

# V&V Reference Report

## L2 ASCDS Version : 10.2.4

Observation 17312 - L2 Version 1  
Chandra X-Ray Center

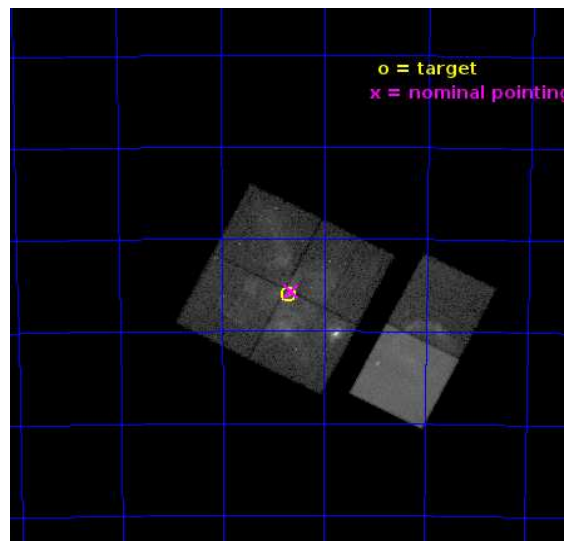
L2 Processing Date : Aug 23 2014

## 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	17312	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	84.660545126139	Nominal RA [deg]
dec_nom	-69.094970437494	Nominal Dec [deg]
roll_nom	117.19363727293	Nominal Roll [deg]
revision	1	Processing version of data
ontime	45470.814448714	Sum of GTIs [s]
livetime	44895.035616927	Livetime [s]
ontime0	45470.691408157	Sum of GTIs [s]
ontime1	45470.732458115	Sum of GTIs [s]
ontime2	45474.01446861	Sum of GTIs [s]
ontime3	45470.814448714	Sum of GTIs [s]
ontime6	45467.655567884	Sum of GTIs [s]
ontime7	45474.096548617	Sum of GTIs [s]
l2events	315912	Number of level 2 events

