

# V&V Reference Report

## L2 ASCDS Version : 10.6

Observation 20101 - L2 Version 1  
Chandra X-Ray Center

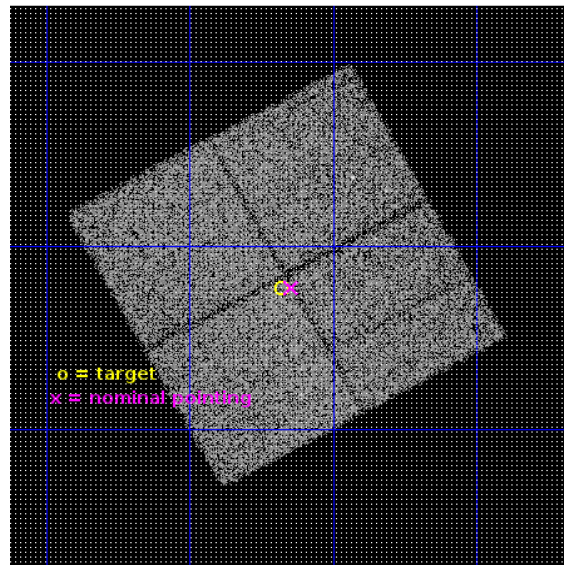
L2 Processing Date : Jun 25 2017

## 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

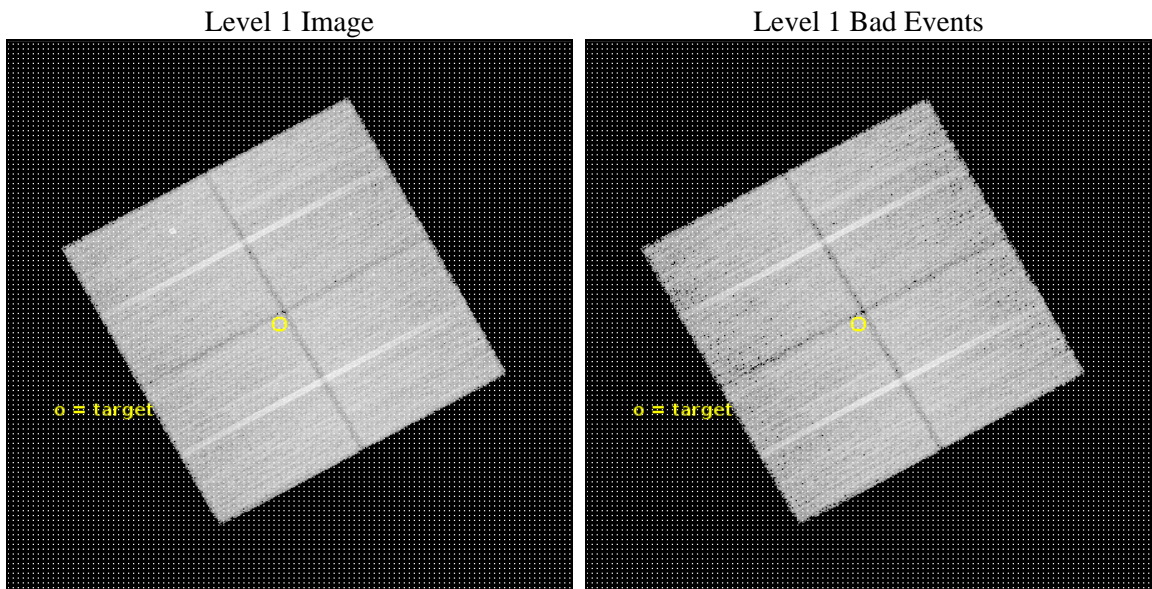
seq_num	201114	Sequence number
obs_id	20101	Observation id
title	An X-ray Census of YSOs in Infrared Dark Clouds. II. Star Cluster Formation from a Massive Filament	Proposal title
observer	Jonathan Tan	Principal investigator
object	IRDC G35.4-0.33	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	284.294583	Observer's specified target RA [deg]
dec_targ	2.128444	Observer's specified target Dec [deg]
ra_nom	284.28622819203	Nominal RA [deg]
dec_nom	2.1287107615407	Nominal Dec [deg]
roll_nom	151.20898671865	Nominal Roll [deg]
revision	1	Processing version of data
ontime	35079.600269914	Sum of GTIs [s]
livetime	34621.259467161	Livetime [s]
ontime0	35079.600269914	Sum of GTIs [s]
ontime1	35076.459229708	Sum of GTIs [s]
ontime2	35079.600269914	Sum of GTIs [s]
ontime3	35079.600269914	Sum of GTIs [s]
l2events	87857	Number of level 2 events



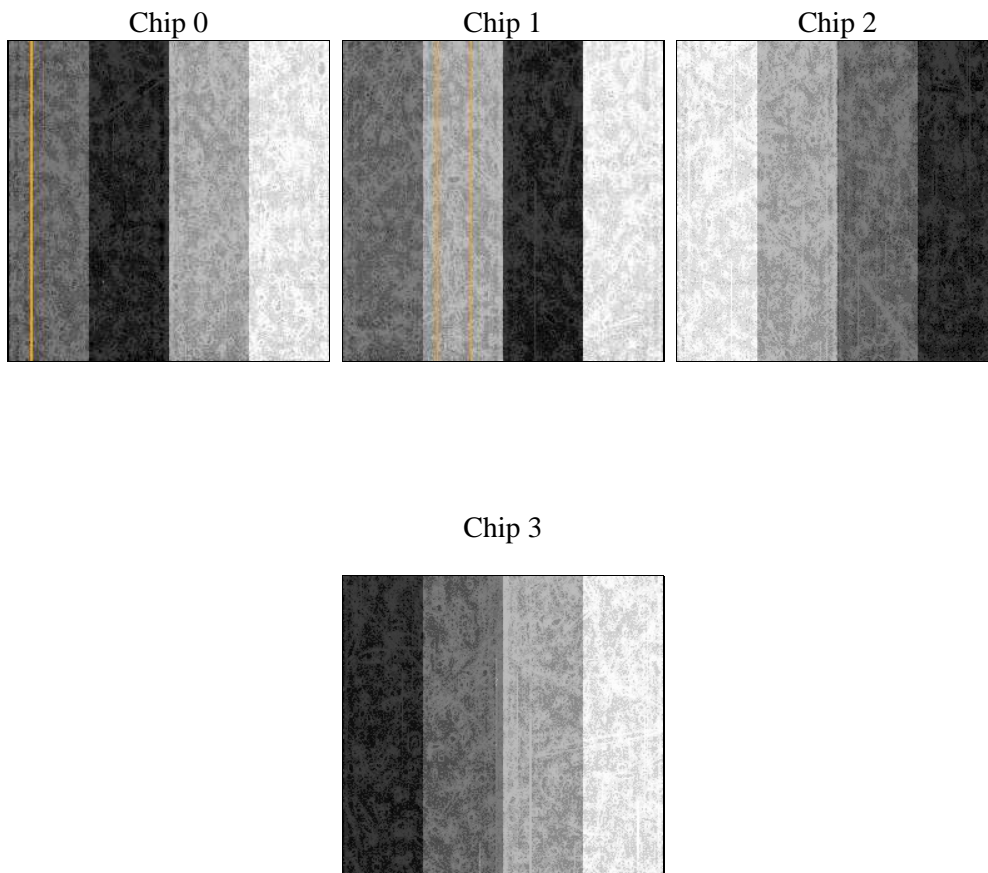
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	35079.600269914	Sum of GTIs [s]
caldsver	4.7.5	&#160	ontime0	35079.600269914	Sum of GTIs [s]
date	2017-06-25T04:46:59	Date and time of file creation	ontime1	35076.459229708	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	35079.600269914	Sum of GTIs [s]
			ontime3	35079.600269914	Sum of GTIs [s]
			l1events	919458	Number of level 1 events

