

# V&V Reference Report

## L2 ASCDS Version : 10.1.1

Observation 14913 - L2 Version 2  
Chandra X-Ray Center

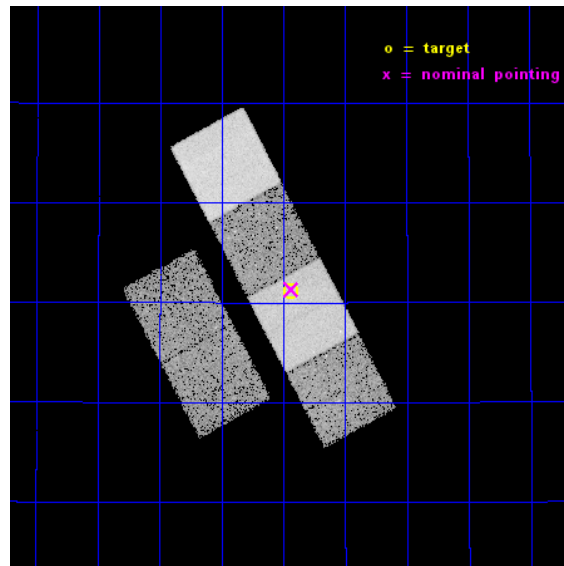
L2 Processing Date : Dec 9 2014

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# 1 Front

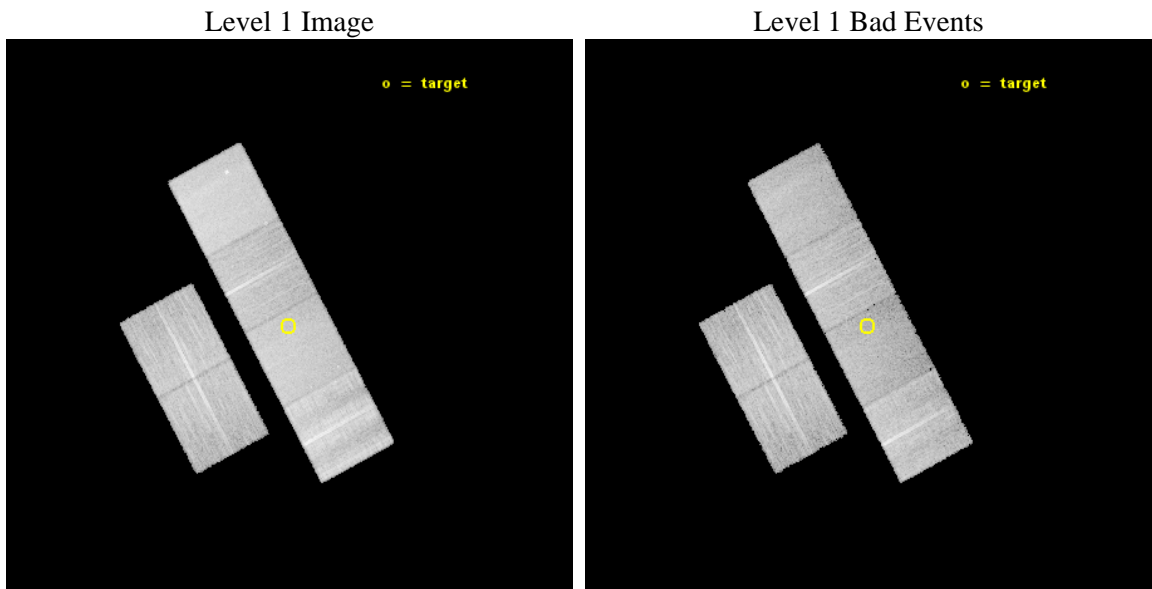
seq_num	601043	Sequence number
obs_id	14913	Observation id
title	The Origin of Elevated X-ray Emission in Strong Halpha Emitting Galaxies	Proposal title
observer	Dr. Ranga Ram Chary	Principal investigator
object	HAE 212	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	205.485417	Observer's specified target RA [deg]
dec_targ	30.519333	Observer's specified target Dec [deg]
ra_nom	205.4836944726	Nominal RA [deg]
dec_nom	30.521967745796	Nominal Dec [deg]
roll_nom	61.87321155751	Nominal Roll [deg]
revision	2	Processing version of data
ontime	22968.735854805	Sum of GTIs [s]
livetime	22677.891891299	Livetime [s]
ontime2	22968.776894808	Sum of GTIs [s]
ontime3	22968.612734795	Sum of GTIs [s]
ontime5	22968.694814801	Sum of GTIs [s]
ontime6	22968.653774798	Sum of GTIs [s]
ontime7	22968.735854805	Sum of GTIs [s]
ontime8	22968.571694791	Sum of GTIs [s]
l2events	175867	Number of level 2 events



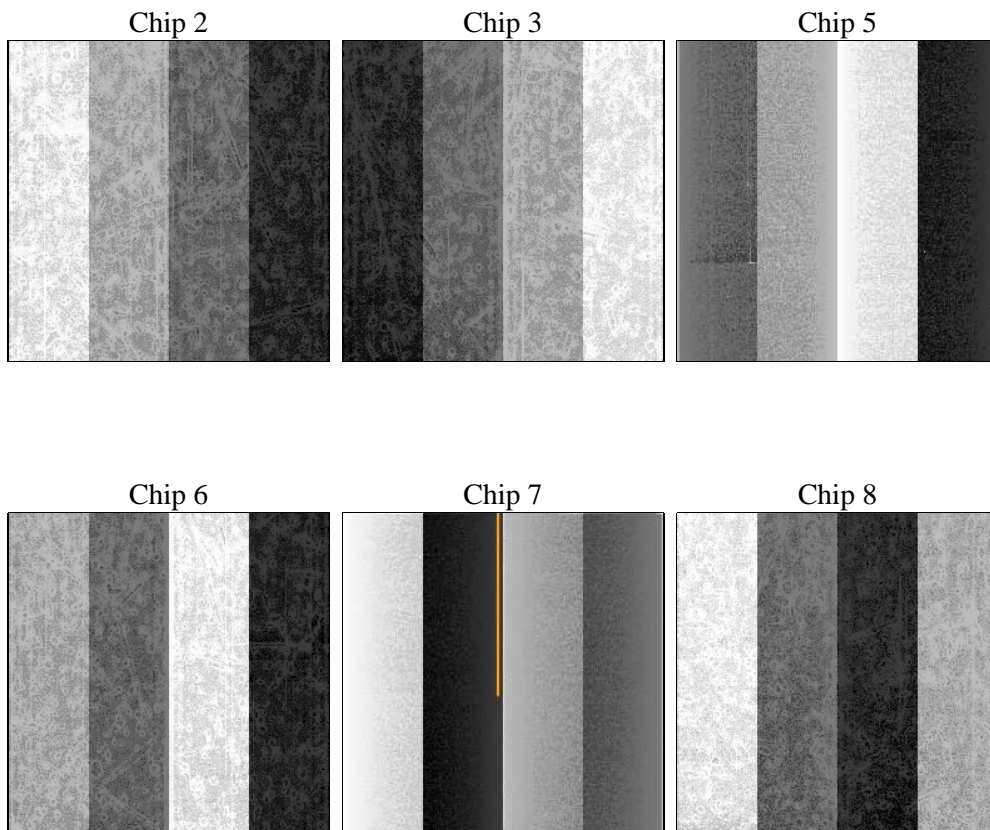
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	22968.735854805	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime2	22968.776894808	Sum of GTIs [s]
date	2014-12-09T09:04:31	Date and time of file creation	ontime3	22968.612734795	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	22968.694814801	Sum of GTIs [s]
			ontime6	22968.653774798	Sum of GTIs [s]
			ontime7	22968.735854805	Sum of GTIs [s]
			ontime8	22968.571694791	Sum of GTIs [s]
			l1events	735475	Number of level 1 events

