

# V&V Reference Report

## L2 ASCDS Version : 10.2.4

Observation 16464 - L2 Version 1  
Chandra X-Ray Center

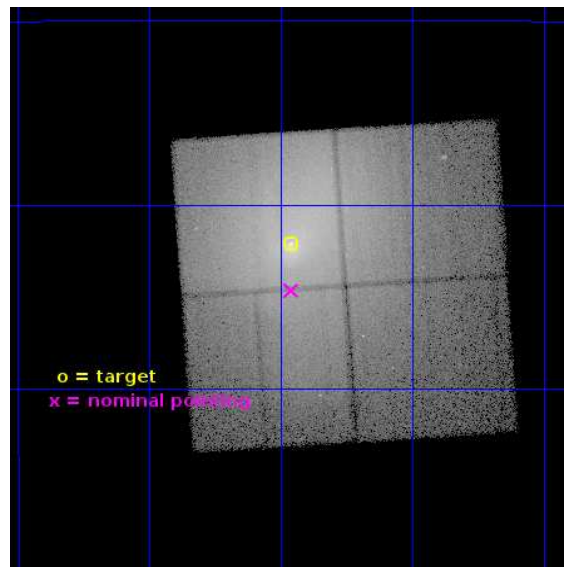
L2 Processing Date : Aug 9 2014

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# 1 Front

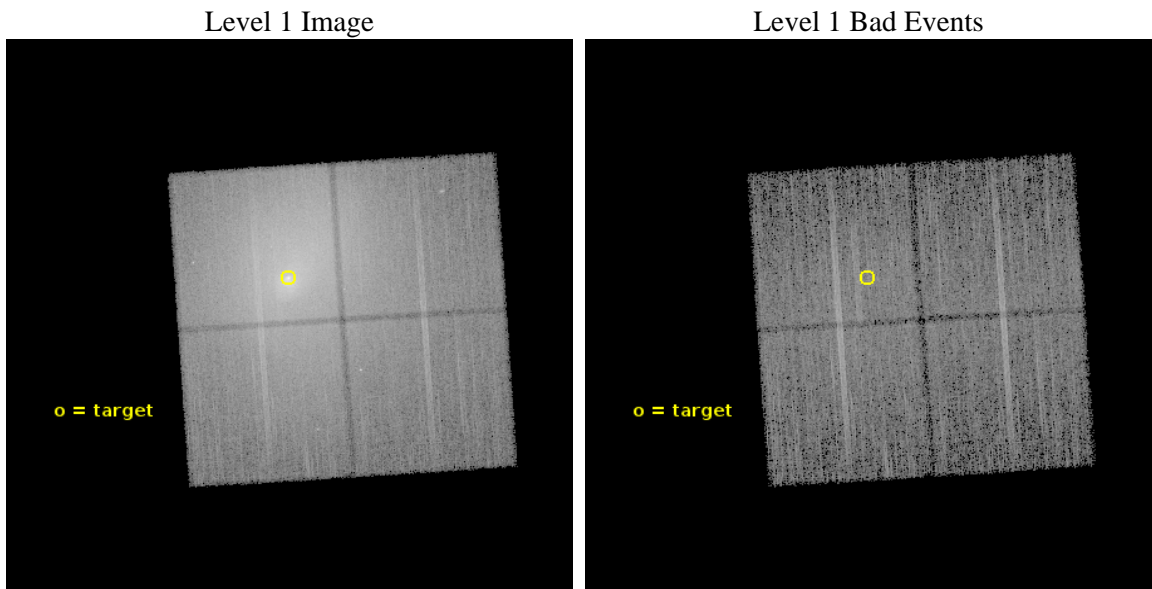
seq_num	801396	Sequence number
obs_id	16464	Observation id
title	A deep study of ram-pressure stripping, metal ridges, and AGN feedback in the Ophiuchus Cluster	Proposal title
observer	Steven Allen	Principal investigator
object	Ophiuchus Cluster	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	258.115417	Observer's specified target RA [deg]
dec_targ	-23.368611	Observer's specified target Dec [deg]
ra_nom	258.1149142661	Nominal RA [deg]
dec_nom	-23.410643038462	Nominal Dec [deg]
roll_nom	266.20850276598	Nominal Roll [deg]
revision	1	Processing version of data
ontime	32127.957018554	Sum of GTIs [s]
livetime	31708.181607849	Livetime [s]
ontime0	32127.833898544	Sum of GTIs [s]
ontime1	32124.733888149	Sum of GTIs [s]
ontime2	32124.77494818	Sum of GTIs [s]
ontime3	32127.957018554	Sum of GTIs [s]
l2events	898221	Number of level 2 events



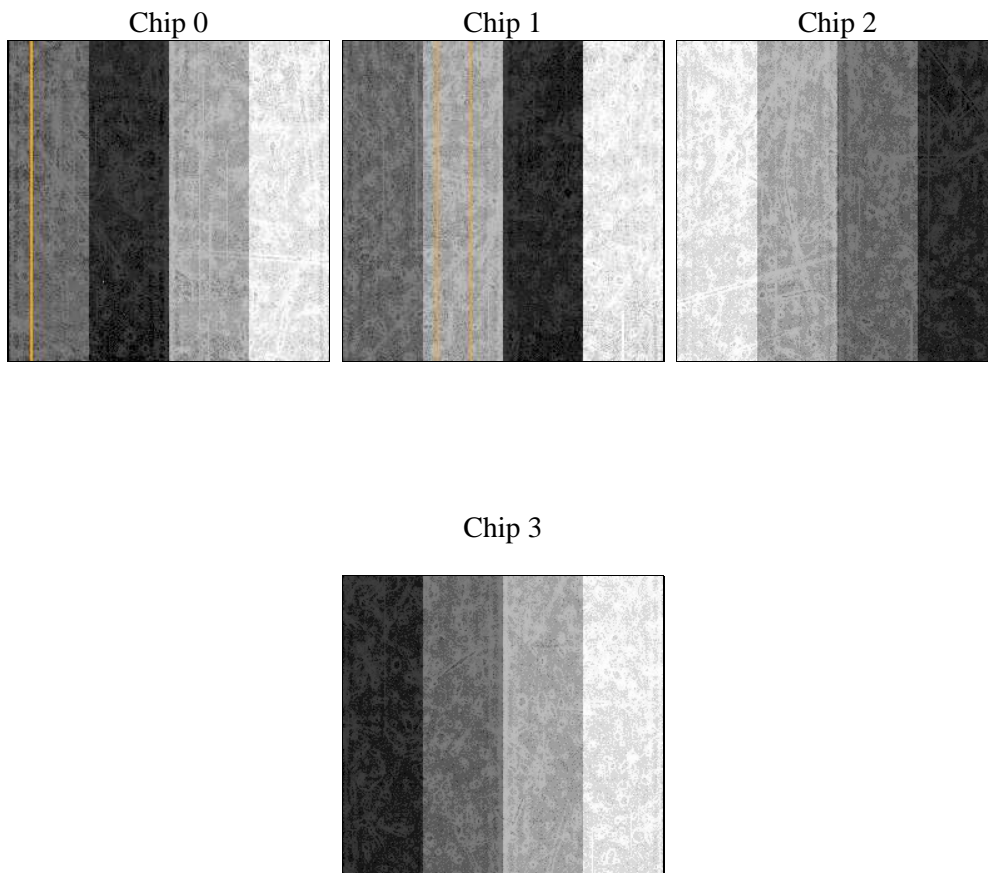
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	32036.211000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	32127.957018554	Sum of GTIs [s]
caldbver	4.6.2	&#160	ontime0	32127.833898544	Sum of GTIs [s]
date	2014-08-09T04:08:40	Date and time of file creation	ontime1	32124.733888149	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	32124.77494818	Sum of GTIs [s]
			ontime3	32127.957018554	Sum of GTIs [s]
			l1events	1474030	Number of level 1 events

