

# V&V Reference Report

## L2 ASCDS Version : 10.4.3

Observation 18749 - L2 Version 1  
Chandra X-Ray Center

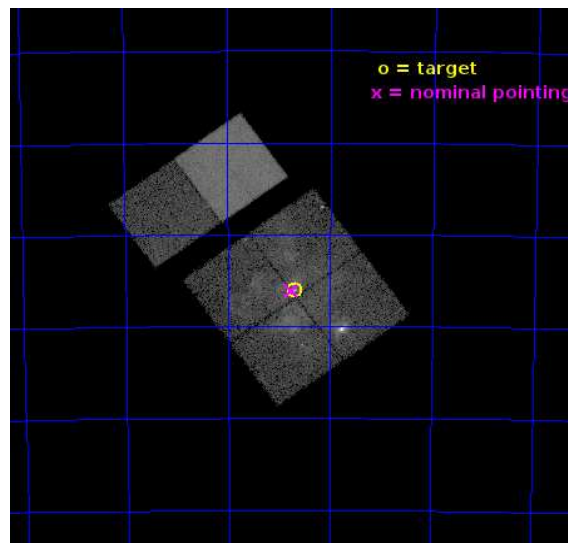
L2 Processing Date : Jan 23 2016

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# 1 Front

seq_num	901116	Sequence number
obs_id	18749	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	84.689282316276	Nominal RA [deg]
dec_nom	-69.10207025747	Nominal Dec [deg]
roll_nom	324.22046595	Nominal Roll [deg]
revision	1	Processing version of data
ontime	22437.328113556	Sum of GTIs [s]
livetime	22153.213154845	Livetime [s]
ontime0	22440.445984125	Sum of GTIs [s]
ontime1	22437.246003509	Sum of GTIs [s]
ontime2	22440.528064132	Sum of GTIs [s]
ontime3	22437.328113556	Sum of GTIs [s]
ontime6	22440.651184082	Sum of GTIs [s]
ontime7	22440.610144138	Sum of GTIs [s]
l2events	153307	Number of level 2 events

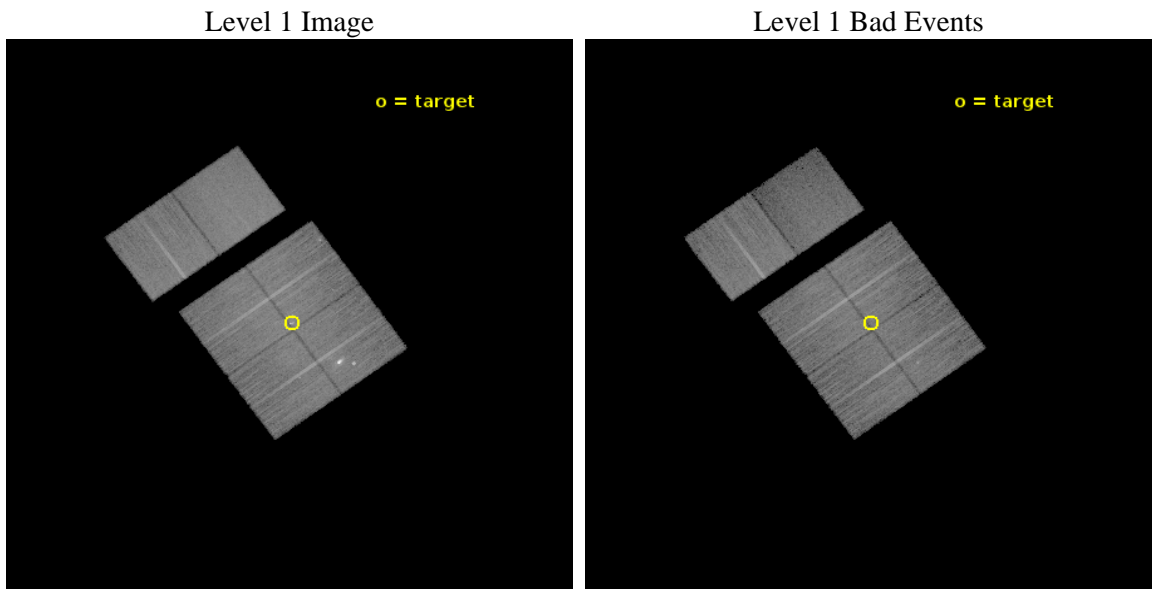




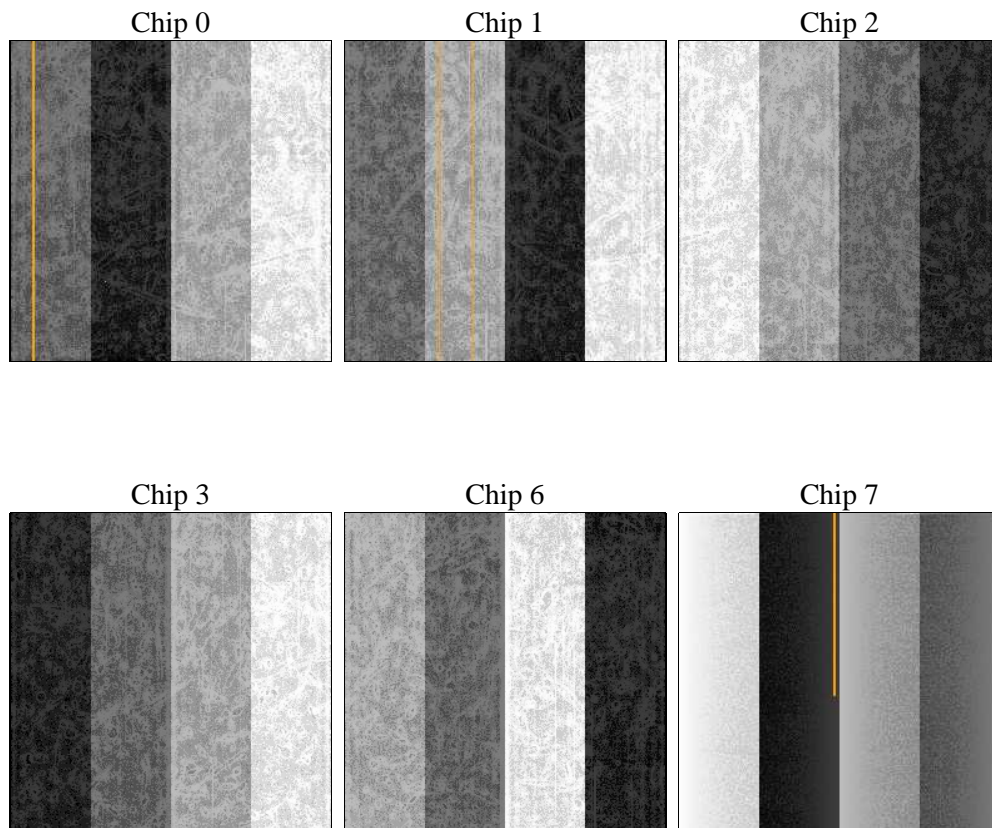
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	22500.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3	Processing system revision	ontime	22437.328113556	Sum of GTIs [s]
caldsver	4.7.0	&#160	ontime0	22440.445984125	Sum of GTIs [s]
date	2016-01-23T14:24:54	Date and time of file creation	ontime1	22437.246003509	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	22440.528064132	Sum of GTIs [s]
			ontime3	22437.328113556	Sum of GTIs [s]
			ontime6	22440.651184082	Sum of GTIs [s]
			ontime7	22440.610144138	Sum of GTIs [s]
			l1events	772694	Number of level 1 events

