

# V&V Reference Report

## L2 ASCDS Version : 10.3.3

Observation 17579 - L2 Version 1  
Chandra X-Ray Center

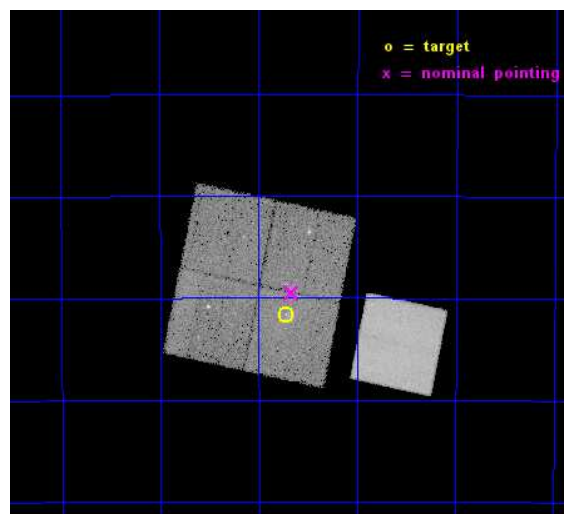
L2 Processing Date : Jan 24 2015

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# 1 Front

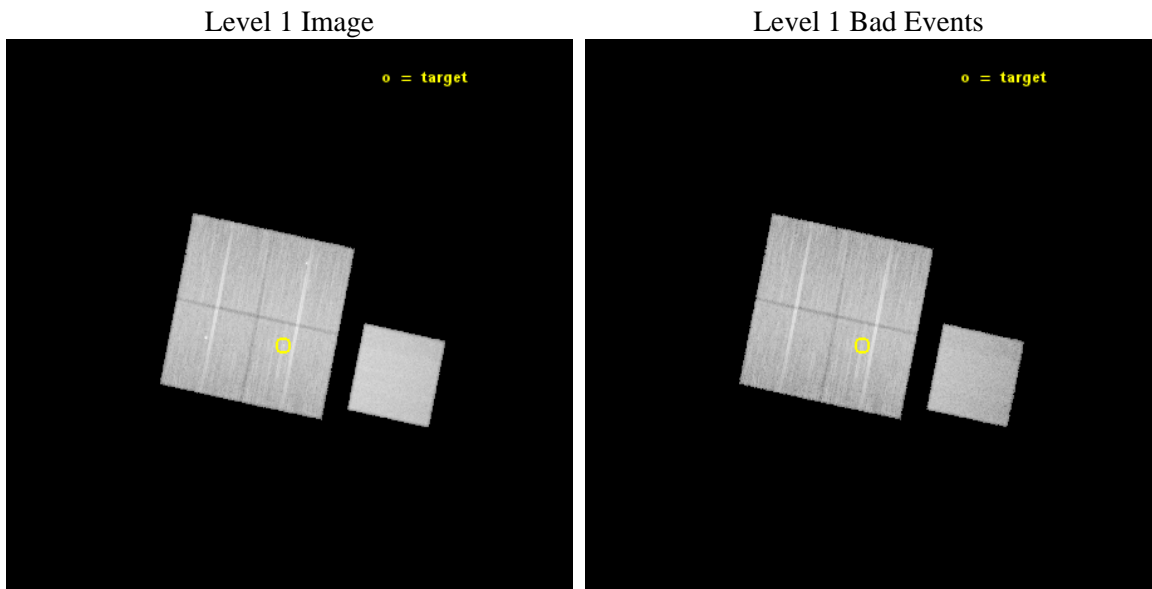
seq_num	502289	Sequence number
obs_id	17579	Observation id
title	HESS~J1640-465: Powering the most luminous gamma-ray source in the Galaxy	Proposal title
observer	Dr Eric Gotthelf	Principal investigator
object	CXOU J164043.5-463135	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	250.18125	Observer's specified target RA [deg]
dec_targ	-46.526389	Observer's specified target Dec [deg]
ra_nom	250.16725234324	Nominal RA [deg]
dec_nom	-46.491470423657	Nominal Dec [deg]
roll_nom	101.69852467302	Nominal Roll [deg]
revision	1	Processing version of data
ontime	35061.000269771	Sum of GTIs [s]
livetime	34602.902489713	Livetime [s]
ontime0	35057.85924983	Sum of GTIs [s]
ontime1	35057.859249473	Sum of GTIs [s]
ontime2	35054.718289495	Sum of GTIs [s]
ontime3	35061.000269771	Sum of GTIs [s]
ontime7	35061.000269771	Sum of GTIs [s]
l2events	185966	Number of level 2 events



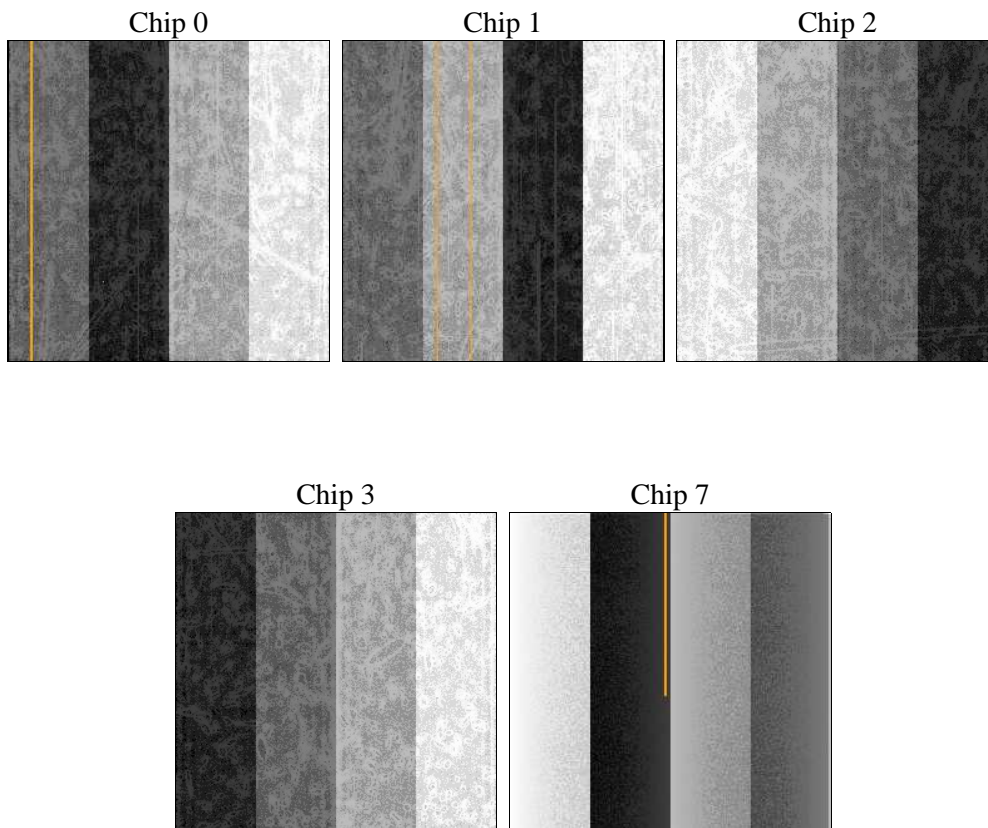
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	35061.000269771	Sum of GTIs [s]
caldbver	4.6.6	&#160	ontime0	35057.85924983	Sum of GTIs [s]
date	2015-01-24T14:58:11	Date and time of file creation	ontime1	35057.859249473	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	35054.718289495	Sum of GTIs [s]
			ontime3	35061.000269771	Sum of GTIs [s]
			ontime7	35061.000269771	Sum of GTIs [s]
			l1events	917478	Number of level 1 events