### 2.1.4 Events

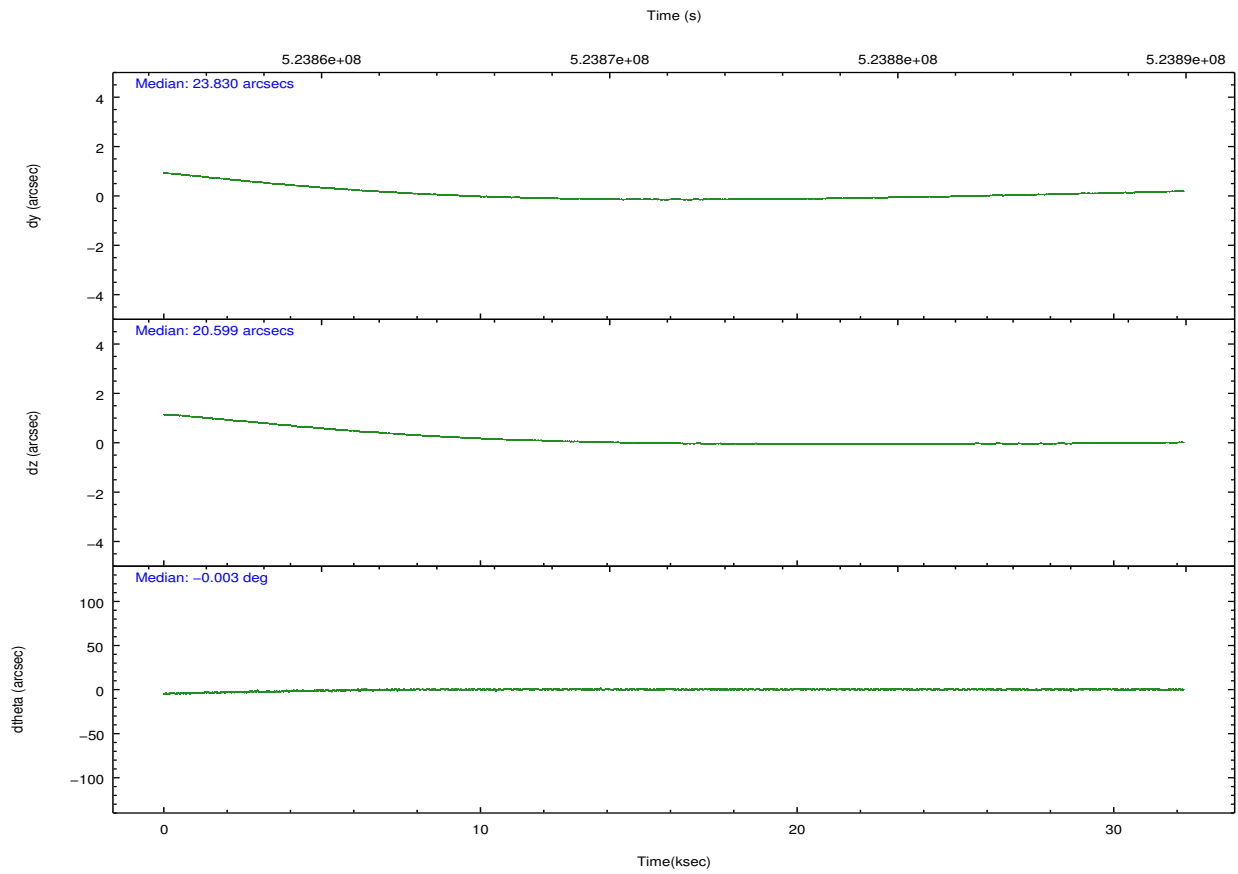
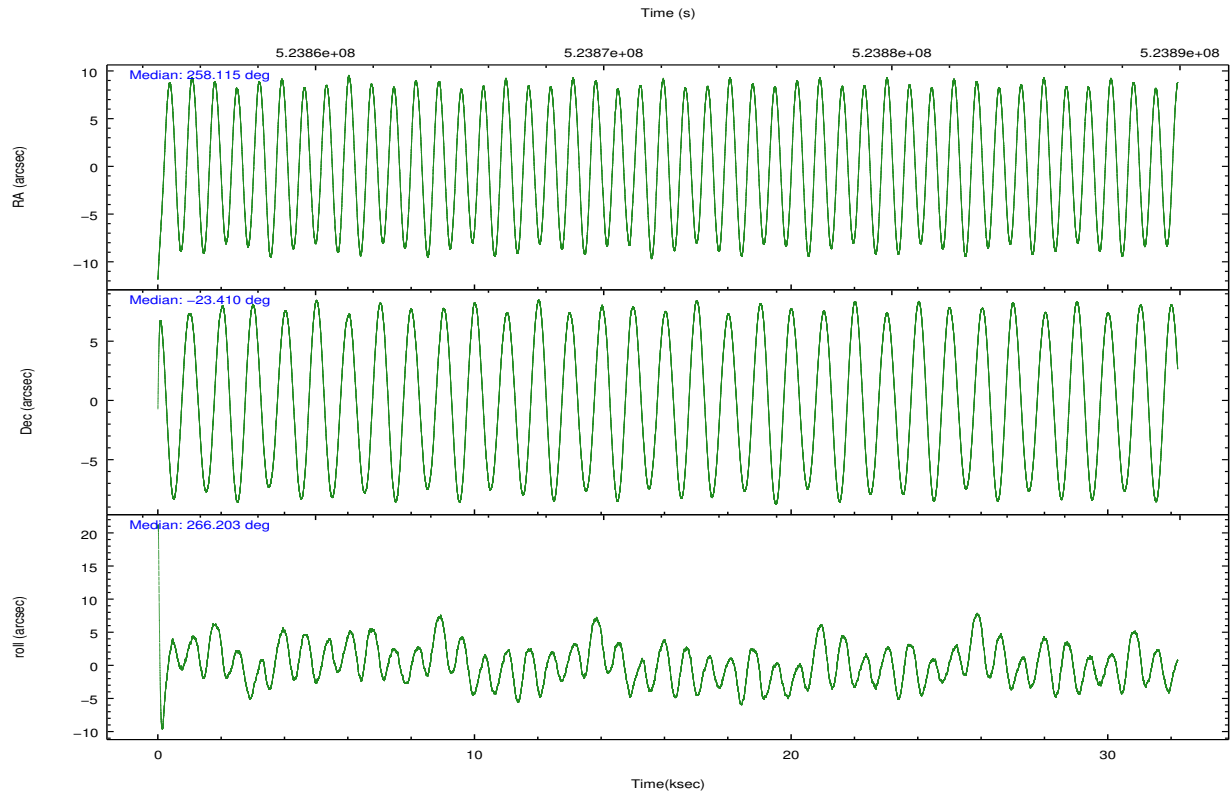
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	203506	317850	289832	662842
rejected events	120214	126070	138802	140928
rejected %	59%	39%	47%	21%

	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	56852	138752	110971	399309
	27%	43%	38%	60%
grade 1 events	287	552	571	1612
	0%	0%	0%	0%
grade 2 events	12020	25746	18802	60430
	5%	8%	6%	9%
grade 3 events	4229	8139	6686	20150
	2%	2%	2%	3%
grade 4 events	4114	8182	6626	20315
	2%	2%	2%	3%
grade 5 events	7578	8350	7325	10124
	3%	2%	2%	1%
grade 6 events	6094	11005	7988	21809
	2%	3%	2%	3%
grade 7 events	112332	117124	130863	129093
	55%	36%	45%	19%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	258.101544	258.1149142660952	CCD I2 on	Y	Y
[deg] Pointing Dec	-23.385932	-23.41064303846176	CCD I3 on	Y	Y
[deg] Pointing Roll	265.994491	266.2085027659809	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	N
[mm] SIM translation stage pos	-227.742463	-227.734108438797	CCD S3 on	N	N
[mm] SIM translation stage offset	-5.85	-5.858344564132665	CCD S4 on	N	N
[s] Observation start time (MET)	523856299.184000	523855102.13878	CCD S5 on	N	N
Observation start date	2014-08-08T03:37:12	2014-08-08T03:18:22	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	523888336.184000	523888570.95313	On-chip summing requested	N	N
Observation end date	2014-08-08T12:31:09	2014-08-08T12:36:10	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect

