

# V&V Reference Report

## L2 ASCDS Version : 10.2.1

Observation 15797 - L2 Version 2  
Chandra X-Ray Center

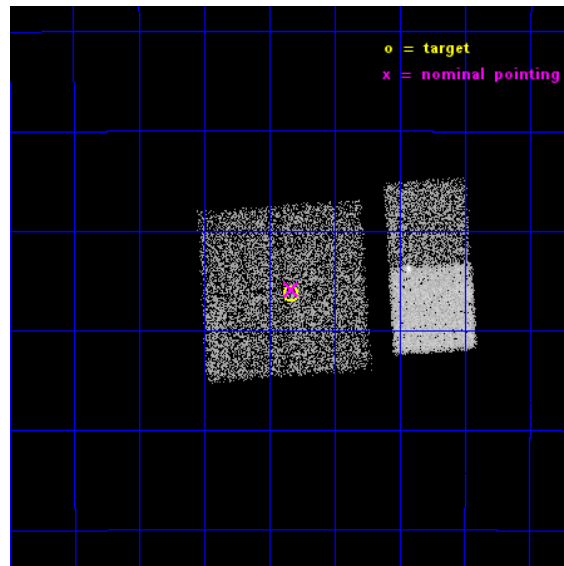
L2 Processing Date : Dec 10 2014

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# 1 Front

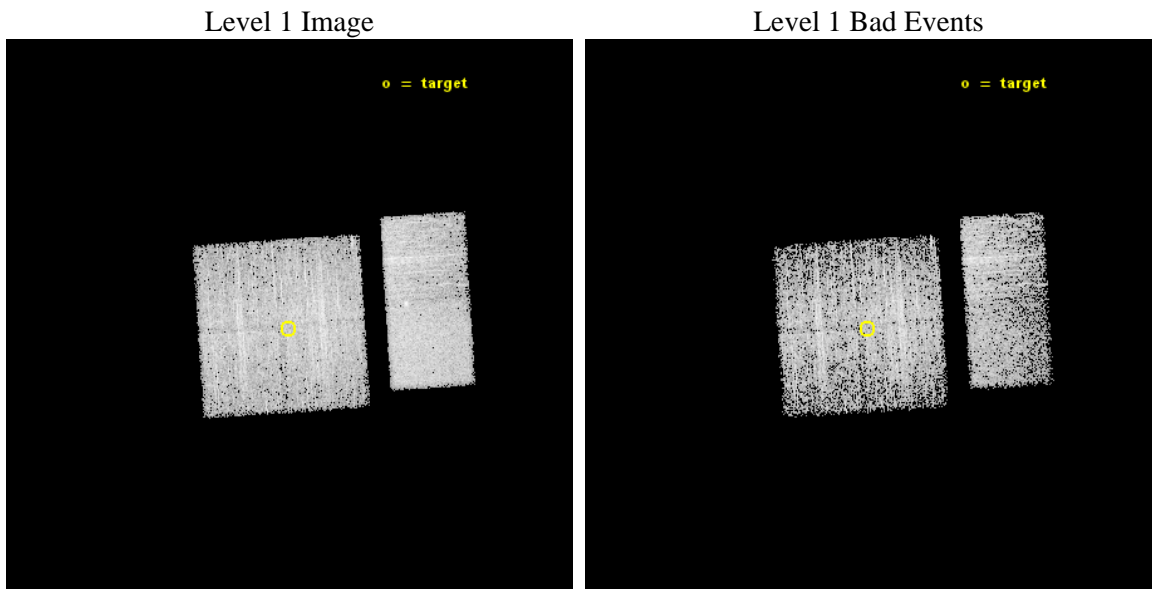
seq_num	401594	Sequence number
obs_id	15797	Observation id
title	The Nature of INTEGRAL Sources in the Galactic Plane	Proposal titl
observer	Dr. John Tomsick	Principal investigator
object	IGR J17174-2436	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	259.335	Observer's specified target RA [deg]
dec_targ	-24.606	Observer's specified target Dec [deg]
ra_nom	259.33280826733	Nominal RA [deg]
dec_nom	-24.598203051105	Nominal Dec [deg]
roll_nom	86.267778798819	Nominal Roll [deg]
revision	2	Processing version of data
ontime	4963.1999815702	Sum of GTIs [s]
livetime	4900.3529549234	Livetime [s]
ontime0	4963.1999815702	Sum of GTIs [s]
ontime1	4963.1999815702	Sum of GTIs [s]
ontime2	4963.1999815702	Sum of GTIs [s]
ontime3	4963.1999815702	Sum of GTIs [s]
ontime6	4963.1999815702	Sum of GTIs [s]
ontime7	4963.1999815702	Sum of GTIs [s]
l2events	31431	Number of level 2 events



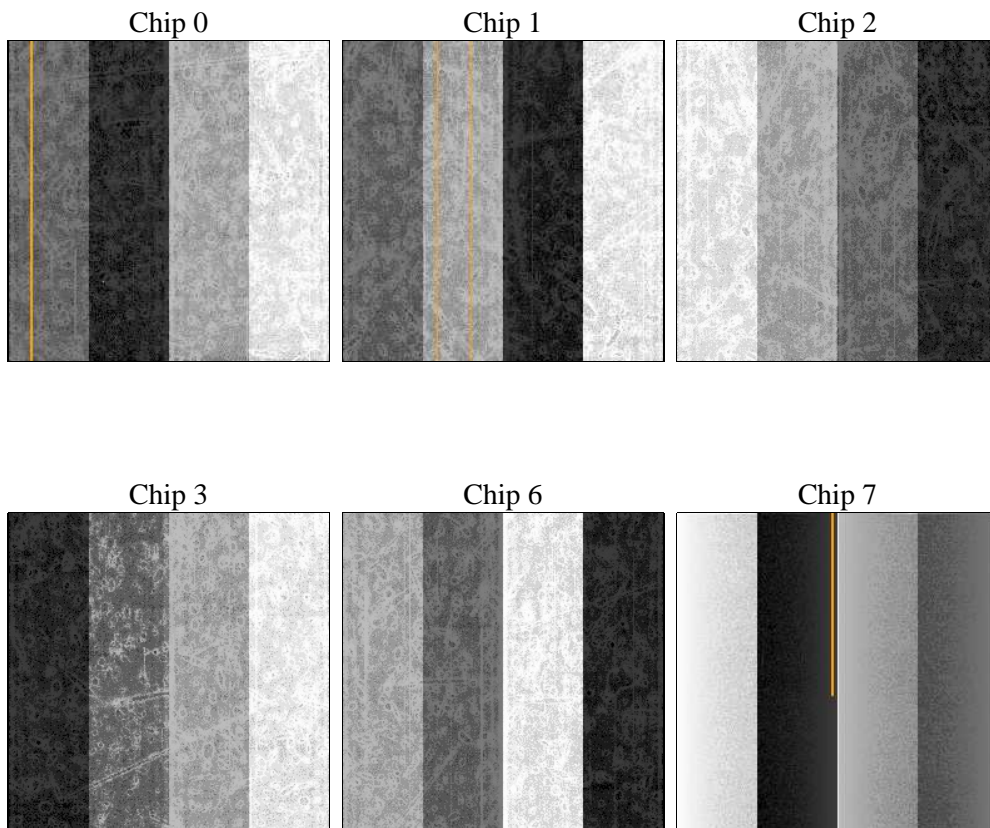
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	4963.1999815702	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	4963.1999815702	Sum of GTIs [s]
date	2014-12-10T13:36:11	Date and time of file creation	ontime1	4963.1999815702	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	4963.1999815702	Sum of GTIs [s]
			ontime3	4963.1999815702	Sum of GTIs [s]
			ontime6	4963.1999815702	Sum of GTIs [s]
			ontime7	4963.1999815702	Sum of GTIs [s]
			l1events	168652	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	24972	25057	28542	26124	29910	34047	grade 0 events	1472	1560	1515	1416	1652	1619
rejected events	21339	21147	24712	22835	25856	17774		5%	6%	5%	5%	5%	4%
rejected %	85%	84%	86%	87%	86%	52%	grade 1 events	11	13	24	21	15	48
								0%	0%	0%	0%	0%	0%
							grade 2 events	846	889	918	650	886	3467
								3%	3%	3%	2%	2%	10%
							grade 3 events	332	367	337	305	338	1440
								1%	1%	1%	1%	1%	4%
							grade 4 events	317	359	387	310	358	1386
								1%	1%	1%	1%	1%	4%
							grade 5 events	1103	1108	996	1177	1175	3290
								4%	4%	3%	4%	3%	9%
							grade 6 events	674	737	678	611	824	8382
								2%	2%	2%	2%	2%	24%
							grade 7 events	20217	20024	23687	21634	24662	14415
								80%	79%	82%	82%	82%	42%

