

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 19976 - L2 Version 1  
Chandra X-Ray Center

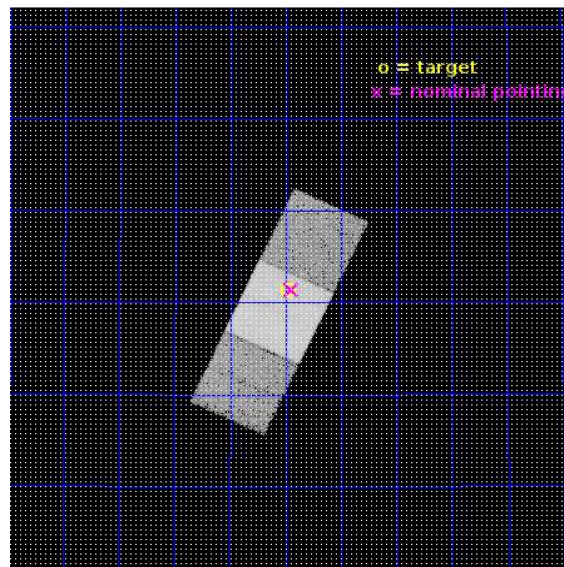
L2 Processing Date : Dec 28 2016

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# 1 Front

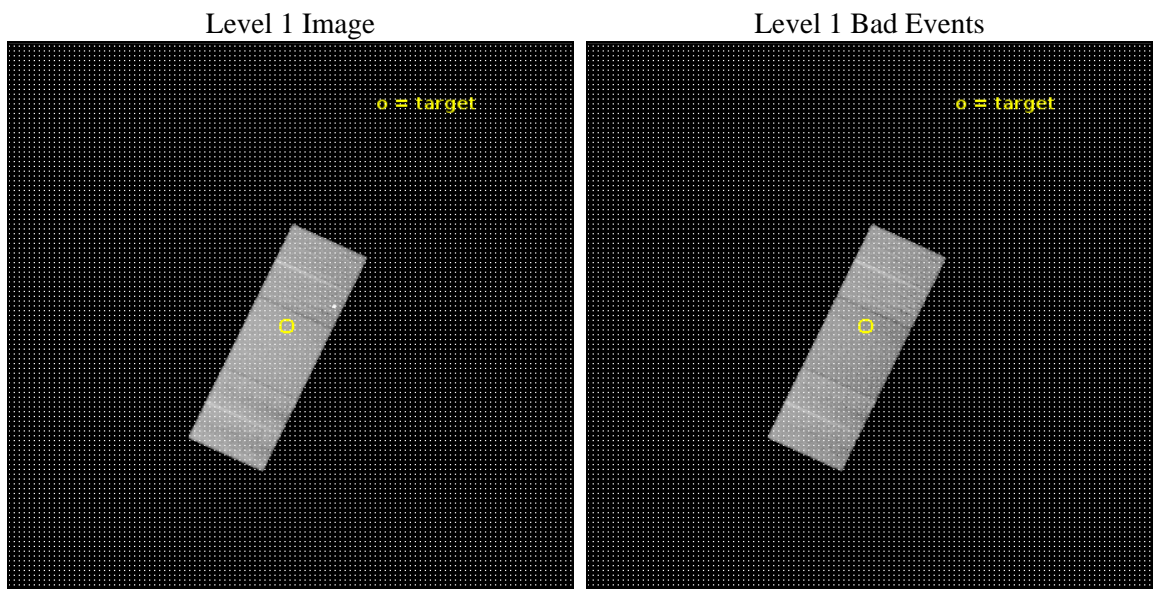
seq_num	703347	Sequence number
obs_id	19976	Observation id
title	A quadruple quasar coincident with a giant Ly-alpha nebula and a protocluster at z=2	Proposal title
observer	Cristian Vignali	Principal investigator
object	SDSSJ084158.47+392121.0	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	130.49375	Observer's specified target RA [deg]
dec_targ	39.355833	Observer's specified target Dec [deg]
ra_nom	130.48712295404	Nominal RA [deg]
dec_nom	39.357189832143	Nominal Dec [deg]
roll_nom	115.1608252719	Nominal Roll [deg]
revision	1	Processing version of data
ontime	25109.791418672	Sum of GTIs [s]
livetime	24781.713508227	Livetime [s]
ontime6	25109.750378728	Sum of GTIs [s]
ontime7	25109.791418672	Sum of GTIs [s]
ontime8	25109.709338665	Sum of GTIs [s]
l2events	124676	Number of level 2 events



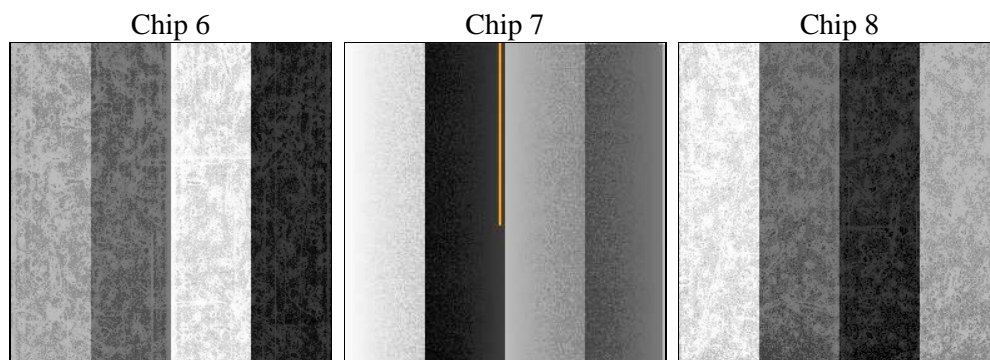
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	25109.791418672	Sum of GTIs [s]
caldsver	4.7.3	&#160	ontime6	25109.750378728	Sum of GTIs [s]
date	2016-12-28T05:43:53	Date and time of file creation	ontime7	25109.791418672	Sum of GTIs [s]
revision	1	Processing version of data	ontime8	25109.709338665	Sum of GTIs [s]
			l1events	621768	Number of level 1 events

### 2.1.4 Events

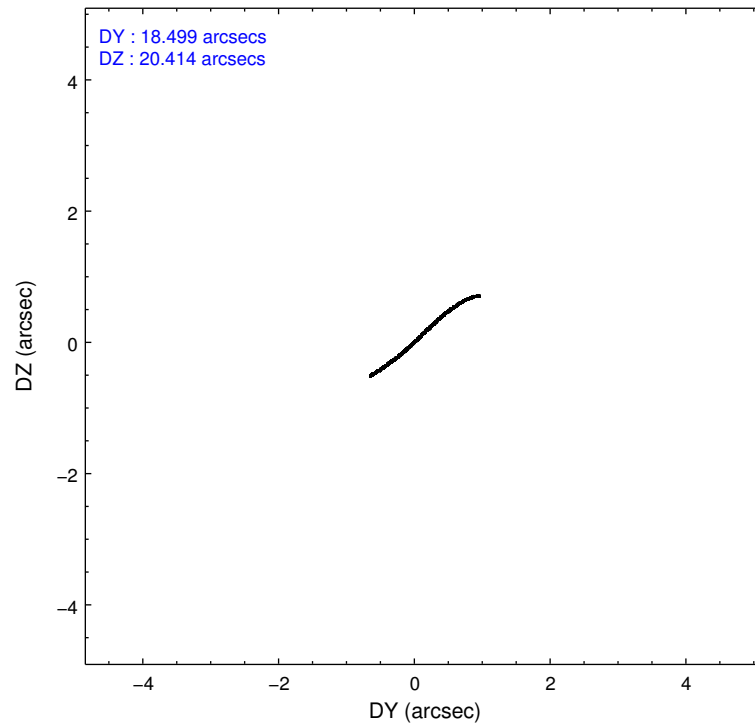
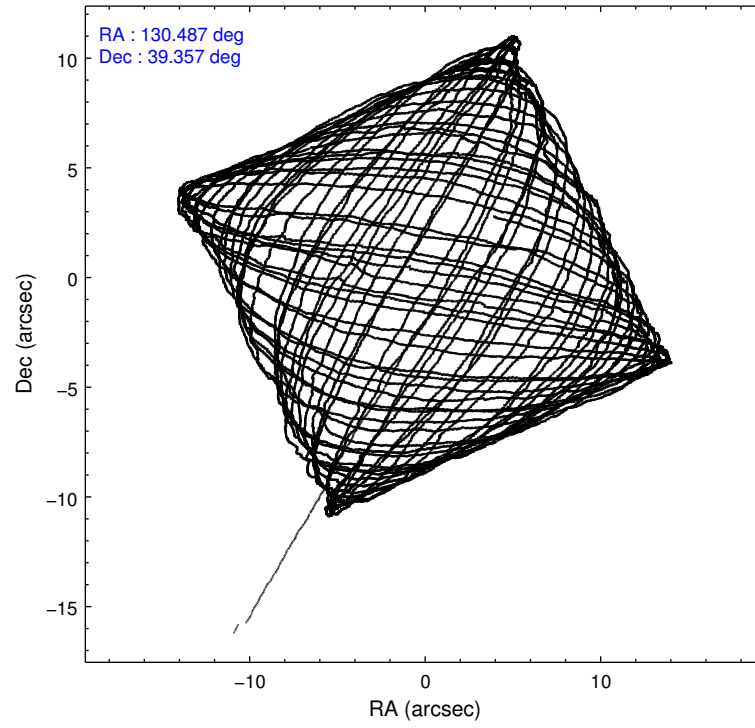
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	187079	217740	216949
rejected events	160499	124586	162851
rejected %	<b>85%</b>	<b>57%</b>	<b>75%</b>

