

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 14371 - L2 Version 2  
Chandra X-Ray Center

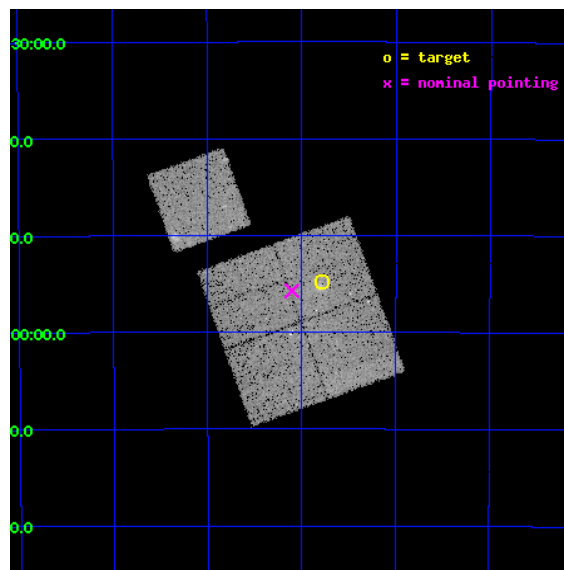
L2 Processing Date : Feb 28 2012

## 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

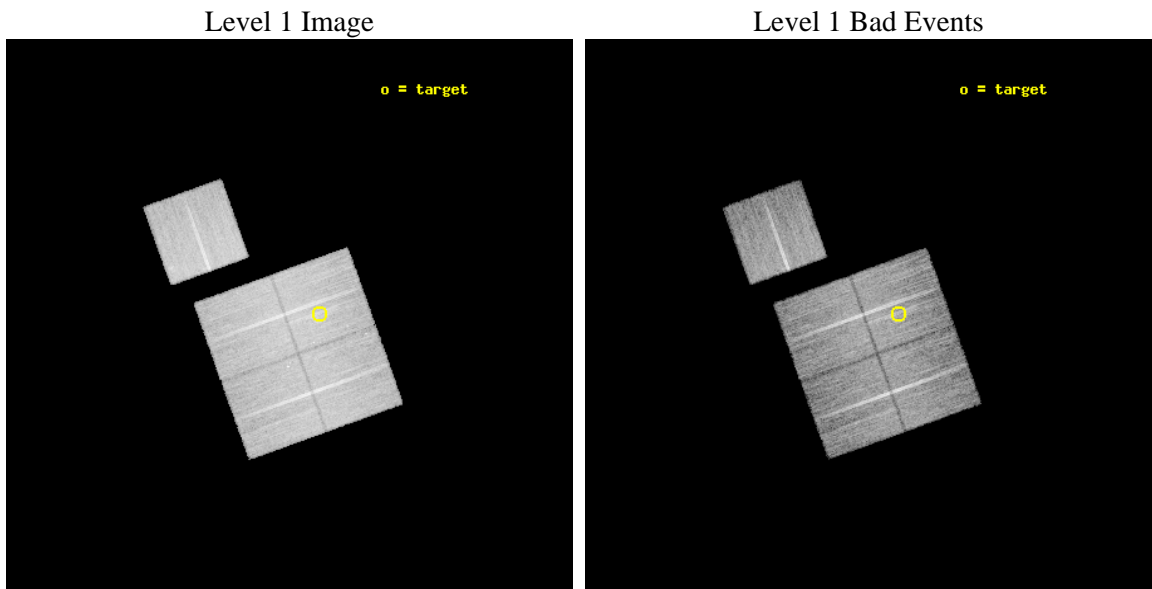
seq_num	801116	Sequence number
obs_id	14371	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg <sup>2</sup> from the South Pole Telescope Survey	Proposal title
observer	Dr Bradford Benson	Principal investigator
object	SPT-CLJ0441-4854	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	70.447083	Observer's specified target RA [deg]
dec_targ	-48.9125	Observer's specified target Dec [deg]
ra_nom	70.526088866403	Nominal RA [deg]
dec_nom	-48.928792995265	Nominal Dec [deg]
roll_nom	340.26821471896	Nominal Roll [deg]
revision	2	Processing version of data
ontime	21051.023930669	Sum of GTIs [s]
livetime	20775.976805476	Livetime [s]
ontime0	21057.182791471	Sum of GTIs [s]
ontime1	21057.223831475	Sum of GTIs [s]
ontime2	21054.123871207	Sum of GTIs [s]
ontime3	21051.023930669	Sum of GTIs [s]
ontime6	21057.141751468	Sum of GTIs [s]
l2events	65865	Number of level 2 events



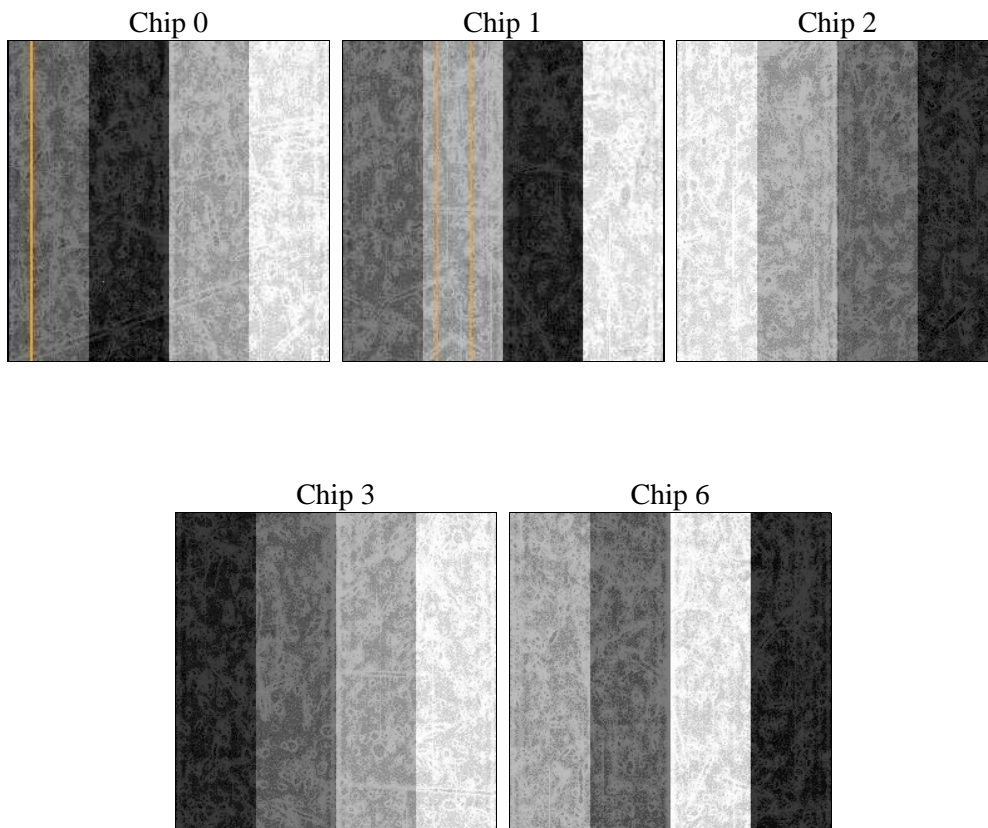
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	21000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	21051.023930669	Sum of GTIs [s]
caldbver	4.4.8	&#160	ontime0	21057.182791471	Sum of GTIs [s]
date	2012-02-28T03:12:26	Date and time of file creation	ontime1	21057.223831475	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	21054.123871207	Sum of GTIs [s]
			ontime3	21051.023930669	Sum of GTIs [s]
			ontime6	21057.141751468	Sum of GTIs [s]
			l1events	648672	Number of level 1 events

