

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 14602 - L2 Version 2  
Chandra X-Ray Center

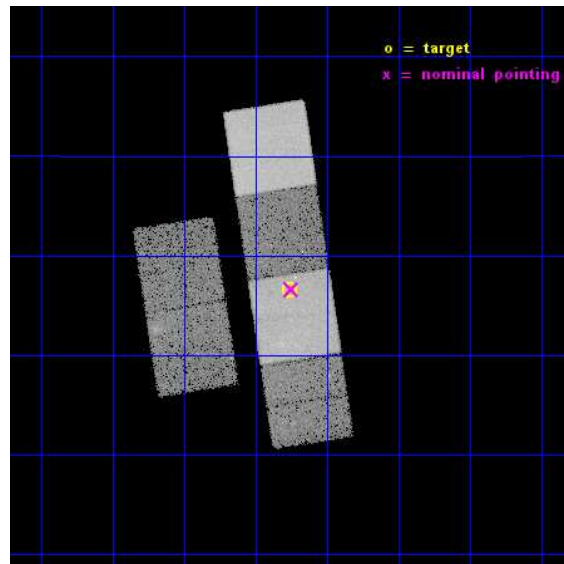
L2 Processing Date : Nov 28 2014

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# 1 Front

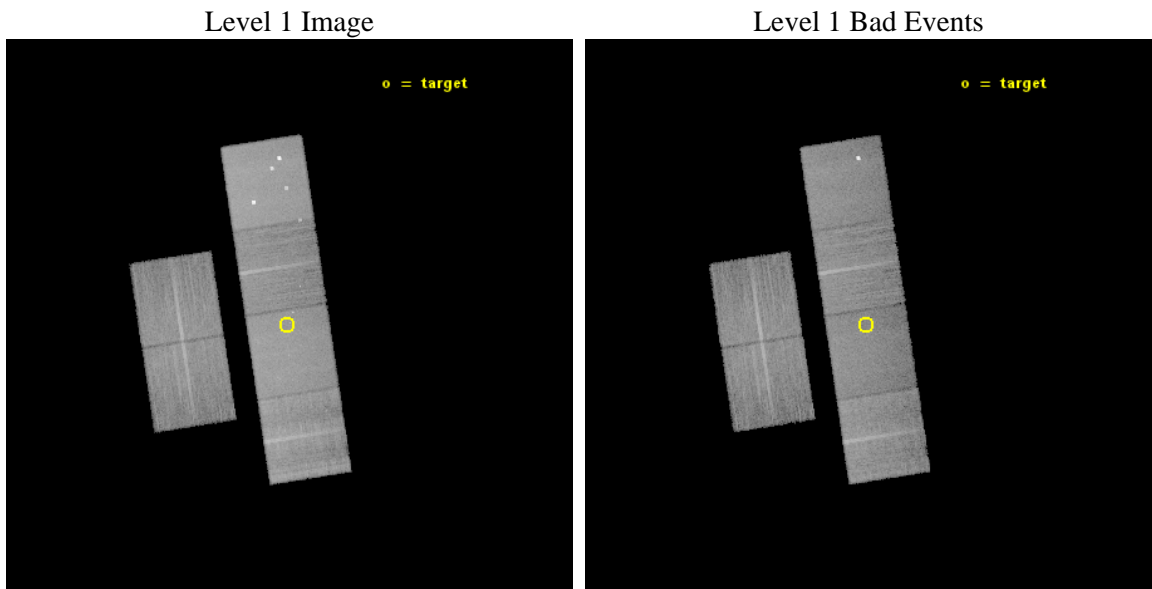
seq_num	200902	Sequence number
obs_id	14602	Observation id
title	Probing the Dynamo Mechanism in Fully Convective Stars	Proposal ti
observer	Dr Nicholas Wright	Principal investigator
object	CD Cet	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	48.440208	Observer's specified target RA [deg]
dec_targ	4.775111	Observer's specified target Dec [deg]
ra_nom	48.437920665428	Nominal RA [deg]
dec_nom	4.7770977417867	Nominal Dec [deg]
roll_nom	81.241138696252	Nominal Roll [deg]
revision	2	Processing version of data
ontime	25967.999903321	Sum of GTIs [s]
livetime	25639.177452493	Livetime [s]
ontime2	25967.999903321	Sum of GTIs [s]
ontime3	25967.999903321	Sum of GTIs [s]
ontime5	25967.999903321	Sum of GTIs [s]
ontime6	25964.758852959	Sum of GTIs [s]
ontime7	25967.999903321	Sum of GTIs [s]
ontime8	25964.758932948	Sum of GTIs [s]
l2events	227305	Number of level 2 events



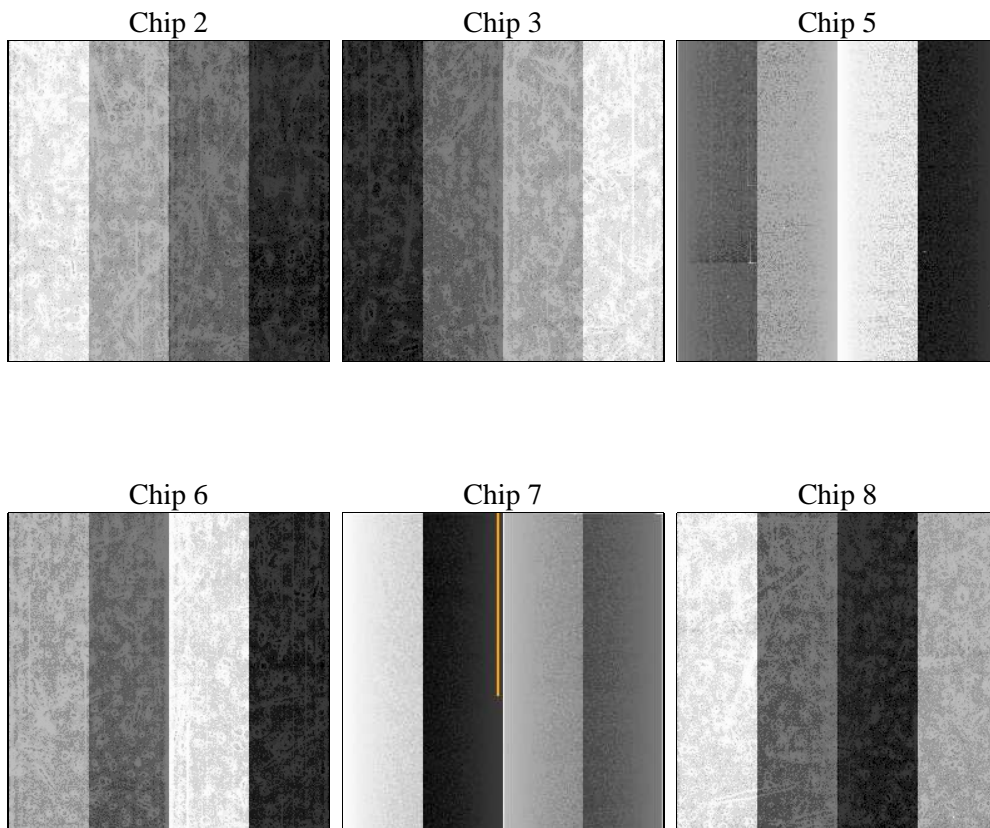
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	26000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	25967.999903321	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime2	25967.999903321	Sum of GTIs [s]
date	2014-11-28T10:55:45	Date and time of file creation	ontime3	25967.999903321	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	25967.999903321	Sum of GTIs [s]
			ontime6	25964.758852959	Sum of GTIs [s]
			ontime7	25967.999903321	Sum of GTIs [s]
			ontime8	25964.758932948	Sum of GTIs [s]
			l1events	957251	Number of level 1 events