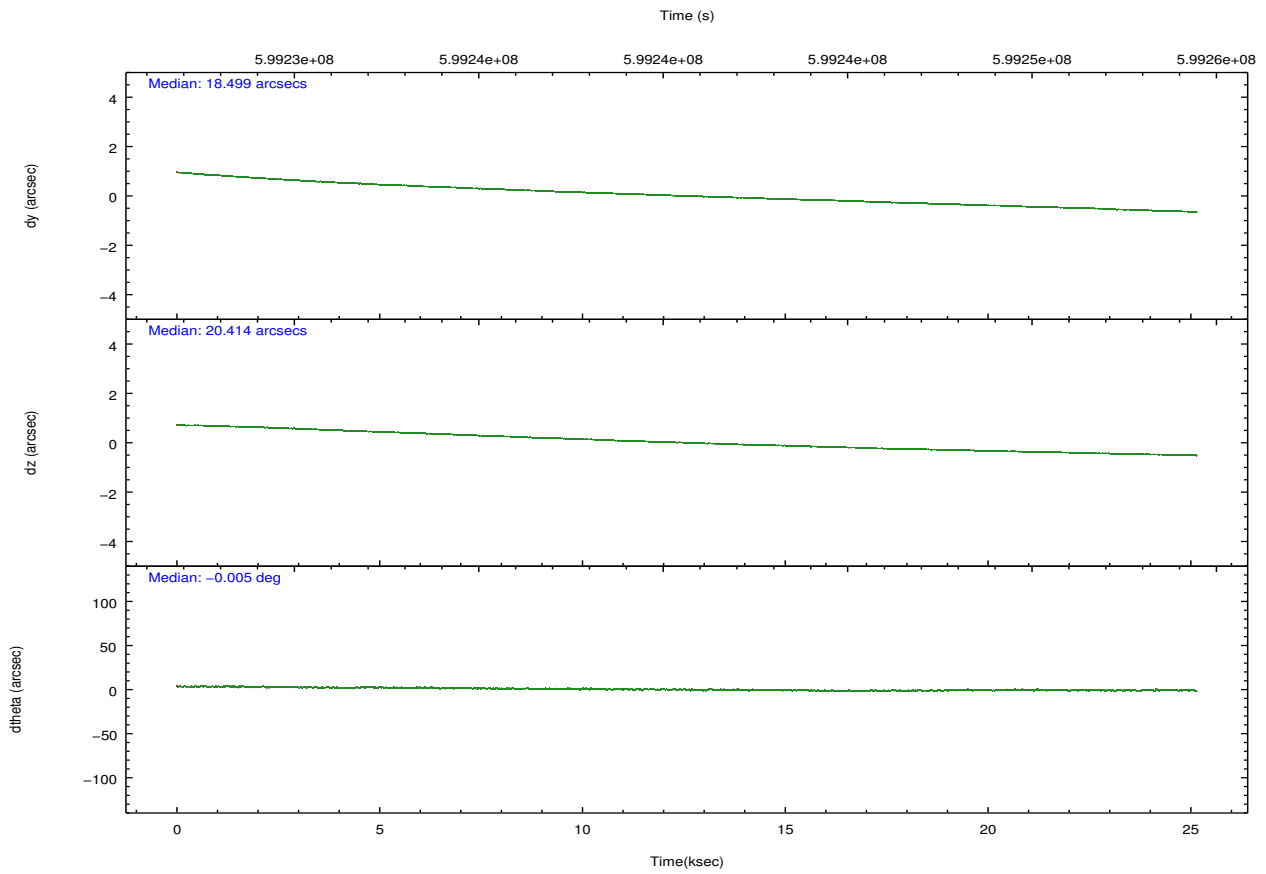
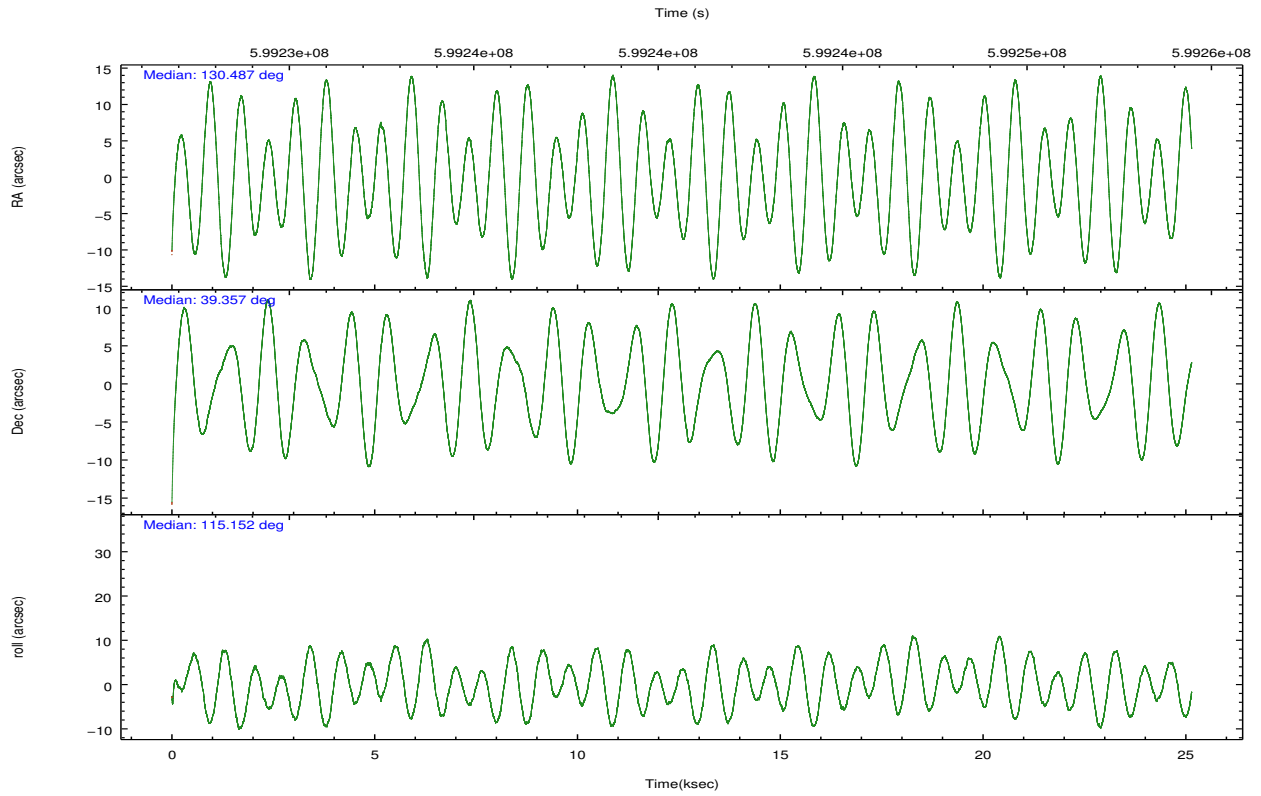
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	13417	7202	15207
	7%	3%	7%
grade 1 events	119	255	147
	0%	0%	0%
grade 2 events	4774	19975	13402
	2%	9%	6%
grade 3 events	1690	6961	5531
	0%	3%	2%
grade 4 events	1818	6839	5144
	0%	3%	2%
grade 5 events	7302	20338	11608
	3%	9%	5%
grade 6 events	4890	52193	14845
	2%	23%	6%
grade 7 events	153069	103977	151065
	81%	47%	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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	130.516504	130.487122954041	CCD I2 on	O2	N
[deg] Pointing Dec	39.341810	39.35718983214312	CCD I3 on	O1	N
[deg] Pointing Roll	114.985579	115.1608252718989	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)	599228217.184000	599227184.4784	CCD S5 on	N	N
Observation start date	2016-12-27T12:15:49	2016-12-27T11:59:44	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	599253217.184000	599254136.34246	On-chip summing requested	N	N
Observation end date	2016-12-27T19:12:29	2016-12-27T19:28:56	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





