

# V&V Reference Report

## L2 ASCDS Version : 10.4.2.1

Observation 18672 - L2 Version 1  
Chandra X-Ray Center

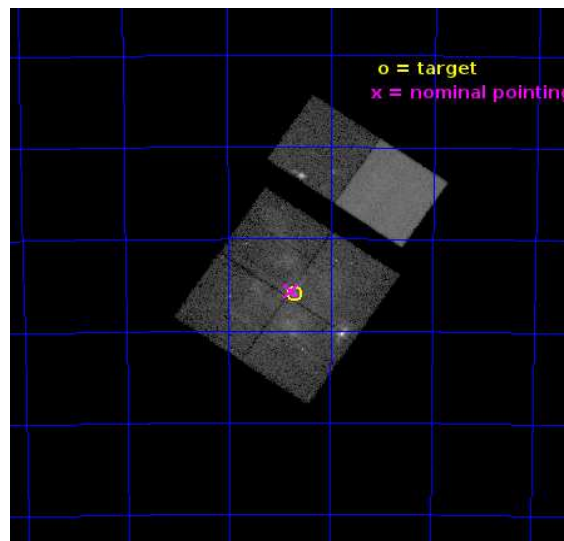
L2 Processing Date : Nov 8 2015

## 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

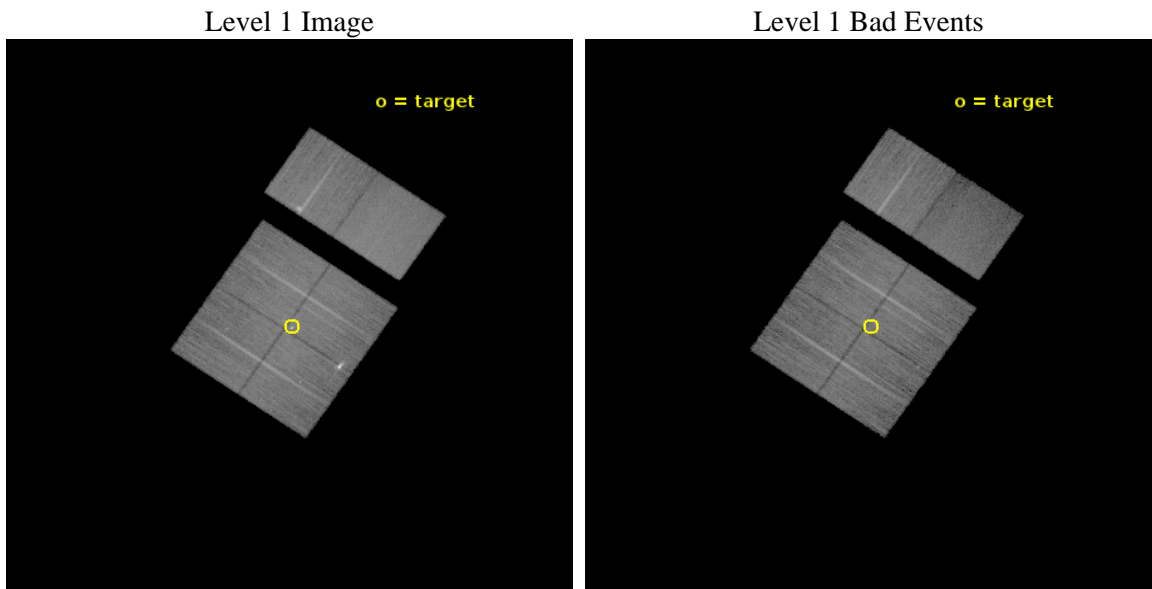
seq_num	901116	Sequence number
obs_id	18672	Observation id
title	The Tarantula -- Revealed by X-rays (T-ReX): A Definitive Chandra Investigation of 30 Doradus	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	30 Doradus	Source name
dtcycle	0	&#160
cycle	P	events from which exps? 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	84.690934994309	Nominal RA [deg]
dec_nom	-69.094389138702	Nominal Dec [deg]
roll_nom	34.222011088561	Nominal Roll [deg]
revision	1	Processing version of data
ontime	30966.400461435	Sum of GTIs [s]
livetime	30574.285253065	Livetime [s]
ontime0	30963.159471154	Sum of GTIs [s]
ontime1	30963.15946126	Sum of GTIs [s]
ontime2	30966.400461435	Sum of GTIs [s]
ontime3	30966.400461435	Sum of GTIs [s]
ontime6	30966.400461435	Sum of GTIs [s]
ontime7	30966.400461435	Sum of GTIs [s]
l2events	198825	Number of level 2 events



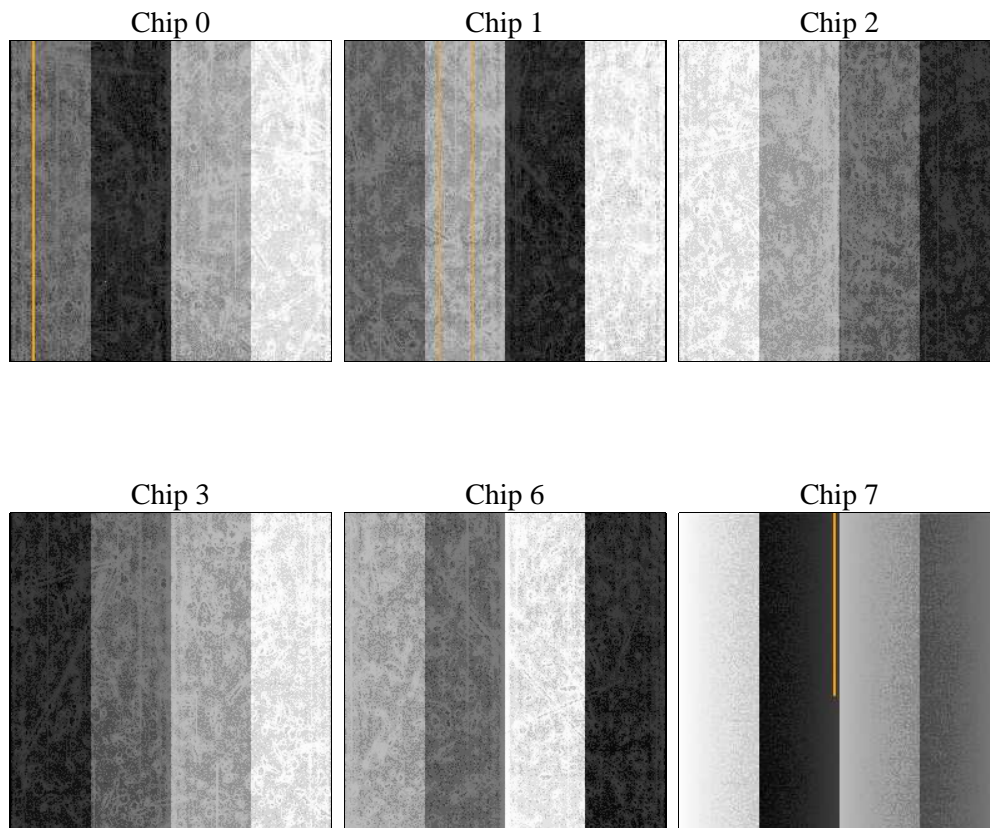
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	31000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.2.1	Processing system revision	ontime	30966.400461435	Sum of GTIs [s]
caldbver	4.6.10a	&#160	ontime0	30963.159471154	Sum of GTIs [s]
date	2015-11-08T19:06:54	Date and time of file creation	ontime1	30963.15946126	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	30966.400461435	Sum of GTIs [s]
			ontime3	30966.400461435	Sum of GTIs [s]
			ontime6	30966.400461435	Sum of GTIs [s]
			ontime7	30966.400461435	Sum of GTIs [s]
			l1events	949026	Number of level 1 events