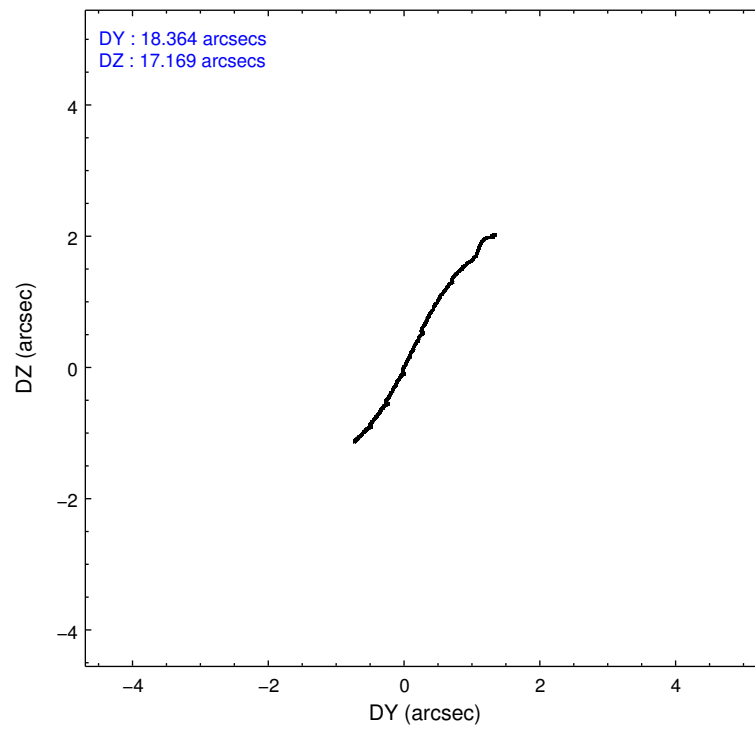
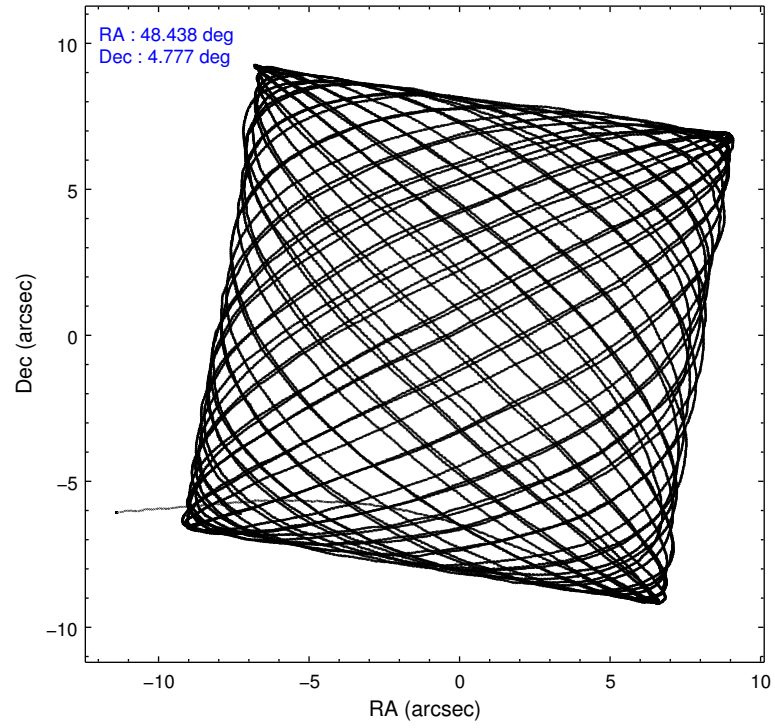
### 2.1.4 Events

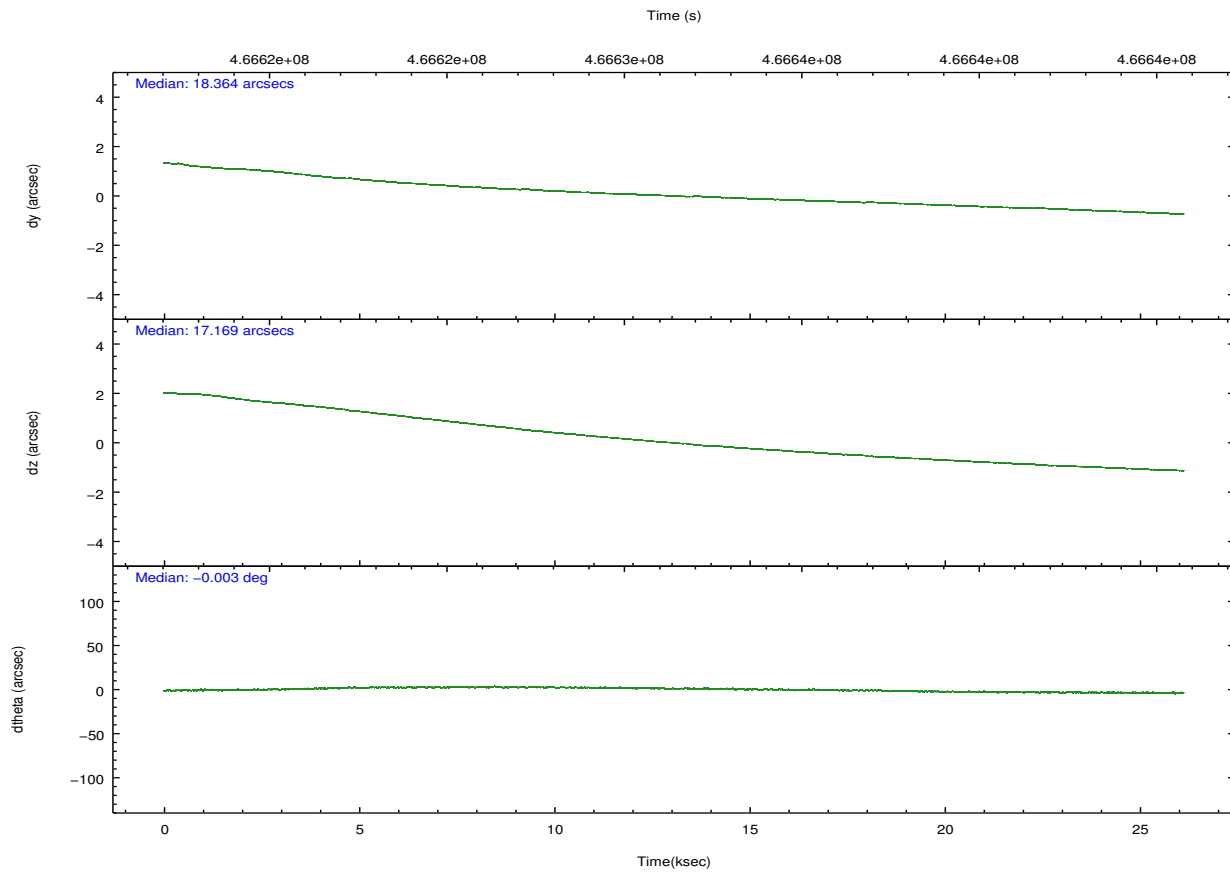
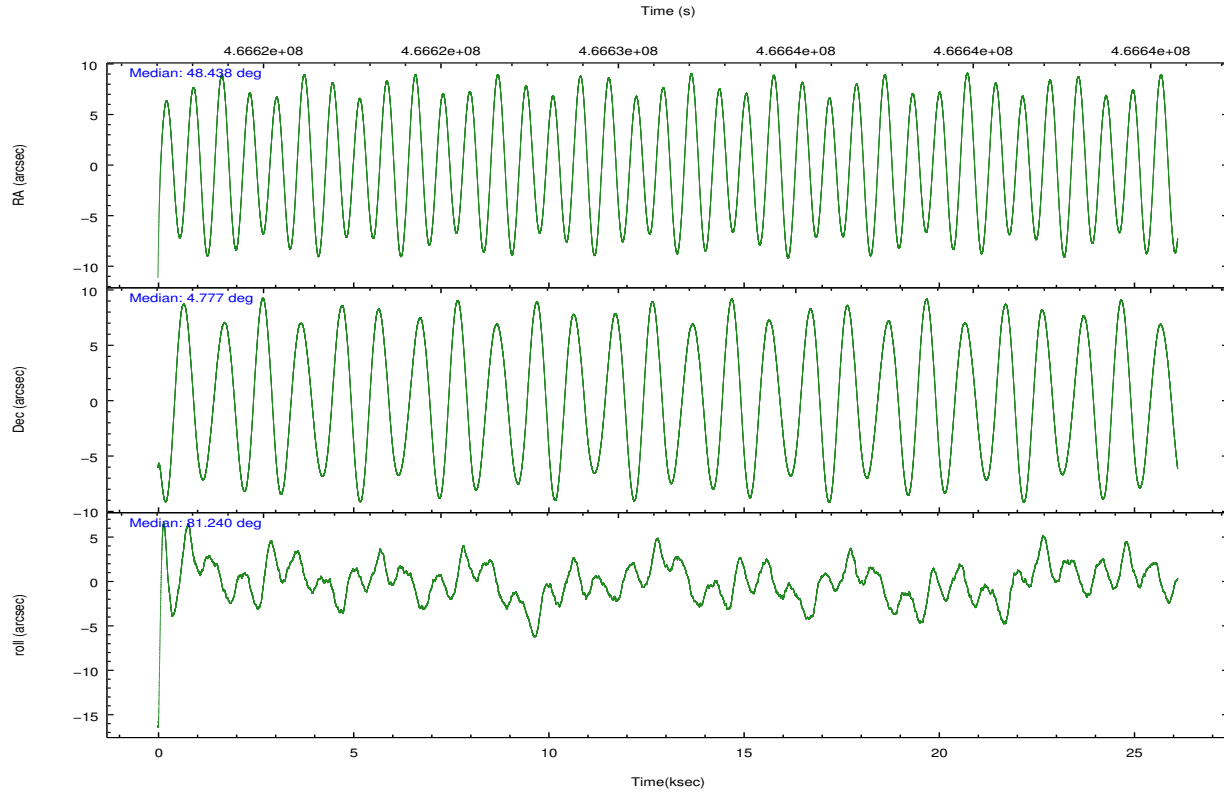
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	127811	123284	227578	131737	176723	170118	grade 0 events	5166	5381	18466	5427	7394	13030
rejected events	112964	108619	114235	115825	98243	125304		4%	4%	8%	4%	4%	7%
rejected %	88%	88%	50%	87%	55%	73%	grade 1 events	79	84	334	64	194	105
								0%	0%	0%	0%	0%	0%
							grade 2 events	3648	3183	32714	3601	16011	10679
								2%	2%	14%	2%	9%	6%
							grade 3 events	1490	1536	3735	1616	6899	4616
								1%	1%	1%	1%	3%	2%
							grade 4 events	1546	1567	3690	1635	6704	4494
								1%	1%	1%	1%	3%	2%
							grade 5 events	5899	6672	16720	6668	18364	9743
								4%	5%	7%	5%	10%	5%
							grade 6 events	2999	3001	54753	3636	41474	12000
								2%	2%	24%	2%	23%	7%
							grade 7 events	106984	101860	97166	109090	79683	115451
								83%	82%	42%	82%	45%	67%

