

# V&V Reference Report

## L2 ASCDS Version : 10.3.3

Observation 17024 - L2 Version 1  
Chandra X-Ray Center

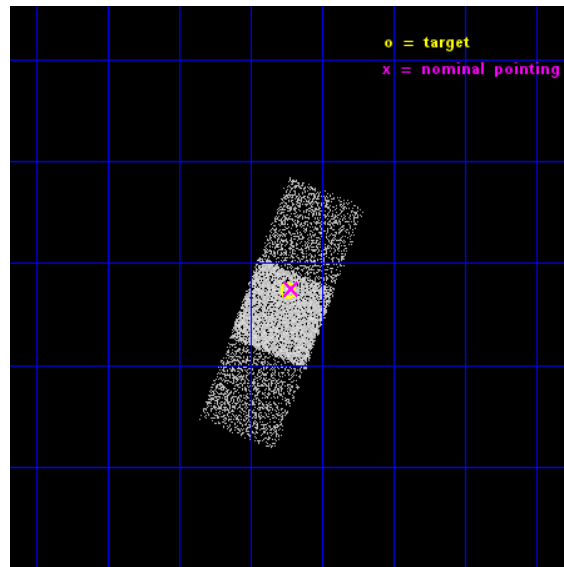
L2 Processing Date : Apr 13 2015

## 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

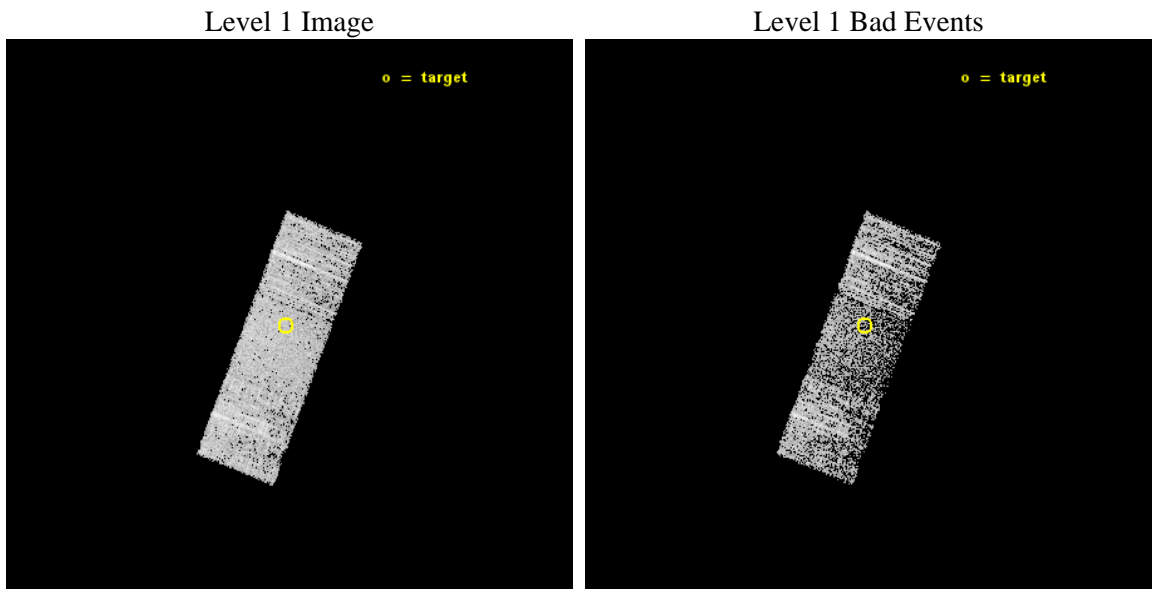
seq_num	703028	Sequence number
obs_id	17024	Observation id
title	Shielding Gas Variations in Transforming Broad Absorption Line Quasars	Proposal title
observer	Prof. W.N. Brandt	Principal investigator
object	SDSS J1522+0327	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	230.683333	Observer's specified target RA [deg]
dec_targ	3.4555	Observer's specified target Dec [deg]
ra_nom	230.67851860207	Nominal RA [deg]
dec_nom	3.4582051771579	Nominal Dec [deg]
roll_nom	111.42168186799	Nominal Roll [deg]
revision	1	Processing version of data
ontime	3777.6073445082	Sum of GTIs [s]
livetime	3728.2501235181	Livetime [s]
ontime6	3777.5663045645	Sum of GTIs [s]
ontime7	3777.6073445082	Sum of GTIs [s]
ontime8	3777.5252645016	Sum of GTIs [s]
l2events	12005	Number of level 2 events



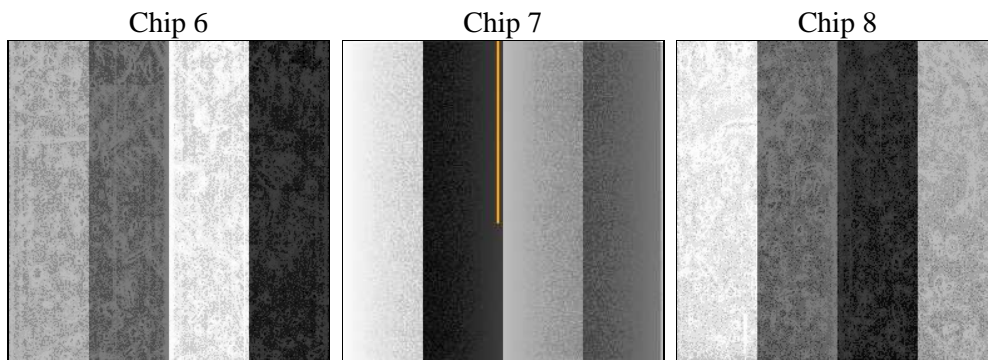
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3700.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	3777.6073445082	Sum of GTIs [s]
caldsver	4.6.7	&#160	ontime6	3777.5663045645	Sum of GTIs [s]
date	2015-04-13T12:27:36	Date and time of file creation	ontime7	3777.6073445082	Sum of GTIs [s]
revision	1	Processing version of data	ontime8	3777.5252645016	Sum of GTIs [s]
			l1events	57626	Number of level 1 events

### 2.1.4 Events

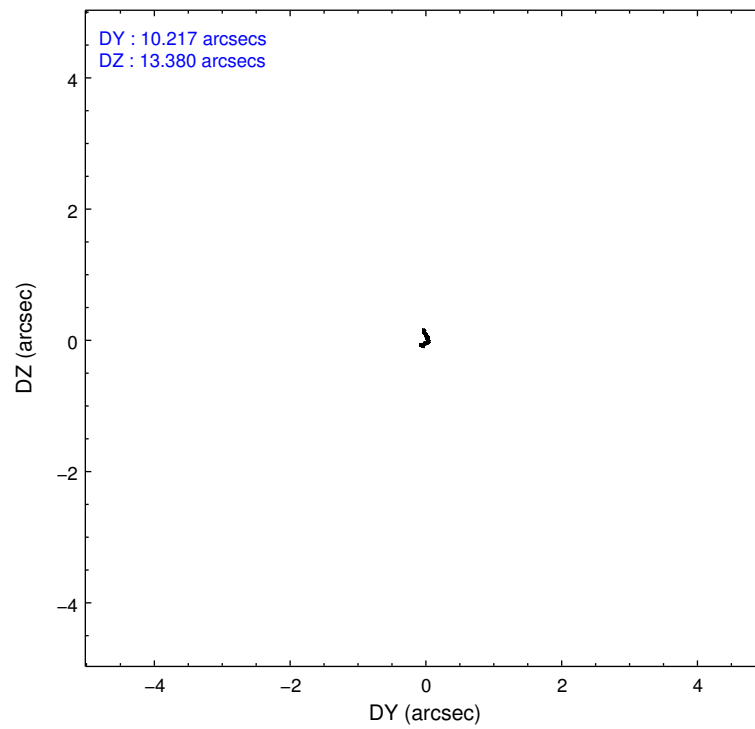
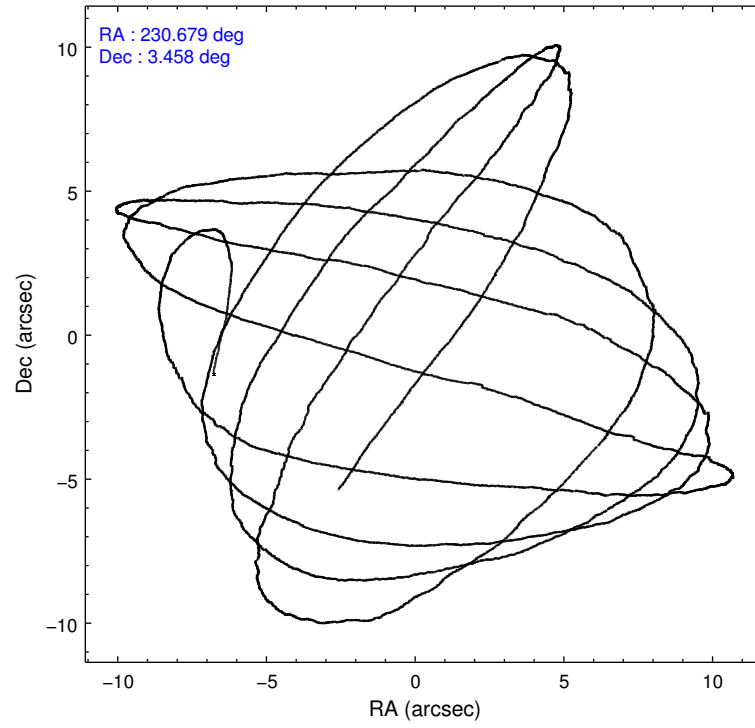
	ccd 6	ccd 7	ccd 8
level 1 events	18518	18606	20502
rejected events	16576	9790	15245
rejected %	89%	52%	74%

