

# V&V Reference Report

## L2 ASCDS Version : 10.2.4

Observation 16442 - L2 Version 1  
Chandra X-Ray Center

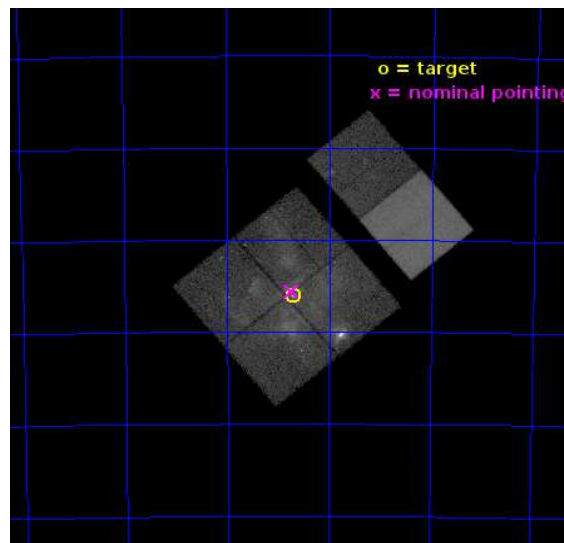
L2 Processing Date : Oct 27 2014

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# 1 Front

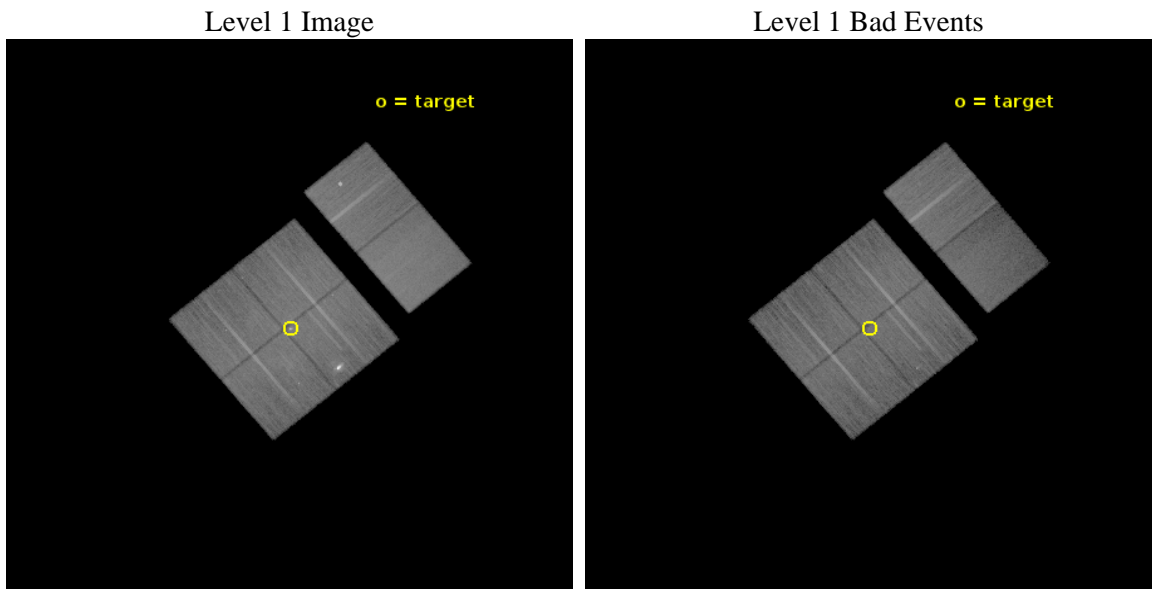
seq_num	901116	Sequence number
obs_id	16442	Observation id
title	The Tarantula -- Revealed by X-rays (T-ReX): A Definitive Chandra Investigation of 30 Doradus	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	30 Doradus	Source name
dtcycle	0	&#160
cycle	P	events from which exps? 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	84.685393457924	Nominal RA [deg]
dec_nom	-69.093247753125	Nominal Dec [deg]
roll_nom	50.21683708946	Nominal Roll [deg]
revision	1	Processing version of data
ontime	48969.599817634	Sum of GTIs [s]
livetime	48349.51725879	Livetime [s]
ontime0	48966.35884732	Sum of GTIs [s]
ontime1	48969.599817634	Sum of GTIs [s]
ontime2	48963.117876947	Sum of GTIs [s]
ontime3	48969.599817634	Sum of GTIs [s]
ontime6	48963.117847085	Sum of GTIs [s]
ontime7	48969.599817634	Sum of GTIs [s]
l2events	319361	Number of level 2 events



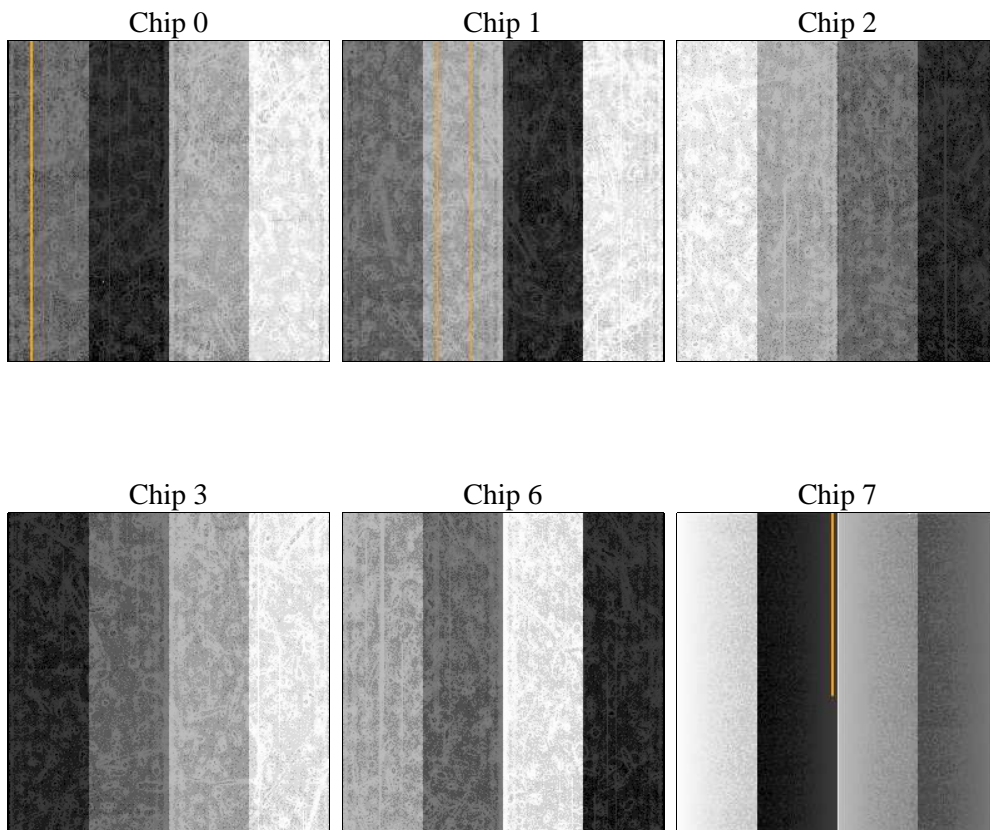
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	49000.000000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	48969.599817634	Sum of GTIs [s]
caldbver	4.6.3	&#160	ontime0	48966.35884732	Sum of GTIs [s]
date	2014-10-27T16:58:24	Date and time of file creation	ontime1	48969.599817634	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	48963.117876947	Sum of GTIs [s]
			ontime3	48969.599817634	Sum of GTIs [s]
			ontime6	48963.117847085	Sum of GTIs [s]
			ontime7	48969.599817634	Sum of GTIs [s]
			l1events	1426926	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	212154	217401	230986	259888	239957	266540	grade 0 events	17599	22505	21124	46898	15191	13093
rejected events	176017	174578	191904	188383	206151	138421		8%	10%	9%	18%	6%	4%
rejected %	82%	80%	83%	72%	85%	51%	grade 1 events	148	153	176	382	178	363
								0%	0%	0%	0%	0%	0%
							grade 2 events	7451	7704	7408	10334	6701	27738
								3%	3%	3%	3%	2%	10%
							grade 3 events	2985	3191	2722	3910	2785	11399
								1%	1%	1%	1%	1%	4%
							grade 4 events	2780	3249	2812	4025	2723	11222
								1%	1%	1%	1%	1%	4%
							grade 5 events	8892	9611	8328	10430	10208	27635
								4%	4%	3%	4%	4%	10%
							grade 6 events	5323	6178	5017	6340	6407	64673
								2%	2%	2%	2%	2%	24%
							grade 7 events	166976	164810	183399	177569	195764	110417
								78%	75%	79%	68%	81%	41%

