

# V&V Reference Report

## L2 ASCDS Version : 10.7

Observation 21184 - L2 Version 1  
Chandra X-Ray Center

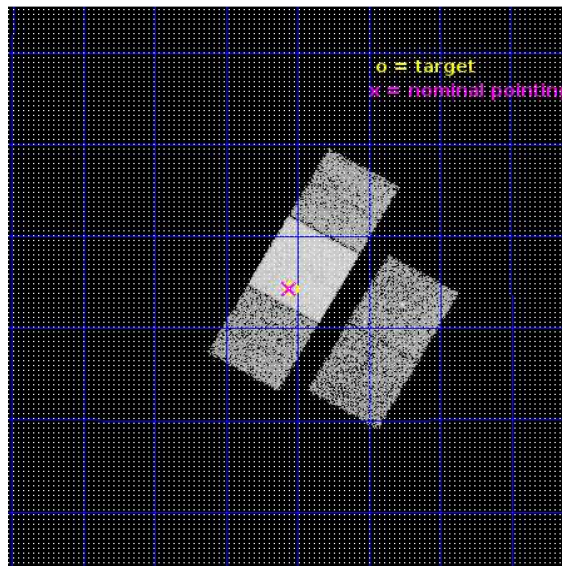
L2 Processing Date : Dec 1 2018

## 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

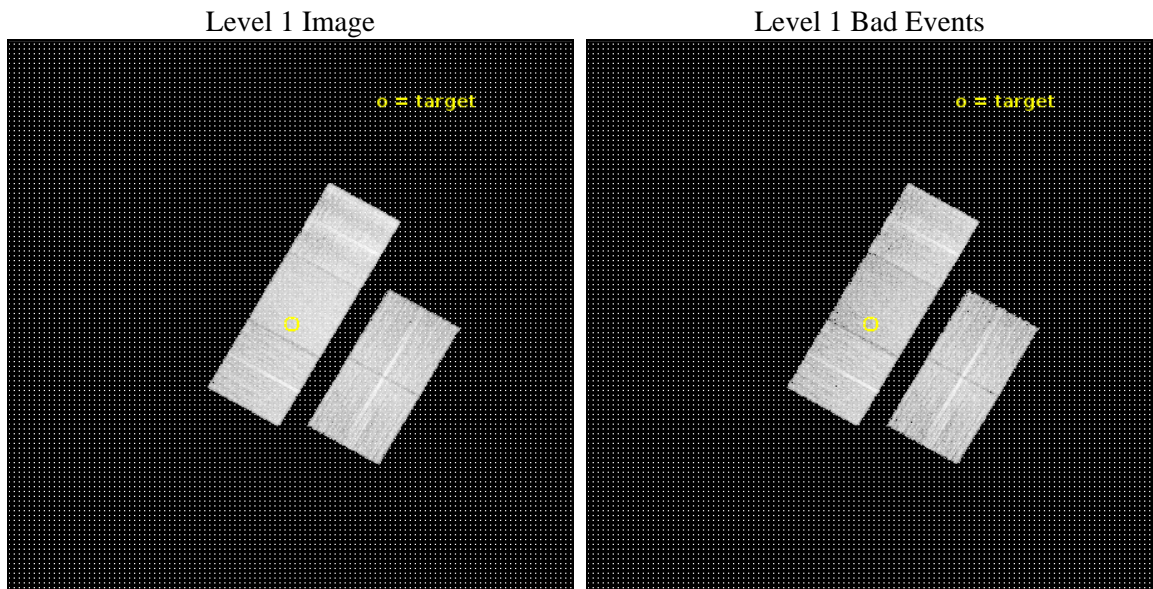
seq_num	201238	Sequence number
obs_id	21184	Observation id
title	Does accretion effect the X-ray emission of Herbig stars?	Proposal
observer	Christian Schneider	Principal investigator
object	HD 190073	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	300.760417	Observer's specified target RA [deg]
dec_targ	5.737972	Observer's specified target Dec [deg]
ra_nom	300.76393062203	Nominal RA [deg]
dec_nom	5.7384091735215	Nominal Dec [deg]
roll_nom	299.70578783395	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10052.573414087	Sum of GTIs [s]
livetime	9921.2291418354	Livetime [s]
ontime2	10049.268283844	Sum of GTIs [s]
ontime3	10052.491334081	Sum of GTIs [s]
ontime6	10052.532374144	Sum of GTIs [s]
ontime7	10052.573414087	Sum of GTIs [s]
ontime8	10052.450294137	Sum of GTIs [s]
l2events	74649	Number of level 2 events



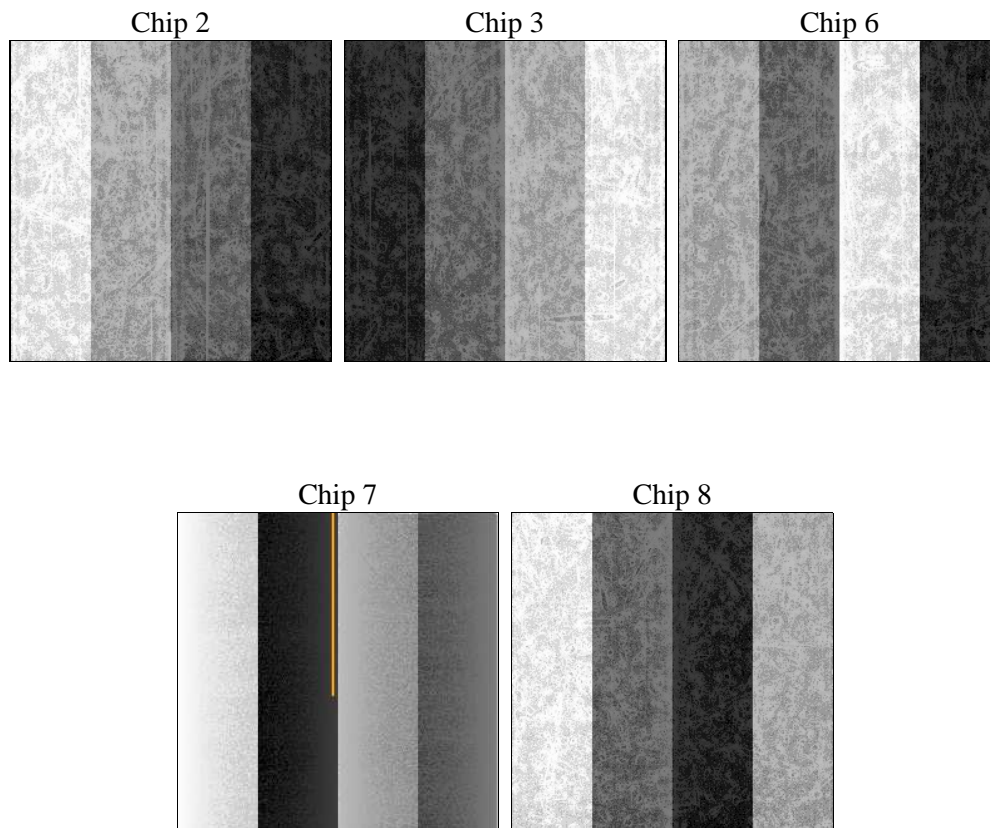
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.7	Processing system revision	ontime	10052.573414087	Sum of GTIs [s]
caldbver	4.8.0.1	&#160	ontime2	10049.268283844	Sum of GTIs [s]
date	2018-12-01T18:06:16	Date and time of file creation	ontime3	10052.491334081	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	10052.532374144	Sum of GTIs [s]
			ontime7	10052.573414087	Sum of GTIs [s]
			ontime8	10052.450294137	Sum of GTIs [s]
			l1events	435417	Number of level 1 events

