

# V&V Reference Report

## L2 ASCDS Version : 10.1.1

Observation 15727 - L2 Version 2  
Chandra X-Ray Center

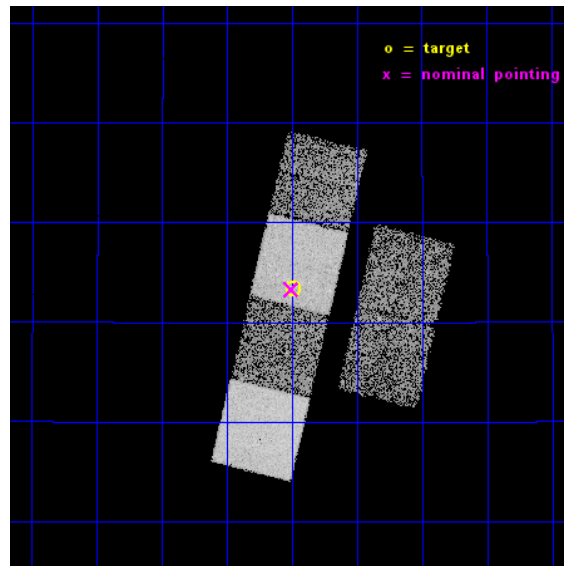
L2 Processing Date : Dec 8 2014

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

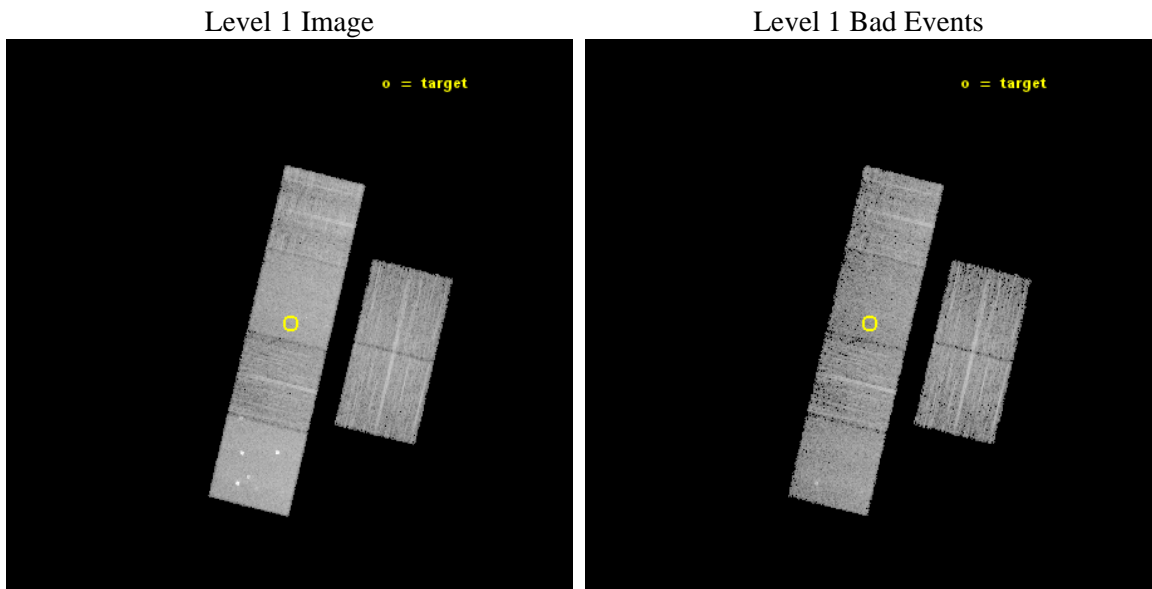
seq_num	200940	Sequence number
obs_id	15727	Observation id
title	A Snapshot Survey of the Most Active Hot Jupiter Systems.	Proposal
observer	Dr. Scott Wolk	Principal investigator
object	WASP 59	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	349.622917	Observer's specified target RA [deg]
dec_targ	24.889278	Observer's specified target Dec [deg]
ra_nom	349.62609793065	Nominal RA [deg]
dec_nom	24.888359375585	Nominal Dec [deg]
roll_nom	283.56264183183	Nominal Roll [deg]
revision	2	Processing version of data
ontime	9964.7999629378	Sum of GTIs [s]
livetime	9838.6196657249	Livetime [s]
ontime2	9961.5589026213	Sum of GTIs [s]
ontime3	9964.7999629378	Sum of GTIs [s]
ontime5	9964.7999629378	Sum of GTIs [s]
ontime6	9961.5589126348	Sum of GTIs [s]
ontime7	9964.7999629378	Sum of GTIs [s]
ontime8	9964.7999629378	Sum of GTIs [s]
l2events	83215	Number of level 2 events



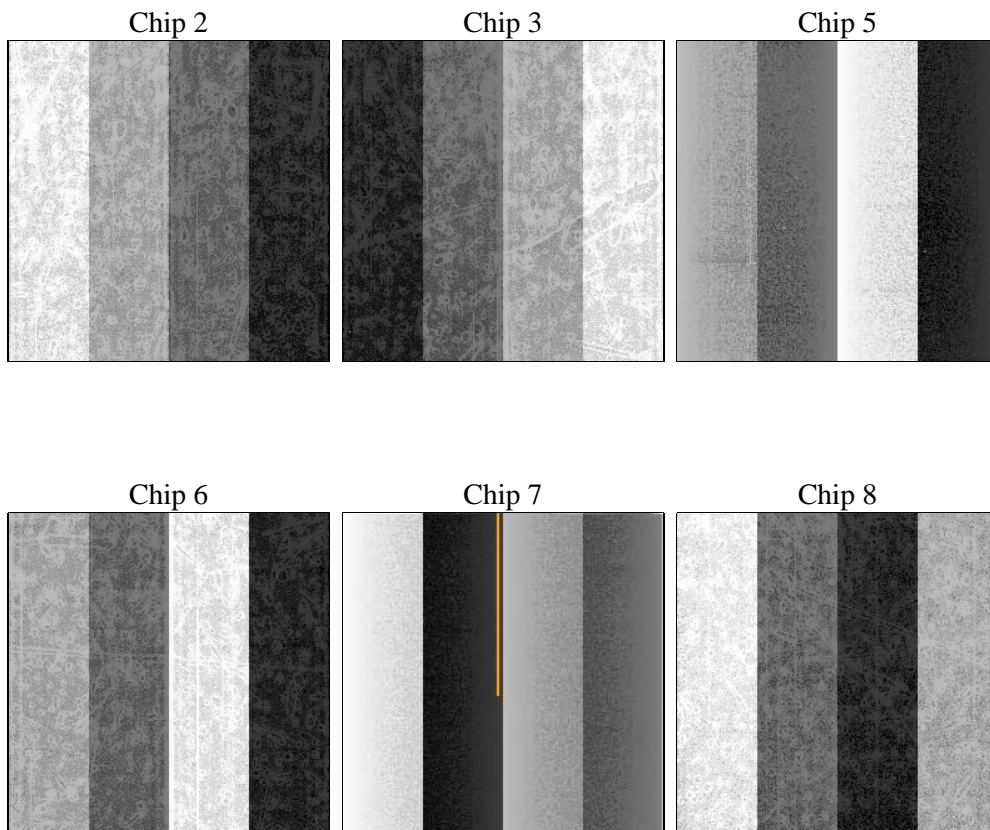
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	9964.7999629378	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime2	9961.5589026213	Sum of GTIs [s]
date	2014-12-08T05:25:43	Date and time of file creation	ontime3	9964.7999629378	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	9964.7999629378	Sum of GTIs [s]
			ontime6	9961.5589126348	Sum of GTIs [s]
			ontime7	9964.7999629378	Sum of GTIs [s]
			ontime8	9964.7999629378	Sum of GTIs [s]
			l1events	356803	Number of level 1 events