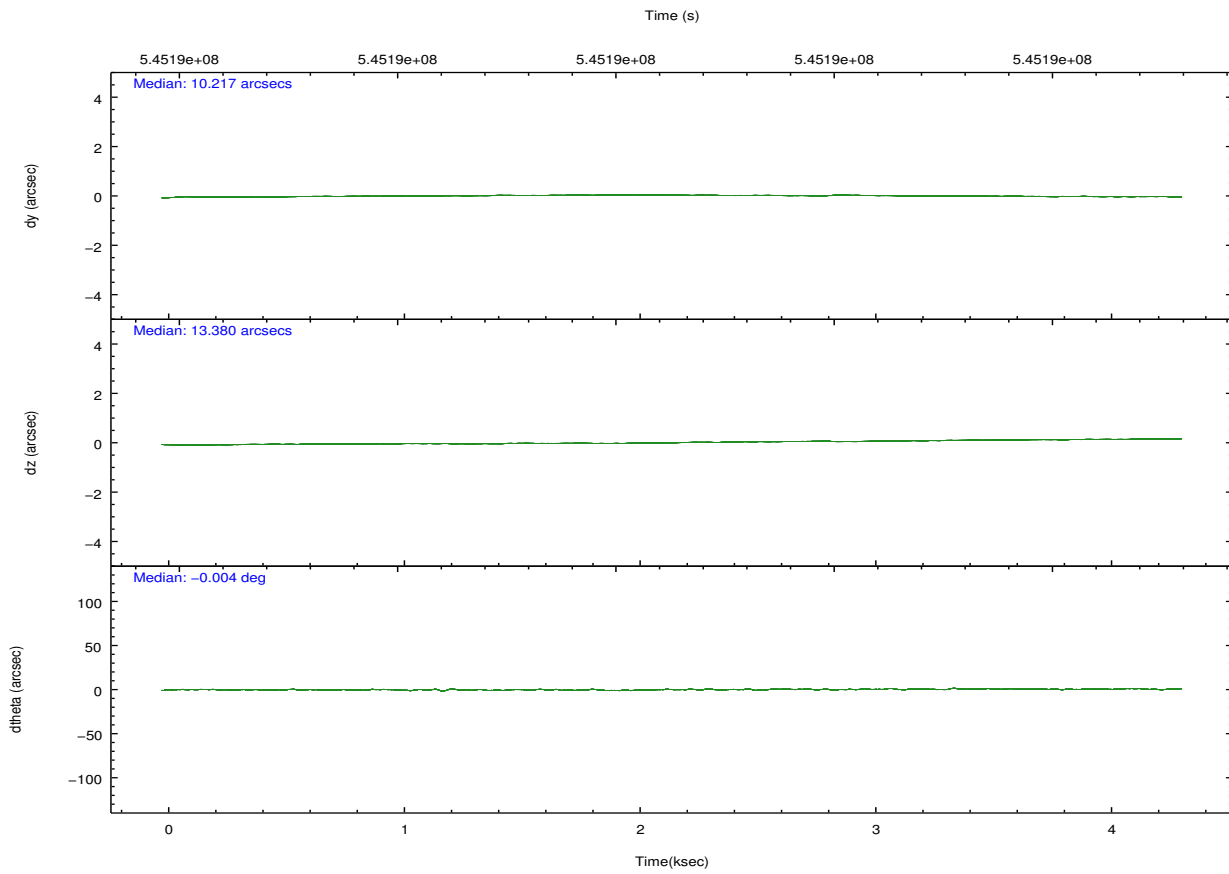
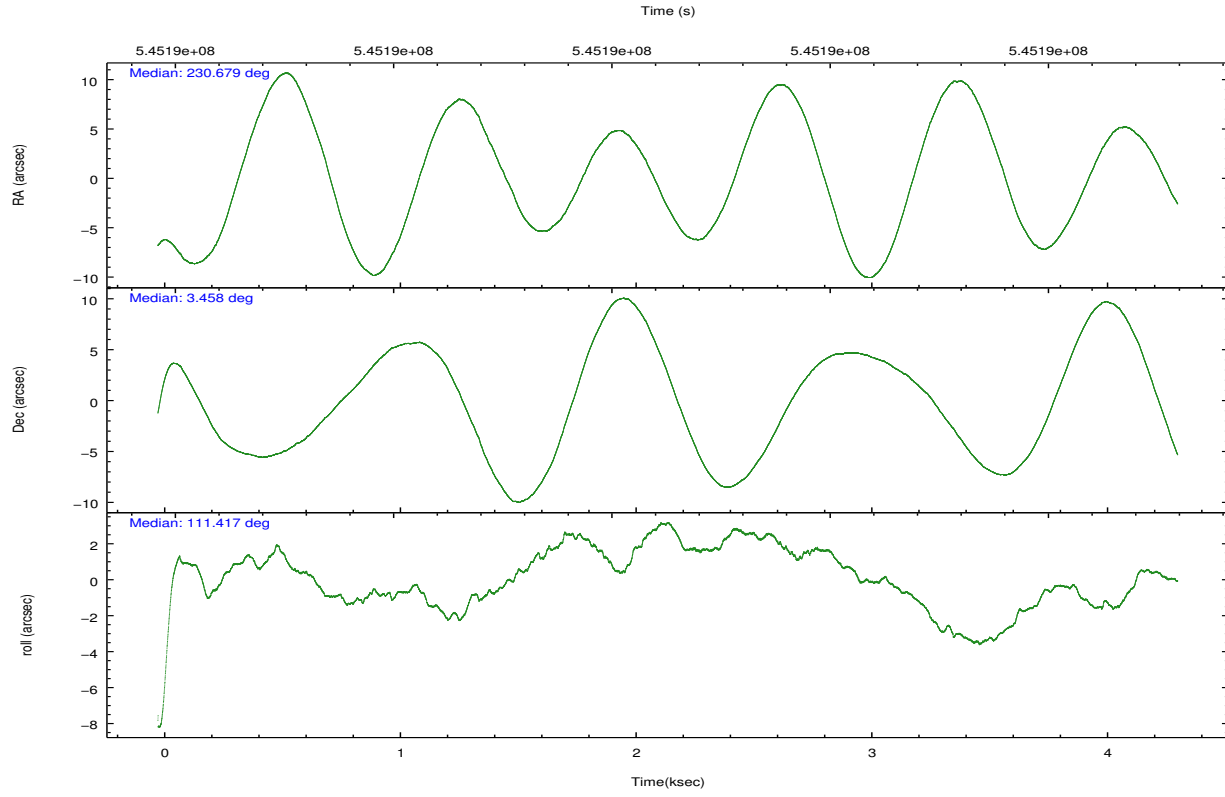
	ccd 6	ccd 7	ccd 8
grade 0 events	623	811	1411
	3%	4%	6%
grade 1 events	8	23	17
	0%	0%	0%
grade 2 events	476	1914	1292
	2%	10%	6%
grade 3 events	183	718	507
	0%	3%	2%
grade 4 events	193	669	492
	1%	3%	2%
grade 5 events	719	1872	1021
	3%	10%	4%
grade 6 events	470	4712	1563
	2%	25%	7%
grade 7 events	15846	7887	14199
	85%	42%	69%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-678	ACIS-678	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	230.700316	230.6785186020672	Subarray requested	NONE	NONE
[deg] Pointing Dec	3.441350	3.458205177157912	Alternating exposures requested	N	N
[deg] Pointing Roll	111.263767	111.4216818679894	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	545186710.184000	545185536.2898901			
Observation start date	2015-04-12T00:44:03	2015-04-12T00:25:36			
[s] Observation end time (MET)	545190410.184000	545191457.71522			
Observation end date	2015-04-12T01:45:43	2015-04-12T02:04:17			
Read mode	TIMED	TIMED			