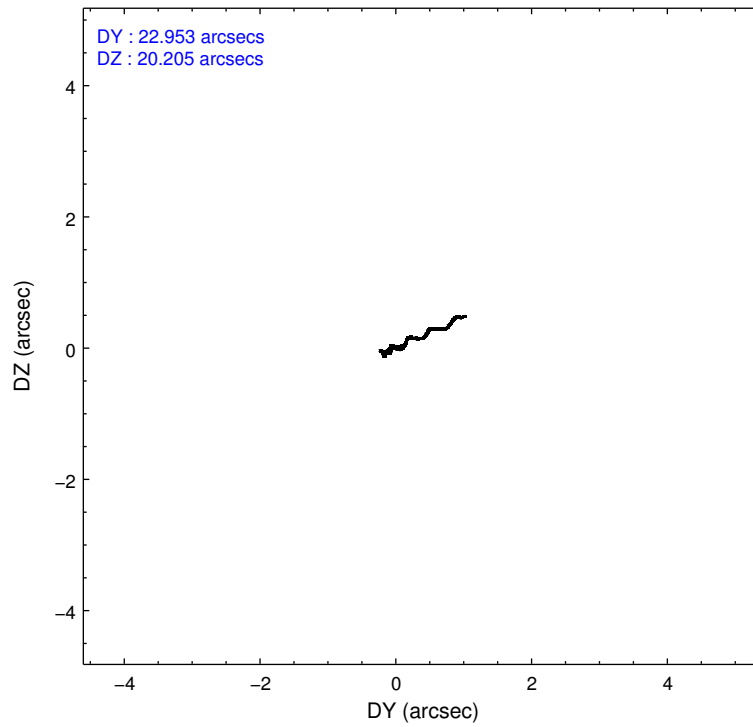
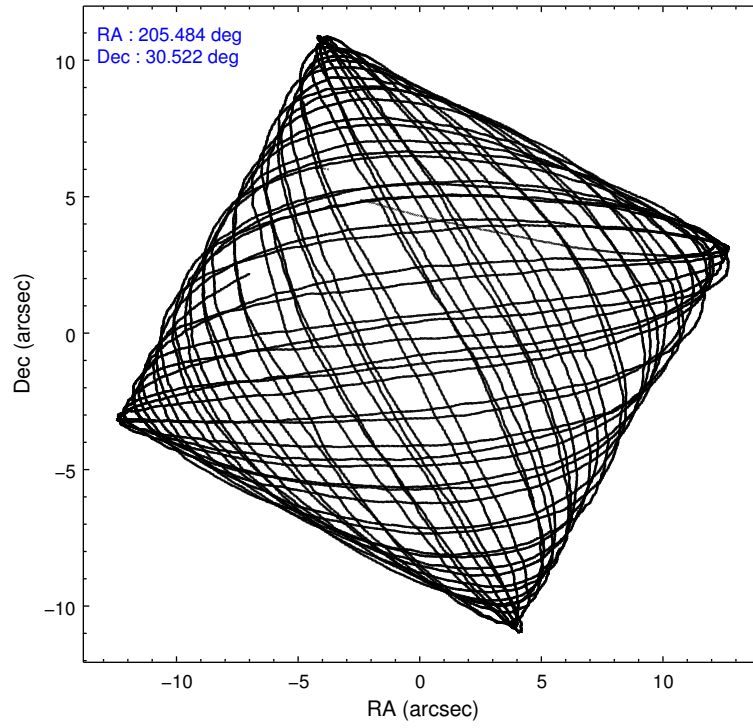
### 2.1.4 Events

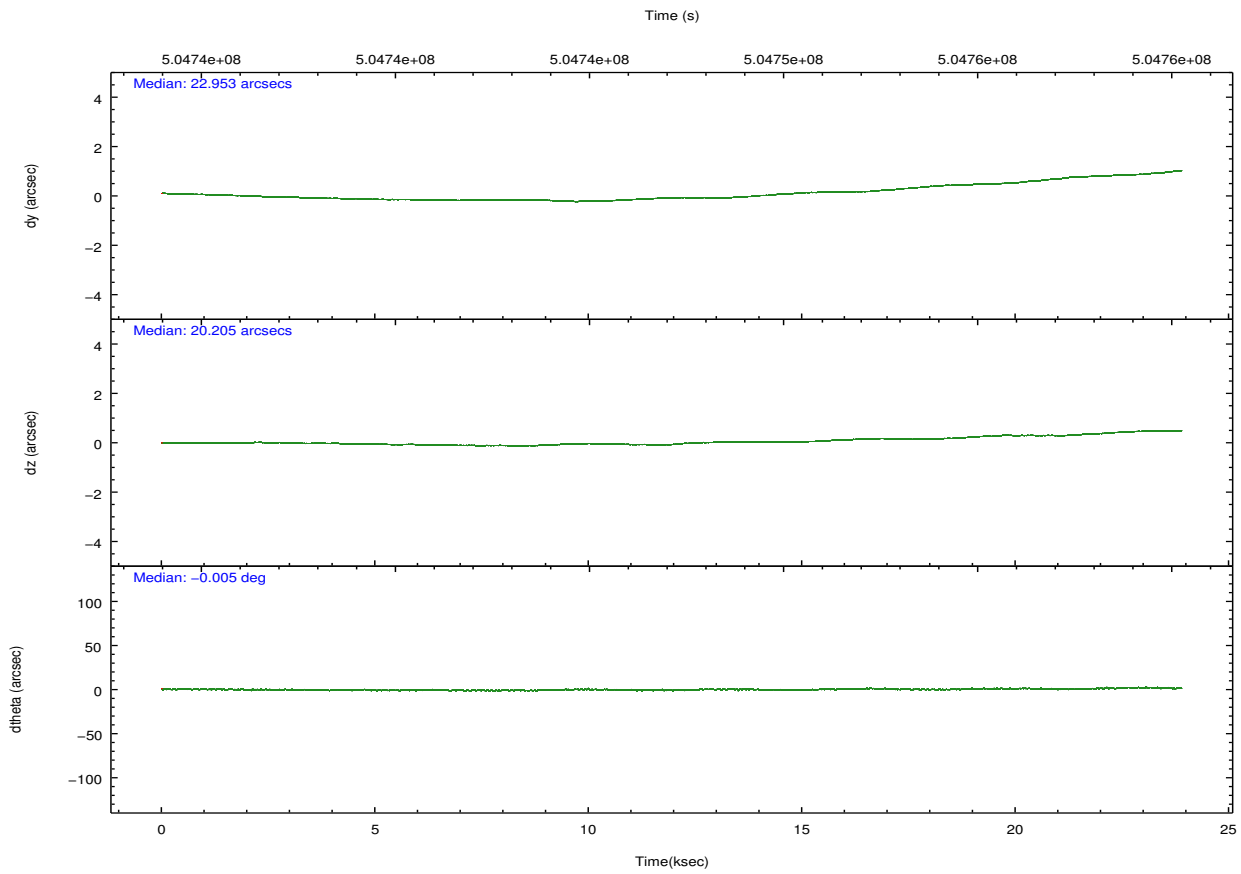
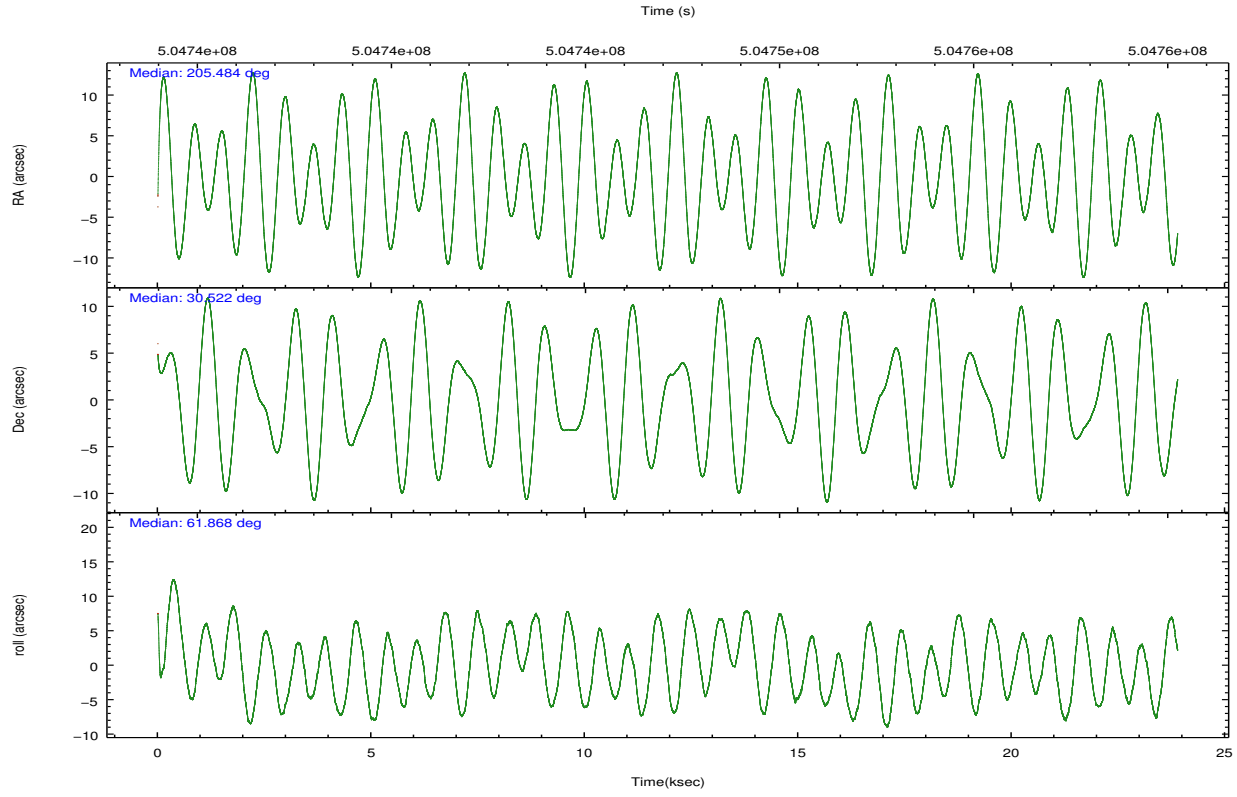
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	108252	97839	155798	104087	122567	146932	grade 0 events	4586	3932	5384	4621	5647	13768
rejected events	95702	86858	77361	91268	64241	98563		4%	4%	3%	4%	4%	9%
rejected %	88%	88%	49%	87%	52%	67%	grade 1 events	64	55	344	62	185	135
								0%	0%	0%	0%	0%	0%
							grade 2 events	3231	2530	25250	2999	12400	10451
								2%	2%	16%	2%	10%	7%
							grade 3 events	1153	1178	2919	1276	5168	6076
								1%	1%	1%	1%	4%	4%
							grade 4 events	1293	1154	2861	1310	5097	5698
								1%	1%	1%	1%	4%	3%
							grade 5 events	4189	4590	12052	4715	13097	7191
								3%	4%	7%	4%	10%	4%
							grade 6 events	2291	2187	42033	2614	30024	12378
								2%	2%	26%	2%	24%	8%
							grade 7 events	91445	82213	64955	86490	50949	91235
								84%	84%	41%	83%	41%	62%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	205.485160	205.4836944726035	CCD I2 on	Y	Y
[deg] Pointing Dec	30.494659	30.52196774579587	CCD I3 on	Y	Y
[deg] Pointing Roll	61.715833	61.87321155750952	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	504736070.184000	504734517.89623	CCD S5 on	N	N
Observation start date	2013-12-29T20:26:43	2013-12-29T20:01:57	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	504759070.184000	504759799.01012	On-chip summing requested	N	N
Observation end date	2013-12-30T02:50:03	2013-12-30T03:03:19	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect