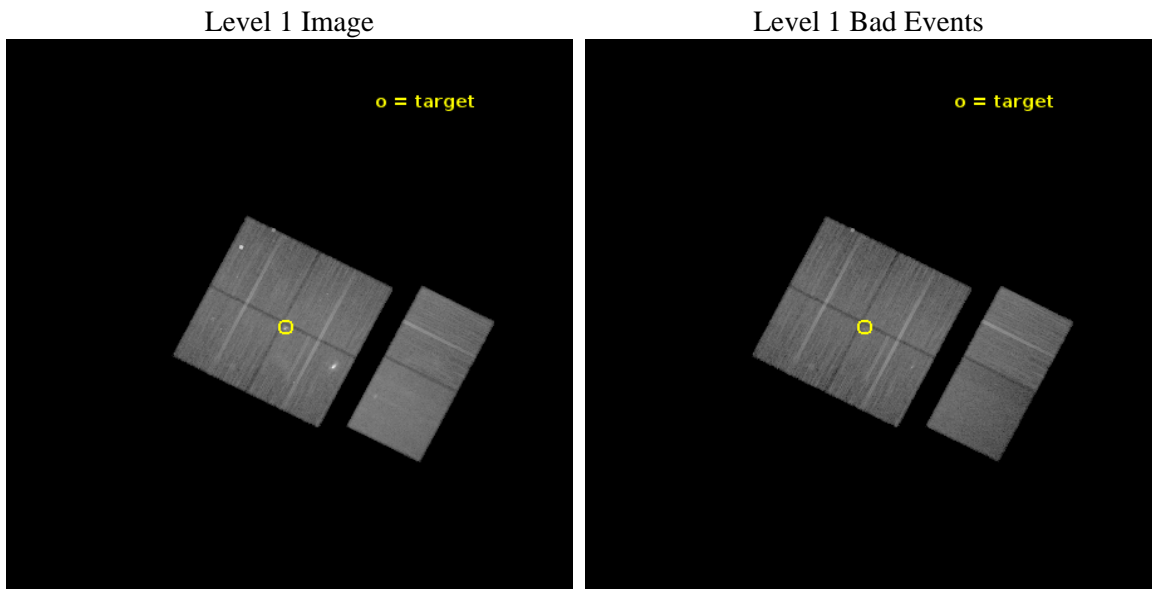




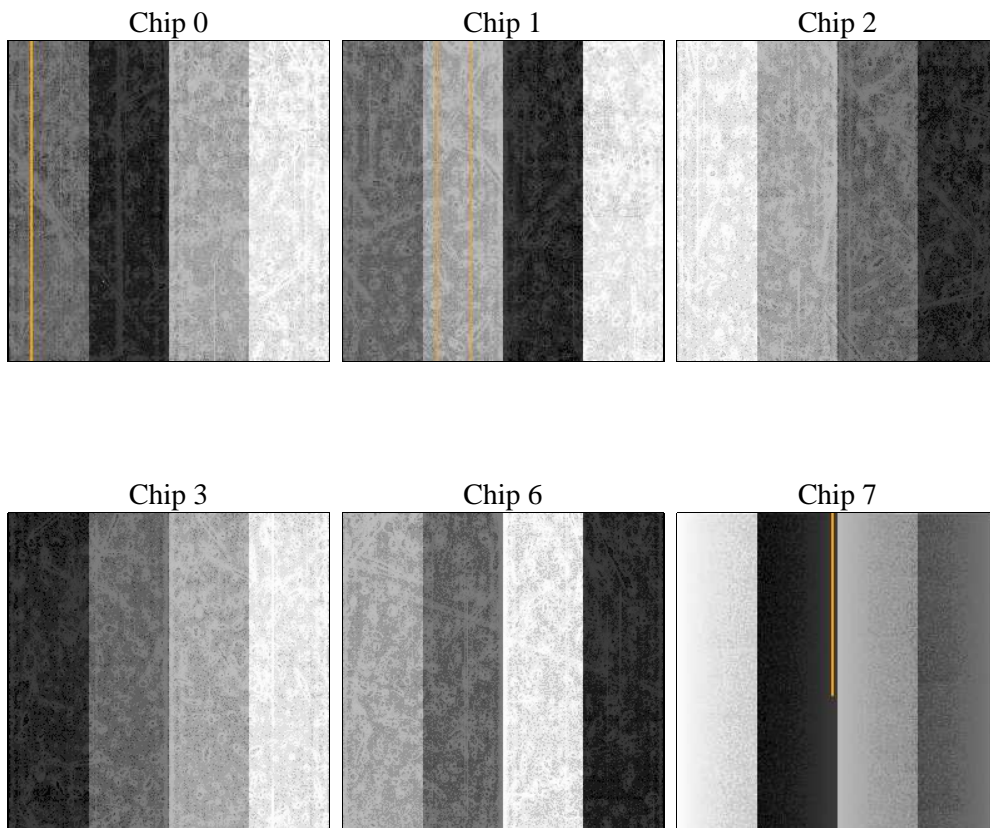
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45500.000000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	45470.814448714	Sum of GTIs [s]
caldsver	4.6.2	&#160	ontime0	45470.691408157	Sum of GTIs [s]
date	2014-08-23T06:57:25	Date and time of file creation	ontime1	45470.732458115	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	45474.01446861	Sum of GTIs [s]
			ontime3	45470.814448714	Sum of GTIs [s]
			ontime6	45467.655567884	Sum of GTIs [s]
			ontime7	45474.096548617	Sum of GTIs [s]
			l1events	1390028	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	216307	204060	227454	249733	227077	265397	grade 0 events	30614	17599	20650	48933	14433	15719
rejected events	168522	168200	190155	177763	194758	132874		14%	8%	9%	19%	6%	5%
rejected %	77%	82%	83%	71%	85%	50%	grade 1 events	227	126	193	432	153	369
								0%	0%	0%	0%	0%	0%
							grade 2 events	7087	6793	6979	9851	6759	29472
								3%	3%	3%	3%	2%	11%
							grade 3 events	2677	2938	2538	3684	2702	11933
								1%	1%	1%	1%	1%	4%
							grade 4 events	2570	2870	2669	3895	2704	11758
								1%	1%	1%	1%	1%	4%
							grade 5 events	9514	9158	8118	9726	9786	26589
								4%	4%	3%	3%	4%	10%
							grade 6 events	4841	5661	4464	5611	5721	63641
								2%	2%	1%	2%	2%	23%
							grade 7 events	158777	158915	181843	167601	184819	105916
								73%	77%	79%	67%	81%	39%

## 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	84.725762	84.66054512613906	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.109833	-69.09497043749418	CCD I3 on	Y	Y
[deg] Pointing Roll	117.045871	117.1936372729349	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)	525077393.184000	525075678.86896	CCD S5 on	N	N
Observation start date	2014-08-22T06:48:46	2014-08-22T06:21:18	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	525122893.184000	525123445.40911	On-chip summing requested	N	N
Observation end date	2014-08-22T19:27:06	2014-08-22T19:37:25	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect

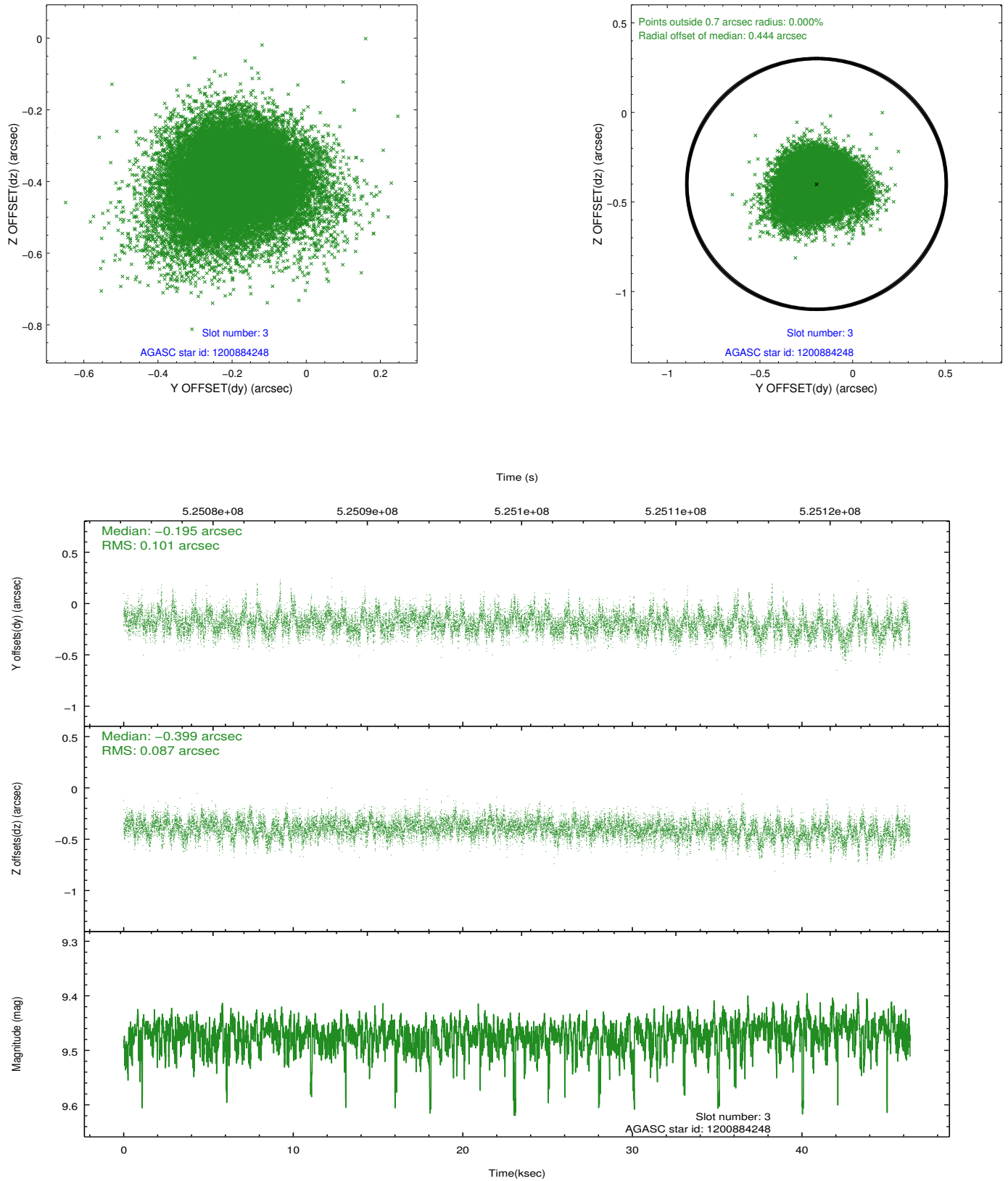


### Slot Statistics

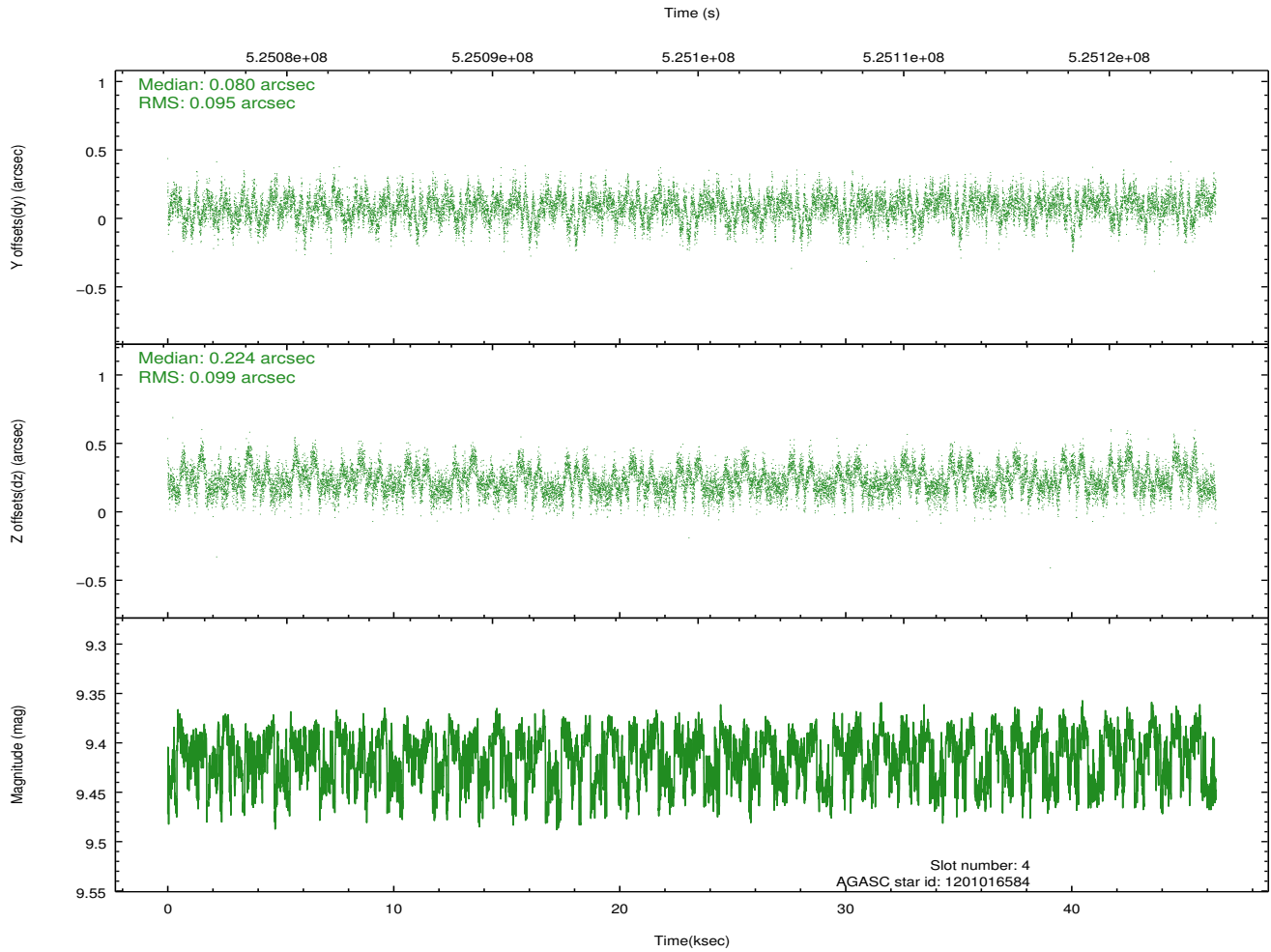
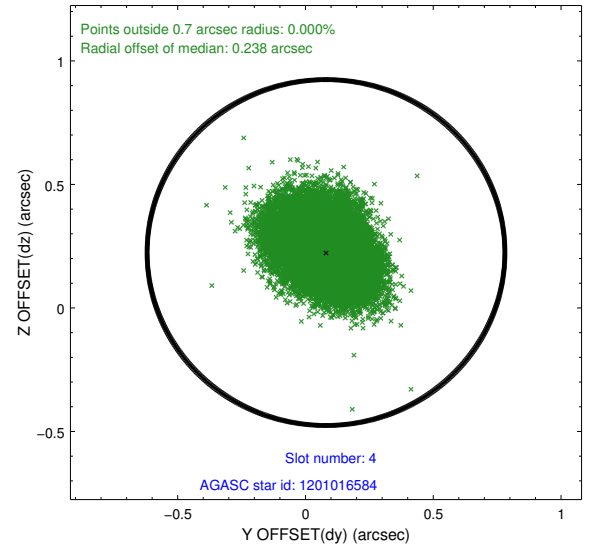
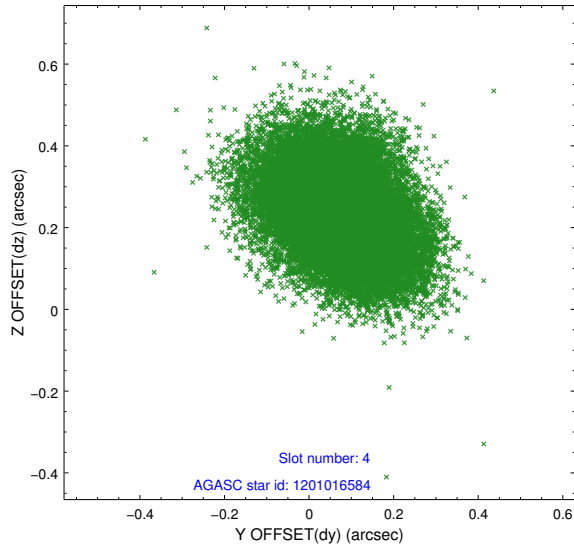
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.09	11311	0.037	0.013	0.035	0.061	0.000000	0.000000	917.43	-843.31
1	FID	ACIS-I-5	7.08	11312	-0.269	0.032	0.017	0.034	0.000000	0.000000	-1831.06	1054.12
2	FID	ACIS-I-6	7.09	11313	0.141	0.028	0.028	0.039	0.000000	0.000000	382.99	1698.69
3	GUIDE	1200884248	9.47	22603	-0.195	-0.399	0.139	0.236	83.880915	-68.565170	2245.36	101.59
4	GUIDE	1201016584	9.41	22605	0.080	0.224	0.147	0.237	85.677603	-68.415933	1644.19	-2253.34
5	GUIDE	1201018312	9.57	22598	0.395	0.051	0.139	0.218	86.298231	-69.115627	-957.80	-1775.83
6	GUIDE	1201018384	9.05	22609	-0.090	0.078	0.142	0.222	85.801362	-68.593260	1003.31	-2098.85
7	GUIDE	1201020040	8.60	22617	-0.189	0.042	0.074	0.122	85.379163	-68.879396	350.05	-1129.75