## 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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	48.448216	48.4379206654282	CCD I2 on	O1	Y
[deg] Pointing Dec	4.751761	4.777097741786657	CCD I3 on	O2	Y
[deg] Pointing Roll	81.083664	81.24113869625154	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	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	466618442.184000	466617161.25224	CCD S5 on	N	N
Observation start date	2012-10-14T16:12:55	2012-10-14T15:52:41	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	466644442.184000	466645052.52874	On-chip summing requested	N	N
Observation end date	2012-10-14T23:26:15	2012-10-14T23:37:32	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect





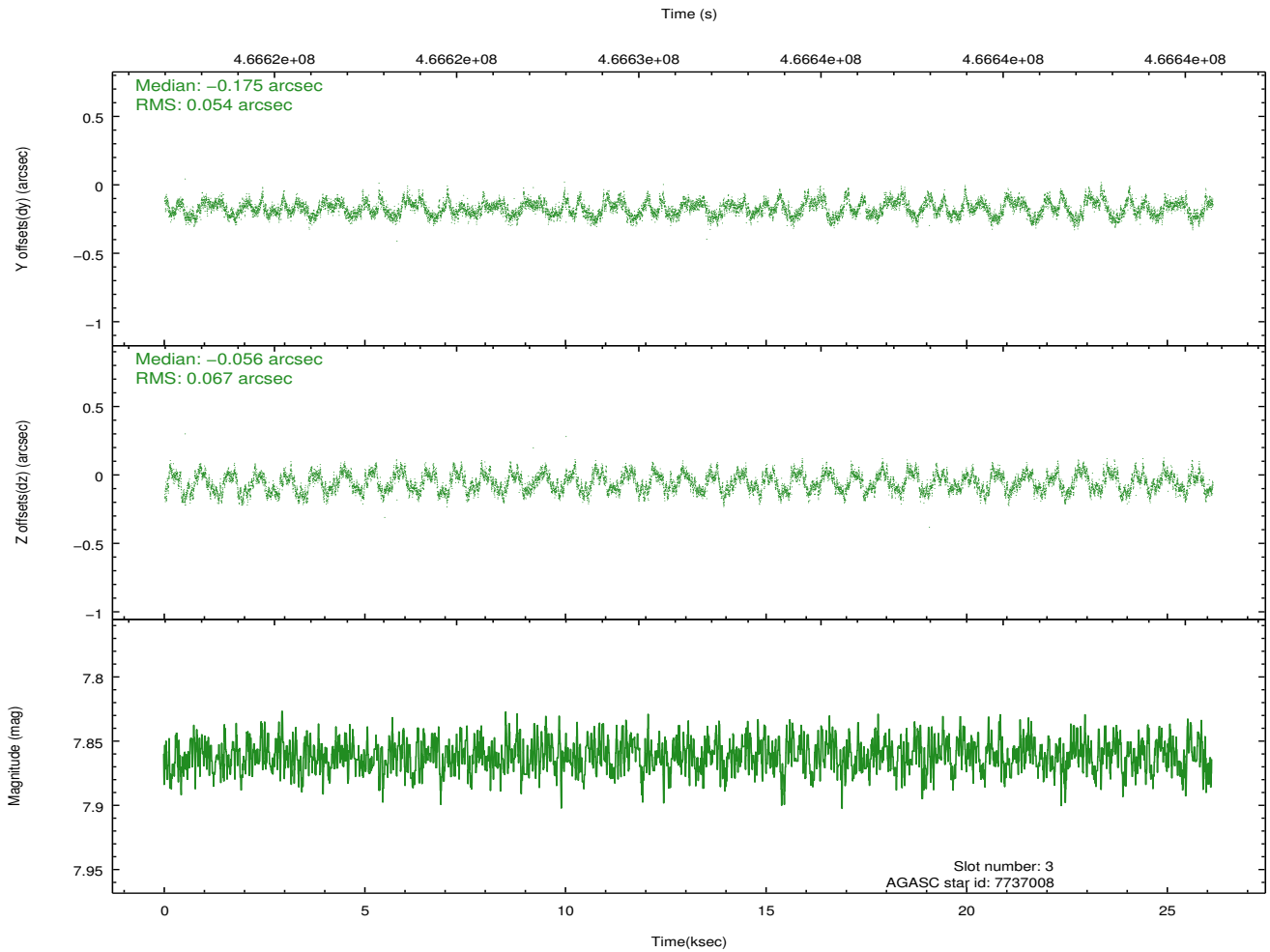
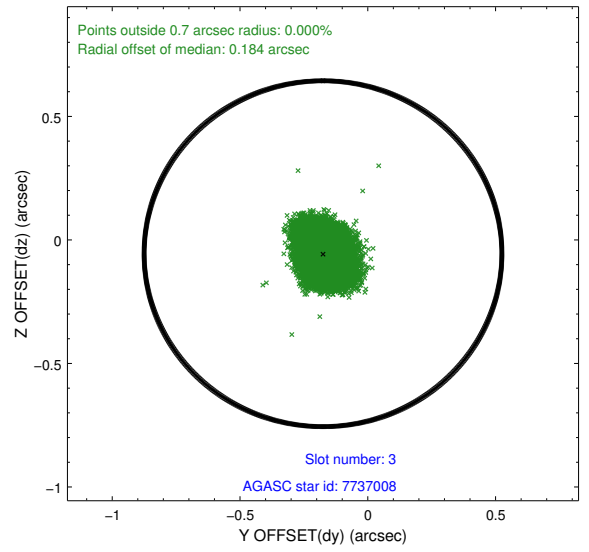
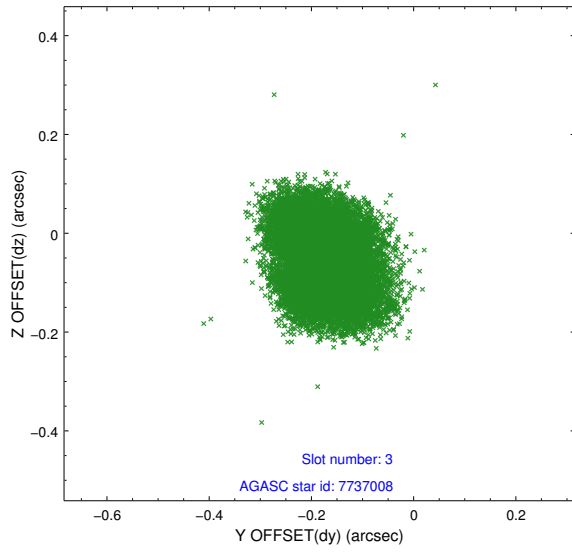
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.95	6372	-0.099	-0.034	0.028	0.037	0.000000	0.000000	-771.65	-1738.77
1	FID		ACIS-S-4	7.03	6371	0.259	0.055	0.017	0.026	0.000000	0.000000	2141.96	169.66
2	FID		ACIS-S-5	7.06	6371	-0.192	-0.016	0.024	0.036	0.000000	0.000000	-1824.43	163.43
3	GUIDE	used	7737008	7.86	12743	-0.175	-0.056	0.093	0.141	47.893265	4.723267	-409.17	1951.07
4	GUIDE	used	7737656	9.52	12701	0.280	0.081	0.110	0.172	48.212381	4.234865	-1969.08	547.74
5	GUIDE	used	7738424	9.13	12736	0.227	0.290	0.109	0.176	48.732051	4.300182	-1447.64	-1258.34
6	GUIDE	used	8136456	9.77	12727	-0.176	-0.007	0.158	0.250	47.995092	5.433970	2175.07	1985.00
7	GUIDE	used	8137336	9.53	12717	-0.156	-0.305	0.112	0.182	48.165178	5.210947	1476.25	1258.54

