

# V&V Reference Report

## L2 ASCDS Version : 10.3

Observation 16146 - L2 Version 1  
Chandra X-Ray Center

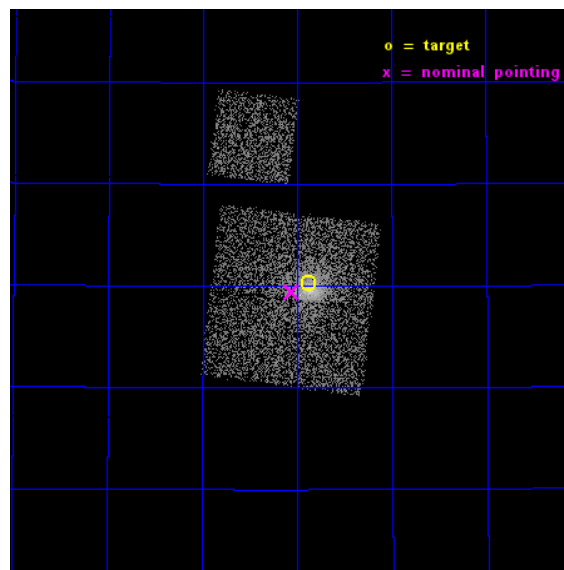
L2 Processing Date : Nov 21 2014

## 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

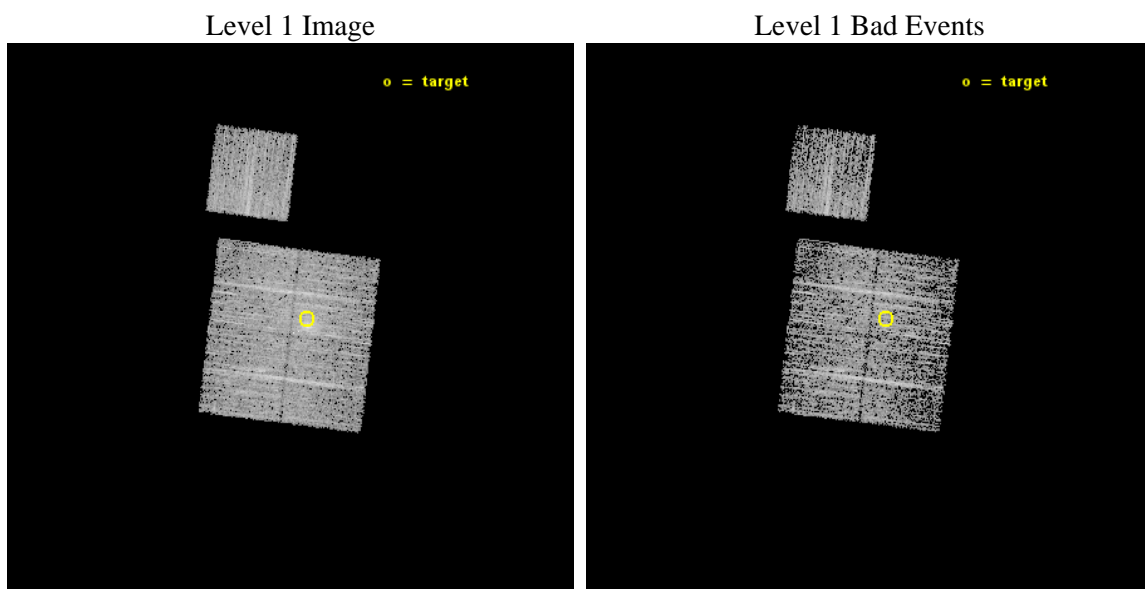
seq_num	801399	Sequence number
obs_id	16146	Observation id
title	Setting the Scale: Supporting precision cluster cosmology with Chandra observations of low-z lensing clusters	Proposal title
observer	Dr Adam Mantz	Principal investigator
object	A2064	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	230.220833	Observer's specified target RA [deg]
dec_targ	48.672	Observer's specified target Dec [deg]
ra_nom	230.26575901098	Nominal RA [deg]
dec_nom	48.657020029949	Nominal Dec [deg]
roll_nom	6.9101410374512	Nominal Roll [deg]
revision	1	Processing version of data
ontime	5121.2000393867	Sum of GTIs [s]
livetime	5054.2877906995	Livetime [s]
ontime0	5121.2000393867	Sum of GTIs [s]
ontime1	5121.2000393867	Sum of GTIs [s]
ontime2	5121.2000393867	Sum of GTIs [s]
ontime3	5121.2000393867	Sum of GTIs [s]
ontime6	5121.2000393867	Sum of GTIs [s]
l2events	14907	Number of level 2 events



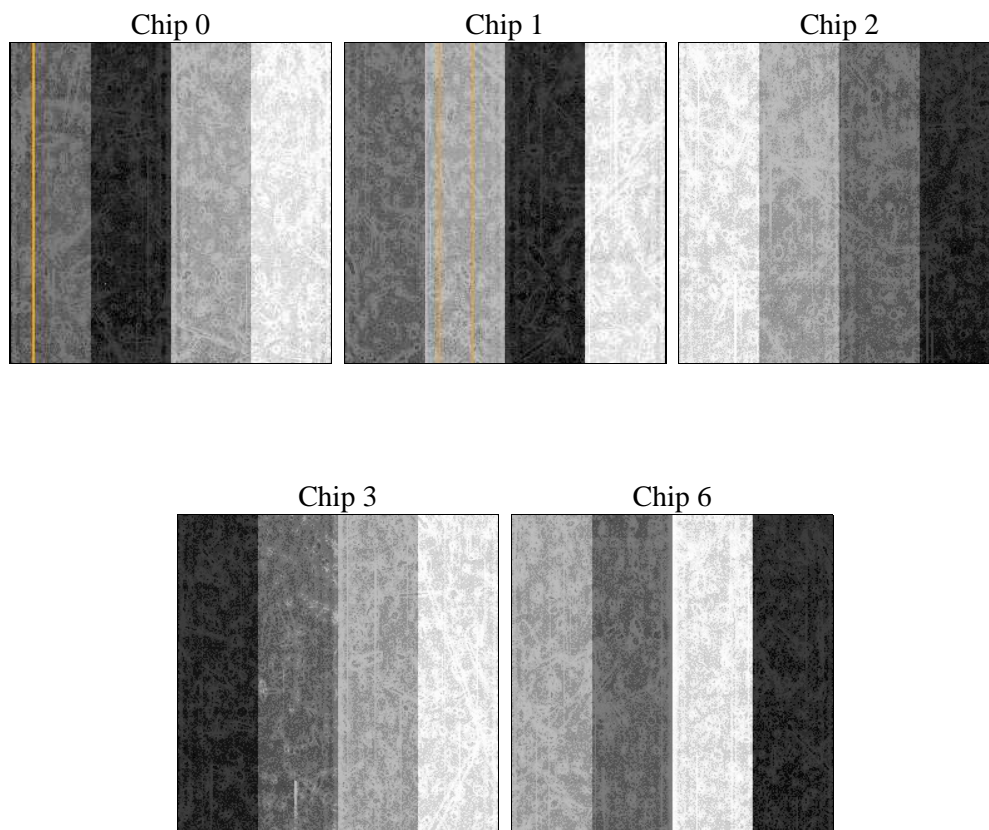
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	5121.2000393867	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime0	5121.2000393867	Sum of GTIs [s]
date	2014-11-22T03:40:36	Date and time of file creation	ontime1	5121.2000393867	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	5121.2000393867	Sum of GTIs [s]
			ontime3	5121.2000393867	Sum of GTIs [s]
			ontime6	5121.2000393867	Sum of GTIs [s]
			l1events	119873	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	23745	21057	24473	26509	24089
rejected events	20933	17897	21490	20821	21414
rejected %	88%	84%	87%	78%	88%

