

# V&V Reference Report

## L2 ASCDS Version : 10.2.1

Observation 16468 - L2 Version 2  
Chandra X-Ray Center

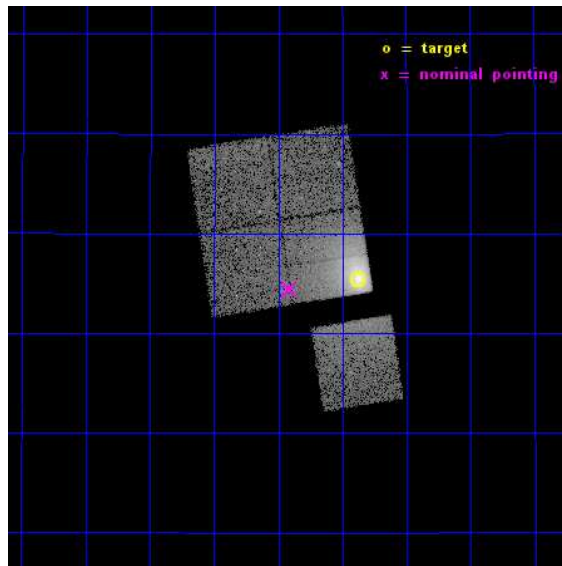
L2 Processing Date : Dec 11 2014

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# 1 Front

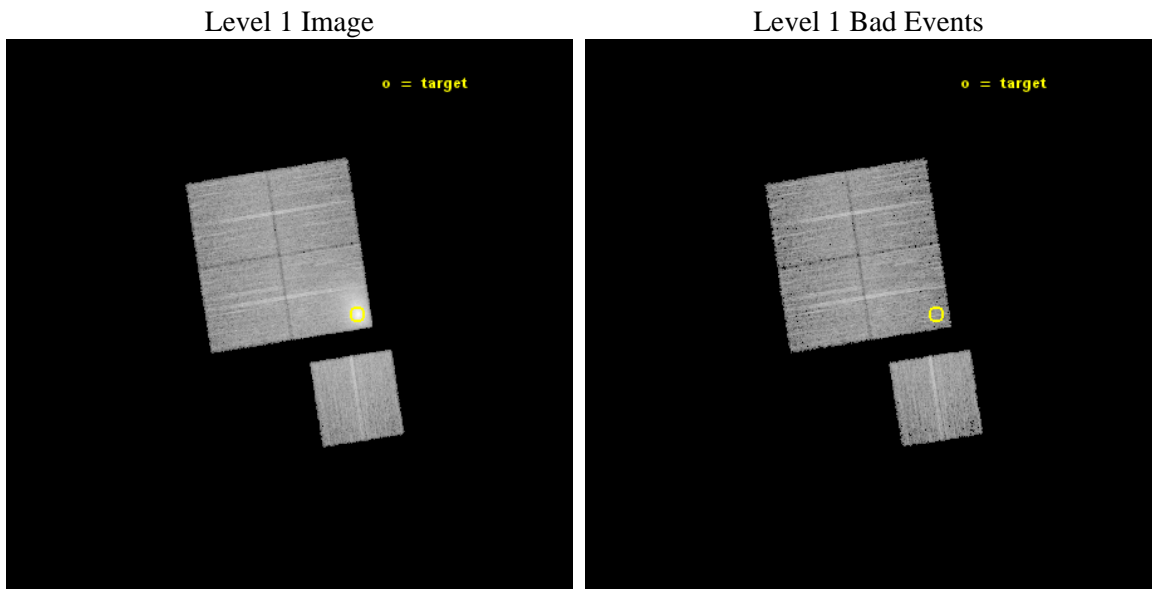
seq_num	890090	Sequence number
obs_id	16468	Observation id
title	AO-15 Calibration Observations of A1795	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	A1795	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	207.219583	Observer's specified target RA [deg]
dec_targ	26.590833	Observer's specified target Dec [deg]
ra_nom	207.35310107192	Nominal RA [deg]
dec_nom	26.573573450687	Nominal Dec [deg]
roll_nom	171.14895321741	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15081.459135652	Sum of GTIs [s]
livetime	14884.408769236	Livetime [s]
ontime0	15084.600116014	Sum of GTIs [s]
ontime1	15084.600116014	Sum of GTIs [s]
ontime2	15081.459135652	Sum of GTIs [s]
ontime3	15084.600116014	Sum of GTIs [s]
ontime6	15084.600116014	Sum of GTIs [s]
l2events	99946	Number of level 2 events



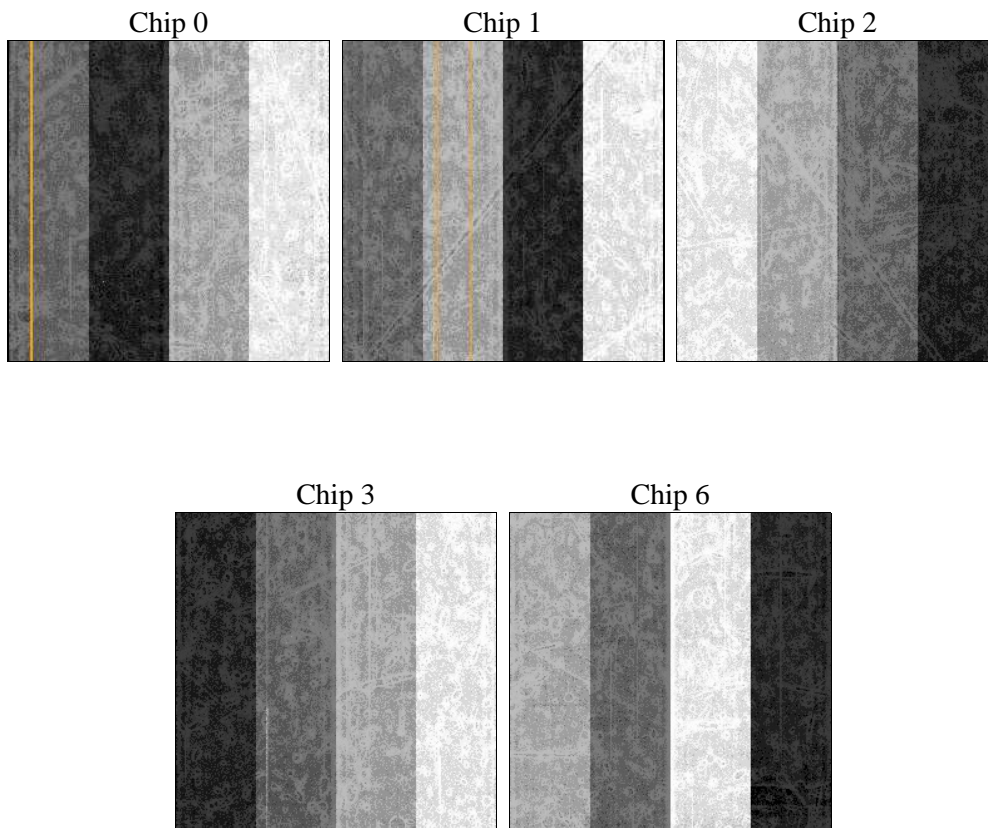
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	15081.459135652	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime0	15084.600116014	Sum of GTIs [s]
date	2014-12-11T05:34:46	Date and time of file creation	ontime1	15084.600116014	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	15081.459135652	Sum of GTIs [s]
			ontime3	15084.600116014	Sum of GTIs [s]
			ontime6	15084.600116014	Sum of GTIs [s]
			l1events	402638	Number of level 1 events

