

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 14542 - L2 Version 2  
Chandra X-Ray Center

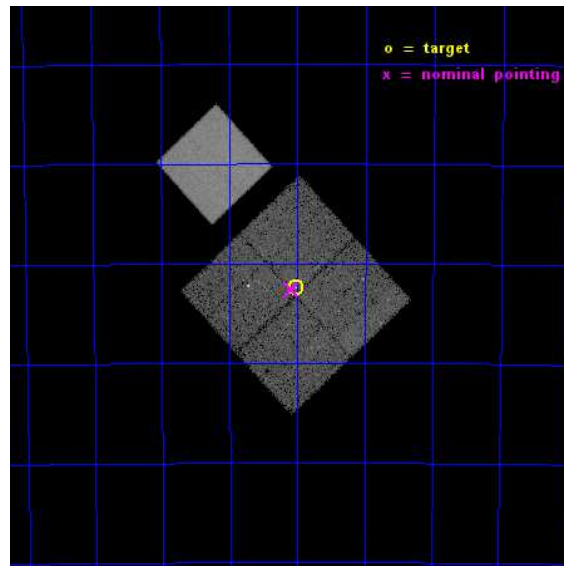
L2 Processing Date : Dec 3 2014

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# 1 Front

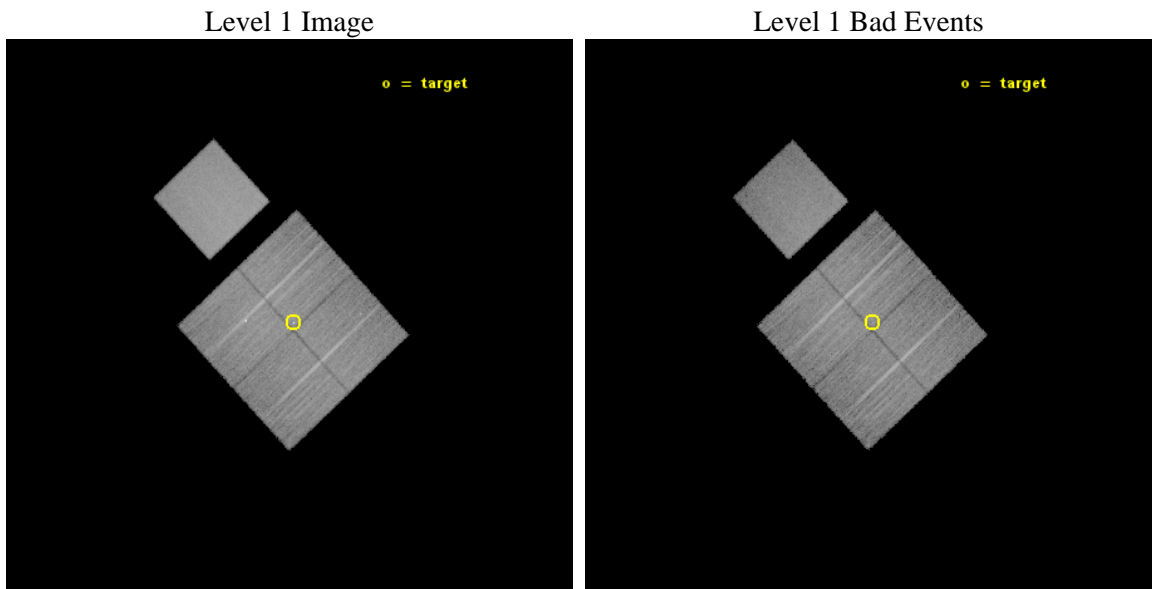
seq_num	200843	Sequence number
obs_id	14542	Observation id
title	Can Massive Stars Form in Isolation?	Proposal title
observer	Dr Nicholas Wright	Principal investigator
object	HD124314	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	213.756667	Observer's specified target RA [deg]
dec_targ	-61.706778	Observer's specified target Dec [deg]
ra_nom	213.77202517699	Nominal RA [deg]
dec_nom	-61.710258186559	Nominal Dec [deg]
roll_nom	316.99115127963	Nominal Roll [deg]
revision	2	Processing version of data
ontime	28274.233567536	Sum of GTIs [s]
livetime	27904.809890788	Livetime [s]
ontime0	28274.110447526	Sum of GTIs [s]
ontime1	28274.151487529	Sum of GTIs [s]
ontime2	28271.051497161	Sum of GTIs [s]
ontime3	28274.233567536	Sum of GTIs [s]
ontime7	28274.274607539	Sum of GTIs [s]
l2events	142831	Number of level 2 events



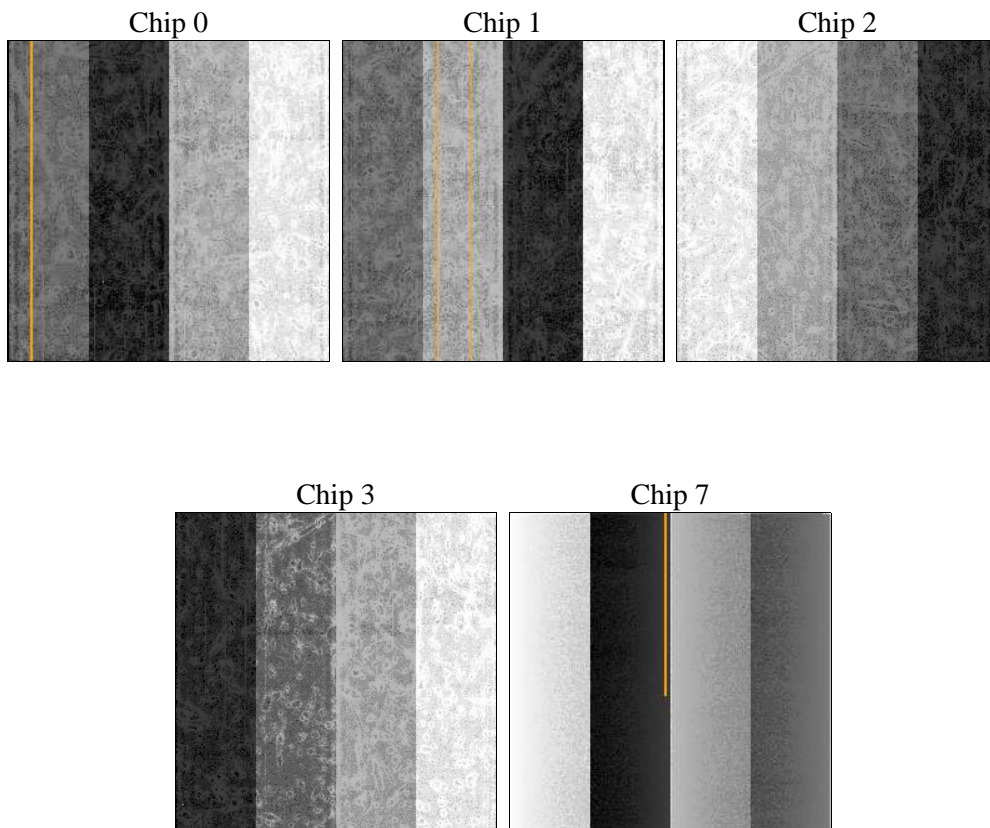
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	28203.275000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	28274.233567536	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime0	28274.110447526	Sum of GTIs [s]
date	2014-12-03T09:09:40	Date and time of file creation	ontime1	28274.151487529	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	28271.051497161	Sum of GTIs [s]
			ontime3	28274.233567536	Sum of GTIs [s]
			ontime7	28274.274607539	Sum of GTIs [s]
			l1events	700241	Number of level 1 events