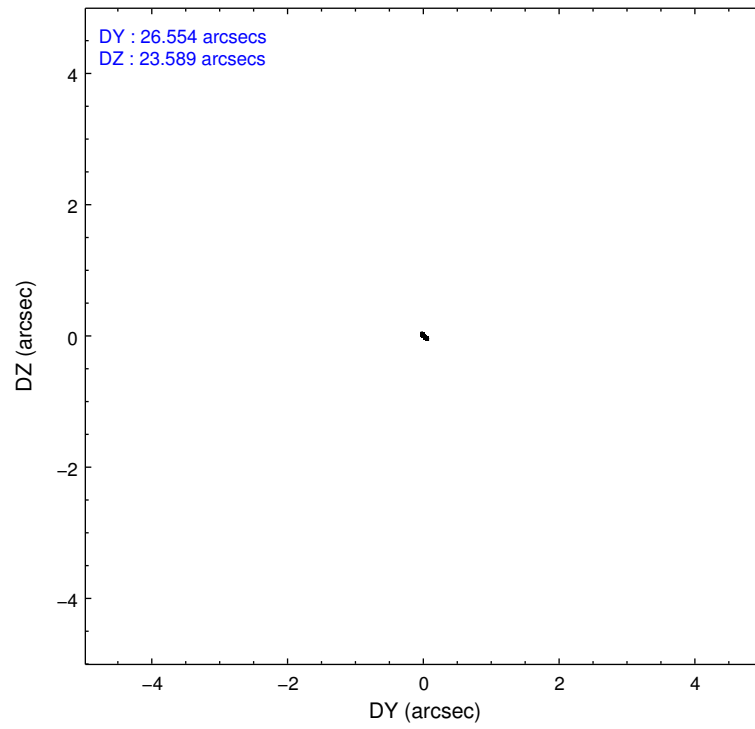
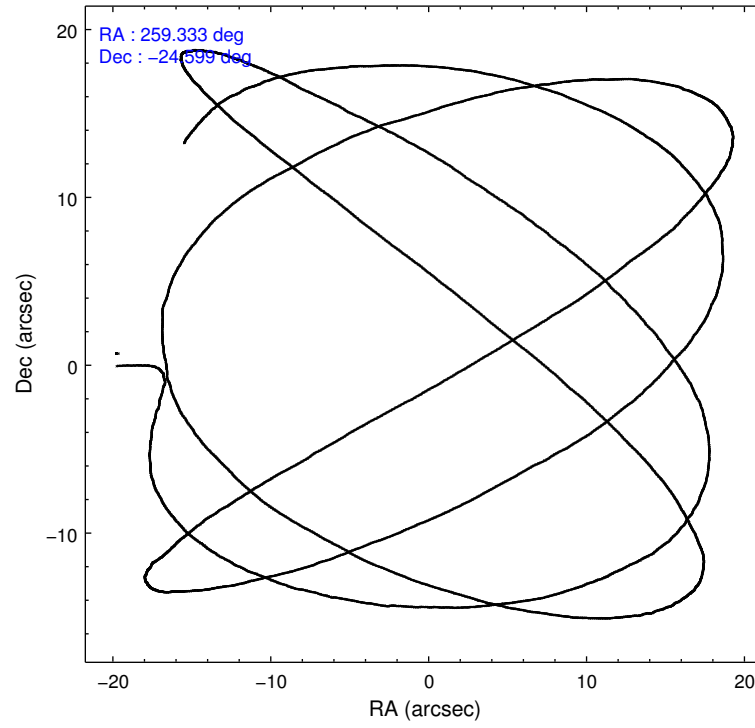