### 2.1.4 Events

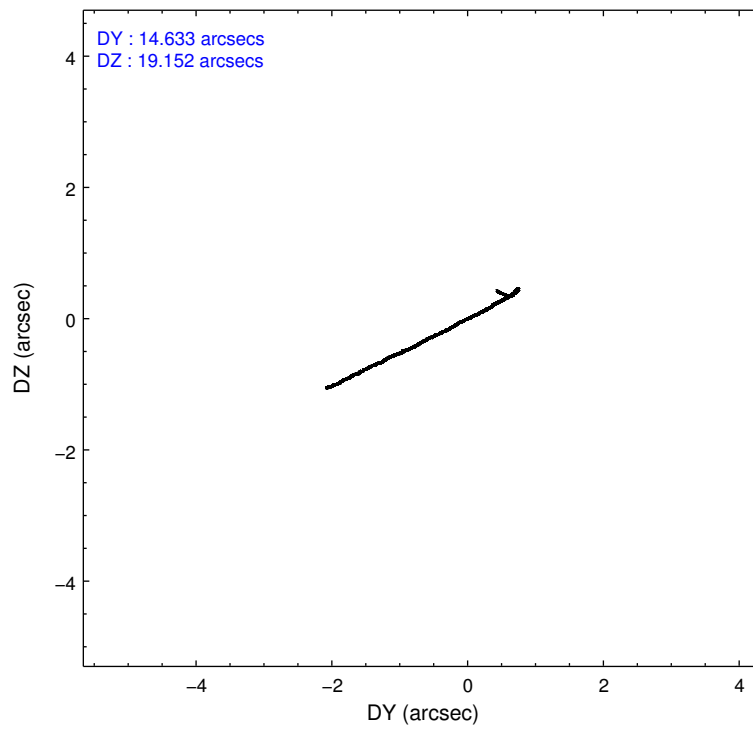
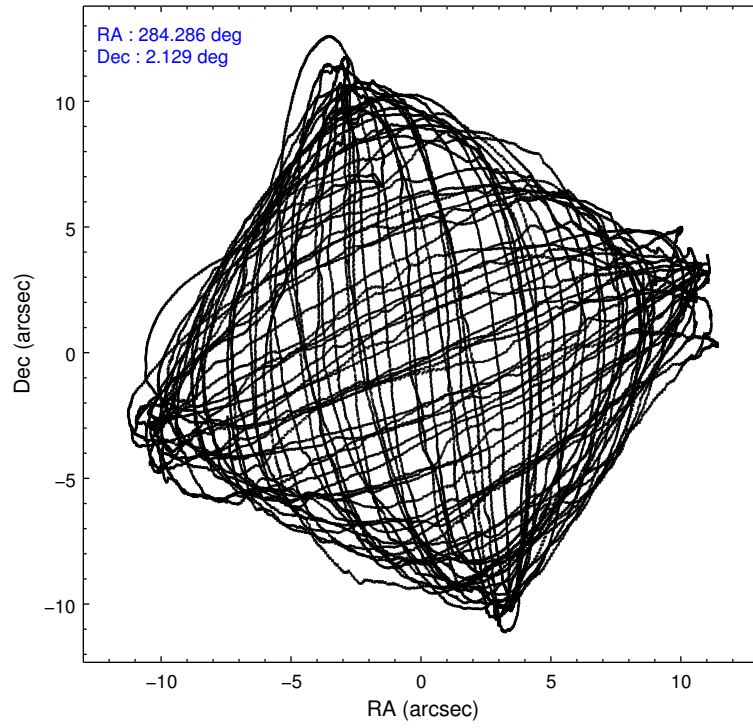
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	221249	220697	244708	232804
rejected events	194333	192054	218473	207506
rejected %	87%	87%	89%	89%

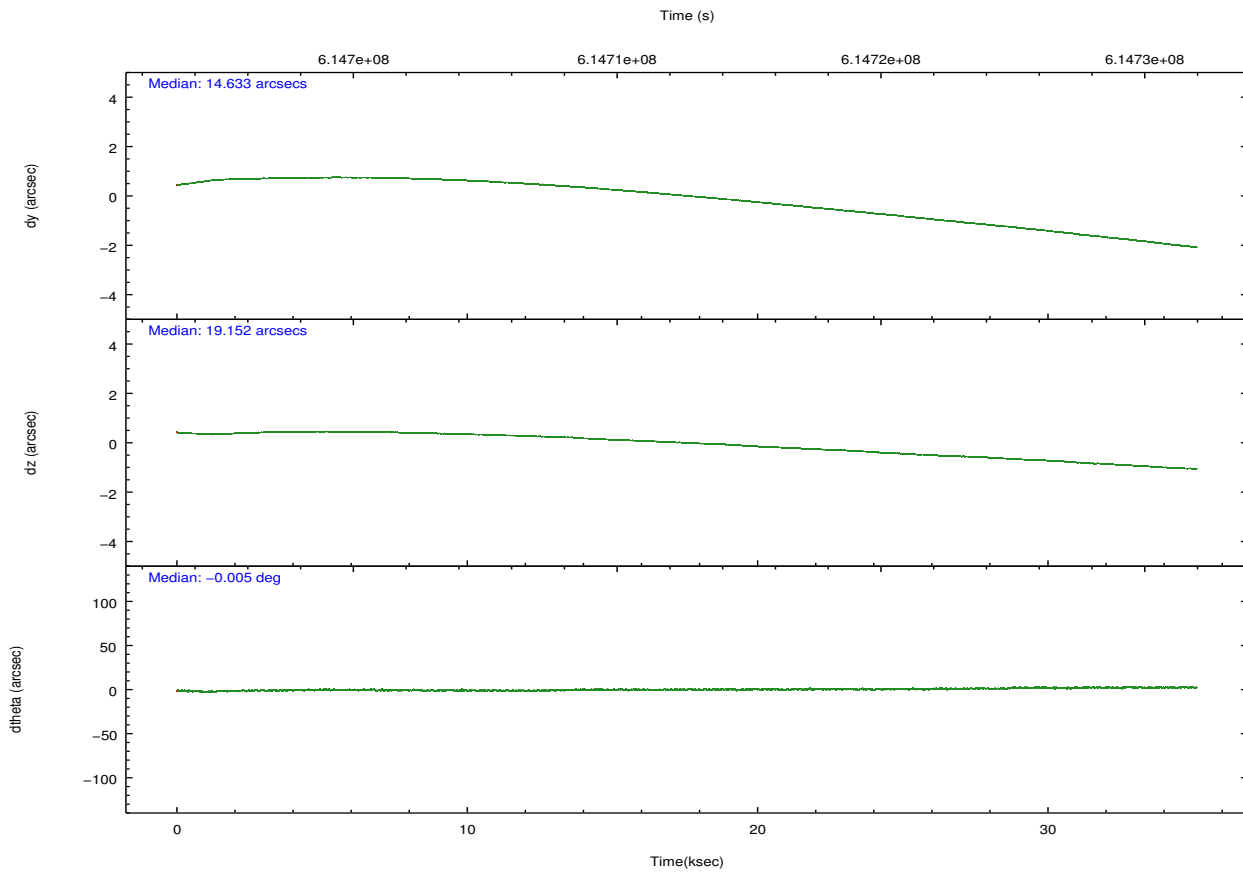
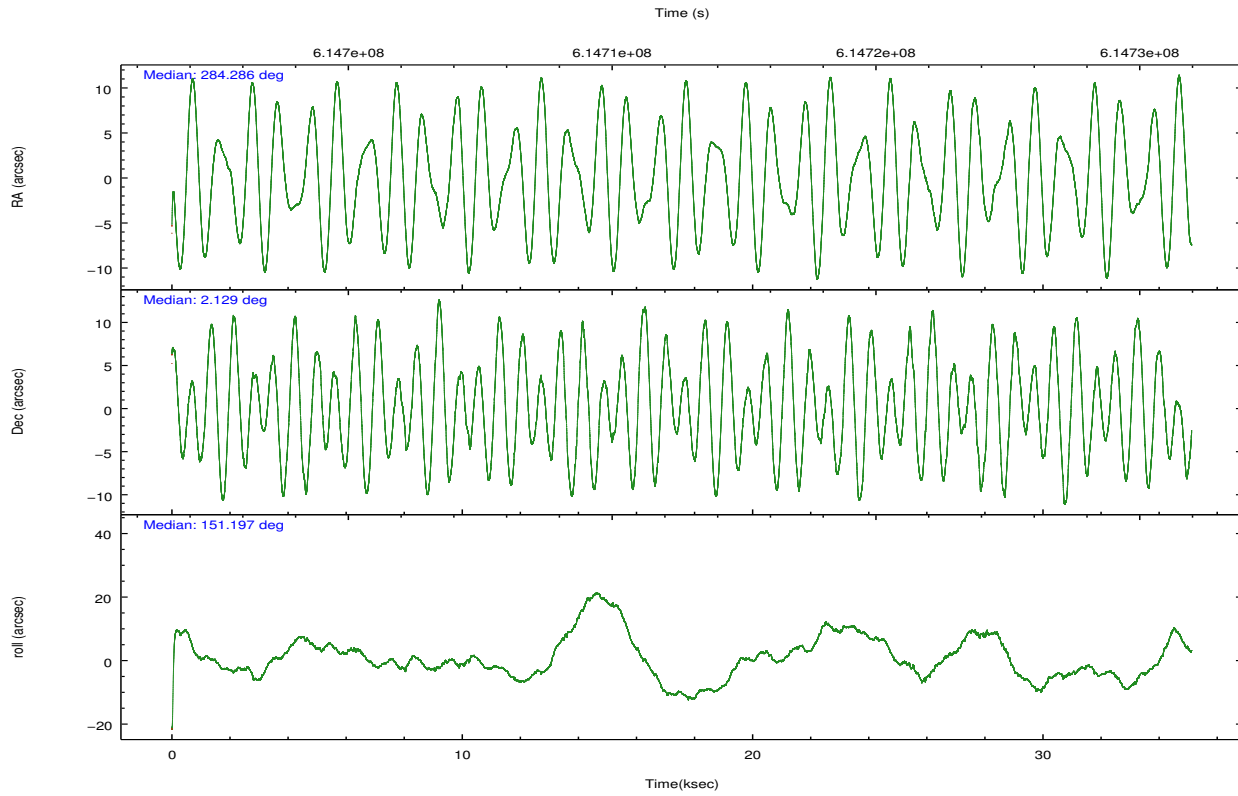
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	9805	10448	9987	9453
	4%	4%	4%	4%
grade 1 events	145	134	142	133
	0%	0%	0%	0%
grade 2 events	6872	6645	6270	5531
	3%	3%	2%	2%
grade 3 events	2609	2734	2596	2667
	1%	1%	1%	1%
grade 4 events	2499	2771	2645	2652
	1%	1%	1%	1%
grade 5 events	8505	8977	7923	9549
	3%	4%	3%	4%
grade 6 events	5132	6047	4740	4998
	2%	2%	1%	2%
grade 7 events	185682	182941	210405	197821
	83%	82%	85%	84%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	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	284.313843	284.2862281920273	CCD I2 on	Y	Y
[deg] Pointing Dec	2.129400	2.128710761540668	CCD I3 on	Y	Y
[deg] Pointing Roll	150.999289	151.2089867186467	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	O2	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	614695200.184000	614694154.5261199	CCD S5 on	N	N
Observation start date	2017-06-24T12:38:51	2017-06-24T12:22:34	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	614730200.184000	614730550.7407399	On-chip summing requested	N	N
Observation end date	2017-06-24T22:22:11	2017-06-24T22:29:10	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