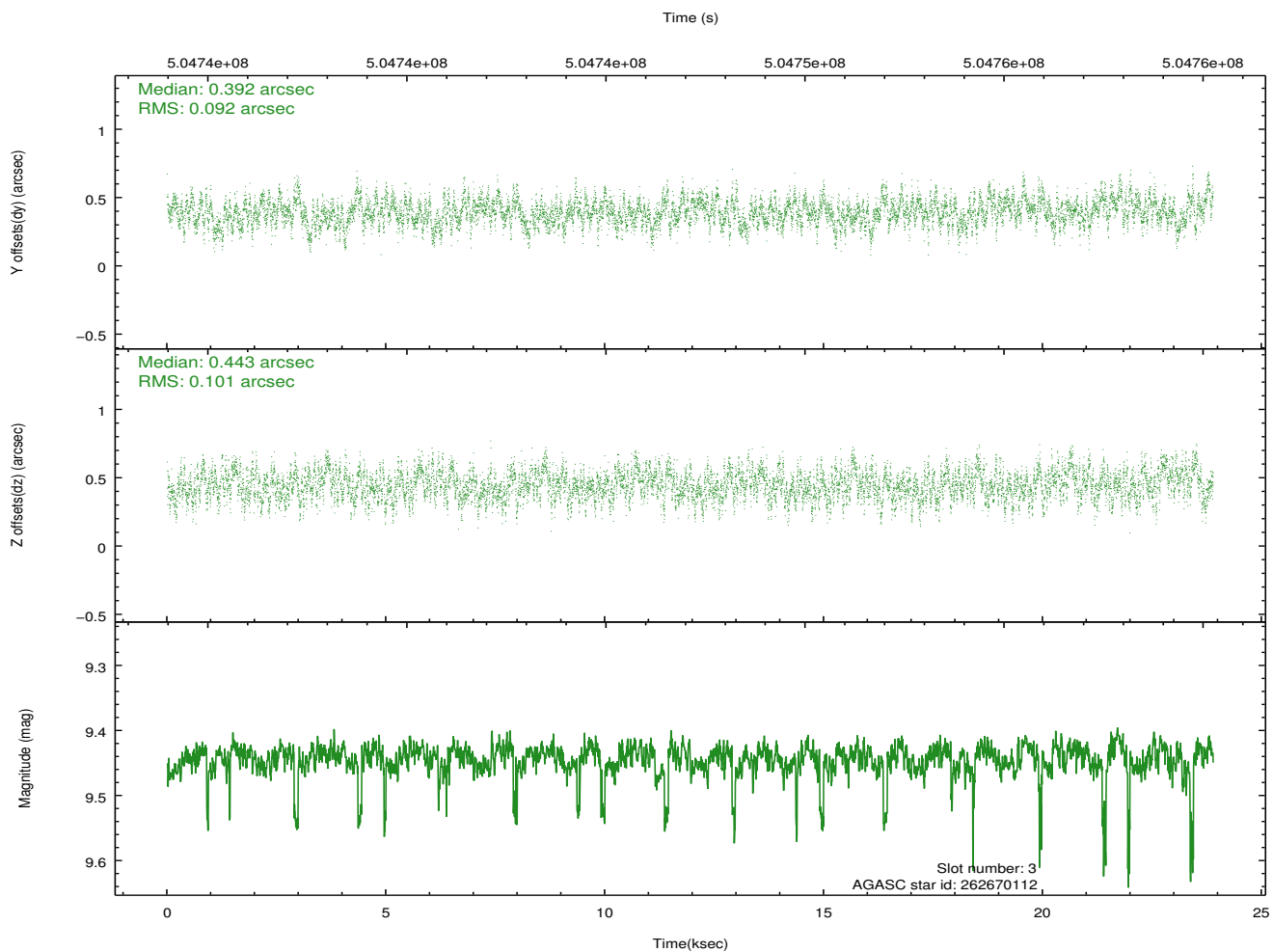
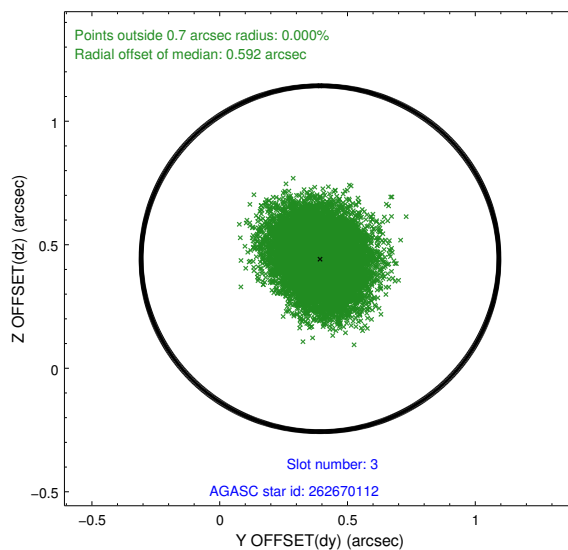
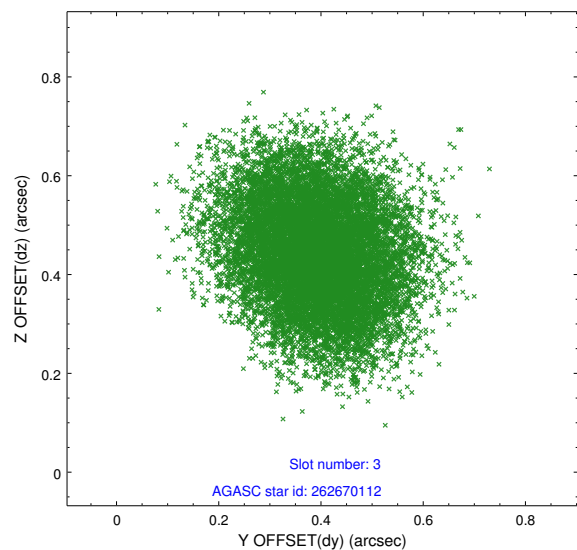
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.92	5827	-0.133	-0.017	0.011	0.025	0.000000	0.000000	-776.40	-1741.82
1	FID		ACIS-S-4	7.01	5827	0.319	0.070	0.015	0.032	0.000000	0.000000	2137.26	166.64
2	FID		ACIS-S-5	7.02	5827	-0.217	-0.042	0.012	0.021	0.000000	0.000000	-1829.17	160.31
3	GUIDE	used	262670112	9.44	11582	0.392	0.443	0.149	0.233	205.765562	29.678751	-2169.35	-2163.68
4	GUIDE	used	332531048	8.13	11652	-0.392	0.411	0.162	0.235	206.423870	30.608285	1748.97	-2361.08
5	GUIDE	used	332538688	9.40	11642	-0.018	-0.345	0.194	0.312	205.008403	30.692412	-70.21	1637.99
6	GUIDE	used	332540472	6.12	11653	-0.453	-0.797	0.096	0.145	205.064907	31.012036	1028.16	2026.78
7	GUIDE	used	262670776	9.84	11637	0.498	0.252	0.202	0.359	205.578965	29.710471	-2346.03	-1595.55