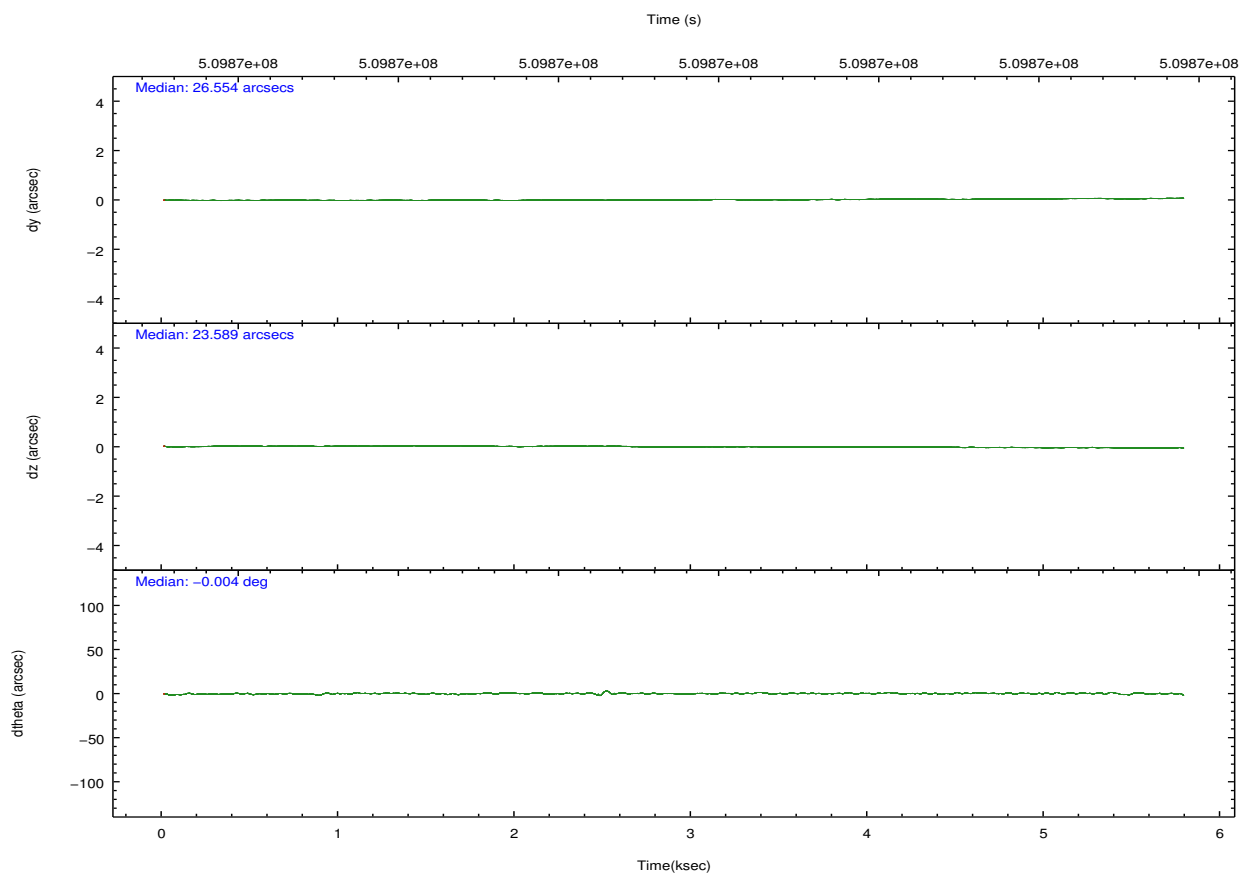
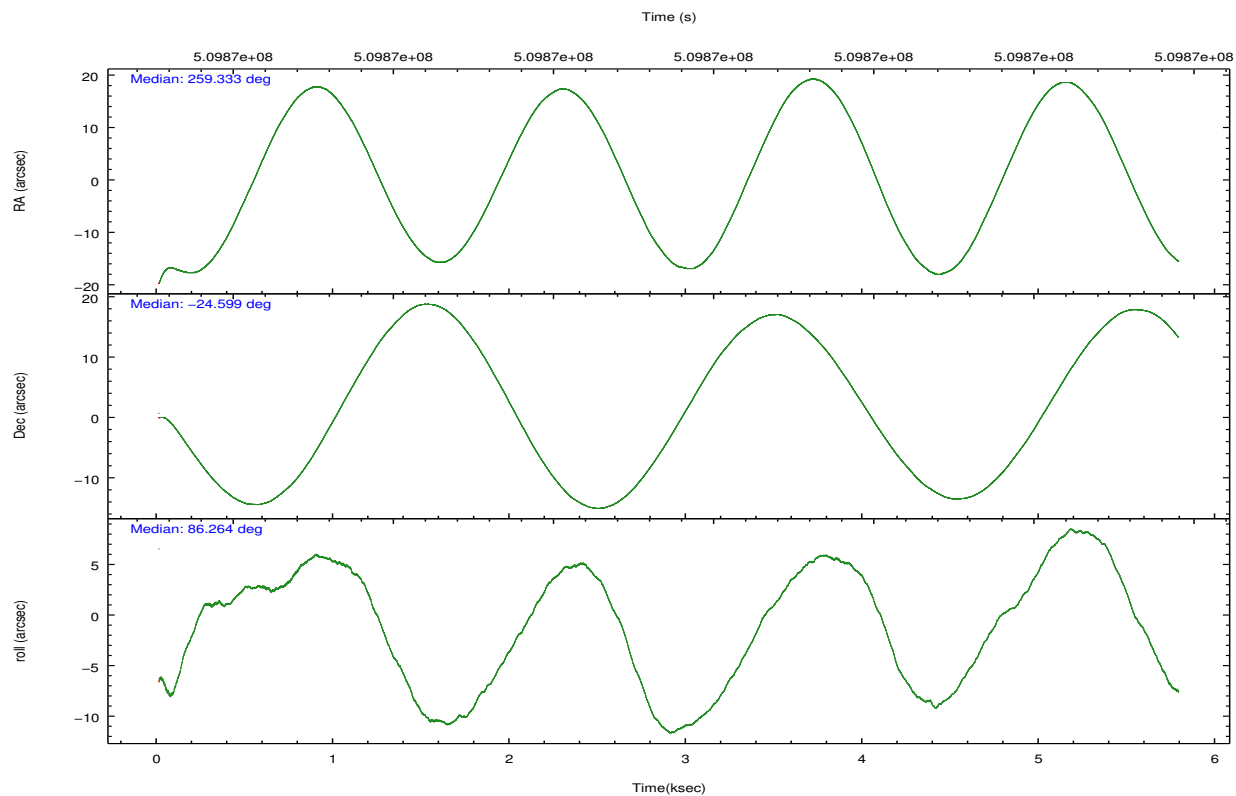
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012367	ACIS-012367
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	259.346411	259.3328082673344
[deg] Pointing Dec	-24.622750	-24.59820305110511
[deg] Pointing Roll	86.064762	86.26777879881942
[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)	509866620.184000	509865362.7284
Observation start date	2014-02-27T05:35:53	2014-02-27T05:16:02
[s] Observation end time (MET)	509871620.184000	509872501.8538
Observation end date	2014-02-27T06:59:13	2014-02-27T07:15:01
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	Y	Y
CCD I1 on	Y	Y
CCD I2 on	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	O1	Y
CCD S3 on	O2	Y
CCD S4 on	N	N
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



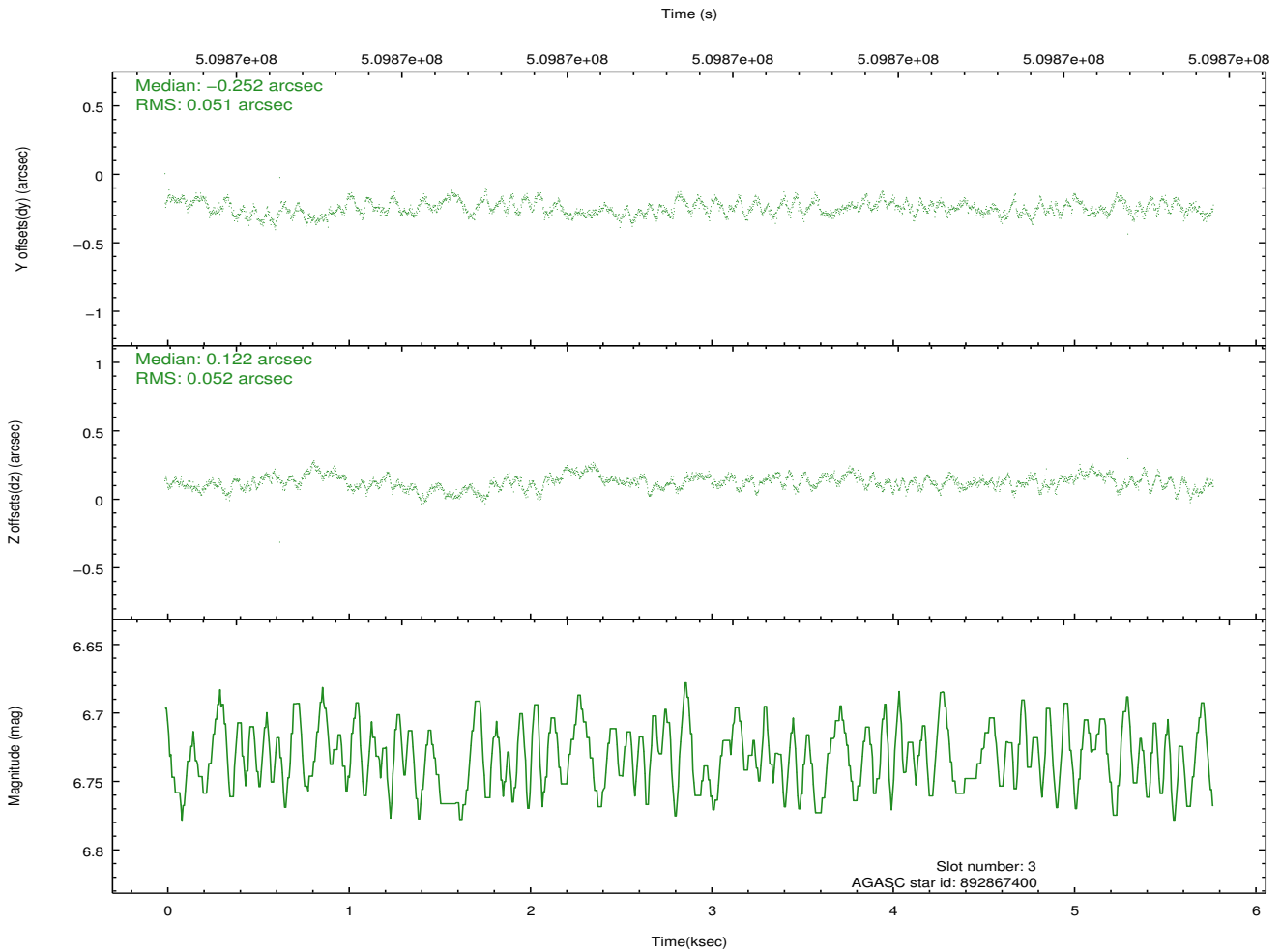
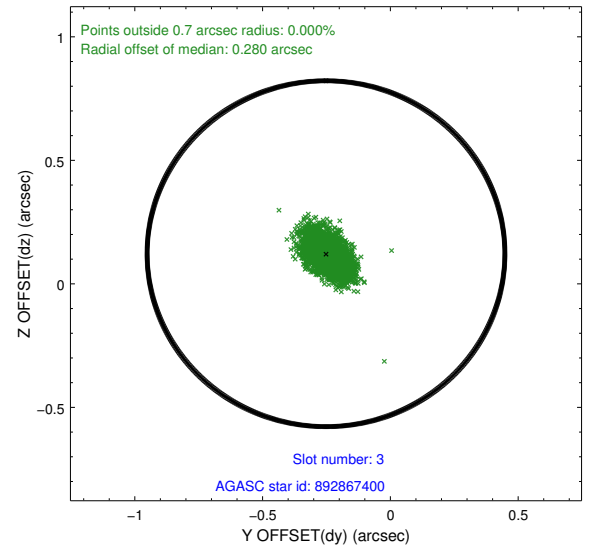
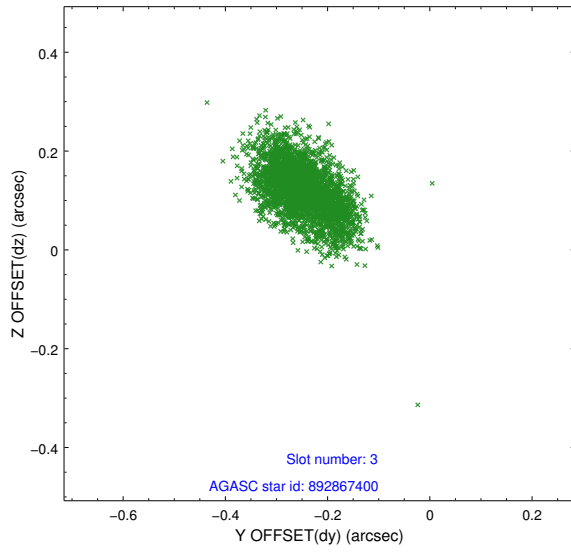


