

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 19537 - L2 Version 1  
Chandra X-Ray Center

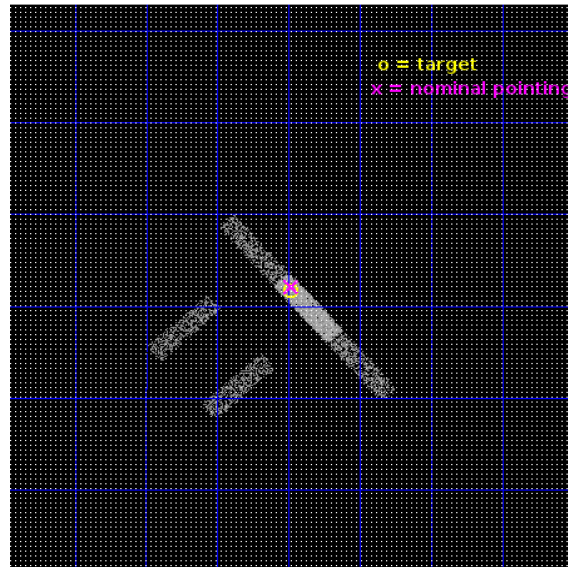
L2 Processing Date : Dec 29 2016

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# 1 Front

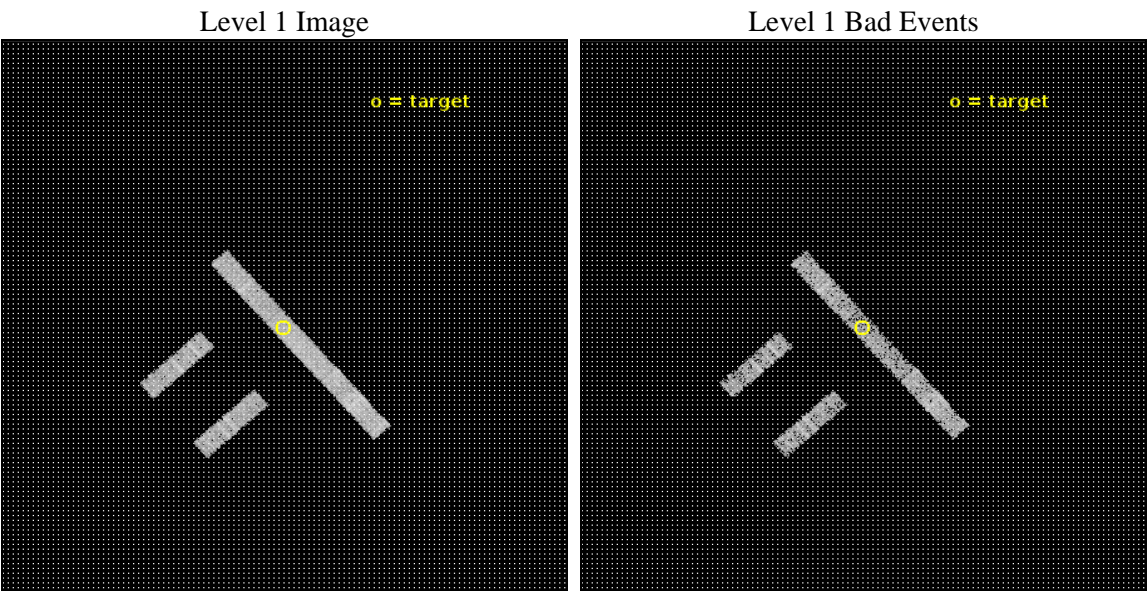
seq_num	703385	Sequence number
obs_id	19537	Observation id
title	Investigating X-ray Bias in Low-L, Low-z Quasars	Proposal title
observer	Gordon Richards	Principal investigator
object	SDSSJ082658.85+061142.6	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	126.745417	Observer's specified target RA [deg]
dec_targ	6.195194	Observer's specified target Dec [deg]
ra_nom	126.74491471467	Nominal RA [deg]
dec_nom	6.2020396933712	Nominal Dec [deg]
roll_nom	48.156871603119	Nominal Roll [deg]
revision	1	Processing version of data
ontime	3572.6132339239	Sum of GTIs [s]
livetime	3431.7732593598	Livetime [s]
ontime2	3572.4490739107	Sum of GTIs [s]
ontime3	3572.5311539173	Sum of GTIs [s]
ontime6	3572.5721939802	Sum of GTIs [s]
ontime7	3572.6132339239	Sum of GTIs [s]
ontime8	3572.4901139736	Sum of GTIs [s]
l2events	6798	Number of level 2 events



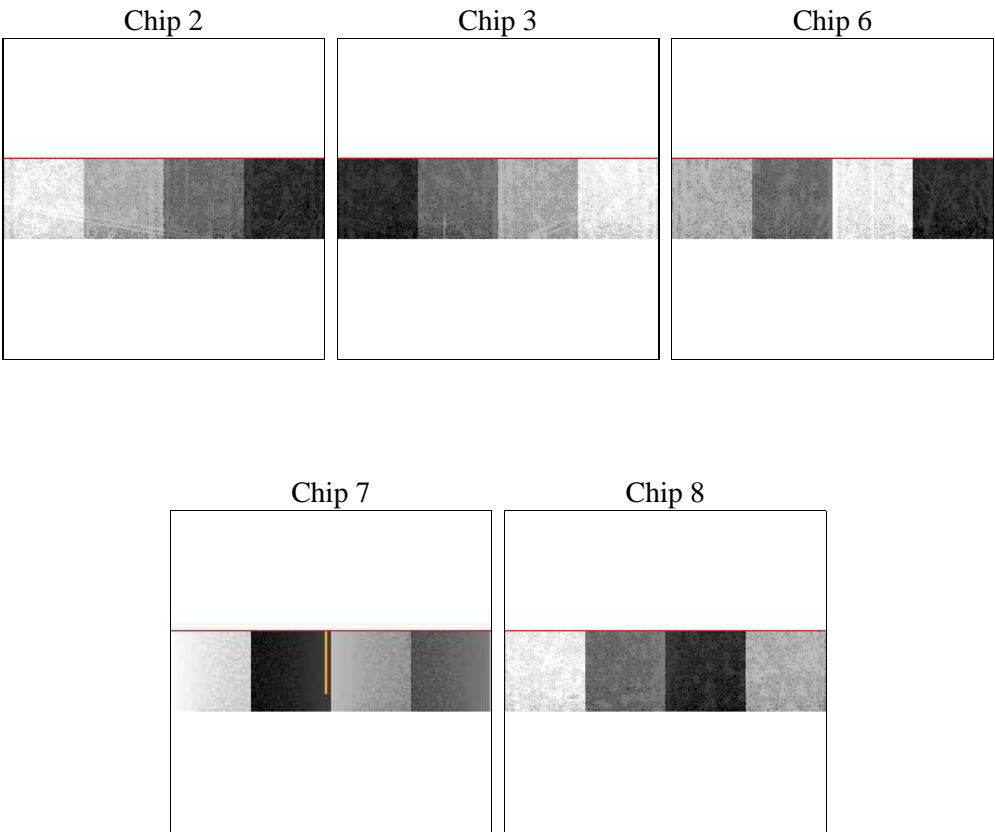
# 2 OBI

## 2.1 OBI

### 2.1.1 Images



### 2.1.2 Bias



Chip 7



Chip 8



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3500.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	3572.6132339239	Sum of GTIs [s]
caldsver	4.7.3	&#160	ontime2	3572.4490739107	Sum of GTIs [s]
date	2016-12-30T04:19:01	Date and time of file creation	ontime3	3572.5311539173	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	3572.5721939802	Sum of GTIs [s]
			ontime7	3572.6132339239	Sum of GTIs [s]
			ontime8	3572.4901139736	Sum of GTIs [s]
			l1events	39510	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	6634	6801	7379	8594	10102
rejected events	5812	6011	6533	4544	7524
rejected %	87%	88%	88%	52%	74%