### 2.1.4 Events

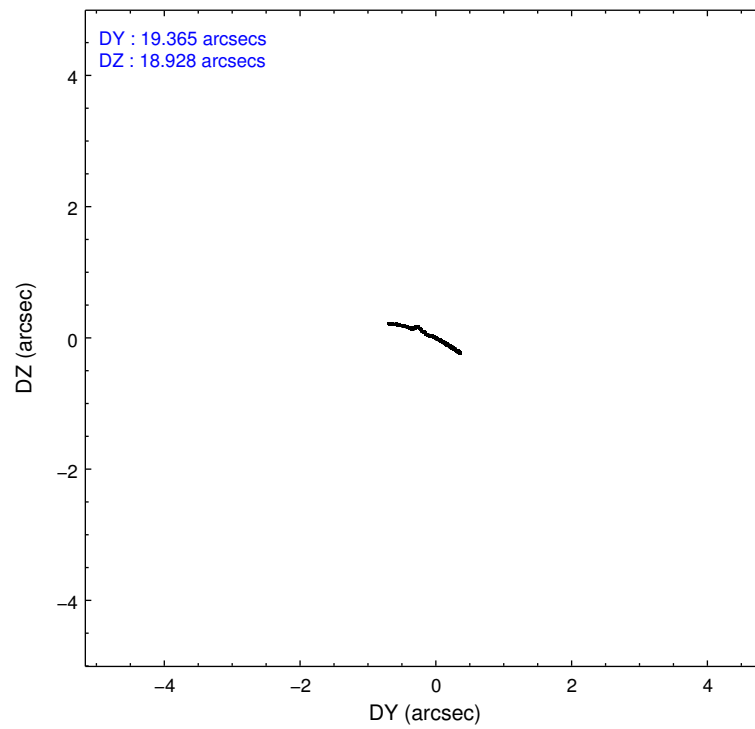
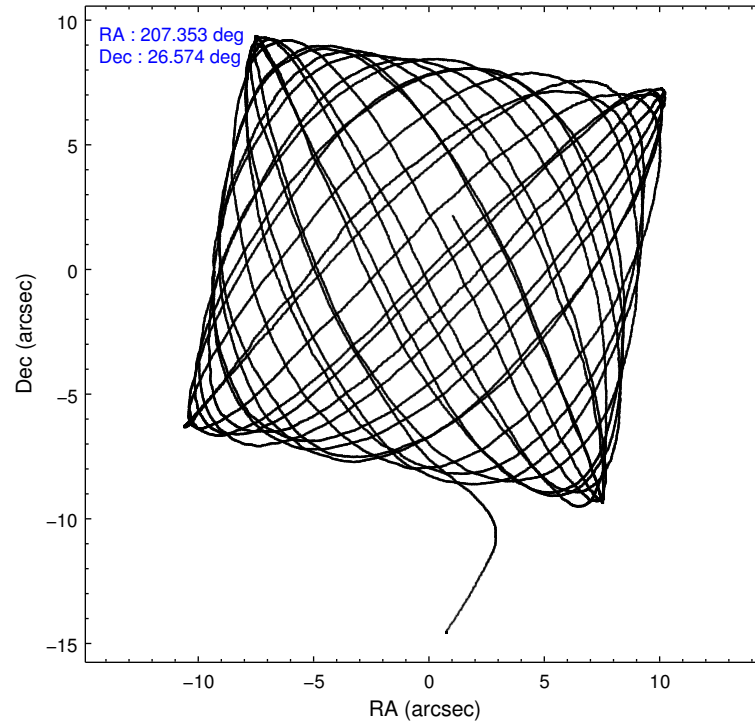
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	63568	64139	131125	67754	76052
rejected events	53855	54549	61791	58480	63039
rejected %	84%	85%	47%	86%	82%

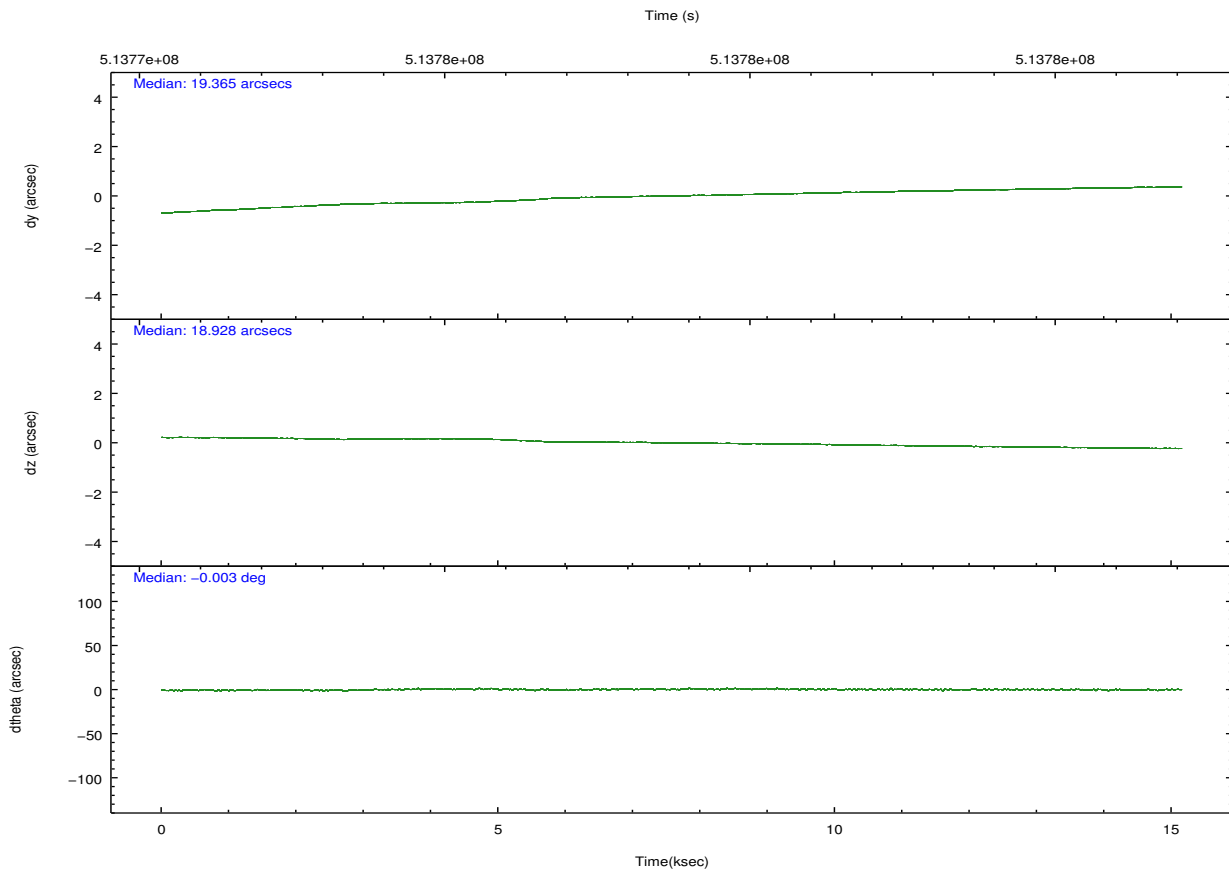
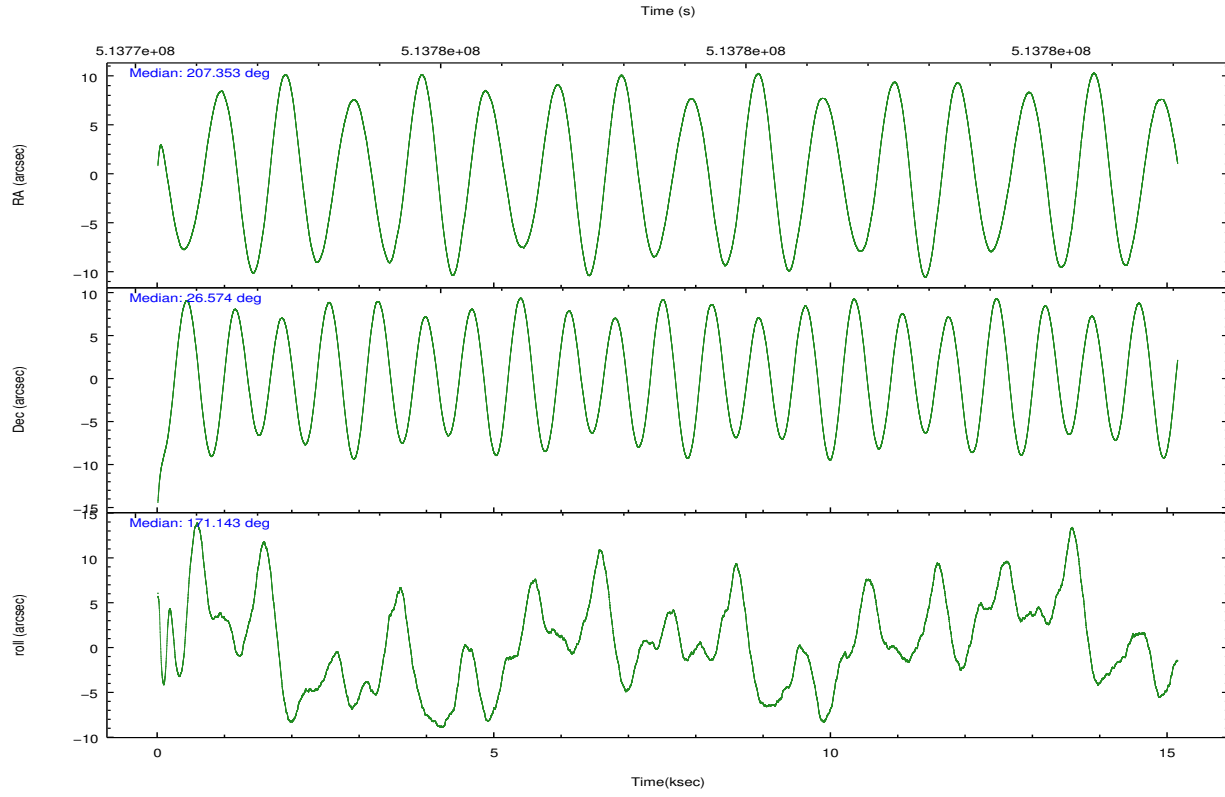
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3946	3469	51392	3729	6436
	6%	5%	39%	5%	8%
grade 1 events	33	44	178	37	55
	0%	0%	0%	0%	0%
grade 2 events	2181	2303	8556	1952	2409
	3%	3%	6%	2%	3%
grade 3 events	969	897	2951	899	1027
	1%	1%	2%	1%	1%
grade 4 events	850	938	2911	888	988
	1%	1%	2%	1%	1%
grade 5 events	3282	3734	3113	3822	3612
	5%	5%	2%	5%	4%
grade 6 events	1770	1987	3533	1808	2159
	2%	3%	2%	2%	2%
grade 7 events	50537	50767	58491	54619	59366
	79%	79%	44%	80%	78%