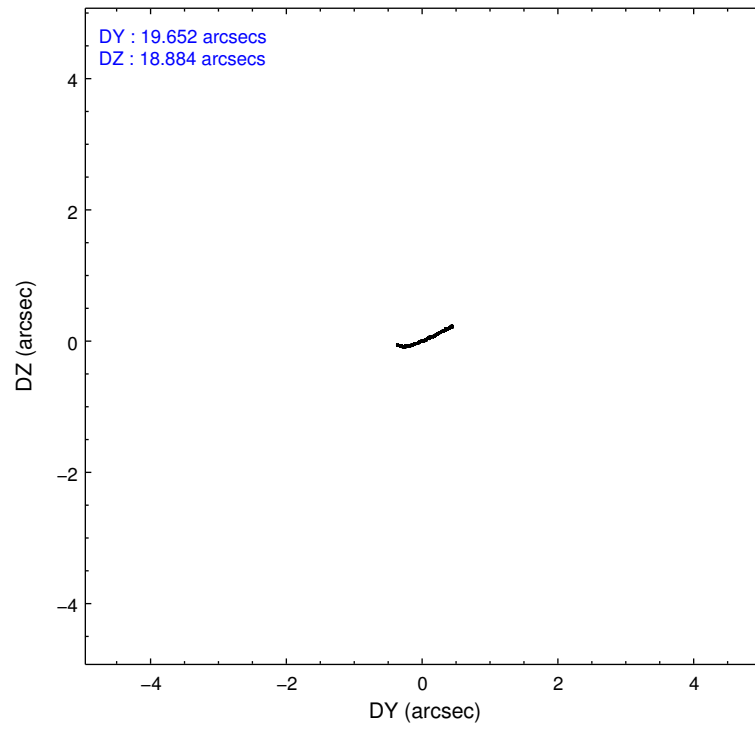
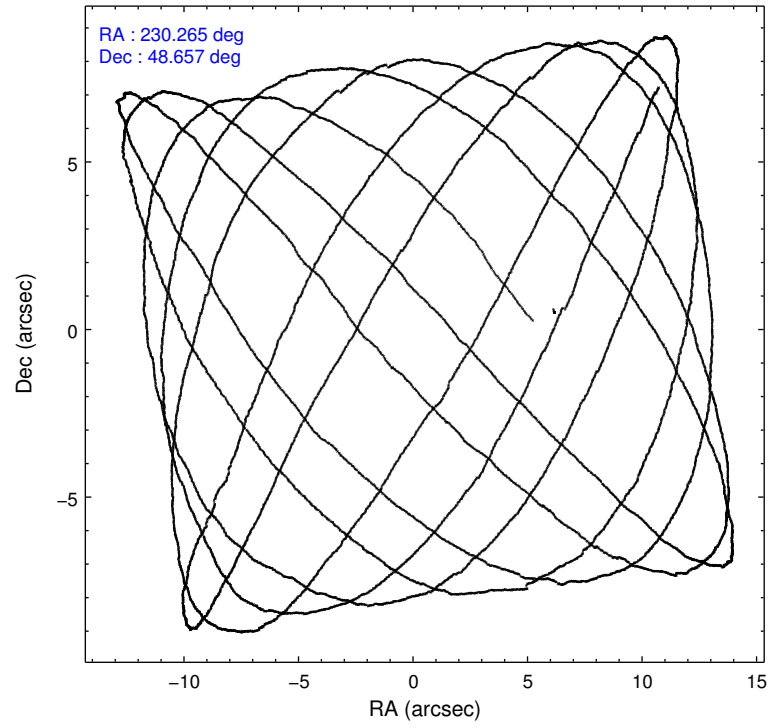
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1088	1271	1301	3567	993
	4%	6%	5%	13%	4%
grade 1 events	17	16	21	31	8
	0%	0%	0%	0%	0%
grade 2 events	727	692	707	917	656
	3%	3%	2%	3%	2%
grade 3 events	254	331	256	350	237
	1%	1%	1%	1%	0%
grade 4 events	258	322	296	362	290
	1%	1%	1%	1%	1%
grade 5 events	807	864	733	916	823
	3%	4%	2%	3%	3%
grade 6 events	487	546	424	493	504
	2%	2%	1%	1%	2%
grade 7 events	20107	17015	20735	19873	20578
	84%	80%	84%	74%	85%

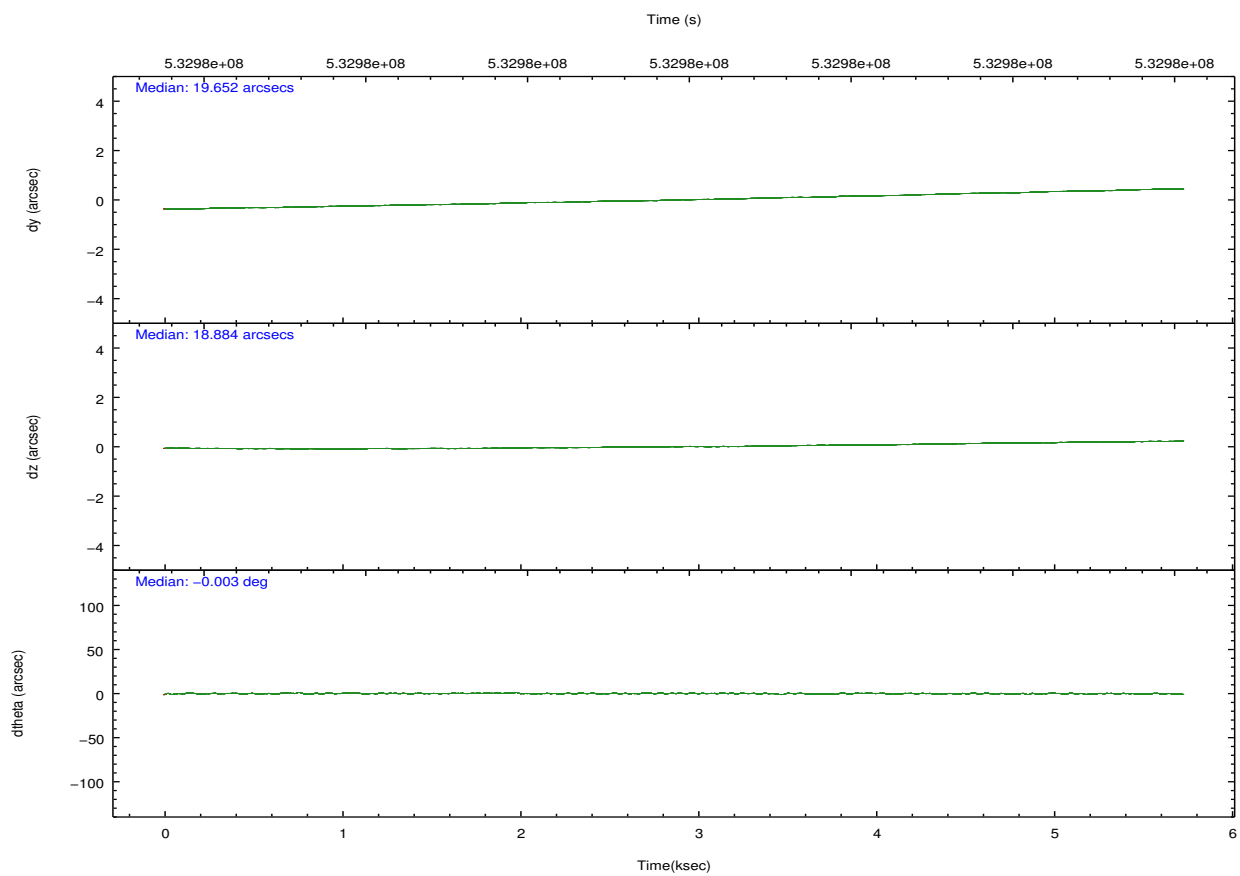
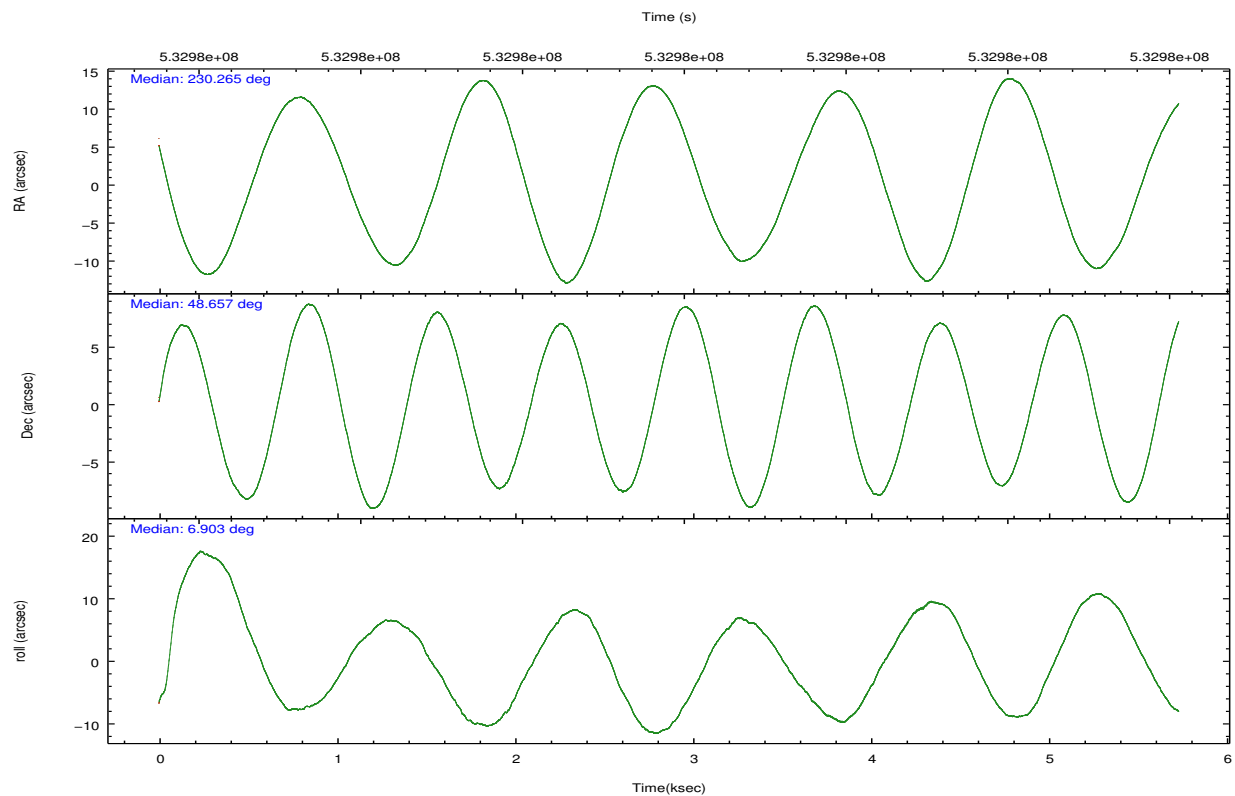