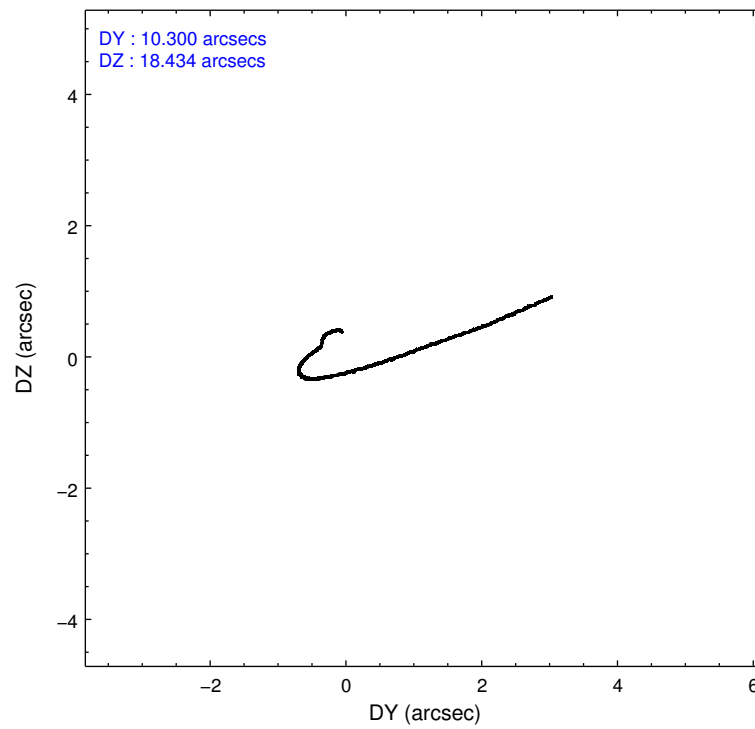
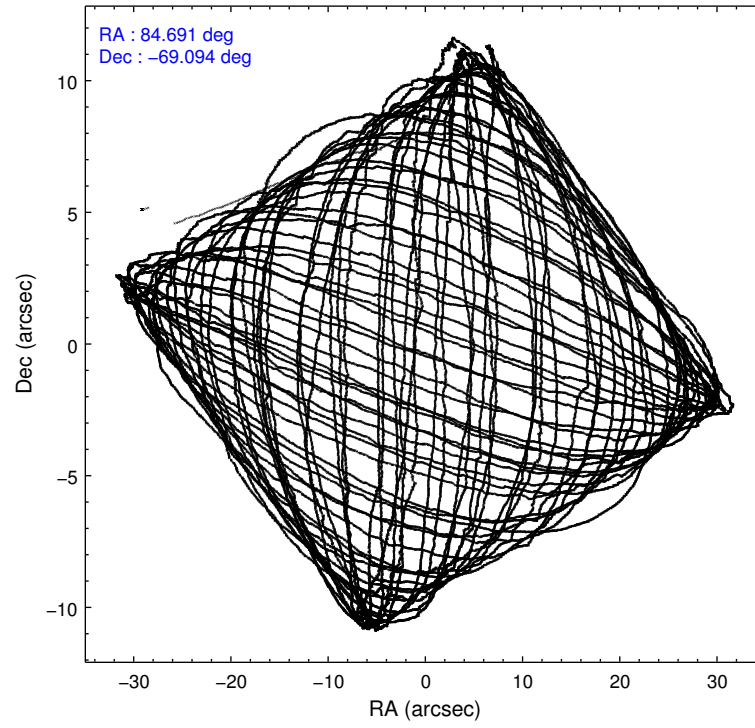
### 2.1.4 Events

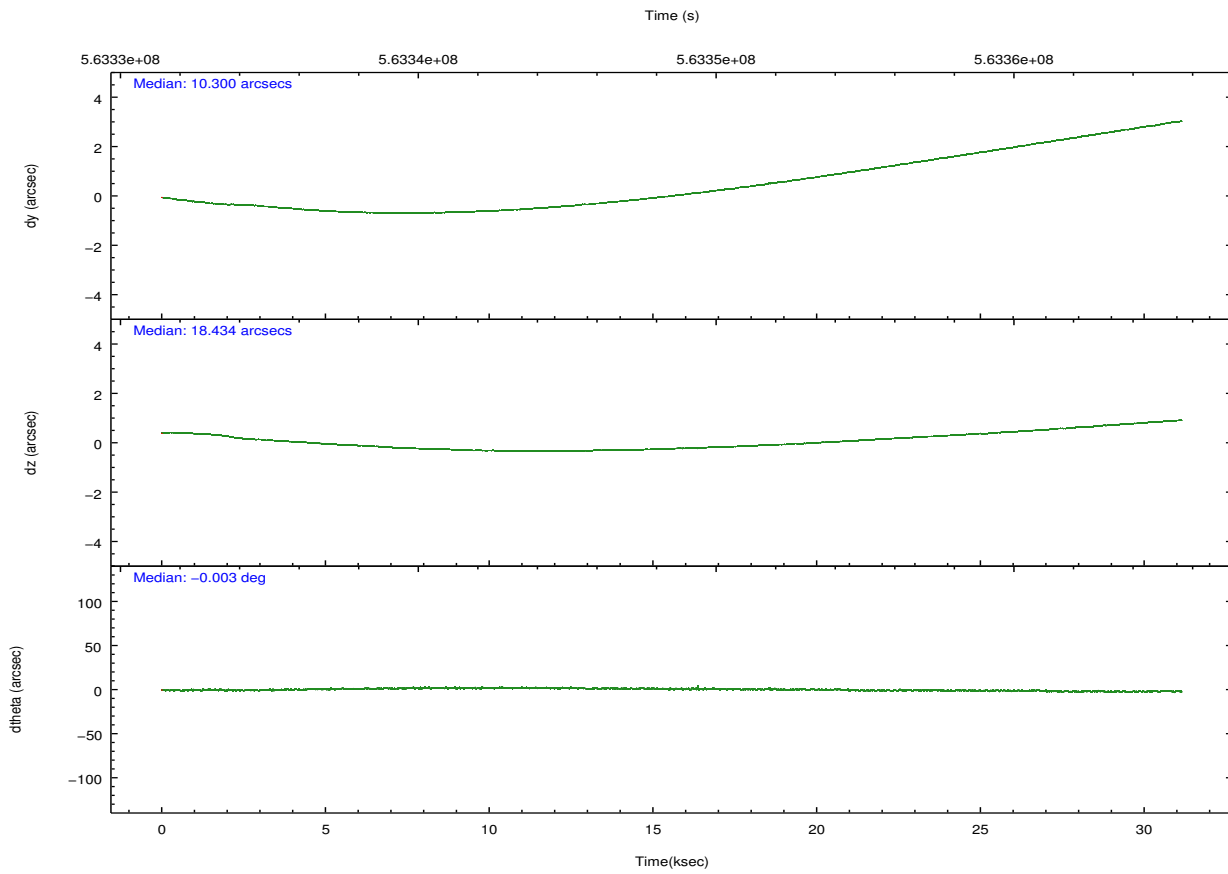
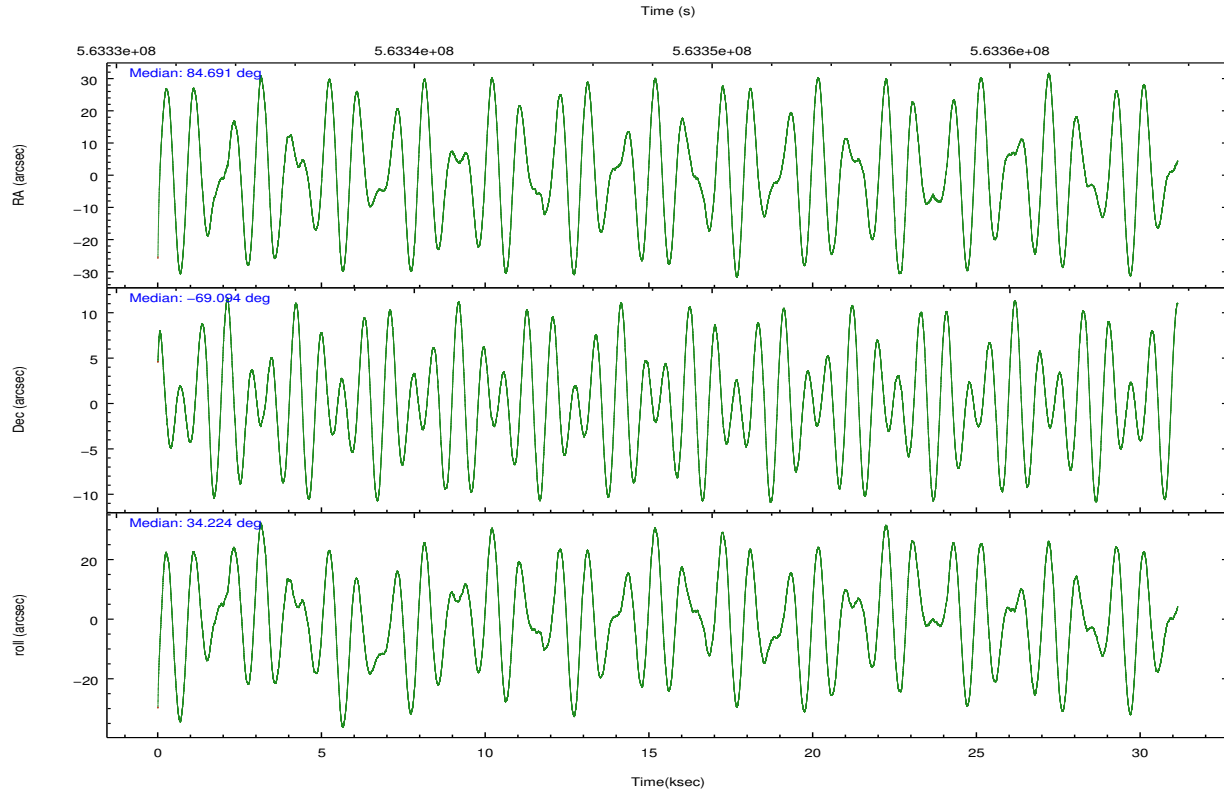
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	139715	156173	157933	158614	160253	176338	grade 0 events	10580	20918	12038	17978	9574	8388
rejected events	117093	120255	134548	128207	138426	92569		7%	13%	7%	11%	5%	4%
rejected %	83%	77%	85%	80%	86%	52%	grade 1 events	117	208	107	163	96	263
								0%	0%	0%	0%	0%	0%
							grade 2 events	4962	6019	4711	4876	4599	18279
								3%	3%	2%	3%	2%	10%
							grade 3 events	1887	2381	1740	2103	1885	7266
								1%	1%	1%	1%	1%	4%
							grade 4 events	1802	2348	1810	2030	1827	7343
								1%	1%	1%	1%	1%	4%
							grade 5 events	5950	6276	5405	6792	6849	18486
								4%	4%	3%	4%	4%	10%
							grade 6 events	3391	4259	3088	3422	3943	42504
								2%	2%	1%	2%	2%	24%
							grade 7 events	111026	113764	129034	121250	131480	73809
								79%	72%	81%	76%	82%	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	84.657504	84.69093499430858	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.119269	-69.09438913870231	CCD I3 on	Y	Y
[deg] Pointing Roll	33.982095	34.2220110885613	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)	563333074.184000	563331862.88814	CCD S5 on	N	N
Observation start date	2015-11-08T01:23:26	2015-11-08T01:04:22	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	563364074.184000	563365087.24002	On-chip summing requested	N	N
Observation end date	2015-11-08T10:00:06	2015-11-08T10:18:07	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect





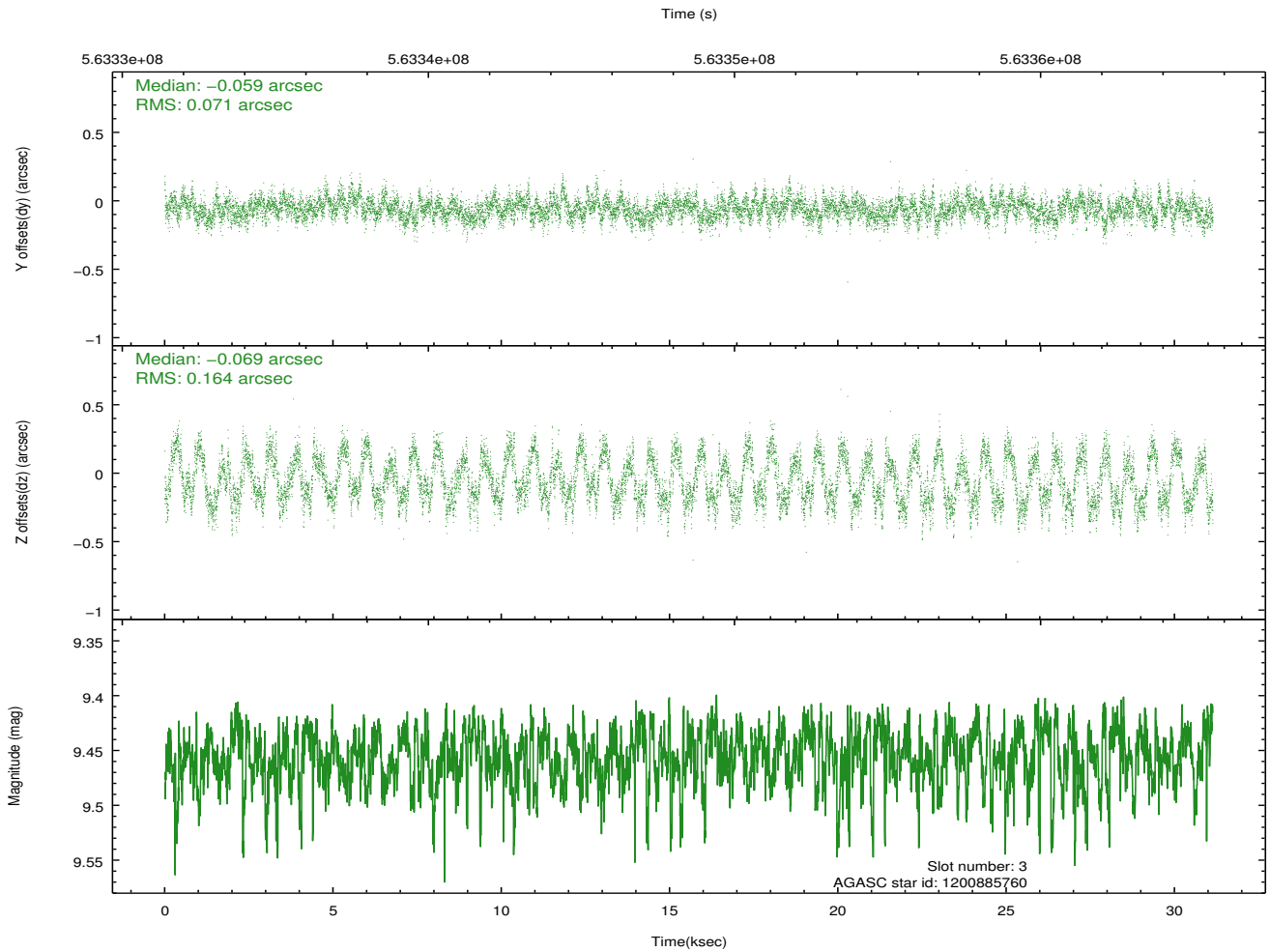
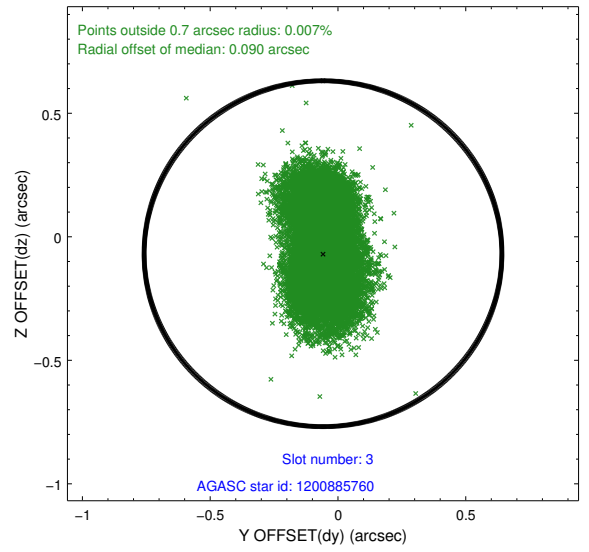
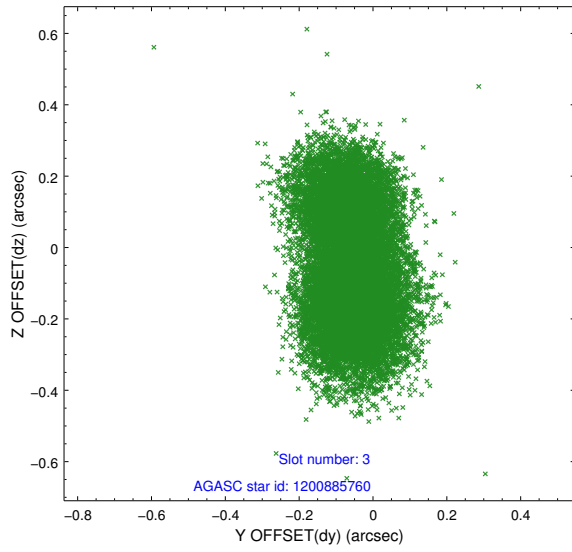
### Slot Statistics

