

# V&V Reference Report

## L2 ASCDS Version : 10.2.4

Observation 16203 - L2 Version 1  
Chandra X-Ray Center

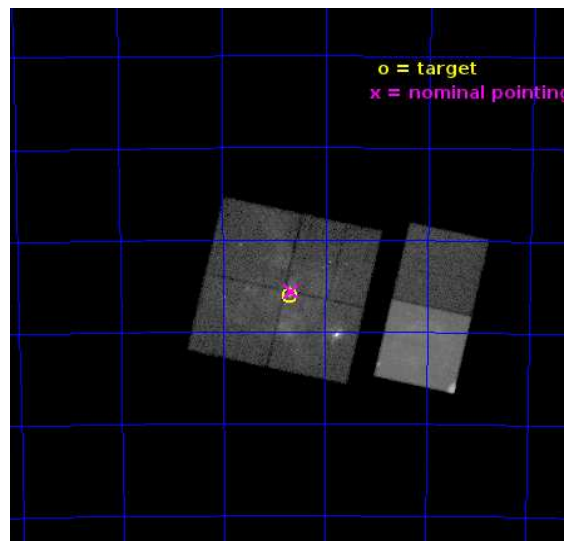
L2 Processing Date : Sep 3 2014

## 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

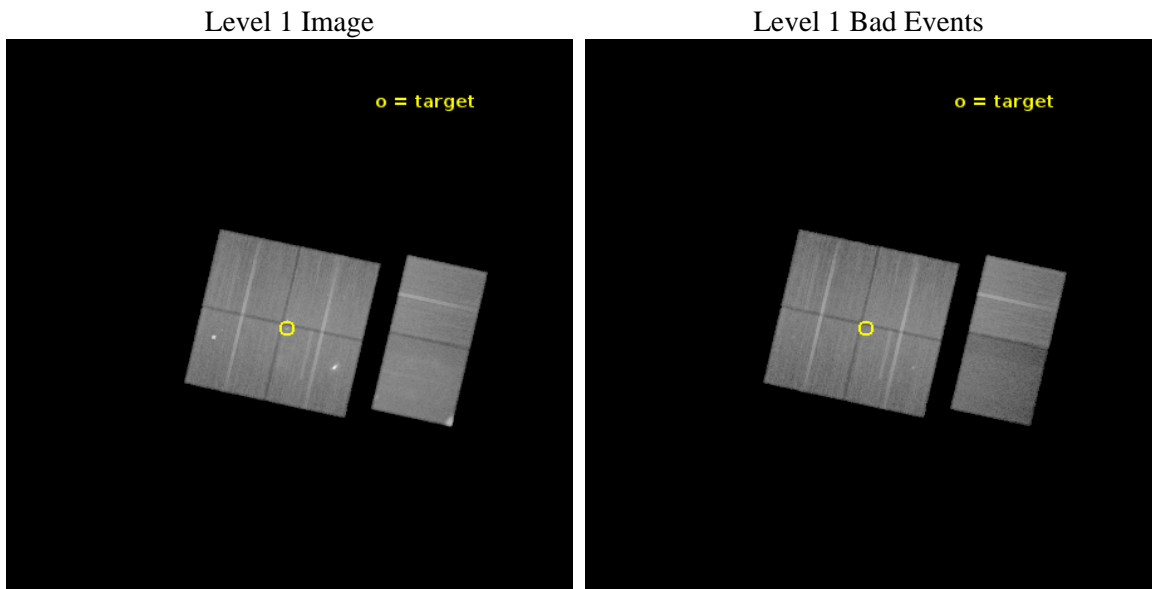
seq_num	901116	Sequence number
obs_id	16203	Observation id
title	The Tarantula -- Revealed by X-rays (T-ReX): A Definitive Chandra Investigation of 30 Doradus	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	30 Doradus	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.676667	Observer's specified target RA [deg]
dec_targ	-69.100806	Observer's specified target Dec [deg]
ra_nom	84.665153106408	Nominal RA [deg]
dec_nom	-69.093732324235	Nominal Dec [deg]
roll_nom	102.6979390476	Nominal Roll [deg]
revision	1	Processing version of data
ontime	41953.734019578	Sum of GTIs [s]
livetime	41422.490577916	Livetime [s]
ontime0	41950.369929254	Sum of GTIs [s]
ontime1	41950.410939395	Sum of GTIs [s]
ontime2	41953.692979574	Sum of GTIs [s]
ontime3	41953.734019578	Sum of GTIs [s]
ontime6	41953.816099584	Sum of GTIs [s]
ontime7	41953.775059581	Sum of GTIs [s]
l2events	371518	Number of level 2 events



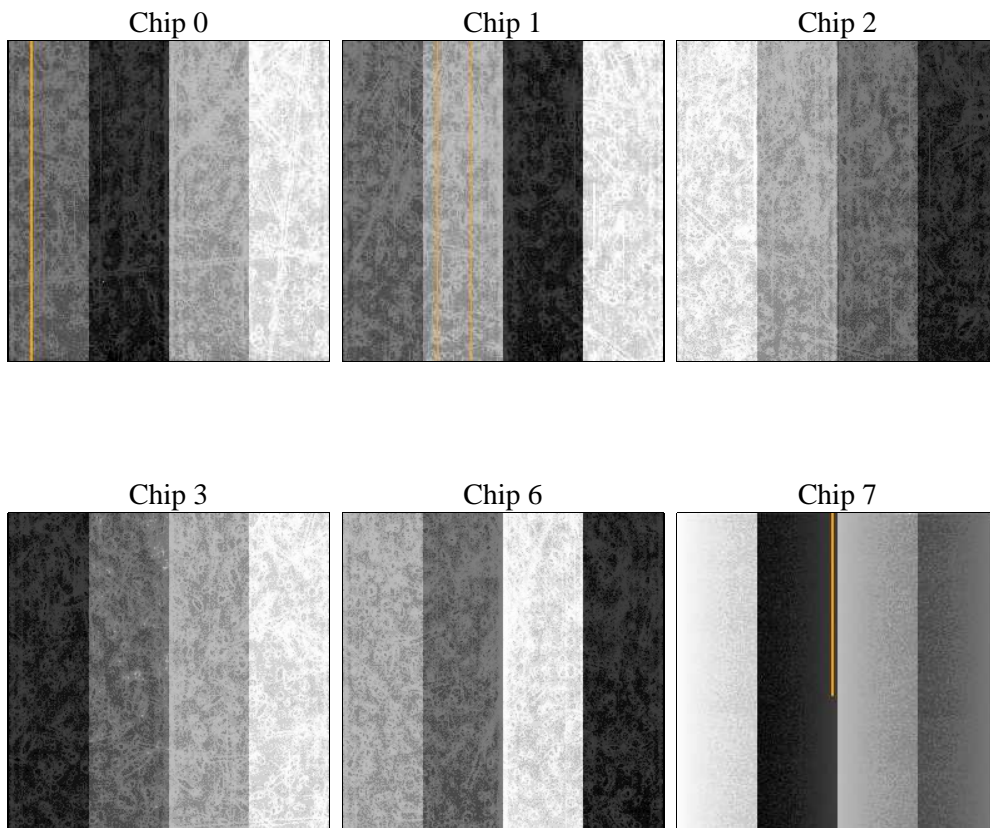
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	42000.000000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	41953.734019578	Sum of GTIs [s]
caldbver	4.6.3	&#160	ontime0	41950.369929254	Sum of GTIs [s]
date	2014-09-03T12:12:59	Date and time of file creation	ontime1	41950.410939395	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	41953.692979574	Sum of GTIs [s]
			ontime3	41953.734019578	Sum of GTIs [s]
			ontime6	41953.816099584	Sum of GTIs [s]
			ontime7	41953.775059581	Sum of GTIs [s]
			l1events	1887420	Number of level 1 events