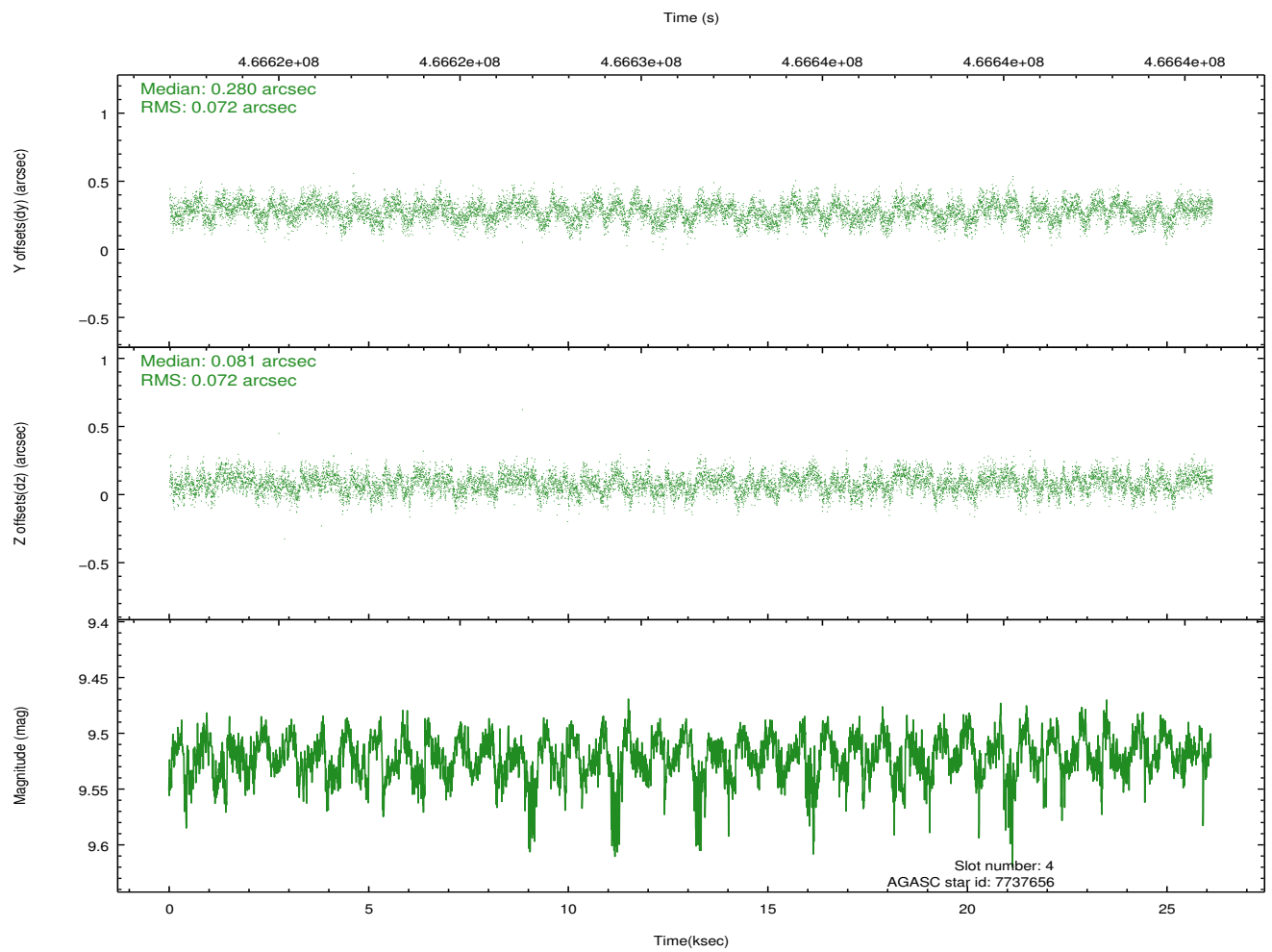
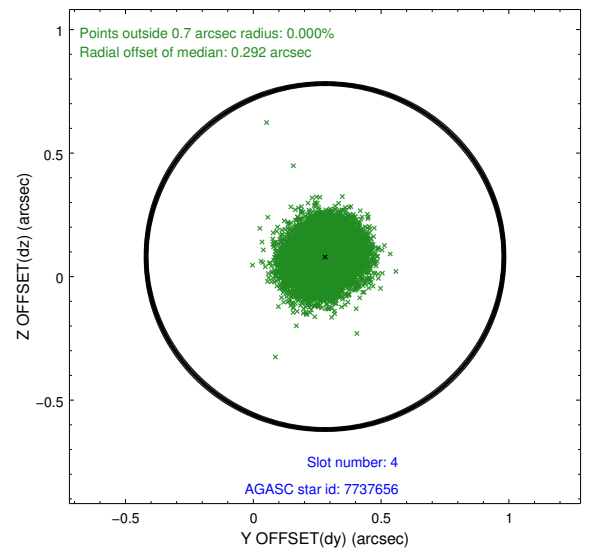
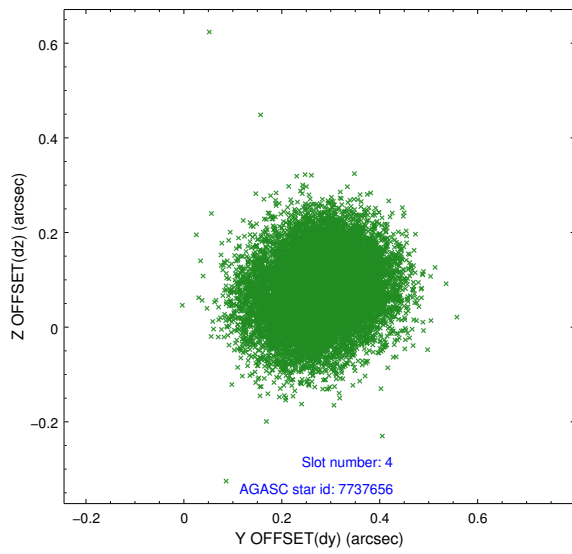
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## 2.4 Star Slots