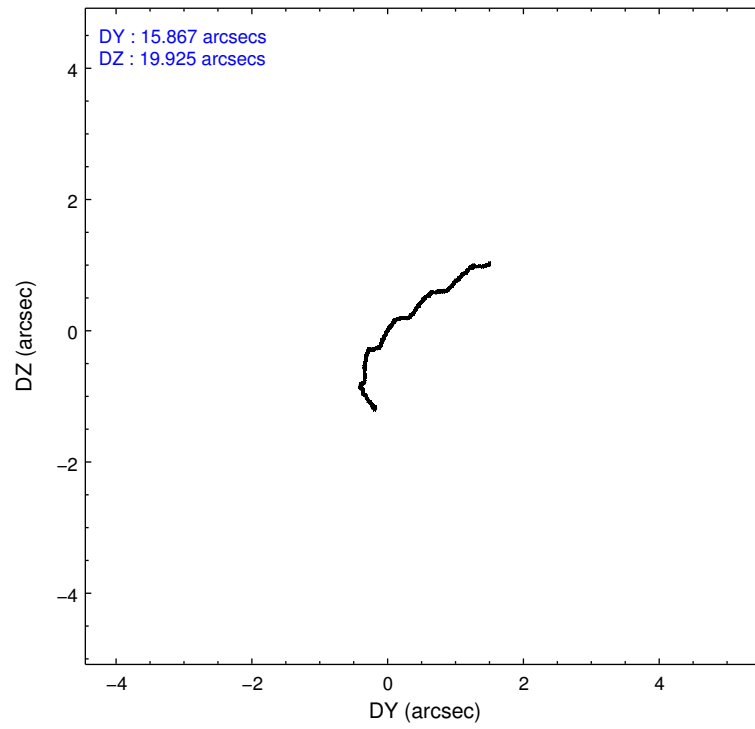
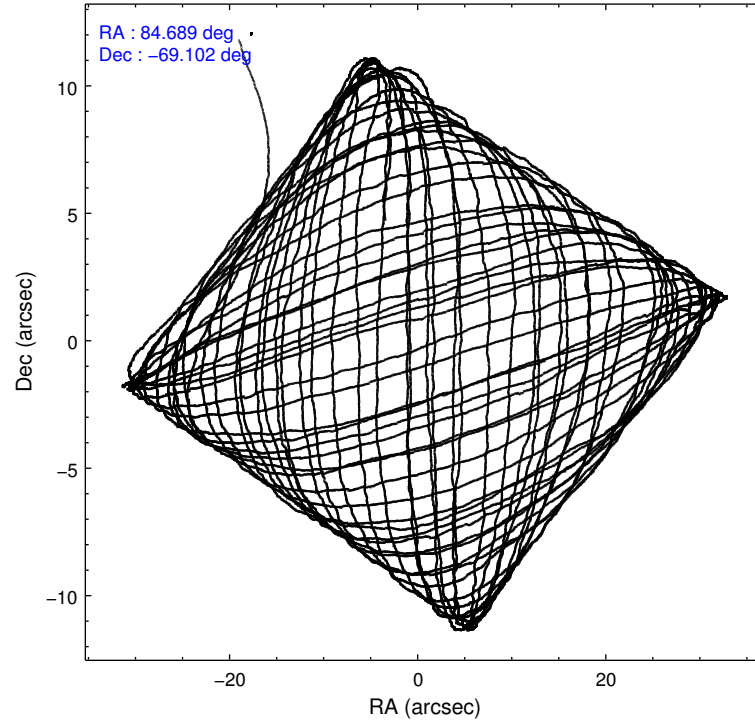
### 2.1.4 Events

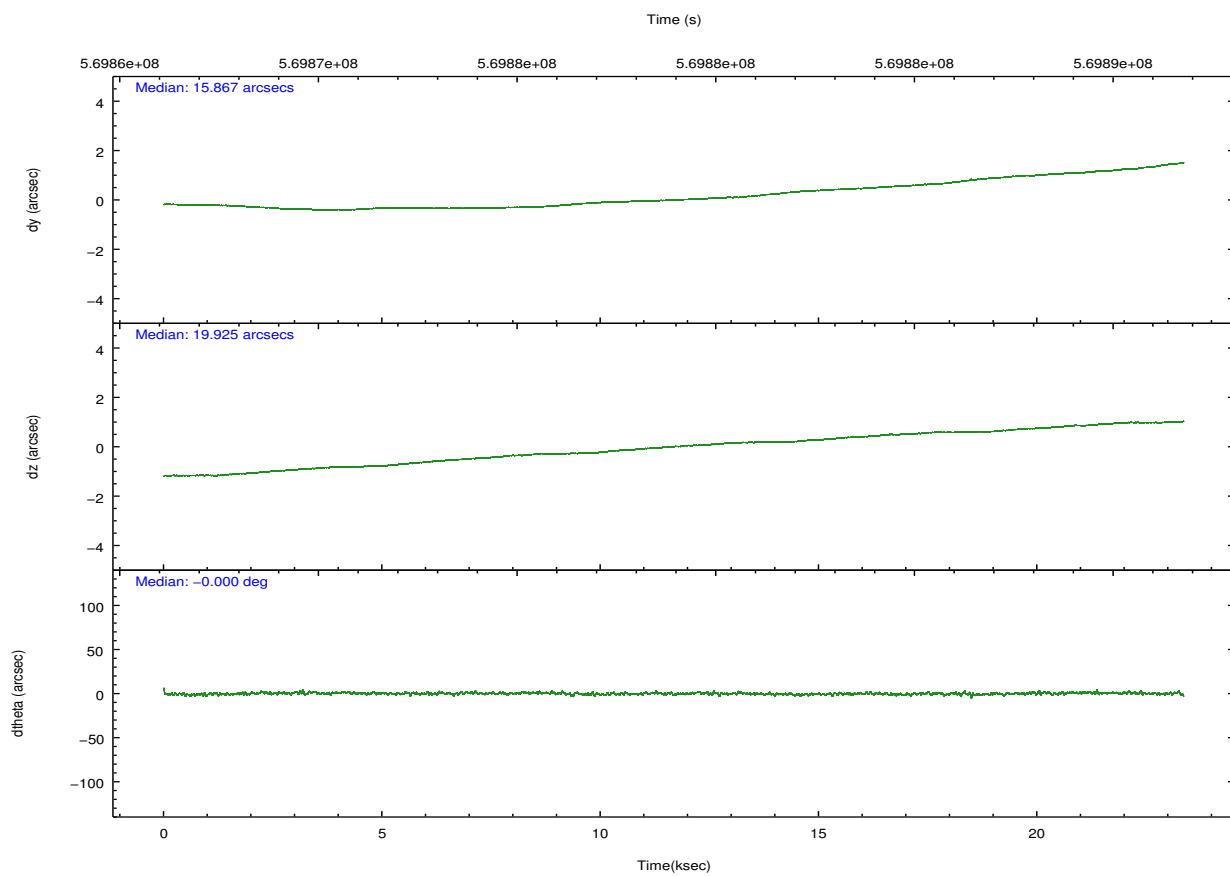
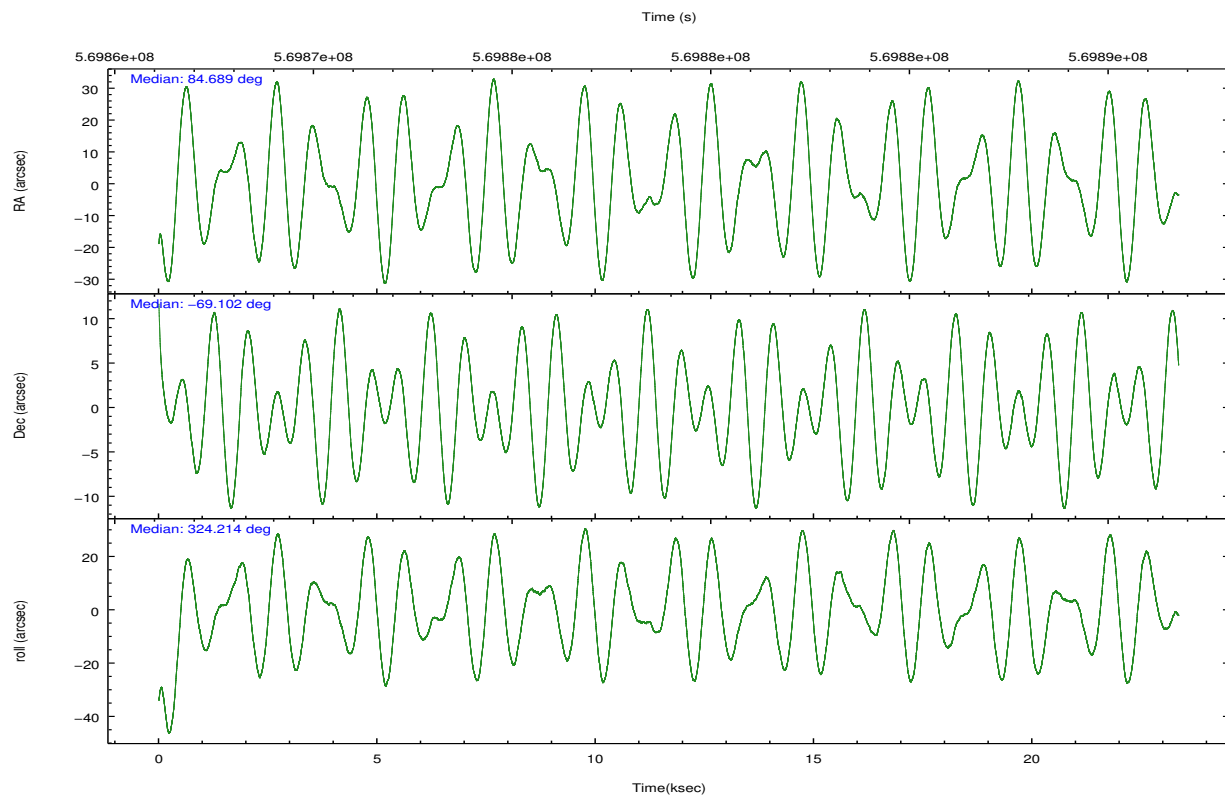
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	118733	131532	129175	127842	126724	138688	grade 0 events	9656	19697	8849	11049	6086	6178
rejected events	99493	99560	111395	107824	111213	73705		8%	14%	6%	8%	4%	4%
rejected %	83%	75%	86%	84%	87%	53%	grade 1 events	79	172	91	120	69	184
								0%	0%	0%	0%	0%	0%
							grade 2 events	3884	5092	3542	3282	3544	14211
								3%	3%	2%	2%	2%	10%
							grade 3 events	1508	1804	1416	1508	1343	5207
								1%	1%	1%	1%	1%	3%
							grade 4 events	1475	1896	1480	1502	1382	5243
								1%	1%	1%	1%	1%	3%
							grade 5 events	4593	4798	4227	5114	5172	13950
								3%	3%	3%	4%	4%	10%
							grade 6 events	2721	3488	2494	2678	3159	34150
								2%	2%	1%	2%	2%	24%
							grade 7 events	94817	94585	107076	102589	105969	59565
								79%	71%	82%	80%	83%	42%

