

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4446 - L2 Version 4  
Chandra X-Ray Center

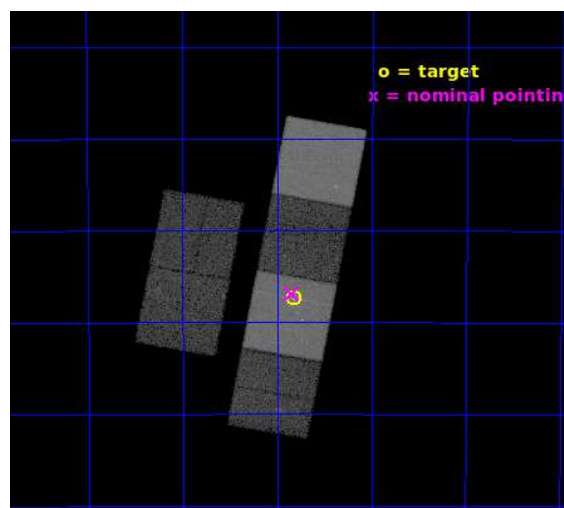
L2 Processing Date : Sep 22 2020

## 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

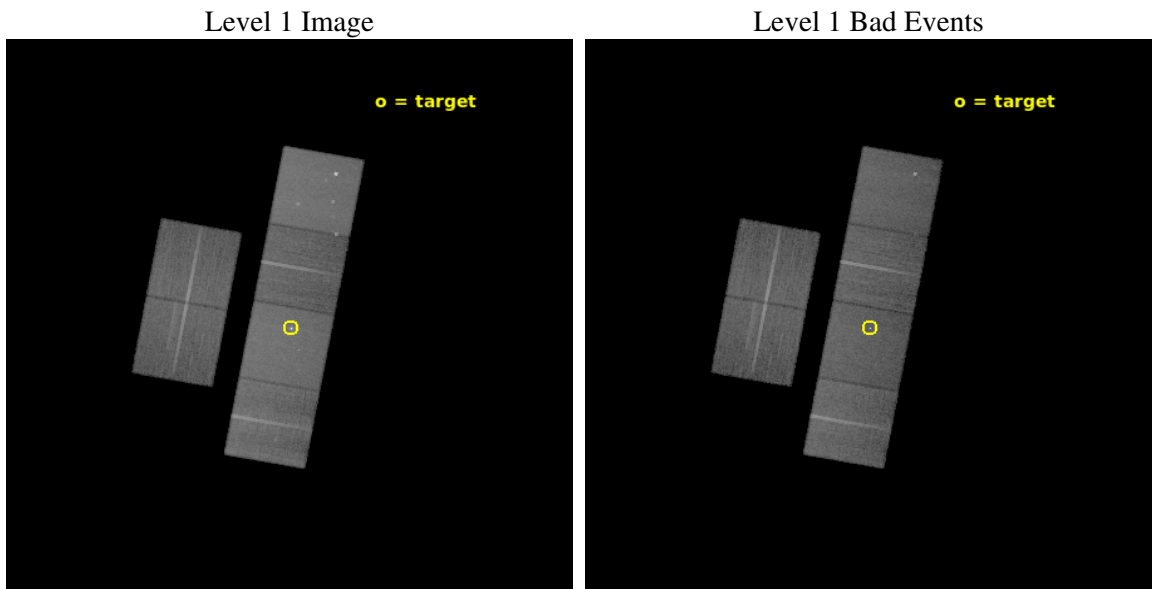
seq_num	400326	Sequence number
obs_id	4446	Observation id
title	The large-scale relativistic jet and low-luminosity spectrum of GX 339-4	Proposal title
observer	Prof. Rob Fender	Principal investigator
object	GX 339-4	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	255.705833	Observer's specified target RA [deg]
dec_targ	-48.789806	Observer's specified target Dec [deg]
ra_nom	255.71100805965	Nominal RA [deg]
dec_nom	-48.781617063161	Nominal Dec [deg]
roll_nom	100.50678888584	Nominal Roll [deg]
revision	4	Processing version of data
ontime	29753.599889159	Sum of GTIs [s]
livetime	29376.841891896	Livetime [s]
ontime2	29753.599889159	Sum of GTIs [s]
ontime3	29753.599889159	Sum of GTIs [s]
ontime5	29753.599889159	Sum of GTIs [s]
ontime6	29753.599889159	Sum of GTIs [s]
ontime7	29753.599889159	Sum of GTIs [s]
ontime8	29743.877028167	Sum of GTIs [s]
l2events	314939	Number of level 2 events



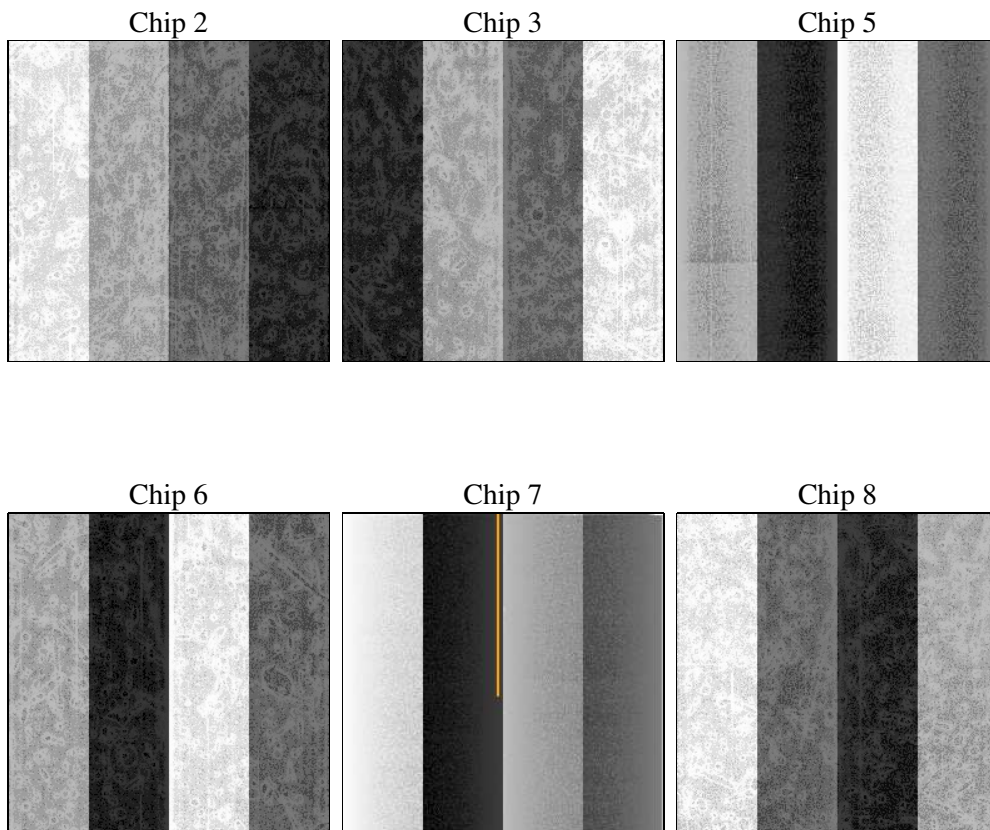
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	29753.599889159	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime2	29753.599889159	Sum of GTIs [s]
date	2020-09-23T02:25:51	Date and time of file creation	ontime3	29753.599889159	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	29753.599889159	Sum of GTIs [s]
			ontime6	29753.599889159	Sum of GTIs [s]
			ontime7	29753.599889159	Sum of GTIs [s]
			ontime8	29743.877028167	Sum of GTIs [s]
			l1events	1313864	Number of level 1 events