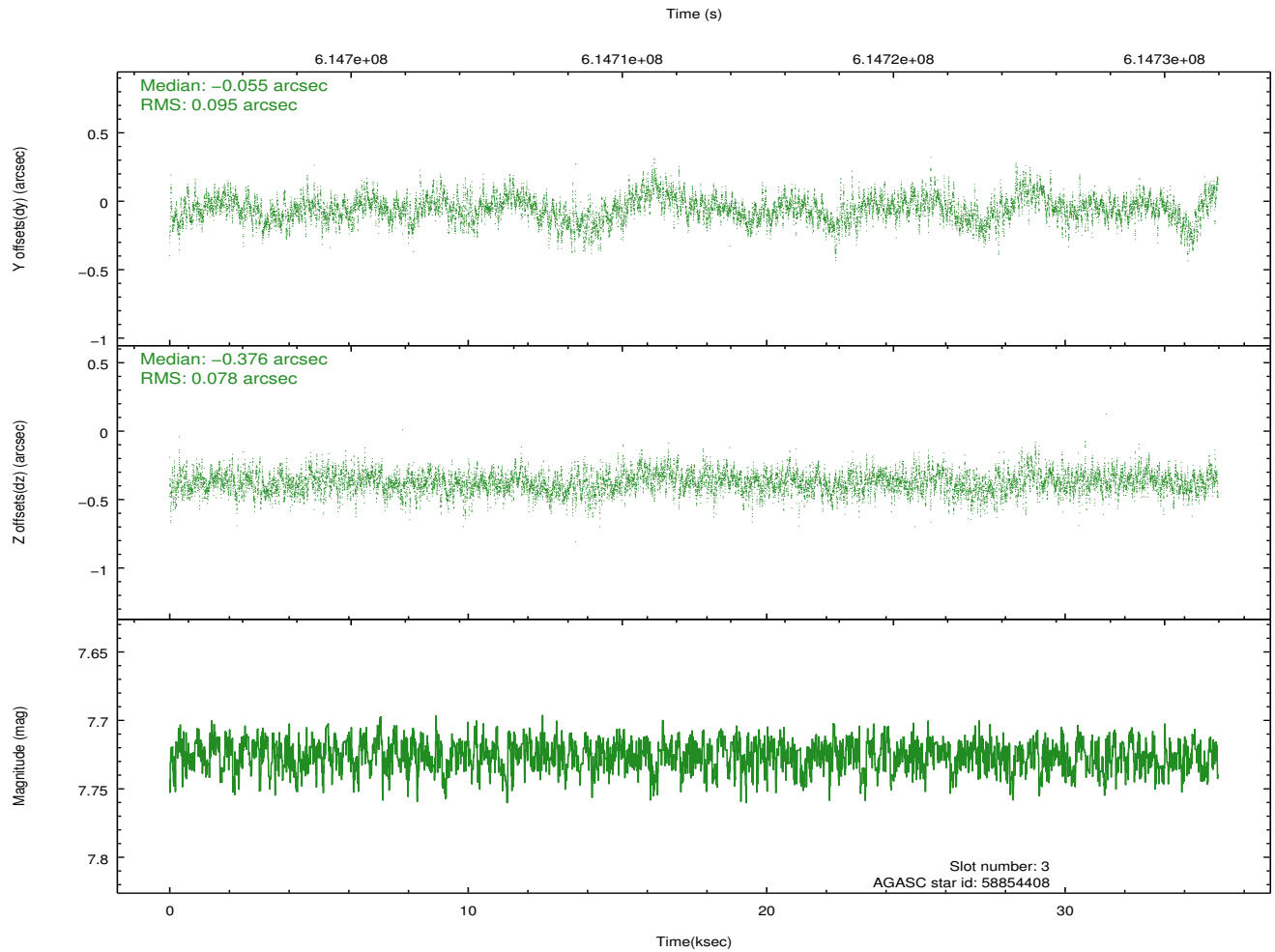
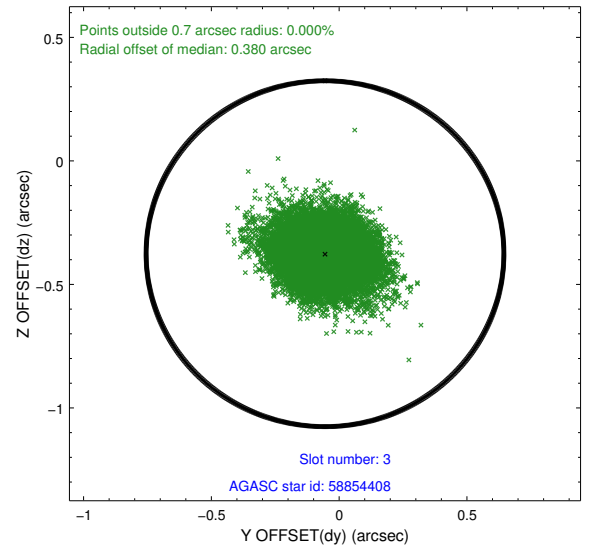
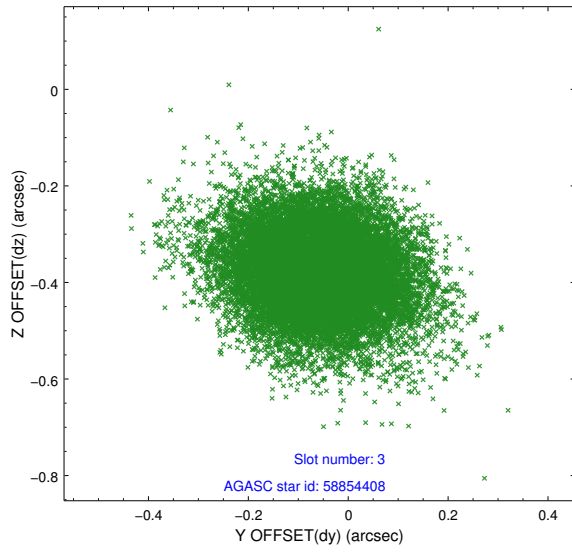