## 2.4 Star Slots

### 2.4.1 Slot 3

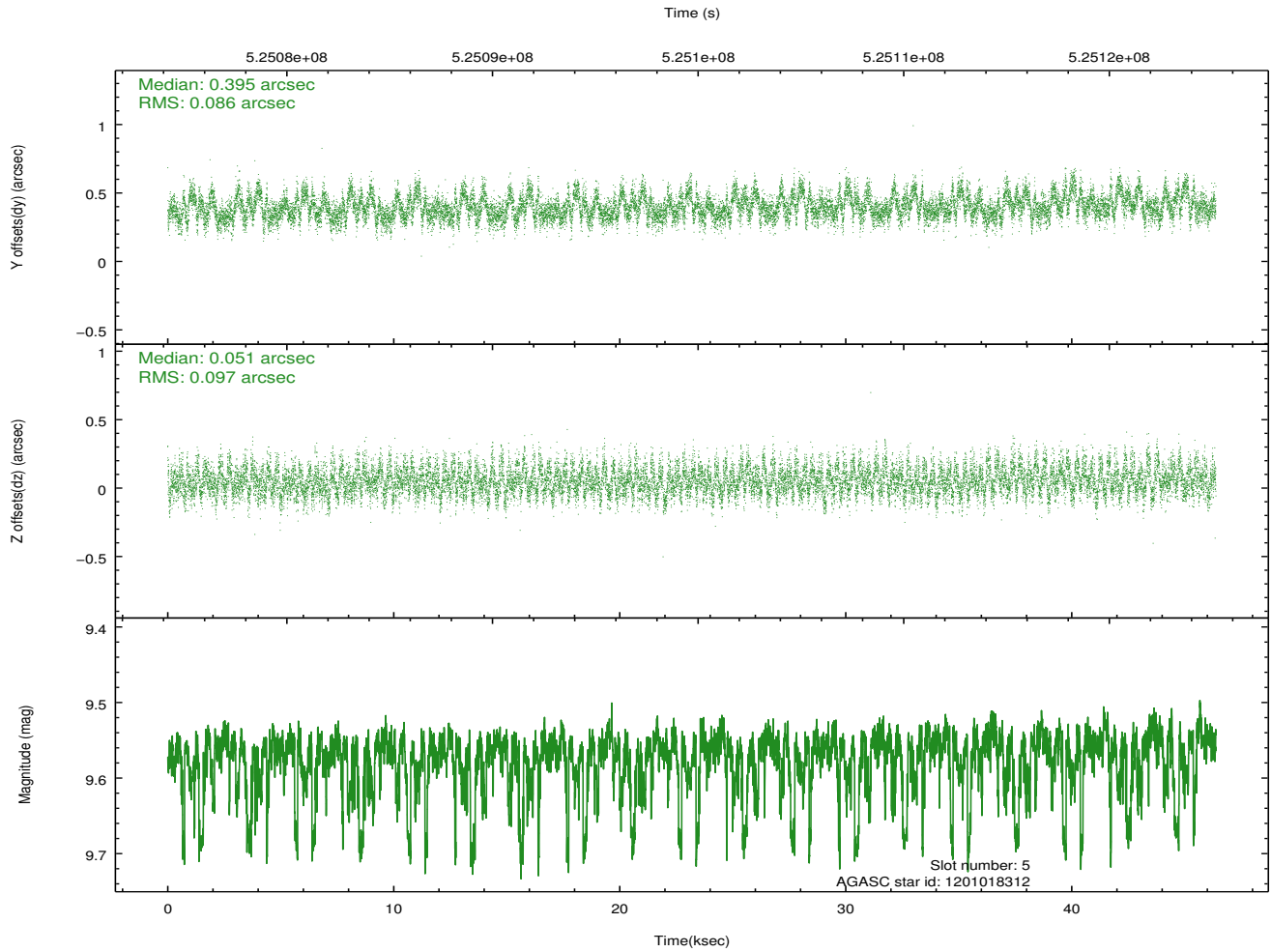
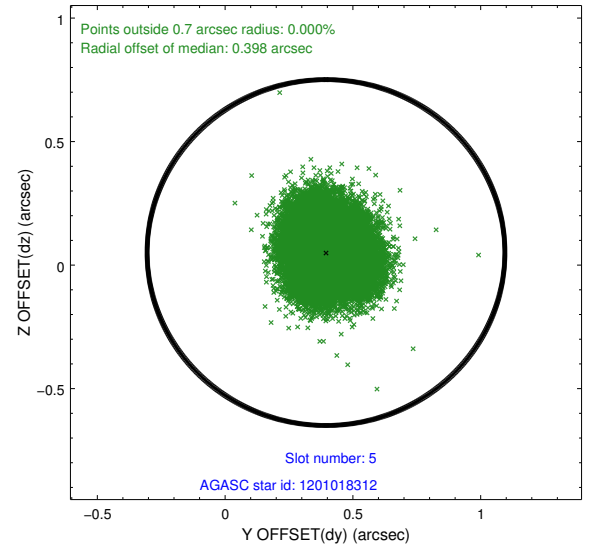
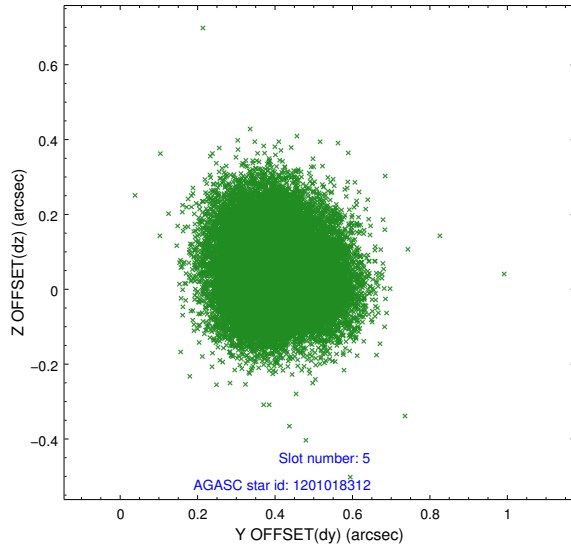


