

# V&V Reference Report

## L2 ASCDS Version : 10.0.1

Observation 16323 - L2 Version 2  
Chandra X-Ray Center

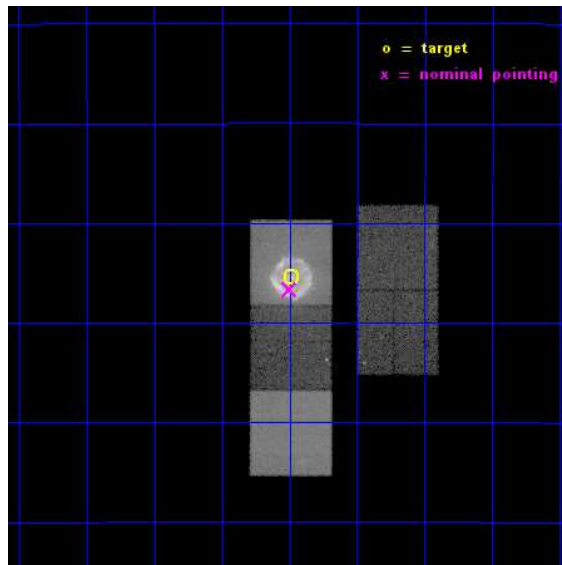
L2 Processing Date : Dec 6 2014

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# 1 Front

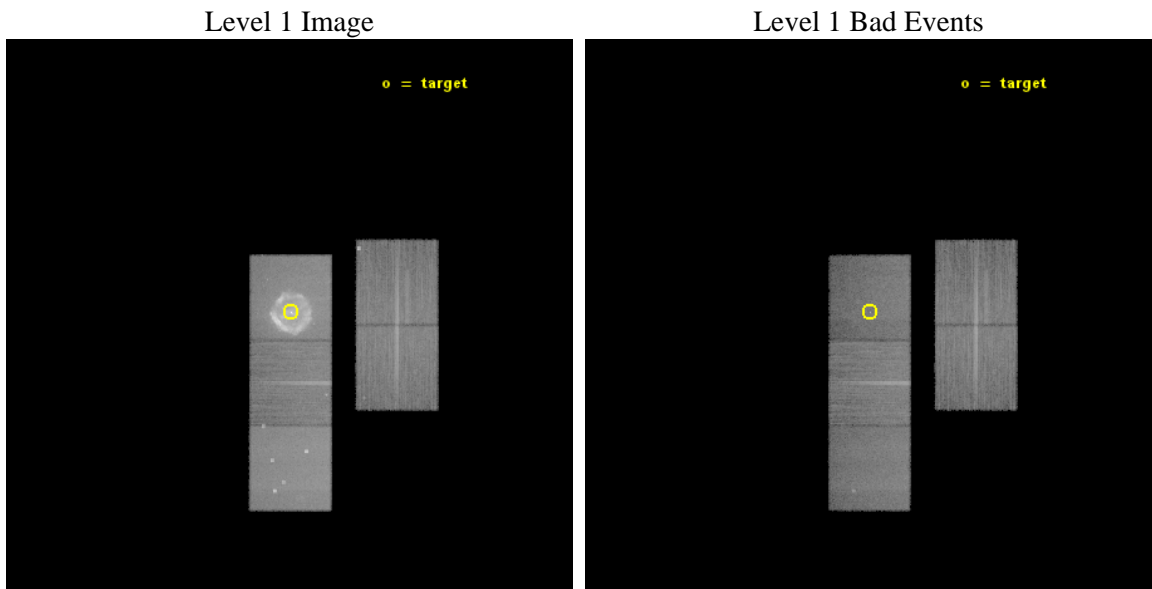
seq_num	501956	Sequence number
obs_id	16323	Observation id
title	G11.2-0.3: Core-Collapse Supernova Progenitors, Cosmic Rays, and Pulsar-Wind Nebulae	Proposal title
observer	Dr. Stephen Reynolds	Principal investigator
object	G11.2-0.3	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	272.8725	Observer's specified target RA [deg]
dec_targ	-19.423611	Observer's specified target Dec [deg]
ra_nom	272.87517688161	Nominal RA [deg]
dec_nom	-19.444387555927	Nominal Dec [deg]
roll_nom	270.05752043162	Nominal Roll [deg]
revision	2	Processing version of data
ontime	46366.386619091	Sum of GTIs [s]
livetime	45760.575643475	Livetime [s]
ontime2	46366.222459078	Sum of GTIs [s]
ontime3	46363.122518718	Sum of GTIs [s]
ontime5	46366.345579088	Sum of GTIs [s]
ontime6	46366.304539084	Sum of GTIs [s]
ontime7	46366.386619091	Sum of GTIs [s]
l2events	564815	Number of level 2 events



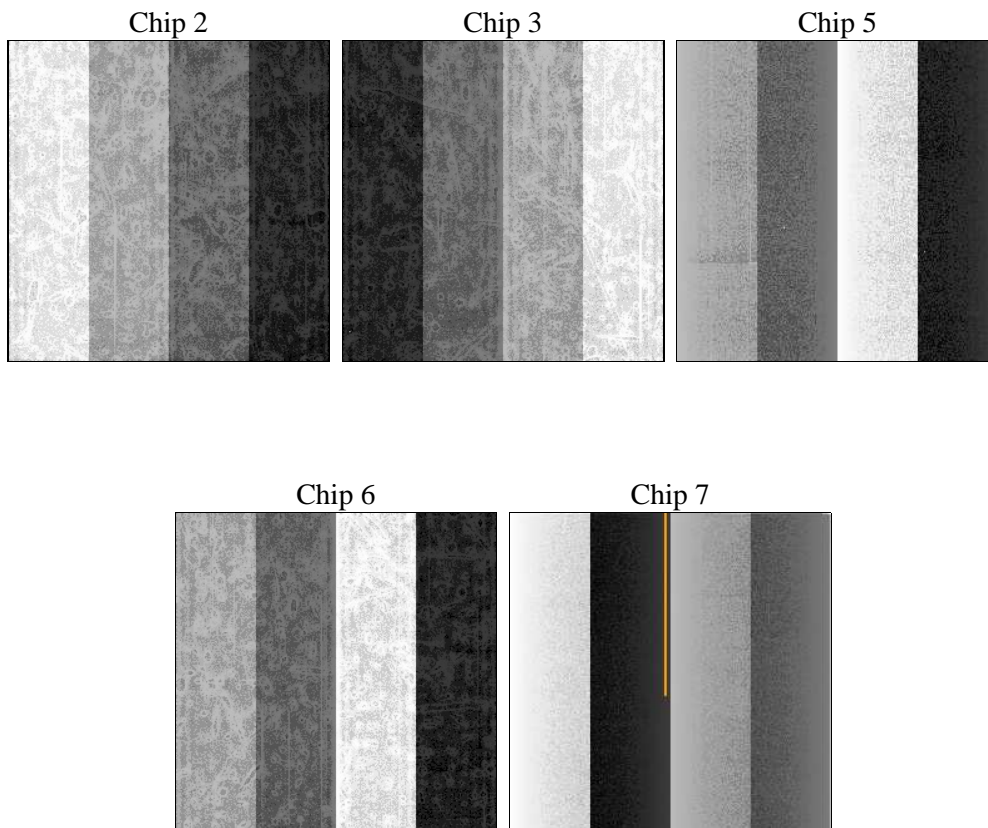
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	46299.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	46366.386619091	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime2	46366.222459078	Sum of GTIs [s]
date	2014-12-06T16:16:33	Date and time of file creation	ontime3	46363.122518718	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	46366.345579088	Sum of GTIs [s]
			ontime6	46366.304539084	Sum of GTIs [s]
			ontime7	46366.386619091	Sum of GTIs [s]
			l1events	1395738	Number of level 1 events