## 2.3 Aspect





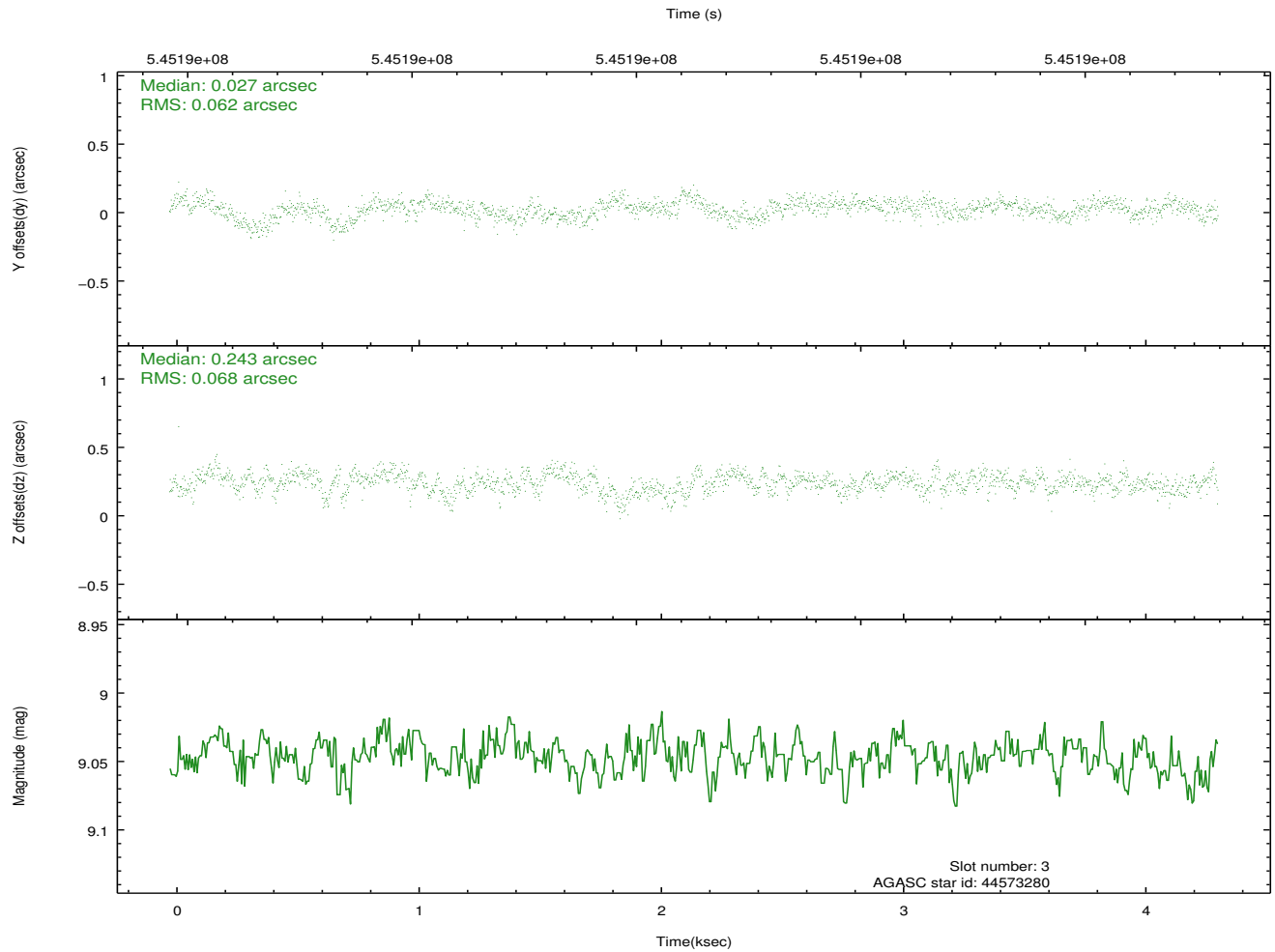
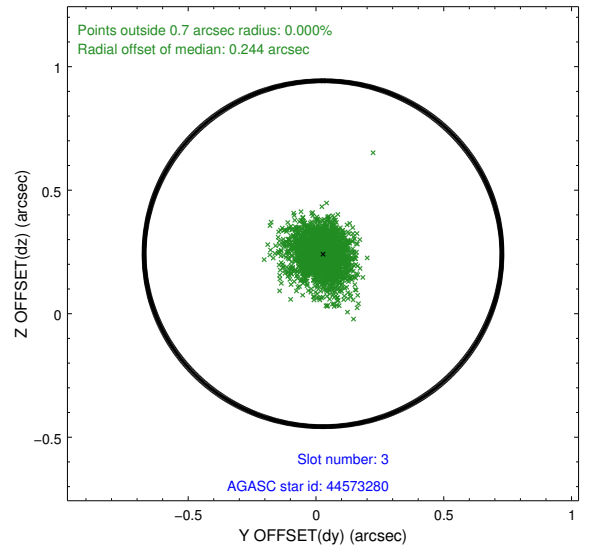
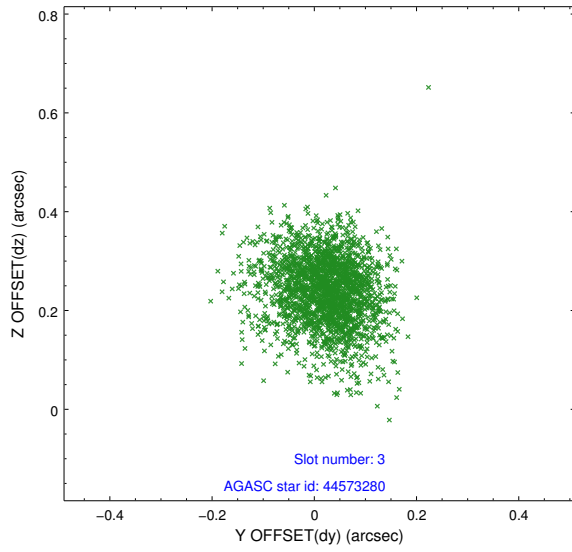
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.04	1056	-0.078	-0.071	0.006	0.010	0.000000	0.000000	-763.14	-1734.80
1	FID		ACIS-S-4	7.15	1056	0.247	0.057	0.006	0.011	0.000000	0.000000	2149.82	172.31
2	FID		ACIS-S-5	7.17	1056	-0.200	0.022	0.007	0.011	0.000000	0.000000	-1814.26	167.60
3	GUIDE	used	44573280	9.05	2112	0.027	0.243	0.096	0.164	230.393188	3.233397	-297.16	1300.62
4	GUIDE	used	44702032	9.31	2110	0.061	-0.008	0.157	0.236	231.112035	3.058713	-1820.62	-878.82
5	GUIDE	used	44702336	8.51	2110	-0.001	0.048	0.089	0.154	231.315255	3.221386	-1539.13	-1773.15
6	GUIDE	used	44705032	9.25	2107	-0.144	-0.183	0.147	0.222	230.770534	3.613401	485.15	-460.36
7	GUIDE	used	44698336	9.02	2111	0.052	-0.096	0.094	0.154	231.062275	2.874131	-2374.65	-471.92