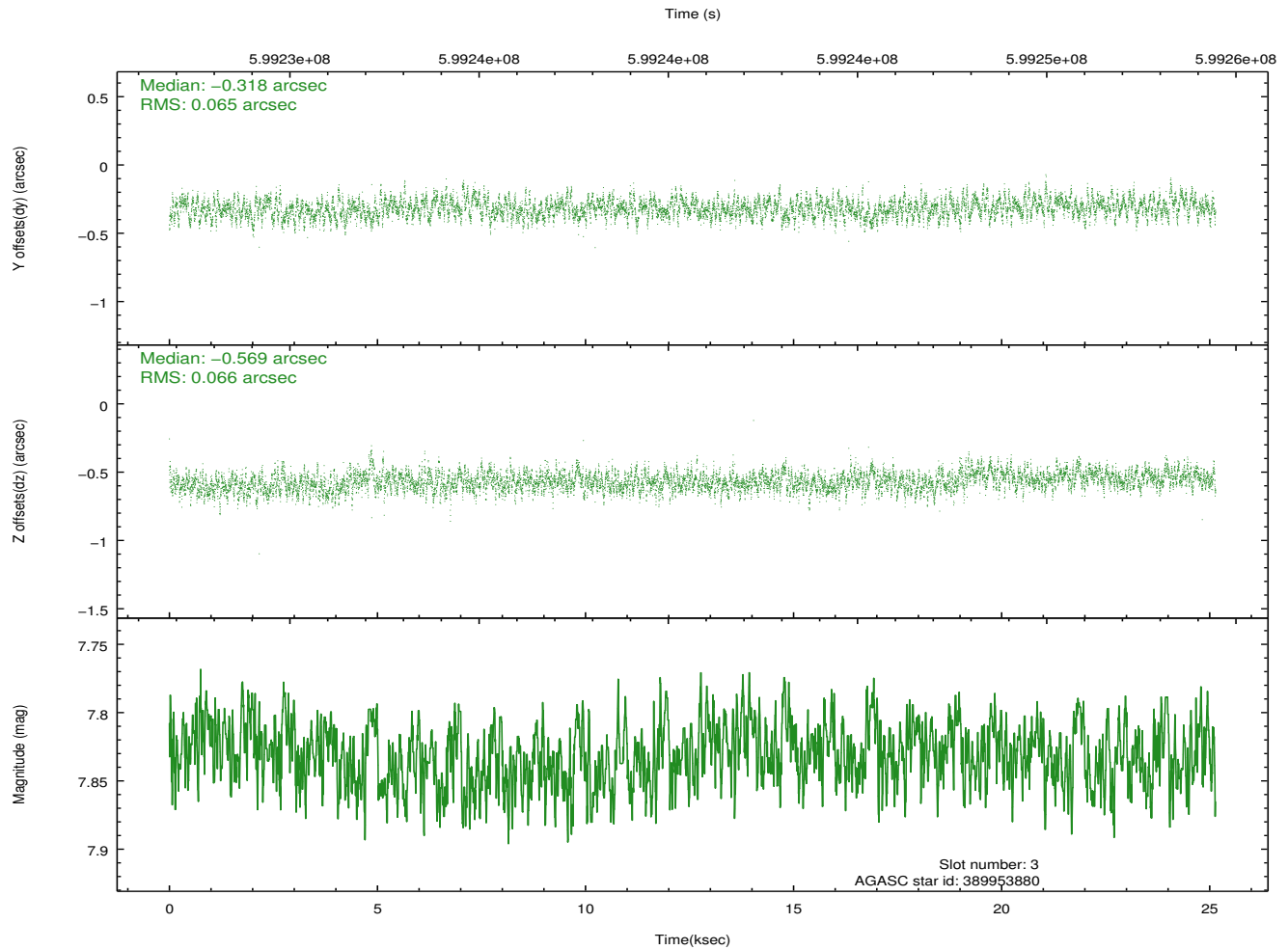
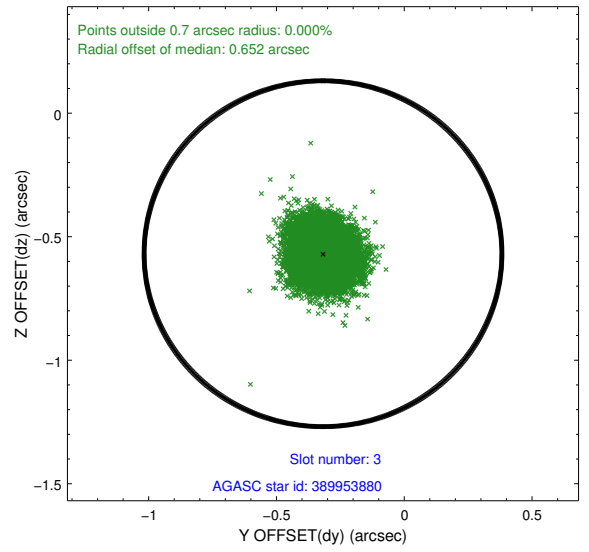
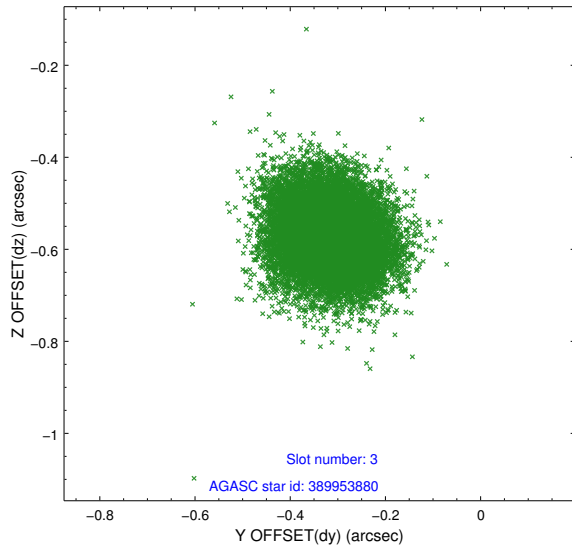
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.13	6133	-0.222	-0.135	0.020	0.028	0.000000	0.000000	-771.80	-1742.13
1	FID		ACIS-S-4	7.23	6133	0.513	0.142	0.016	0.024	0.000000	0.000000	2142.13	166.55
2	FID		ACIS-S-5	7.23	6133	-0.321	-0.000	0.010	0.017	0.000000	0.000000	-1824.62	160.15
3	GUIDE	used	389953880	7.83	12262	-0.318	-0.569	0.098	0.157	129.484084	39.644812	2212.11	2126.45
4	GUIDE	used	390865160	8.70	12255	0.149	0.142	0.137	0.244	130.458997	39.150226	-556.76	437.30
5	GUIDE	used	390866656	7.99	12260	0.009	0.360	0.090	0.154	131.112779	39.862716	1009.16	-2287.29
6	GUIDE	used	390867952	8.93	12249	-0.015	0.232	0.104	0.176	130.507524	39.576875	777.94	-334.47
7	GUIDE	used	390870832	6.62	12265	0.163	-0.158	0.095	0.161	130.673915	39.061455	-1099.86	27.21