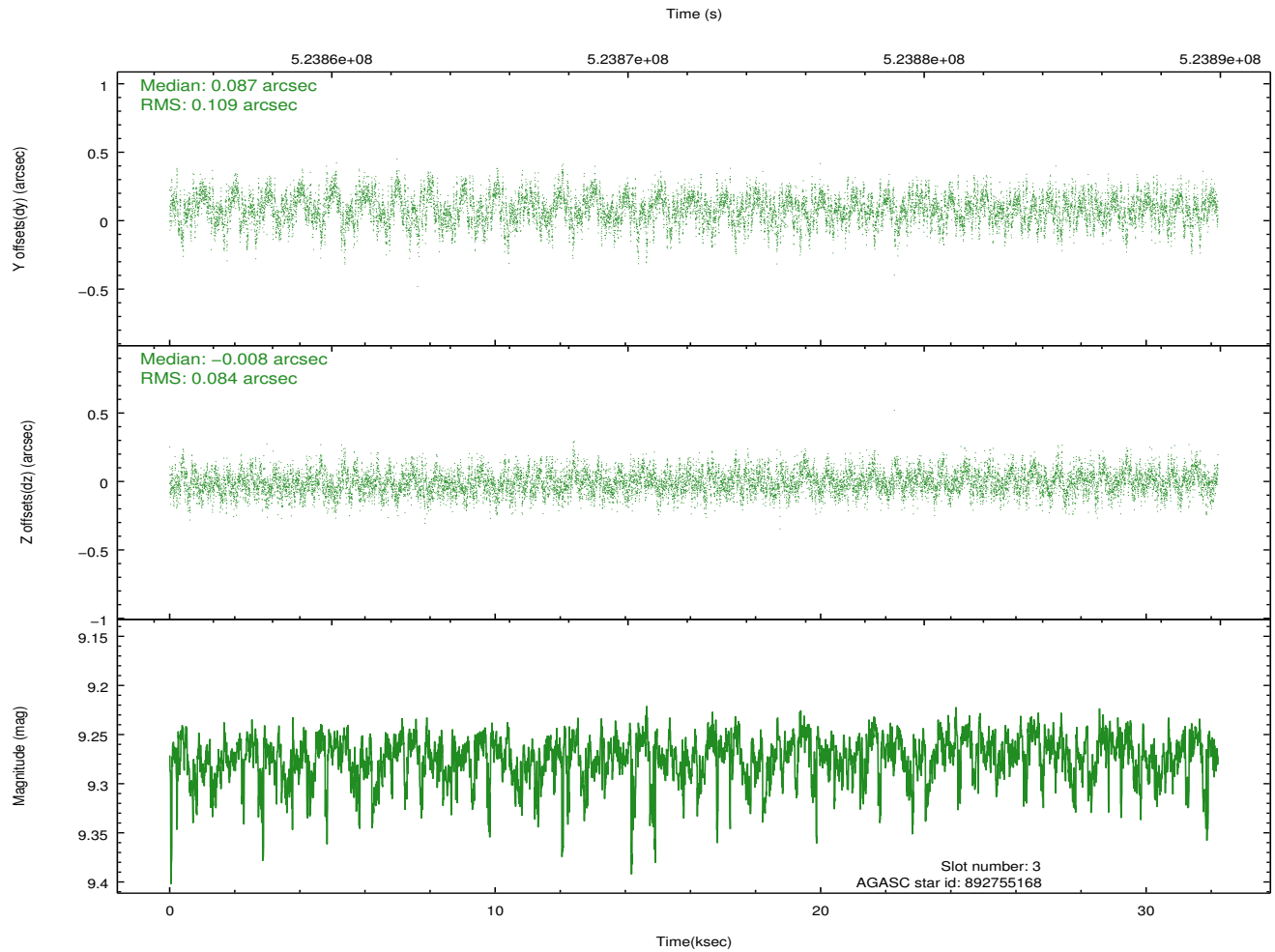
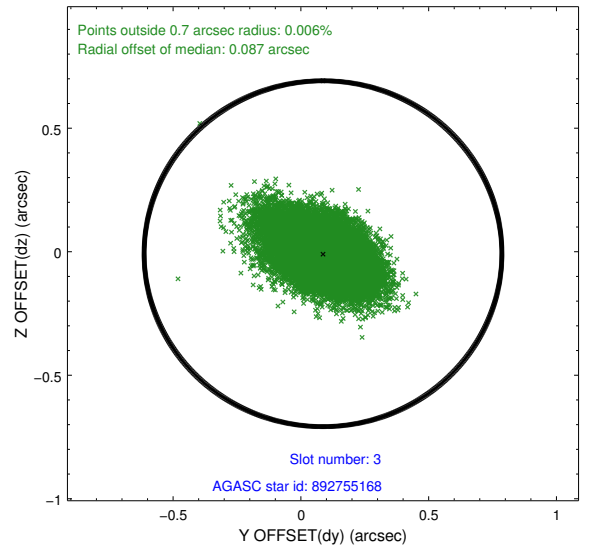
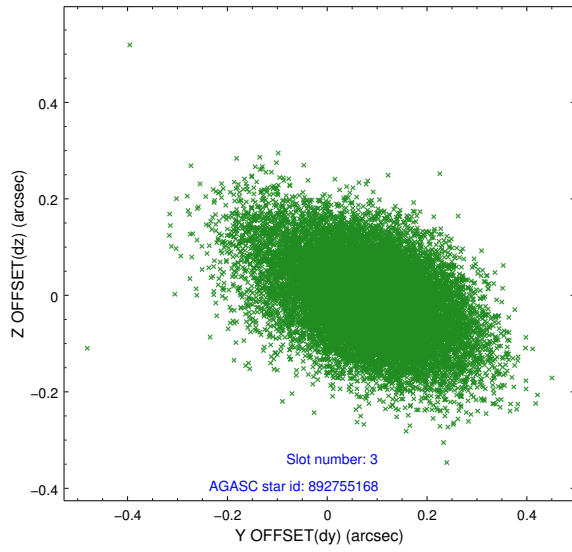


### Slot Statistics

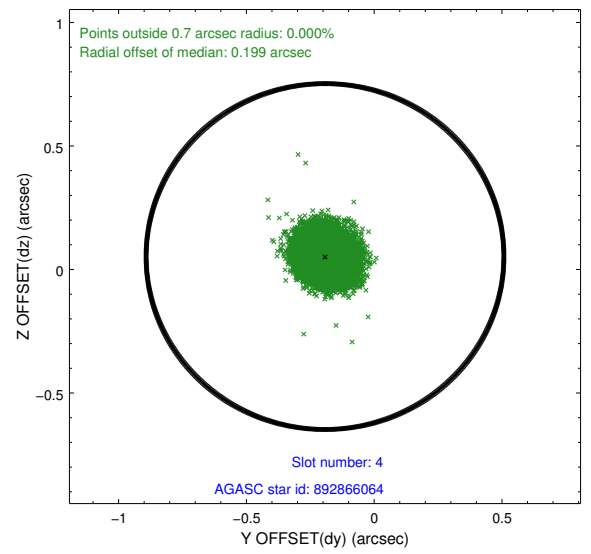
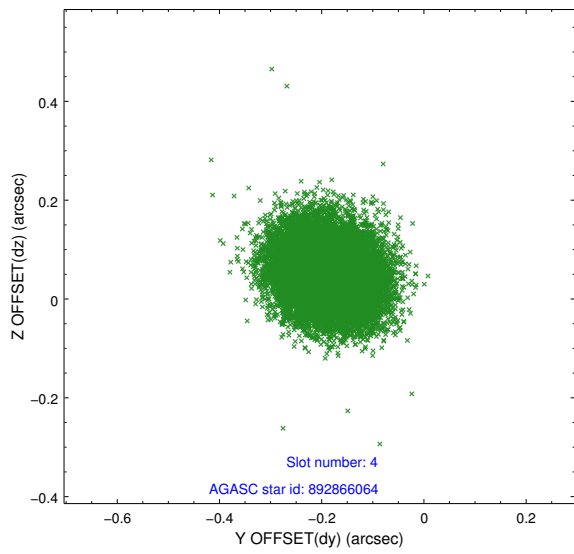
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.15	7855	0.115	-0.089	0.012	0.039	0.000000	0.000000	915.32	-964.83
1	FID	ACIS-I-5	7.15	7855	-0.334	0.077	0.007	0.012	0.000000	0.000000	-1833.25	932.71
2	FID	ACIS-I-6	7.15	7855	0.127	0.082	0.011	0.037	0.000000	0.000000	380.76	1577.33
3	GUIDE	892755168	9.27	15698	0.087	-0.008	0.142	0.245	257.345207	-23.908184	2056.93	-2351.23
4	GUIDE	892866064	8.53	15702	-0.192	0.052	0.080	0.127	258.346240	-23.232516	-606.37	768.80
5	GUIDE	892867312	9.12	15692	0.418	0.060	0.118	0.191	258.441623	-24.052318	2317.23	1283.32
6	GUIDE	892867776	8.50	15707	-0.230	-0.105	0.089	0.141	258.697515	-24.060278	2289.31	2124.48
7	GUIDE	892865960	8.48	15706	-0.073	0.013	0.150	0.221	257.518652	-24.013697	2393.10	-1753.72

