

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5923 - L2 Version 4  
Chandra X-Ray Center

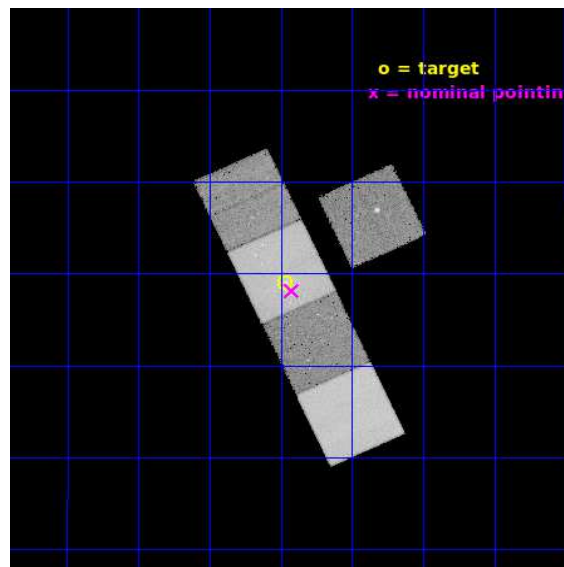
L2 Processing Date : Oct 8 2020

## 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

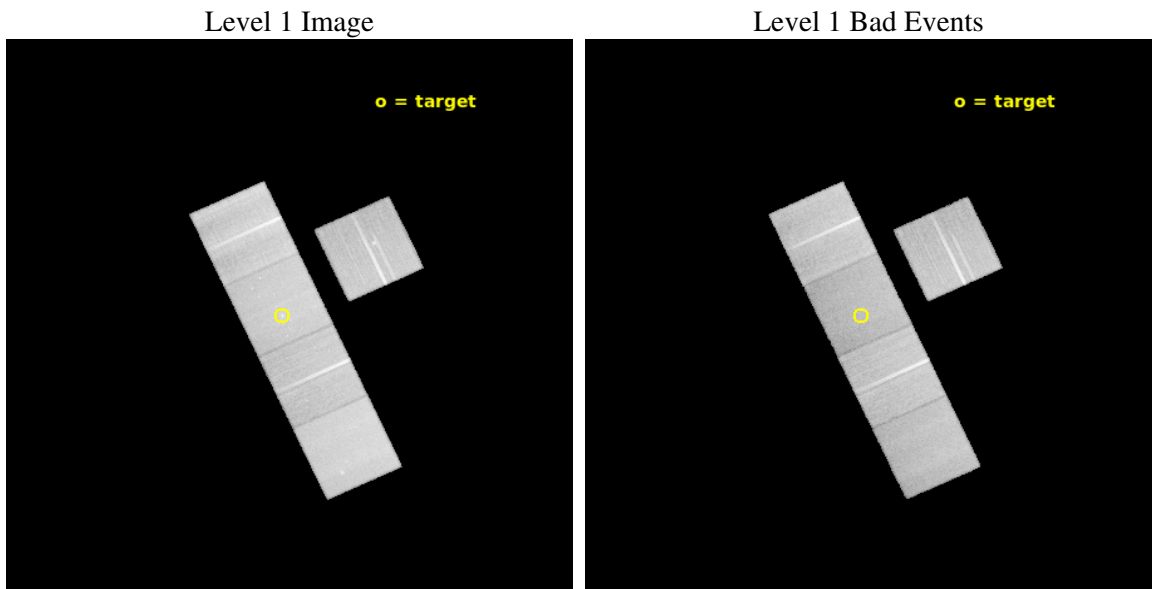
seq_num	600442	Sequence number
obs_id	5923	Observation id
title	Low Mass X-ray Binaries and Globular Clusters in the Early-Type Galaxy NGC 4365	Proposal title
observer	Prof. Gregory Sivakoff	Principal investigator
object	NGC4365	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.117917	Observer's specified target RA [deg]
dec_targ	7.317722	Observer's specified target Dec [deg]
ra_nom	186.10566908885	Nominal RA [deg]
dec_nom	7.3026843192074	Nominal Dec [deg]
roll_nom	245.08656172111	Nominal Roll [deg]
revision	4	Processing version of data
ontime	40089.199922889	Sum of GTIs [s]
livetime	39565.405012657	Livetime [s]
ontime3	40089.199922889	Sum of GTIs [s]
ontime5	40089.199922889	Sum of GTIs [s]
ontime6	40079.776982307	Sum of GTIs [s]
ontime7	40089.199922889	Sum of GTIs [s]
ontime8	40082.918042123	Sum of GTIs [s]
l2events	373593	Number of level 2 events



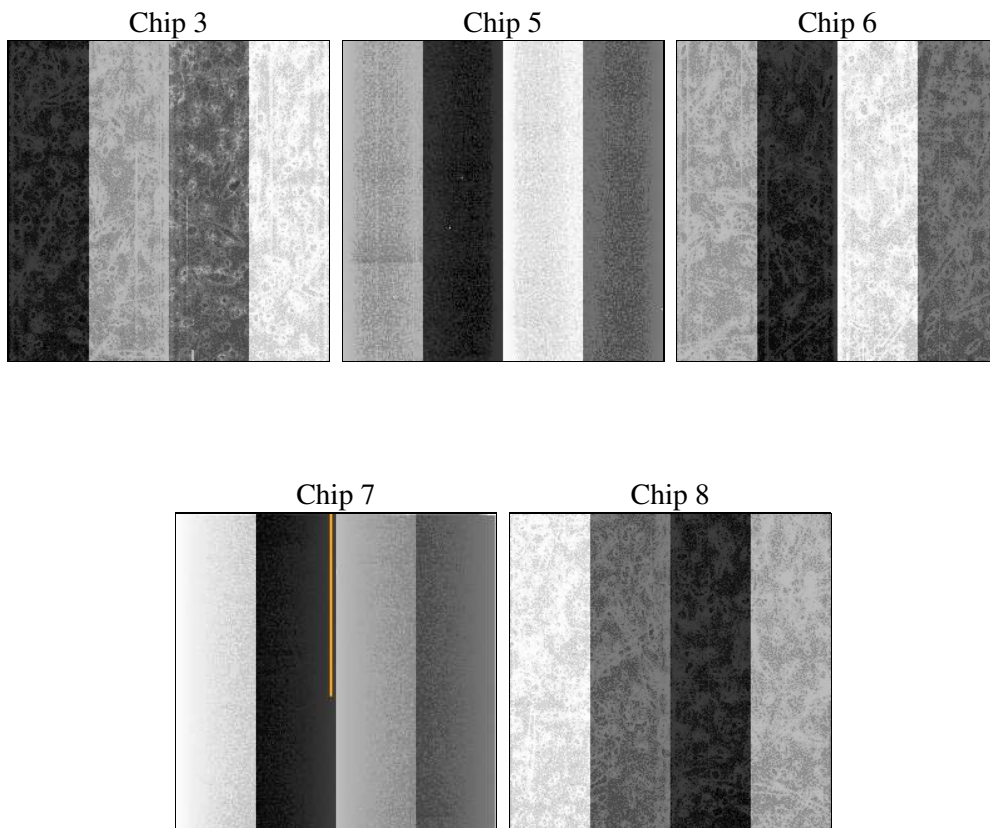
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	40089.199922889	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime3	40089.199922889	Sum of GTIs [s]
date	2020-10-08T19:53:32	Date and time of file creation	ontime5	40089.199922889	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	40079.776982307	Sum of GTIs [s]
			ontime7	40089.199922889	Sum of GTIs [s]
			ontime8	40082.918042123	Sum of GTIs [s]
			l1events	1477408	Number of level 1 events