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	7596	0.083	-0.017	0.018	0.026	0.000000	0.000000	928.87	-842.21
1	FID		ACIS-I-5	7.25	7595	-0.294	0.069	0.014	0.027	0.000000	0.000000	-1819.62	1055.27
2	FID		ACIS-I-6	7.25	7596	0.118	0.021	0.014	0.037	0.000000	0.000000	394.33	1699.85
3	GUIDE	used	1200885760	9.46	15178	-0.059	-0.069	0.194	0.305	83.723637	-68.777667	-326.79	1692.22
4	GUIDE	used	1201018384	9.05	15180	-0.108	-0.021	0.101	0.169	85.801362	-68.593260	2297.51	718.63
5	GUIDE	used	1201019672	6.80	15189	-0.075	-0.126	0.115	0.179	85.312192	-68.770187	1407.77	561.43
6	GUIDE	used	1201020040	8.60	15186	-0.081	-0.134	0.088	0.146	85.379163	-68.879396	1255.97	188.40
7	GUIDE	used	1201542672	8.18	15186	0.324	0.337	0.109	0.178	84.492488	-69.957531	-1853.11	-2386.42

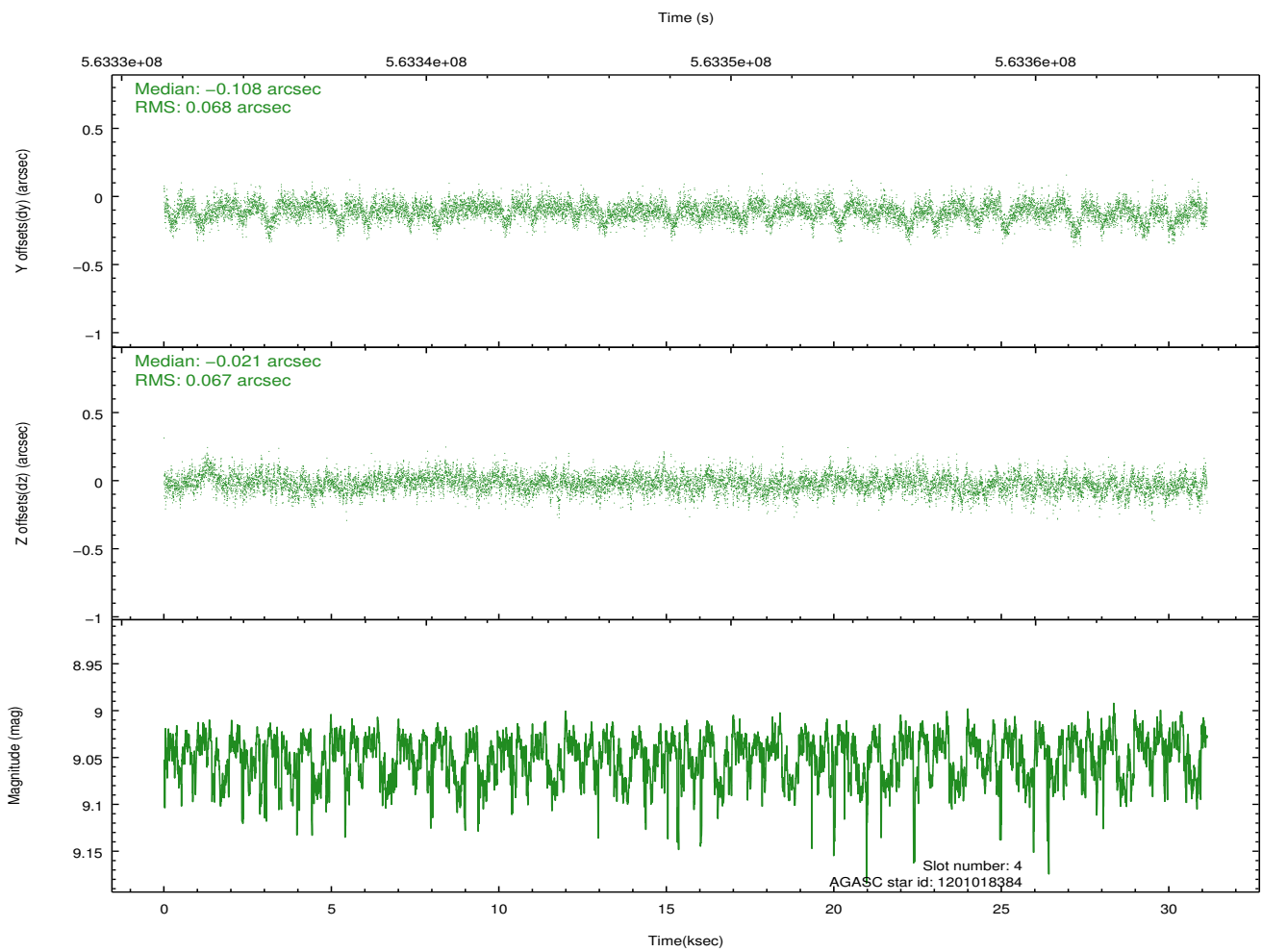
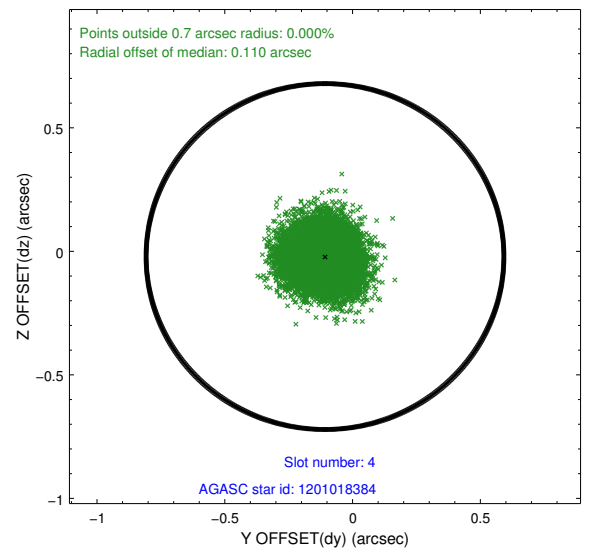
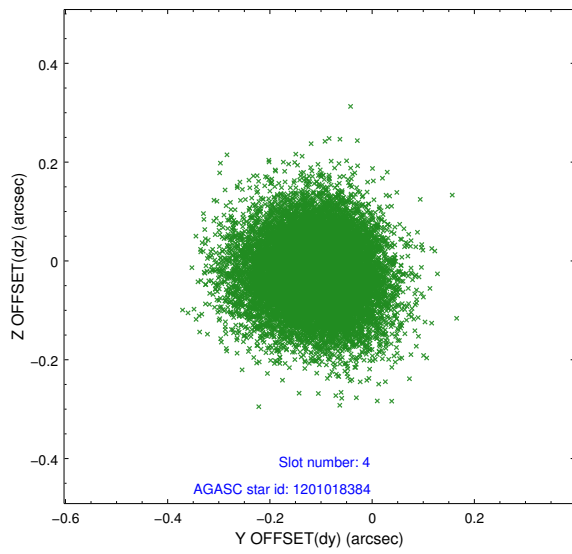
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## 2.4 Star Slots