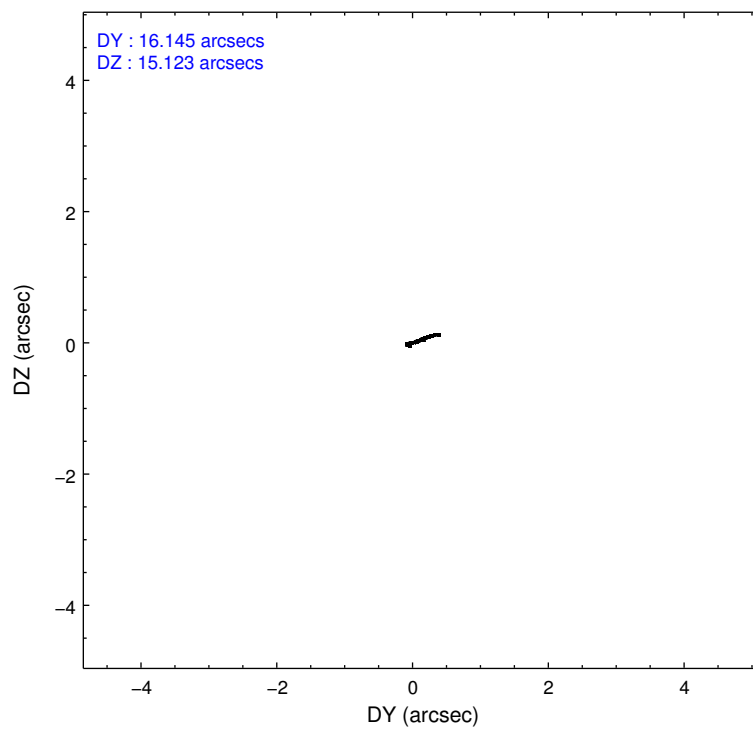
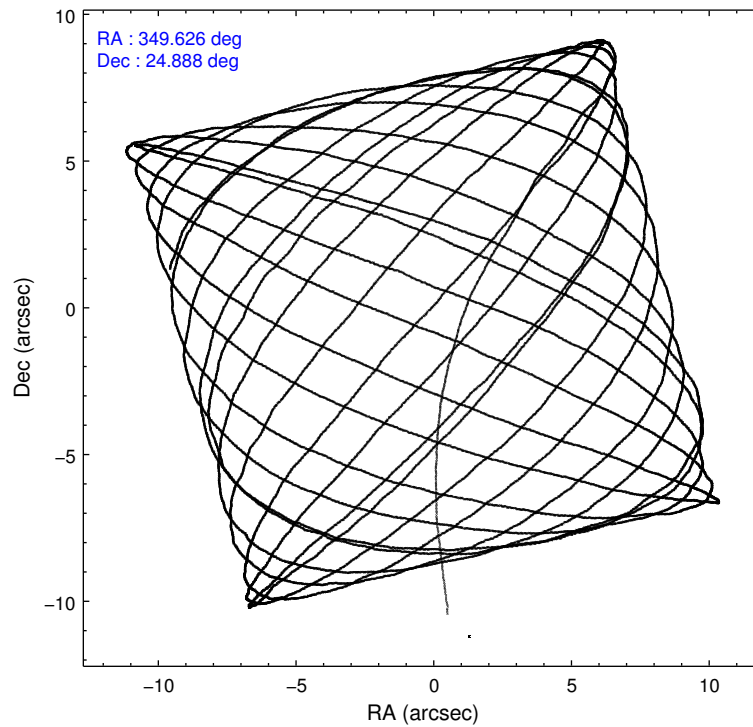
### 2.1.4 Events

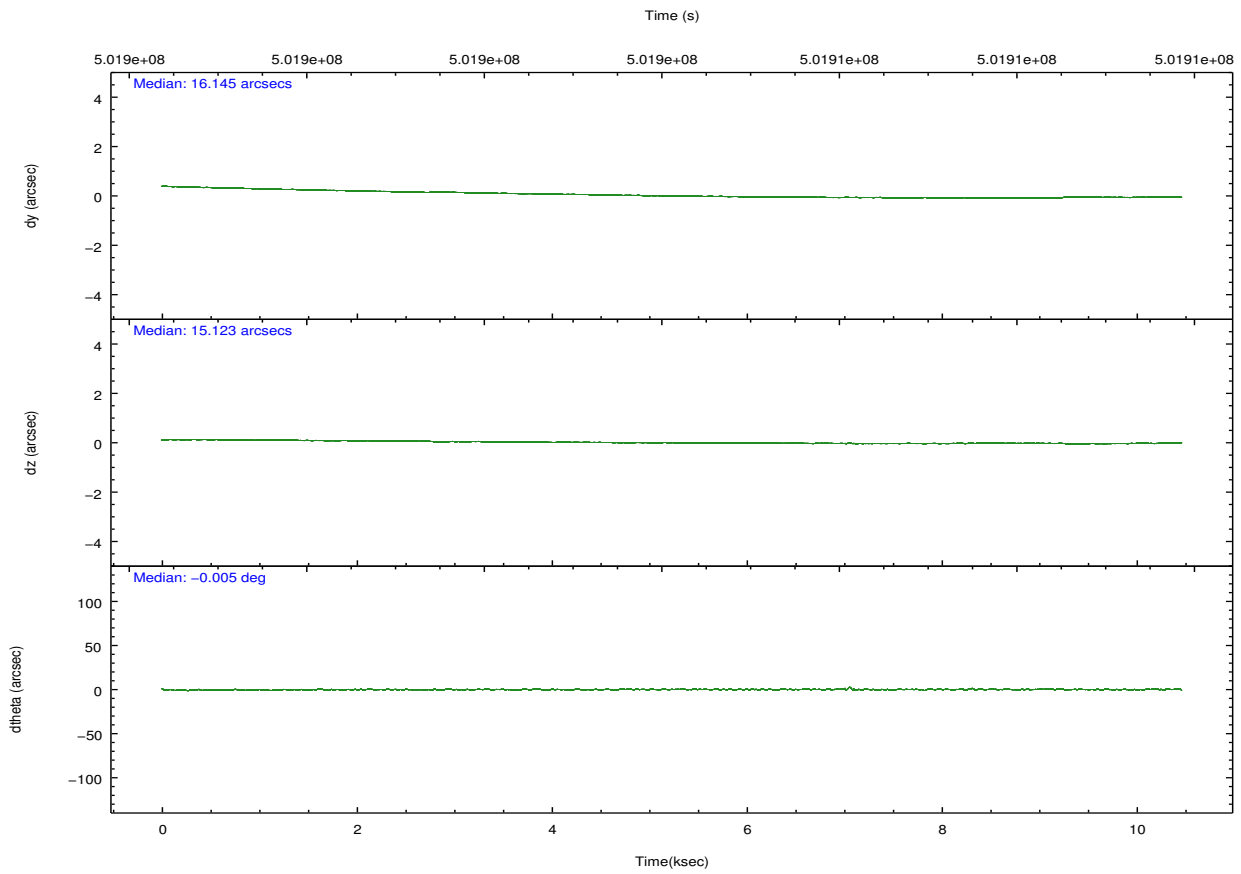
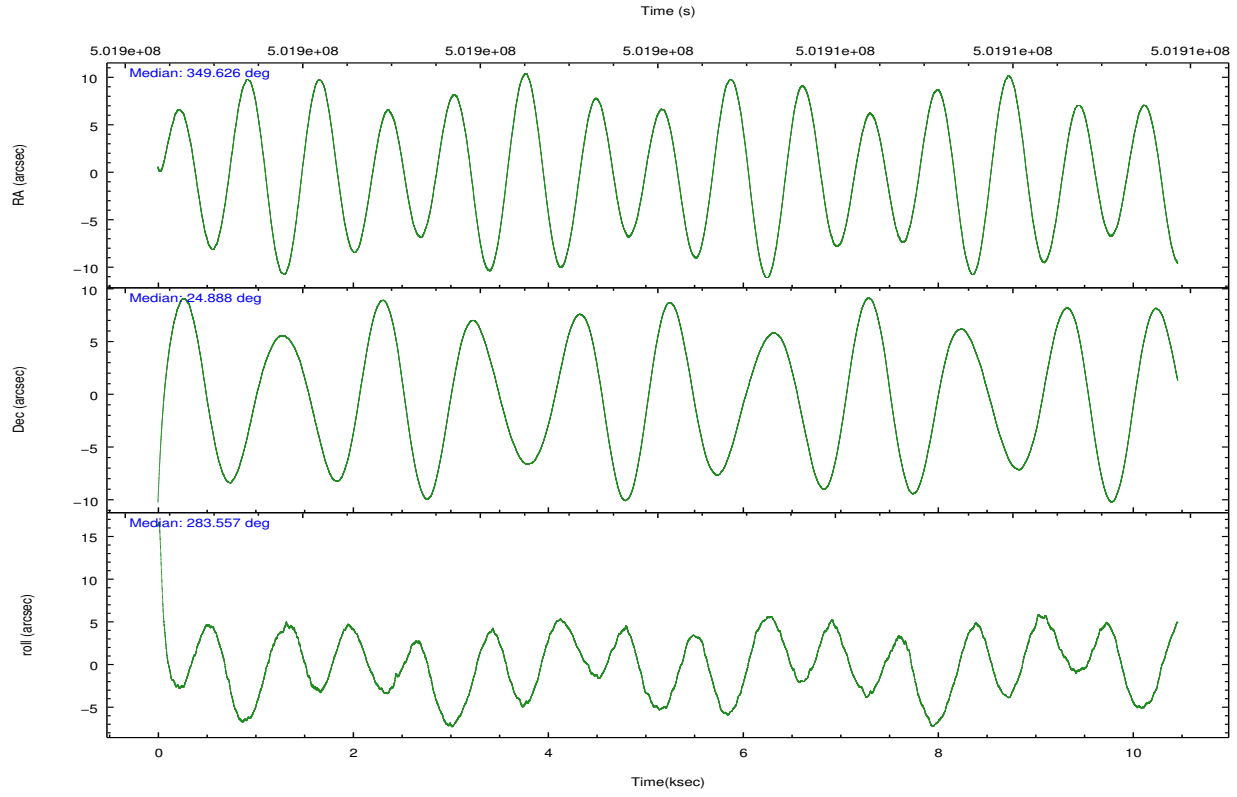
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	50752	44386	84679	48096	66251	62639	grade 0 events	1922	1877	6922	1865	2373	4194
rejected events	45343	39182	42368	42312	37869	46643		3%	4%	8%	3%	3%	6%
rejected %	89%	88%	50%	87%	57%	74%	grade 1 events	18	28	305	23	54	36
								0%	0%	0%	0%	0%	0%
							grade 2 events	1295	1120	11945	1338	5876	3926
								2%	2%	14%	2%	8%	6%
							grade 3 events	550	564	1162	623	2270	1721
								1%	1%	1%	1%	3%	2%
							grade 4 events	558	575	996	569	2175	1580
								1%	1%	1%	1%	3%	2%
							grade 5 events	2101	2433	5322	2563	6579	3679
								4%	5%	6%	5%	9%	5%
							grade 6 events	1086	1068	21301	1392	15697	4576
								2%	2%	25%	2%	23%	7%
							grade 7 events	43222	36721	36726	39723	31227	42927
								85%	82%	43%	82%	47%	68%