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	230.232585	230.2657590109844	CCD I2 on	Y	Y
[deg] Pointing Dec	48.640356	48.65702002994859	CCD I3 on	Y	Y
[deg] Pointing Roll	6.726362	6.910141037451185	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	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	532979765.184000	532978530.27058	CCD S5 on	N	N
Observation start date	2014-11-21T17:54:58	2014-11-21T17:35:30	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	532984765.184000	532985279.38345	On-chip summing requested	N	N
Observation end date	2014-11-21T19:18:18	2014-11-21T19:27:59	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



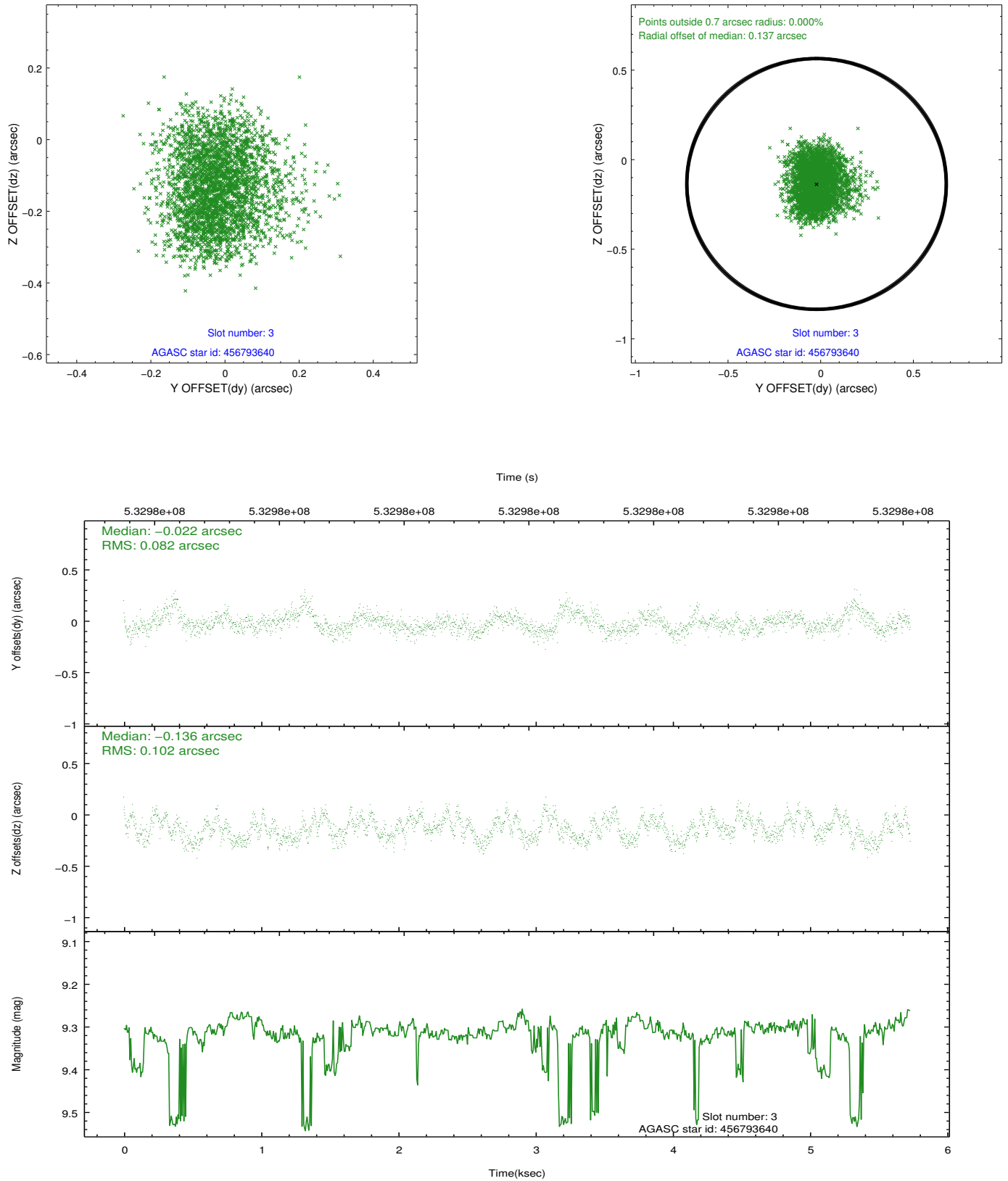


### Slot Statistics

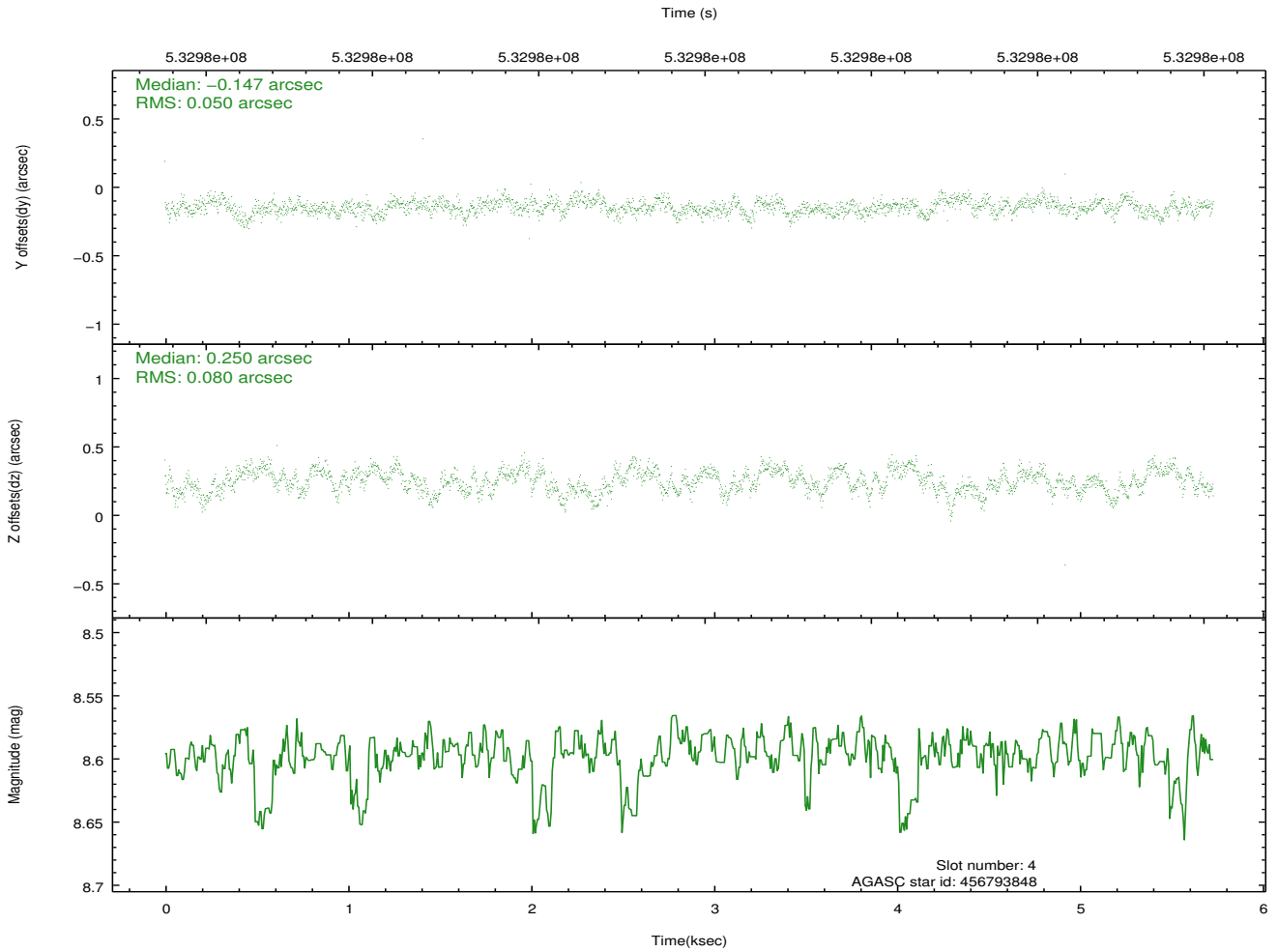
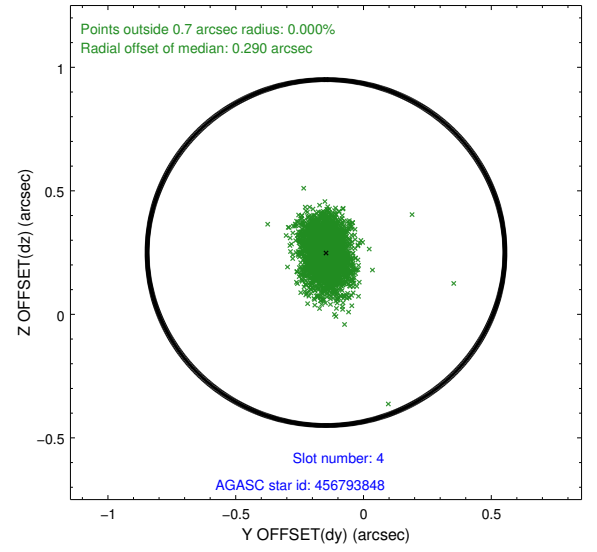
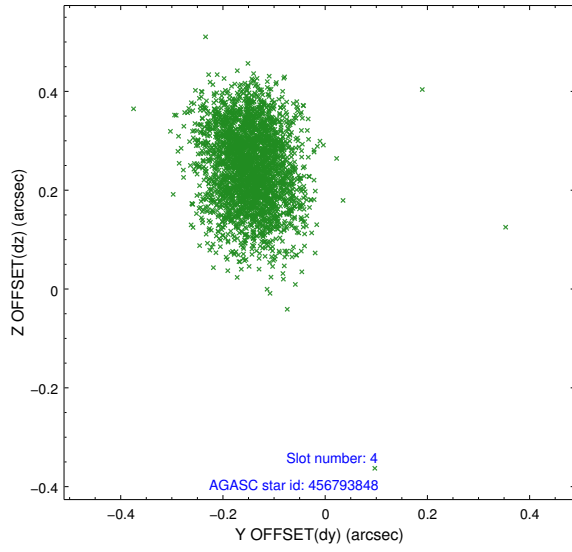
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.05	1399	0.020	0.065	0.007	0.013	0.000000	0.000000	919.70	-842.53
1	FID		ACIS-I-5	7.04	1399	-0.238	0.031	0.006	0.010	0.000000	0.000000	-1828.13	1054.35
2	FID		ACIS-I-6	7.05	1399	0.127	-0.025	0.008	0.013	0.000000	0.000000	384.17	1700.02
3	GUIDE	used	456793640	9.31	2795	-0.022	-0.136	0.143	0.218	229.623113	48.656778	-1430.94	233.82
4	GUIDE	used	456793848	8.60	2797	-0.147	0.250	0.100	0.161	230.269311	48.225162	-87.28	-1494.09
5	GUIDE	used	456794192	8.69	2797	0.000	0.005	0.113	0.200	231.243407	48.038119	2165.46	-2422.21
6	GUIDE	used	456794400	8.93	2795	0.124	-0.046	0.102	0.161	229.724222	48.806190	-1125.17	737.62
7	GUIDE	used	456794584	8.70	2795	0.039	-0.071	0.089	0.145	229.782626	48.622655	-1070.79	65.05