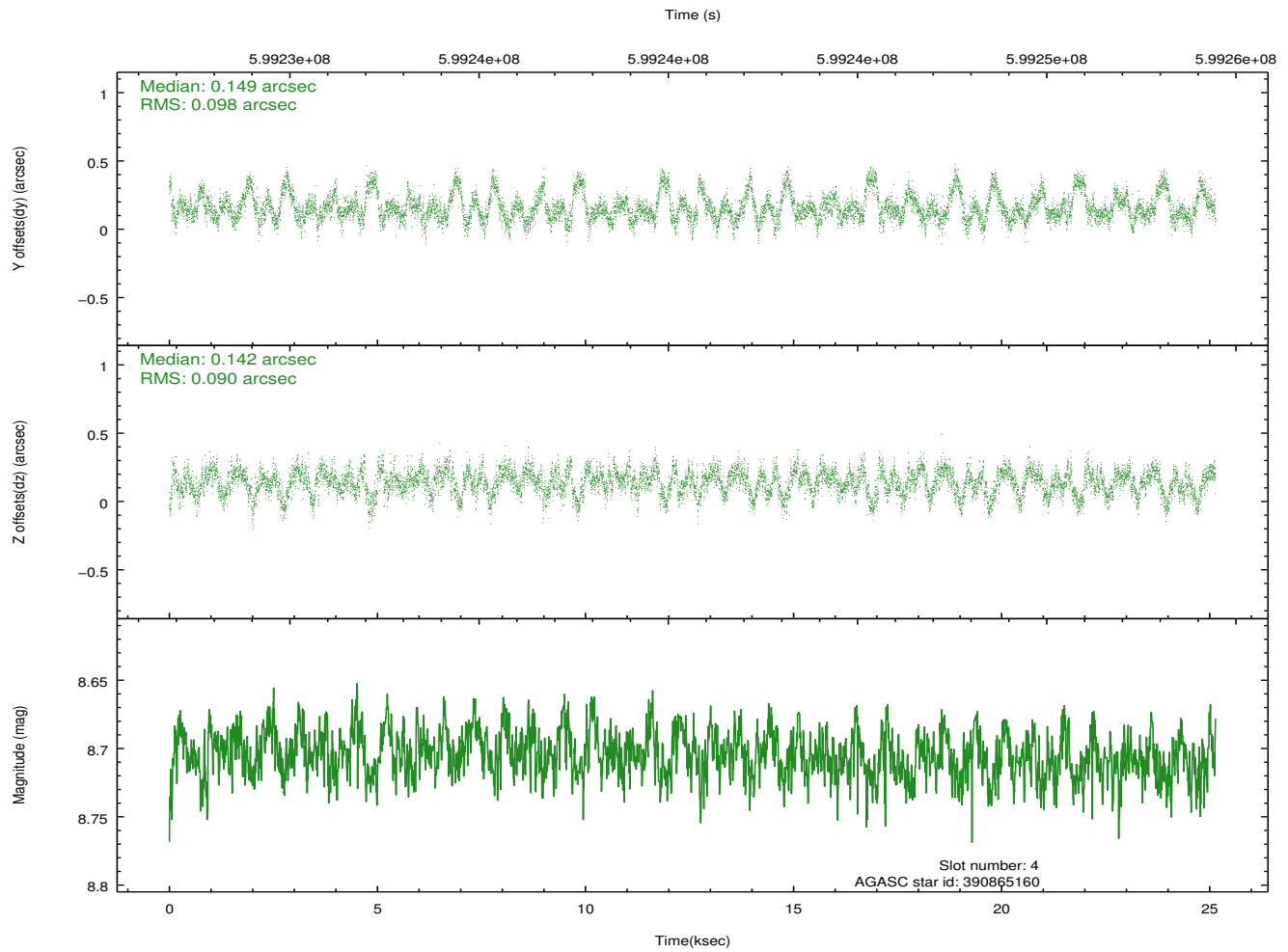
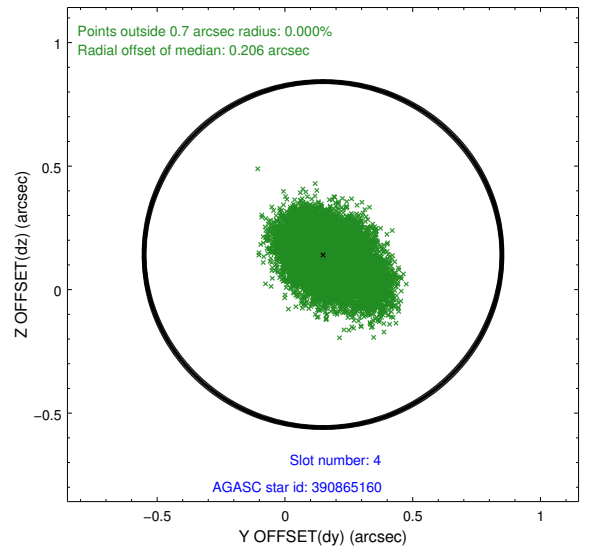
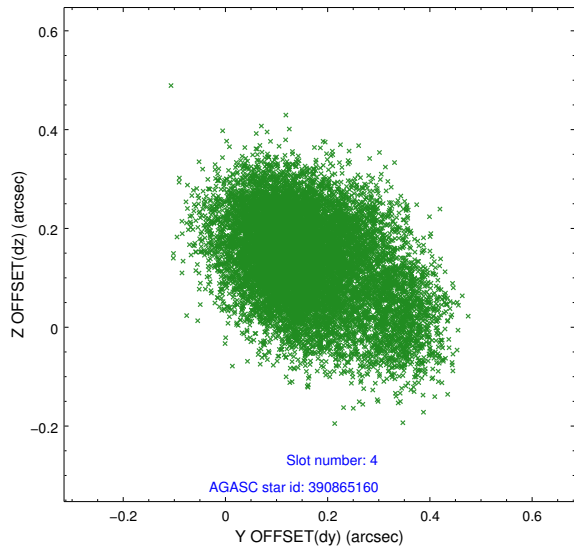
∞