## 2.4 Star Slots

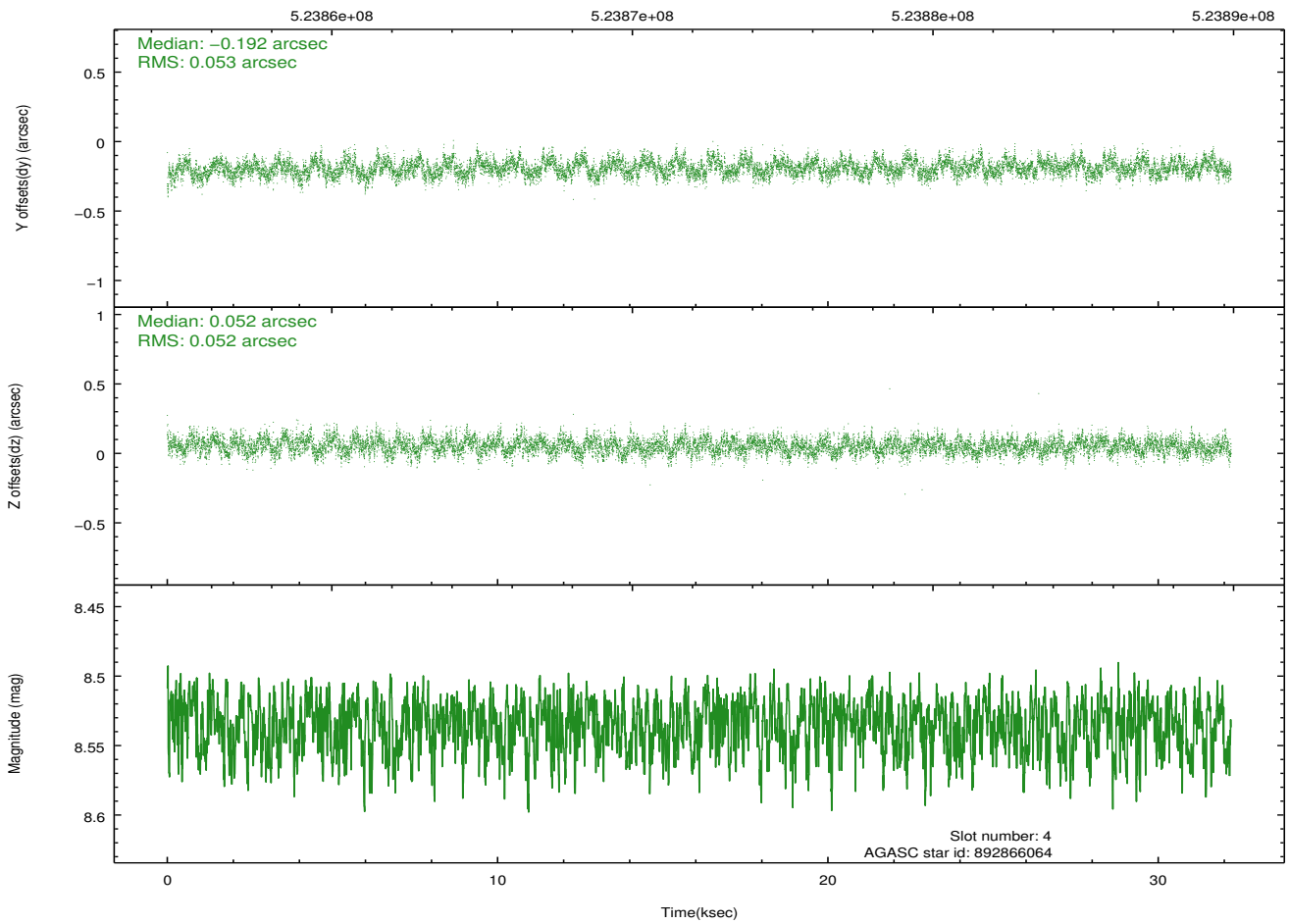
### 2.4.1 Slot 3



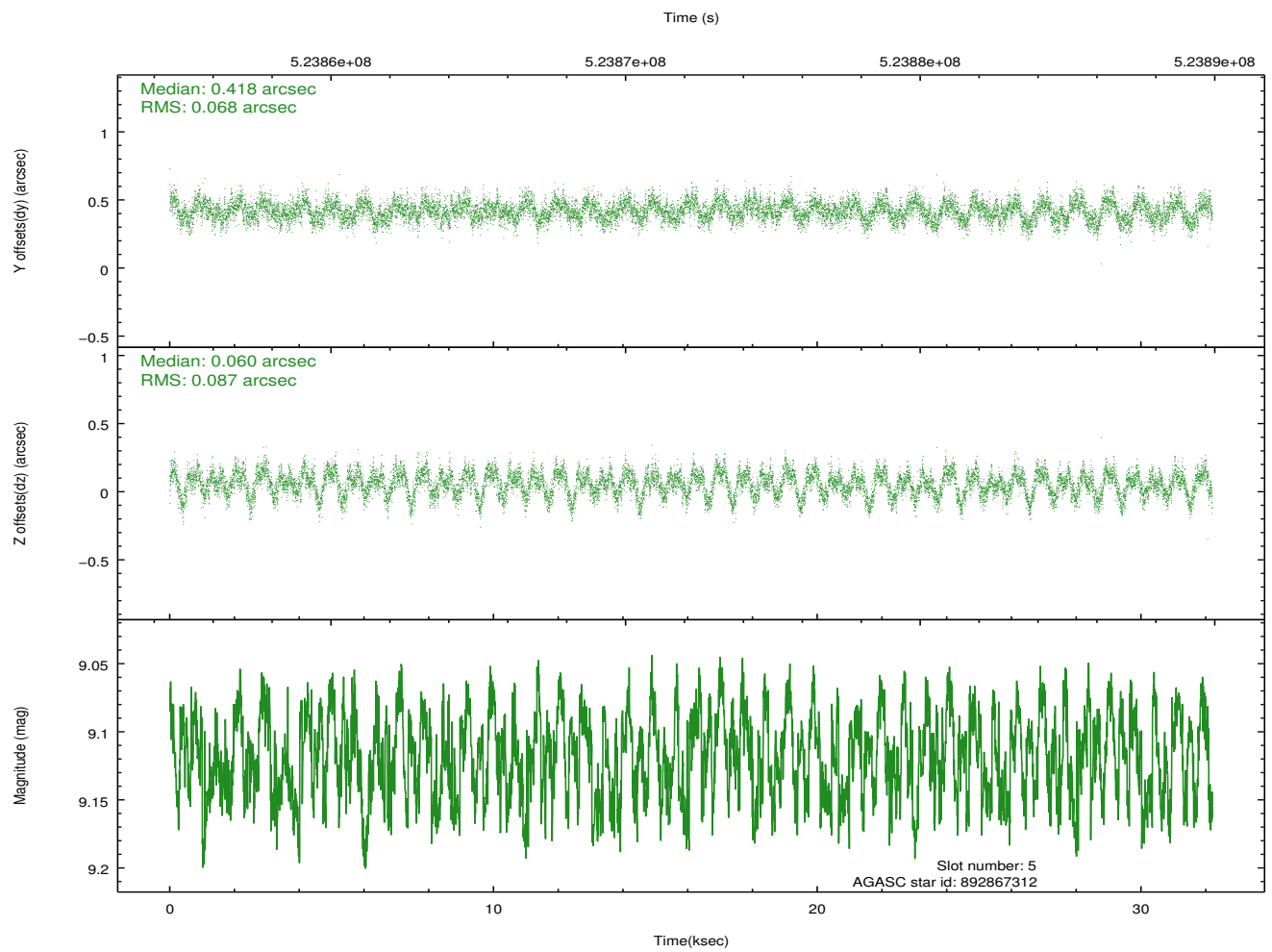
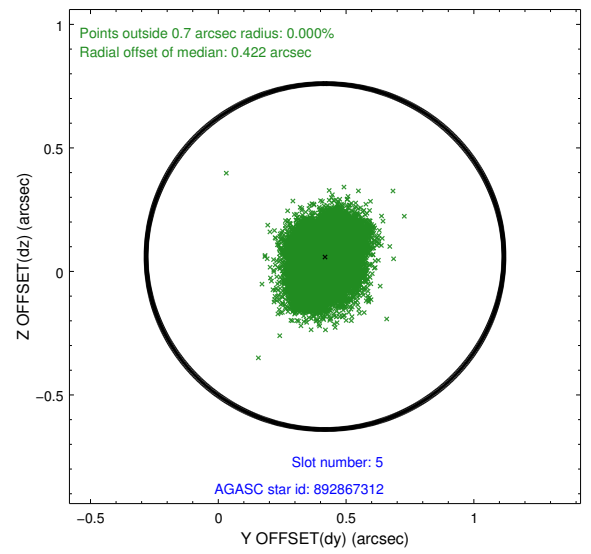
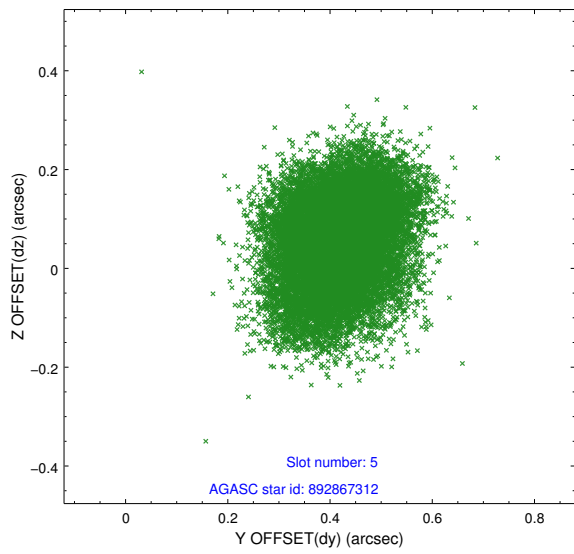
## 2.4.2 Slot 4



