

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 9796 - L2 Version 3  
Chandra X-Ray Center

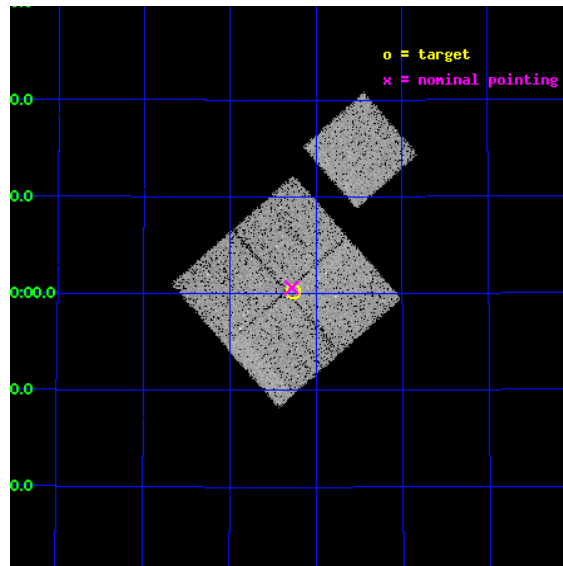
L2 Processing Date : May 7 2012

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# 1 Front

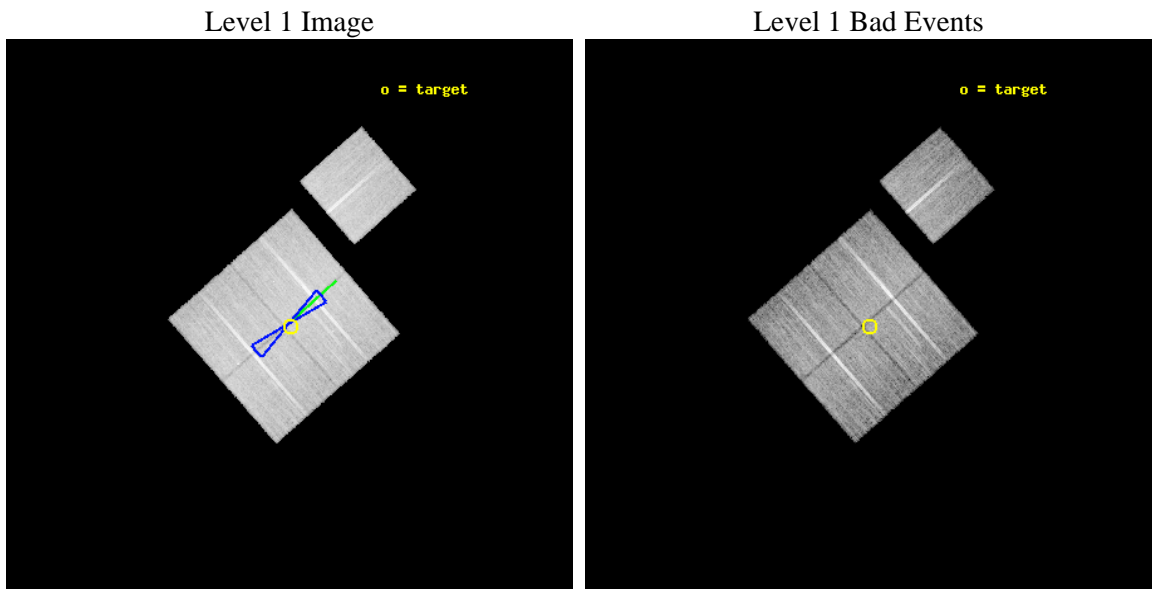
seq_num	900796	Sequence number
obs_id	9796	Observation id
title	The Evolution of Faint AGN at High Redshift	Proposal title
observer	Prof Kirpal Nandra	Principal investigator
object	AEGIS-1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	215.064583	Observer's specified target RA [deg]
dec_targ	53.002694	Observer's specified target Dec [deg]
ra_nom	215.07003986599	Nominal RA [deg]
dec_nom	53.010076060285	Nominal Dec [deg]
roll_nom	48.70433858117	Nominal Roll [deg]
revision	3	Processing version of data
ontime	16544.700127244	Sum of GTIs [s]
livetime	16328.531440051	Livetime [s]
ontime0	16544.700127244	Sum of GTIs [s]
ontime1	16544.700127244	Sum of GTIs [s]
ontime2	16544.700127244	Sum of GTIs [s]
ontime3	16544.700127244	Sum of GTIs [s]
ontime6	16544.700127244	Sum of GTIs [s]
l2events	55426	Number of level 2 events



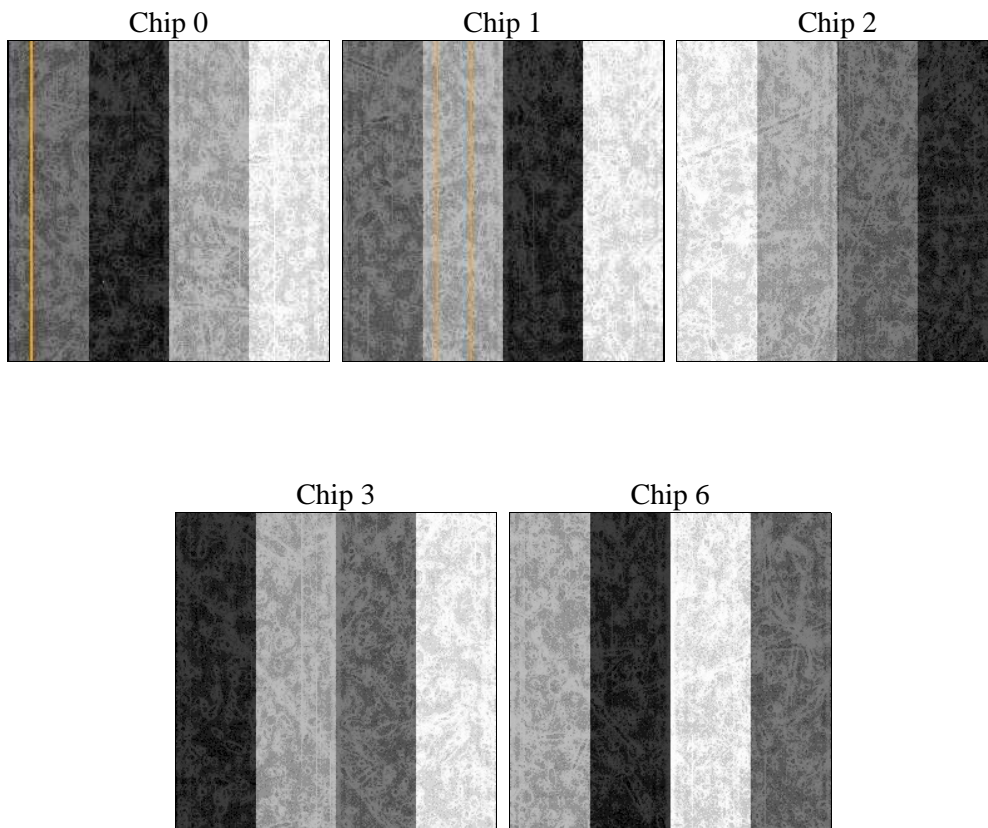
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	16500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	16544.700127244	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime0	16544.700127244	Sum of GTIs [s]
date	2012-05-07T13:27:24	Date and time of file creation	ontime1	16544.700127244	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	16544.700127244	Sum of GTIs [s]
			ontime3	16544.700127244	Sum of GTIs [s]
			ontime6	16544.700127244	Sum of GTIs [s]
			l1events	647976	Number of level 1 events