### 2.1.4 Events

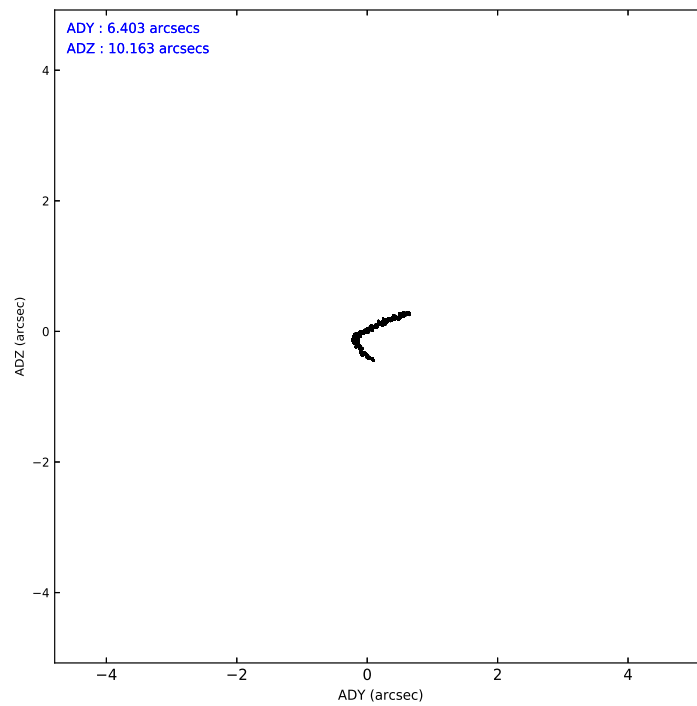
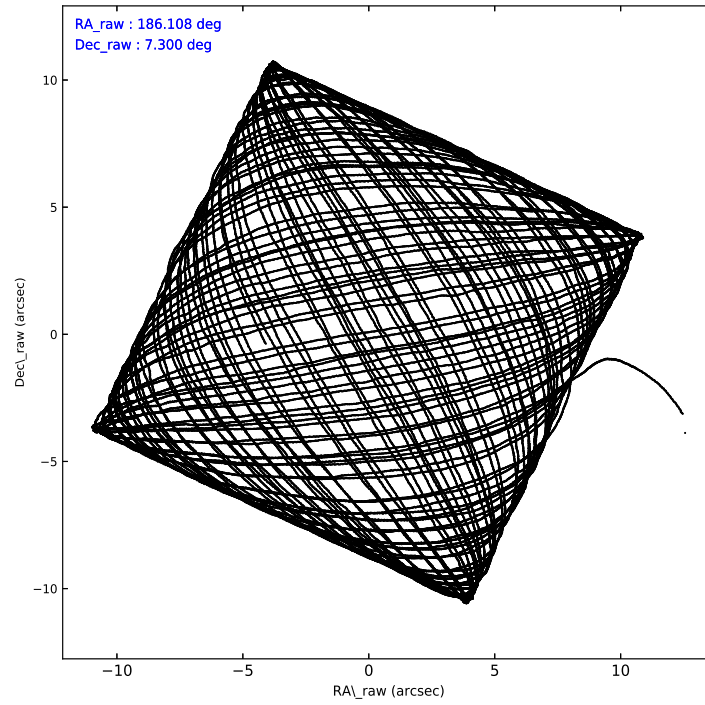
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	252285	343879	263148	291220	326876
rejected events	227079	175391	235374	153164	248015
rejected %	90%	51%	89%	52%	75%

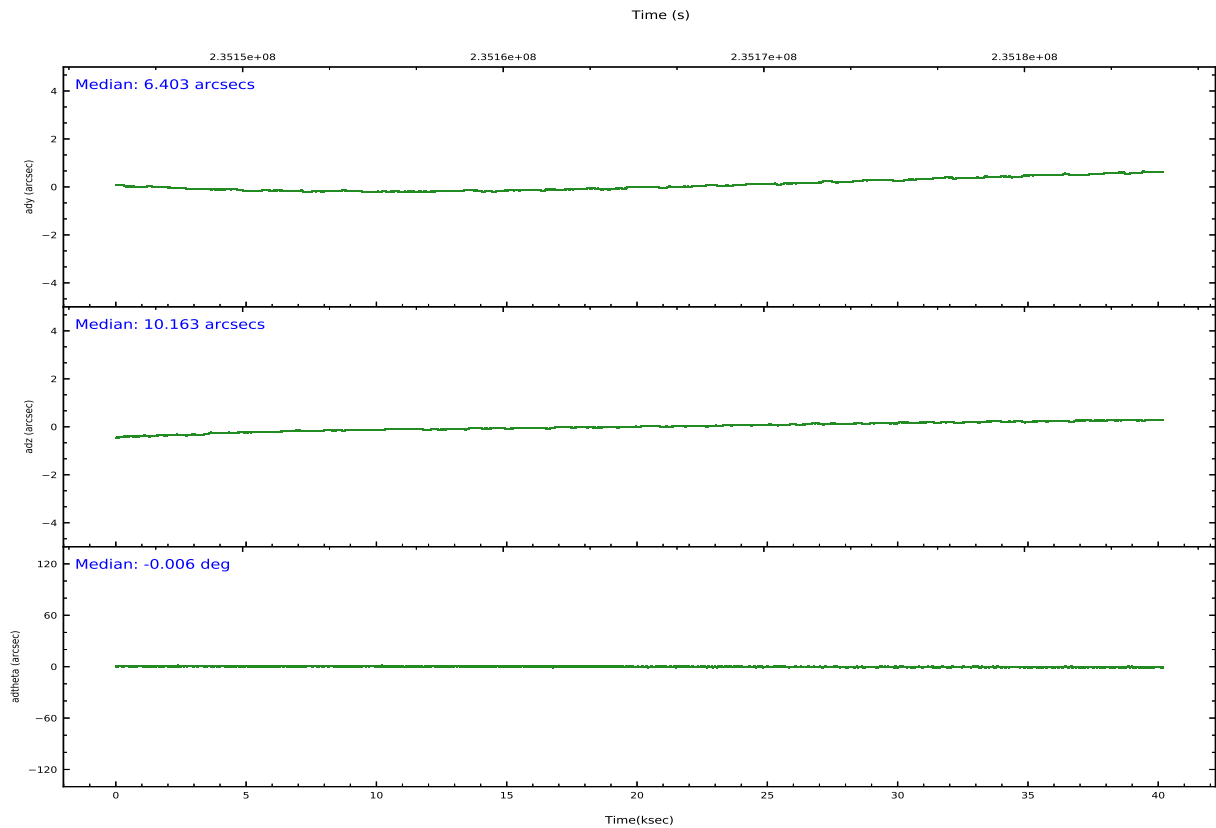
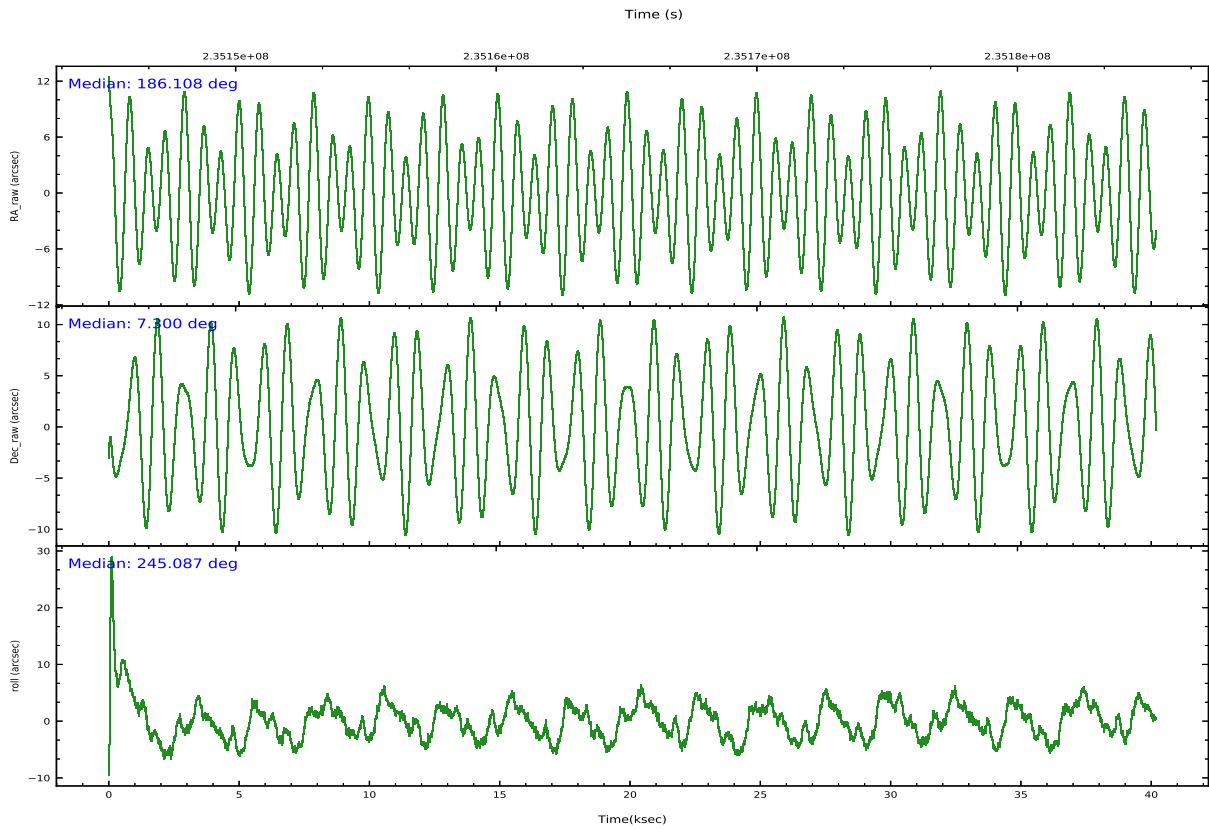
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	9928	12456	10661	14542	24779
	3%	3%	4%	4%	7%
grade 1 events	139	323	119	225	212
	0%	0%	0%	0%	0%
grade 2 events	5241	50065	5749	27794	17319
	2%	14%	2%	9%	5%
grade 3 events	2706	7729	2937	13160	8568
	1%	2%	1%	4%	2%
grade 4 events	2658	7449	2856	12983	7926
	1%	2%	1%	4%	2%
grade 5 events	10023	27456	10212	29677	14731
	3%	7%	3%	10%	4%
grade 6 events	4675	90818	5575	69598	20279
	1%	26%	2%	23%	6%
grade 7 events	216915	147583	225039	123241	233062
	85%	42%	85%	42%	71%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-35678	ACIS-35678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	186.104746	186.10566908885	Subarray requested	NONE	NONE
[deg] Pointing Dec	7.326774	7.3026843192074	Alternating exposures requested	N	N
[deg] Pointing Roll	244.926891	245.08656172111	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	235145320.184000	235144364.36966			
Observation start date	2005-06-14T14:07:36	2005-06-14T13:52:44			
[s] Observation end time (MET)	235185320.184000	235186113.64656			
Observation end date	2005-06-15T01:14:16	2005-06-15T01:28:33			
Read mode	TIMED	TIMED			