## 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	84.612343	84.68928231627639	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.099388	-69.10207025746982	CCD I3 on	Y	Y
[deg] Pointing Roll	323.939911	324.2204659499992	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)	569868128.184000	569866459.14619	CCD S5 on	N	N
Observation start date	2016-01-22T16:41:00	2016-01-22T16:14:19	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	569890628.184000	569891403.5476	On-chip summing requested	N	N
Observation end date	2016-01-22T22:56:00	2016-01-22T23:10:03	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



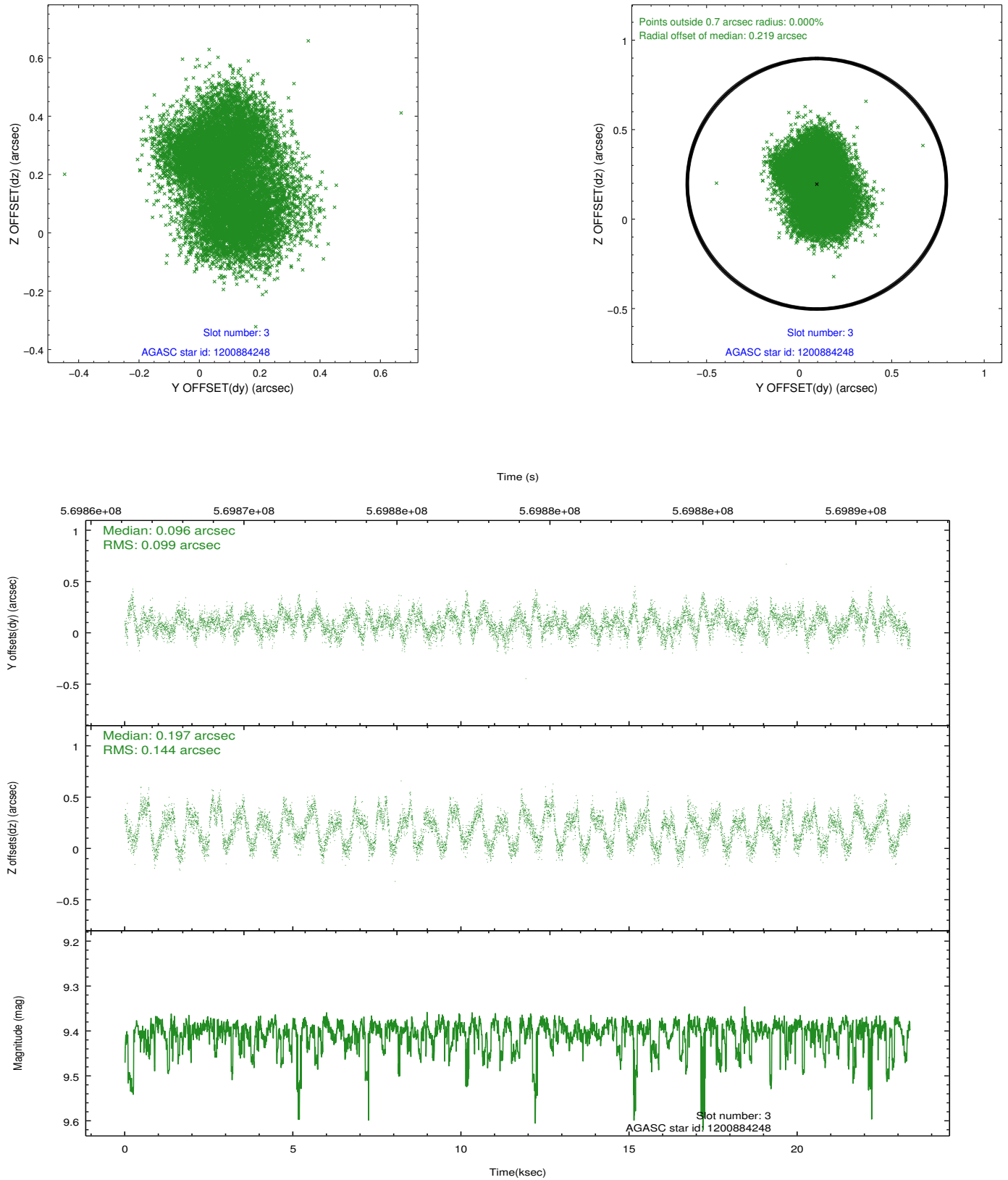


### Slot Statistics

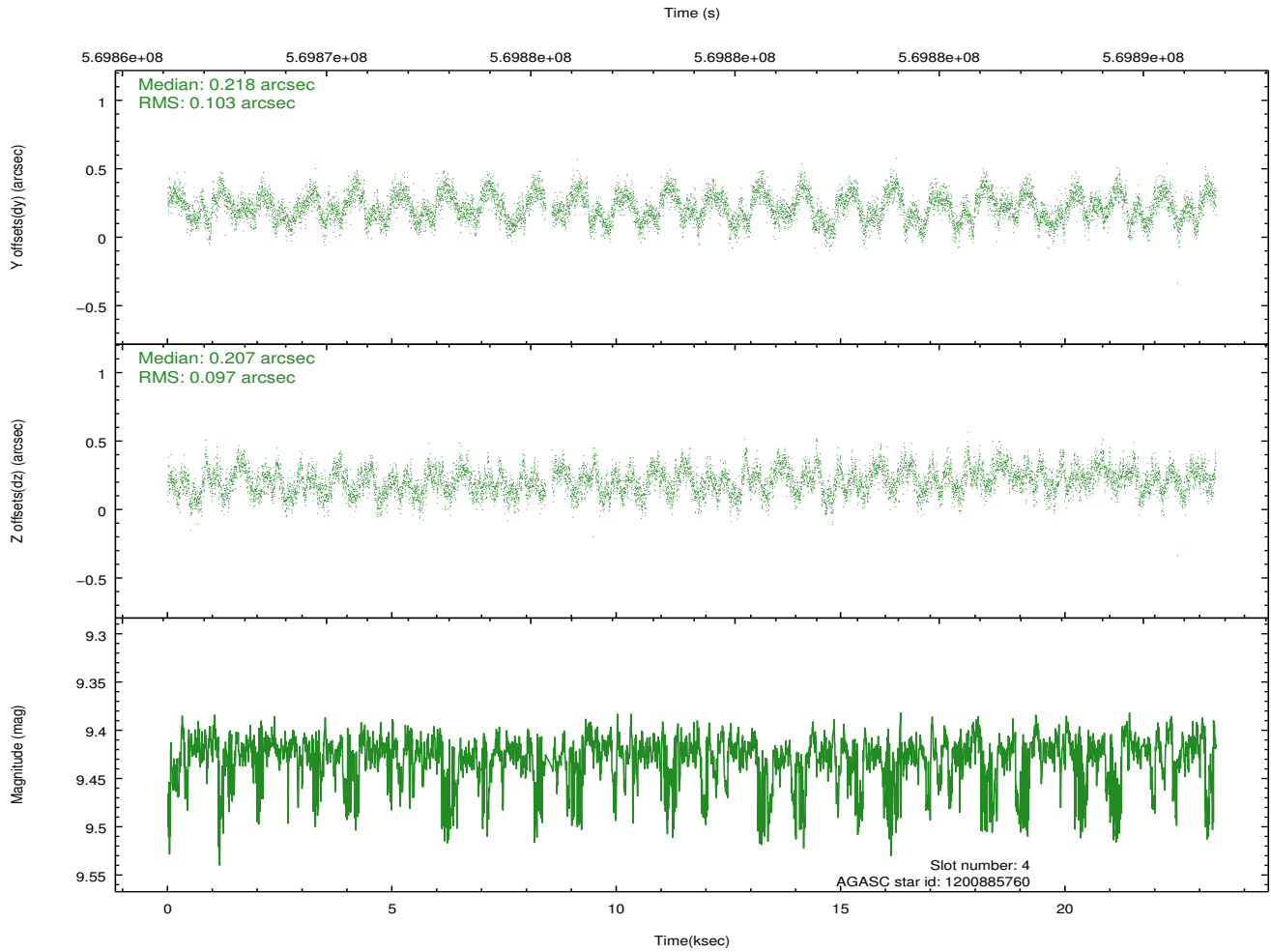
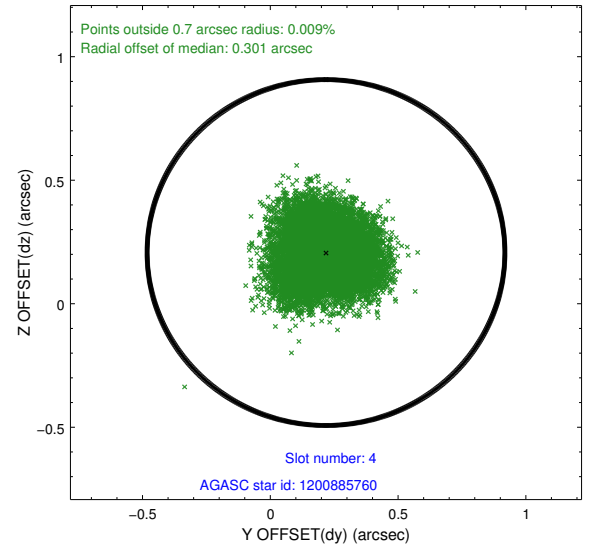
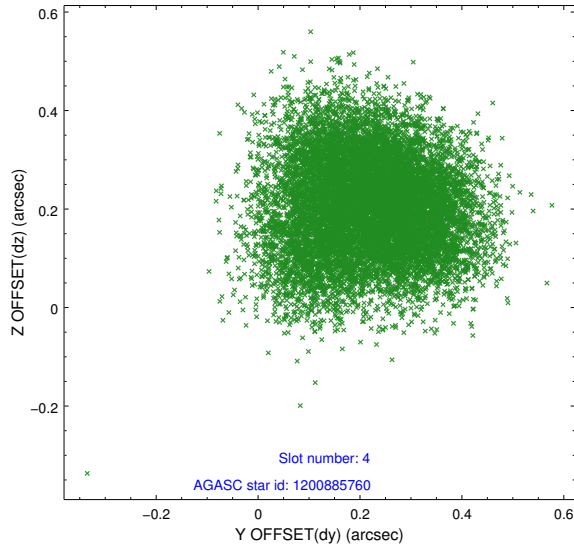
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.25	5697	-0.027	-0.038	0.045	0.060	0.000000	0.000000	923.30	-843.66
1	FID		ACIS-I-2	7.16	5697	-0.271	-0.104	0.014	0.033	0.000000	0.000000	-770.96	-850.20
2	FID		ACIS-I-4	7.18	5696	0.200	0.207	0.025	0.052	0.000000	0.000000	2143.41	1056.28
3	GUIDE	used	1200884248	9.40	11380	0.096	0.197	0.191	0.282	83.880915	-68.565170	-1905.99	984.35
4	GUIDE	used	1200885760	9.43	11313	0.218	0.207	0.153	0.237	83.723637	-68.777667	-1612.30	248.03
5	GUIDE	used	1201020040	8.59	11392	-0.164	-0.168	0.091	0.156	85.379163	-68.879396	341.58	1220.78
6	GUIDE	used	1201540776	9.57	11377	0.035	0.133	0.160	0.268	85.107945	-69.858480	2107.48	-1848.92
7	GUIDE	used	1201018384	9.07	11382	-0.176	-0.368	0.179	0.293	85.801362	-68.593260	199.96	2380.52