## 2.4 Star Slots

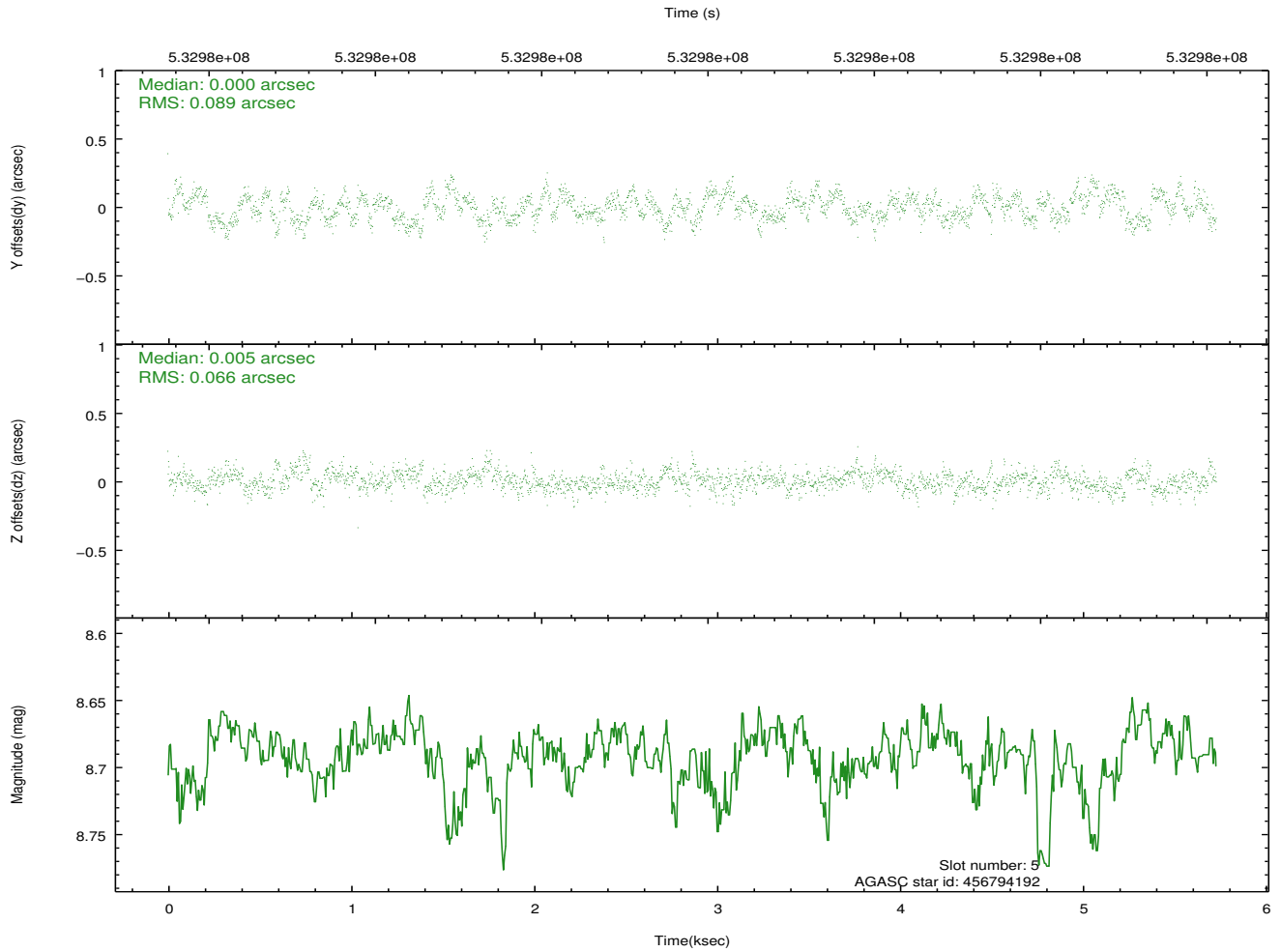
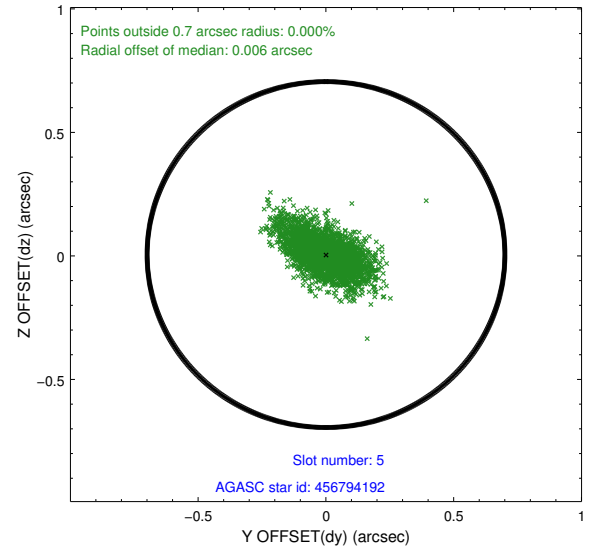
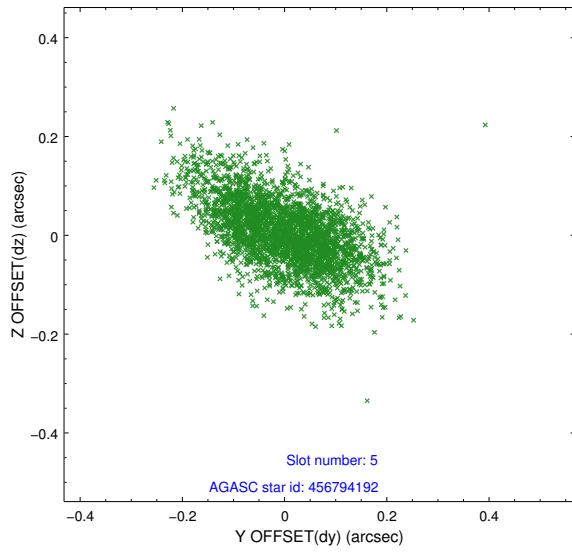
### 2.4.1 Slot 3