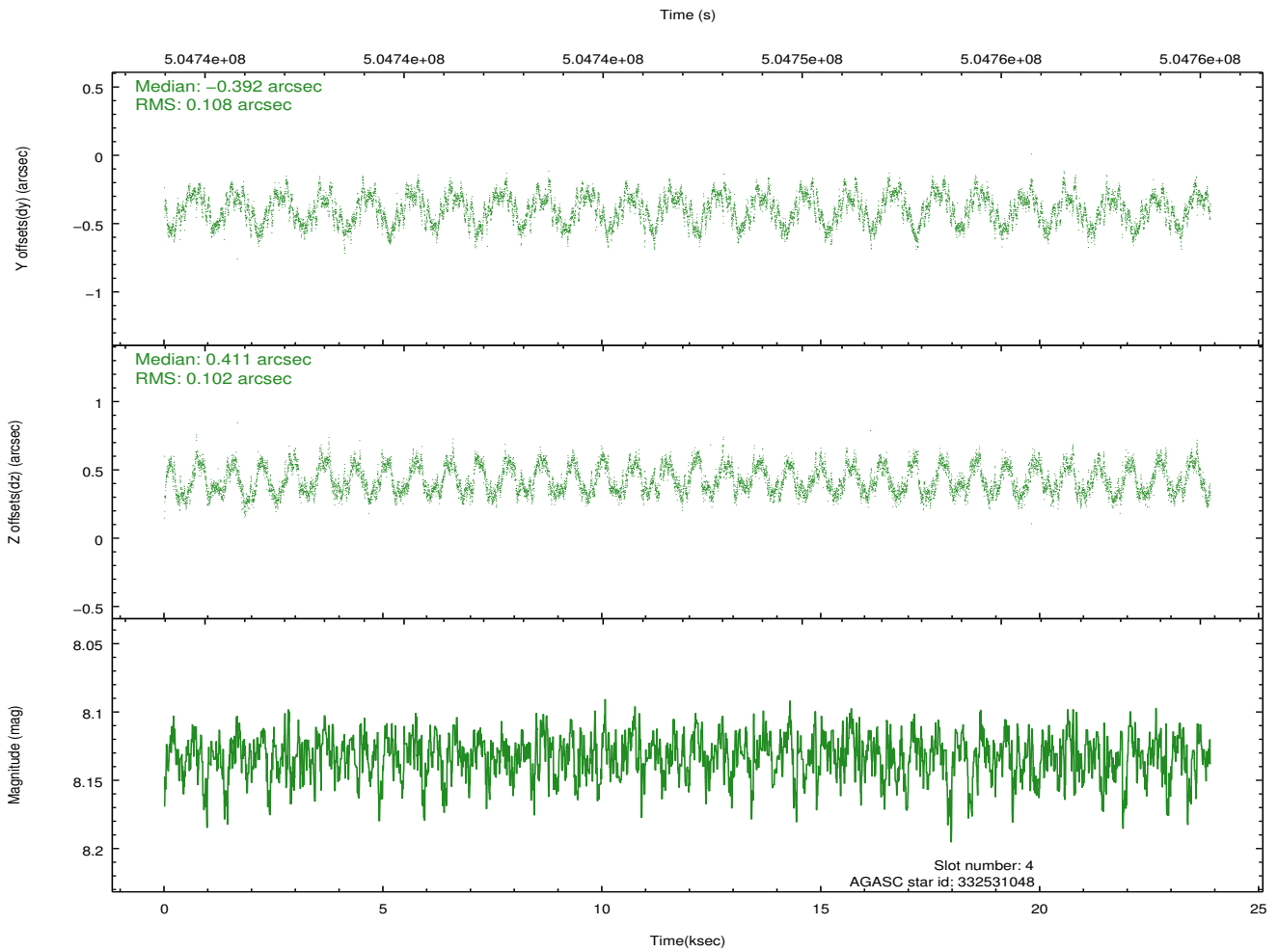
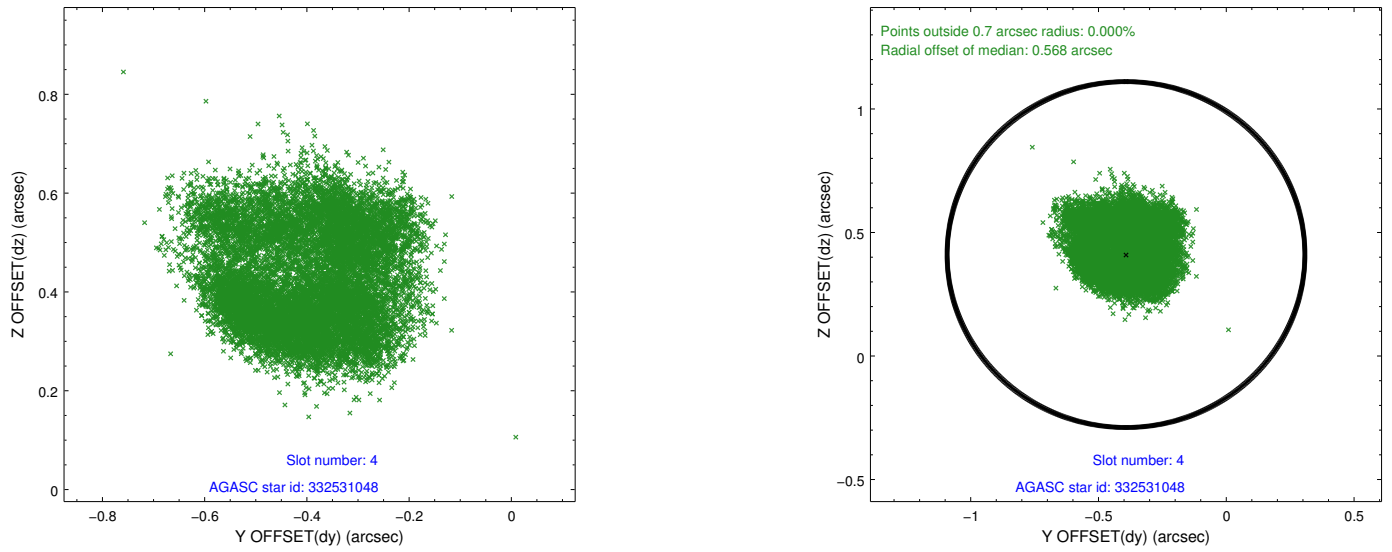
∞