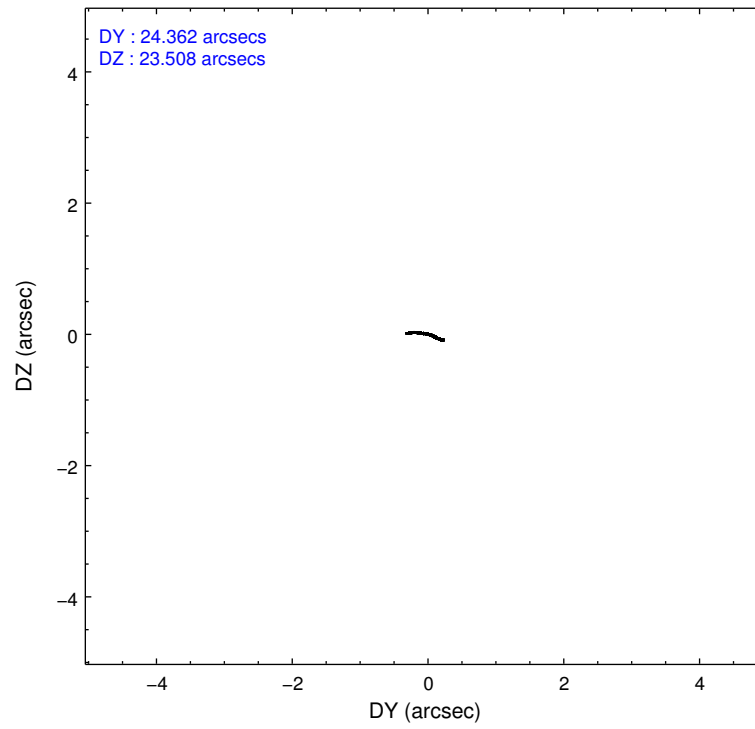
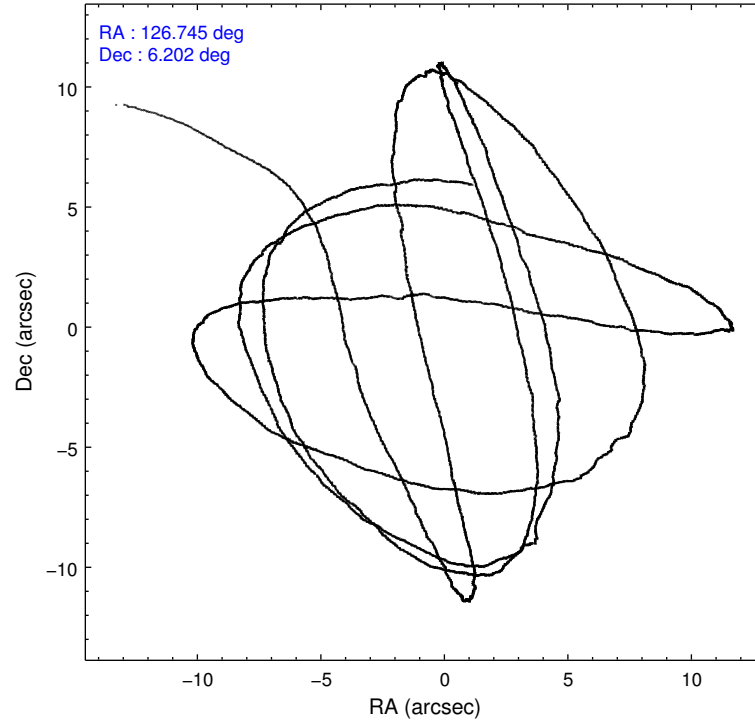
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	286	227	270	385	658
	4%	3%	3%	4%	6%
grade 1 events	2	5	1	13	6
	0%	0%	0%	0%	0%
grade 2 events	177	174	192	890	596
	2%	2%	2%	10%	5%
grade 3 events	98	126	122	425	271
	1%	1%	1%	4%	2%
grade 4 events	129	119	111	411	253
	1%	1%	1%	4%	2%
grade 5 events	239	338	297	863	470
	3%	4%	4%	10%	4%
grade 6 events	132	144	151	1939	800
	1%	2%	2%	22%	7%
grade 7 events	5571	5668	6235	3668	7048
	83%	83%	84%	42%	69%

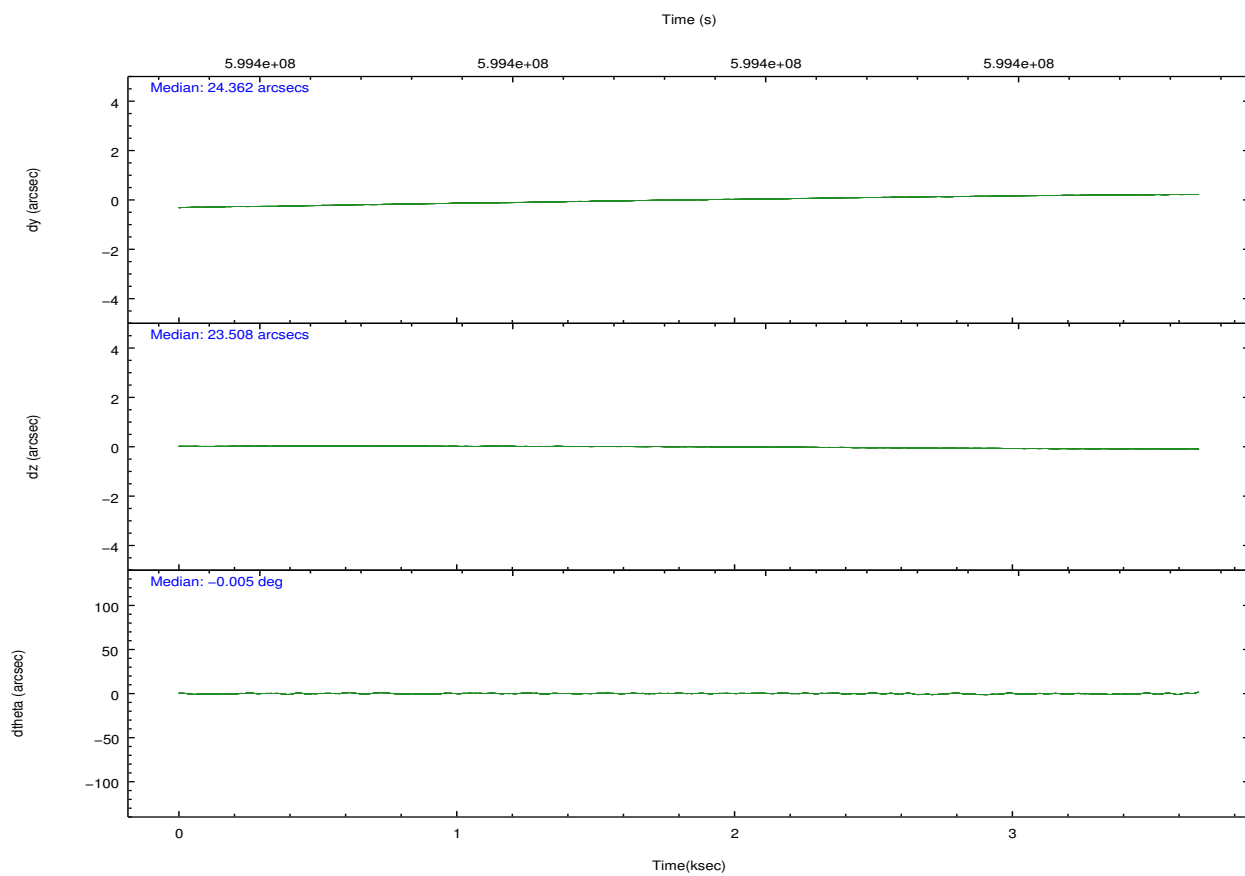
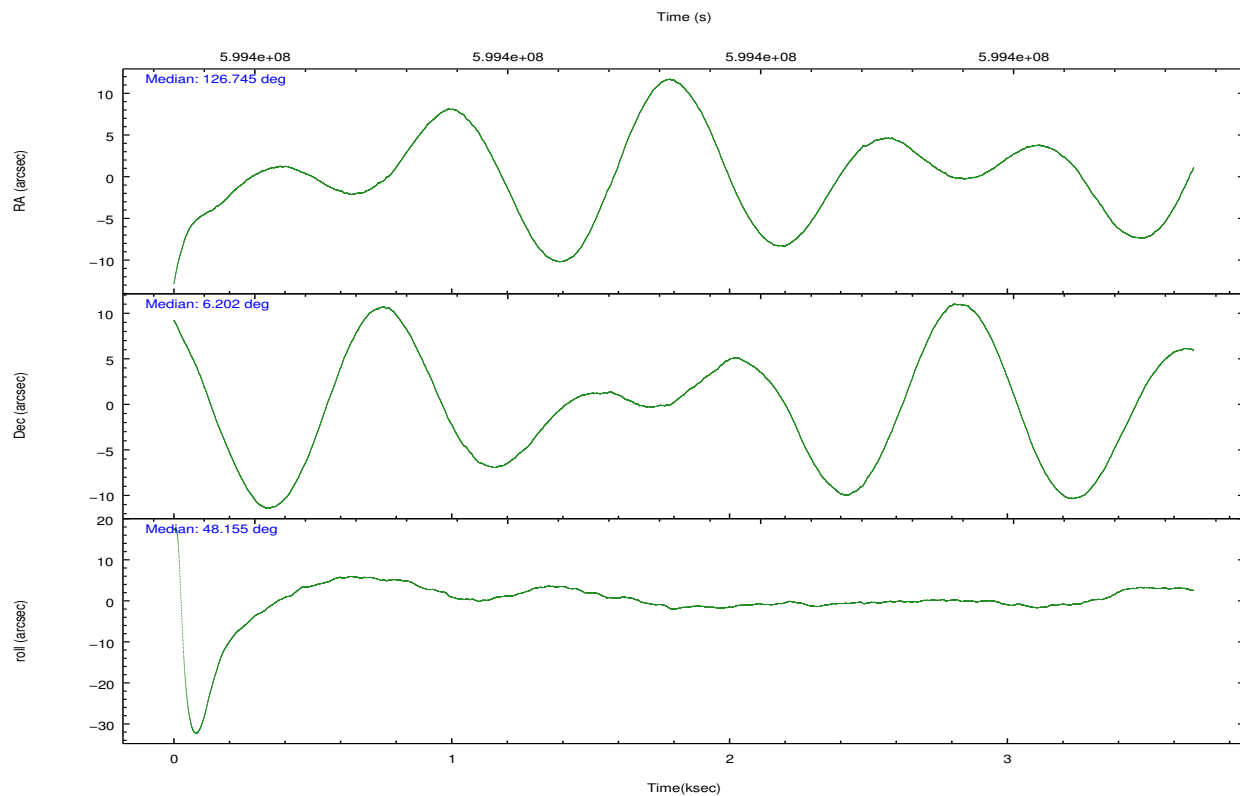