## 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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	207.381730	207.3531010719231	Subarray requested	NONE	NONE
[deg] Pointing Dec	26.583634	26.57357345068741	Alternating exposures requested	N	N
[deg] Pointing Roll	170.927449	171.1489532174063	[s] Primary exposure time	0.000000	3.1
[s] Window start time (MET)	512697667.184000	512697667.184000			
[s] Window stop time (MET)	515203267.184000	515203267.184000			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-215.164963	-215.162531930997			
[mm] SIM translation stage offset	-18.4275	-18.42992107193268			
[s] Observation start time (MET)	513771295.184000	513770062.00614			
Observation start date	2014-04-13T10:13:48	2014-04-13T09:54:22			
[s] Observation end time (MET)	513786295.184000	513786428.69454			
Observation end date	2014-04-13T14:23:48	2014-04-13T14:27:08			
Read mode	TIMED	TIMED			

## 2.3 Aspect





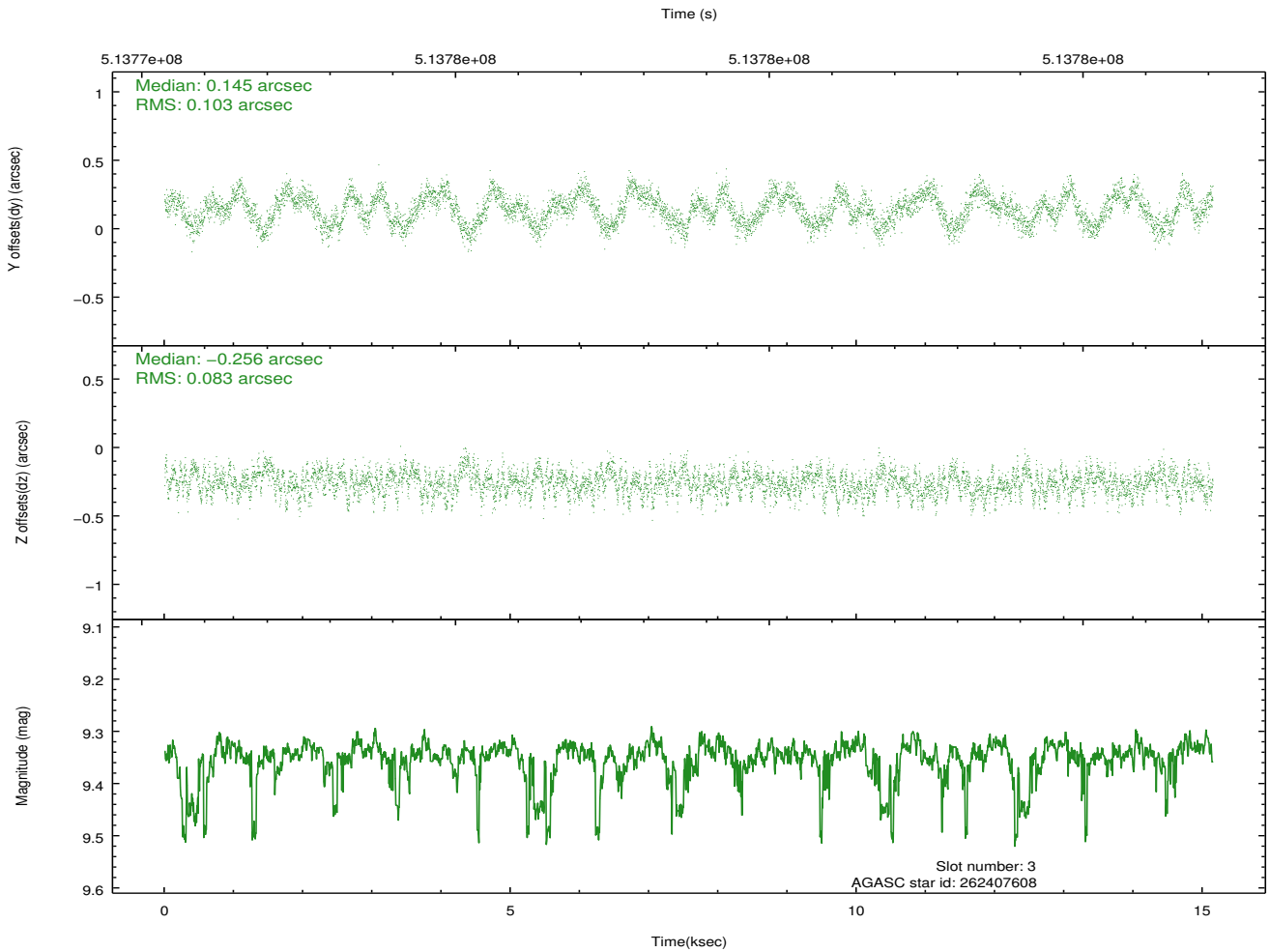
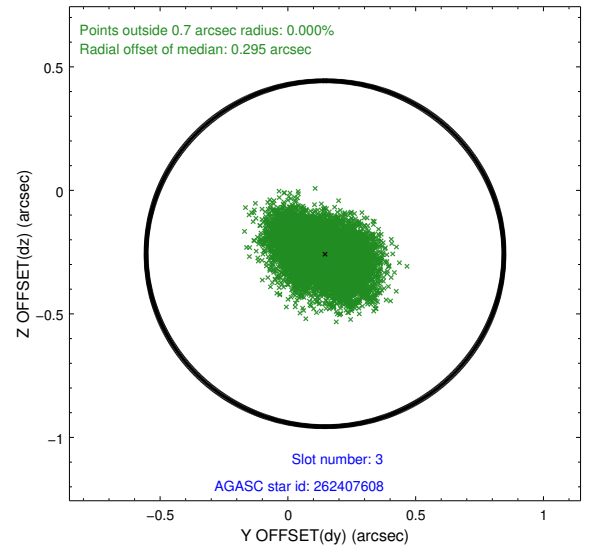
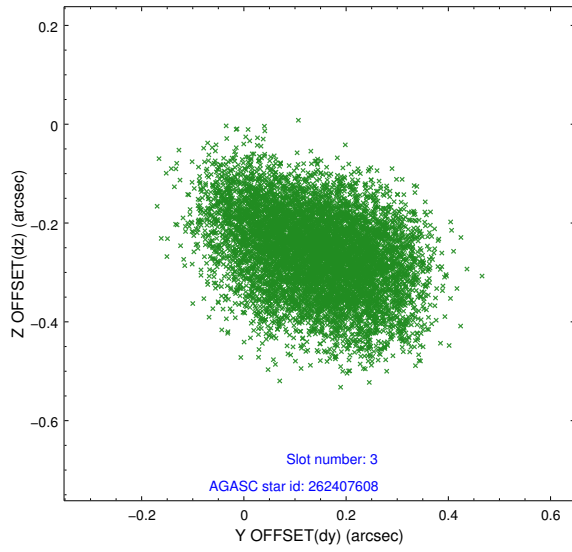
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.02	3694	0.272	-0.221	0.014	0.024	0.000000	0.000000	919.98	-1221.32
1	FID		ACIS-I-5	7.03	3695	-0.491	0.178	0.009	0.014	0.000000	0.000000	-1828.76	676.26
2	FID		ACIS-I-6	7.06	3695	0.130	0.112	0.011	0.017	0.000000	0.000000	385.01	1321.09
3	GUIDE	used	262407608	9.35	7383	0.145	-0.256	0.144	0.225	207.378401	26.435507	-73.29	528.24
4	GUIDE	used	262407800	10.06	7379	-0.141	0.481	0.229	0.361	207.321181	27.251762	573.64	-2342.99
5	GUIDE	used	262408096	9.32	7383	-0.116	-0.292	0.133	0.213	207.011678	26.515421	1139.45	428.34
6	GUIDE	used	262408512	8.00	7387	0.141	-0.026	0.108	0.161	207.800210	27.128796	-1013.40	-2151.55
7	GUIDE	used	262408936	9.66	7374	-0.028	0.097	0.176	0.283	207.154731	26.726554	801.89	-393.41