## 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	349.604997	349.6260979306465	CCD I2 on	O2	Y
[deg] Pointing Dec	24.907851	24.8883593755854	CCD I3 on	O3	Y
[deg] Pointing Roll	283.414871	283.5626418318274	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	O1	Y
[s] Observation start time (MET)	501899335.184000	501898237.1656	CCD S5 on	N	N
Observation start date	2013-11-27T00:27:48	2013-11-27T00:10:37	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	501909335.184000	501910687.32878	On-chip summing requested	N	N
Observation end date	2013-11-27T03:14:28	2013-11-27T03:38:07	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



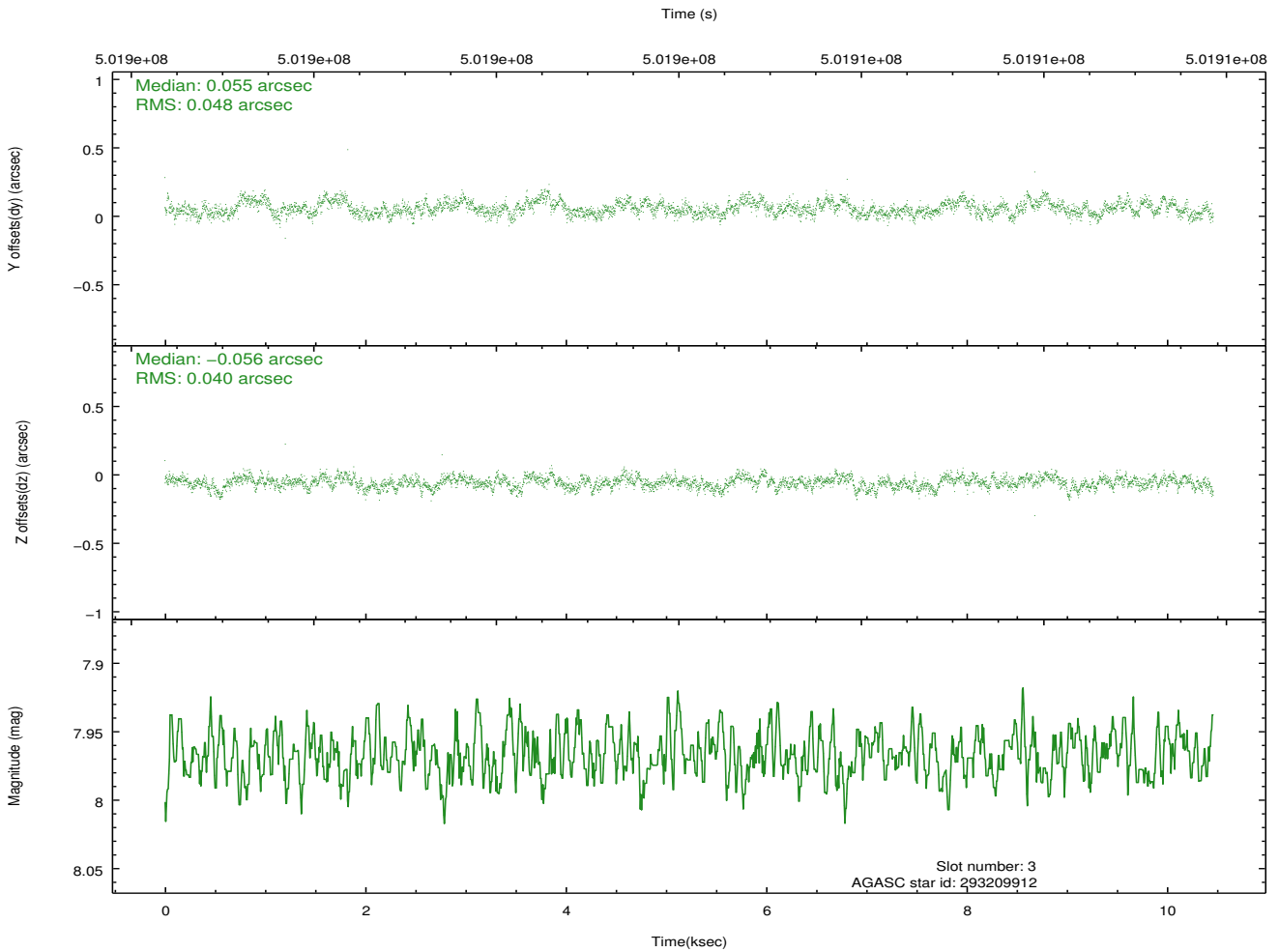
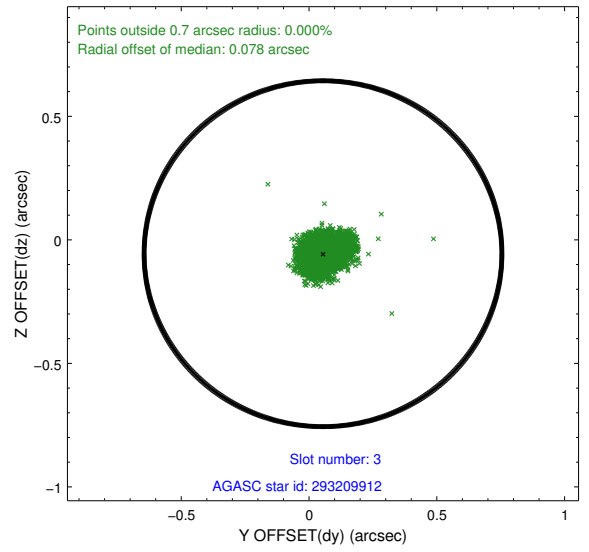
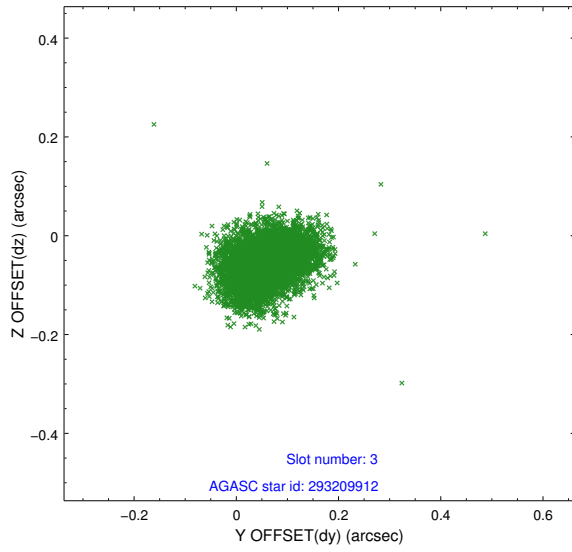