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	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	126.739825	126.7449147146739	CCD I2 on	O1	Y
[deg] Pointing Dec	6.175157	6.202039693371208	CCD I3 on	Y	Y
[deg] Pointing Roll	48.000607	48.15687160311943	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[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)	599400019.184000	599398754.11333	CCD S5 on	N	N
Observation start date	2016-12-29T11:59:11	2016-12-29T11:39:14	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	599403519.184000	599404365.47615	On-chip summing requested	N	N
Observation end date	2016-12-29T12:57:31	2016-12-29T13:12:45	Subarray requested	CUSTOM	1/4
Read mode	TIMED	TIMED	Subarray start row	385	385
			Subarray row count	256	256
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1

## 2.3 Aspect



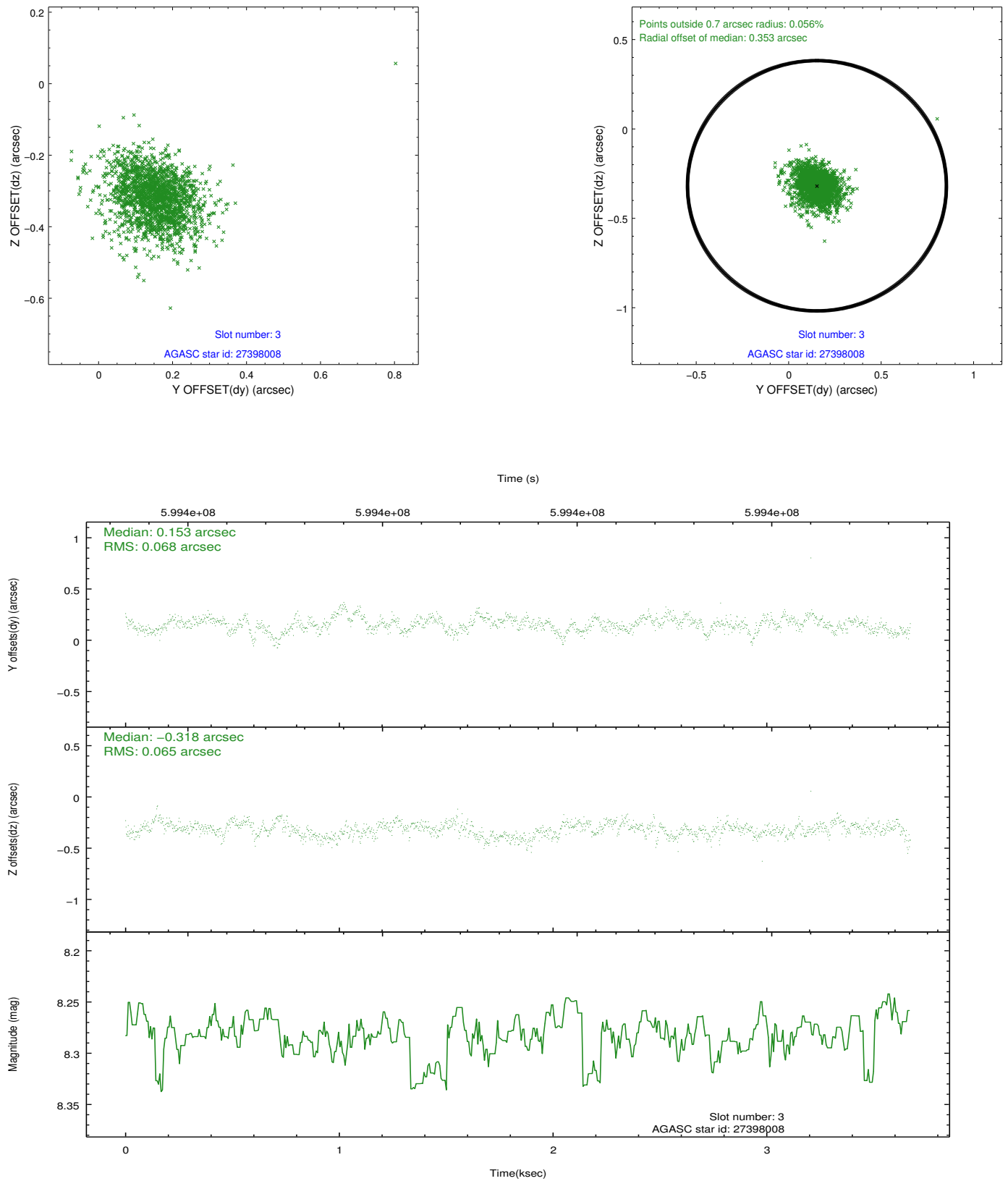


### Slot Statistics

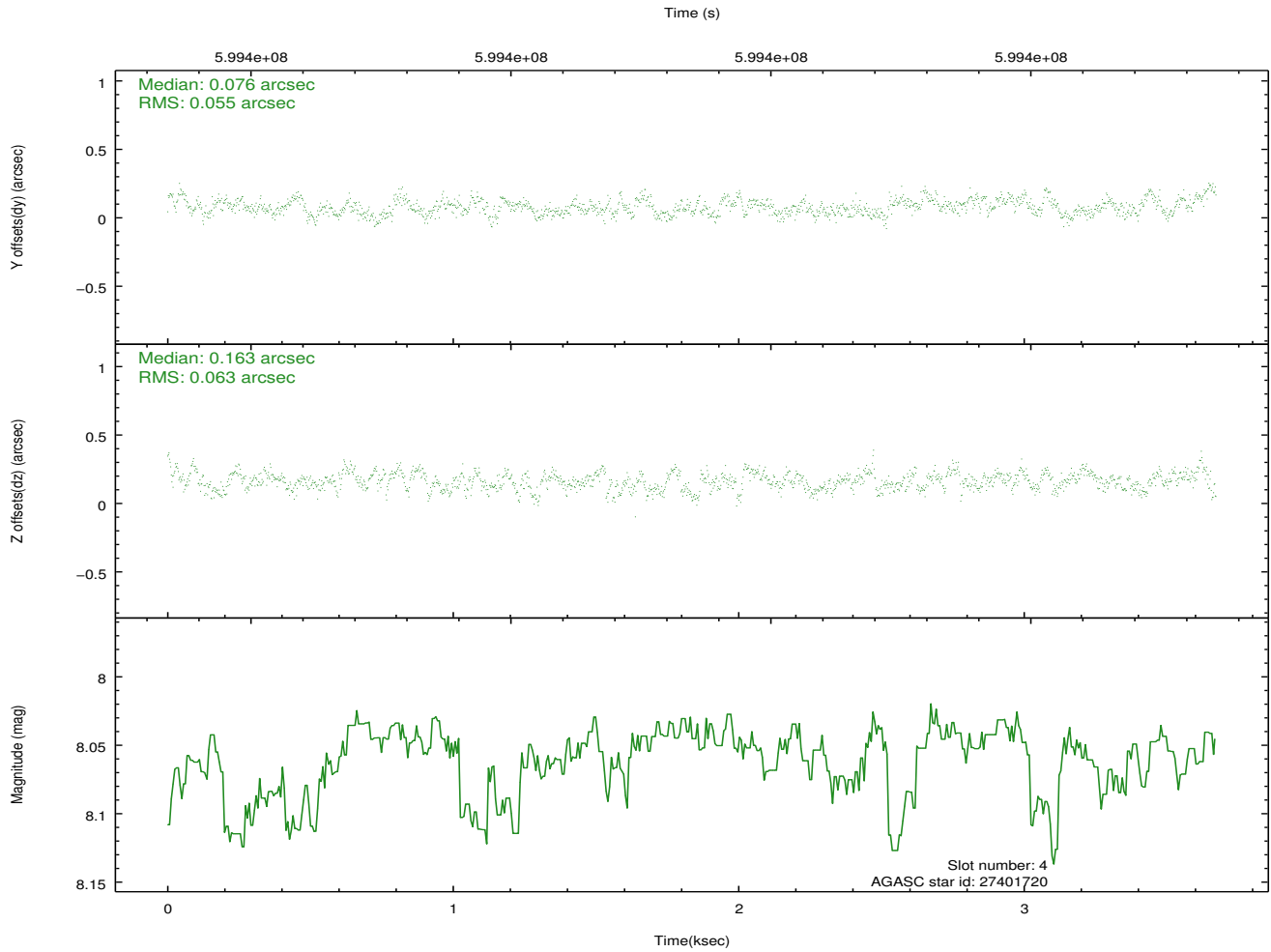
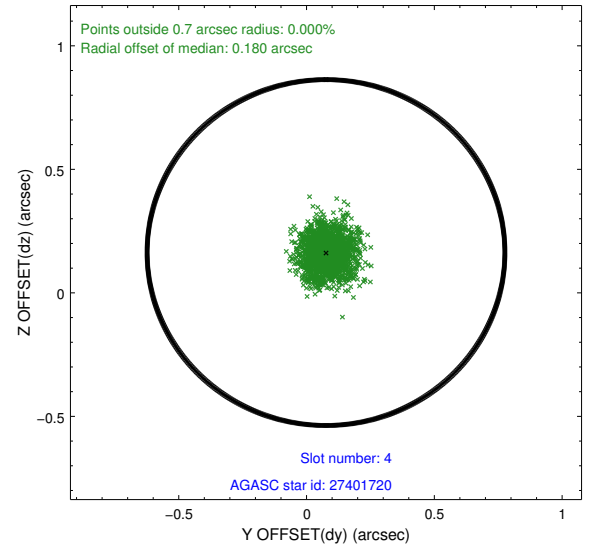
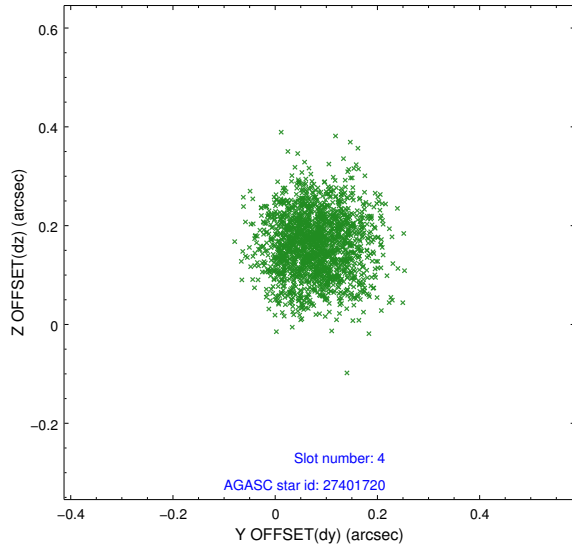
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.87	896	-0.258	-0.100	0.010	0.015	0.000000	0.000000	-777.79	-1745.22
1	FID		ACIS-S-4	6.96	896	0.534	0.152	0.006	0.011	0.000000	0.000000	2135.44	161.79
2	FID		ACIS-S-5	6.97	896	-0.306	-0.041	0.010	0.016	0.000000	0.000000	-1828.54	157.14
3	GUIDE	used	27398008	8.28	1792	0.153	-0.318	0.095	0.165	126.473968	6.266143	-391.74	926.25
4	GUIDE	used	27401720	8.06	1790	0.076	0.163	0.089	0.141	127.129788	6.058074	621.70	-1318.41
5	GUIDE	used	27404376	8.45	1792	0.077	-0.365	0.124	0.203	126.802767	6.300218	486.69	132.07
6	GUIDE	used	27405592	8.78	1790	-0.173	0.575	0.127	0.200	127.367992	6.009295	1063.49	-2069.55
7	GUIDE	used	27404320	9.48	1789	-0.145	-0.053	0.170	0.291	127.393602	6.468901	2353.49	-1030.80