### Slot Statistics

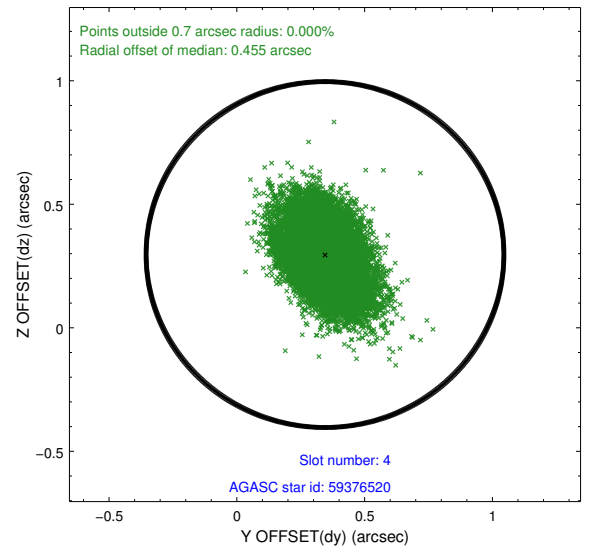
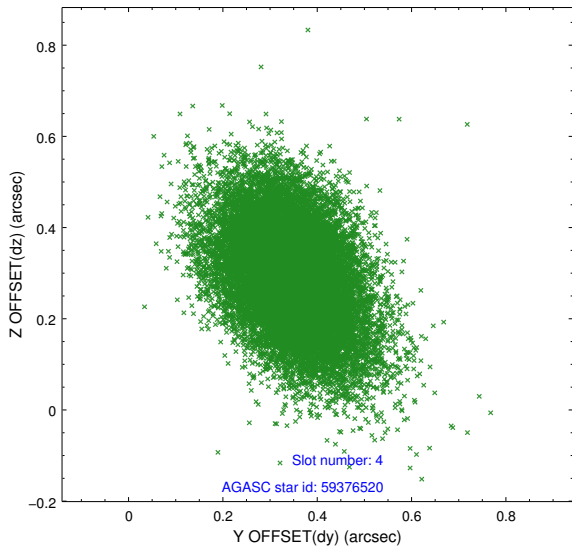
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.16	8566	0.058	-0.022	0.012	0.020	0.000000	0.000000	925.17	-842.73
1	FID		ACIS-I-5	7.16	8567	-0.359	0.019	0.013	0.024	0.000000	0.000000	-1823.43	1054.63
2	FID		ACIS-I-6	7.17	8565	0.211	0.073	0.017	0.029	0.000000	0.000000	390.68	1699.35
3	GUIDE	used	58854408	7.73	17130	-0.055	-0.376	0.128	0.216	284.268664	1.500448	-955.78	2058.65
4	GUIDE	used	59376520	8.91	17112	0.345	0.296	0.141	0.238	284.649079	2.608986	-216.37	-2094.23
5	GUIDE	used	59376552	7.02	17132	-0.300	0.162	0.094	0.171	284.421699	2.701942	660.44	-1990.54
6	GUIDE	used	59377200	8.73	17120	0.166	0.470	0.118	0.204	284.692162	2.481077	-575.39	-1766.84
7	GUIDE	used	59377960	7.63	17130	-0.151	-0.548	0.126	0.227	283.627467	1.897490	1754.59	1927.73