## 2.4 Star Slots

### 2.4.1 Slot 3

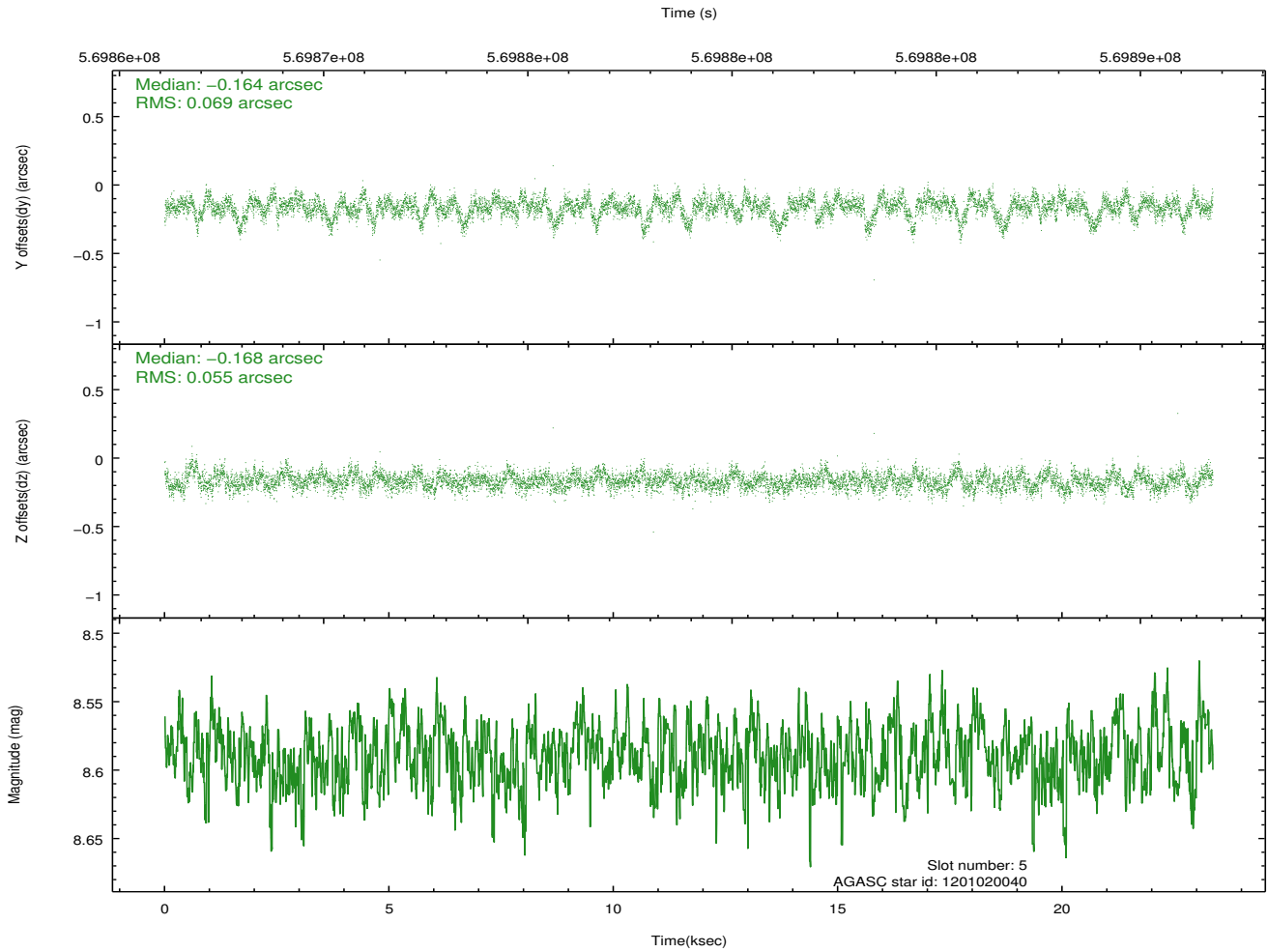
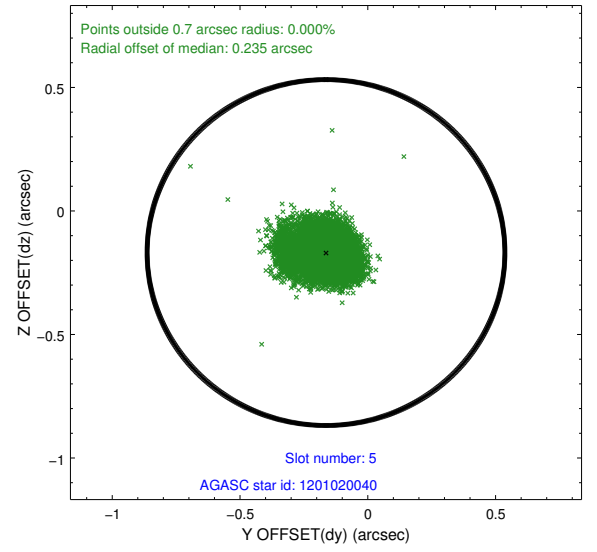
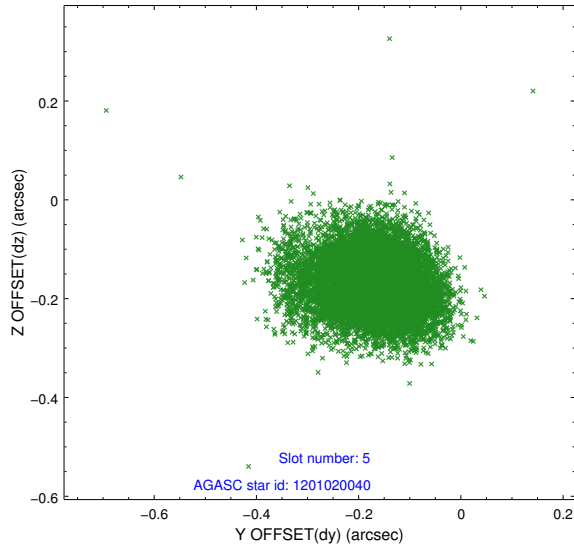