### Slot Statistics

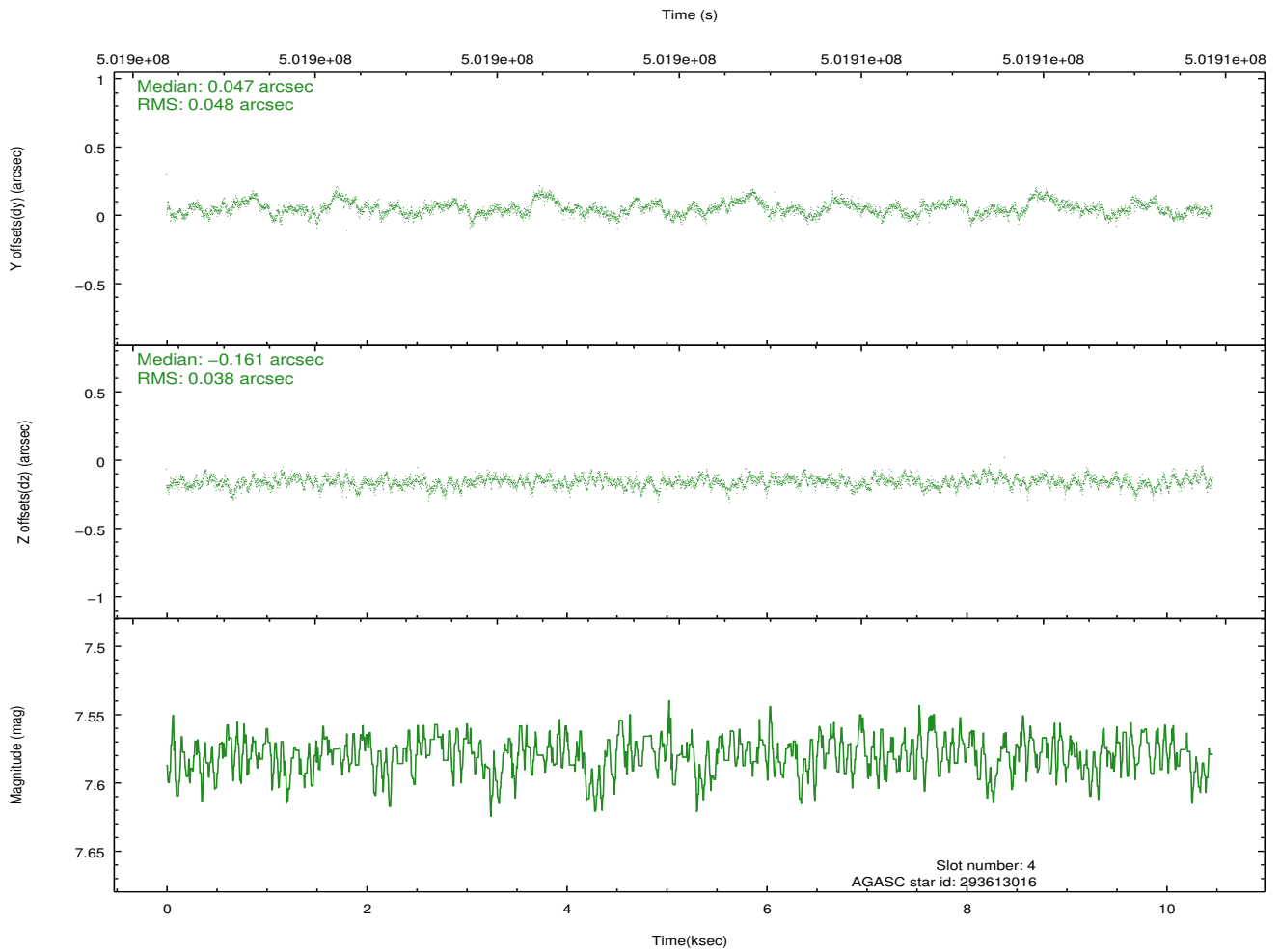
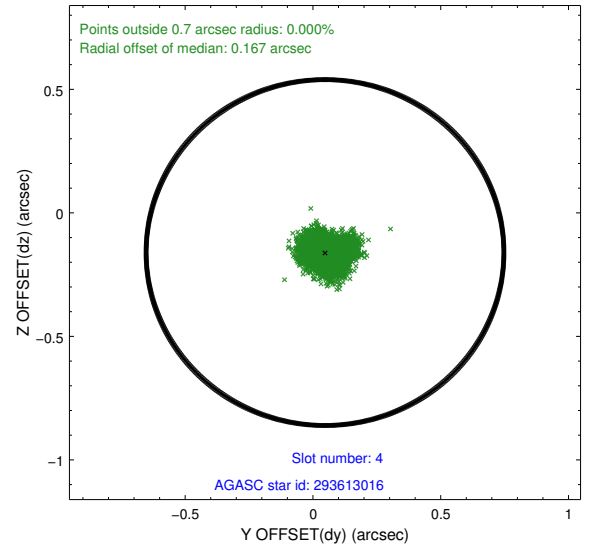
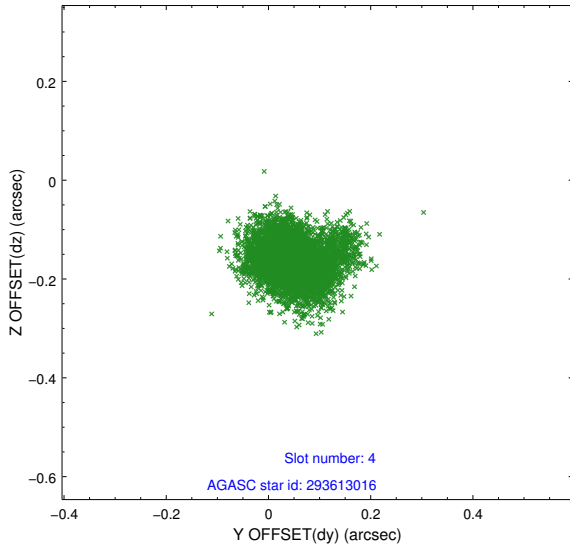
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.08	2552	-0.124	-0.001	0.007	0.012	0.000000	0.000000	-769.31	-1736.48
1	FID		ACIS-S-4	7.16	2551	0.231	0.060	0.006	0.011	0.000000	0.000000	2144.07	171.57
2	FID		ACIS-S-5	7.20	2552	-0.138	-0.050	0.007	0.012	0.000000	0.000000	-1821.54	165.67
3	GUIDE	used	293209912	7.97	5104	0.055	-0.056	0.066	0.105	349.625983	24.278651	2219.99	-457.97
4	GUIDE	used	293613016	7.58	5104	0.047	-0.161	0.065	0.108	348.900608	24.941899	-657.66	-2206.66
5	GUIDE	used	293738216	9.47	5100	-0.133	-0.133	0.154	0.239	350.083656	25.661136	-2279.96	2140.30
6	GUIDE	used	293745424	8.72	5098	-0.013	0.081	0.090	0.147	350.036957	25.433328	-1516.71	1806.04
7	GUIDE	used	293609760	8.85	5101	0.034	0.273	0.089	0.142	349.097045	25.470562	-2356.27	-1134.62

