

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10958 - L2 Version 2  
Chandra X-Ray Center

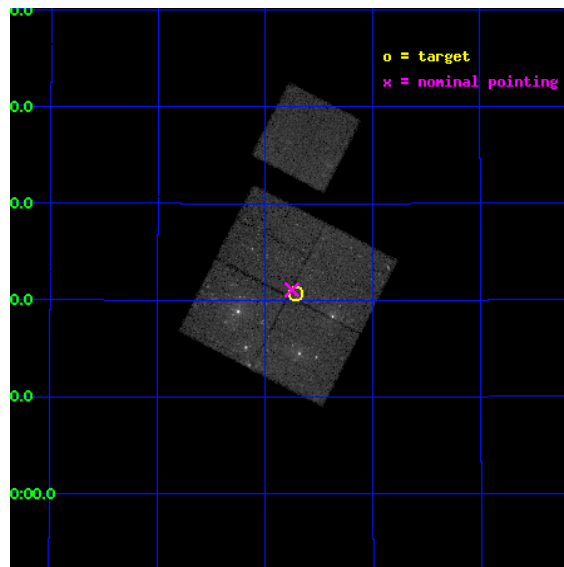
L2 Processing Date : Jun 21 2012

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# 1 Front

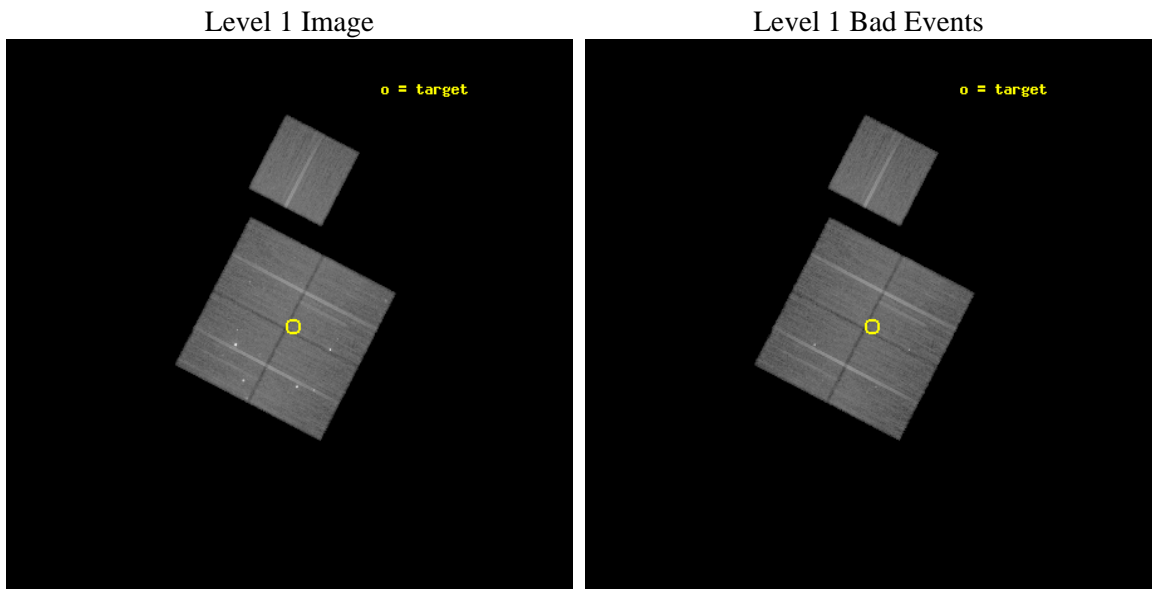
seq_num	200590	Sequence number
obs_id	10958	Observation id
title	The Chandra Cygnus OB2 Survey	Proposal title
observer	Dr. Jeremy Drake	Principal investigator
object	Cygnus OB2	Source name
dtycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	308.18048	Observer's specified target RA [deg]
dec_targ	41.345822	Observer's specified target Dec [deg]
ra_nom	308.18813003378	Nominal RA [deg]
dec_nom	41.351513832985	Nominal Dec [deg]
roll_nom	27.403627792009	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29347.171101034	Sum of GTIs [s]
livetime	28963.728705526	Livetime [s]
ontime0	29347.047981024	Sum of GTIs [s]
ontime1	29340.807090342	Sum of GTIs [s]
ontime2	29347.13006103	Sum of GTIs [s]
ontime3	29347.171101034	Sum of GTIs [s]
ontime6	29347.00694102	Sum of GTIs [s]
l2events	164227	Number of level 2 events



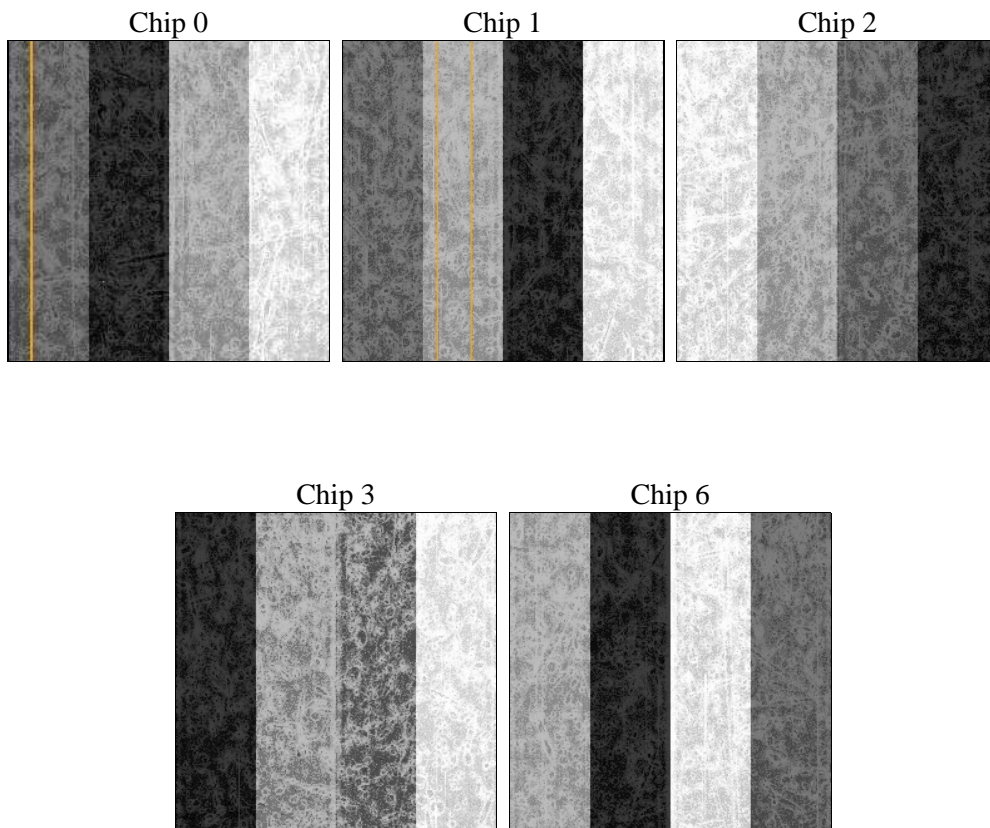
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	29300.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	29347.171101034	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime0	29347.047981024	Sum of GTIs [s]
date	2012-06-21T15:27:54	Date and time of file creation	ontime1	29340.807090342	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	29347.13006103	Sum of GTIs [s]
			ontime3	29347.171101034	Sum of GTIs [s]
			ontime6	29347.00694102	Sum of GTIs [s]
			l1events	1156478	Number of level 1 events