### 2.1.4 Events

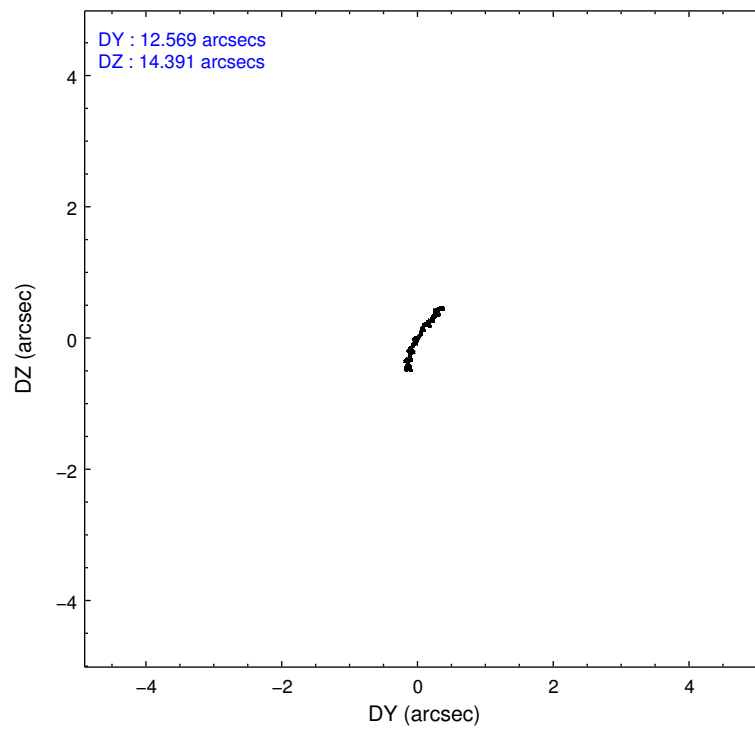
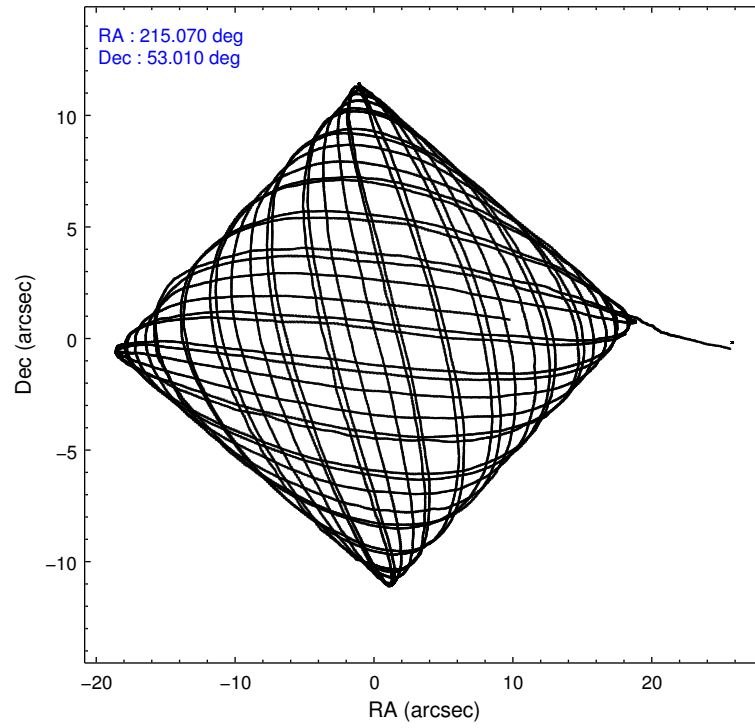
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	123193	124405	139658	131244	129476
rejected events	109939	109749	126807	118705	116118
rejected %	89%	88%	90%	90%	89%

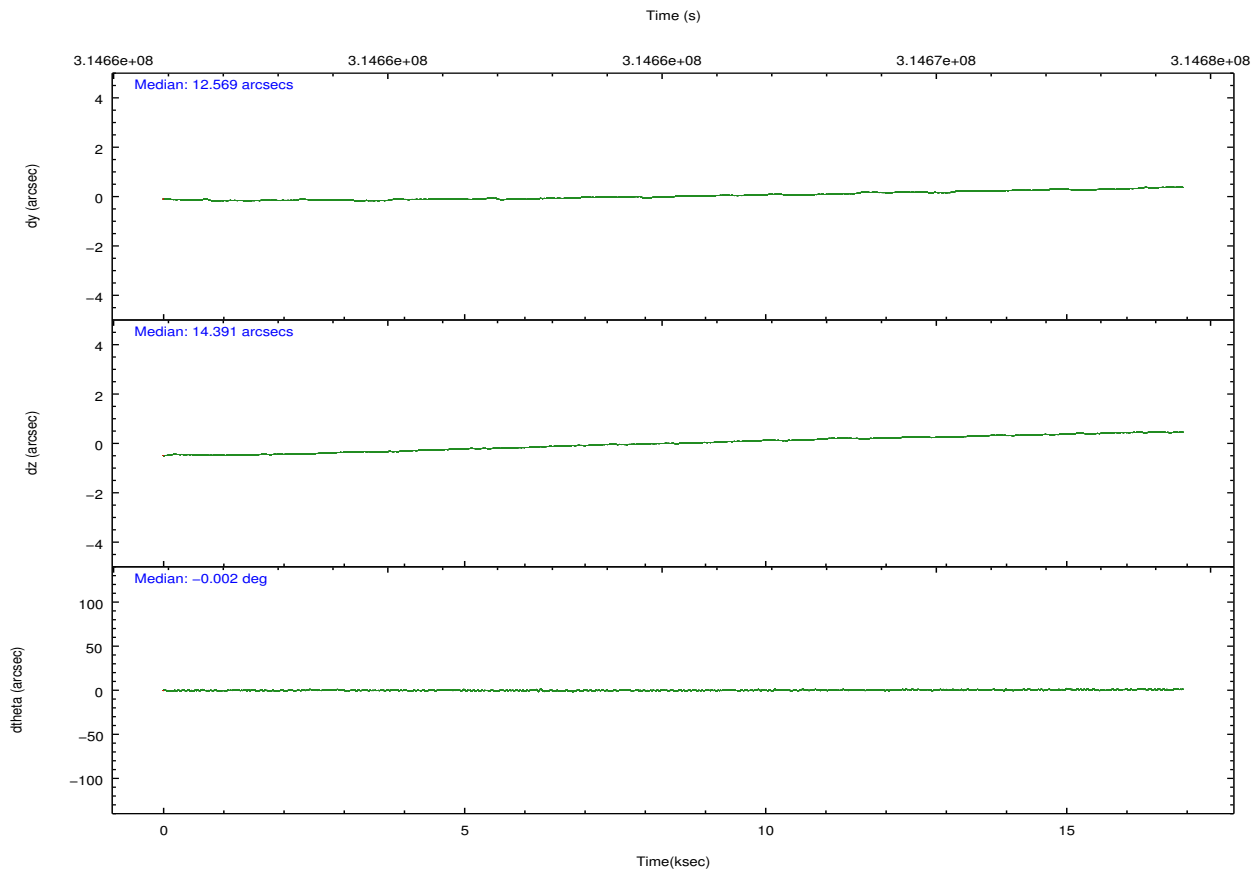
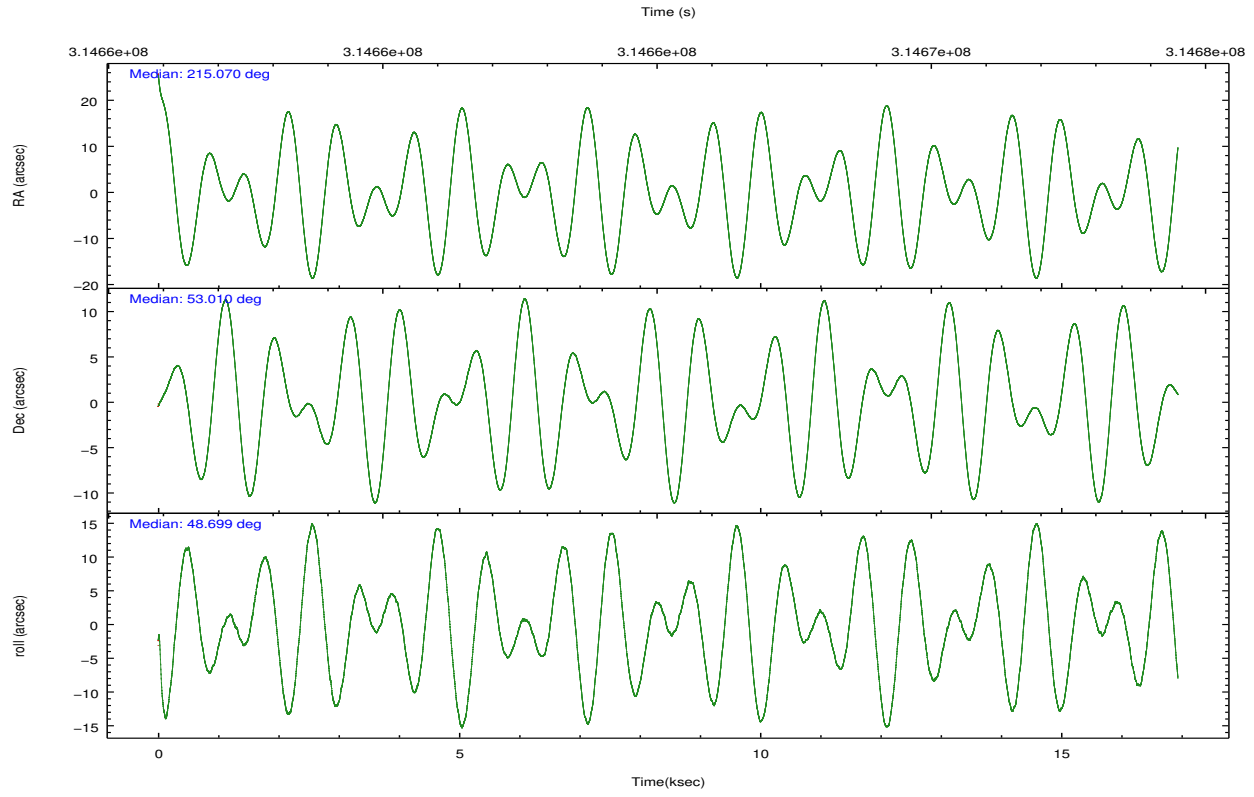
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4700	5145	4674	4479	4520
	3%	4%	3%	3%	3%
grade 1 events	75	76	79	58	70
	0%	0%	0%	0%	0%
grade 2 events	3171	3361	3065	2703	2940
	2%	2%	2%	2%	2%
grade 3 events	1512	1595	1359	1426	1514
	1%	1%	0%	1%	1%
grade 4 events	1396	1614	1400	1352	1455
	1%	1%	1%	1%	1%
grade 5 events	4574	5181	4370	5250	5231
	3%	4%	3%	4%	4%
grade 6 events	2480	2945	2356	2584	2934
	2%	2%	1%	1%	2%
grade 7 events	105285	104488	122355	113392	110812
	85%	83%	87%	86%	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	215.061283	215.0700398659906	CCD I2 on	Y	Y
[deg] Pointing Dec	52.983099	53.01007606028469	CCD I3 on	Y	Y
[deg] Pointing Roll	48.502636	48.70433858116955	CCD S0 on	N	N
[deg] Roll angle	50.000000	50.000000	CCD S1 on	N	N
[deg] Roll tolerance	10.000000	10.000000	CCD S2 on	O1	Y
Roll constraint allows 180D rotation	Y	Y	CCD S3 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S4 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S5 on	N	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	Number of optional ACIS chips dropped	0	0
[mm] SIM translation stage offset	0	-0.005018542100998502	On-chip summing requested	N	N
[s] Observation start time (MET)	314657165.184000	314656113.47296	Subarray requested	NONE	NONE
Observation start date	2007-12-21T20:45:00	2007-12-21T20:28:33	Alternating exposures requested	N	N
[s] Observation end time (MET)	314673665.184000	314674449.18635	[s] Primary exposure time	0.000000	3.1
Observation end date	2007-12-22T01:20:00	2007-12-22T01:34:09			
Read mode	TIMED	TIMED			