### 2.1.4 Events

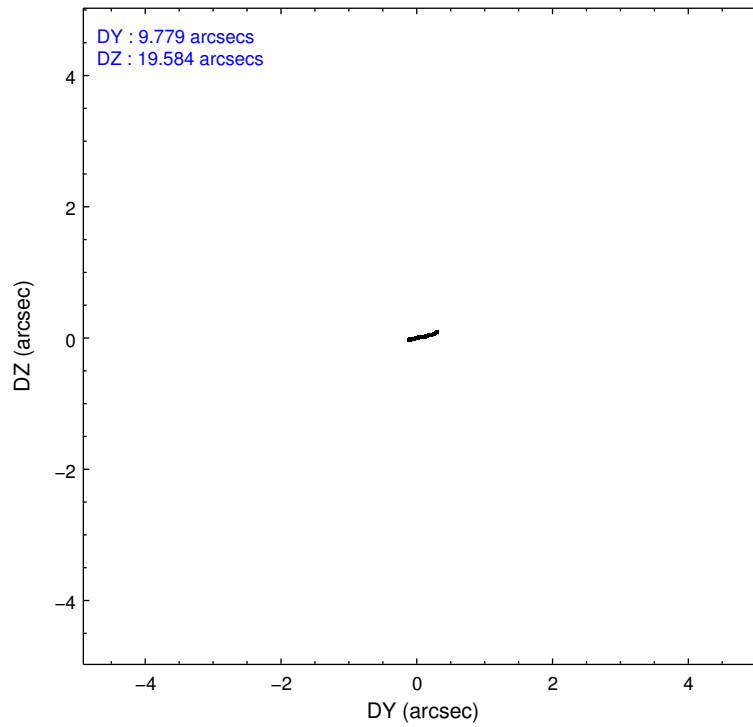
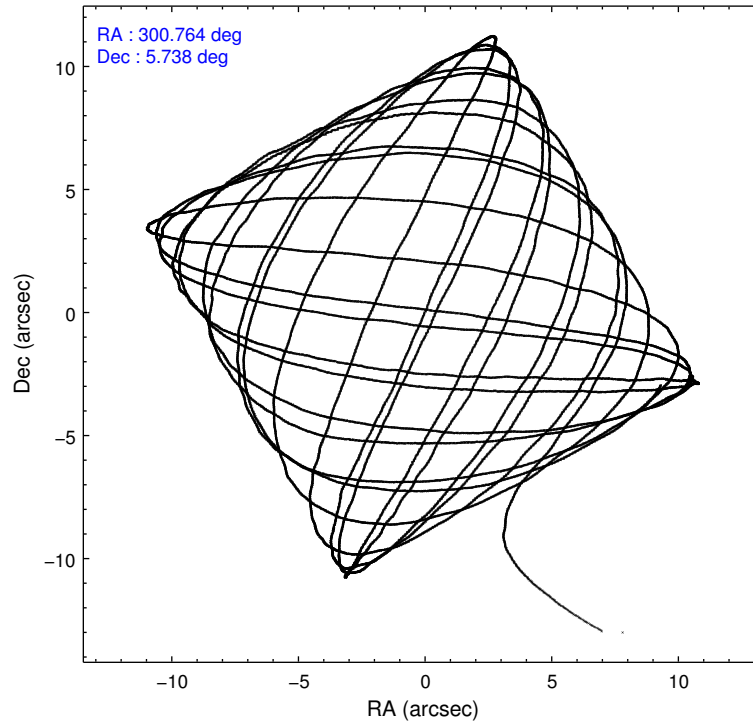
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	78181	72280	80169	100426	104361
rejected events	69702	63681	71238	56738	74725
rejected %	89%	88%	88%	56%	71%

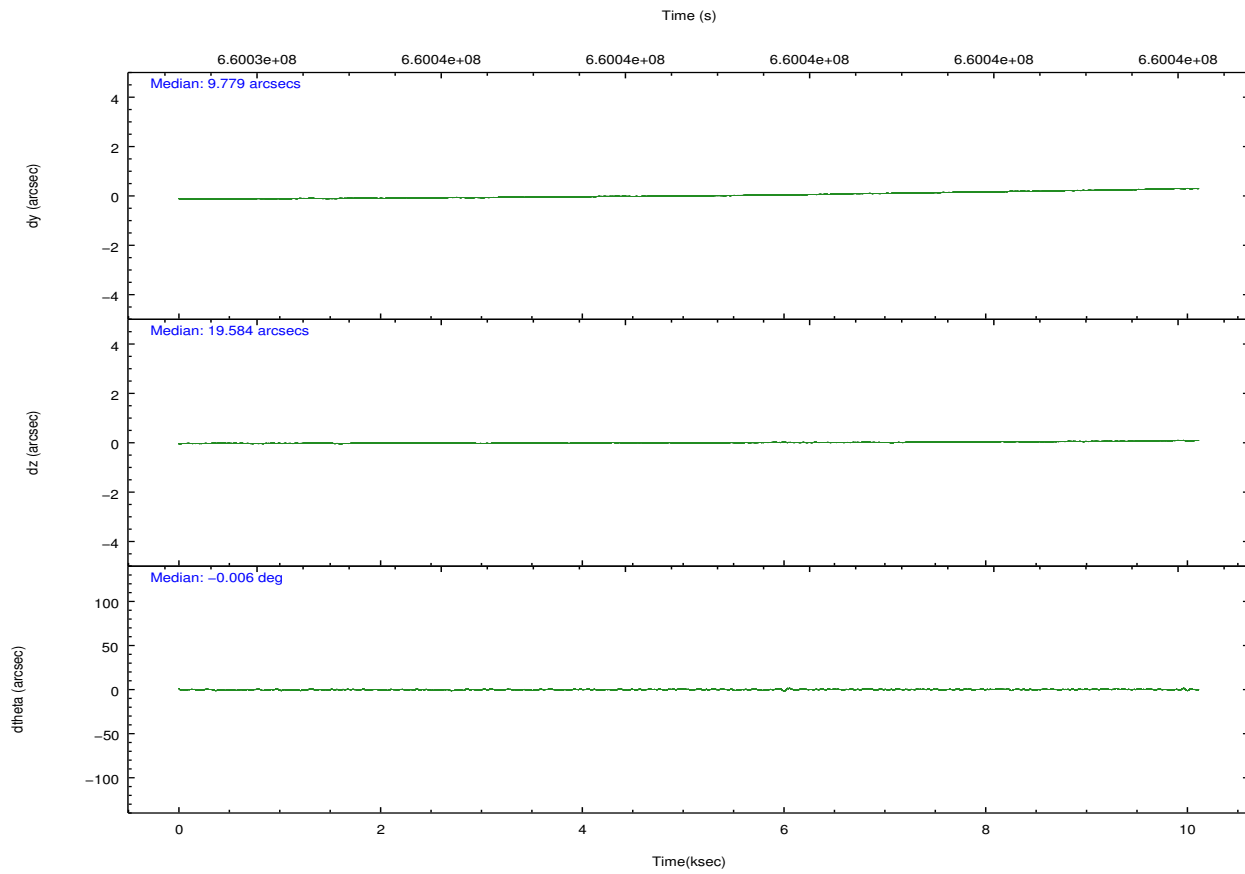
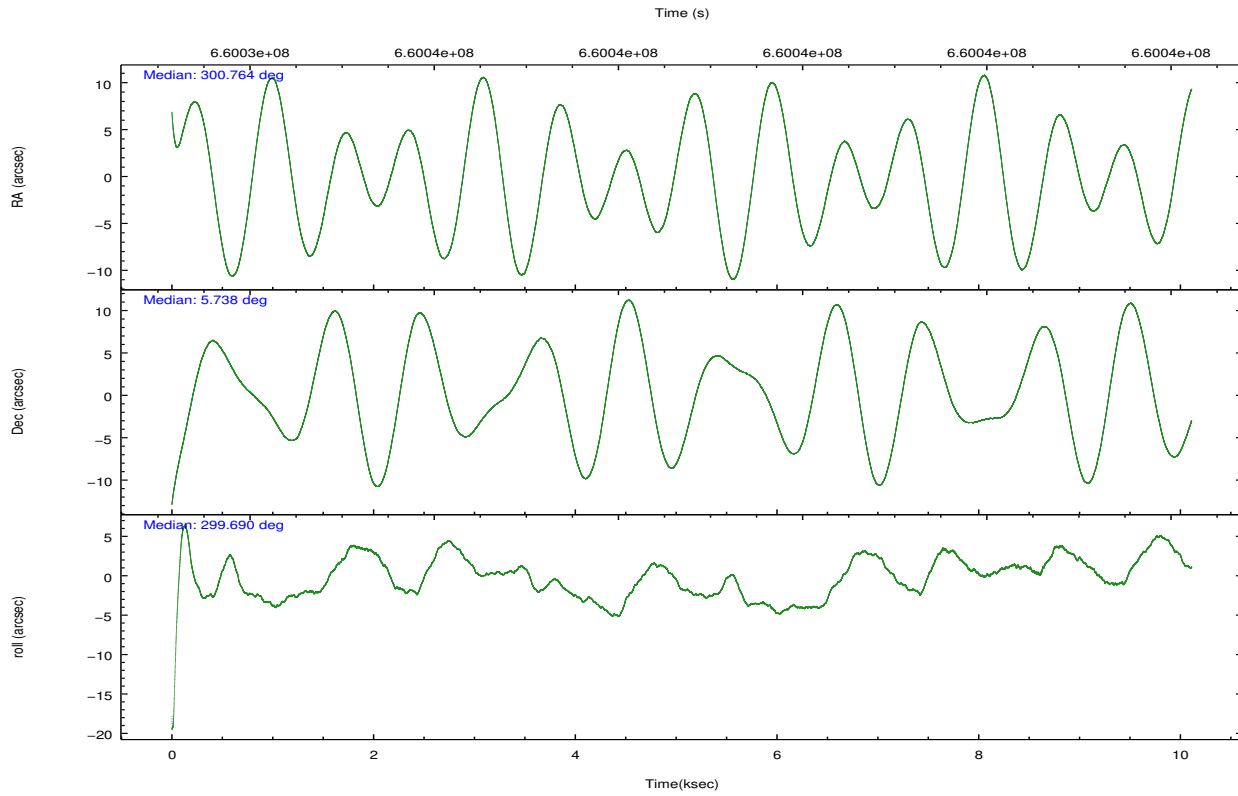
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	2889	3363	2998	3760	8757
	3%	4%	3%	3%	8%
grade 1 events	44	40	54	164	86
	0%	0%	0%	0%	0%
grade 2 events	2187	1794	2124	9324	7217
	2%	2%	2%	9%	6%
grade 3 events	862	885	859	3493	2859
	1%	1%	1%	3%	2%
grade 4 events	837	815	893	3423	2703
	1%	1%	1%	3%	2%
grade 5 events	3175	3564	3762	9894	5693
	4%	4%	4%	9%	5%
grade 6 events	1719	1746	2063	23715	8108
	2%	2%	2%	23%	7%
grade 7 events	66468	60073	67416	46653	68938
	85%	83%	84%	46%	66%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	300.739916	300.7639306220304	CCD I2 on	O1	Y
[deg] Pointing Dec	5.751960	5.738409173521485	CCD I3 on	Y	Y
[deg] Pointing Roll	299.551608	299.7057878339501	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	660033741.184000	660032635.3163199	CCD S5 on	N	N
Observation start date	2018-12-01T06:41:12	2018-12-01T06:23:55	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	660043741.184000	660044839.47955	On-chip summing requested	N	N
Observation end date	2018-12-01T09:27:52	2018-12-01T09:47:19	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