## 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	84.672527	84.68539345792425	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.120445	-69.09324775312477	CCD I3 on	Y	Y
[deg] Pointing Roll	49.996131	50.21683708945997	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)	530632812.184000	530631524.6025	CCD S5 on	N	N
Observation start date	2014-10-25T13:59:05	2014-10-25T13:38:44	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	530681812.184000	530682459.93033	On-chip summing requested	N	N
Observation end date	2014-10-26T03:35:45	2014-10-26T03:47:39	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



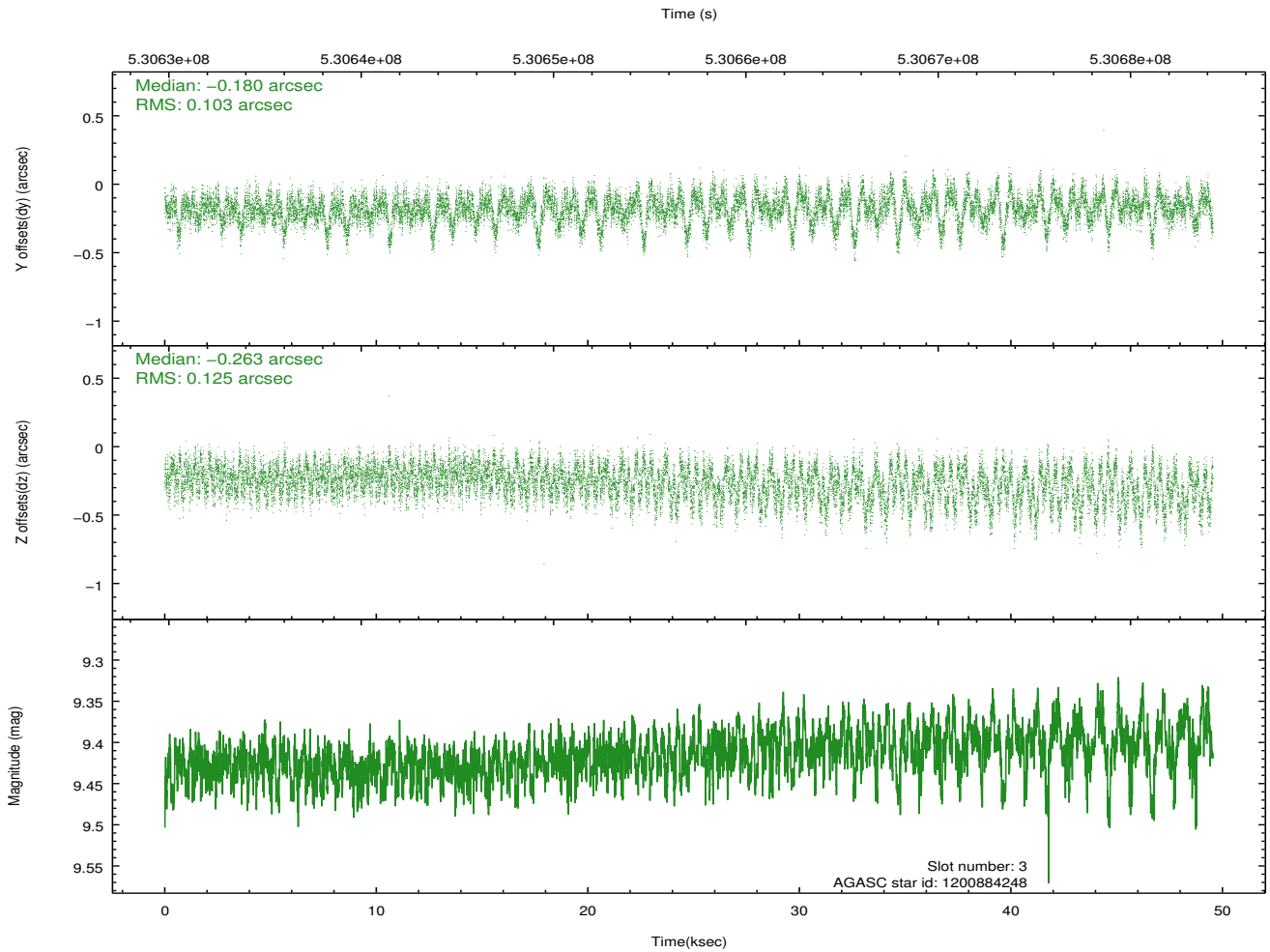
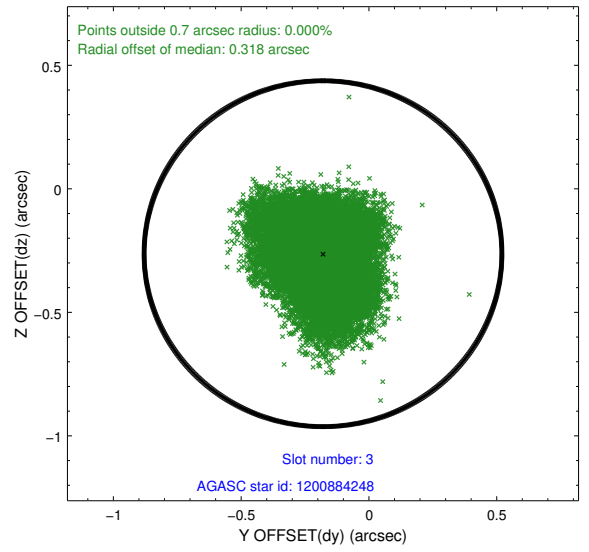
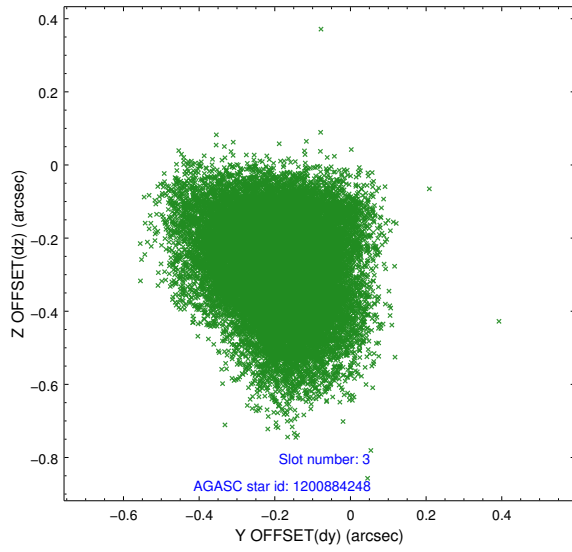
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.14	12083	-0.107	-0.063	0.038	0.095	0.000000	0.000000	-775.33	-850.41
1	FID	ACIS-I-4	7.17	12080	0.307	0.079	0.035	0.081	0.000000	0.000000	2139.13	1055.99
2	FID	ACIS-I-5	7.23	12086	-0.300	0.050	0.020	0.030	0.000000	0.000000	-1829.40	1053.70
3	GUIDE	1200884248	9.42	24148	-0.180	-0.263	0.172	0.282	83.880915	-68.565170	856.70	2078.35
4	GUIDE	1200885760	9.40	24140	-0.156	-0.181	0.187	0.320	83.723637	-68.777667	142.71	1734.06
5	GUIDE	1201020040	8.57	24156	-0.056	0.151	0.096	0.154	85.379163	-68.879396	1250.14	-147.10
6	GUIDE	1201540776	9.54	24149	0.393	0.520	0.212	0.325	85.107945	-69.858480	-1688.57	-2122.53
7	GUIDE	1201018384	9.05	24152	-0.014	-0.211	0.144	0.221	85.801362	-68.593260	2397.43	75.09