## 2.4 Star Slots

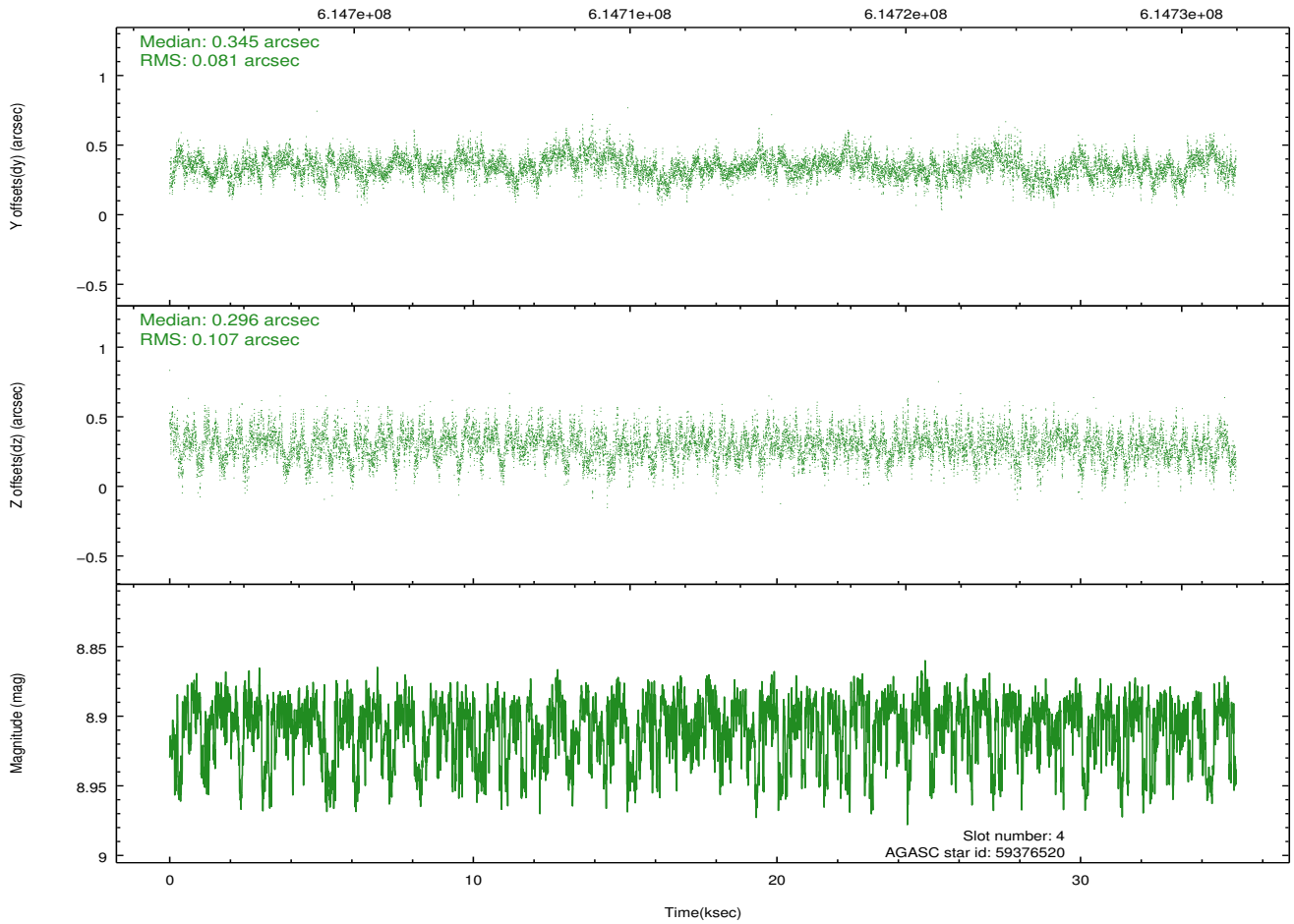
### 2.4.1 Slot 3



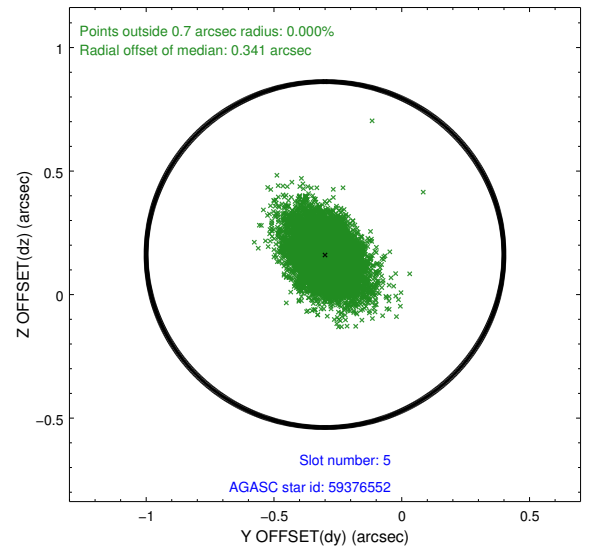
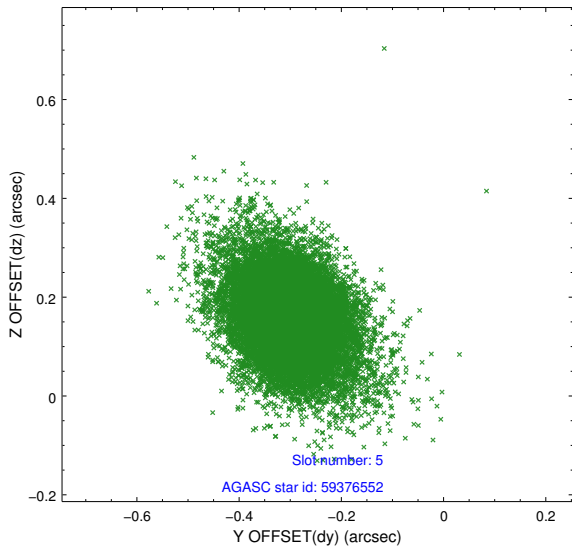
### 2.4.2 Slot 4



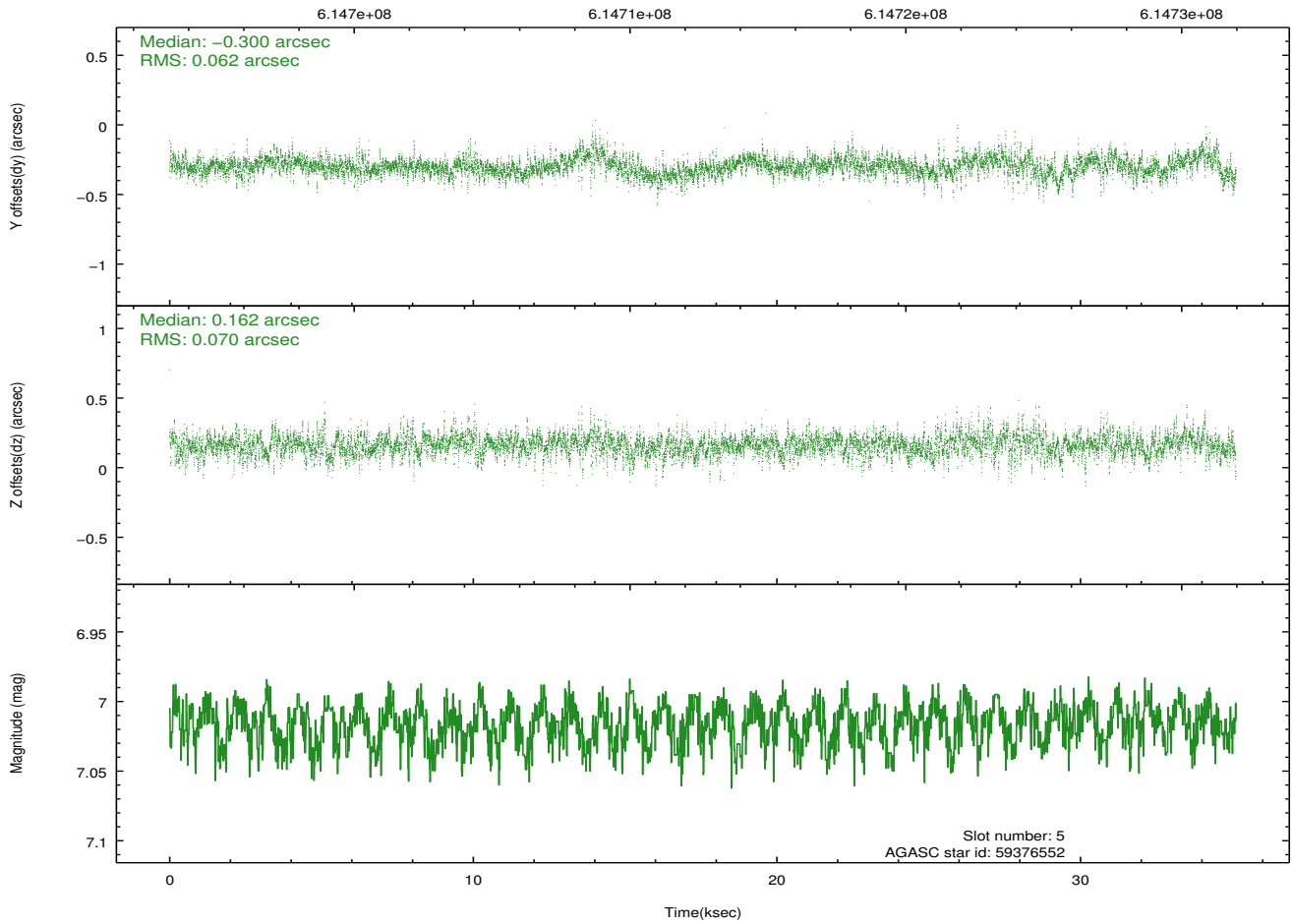
Time (s)



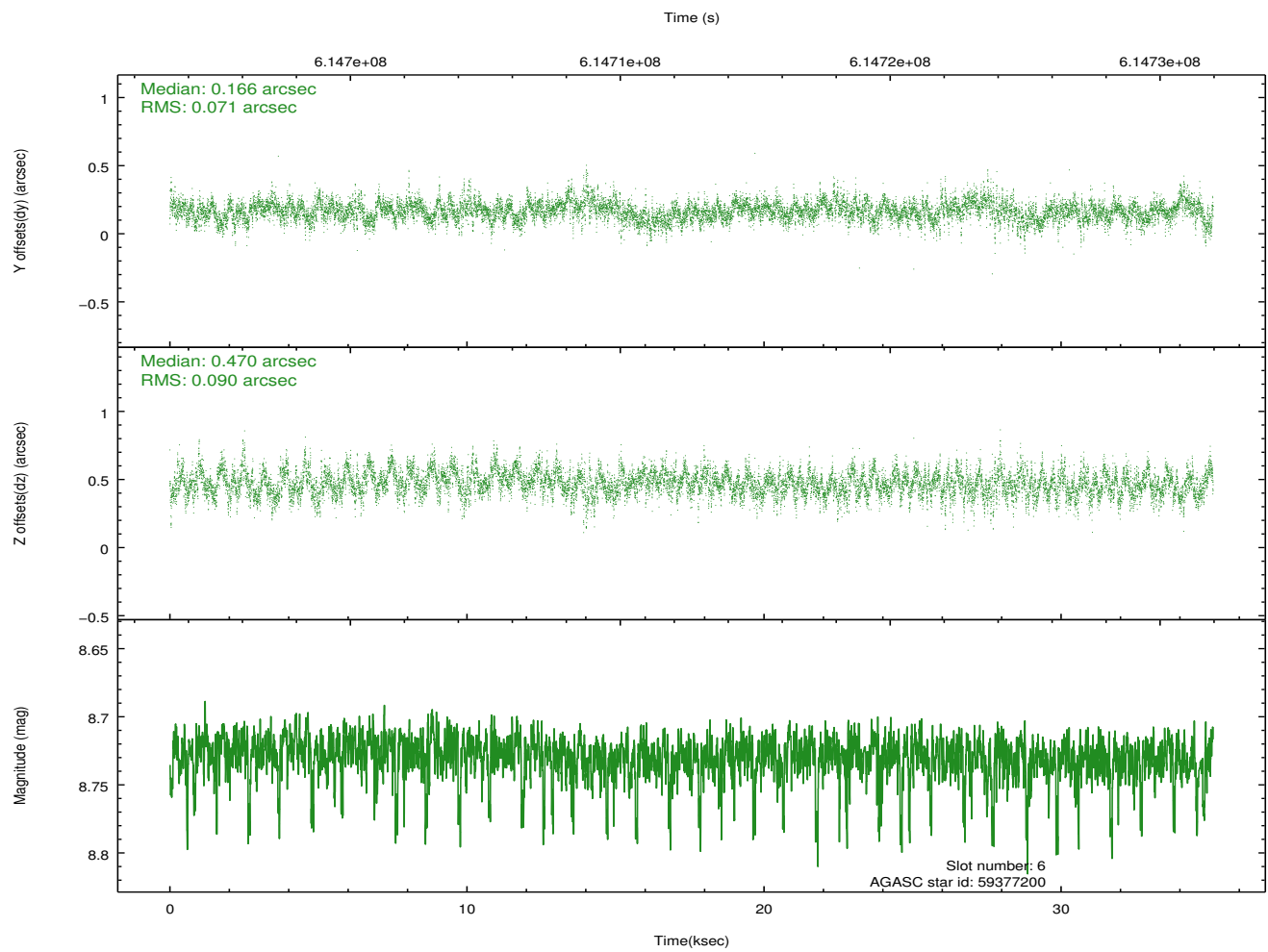
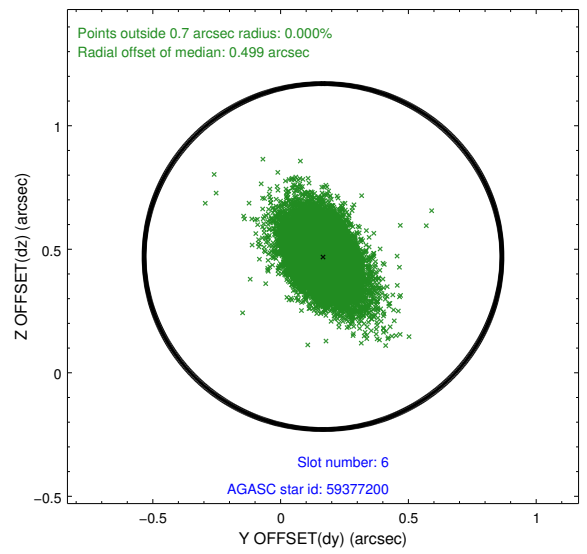
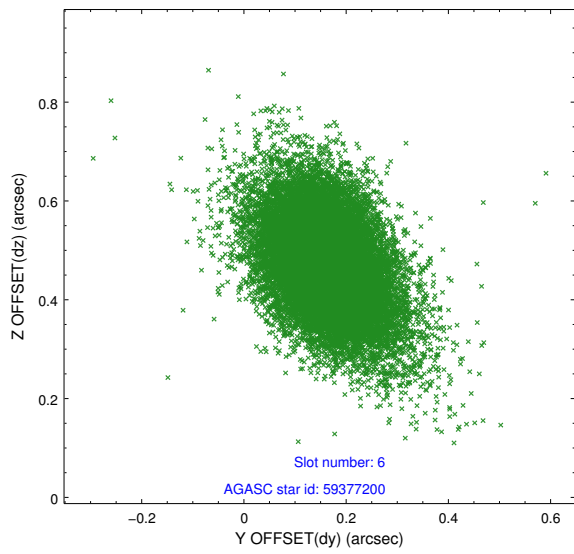
### 2.4.3 Slot 5