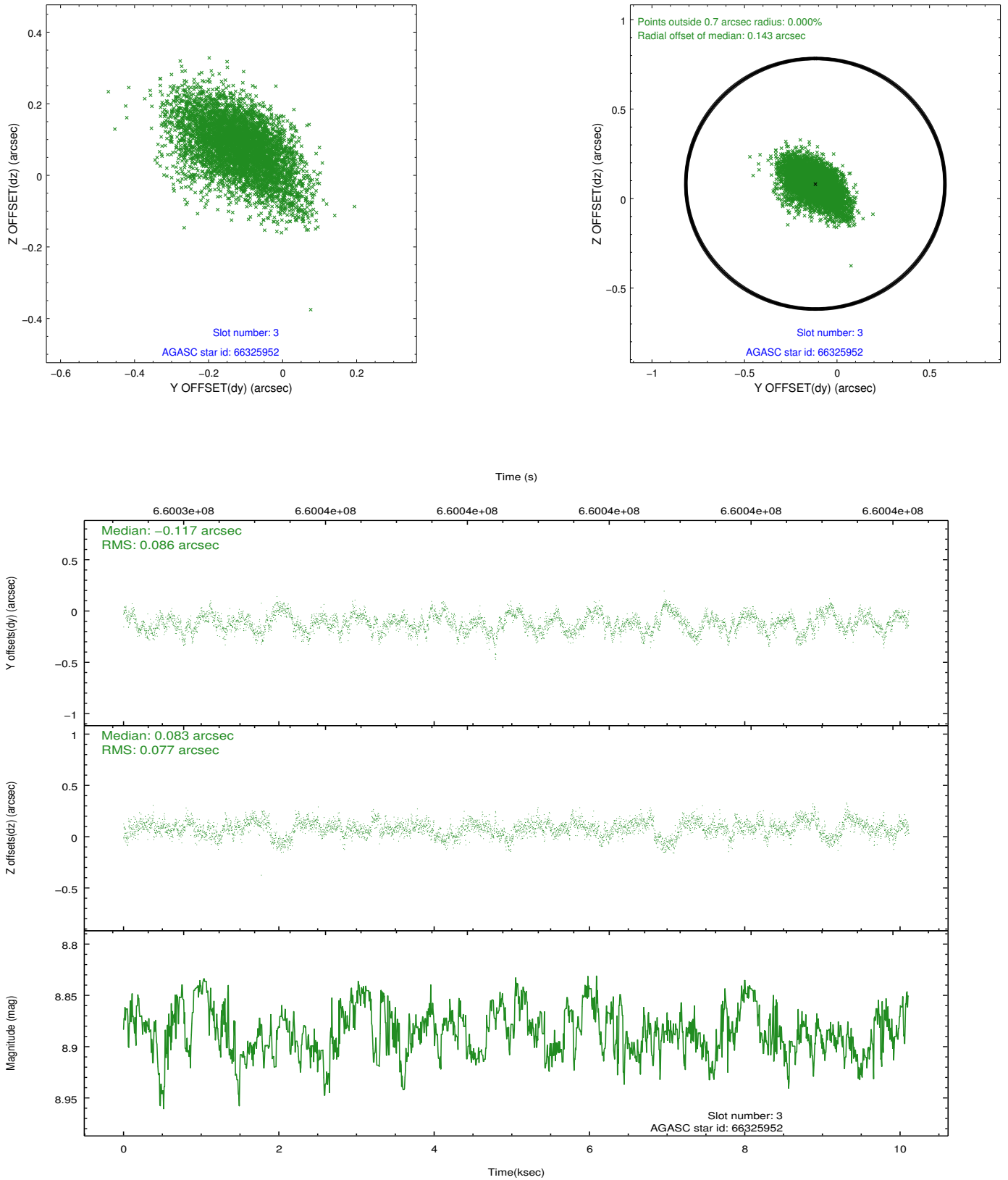
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	6.98	2467	1.000	-0.290	-0.111	0.006	0.011	0.000000	0.000000	-762.87	-1741
1	FID		ACIS-S-4	7.10	2467	1.000	0.619	0.170	0.008	0.013	0.000000	0.000000	2151.01	167
2	FID		ACIS-S-5	7.10	2467	1.000	-0.360	-0.049	0.010	0.016	0.000000	0.000000	-1815.18	161
3	GUIDE	used	66325952	8.89	4932	1.000	-0.117	0.083	0.120	0.210	300.899551	6.361968	-1629.01	1580
4	GUIDE	used	66332640	8.30	4933	1.000	0.073	-0.135	0.090	0.157	301.037399	6.372891	-1420.51	2028
5	GUIDE	used	66340560	9.18	4933	1.000	0.167	0.208	0.141	0.233	300.475608	5.895023	-914.62	-568
6	GUIDE	used	66341208	8.17	4932	1.000	-0.157	-0.355	0.106	0.177	300.760457	5.737962	80.22	39
7	GUIDE	used	65810408	9.04	4930	1.000	0.025	0.204	0.128	0.215	300.116372	5.469686	-218.16	-2443