### 2.1.4 Events

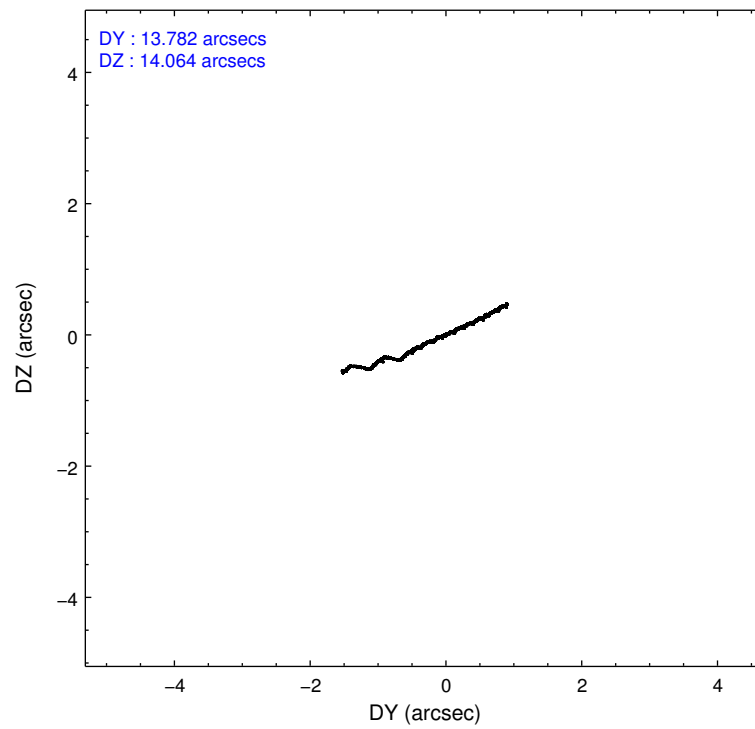
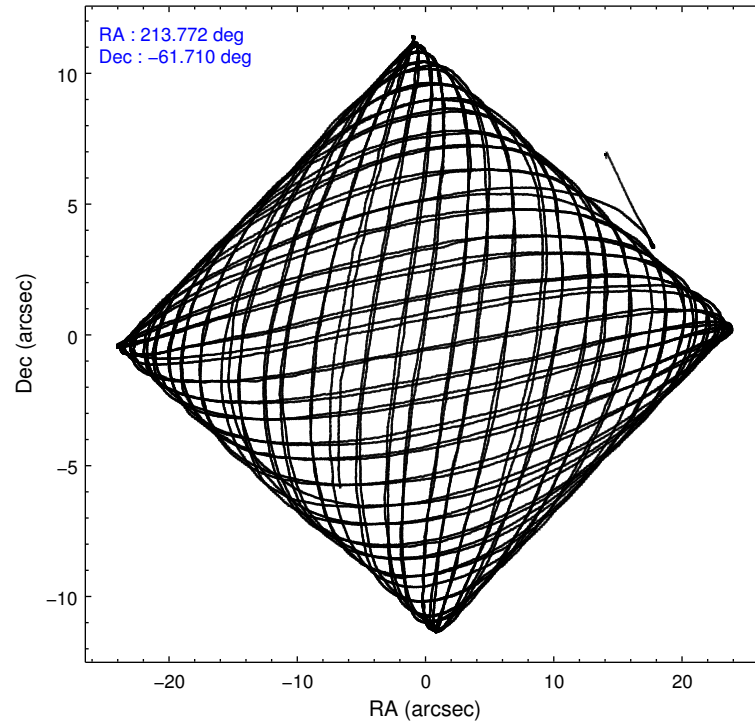
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	121480	123936	135596	134195	185034
rejected events	104098	104297	116891	116020	103318
rejected %	85%	84%	86%	86%	55%

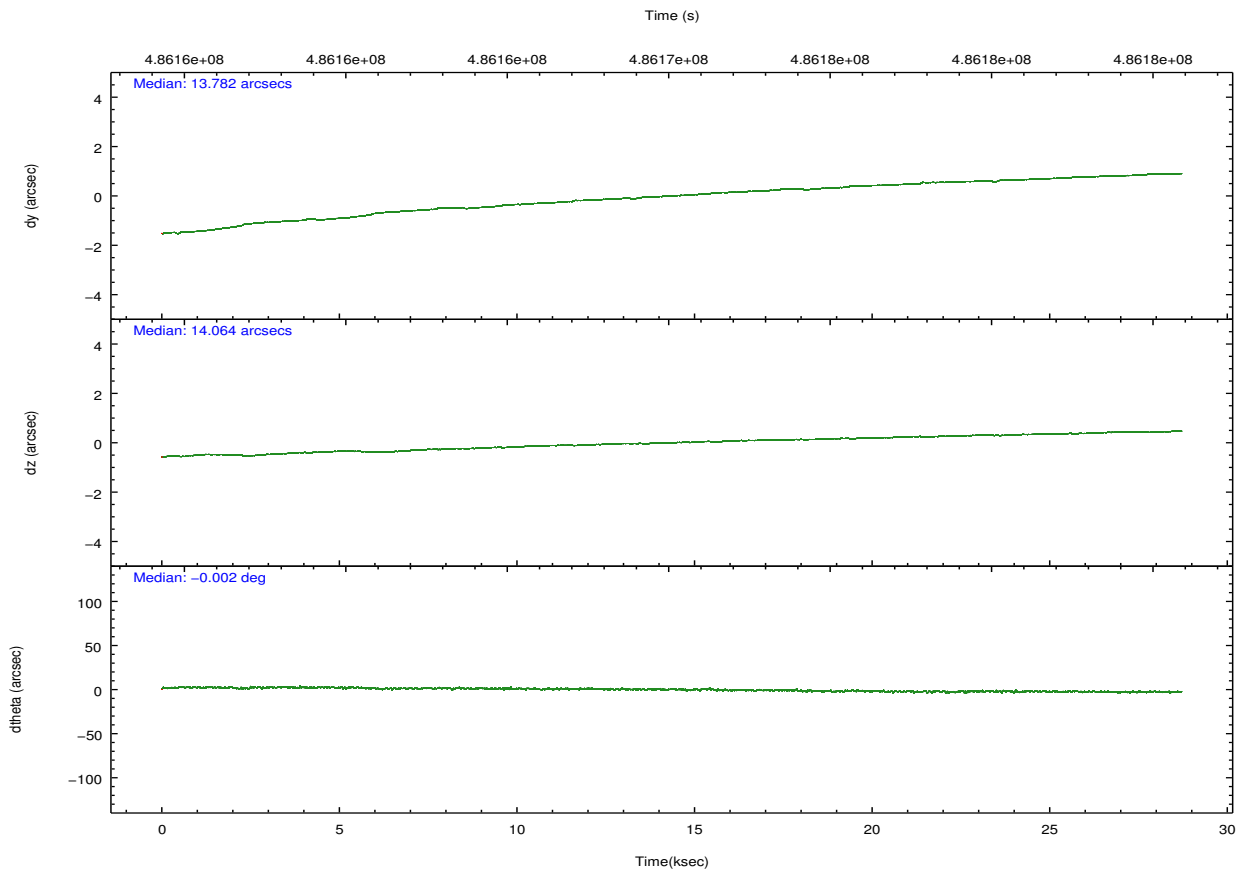
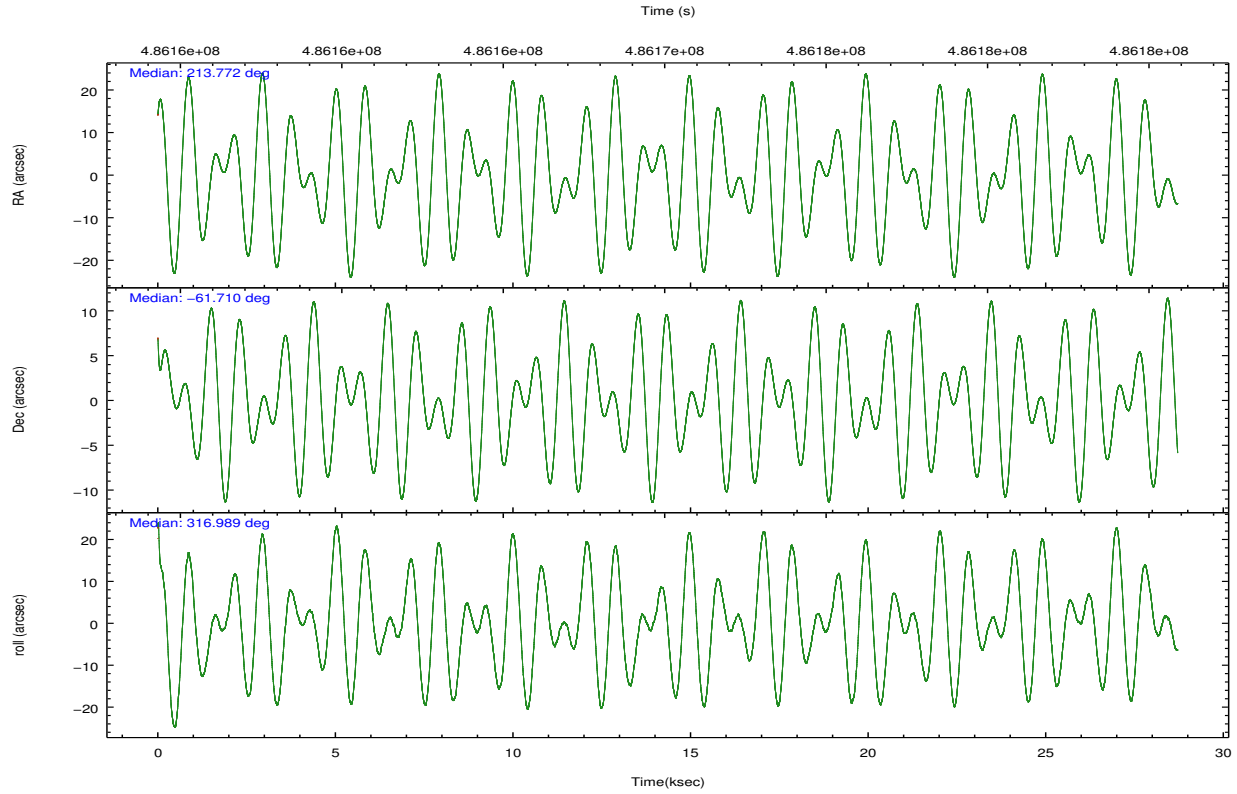
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	6664	7383	8253	7827	7452
	5%	5%	6%	5%	4%
grade 1 events	70	76	101	135	220
	0%	0%	0%	0%	0%
grade 2 events	4015	4478	3938	3605	16777
	3%	3%	2%	2%	9%
grade 3 events	1682	1879	1678	1657	6899
	1%	1%	1%	1%	3%
grade 4 events	1628	1877	1739	1780	7127
	1%	1%	1%	1%	3%
grade 5 events	6337	6654	5839	7207	19208
	5%	5%	4%	5%	10%
grade 6 events	3393	4027	3097	3308	43469
	2%	3%	2%	2%	23%
grade 7 events	97691	97562	110951	108676	83882
	80%	78%	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	213.715466	213.7720251769931	CCD I2 on	Y	Y
[deg] Pointing Dec	-61.704188	-61.71025818655853	CCD I3 on	Y	Y
[deg] Pointing Roll	316.732655	316.9911512796311	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	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	486156258.184000	486155158.80687	CCD S5 on	N	N
Observation start date	2013-05-28T19:23:11	2013-05-28T19:05:58	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	486184461.184000	486184697.77098	On-chip summing requested	N	N
Observation end date	2013-05-29T03:13:14	2013-05-29T03:18:17	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