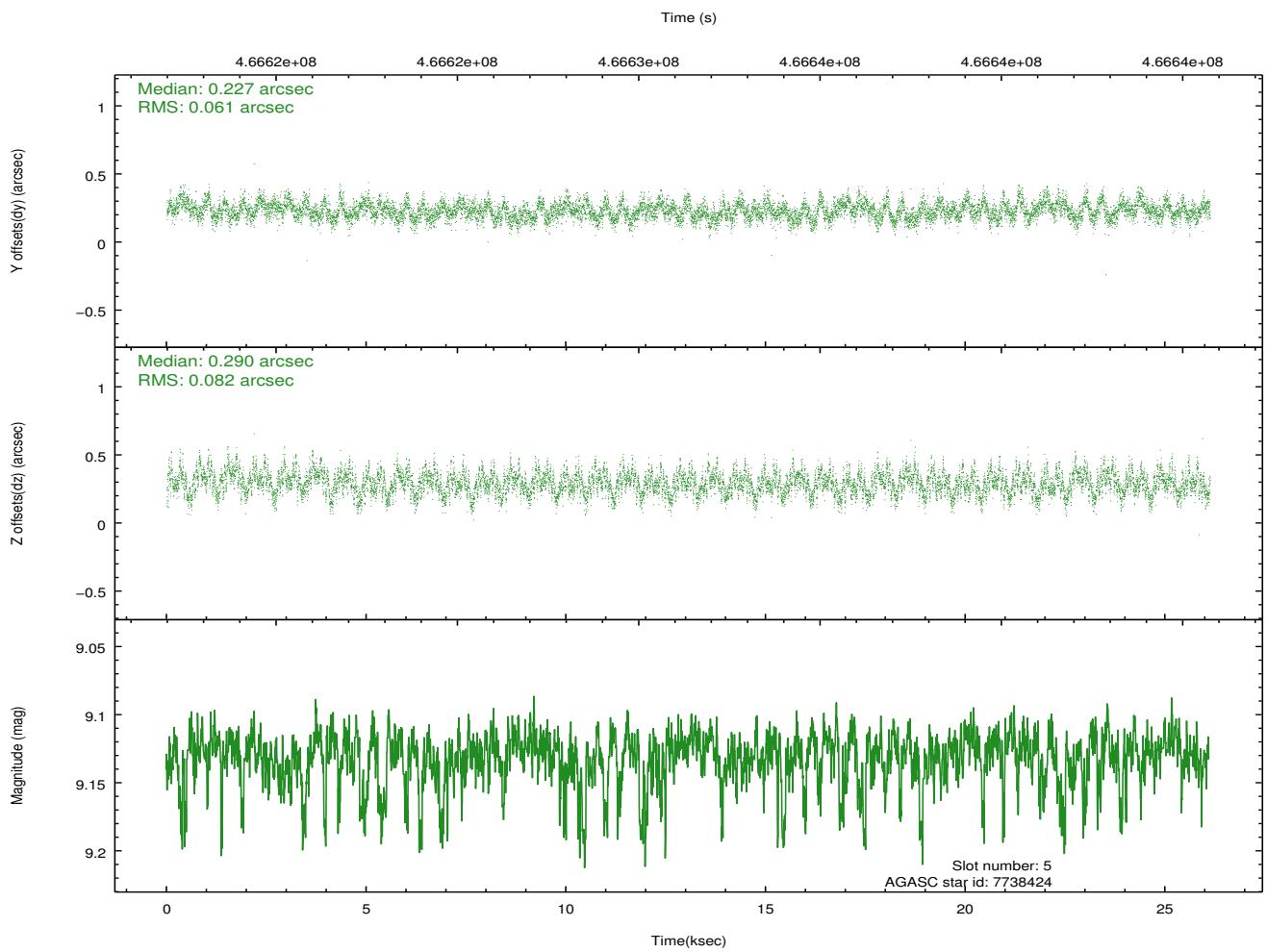
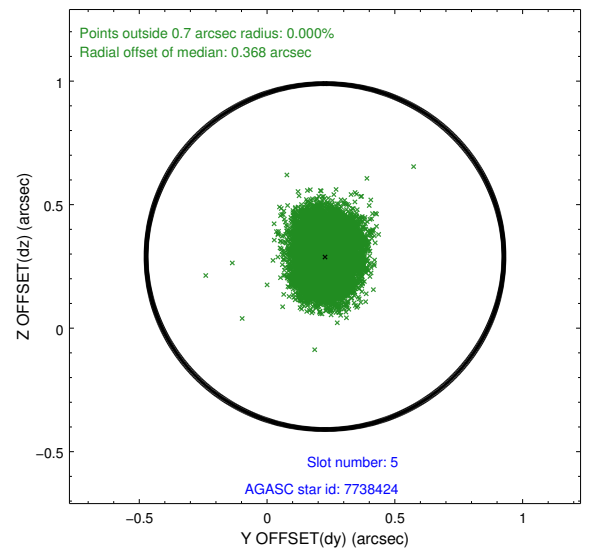
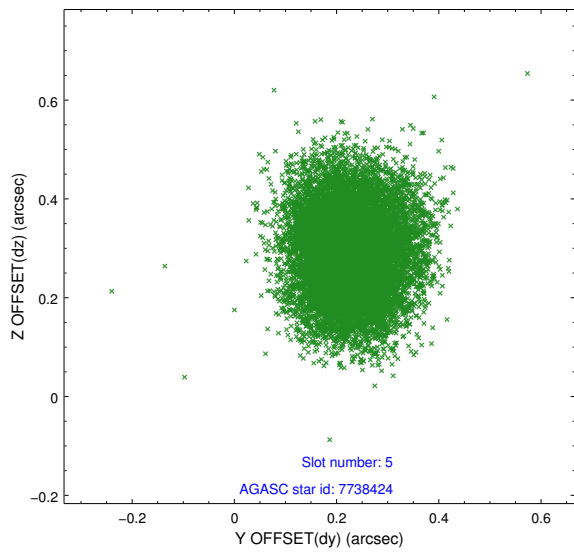
### 2.4.1 Slot 3



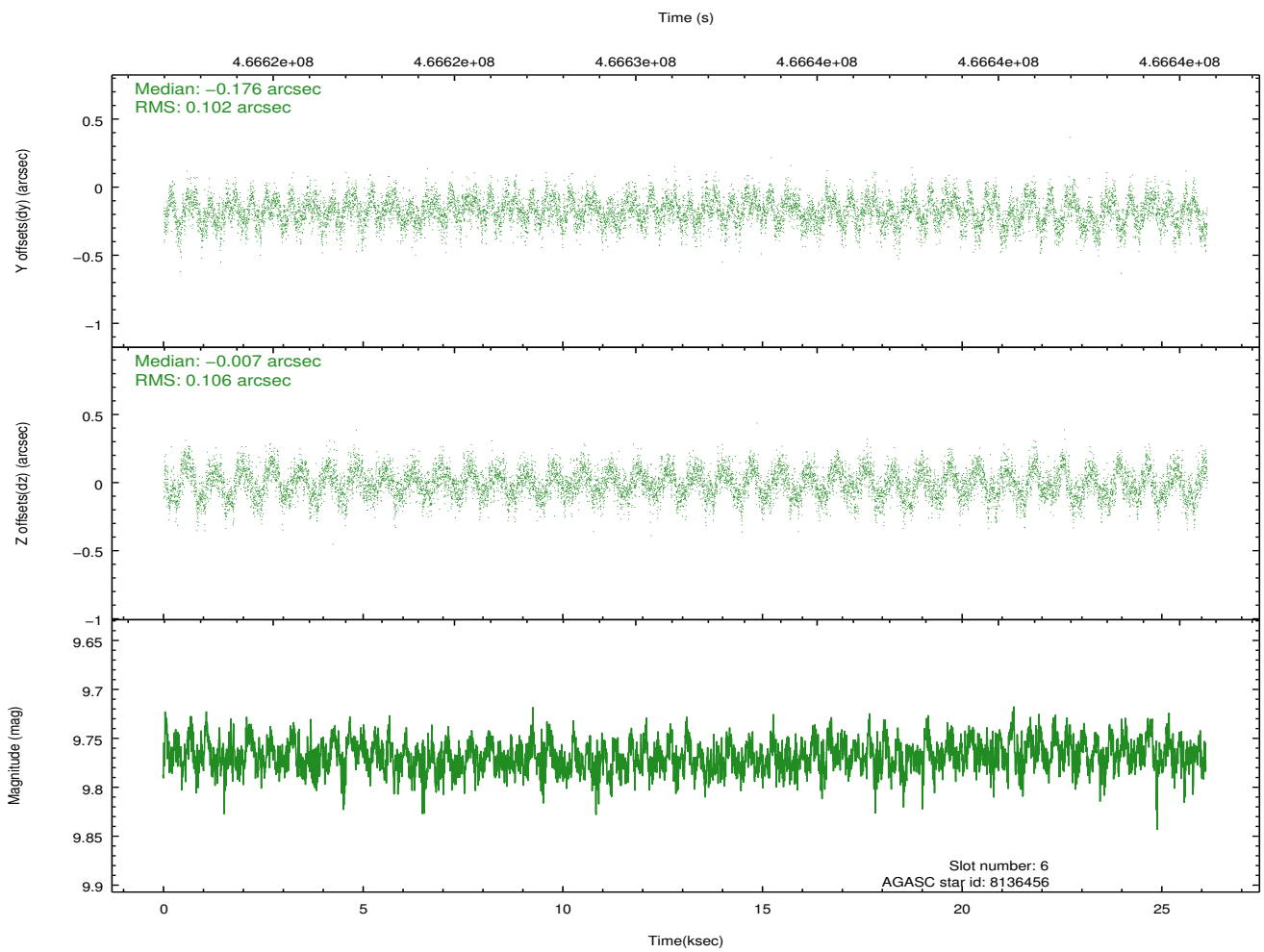
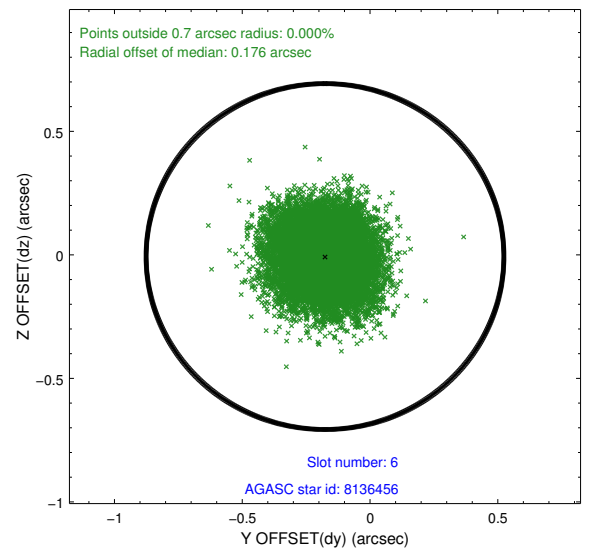
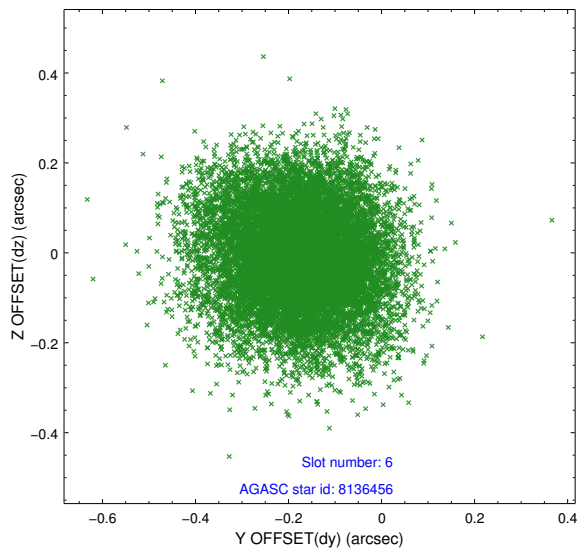
## 2.4.2 Slot 4