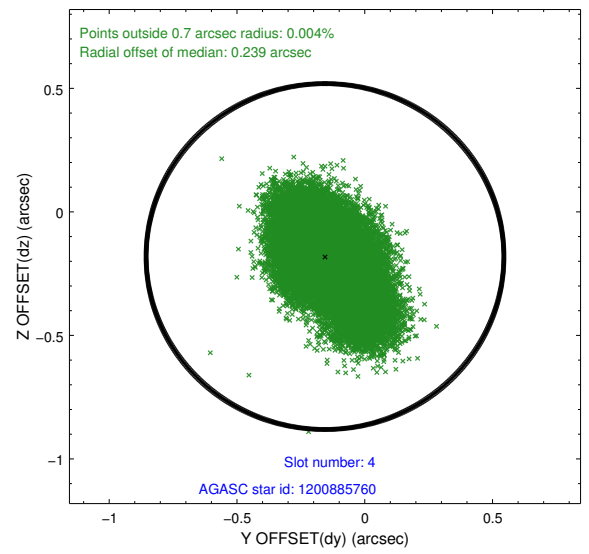
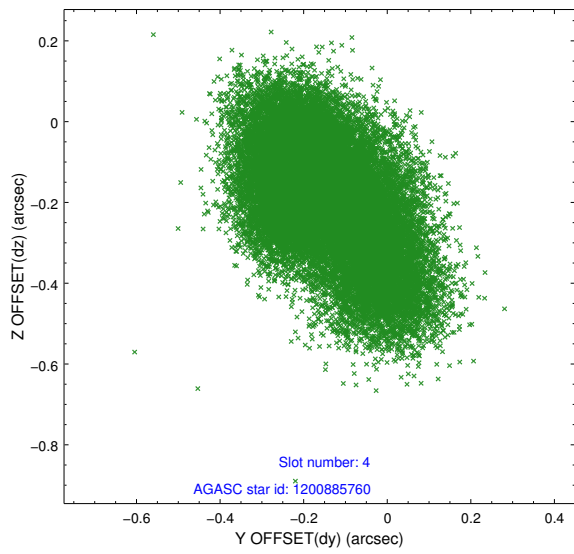
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## 2.4 Star Slots