## 2.4.2 Slot 4

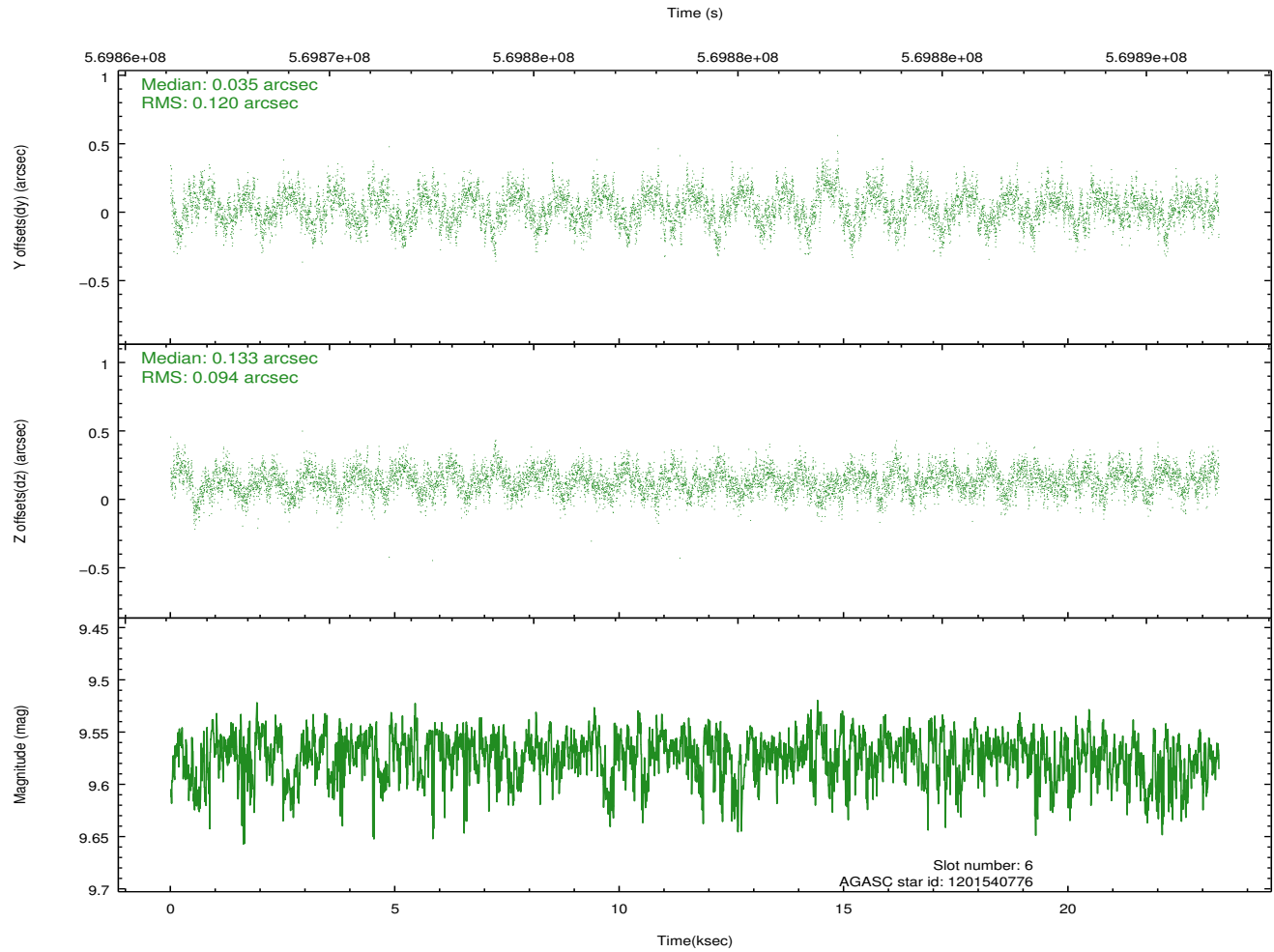
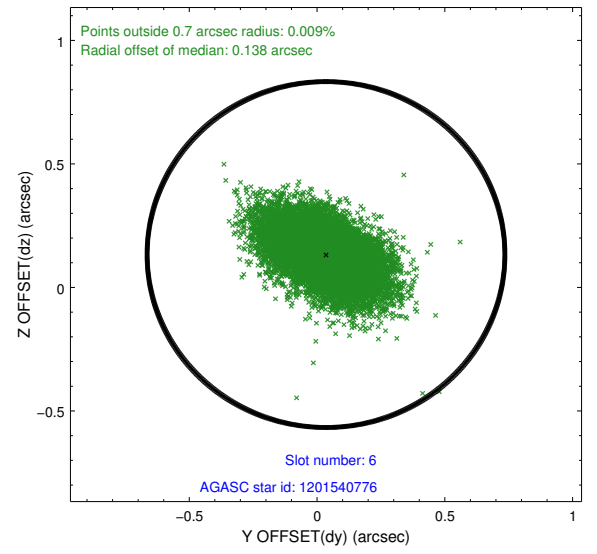
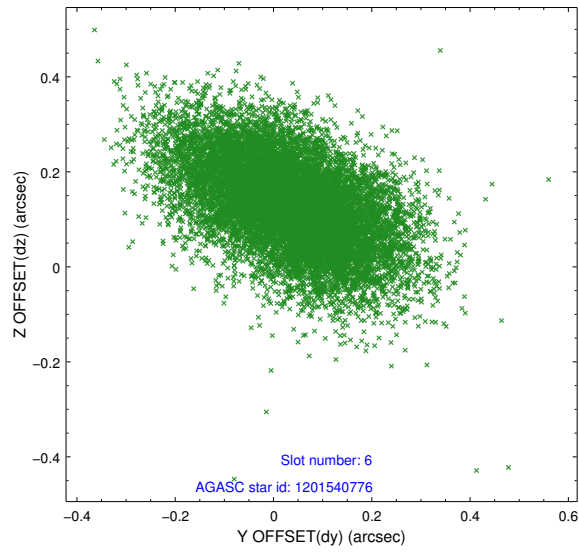