## 2.3 Aspect





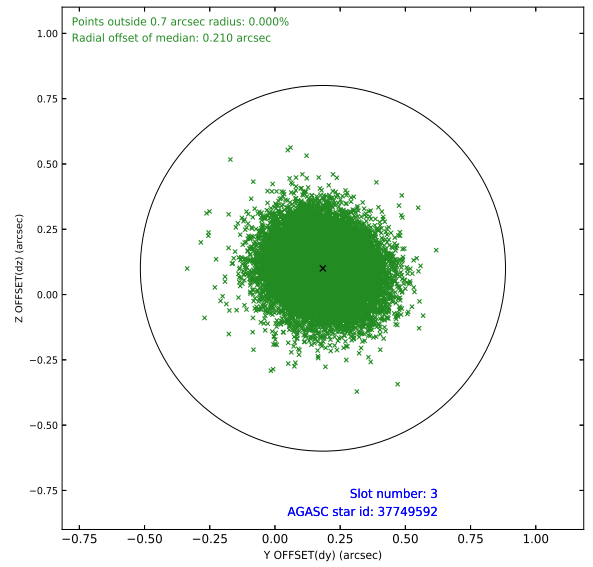
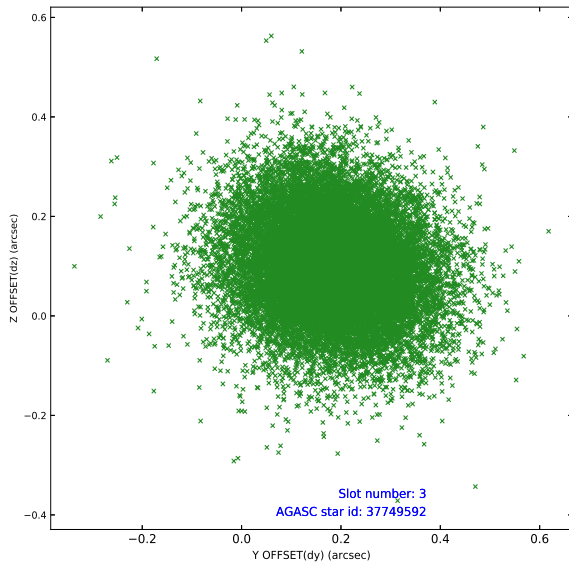
### Slot Statistics

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	7.10	9802	1.000	-0.100	-0.065	0.008	0.014	0.000000	0.000000	-759.27	-1731
1	FID		ACIS-S-4	7.21	9802	1.000	0.171	0.066	0.007	0.013	0.000000	0.000000	2154.21	177
2	FID		ACIS-S-5	7.23	9800	1.000	-0.102	0.008	0.007	0.012	0.000000	0.000000	-1812.15	170
3	GUIDE	used	37749592	10.24	19581	1.000	0.184	0.100	0.152	0.248	186.177253	6.631115	2159.23	1295
4	GUIDE	used	37751032	10.10	19577	1.000	0.085	0.036	0.159	0.264	186.355124	7.277238	-217.08	885
5	GUIDE	used	37751880	9.64	19580	1.000	0.186	0.057	0.131	0.199	185.771871	6.844190	2078.03	-341
6	GUIDE	used	114434008	8.76	19597	1.000	-0.144	-0.185	0.077	0.120	185.534773	7.569663	69.30	-2213
7	GUIDE	used	114565080	10.19	19422	1.000	-0.323	-0.012	0.137	0.221	186.537681	7.759404	-2065.85	738