## 2.4 Star Slots

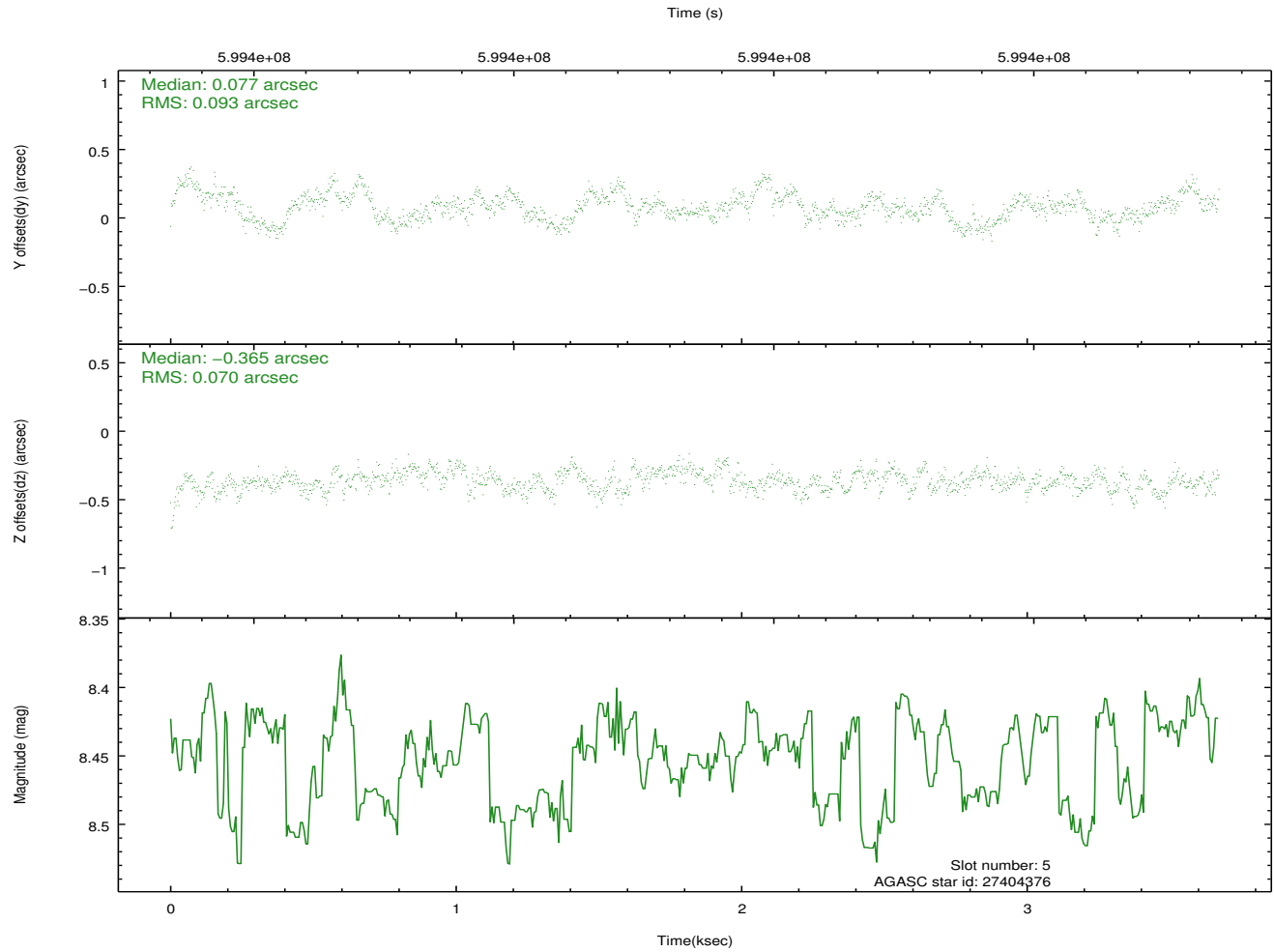
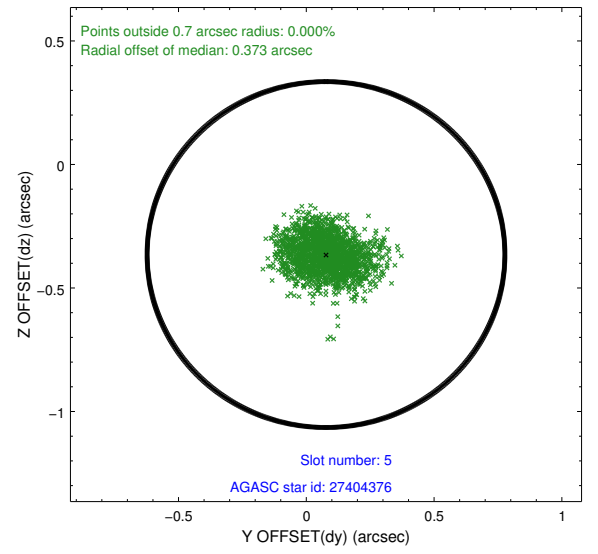
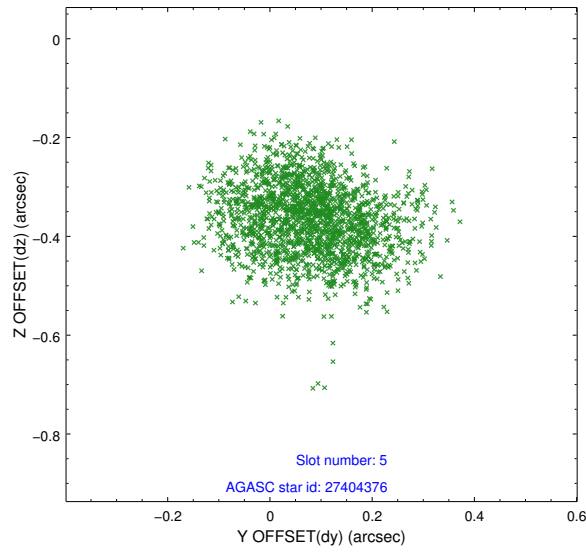