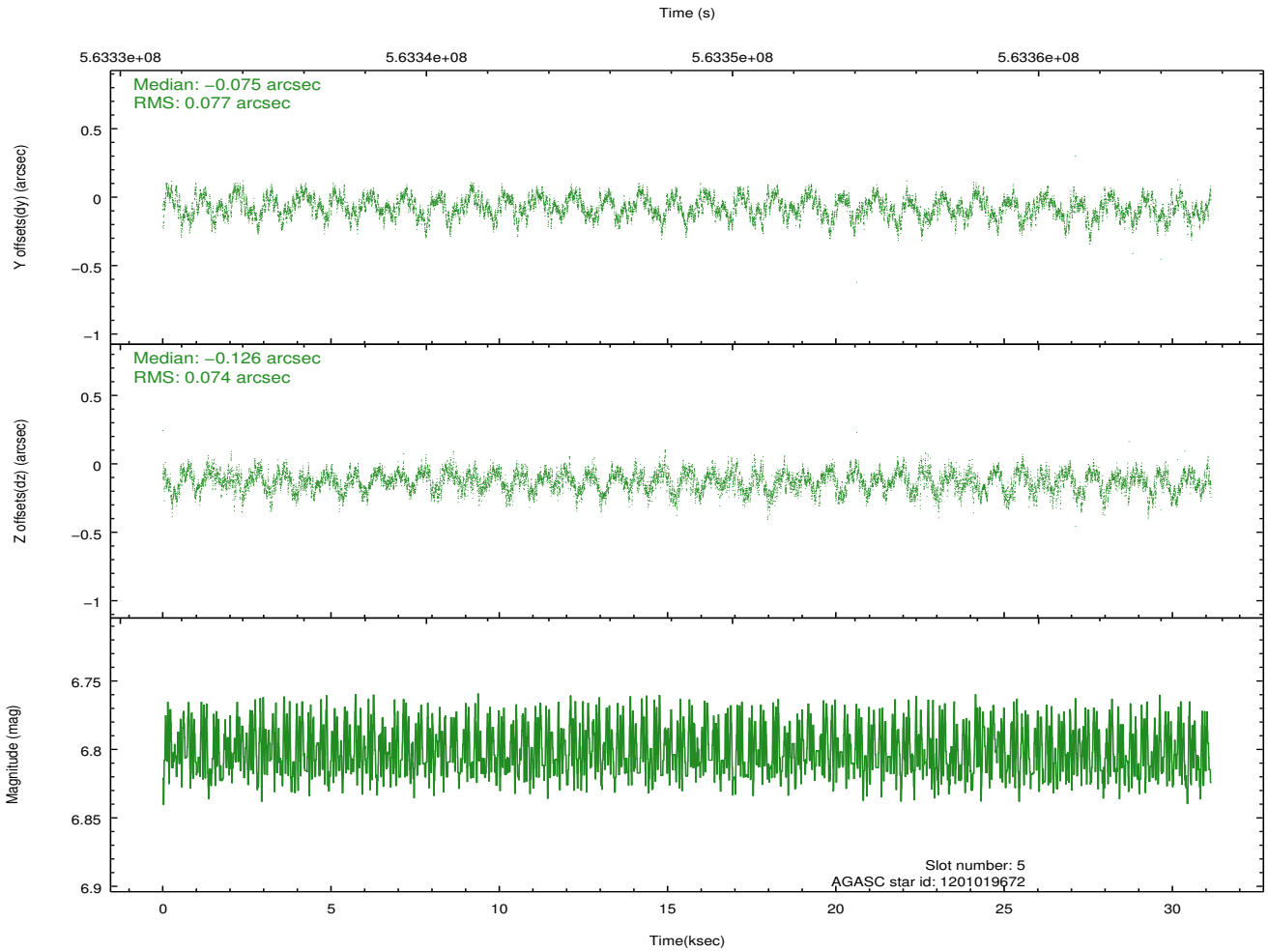
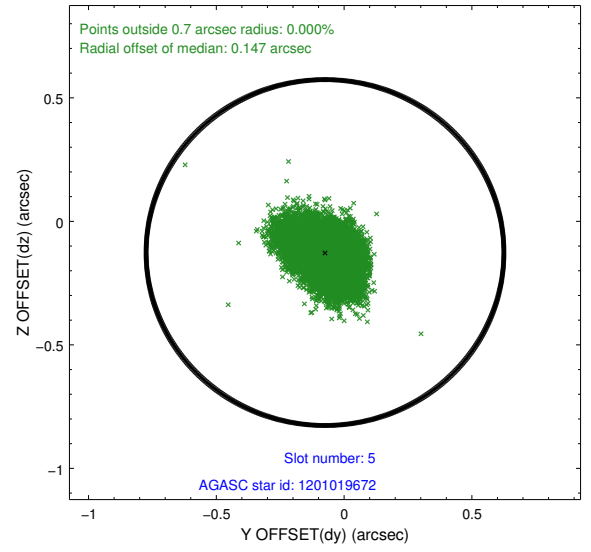
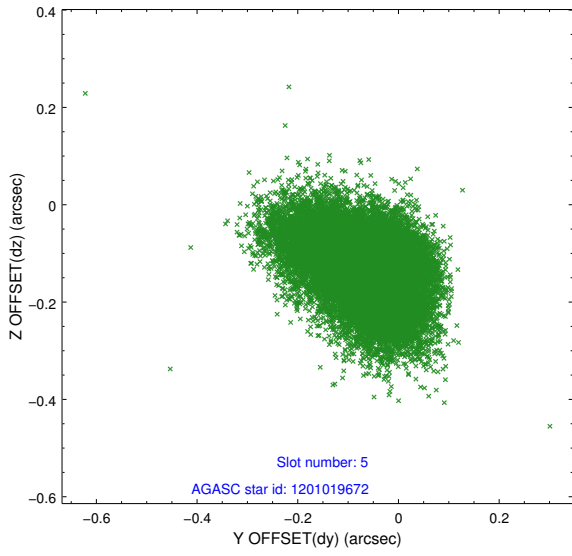
### 2.4.1 Slot 3



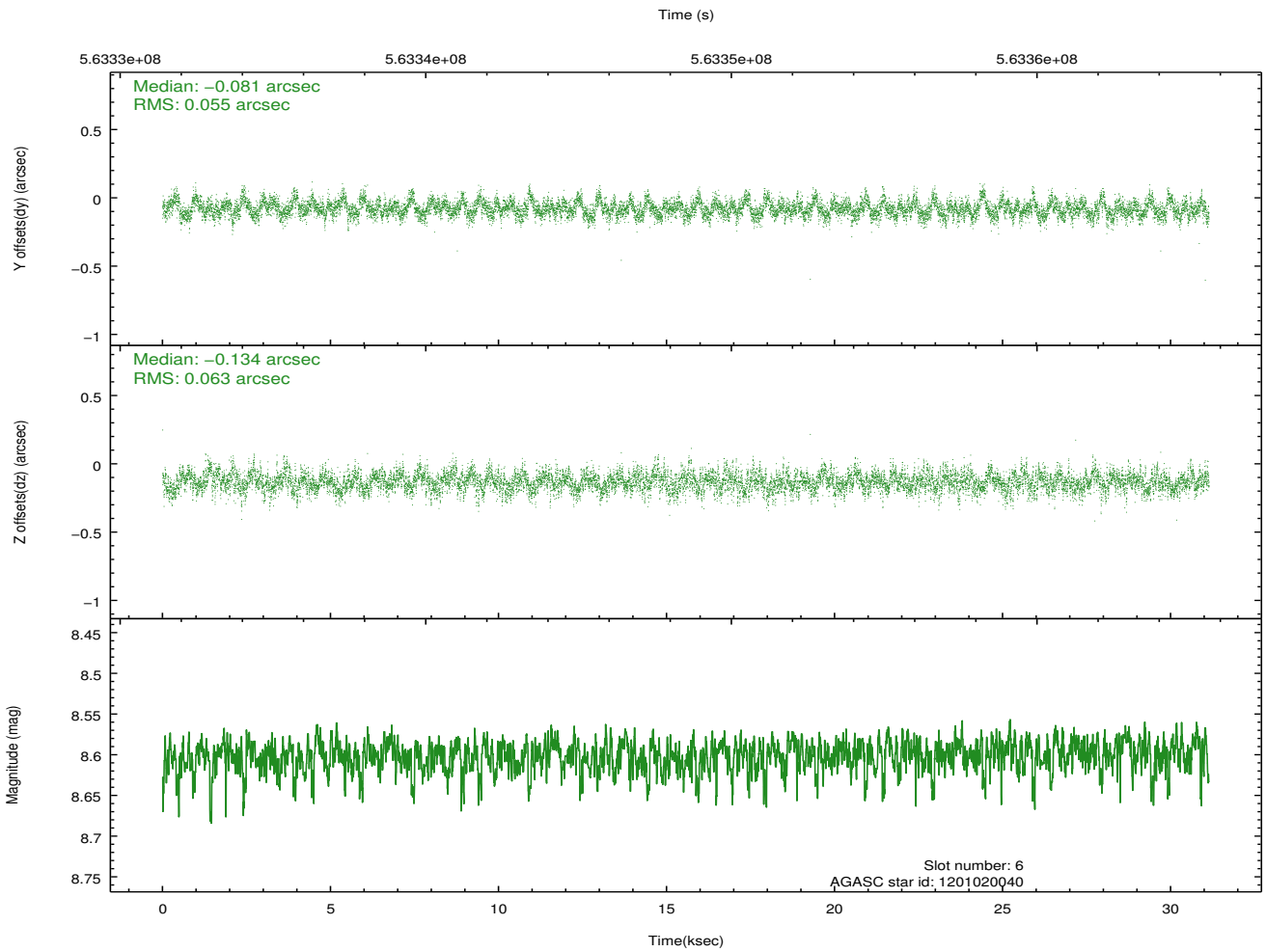
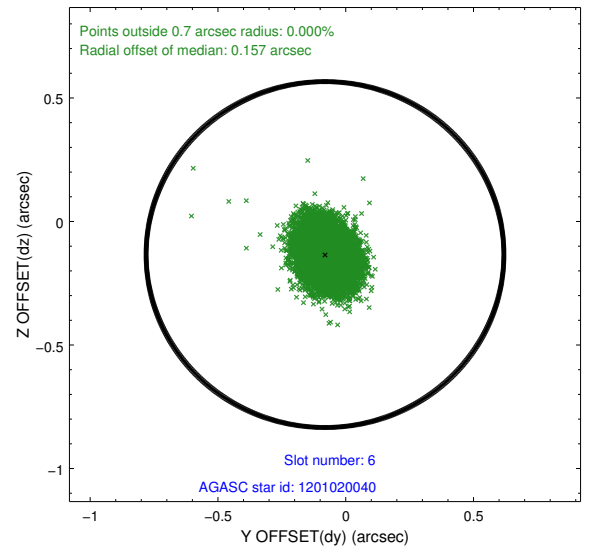
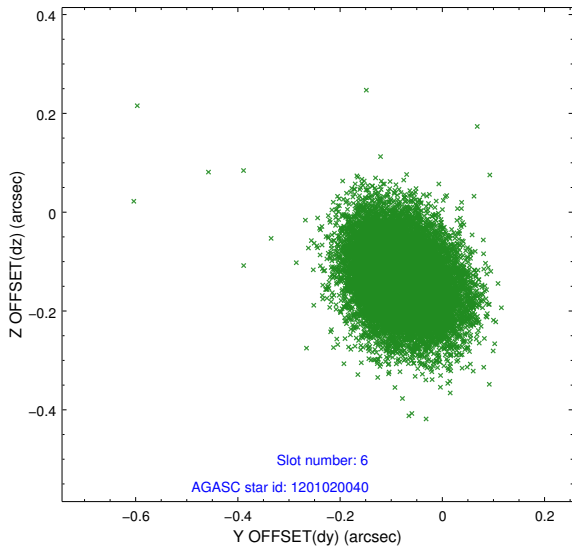
## 2.4.2 Slot 4