## 2.3 Aspect





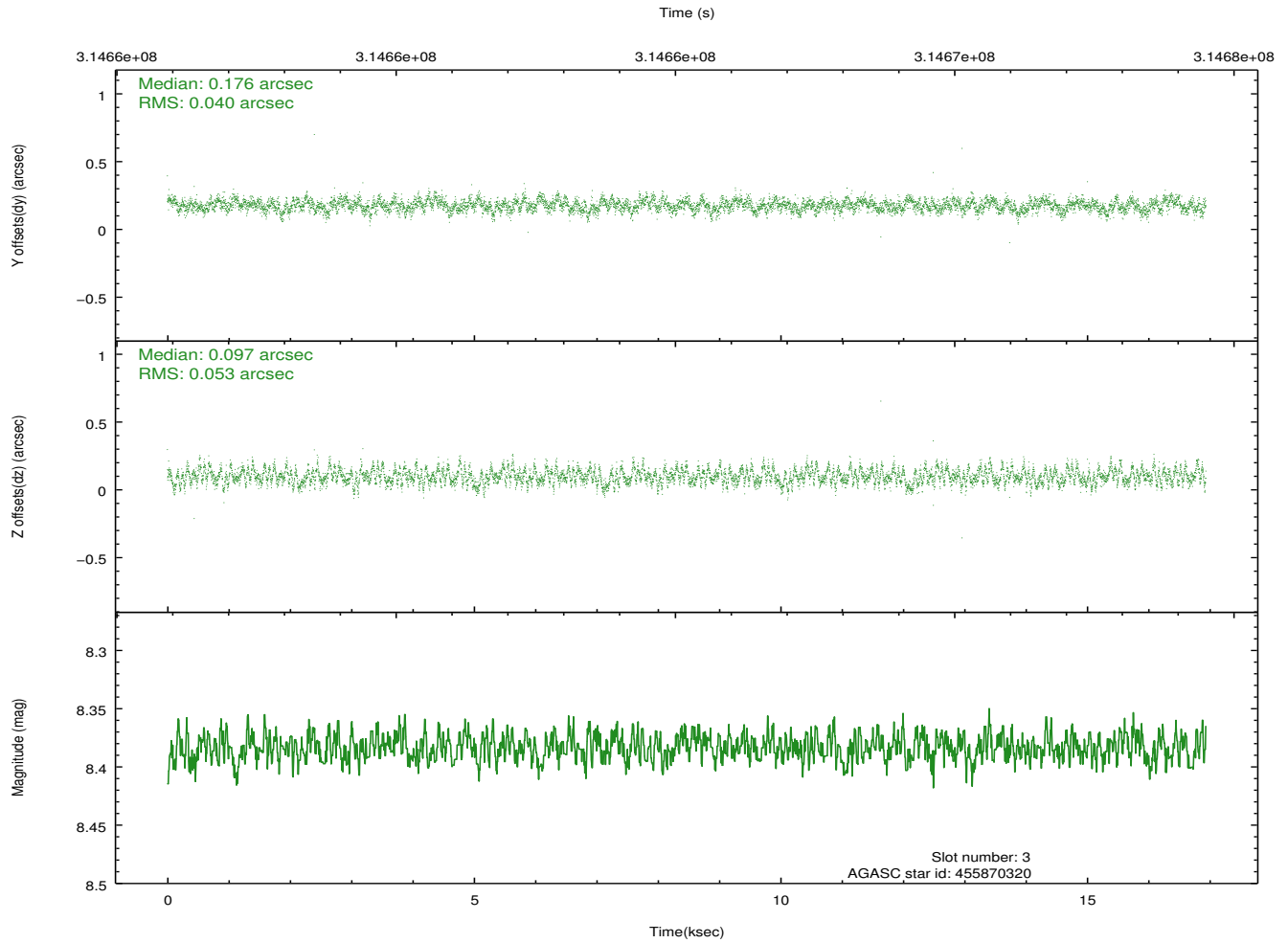
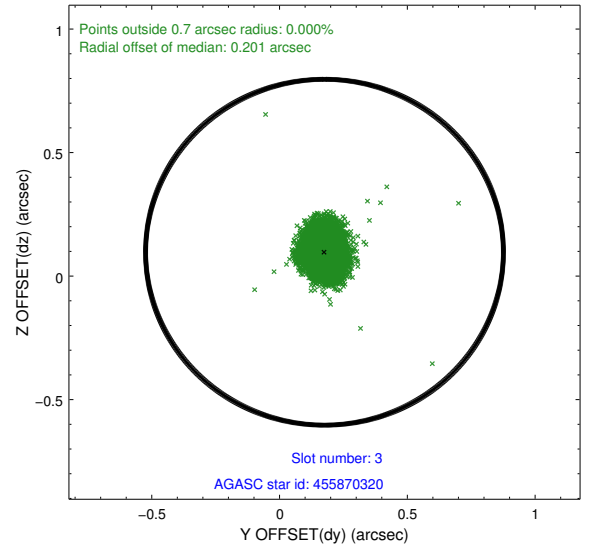
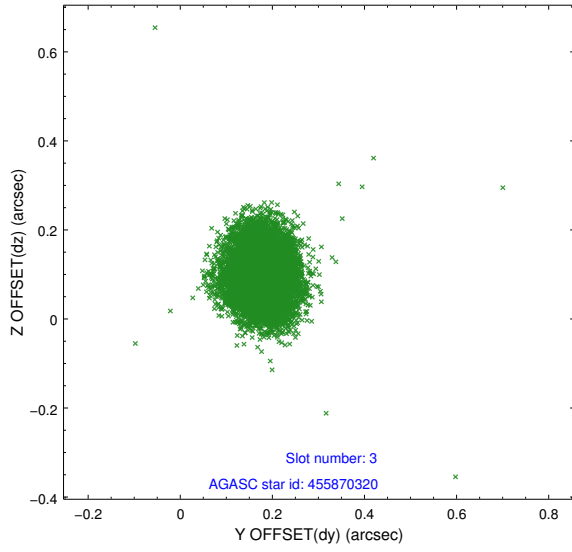
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.22	4131	0.023	0.007	0.015	0.024	0.000000	0.000000	926.95	-837.95
1	FID	ACIS-I-5	7.22	4131	-0.199	0.033	0.008	0.013	0.000000	0.000000	-1821.26	1059.41
2	FID	ACIS-I-6	7.23	4130	0.085	0.031	0.014	0.023	0.000000	0.000000	392.26	1704.22
3	GUIDE	455870320	8.38	8256	0.176	0.097	0.070	0.113	214.874440	52.401638	-1838.79	-1079.29
4	GUIDE	455871352	8.09	8263	0.059	0.050	0.063	0.106	215.099961	52.172669	-2128.33	-1997.25
5	GUIDE	505809632	8.06	8260	-0.025	-0.107	0.052	0.088	215.499426	53.521185	2074.37	583.03
6	GUIDE	505812088	8.14	8263	-0.054	-0.174	0.064	0.106	214.186617	53.263562	-482.72	2087.23
7	GUIDE	505815928	8.33	8258	-0.153	0.135	0.063	0.102	216.234742	53.074559	1944.00	-1668.23