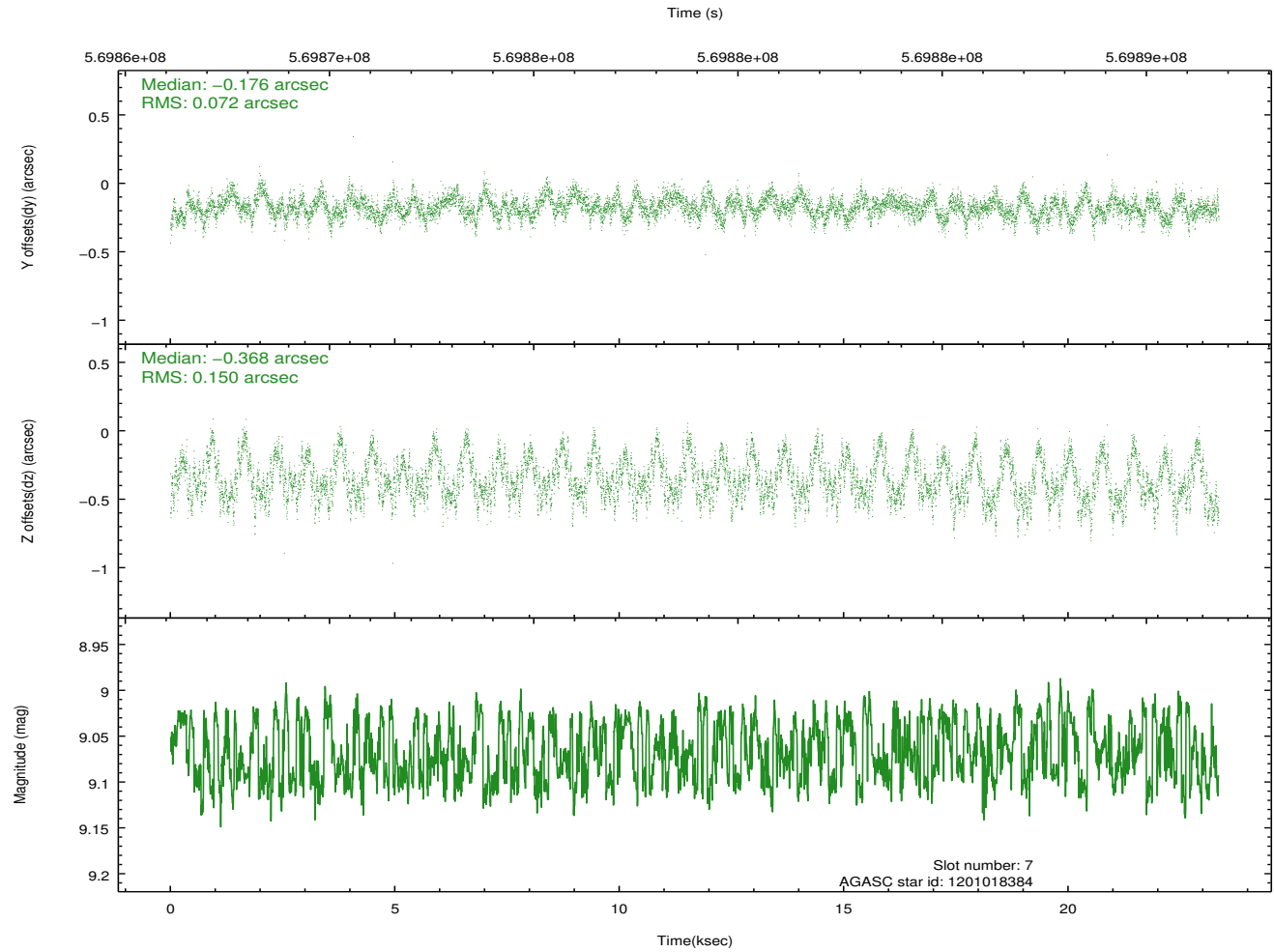
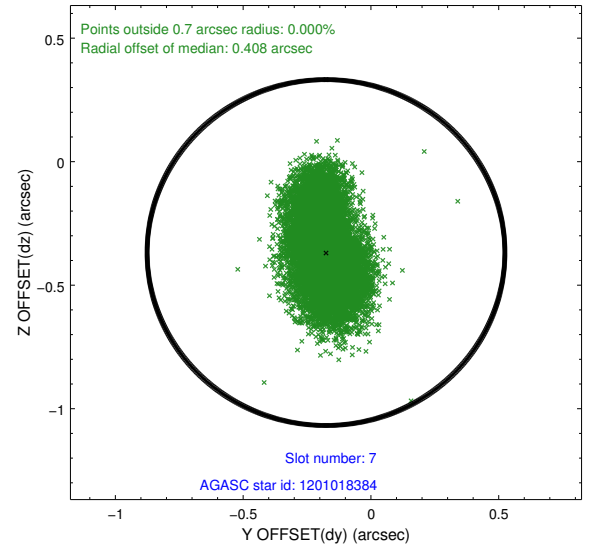
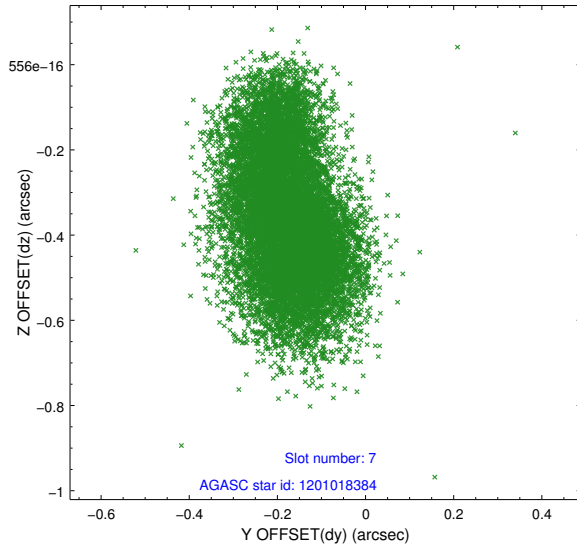
### 2.4.3 Slot 5