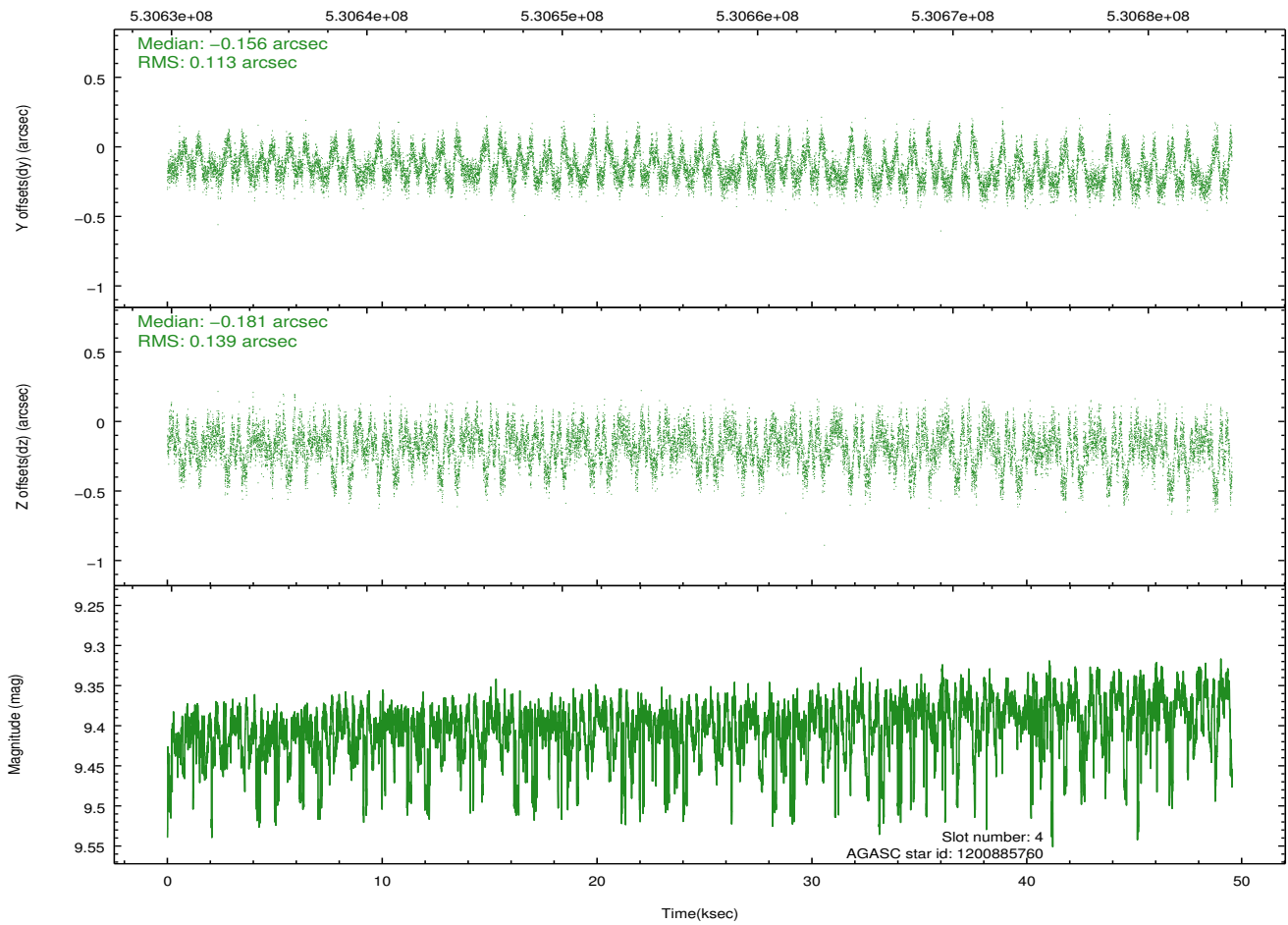
### 2.4.1 Slot 3



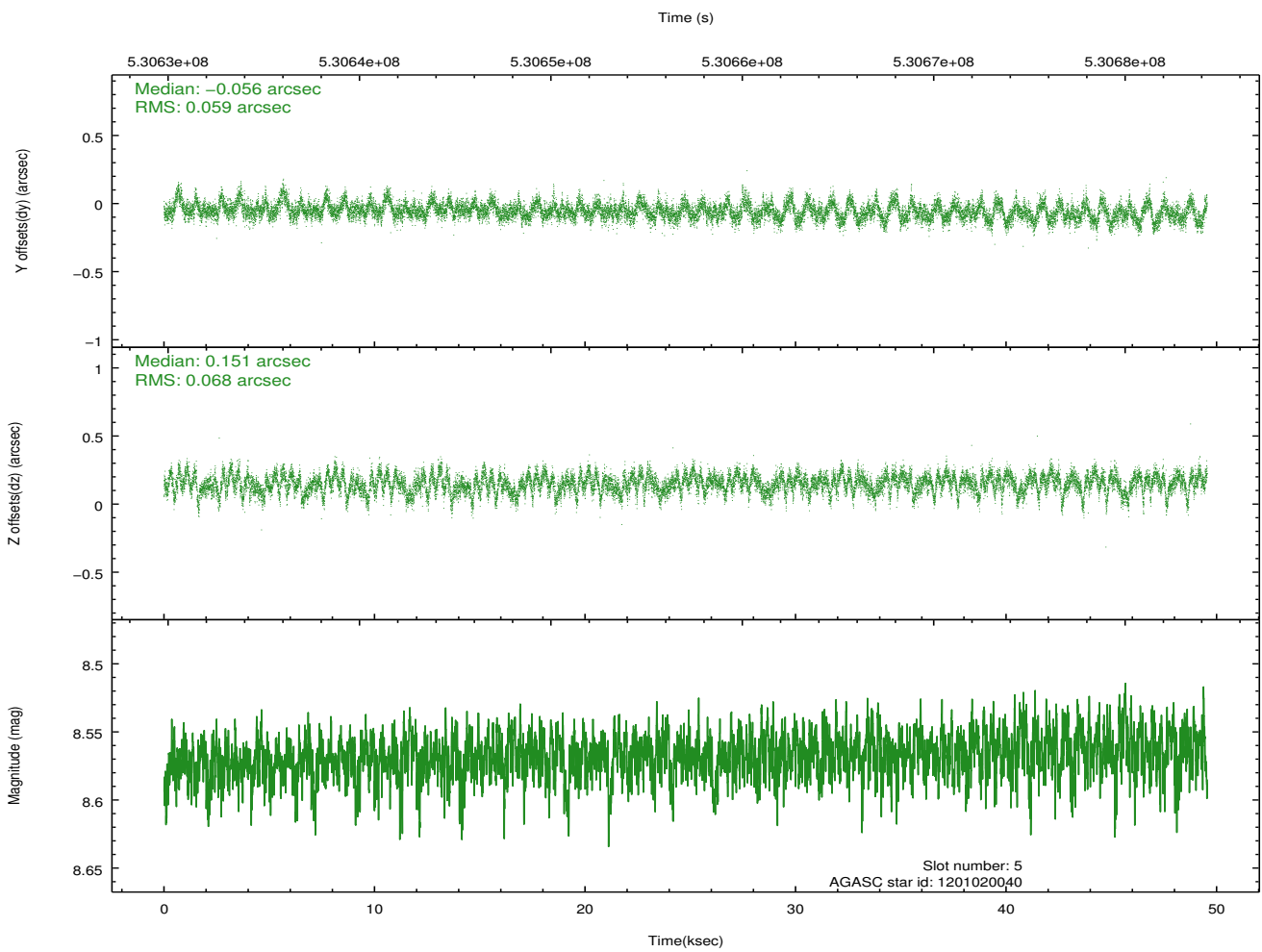
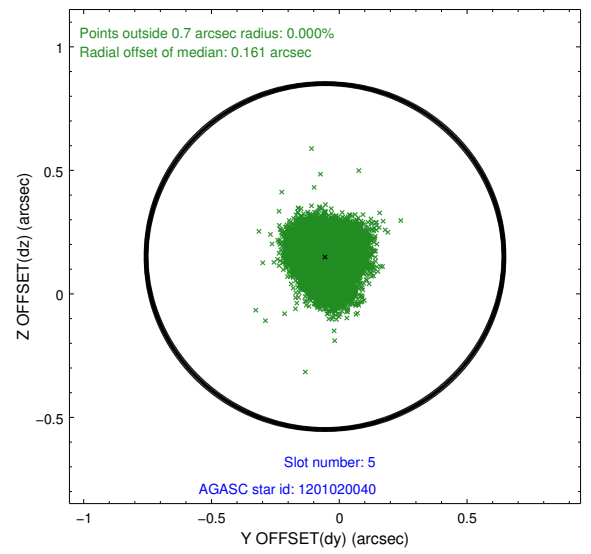
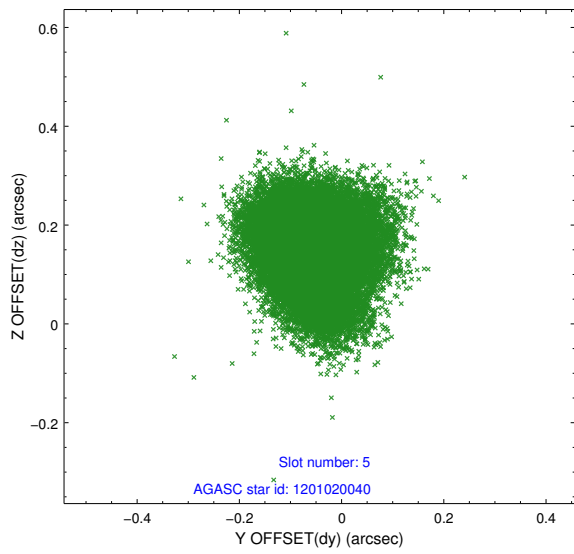
## 2.4.2 Slot 4