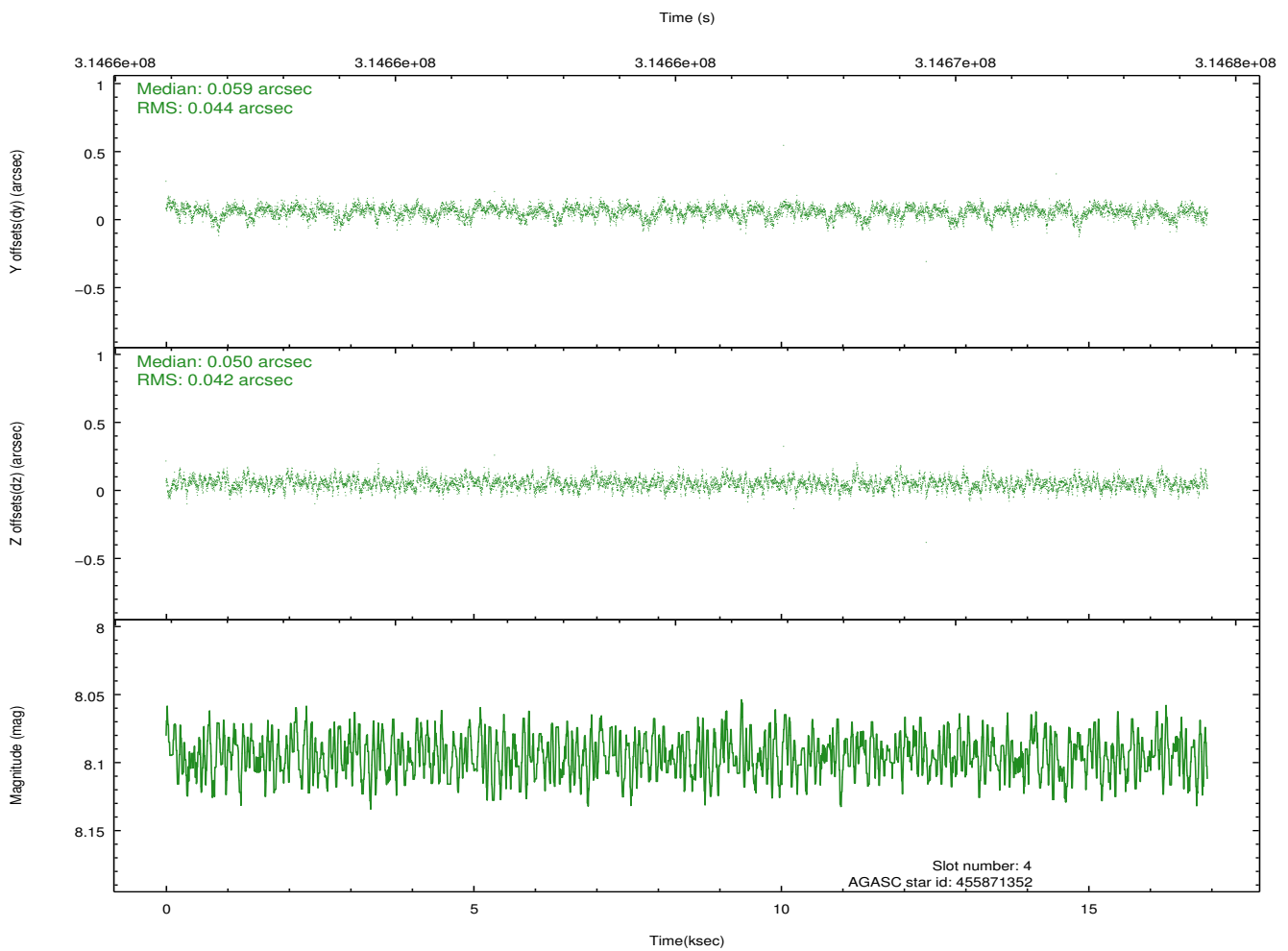
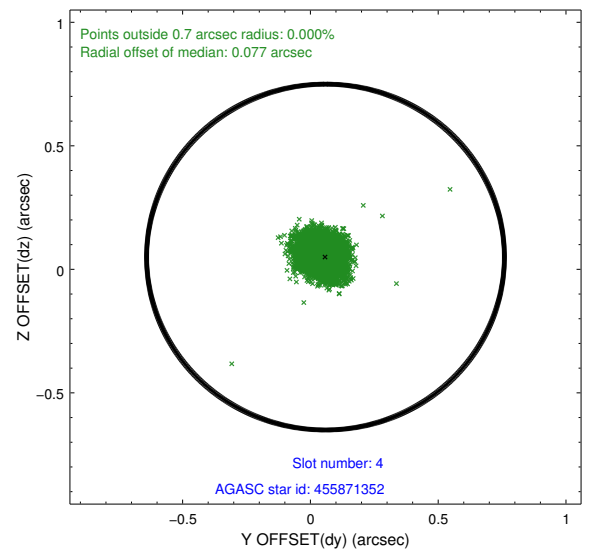
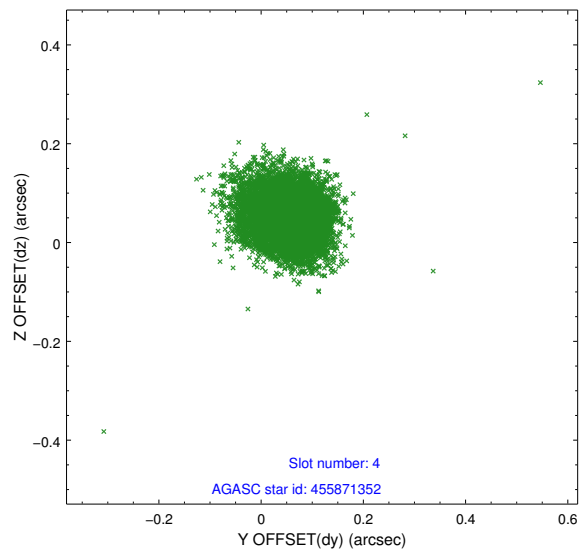
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## 2.4 Star Slots

