

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11280 - L2 Version 2  
Chandra X-Ray Center

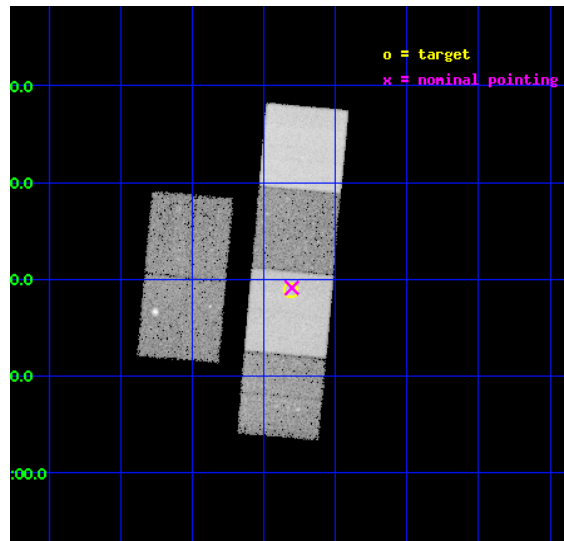
L2 Processing Date : Jun 13 2012

## 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

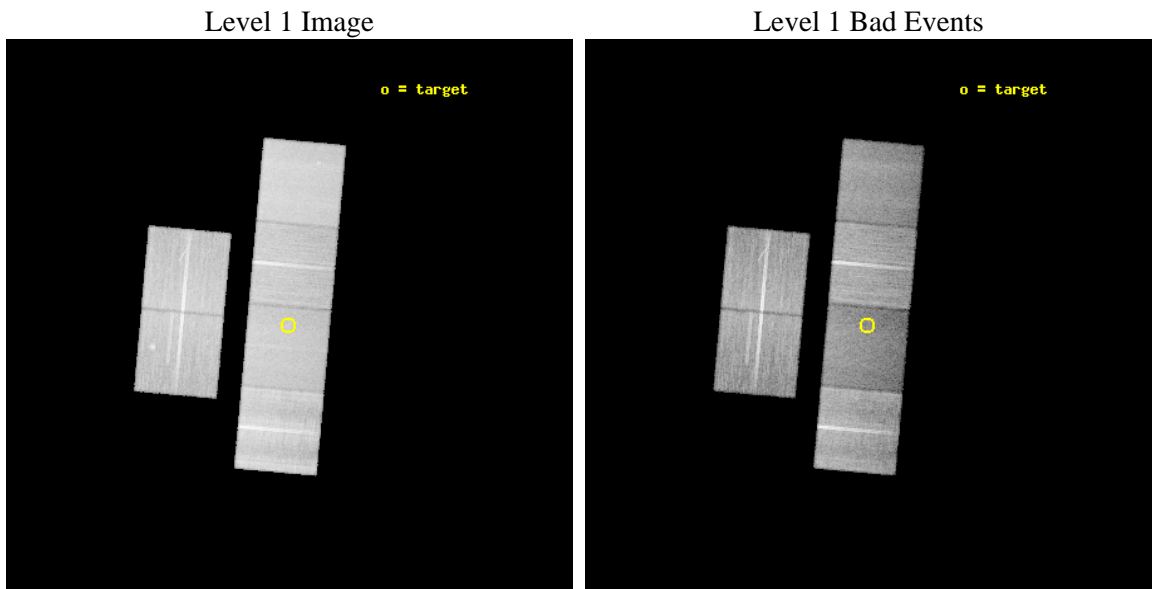
seq_num	600799	Sequence number
obs_id	11280	Observation id
title	Search for the Most Luminous ULXs in Collisional Ring Galaxies	Pro
observer	Prof. Saul Rappaport	Principal investigator
object	Arp 147	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	47.82875	Observer's specified target RA [deg]
dec_targ	1.314722	Observer's specified target Dec [deg]
ra_nom	47.825833122568	Nominal RA [deg]
dec_nom	1.3186082726314	Nominal Dec [deg]
roll_nom	95.156713961872	Nominal Roll [deg]
revision	2	Processing version of data
ontime	24841.366147995	Sum of GTIs [s]
livetime	24526.809812154	Livetime [s]
ontime2	24838.166227162	Sum of GTIs [s]
ontime3	24841.243027985	Sum of GTIs [s]
ontime5	24841.325107992	Sum of GTIs [s]
ontime6	24838.04305768	Sum of GTIs [s]
ontime7	24841.366147995	Sum of GTIs [s]
ontime8	24841.201987982	Sum of GTIs [s]
l2events	296968	Number of level 2 events



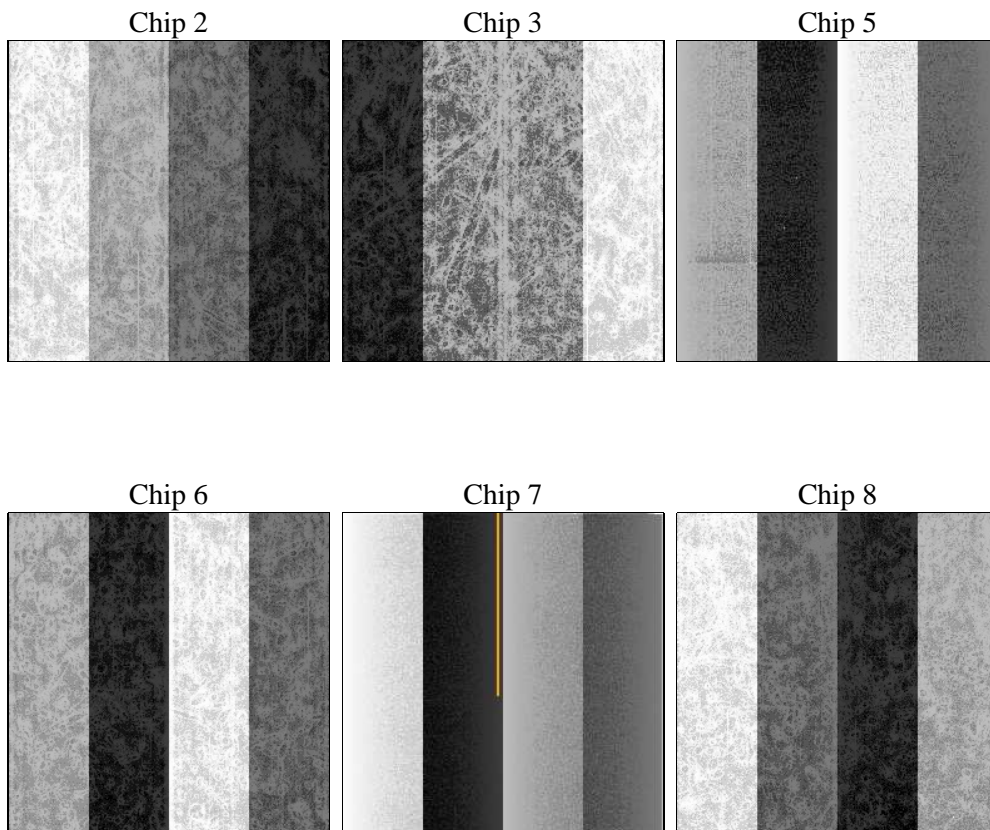
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	24800.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	24841.366147995	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime2	24838.166227162	Sum of GTIs [s]
date	2012-06-13T05:13:42	Date and time of file creation	ontime3	24841.243027985	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	24841.325107992	Sum of GTIs [s]
			ontime6	24838.04305768	Sum of GTIs [s]
			ontime7	24841.366147995	Sum of GTIs [s]
			ontime8	24841.201987982	Sum of GTIs [s]
			l1events	1333424	Number of level 1 events

