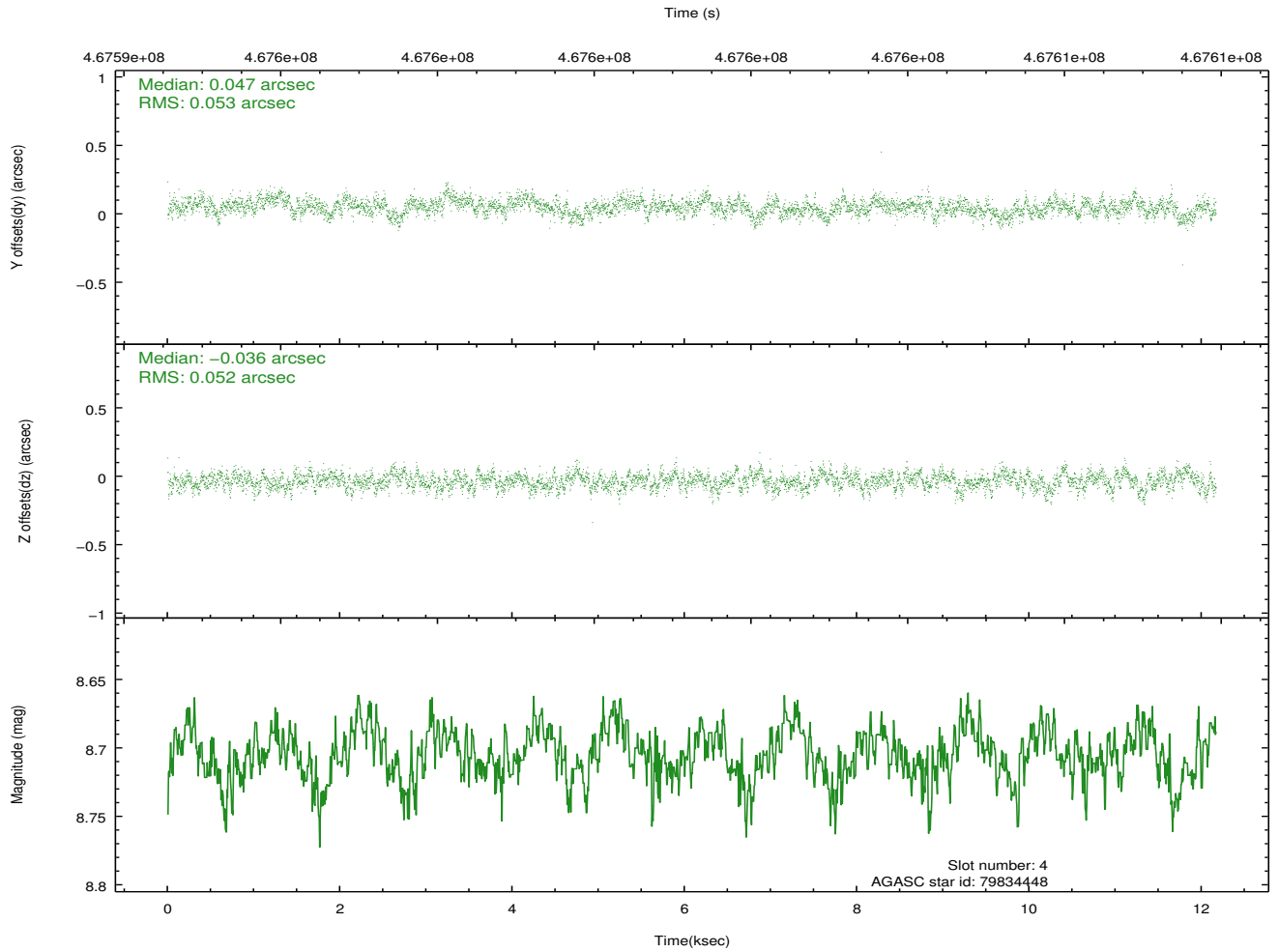
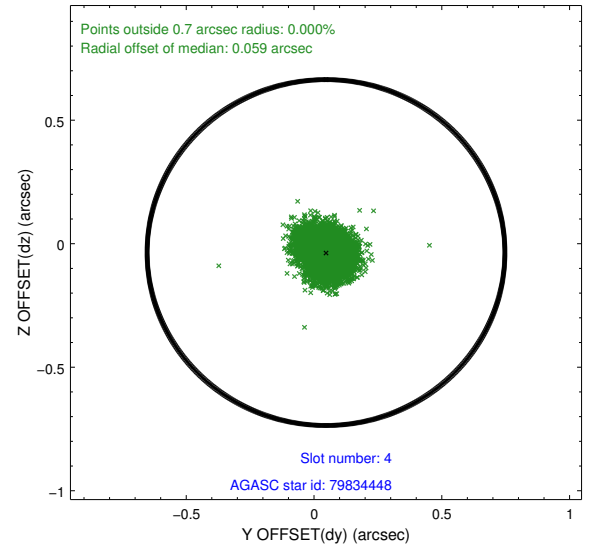
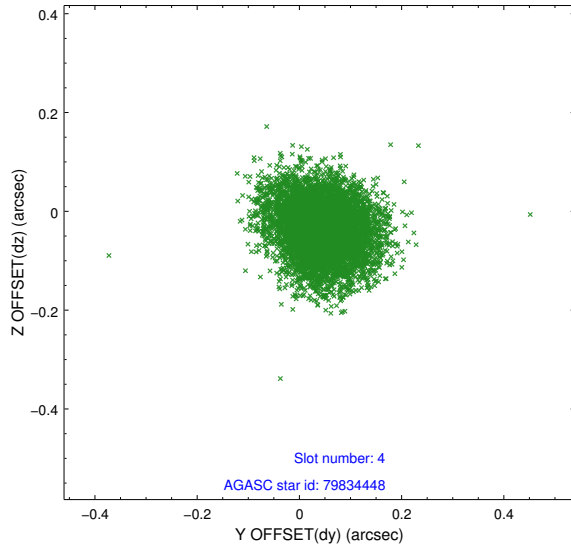
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.92	2969	-0.080	-0.029	0.018	0.035	