## 2.4 Star Slots

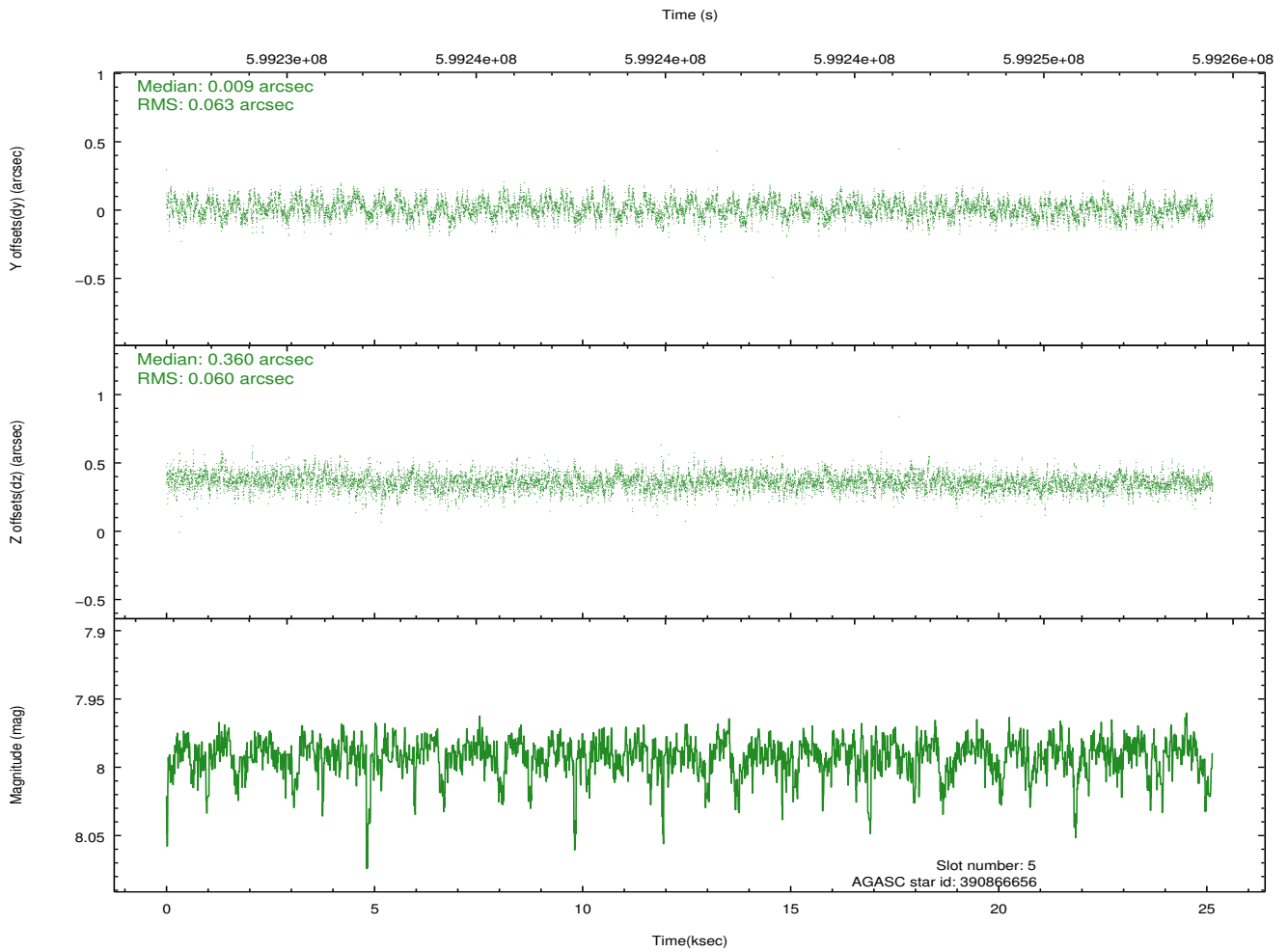
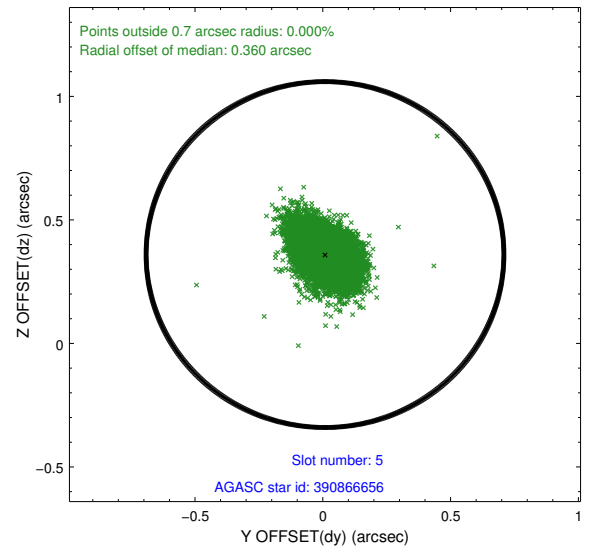
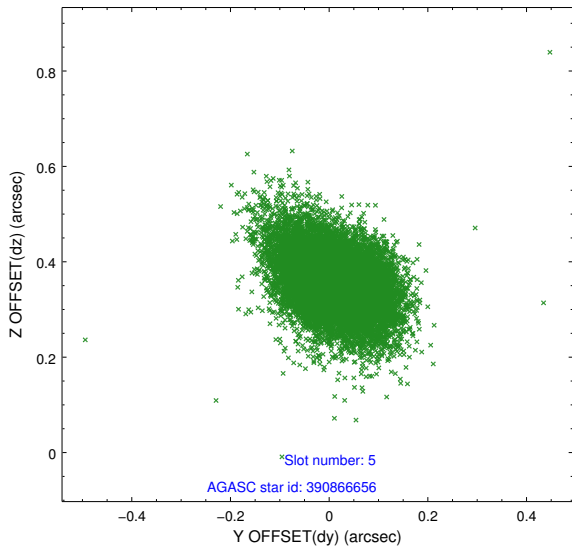
### 2.4.1 Slot 3



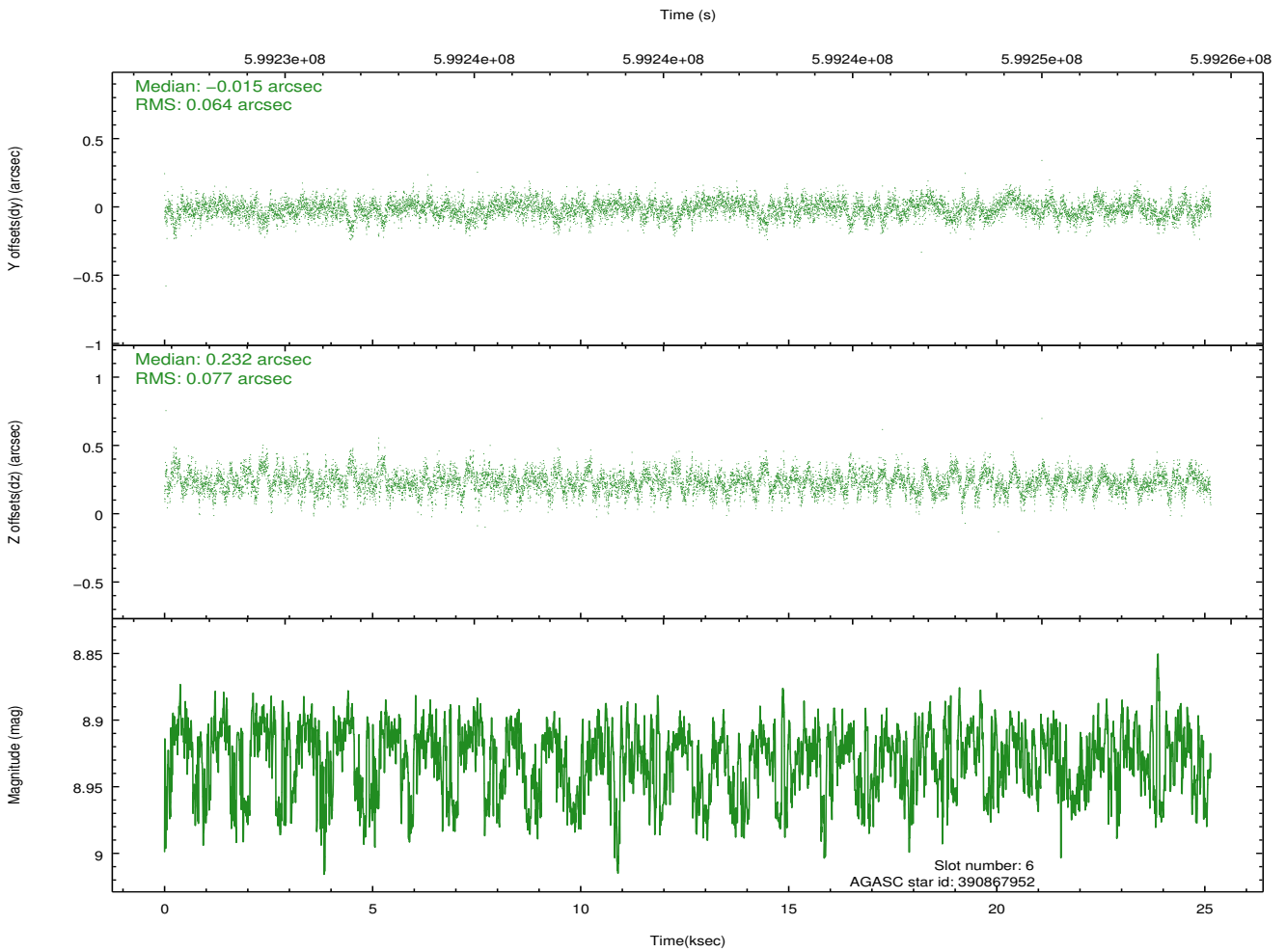
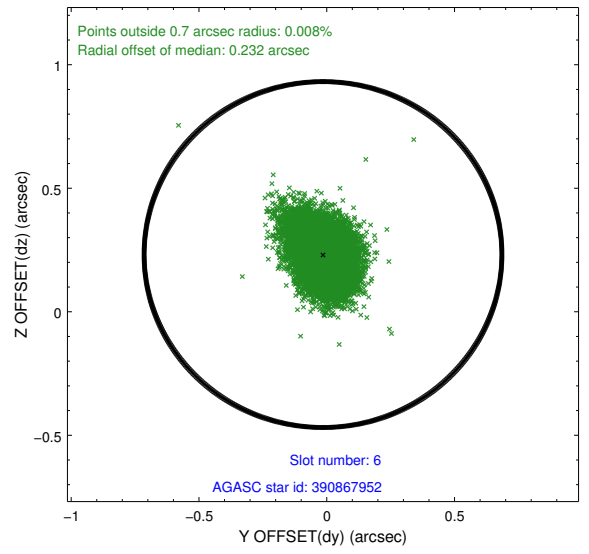
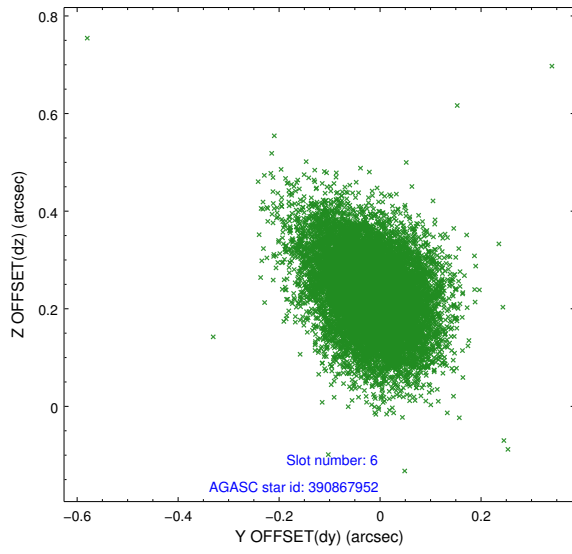
## 2.4.2 Slot 4