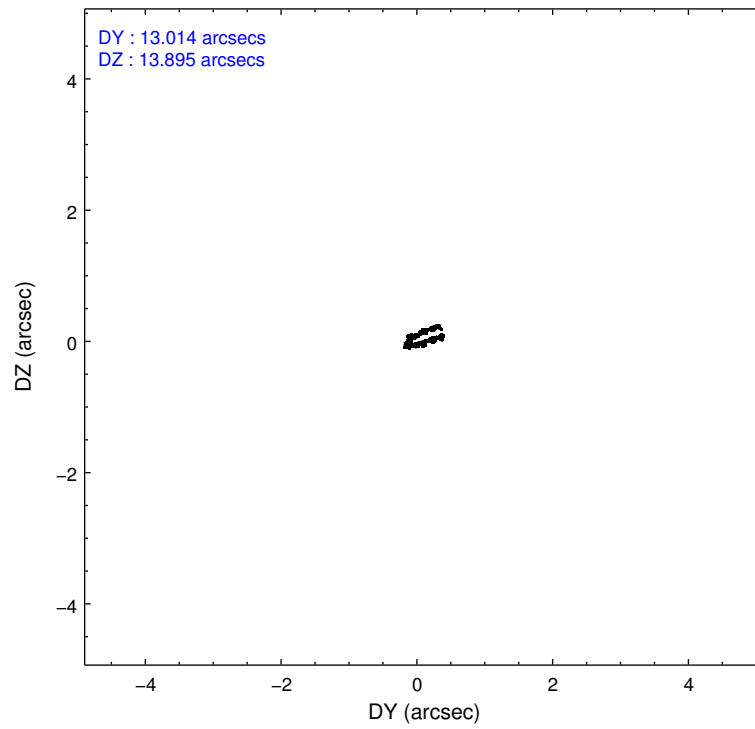
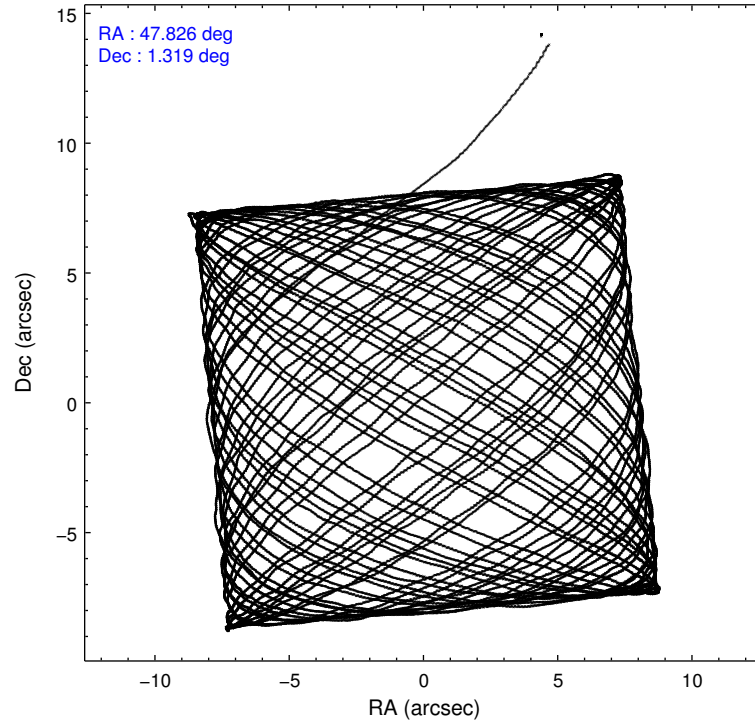
### 2.1.4 Events

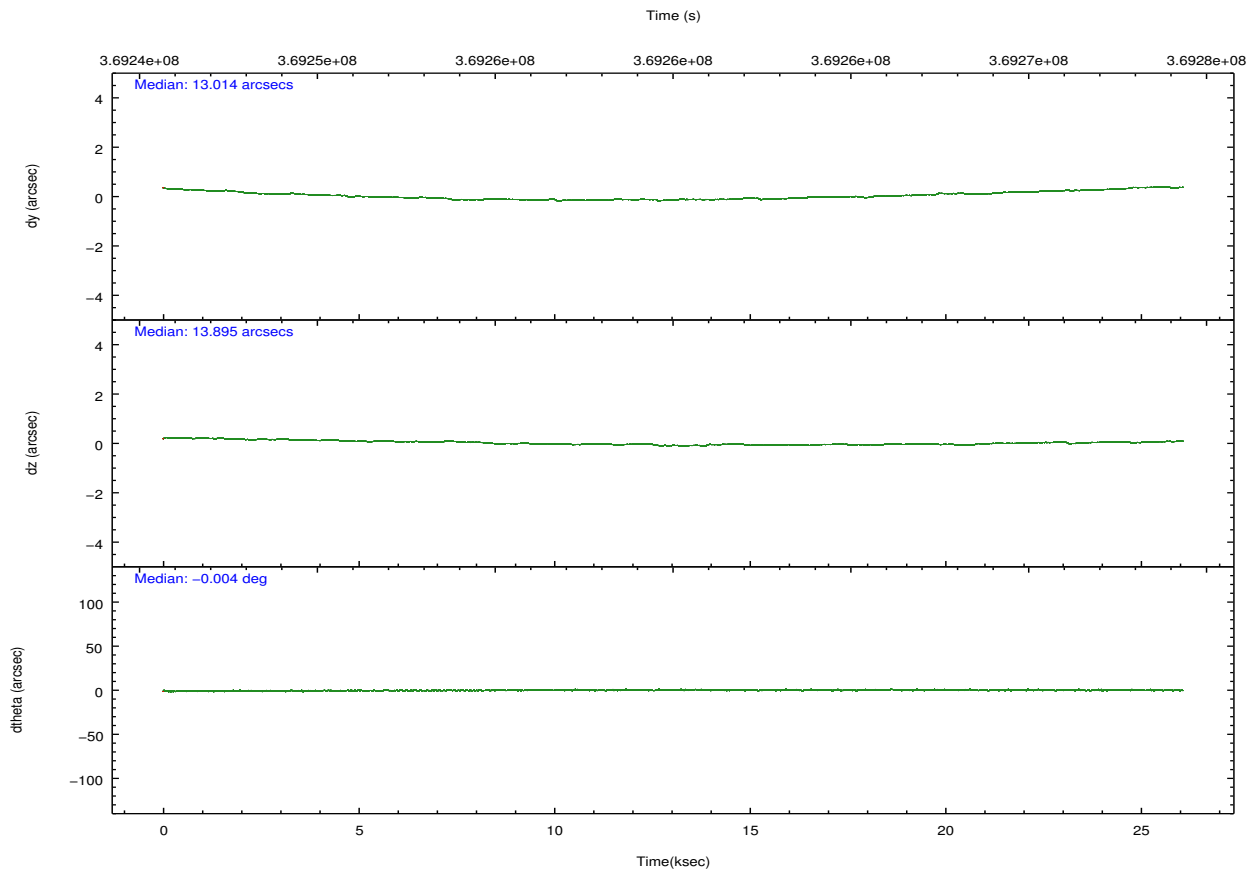
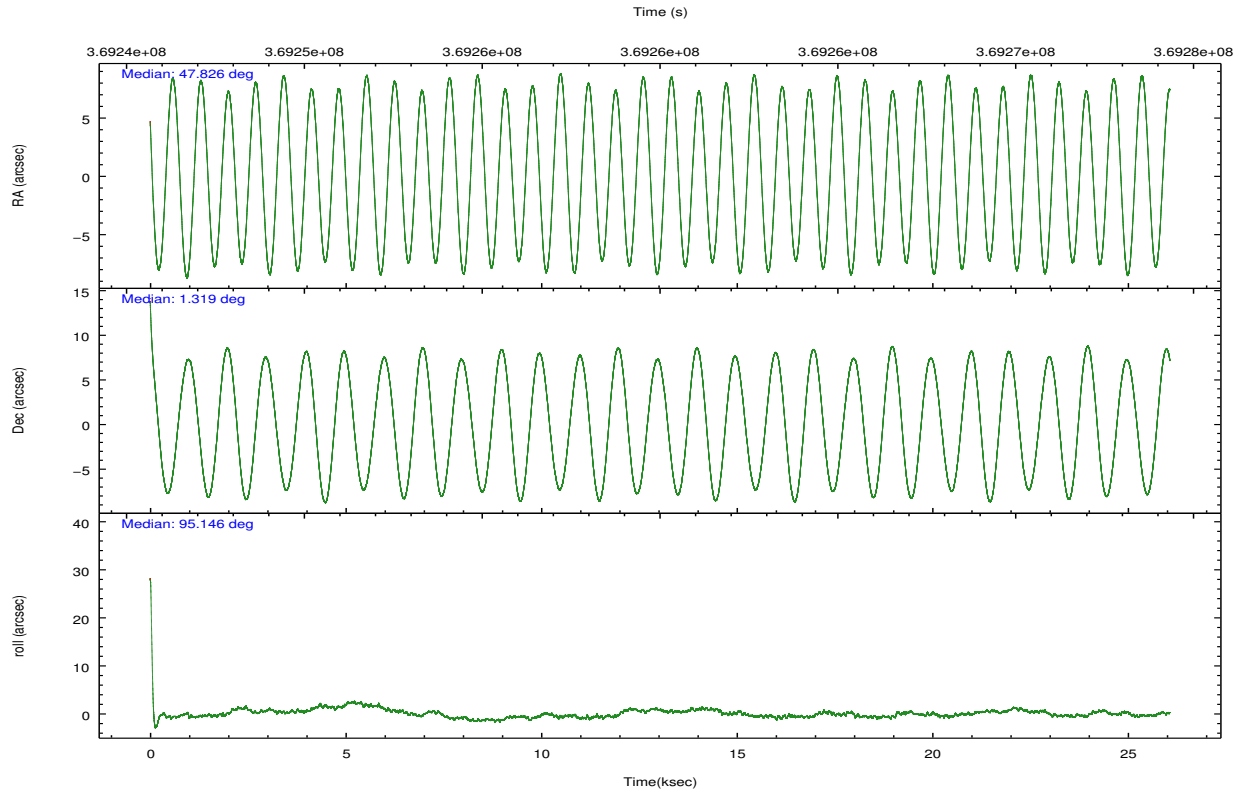
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	220809	197983	256488	205607	198914	253623	grade 0 events	7685	8119	9661	7676	9920	17650
rejected events	200317	177774	123434	184765	101457	189833		3%	4%	3%	3%	4%	6%
rejected %	90%	89%	48%	89%	51%	74%	grade 1 events	122	125	587	134	340	209
								0%	0%	0%	0%	0%	0%
							grade 2 events	5000	4265	41922	4520	20832	15447
								2%	2%	16%	2%	10%	6%
							grade 3 events	2026	2153	5706	2188	8888	6895
								0%	1%	2%	1%	4%	2%
							grade 4 events	2137	2031	5610	2171	8796	6374
								0%	1%	2%	1%	4%	2%
							grade 5 events	5961	7202	20741	7124	20857	10844
								2%	3%	8%	3%	10%	4%
							grade 6 events	3647	3646	70169	4288	49031	17464
								1%	1%	27%	2%	24%	6%
							grade 7 events	194231	170442	102092	177506	80250	178740
								87%	86%	39%	86%	40%	70%