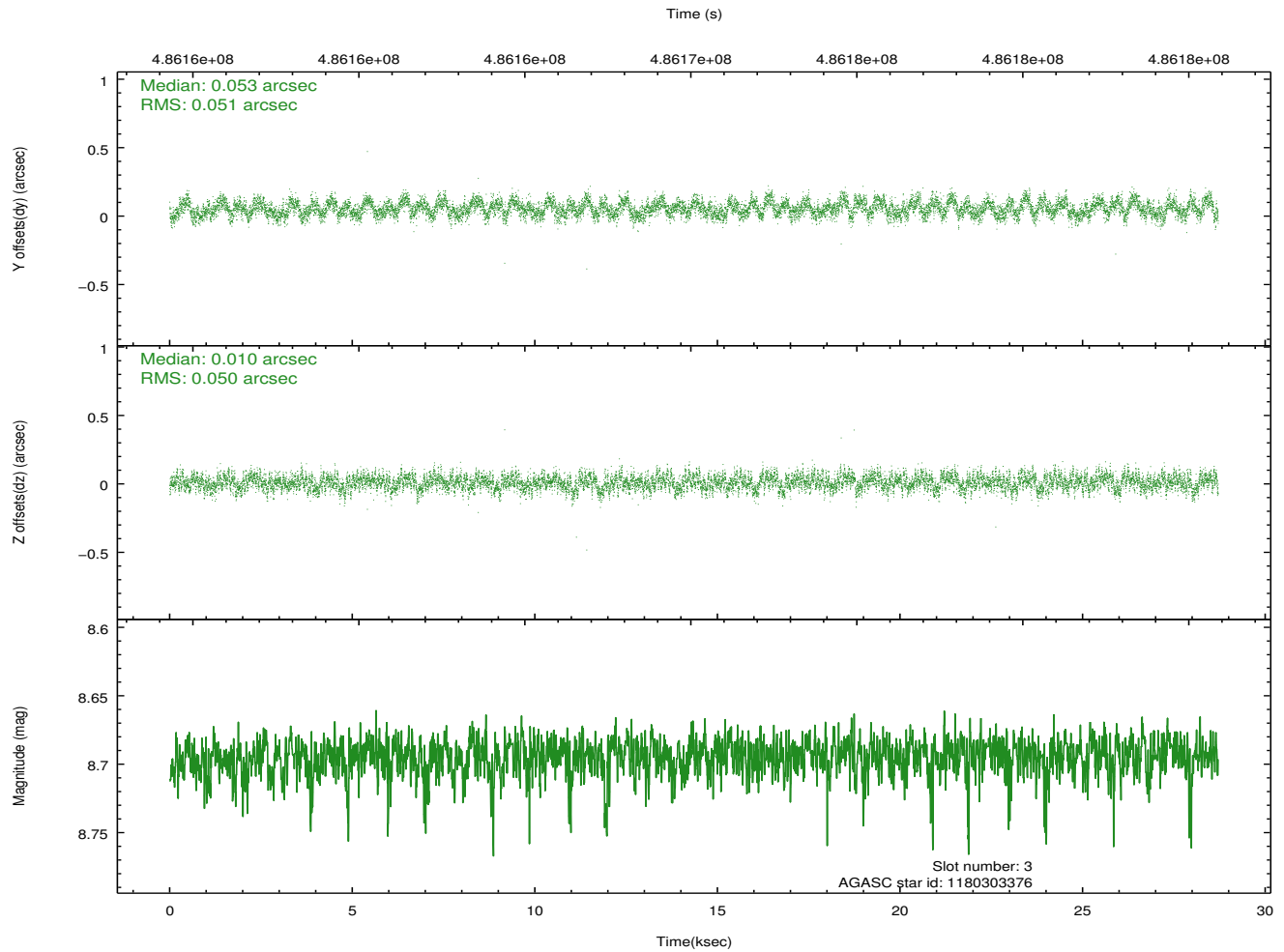
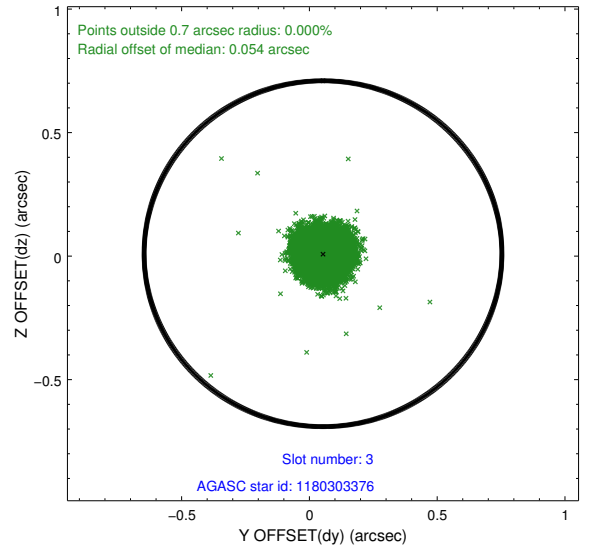
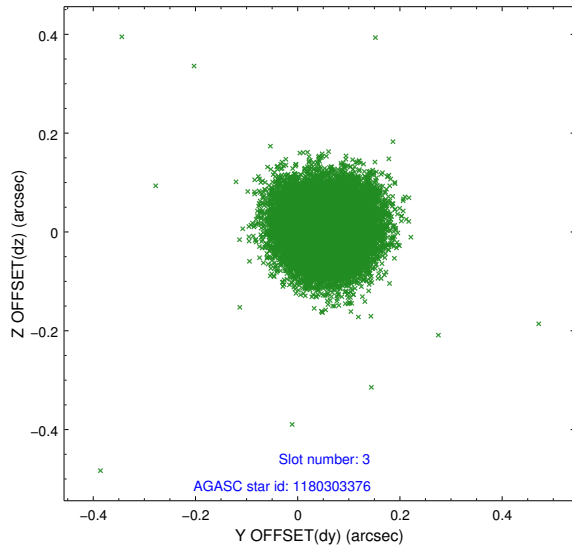
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.11	7003	-0.004	0.013	0.012	0.020	0.000000	0.000000	925.81	-837.59
1	FID		ACIS-I-4	7.02	7002	0.204	0.017	0.015	0.023	0.000000	0.000000	2146.09	1062.18
2	FID		ACIS-I-5	7.09	7004	-0.298	0.041	0.013	0.023	0.000000	0.000000	-1822.39	1060.12
3	GUIDE	used	1180303376	8.69	14002	0.053	0.010	0.077	0.118	213.435748	-61.467916	-932.23	288.92
4	GUIDE	used	1180306208	7.90	14005	-0.124	-0.183	0.098	0.146	214.195555	-61.184167	-674.47	1931.75
5	GUIDE	used	1180320592	8.85	14002	0.295	0.383	0.090	0.152	211.984318	-61.689247	-2161.32	-2014.64
6	GUIDE	used	1180438304	9.39	13935	-0.195	-0.155	0.125	0.204	215.156782	-61.840579	2137.93	1300.76
7	GUIDE	used	1180443560	9.71	13937	-0.030	-0.060	0.123	0.201	215.179930	-61.596787	1580.58	1979.85