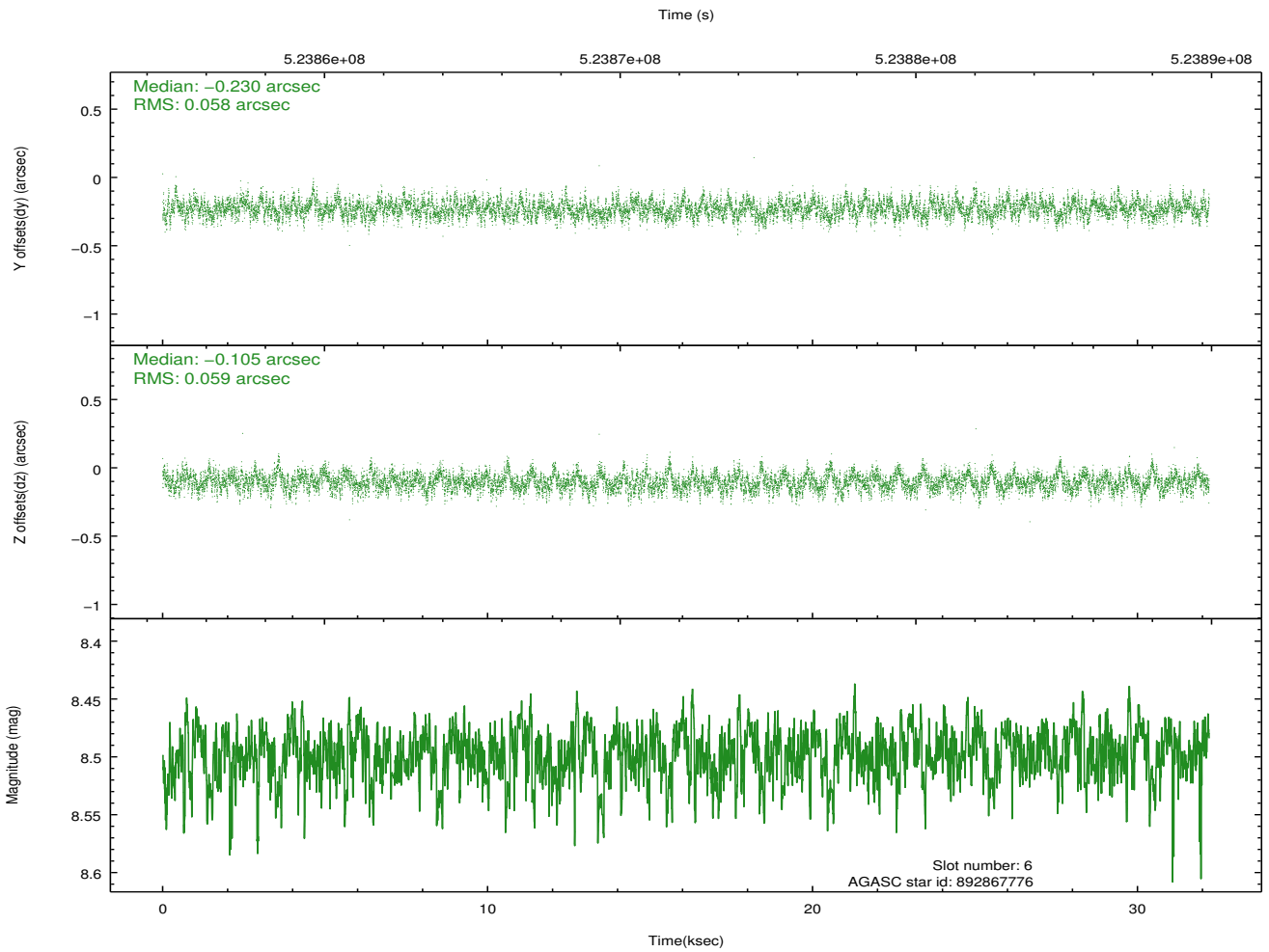
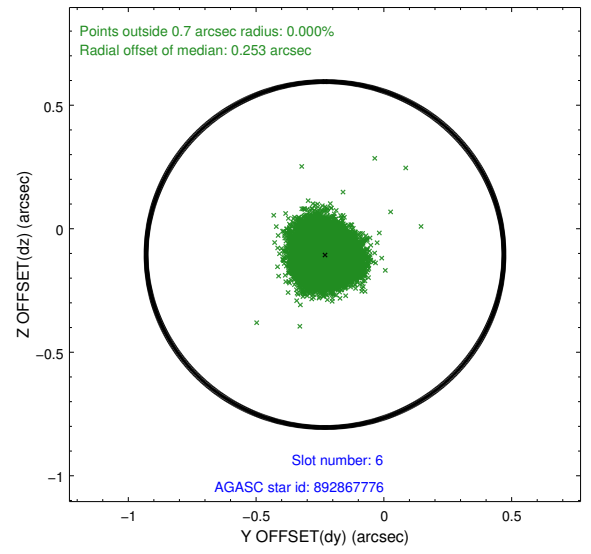
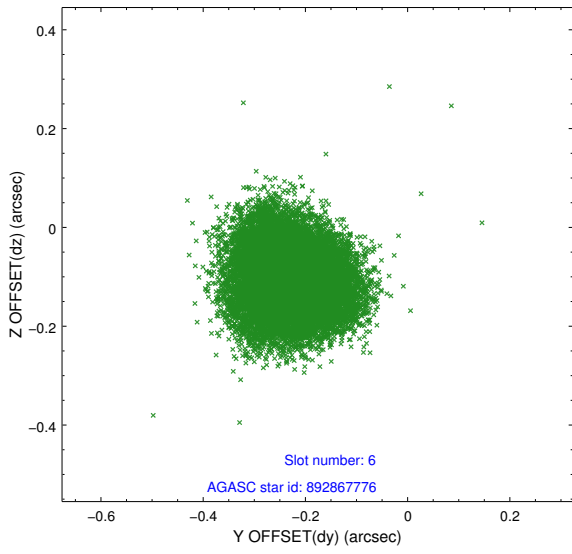
Time (s)