## 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	47.841900	47.82583312256777	CCD I2 on	O5	Y
[deg] Pointing Dec	1.296462	1.31860827263137	CCD I3 on	O4	Y
[deg] Pointing Roll	94.999699	95.15671396187238	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O1	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	O2	Y
[s] Observation start time (MET)	369248238.184000	369246317.77331	CCD S5 on	N	N
Observation start date	2009-09-13T16:56:12	2009-09-13T16:25:17	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	369273038.184000	369273866.69969	On-chip summing requested	N	N
Observation end date	2009-09-13T23:49:32	2009-09-14T00:04:26	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



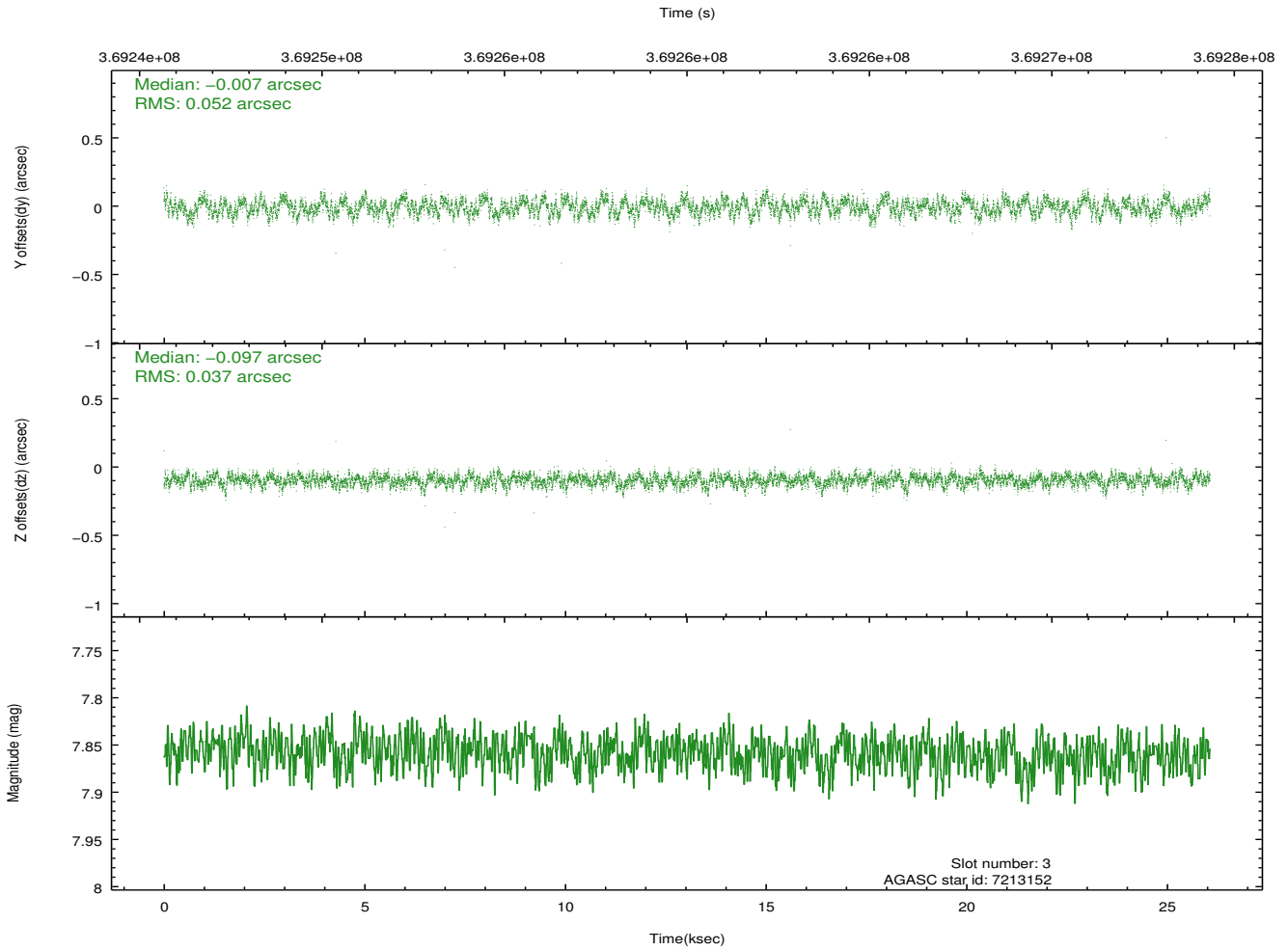
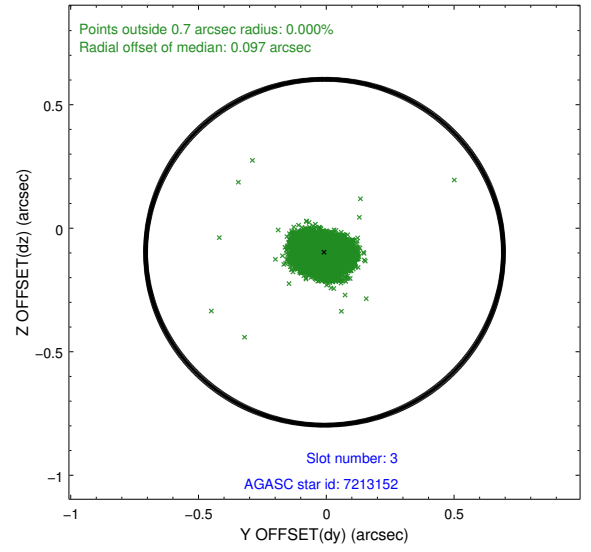
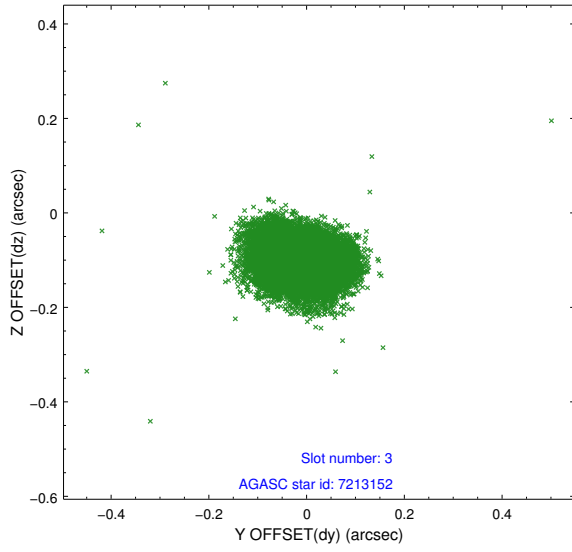