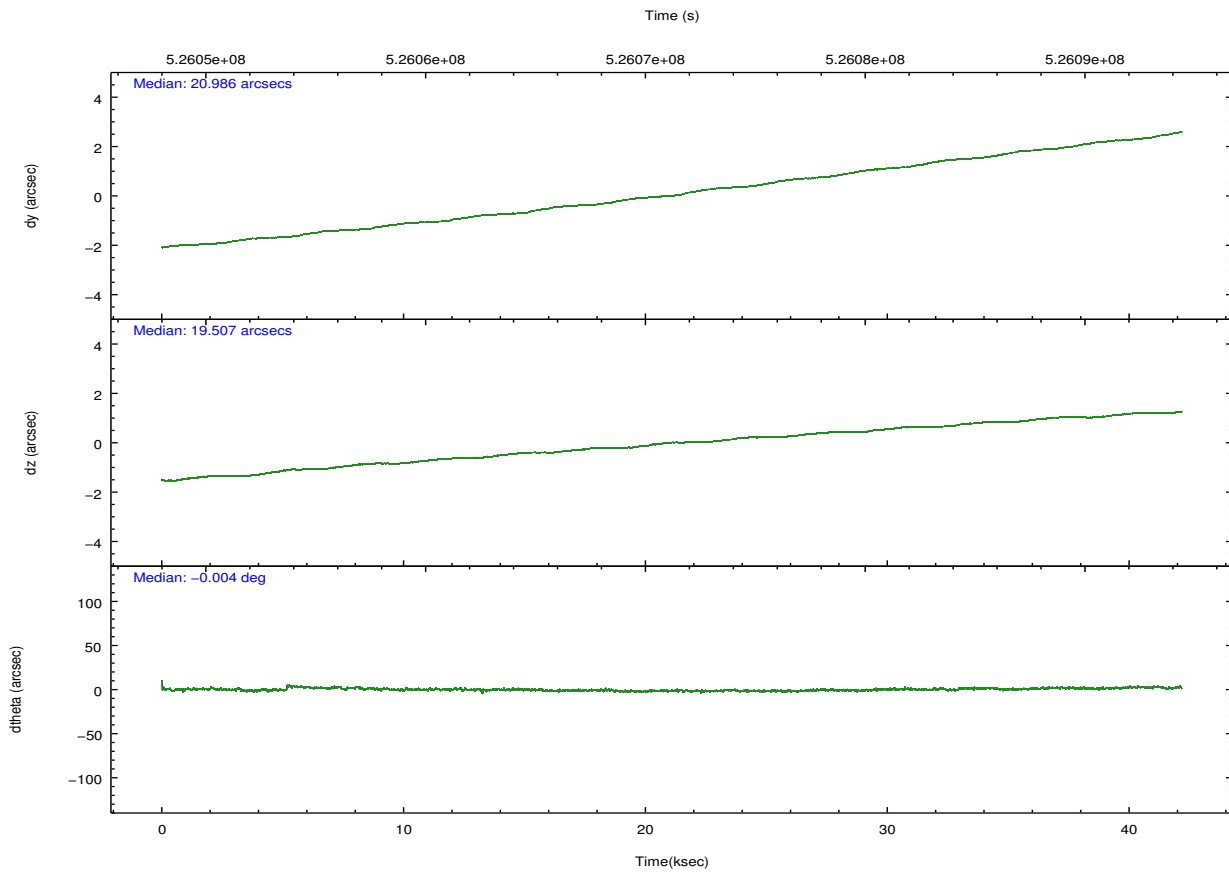
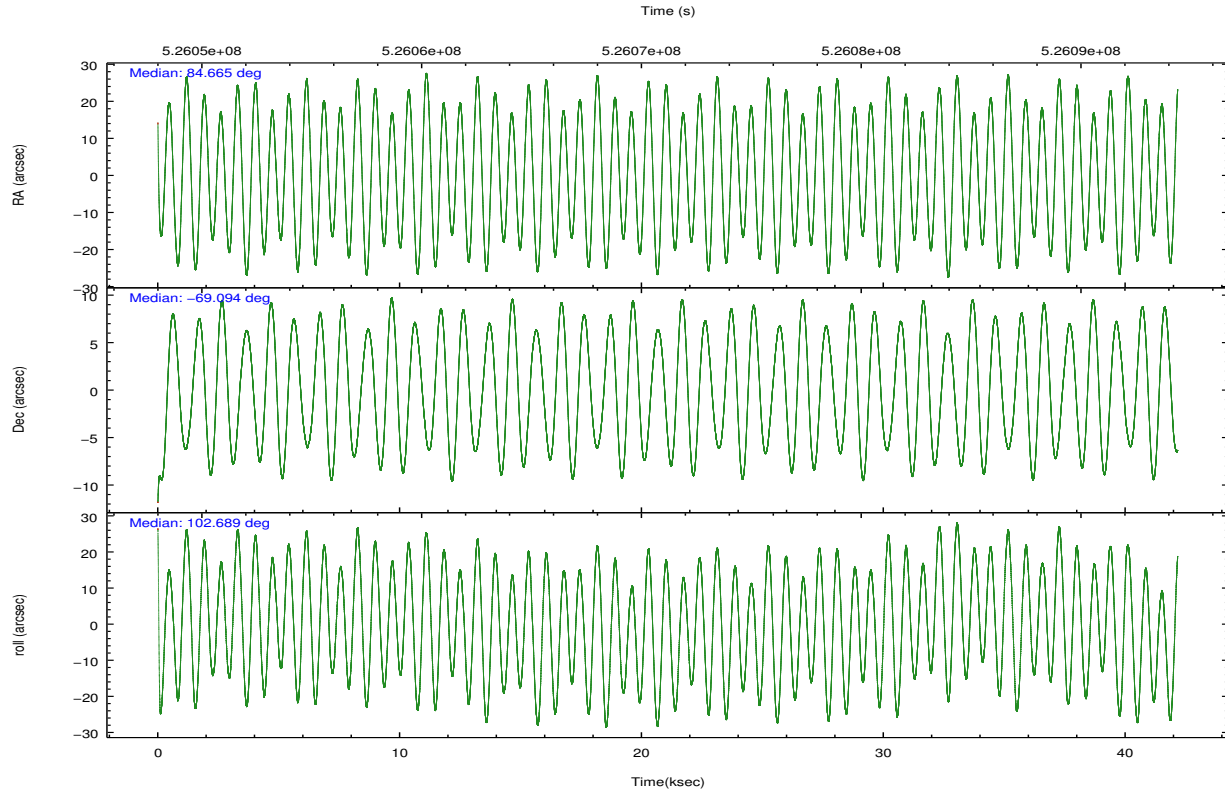
### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	286097	288862	344759	337097	323556	307049	grade 0 events	20756	28853	23535	46762	15635	22624
rejected events	244101	237335	300387	265223	286682	135623		7%	9%	6%	13%	4%	7%
rejected %	85%	82%	87%	78%	88%	44%	grade 1 events	190	257	272	478	189	596
								0%	0%	0%	0%	0%	0%
							grade 2 events	8472	8281	8412	10038	7759	40955
								2%	2%	2%	2%	2%	13%
							grade 3 events	3672	3911	3382	4375	3336	15837
								1%	1%	0%	1%	1%	5%
							grade 4 events	3457	3829	3471	4233	3388	15995
								1%	1%	1%	1%	1%	5%
							grade 5 events	8367	8849	7766	9440	9500	27452
								2%	3%	2%	2%	2%	8%
							grade 6 events	5643	6665	5580	6473	6762	76025
								1%	2%	1%	1%	2%	24%
							grade 7 events	235540	228217	292341	255298	276987	107565
								82%	79%	84%	75%	85%	35%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	84.717871	84.66515310640783	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.113945	-69.09373232423474	CCD I3 on	Y	Y
[deg] Pointing Roll	102.538500	102.6979390475976	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	526050286.184000	526049231.09793	CCD S5 on	N	N
Observation start date	2014-09-02T13:03:39	2014-09-02T12:47:11	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	526092286.184000	526093674.07544	On-chip summing requested	N	N
Observation end date	2014-09-03T00:43:39	2014-09-03T01:07:54	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect

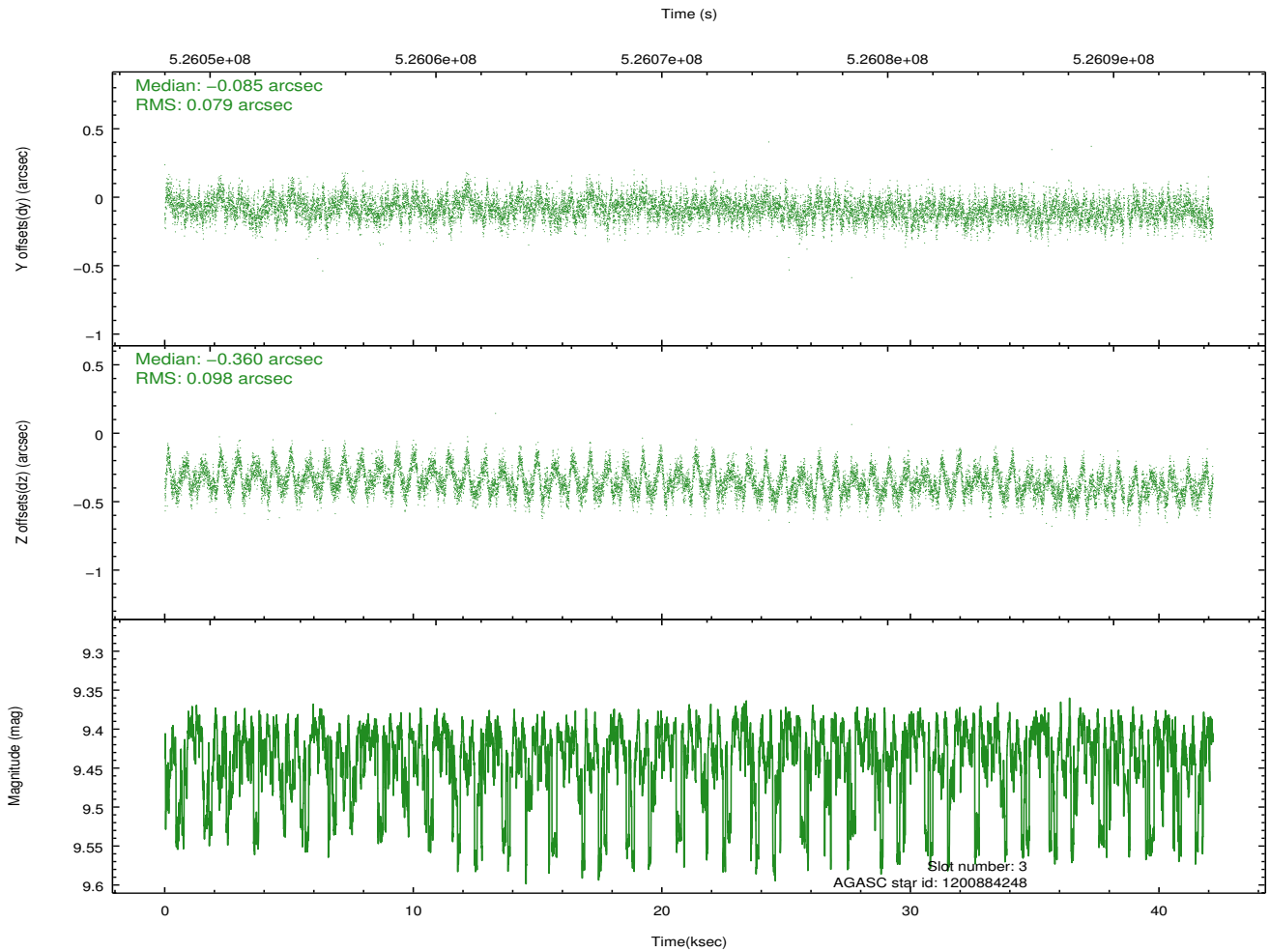
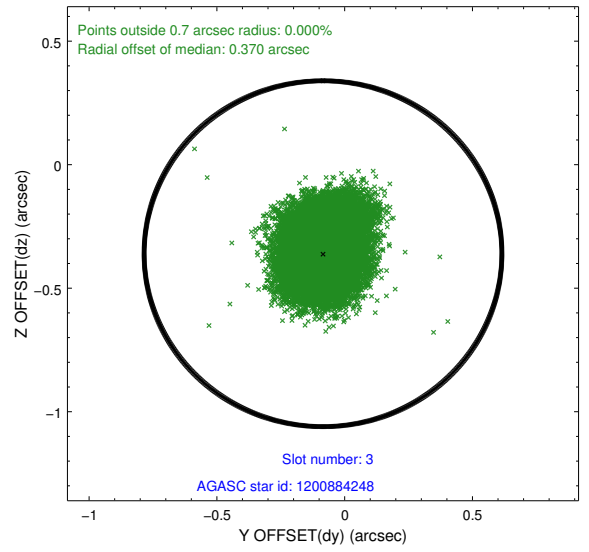
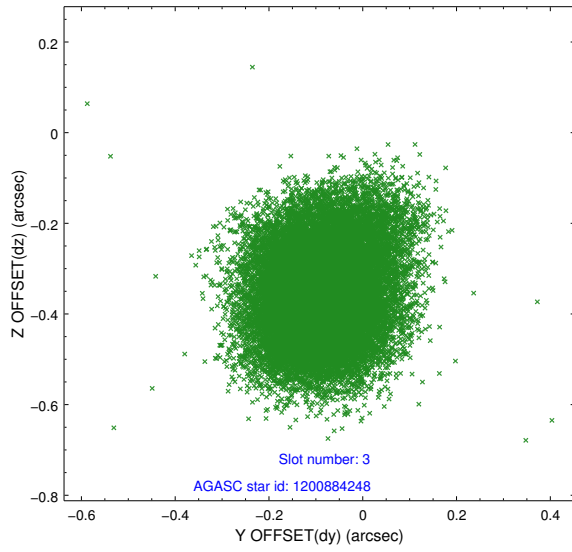