## 2.4.2 Slot 4

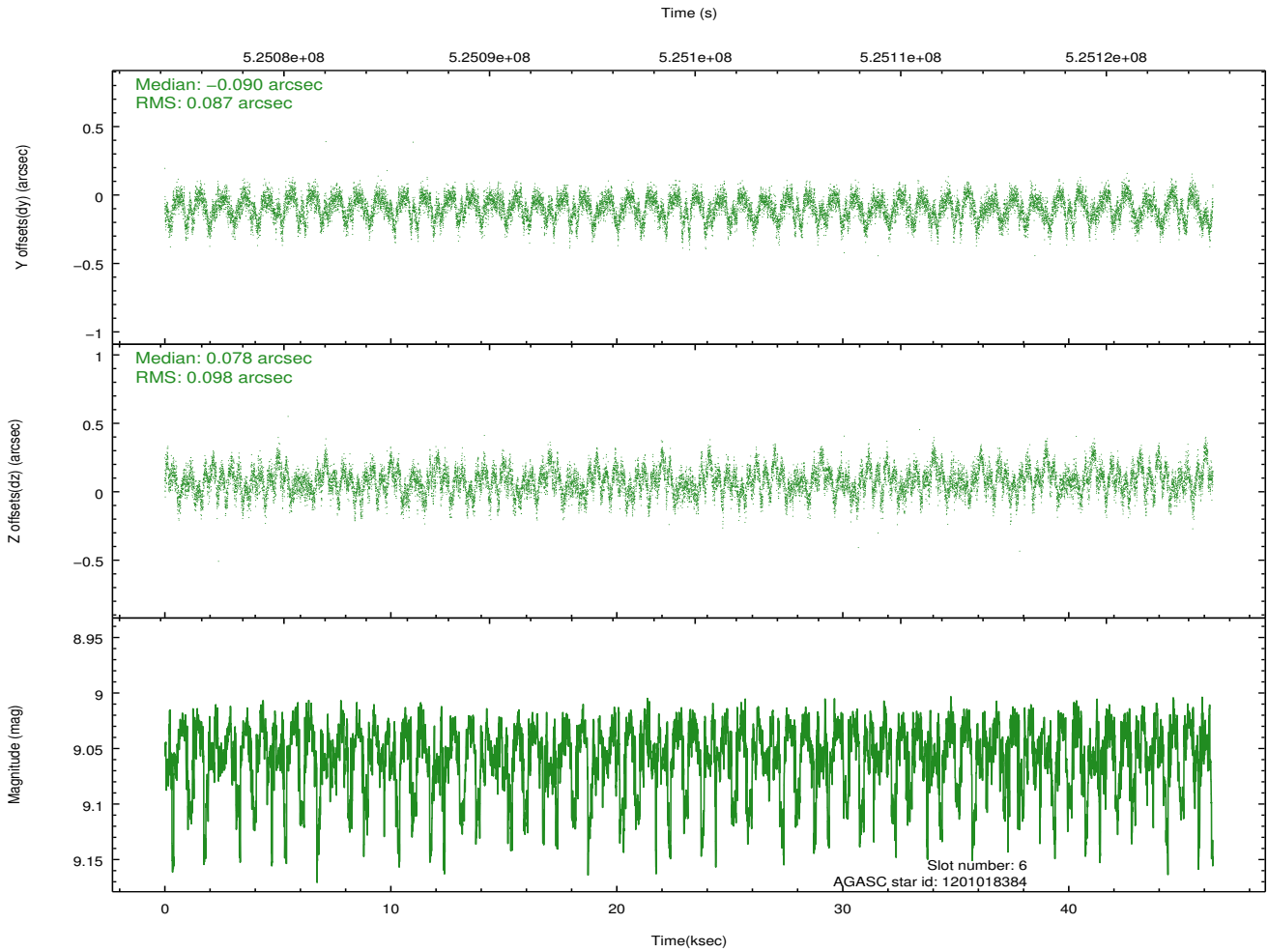
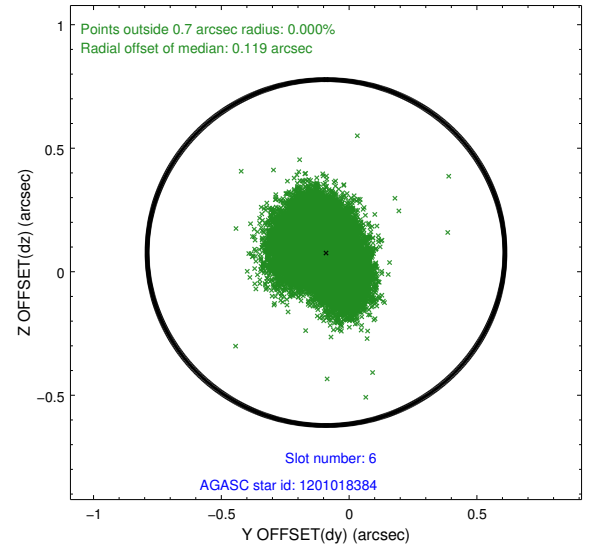
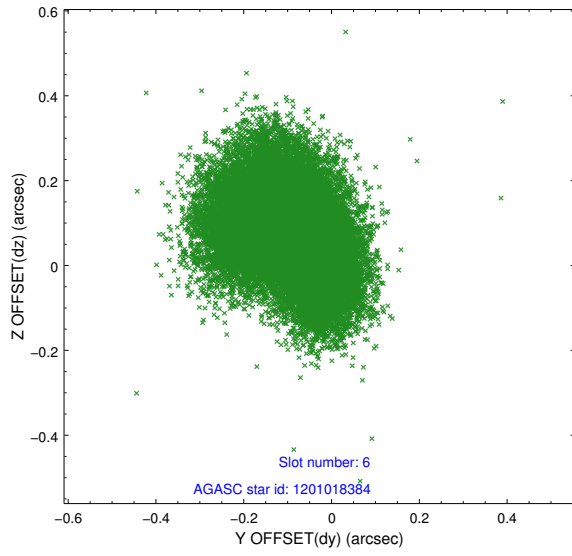