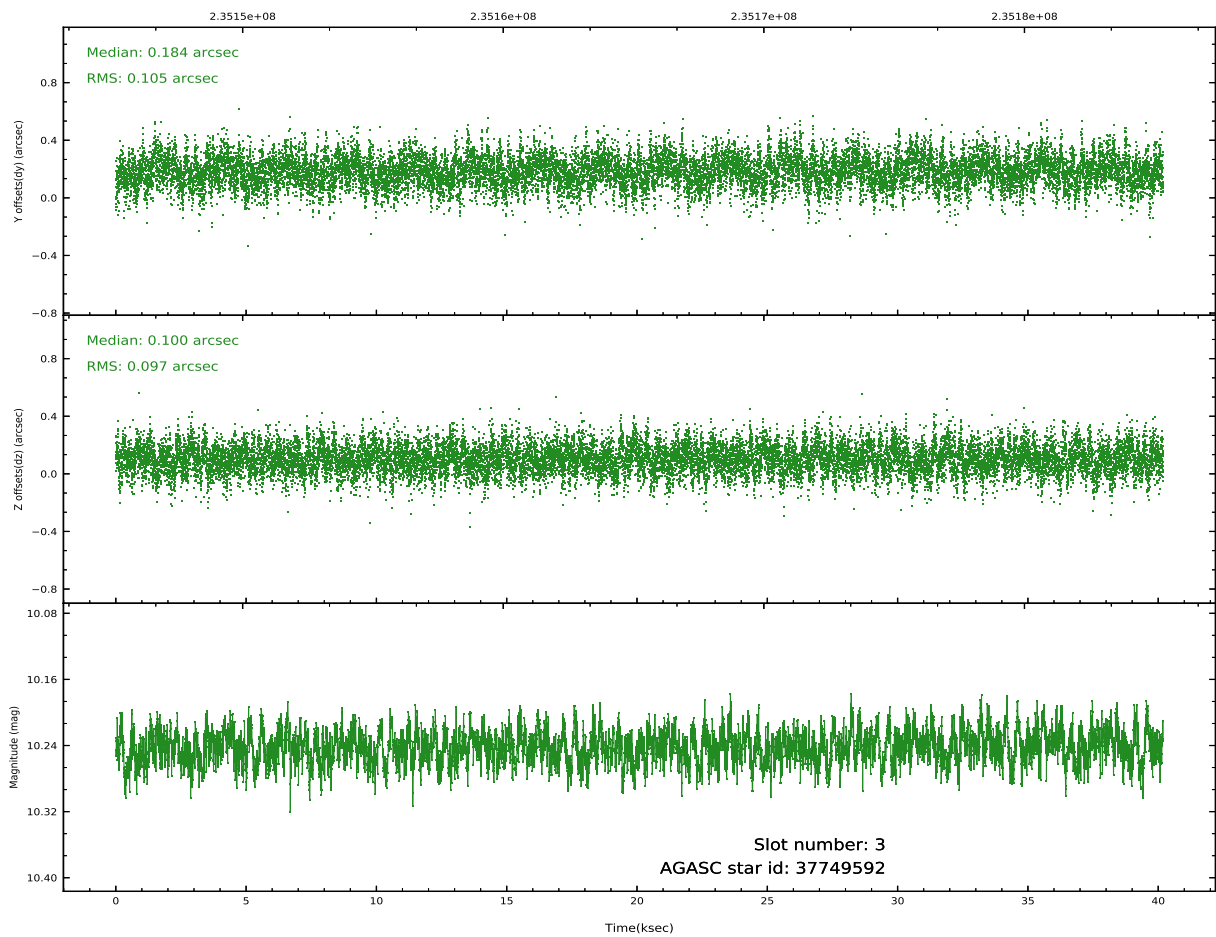
∞

## 2.4 Star Slots

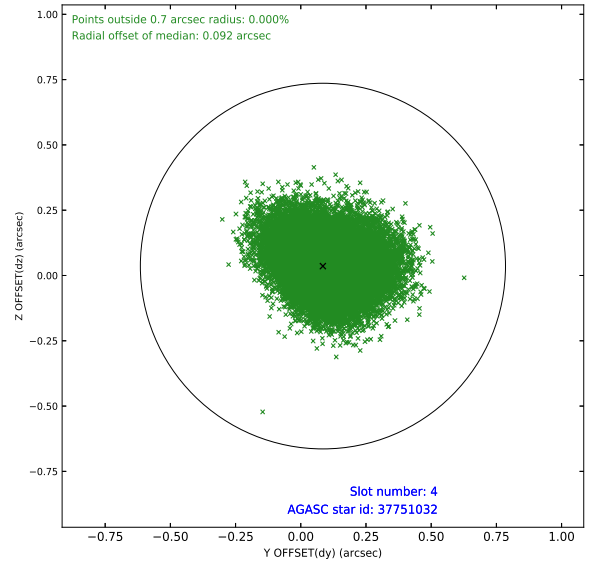
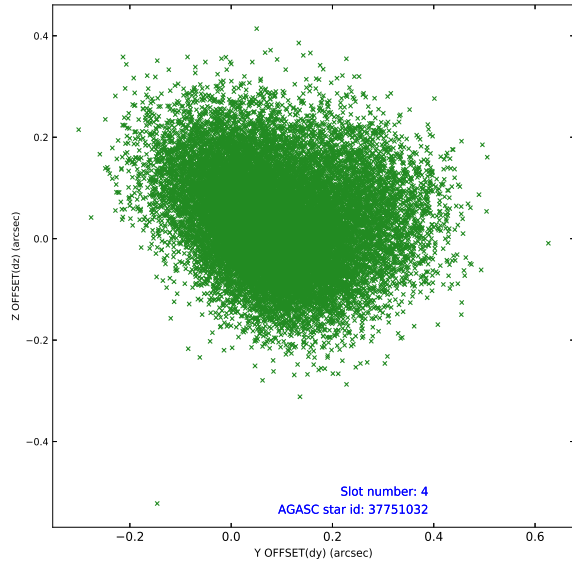
### 2.4.1 Slot 3



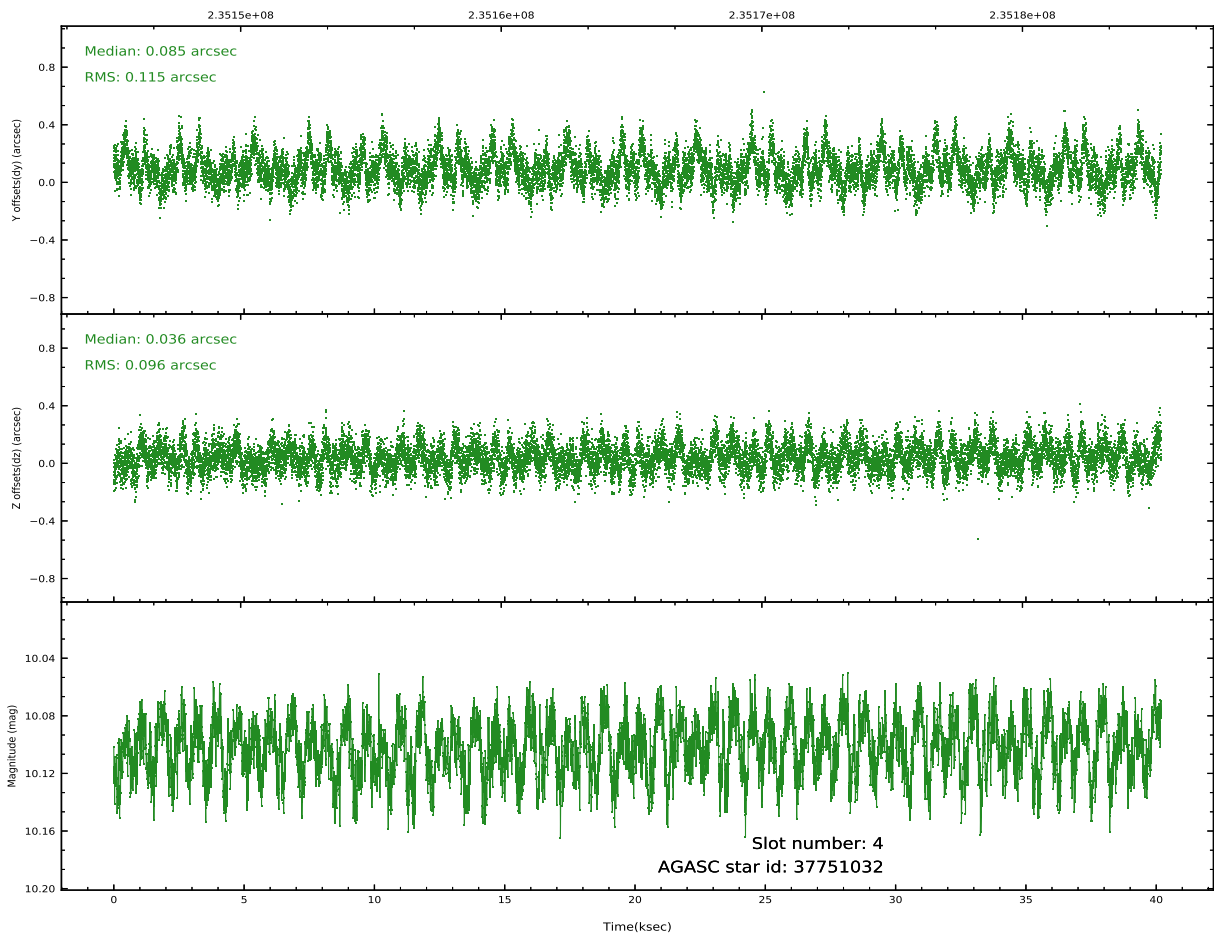
Time (s)



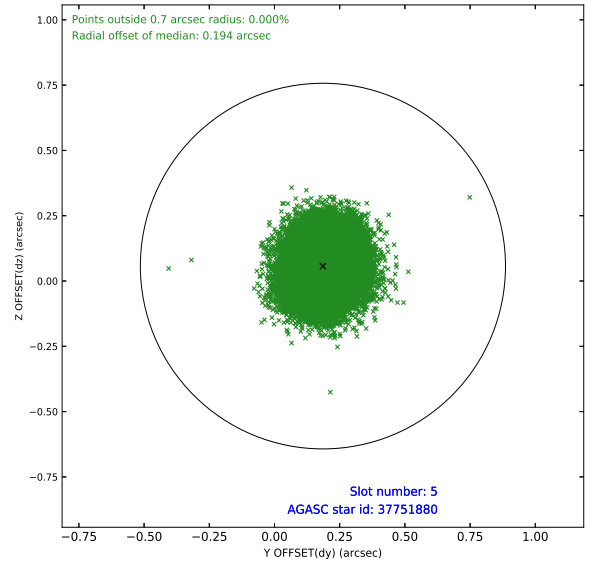
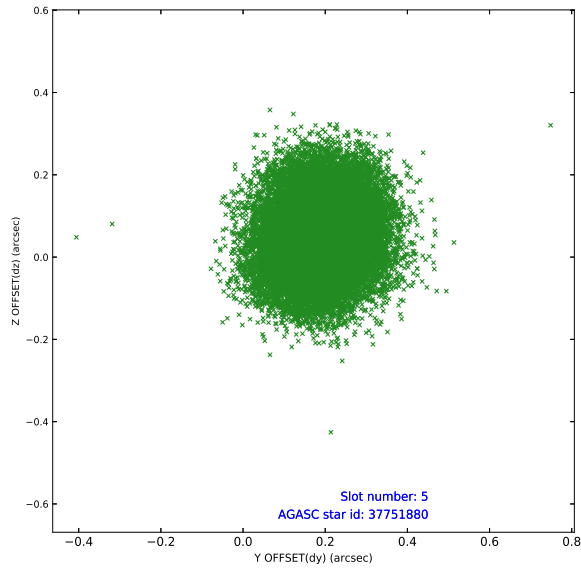
## 2.4.2 Slot 4