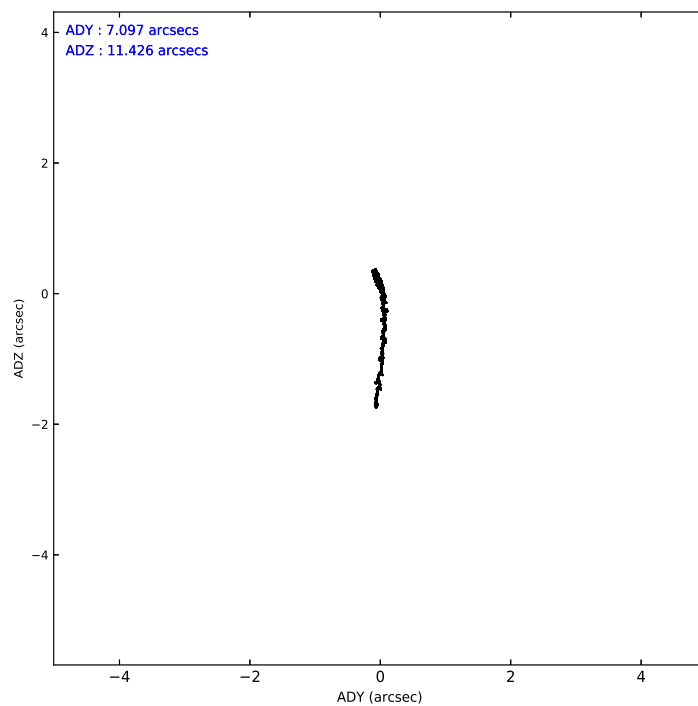
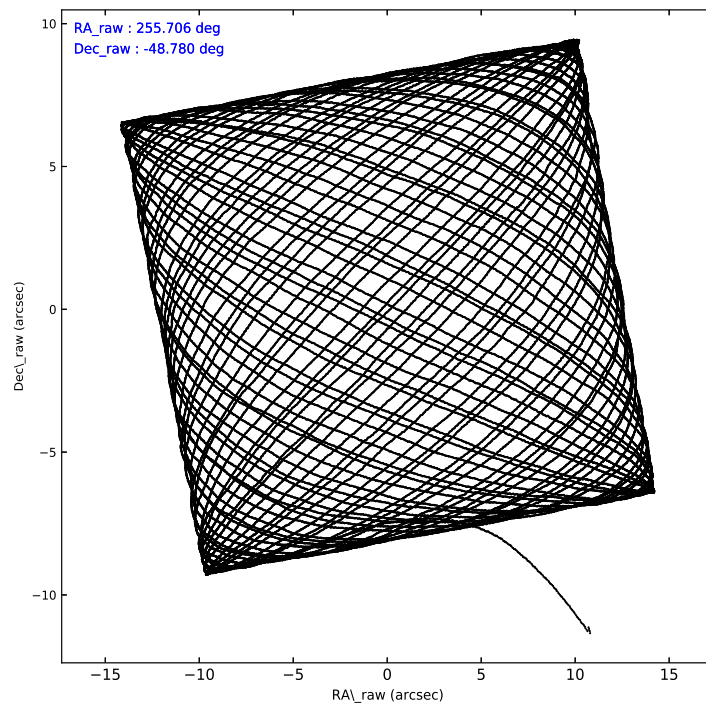
### 2.1.4 Events

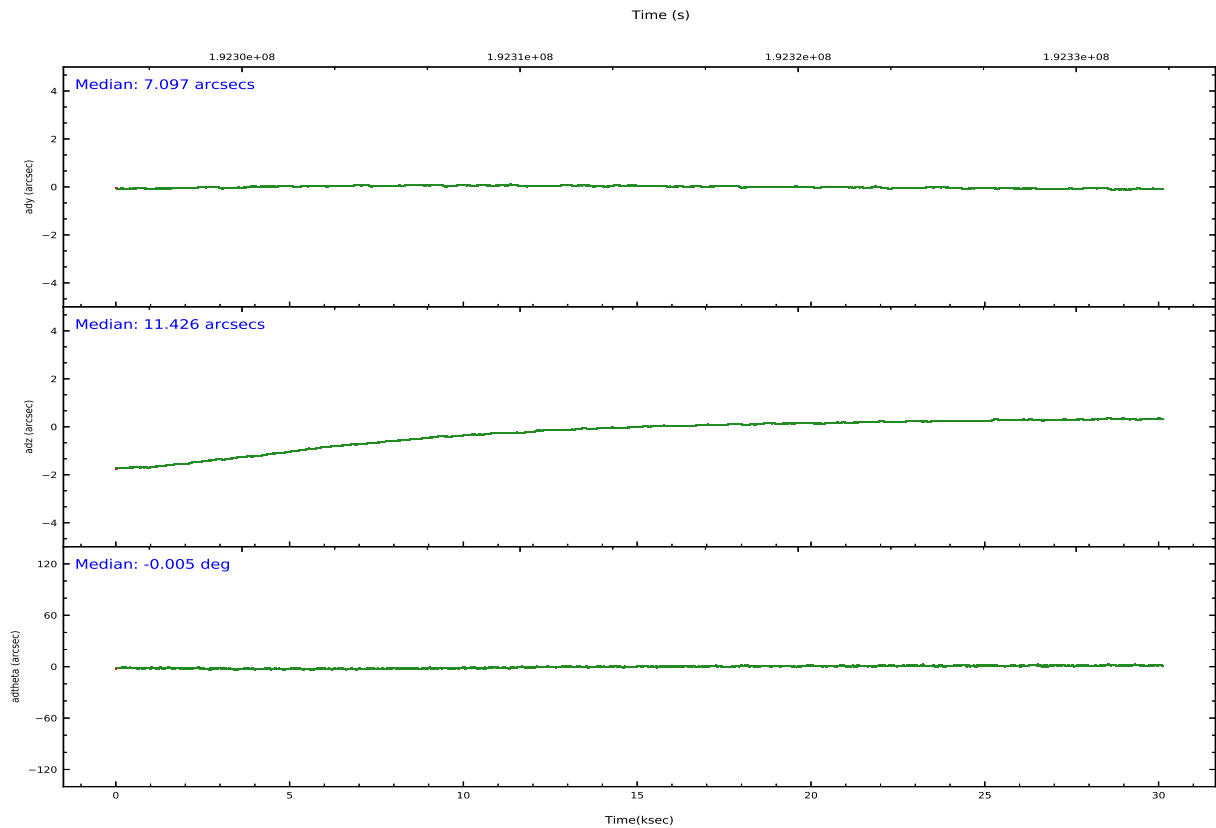
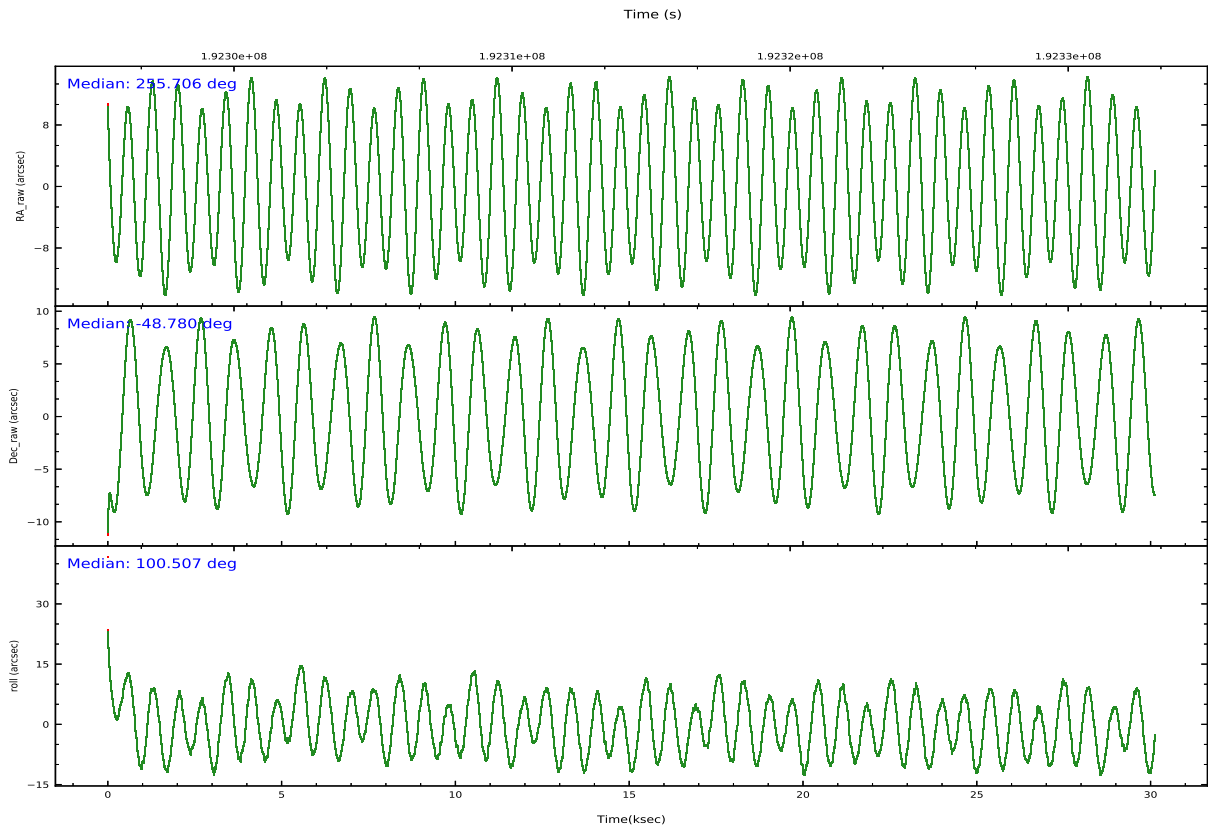
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	182224	173016	279138	181080	268617	229789	grade 0 events	10490	10339	14028	10363	12559	16360
rejected events	159417	150766	149015	157297	151139	180775		5%	5%	5%	5%	4%	7%
rejected %	87%	87%	53%	86%	56%	78%	grade 1 events	106	117	2151	99	420	142
								0%	0%	0%	0%	0%	0%
							grade 2 events	4526	4100	39811	4681	23691	10477
								2%	2%	14%	2%	8%	4%
							grade 3 events	2049	2065	5220	2178	10484	5142
								1%	1%	1%	1%	3%	2%
							grade 4 events	2056	2006	4897	2150	10455	4869
								1%	1%	1%	1%	3%	2%
							grade 5 events	7277	7964	19885	8406	24667	10596
								3%	4%	7%	4%	9%	4%
							grade 6 events	3687	3741	66182	4412	60301	12168
								2%	2%	23%	2%	22%	5%
							grade 7 events	152033	142684	126964	148791	126040	170035
								83%	82%	45%	82%	46%	73%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	255.733007	255.71100805965	Subarray requested	NONE	NONE
[deg] Pointing Dec	-48.800603	-48.781617063161	Alternating exposures requested	N	N
[deg] Pointing Roll	100.374175	100.50678888584	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	191246464.184000	191246464.184000			
[s] Window stop time (MET)	192888064.184000	192888064.184000			
[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)	192300501.184000	192299322.99113			
Observation start date	2004-02-04T16:47:17	2004-02-04T16:28:42			
[s] Observation end time (MET)	192330501.184000	192331570.00504			
Observation end date	2004-02-05T01:07:17	2004-02-05T01:26:10			
Read mode	TIMED	TIMED			