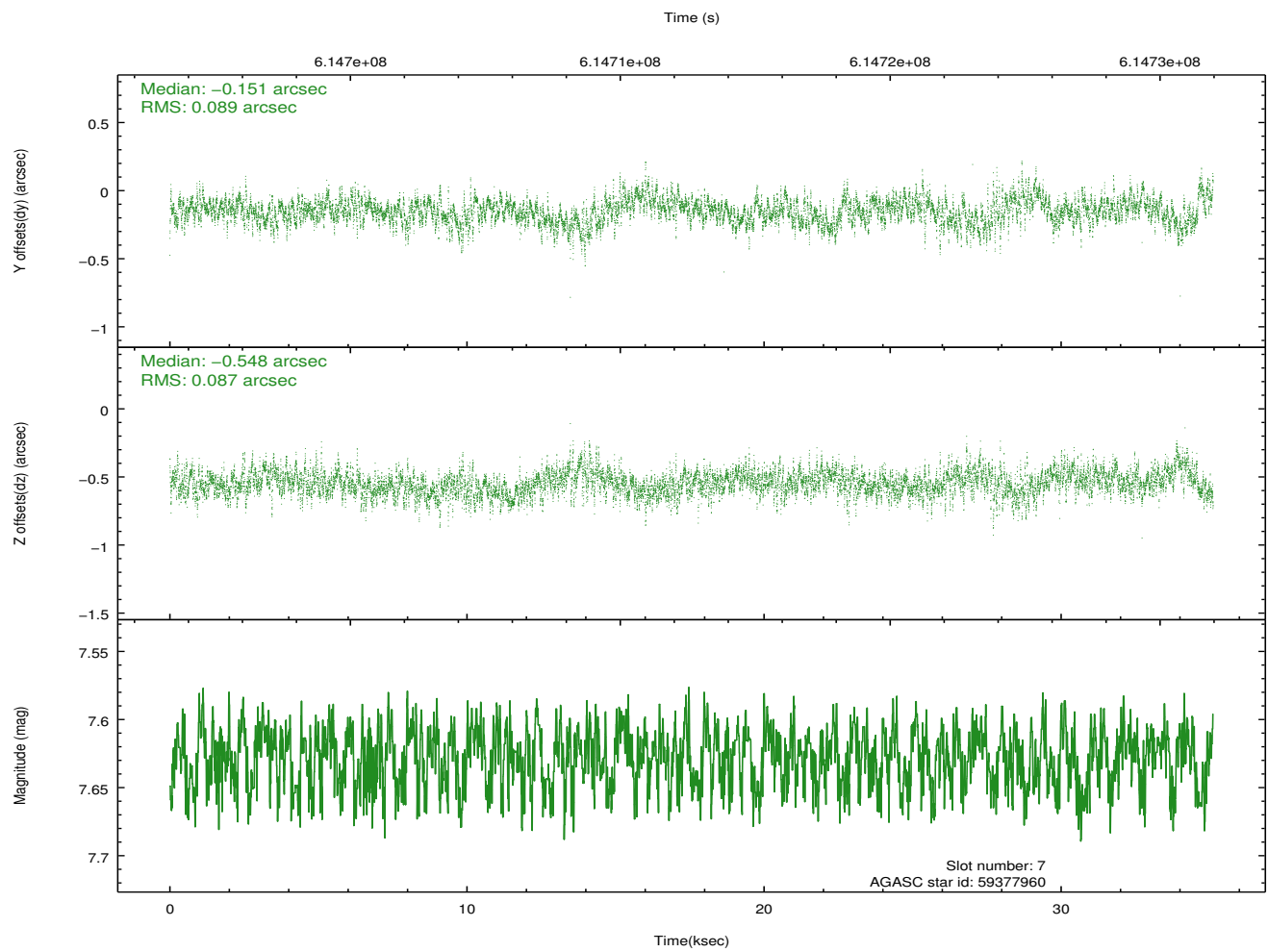
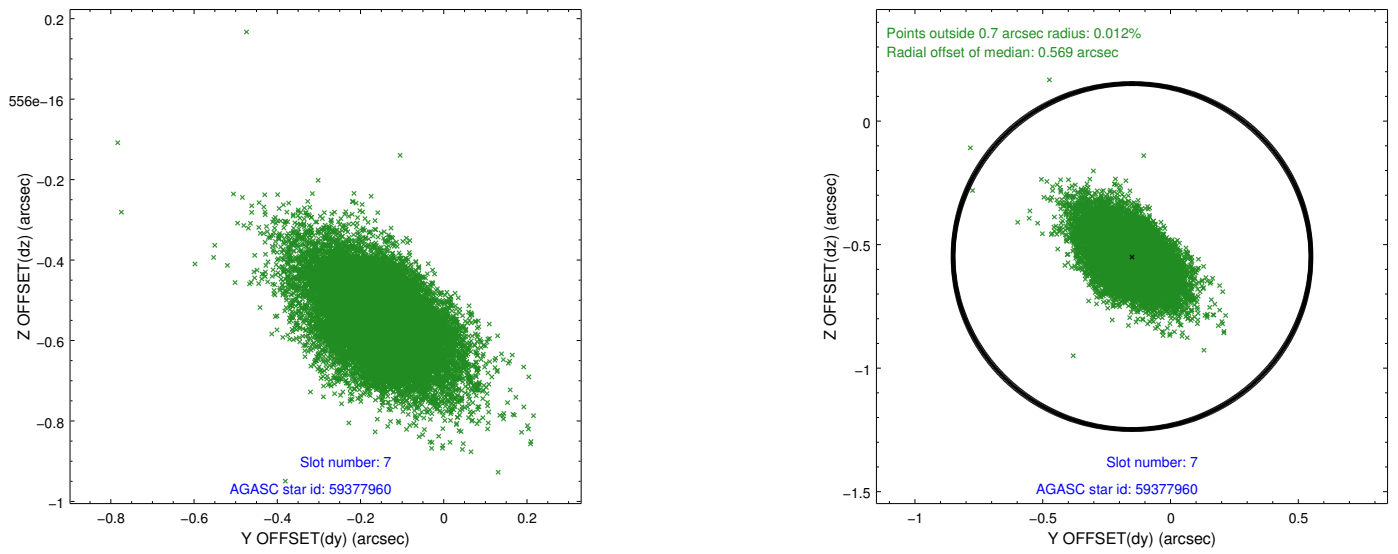
Time (s)