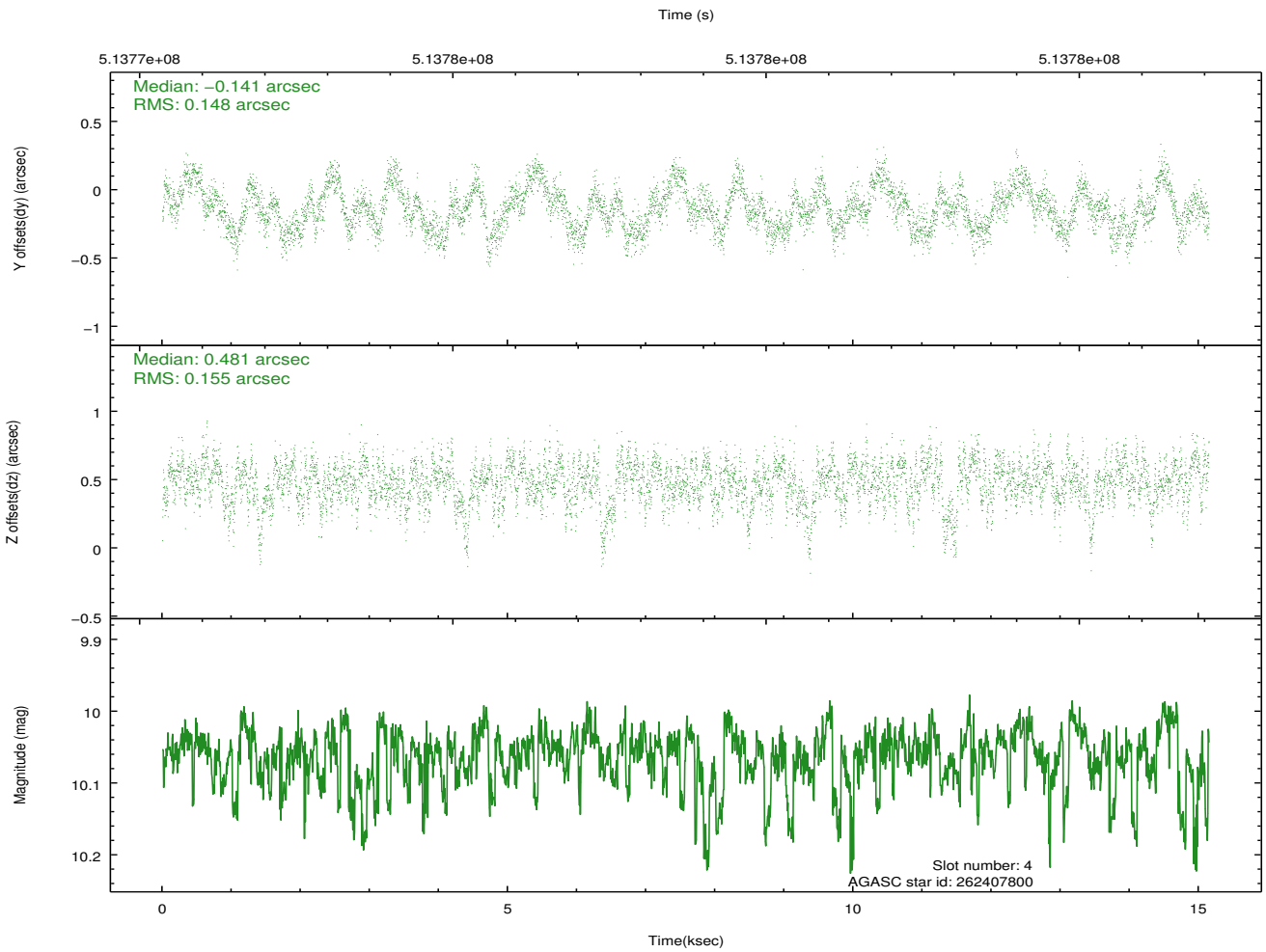
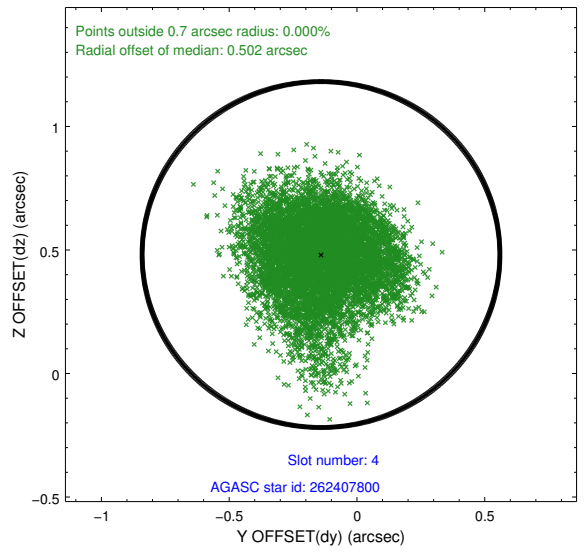
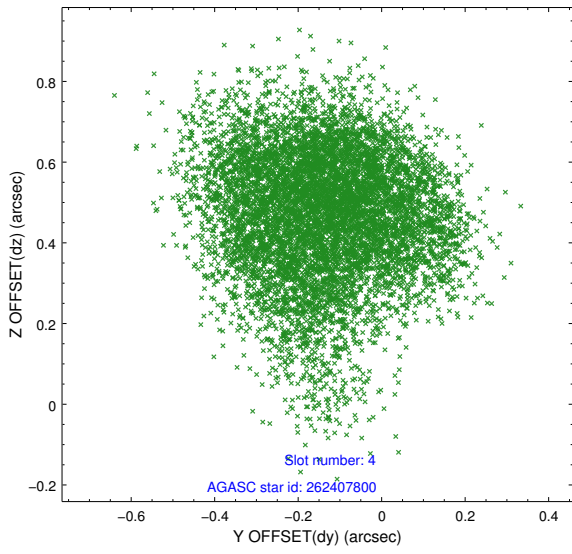
∞

## 2.4 Star Slots

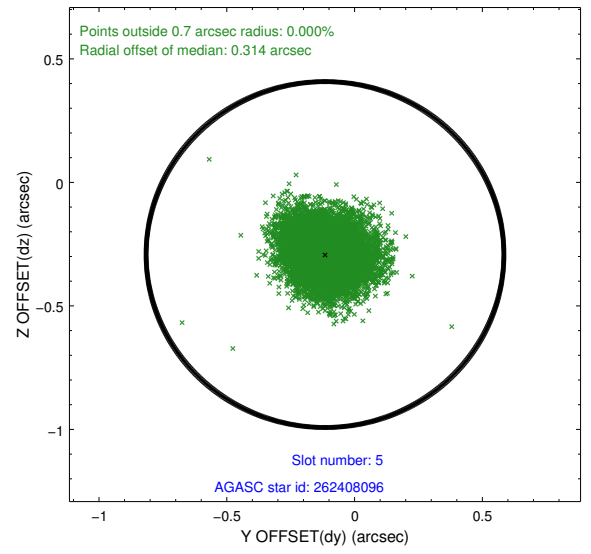
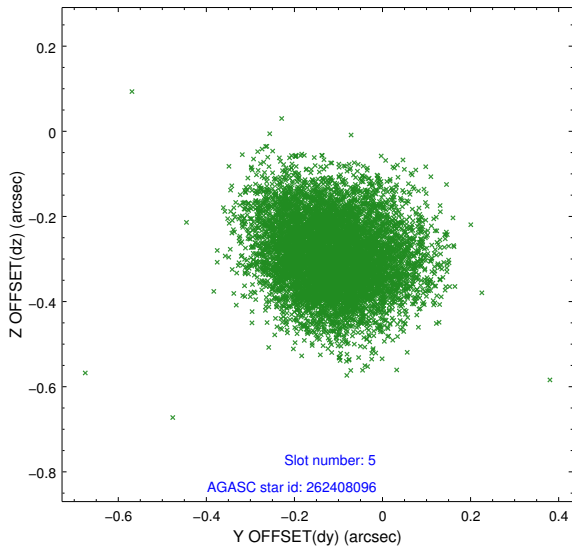
### 2.4.1 Slot 3