## 2.3 Aspect





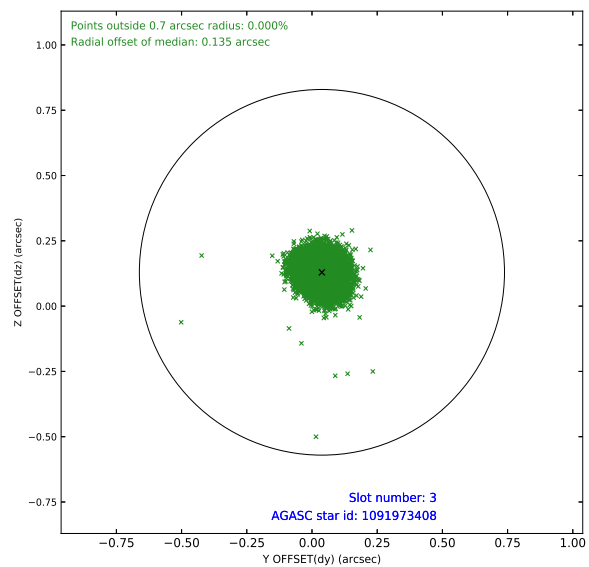
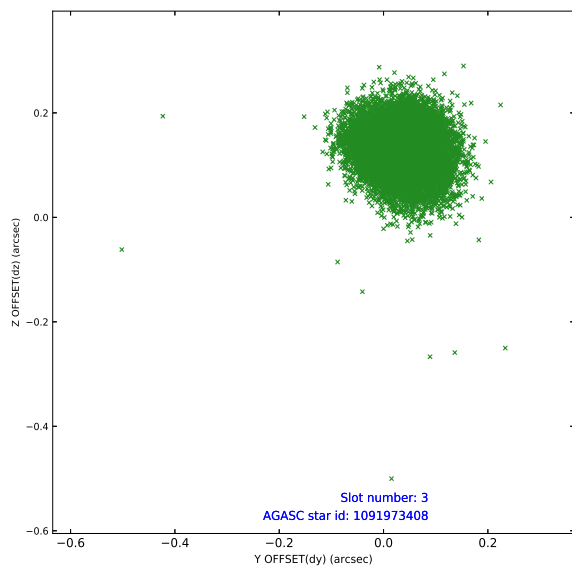
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.10	7350	1.000	-0.060	-0.043	0.012	0.020	0.000000	0.000000	-759.86	-1732
1	FID		ACIS-S-4	7.20	7350	1.000	0.112	0.040	0.013	0.024	0.000000	0.000000	2153.51	176
2	FID		ACIS-S-5	7.23	7349	1.000	-0.083	0.011	0.009	0.014	0.000000	0.000000	-1812.68	169
3	GUIDE	used	1091973408	8.91	14694	1.000	0.038	0.129	0.065	0.106	255.800233	-48.601800	675.46	-286
4	GUIDE	used	1091975392	6.42	14699	1.000	-0.118	0.077	0.046	0.072	255.805002	-48.336791	1611.71	-469
5	GUIDE	used	1092111344	9.96	14692	1.000	-0.091	0.196	0.116	0.187	256.132869	-48.213784	1903.28	-1323
6	GUIDE	used	1092491384	9.13	14686	1.000	0.196	0.005	0.079	0.126	254.923973	-49.184437	-1026.13	2122
7	GUIDE	used	1092485728	6.89	14698	1.000	-0.024	-0.414	0.069	0.119	254.773222	-48.875124	131.06	2285

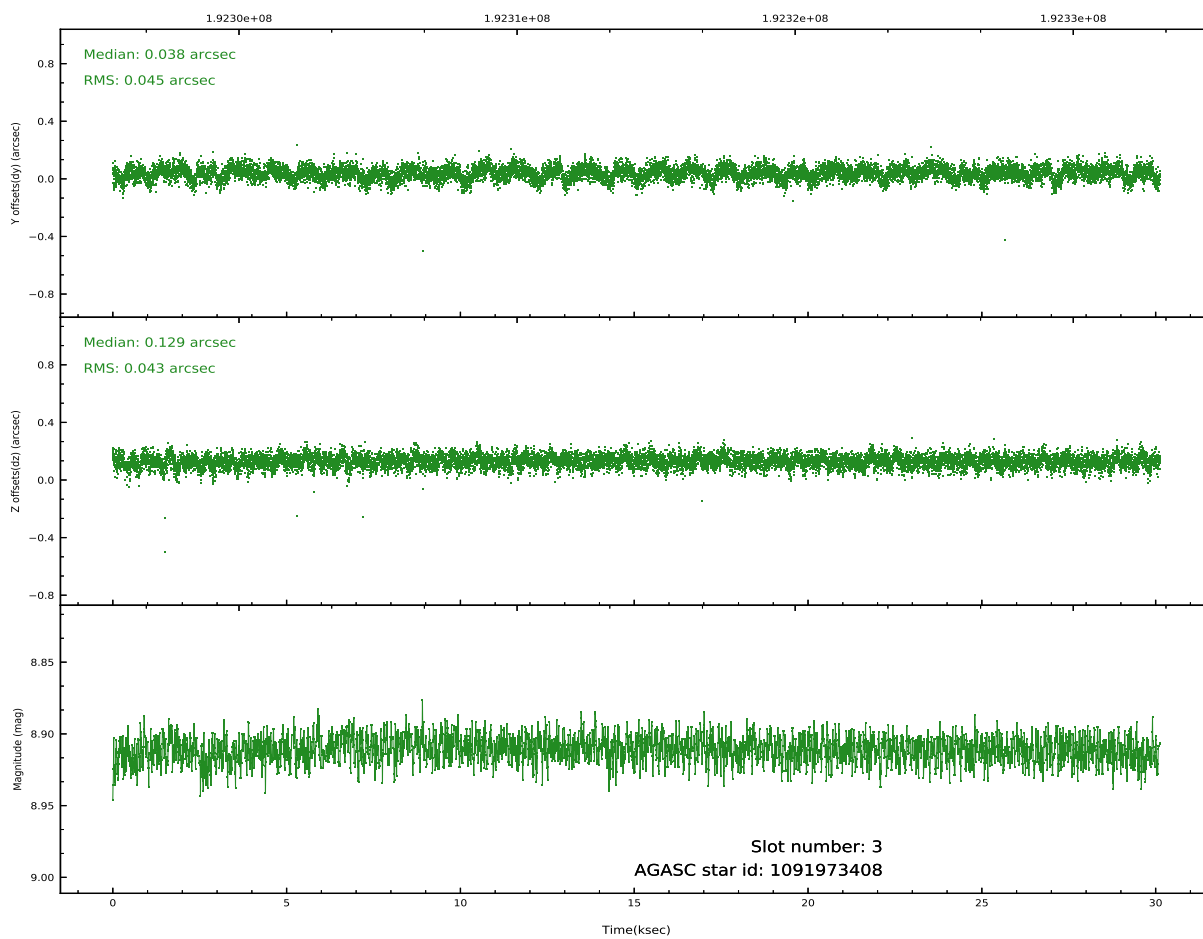
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## 2.4 Star Slots