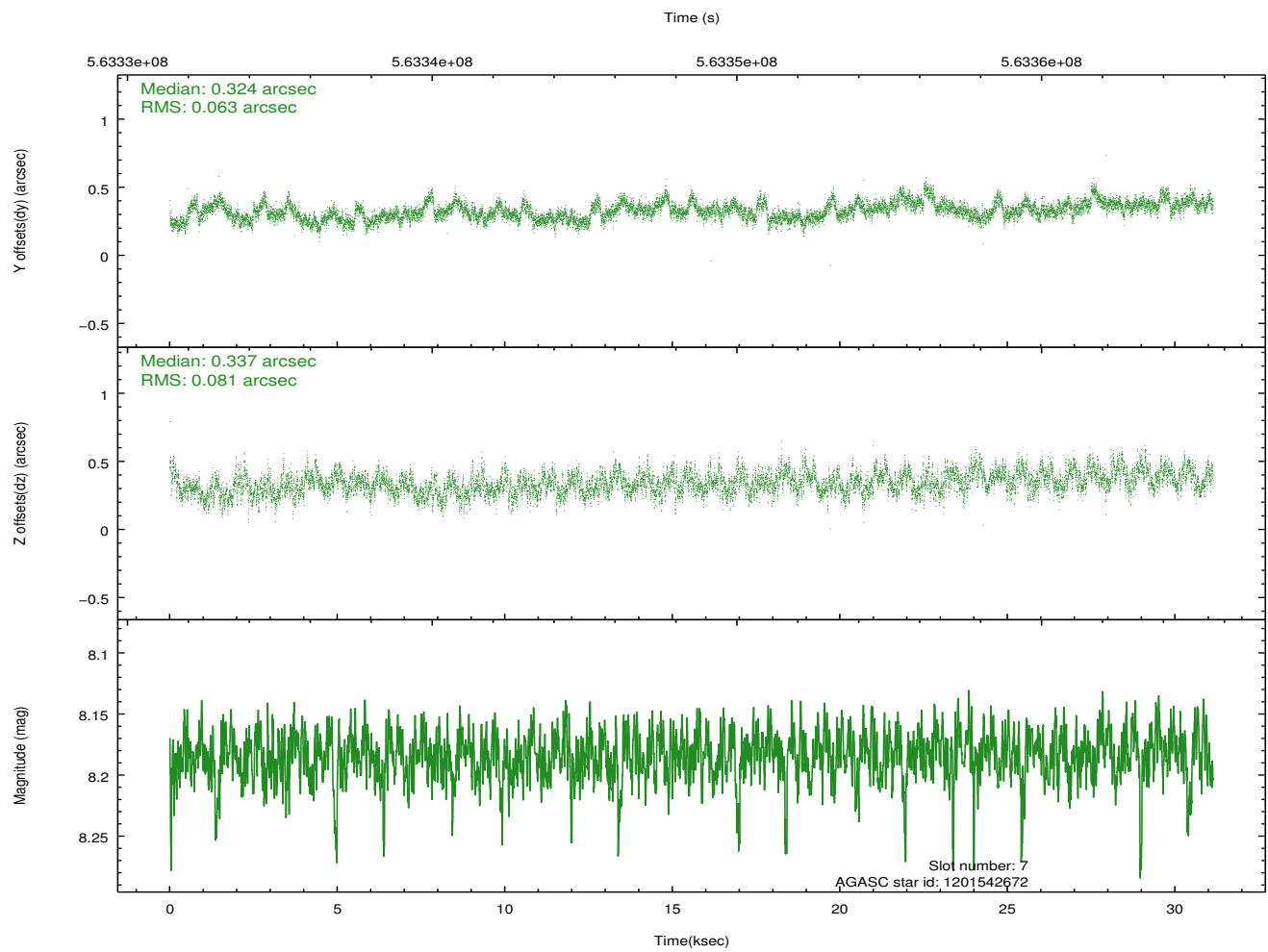
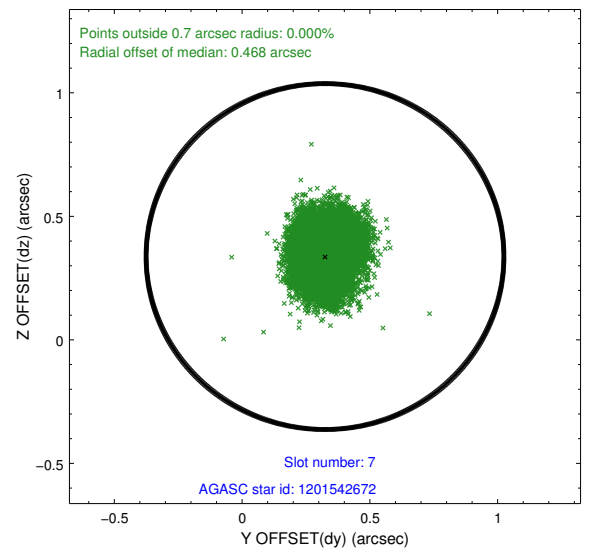
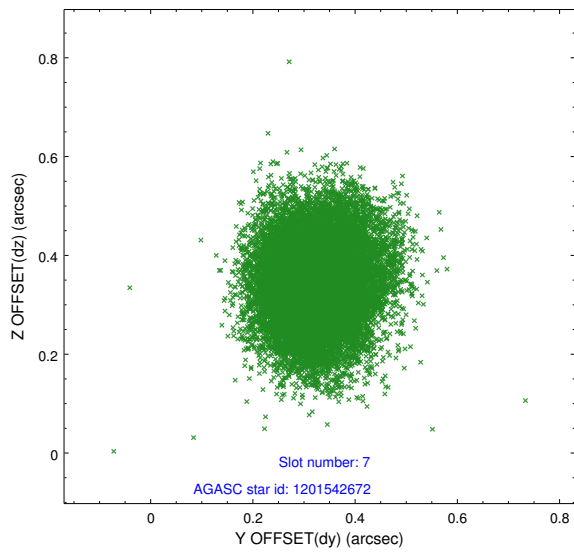
### 2.4.3 Slot 5