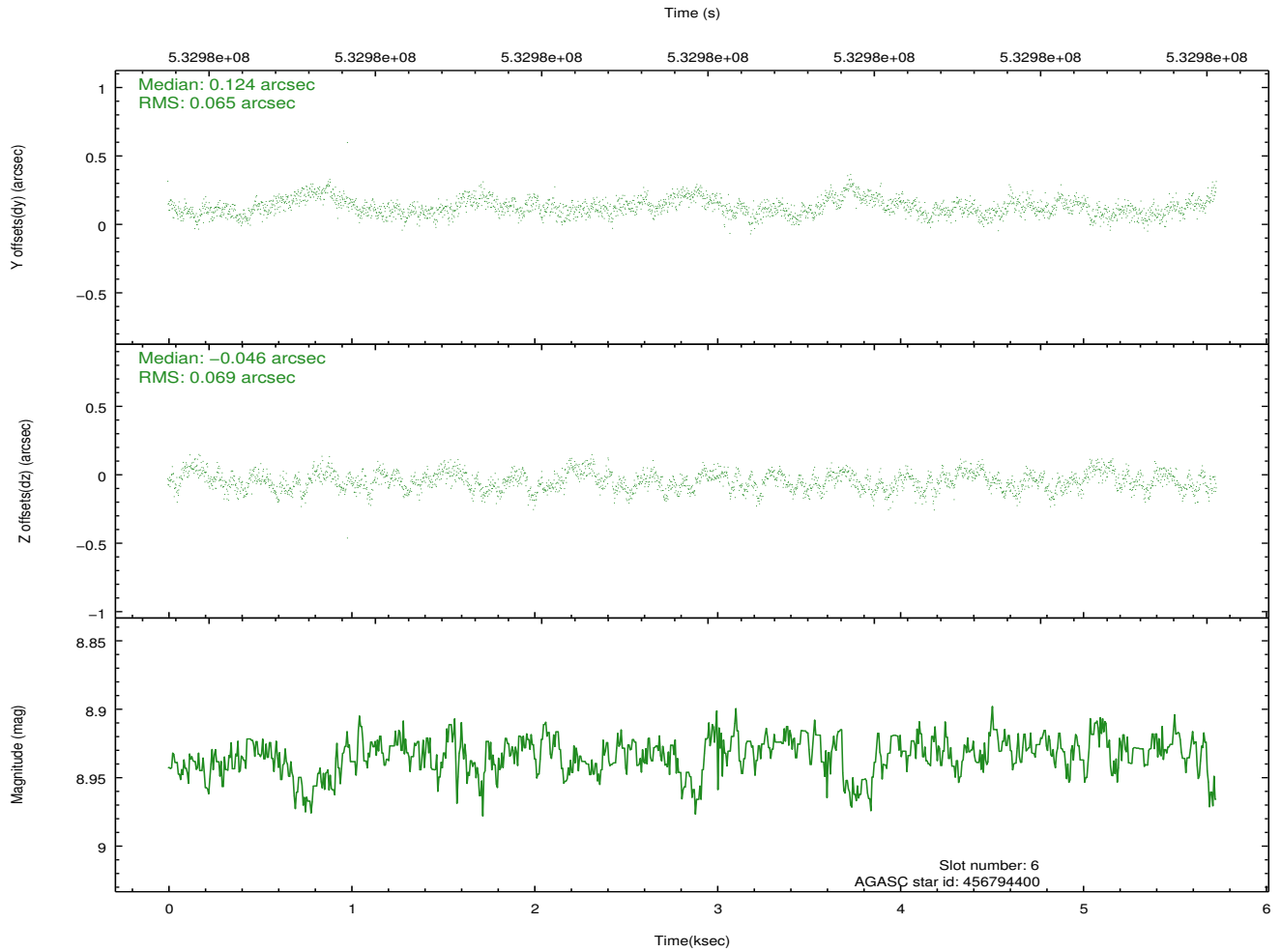
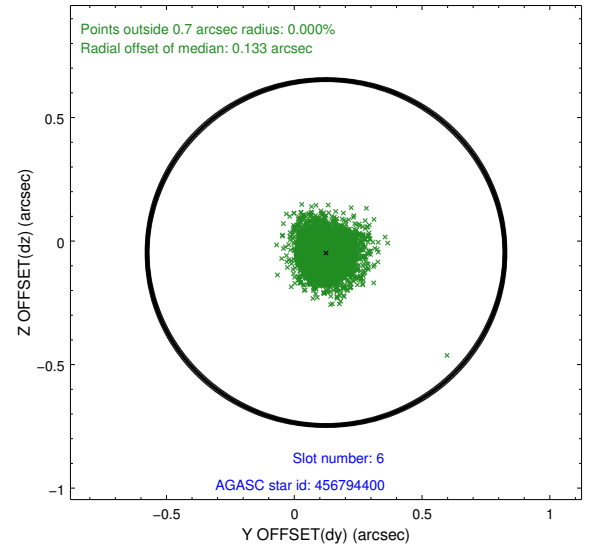
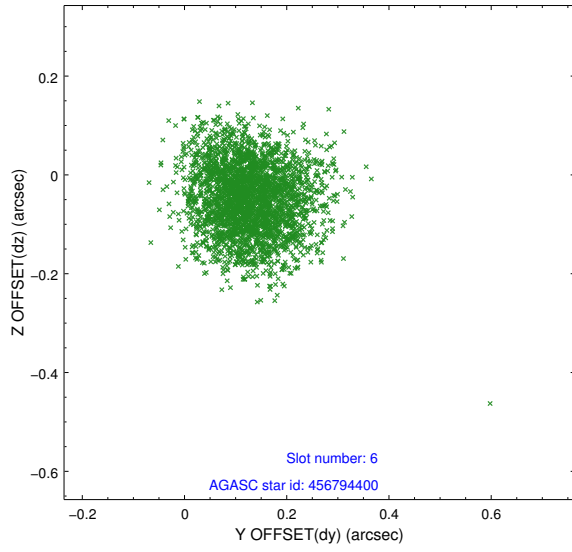