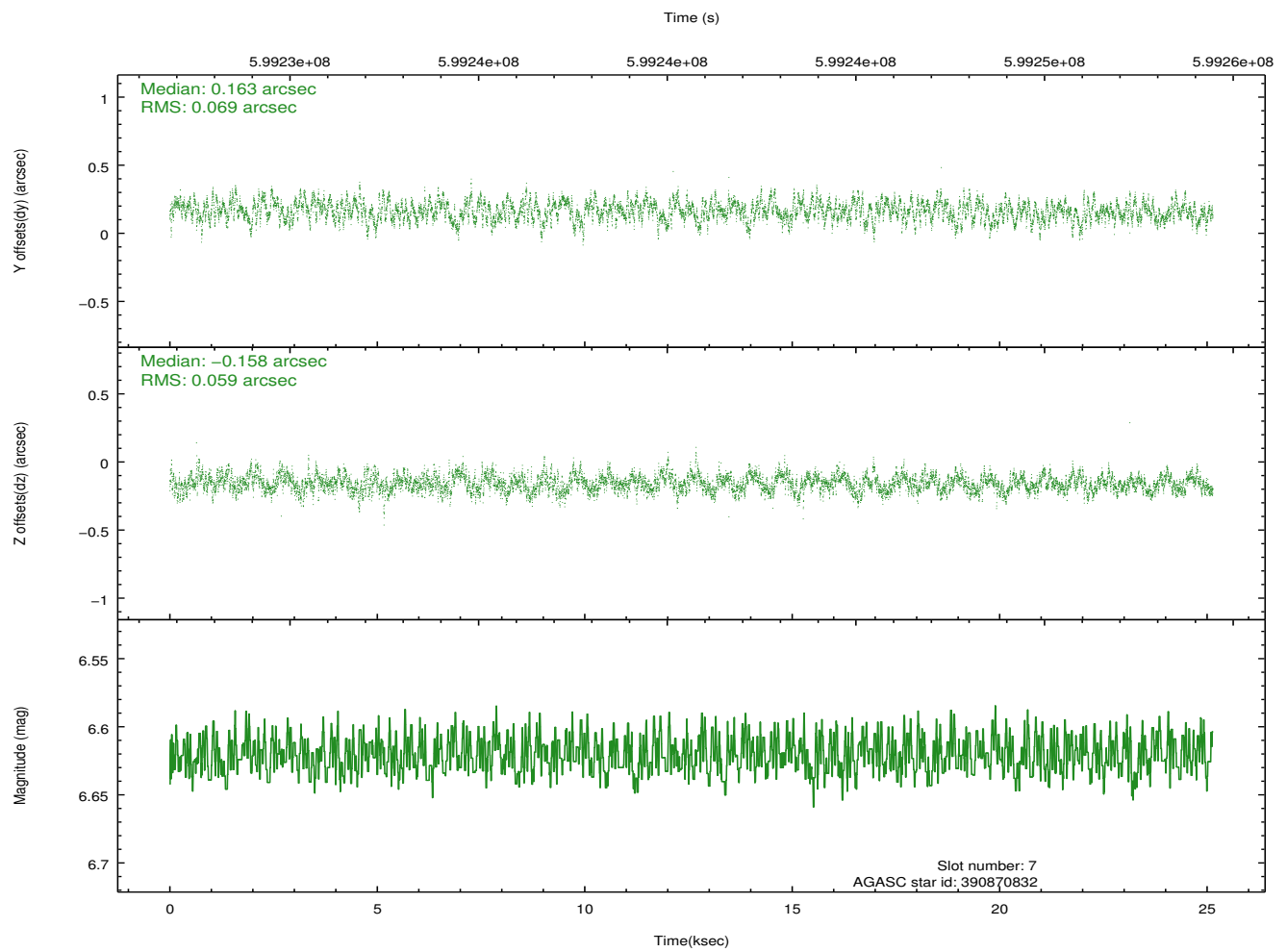
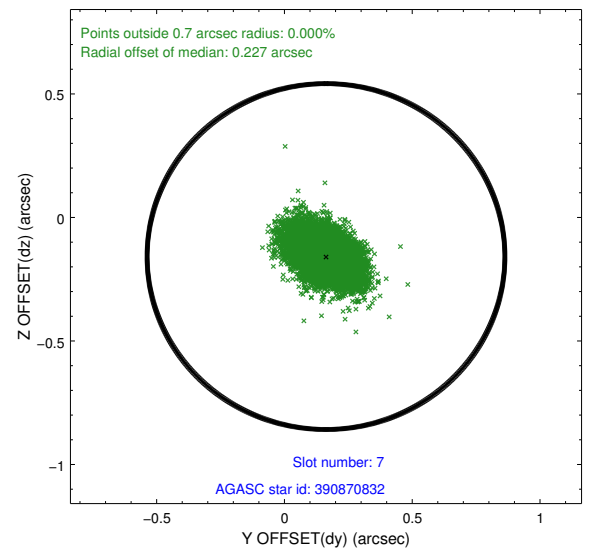
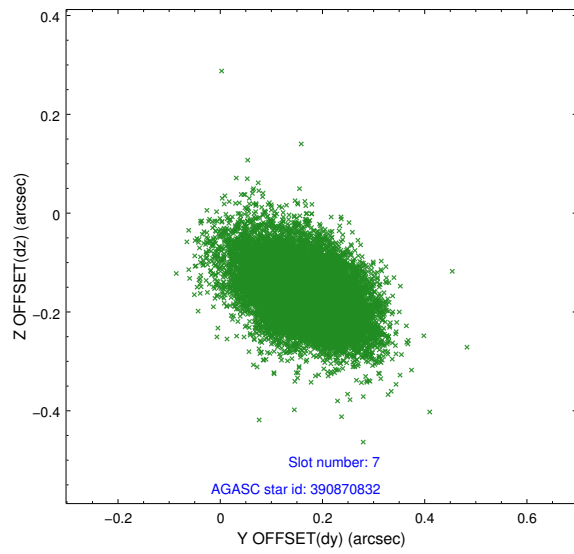
### 2.4.3 Slot 5