### 2.4.4 Slot 6

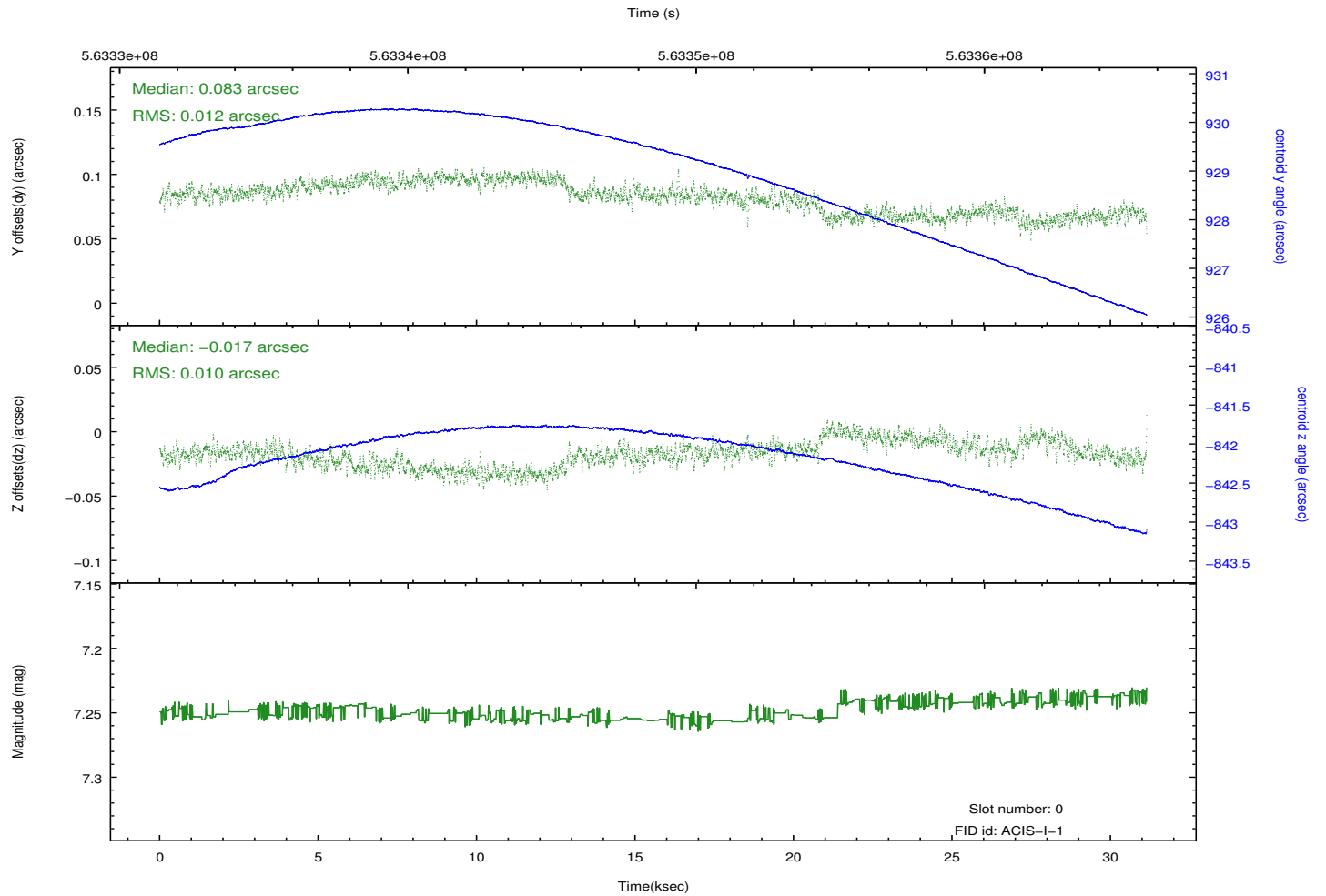
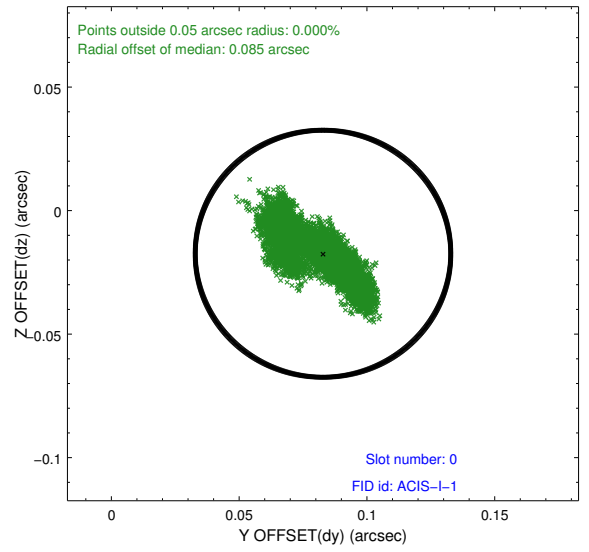
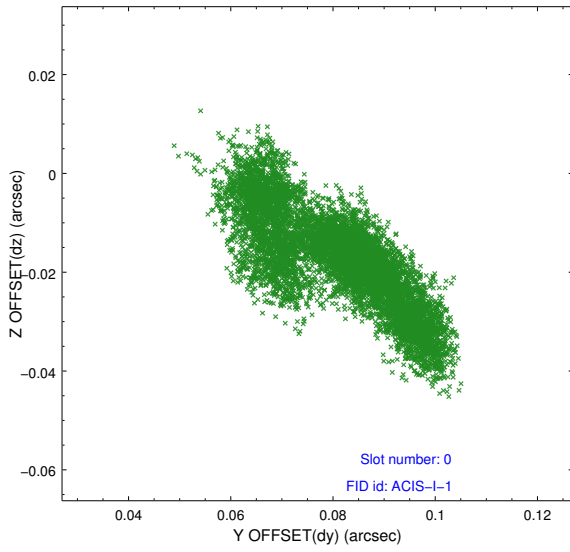


## 2.4.5 Slot 7

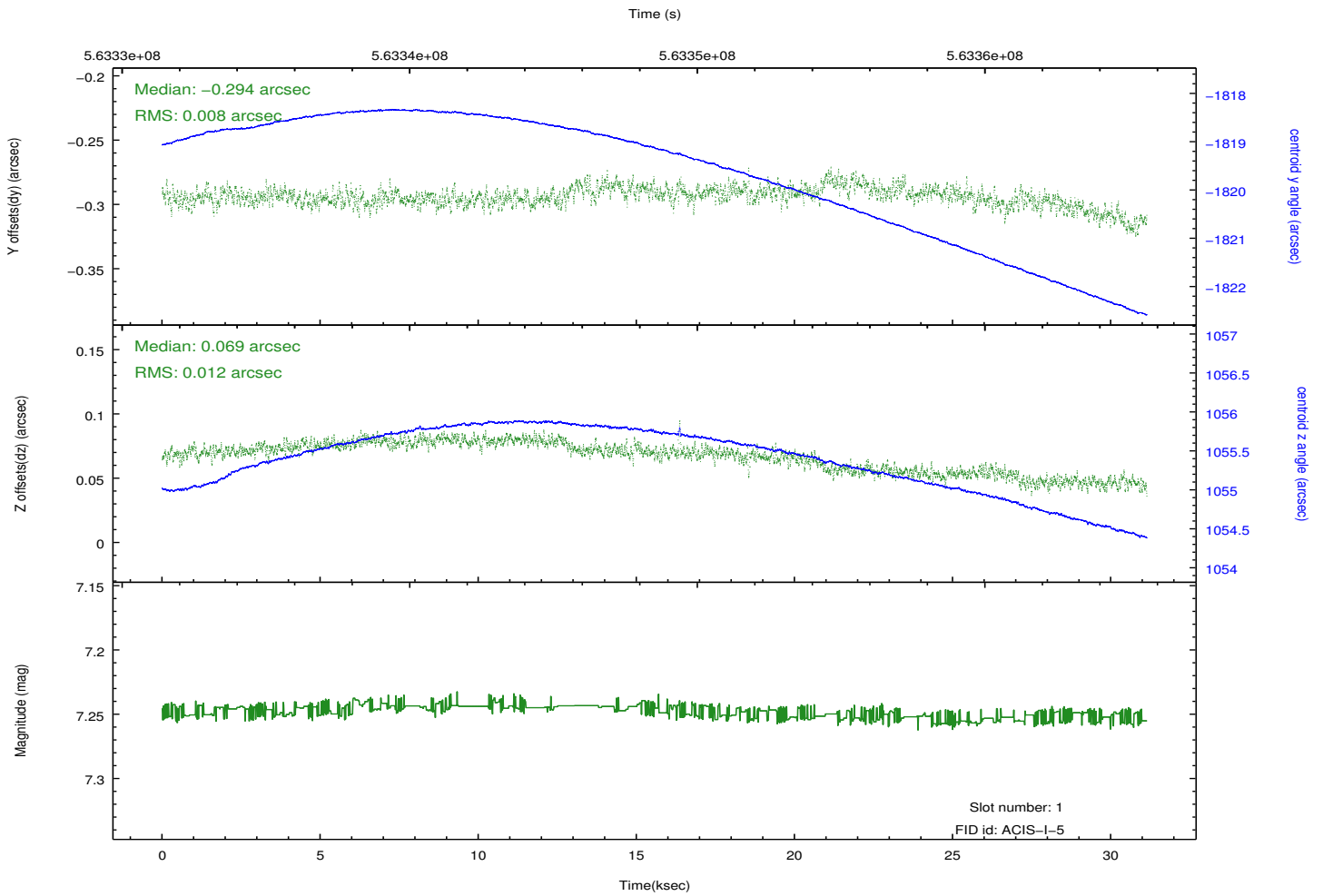
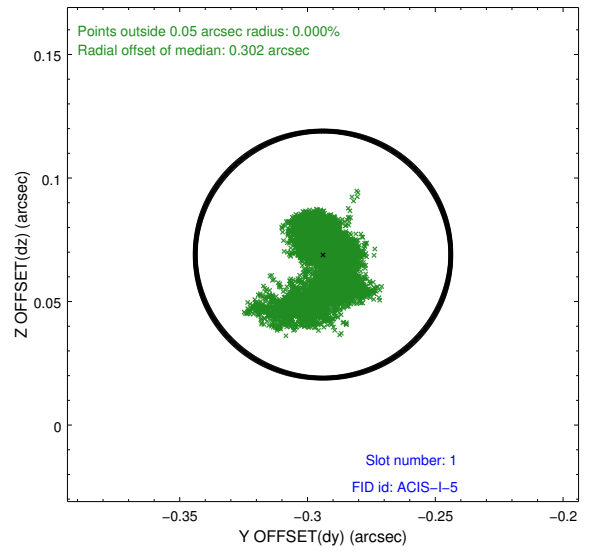
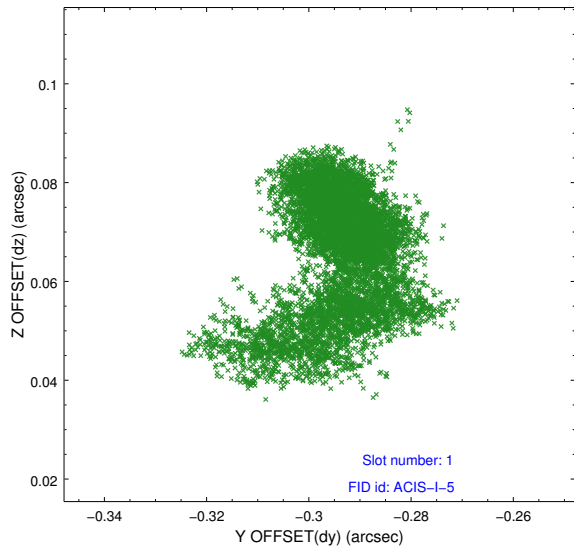