0.000000	0.000000	-769.77	-1739.20
1	FID		ACIS-S-4	7.01	2969	0.179	0.045	0.011	0.017	0.000000	0.000000	2143.61	168.88
2	FID		ACIS-S-5	7.04	2969	-0.132	-0.007	0.019	0.033	0.000000	0.000000	-1822.11	163.02
3	GUIDE	used	79823248	9.16	5918	0.022	-0.021	0.085	0.140	9.891602	13.975460	-2239.87	1633.28
4	GUIDE	used	79834448	8.71	5934	0.047	-0.036	0.080	0.129	9.138241	13.272914	290.53	-999.82
5	GUIDE	used	79836704	6.51	5937	0.009	-0.116	0.072	0.119	8.978344	13.207073	529.76	-1563.45
6	GUIDE	used	79836696	6.24	5936	0.013	0.090	0.068	0.115	8.730681	13.371143	-64.20	-2429.13
7	GUIDE	used	79826352	9.52	5898	-0.098	0.089	0.132	0.213	9.957899	14.007677	-2356.68	1865.21

## 2.4 Star Slots

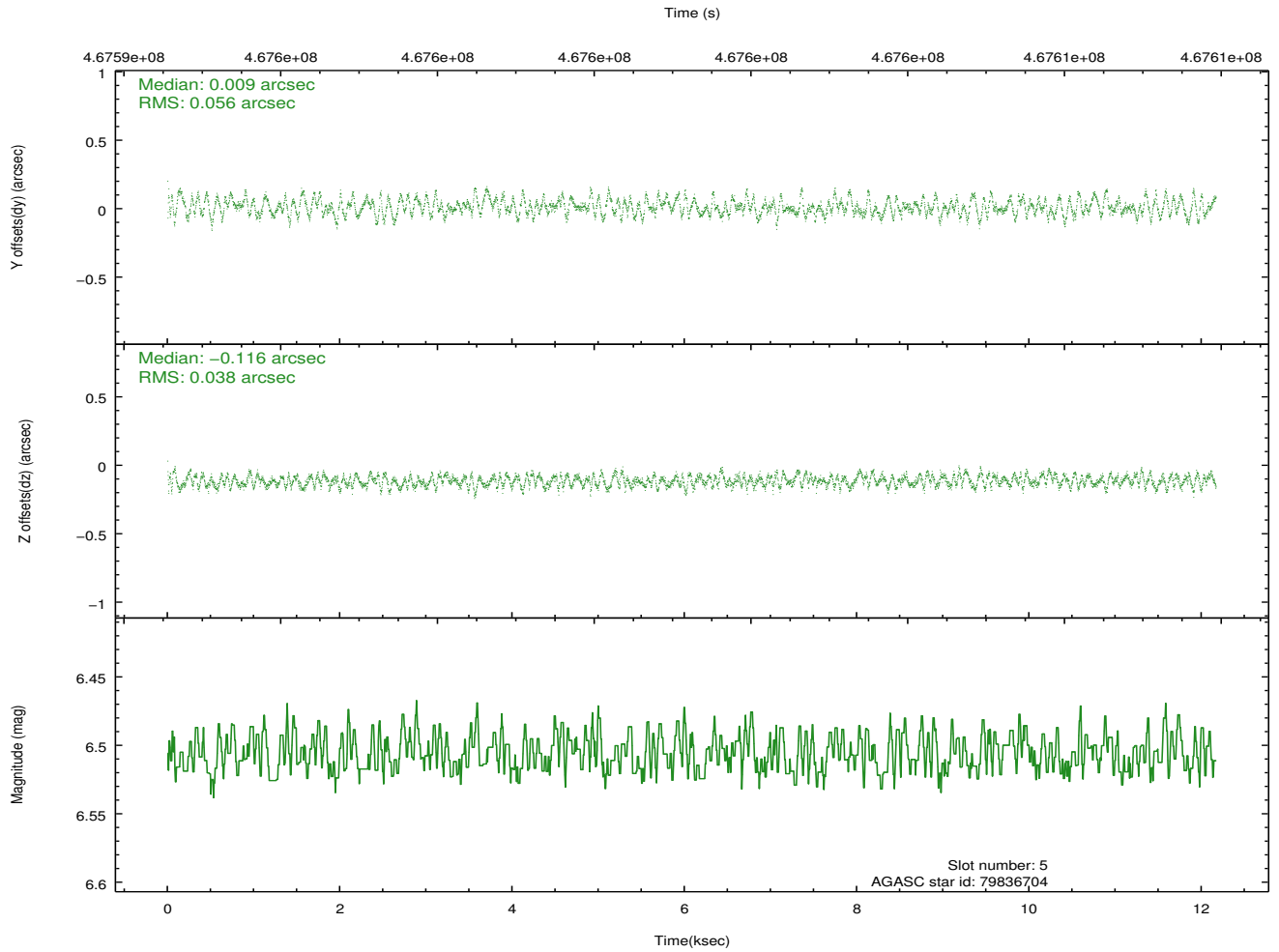
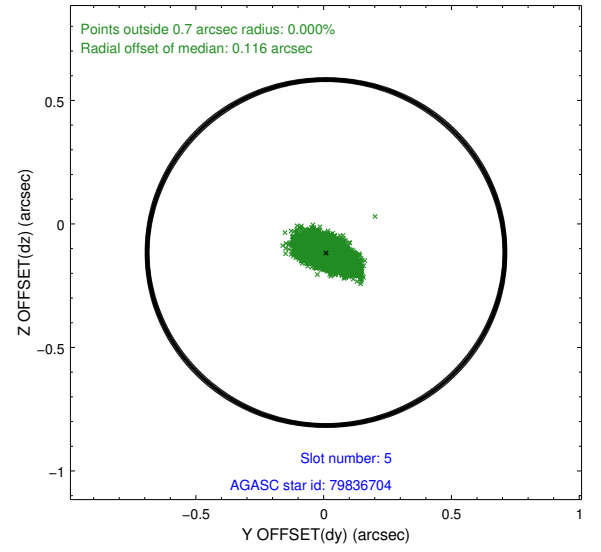
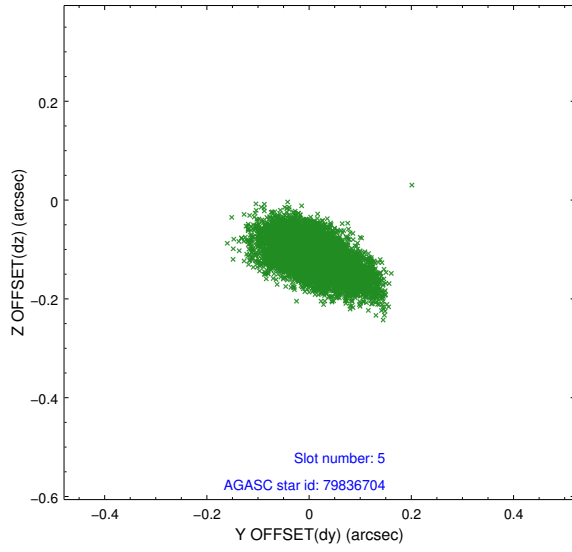
### 2.4.1 Slot 3



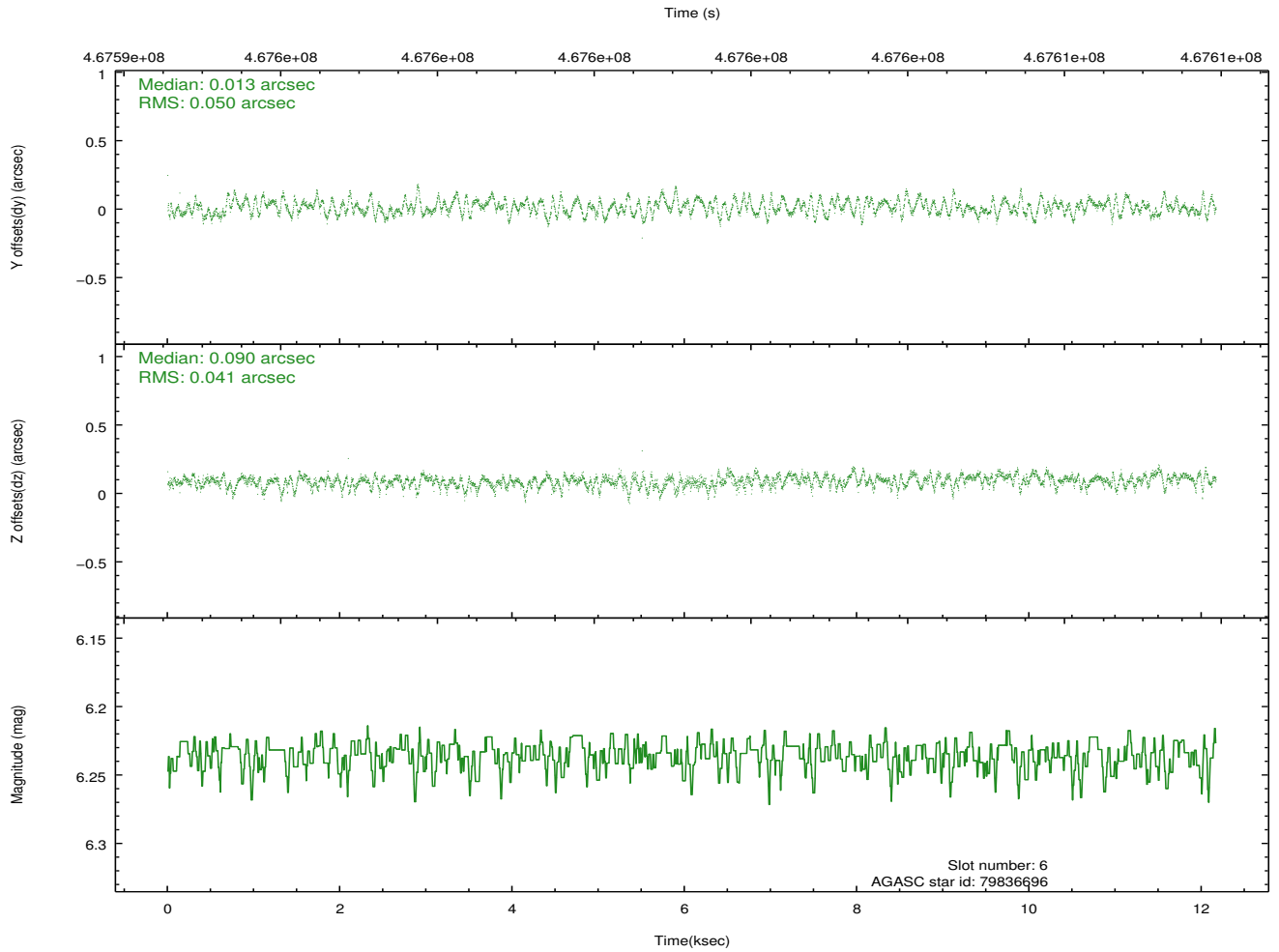