### 2.1.4 Events

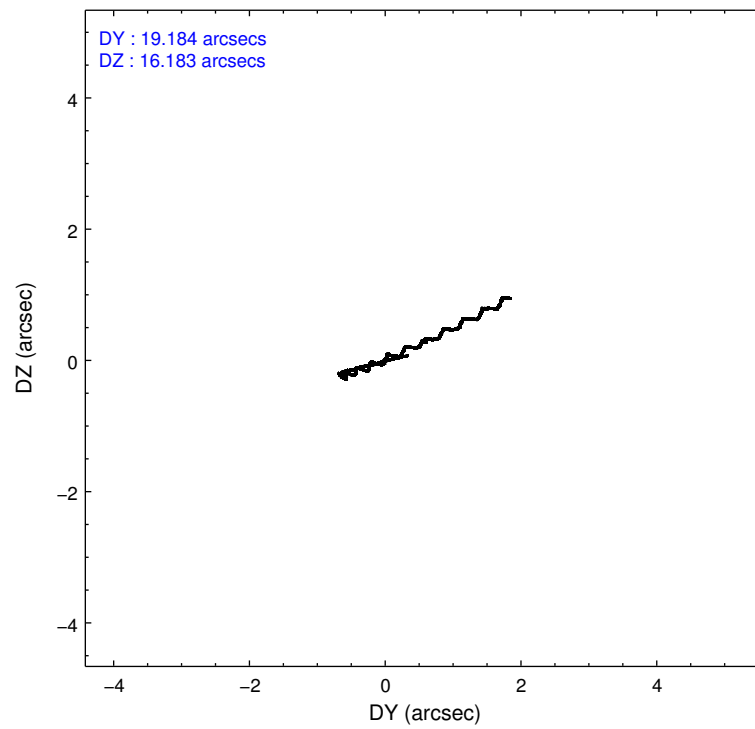
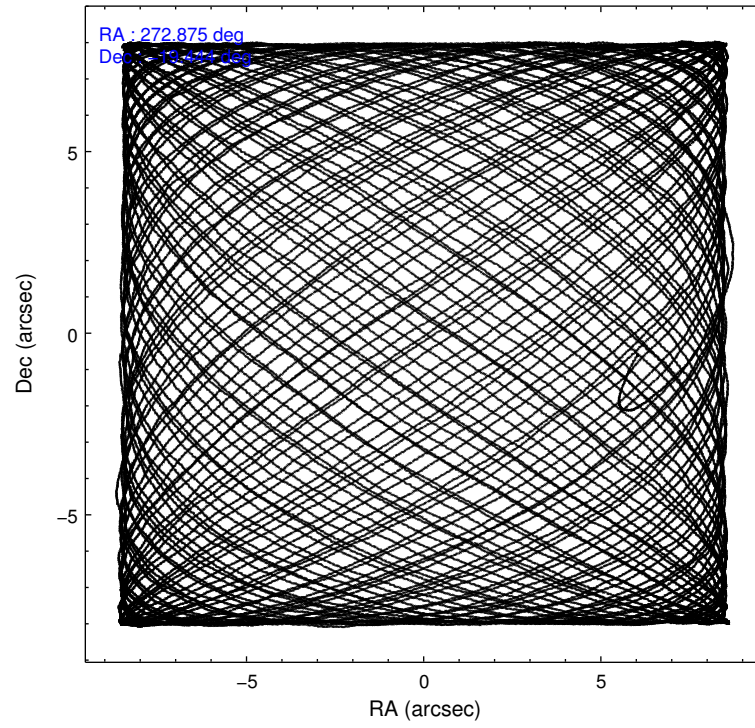
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	201382	194410	317475	211437	471034
rejected events	175134	164776	152414	178150	129051
rejected %	86%	84%	48%	84%	27%

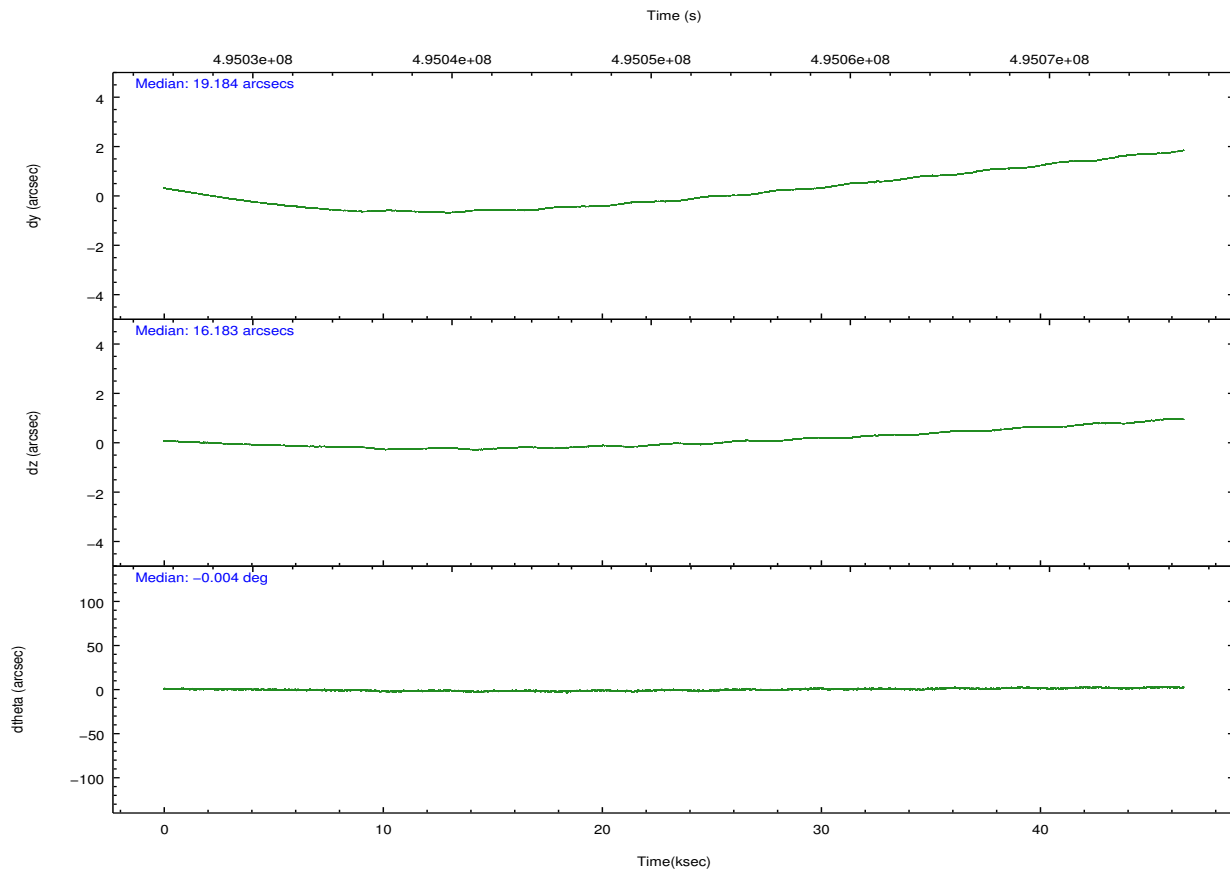
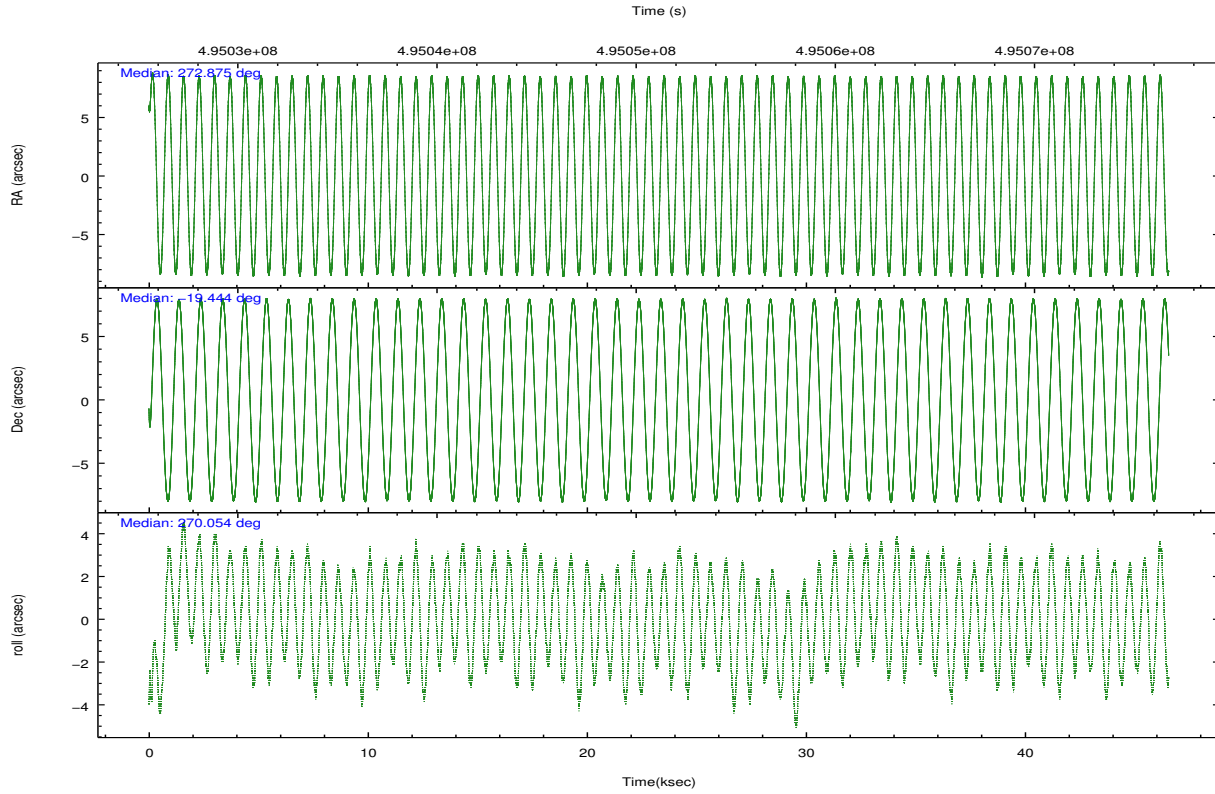
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	11442	14382	19766	15821	67370
	5%	7%	6%	7%	14%
grade 1 events	99	150	969	141	428
	0%	0%	0%	0%	0%
grade 2 events	5748	5491	49819	6517	85706
	2%	2%	15%	3%	18%
grade 3 events	2416	2621	6000	2755	36609
	1%	1%	1%	1%	7%
grade 4 events	2468	2515	5697	2755	35819
	1%	1%	1%	1%	7%
grade 5 events	7188	9217	23605	9320	26416
	3%	4%	7%	4%	5%
grade 6 events	4176	4627	83788	5440	116502
	2%	2%	26%	2%	24%
grade 7 events	167845	155407	127831	168688	102184
	83%	79%	40%	79%	21%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23567	ACIS-23567	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	272.860307	272.8751768816123	CCD I2 on	O2	Y
[deg] Pointing Dec	-19.420922	-19.44438755592672	CCD I3 on	O1	Y
[deg] Pointing Roll	269.895952	270.0575204316192	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.145094680475	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01257209746719923	CCD S4 on	N	N
[s] Observation start time (MET)	495028110.184000	495027133.91466	CCD S5 on	N	N
Observation start date	2013-09-08T11:47:23	2013-09-08T11:32:13	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	495074409.184000	495075284.82978	On-chip summing requested	N	N
Observation end date	2013-09-09T00:39:02	2013-09-09T00:54:44	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