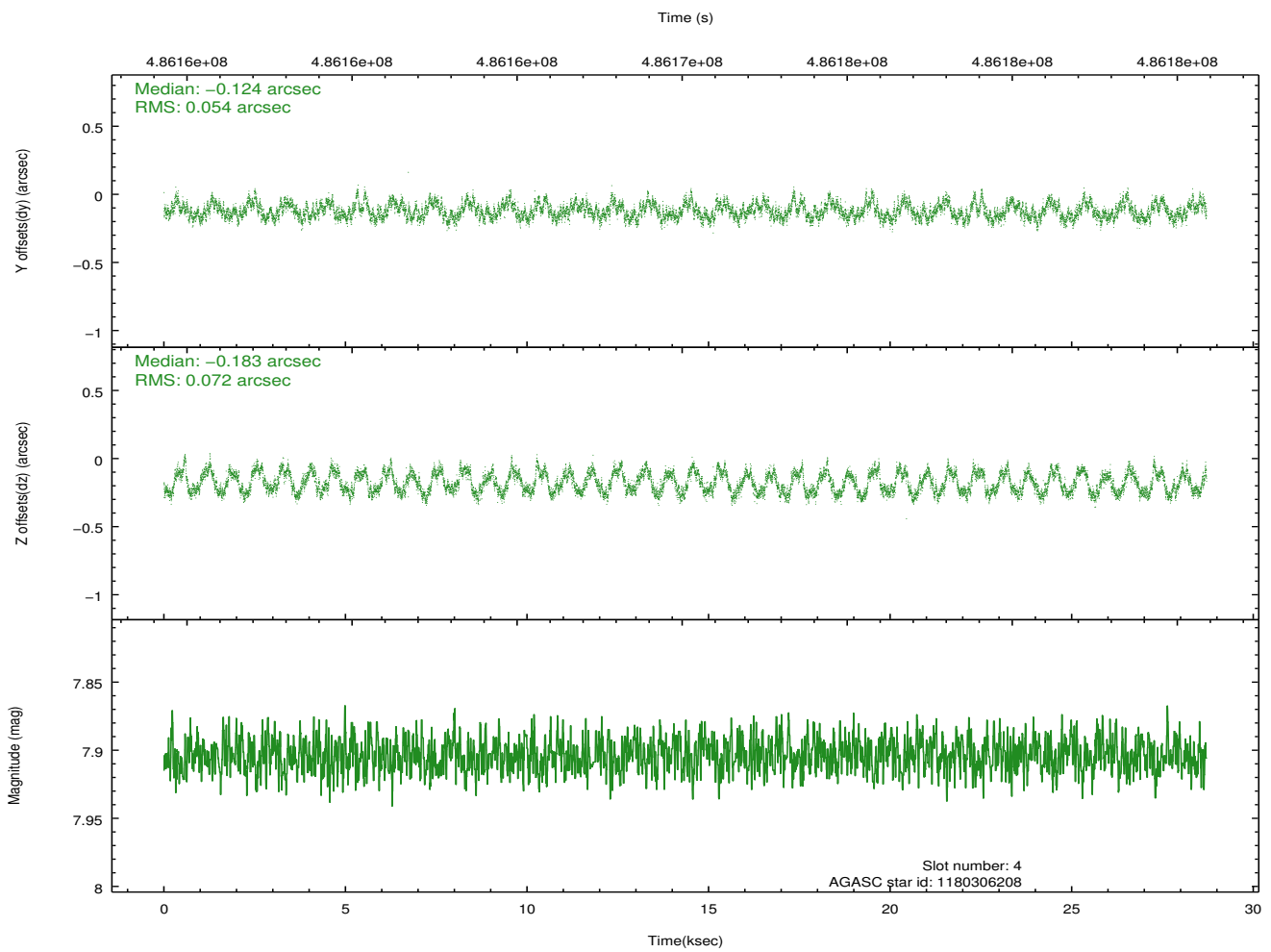
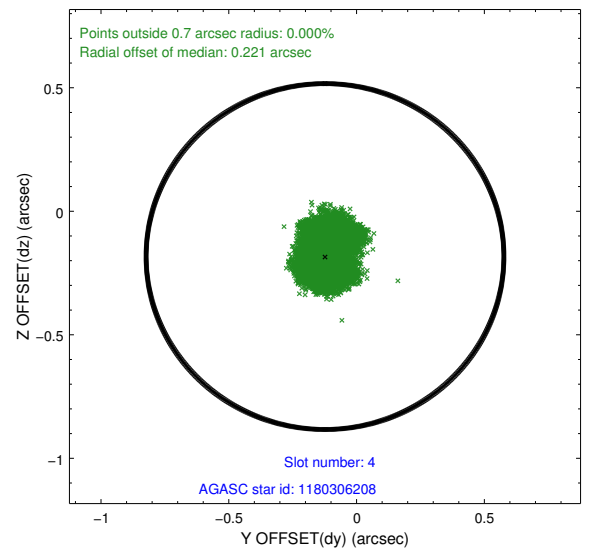
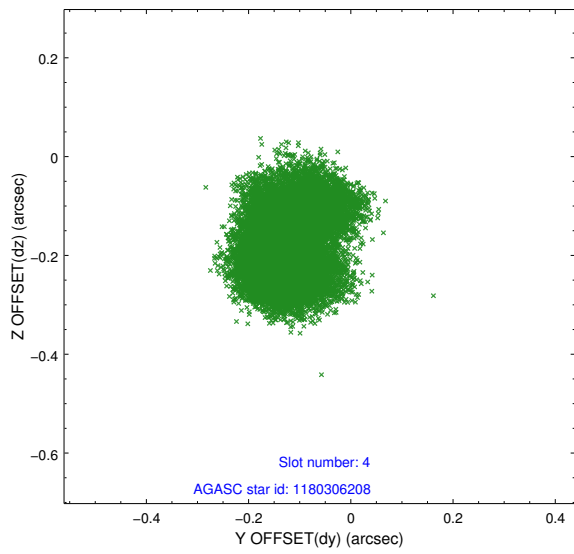
∞