### 2.1.4 Events

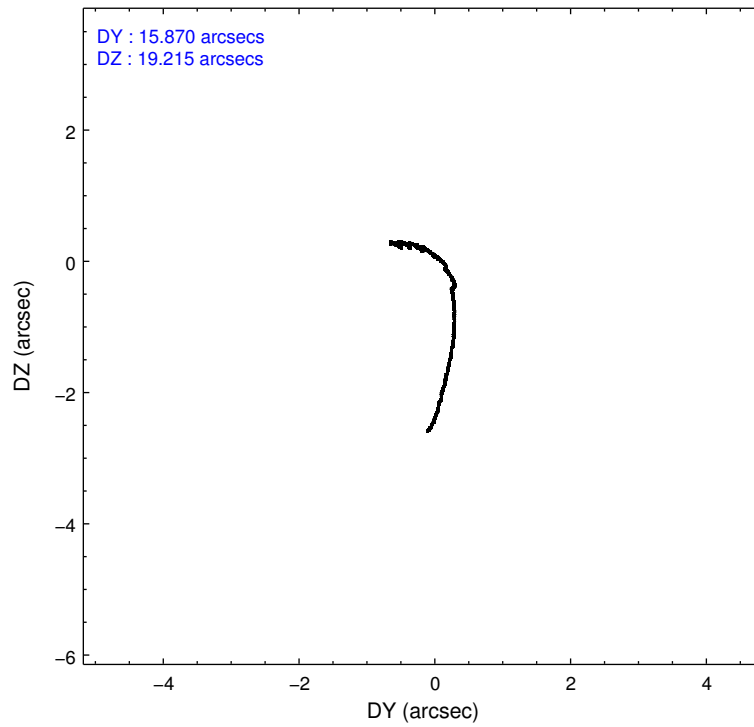
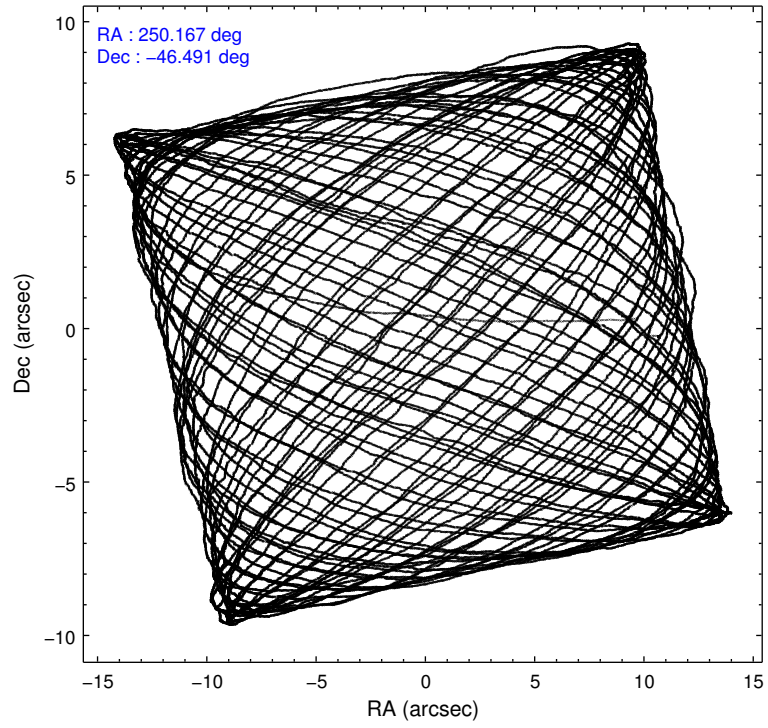
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	164426	163830	176383	173023	239816
rejected events	141220	138874	152101	148883	133669
rejected %	85%	84%	86%	86%	55%

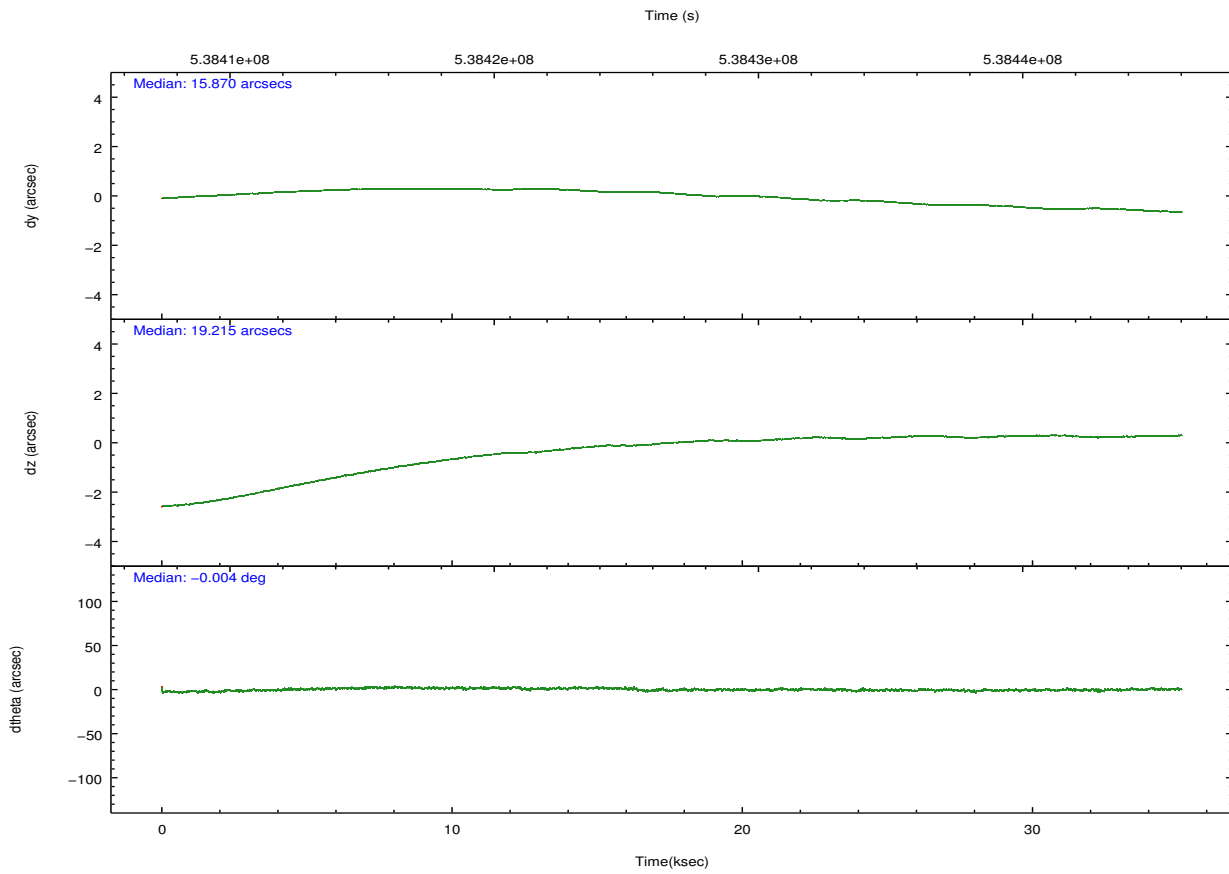
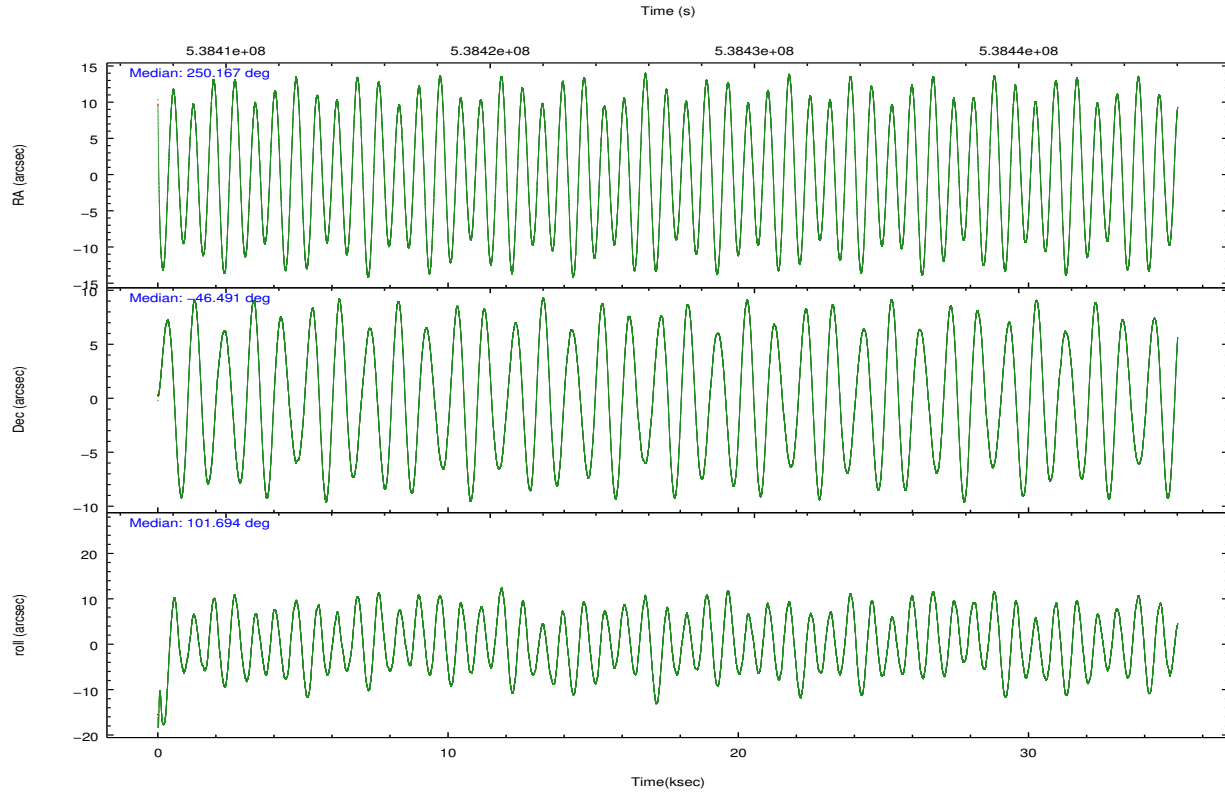
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	9102	9784	10369	10451	9763
	5%	5%	5%	6%	4%
grade 1 events	104	72	113	120	274
	0%	0%	0%	0%	0%
grade 2 events	5483	5800	5431	4826	22287
	3%	3%	3%	2%	9%
grade 3 events	2213	2236	2142	2243	8895
	1%	1%	1%	1%	3%
grade 4 events	2078	2216	2136	2219	8846
	1%	1%	1%	1%	3%
grade 5 events	8020	8585	7617	9114	24000
	4%	5%	4%	5%	10%
grade 6 events	4335	4926	4206	4403	56372
	2%	3%	2%	2%	23%
grade 7 events	133091	130211	144369	139647	109379
	80%	79%	81%	80%	45%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01237	ACIS-01237	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	250.194051	250.1672523432352	CCD I2 on	Y	Y
[deg] Pointing Dec	-46.512007	-46.4914704236568	CCD I3 on	Y	Y
[deg] Pointing Roll	101.509286	101.6985246730156	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	N	N
[mm] SIM translation stage pos	-225.694963	-225.7050559904381	CCD S3 on	O1	Y
[mm] SIM translation stage offset	-7.8975	-7.88739701249159	CCD S4 on	N	N
[s] Observation start time (MET)	538409290.184000	538408062.1733299	CCD S5 on	N	N
Observation start date	2015-01-23T14:07:03	2015-01-23T13:47:42	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	538444290.184000	538445276.85041	On-chip summing requested	N	N
Observation end date	2015-01-23T23:50:23	2015-01-24T00:07:56	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