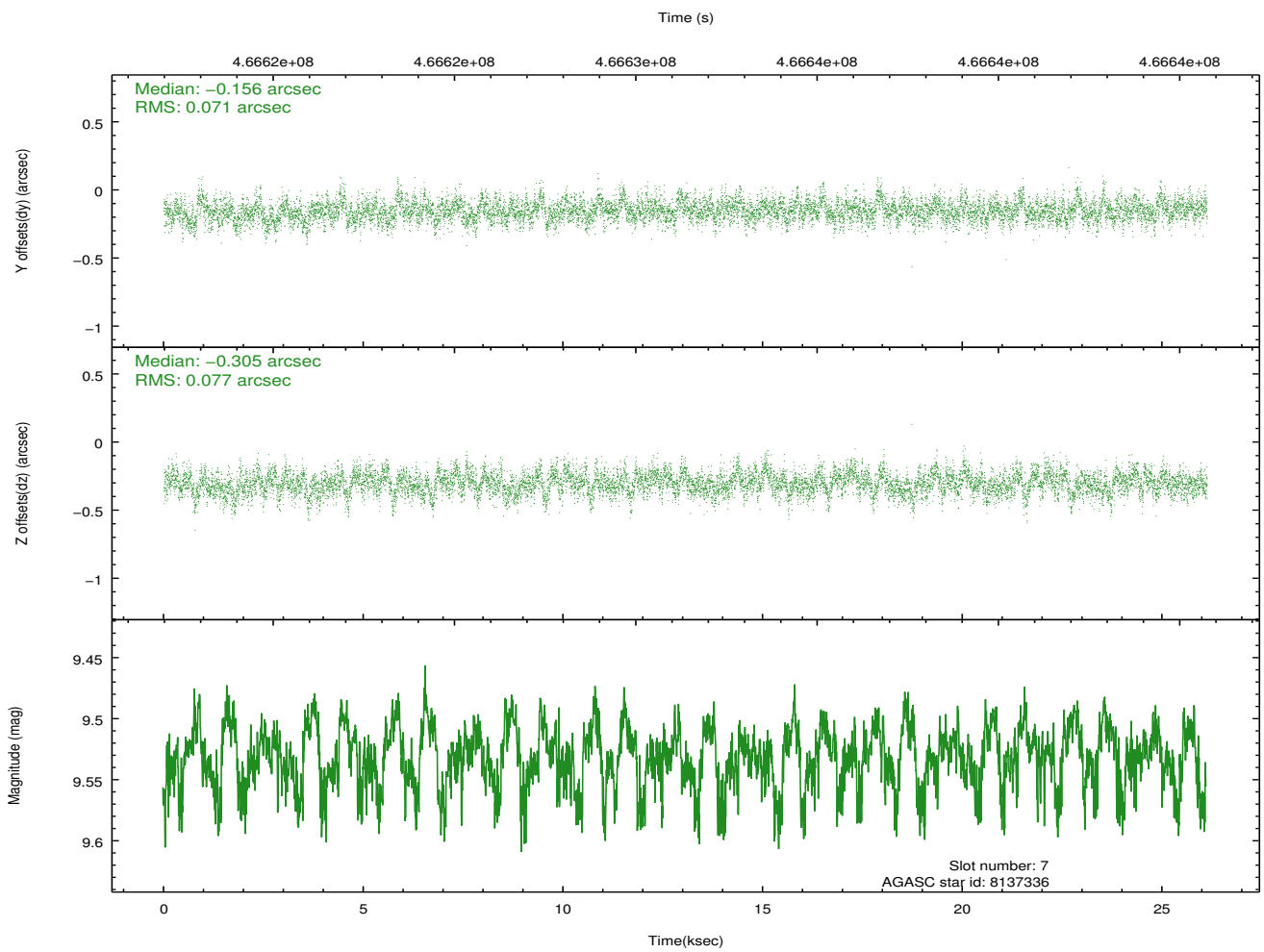
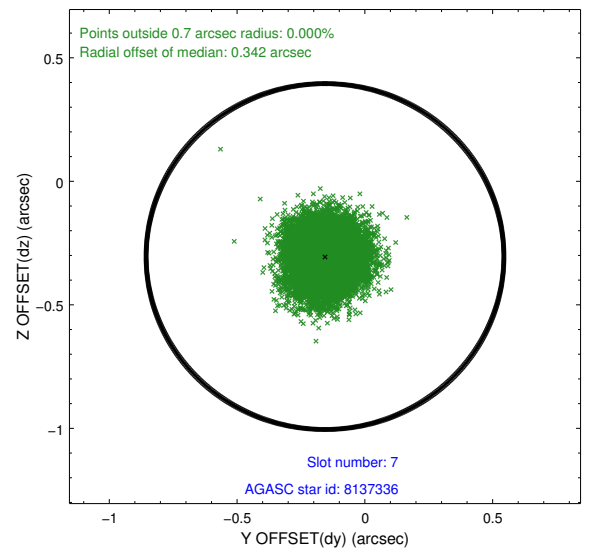
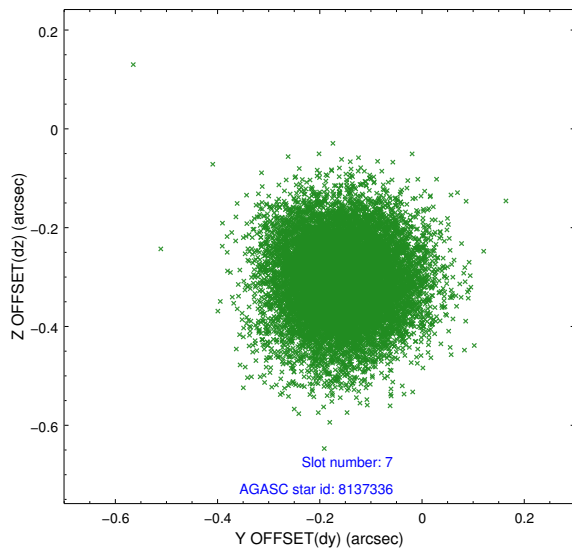
### 2.4.3 Slot 5