## 2.4.4 Slot 6

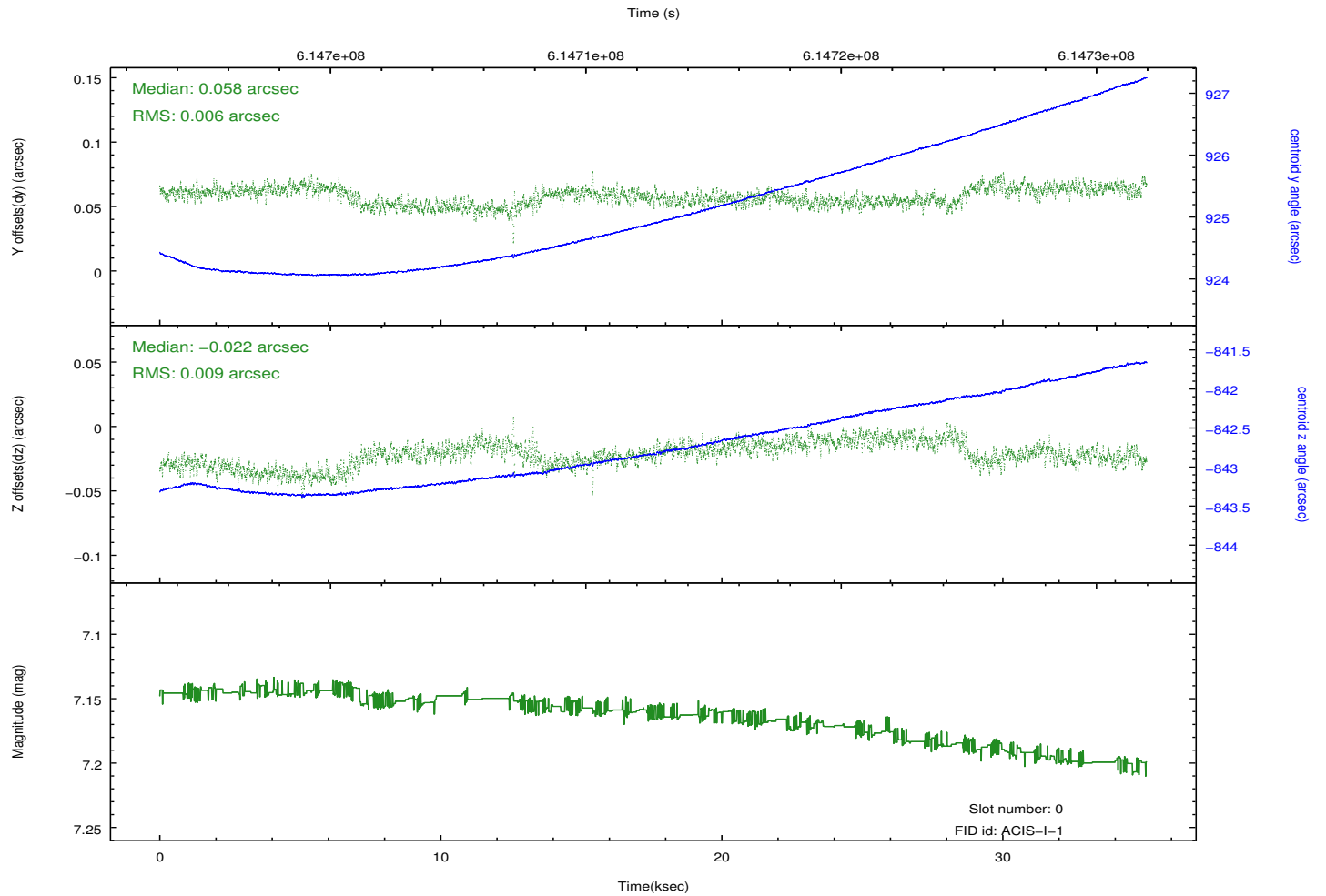
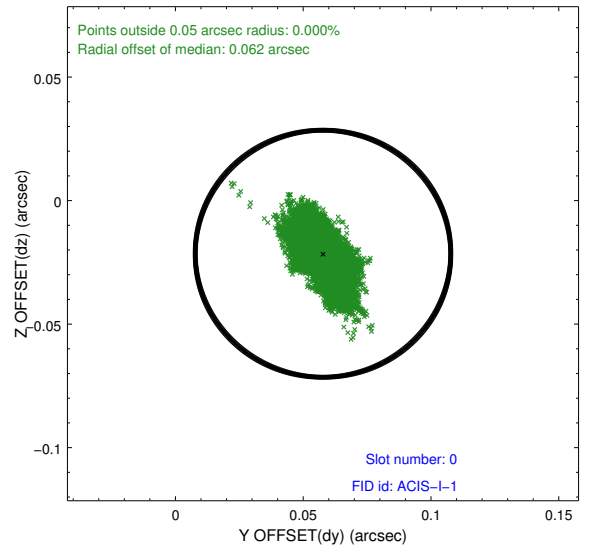
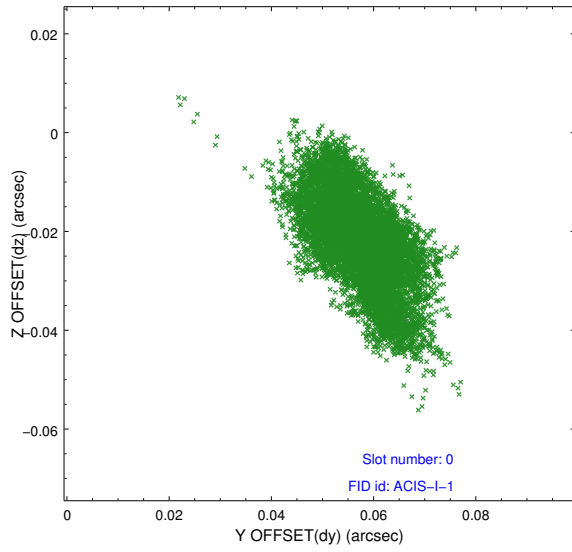