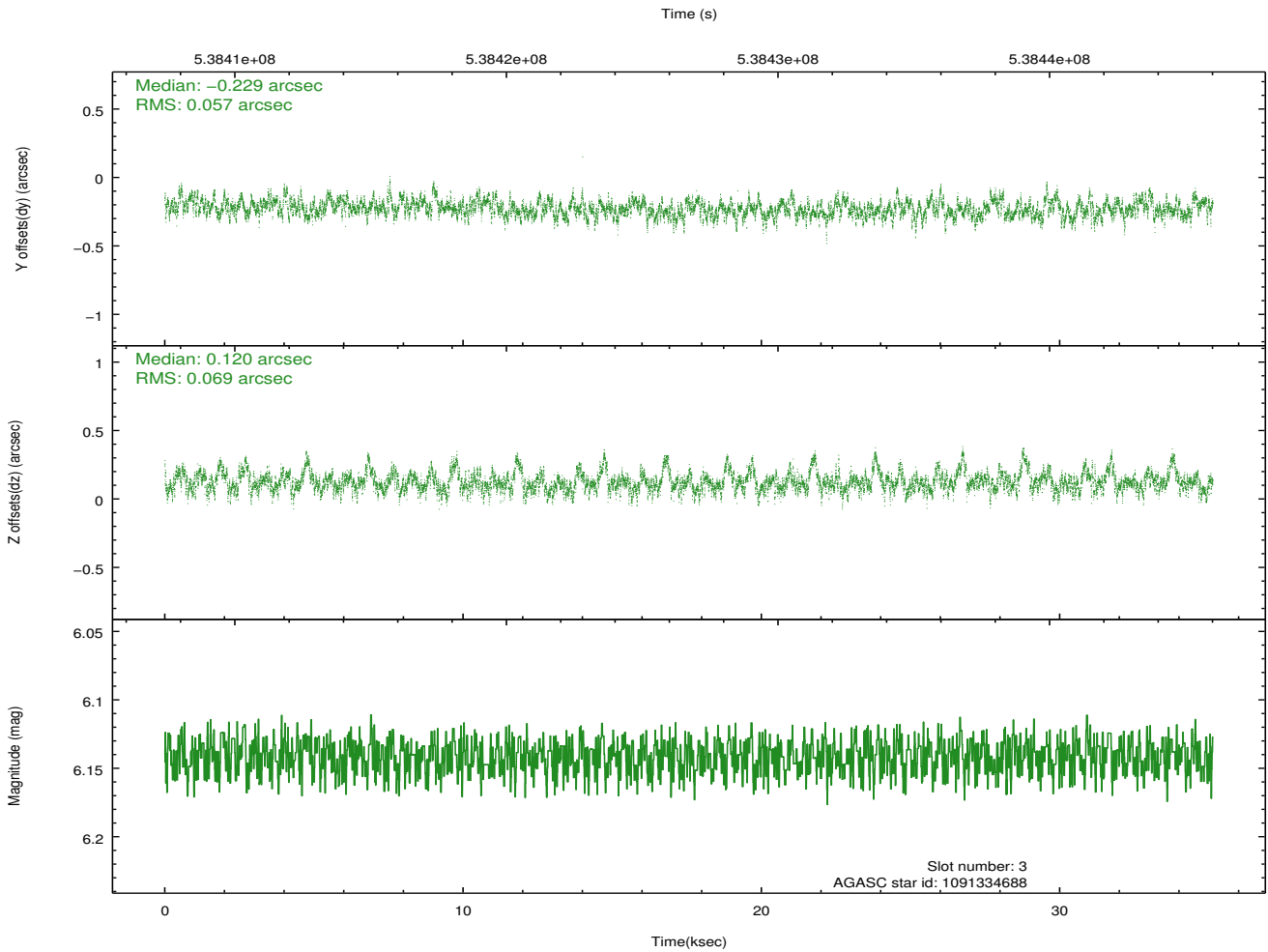
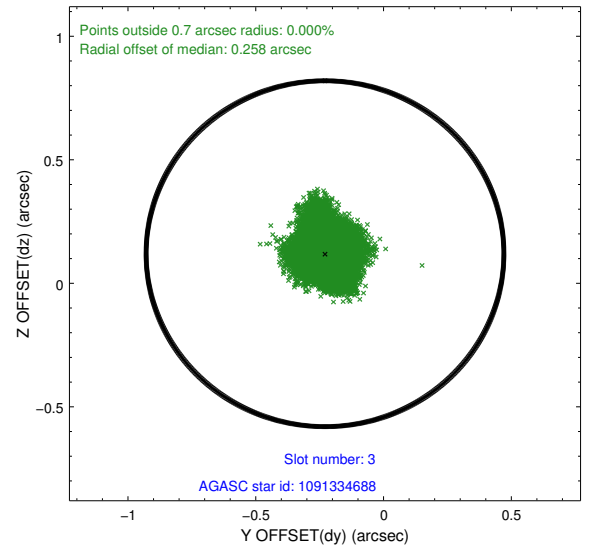
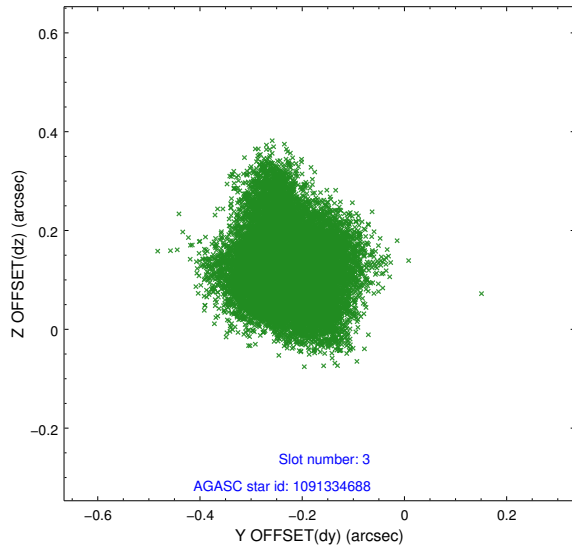
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	7.11	8568	-0.160	-0.067	0.021	0.033	0.000000	0.000000	-771.24	-1009.80
1	FID		ACIS-I-4	7.06	8569	0.228	0.108	0.010	0.015	0.000000	0.000000	2143.10	896.52
2	FID		ACIS-I-5	7.16	8570	-0.168	0.029	0.017	0.029	0.000000	0.000000	-1824.66	893.24
3	GUIDE	used	1091334688	6.14	17140	-0.229	0.120	0.095	0.159	250.764858	-46.070295	1268.73	-1712.83
4	GUIDE	used	1091706496	8.39	17135	0.015	-0.374	0.097	0.156	249.546894	-47.245288	-2277.62	2077.42
5	GUIDE	used	1091838488	9.42	17125	0.215	0.584	0.150	0.244	251.127983	-46.881927	-1776.50	-1982.68
6	GUIDE	used	1091193912	8.90	17130	-0.218	0.014	0.112	0.178	250.208472	-45.834358	2383.08	-521.92
7	GUIDE	used	1091704704	10.08	17115	0.225	-0.358	0.213	0.337	249.457504	-47.039620	-1508.75	2151.06