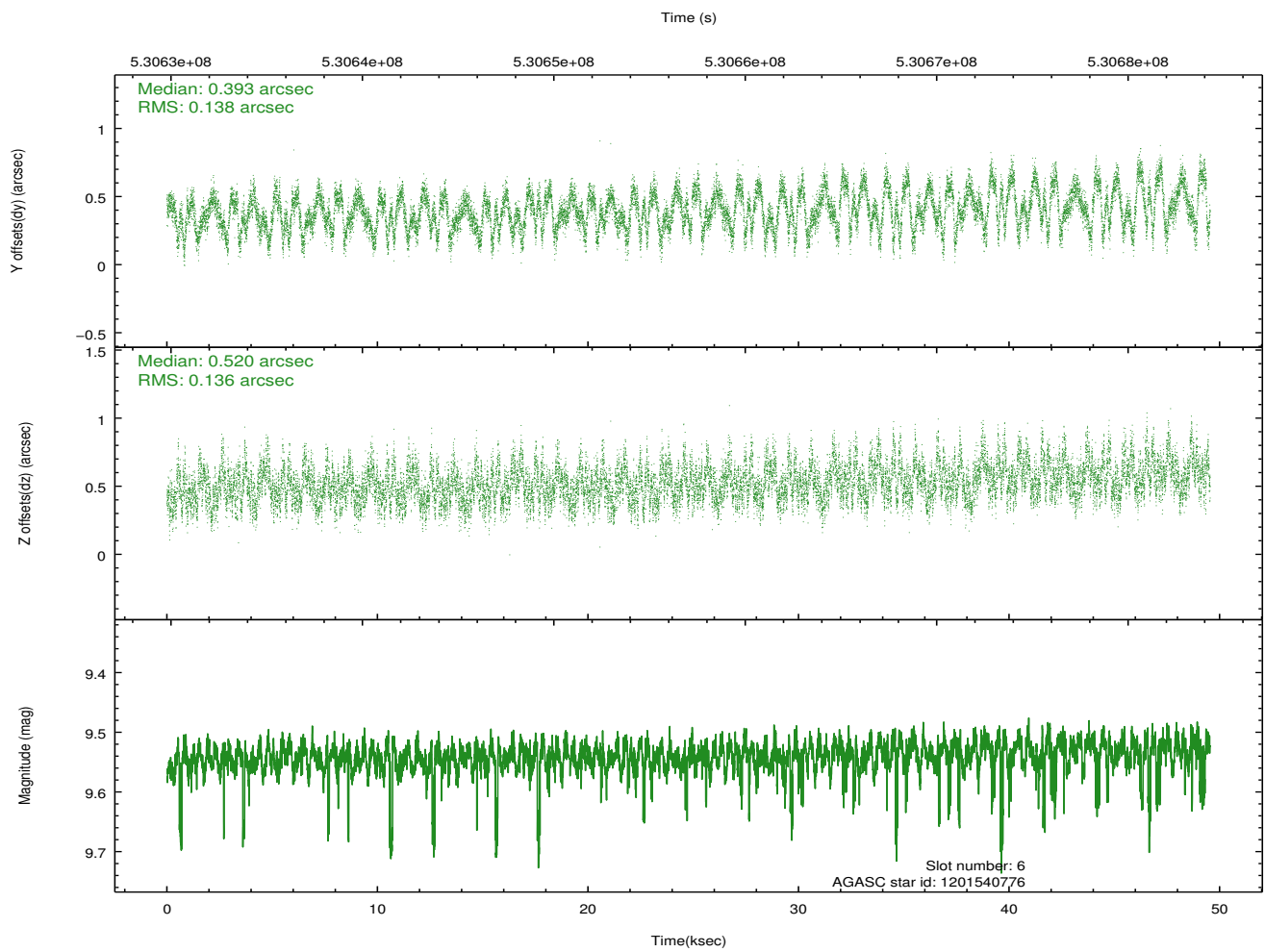
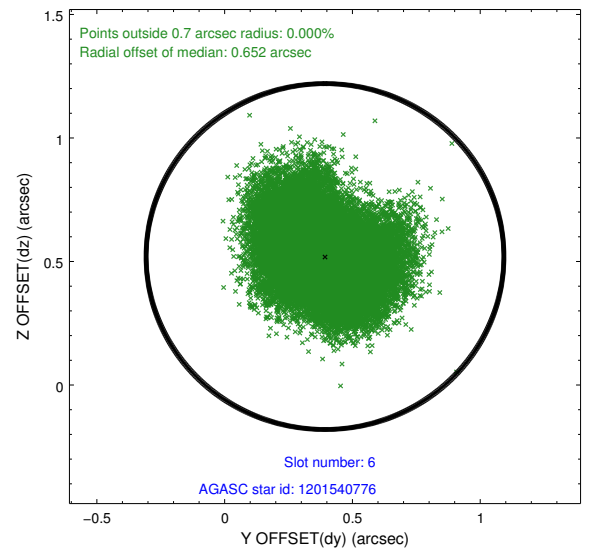
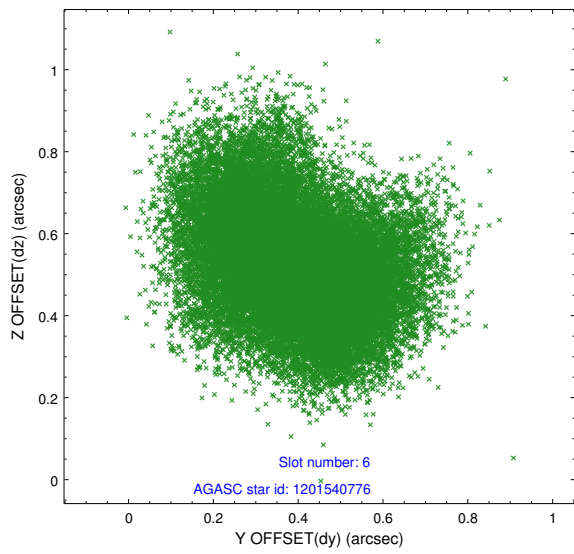
Time (s)