## 2.4 Star Slots

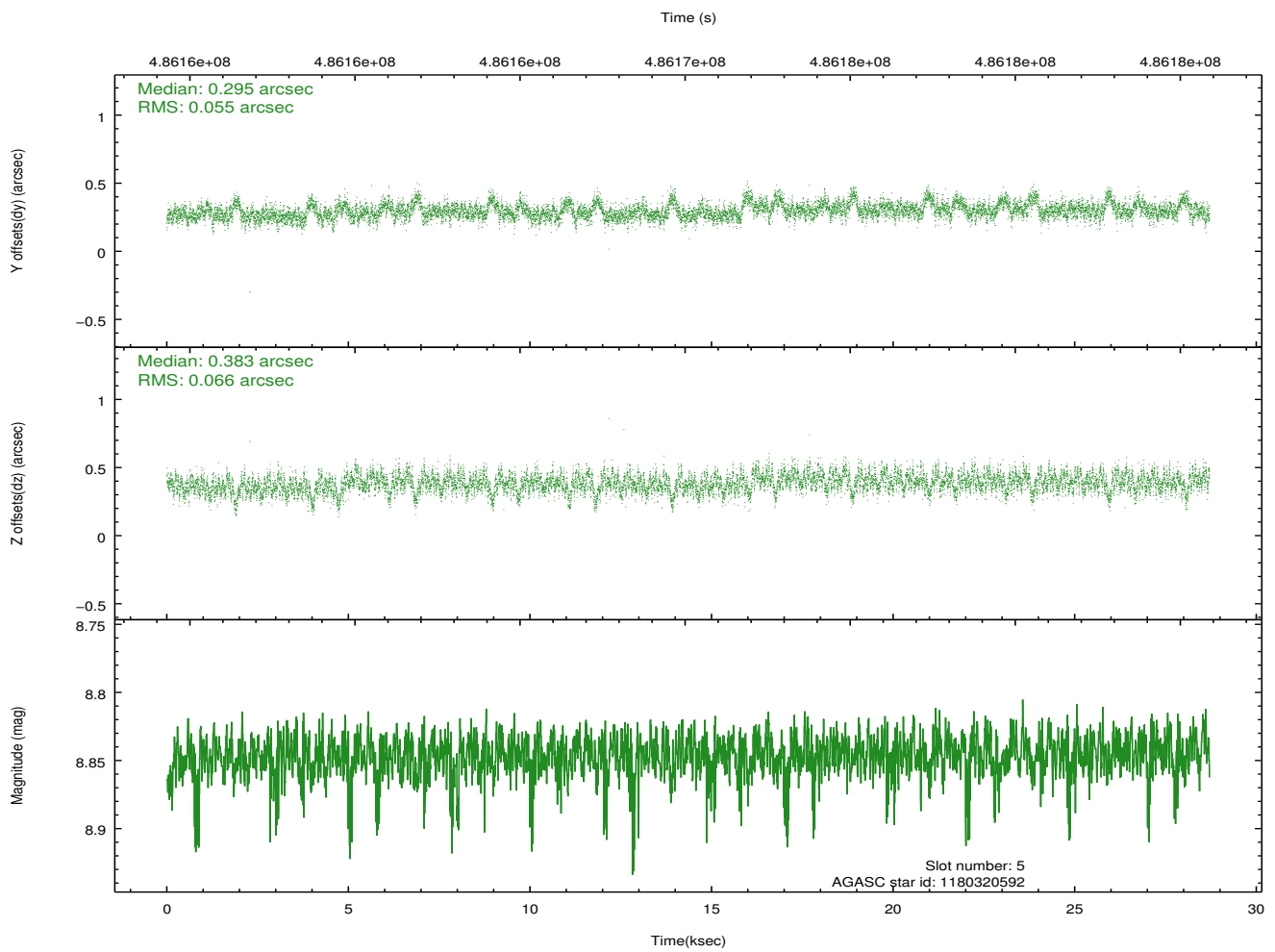
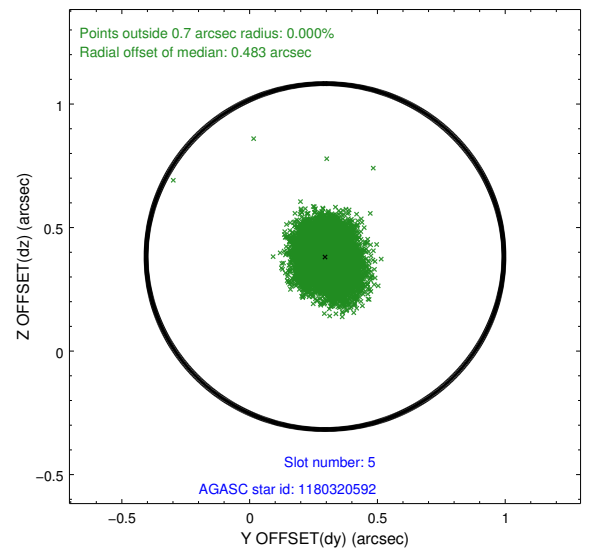
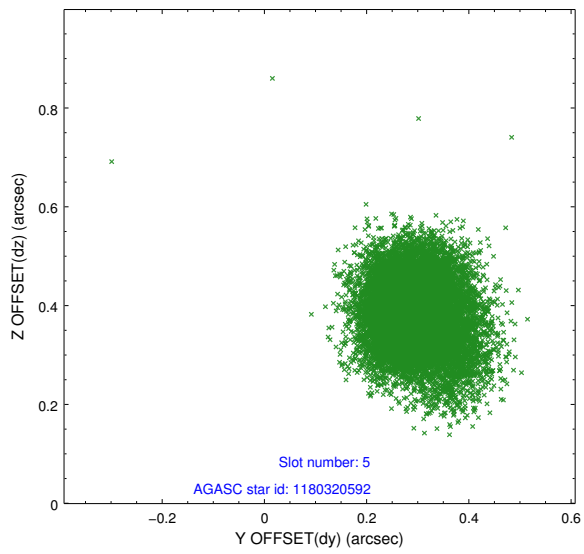
### 2.4.1 Slot 3



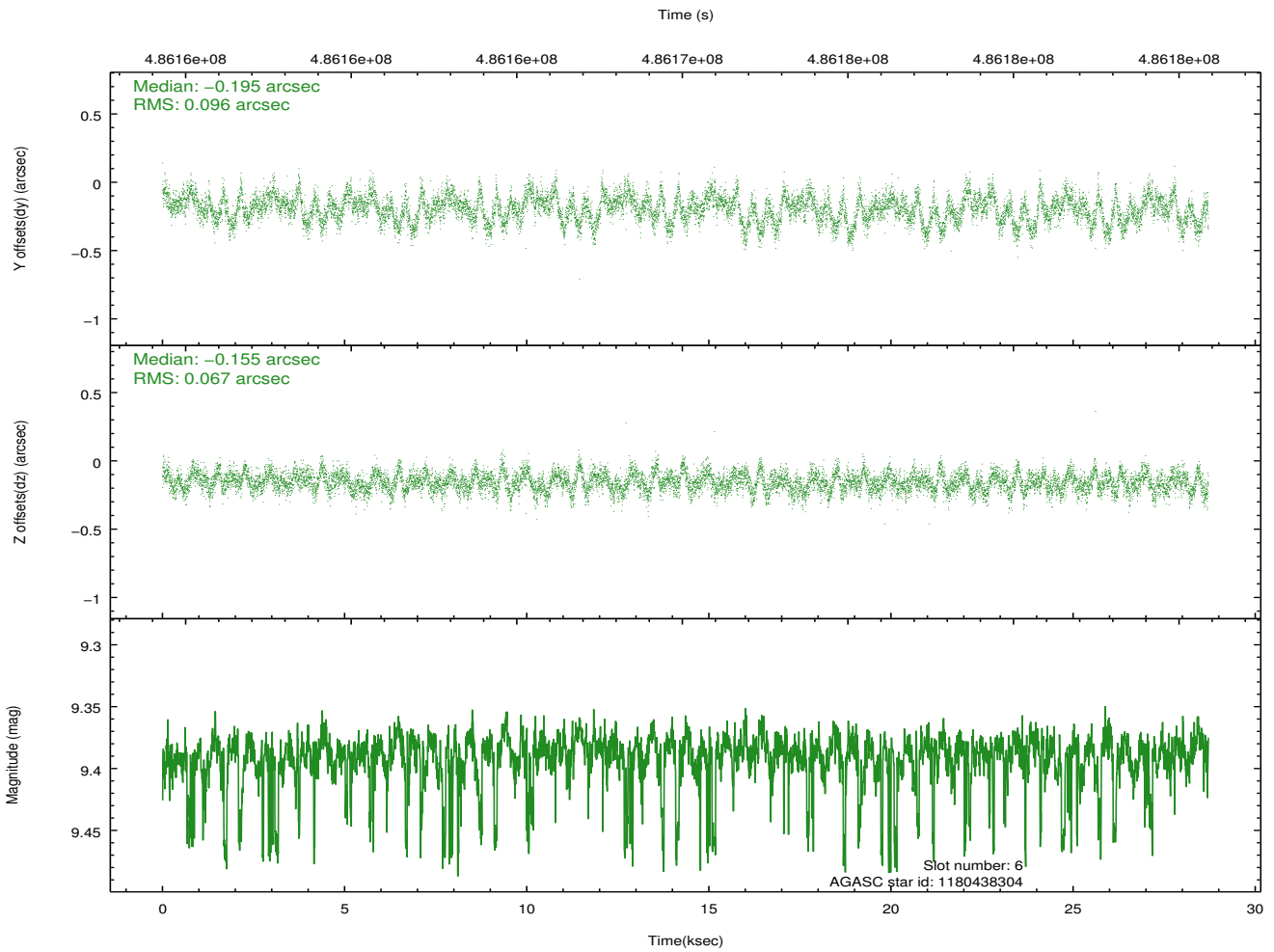
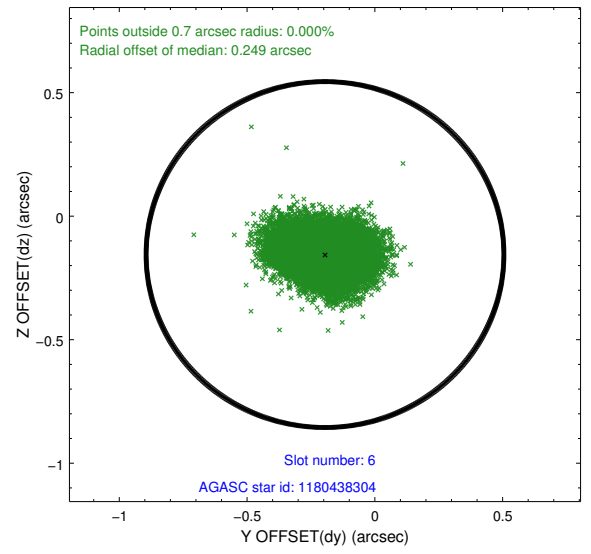
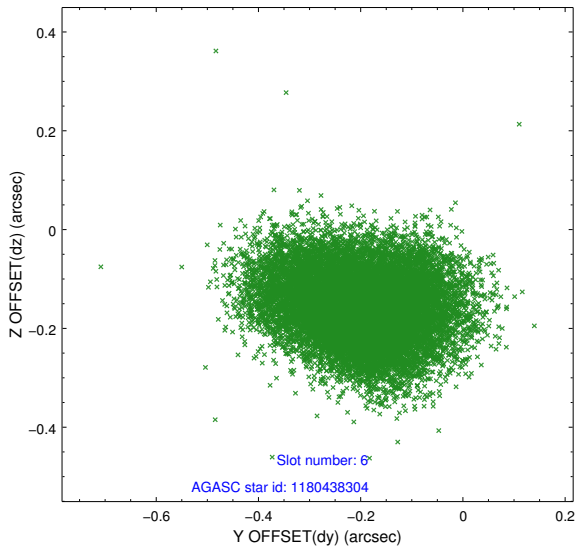
## 2.4.2 Slot 4