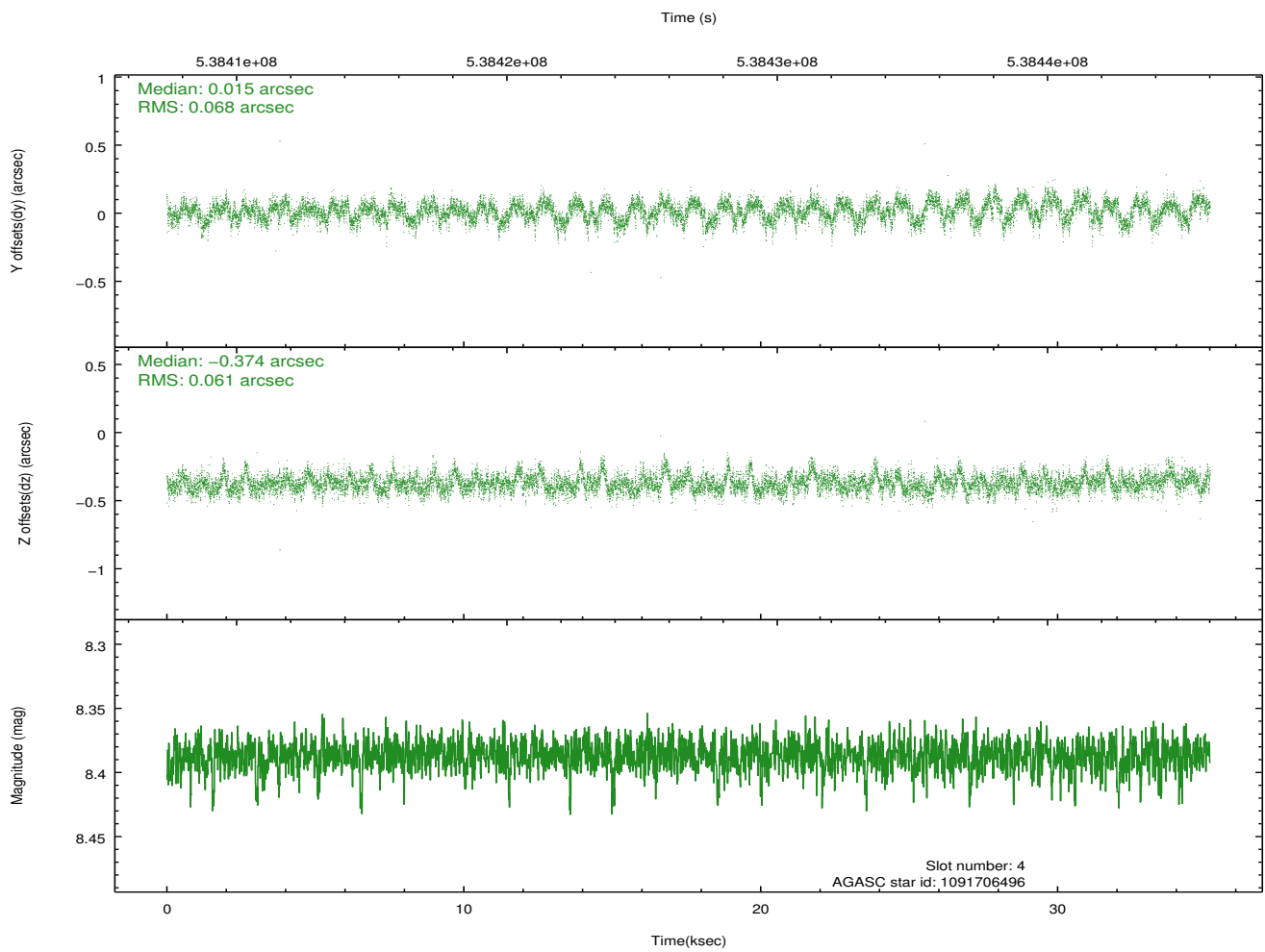
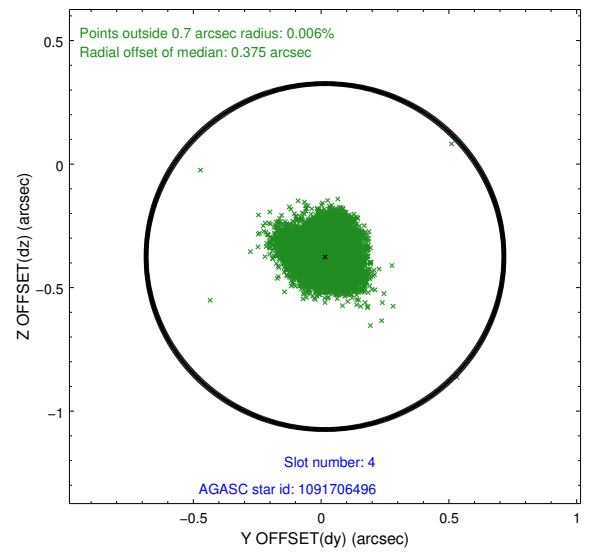
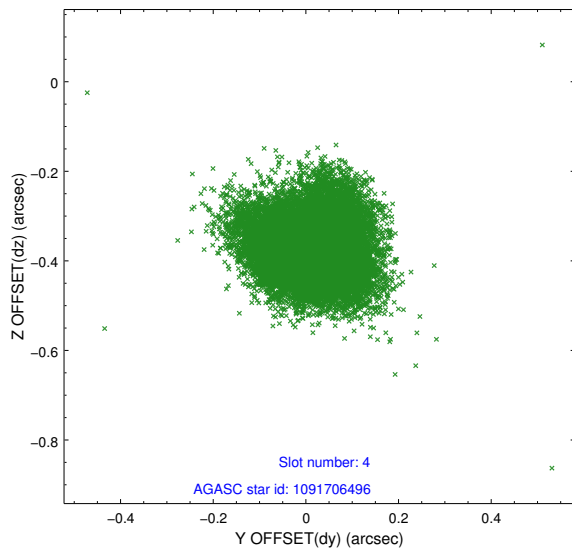
∞