### Slot Statistics

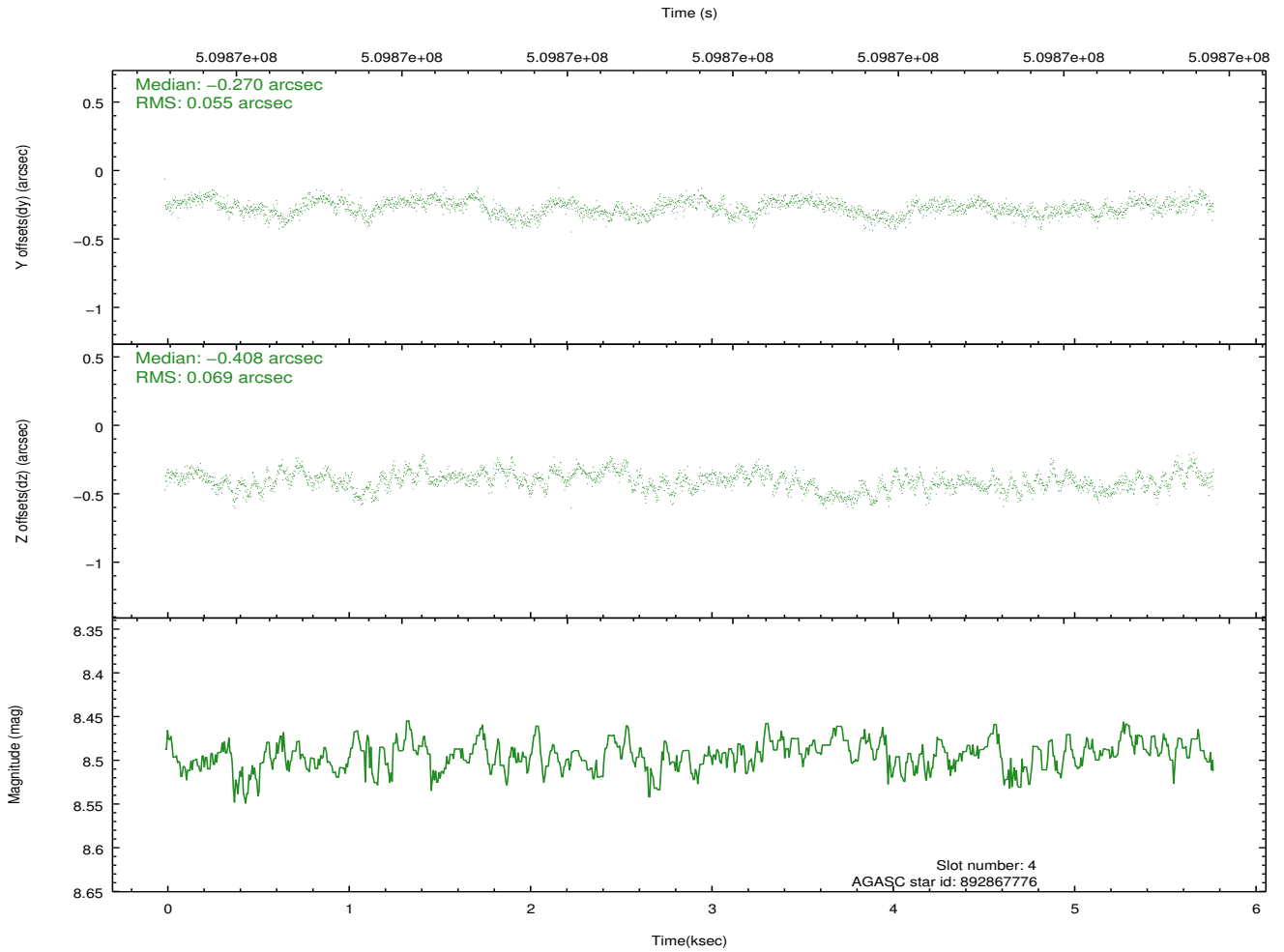
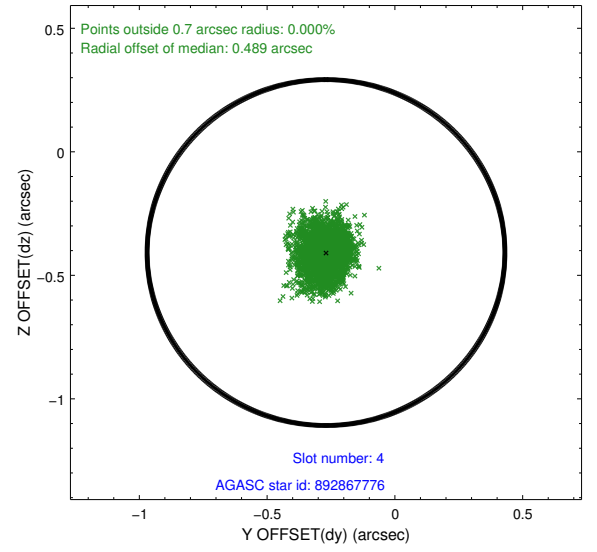
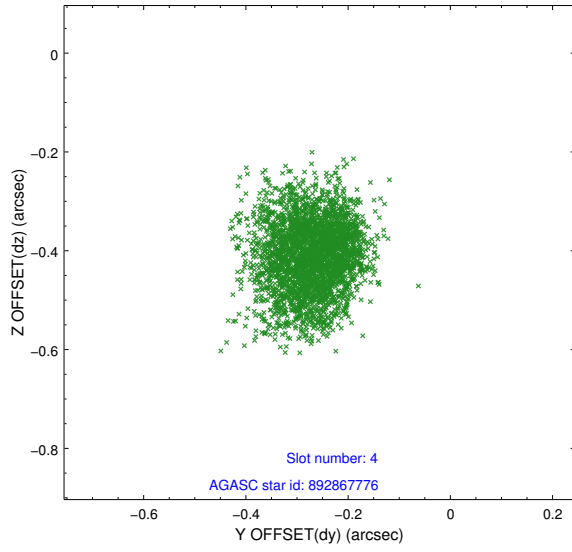
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.06	1409	-0.058	0.044	0.007	0.012	0.000000	0.000000	912.55	-847.33
1	FID		ACIS-I-4	7.04	1411	0.287	0.021	0.008	0.013	0.000000	0.000000	2133.44	1051.97
2	FID		ACIS-I-5	7.05	1410	-0.327	0.006	0.007	0.013	0.000000	0.000000	-1834.47	1050.84
3	GUIDE	used	892867400	6.73	2821	-0.252	0.122	0.076	0.127	259.529728	-24.073022	2014.65	-466.69
4	GUIDE	used	892867776	8.49	2818	-0.270	-0.408	0.094	0.152	258.697515	-24.060278	1869.60	2266.13
5	GUIDE	used	893389424	9.35	2817	0.221	0.063	0.133	0.213	259.098418	-24.981270	-1342.57	719.33
6	GUIDE	used	895092104	7.71	2819	0.042	0.345	0.075	0.117	259.809617	-24.528409	440.57	-1489.88
7	GUIDE	used	893387936	8.34	2819	0.260	-0.125	0.097	0.154	259.292834	-24.814022	-698.10	126.52