### 2.4.1 Slot 3



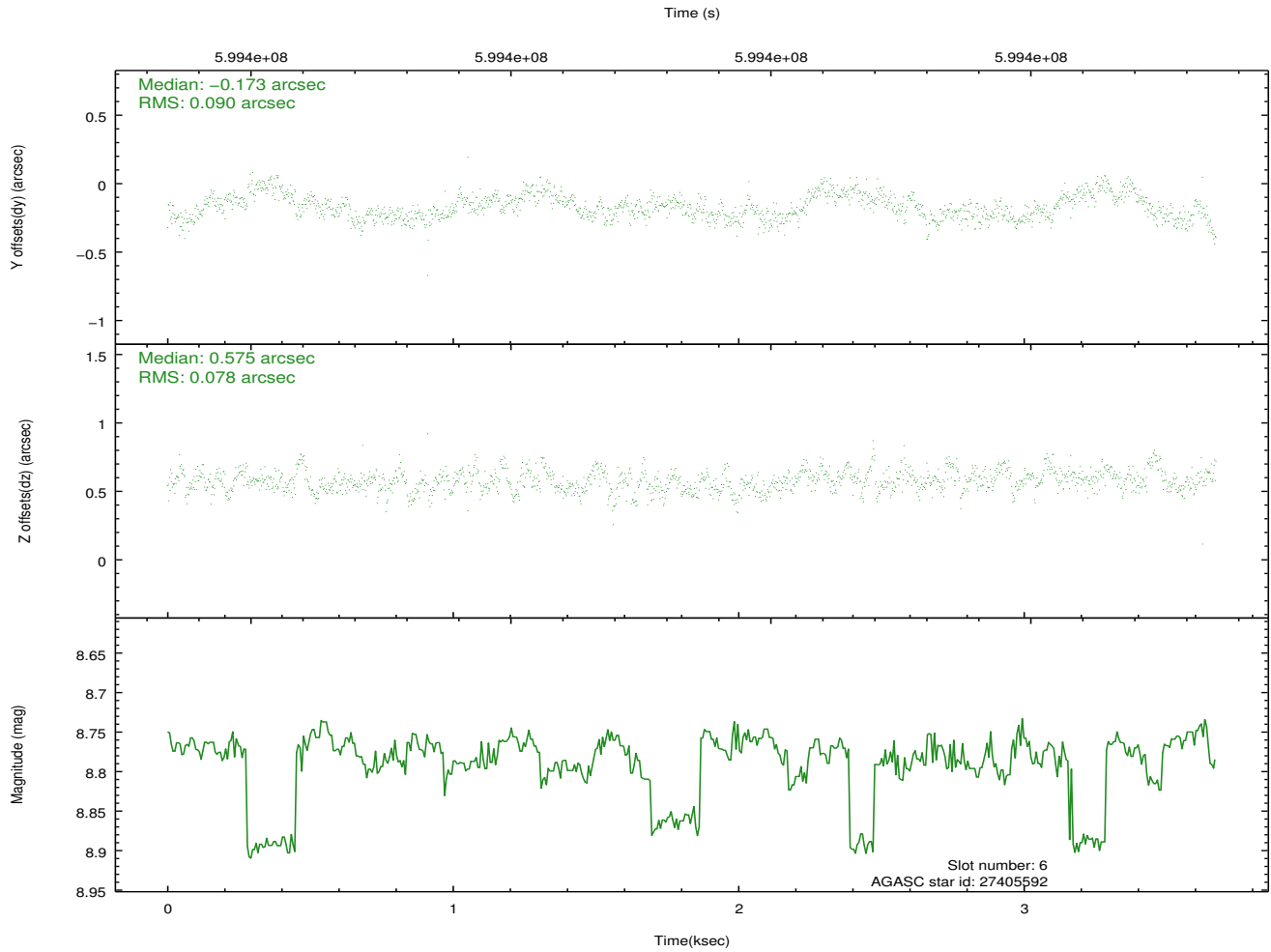
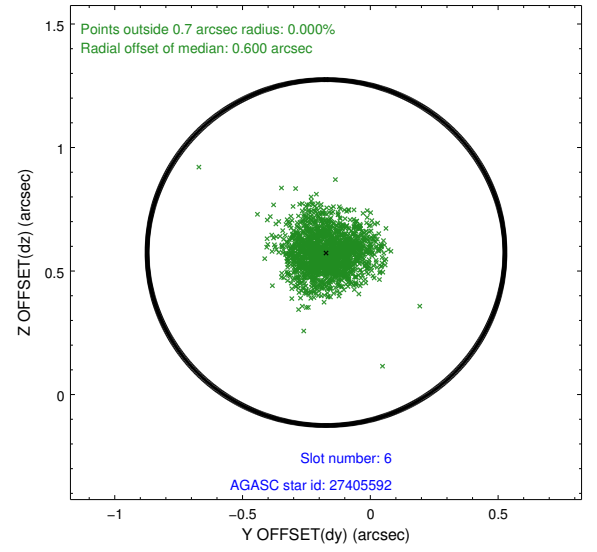
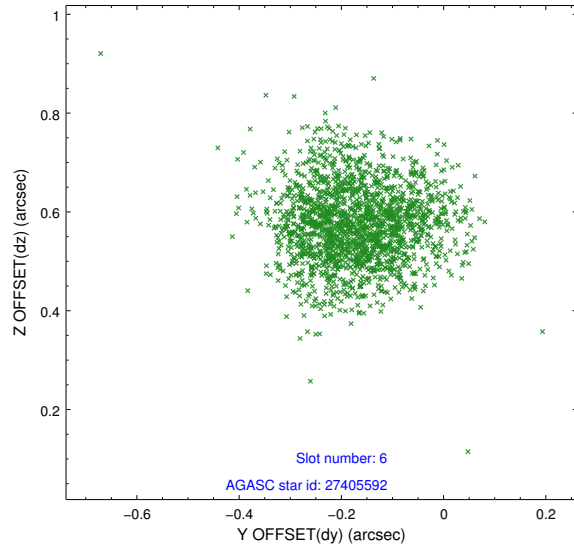
## 2.4.2 Slot 4