## 2.4 Star Slots

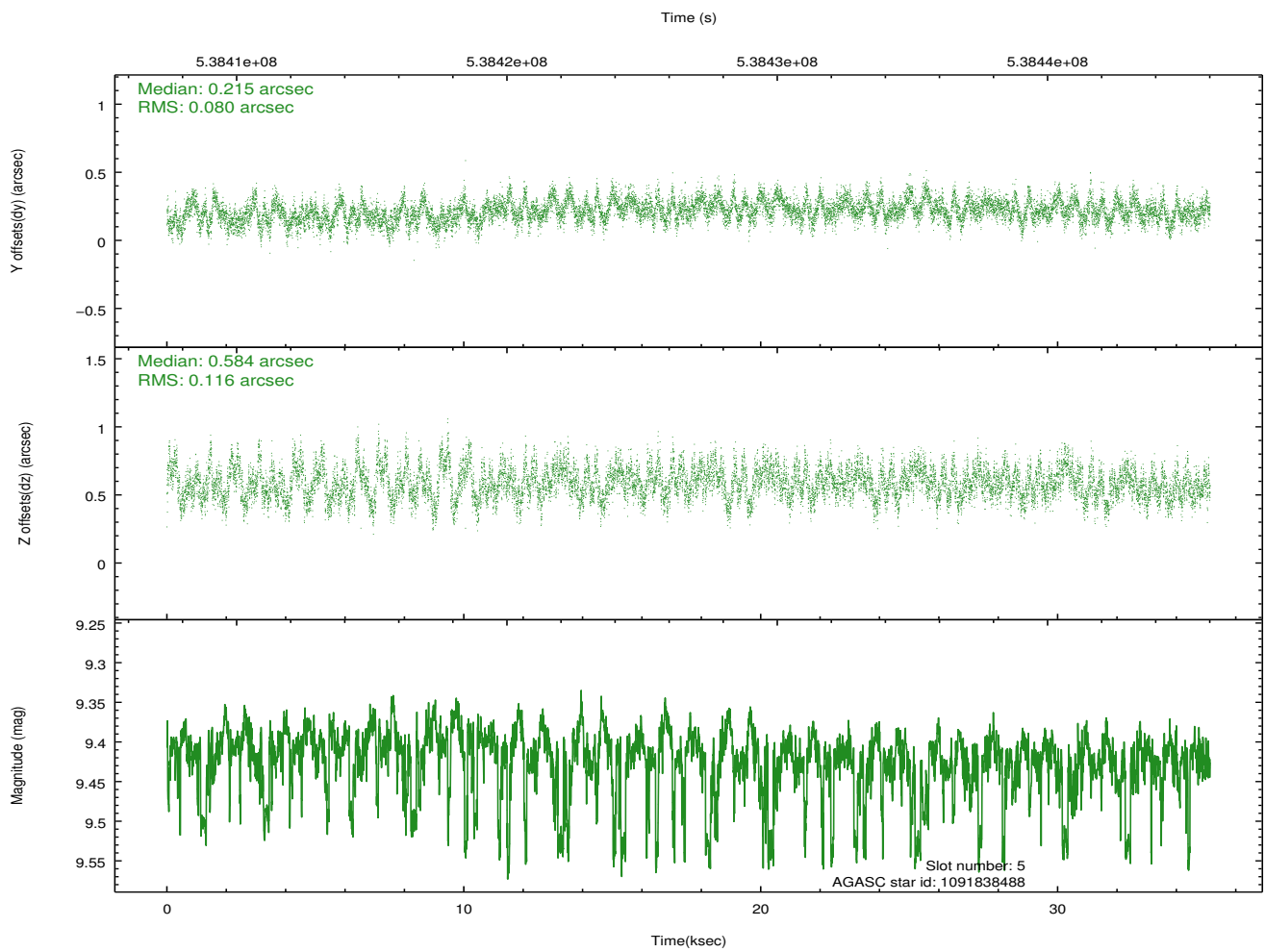
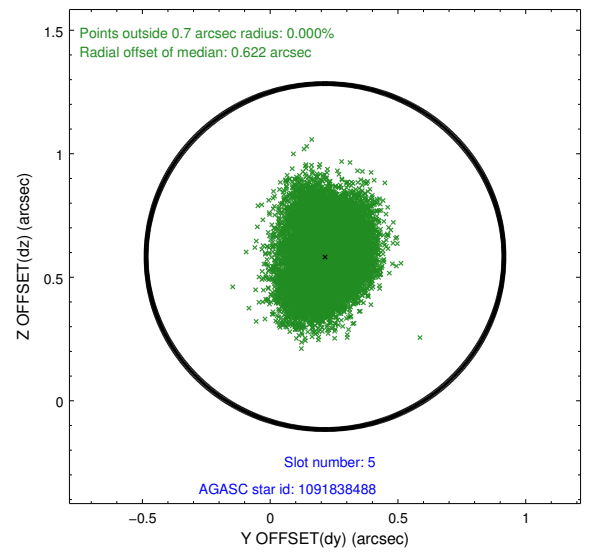
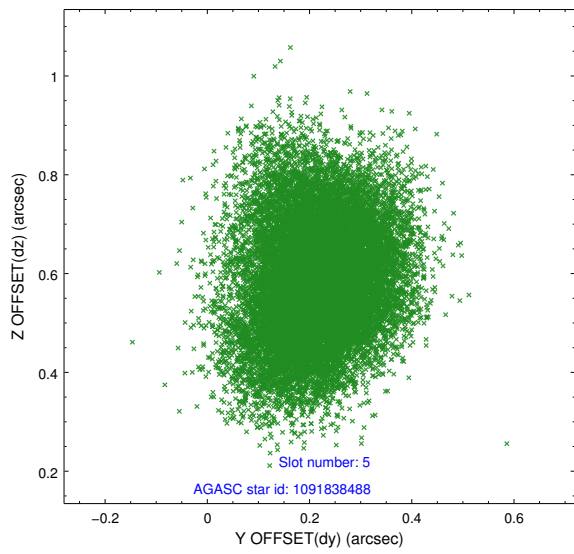
### 2.4.1 Slot 3



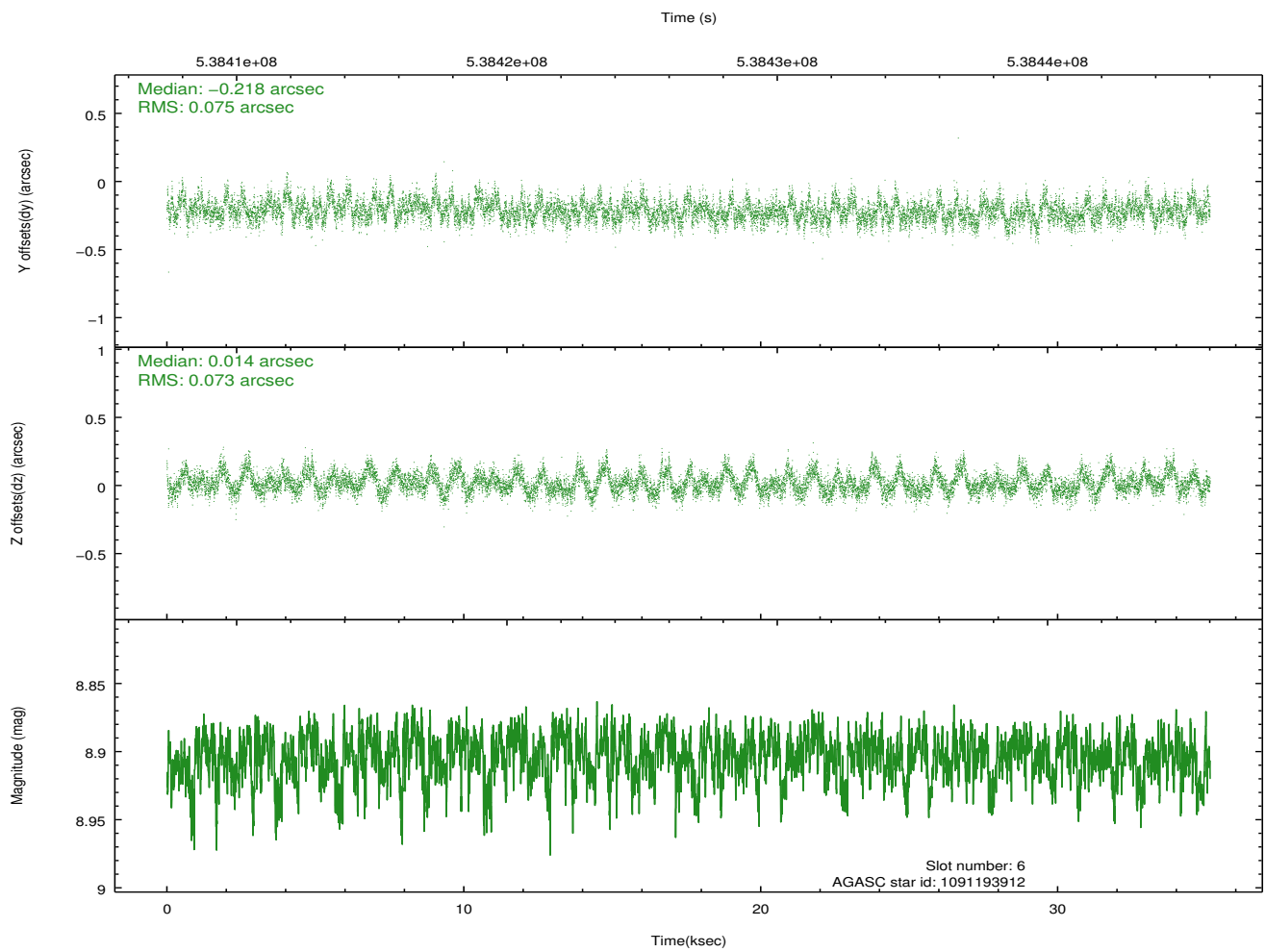
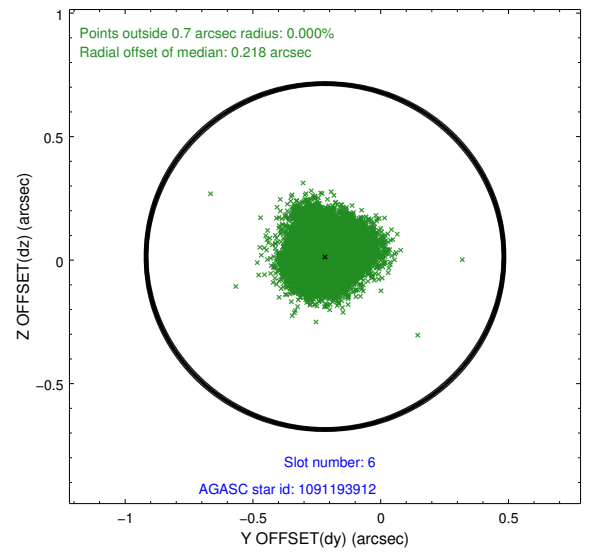
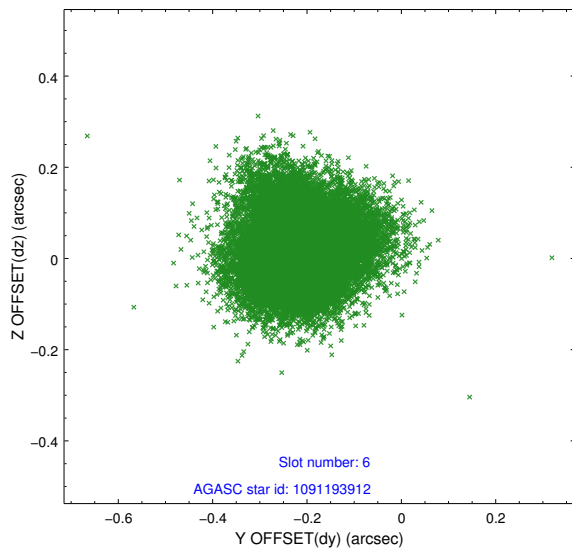
## 2.4.2 Slot 4