### 2.1.4 Events

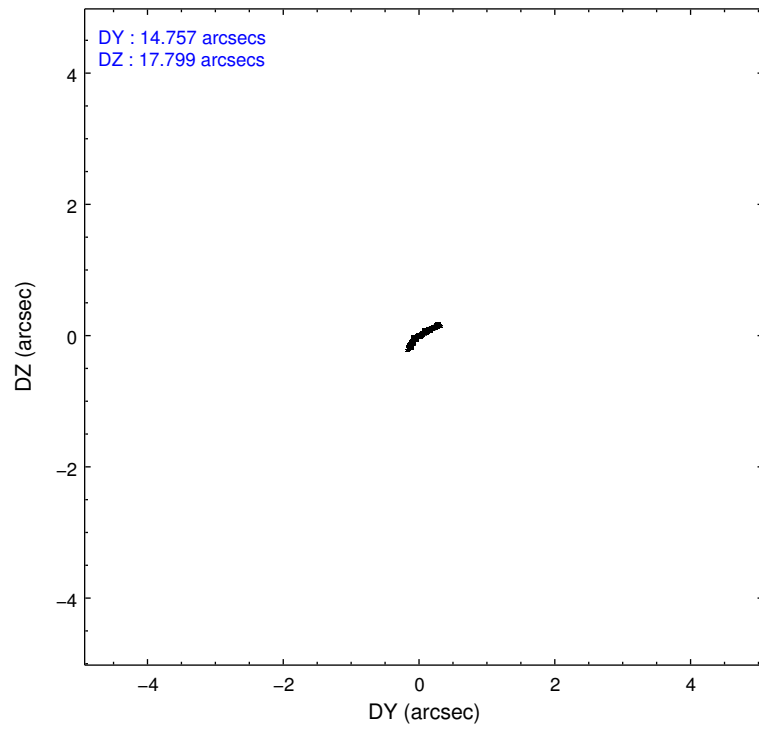
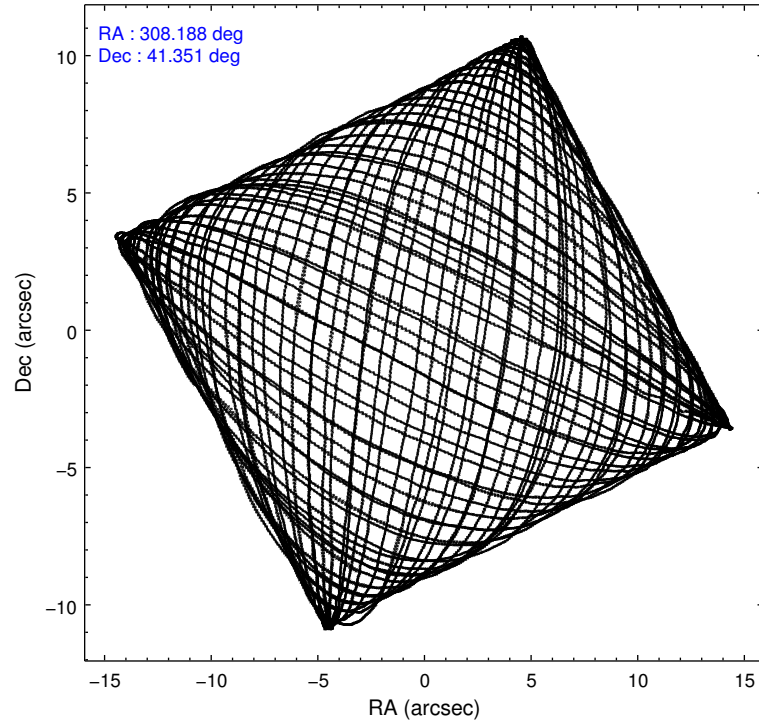
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	239041	225792	229123	235767	226755
rejected events	182423	185245	200245	197724	201127
rejected %	76%	82%	87%	83%	88%

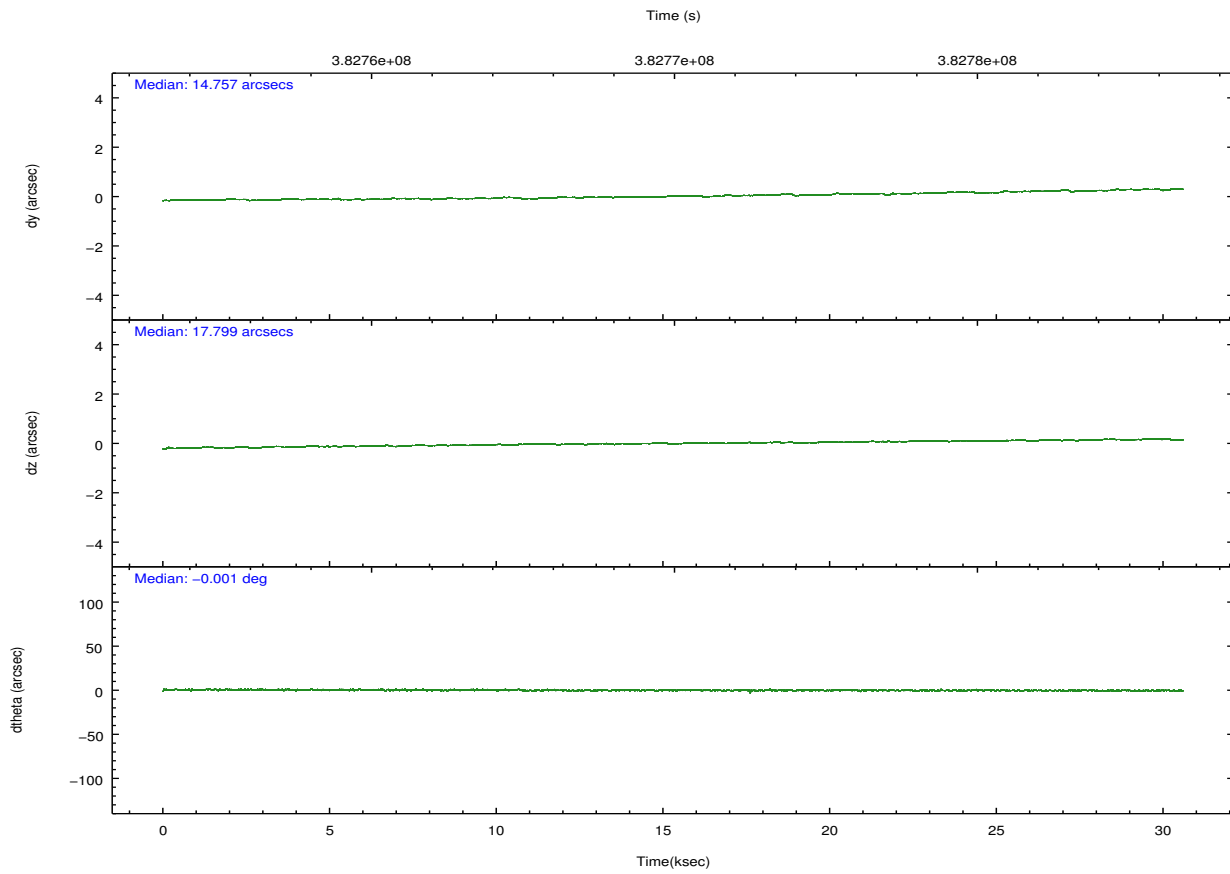
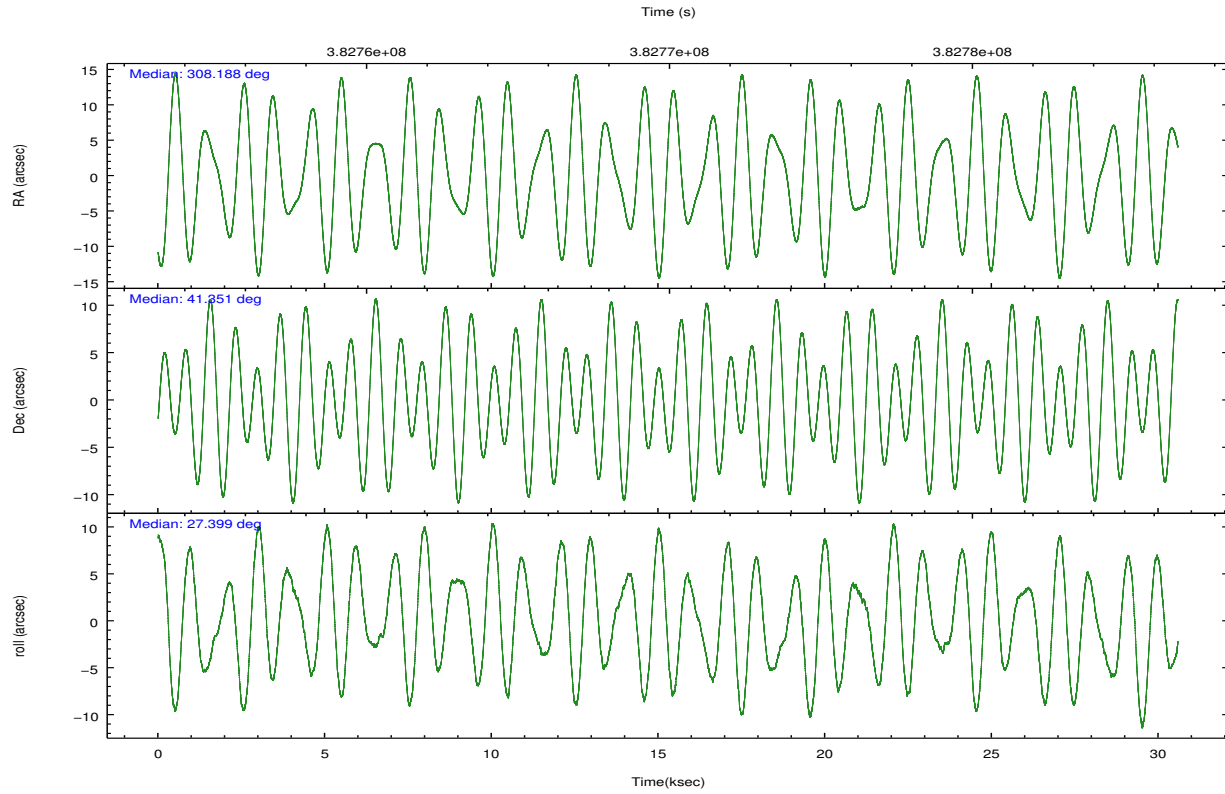
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	34877	21333	13390	20671	10249
	14%	9%	5%	8%	4%
grade 1 events	849	242	172	564	104
	0%	0%	0%	0%	0%
grade 2 events	9416	7397	6195	6743	5432
	3%	3%	2%	2%	2%
grade 3 events	3702	3242	2547	3012	2619
	1%	1%	1%	1%	1%
grade 4 events	3571	3229	2652	2960	2524
	1%	1%	1%	1%	1%
grade 5 events	7417	7877	6952	8557	7847
	3%	3%	3%	3%	3%
grade 6 events	5066	5359	4101	4667	4810
	2%	2%	1%	1%	2%
grade 7 events	174143	177113	193114	188593	193170
	72%	78%	84%	79%	85%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	308.168525	308.1881300337825	CCD I2 on	Y	Y
[deg] Pointing Dec	41.328272	41.35151383298512	CCD I3 on	Y	Y
[deg] Pointing Roll	27.207894	27.40362779200858	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	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	382755953.184000	382754471.09241	CCD S5 on	N	N
Observation start date	2010-02-17T01:04:47	2010-02-17T00:41:11	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	382785253.184000	382785387.14398	On-chip summing requested	N	N
Observation end date	2010-02-17T09:13:07	2010-02-17T09:16:27	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