### 2.1.4 Events

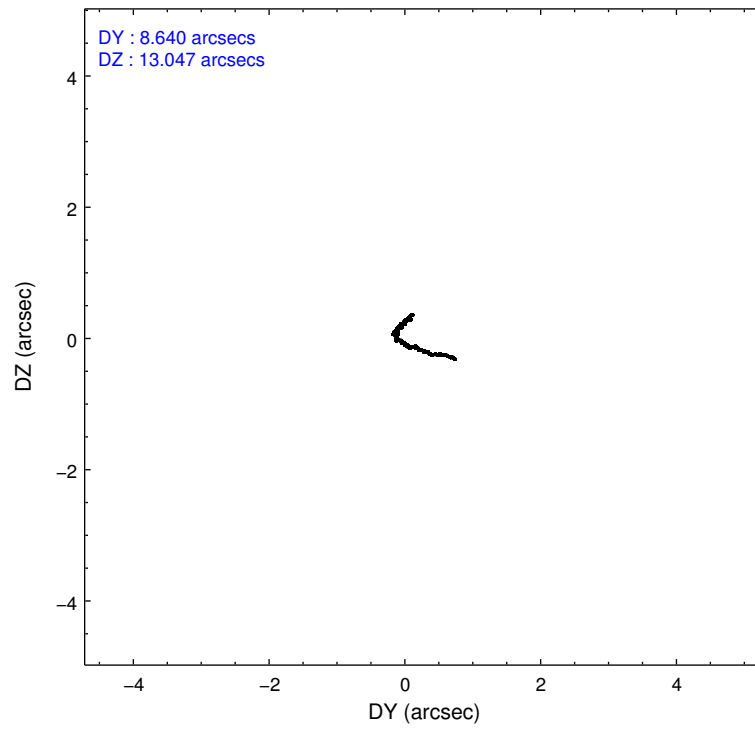
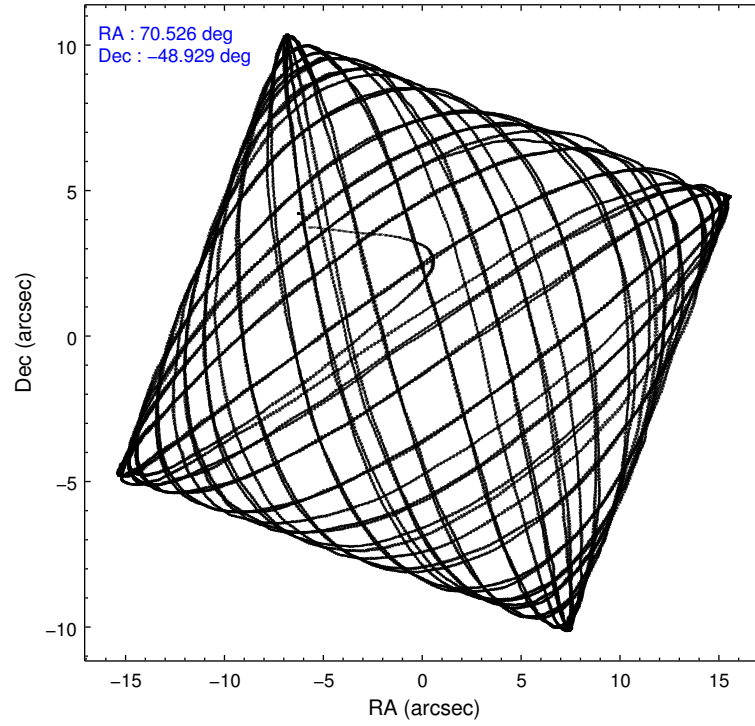
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	120548	124276	132120	137660	134068
rejected events	104961	107541	117163	122926	118180
rejected %	87%	86%	88%	89%	88%

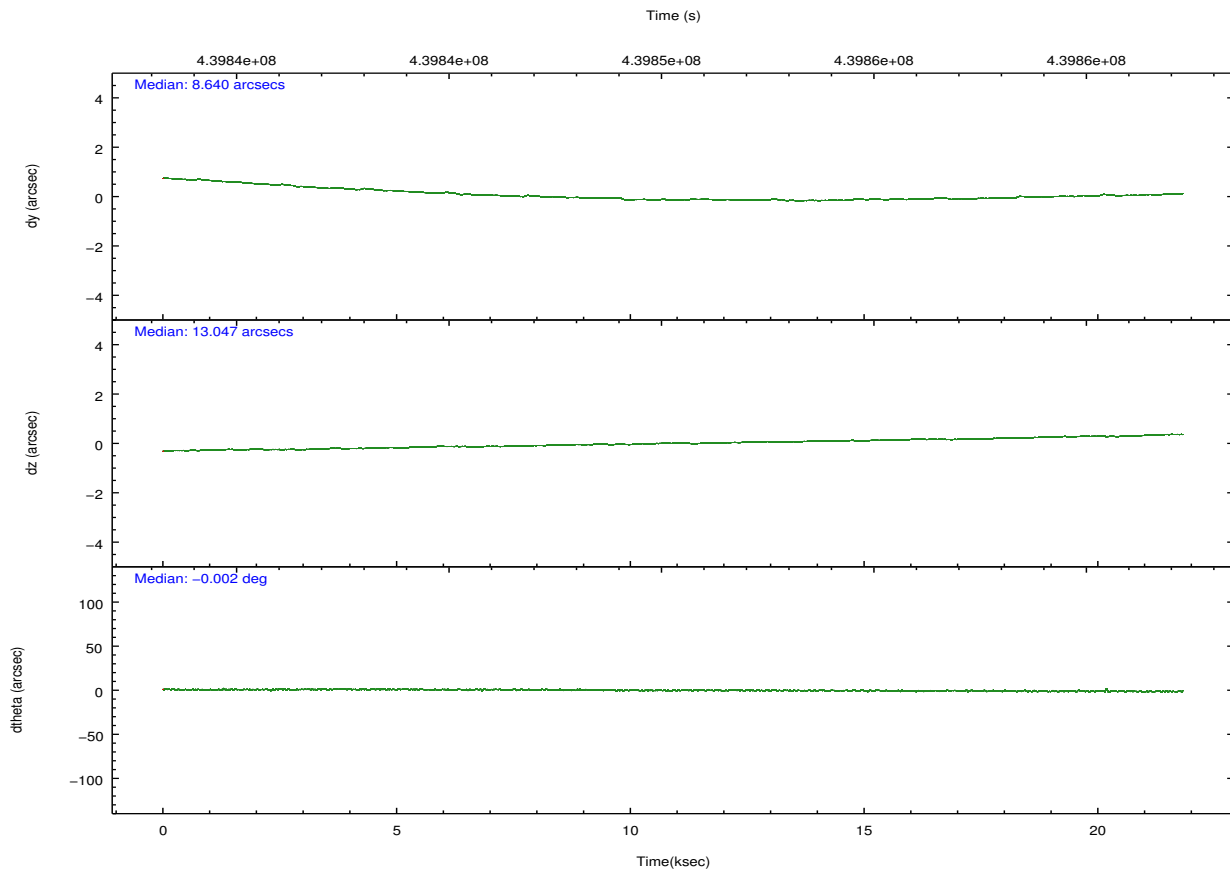
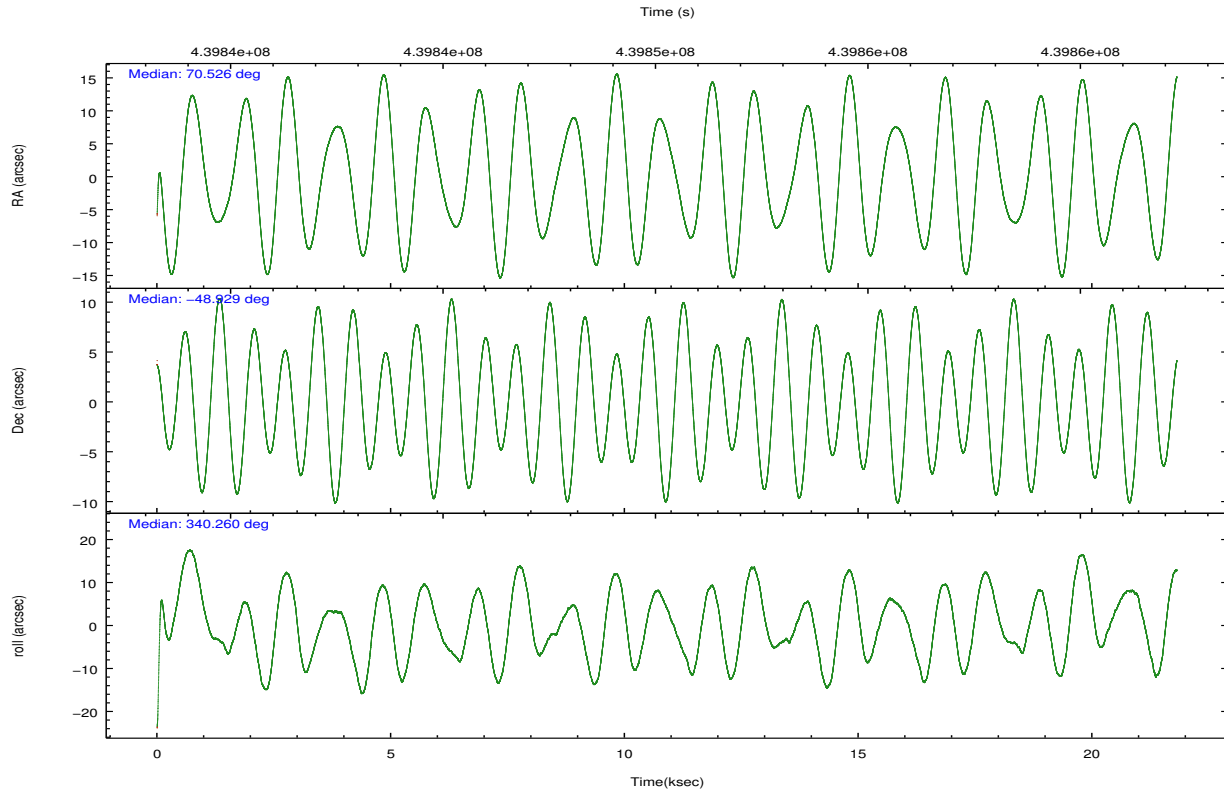
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5457	5849	5261	5611	5731
	4%	4%	3%	4%	4%
grade 1 events	72	82	74	101	74
	0%	0%	0%	0%	0%
grade 2 events	3834	3935	3643	3135	3464
	3%	3%	2%	2%	2%
grade 3 events	1658	1685	1562	1538	1644
	1%	1%	1%	1%	1%
grade 4 events	1519	1703	1555	1523	1611
	1%	1%	1%	1%	1%
grade 5 events	5839	6070	5756	6522	6301
	4%	4%	4%	4%	4%
grade 6 events	3124	3565	2937	2930	3440
	2%	2%	2%	2%	2%
grade 7 events	99045	101387	111332	116300	111803
	82%	81%	84%	84%	83%