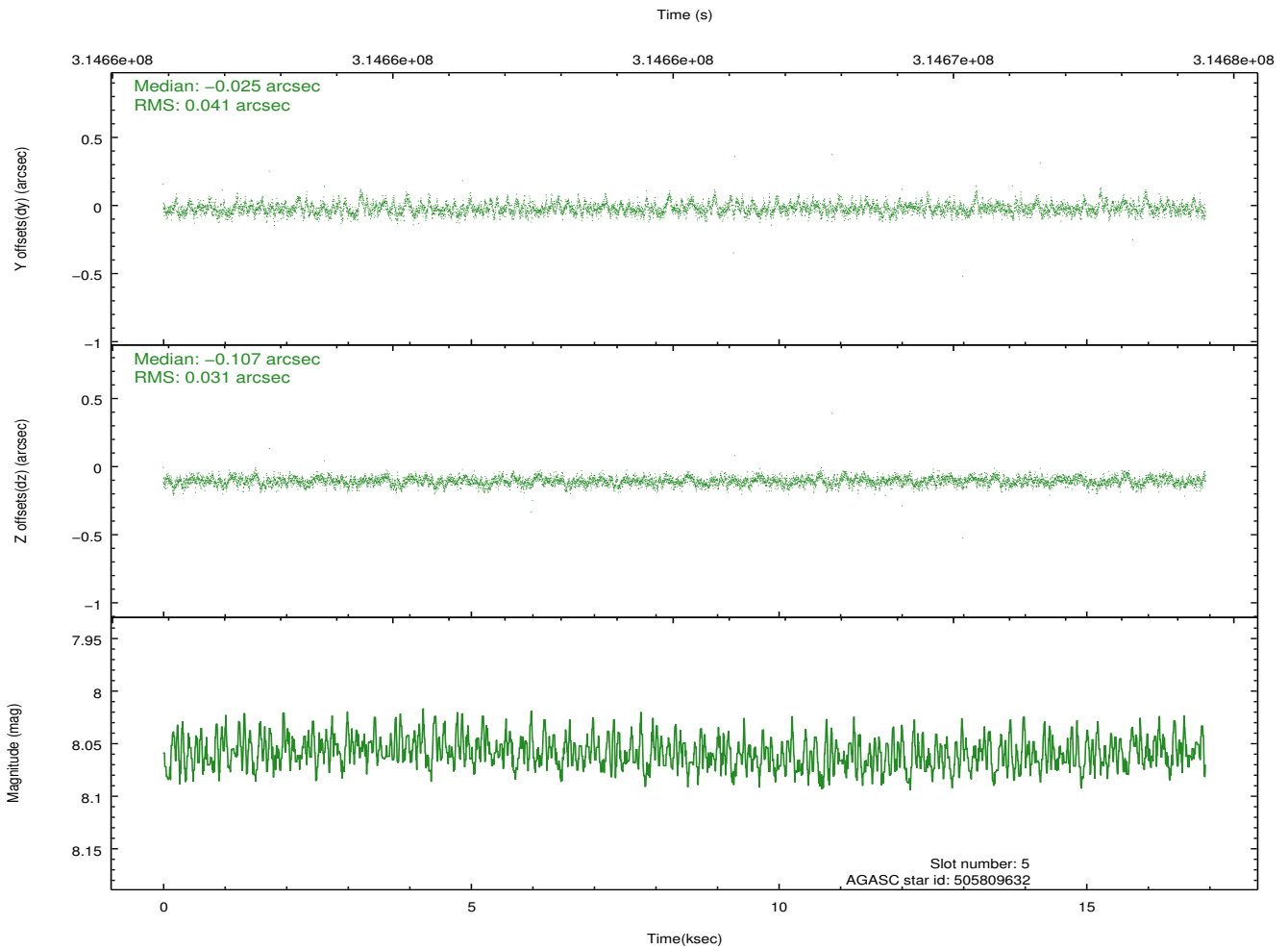
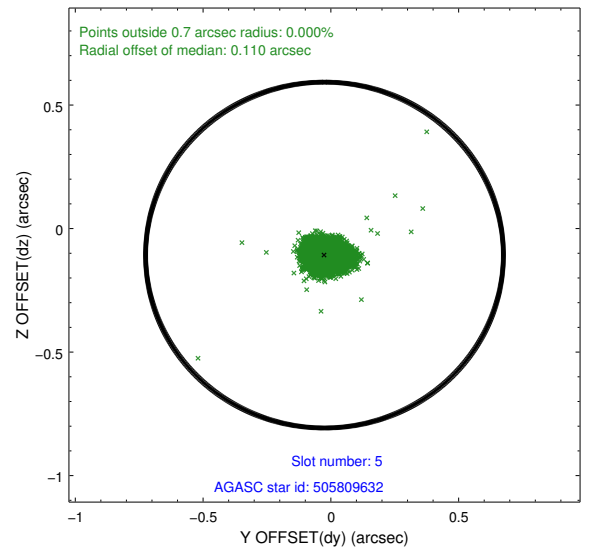
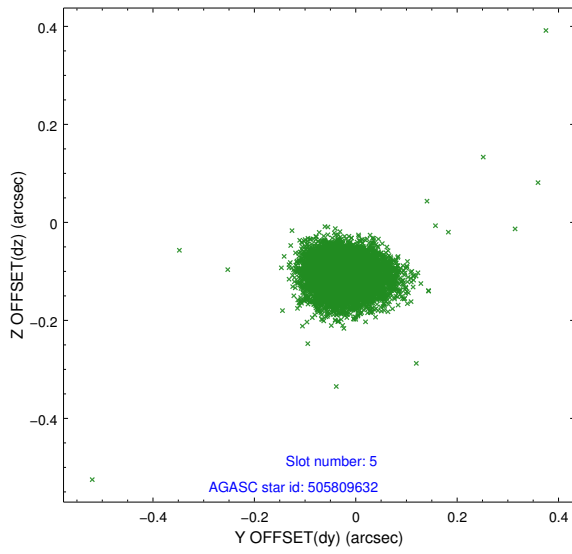
### 2.4.1 Slot 3