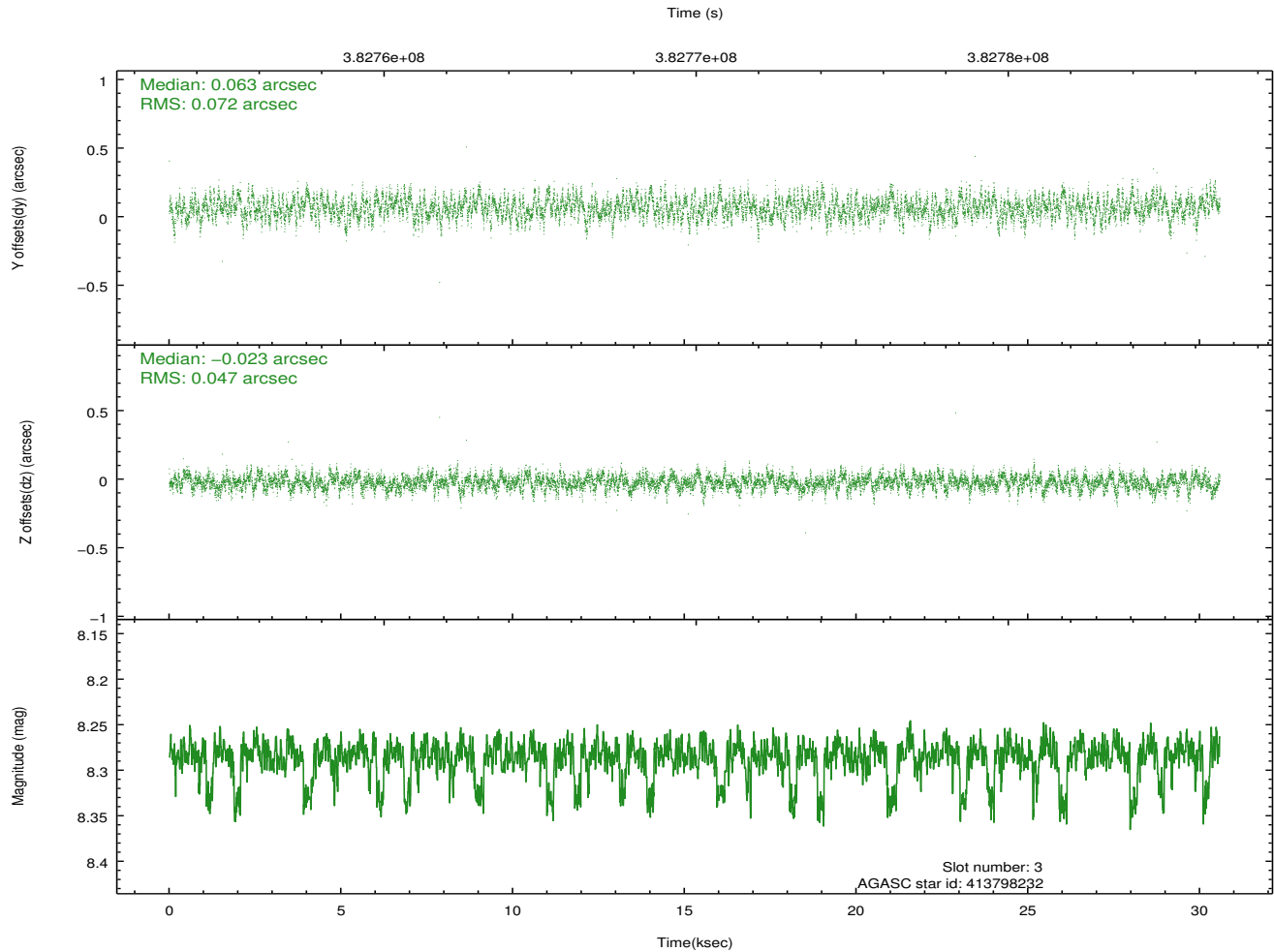
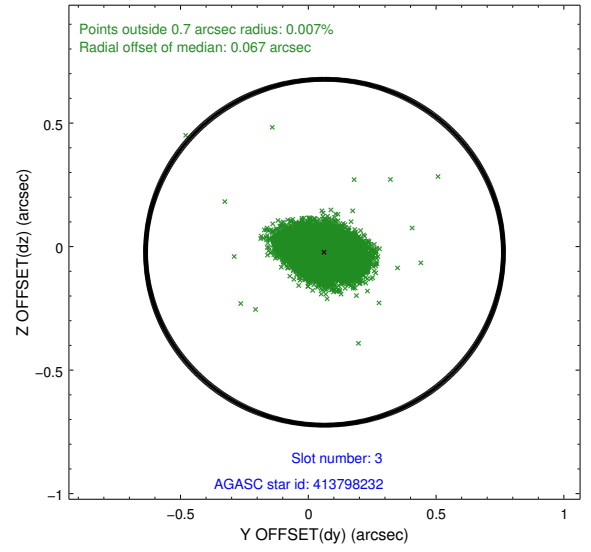
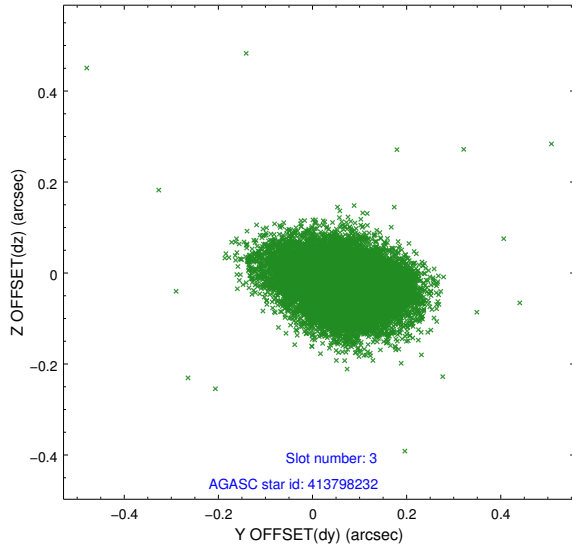