### 2.4.3 Slot 5

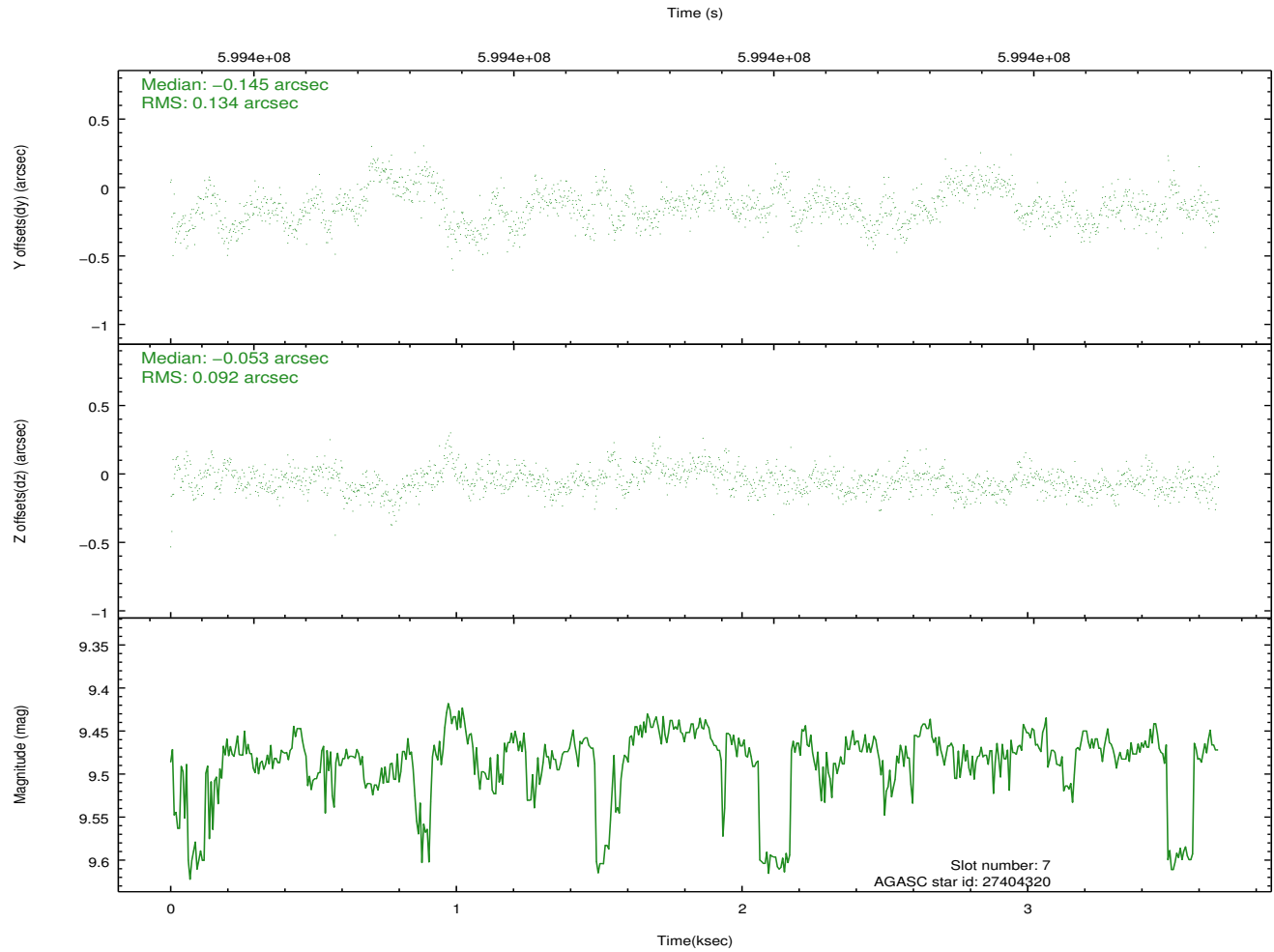
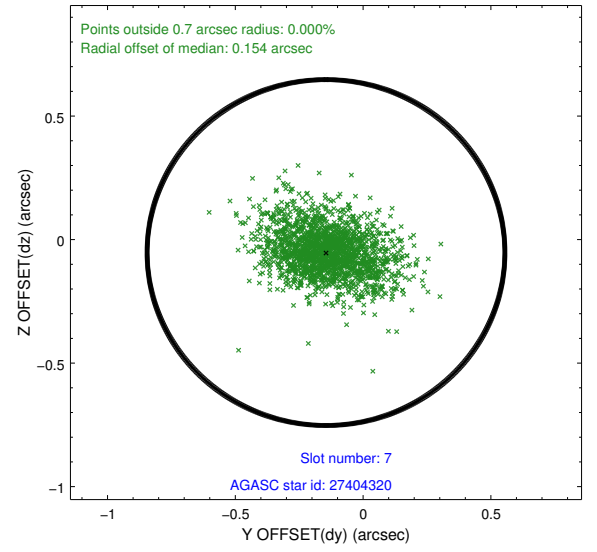
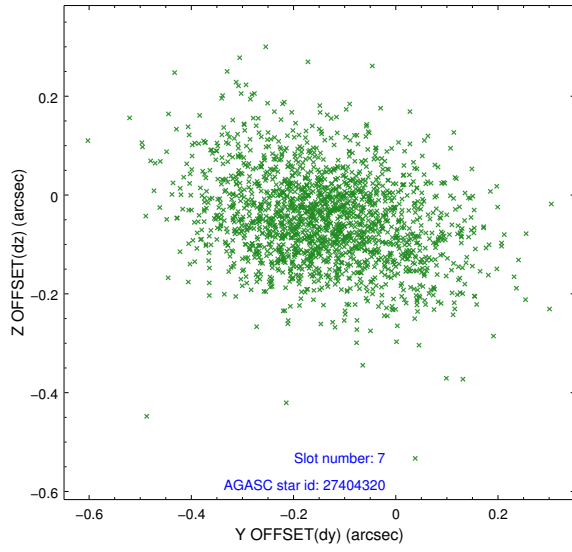