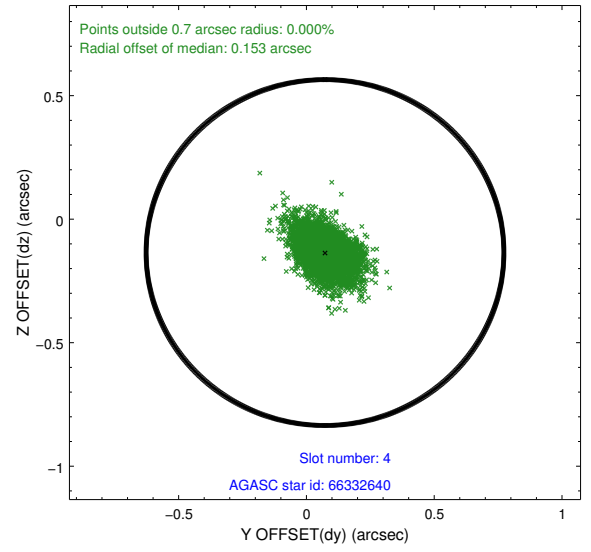
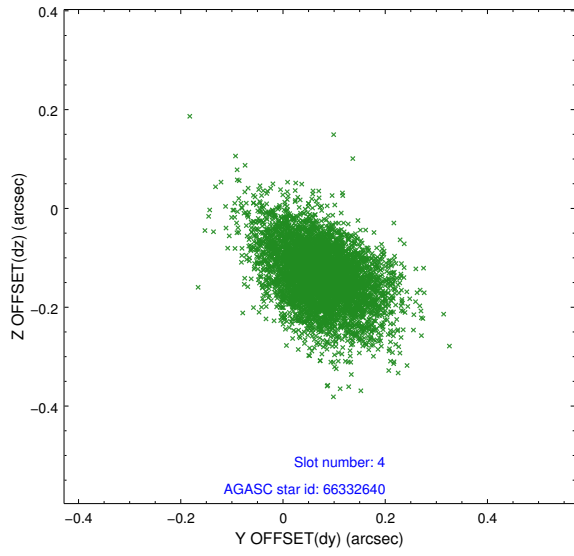
∞

## 2.4 Star Slots

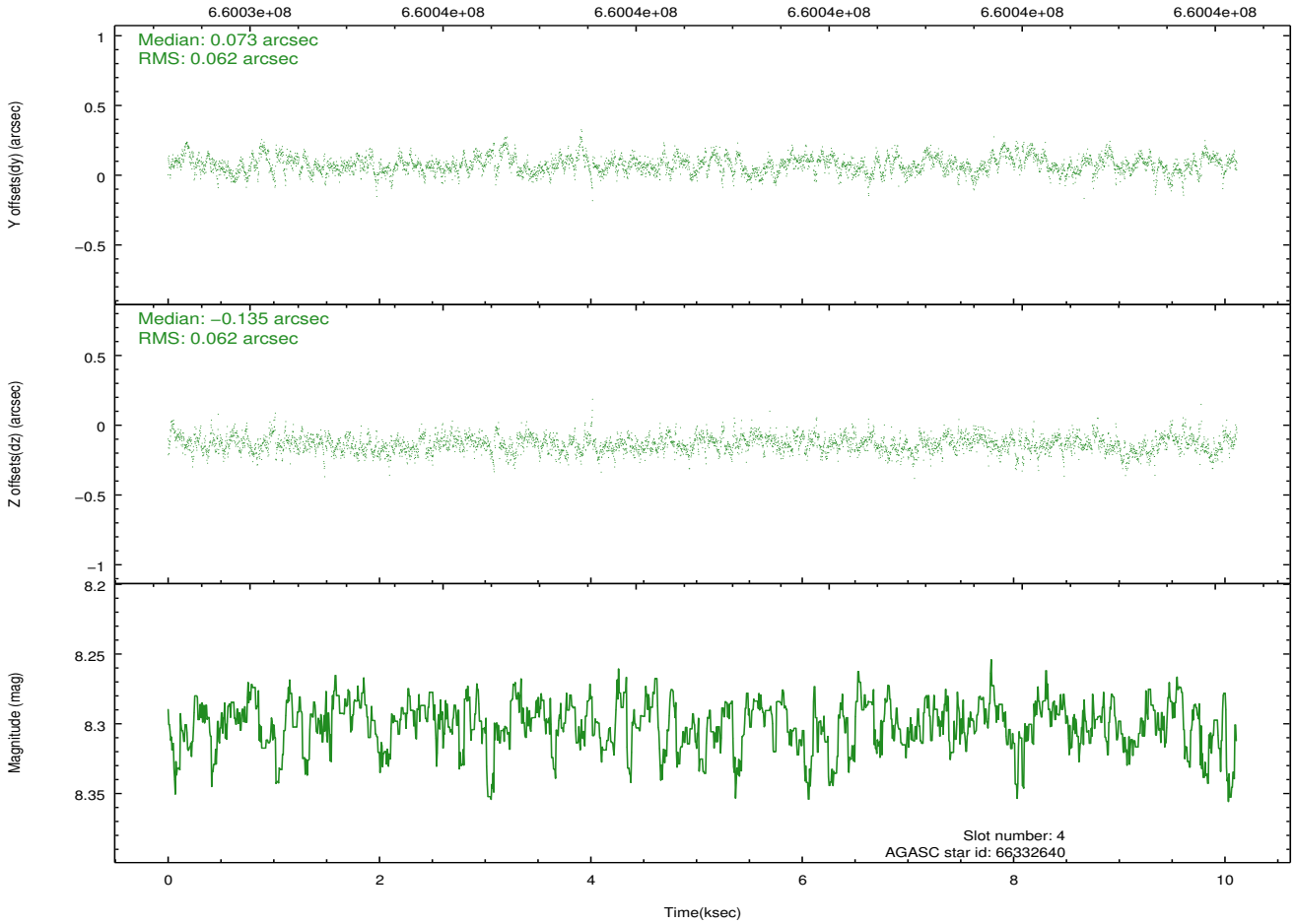
### 2.4.1 Slot 3



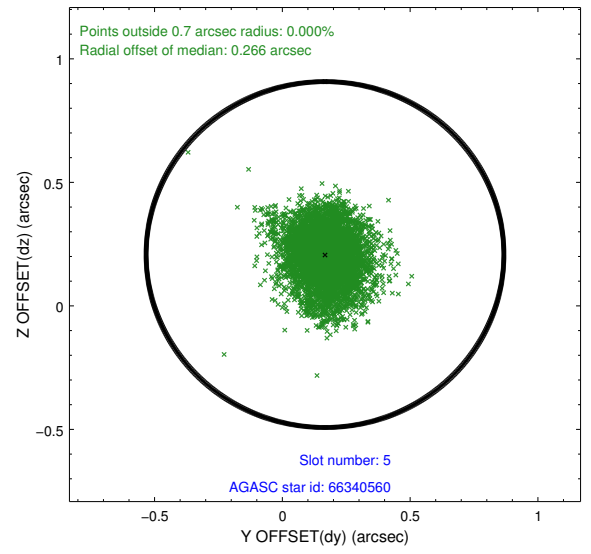
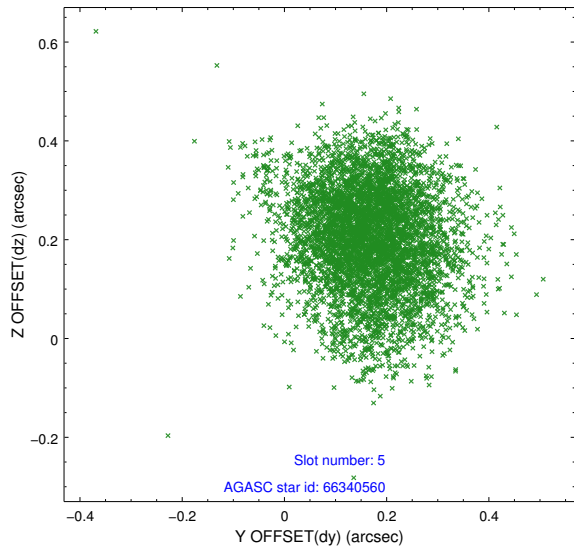
### 2.4.2 Slot 4