### Slot Statistics

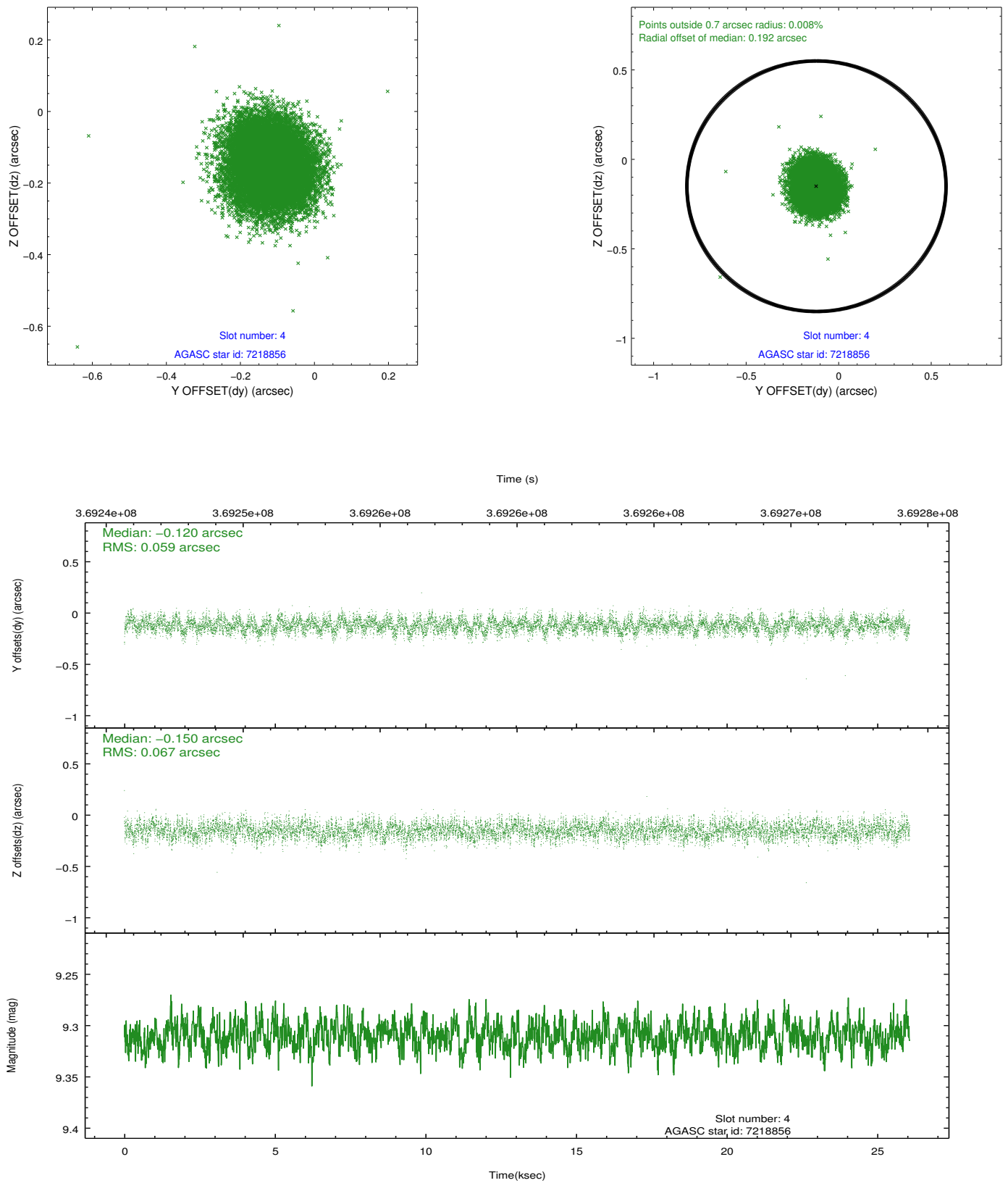
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.91	6360	-0.037	-0.039	0.008	0.014	0.000000	0.000000	-766.00	-1735.31
1	FID	ACIS-S-4	6.99	6360	0.158	0.028	0.012	0.023	0.000000	0.000000	2147.41	173.14
2	FID	ACIS-S-5	7.03	6360	-0.152	0.019	0.009	0.014	0.000000	0.000000	-1818.83	166.90
3	GUIDE	7213152	7.86	12717	-0.007	-0.097	0.068	0.107	47.464729	1.484303	791.74	1293.04
4	GUIDE	7218856	9.31	12703	-0.120	-0.150	0.096	0.151	47.335767	1.452442	718.10	1765.56
5	GUIDE	7219552	8.55	12709	0.091	-0.266	0.070	0.113	47.238629	1.114495	-463.40	2220.54
6	GUIDE	7344352	8.19	12716	-0.086	0.225	0.077	0.123	48.363760	1.431751	321.80	-1913.03
7	GUIDE	7346744	8.83	12708	0.123	0.288	0.077	0.123	48.258548	1.281596	-183.21	-1489.03