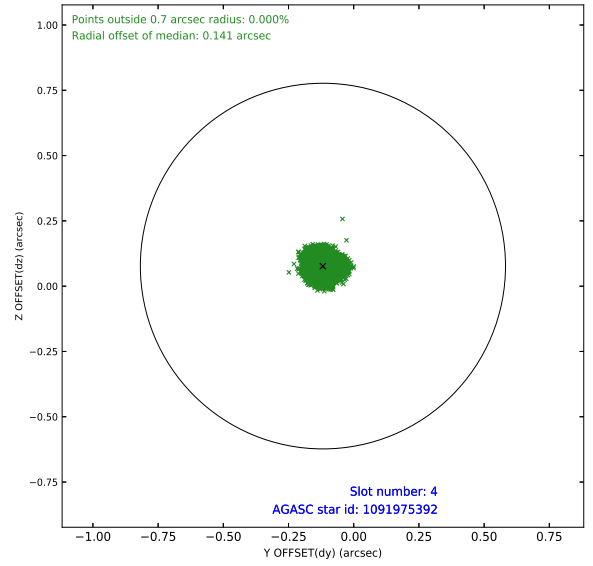
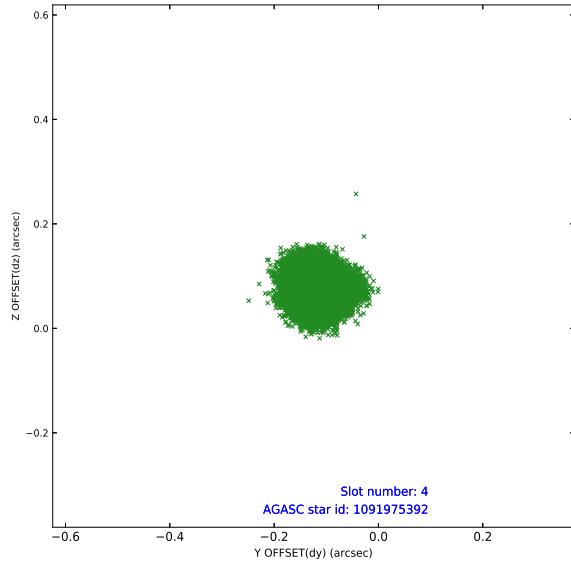
### 2.4.1 Slot 3



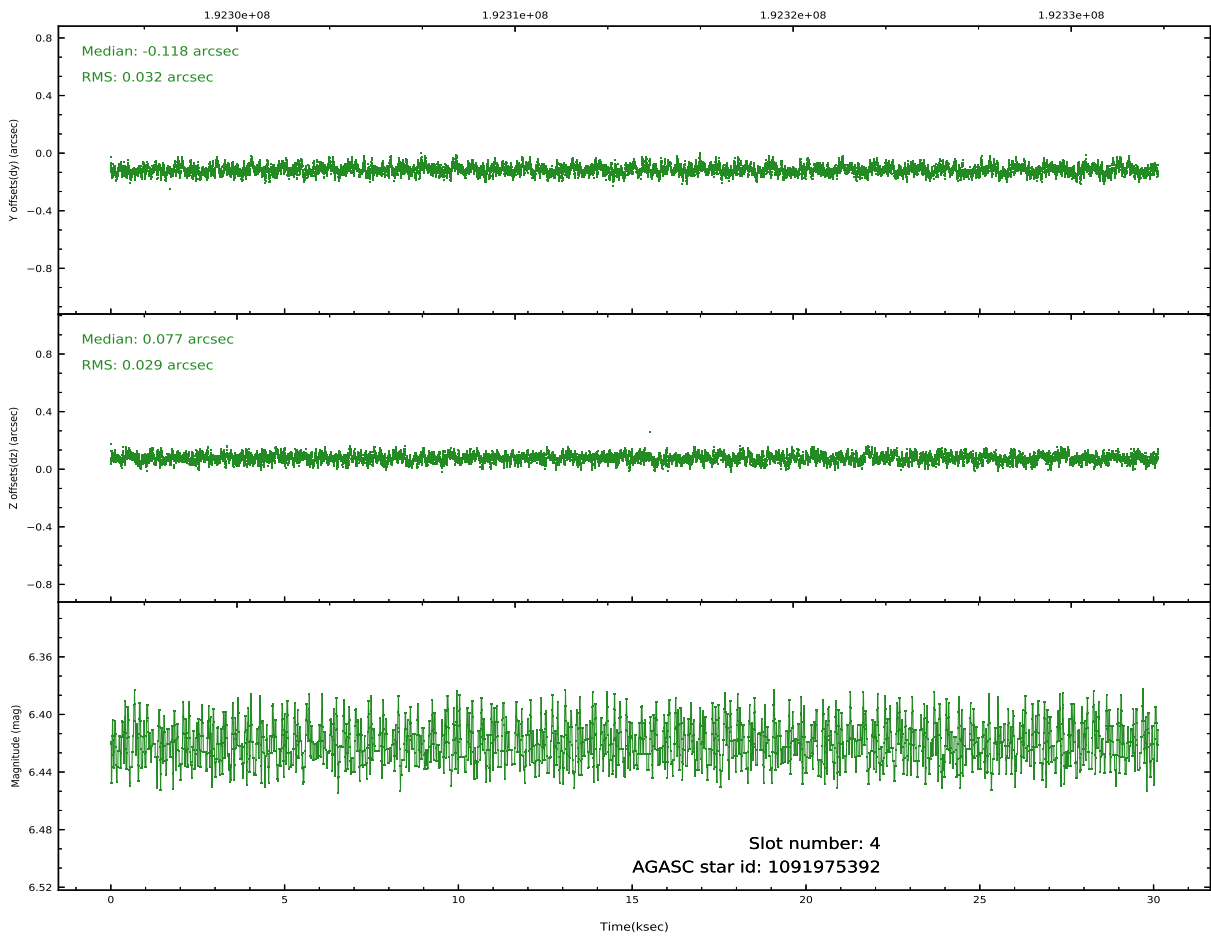
Time (s)



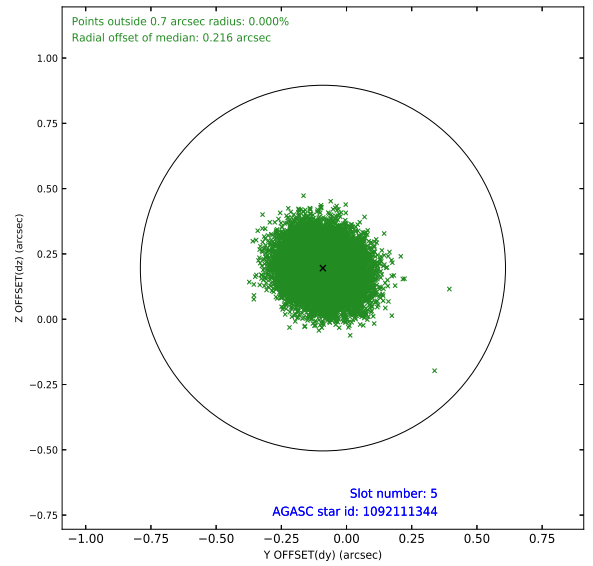
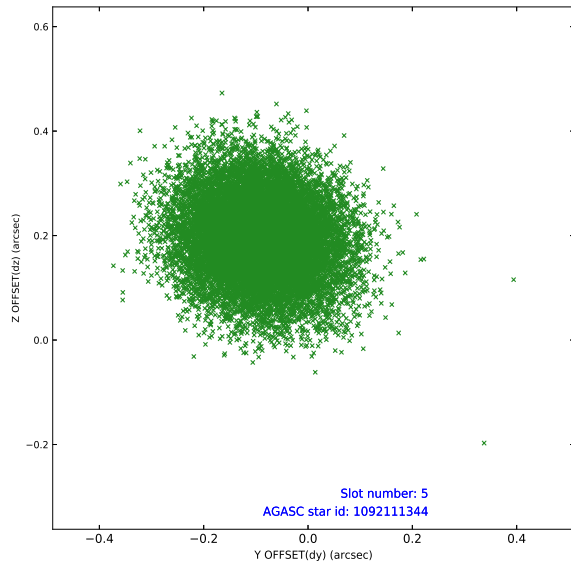
## 2.4.2 Slot 4