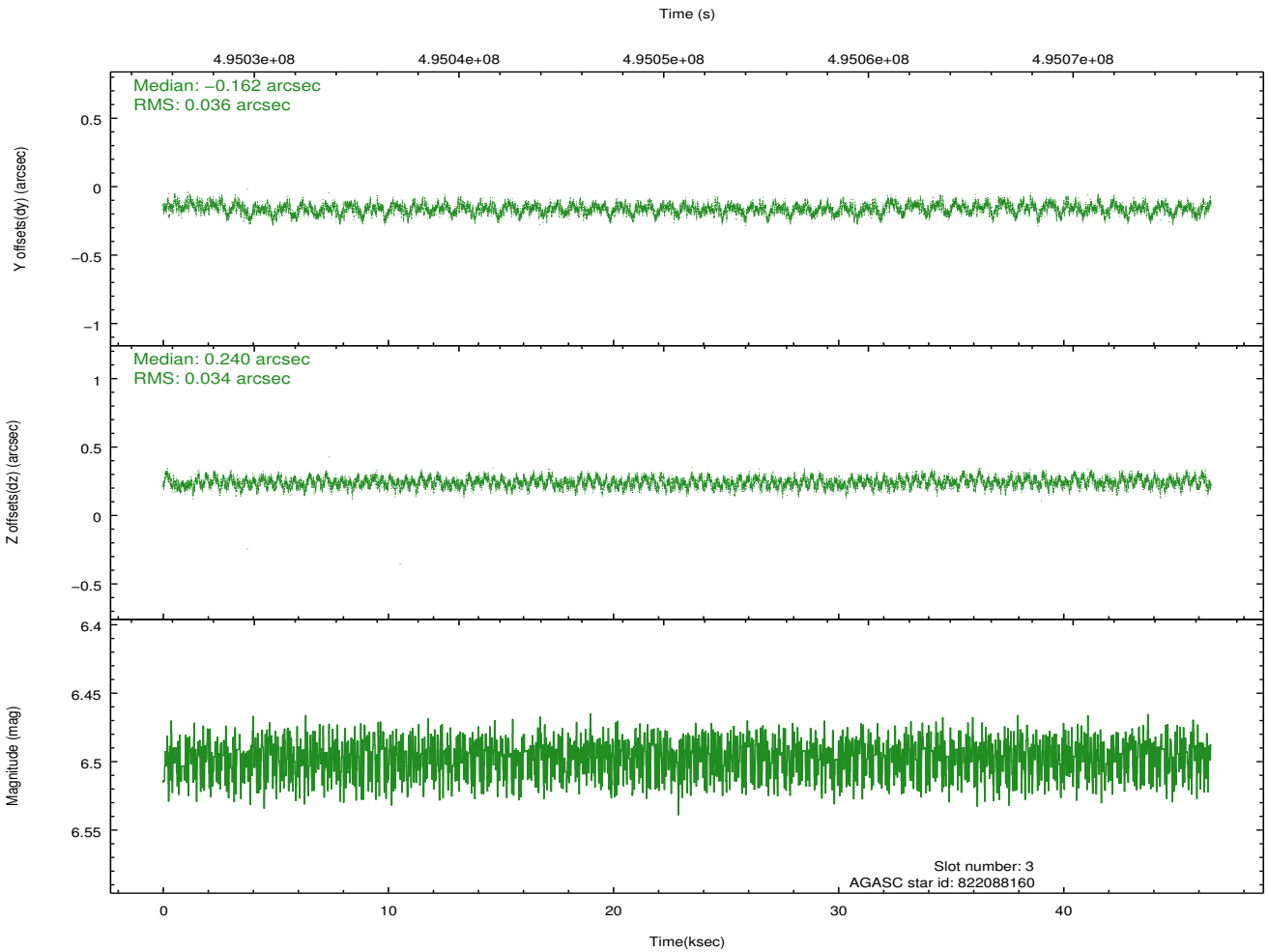
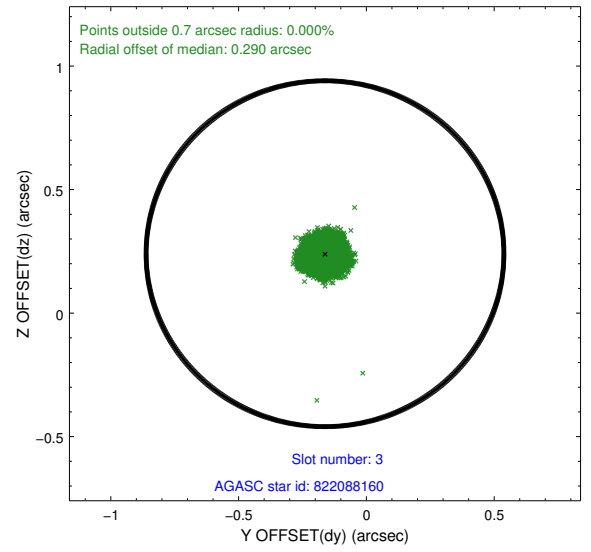
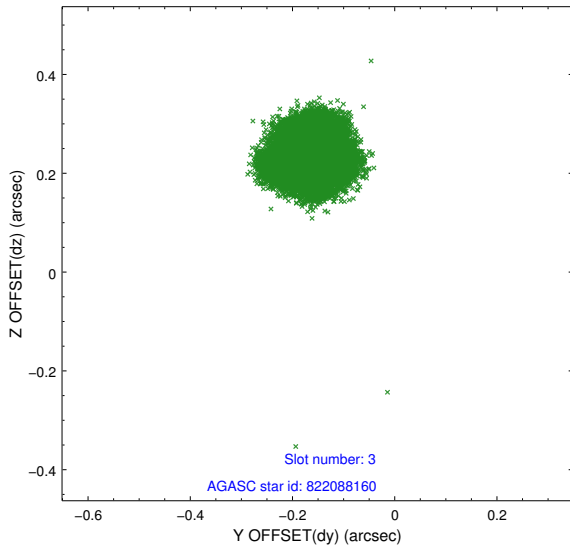
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.01	11355	-0.125	-0.017	0.011	0.026	0.000000	0.000000	-772.60	-1737.64
1	FID		ACIS-S-4	7.09	11355	0.291	0.066	0.014	0.031	0.000000	0.000000	2141.10	170.93
2	FID		ACIS-S-5	7.12	11355	-0.197	-0.040	0.015	0.033	0.000000	0.000000	-1825.52	164.49
3	GUIDE	used	822088160	6.50	22710	-0.162	0.240	0.054	0.084	272.729284	-18.869551	-1983.67	-449.78
4	GUIDE	used	822094768	9.21	22689	-0.165	-0.035	0.105	0.170	273.292799	-19.669391	893.76	1467.83
5	GUIDE	used	822098064	8.27	22699	-0.084	-0.056	0.076	0.121	273.233974	-19.745214	1166.84	1268.39
6	GUIDE	used	822102416	7.53	22705	0.432	-0.226	0.079	0.157	272.173216	-20.087156	2408.49	-2318.80
7	GUIDE	used	822091704	8.09	22706	-0.018	0.075	0.072	0.117	272.220028	-18.943658	-1709.58	-2183.42