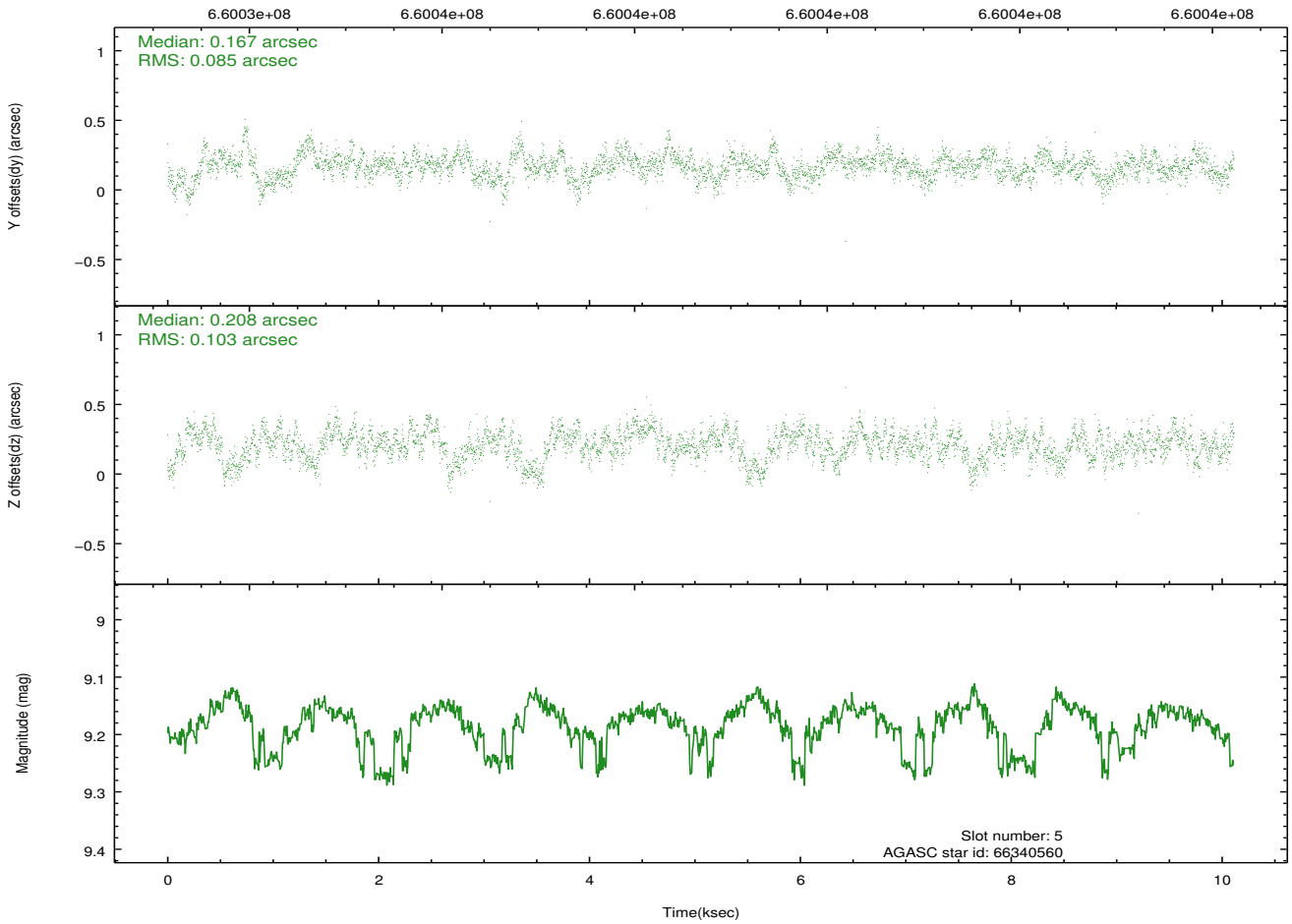
Time (s)



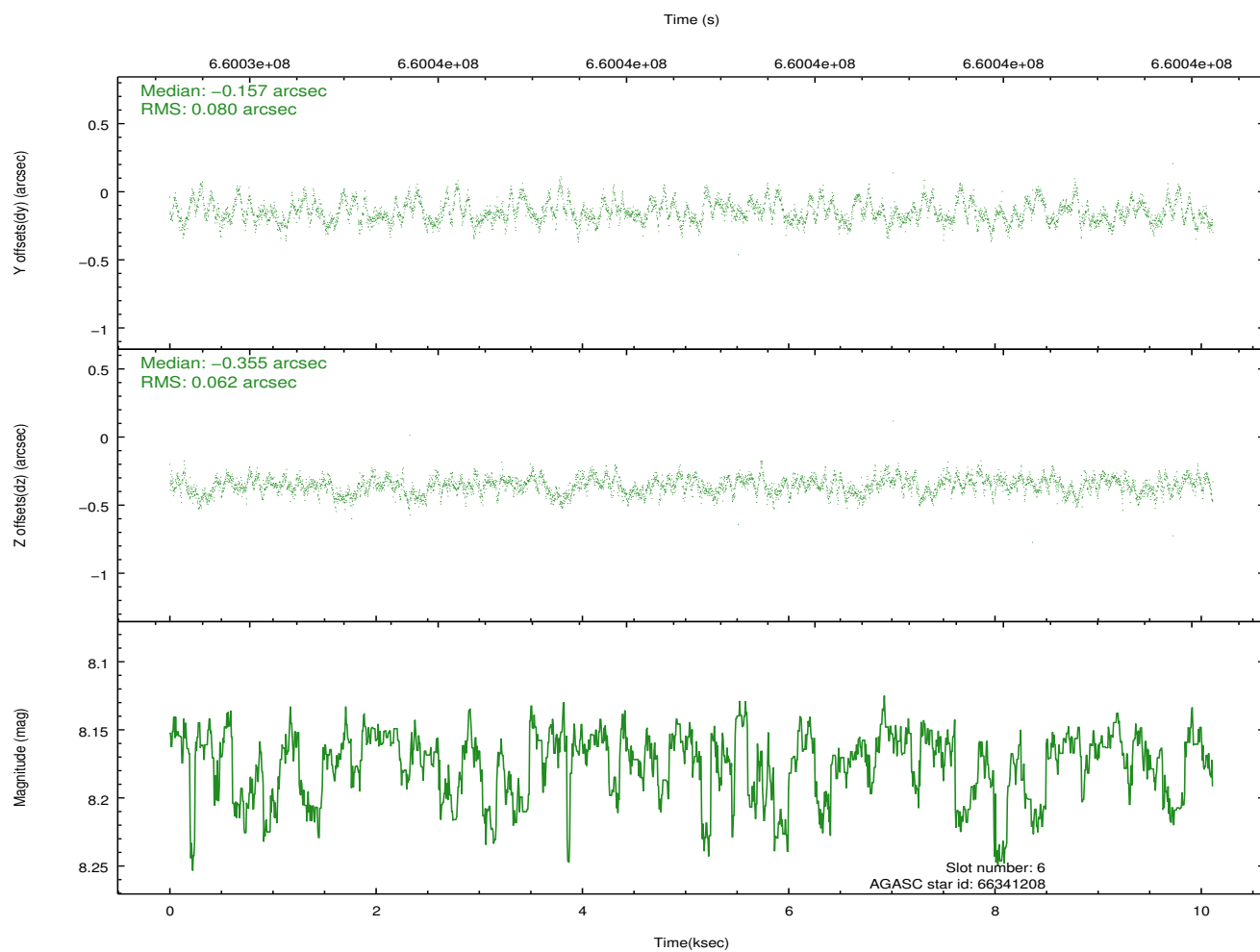
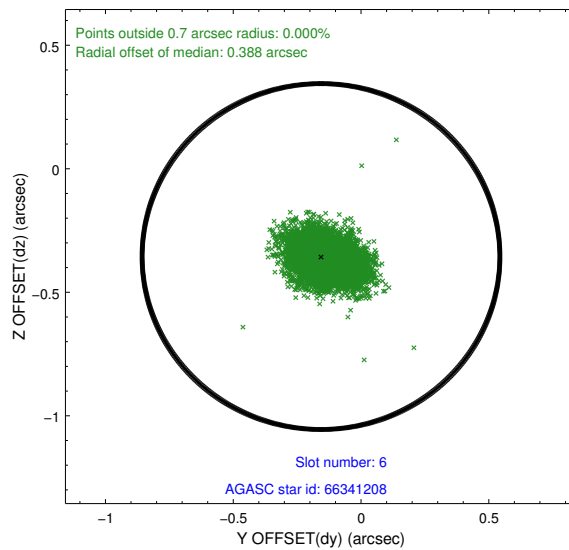
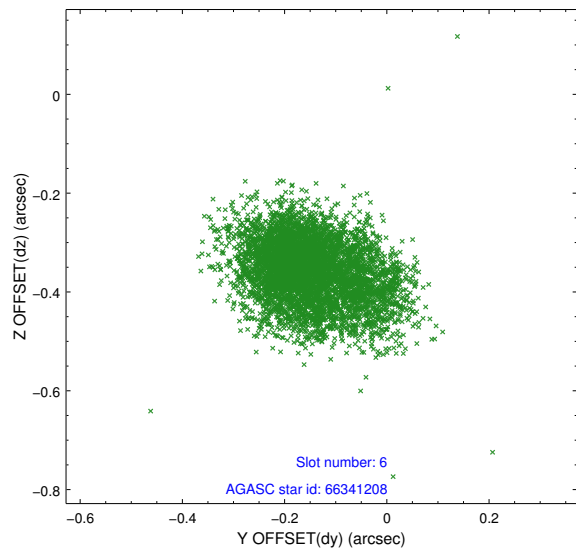
### 2.4.3 Slot 5