## 2.4 Star Slots

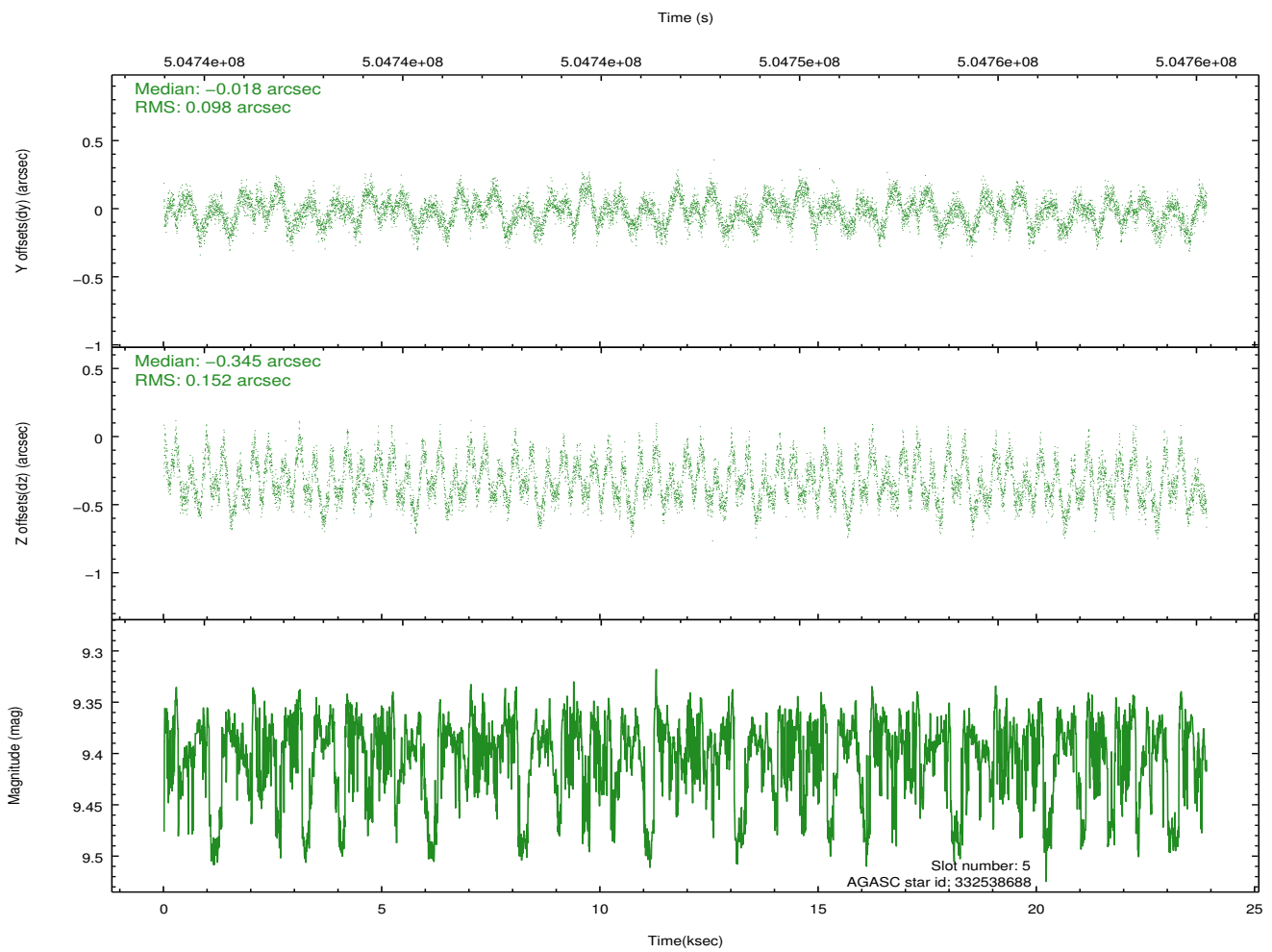
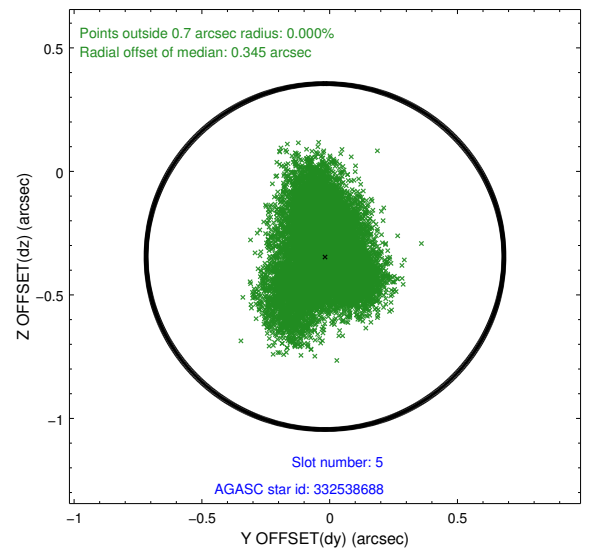
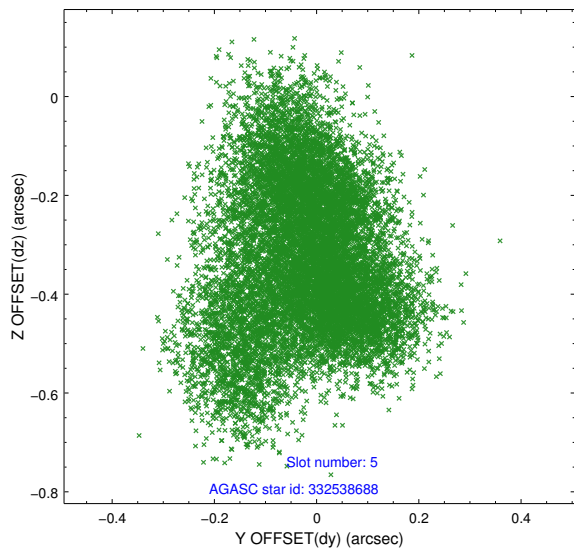
### 2.4.1 Slot 3



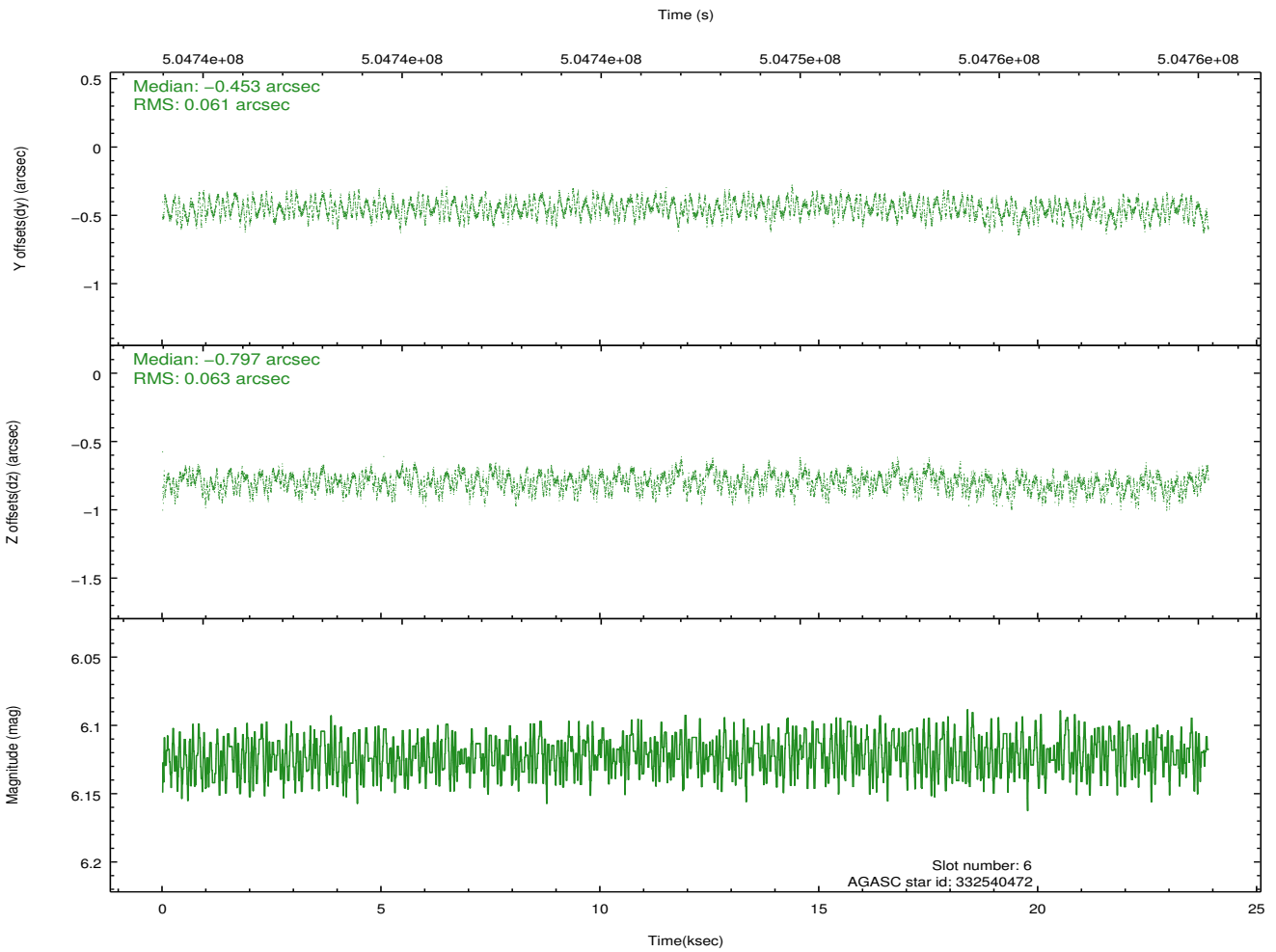
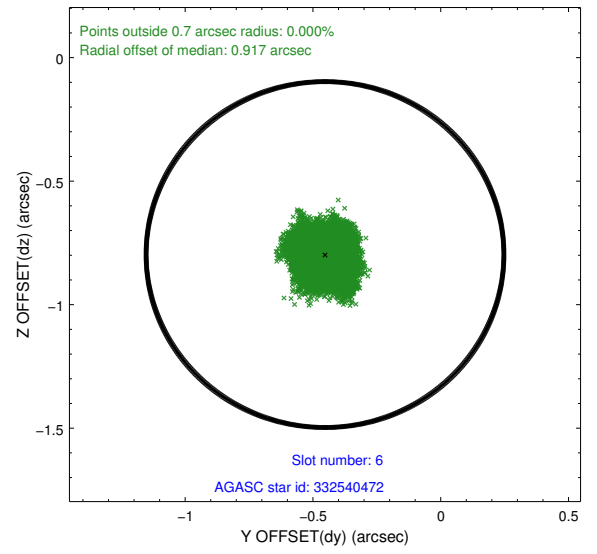
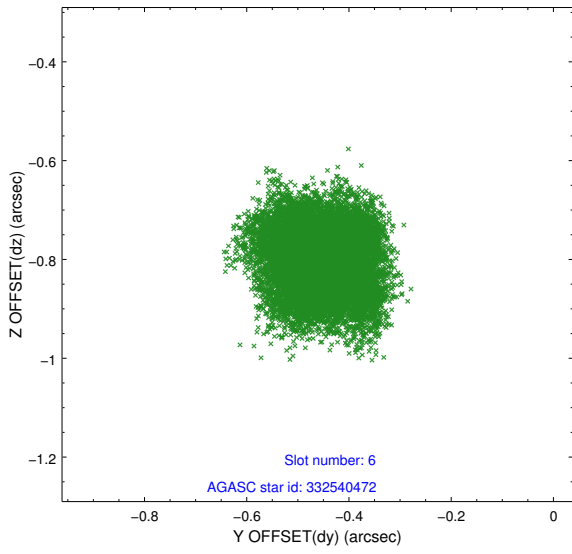
## 2.4.2 Slot 4