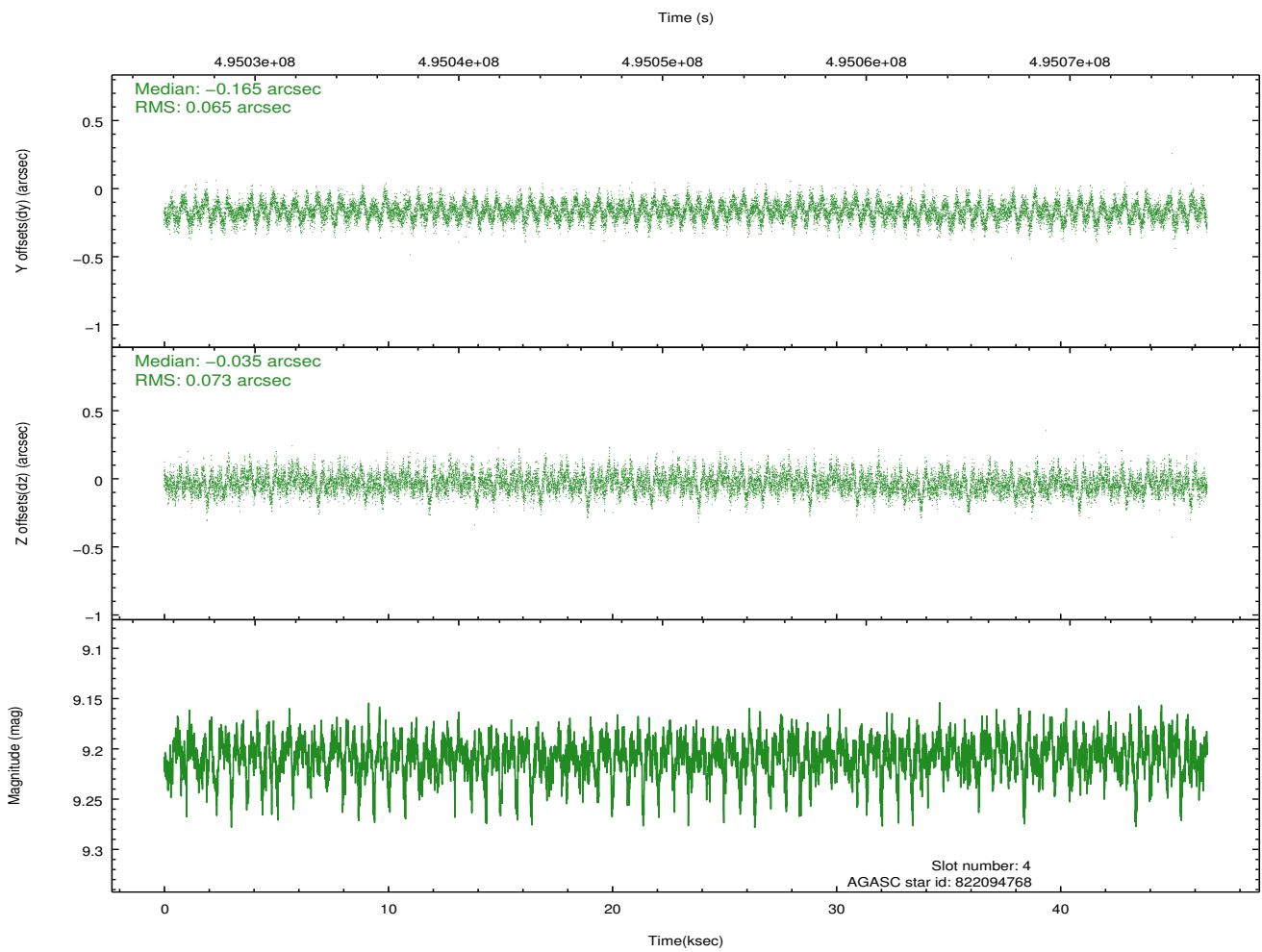
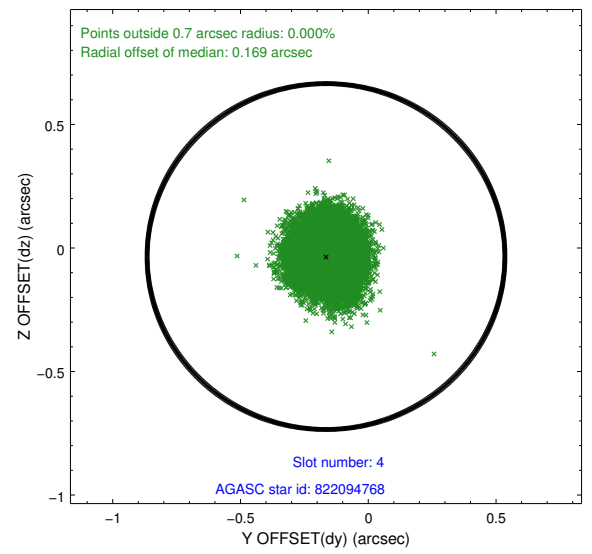
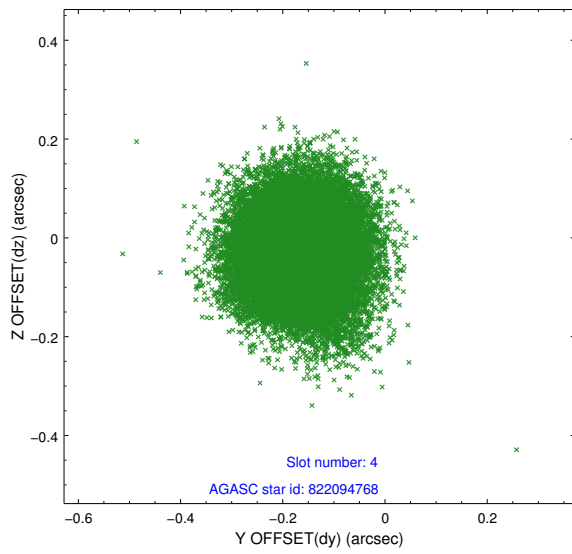
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## 2.4 Star Slots