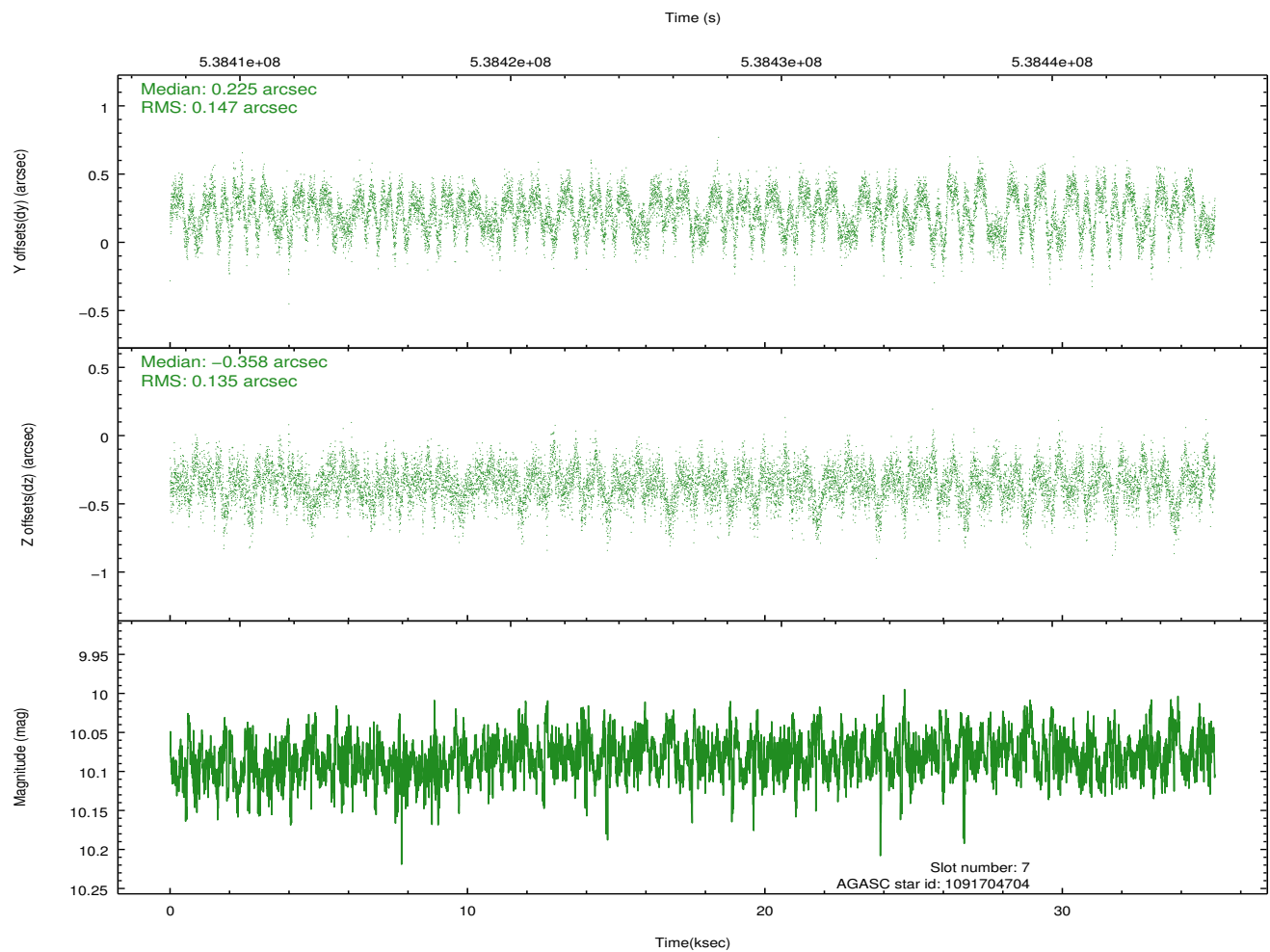
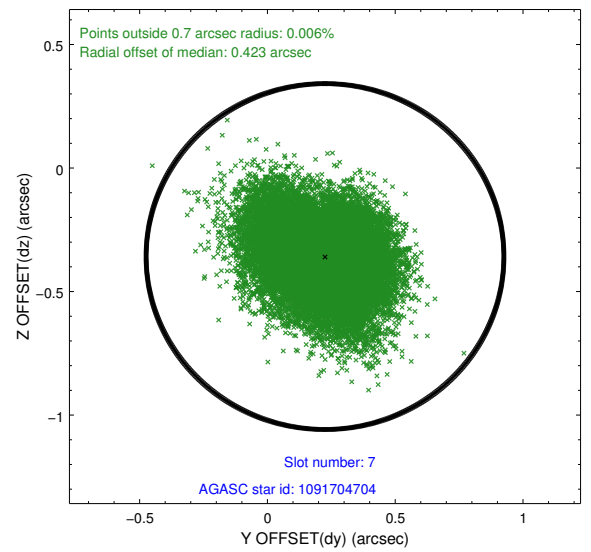
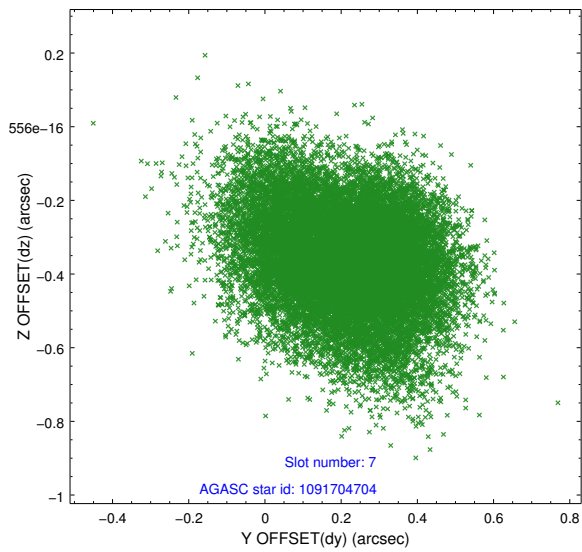
### 2.4.3 Slot 5