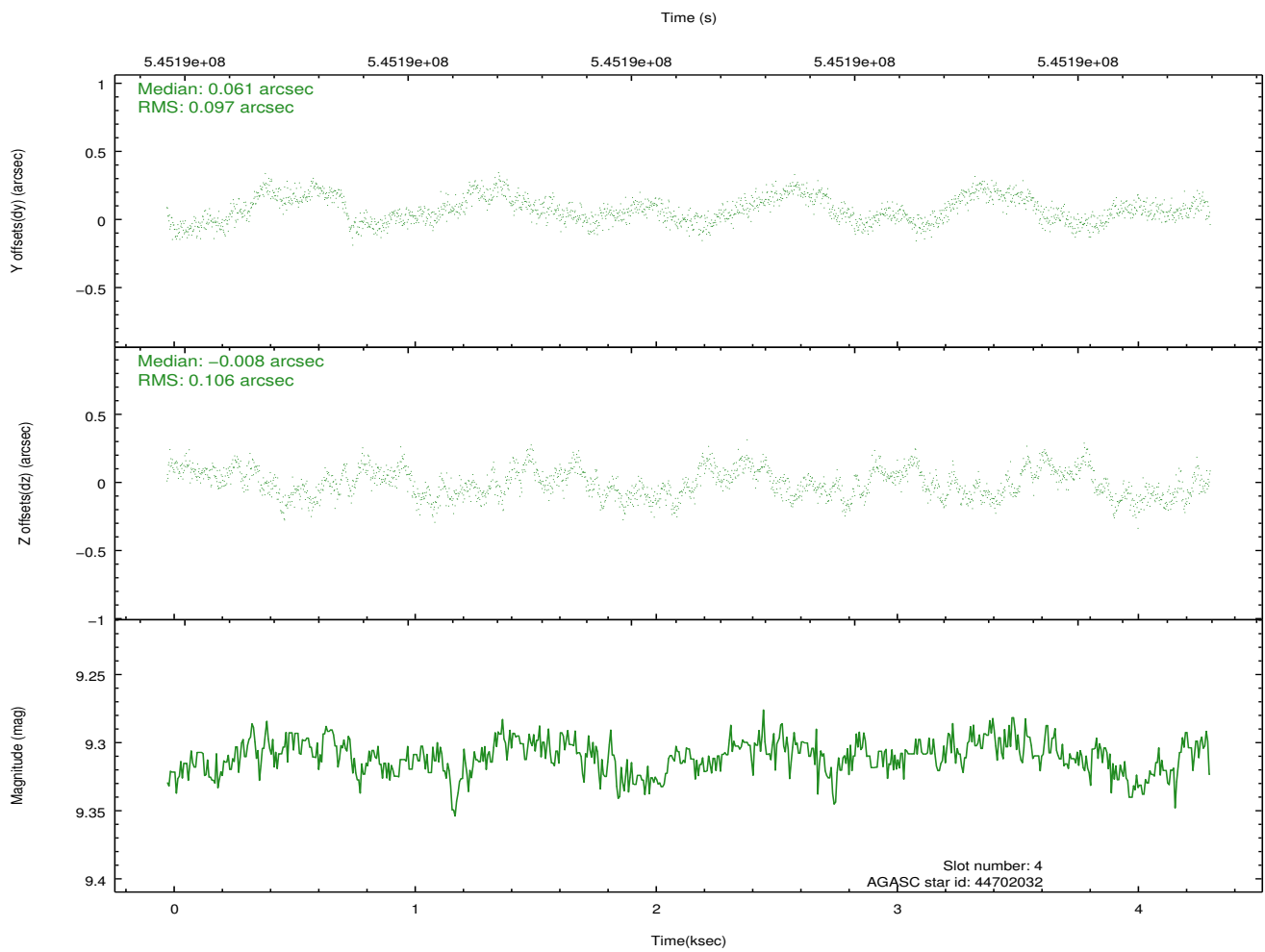
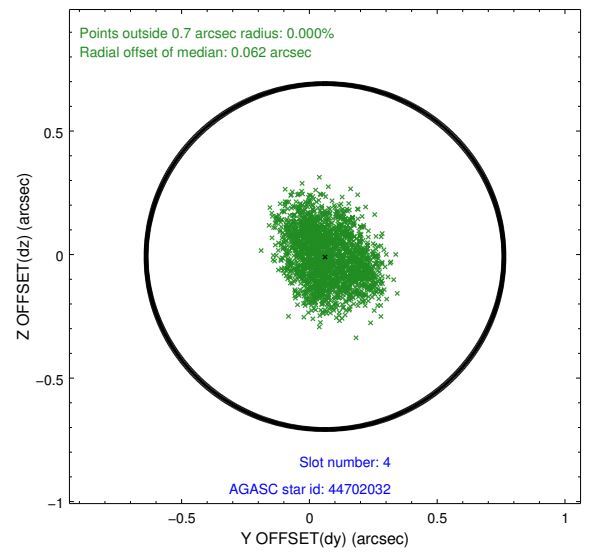
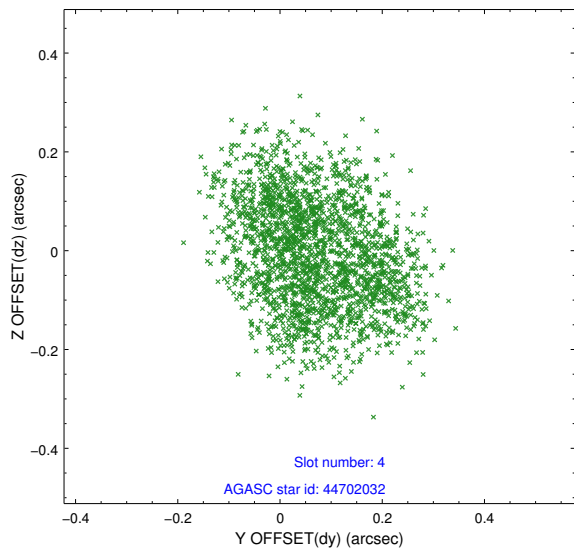
∞

## 2.4 Star Slots

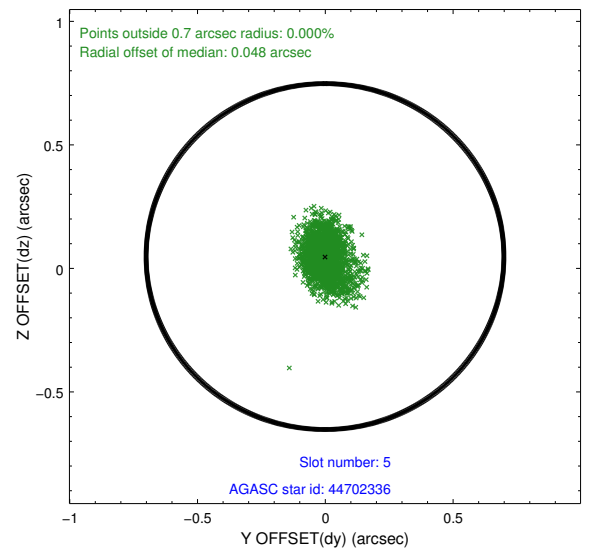
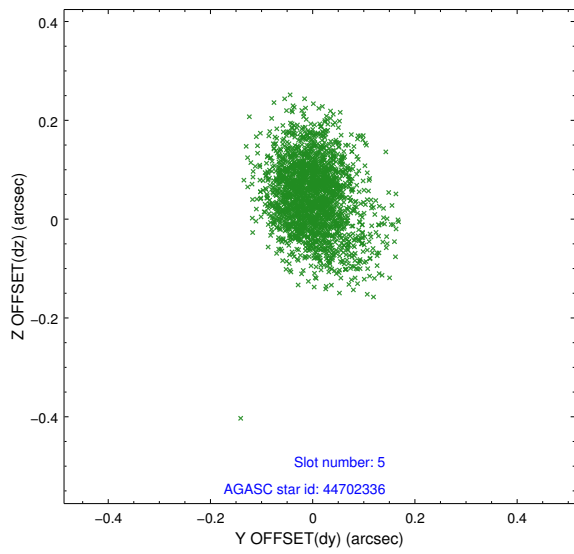
### 2.4.1 Slot 3