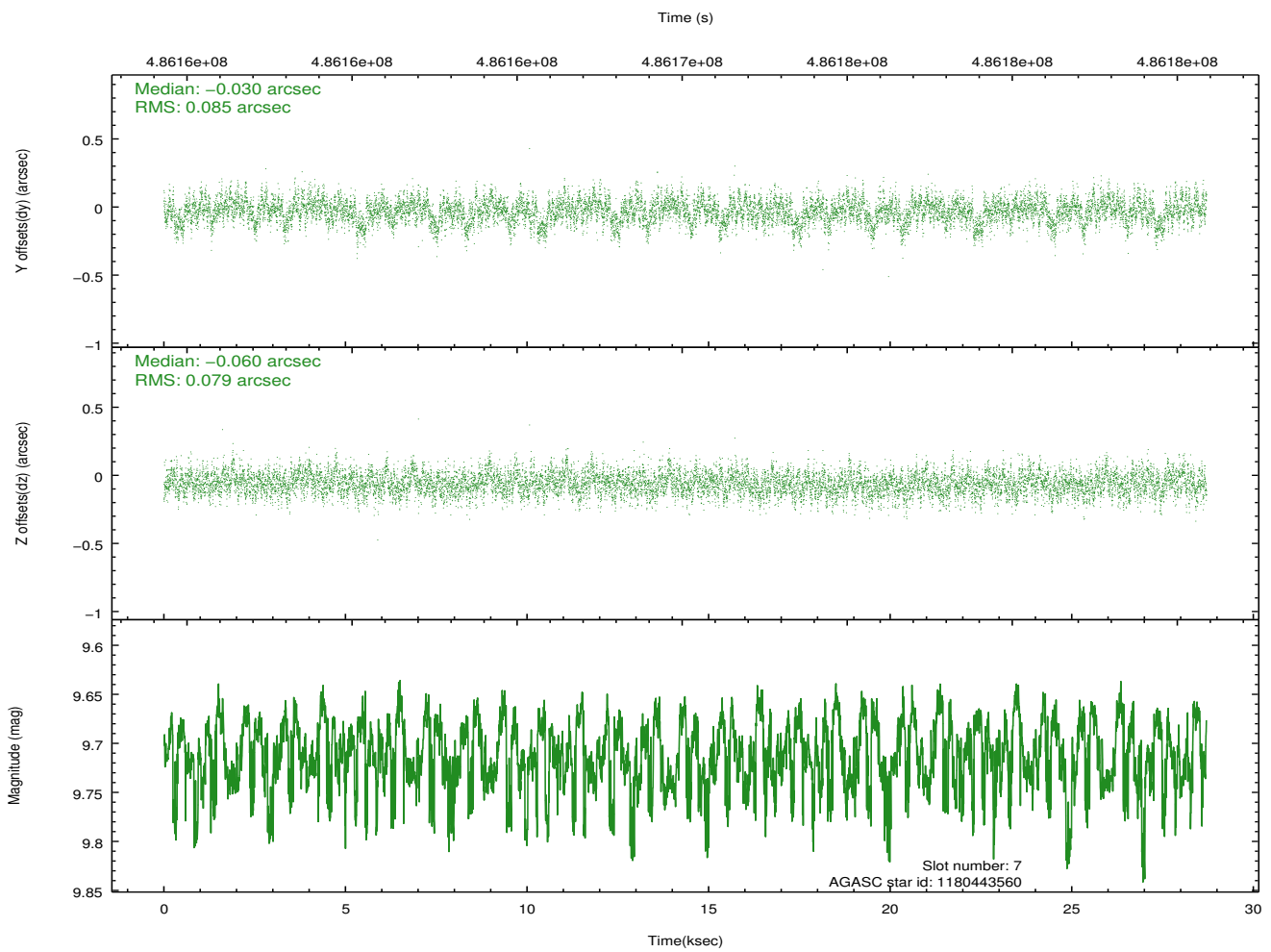
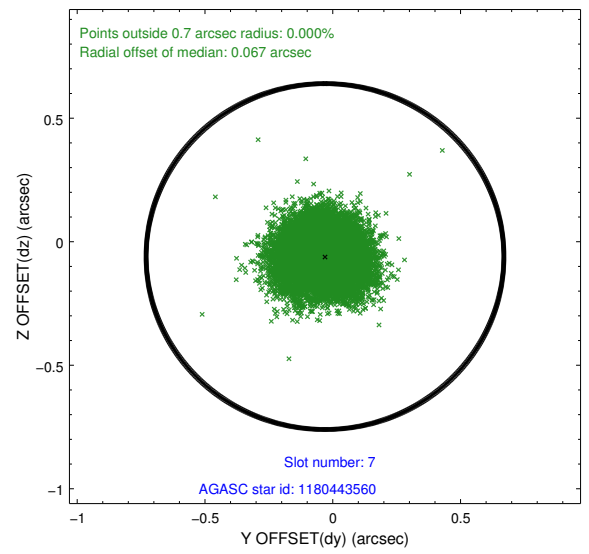
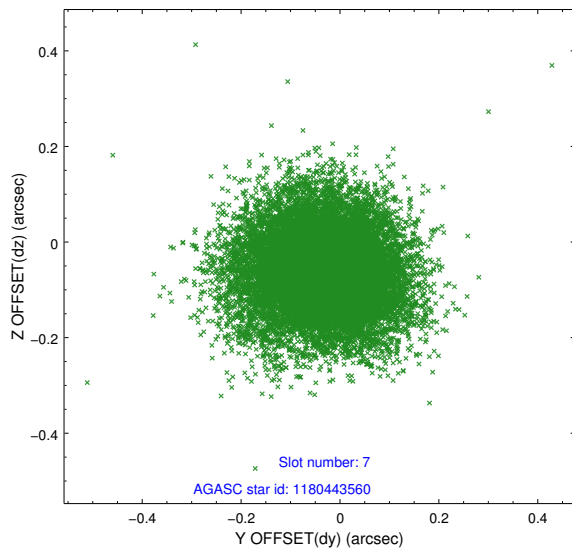
### 2.4.3 Slot 5