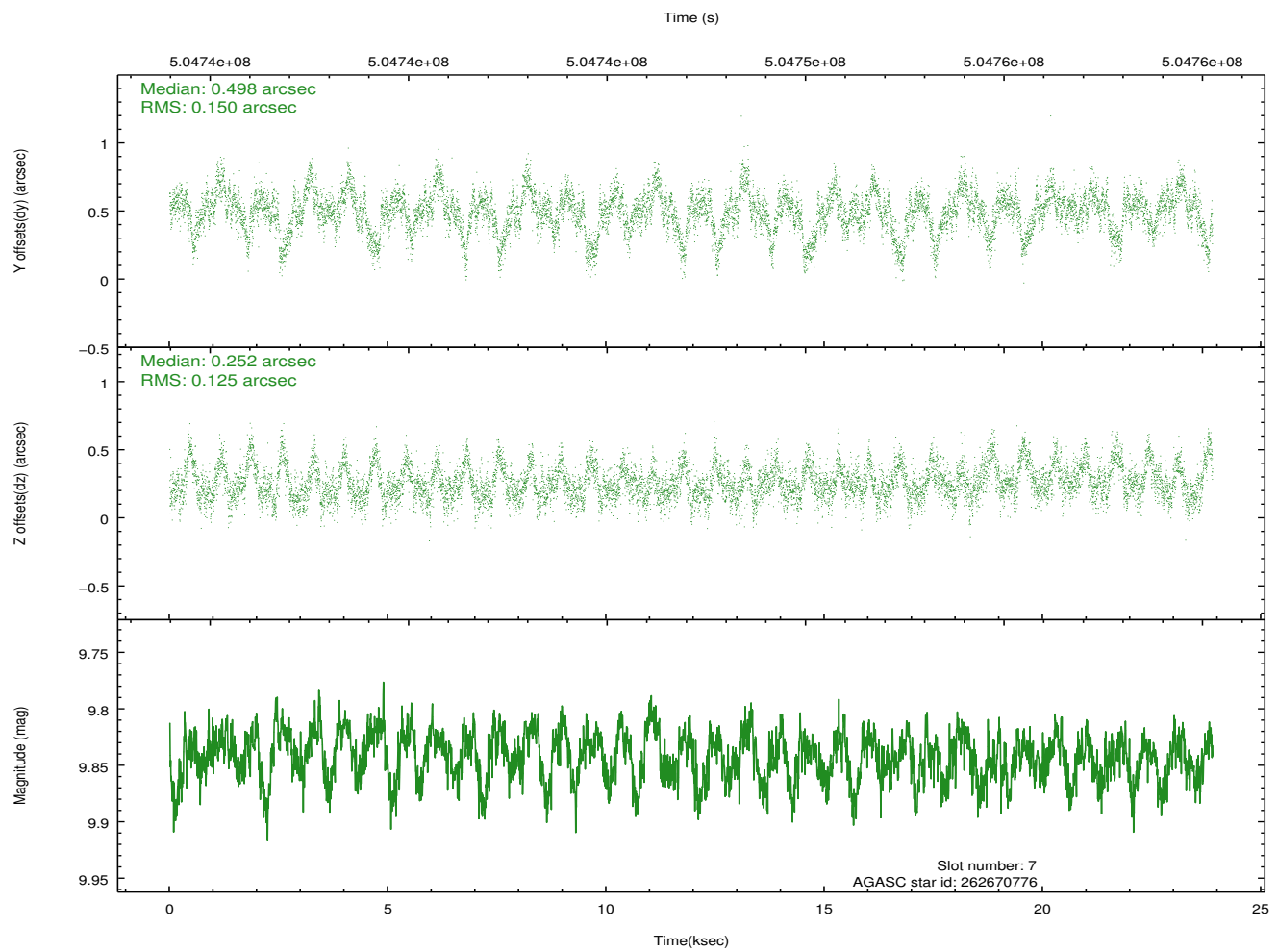
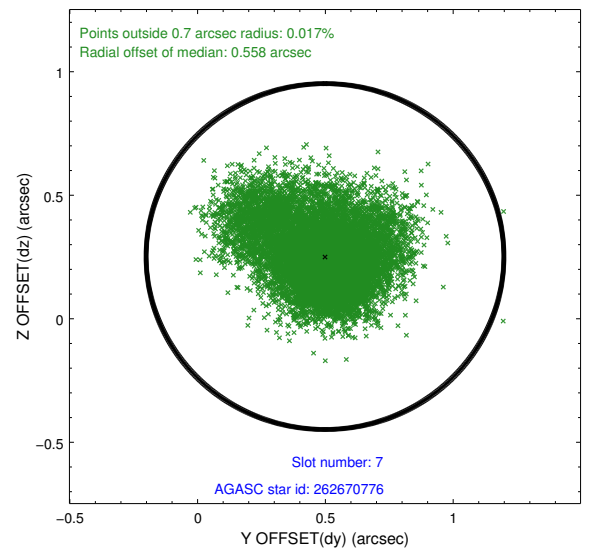
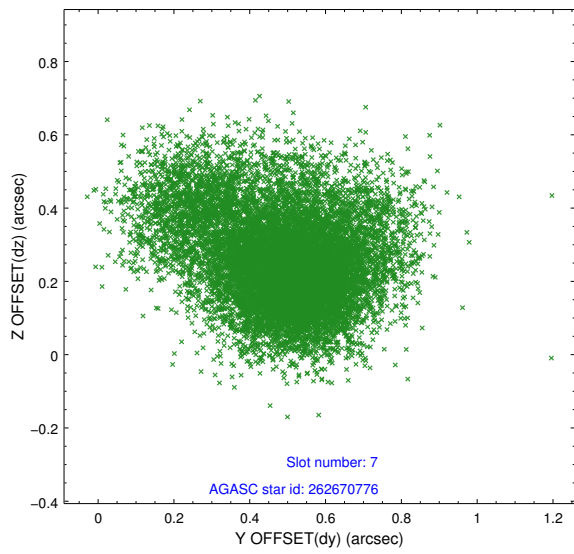
### 2.4.3 Slot 5