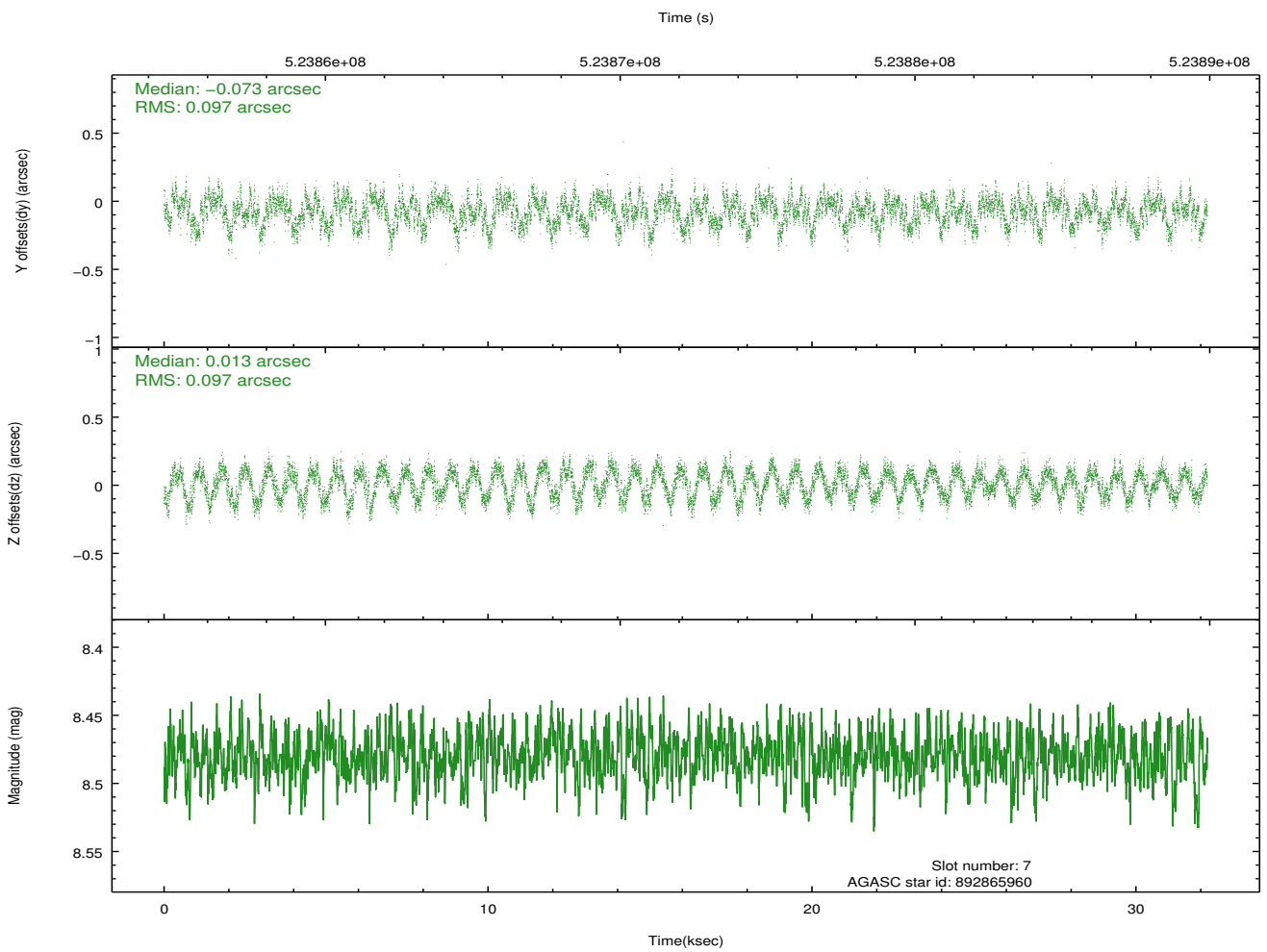
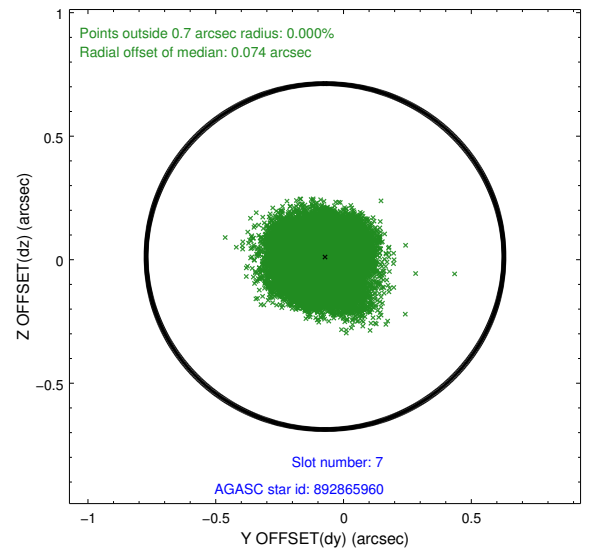
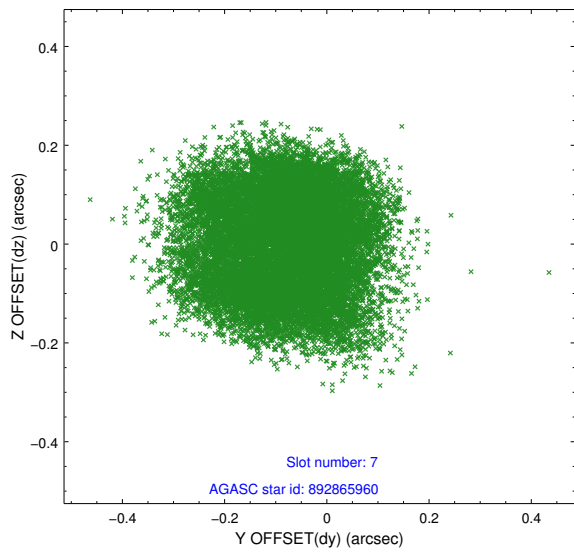
### 2.4.3 Slot 5