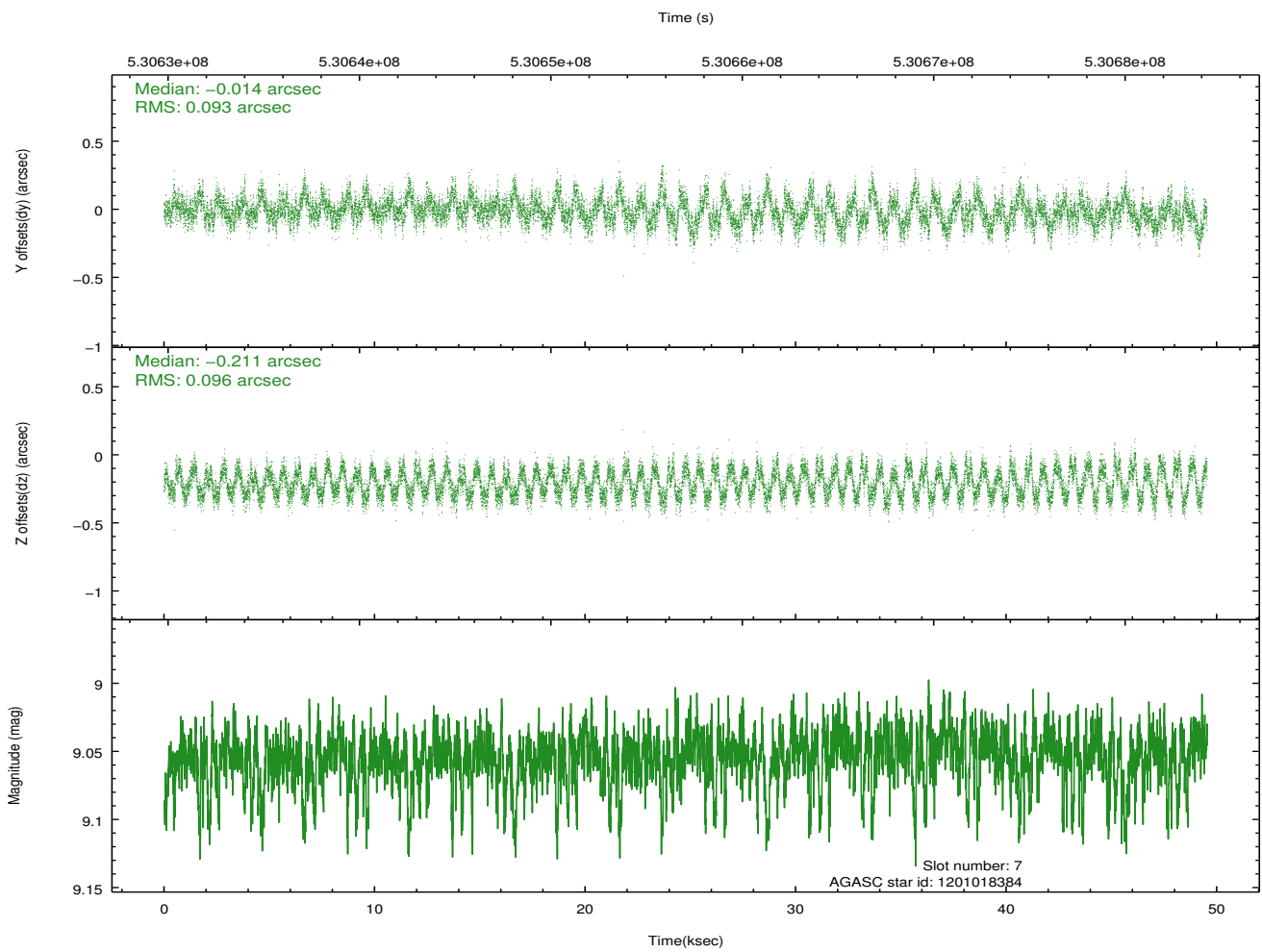
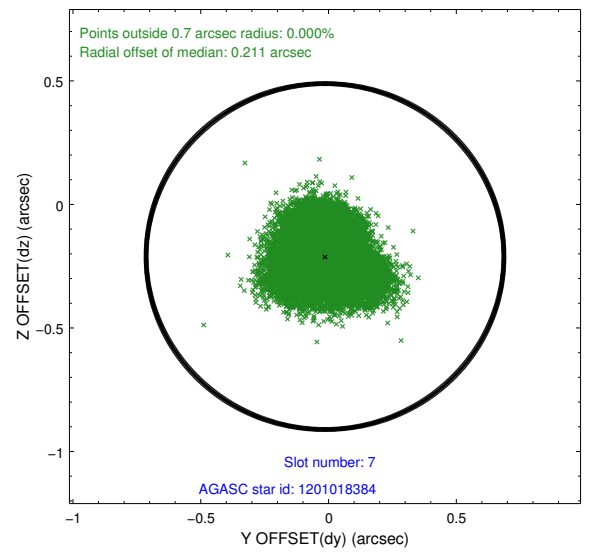
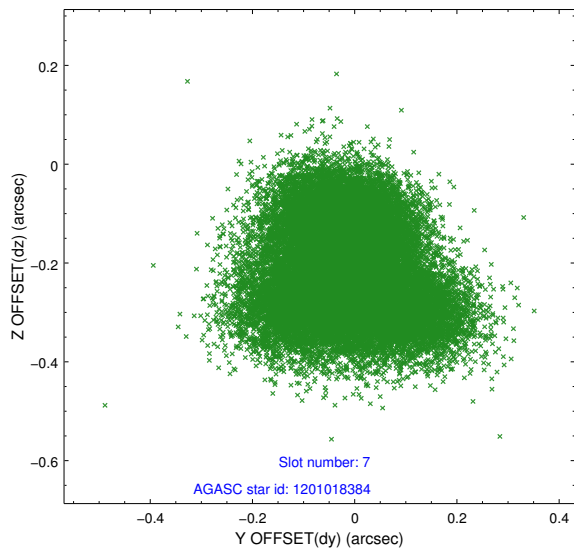
### 2.4.3 Slot 5



### 2.4.4 Slot 6

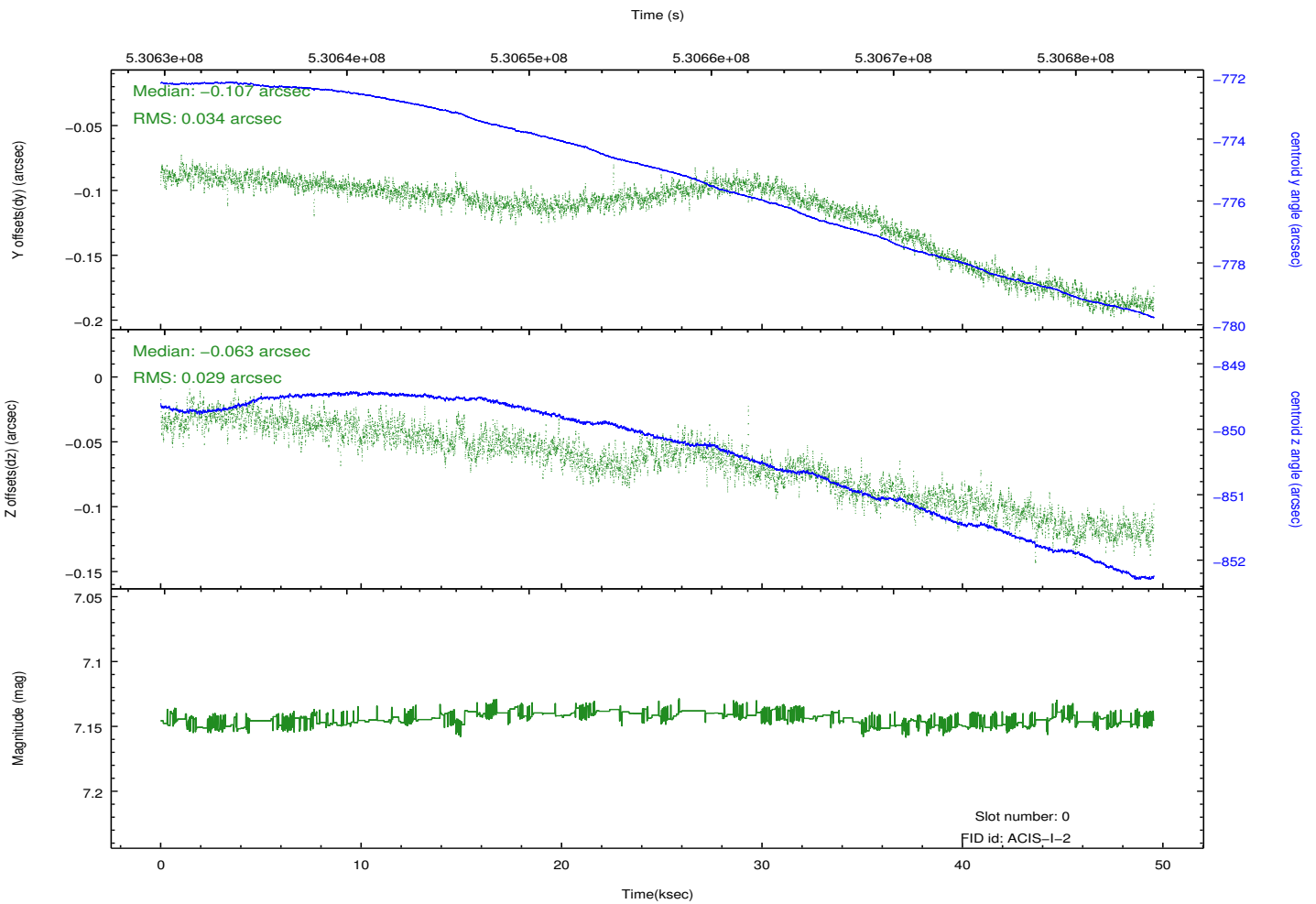
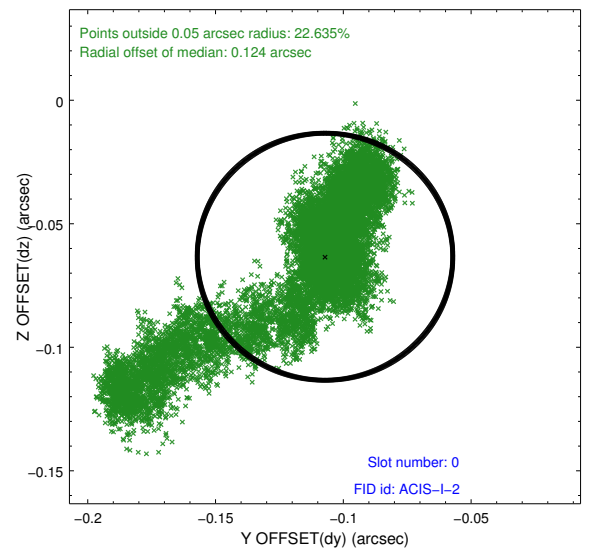
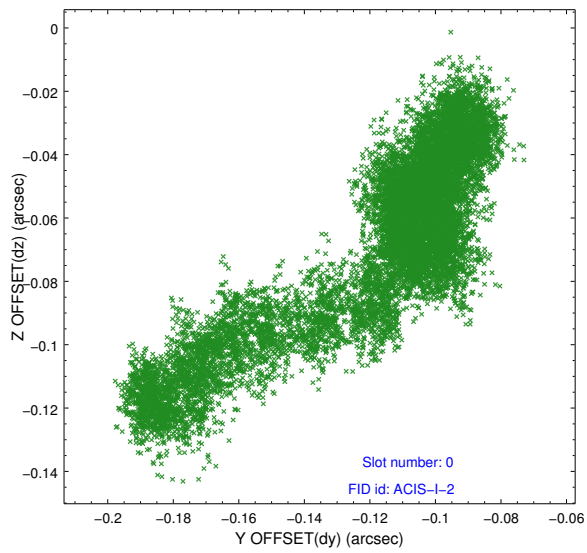