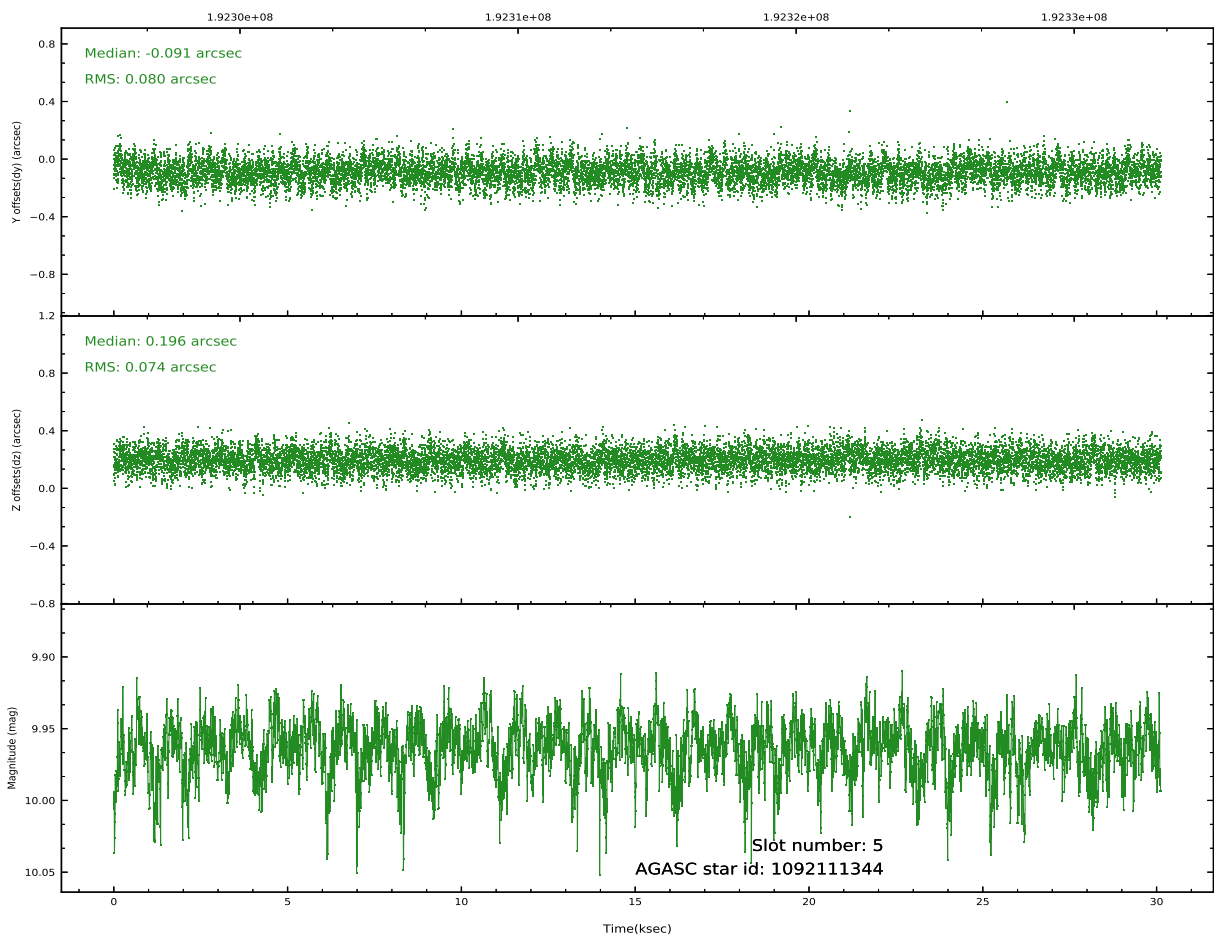
Time (s)



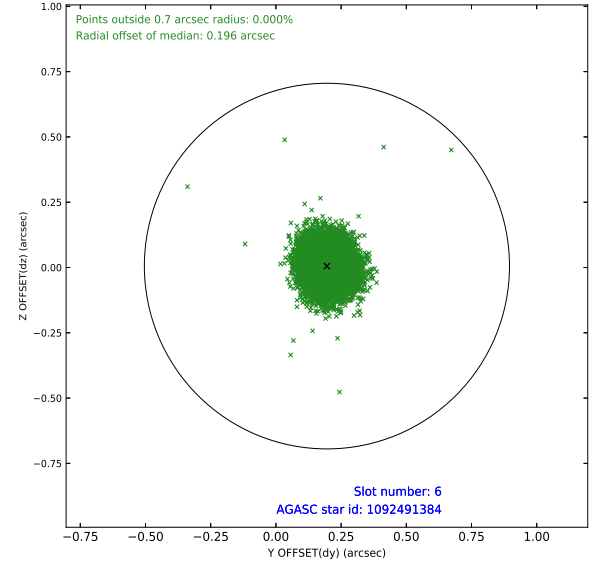
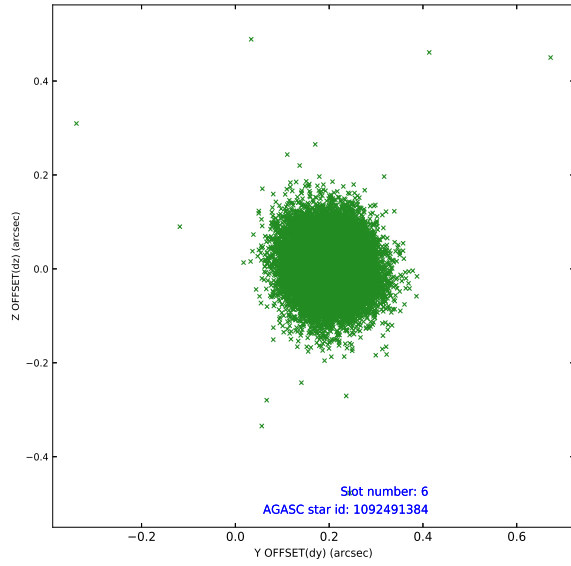
### 2.4.3 Slot 5



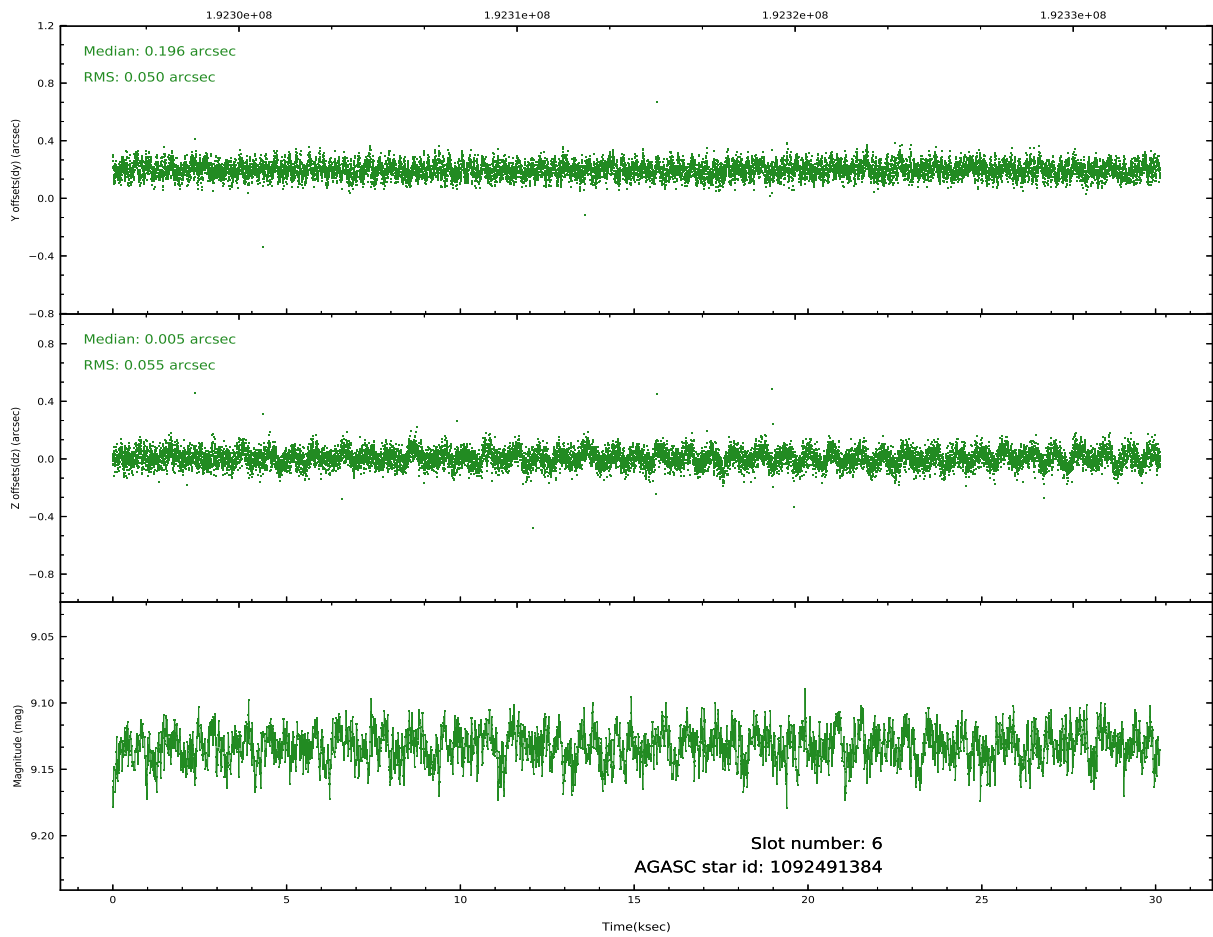
Time (s)