## 2.4.4 Slot 6

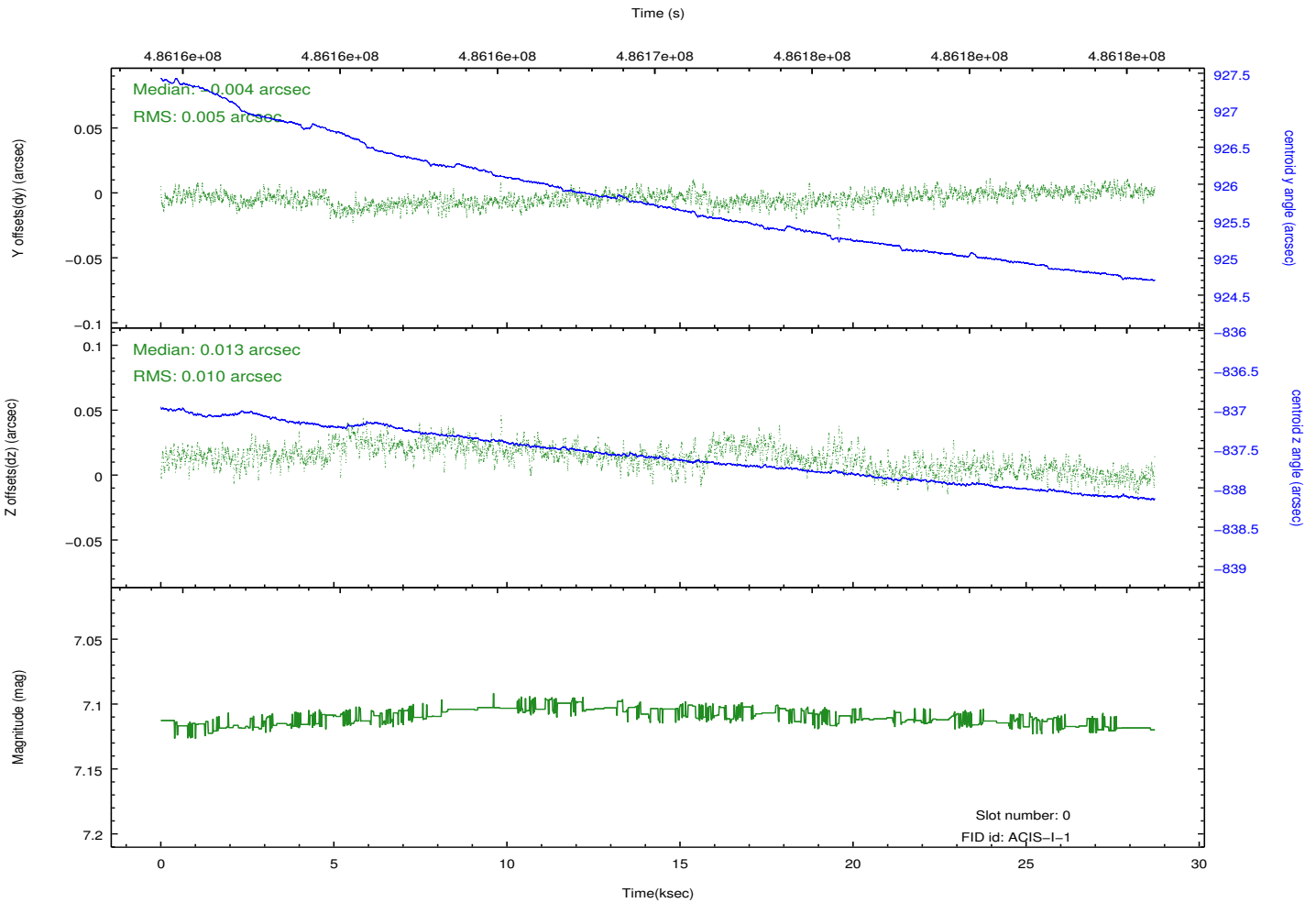
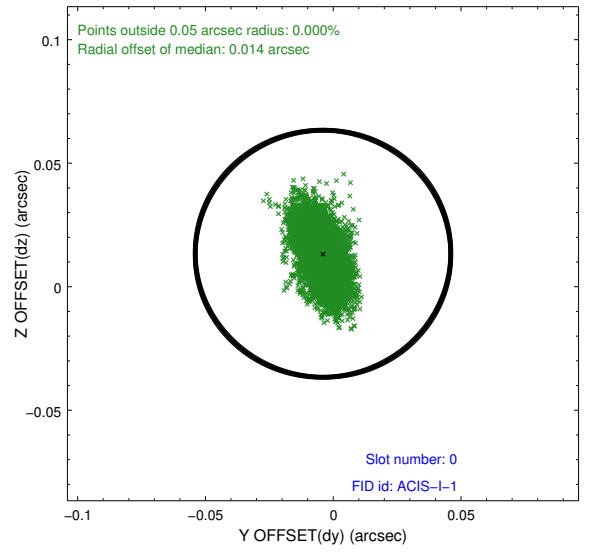
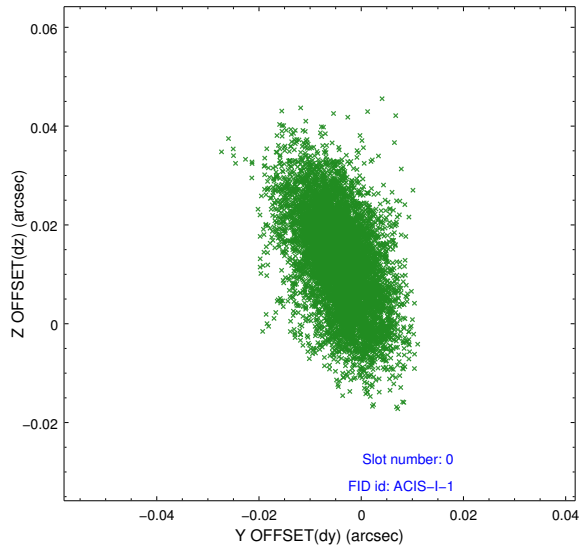


## 2.4.5 Slot 7

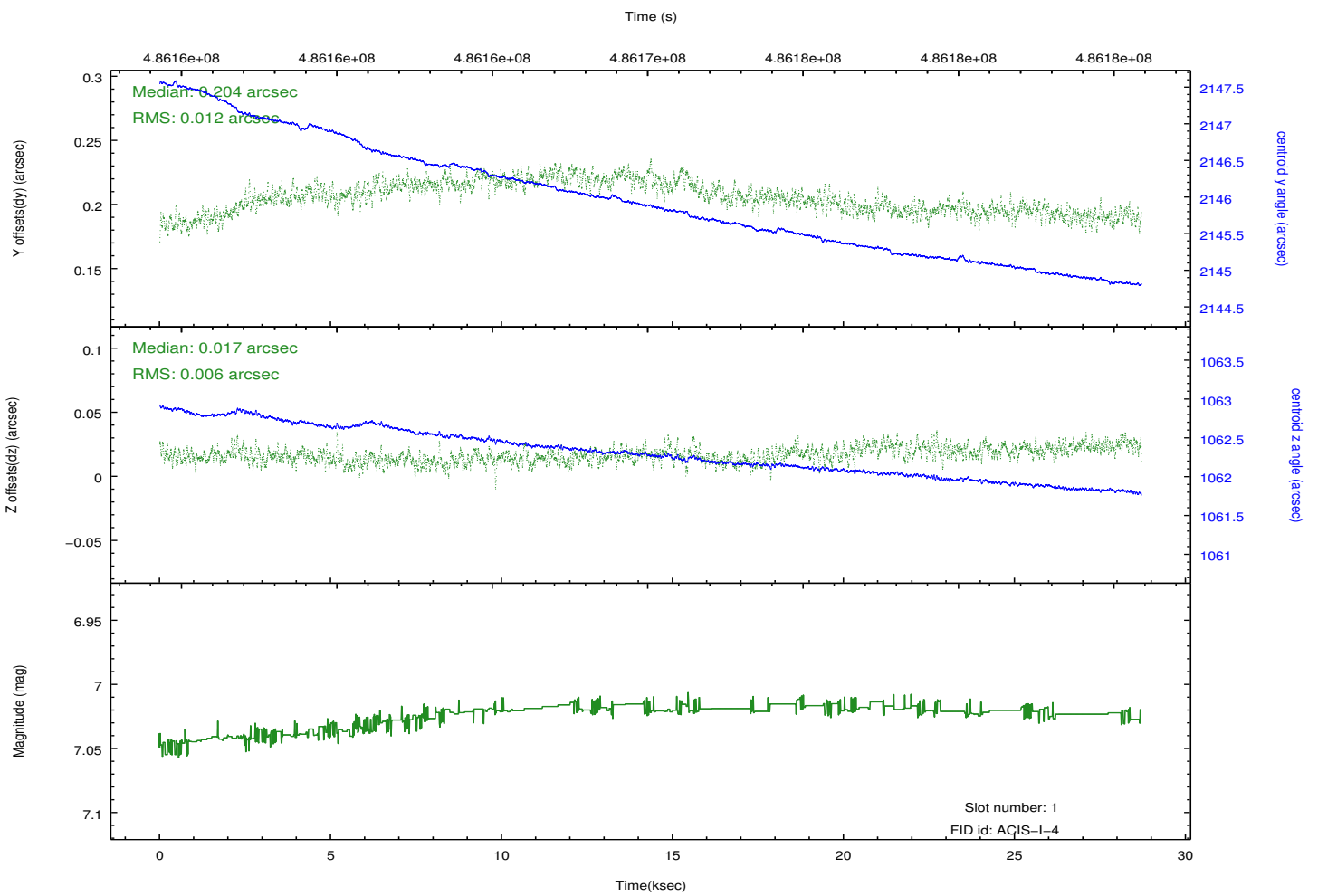
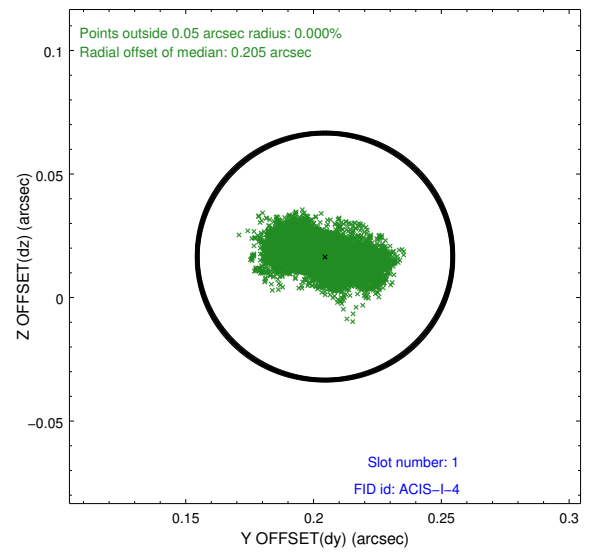
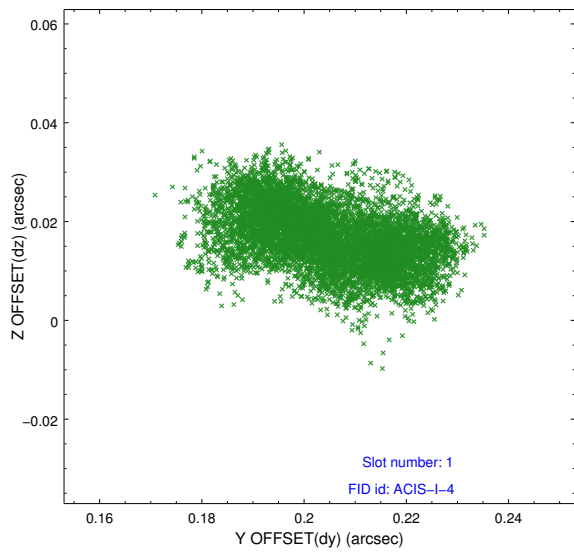