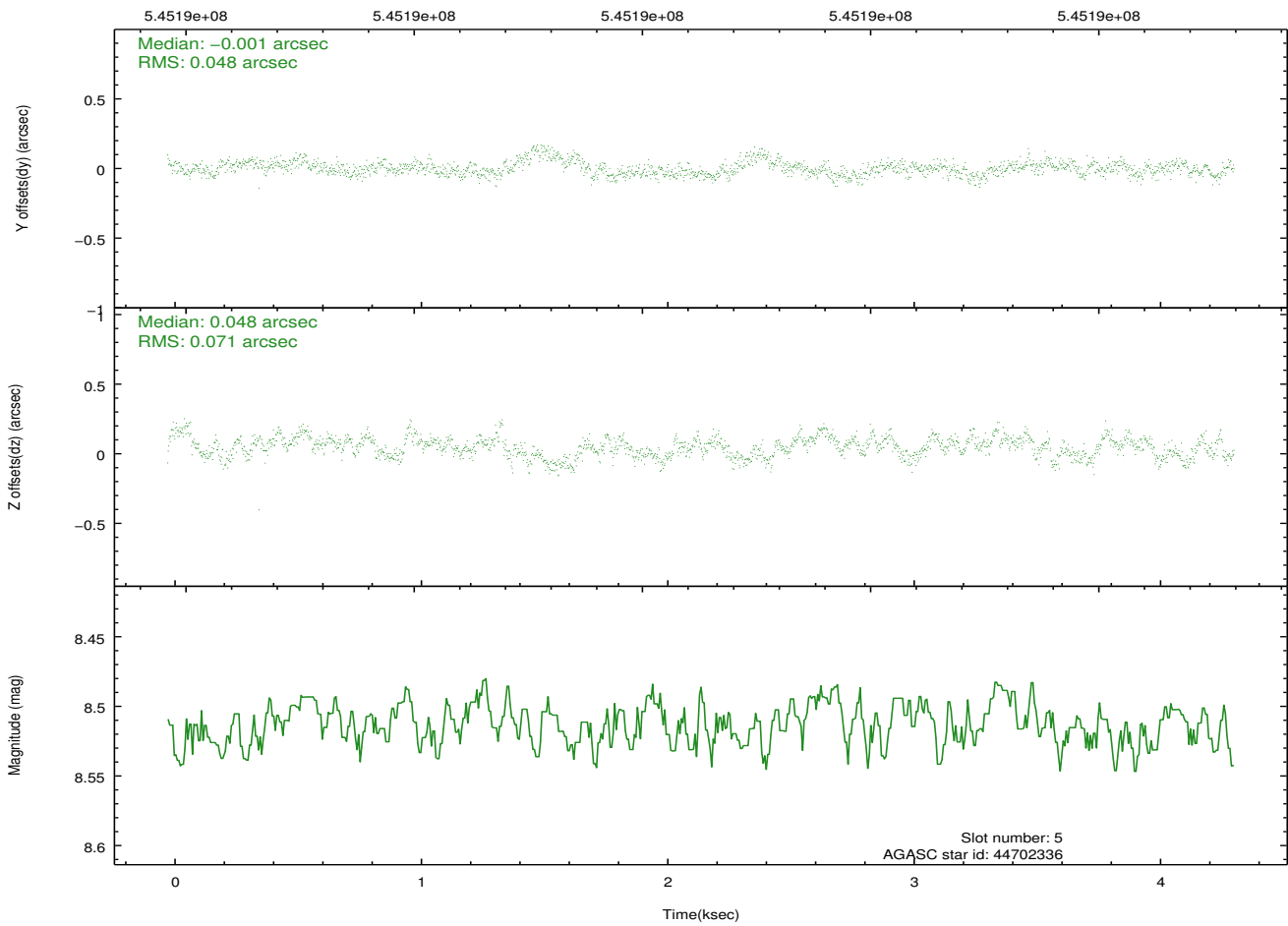
## 2.4.2 Slot 4



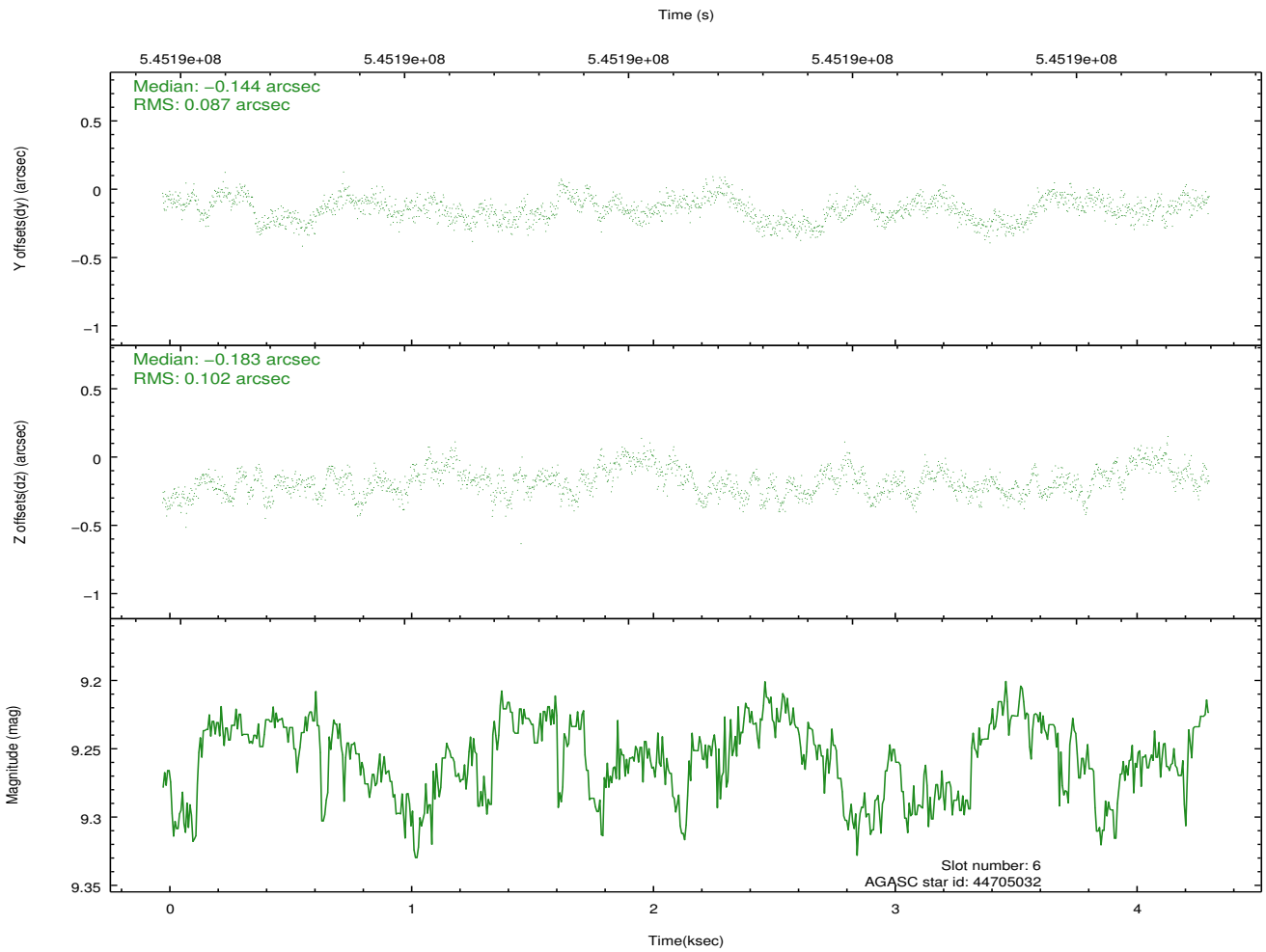
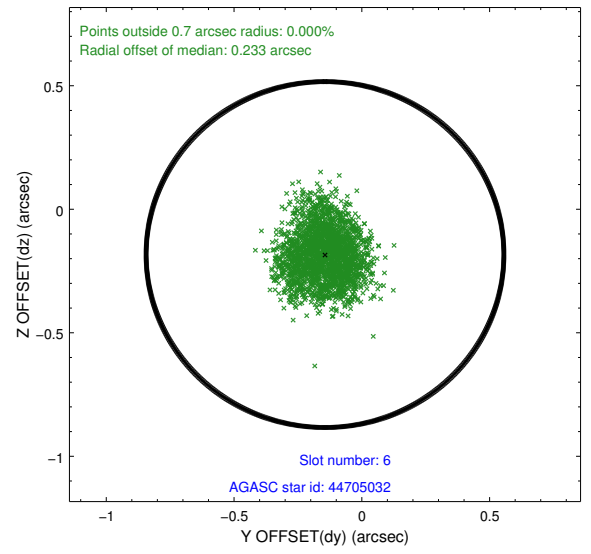
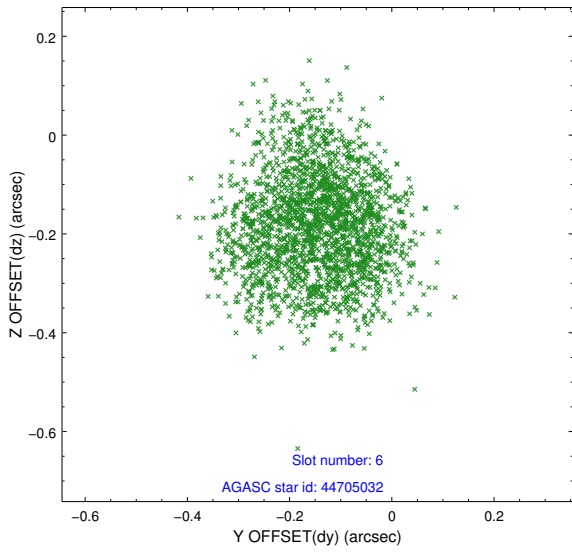
### 2.4.3 Slot 5