## 2.4 Star Slots

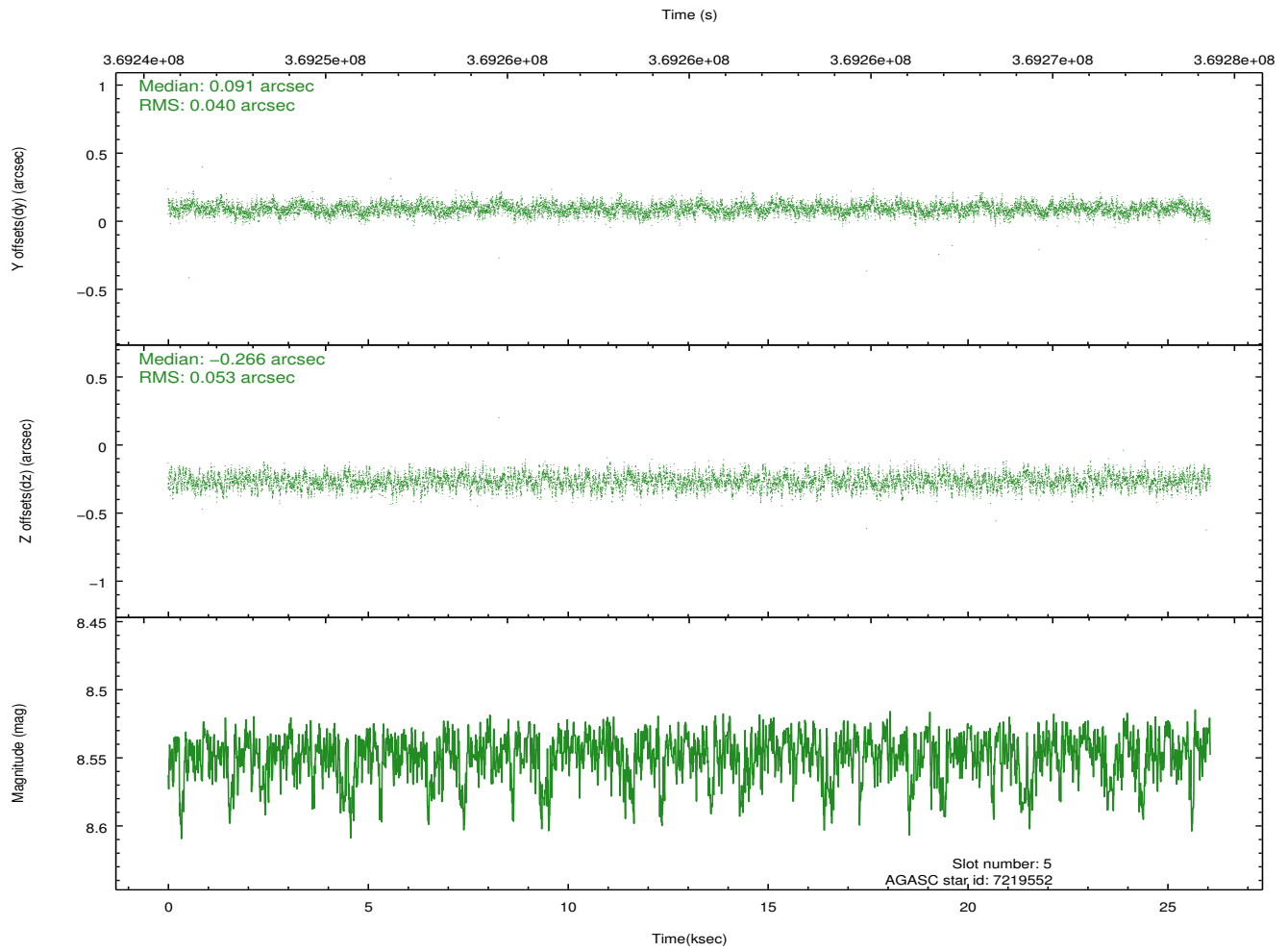
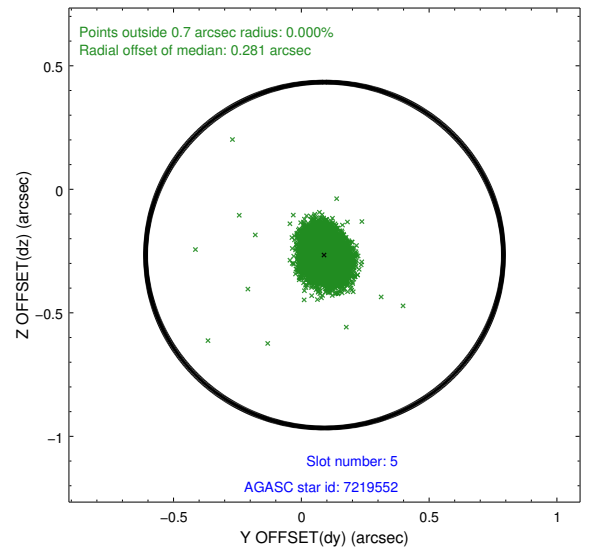
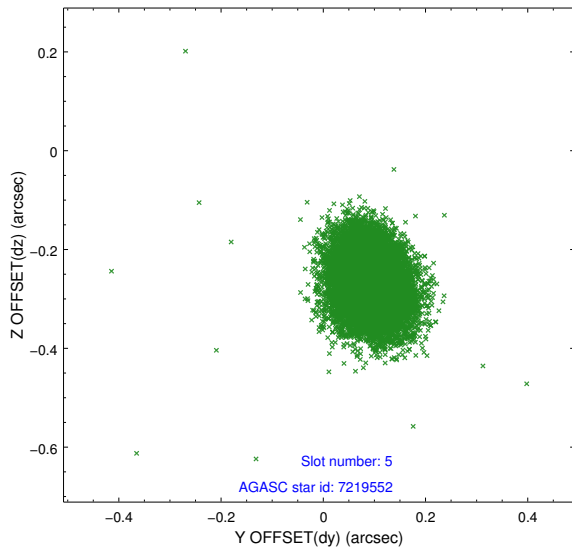
### 2.4.1 Slot 3



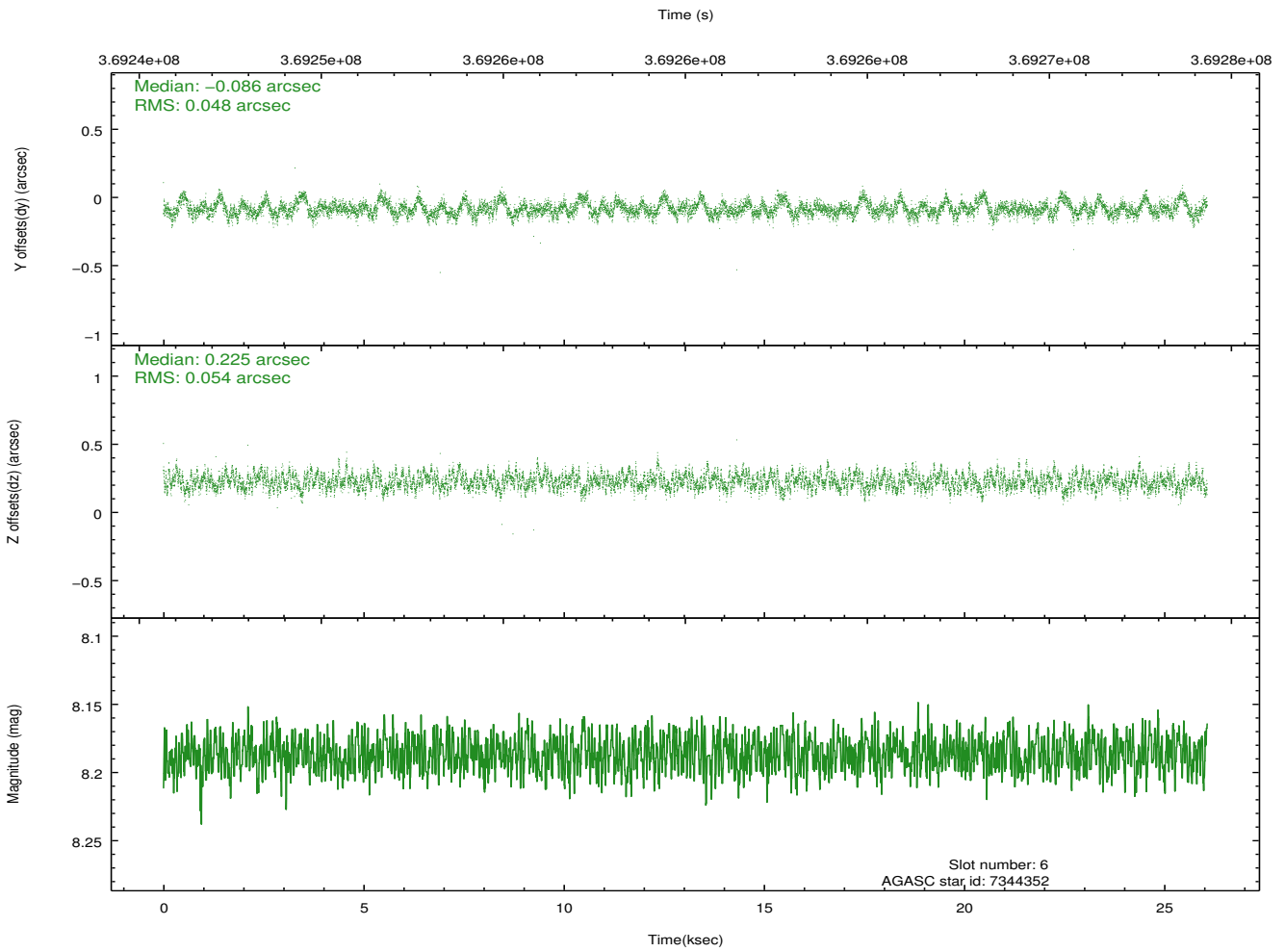
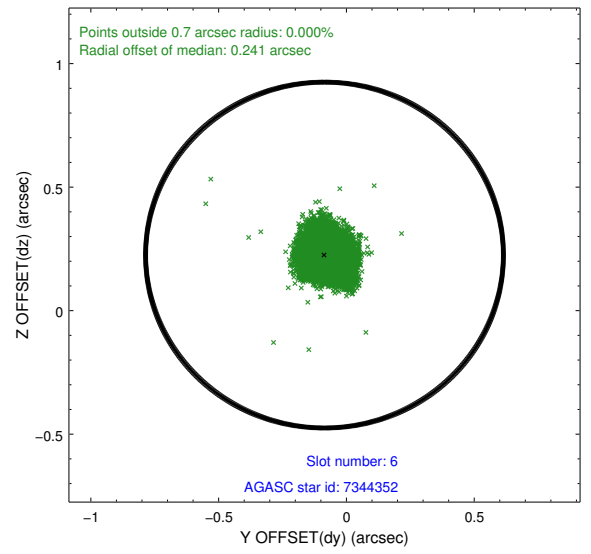
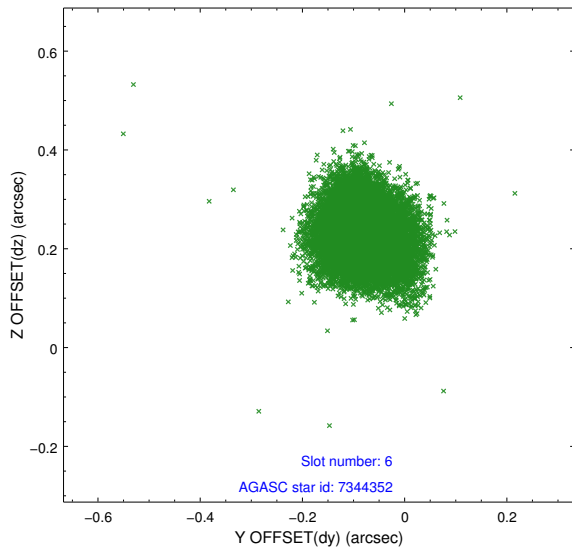
## 2.4.2 Slot 4