### 2.4.4 Slot 6

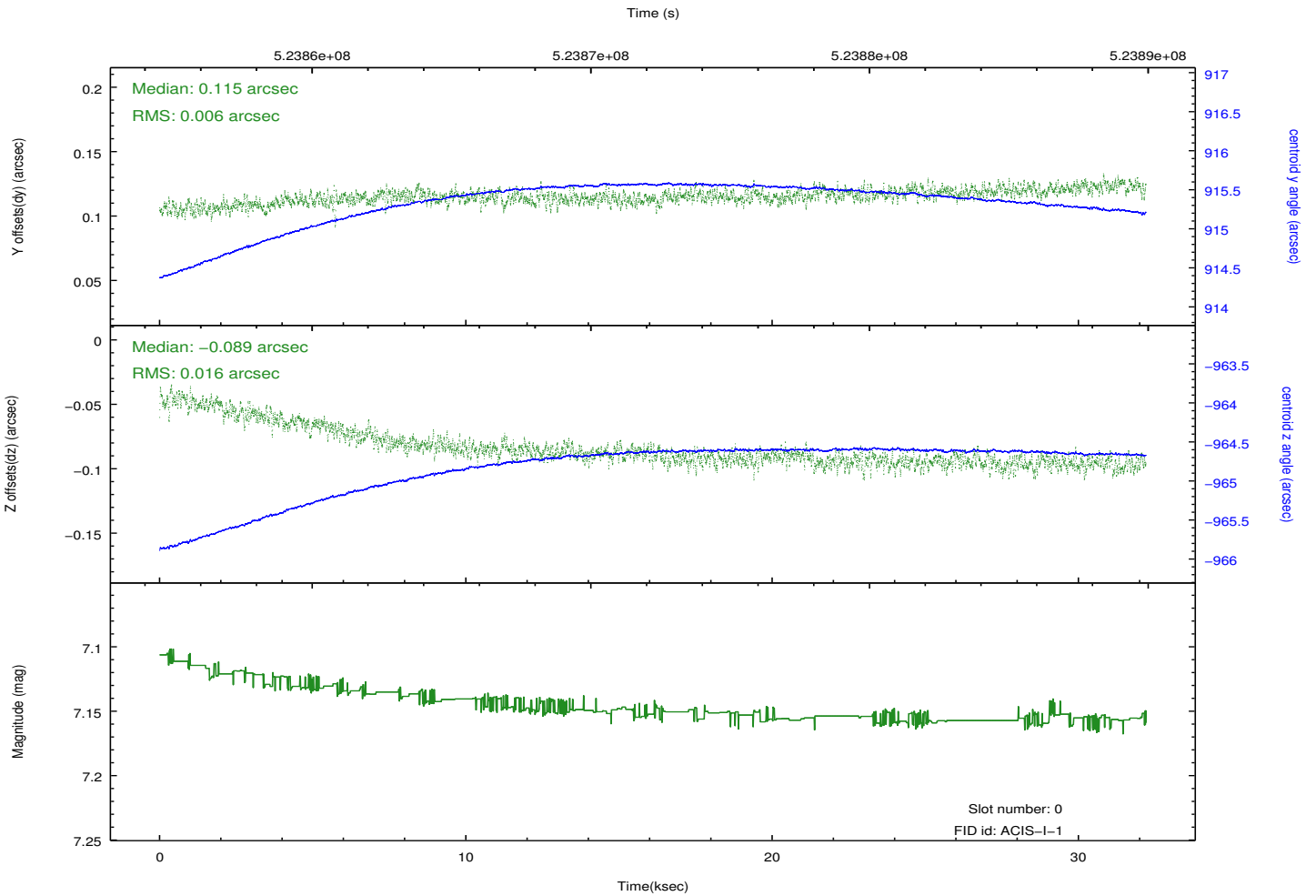
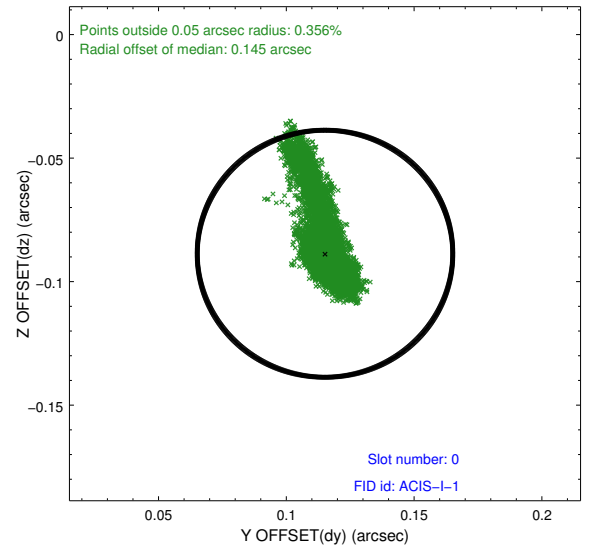
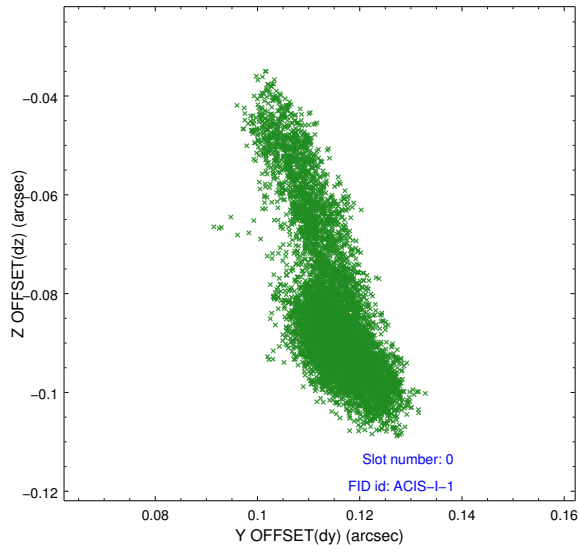


## 2.4.5 Slot 7

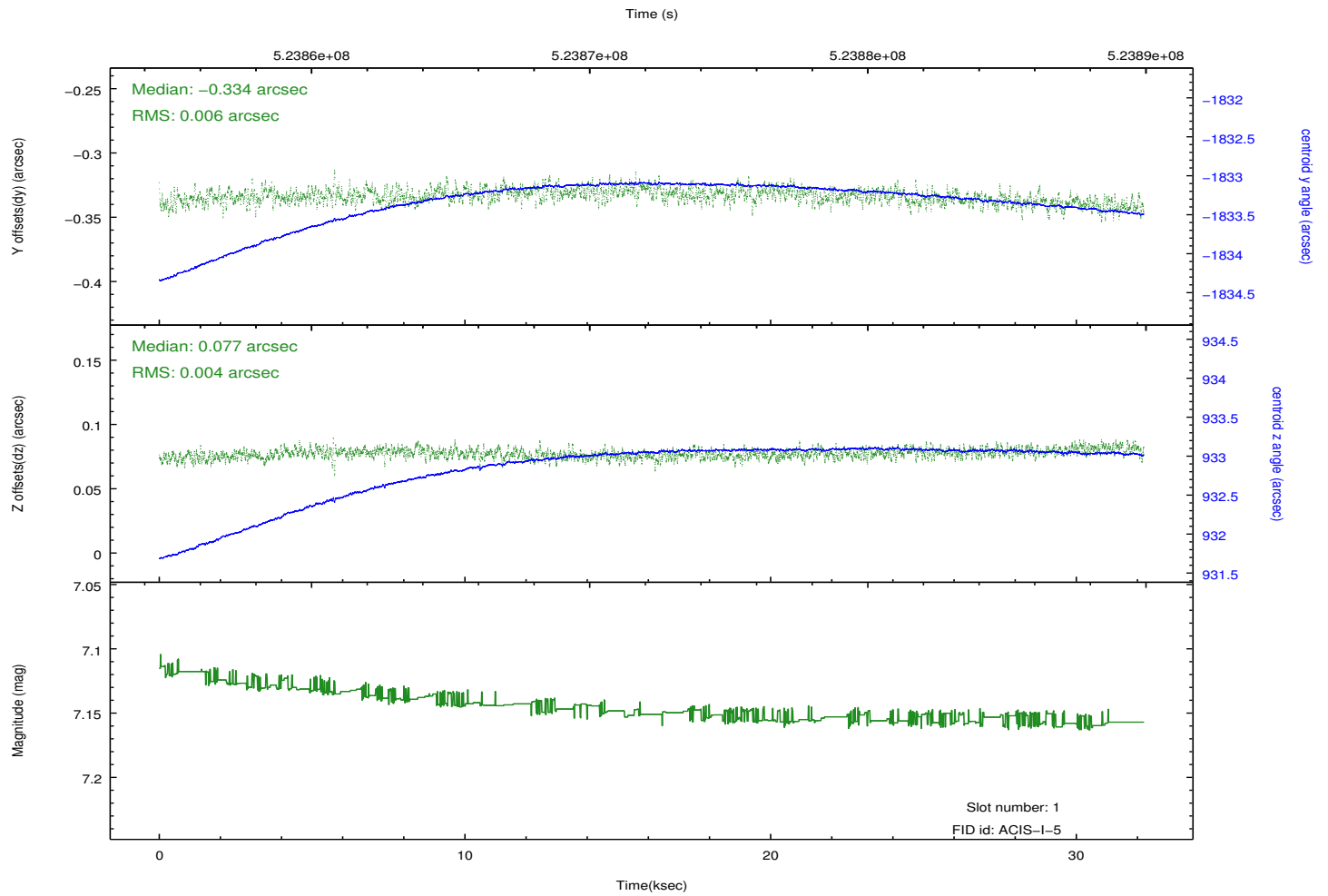
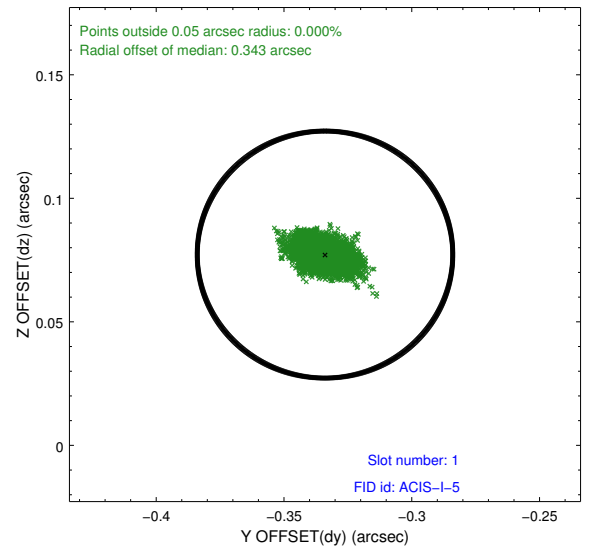
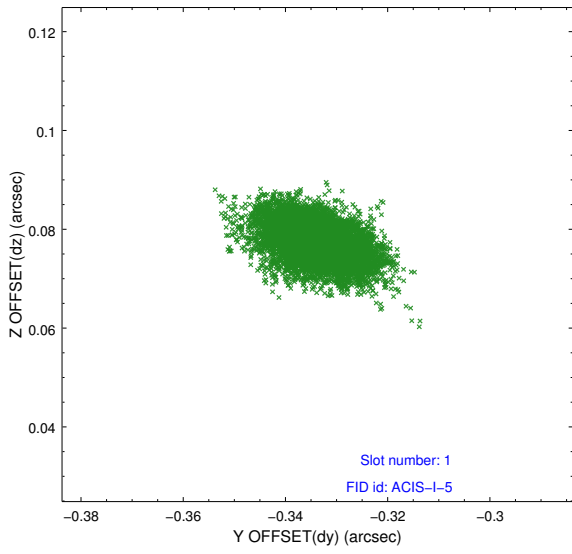