## 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	70.484966	70.52608886640316	CCD I2 on	Y	Y
[deg] Pointing Dec	-48.933790	-48.92879299526456	CCD I3 on	Y	Y
[deg] Pointing Roll	340.028548	340.2682147189556	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	-225.842463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	439840181.184000	439838622.2692	CCD S5 on	N	N
Observation start date	2011-12-09T17:48:35	2011-12-09T17:23:42	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	439861181.184000	439861906.68293	On-chip summing requested	N	N
Observation end date	2011-12-09T23:38:35	2011-12-09T23:51:46	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





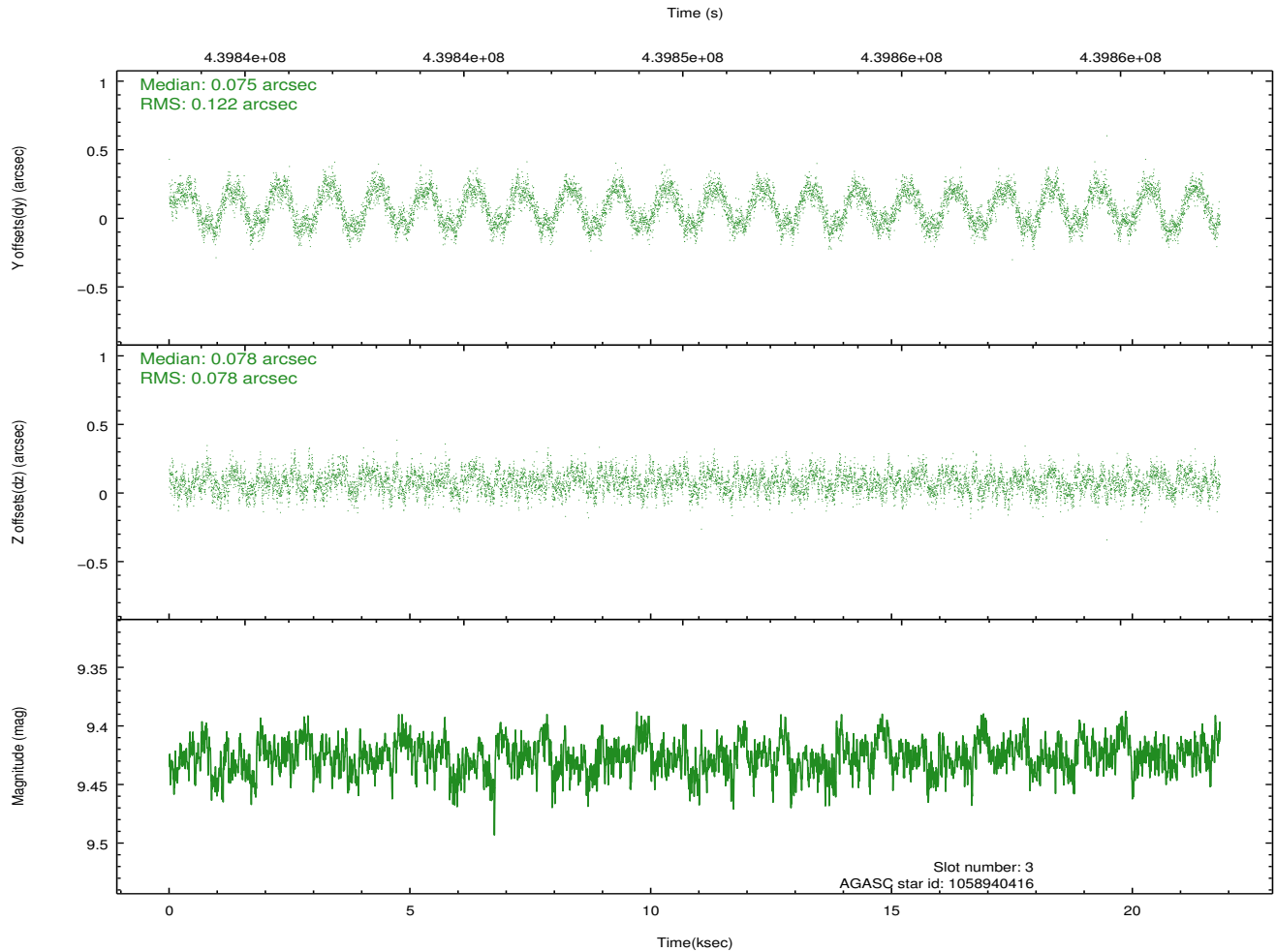
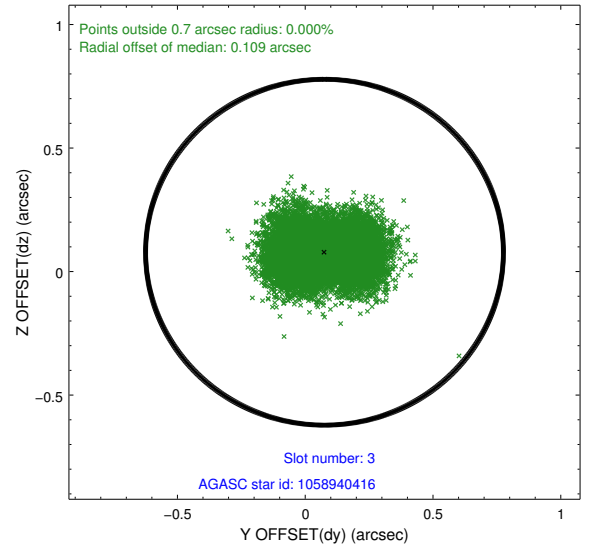
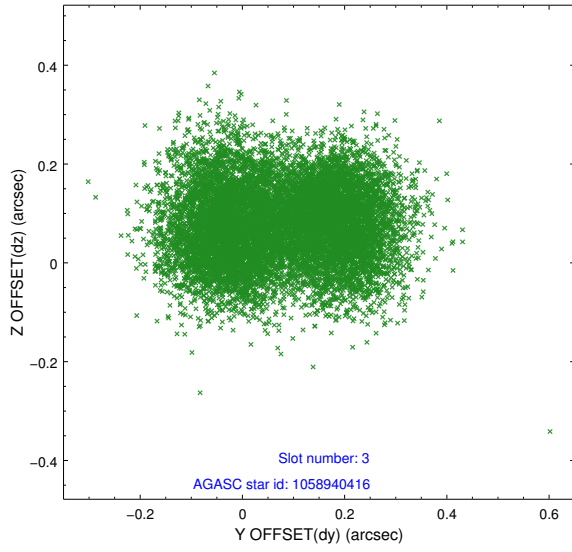
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.09	5321	0.139	-0.109	0.011	0.021	0.000000	0.000000	930.91	-995.79
1	FID	ACIS-I-5	7.08	5321	-0.285	0.114	0.011	0.020	0.000000	0.000000	-1817.54	901.81
2	FID	ACIS-I-6	7.11	5320	0.053	0.066	0.008	0.013	0.000000	0.000000	396.19	1546.45
3	GUIDE	1058940416	9.43	10636	0.075	0.078	0.159	0.232	69.423334	-49.218347	-1989.72	-1831.86
4	GUIDE	1058943152	9.64	10598	0.063	0.019	0.116	0.189	70.556842	-49.380673	708.95	-1454.38
5	GUIDE	1058944440	8.82	10626	0.084	0.016	0.083	0.149	70.407720	-48.487834	-721.23	1446.01
6	GUIDE	1058944968	9.52	10624	-0.131	-0.127	0.140	0.238	70.820940	-48.883196	685.99	441.52
7	GUIDE	1058940064	6.77	10641	-0.115	0.021	0.089	0.148	70.142591	-48.538241	-1252.68	1058.30