### Slot Statistics

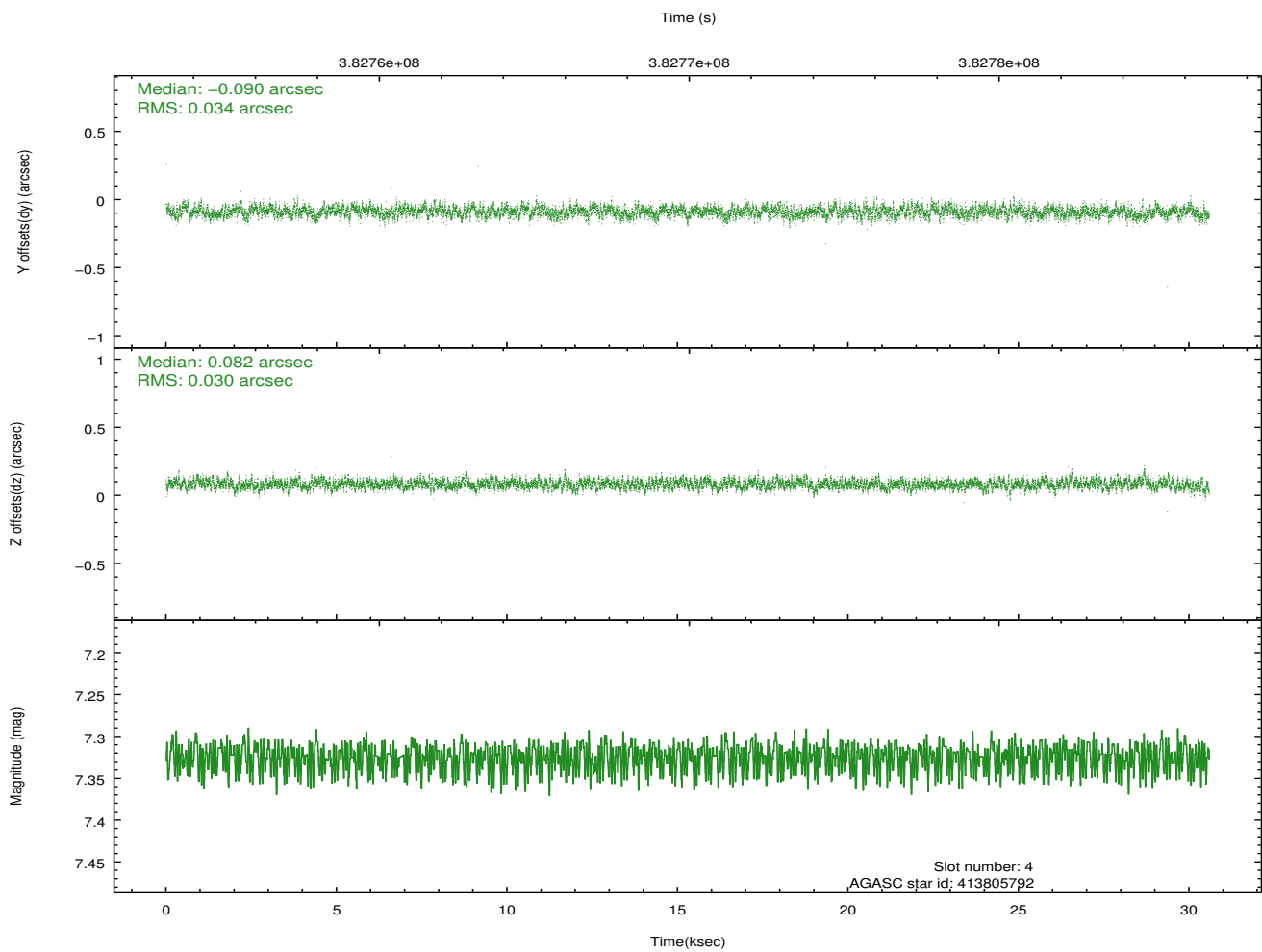
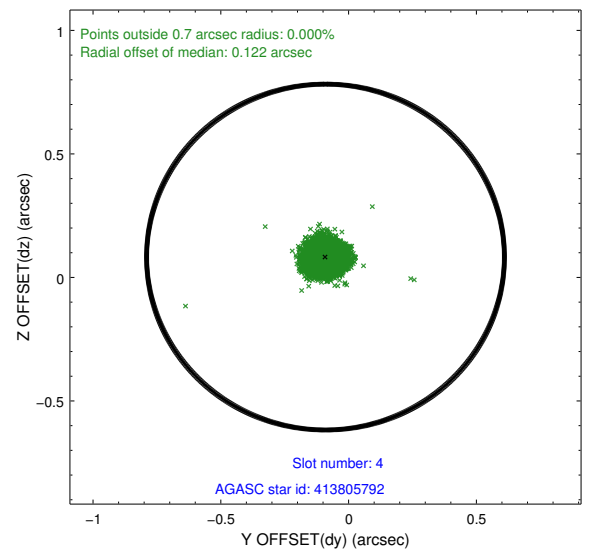
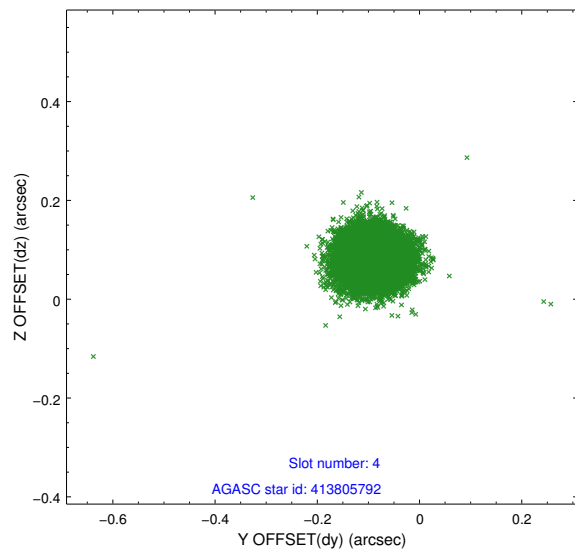
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.00	7459	0.051	0.007	0.008	0.014	0.000000	0.000000	924.72	-841.47
1	FID	ACIS-I-5	6.99	7460	-0.206	0.064	0.006	0.011	0.000000	0.000000	-1823.59	1056.06
2	FID	ACIS-I-6	7.00	7460	0.063	-0.000	0.007	0.011	0.000000	0.000000	390.22	1700.56
3	GUIDE	413798232	8.29	14912	0.063	-0.023	0.090	0.149	309.116117	41.044272	1827.39	-2073.15
4	GUIDE	413805792	7.32	14922	-0.090	0.082	0.048	0.077	307.778748	40.858024	-1716.22	-1018.01
5	GUIDE	414324232	8.32	14919	-0.008	-0.002	0.065	0.105	308.637806	41.996627	2218.21	1569.08
6	GUIDE	414326136	7.35	14918	-0.102	-0.203	0.063	0.105	308.256176	41.473642	450.13	357.72
7	GUIDE	413796456	8.69	14906	0.132	0.150	0.080	0.132	308.312084	40.613132	-827.50	-2468.54