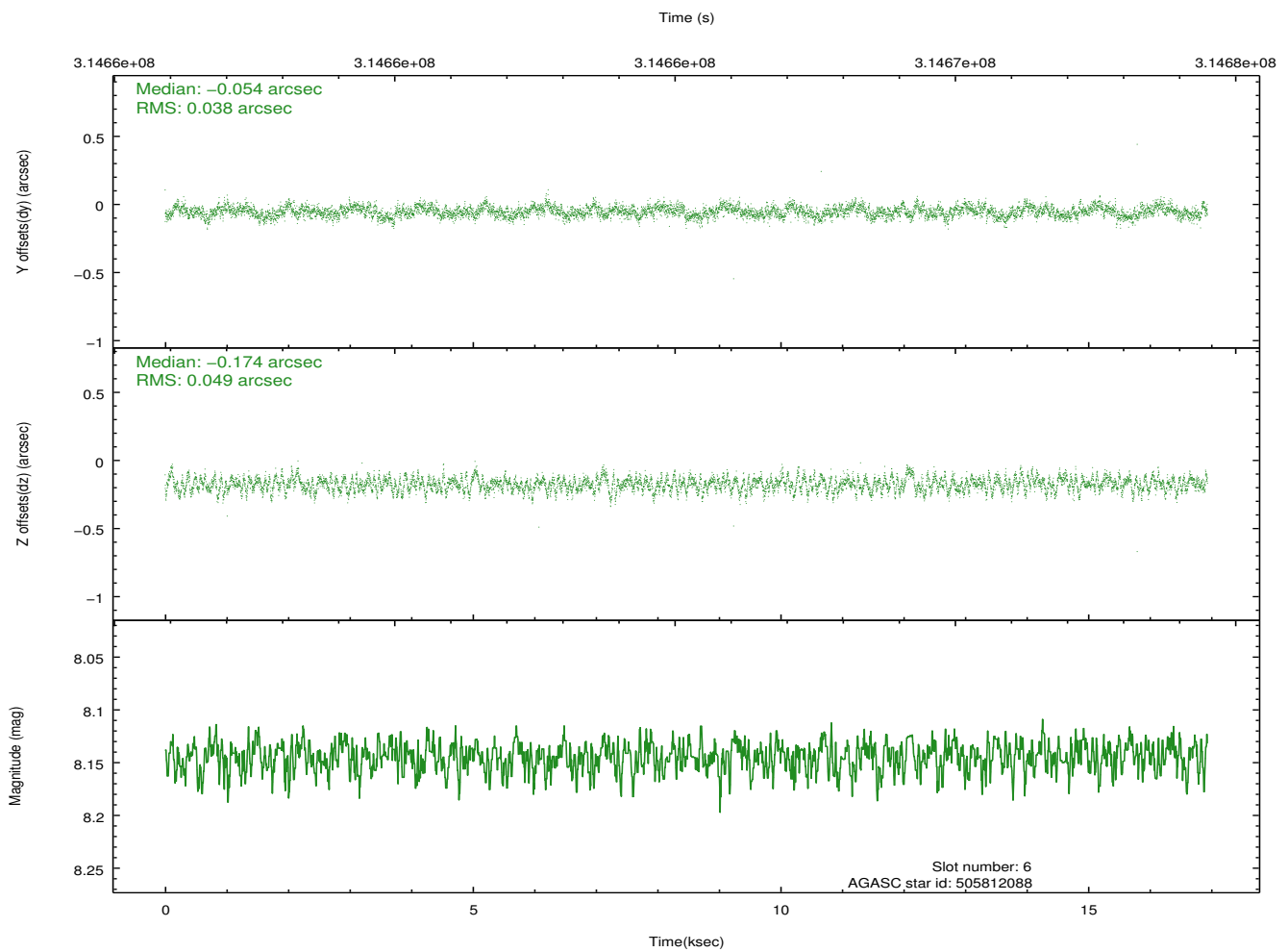
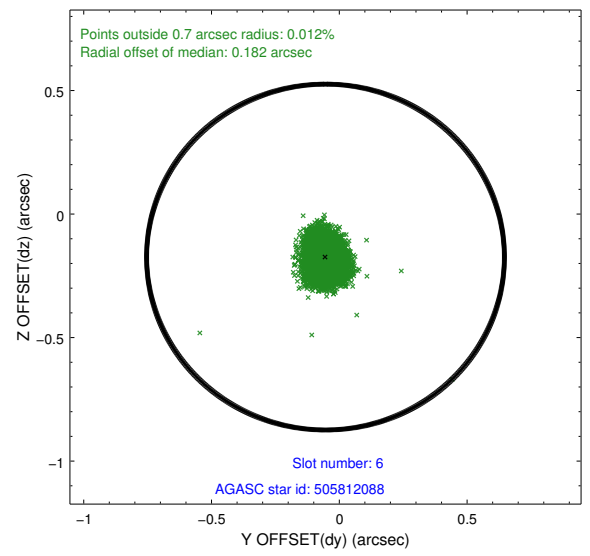
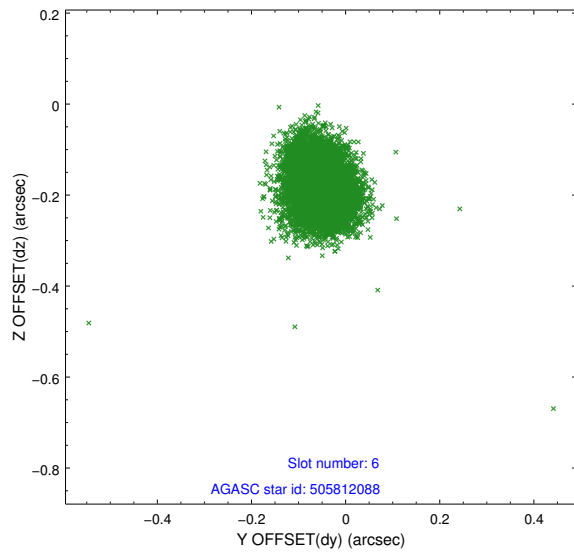
## 2.4.2 Slot 4



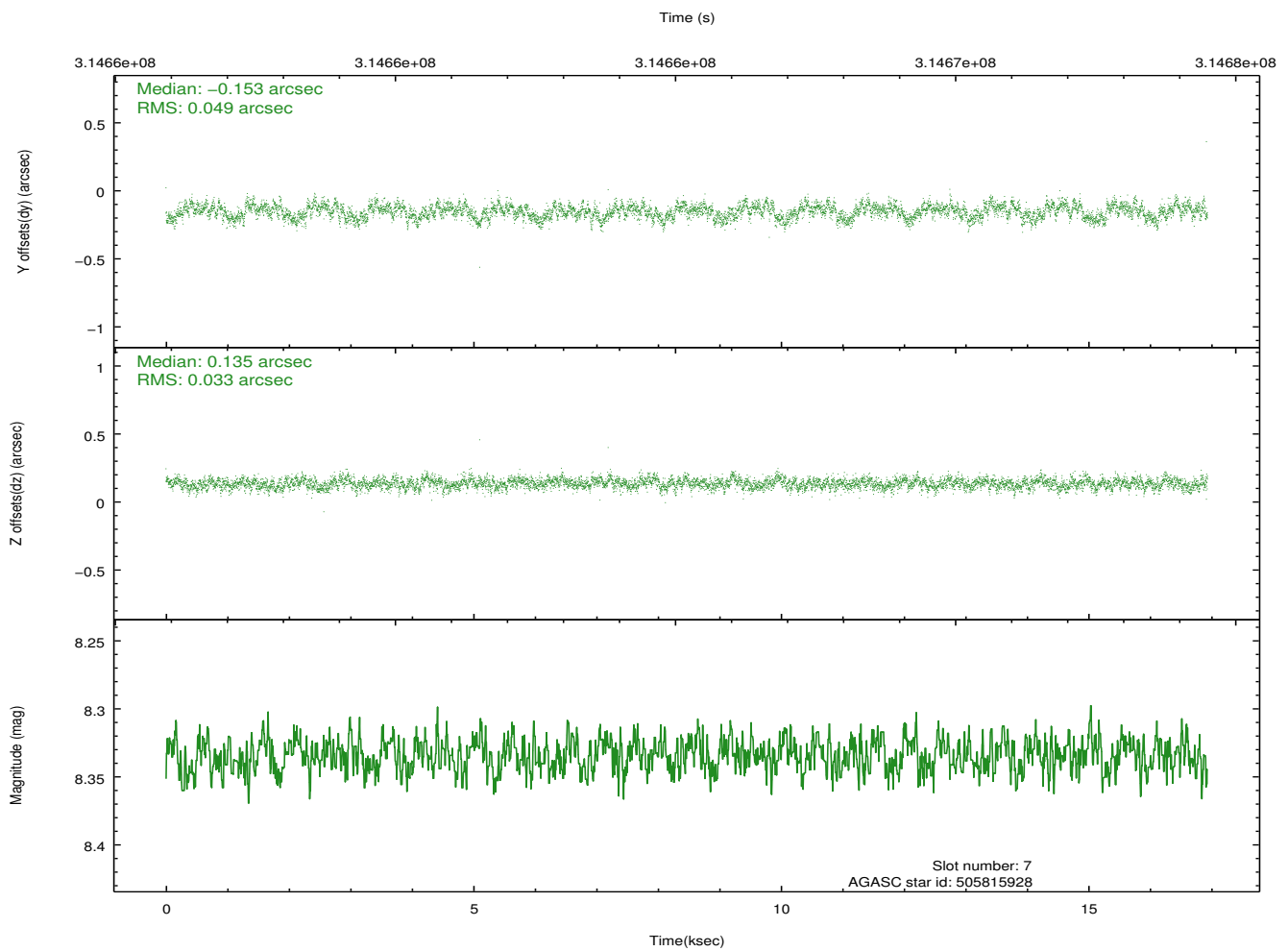
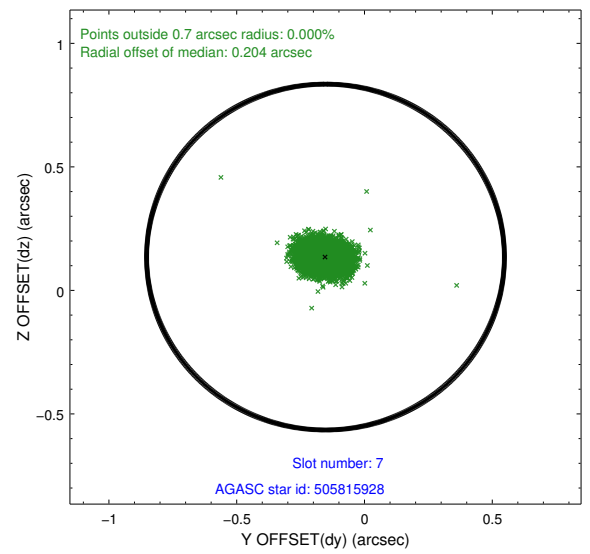
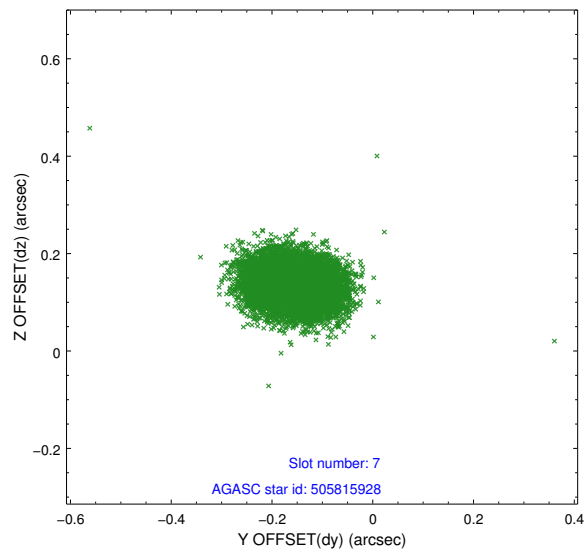
### 2.4.3 Slot 5