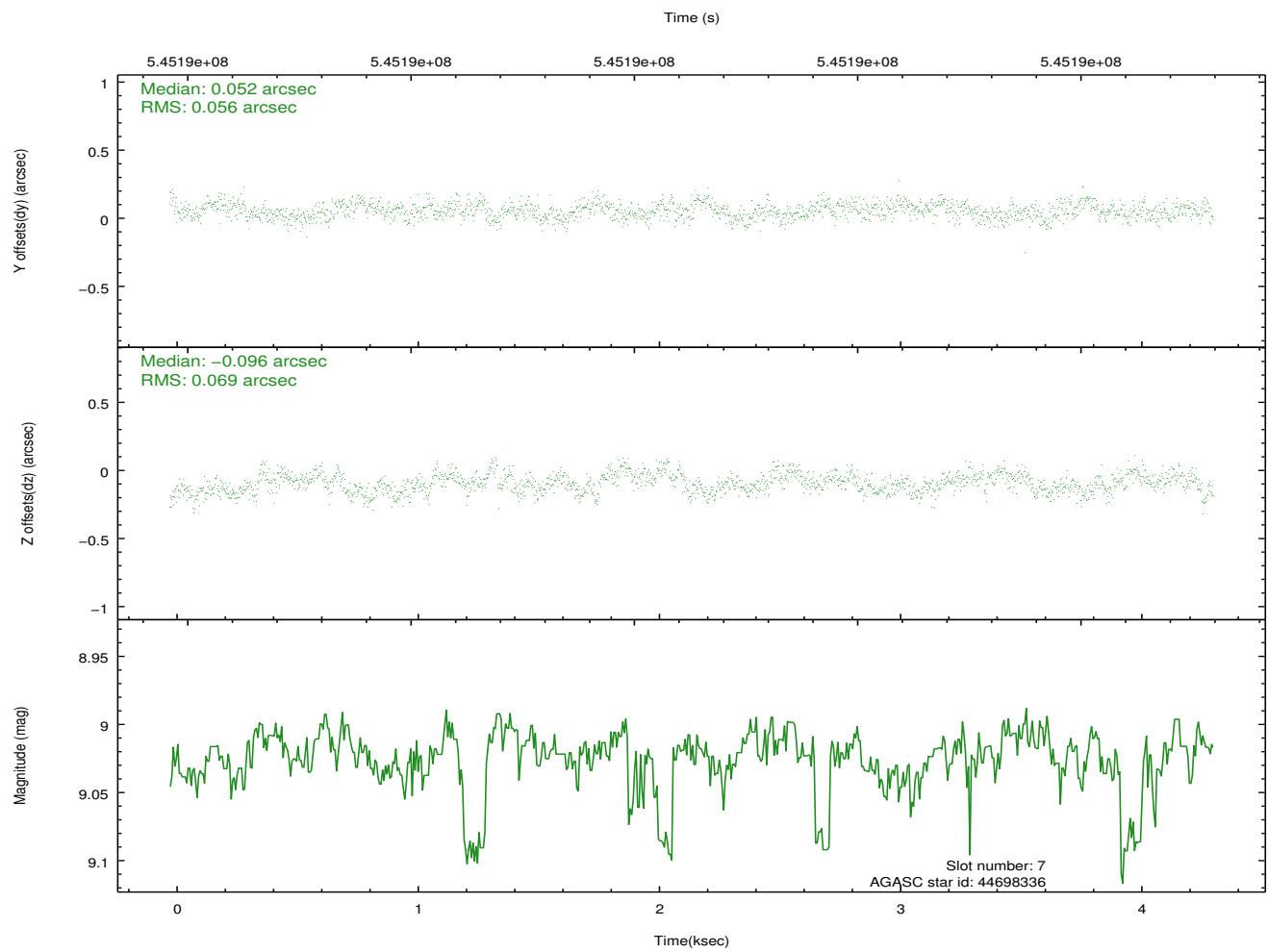
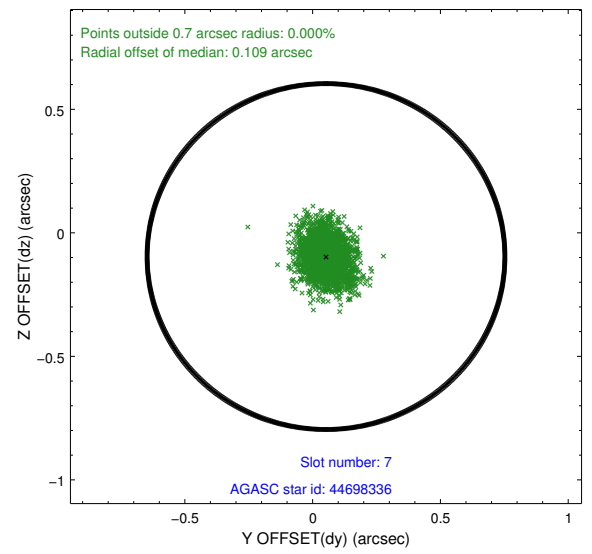
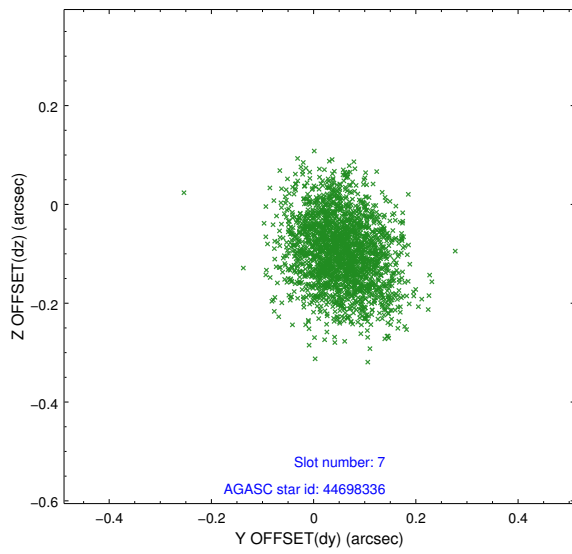
Time (s)