### 2.4.4 Slot 6

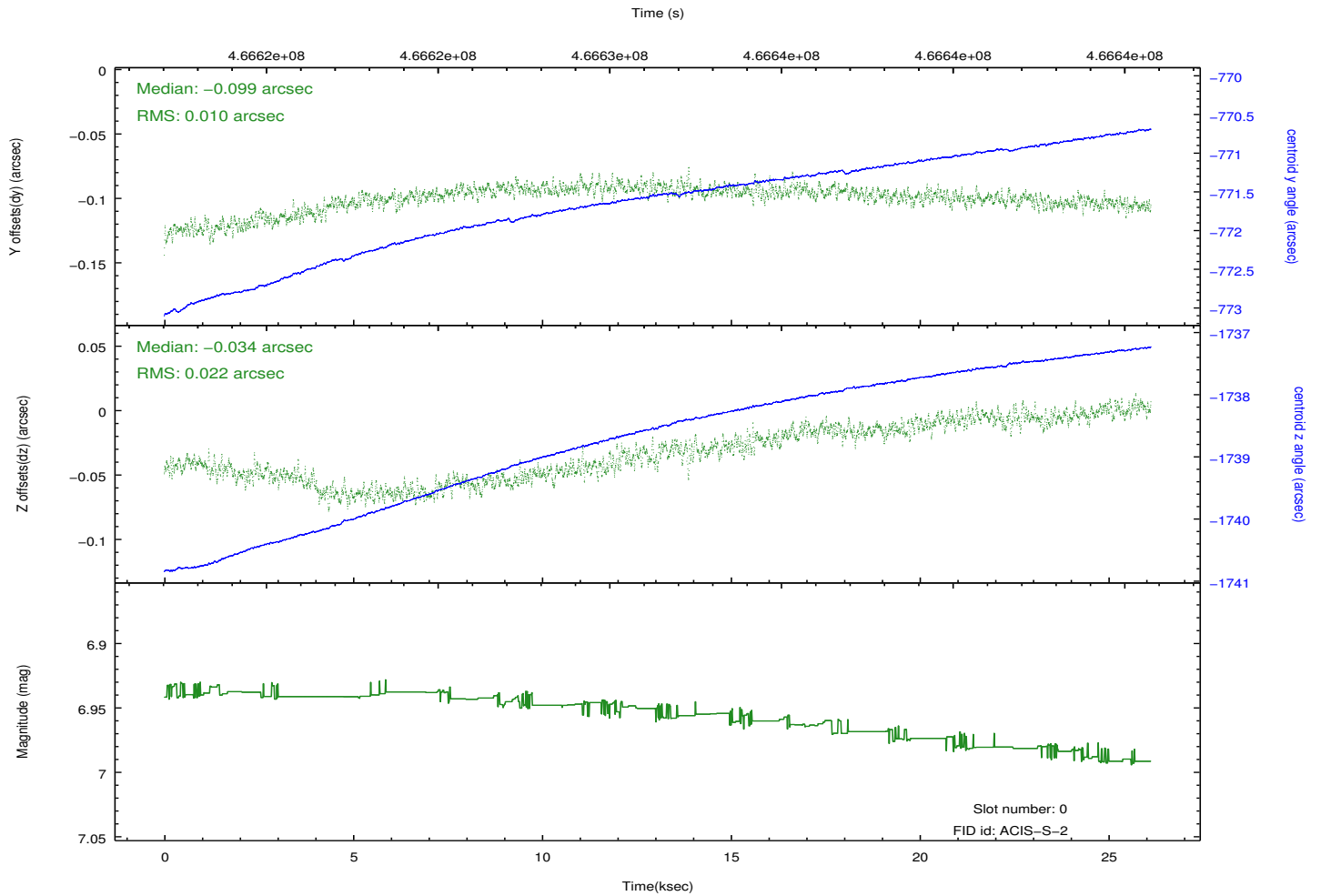
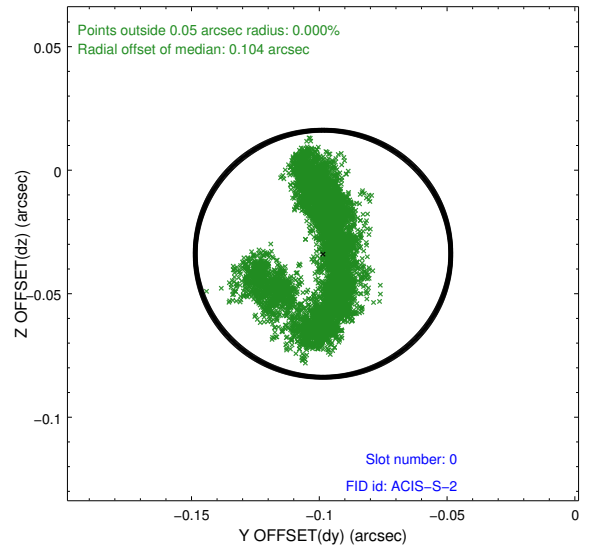
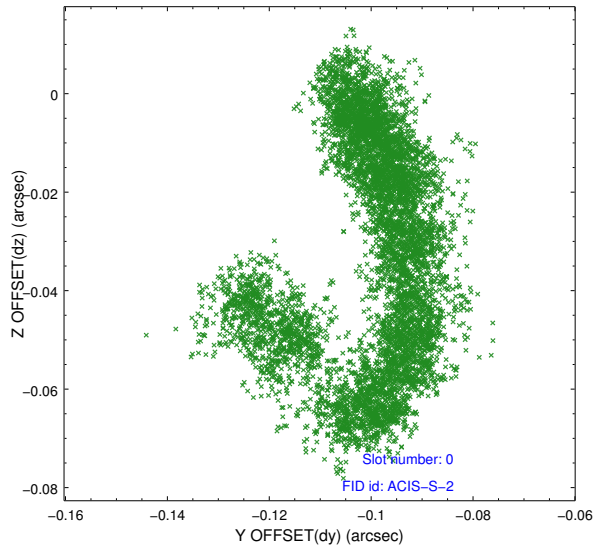


## 2.4.5 Slot 7

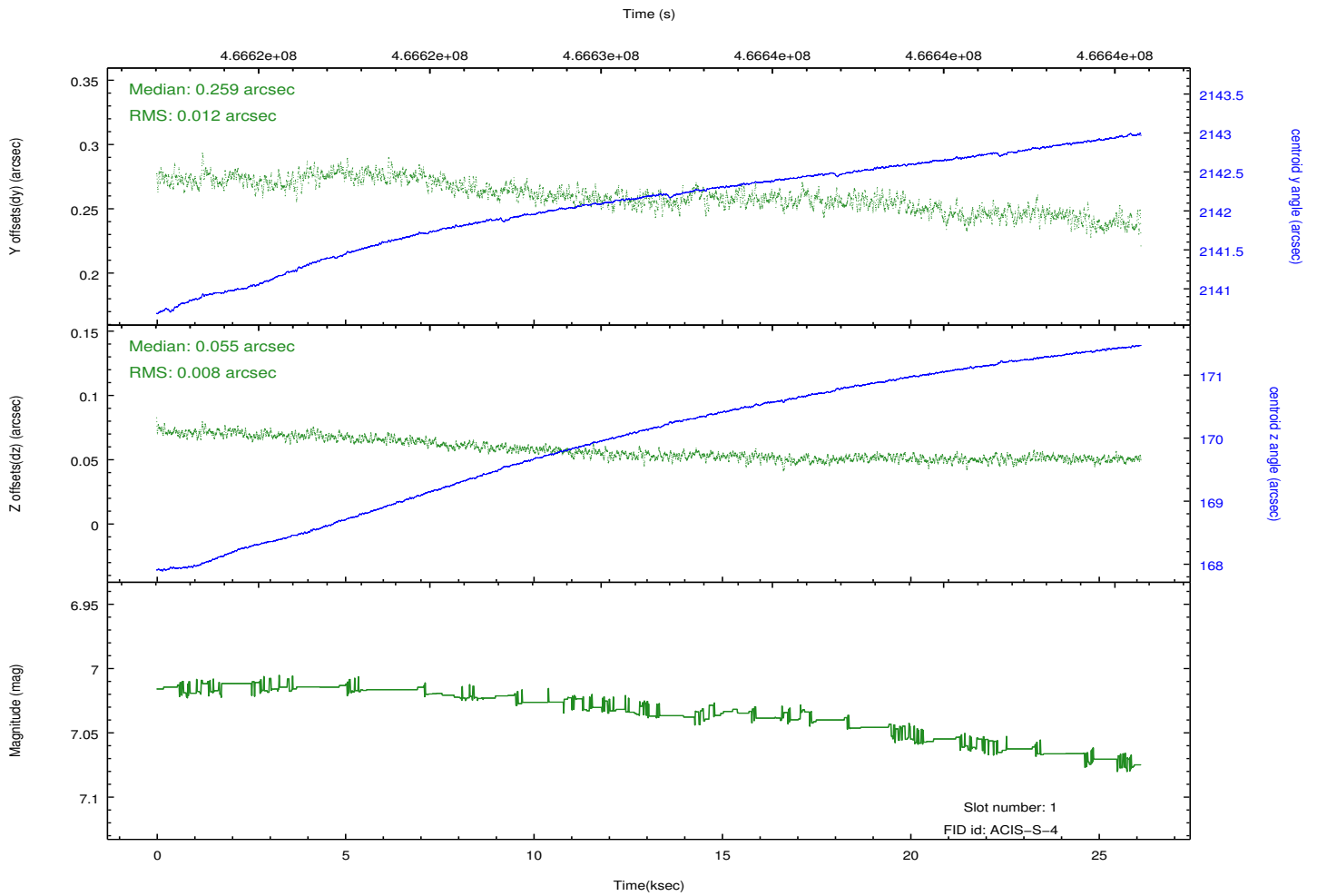
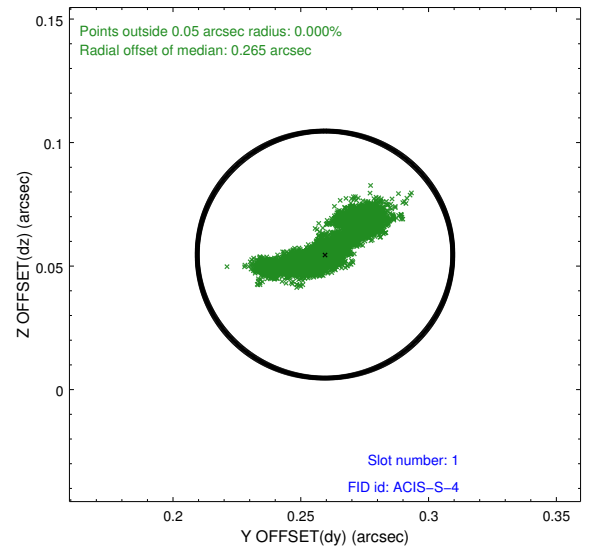
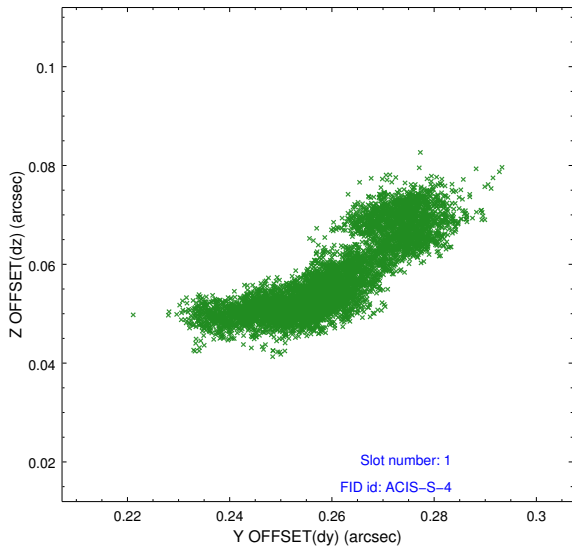