## 2.4 Star Slots

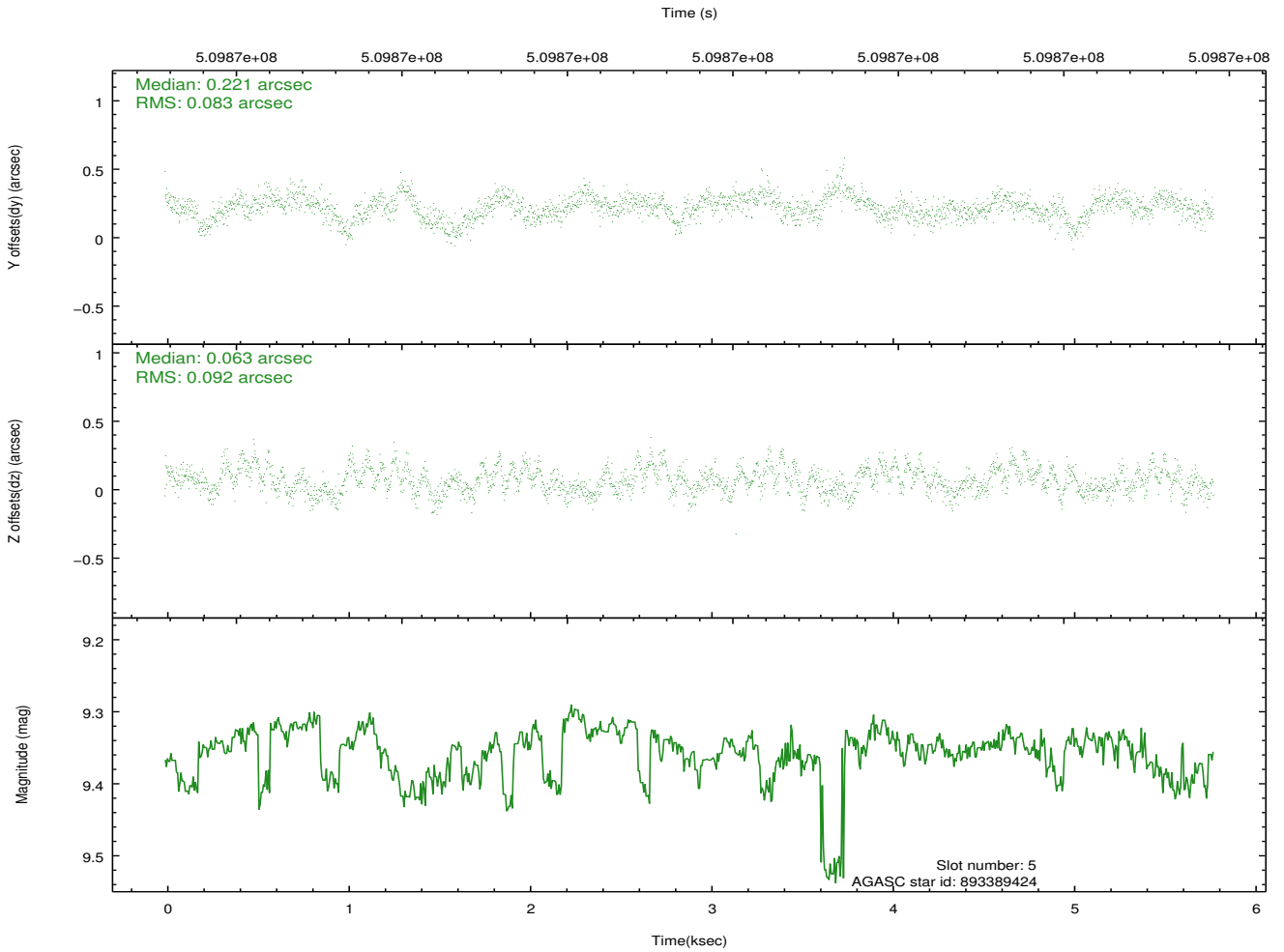
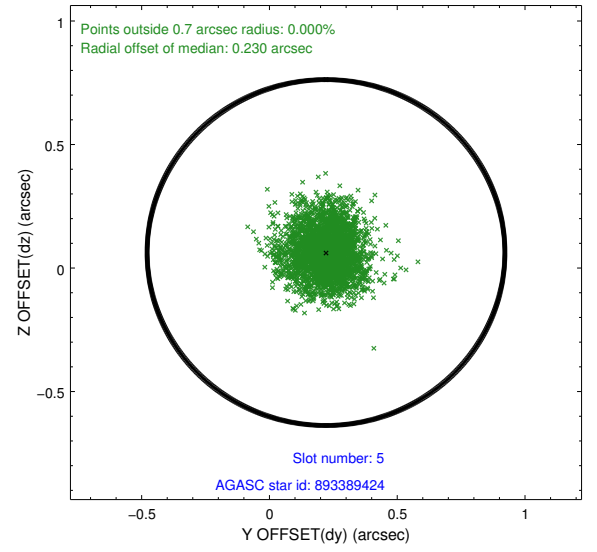
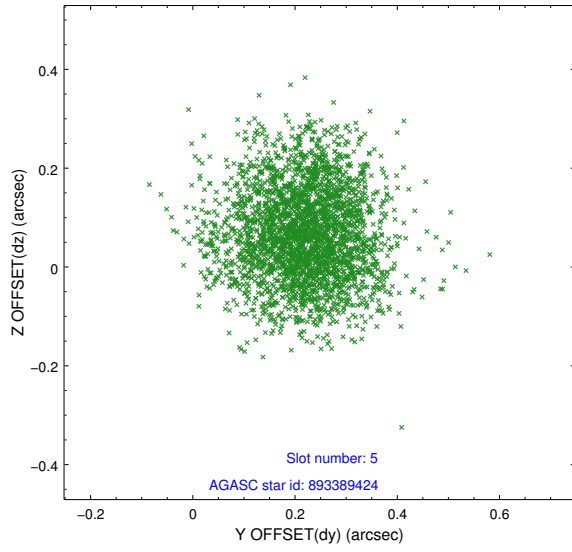
### 2.4.1 Slot 3