## 2.4 Star Slots

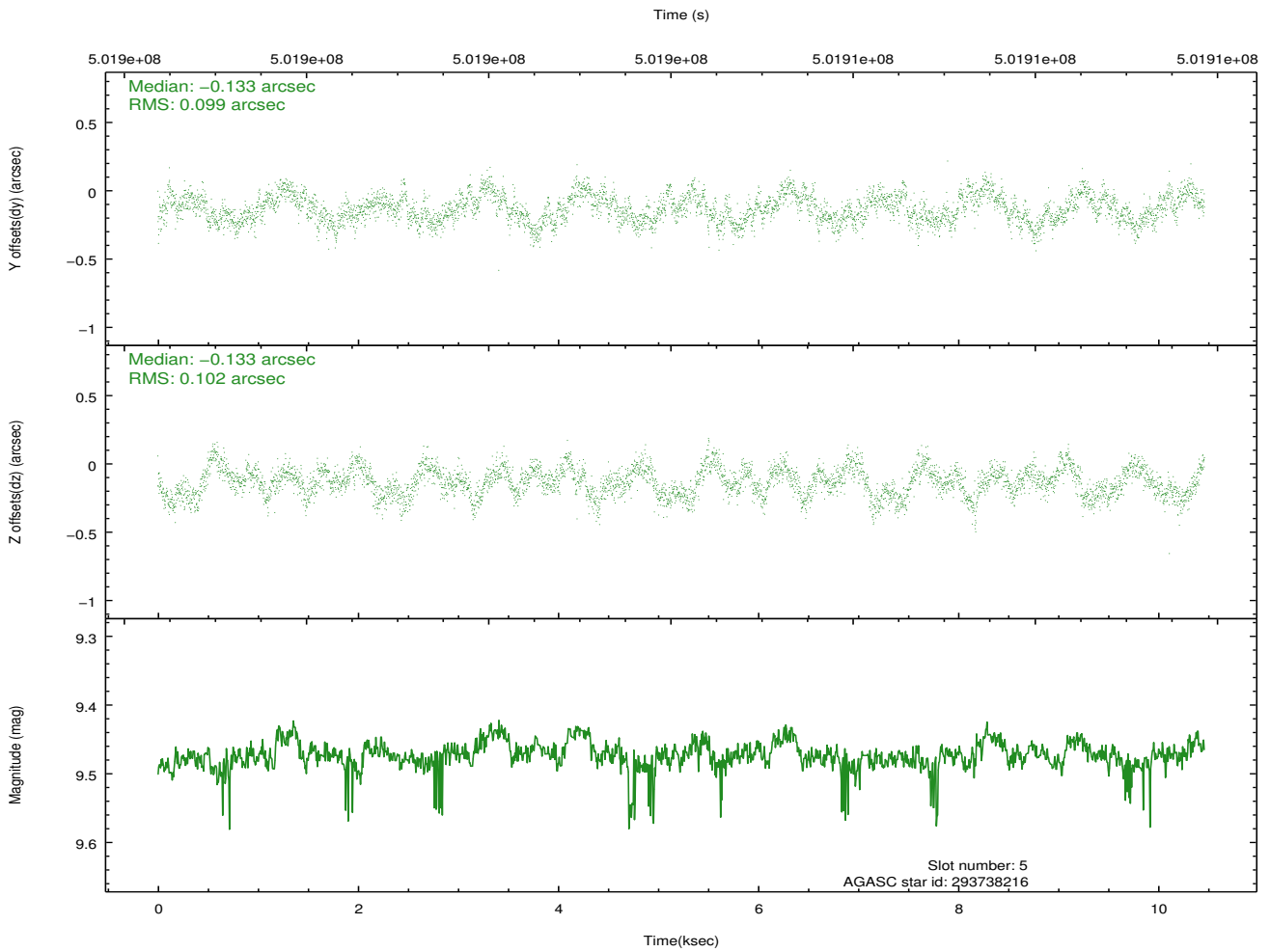
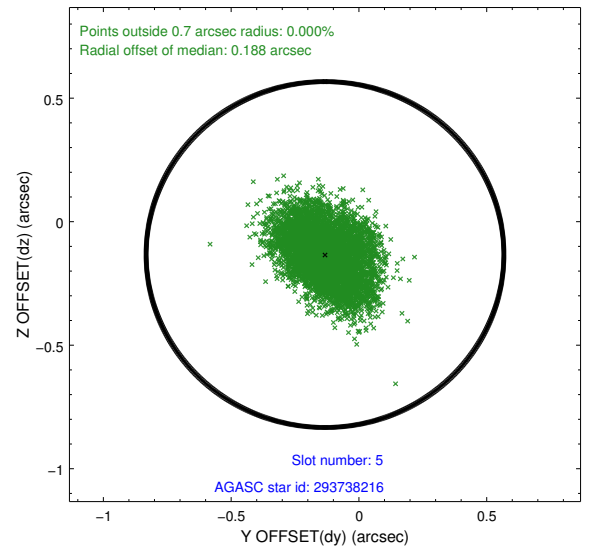
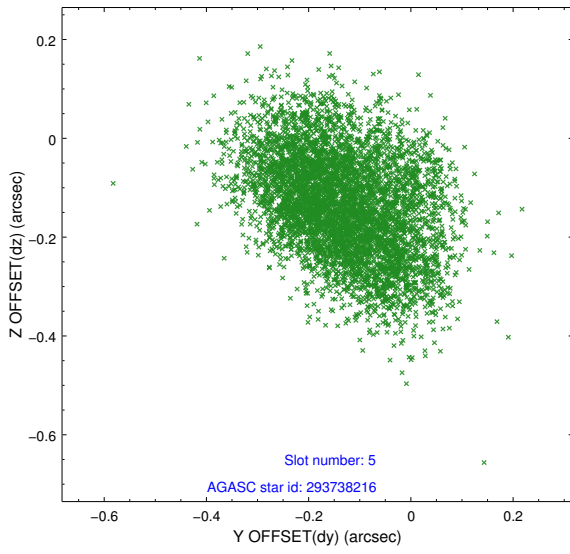
### 2.4.1 Slot 3



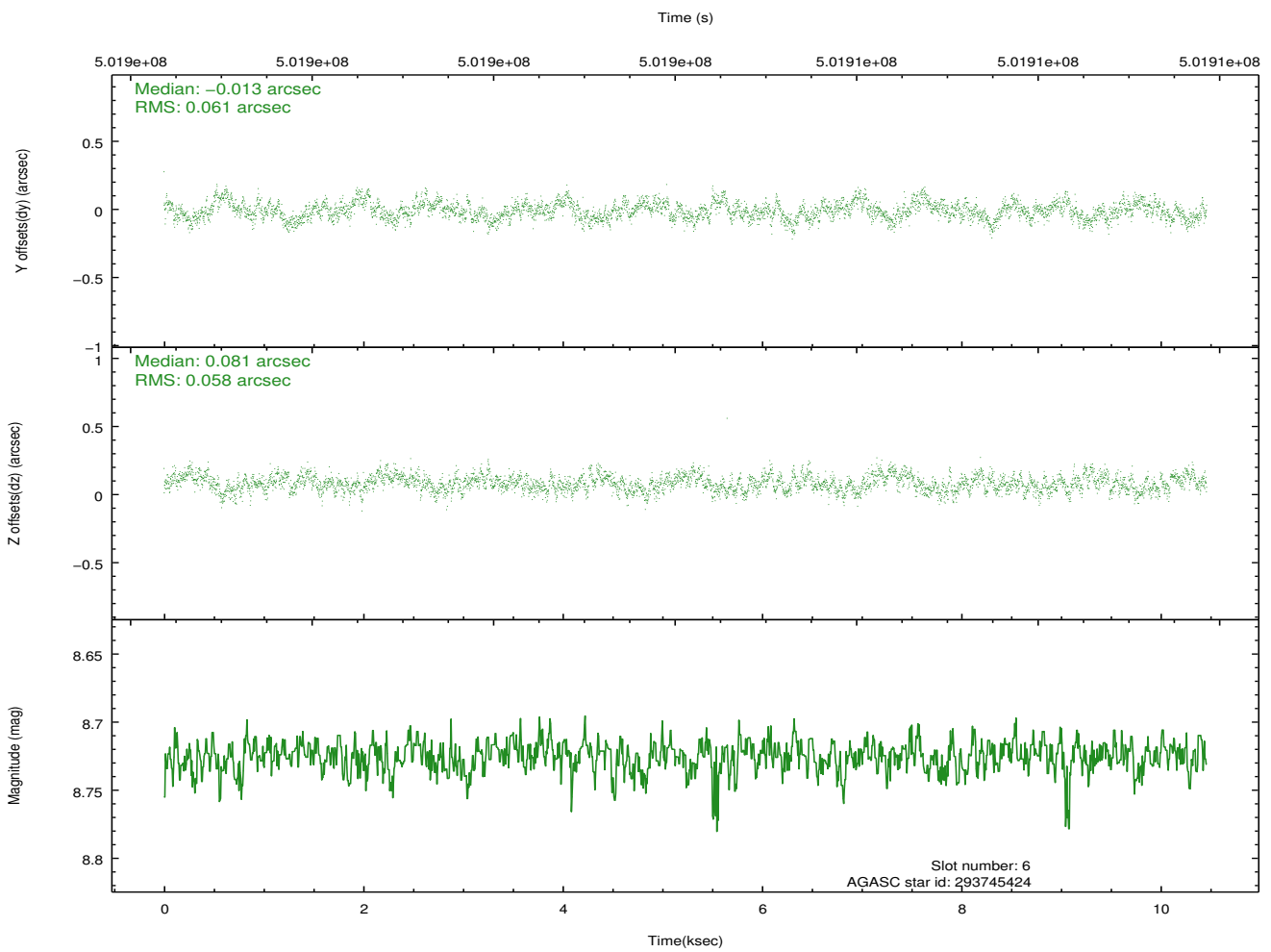
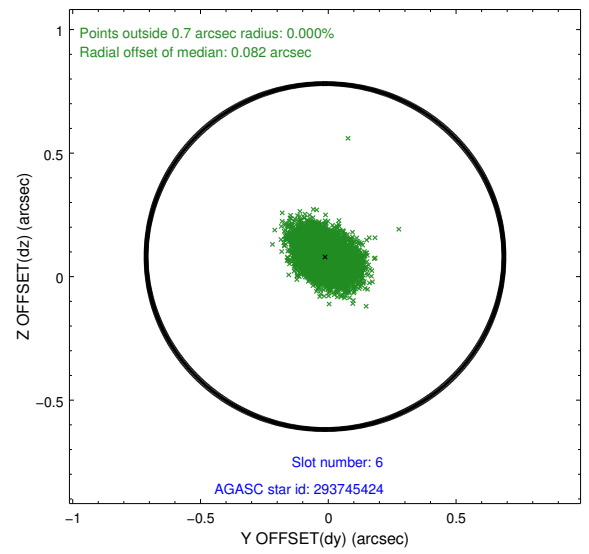
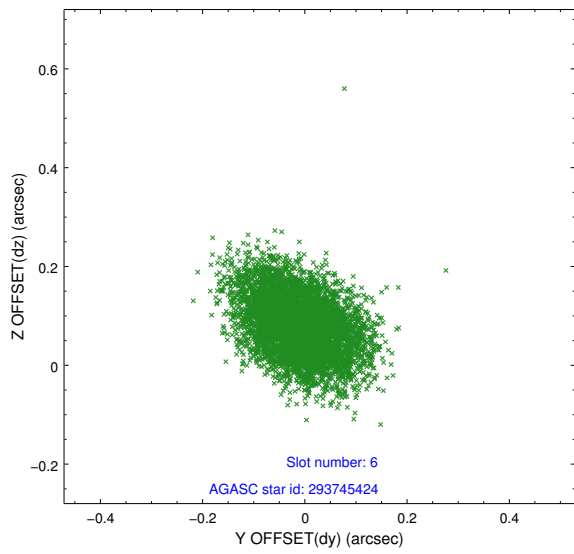
## 2.4.2 Slot 4