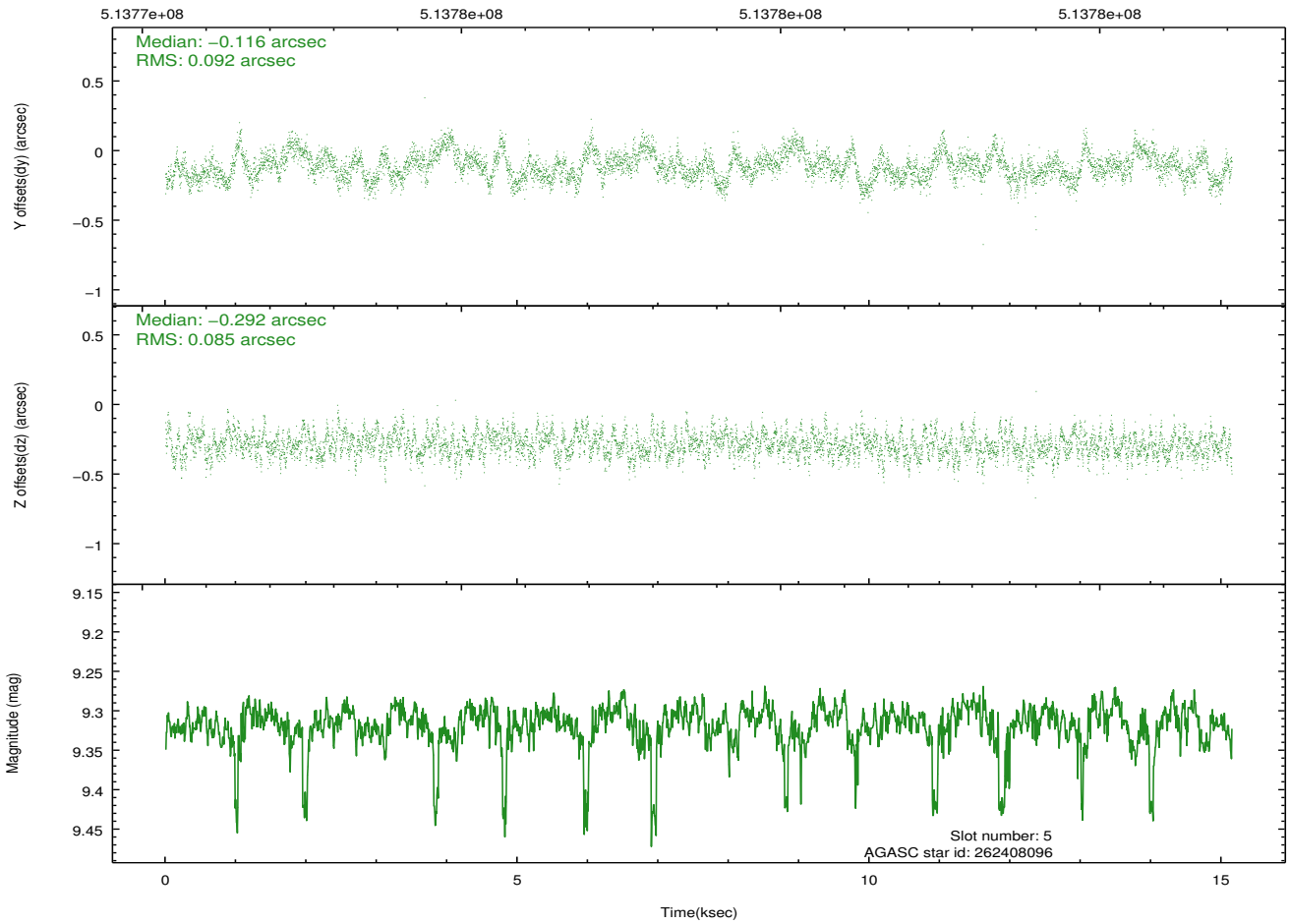
## 2.4.2 Slot 4



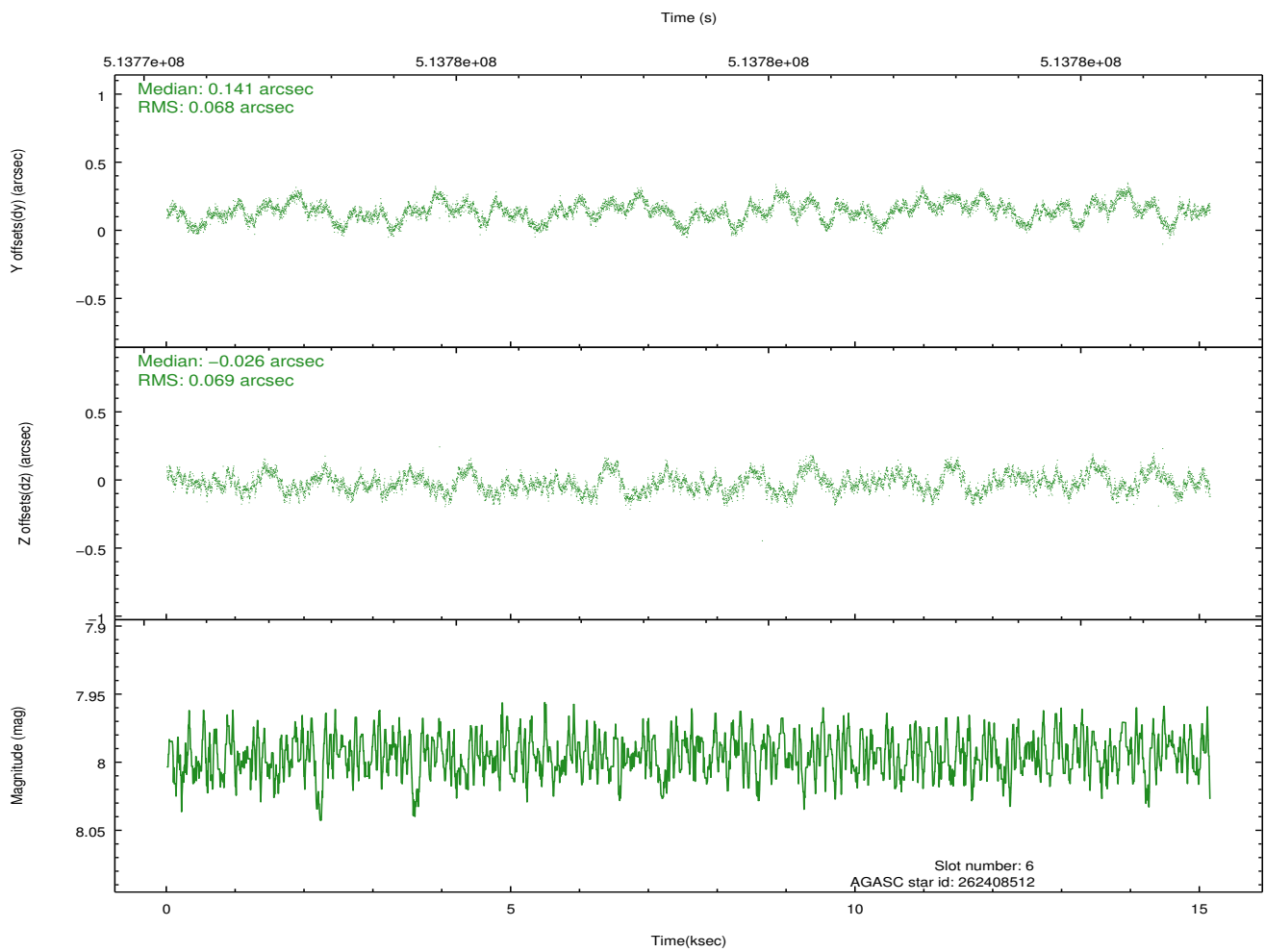
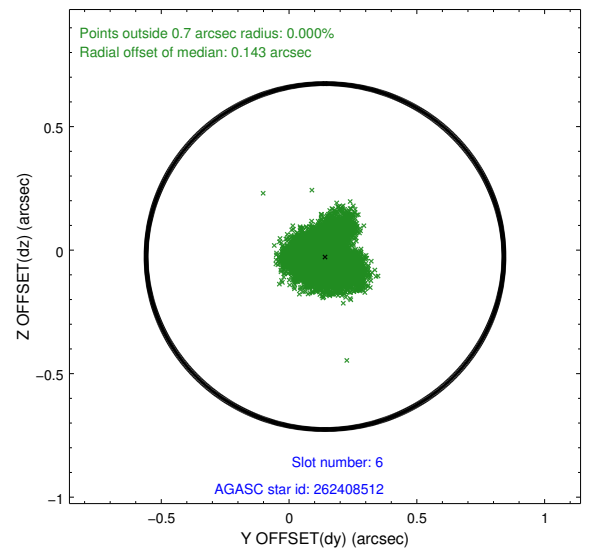
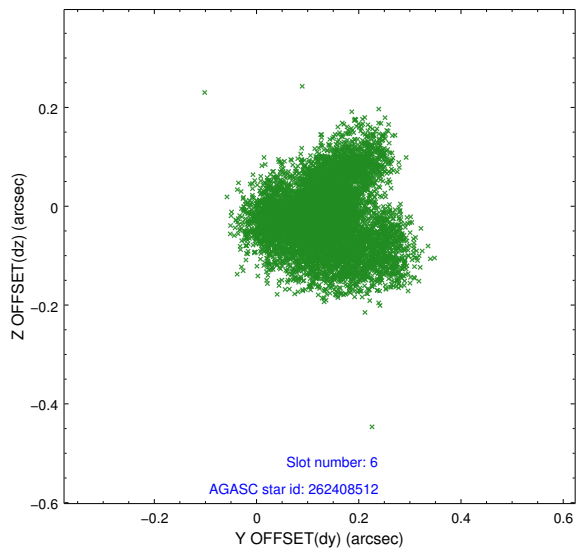
### 2.4.3 Slot 5