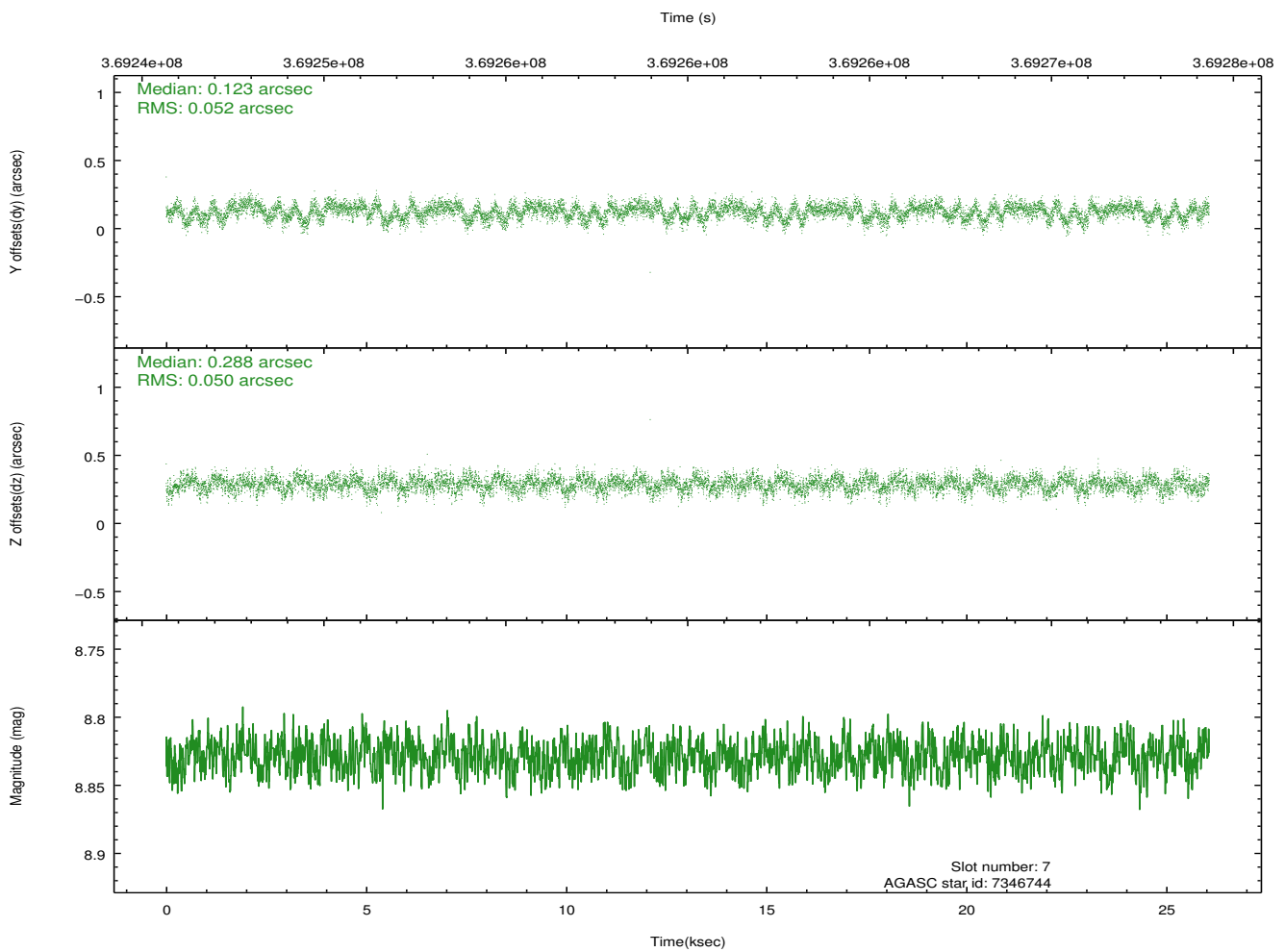
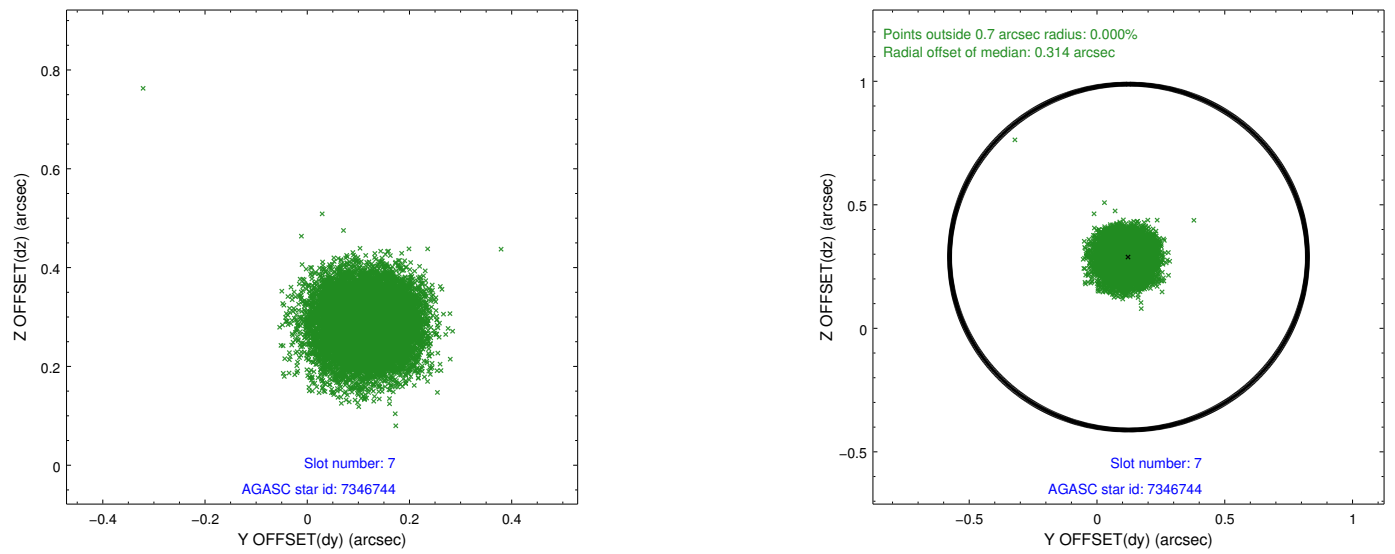
### 2.4.3 Slot 5