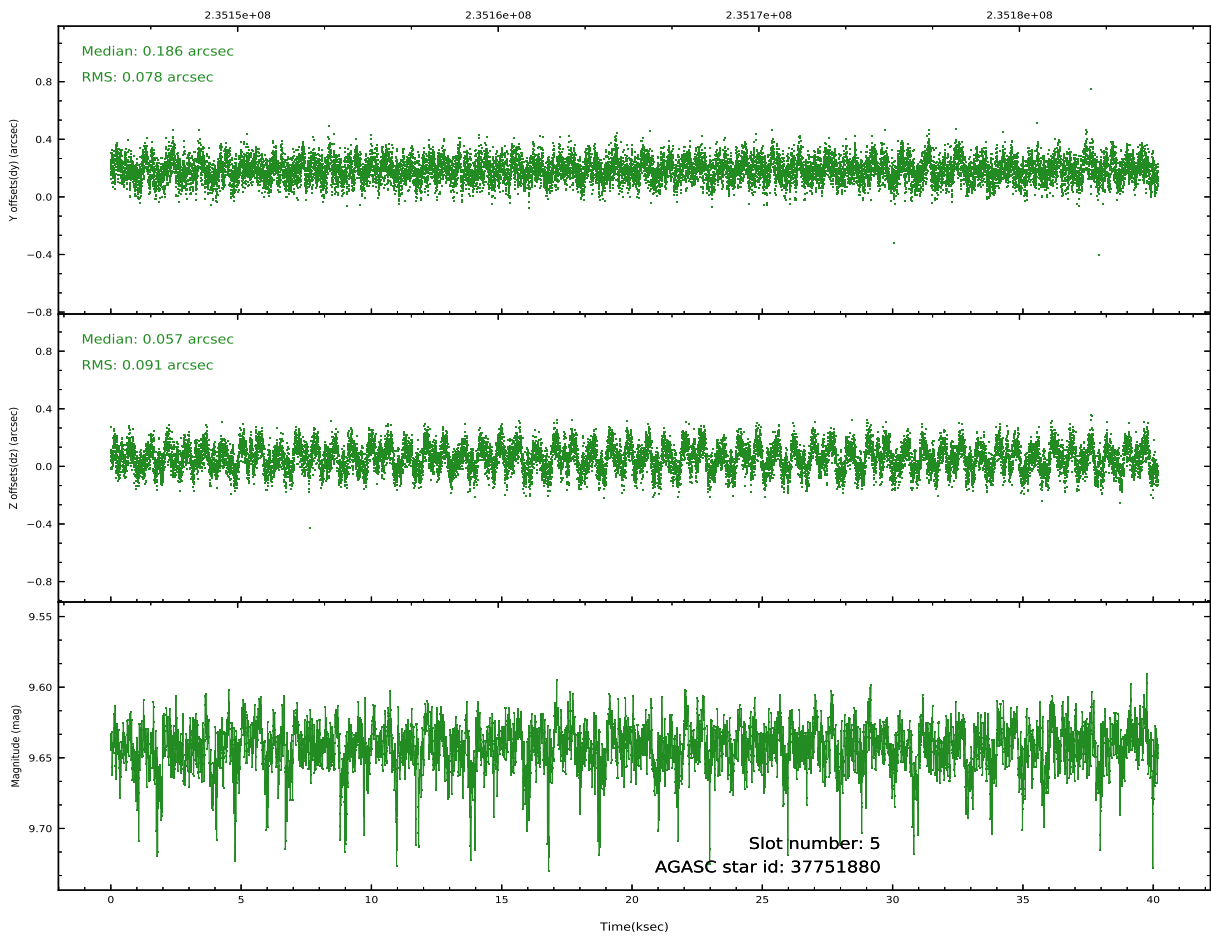
Time (s)



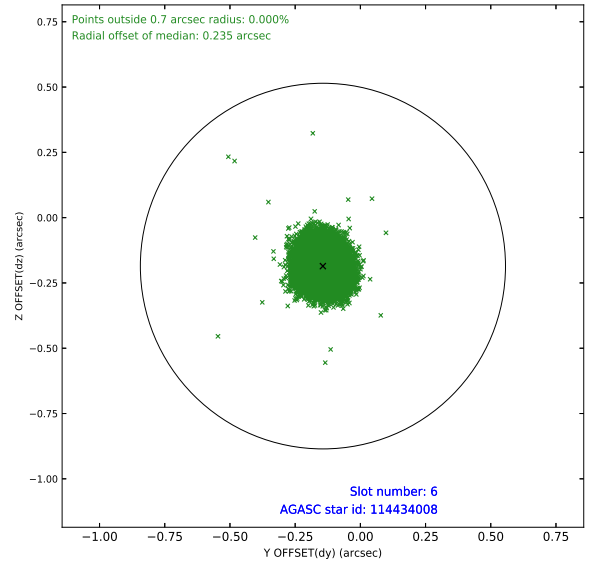
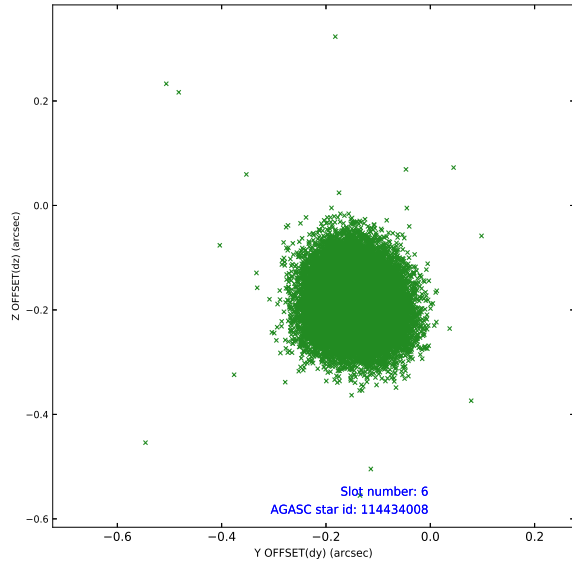
### 2.4.3 Slot 5



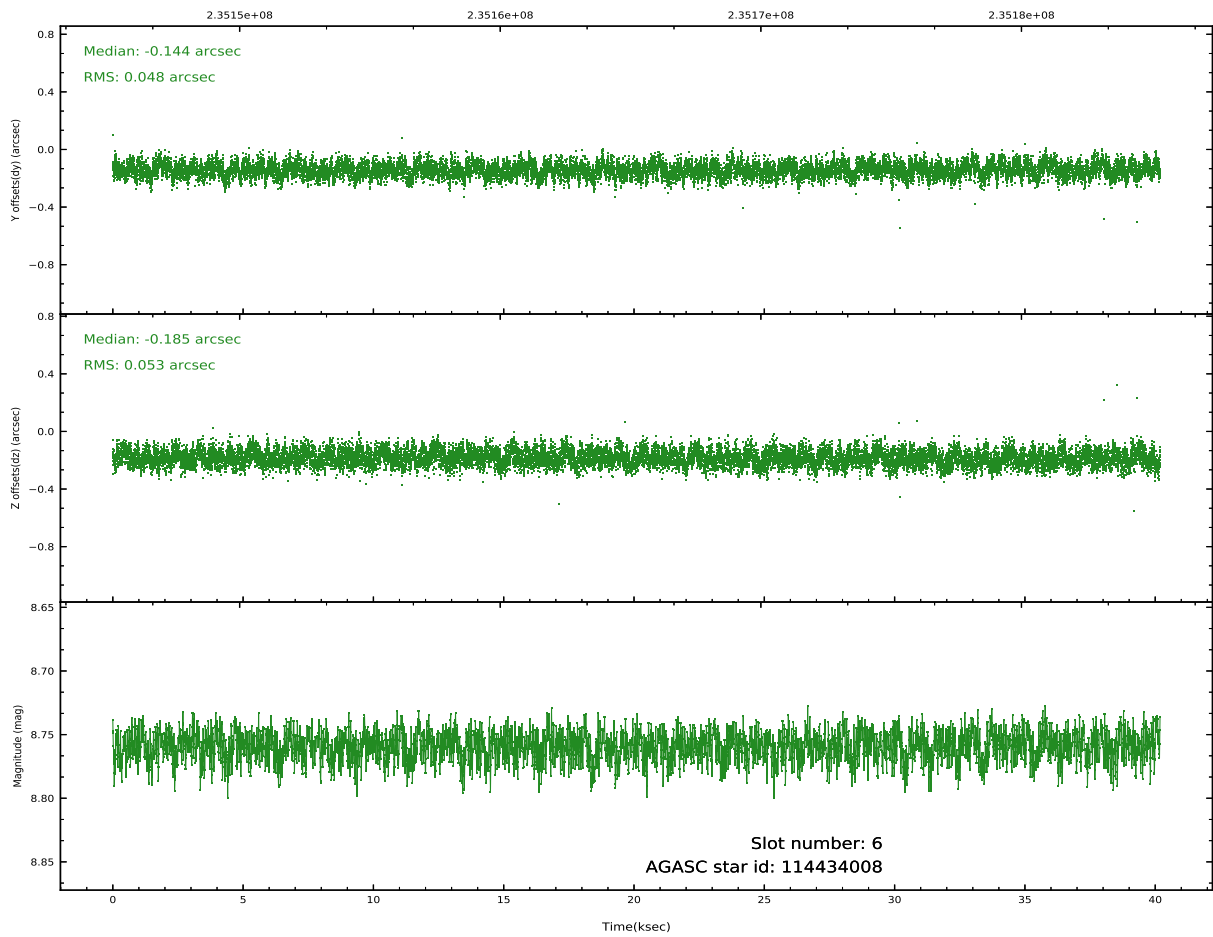
Time (s)