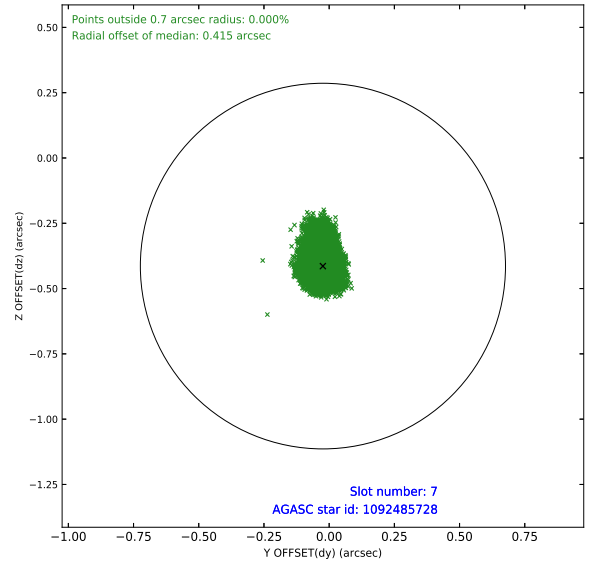
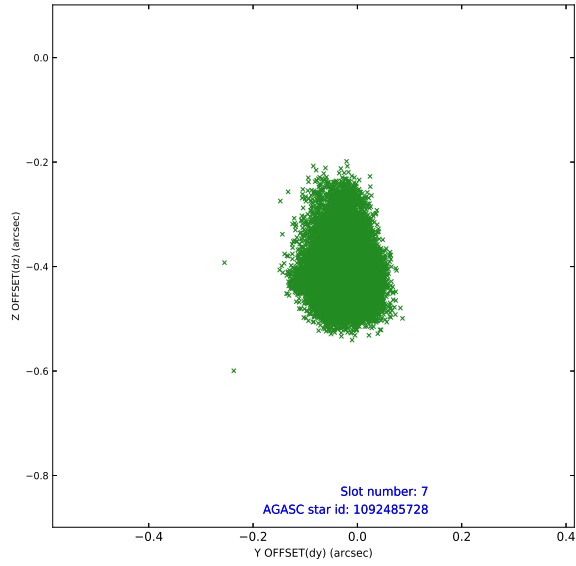
## 2.4.4 Slot 6



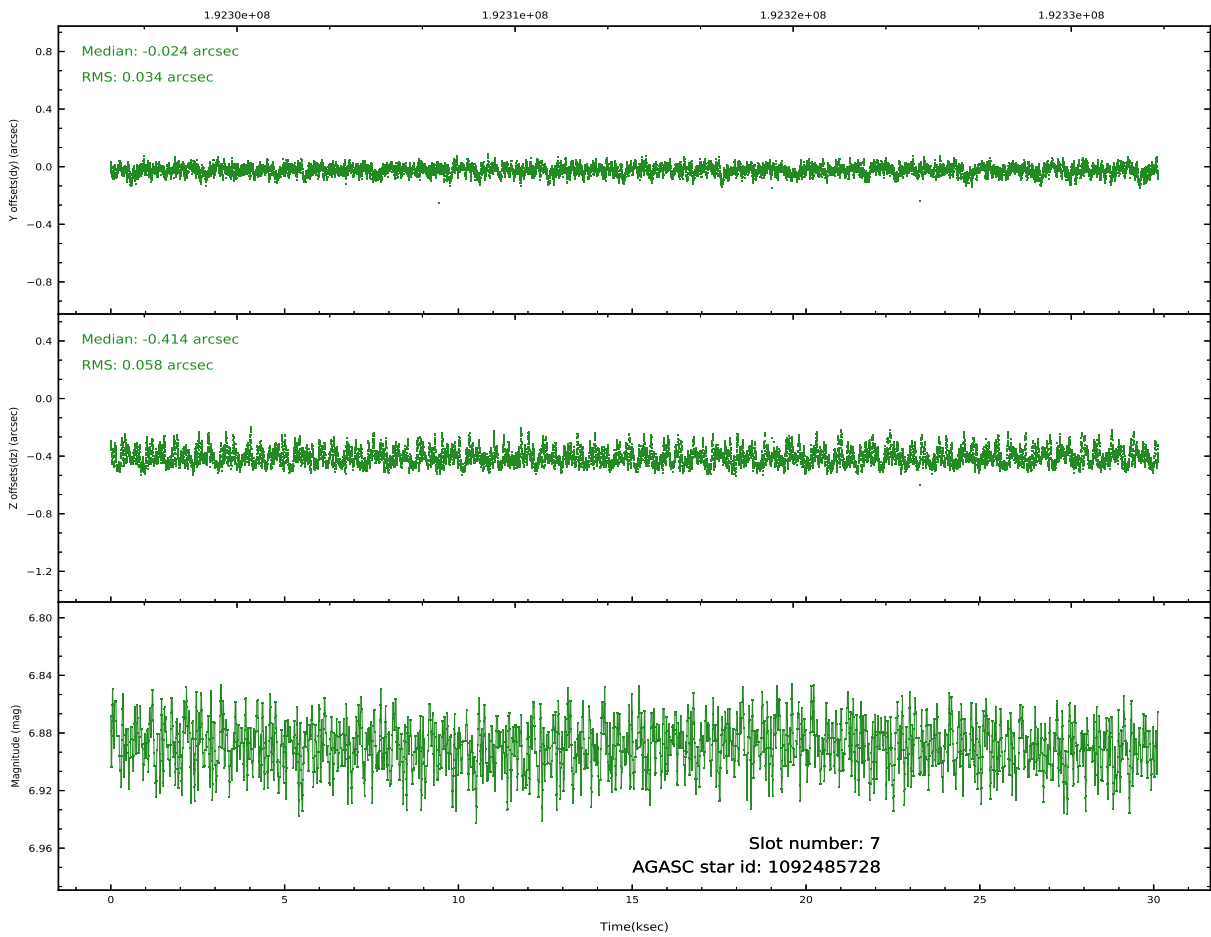
Time (s)