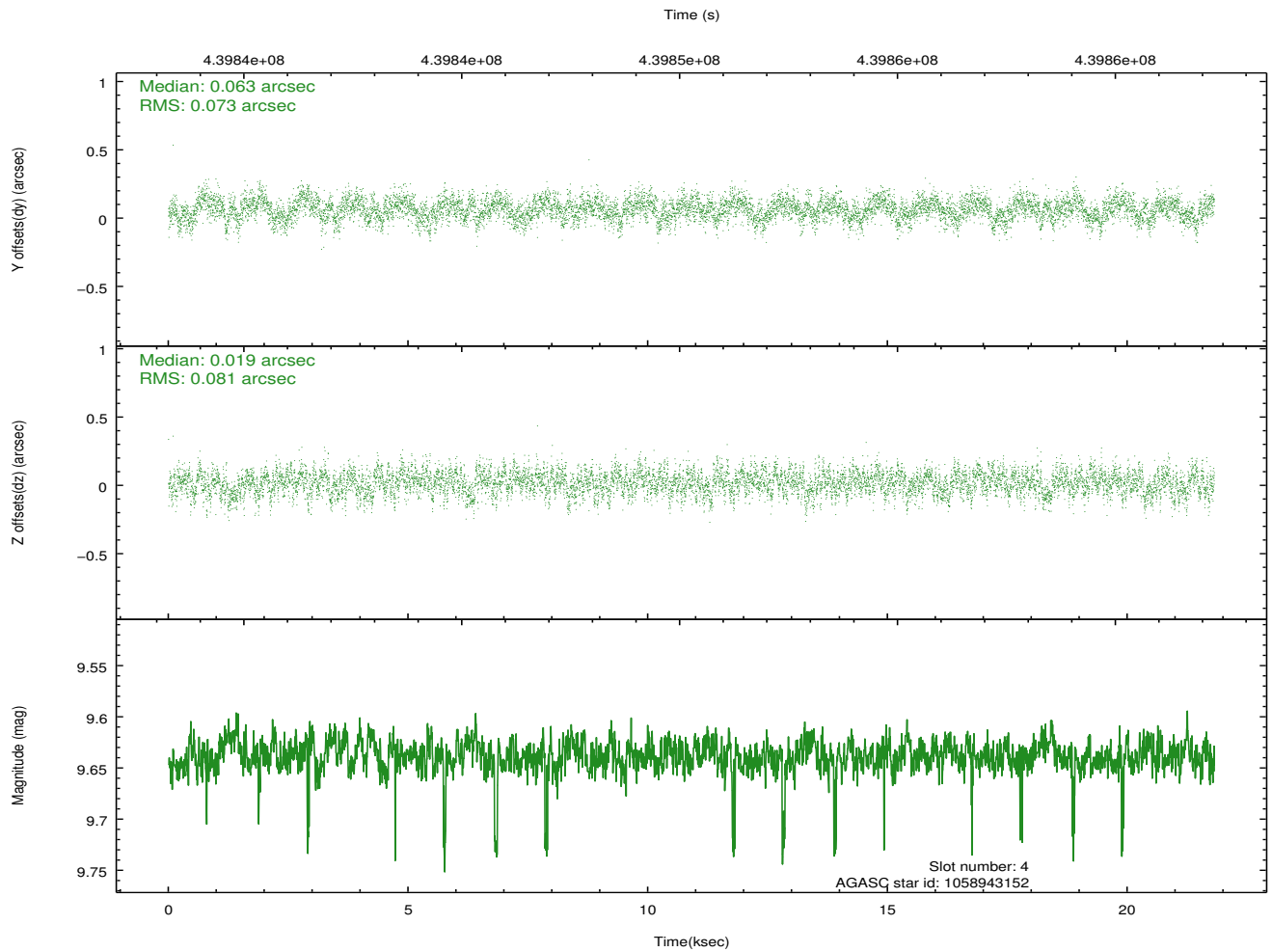
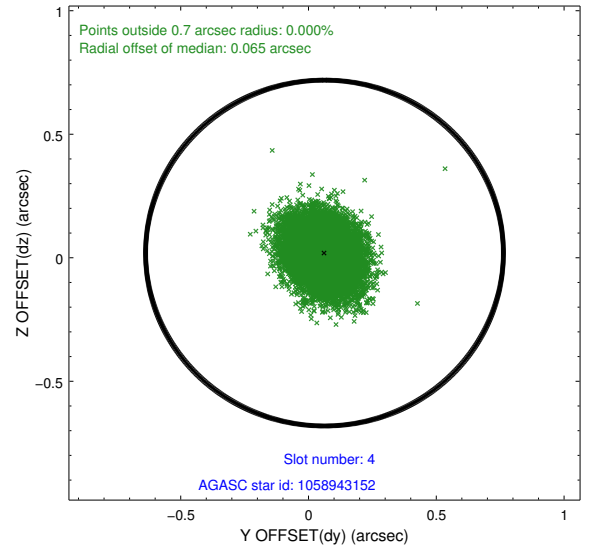
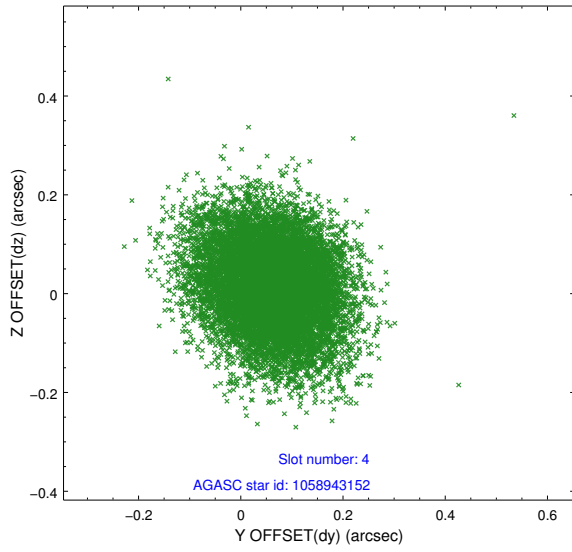
∞