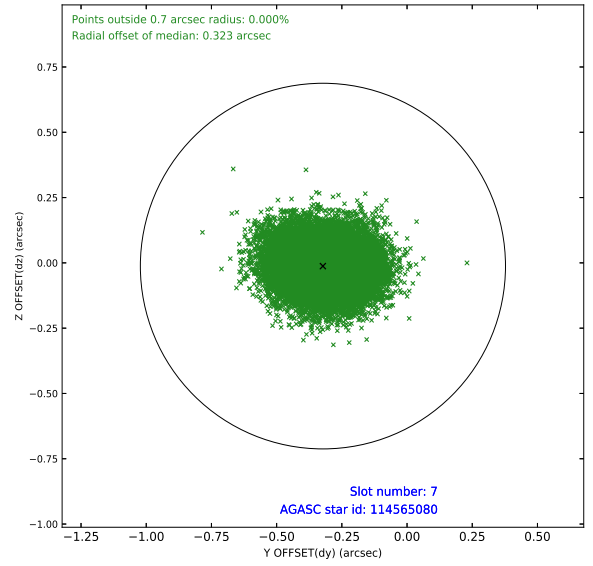
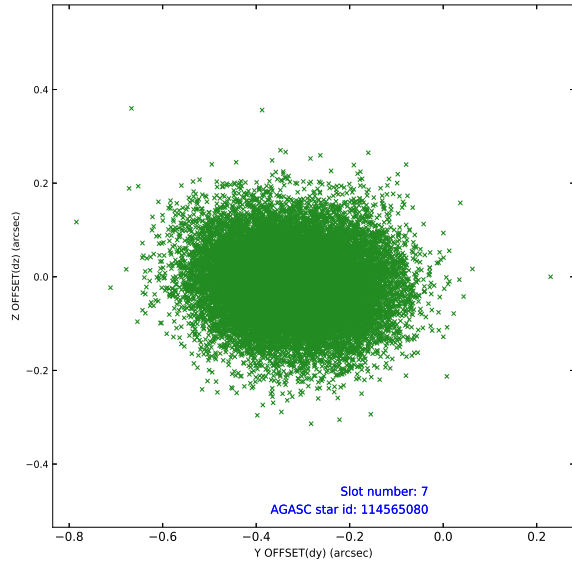
## 2.4.4 Slot 6



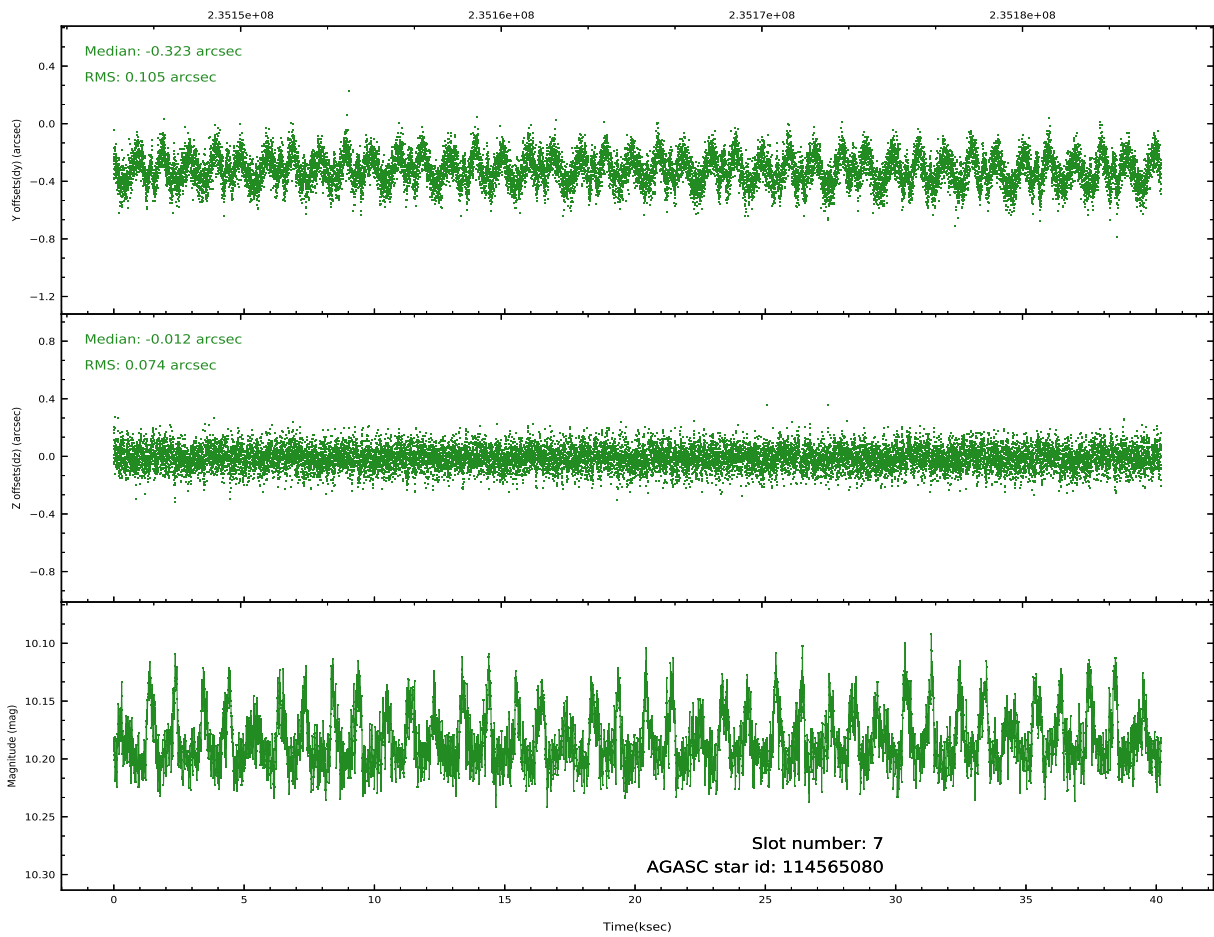
Time (s)