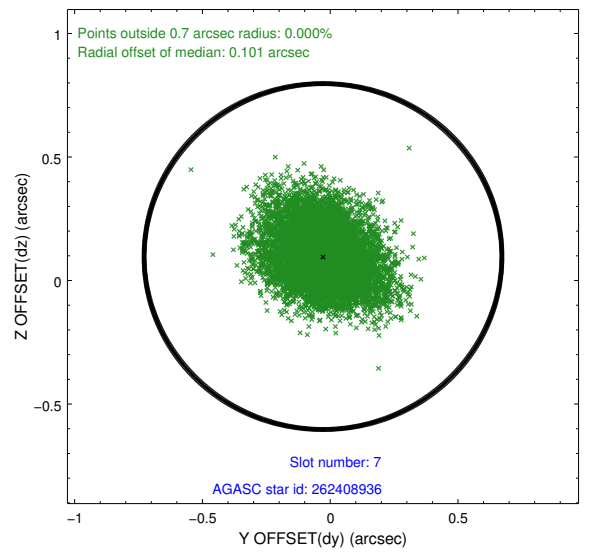
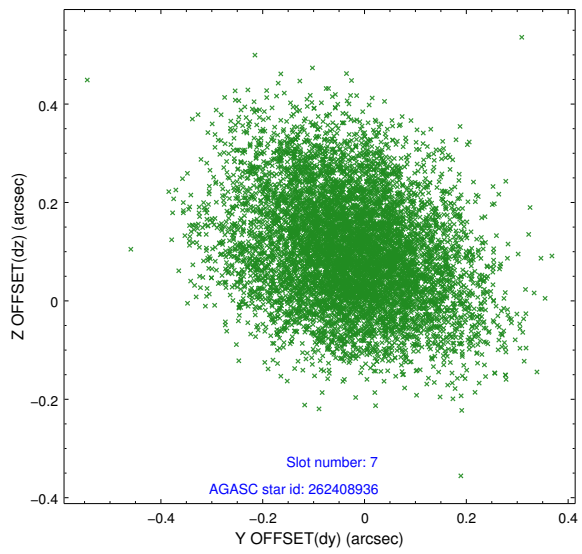
Time (s)