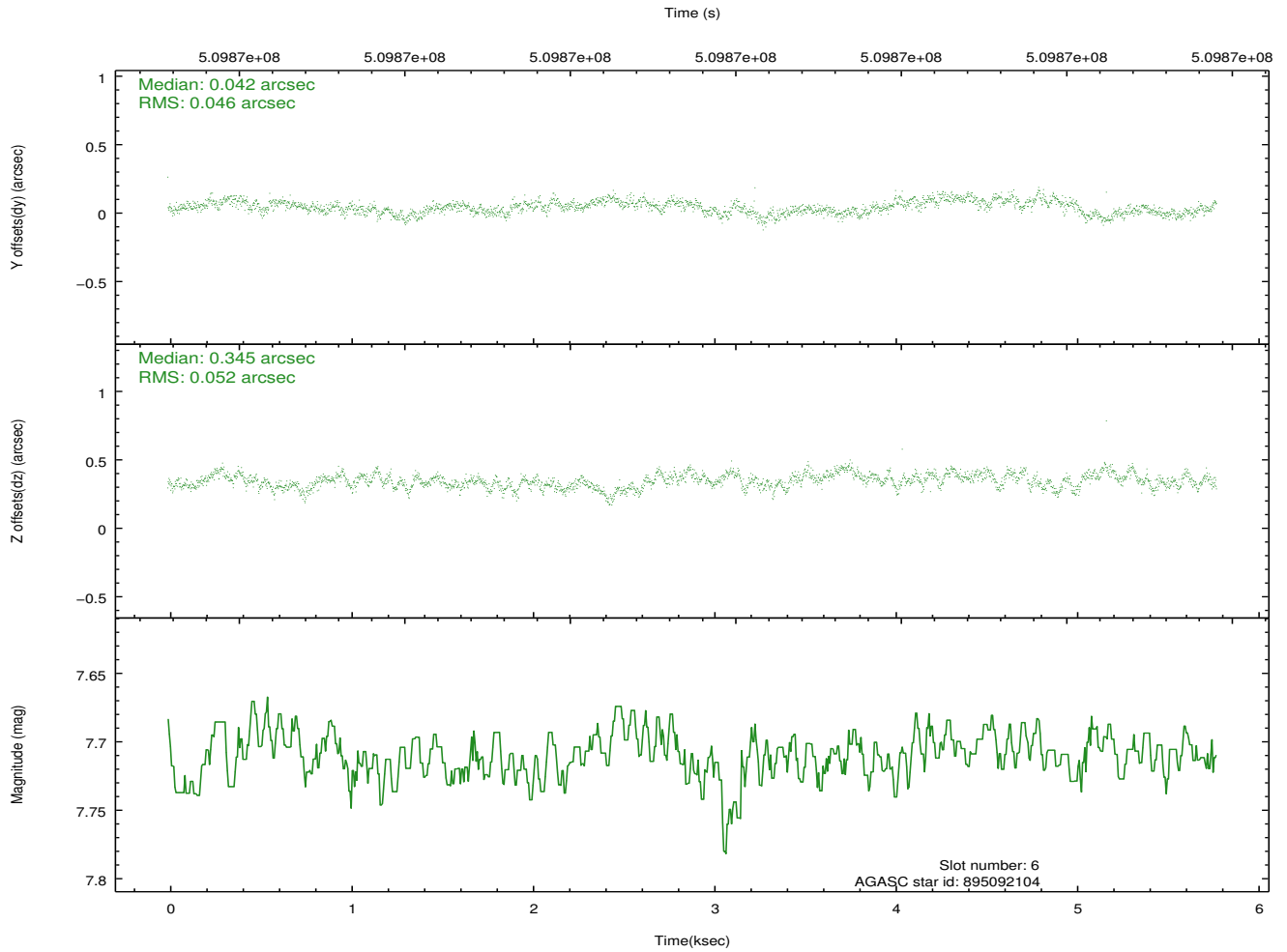
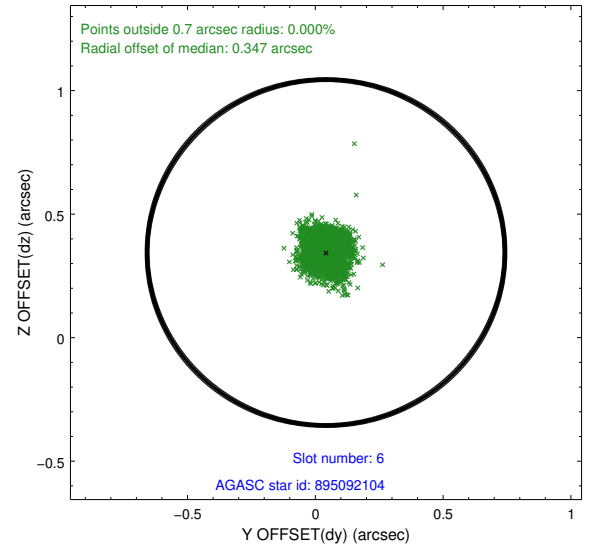
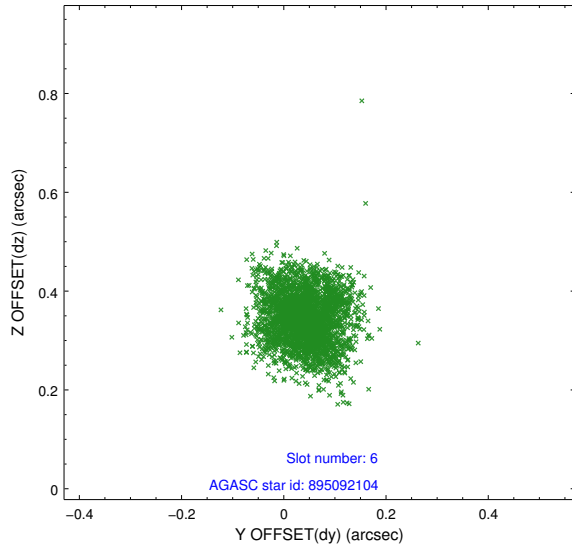
## 2.4.2 Slot 4