## 2.4.4 Slot 6

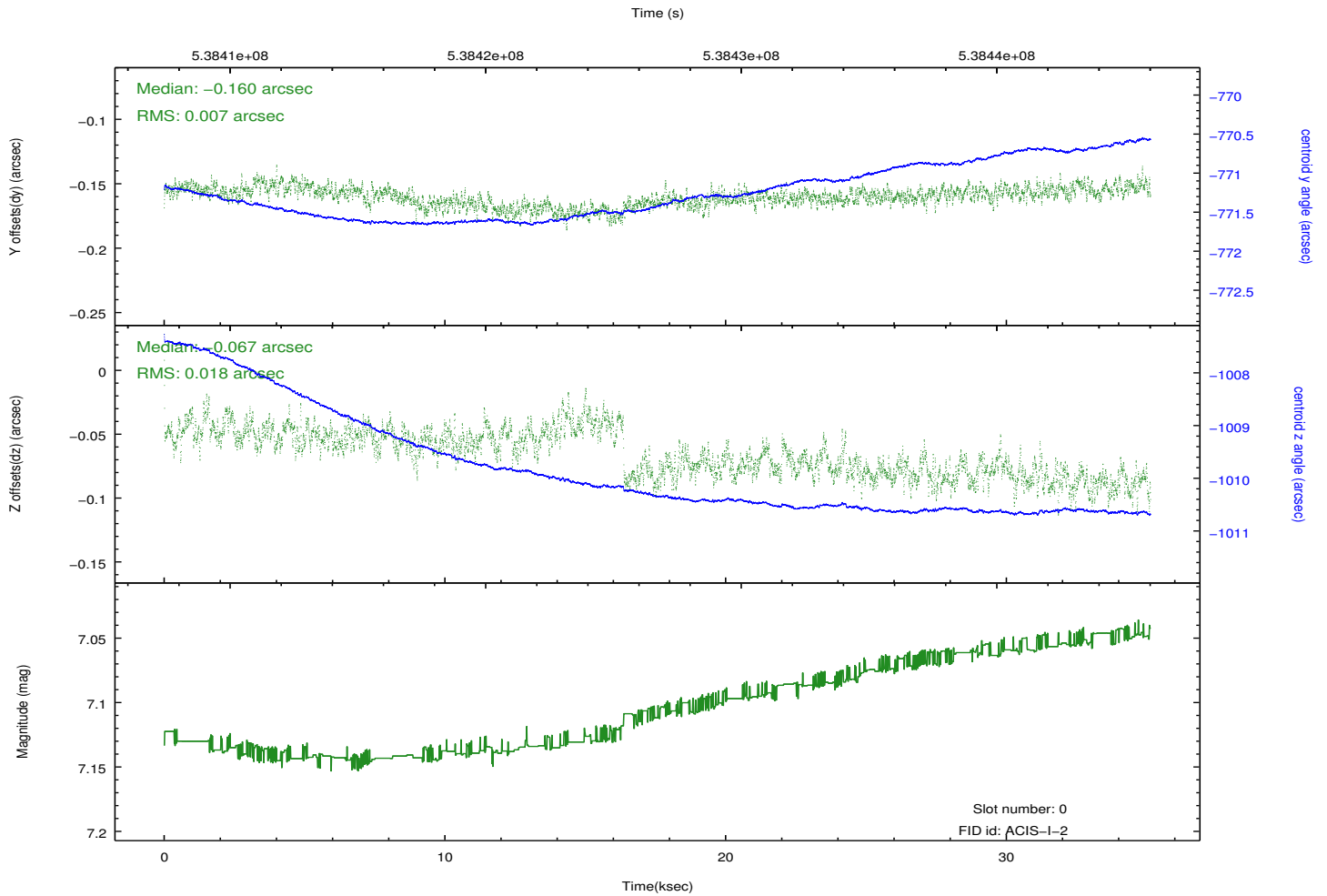
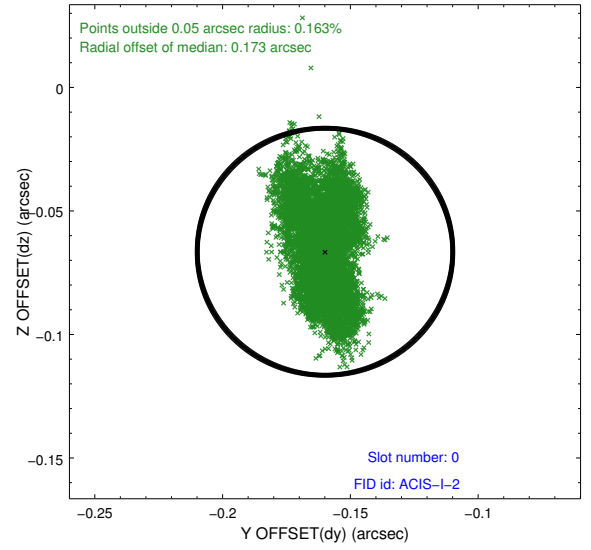
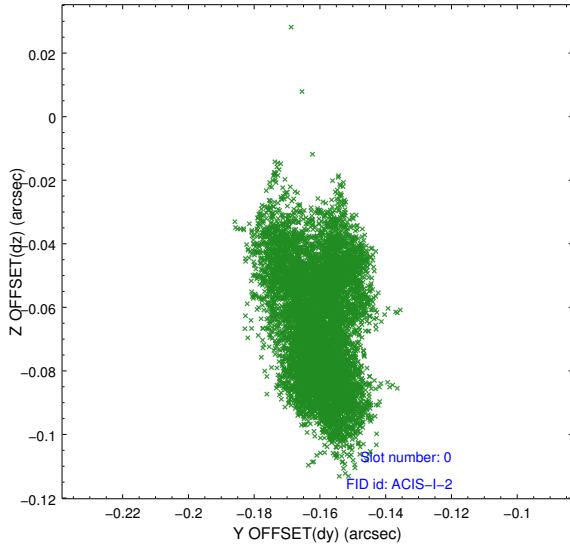


## 2.4.5 Slot 7

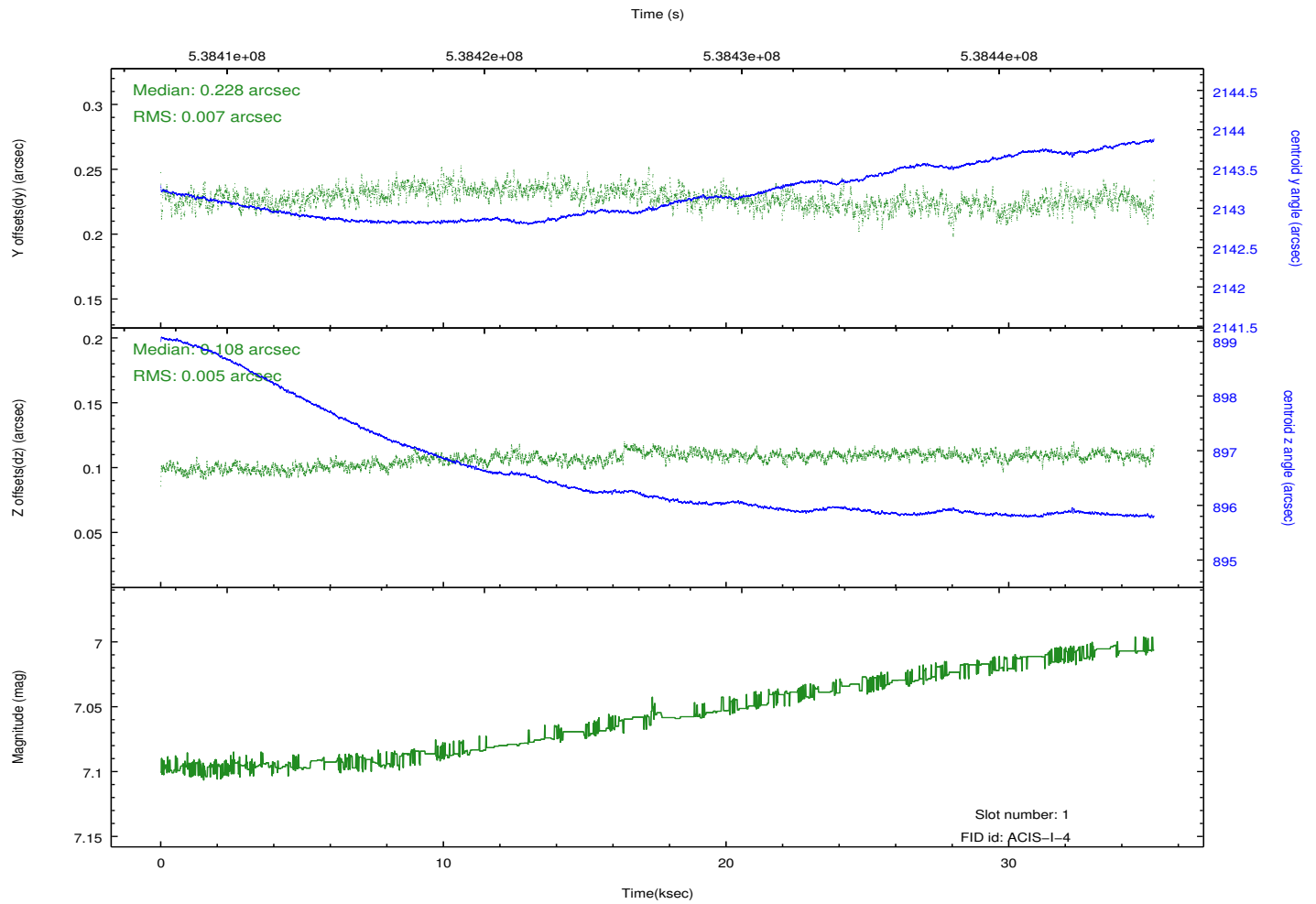
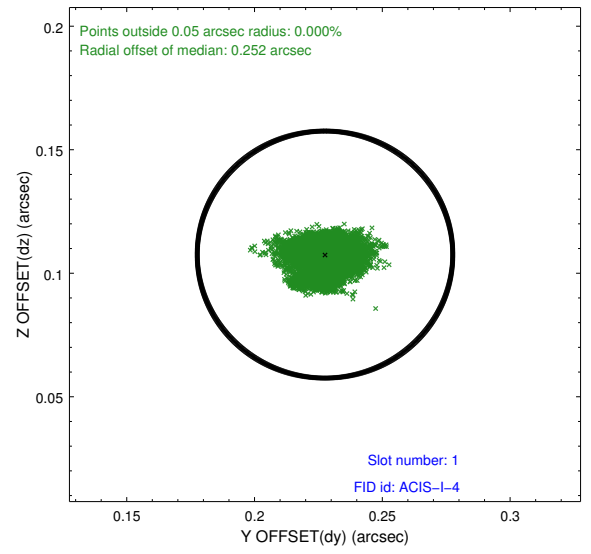
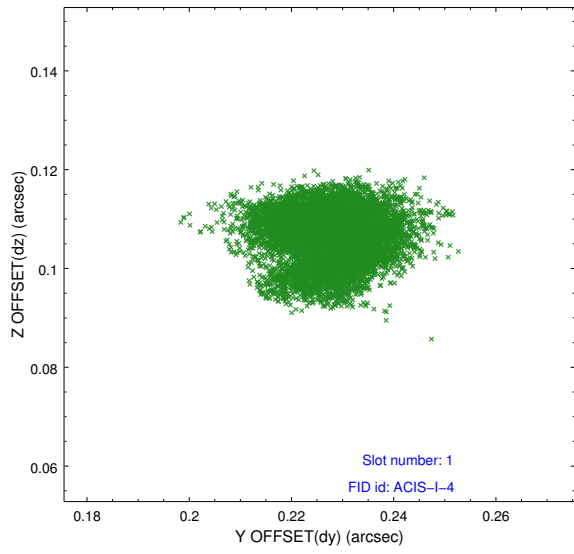