### 2.4.4 Slot 6

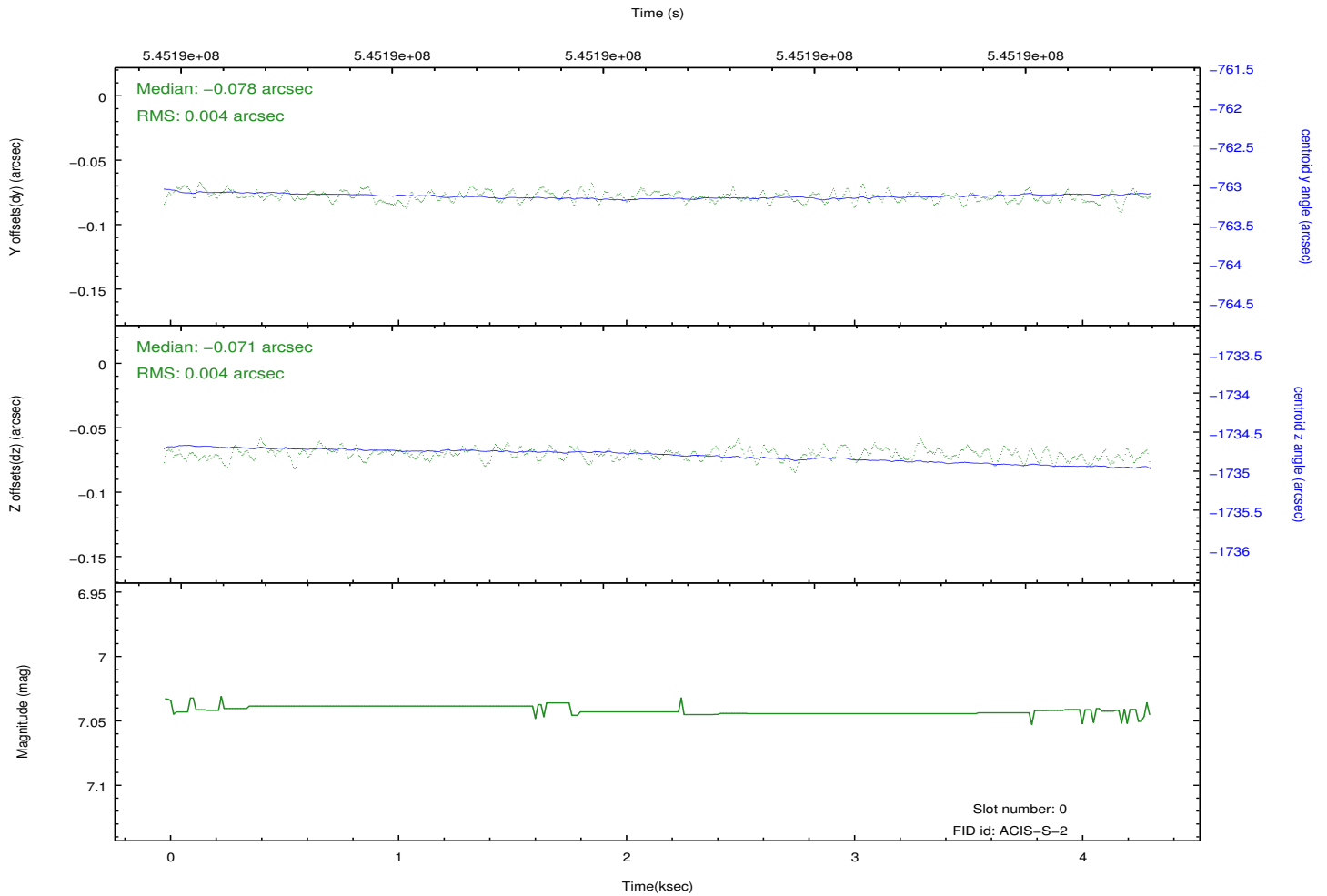
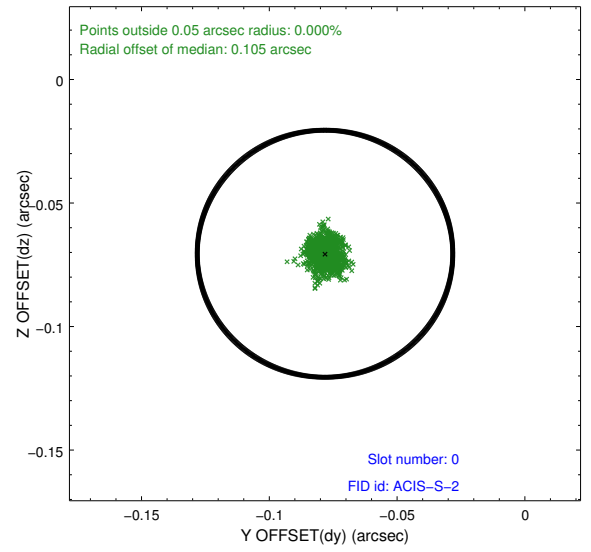
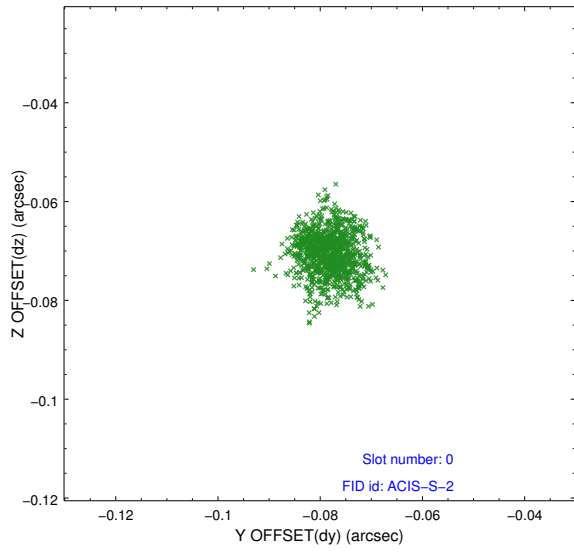


## 2.4.5 Slot 7

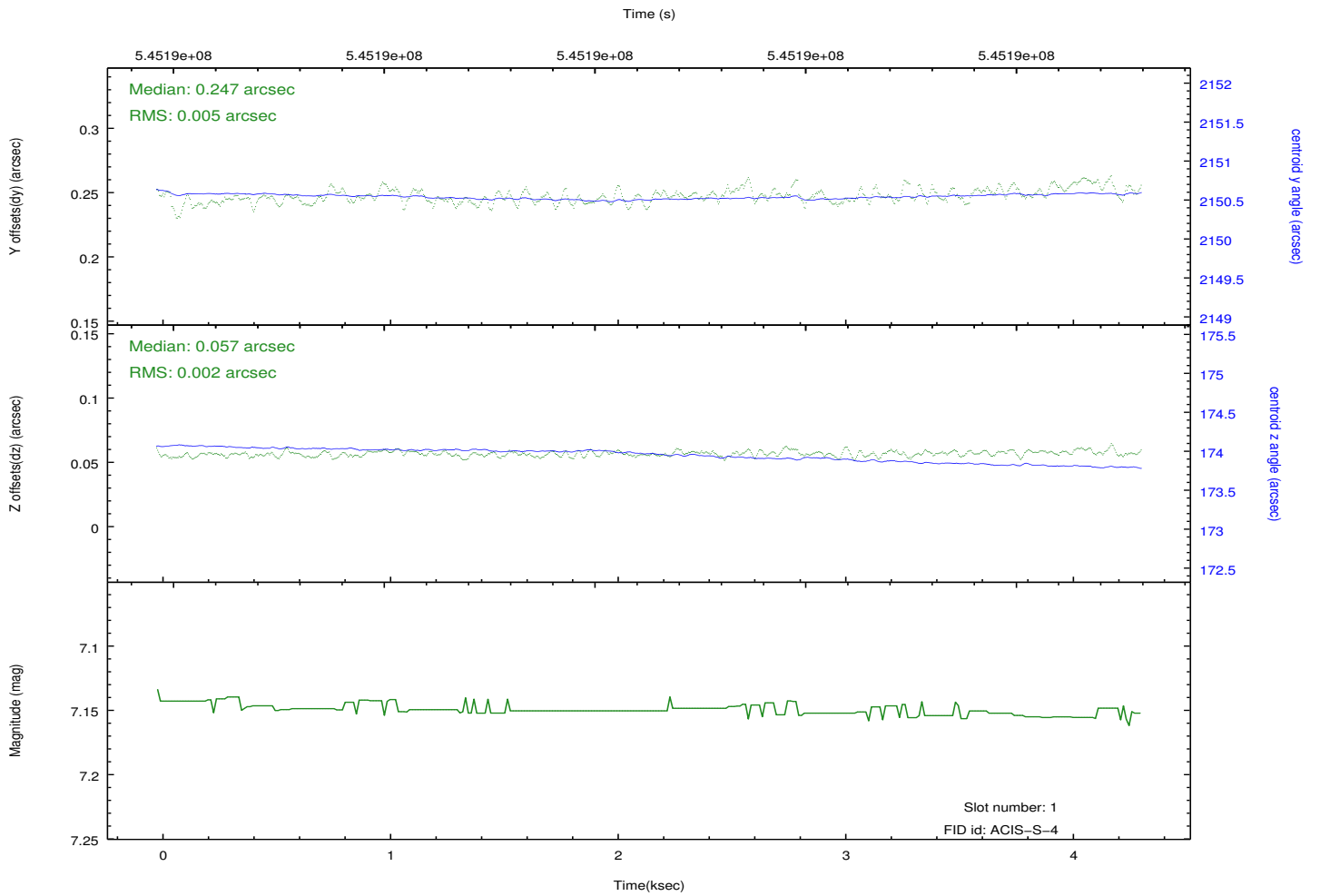
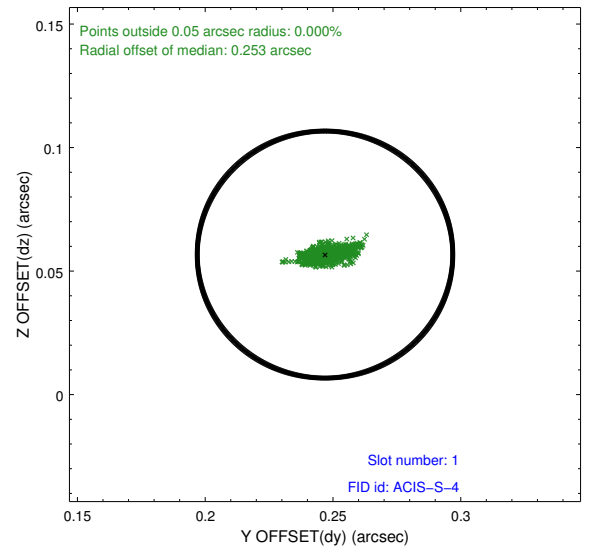
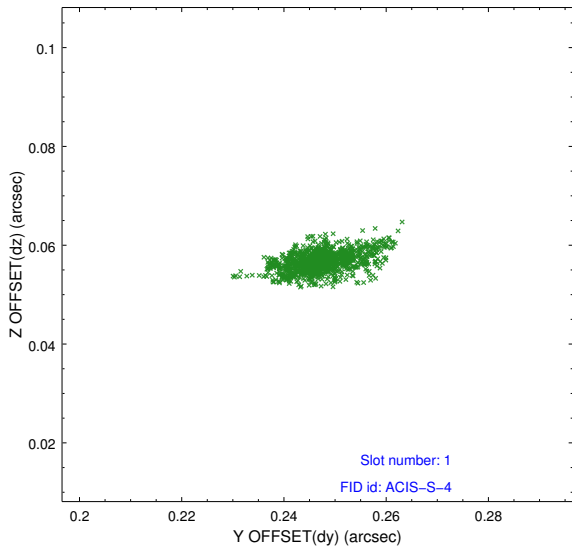