## 2.4.2 Slot 4



### 2.4.3 Slot 5

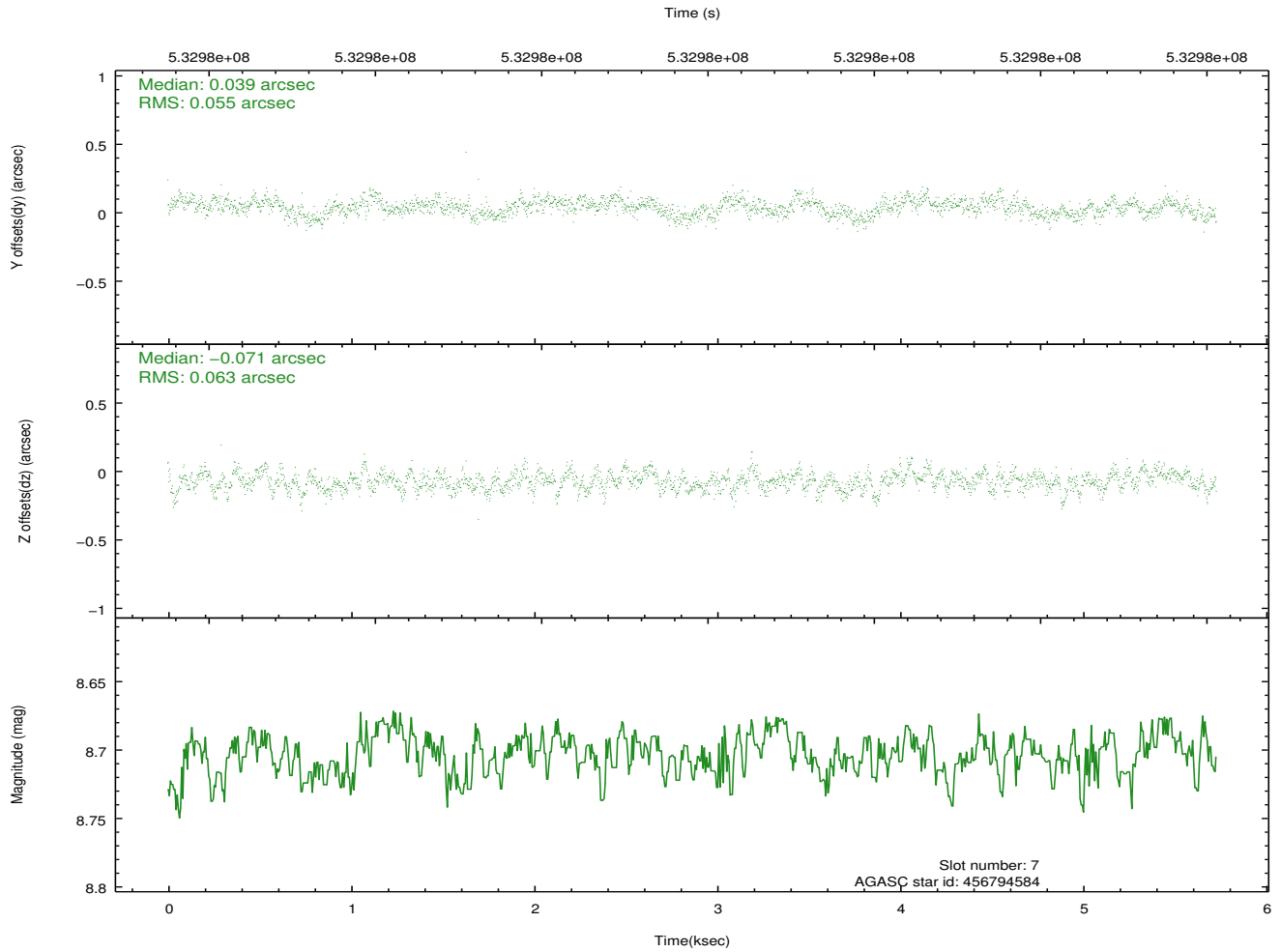
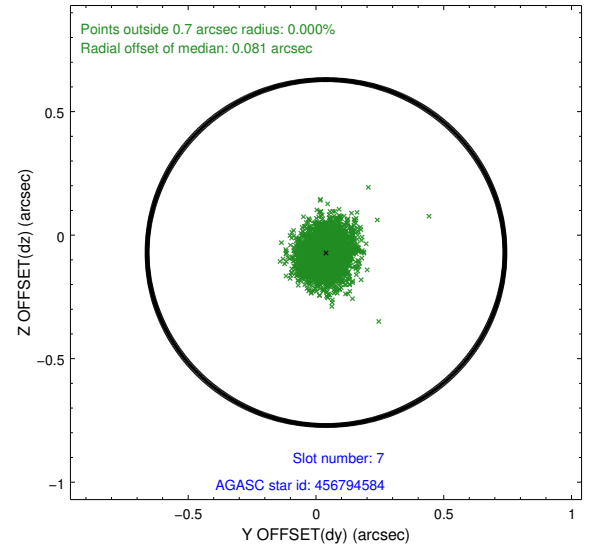
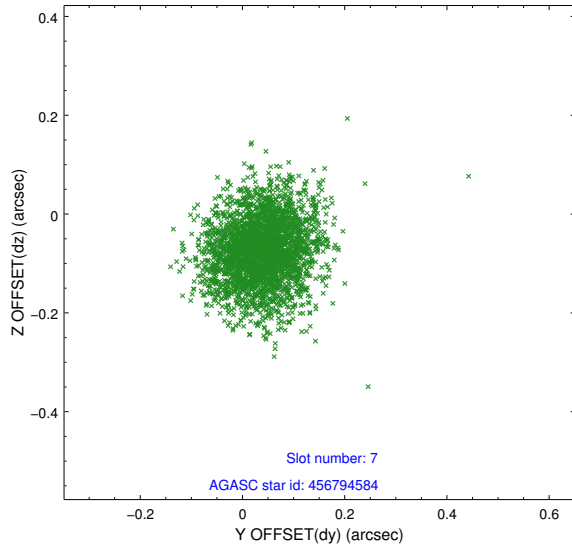