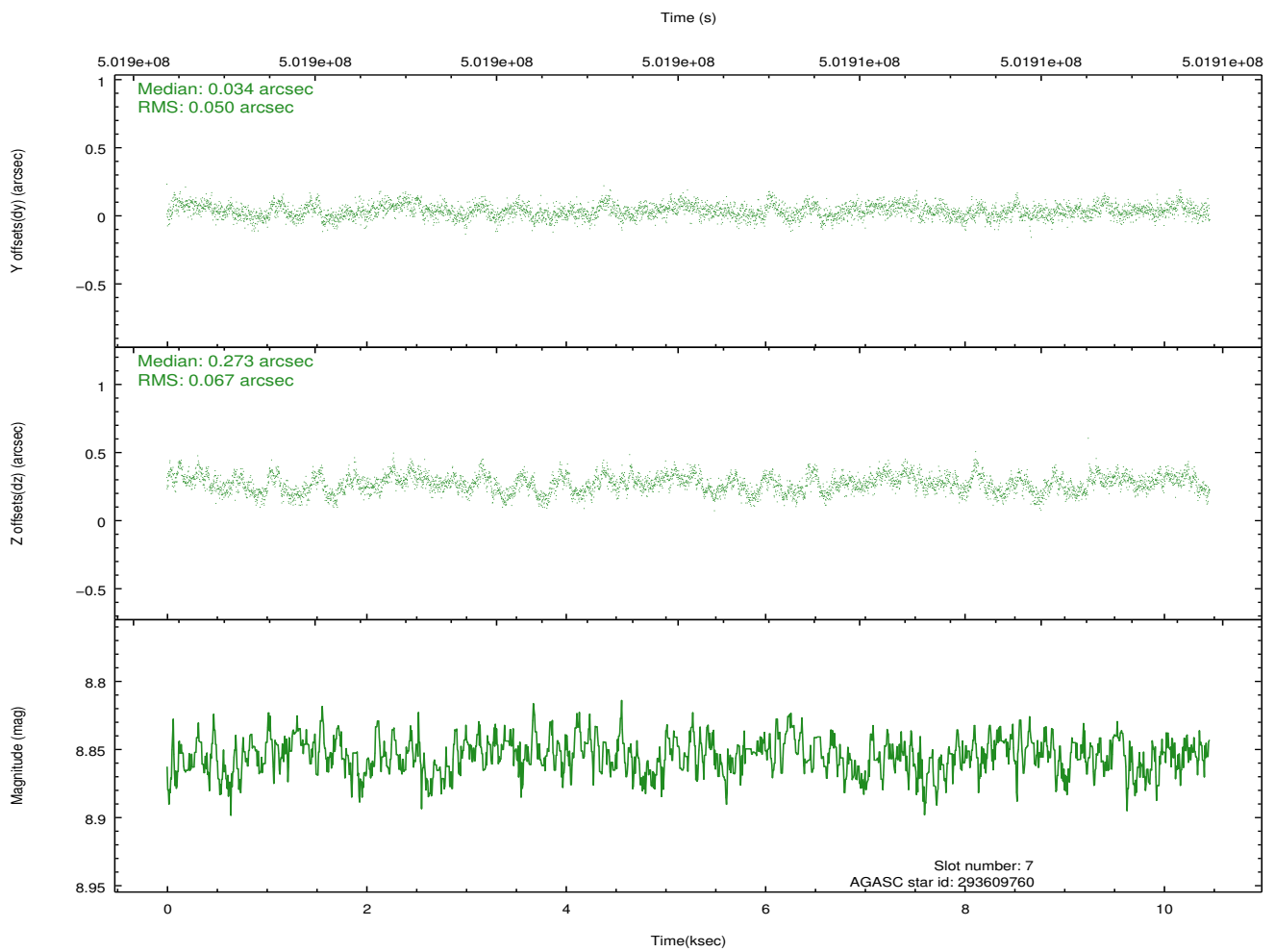
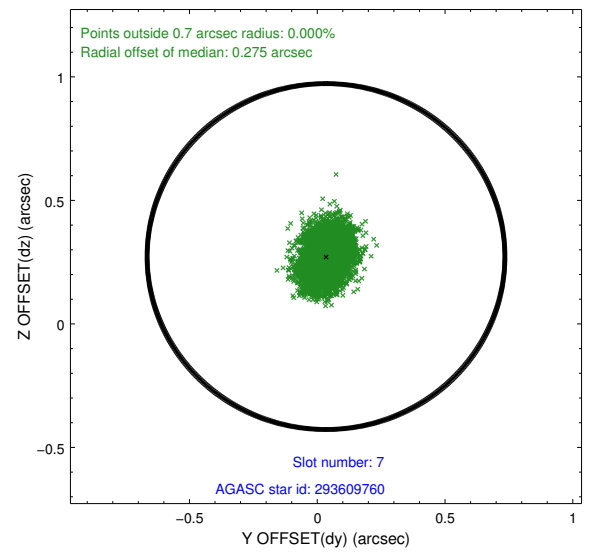
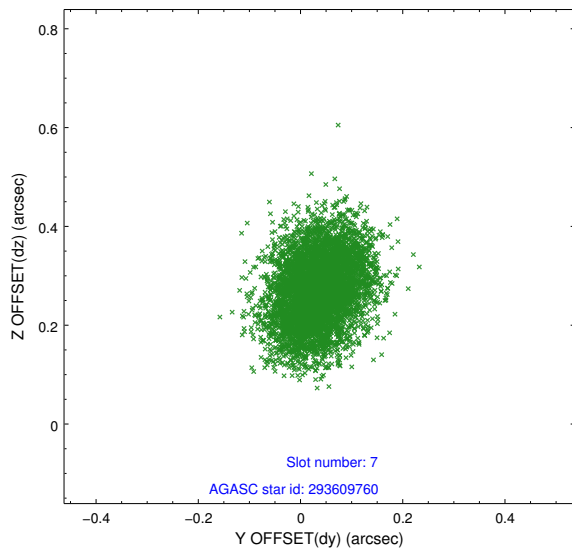
### 2.4.3 Slot 5