### 2.4.4 Slot 6

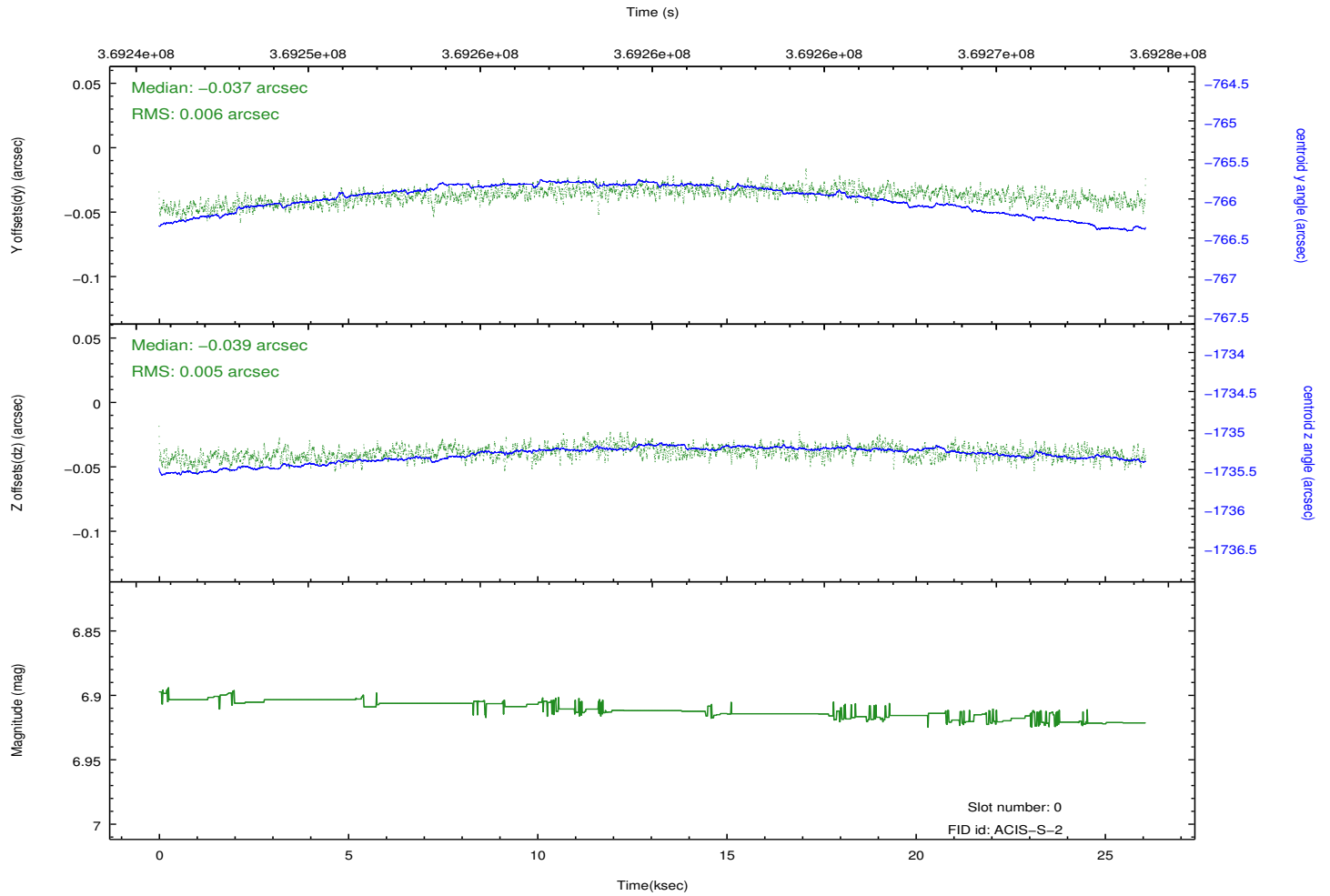
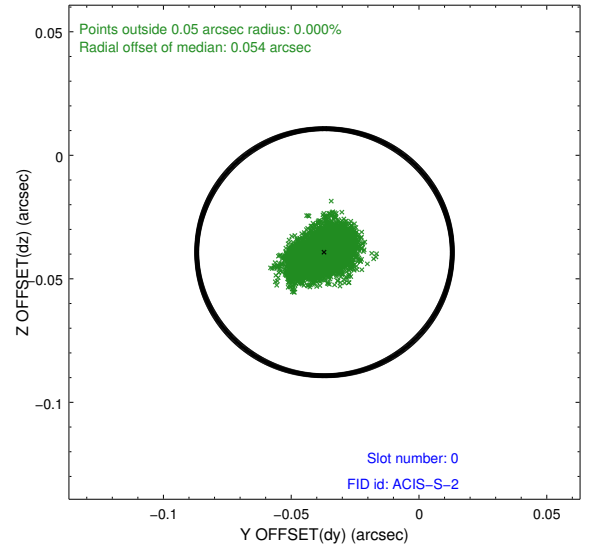
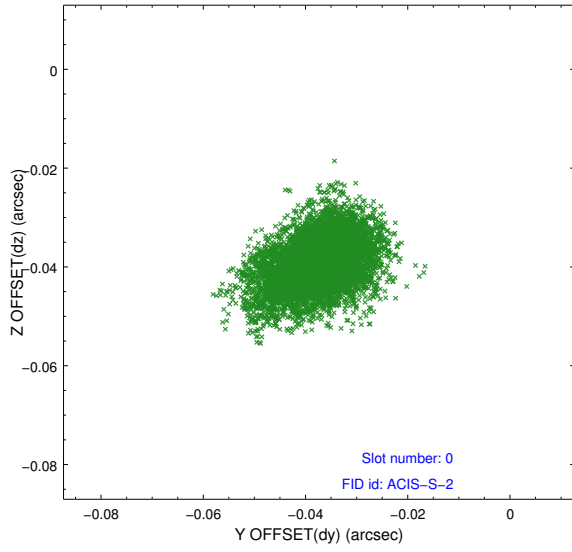