## 2.4.4 Slot 6

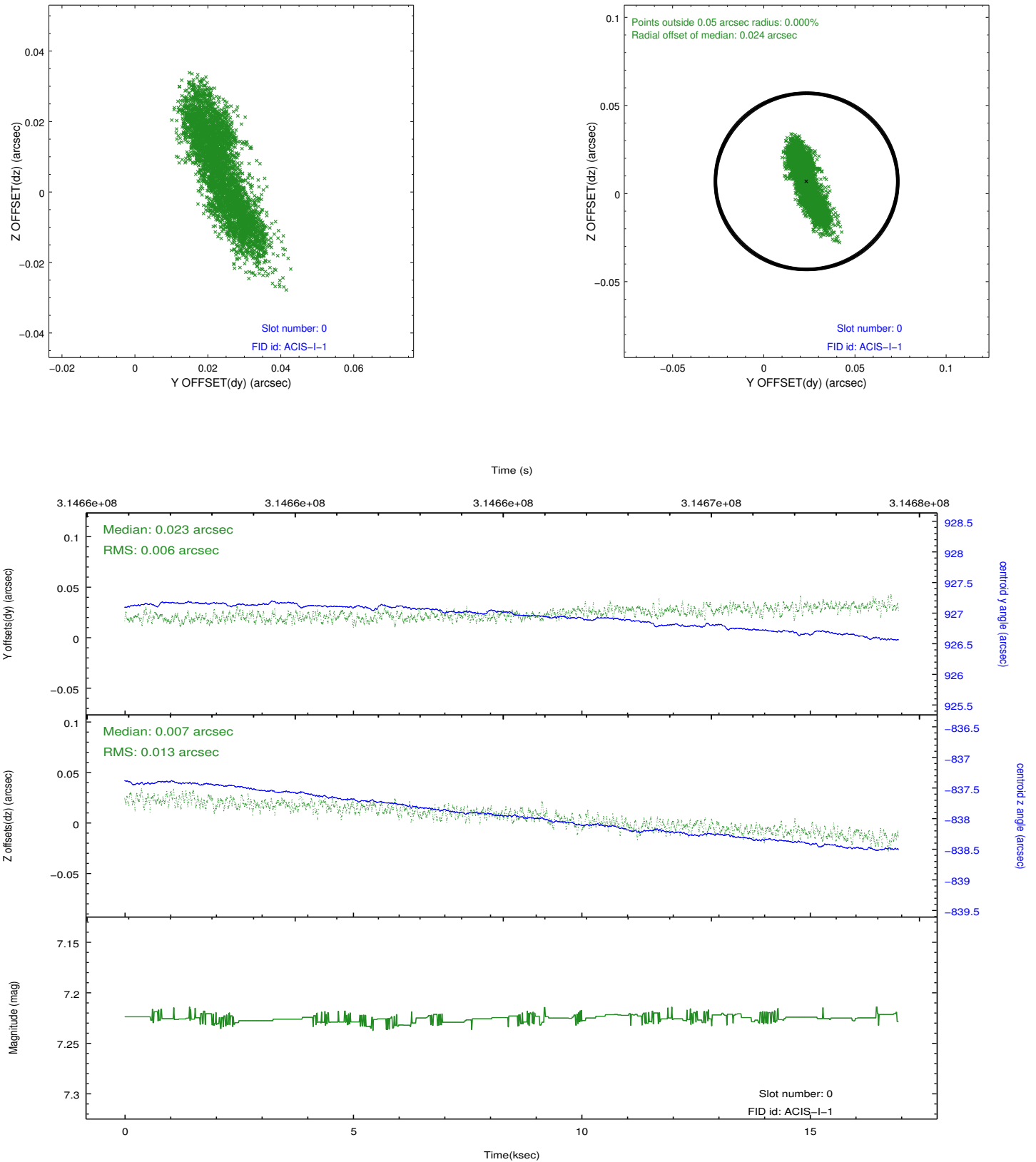


## 2.4.5 Slot 7

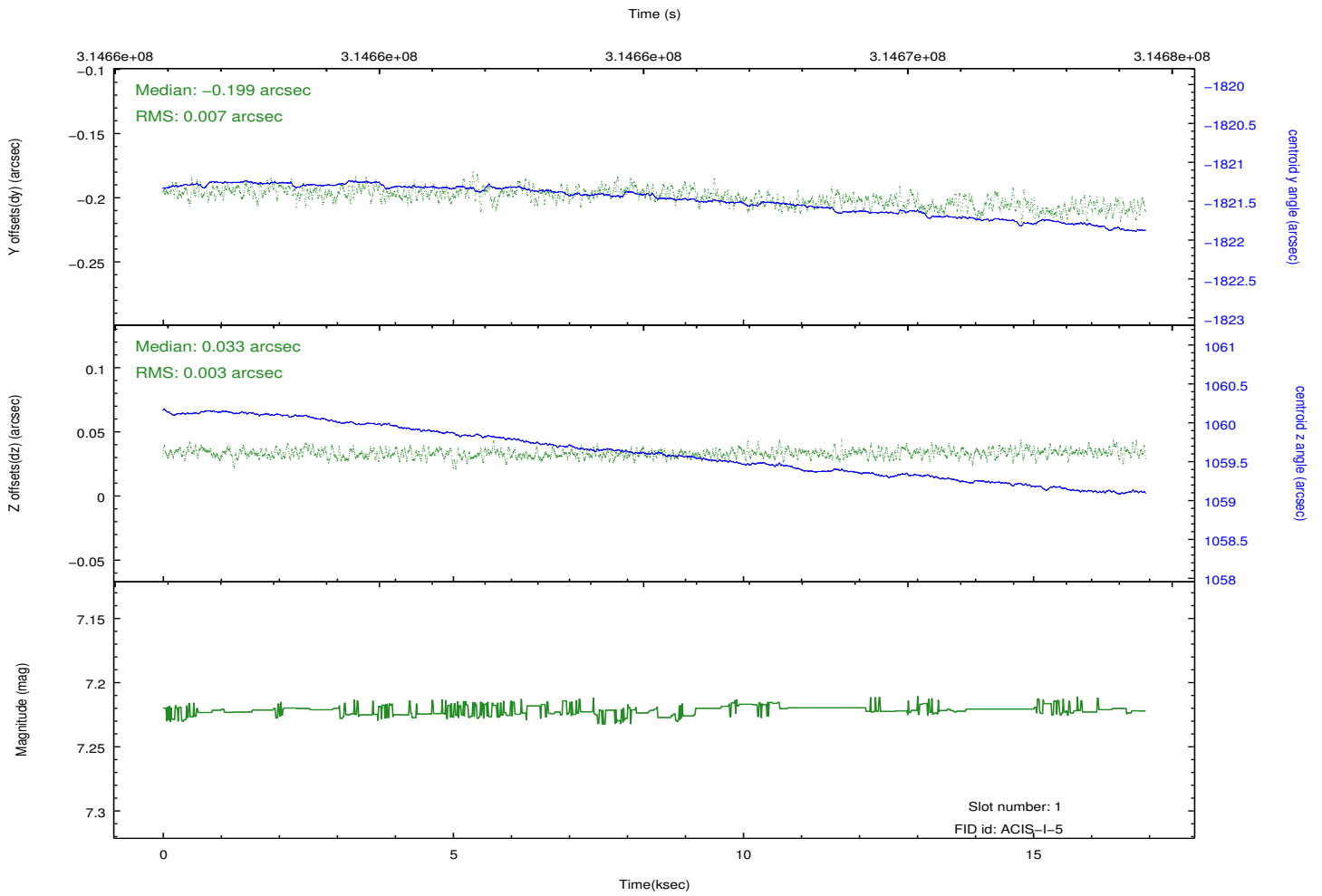
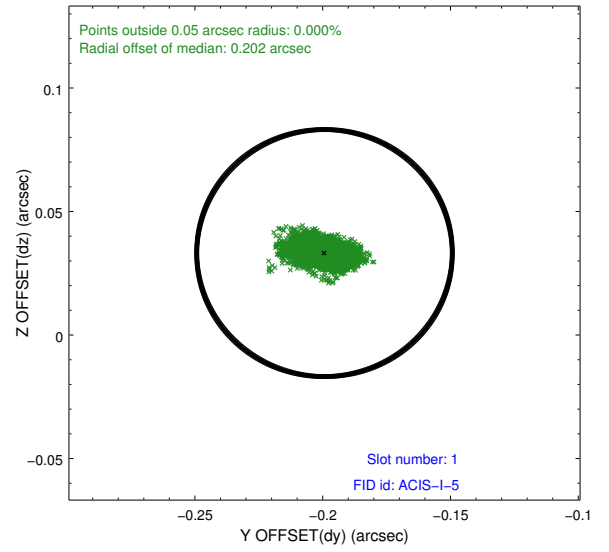
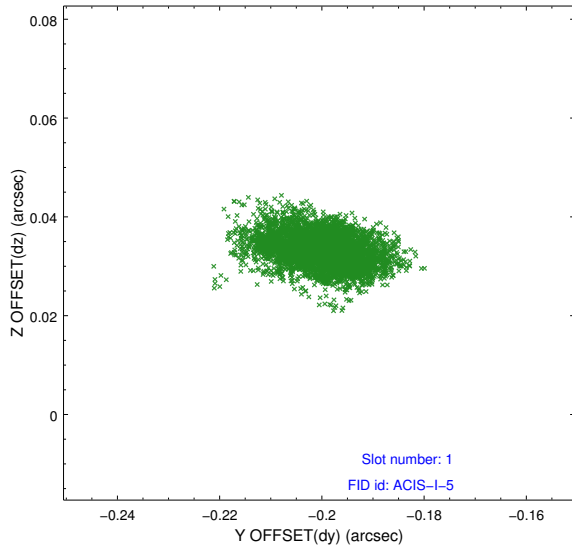