## 2.4.5 Slot 7

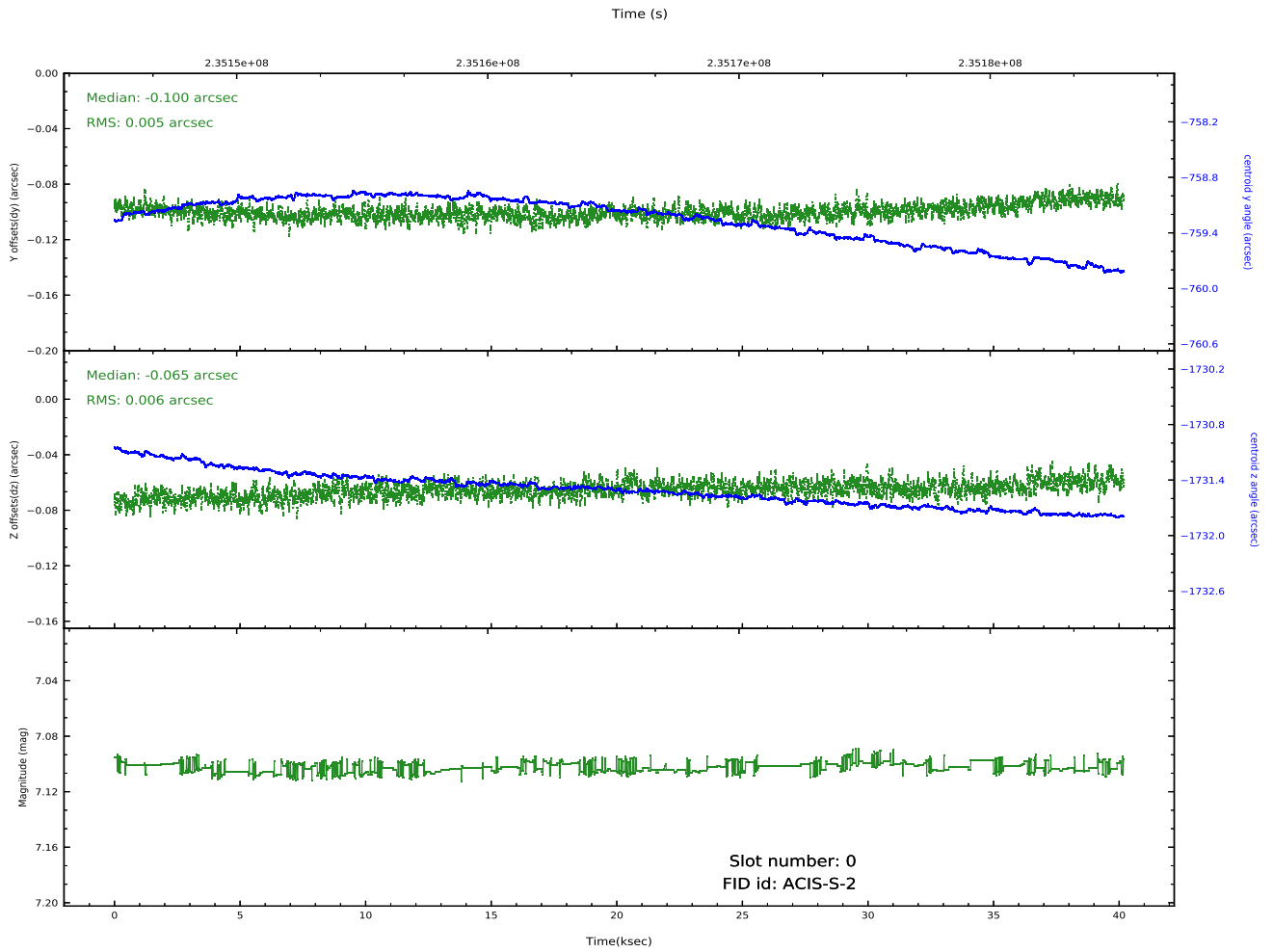
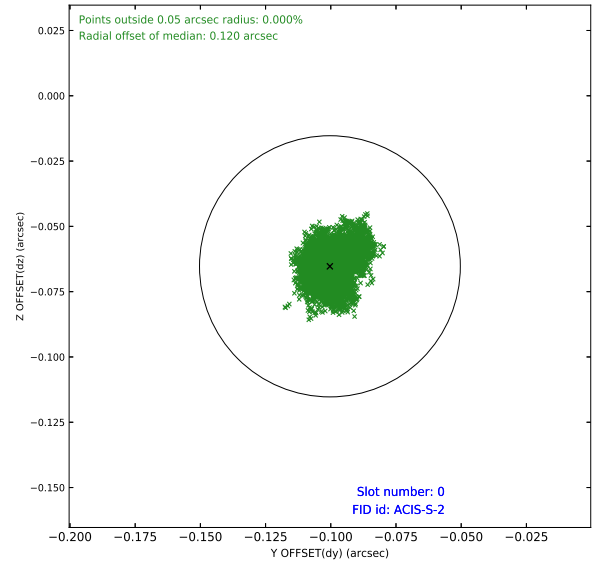
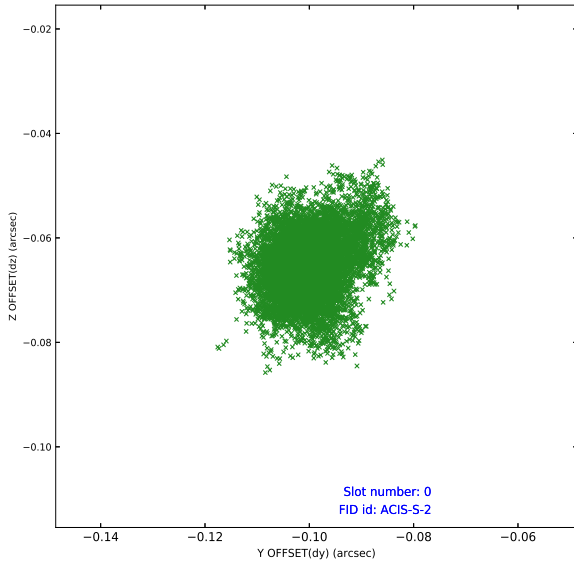


Time (s)

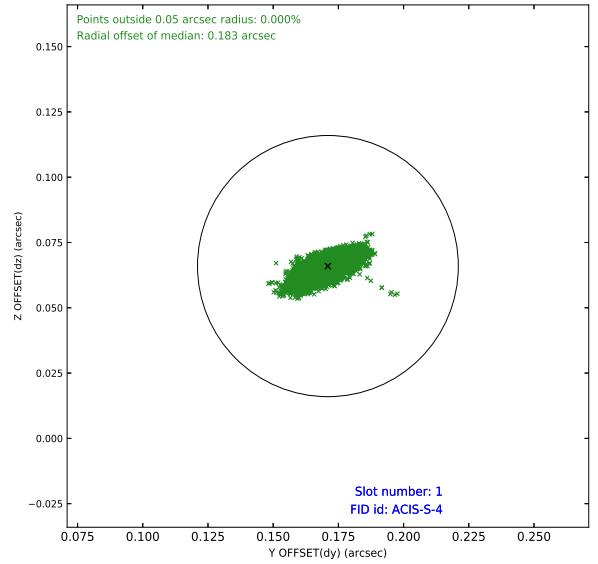
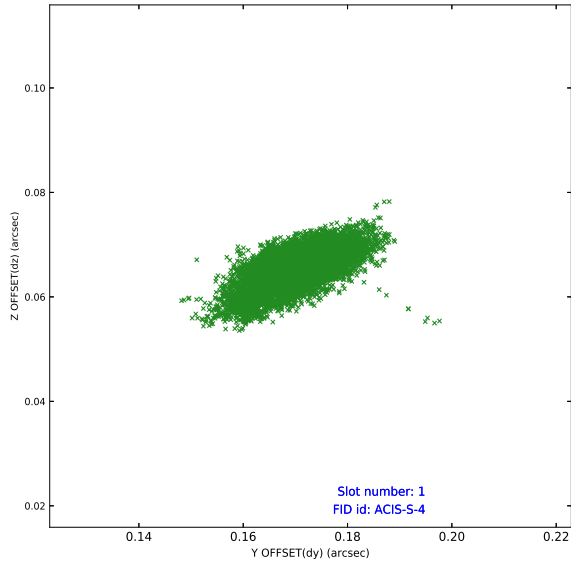