## 2.4 Star Slots

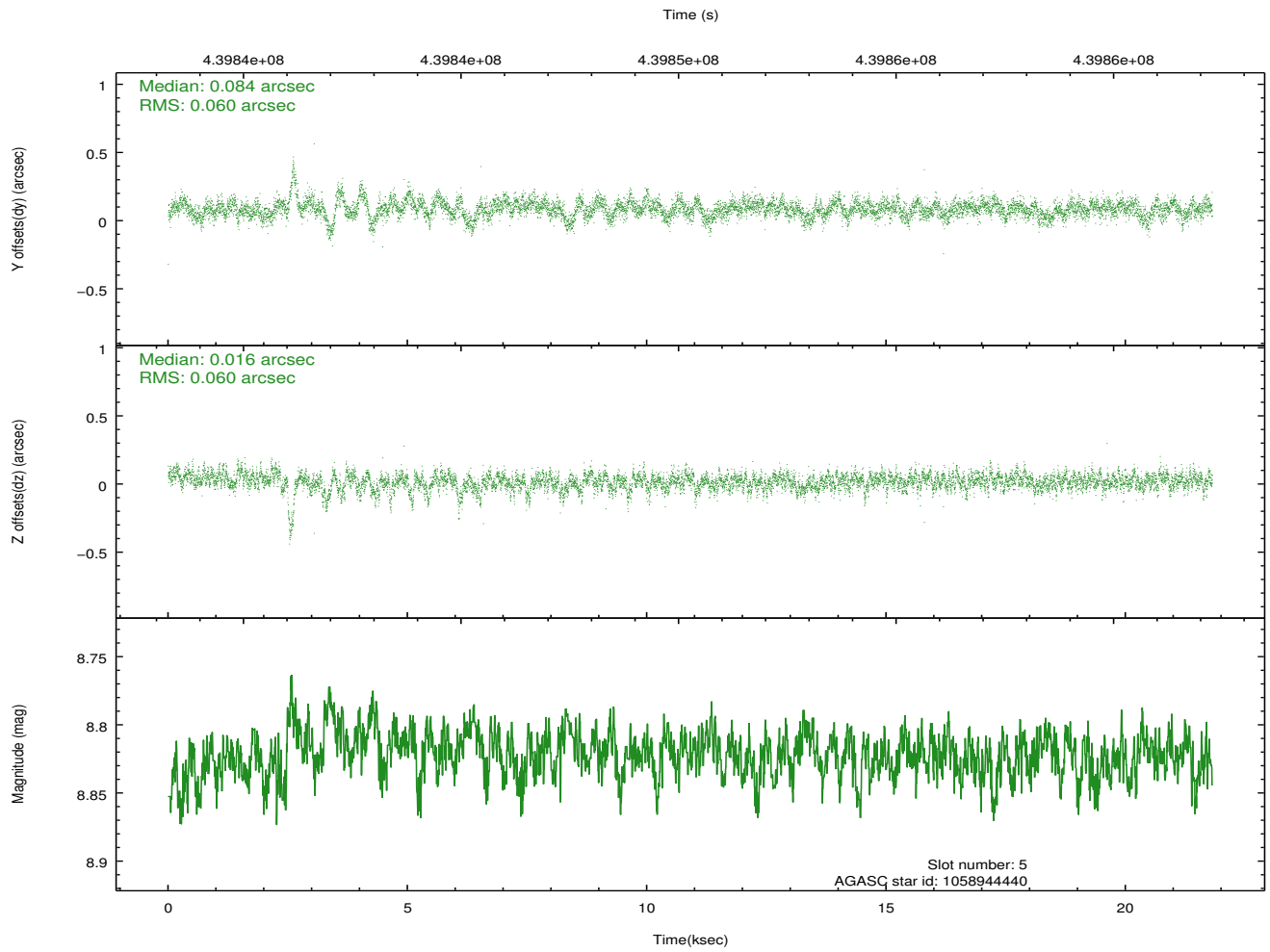
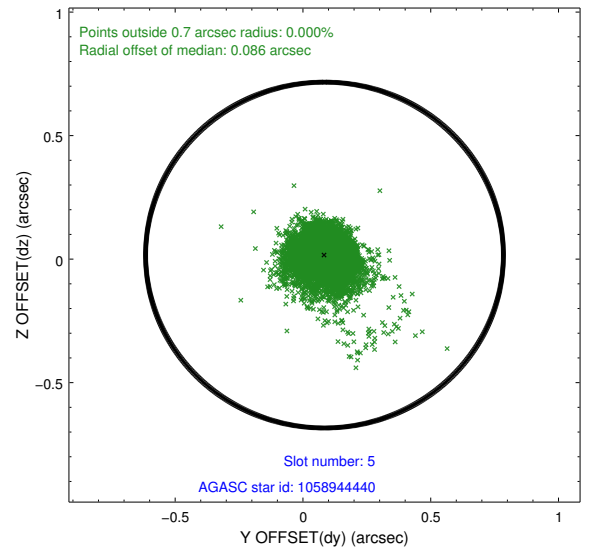
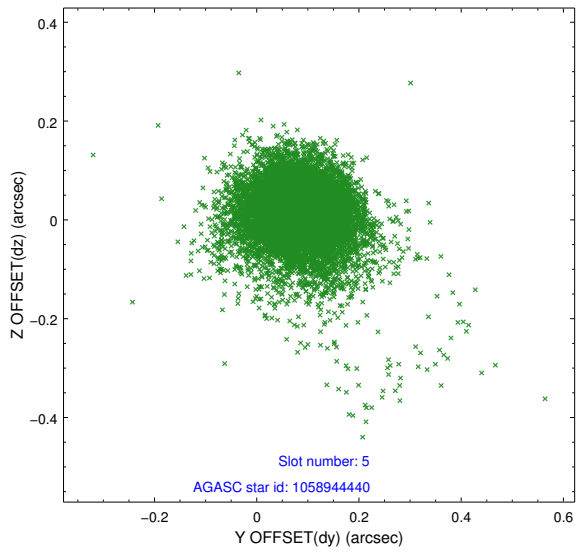
### 2.4.1 Slot 3



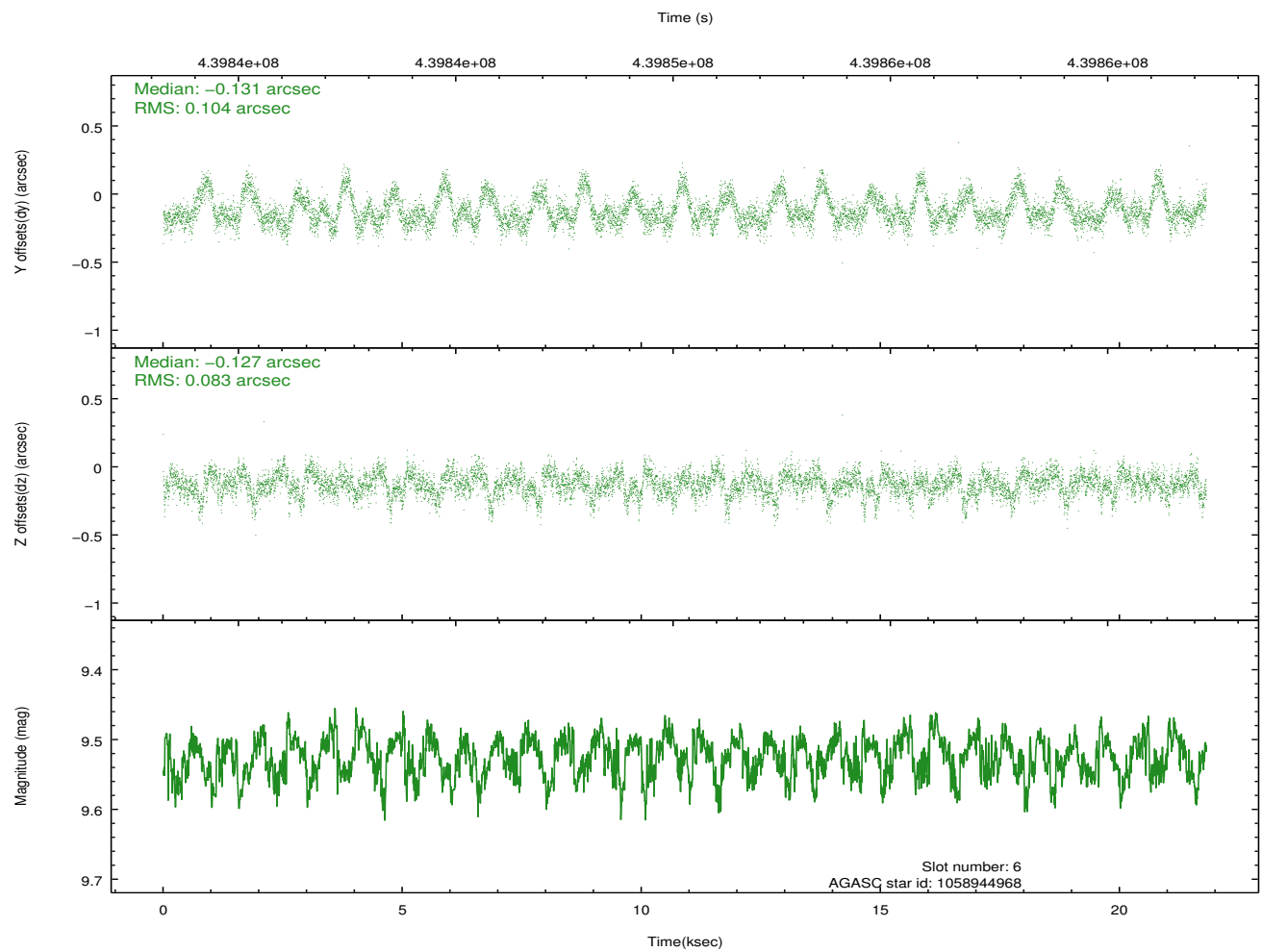
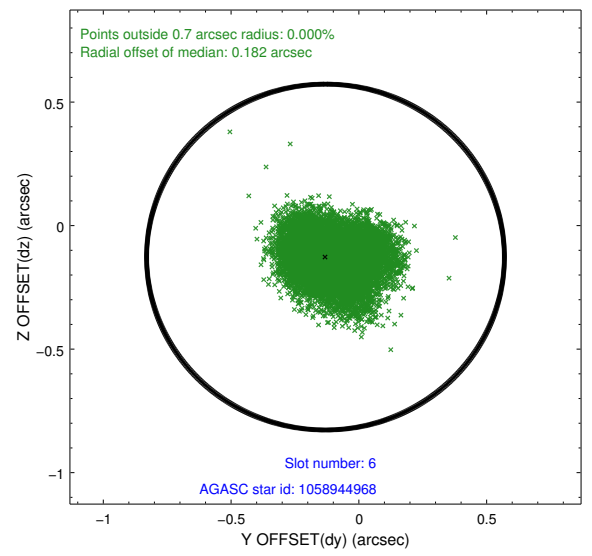
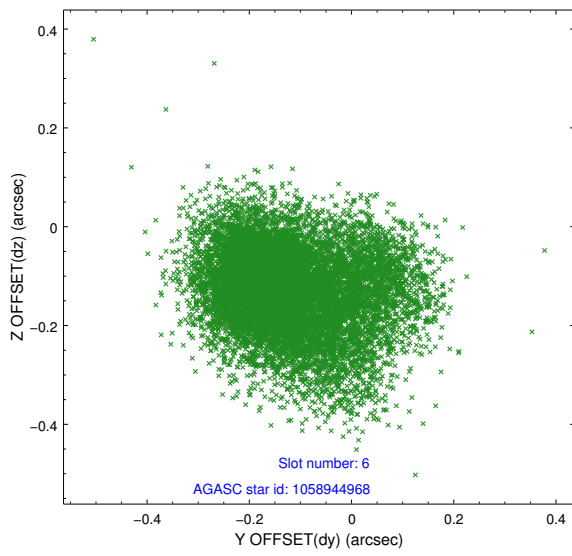
### 2.4.2 Slot 4