### 2.4.3 Slot 5

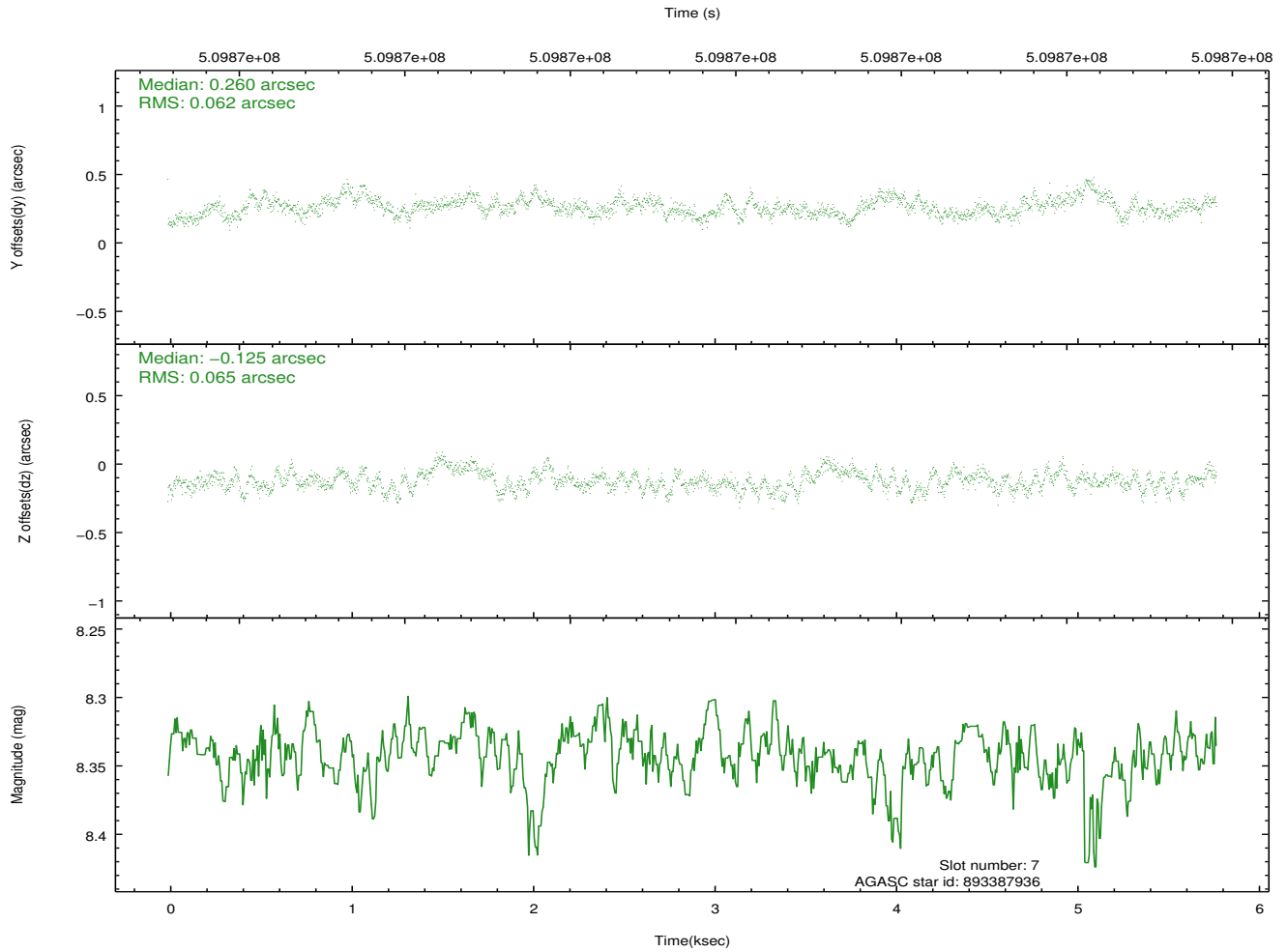
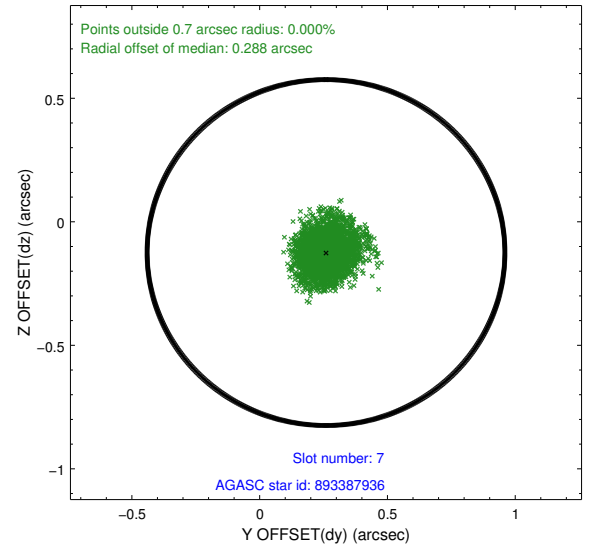
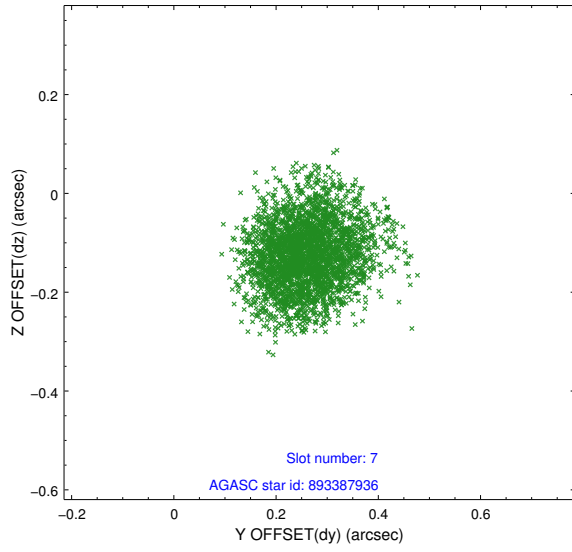