## 2.4 Star Slots

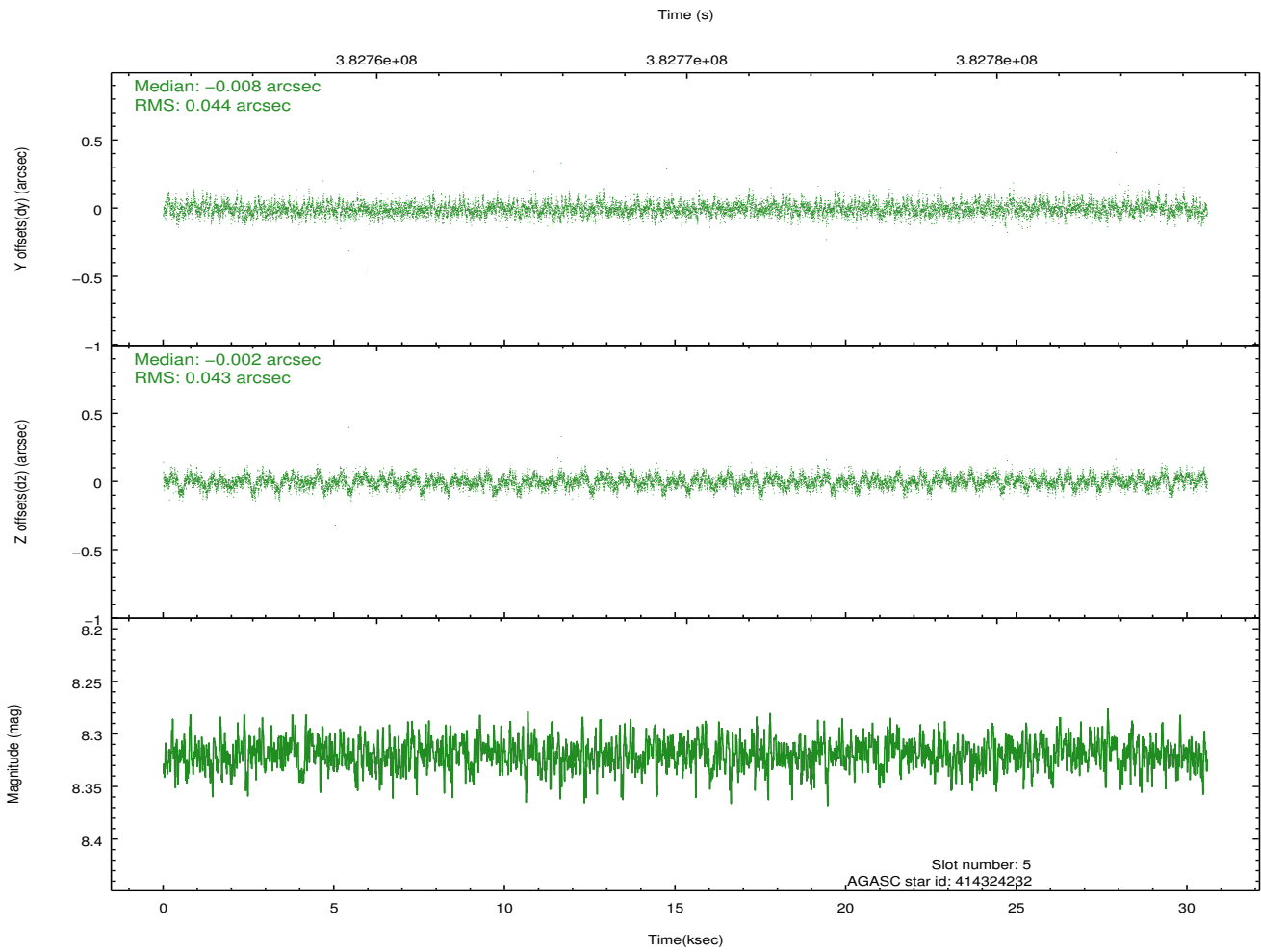
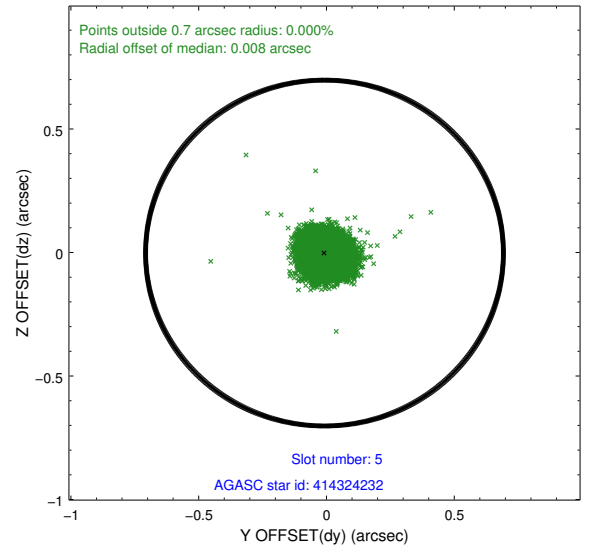
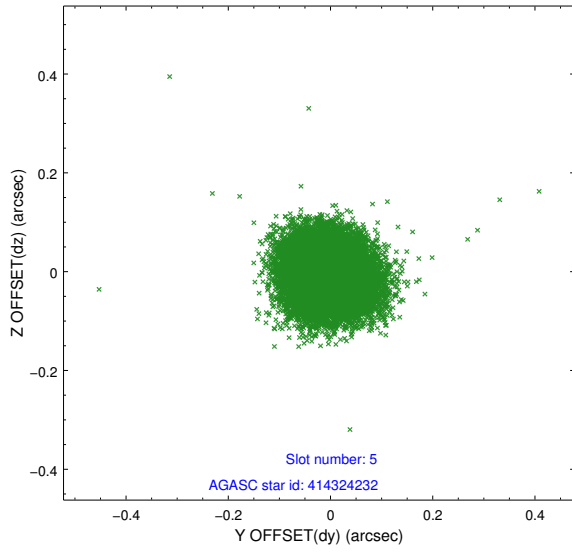
### 2.4.1 Slot 3



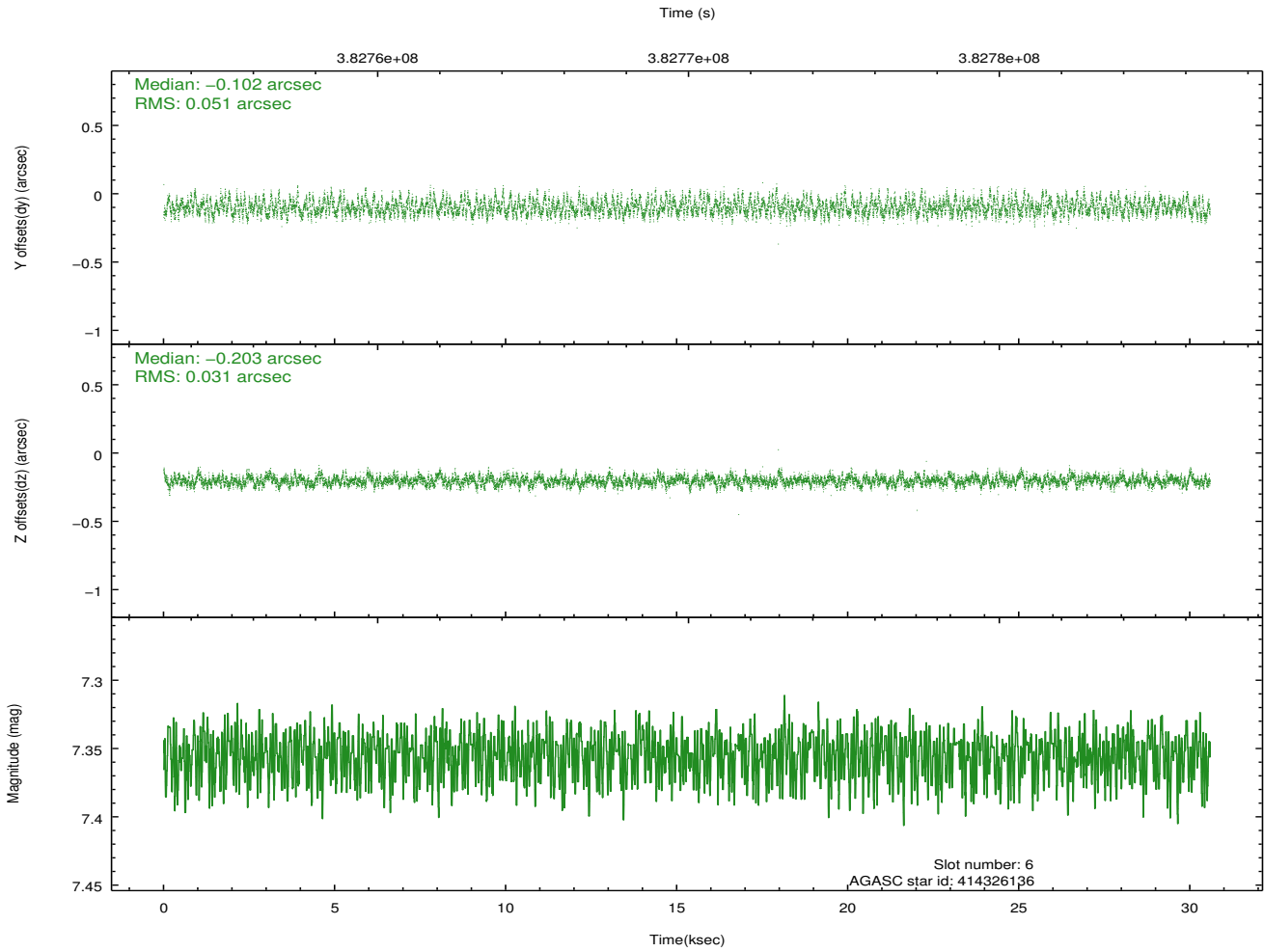
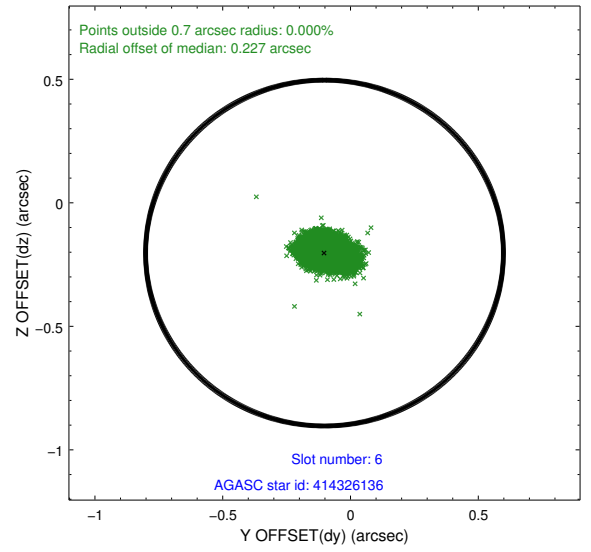
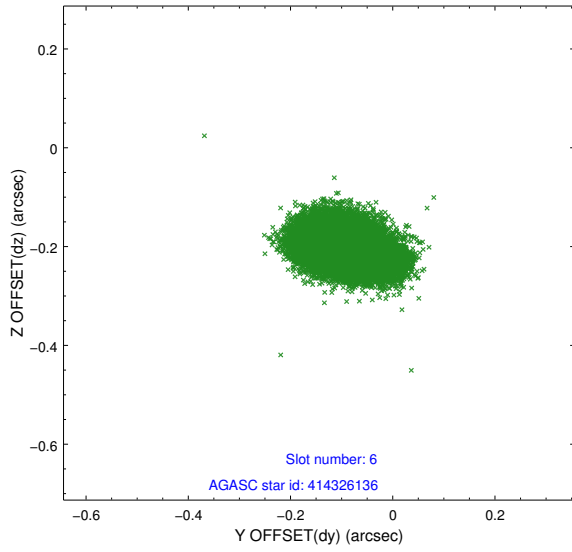
## 2.4.2 Slot 4