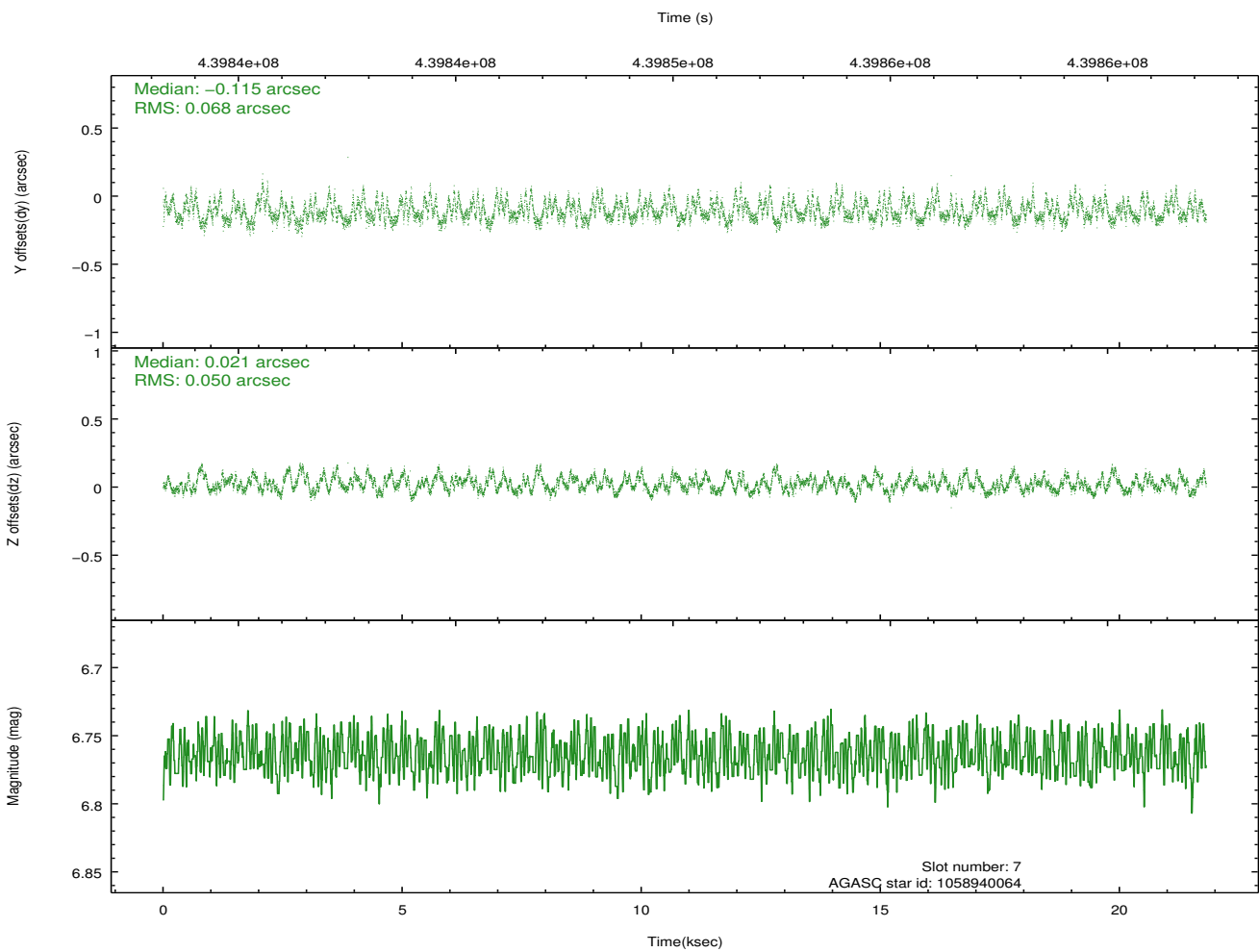
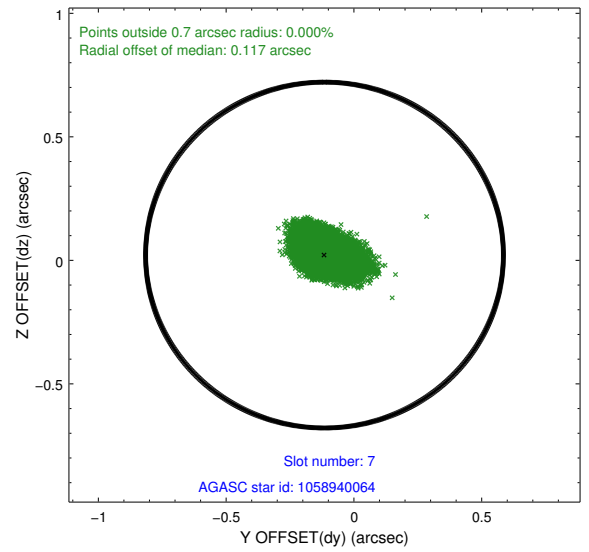
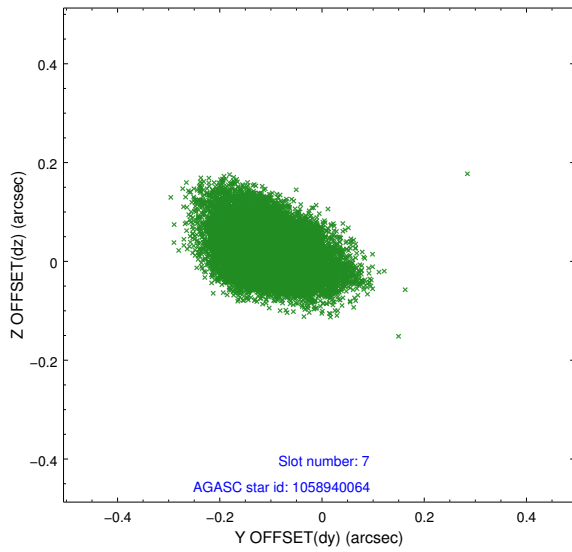
### 2.4.3 Slot 5