## 2.4.5 Slot 7

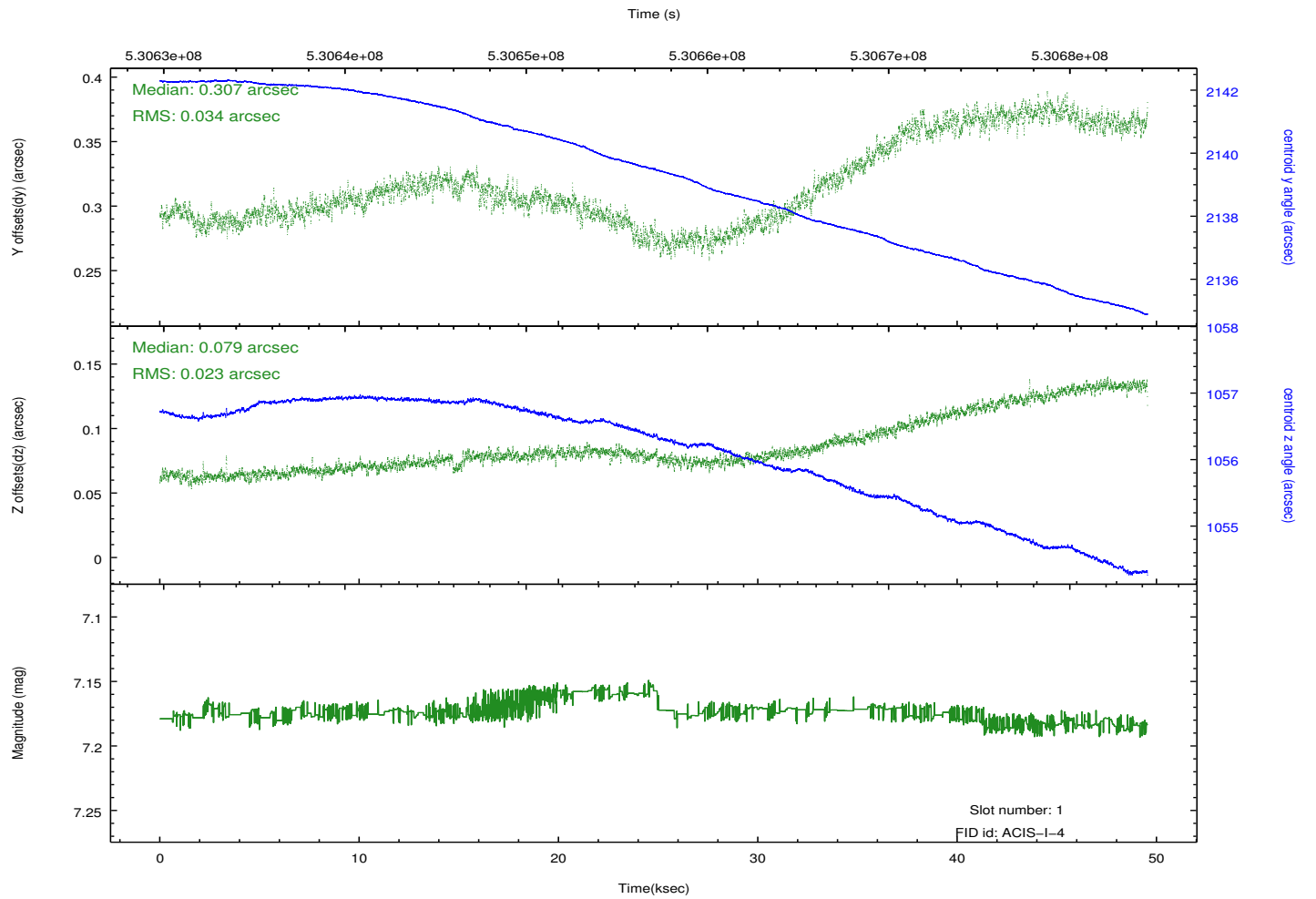
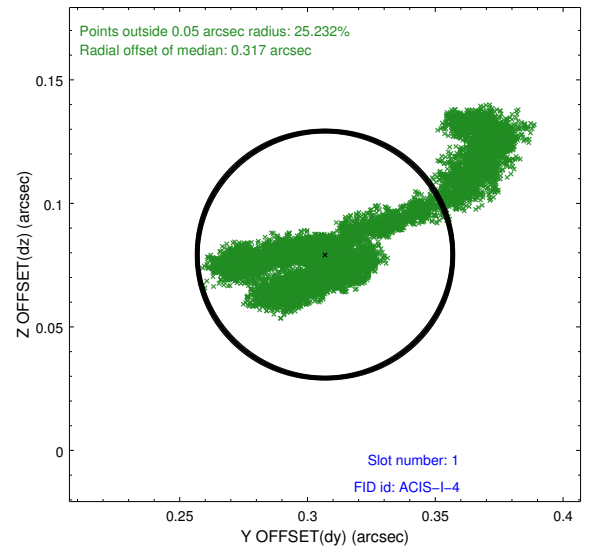
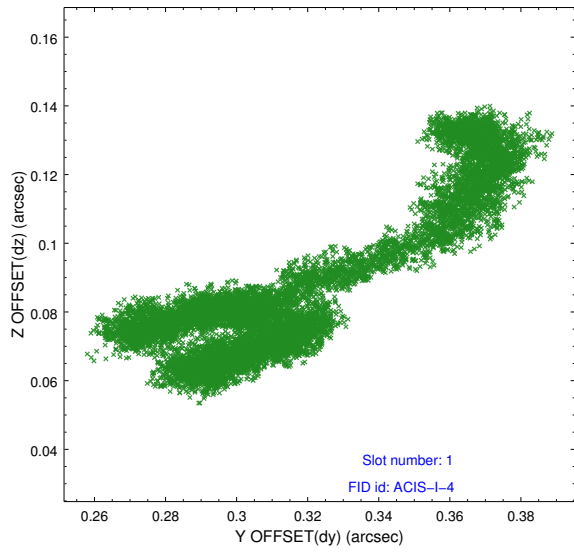