## 2.5 FID Slots

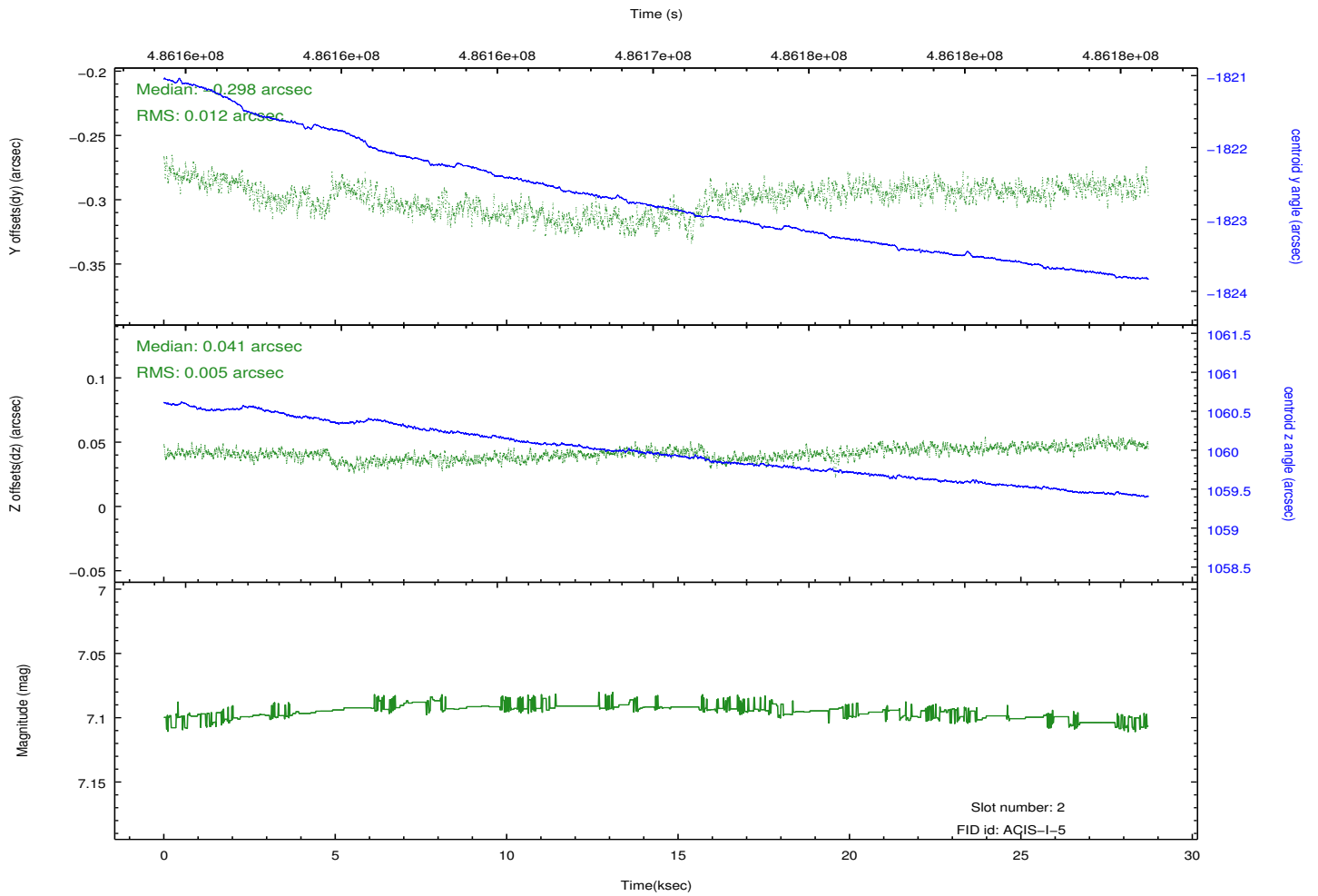
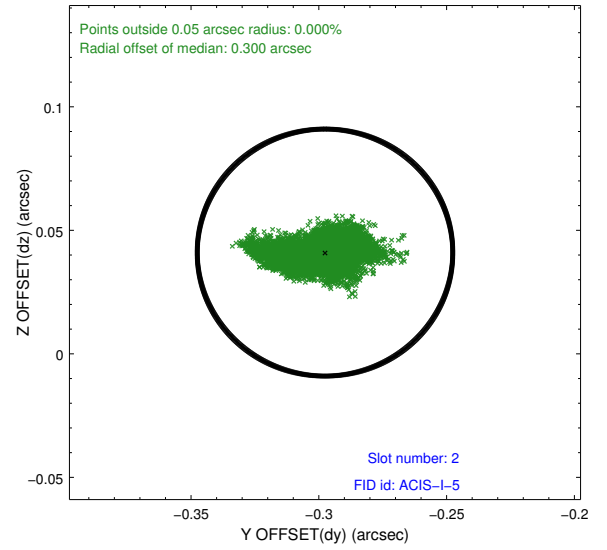
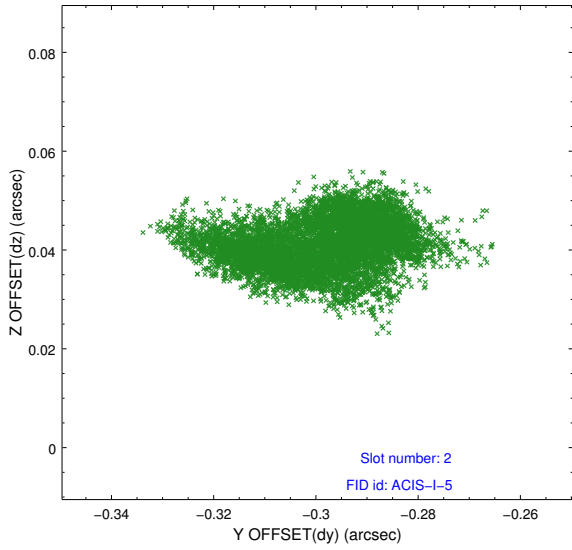
### 2.5.1 Slot 0



## 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)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	28.274233567536

## 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.