## 2.5 FID Slots

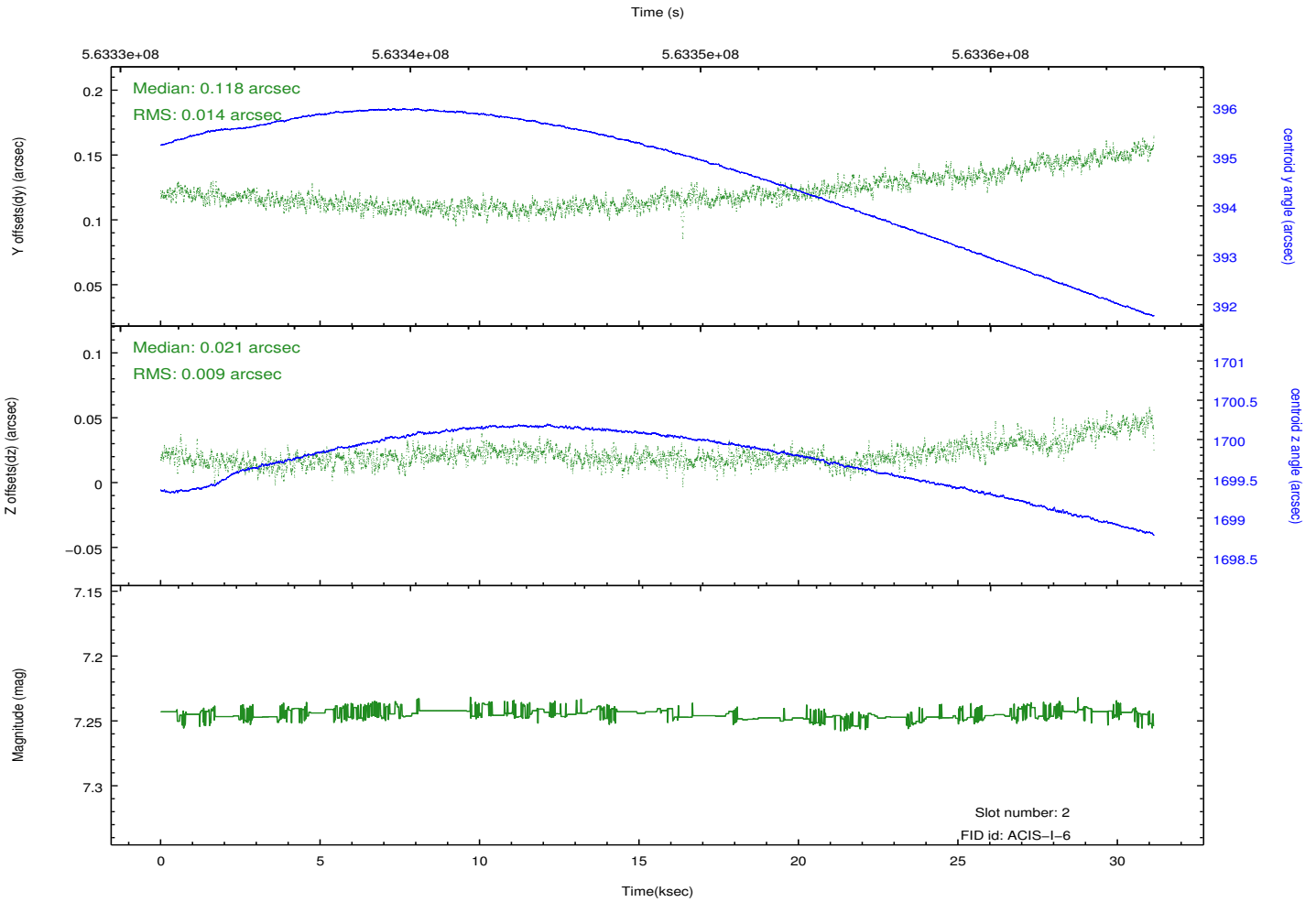
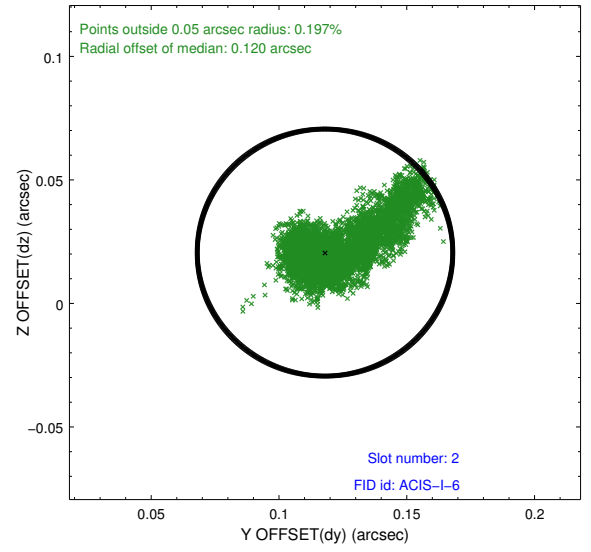
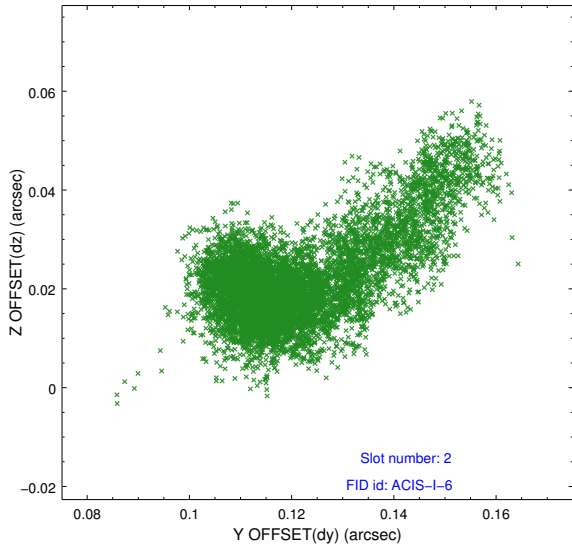
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.11.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.966400461435

## A.2 Comments