## 2.4.4 Slot 6



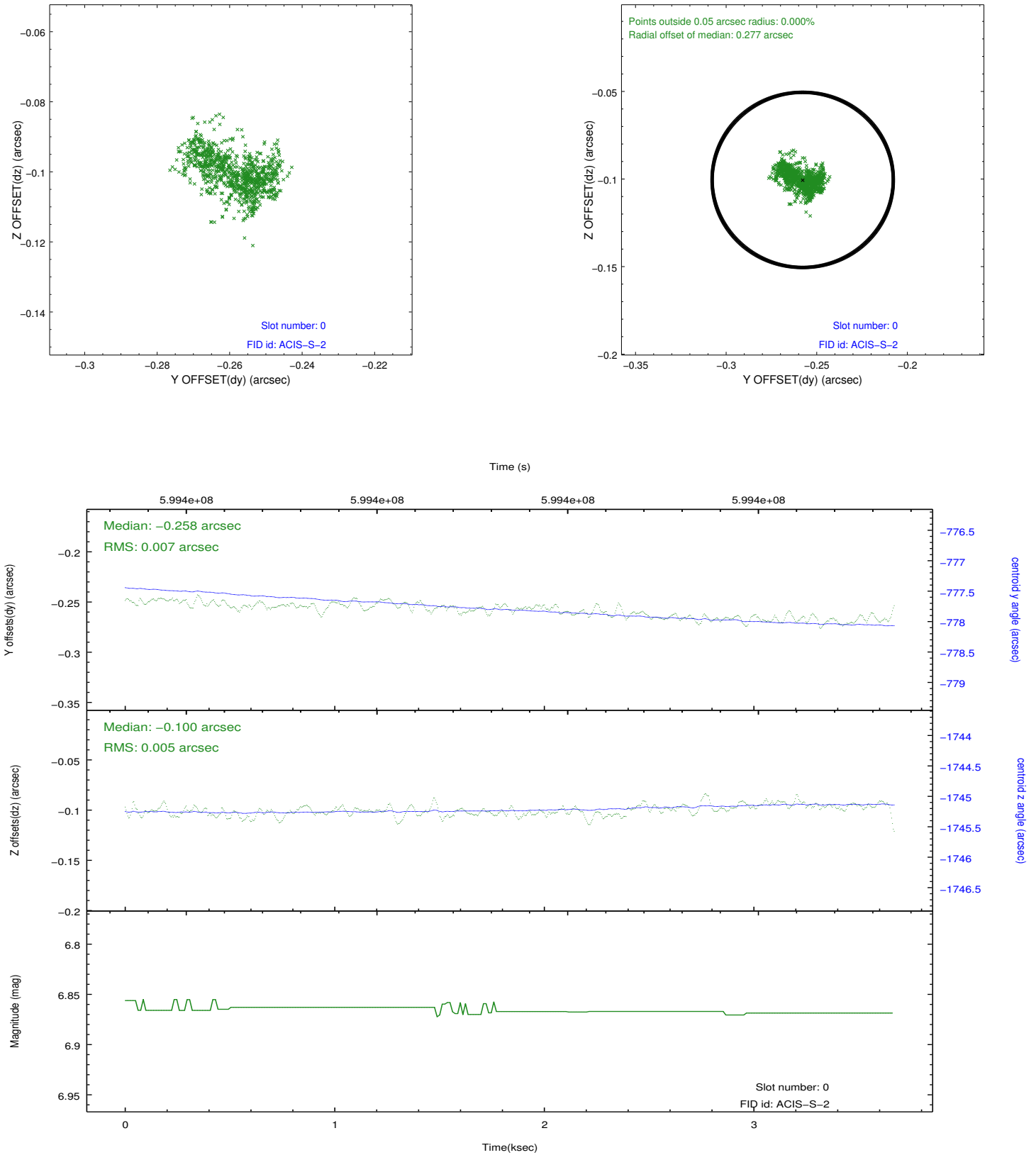


## 2.4.5 Slot 7

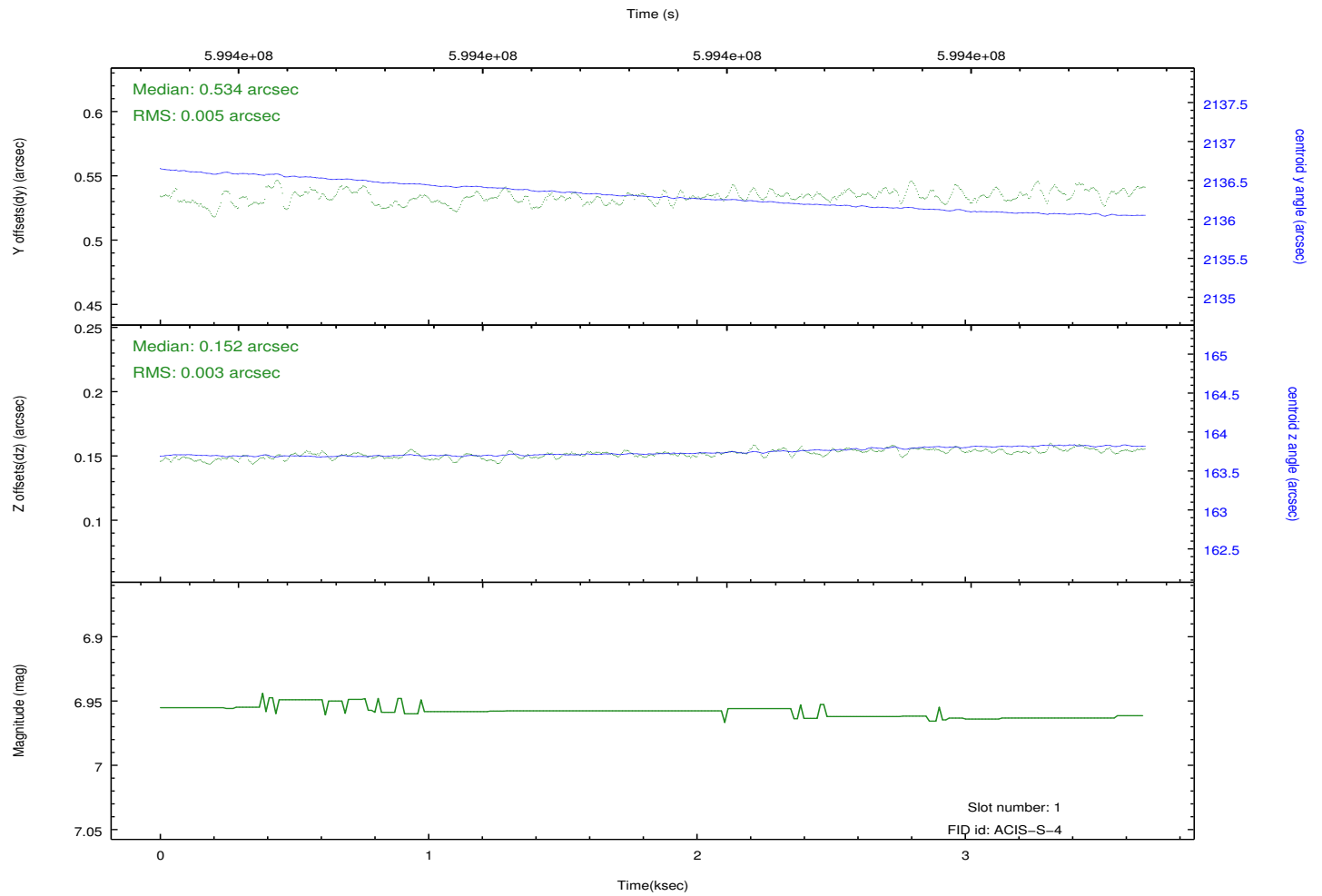
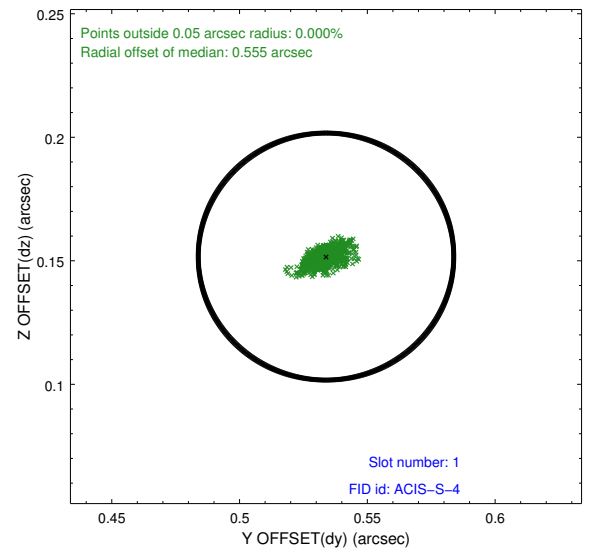
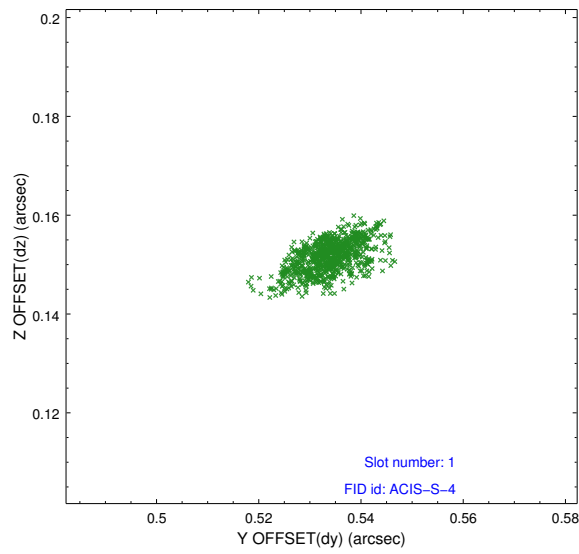