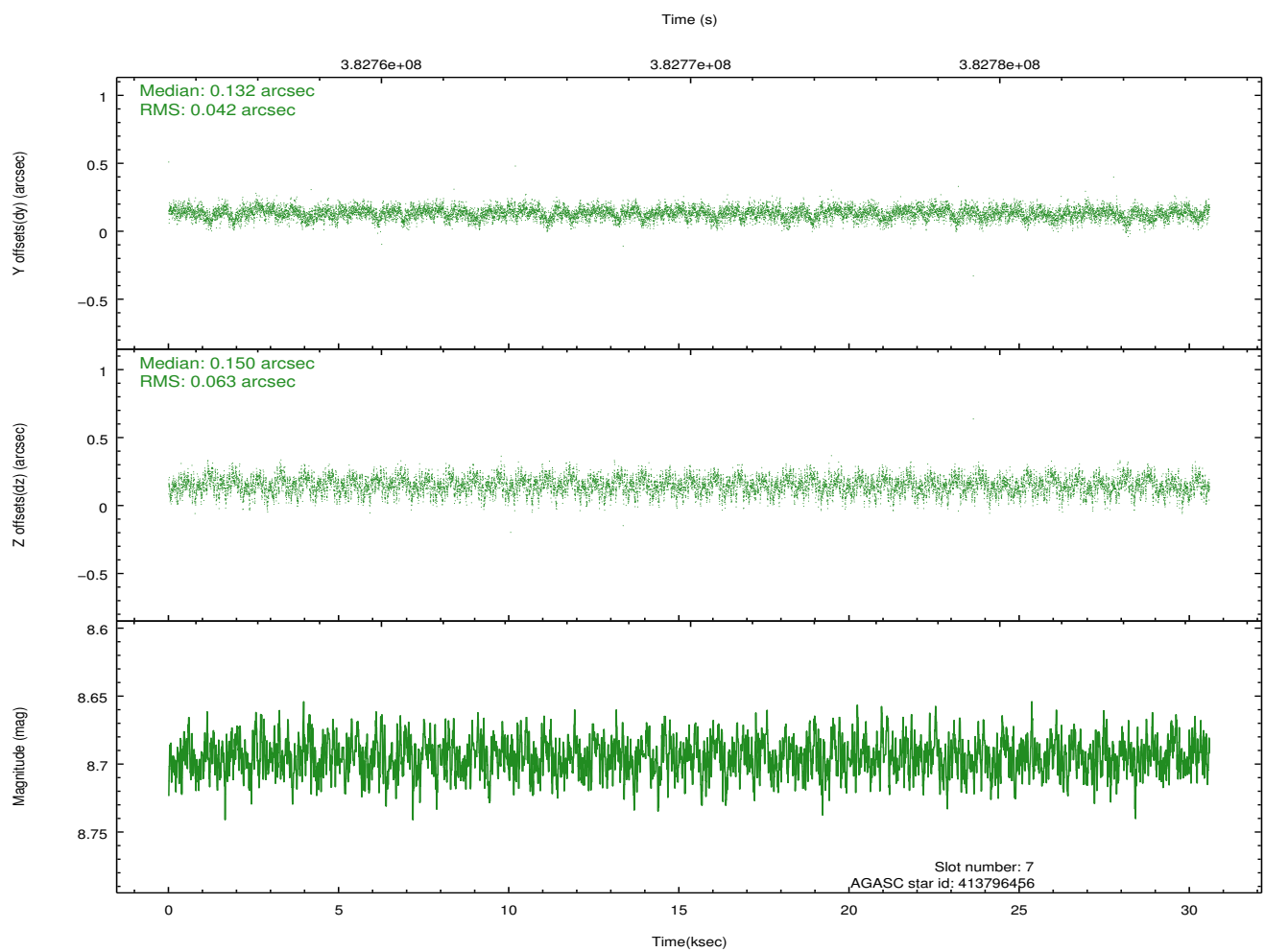
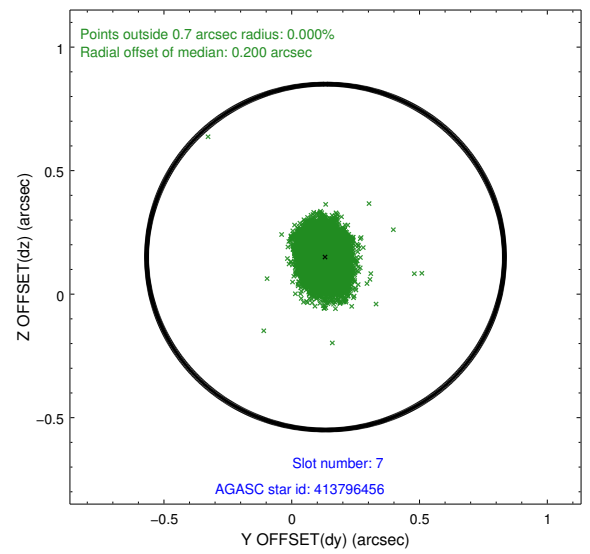
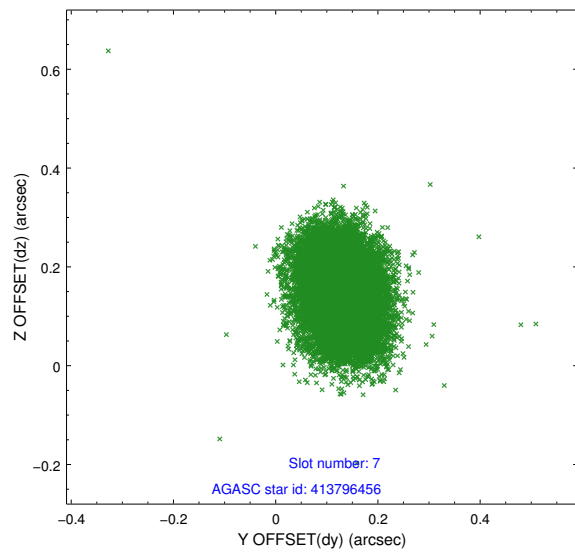
### 2.4.3 Slot 5