## 2.5 FID Slots

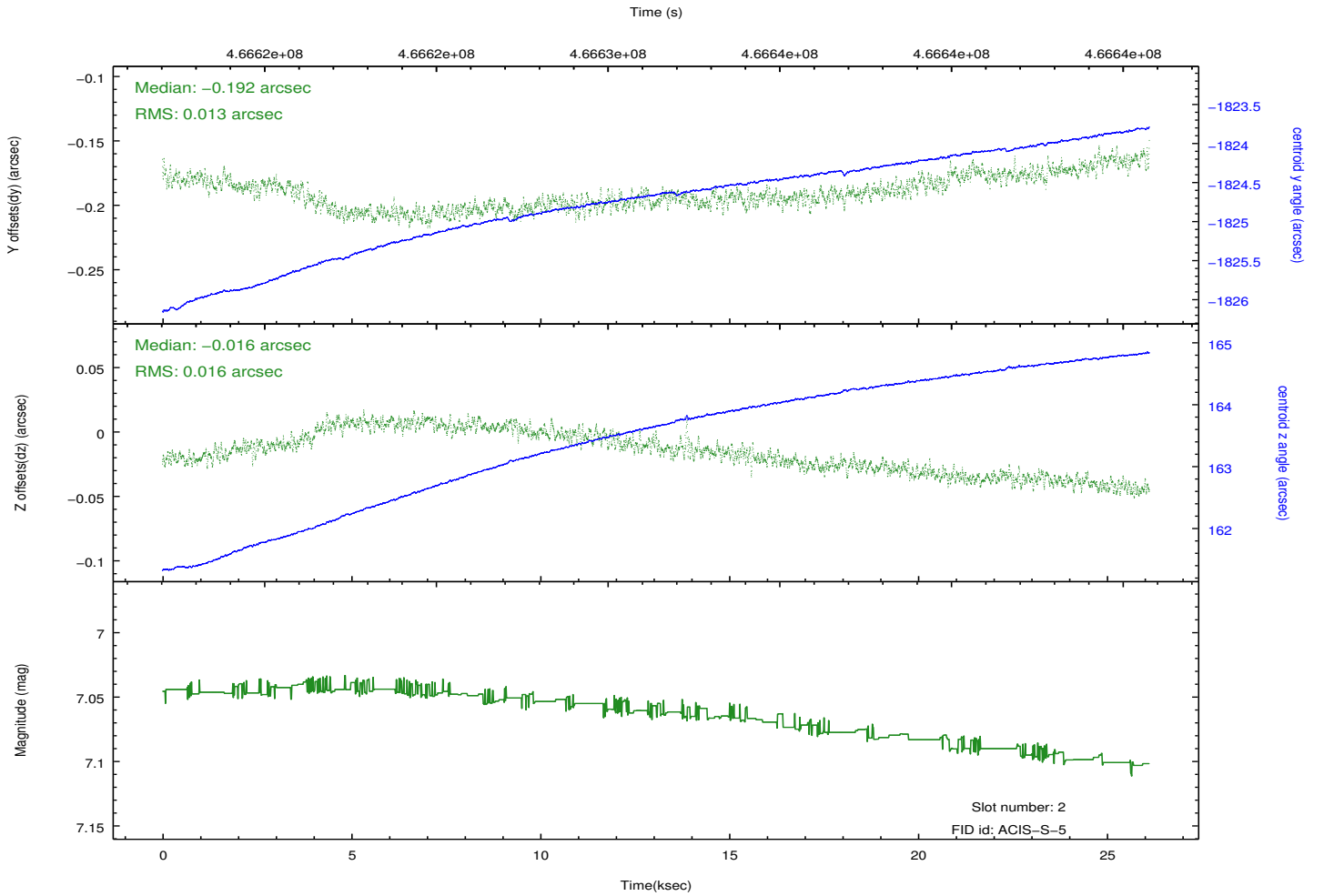
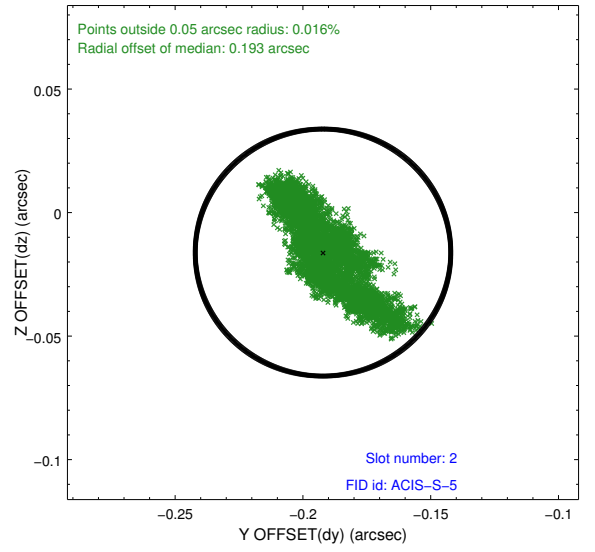
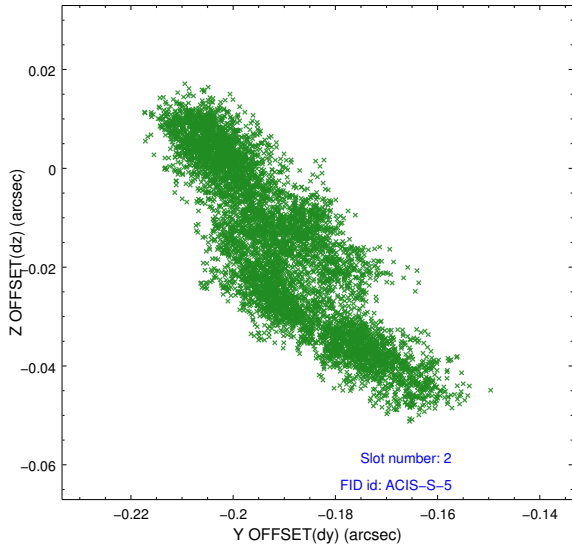
### 2.5.1 Slot 0



## 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)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.967999903321

## 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.