## 2.5 FID Slots

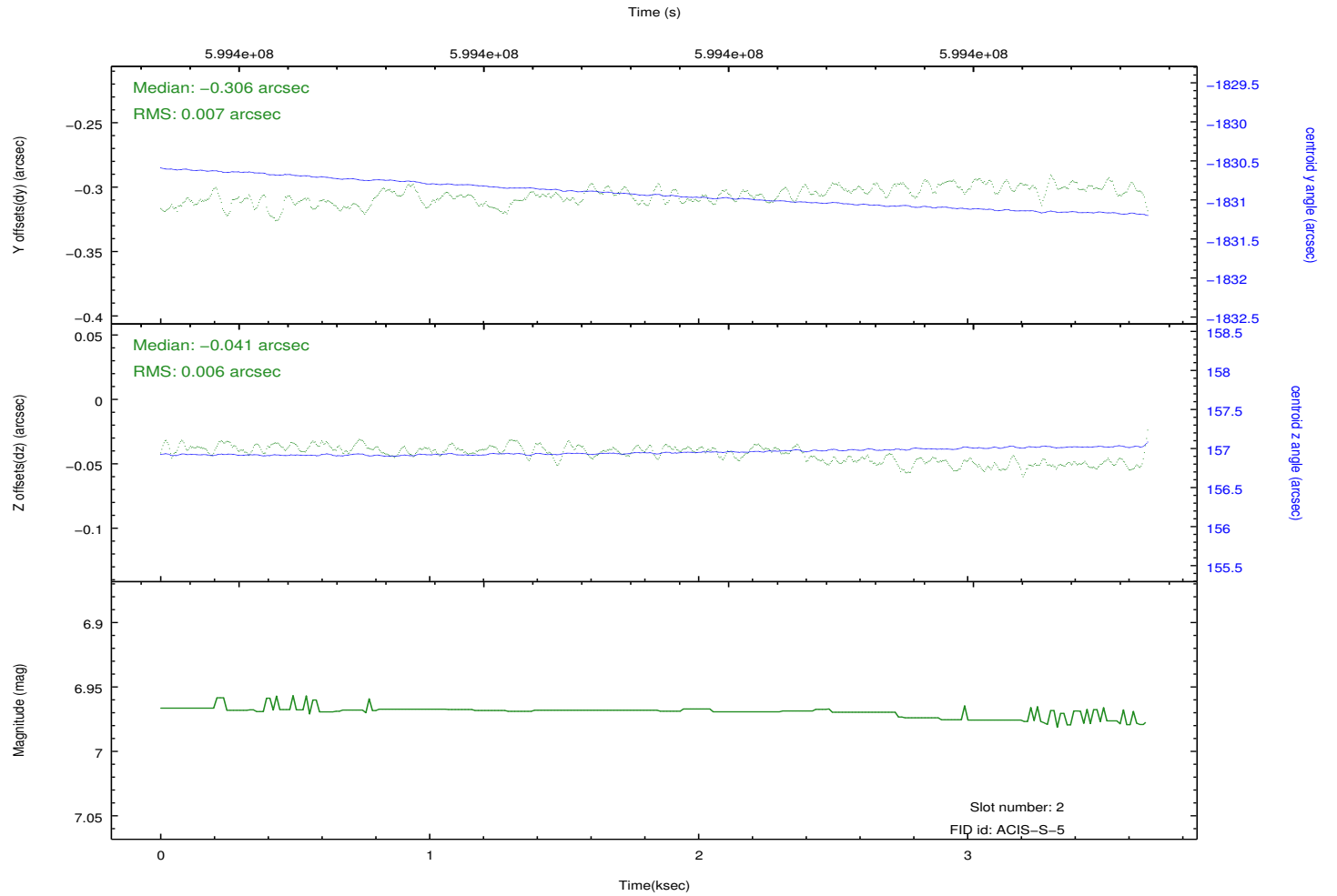
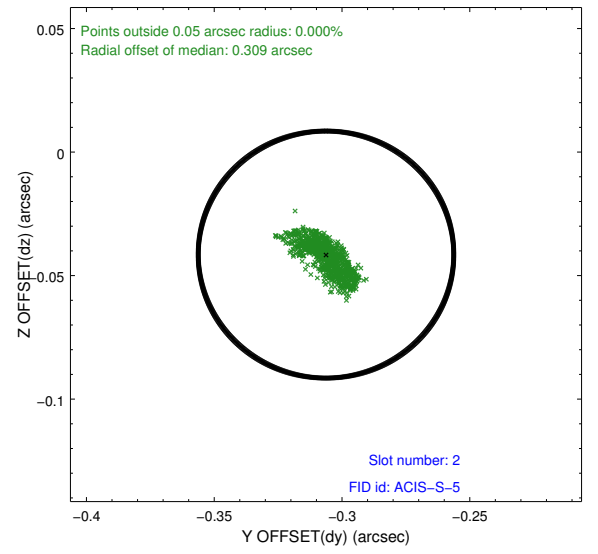
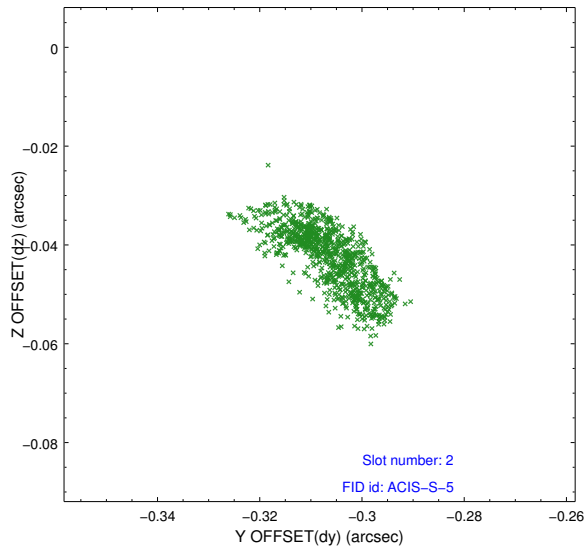
### 2.5.1 Slot 0



## 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)	2016.12.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.5726132339239

### A.2 Comments