### 2.4.4 Slot 6

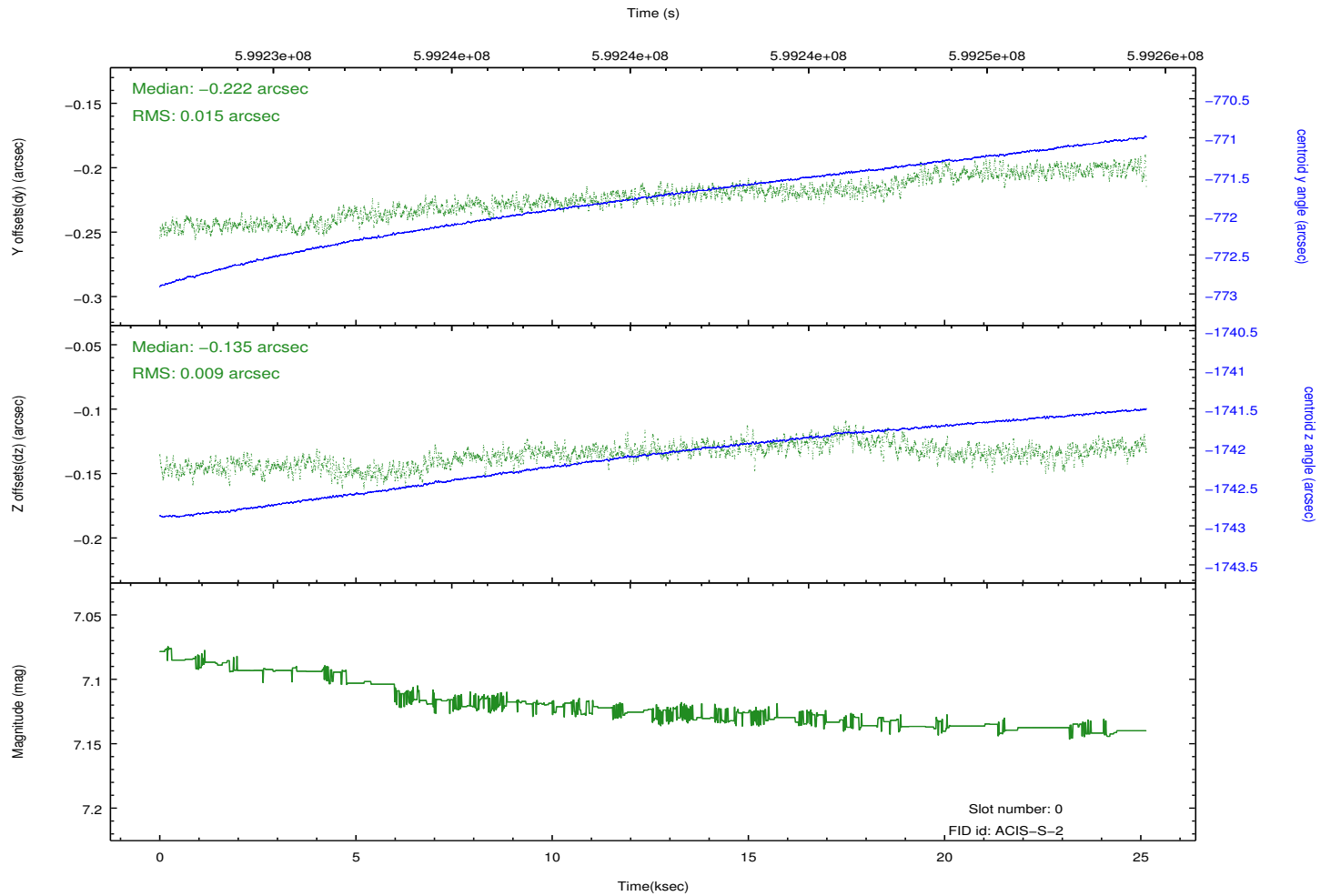
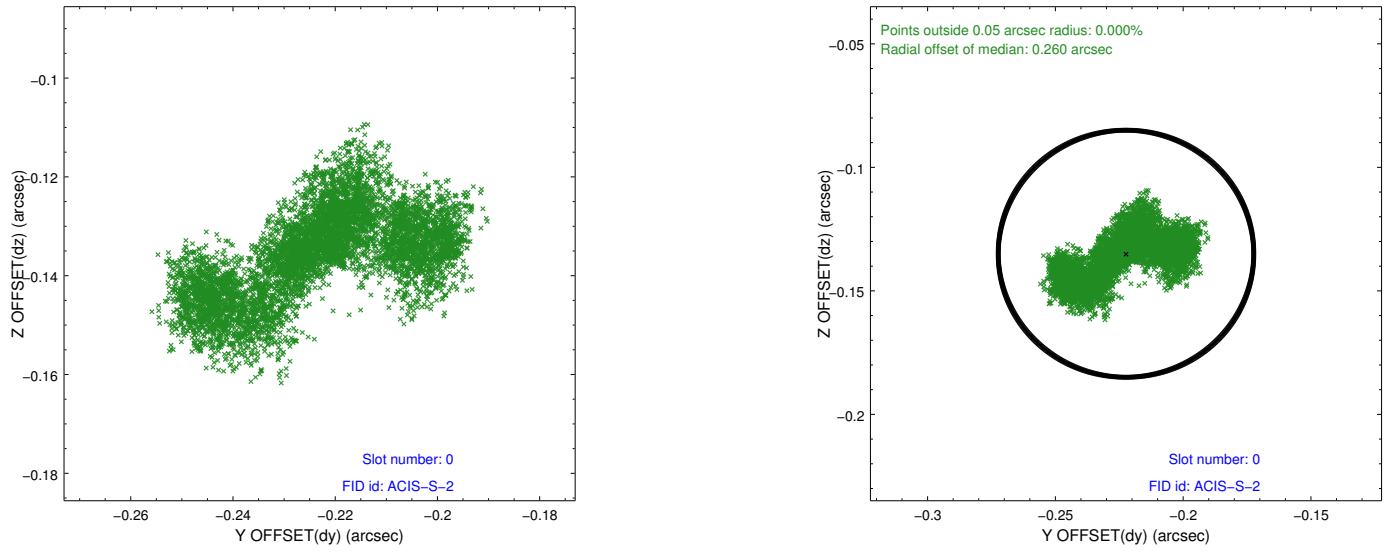


## 2.4.5 Slot 7

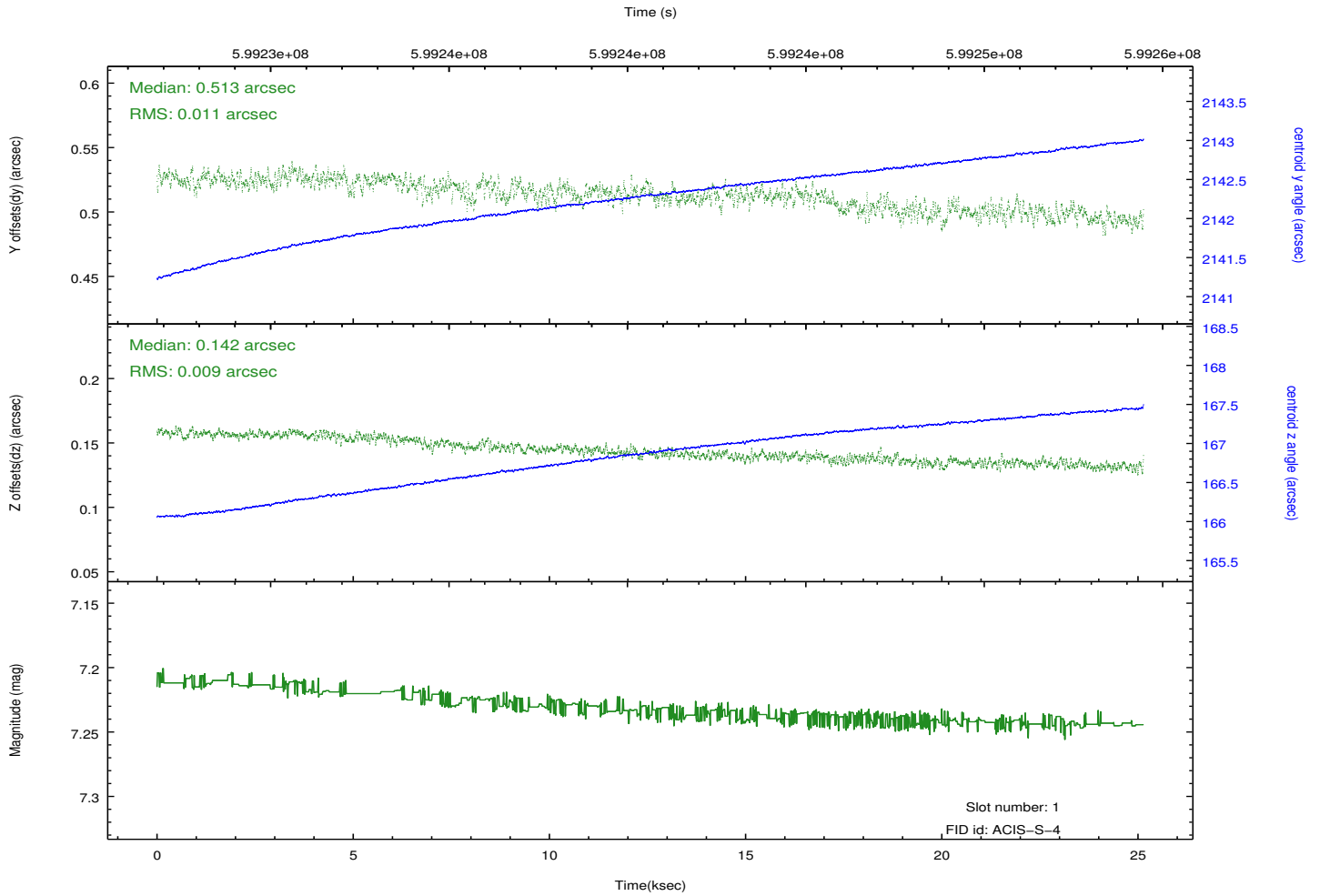
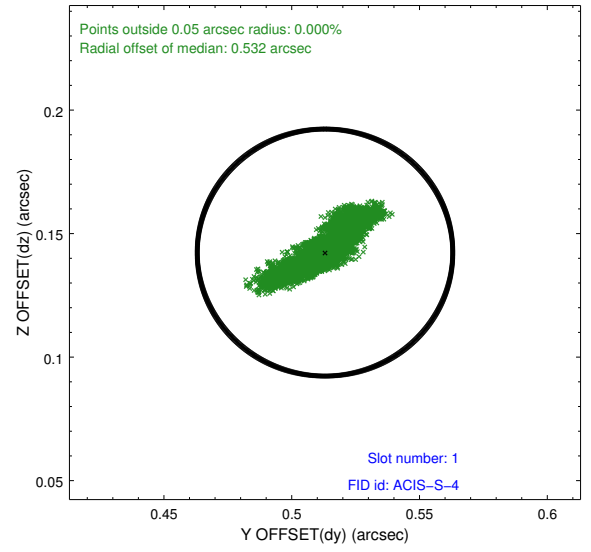
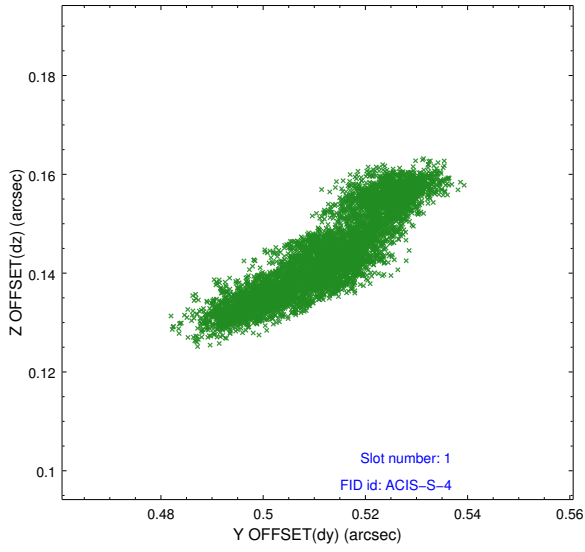