## 2.4.5 Slot 7

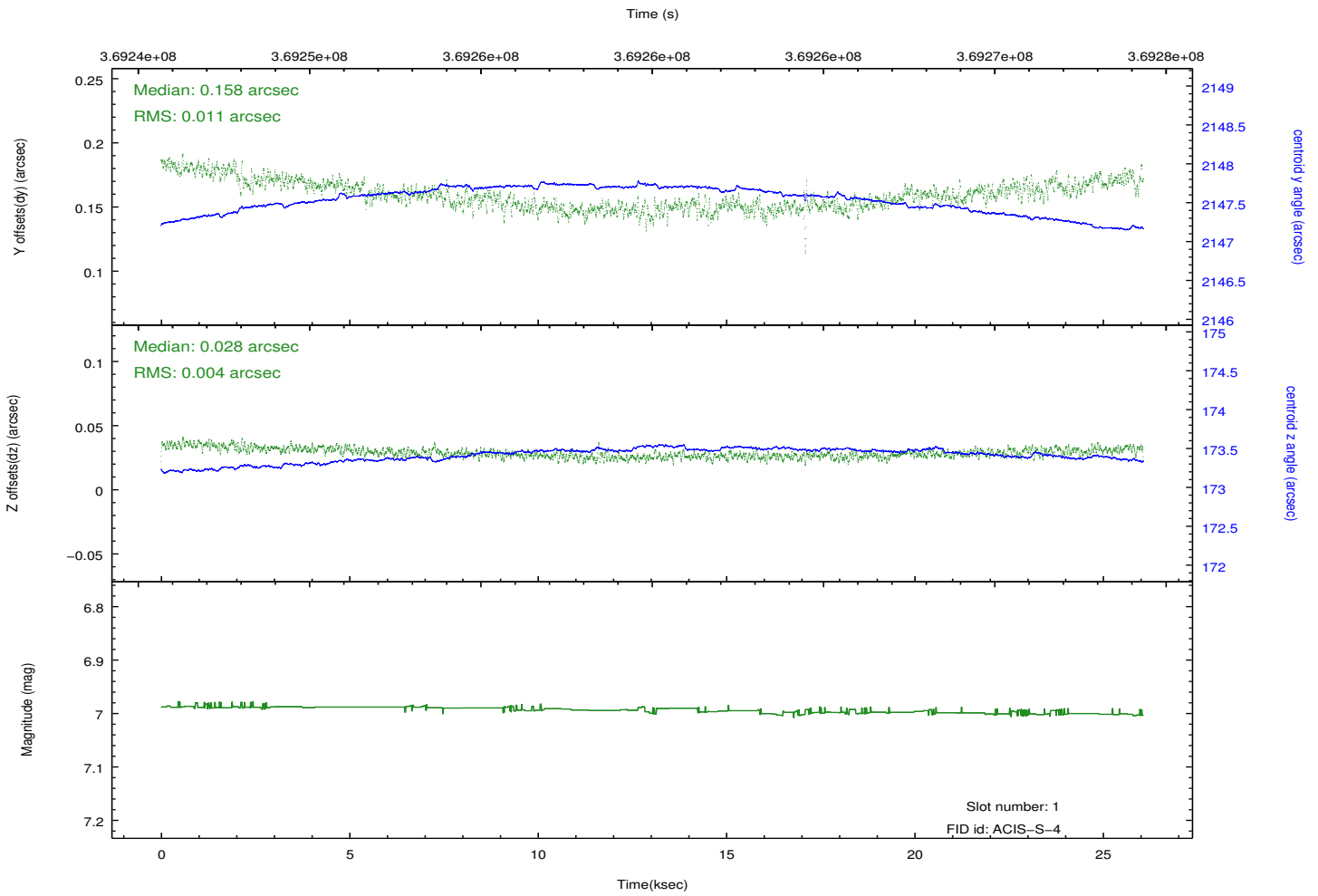
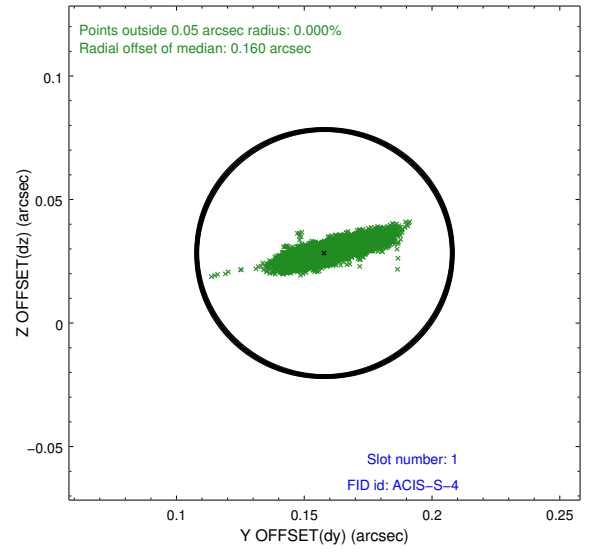
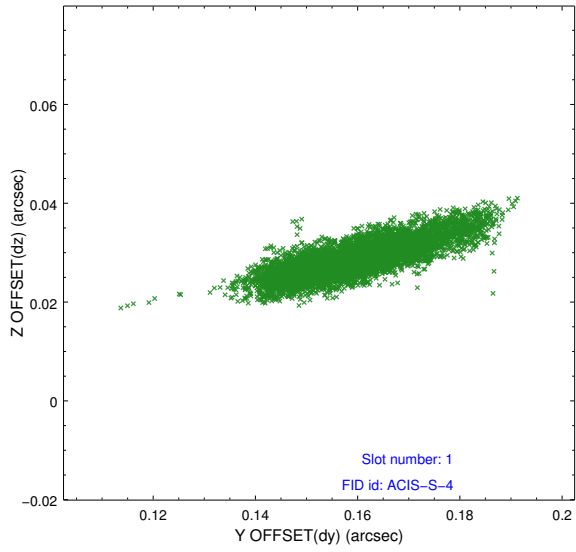


## 2.5 FID Slots

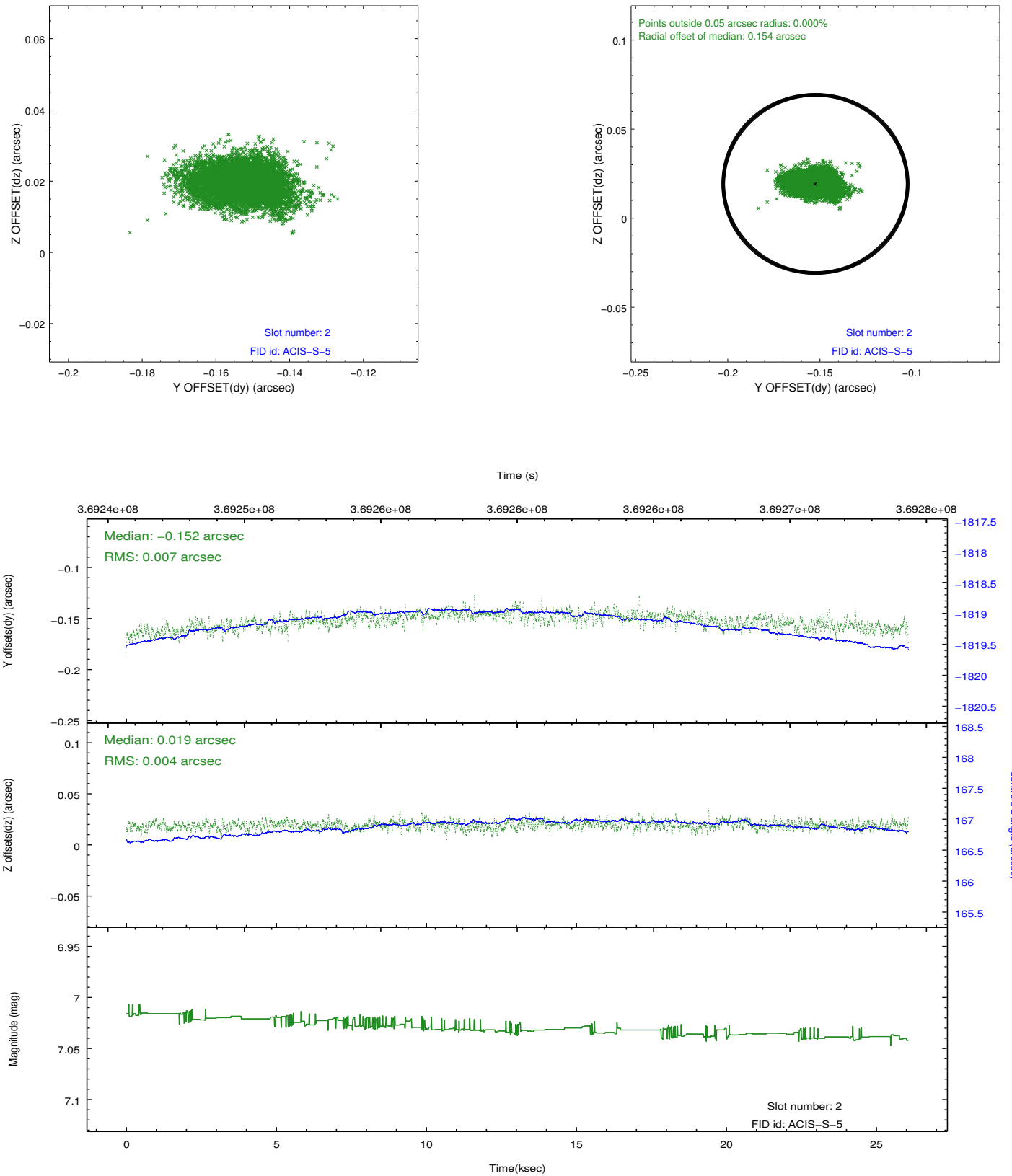
### 2.5.1 Slot 0



## 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)	2012.06.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.838399907529

### A.2 Comments