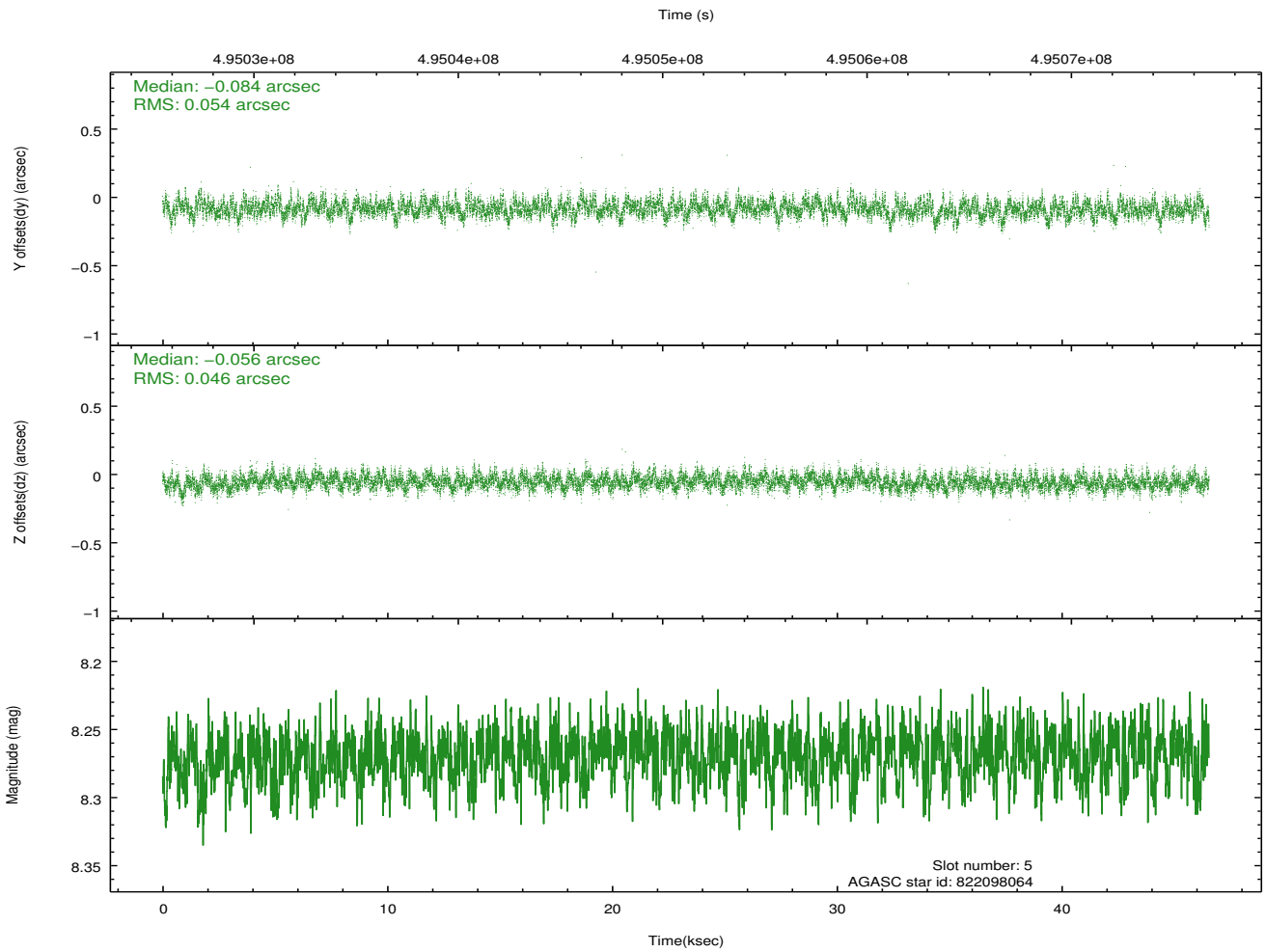
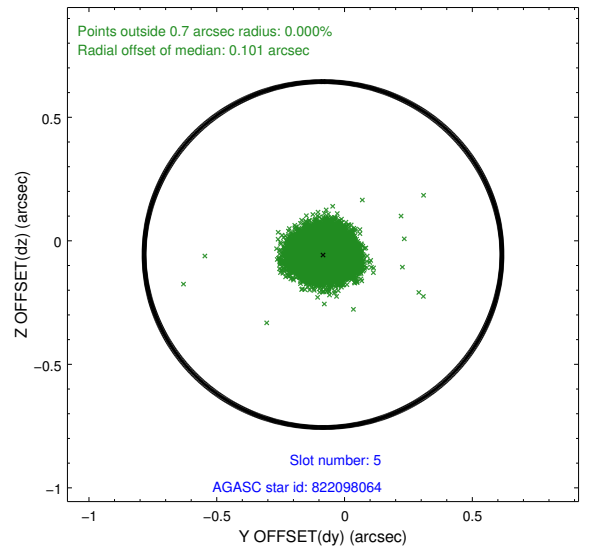
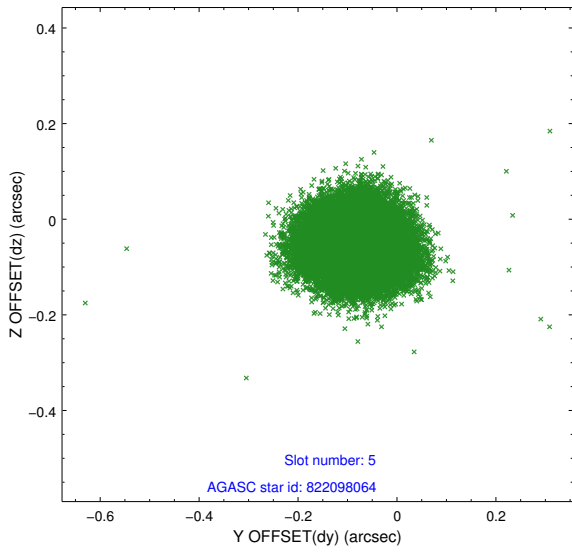
### 2.4.1 Slot 3



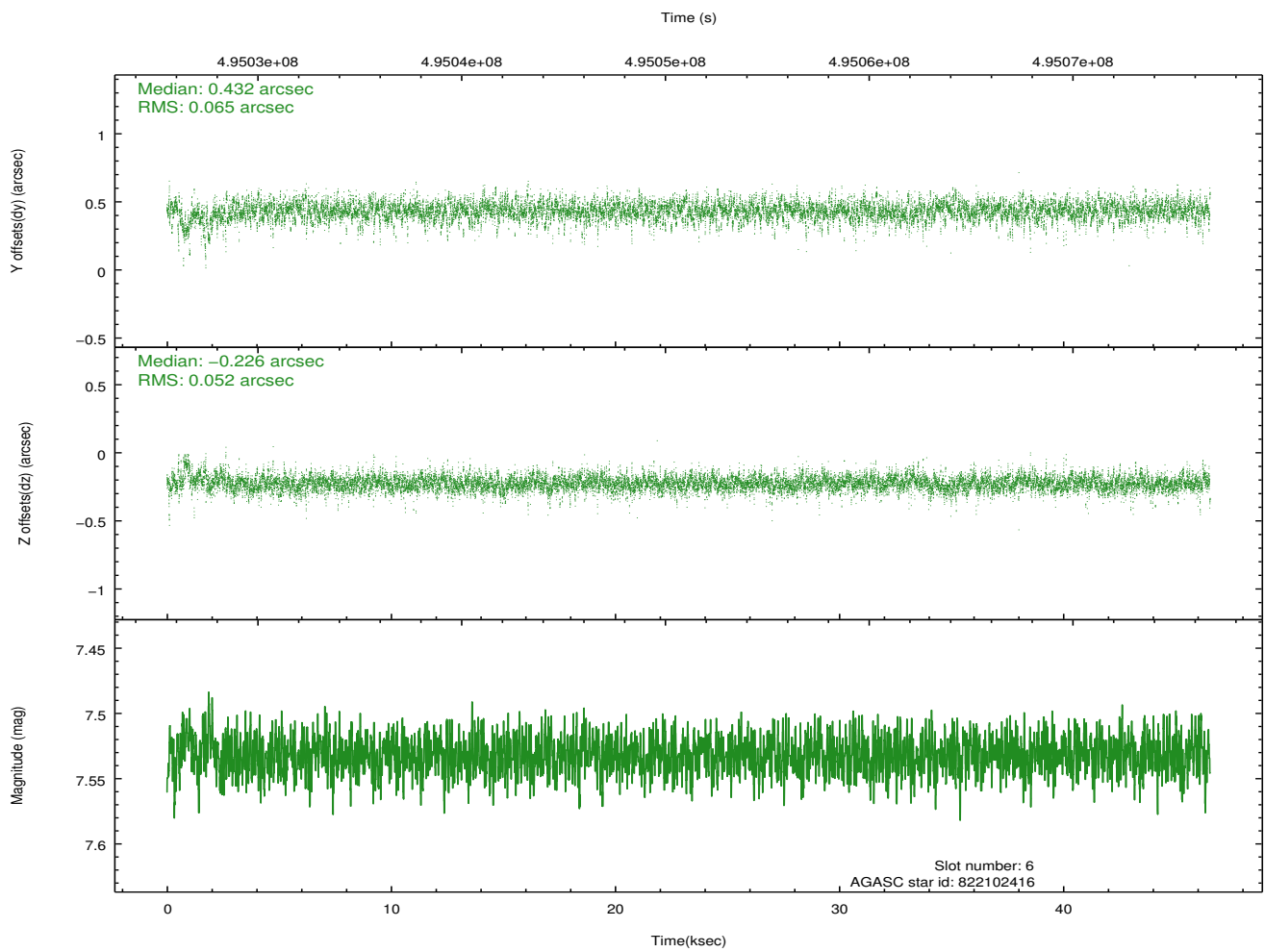
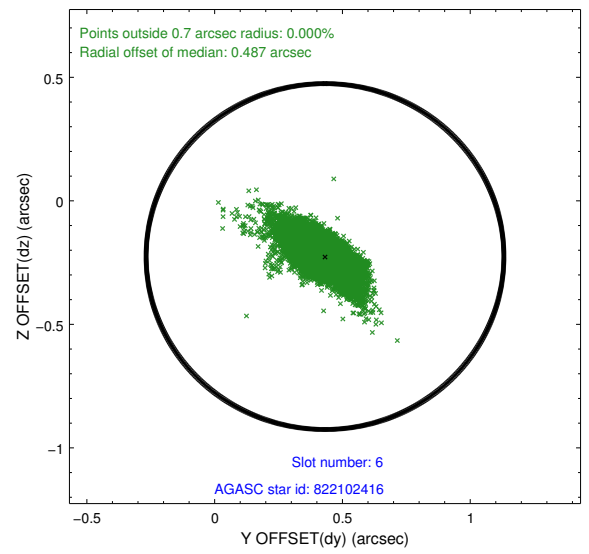
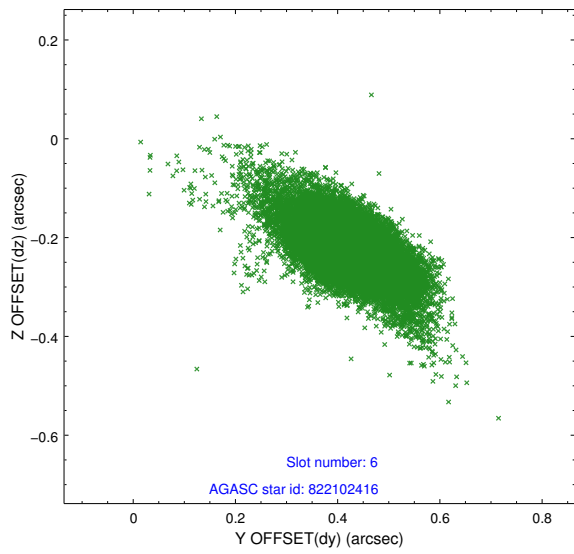
## 2.4.2 Slot 4