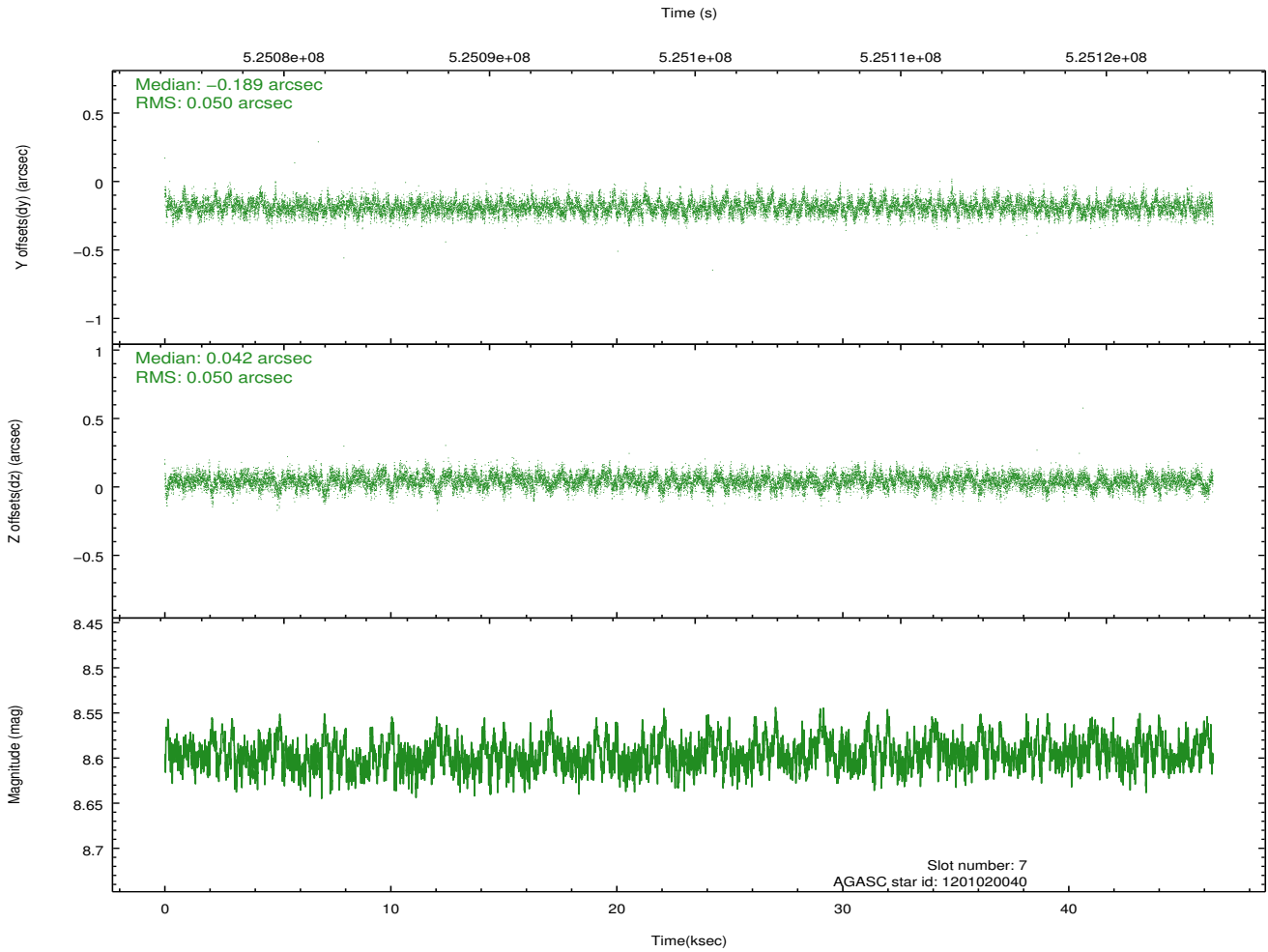
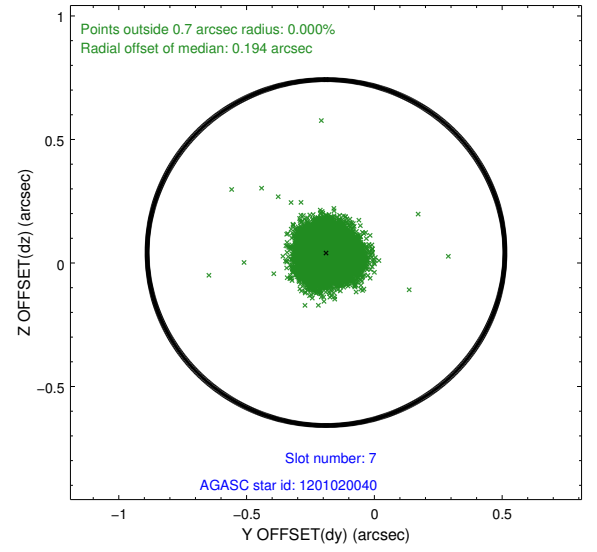
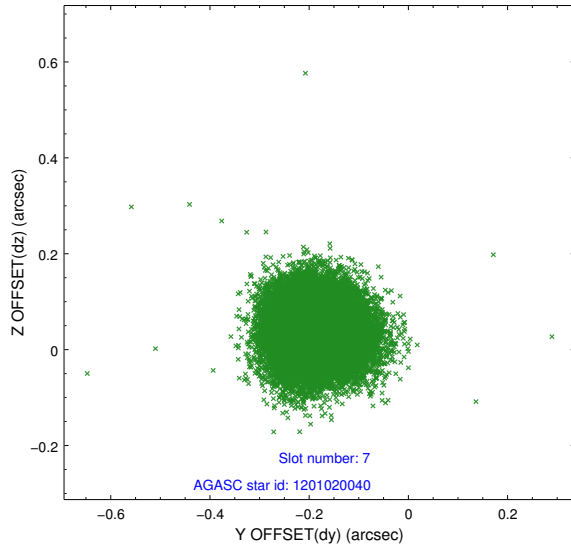
### 2.4.3 Slot 5