## 2.4.4 Slot 6

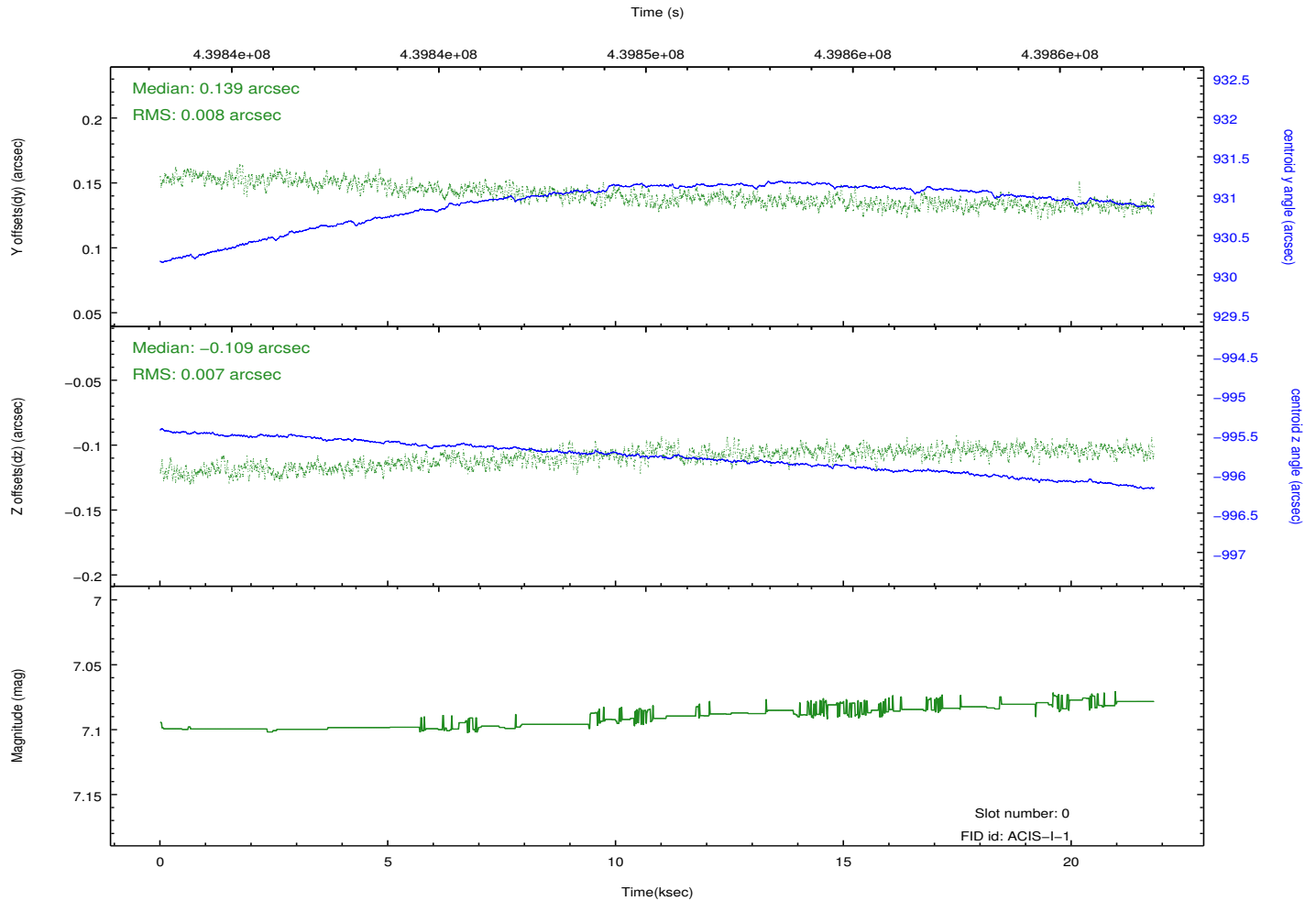
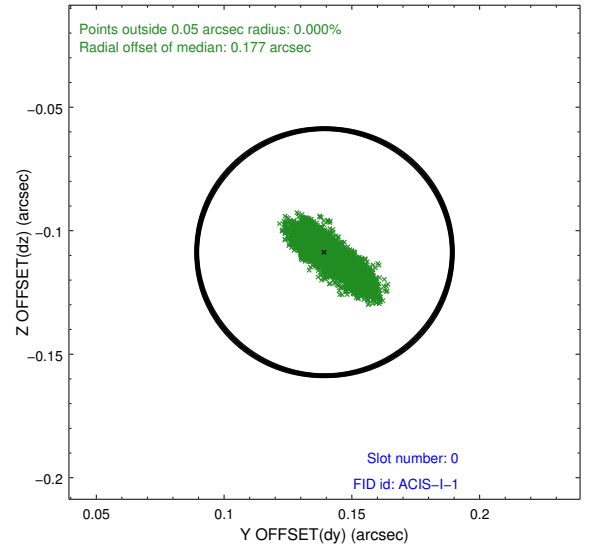
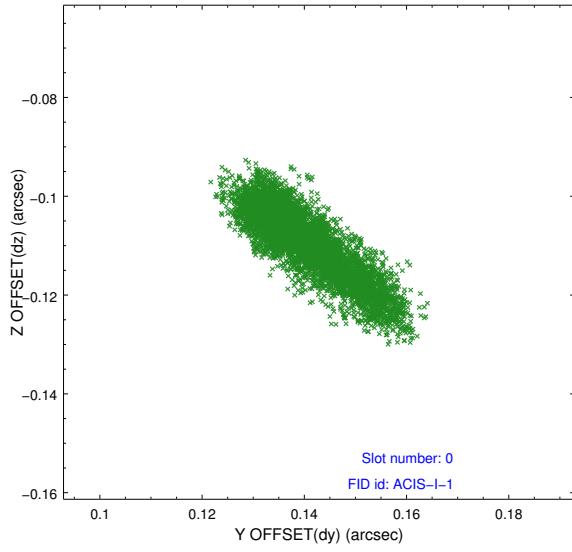