## 2.4.5 Slot 7

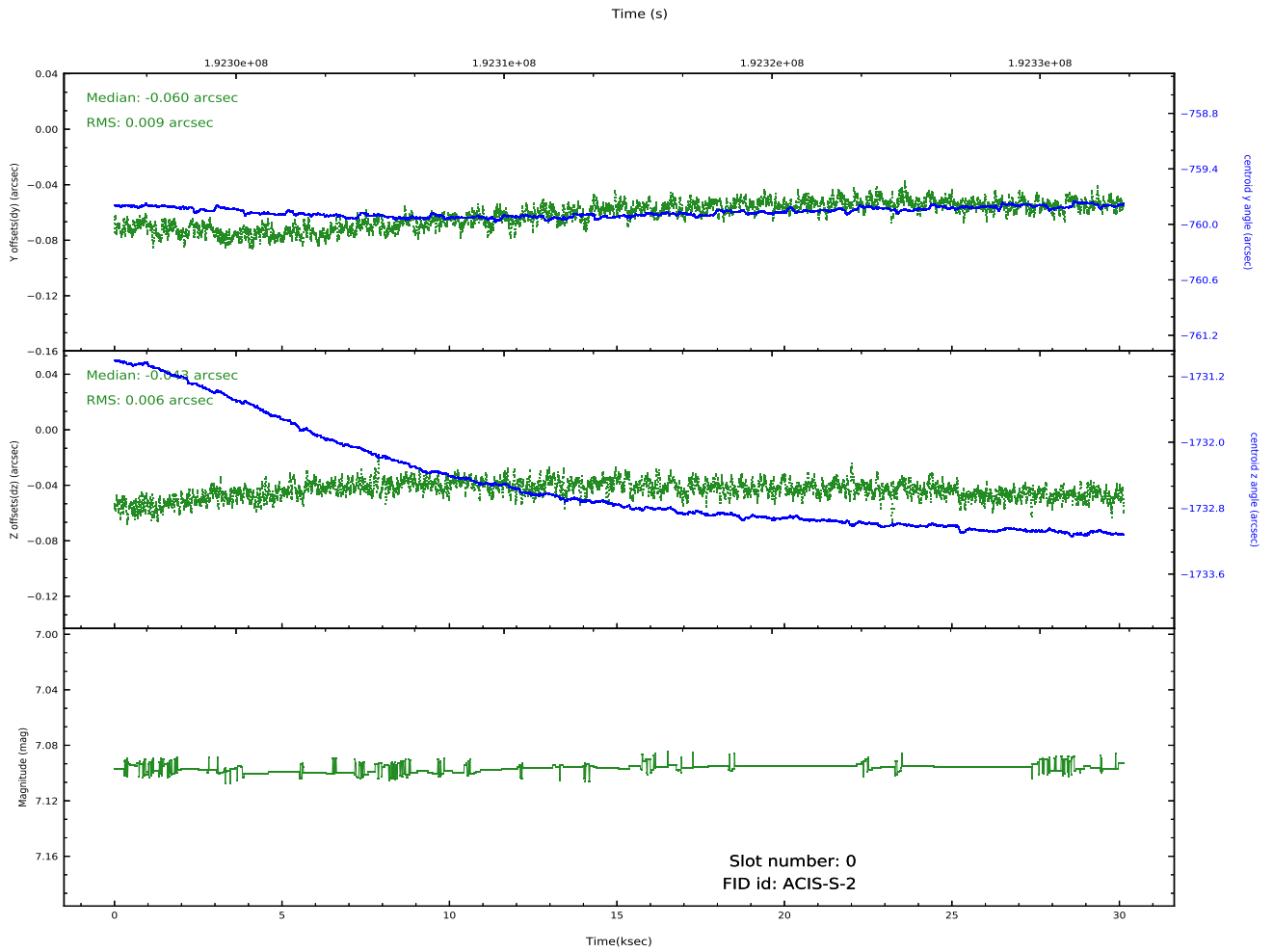
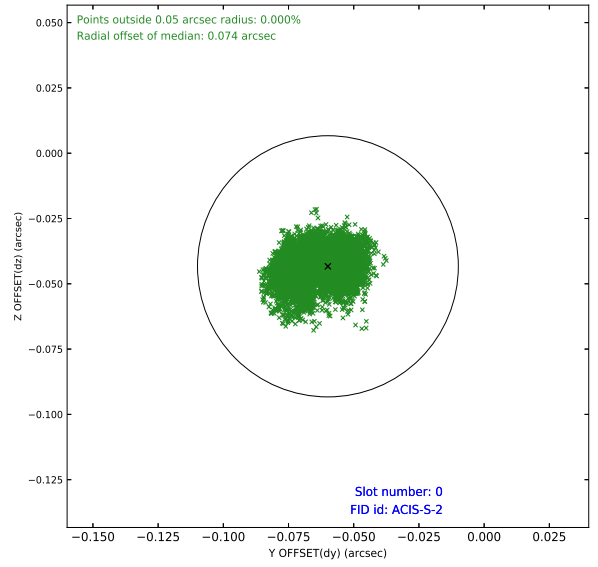
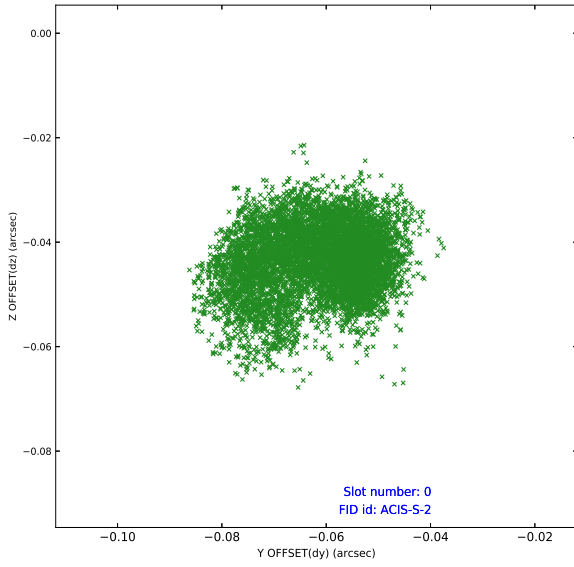


Time (s)

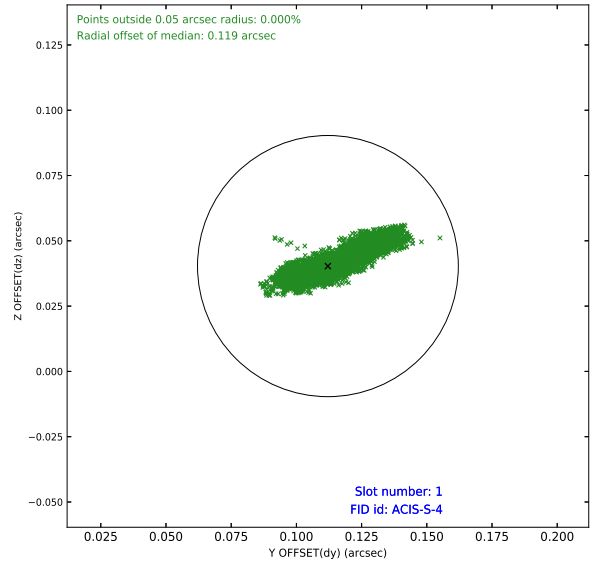
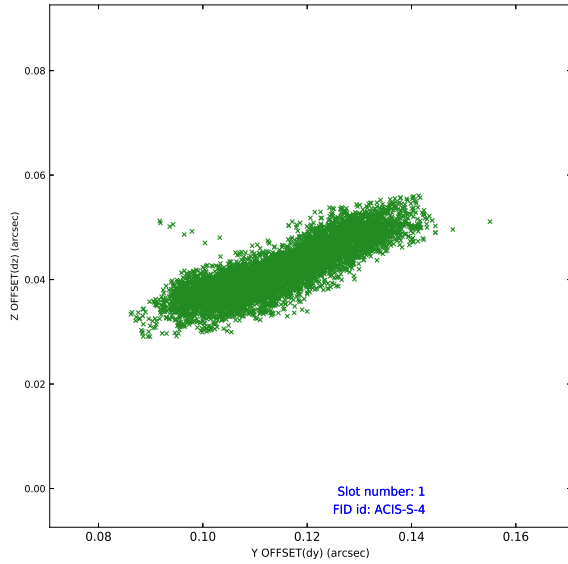