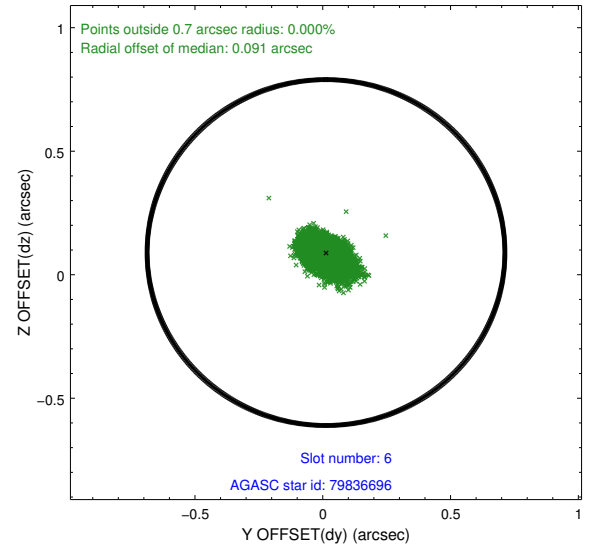
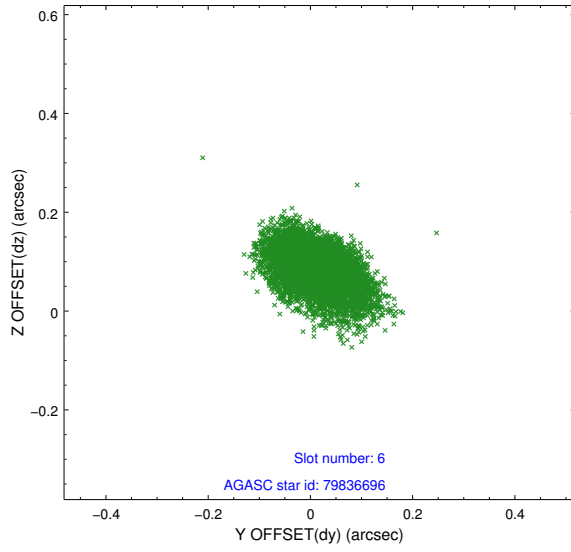
## 2.4.2 Slot 4



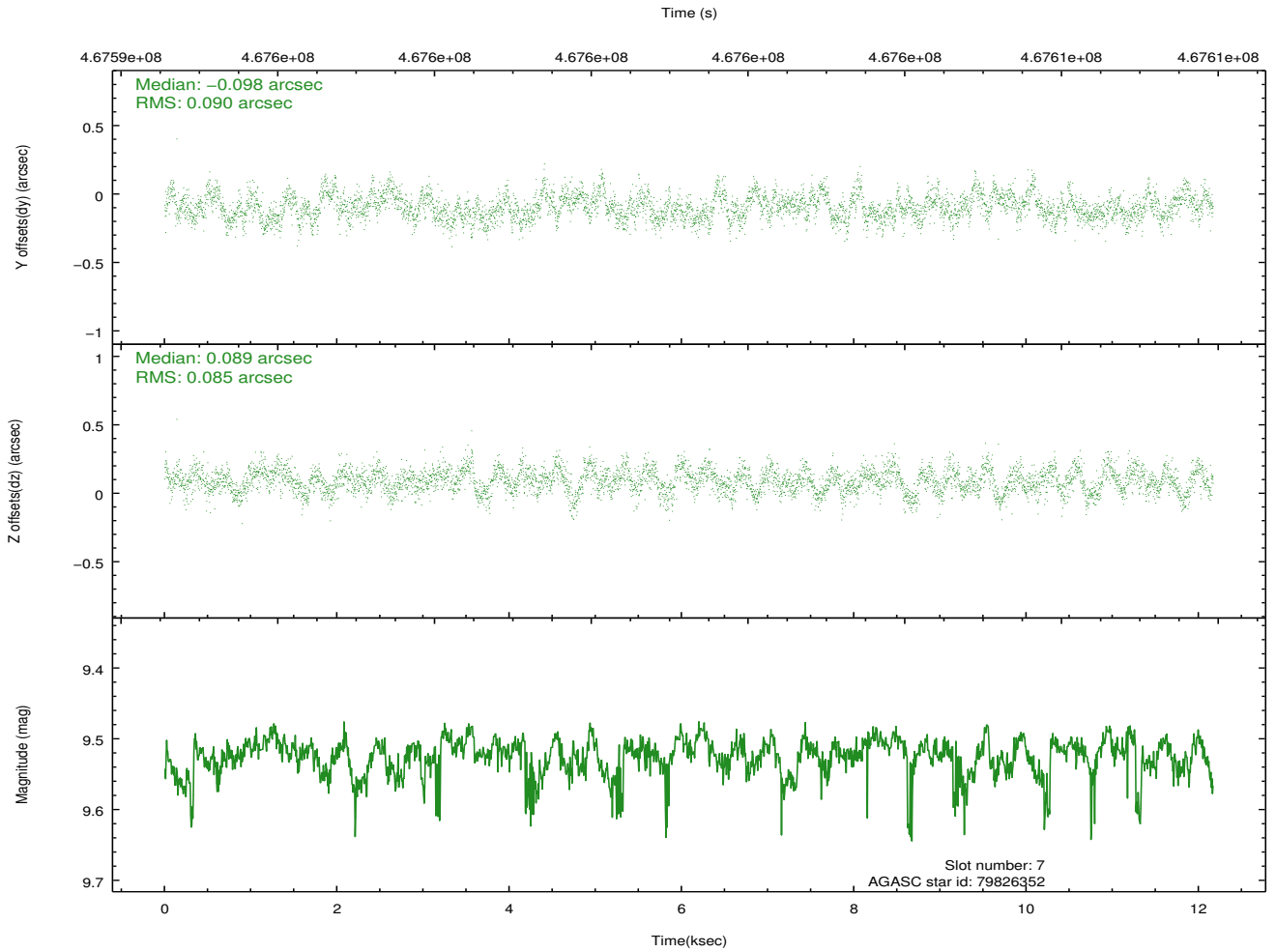
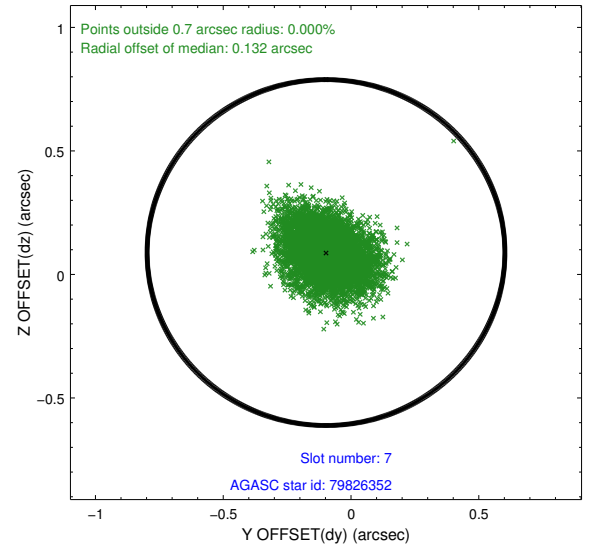