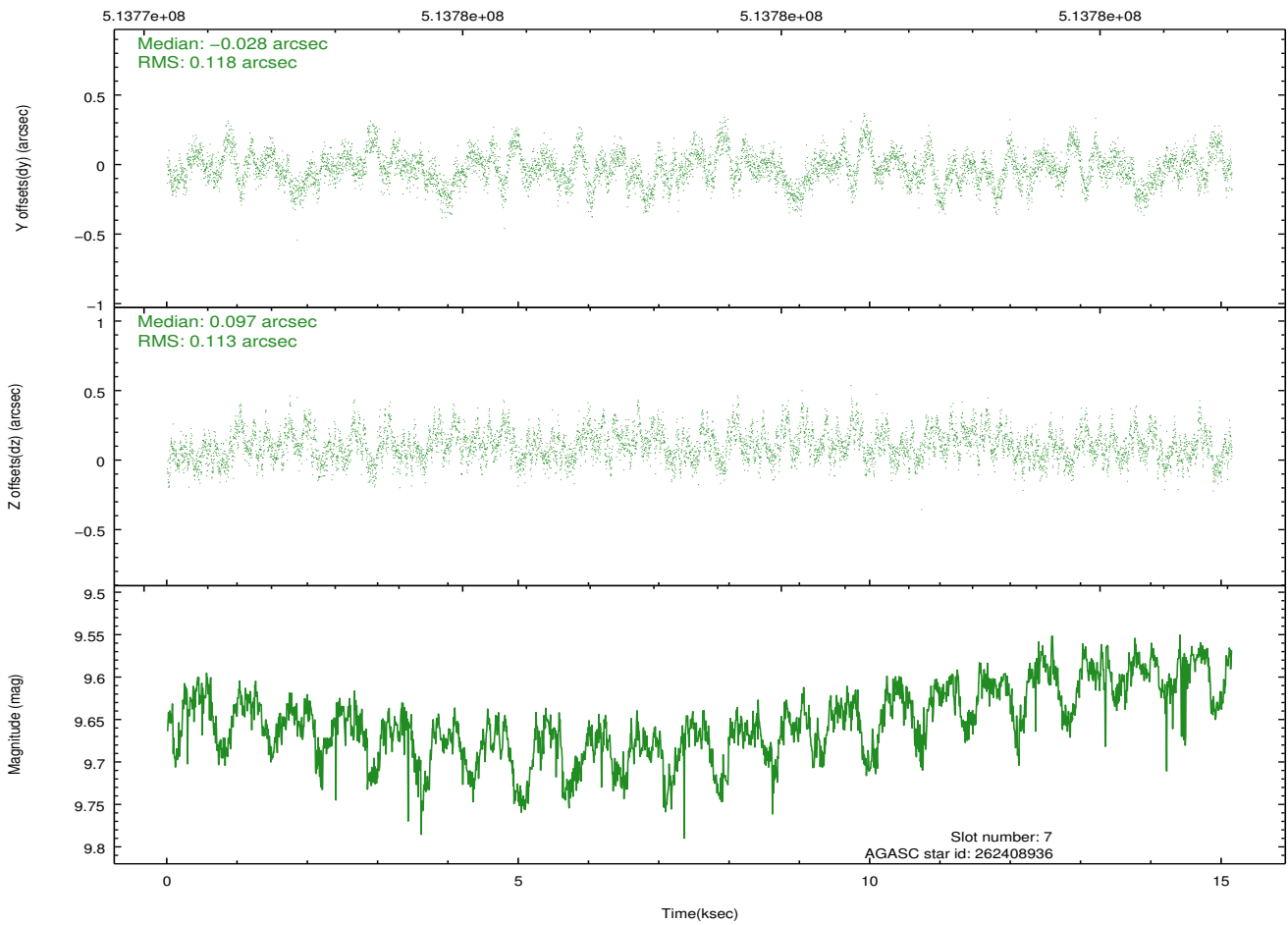
## 2.4.4 Slot 6



## 2.4.5 Slot 7

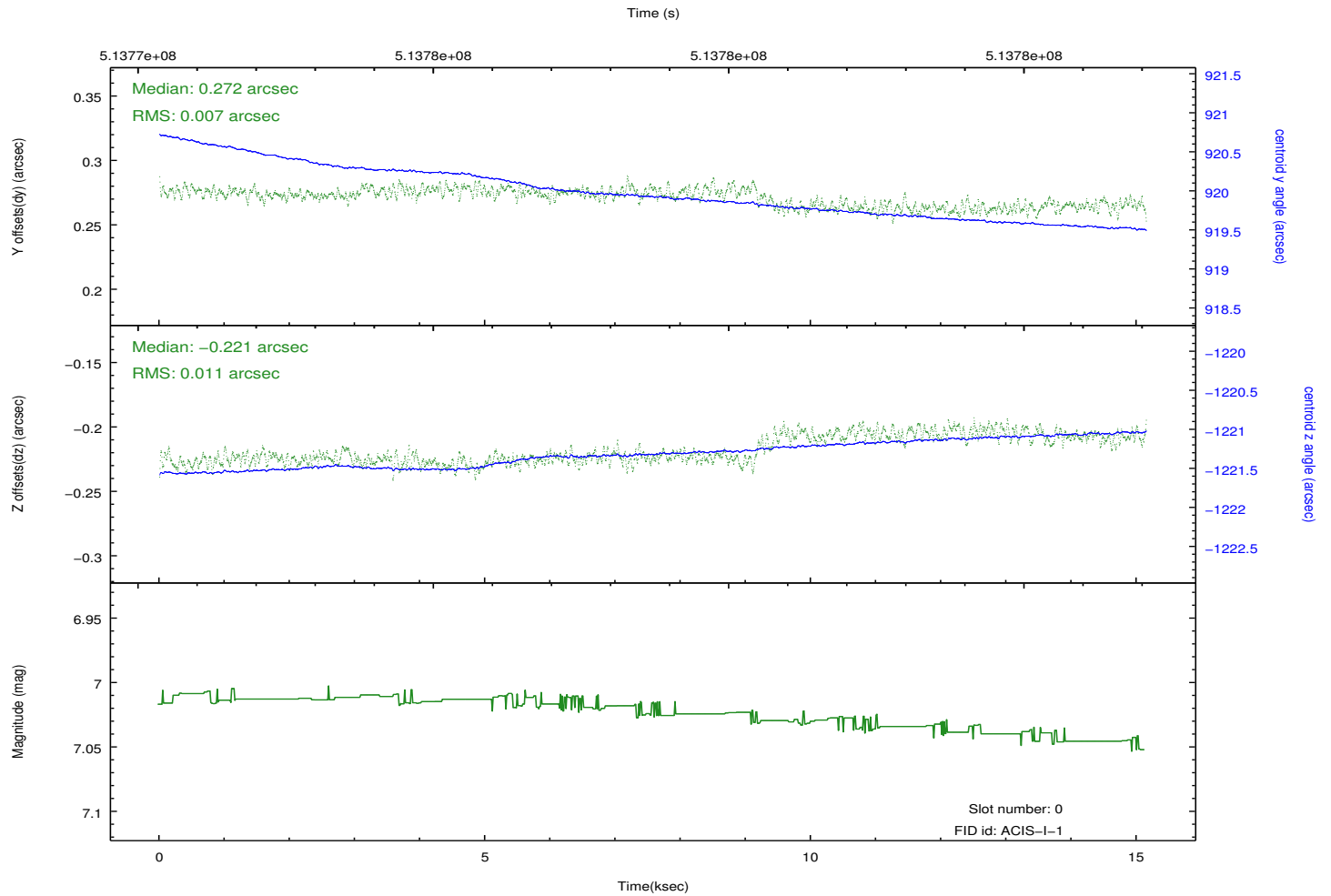
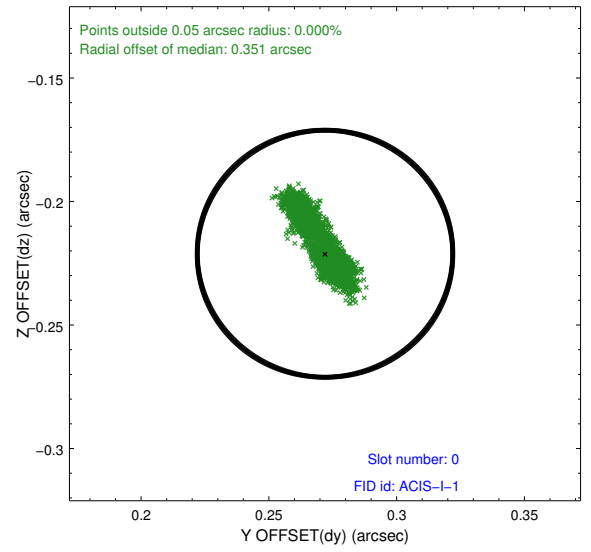
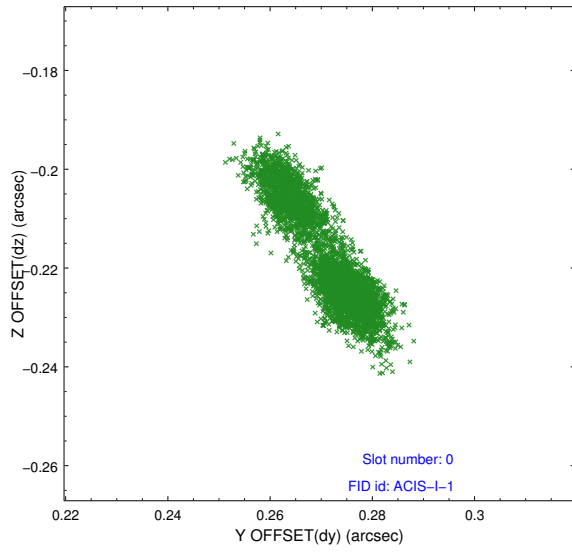


Time (s)

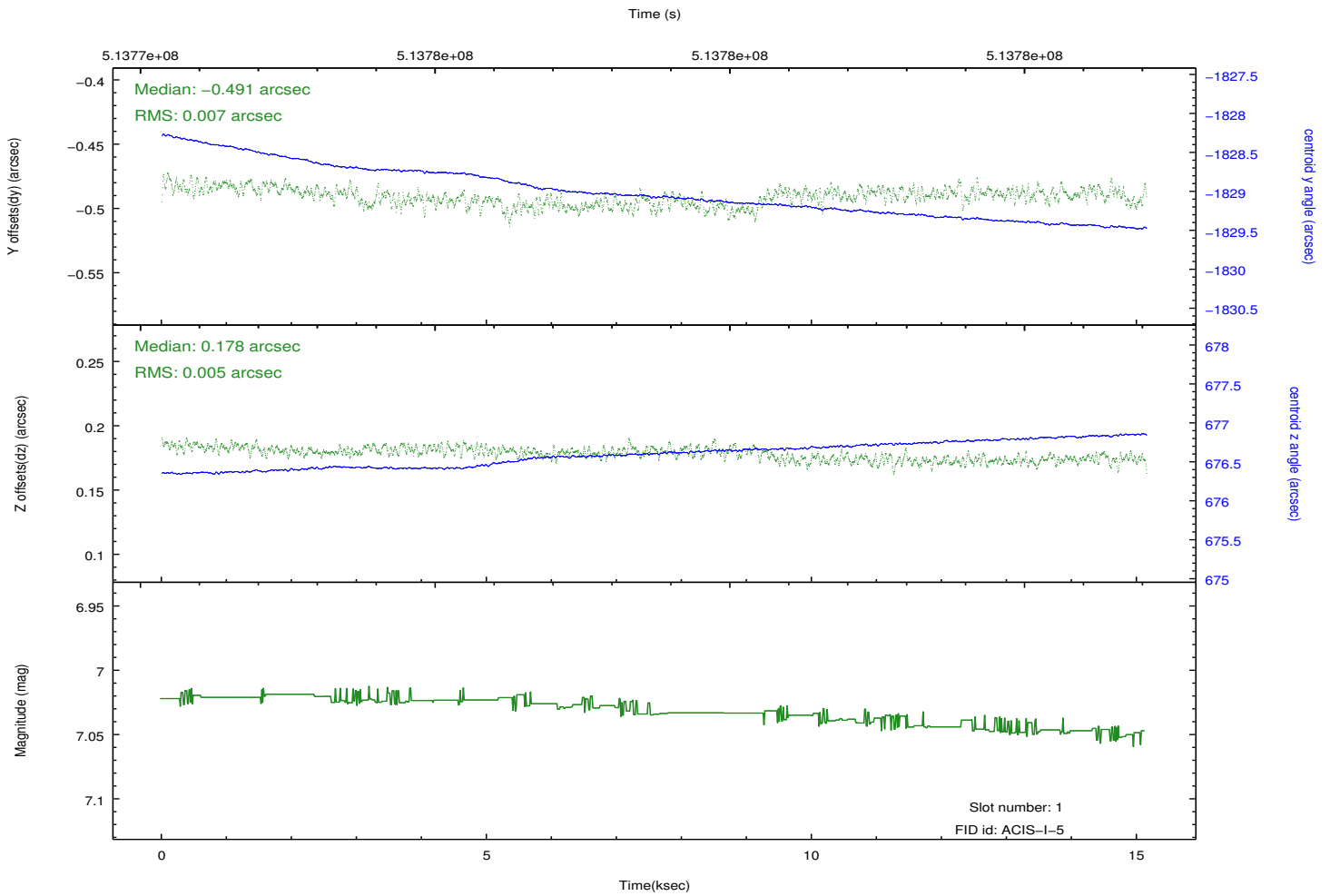
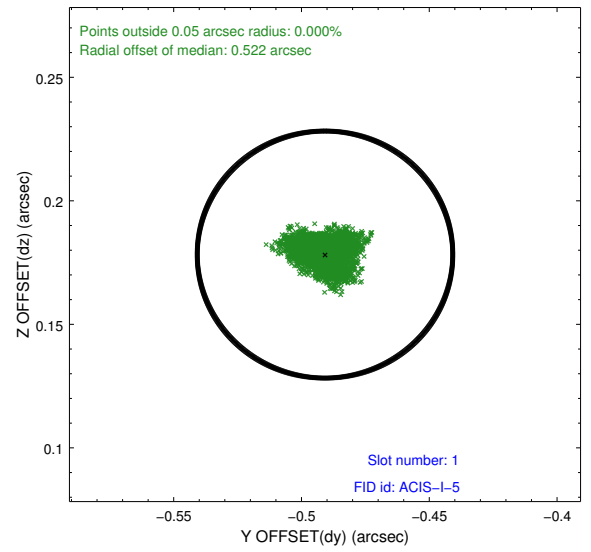
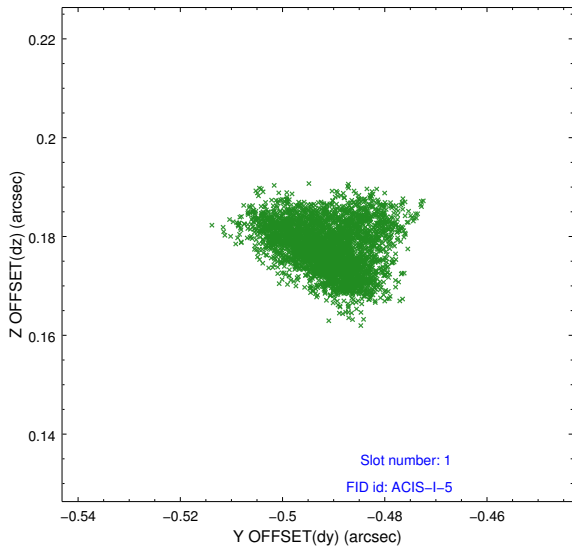