### Slot Statistics

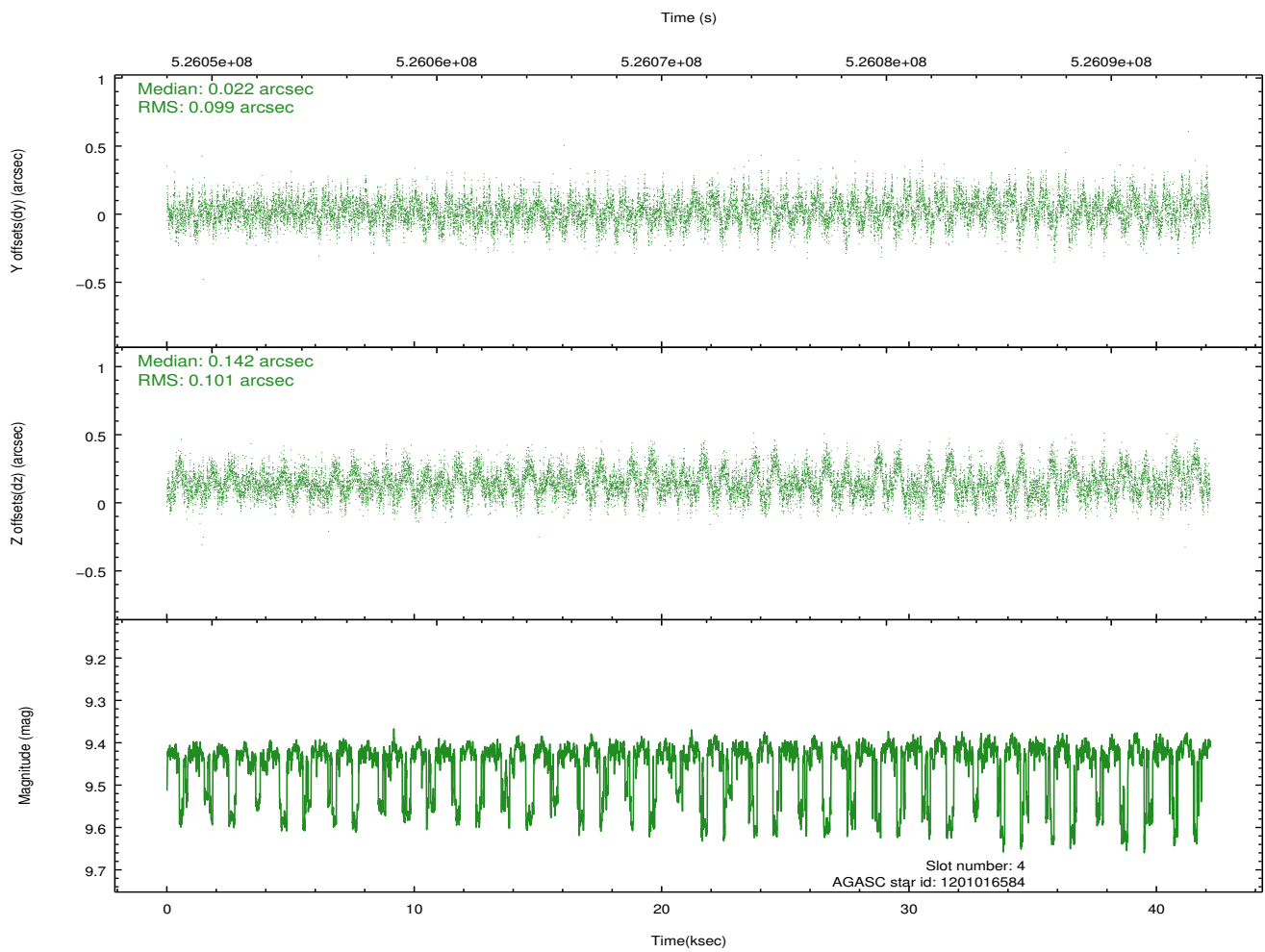
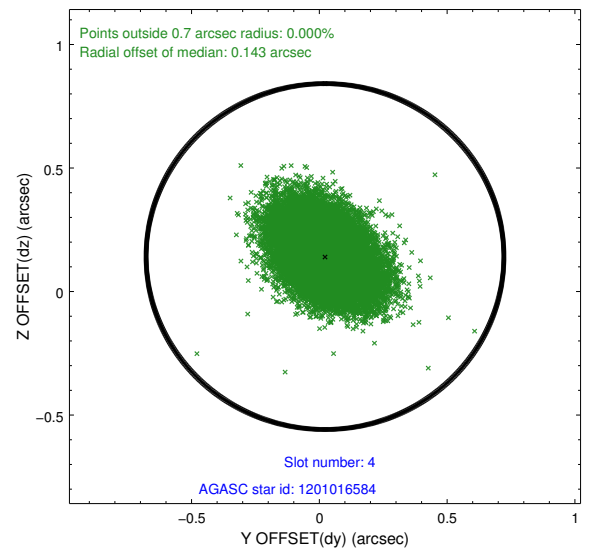
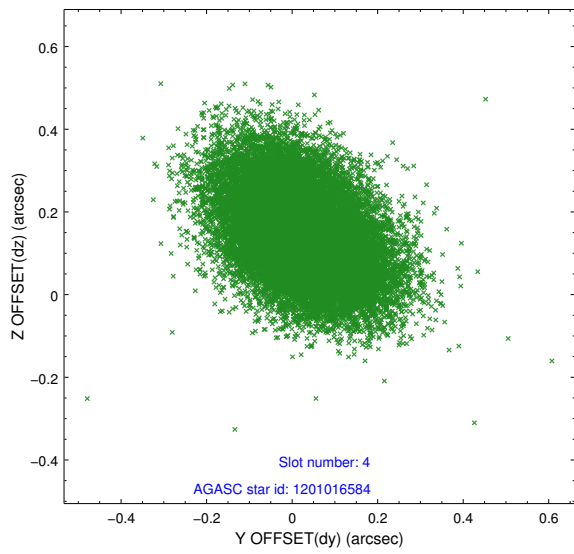
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	6.99	10279	-0.110	-0.081	0.024	0.050	0.000000	0.000000	-776.06	-849.63
1	FID	ACIS-I-4	7.02	10282	0.294	0.085	0.037	0.059	0.000000	0.000000	2138.33	1056.82
2	FID	ACIS-I-5	7.07	10280	-0.282	0.062	0.018	0.028	0.000000	0.000000	-1830.12	1054.50
3	GUIDE	1200884248	9.43	20485	-0.085	-0.360	0.134	0.217	83.880915	-68.565170	2160.65	647.30
4	GUIDE	1201016584	9.43	20537	0.022	0.142	0.150	0.248	85.677603	-68.415933	2168.19	-1783.36
5	GUIDE	1201018312	9.58	20531	0.359	0.156	0.164	0.251	86.298231	-69.115627	-470.47	-1972.39
6	GUIDE	1201018384	9.06	20548	-0.116	0.081	0.111	0.178	85.801362	-68.593260	1509.04	-1794.12
7	GUIDE	1201020040	8.56	20552	-0.171	-0.024	0.117	0.183	85.379163	-68.879396	633.97	-1019.47

## 2.4 Star Slots

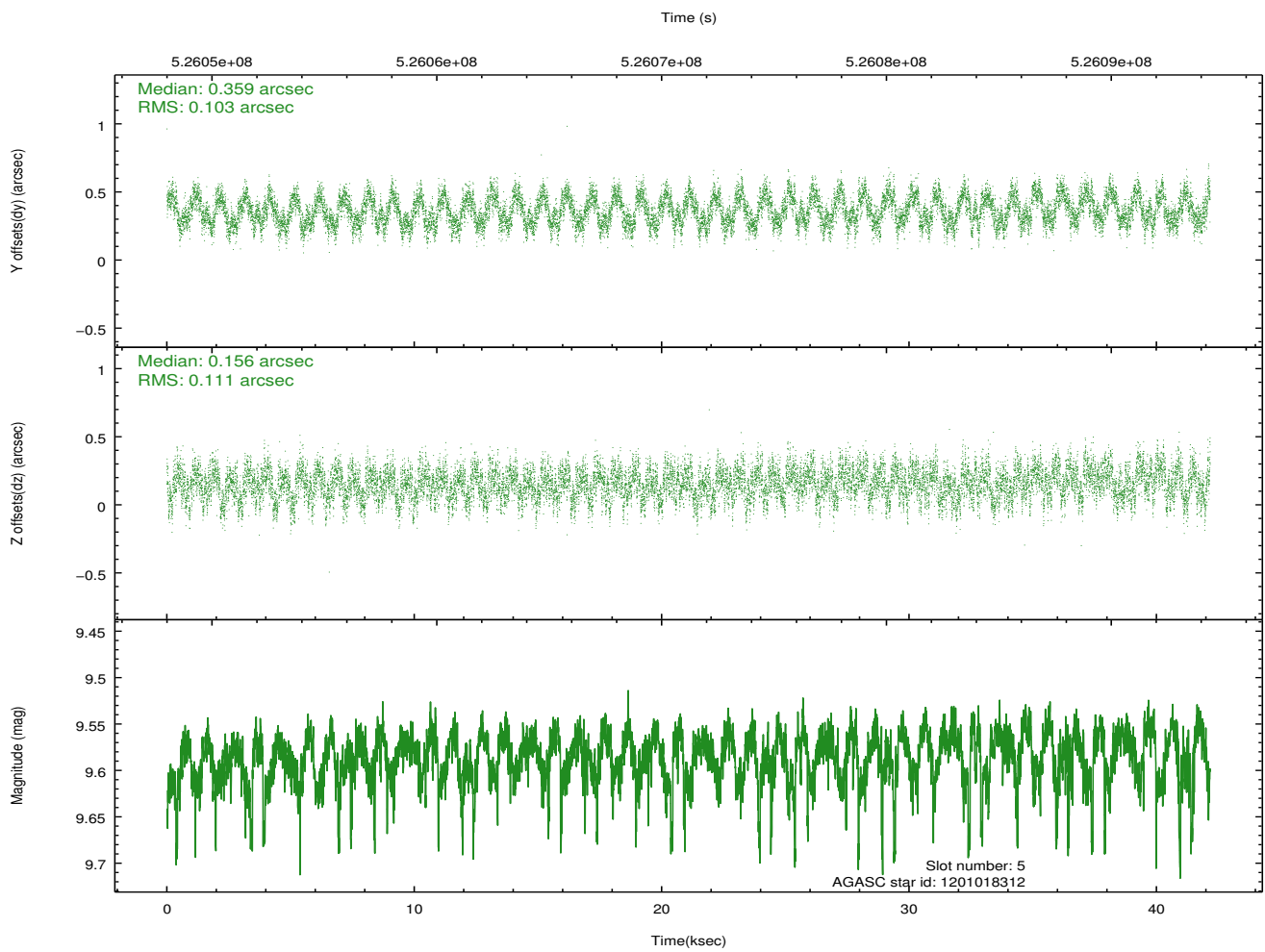
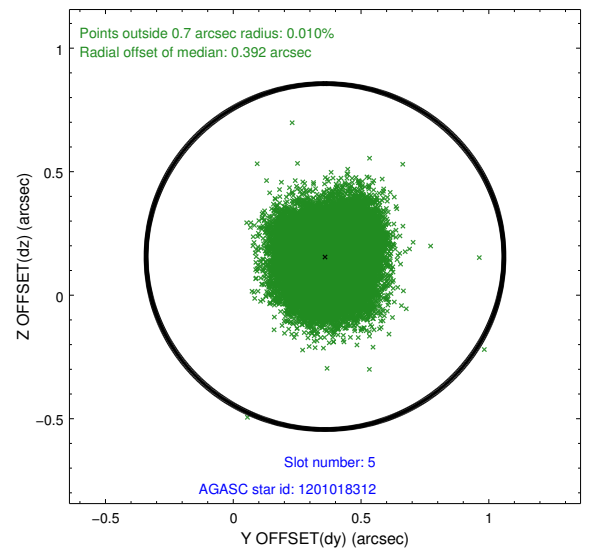
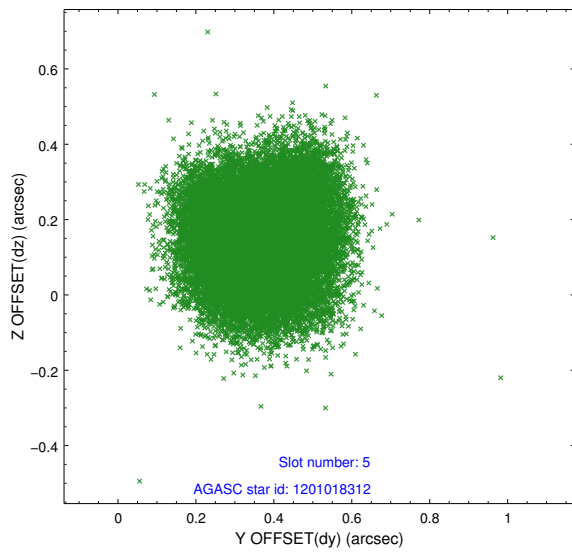
### 2.4.1 Slot 3