## 2.4.4 Slot 6



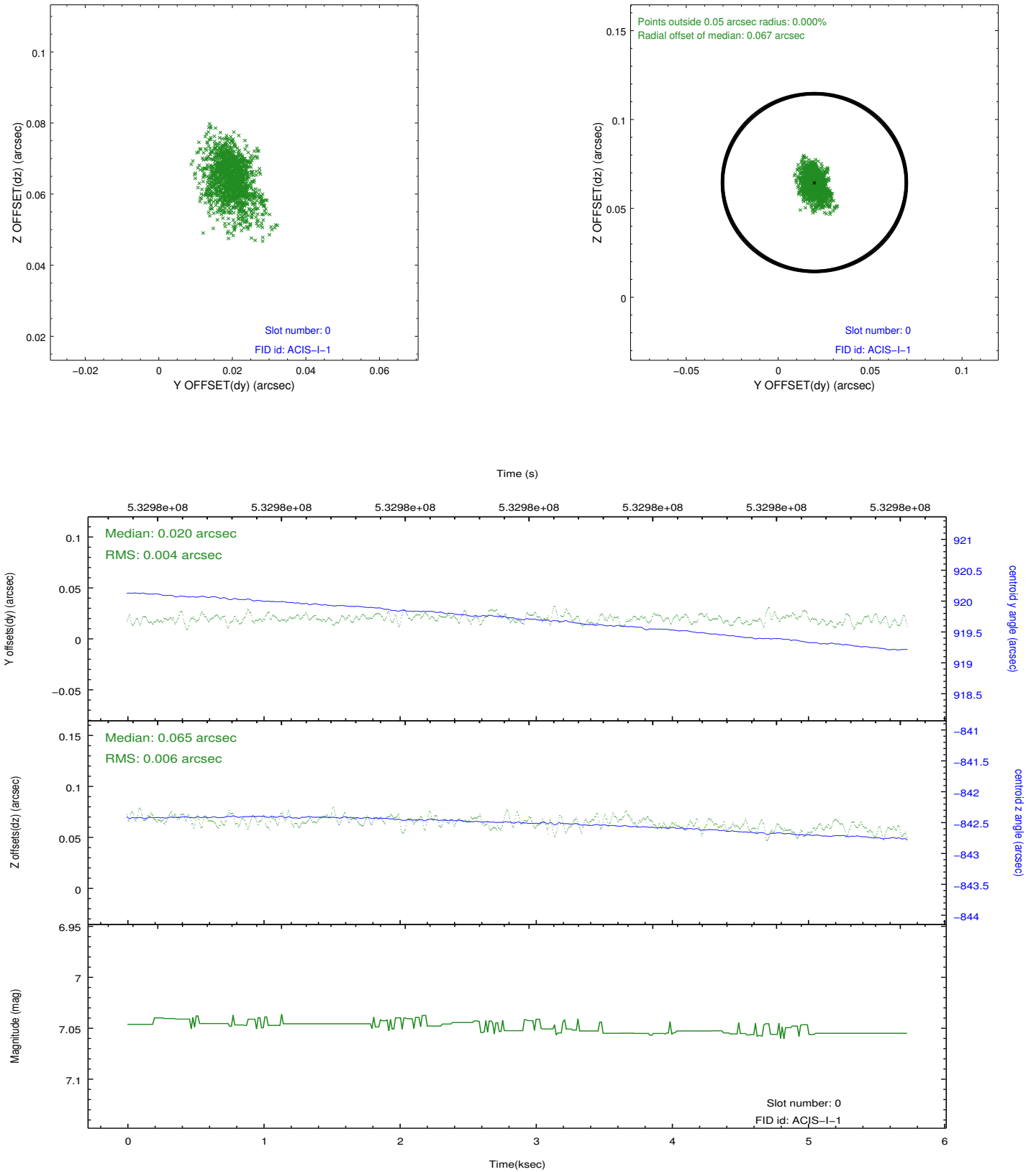


## 2.4.5 Slot 7

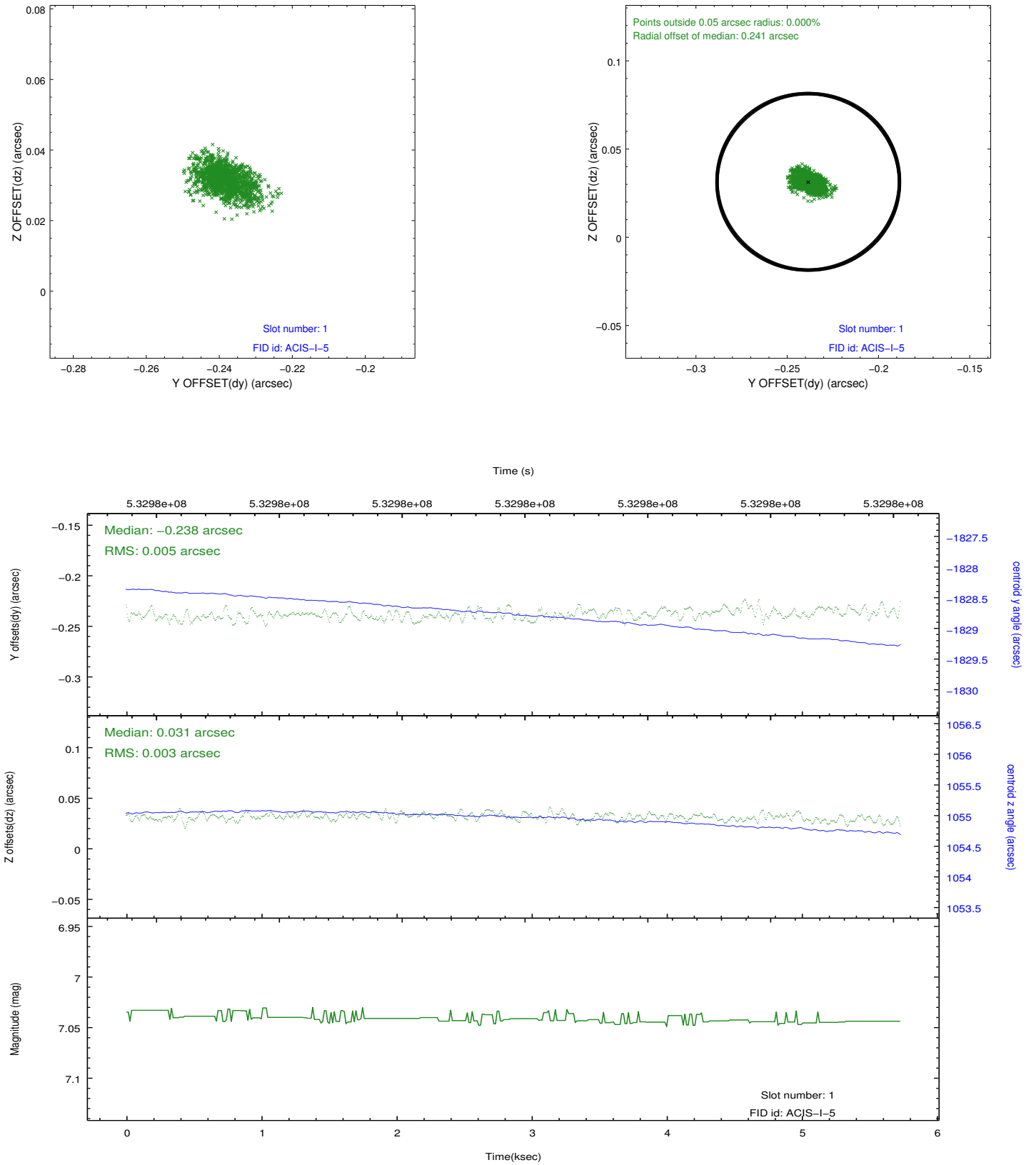


## 2.5 FID Slots

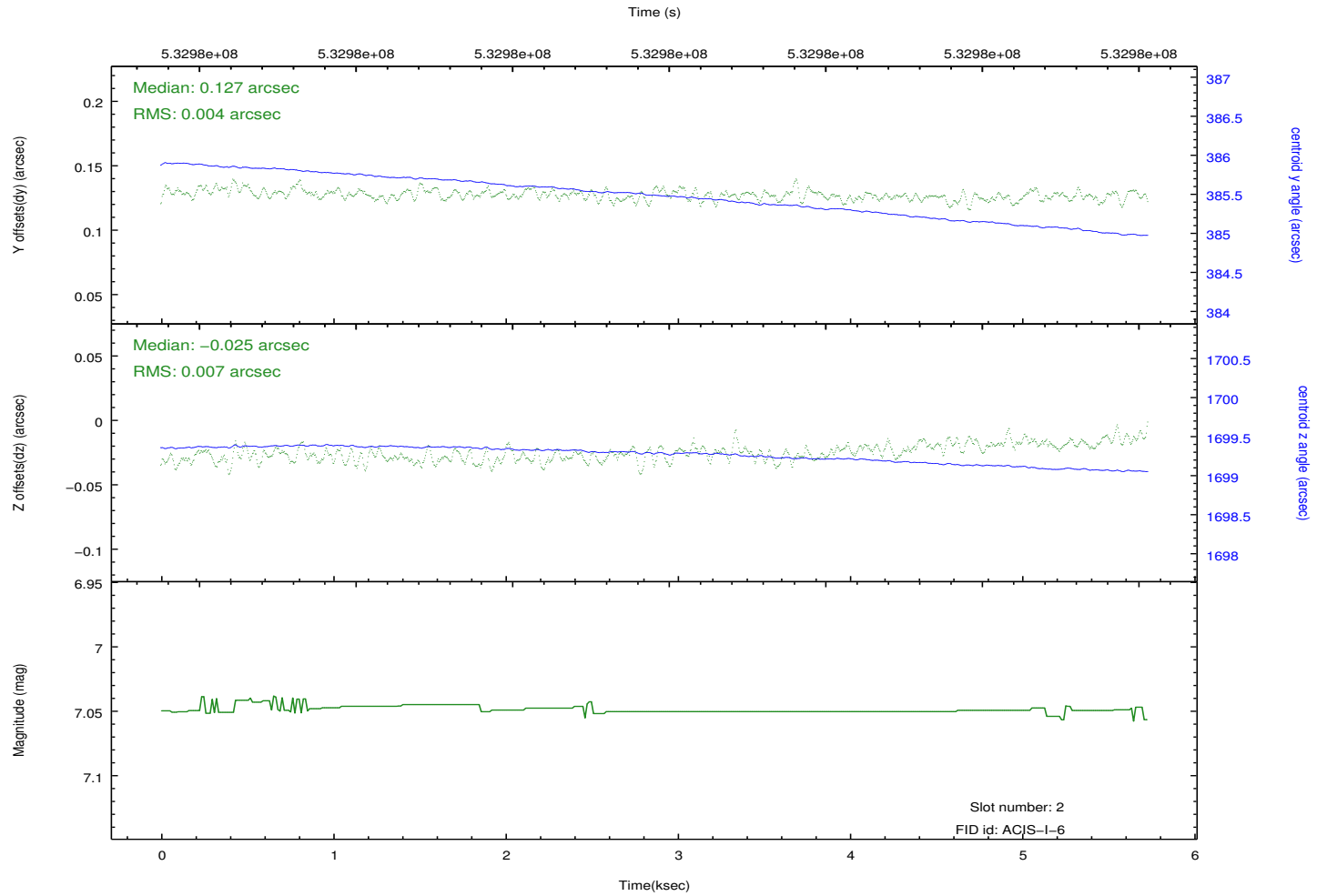
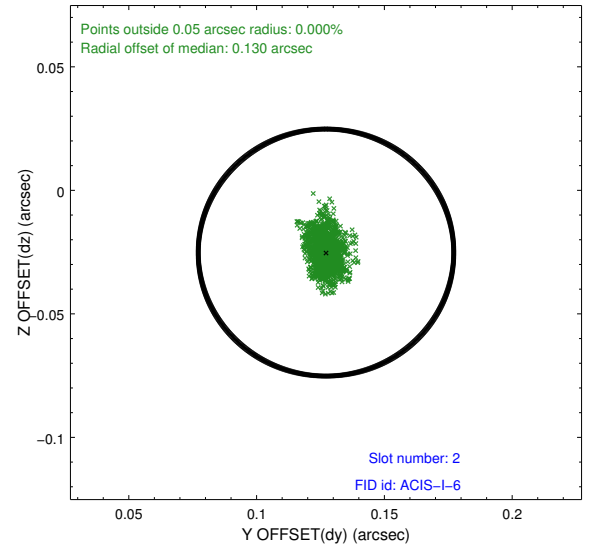
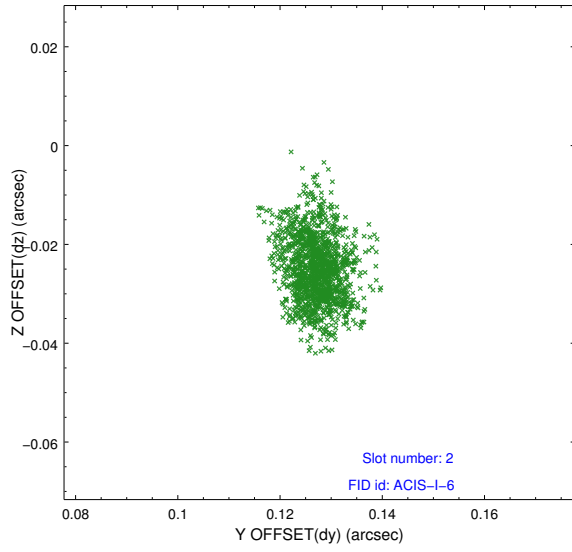
### 2.5.1 Slot 0



## 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)	2014.11.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.1212000393867

### A.2 Comments