## 2.4.4 Slot 6



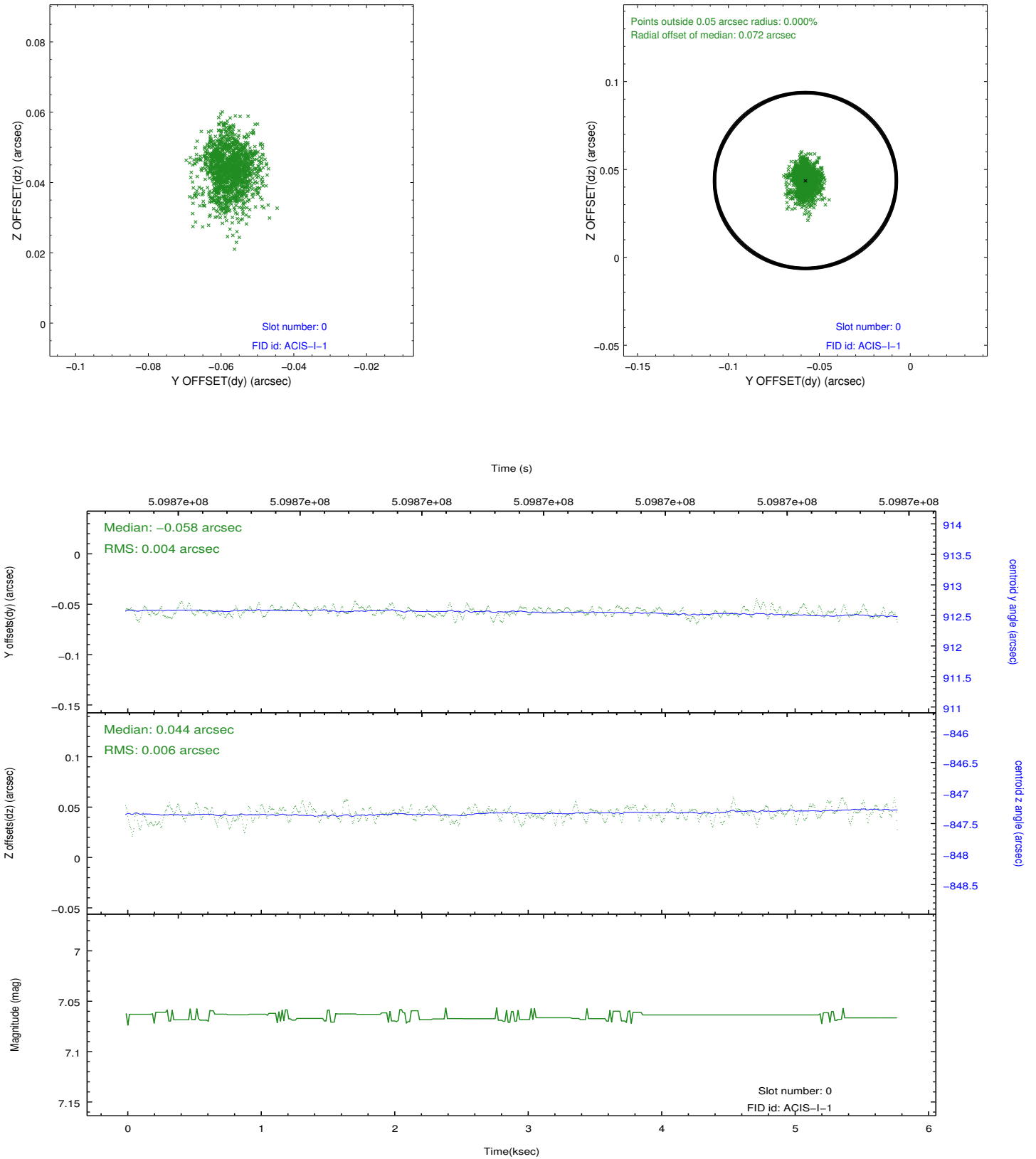


## 2.4.5 Slot 7

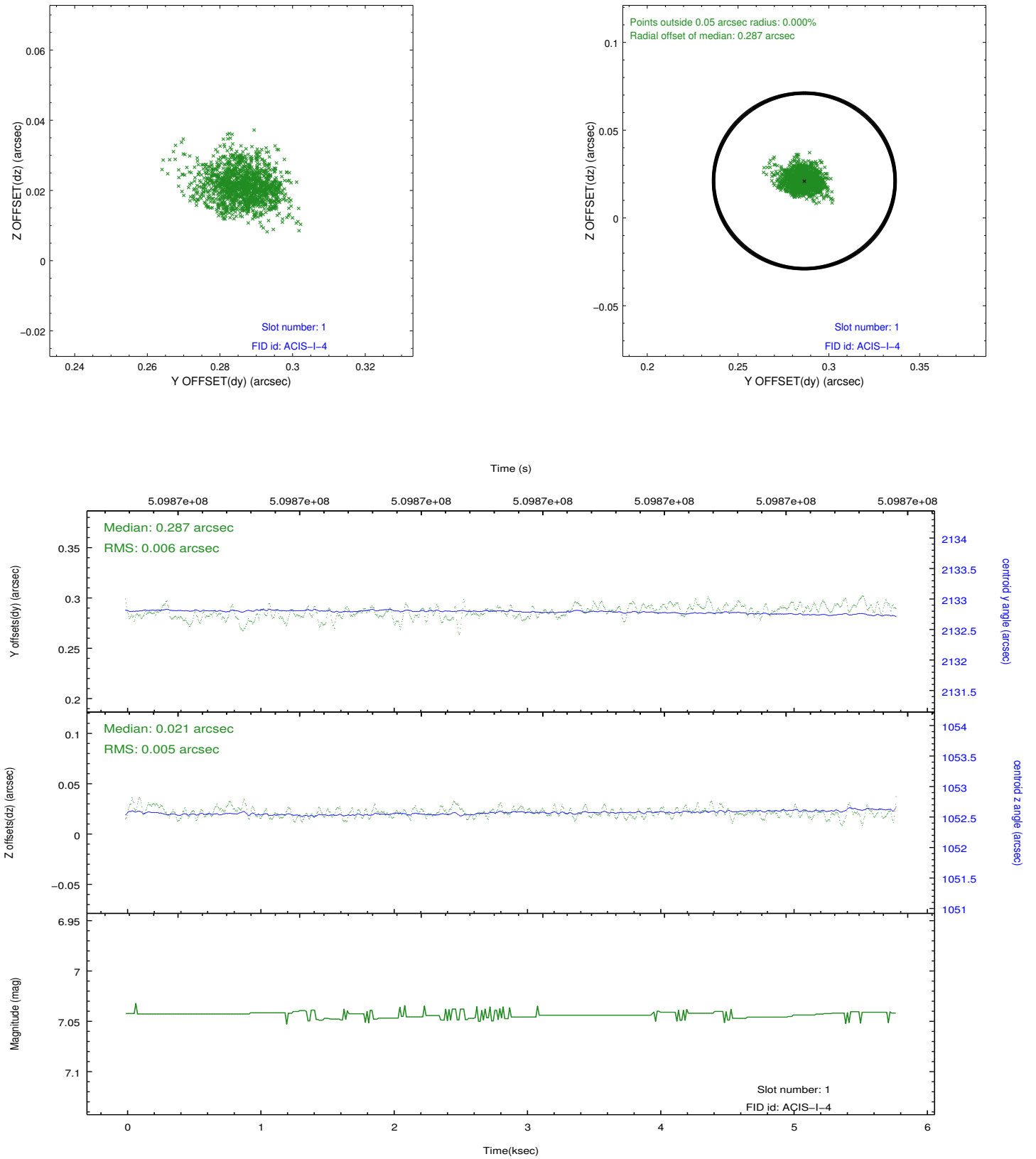


## 2.5 FID Slots

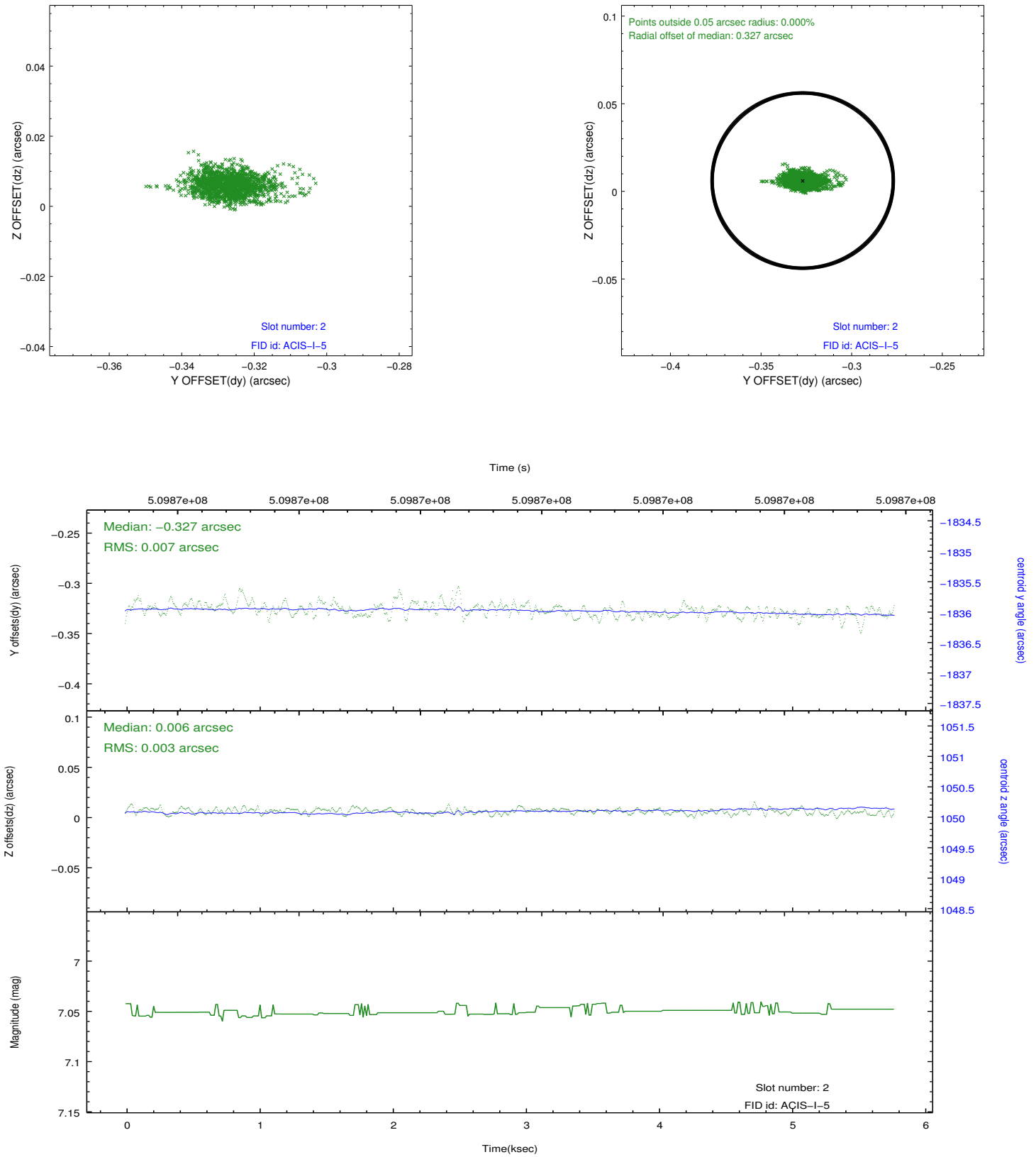
### 2.5.1 Slot 0



## 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)	2014.12.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.9631999815702

## 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.