## 2.4.4 Slot 6

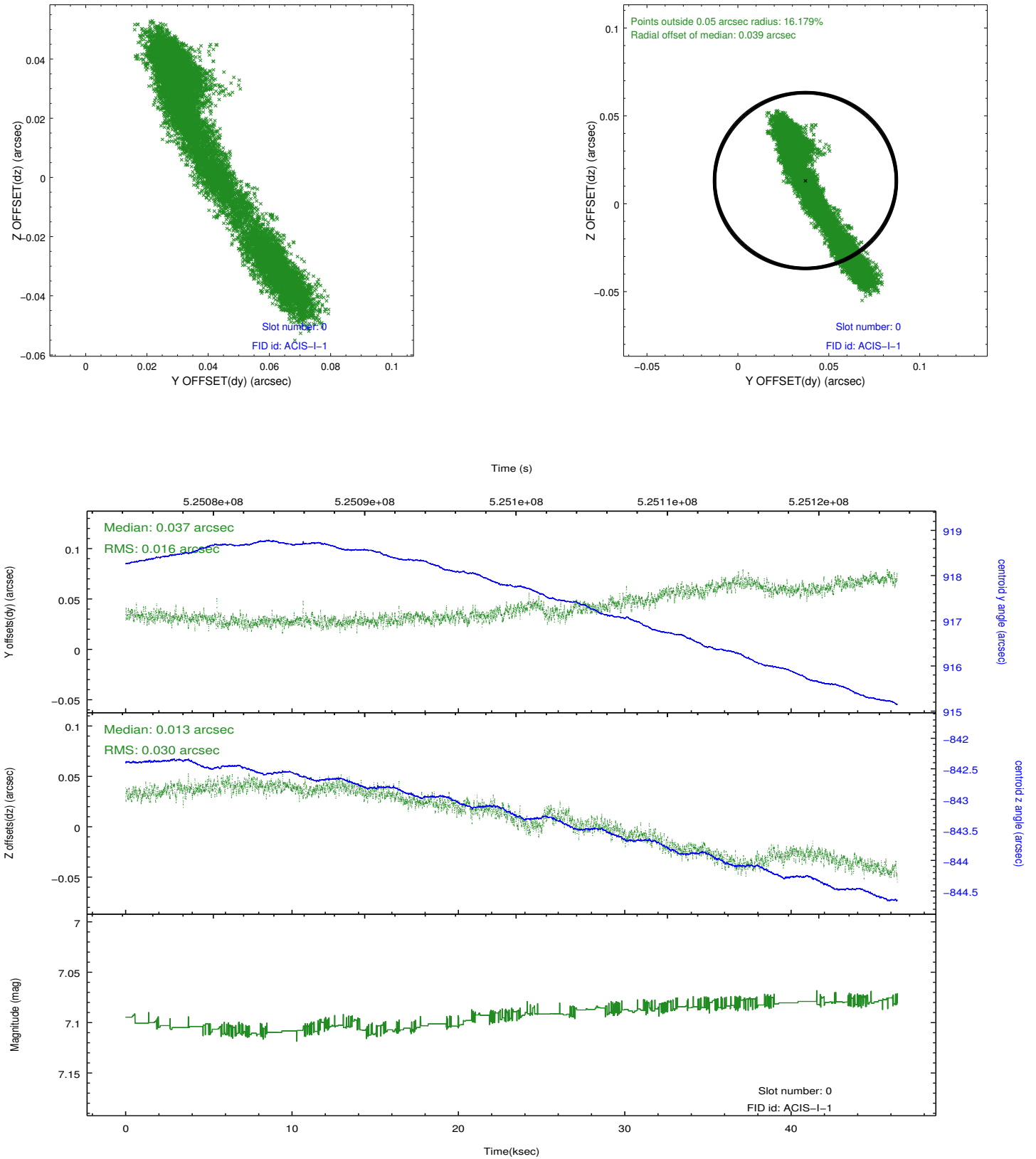


## 2.4.5 Slot 7

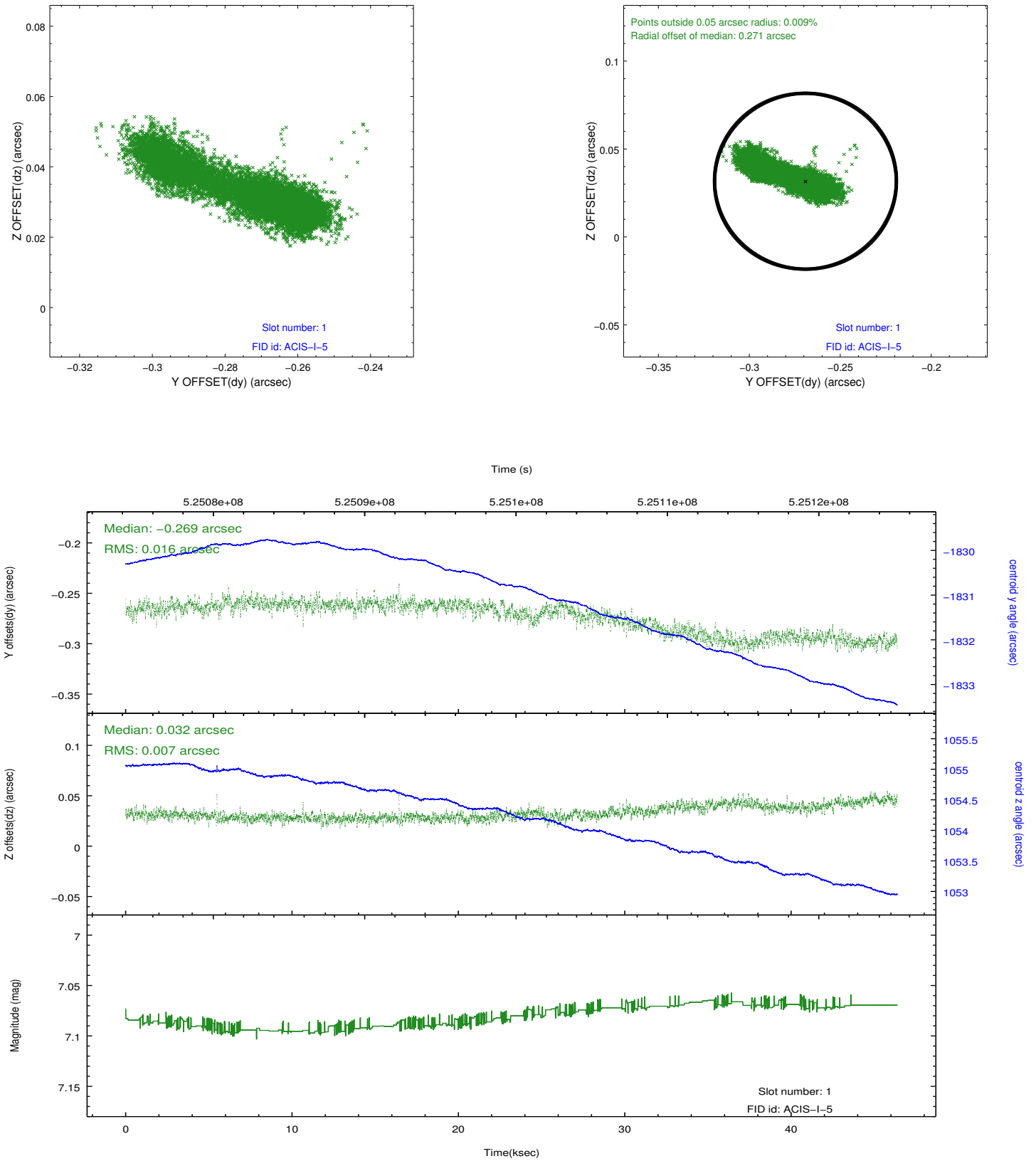


## 2.5 FID Slots

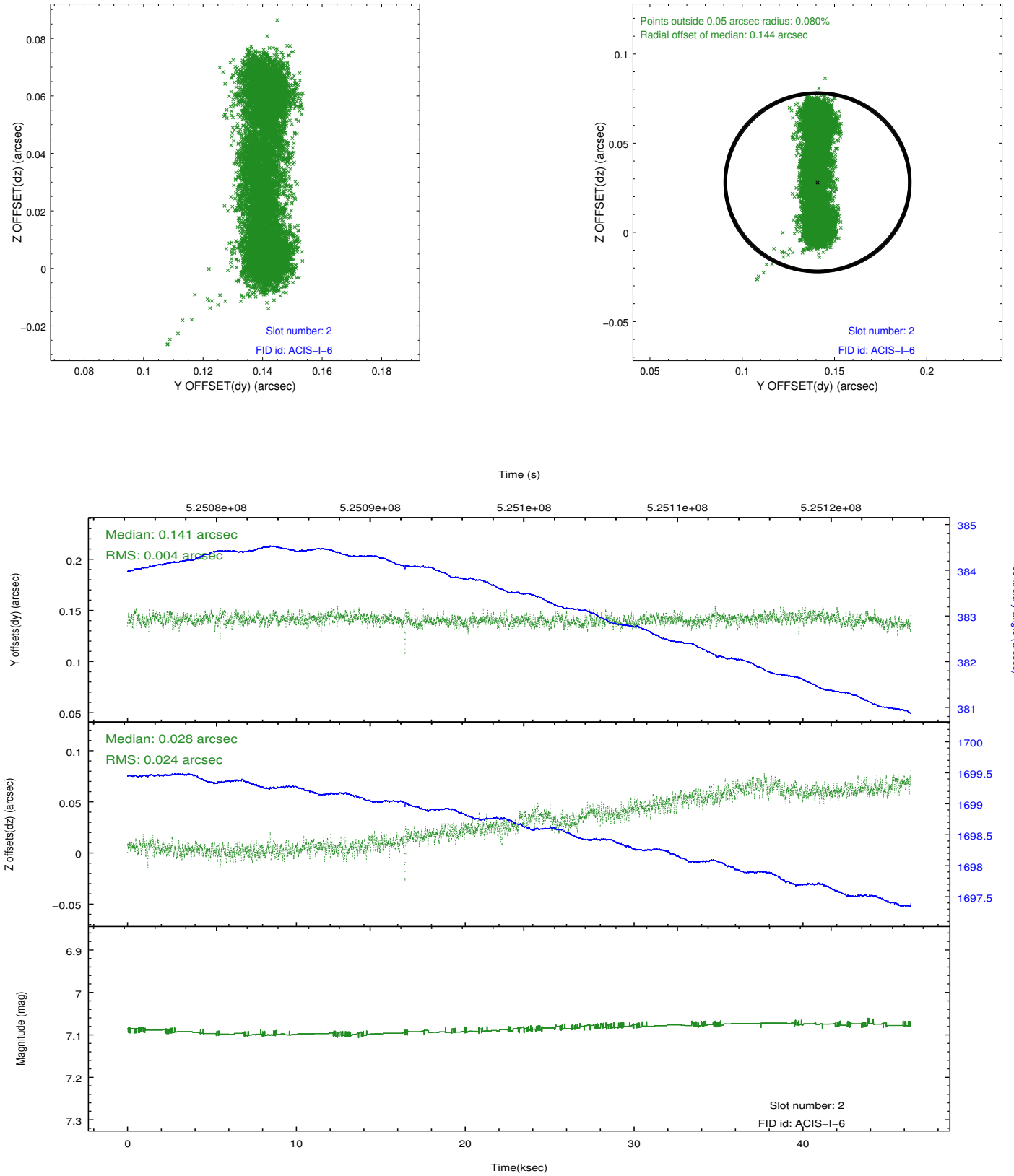
### 2.5.1 Slot 0



## 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)	2014.08.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.470814448714

### A.2 Comments