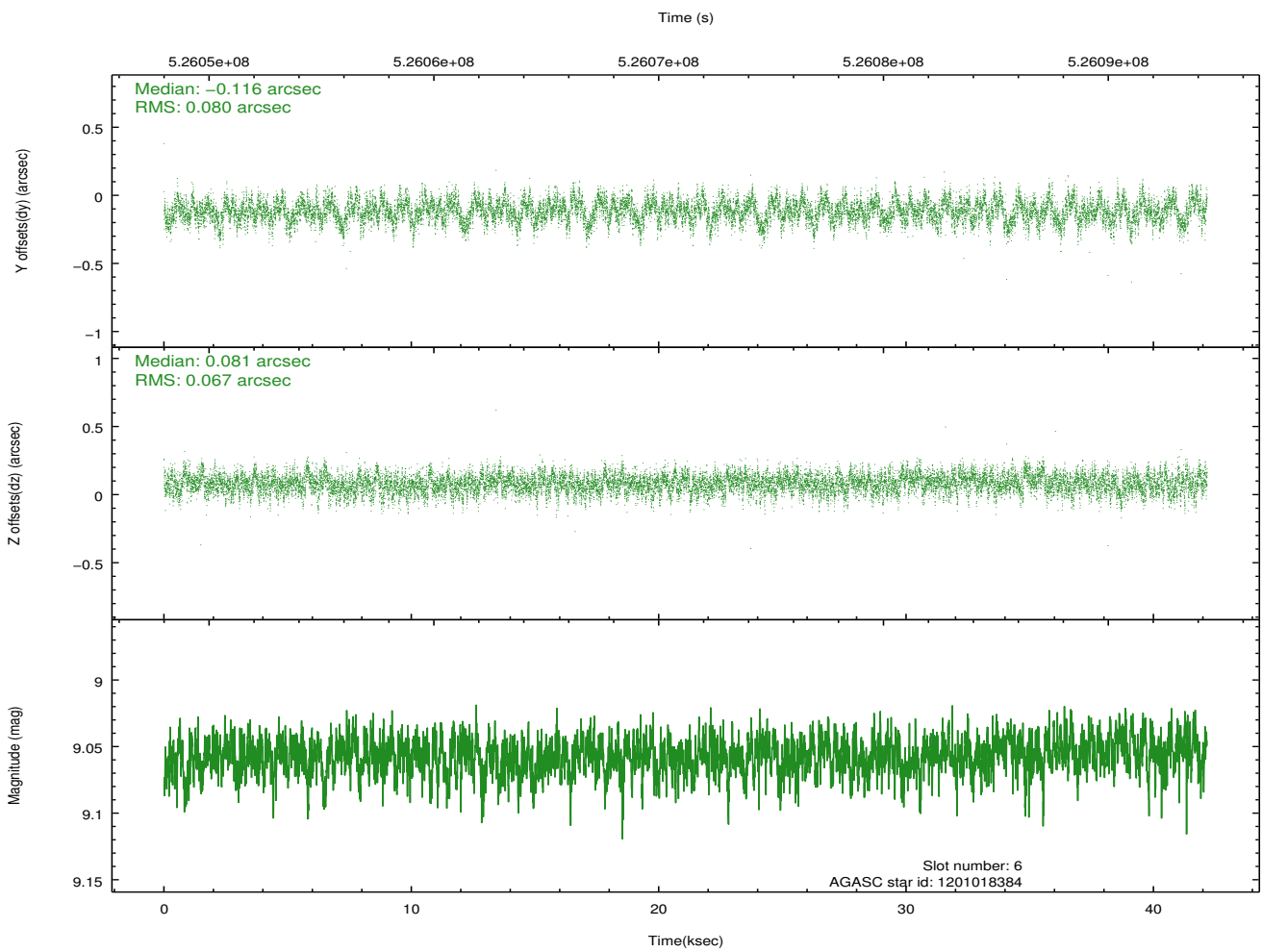
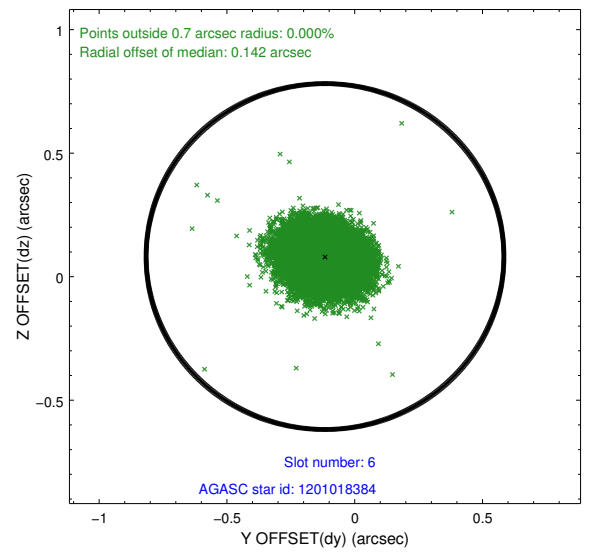
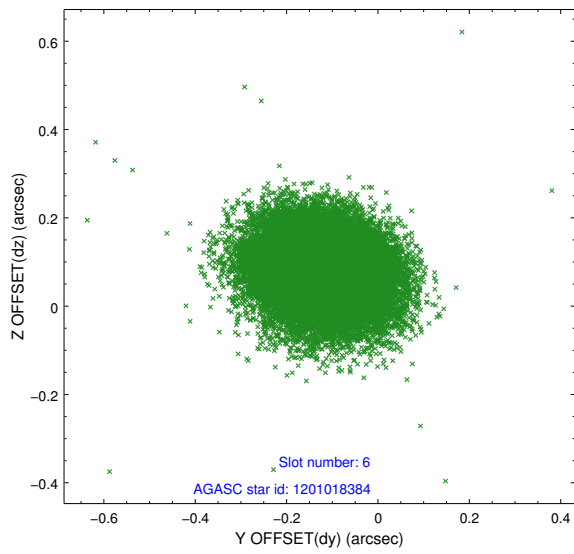
## 2.4.2 Slot 4