## 2.4.4 Slot 6

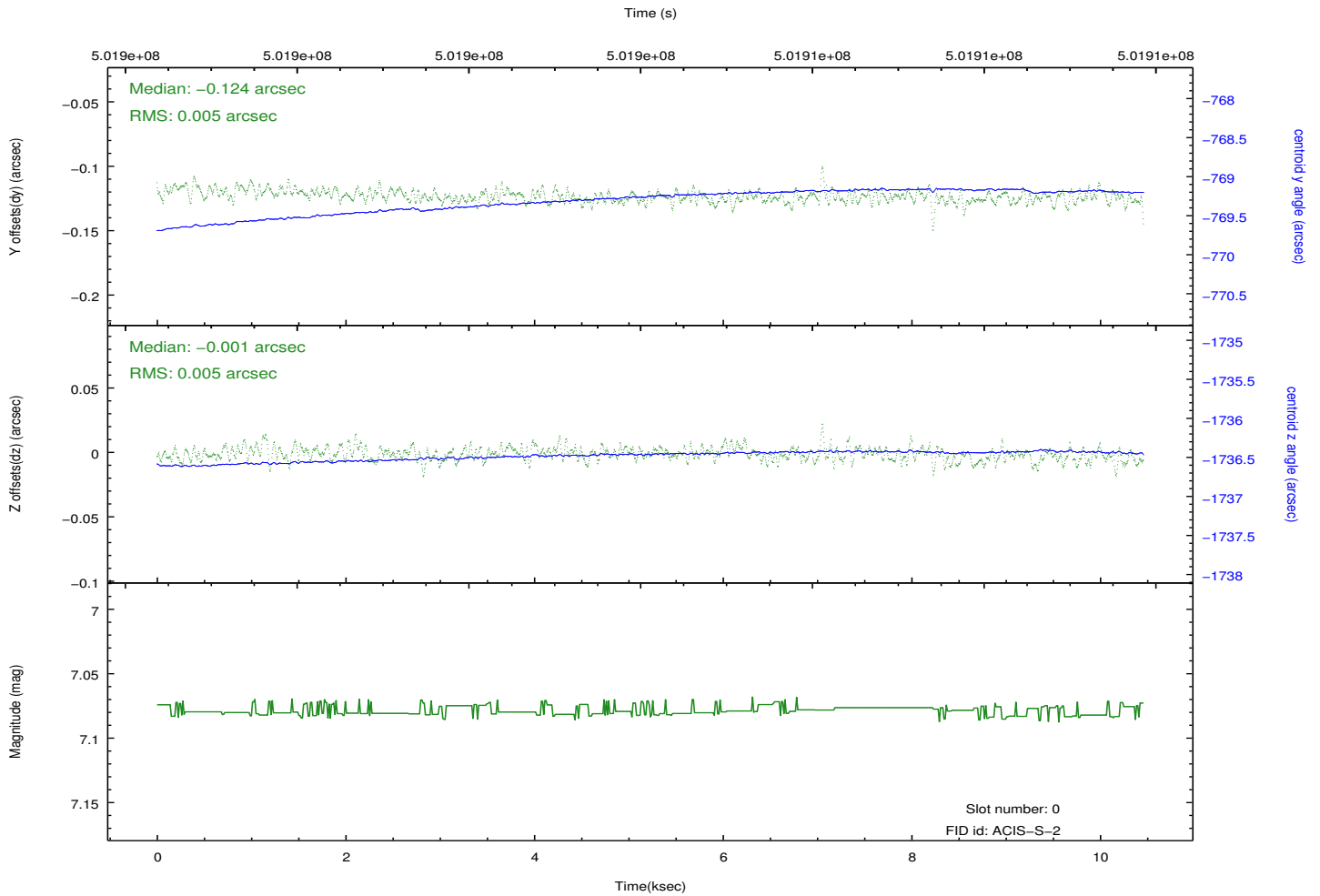
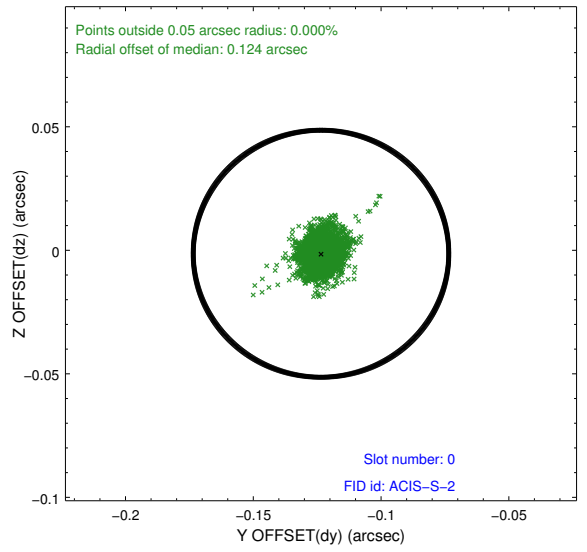
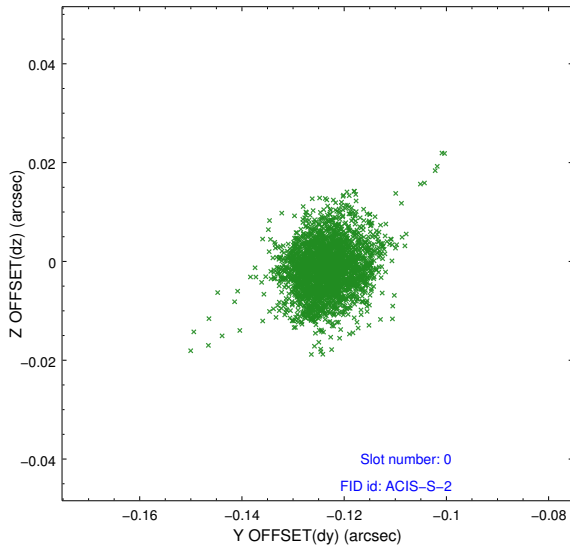


## 2.4.5 Slot 7

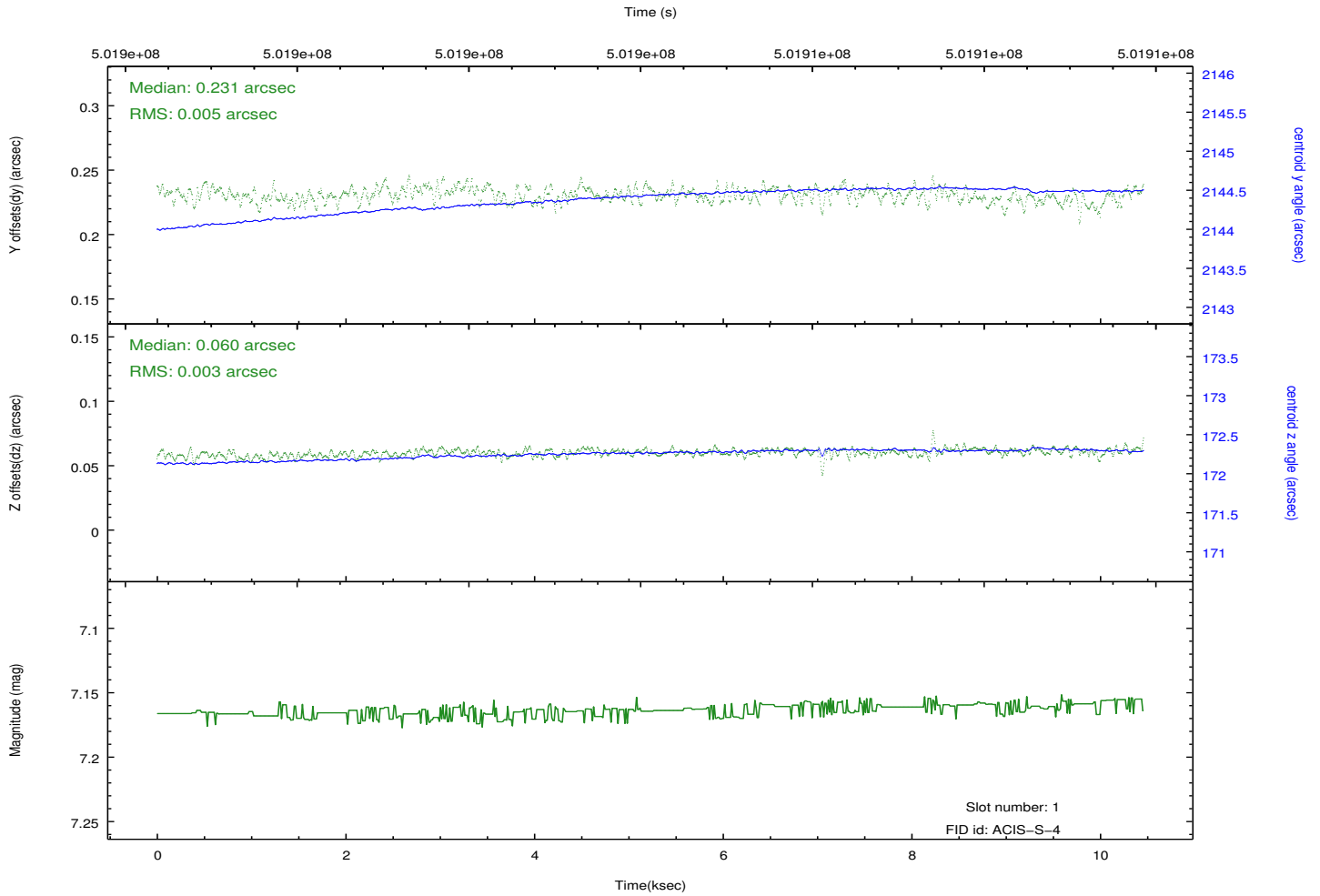
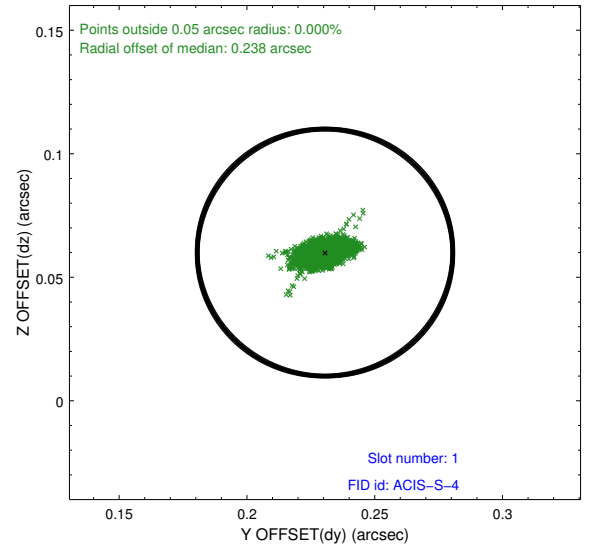
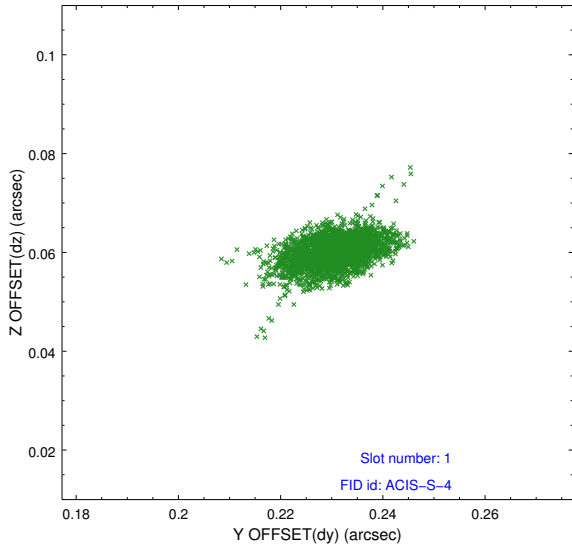