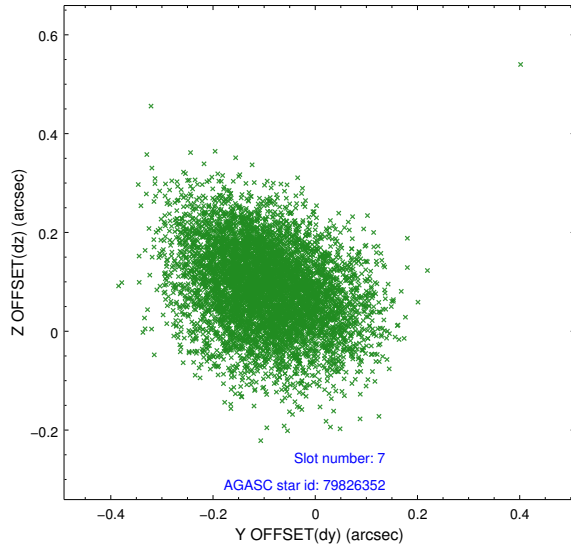
### 2.4.3 Slot 5



## 2.4.4 Slot 6

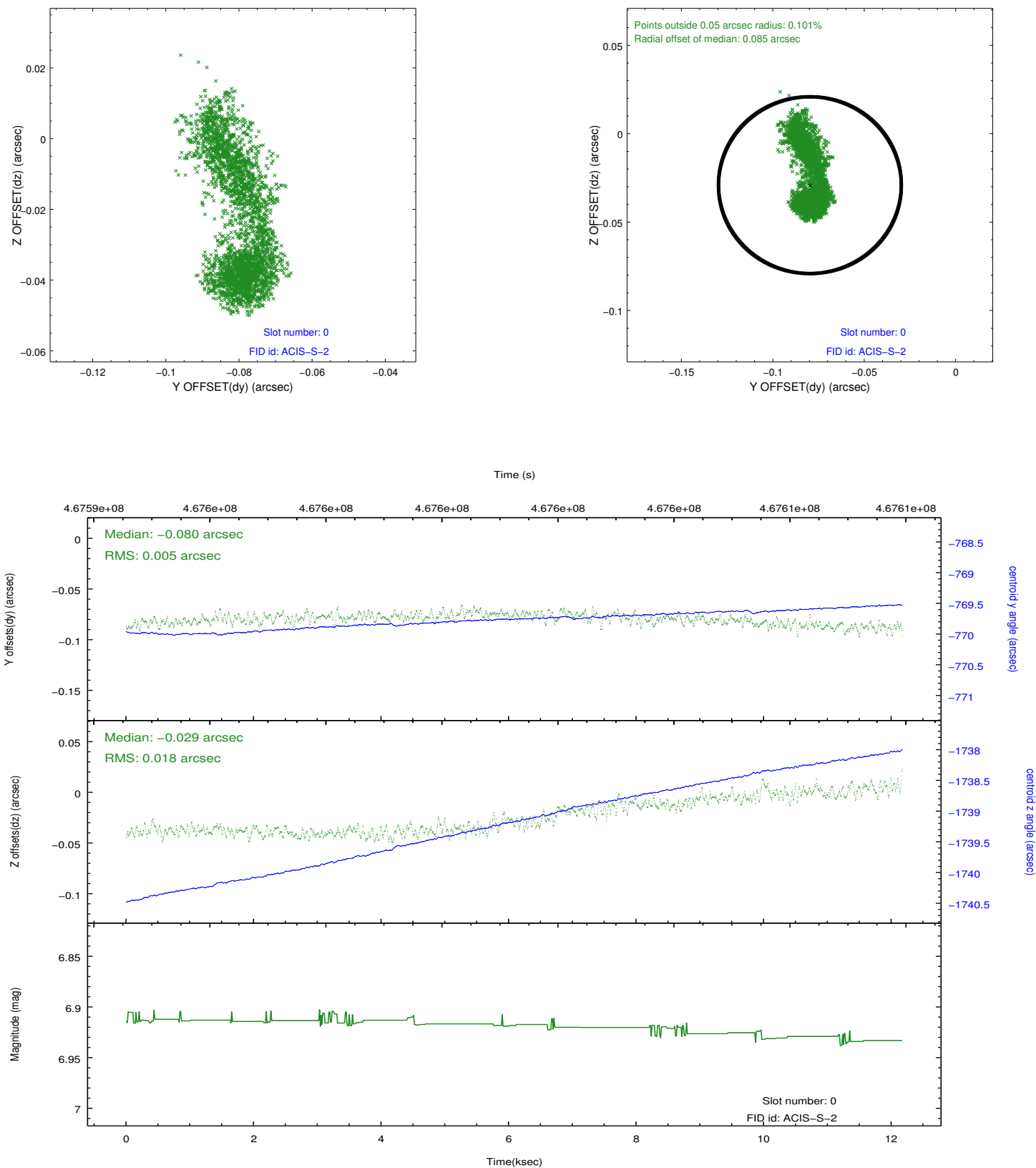


## 2.4.5 Slot 7

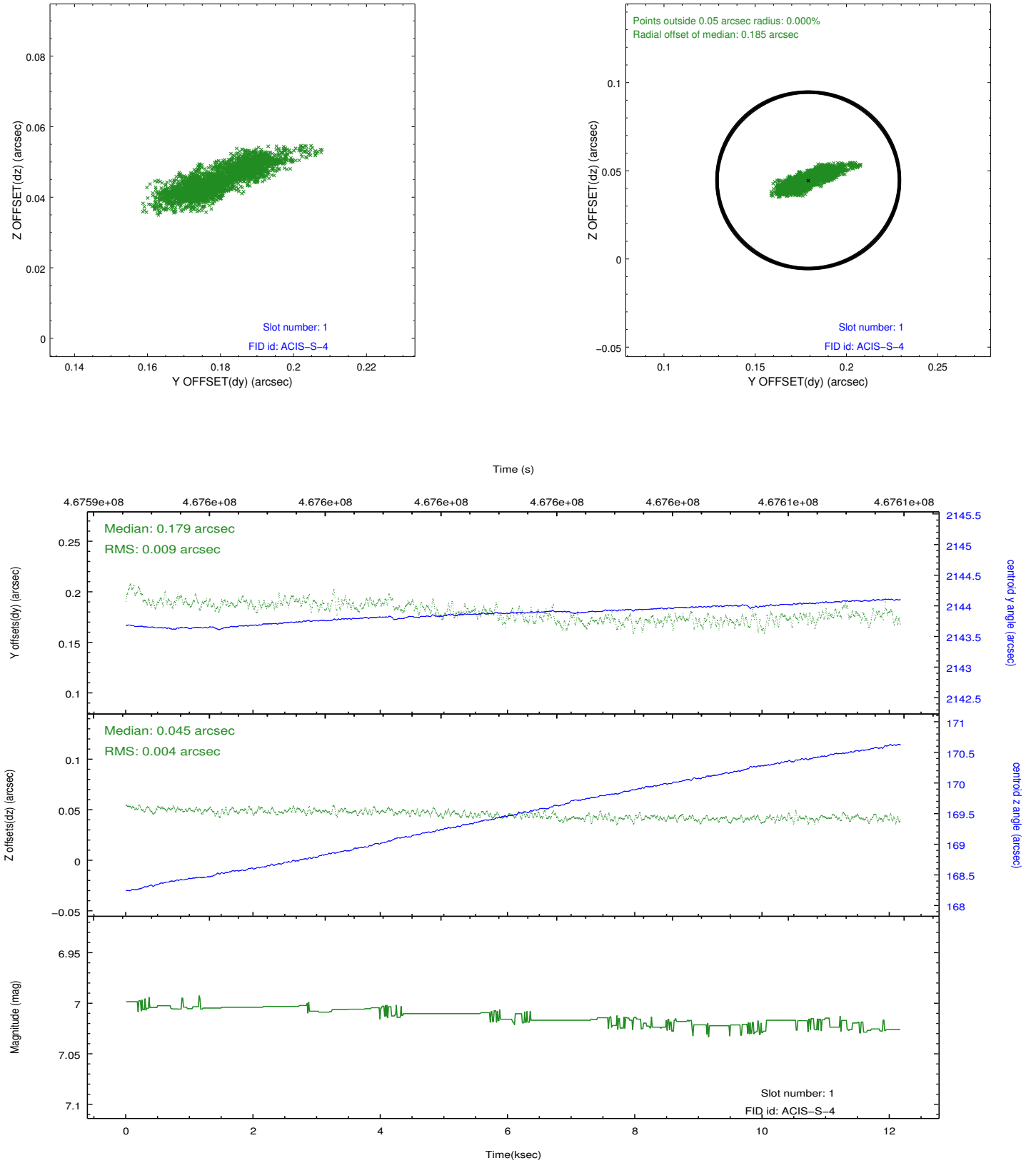


## 2.5 FID Slots

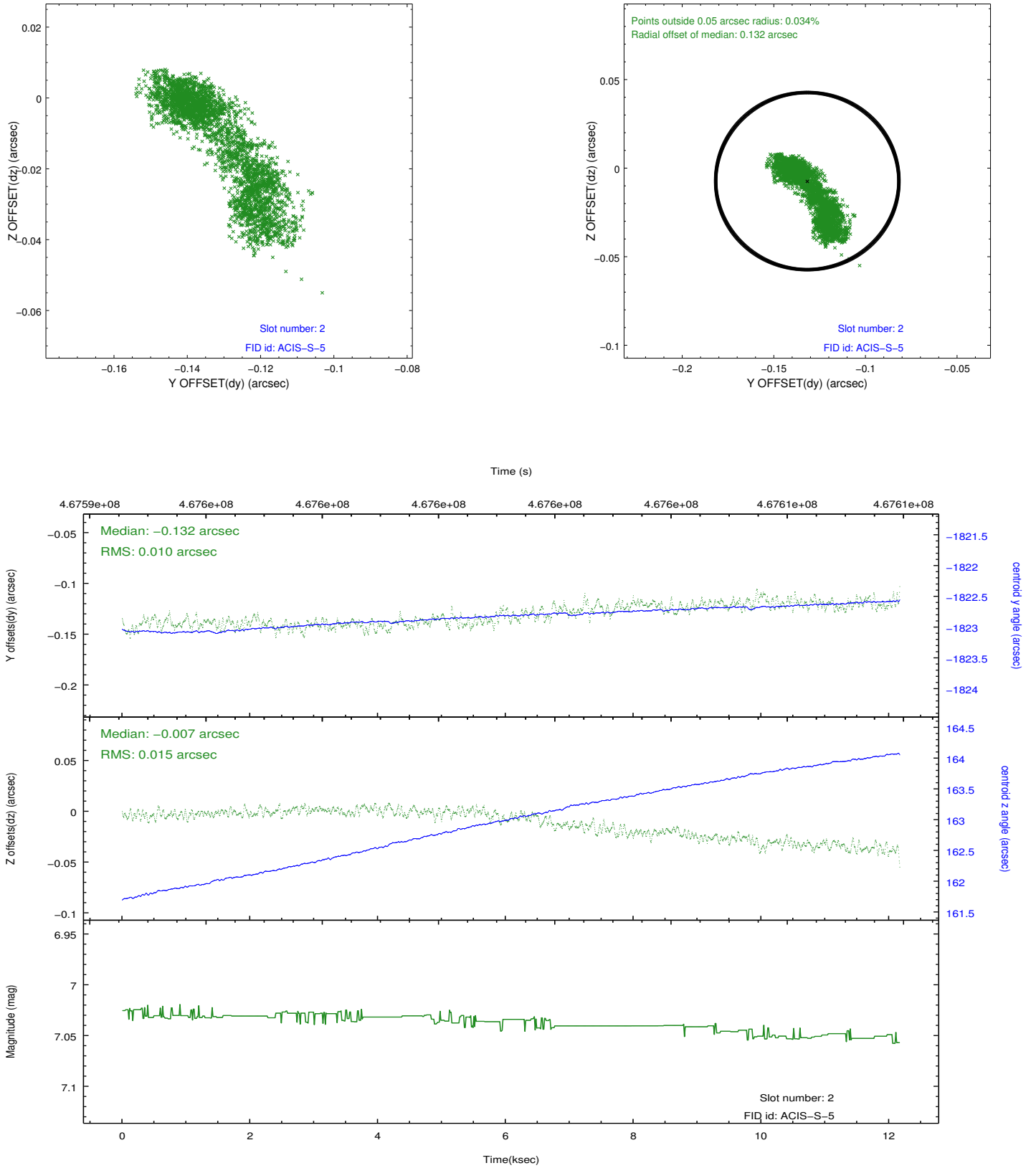
### 2.5.1 Slot 0



## 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)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	12.077600092888

## A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.