## 2.5 FID Slots

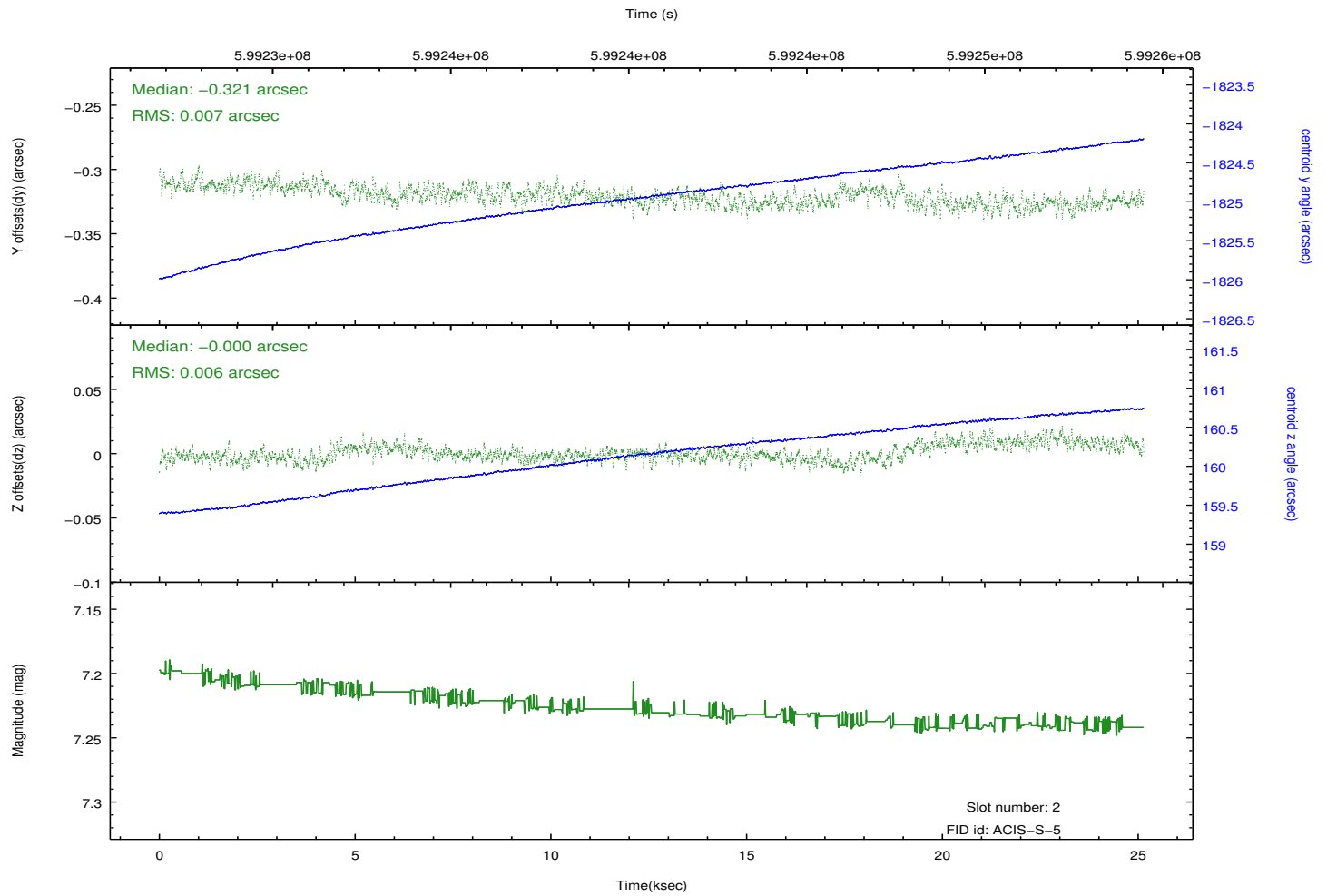
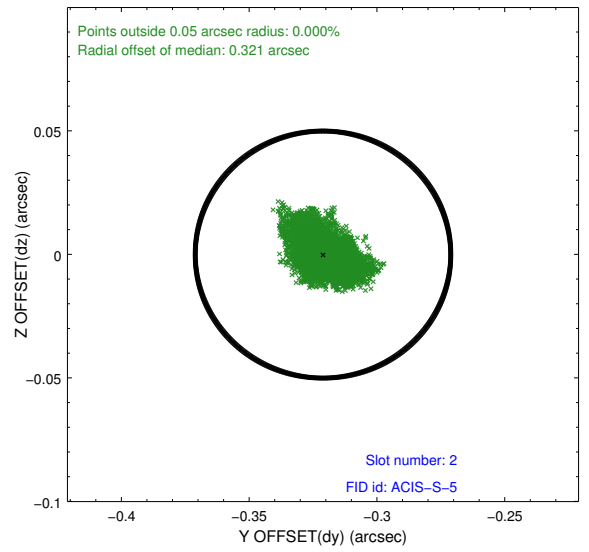
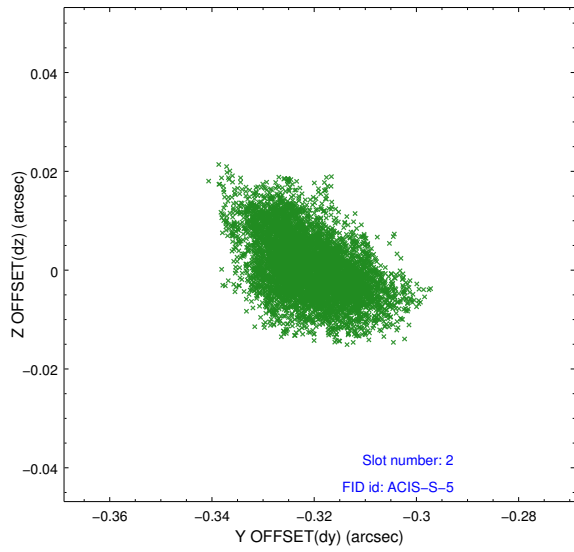
### 2.5.1 Slot 0



## 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)	2016.12.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.109791418672

## A.2 Comments

Two optional chips were dropped.