## 2.5 FID Slots

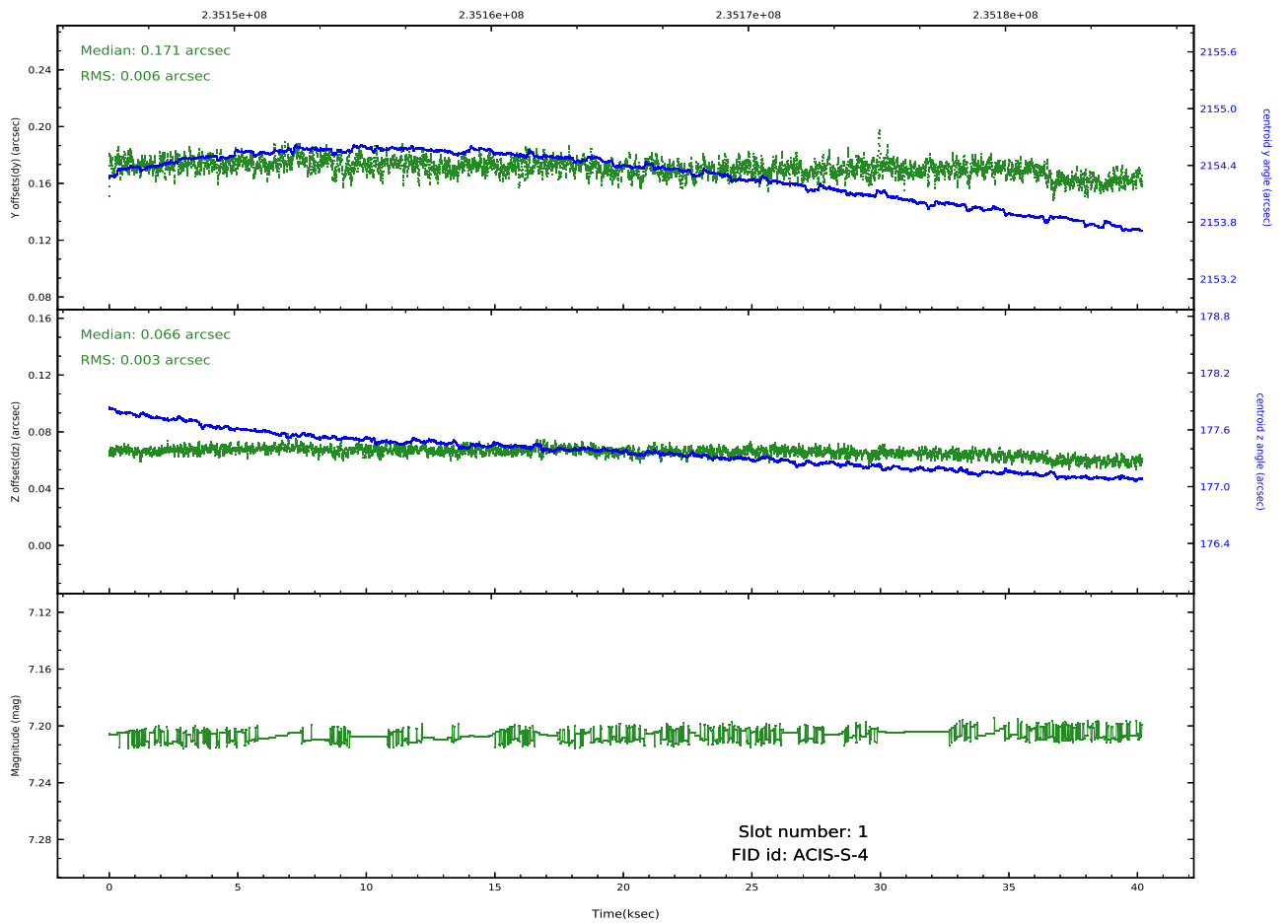
### 2.5.1 Slot 0



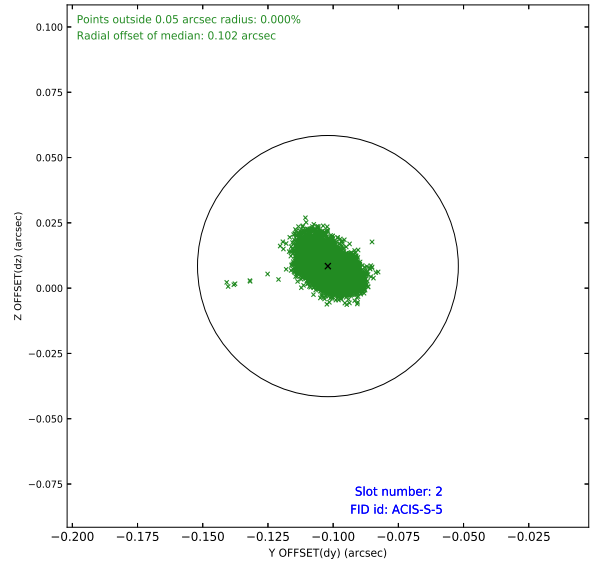
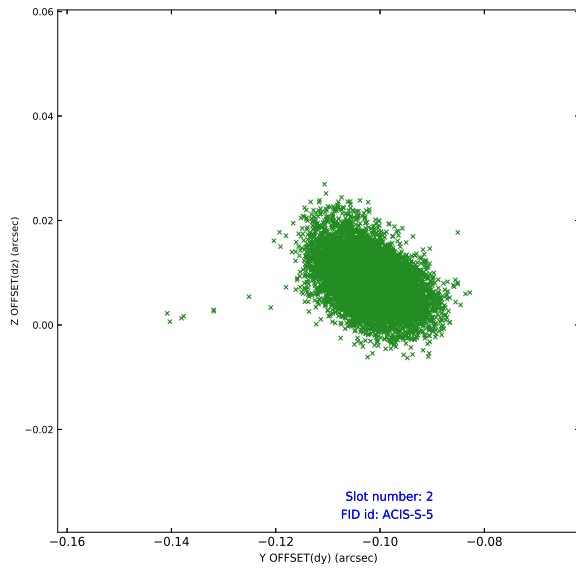
## 2.5.2 Slot 1



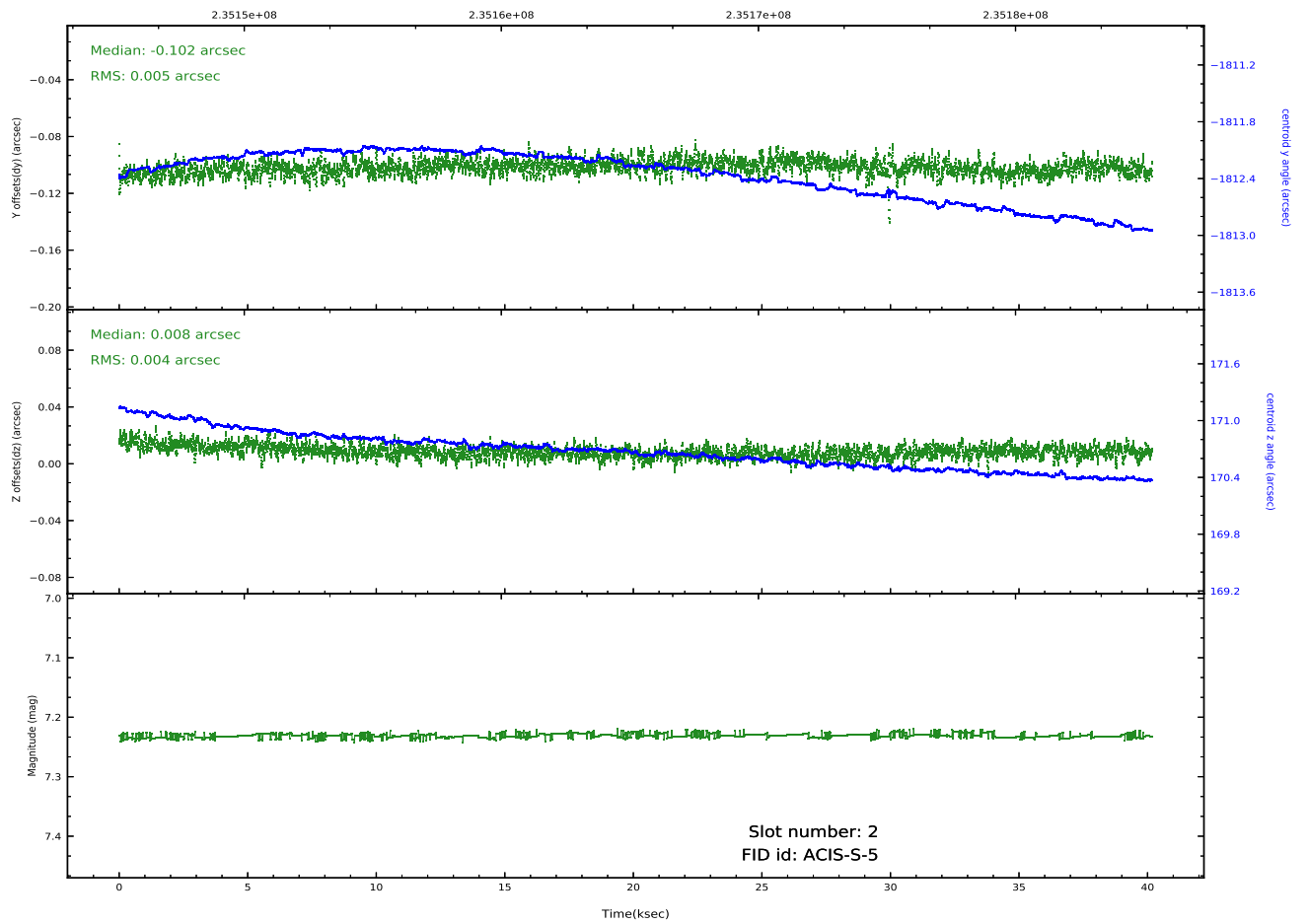
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.08919

## A.2 Comments

Preferred window not met. Monitor constraint met.