## 2.5 FID Slots

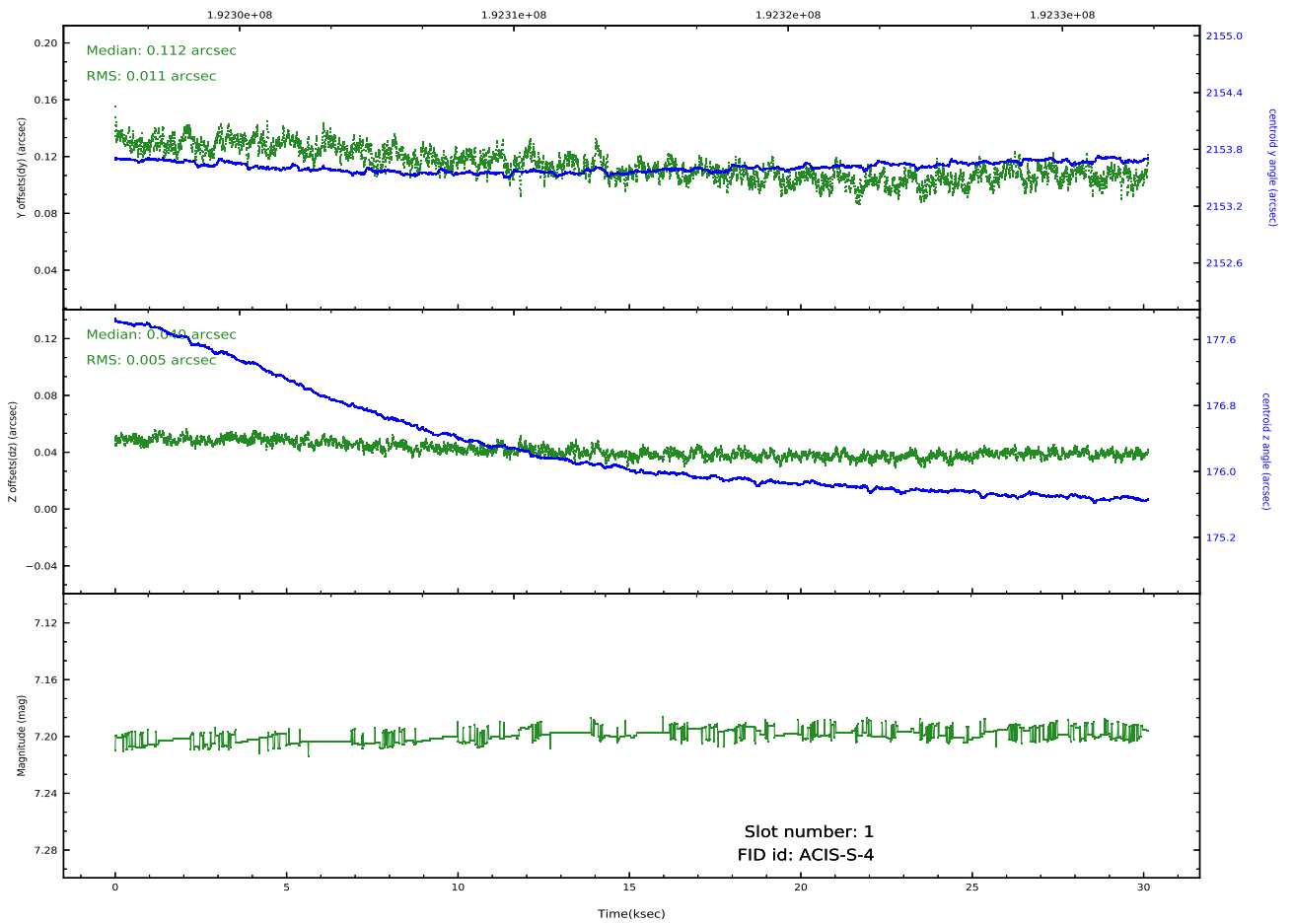
### 2.5.1 Slot 0



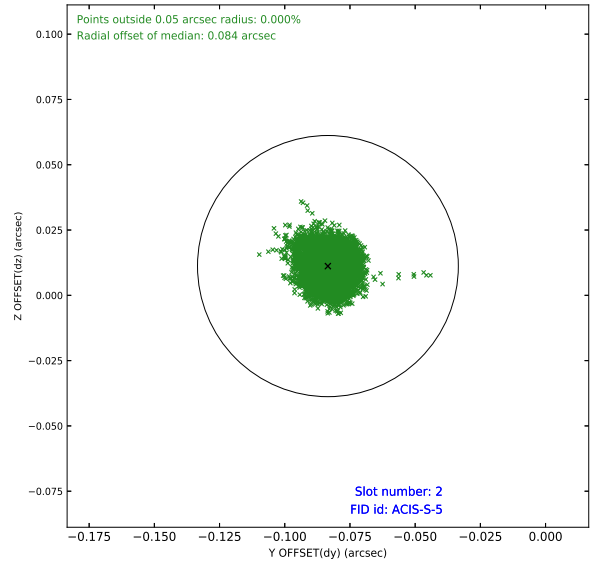
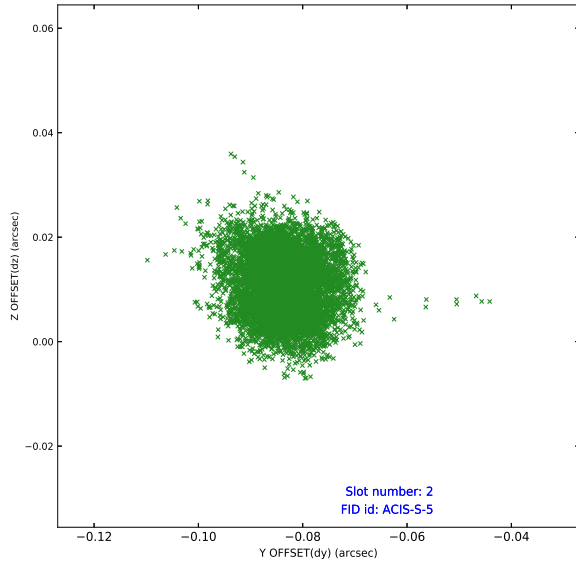
## 2.5.2 Slot 1



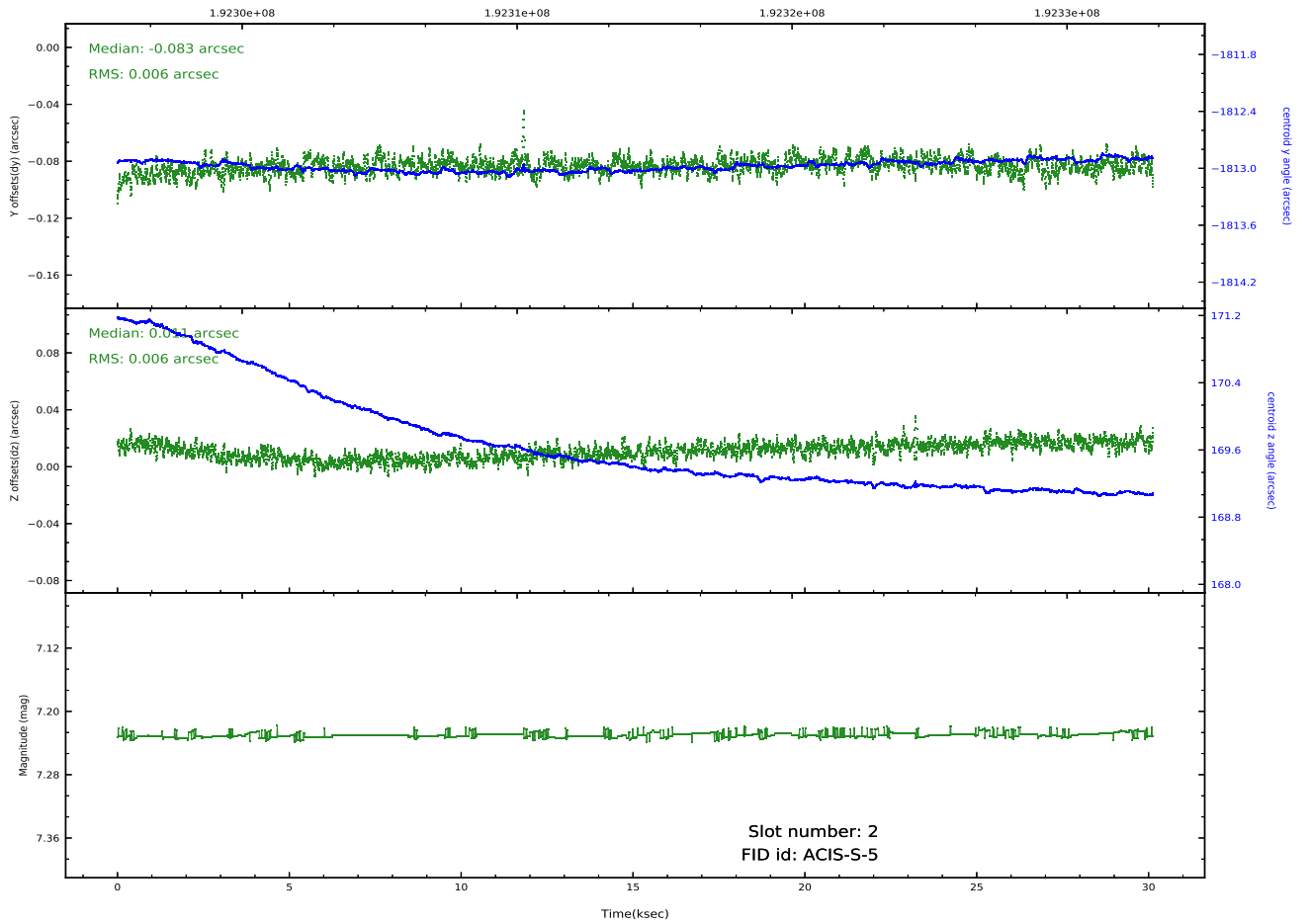
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Francesca Civano
V&V Date (YYYY-MM-DD)	2020.09.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.756

## A.2 Comments

Window constraint satisfied.