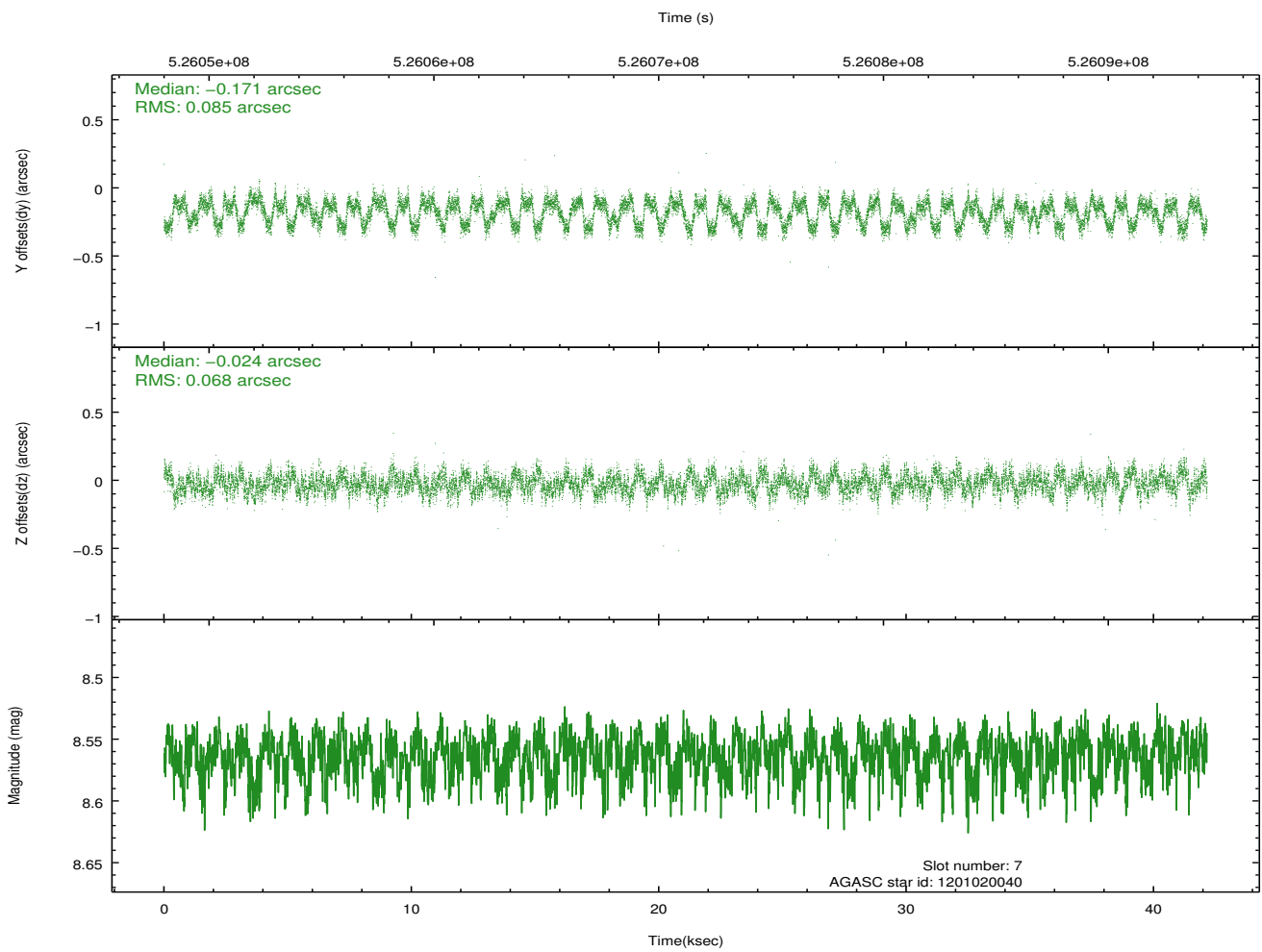
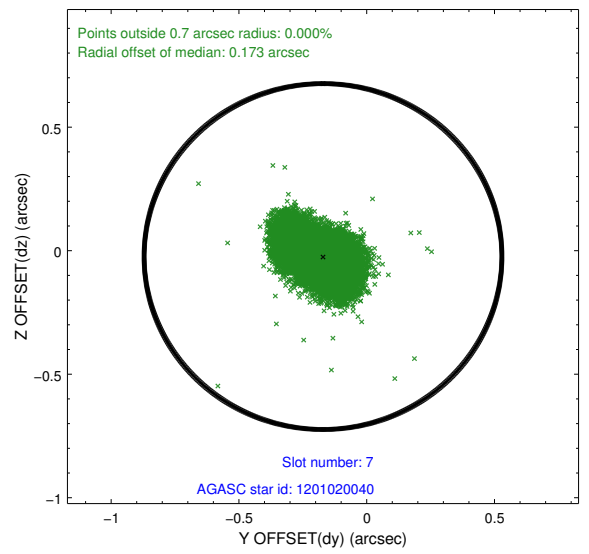
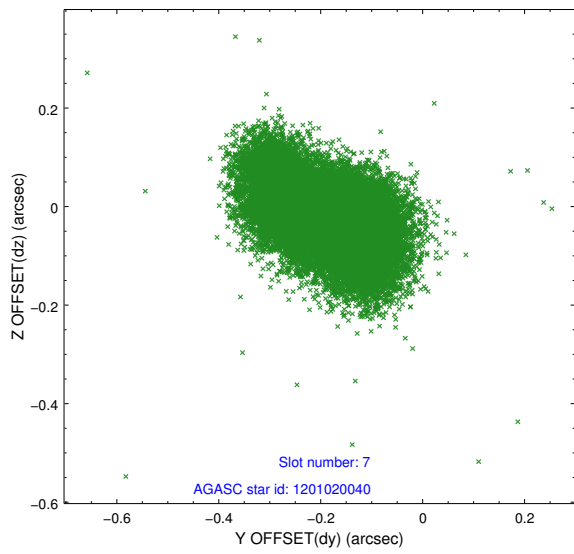
### 2.4.3 Slot 5