## 2.5 FID Slots

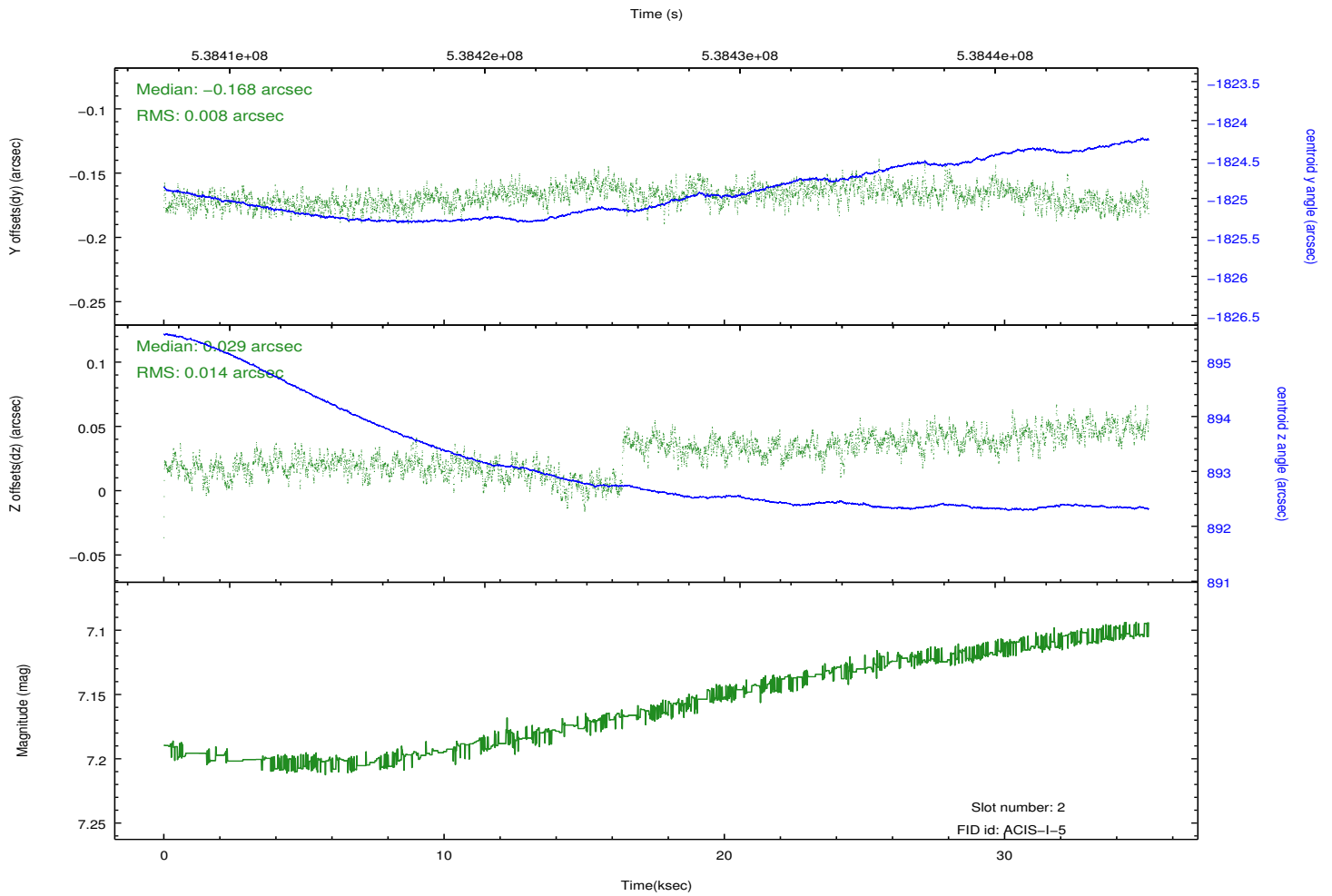
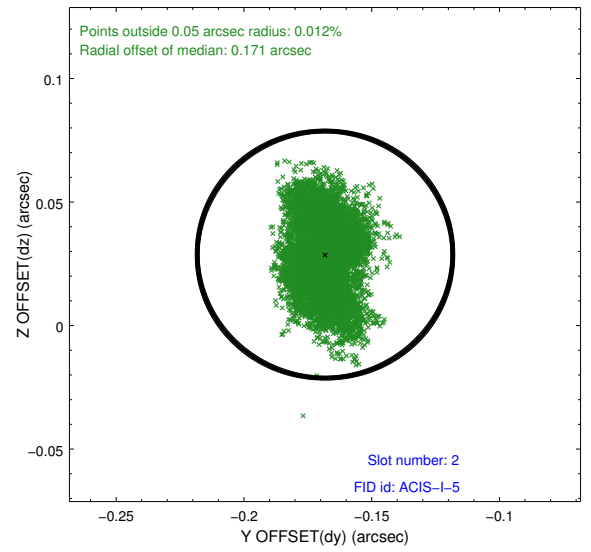
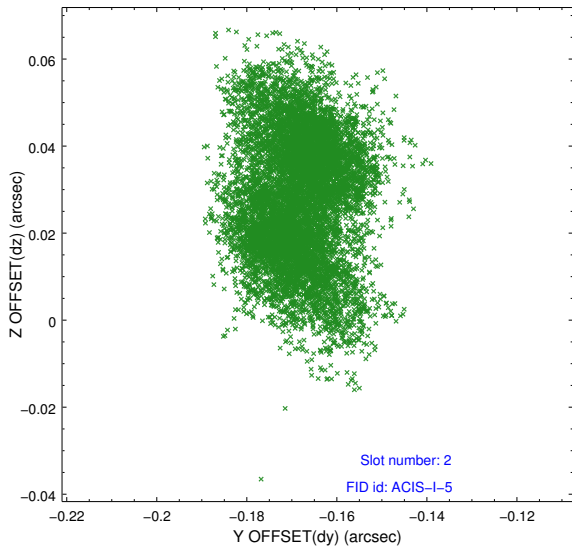
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.01.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	35.061000269771

## A.2 Comments