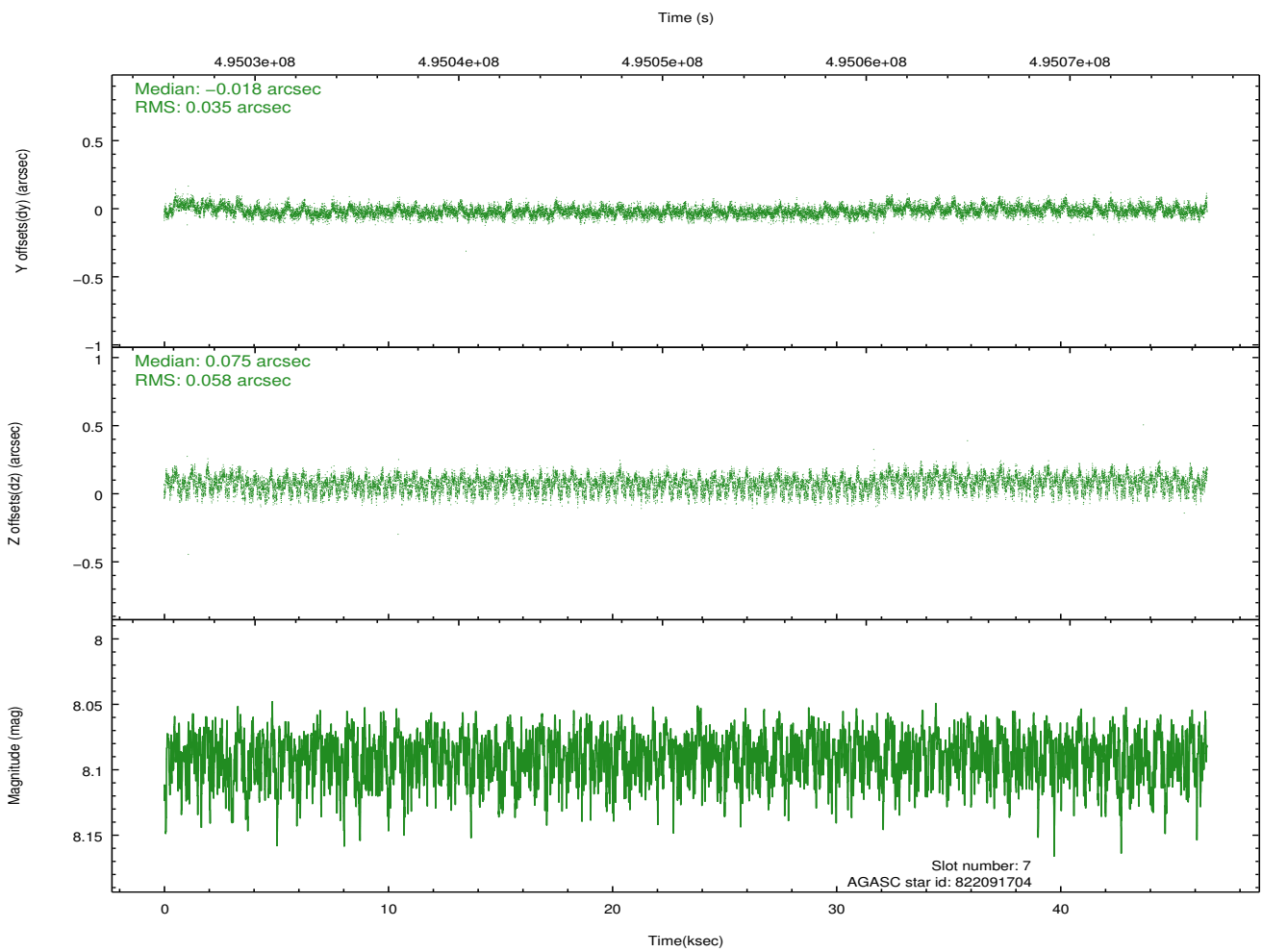
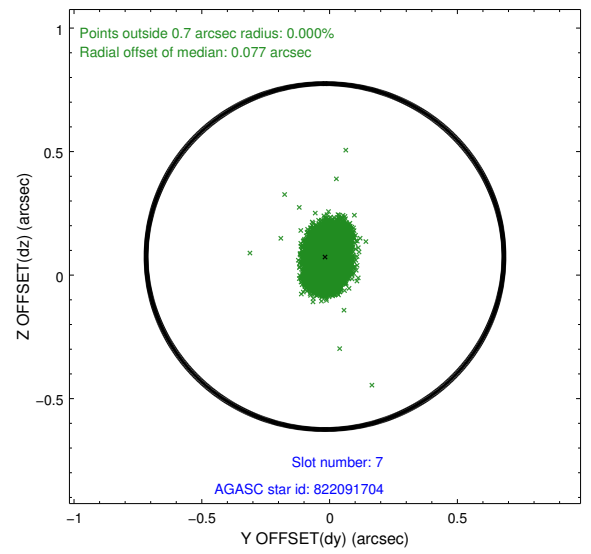
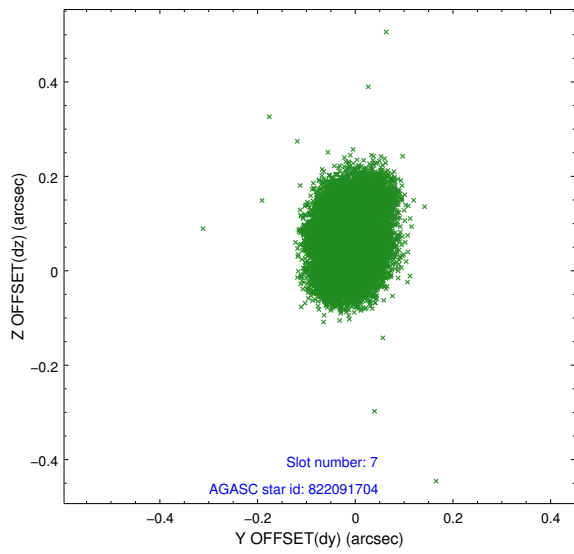
### 2.4.3 Slot 5