### 2.4.4 Slot 6

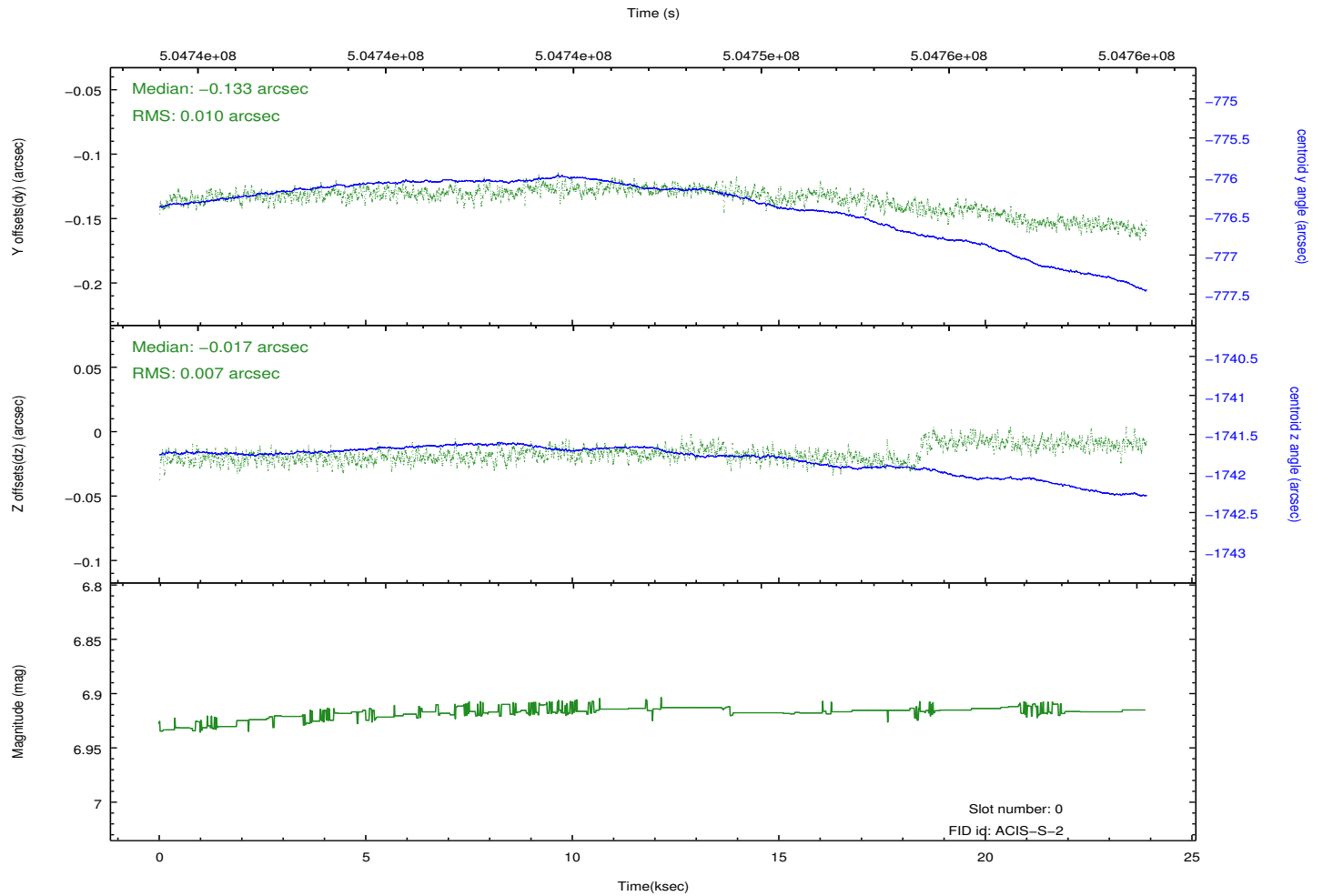
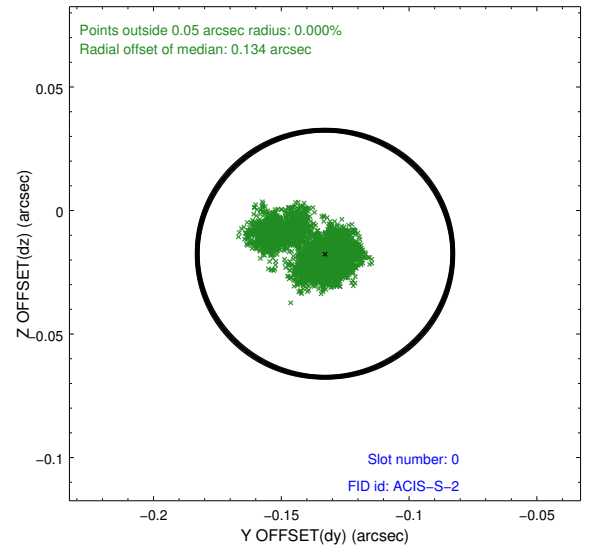
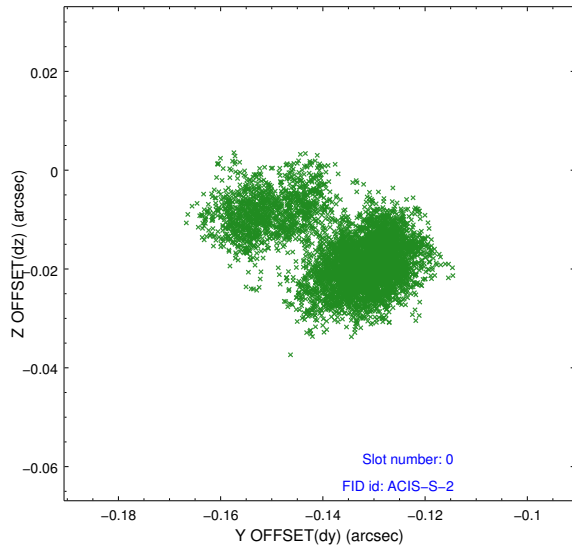


## 2.4.5 Slot 7

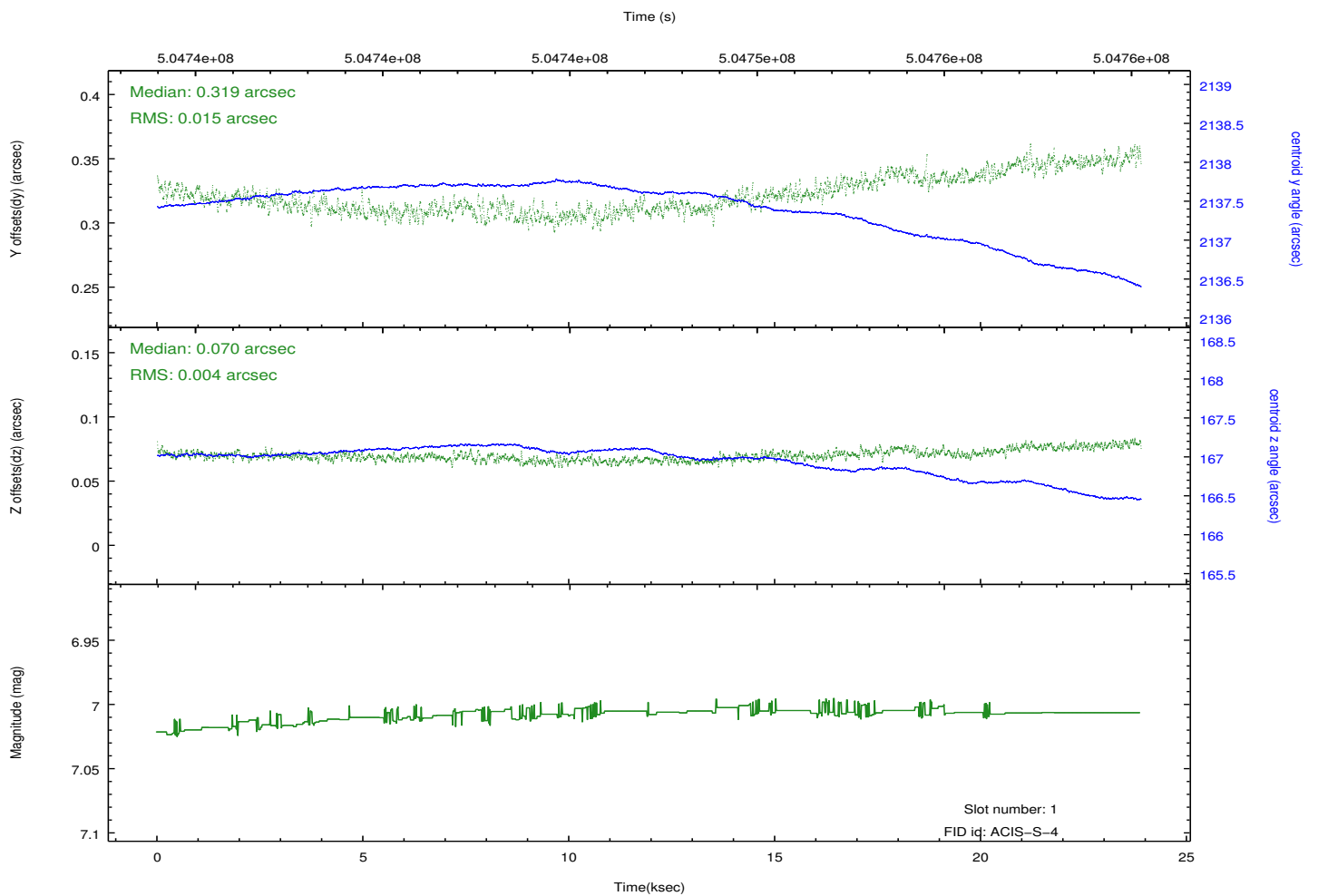
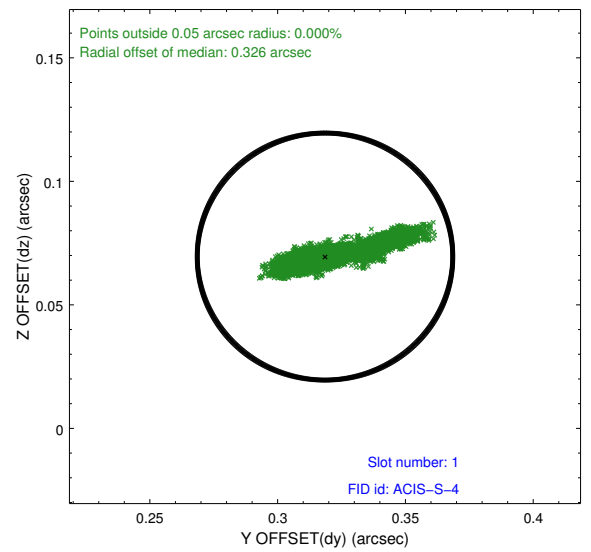
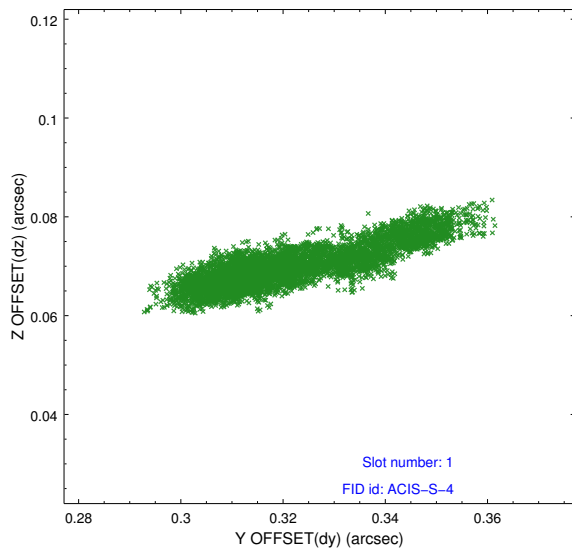