## 2.4.4 Slot 6

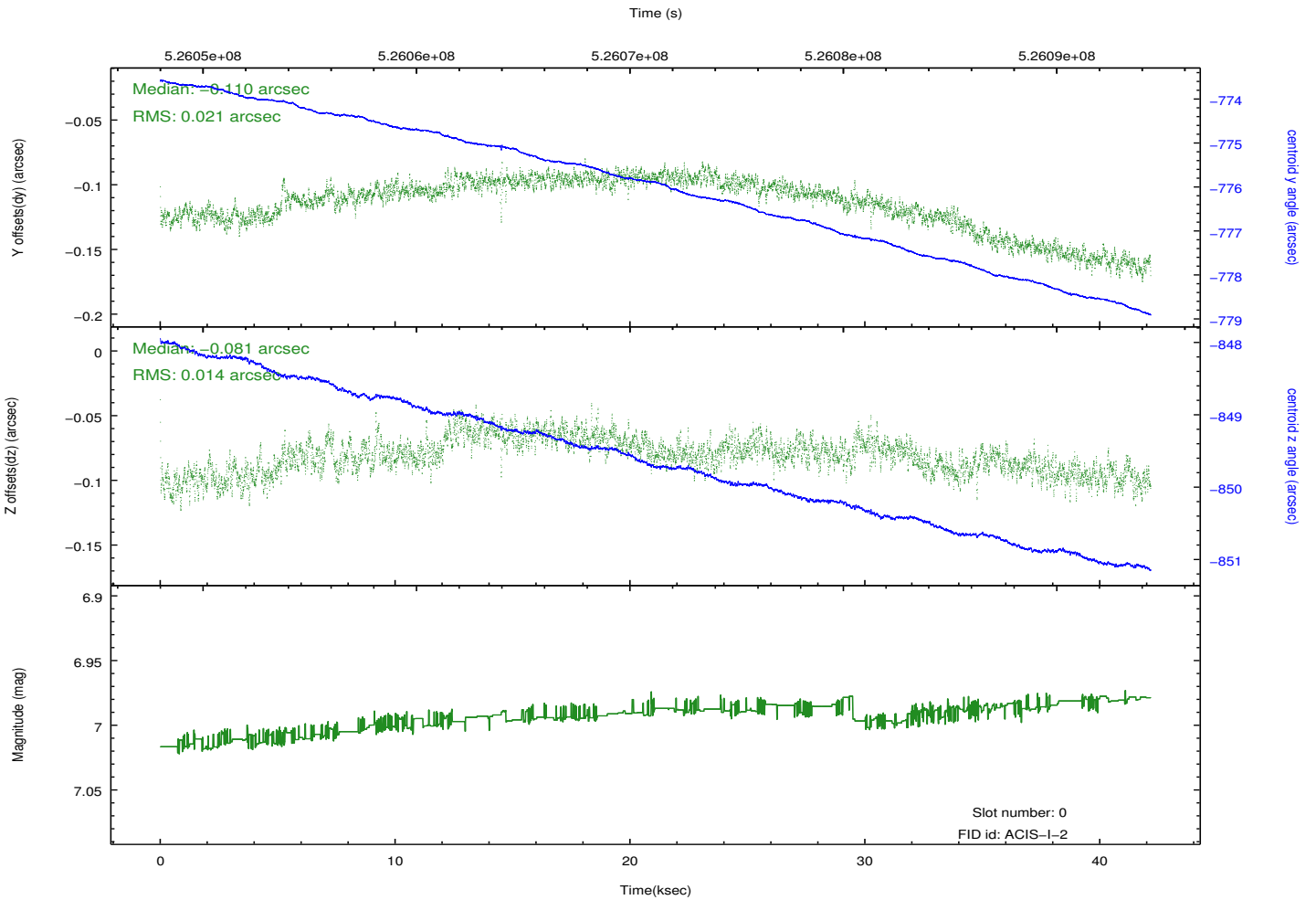
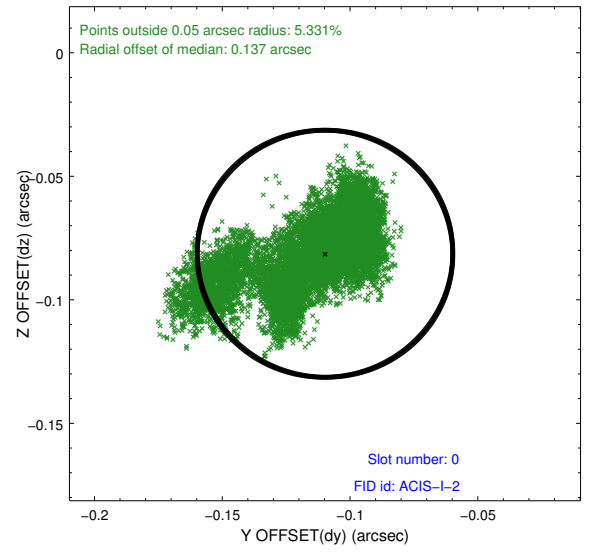
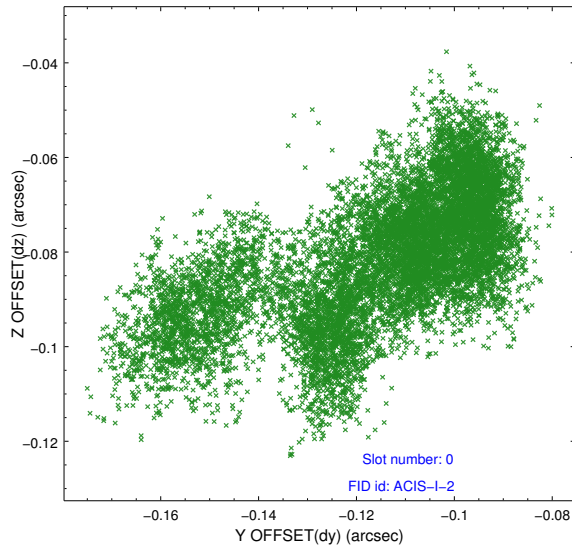


## 2.4.5 Slot 7

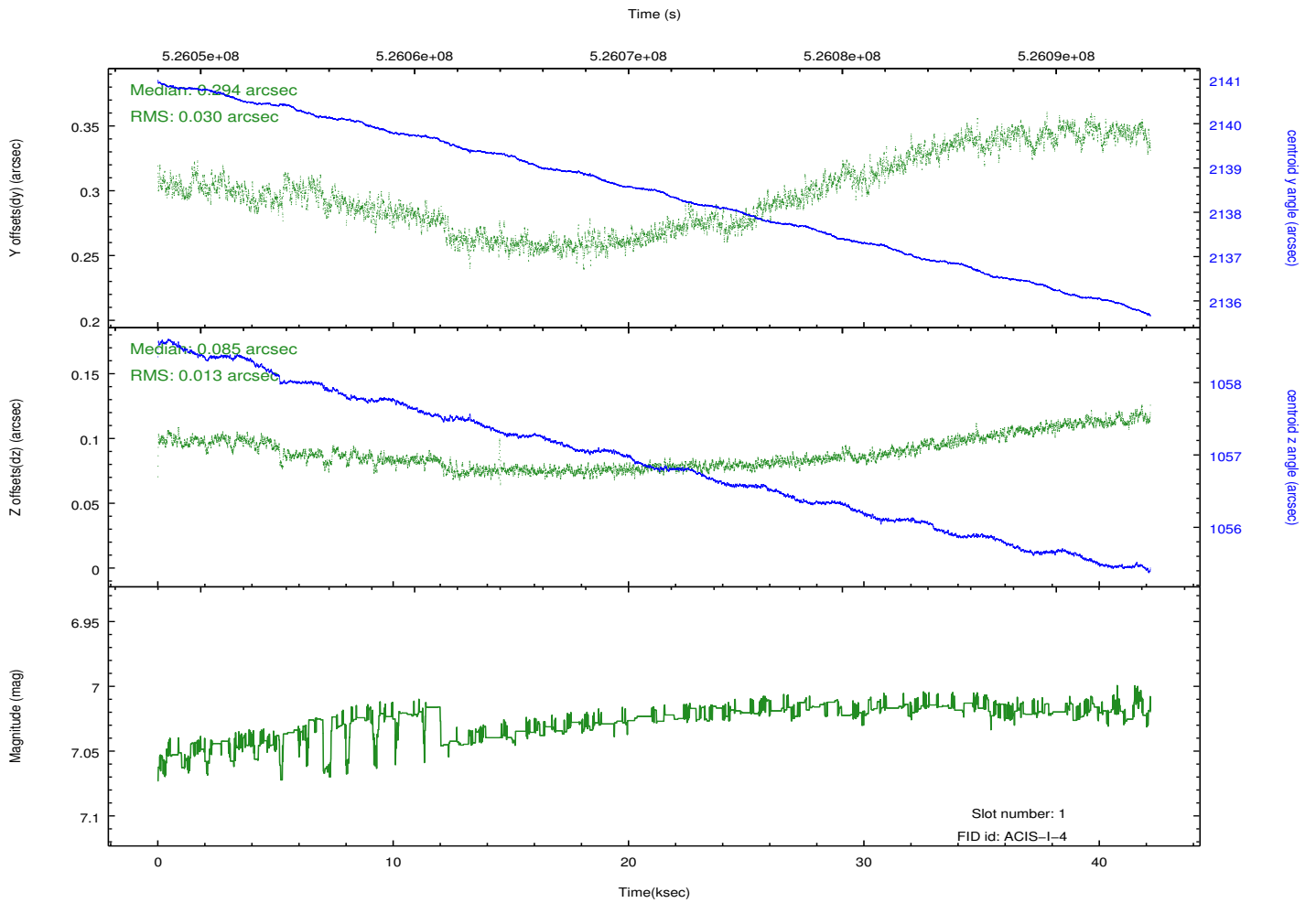
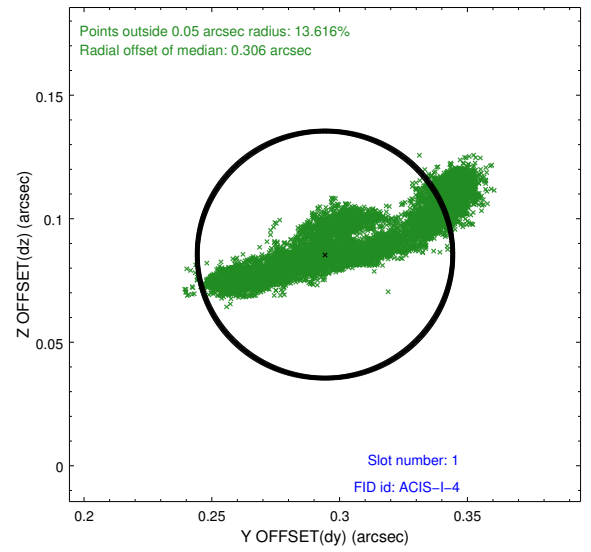
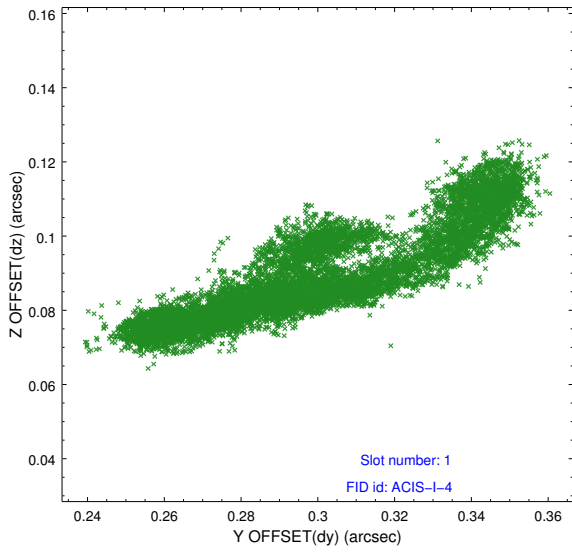