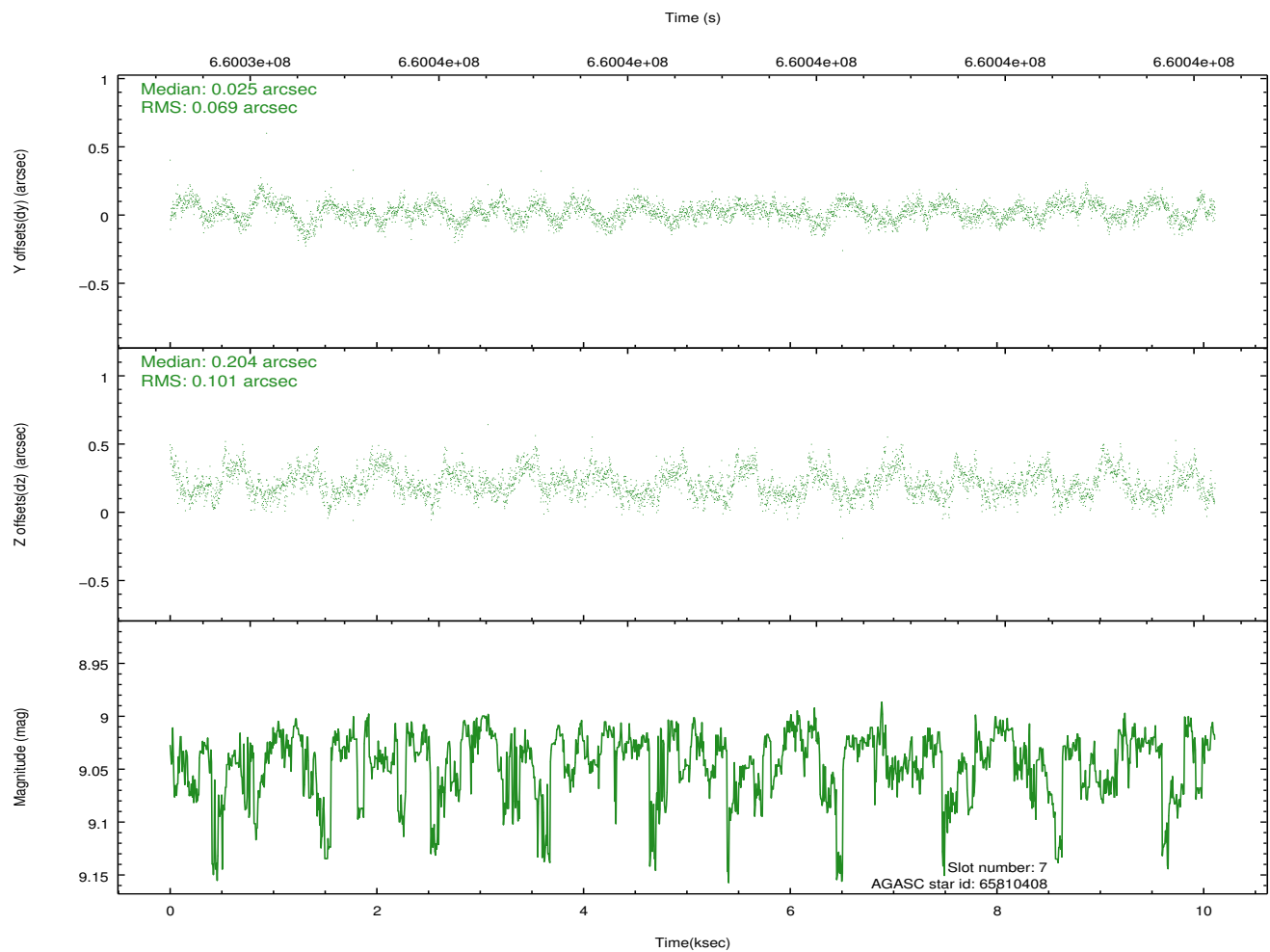
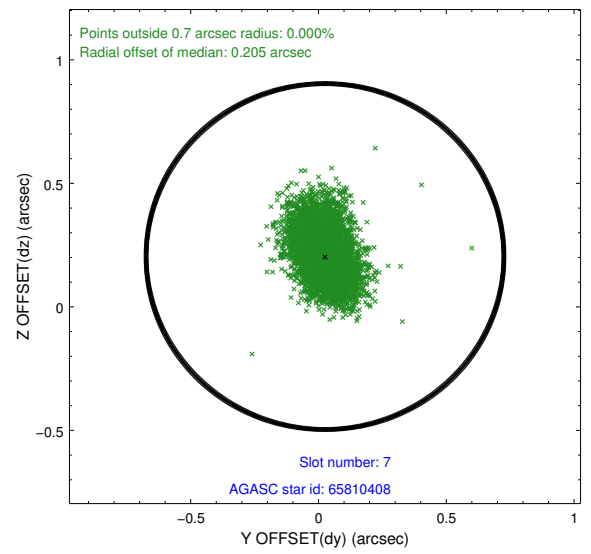
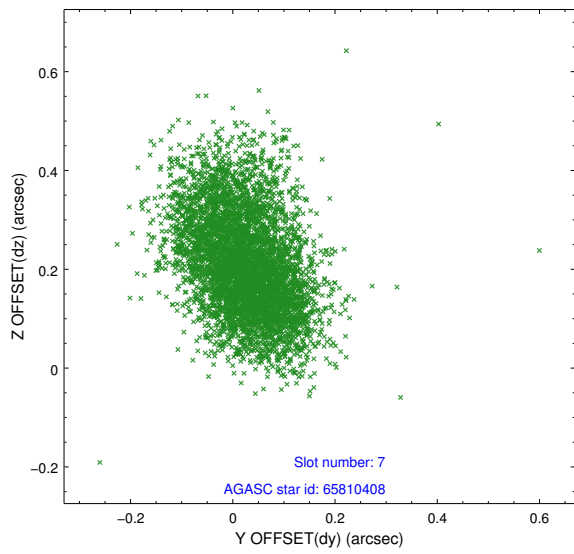
Time (s)