### 2.4.4 Slot 6

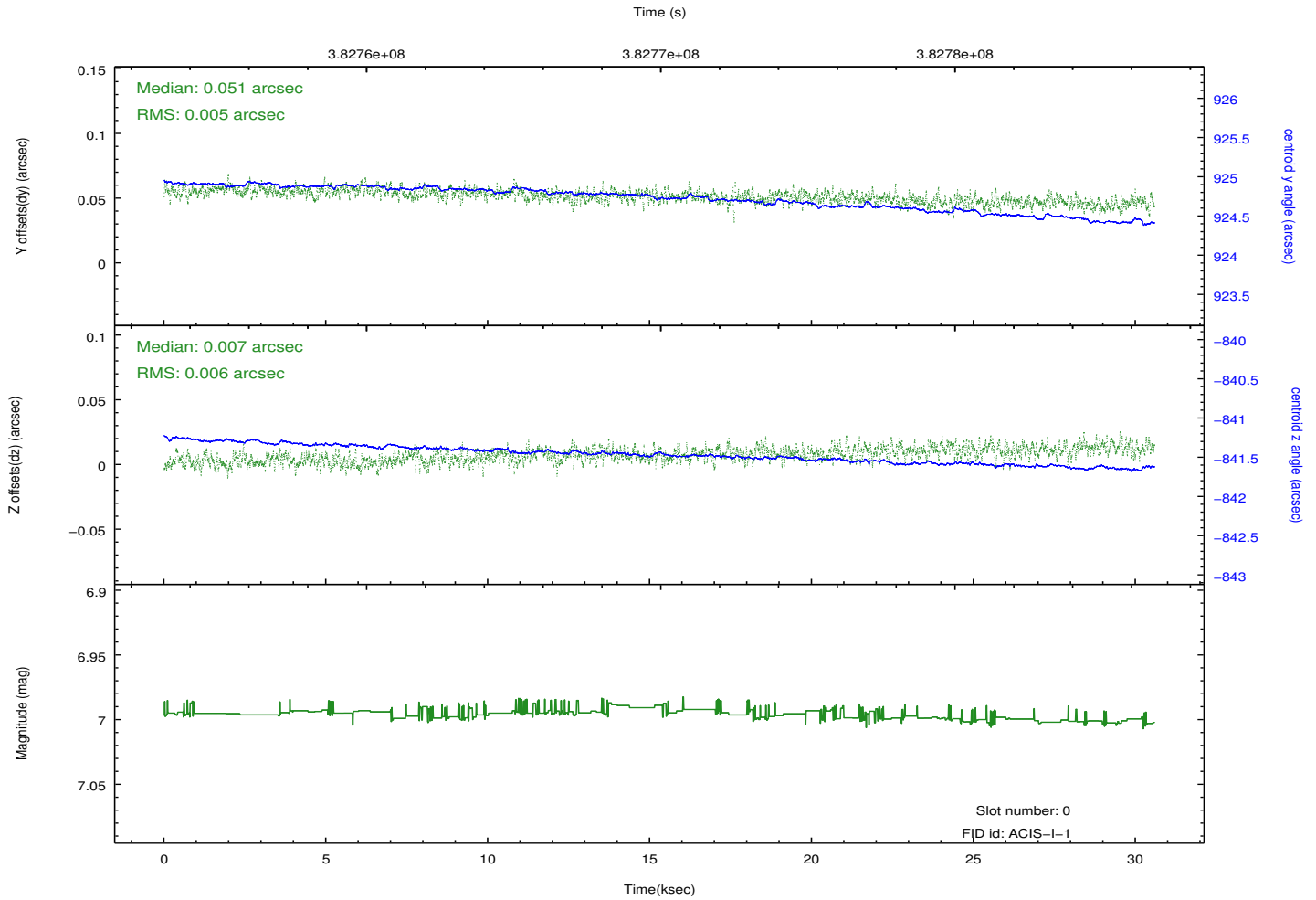
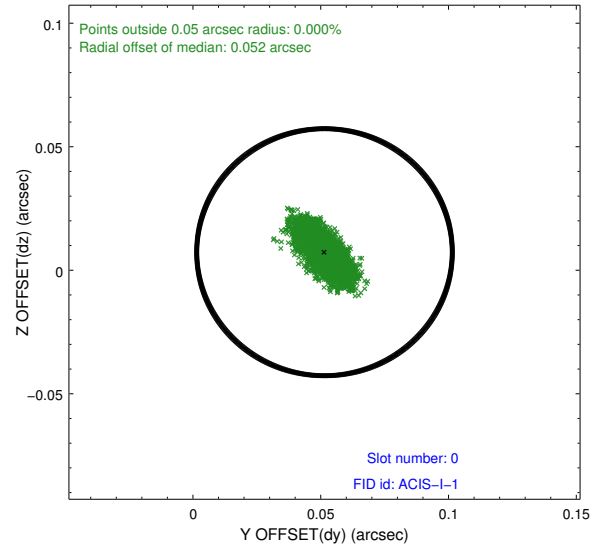
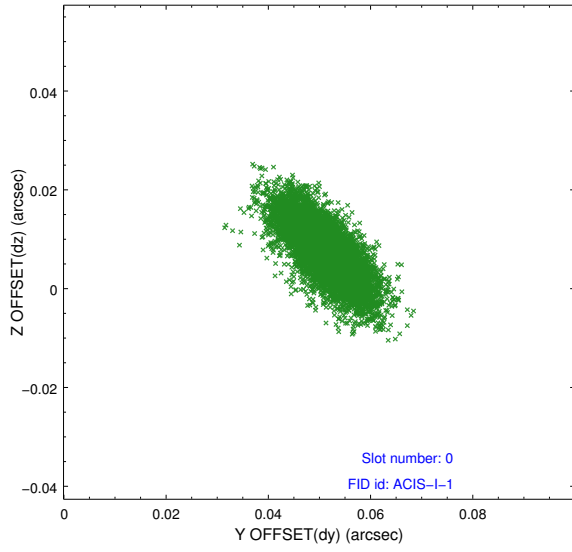


## 2.4.5 Slot 7

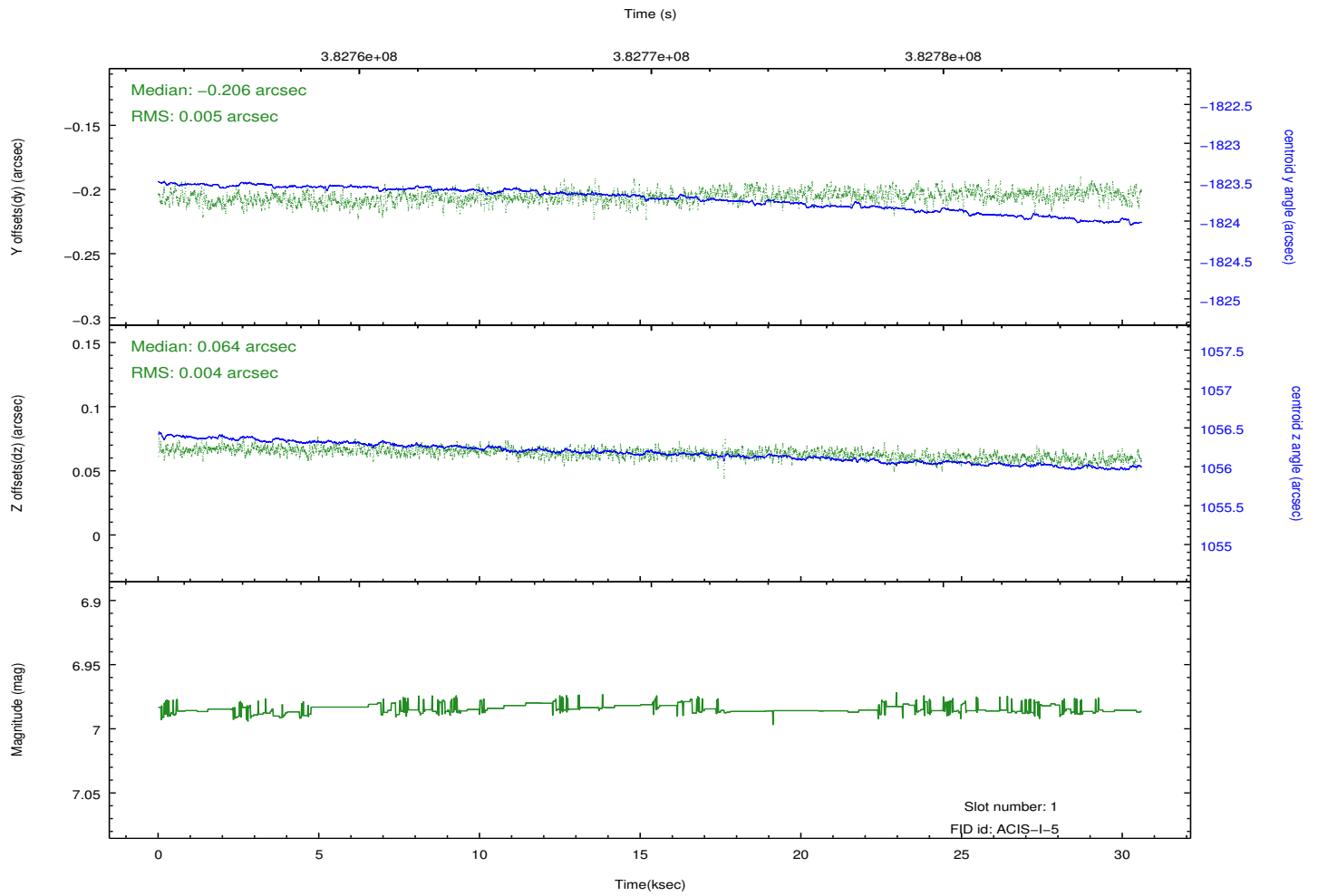
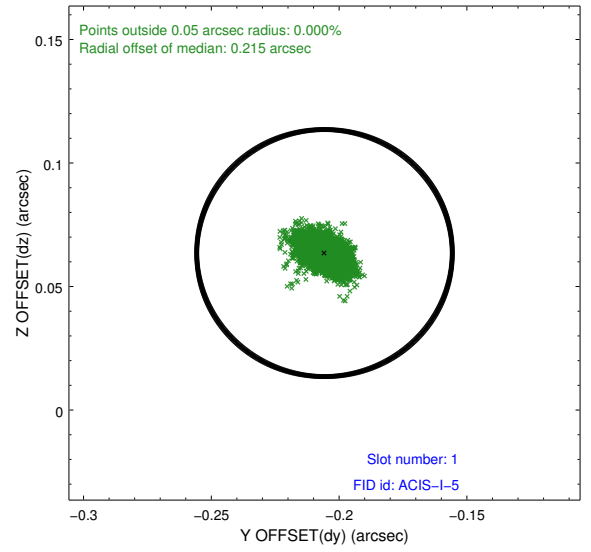
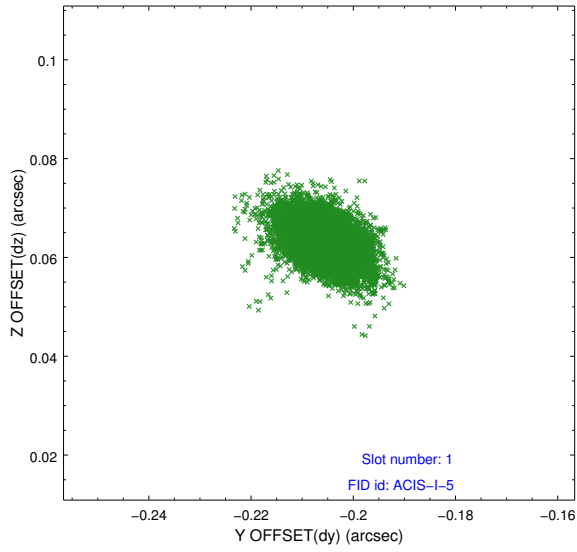