## 2.4.5 Slot 7

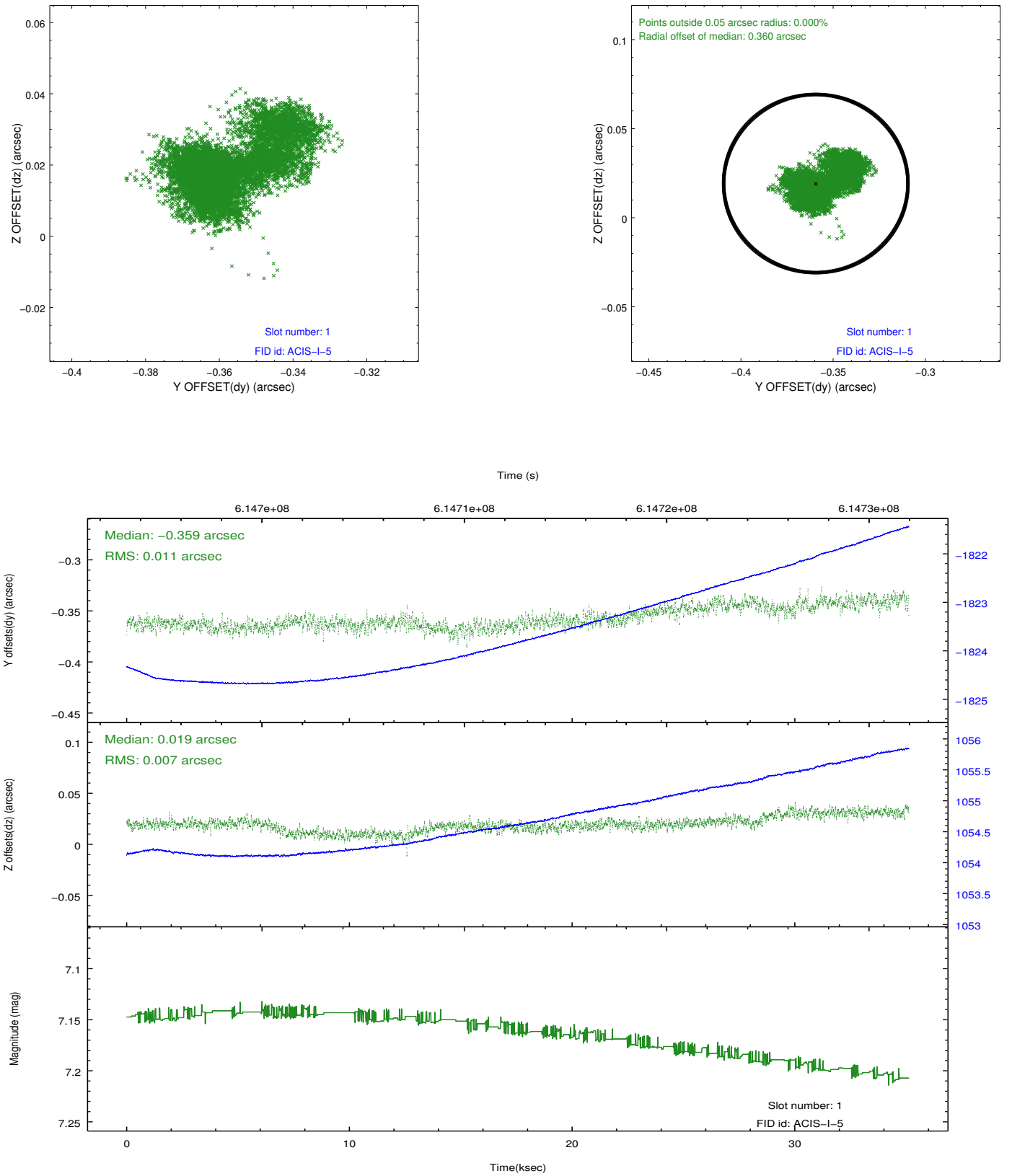


## 2.5 FID Slots

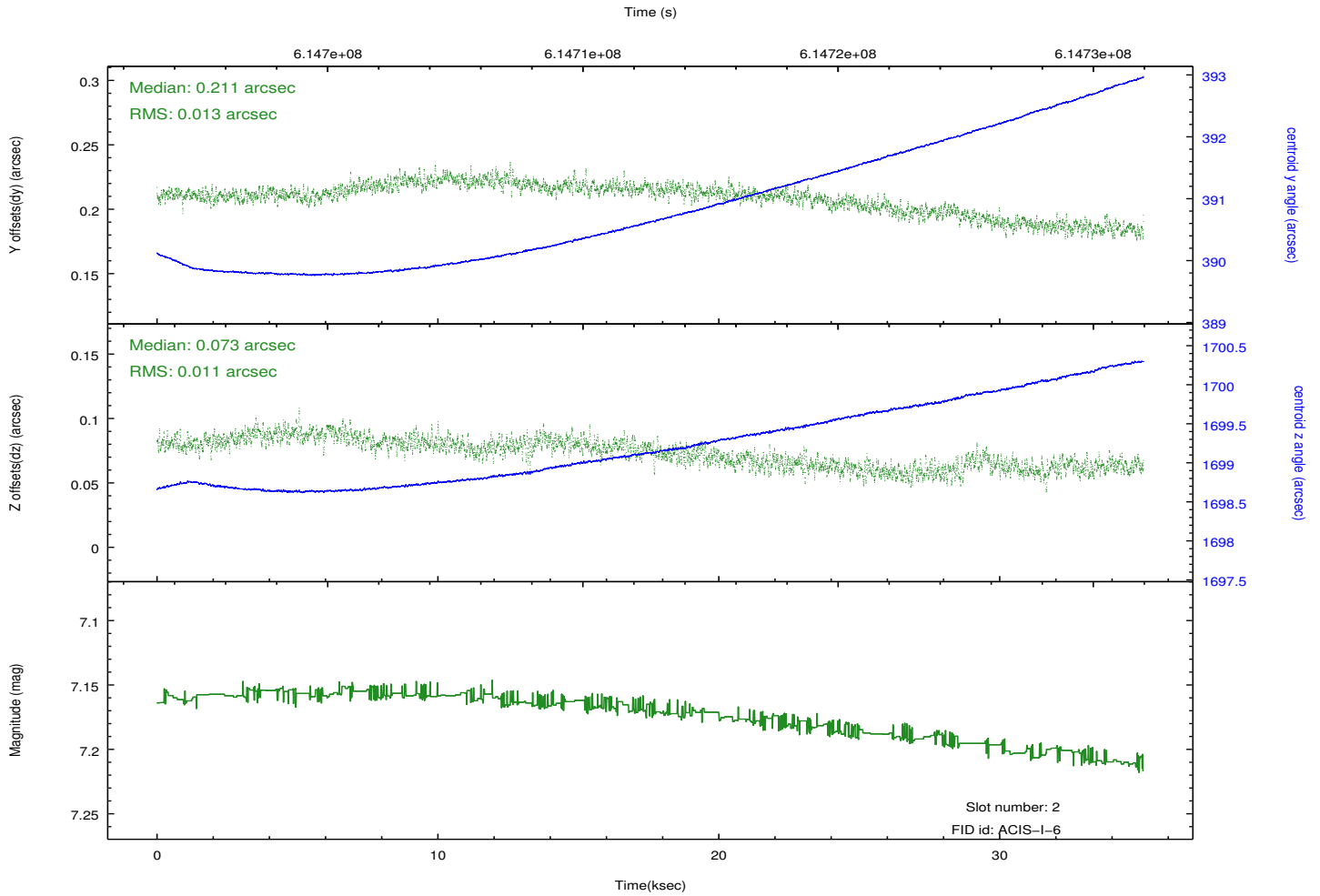
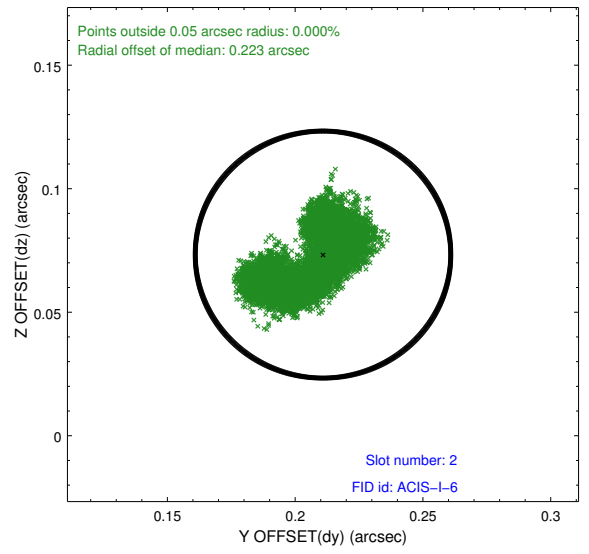
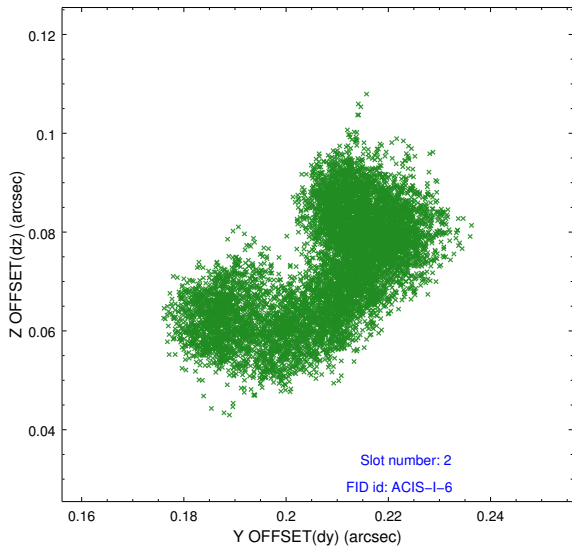
### 2.5.1 Slot 0



## 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)	2017.06.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	35.079600269914

## A.2 Comments

Optional chips S3 and S2 not included.