## 2.4.4 Slot 6

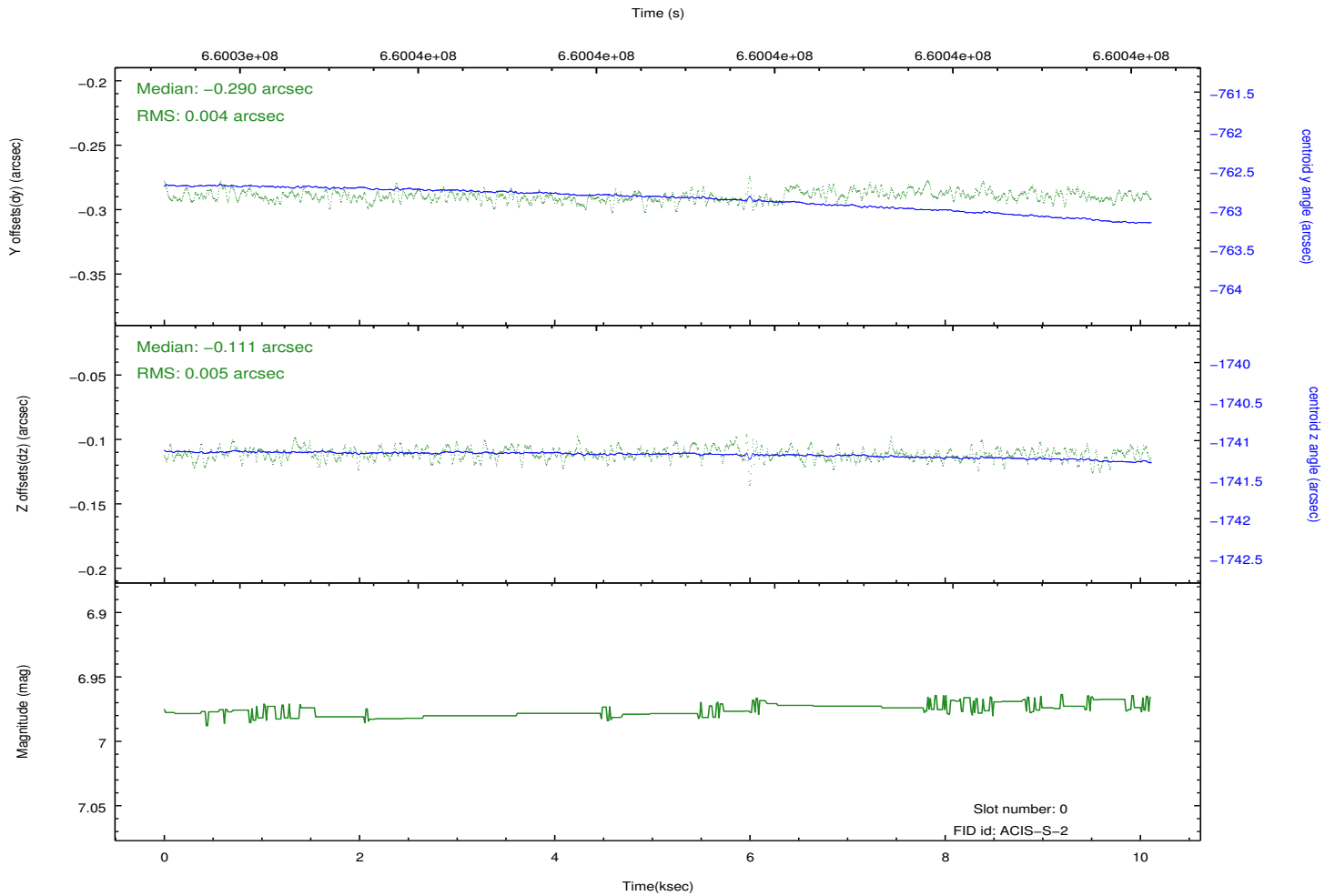
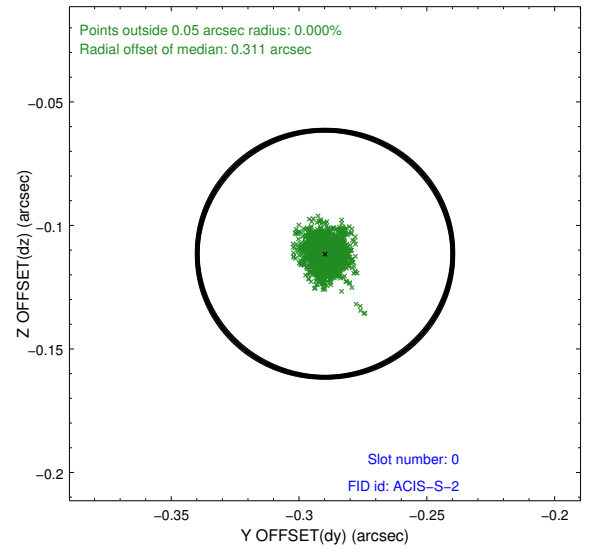
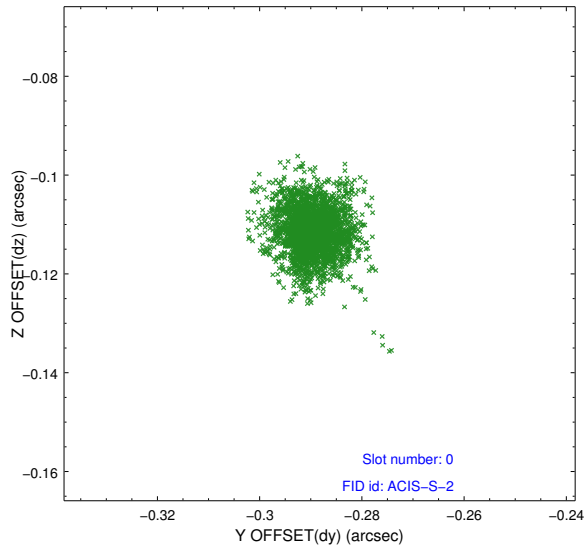


## 2.4.5 Slot 7

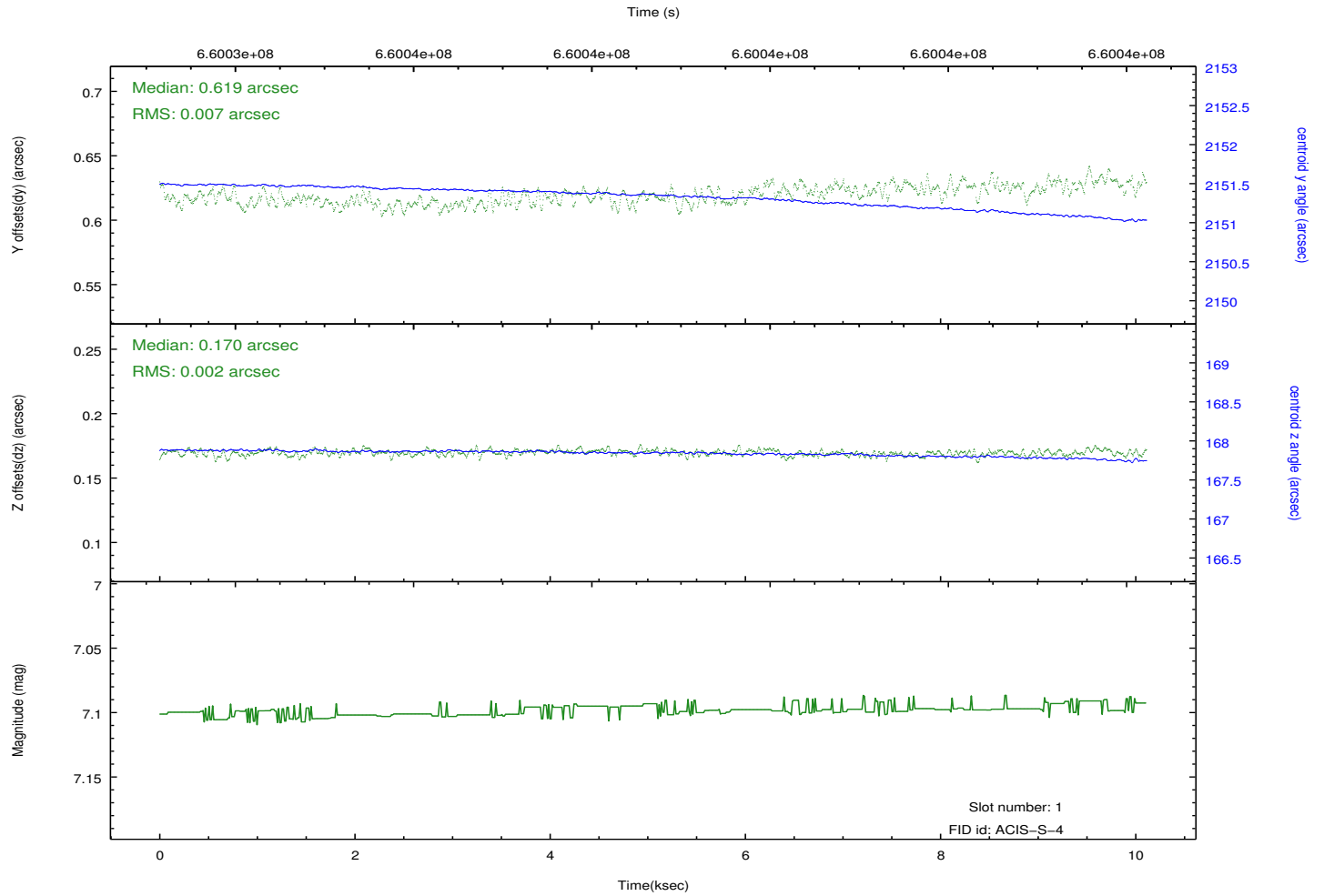
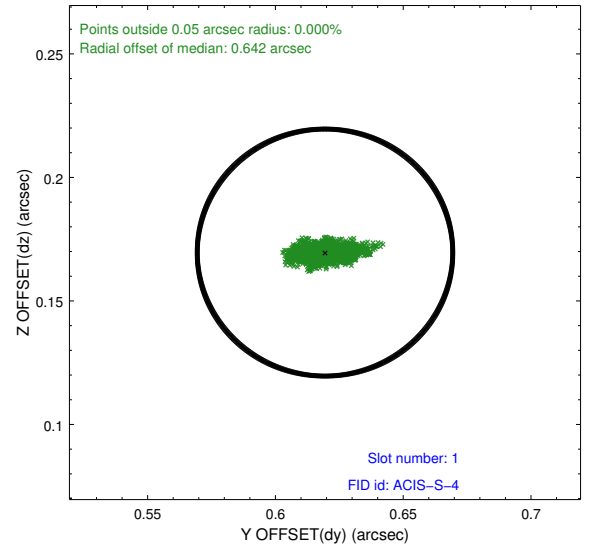
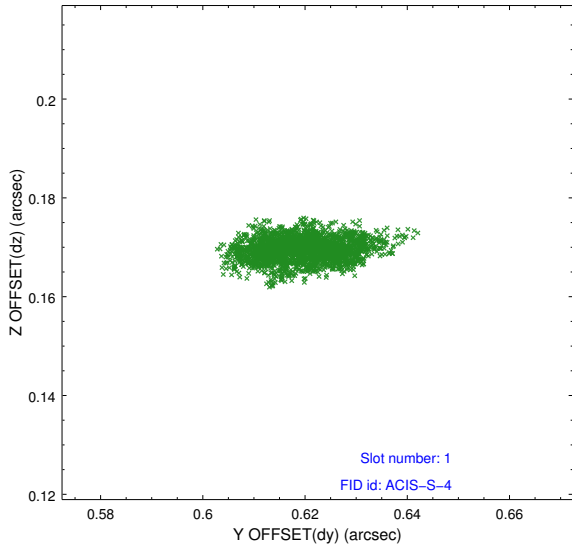