## 2.5 FID Slots

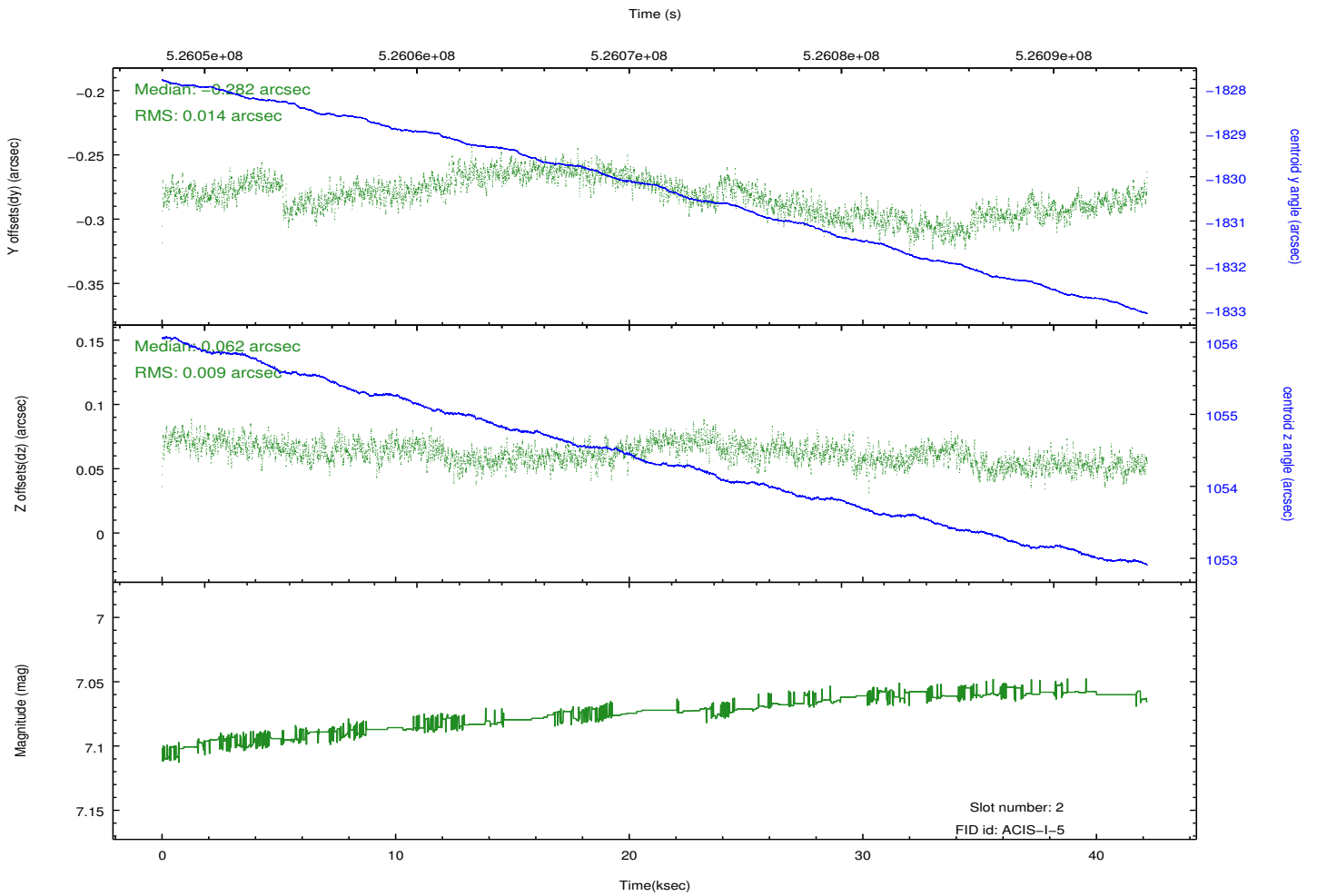
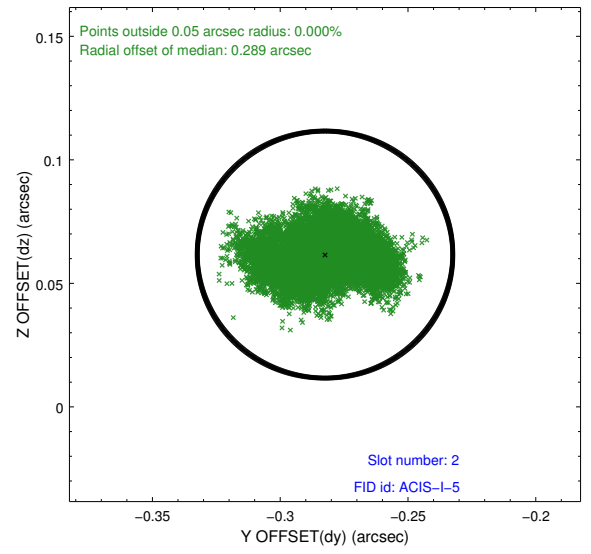
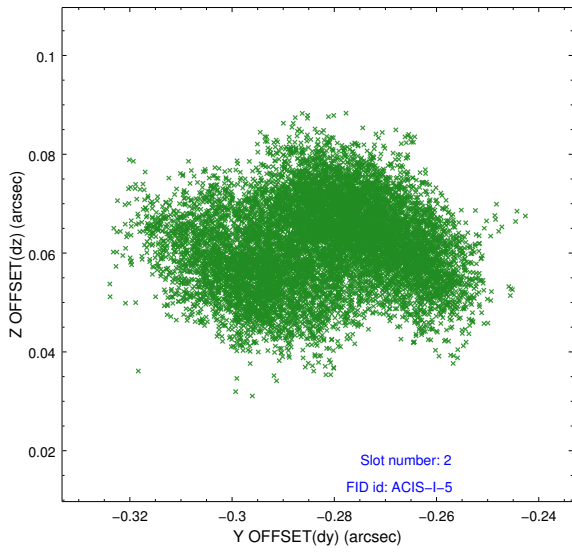
### 2.5.1 Slot 0



## 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)	2014.09.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	41.953734019578

## A.2 Comments