## 2.5 FID Slots

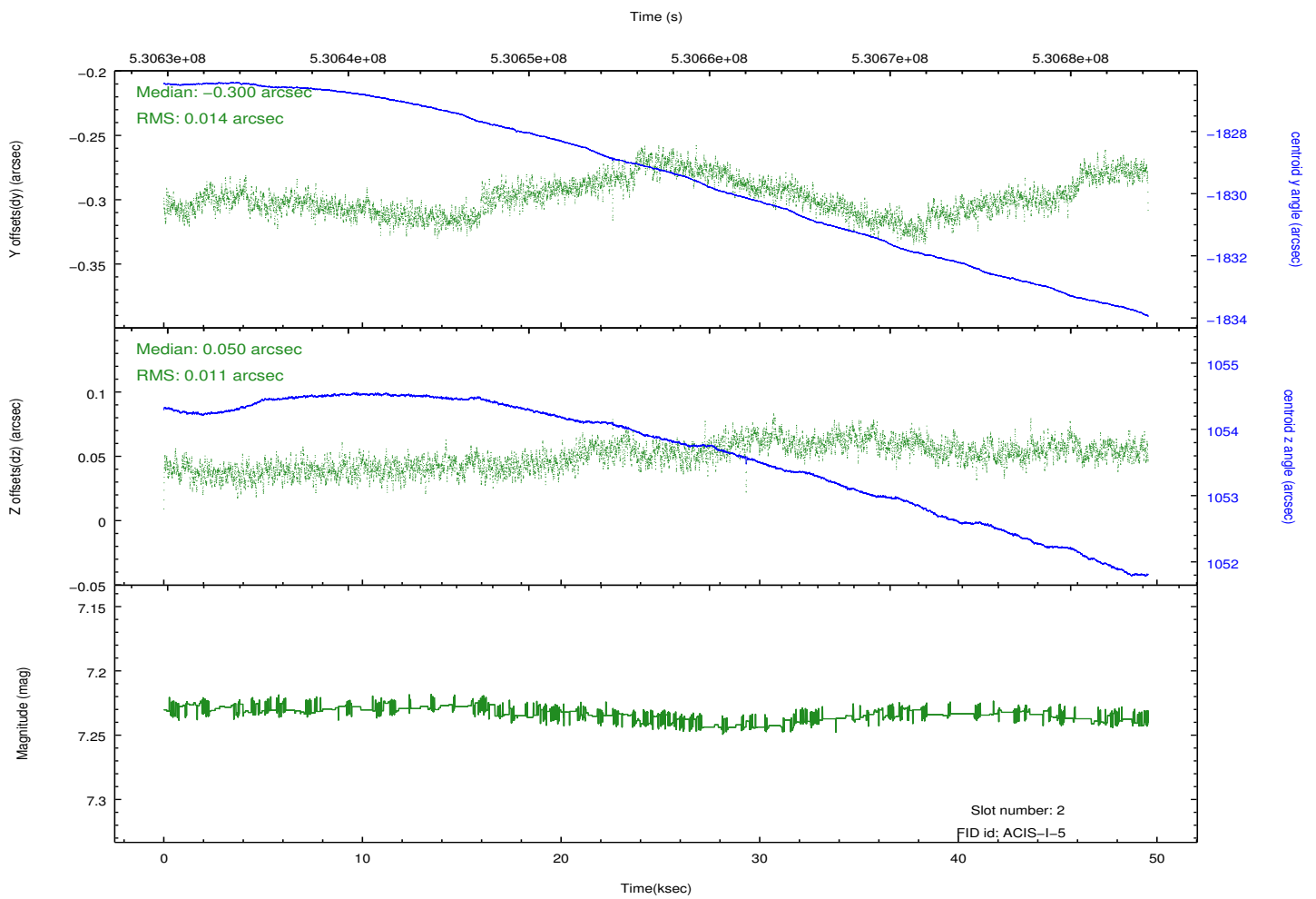
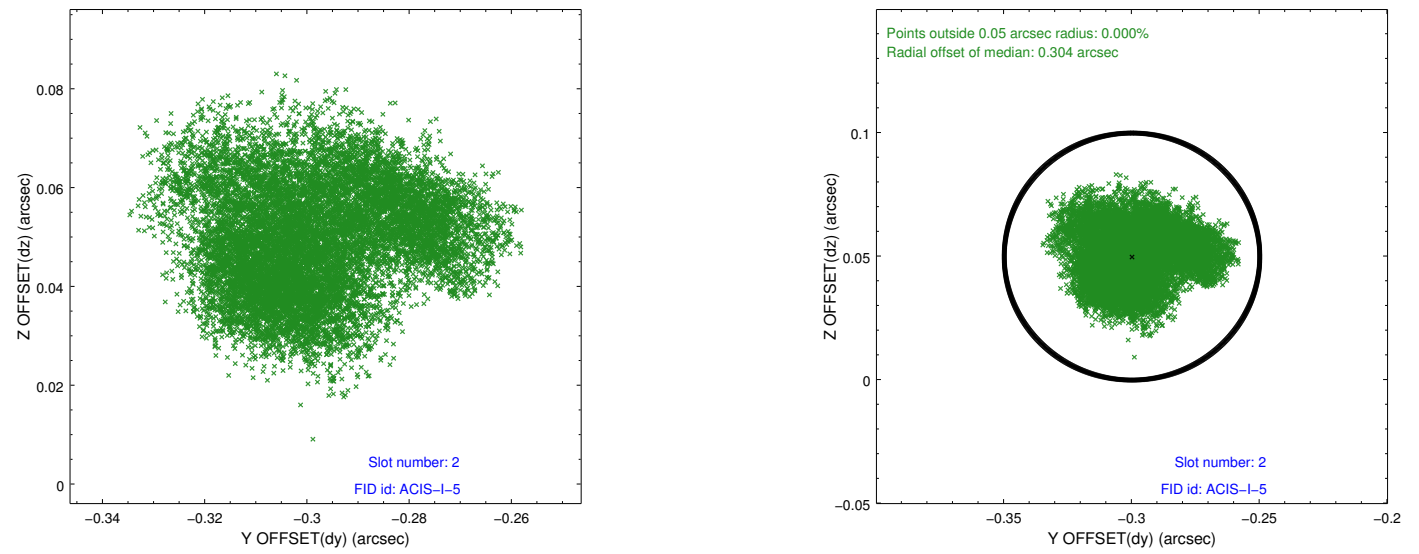
### 2.5.1 Slot 0



## 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)	2014.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	48.969599817634

## A.2 Comments