## 2.4.4 Slot 6

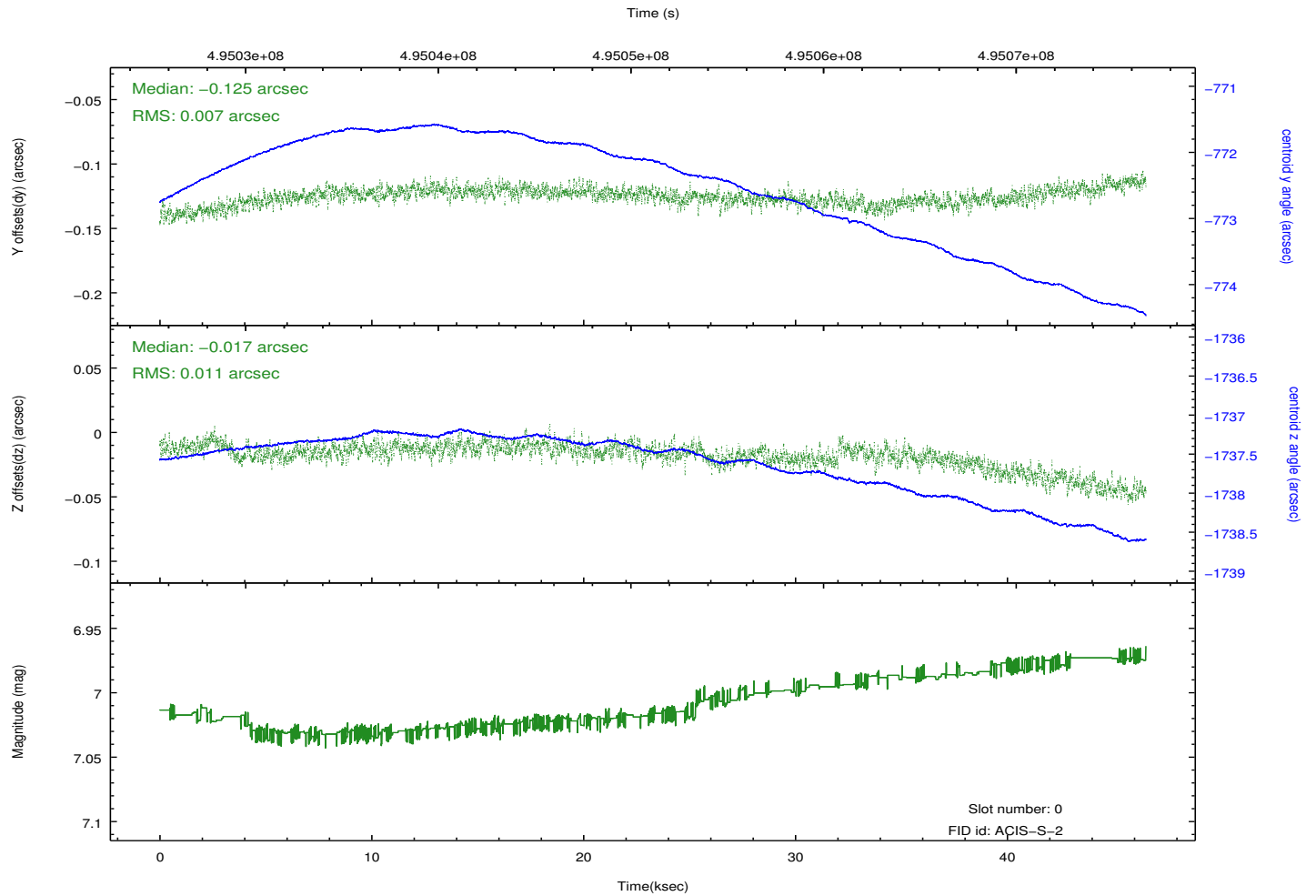
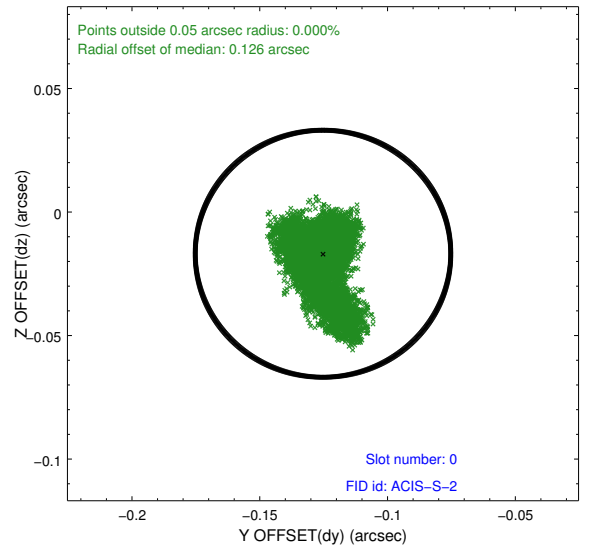
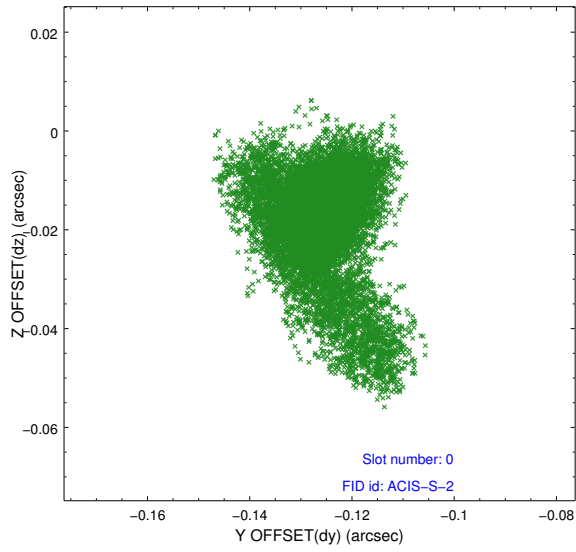


### 2.4.5 Slot 7

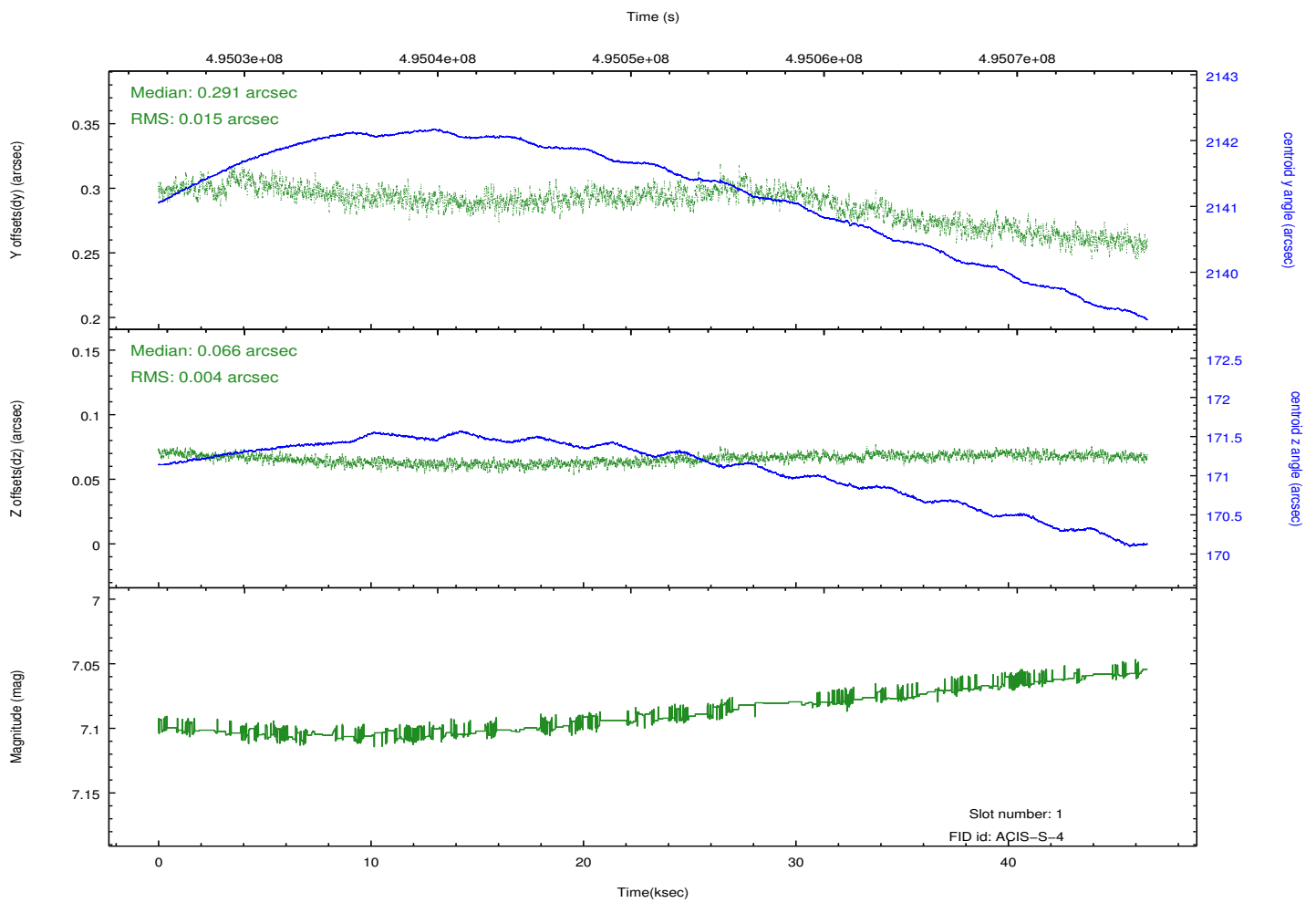
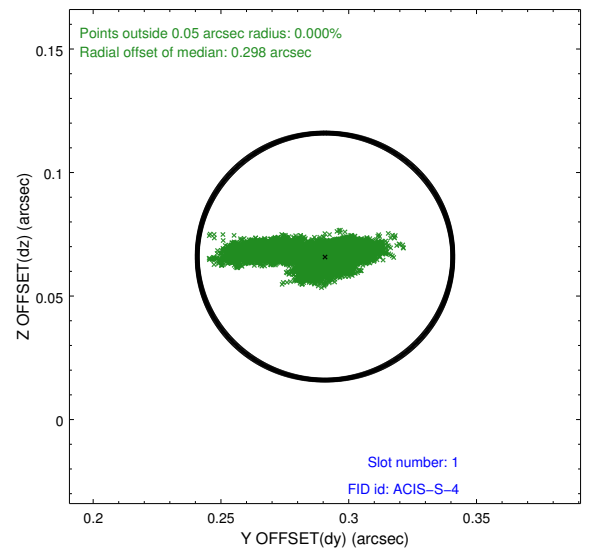
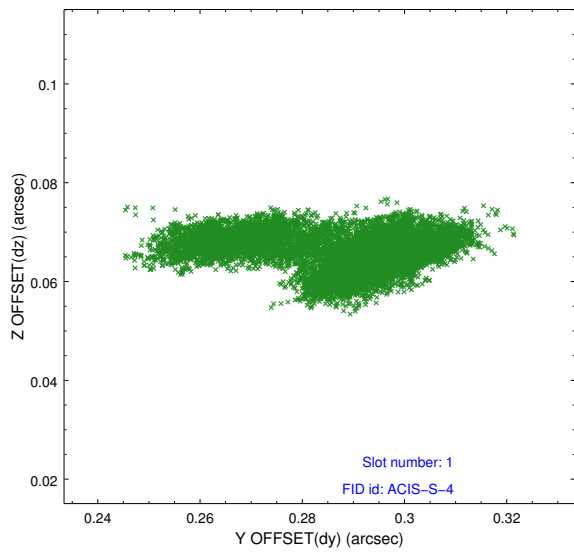