## 2.5 FID Slots

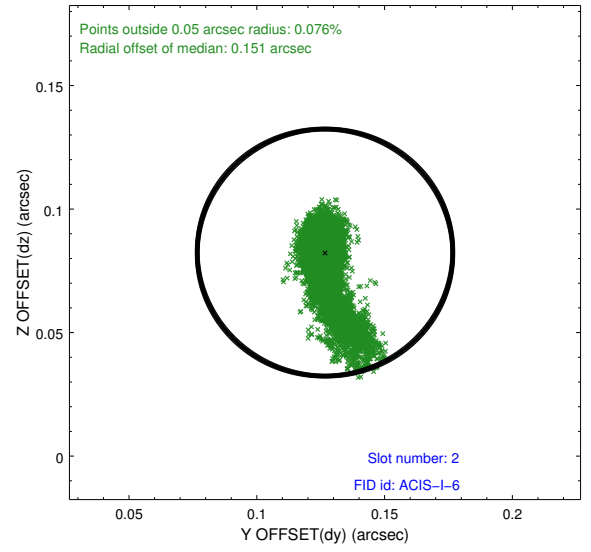
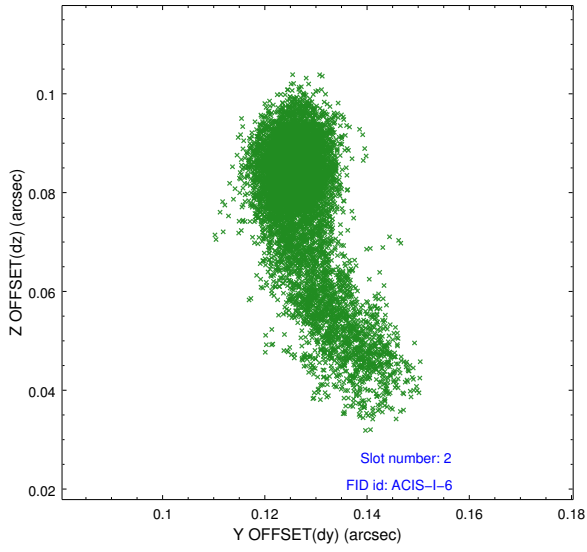
### 2.5.1 Slot 0



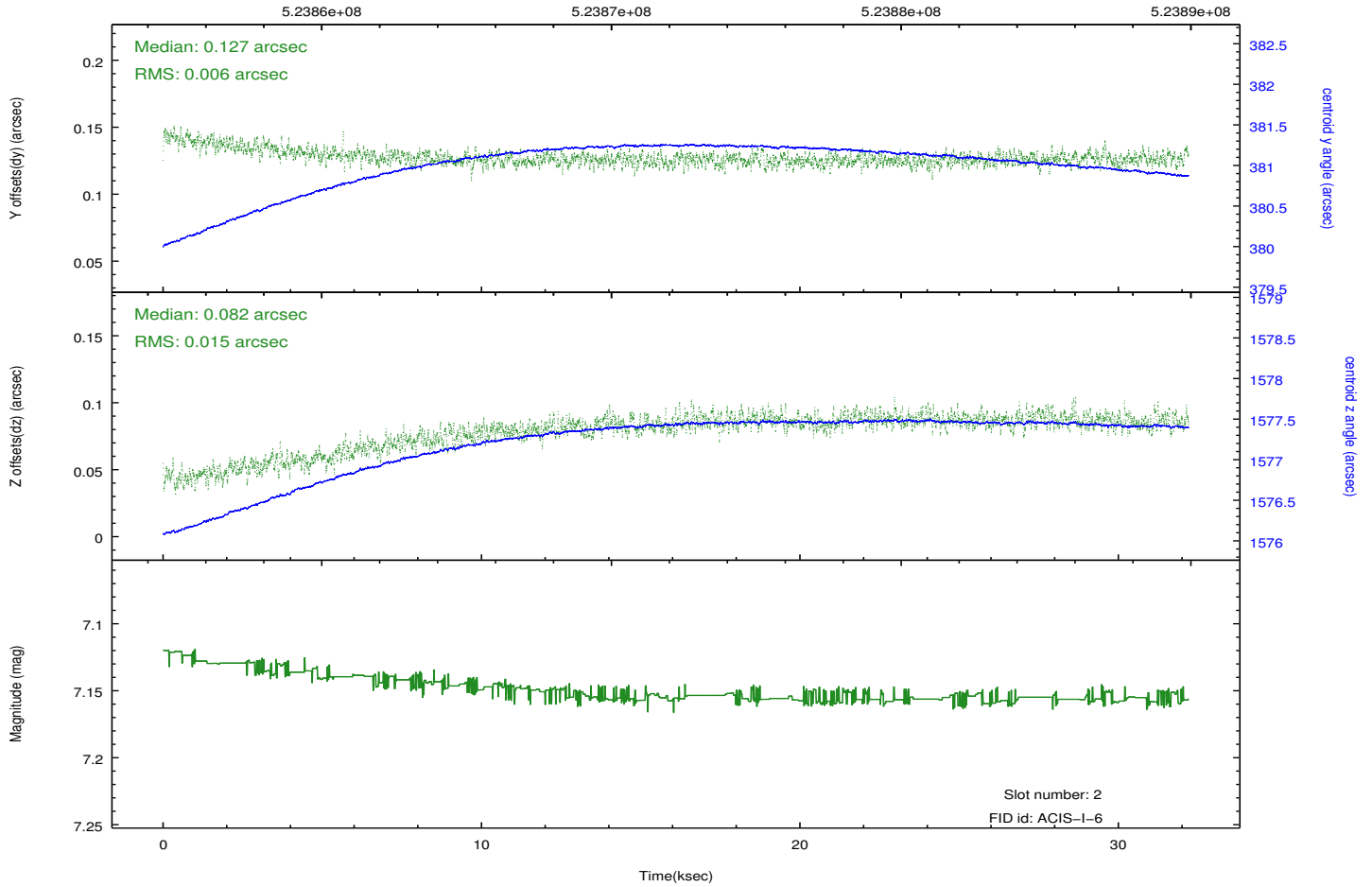
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.08.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	32.127957018554

## A.2 Comments

Joint proposal with NRAO.