## 2.5 FID Slots

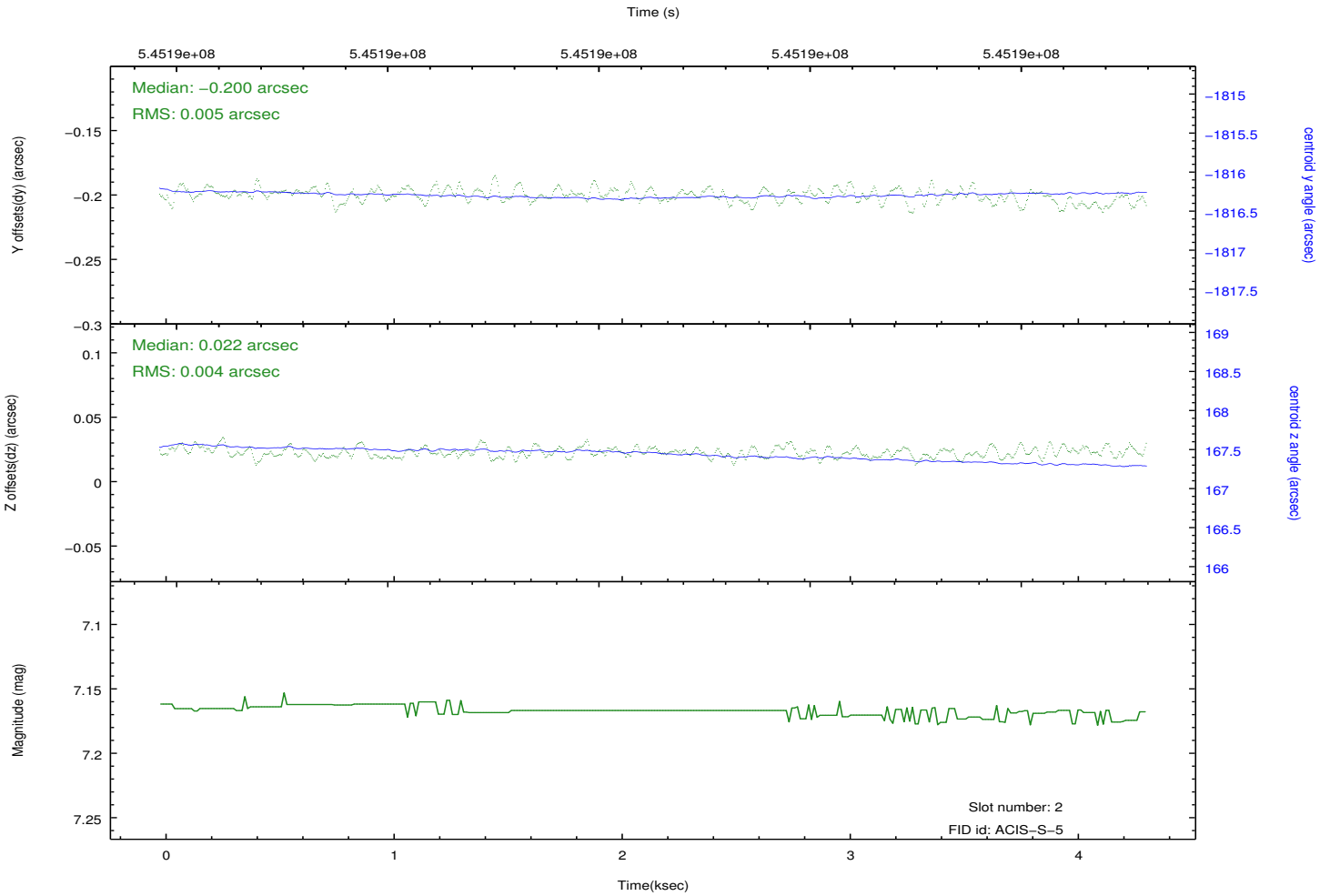
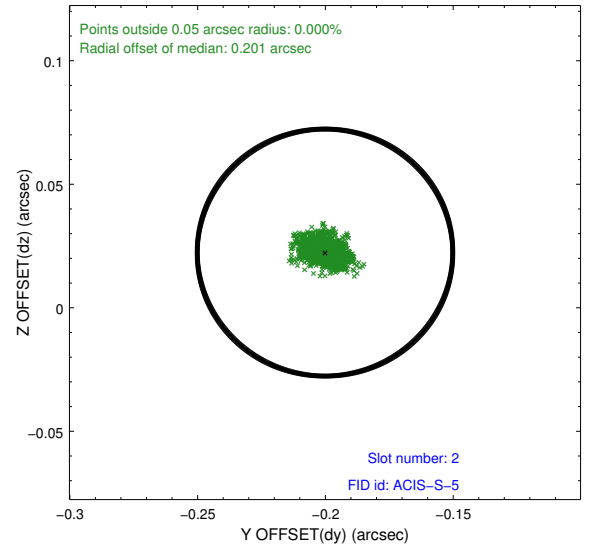
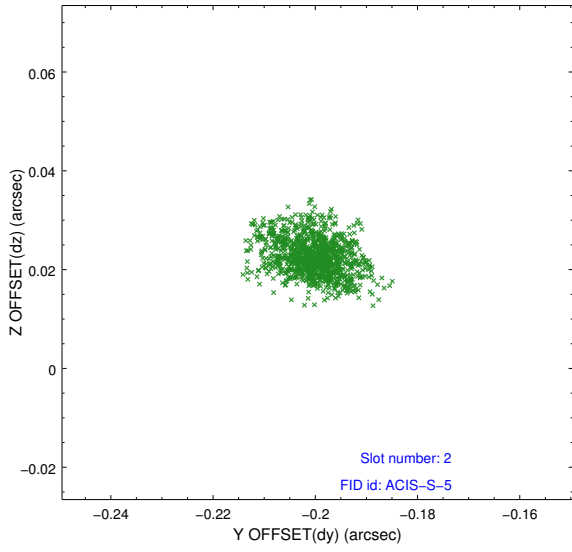
### 2.5.1 Slot 0



## 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)	2015.04.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.7776073445082

### A.2 Comments