## 2.5 FID Slots

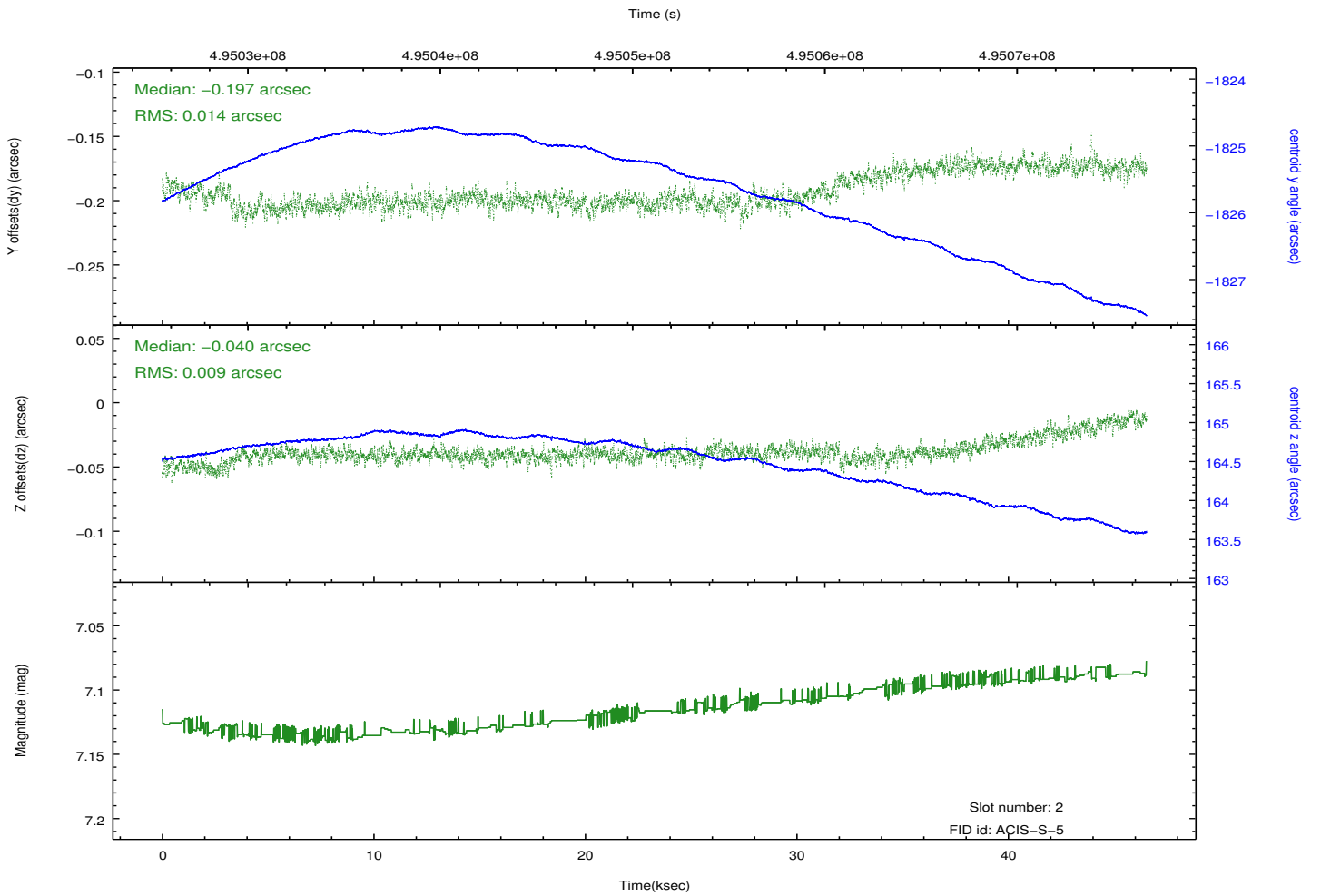
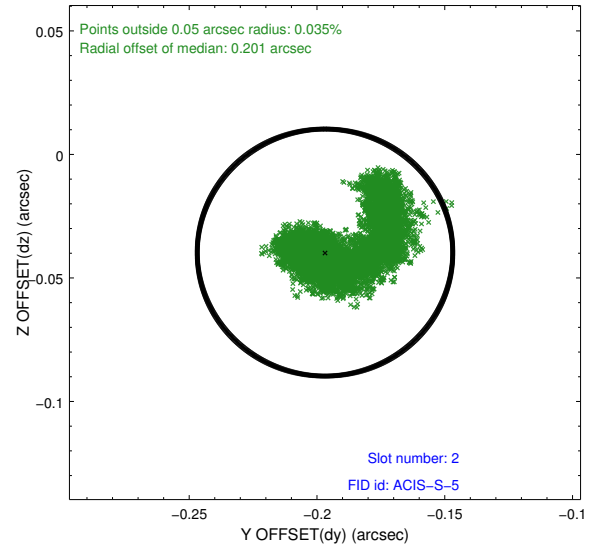
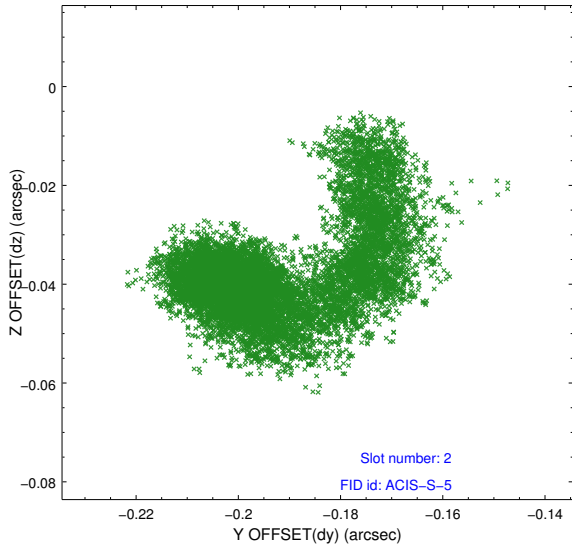
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	46.366386619091

## 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.