## 2.4.5 Slot 7

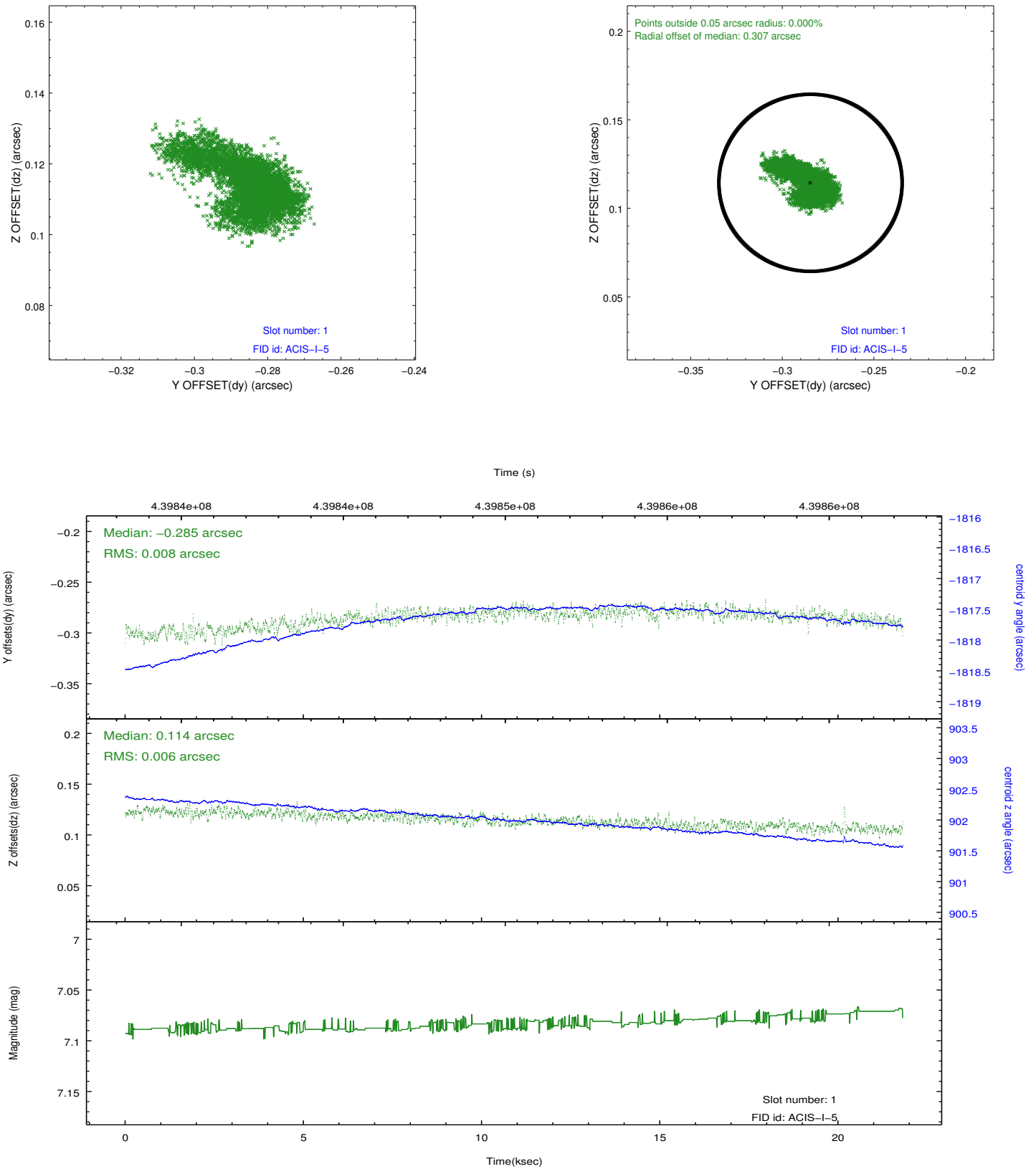


## 2.5 FID Slots

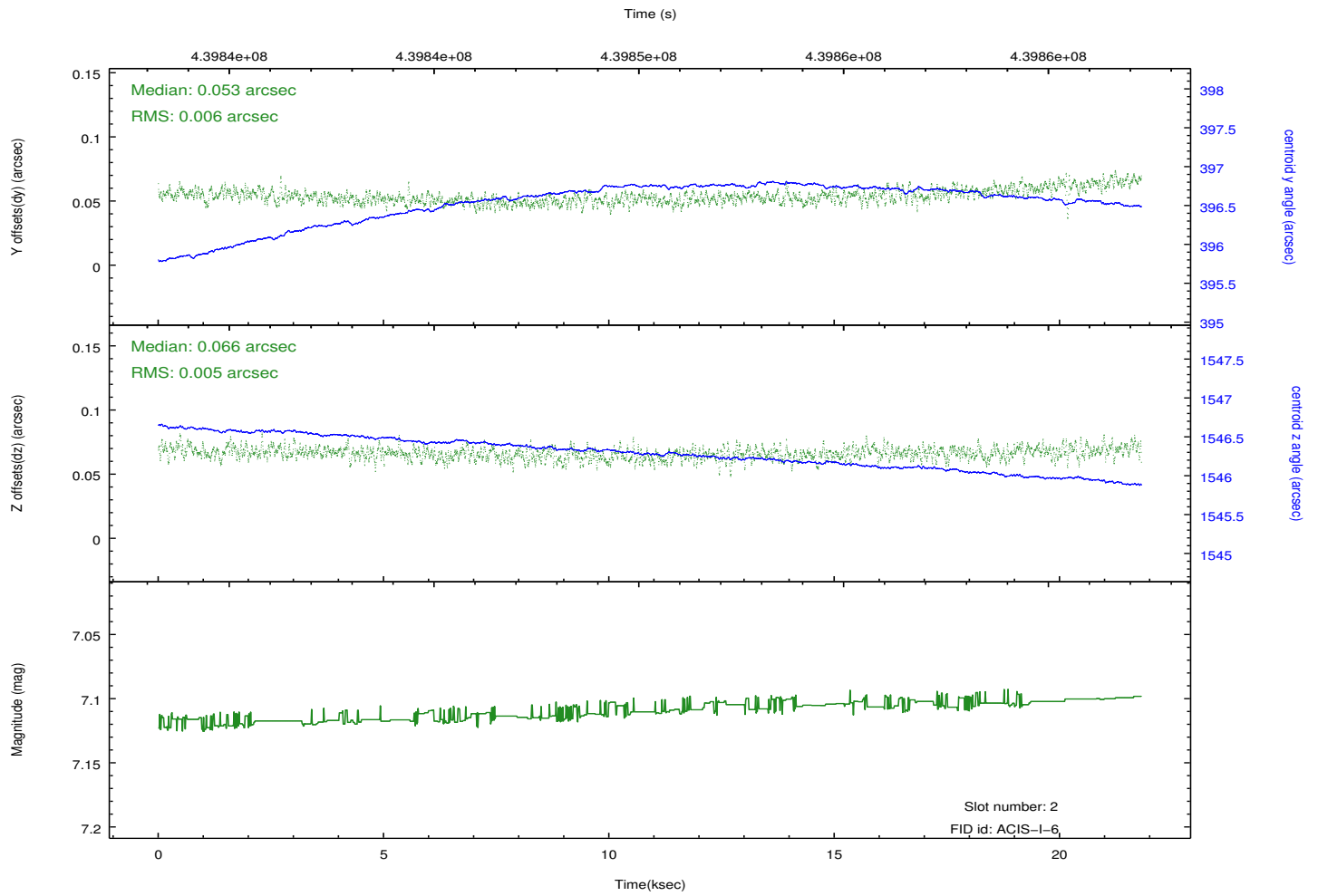
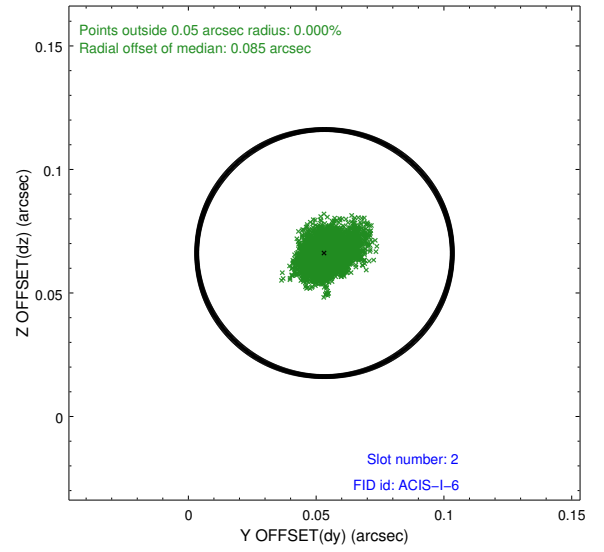
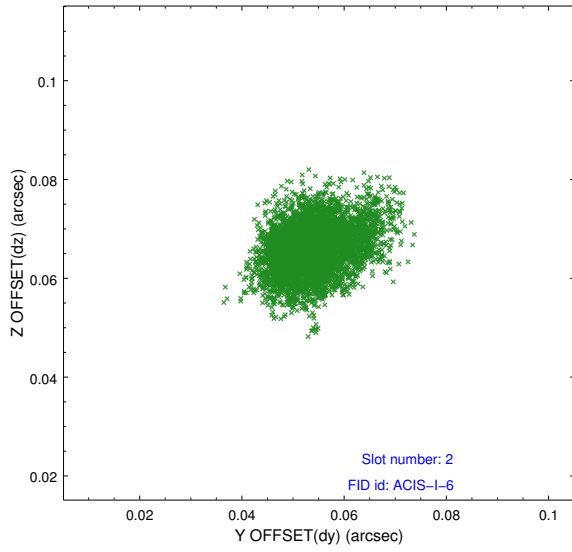
### 2.5.1 Slot 0



## 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)	2012.02.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	21.051023934484

## A.2 Comments