## 2.5 FID Slots

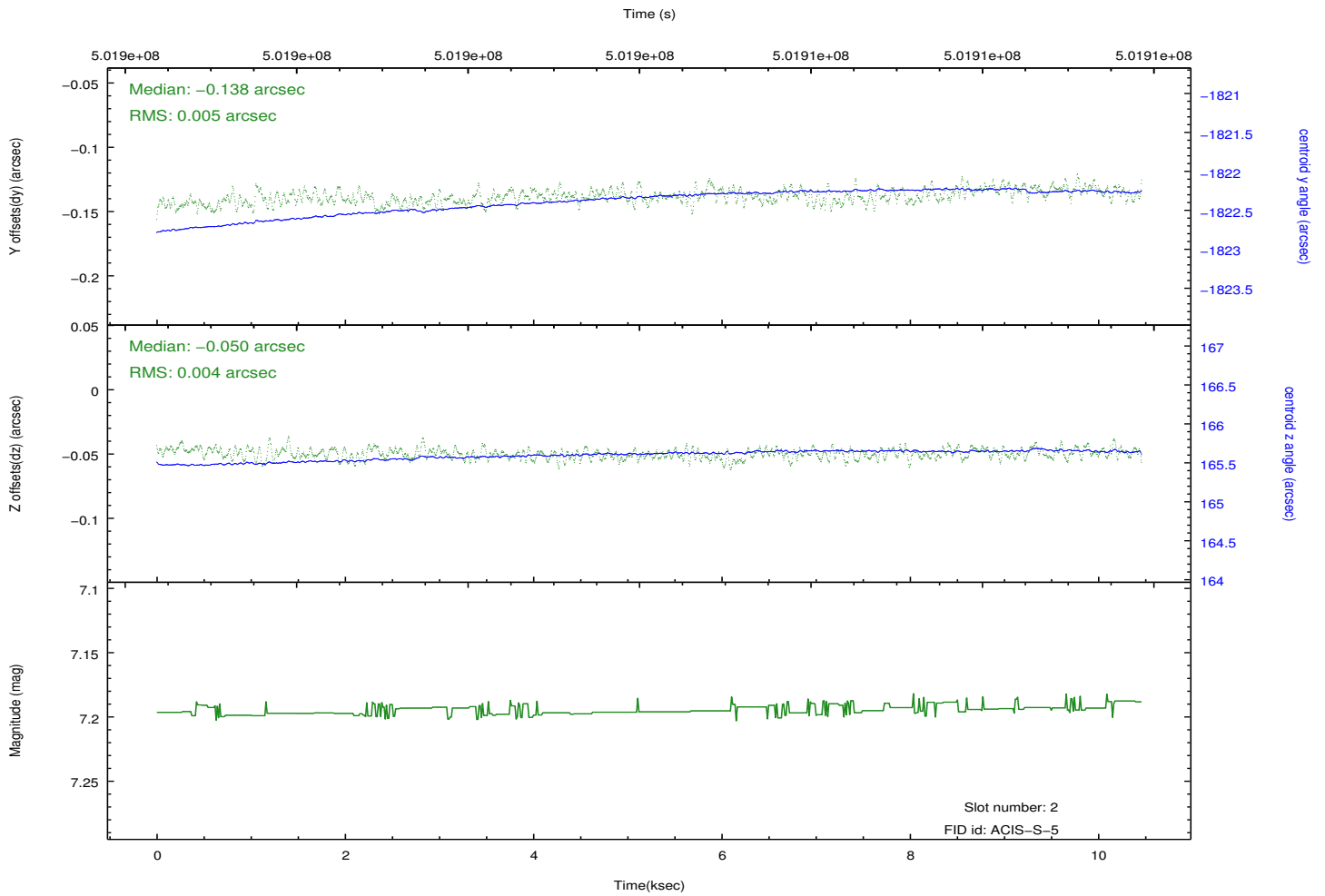
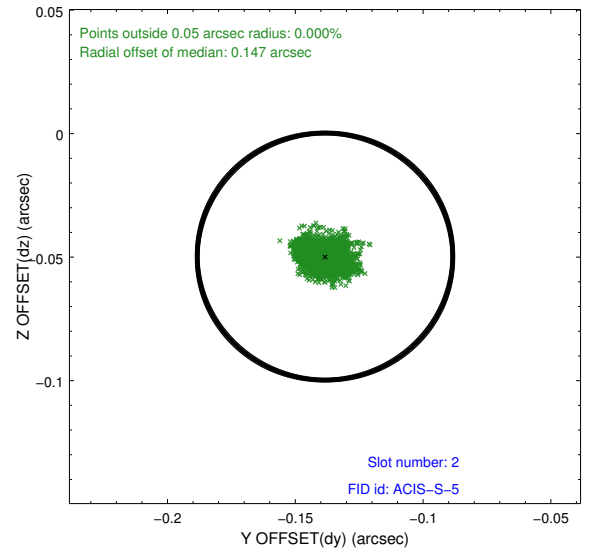
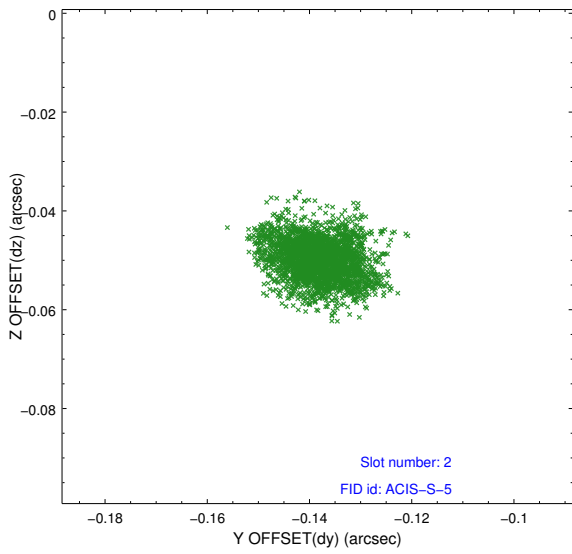
### 2.5.1 Slot 0



## 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)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.9647999629378

## 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.