## 2.5 FID Slots

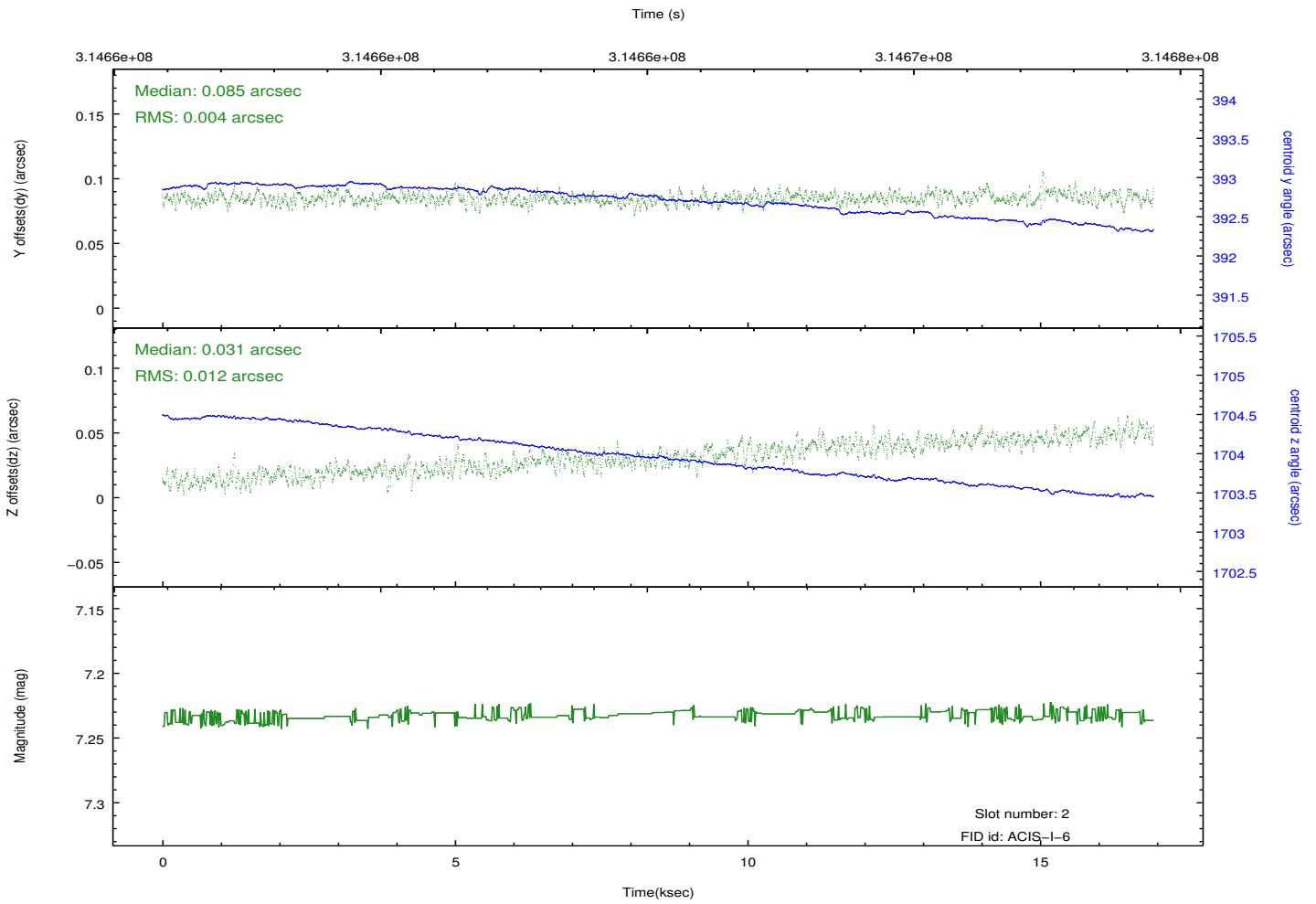
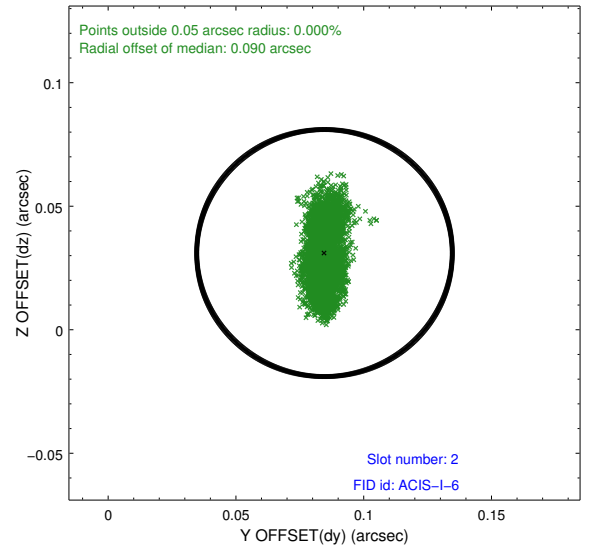
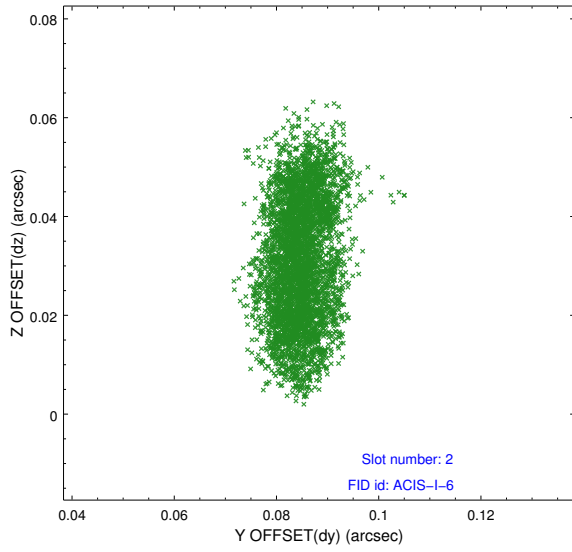
### 2.5.1 Slot 0



## 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)	2012.05.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.5447001

## A.2 Comments

Joint Proposal: Spitzer. Roll constraint met.

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A spatial region of the original bias map for CCD = 1 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small ( $\sim 20$  eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 1 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:  
(215.02557,52.84874), (215.02728,52.84785), (215.07629,52.88156), (215.07176,52.88051)