## 2.4.4 Slot 6

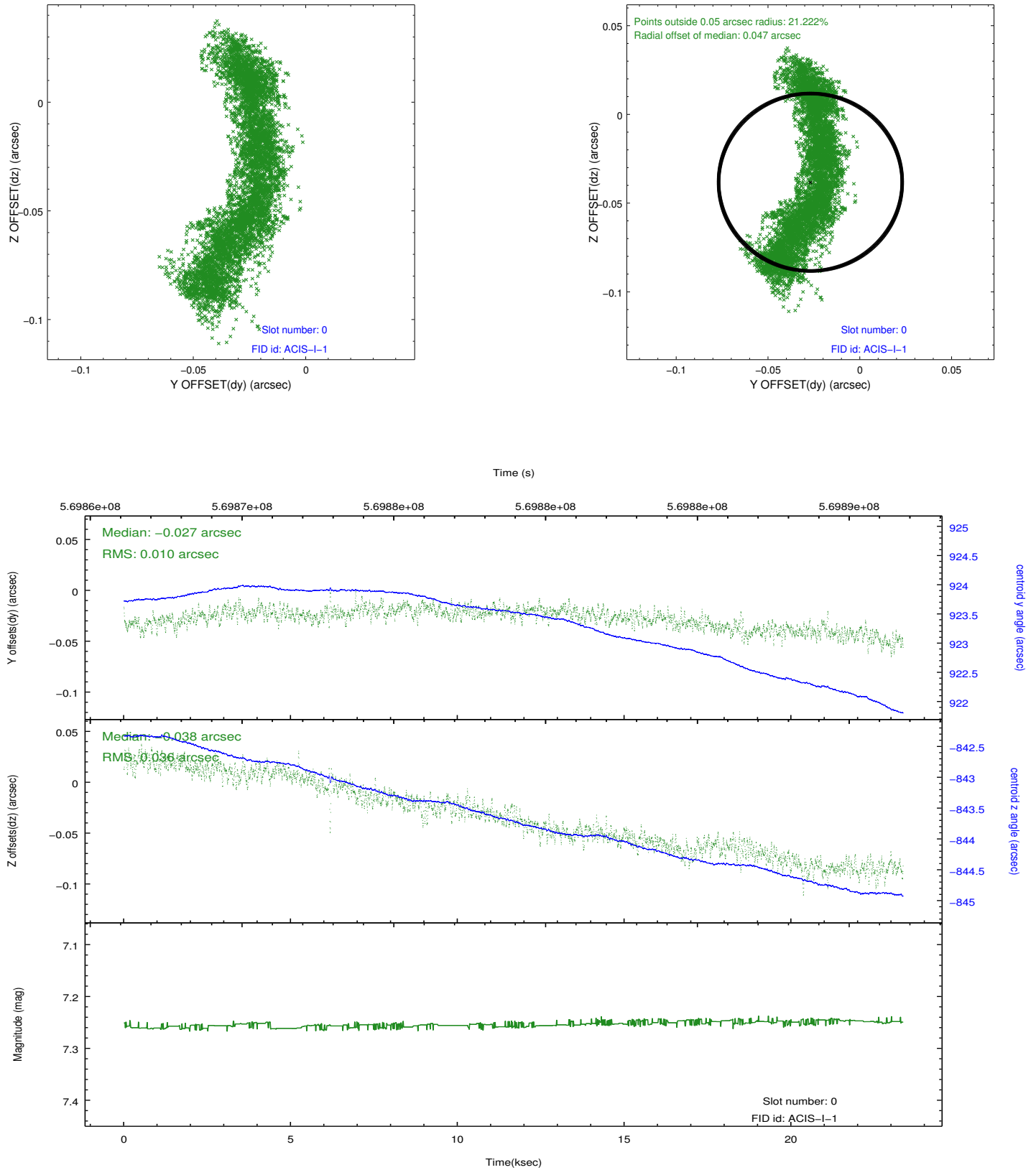


## 2.4.5 Slot 7

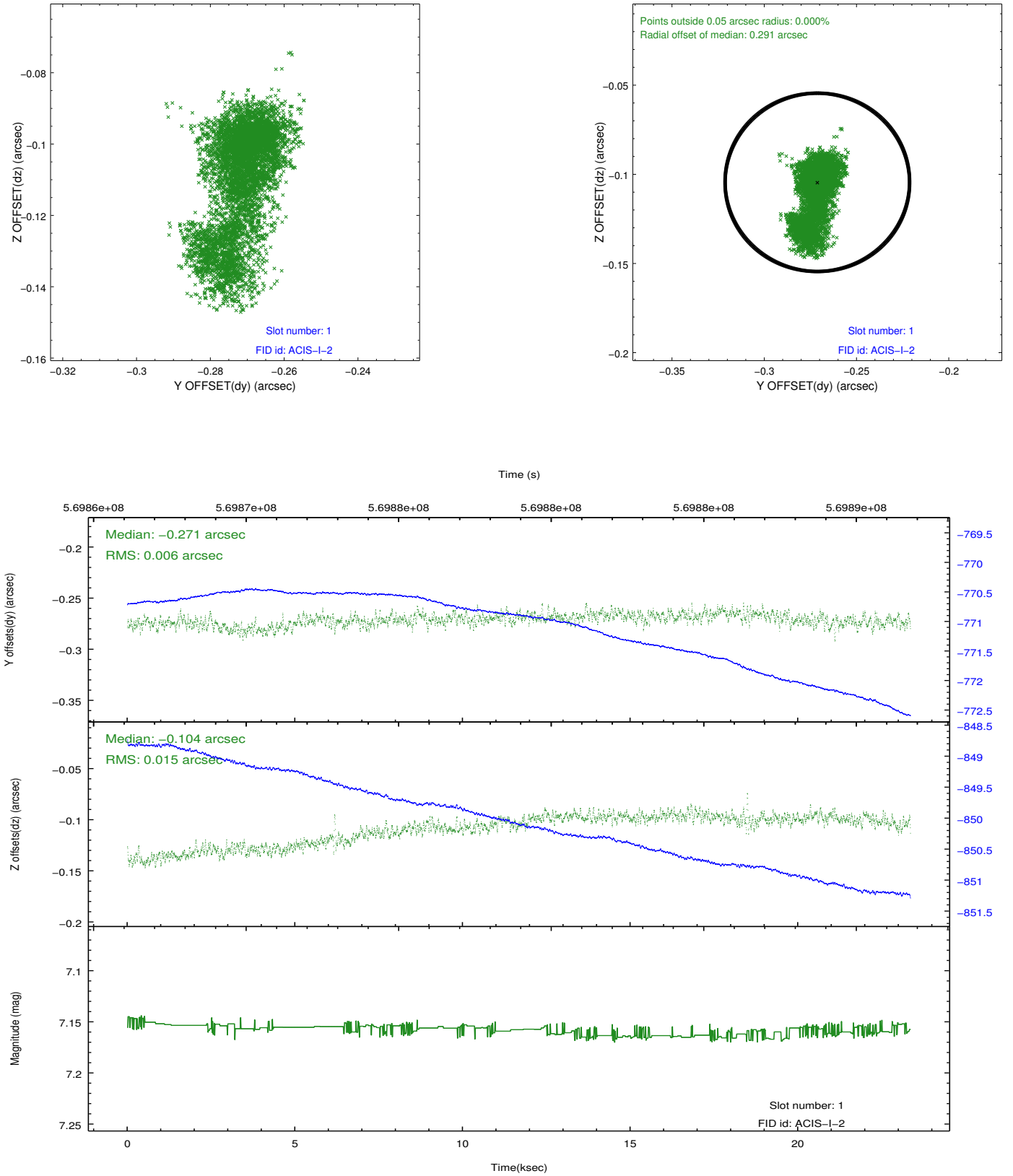


## 2.5 FID Slots

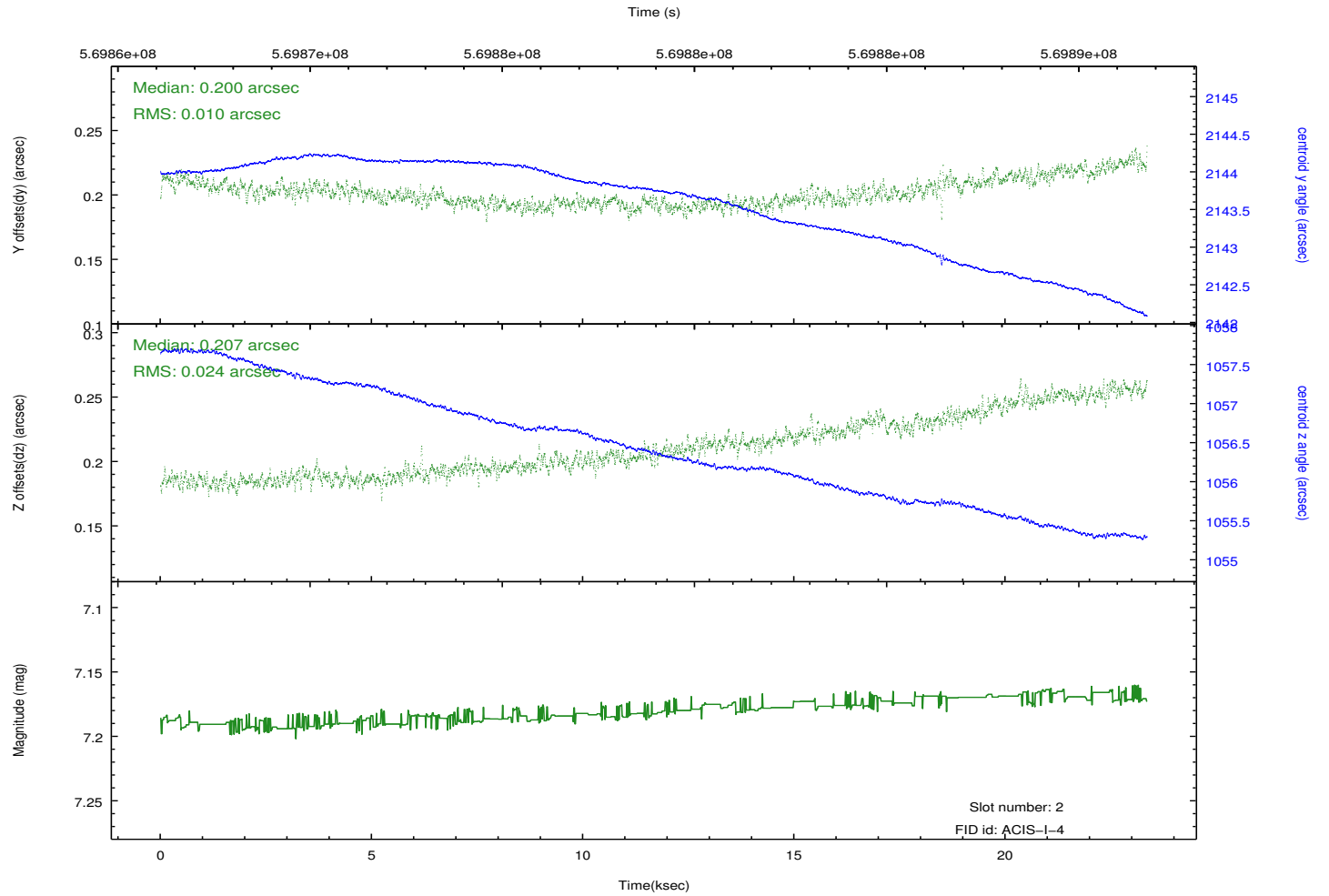
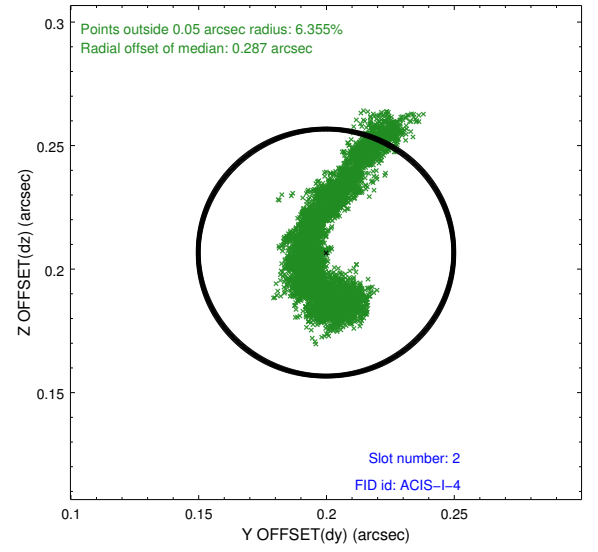
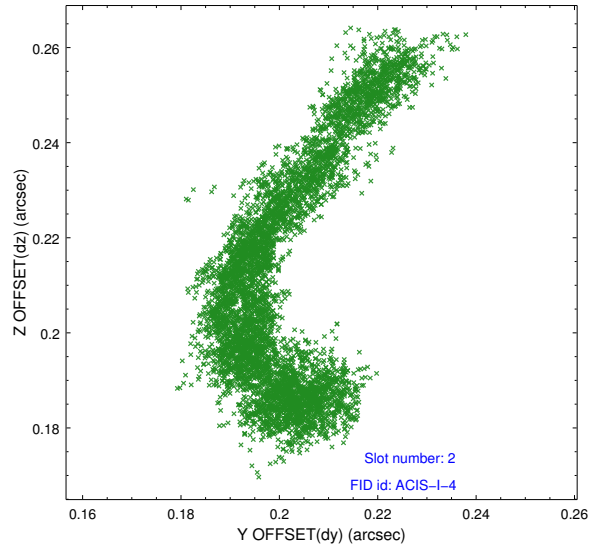
### 2.5.1 Slot 0



## 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)	2016.01.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.437328113556

### A.2 Comments