## 2.5 FID Slots

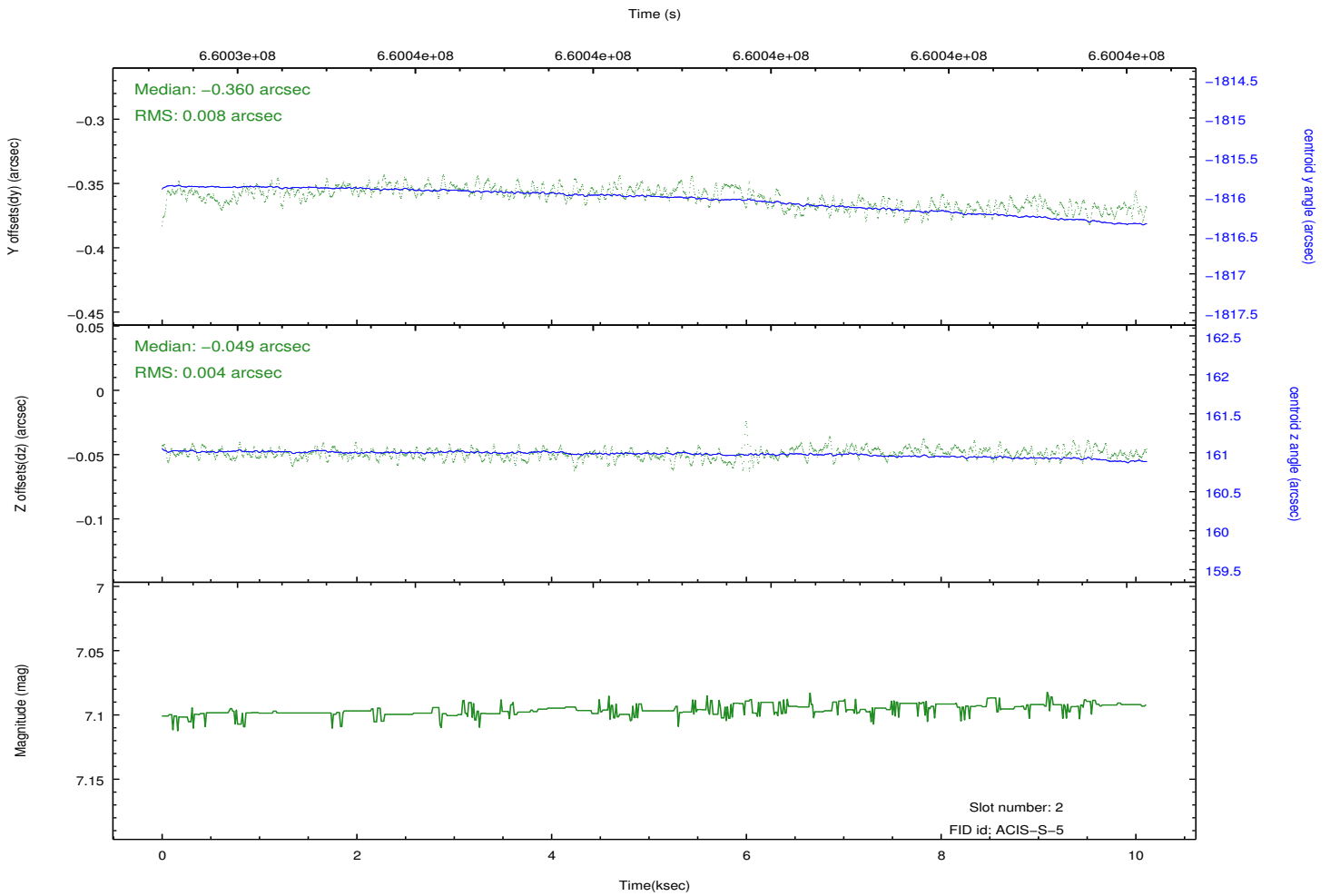
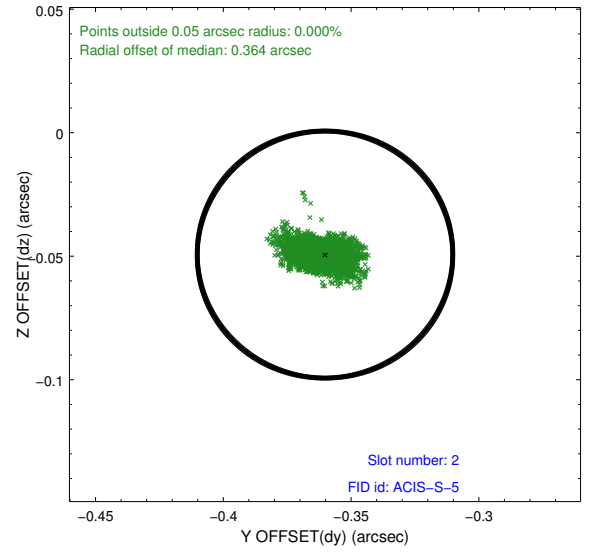
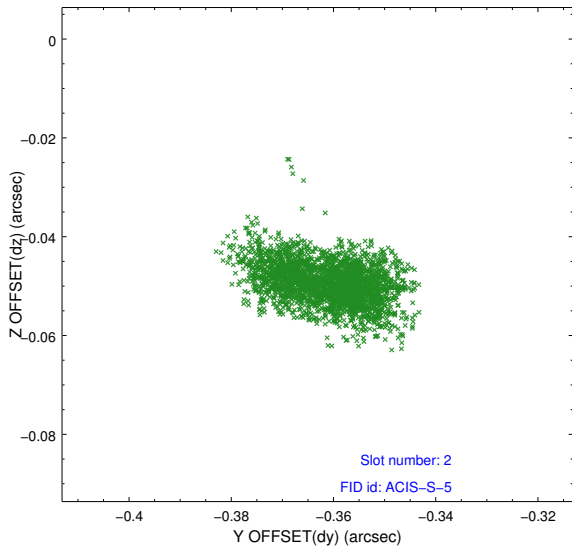
### 2.5.1 Slot 0



## 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)	2018.12.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.052573414087

## A.2 Comments