## 2.5 FID Slots

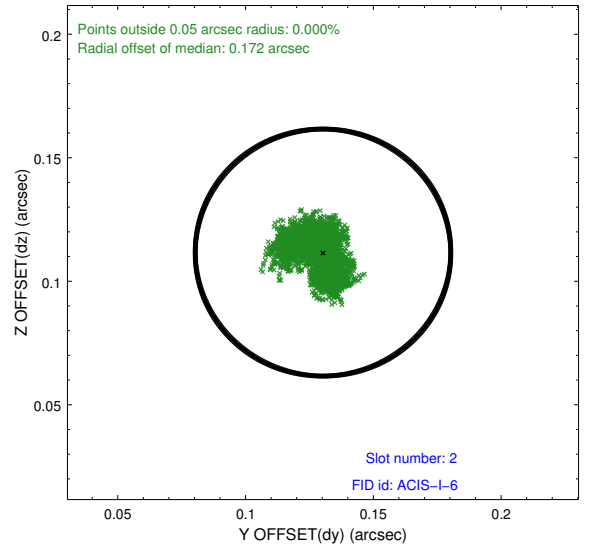
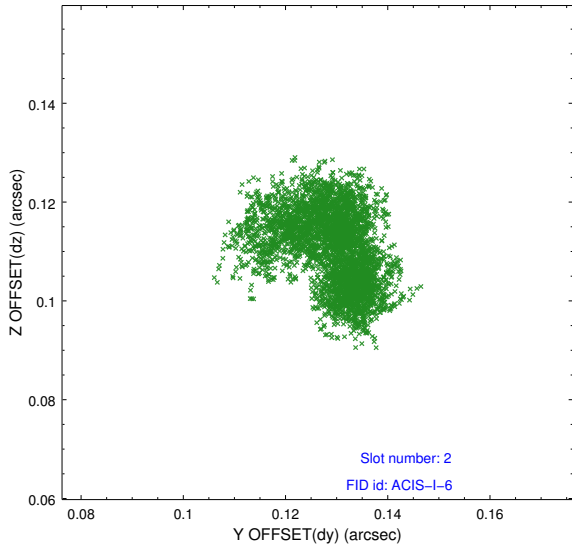
### 2.5.1 Slot 0



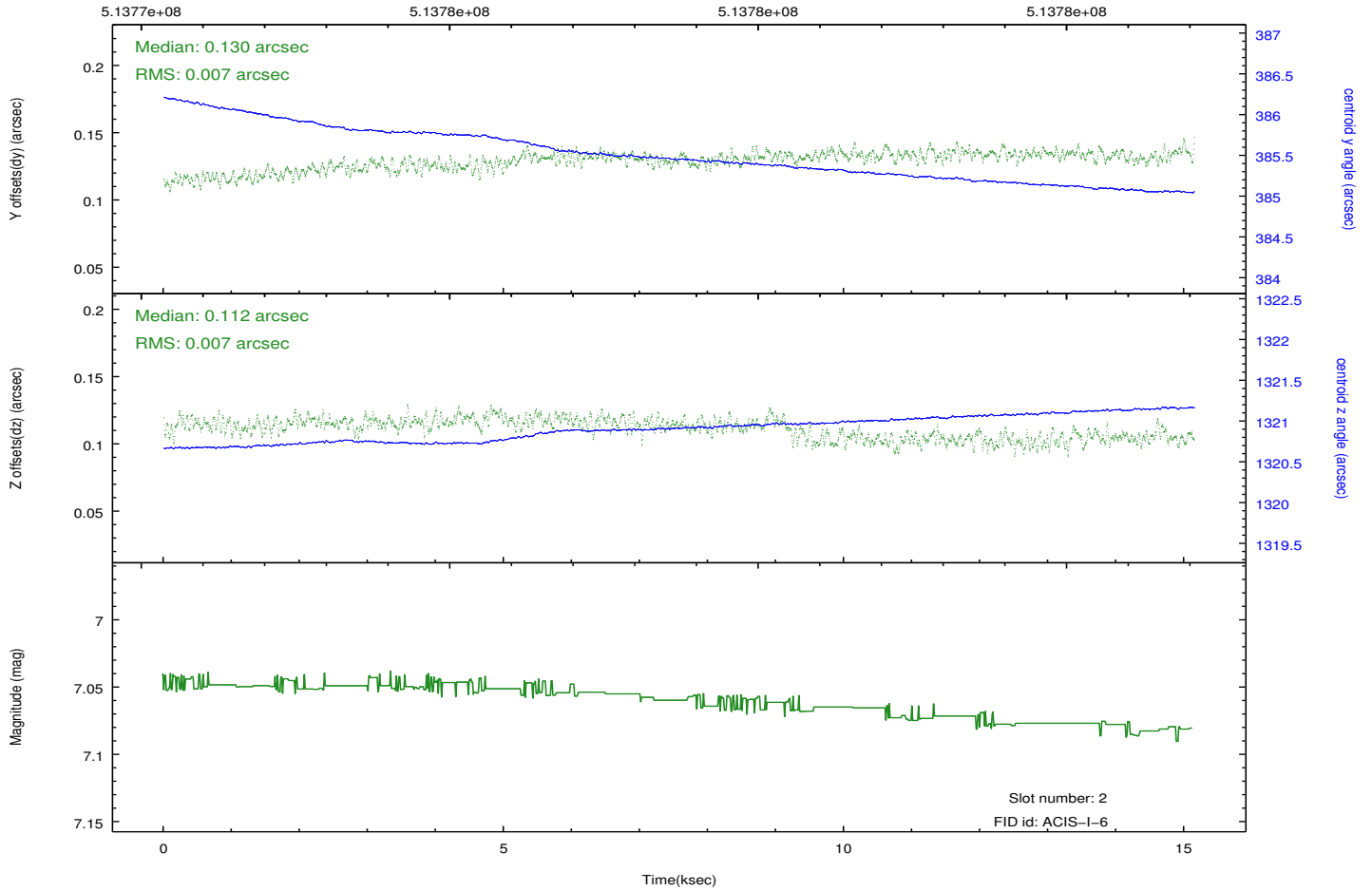
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.081459135652

## A.2 Comments

Window preference met.

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.