## 2.5 FID Slots

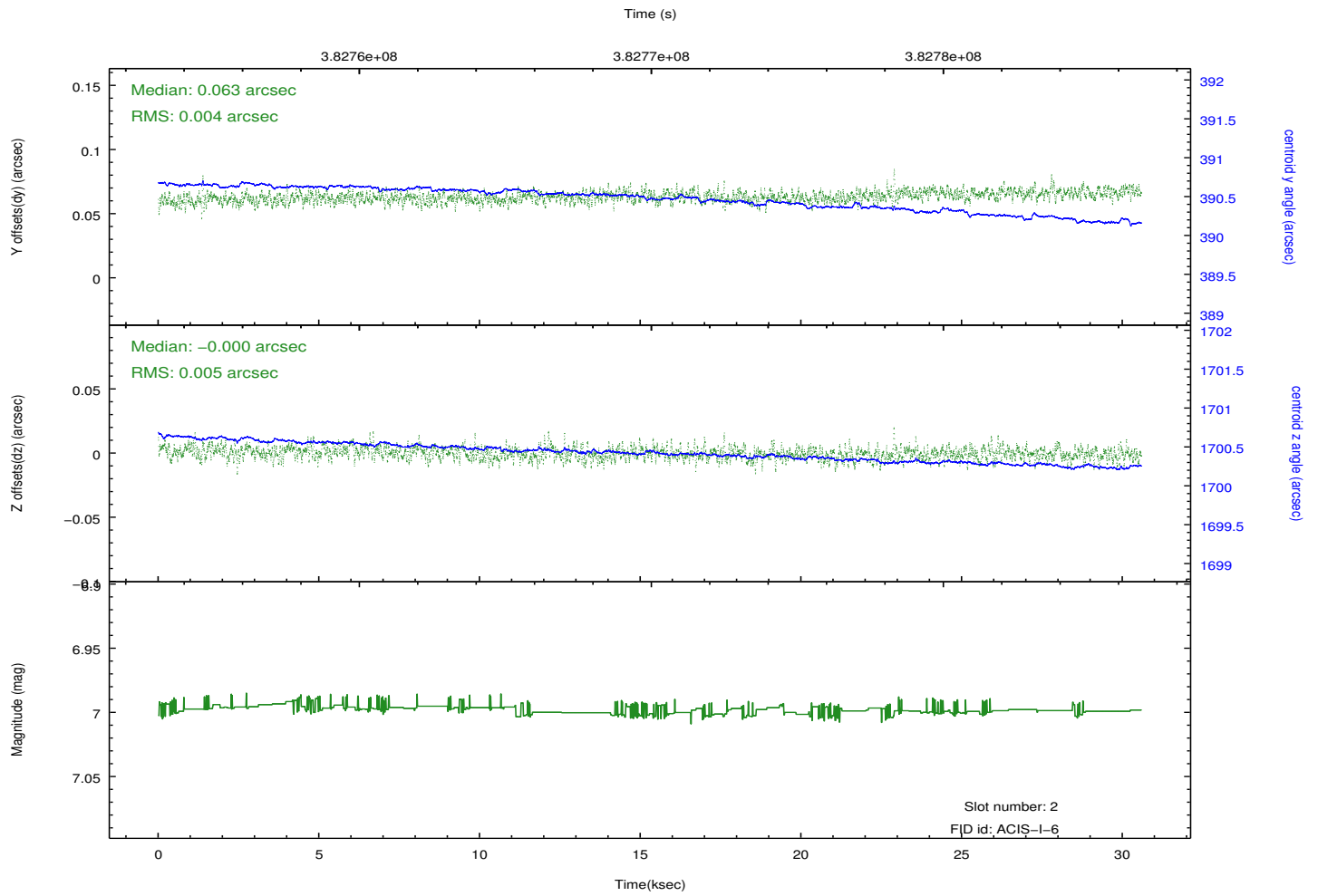
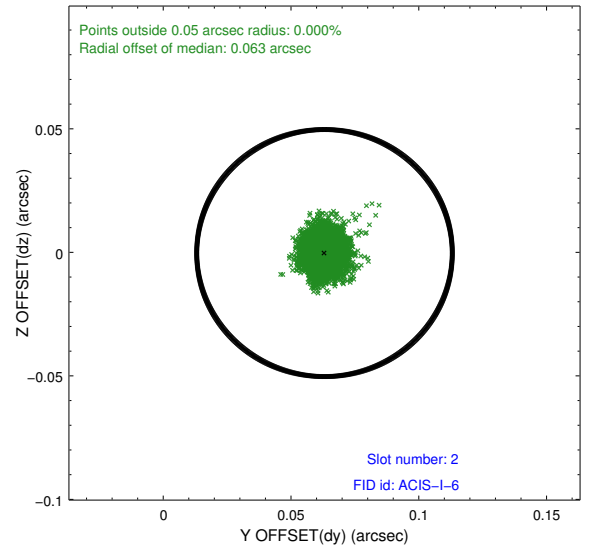
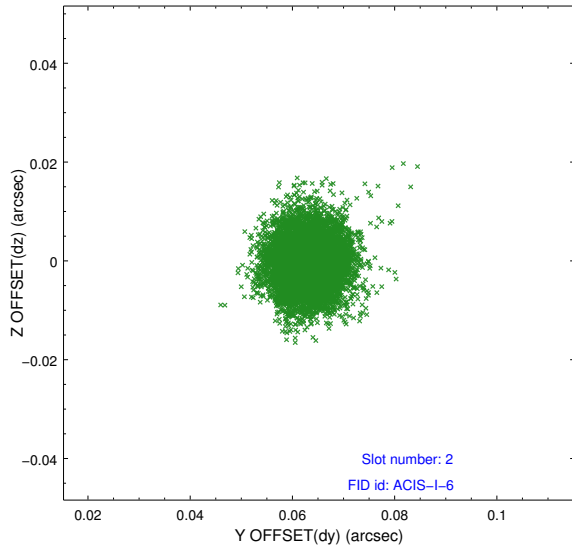
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.06.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.347171101391

## A.2 Comments

Roll angle preference met.