## 2.5 FID Slots

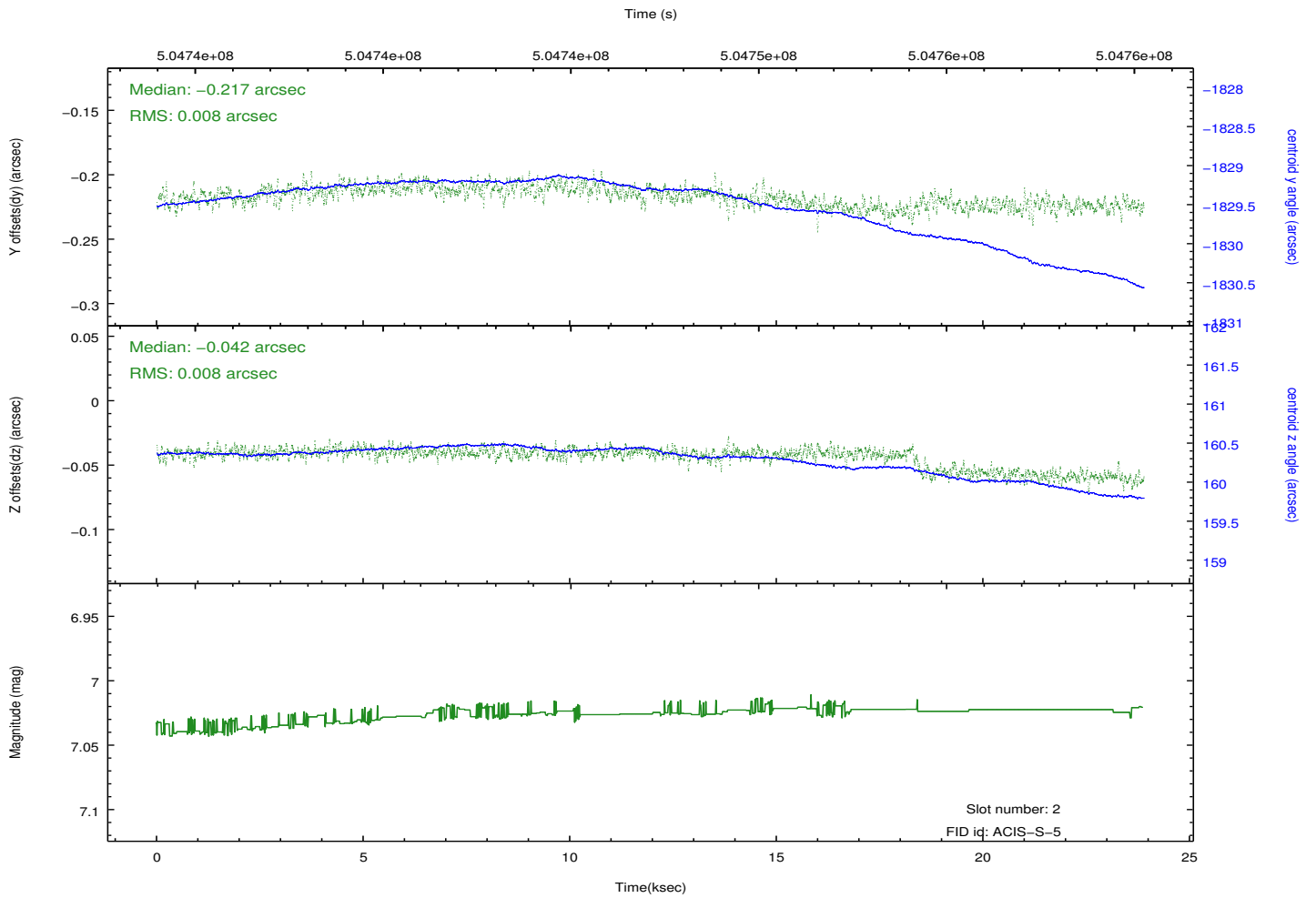
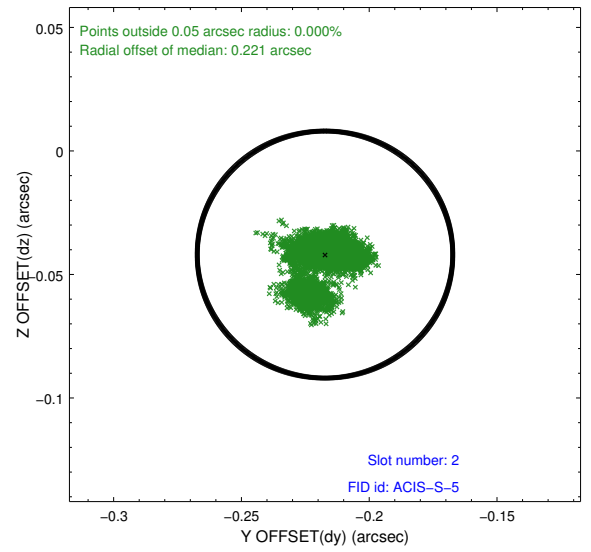
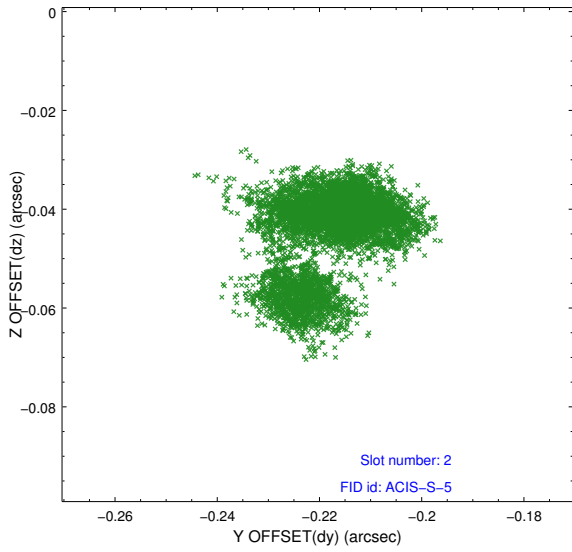
### 2.5.1 Slot 0



## 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	22.968735854805

## 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.