

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4973 - L2 Version 4  
Chandra X-Ray Center

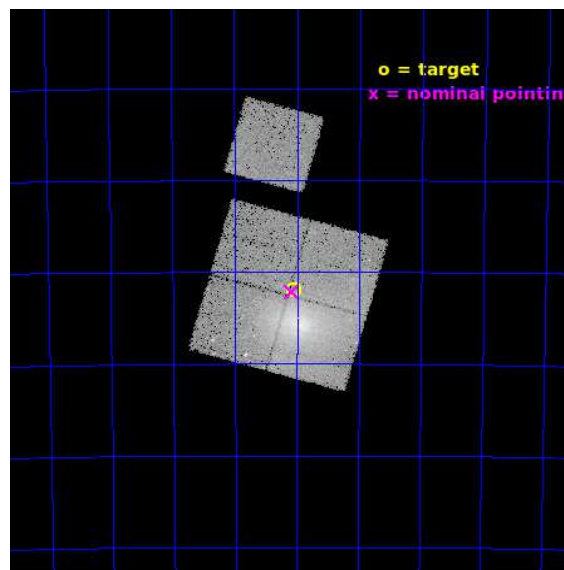
L2 Processing Date : Sep 29 2020

## 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

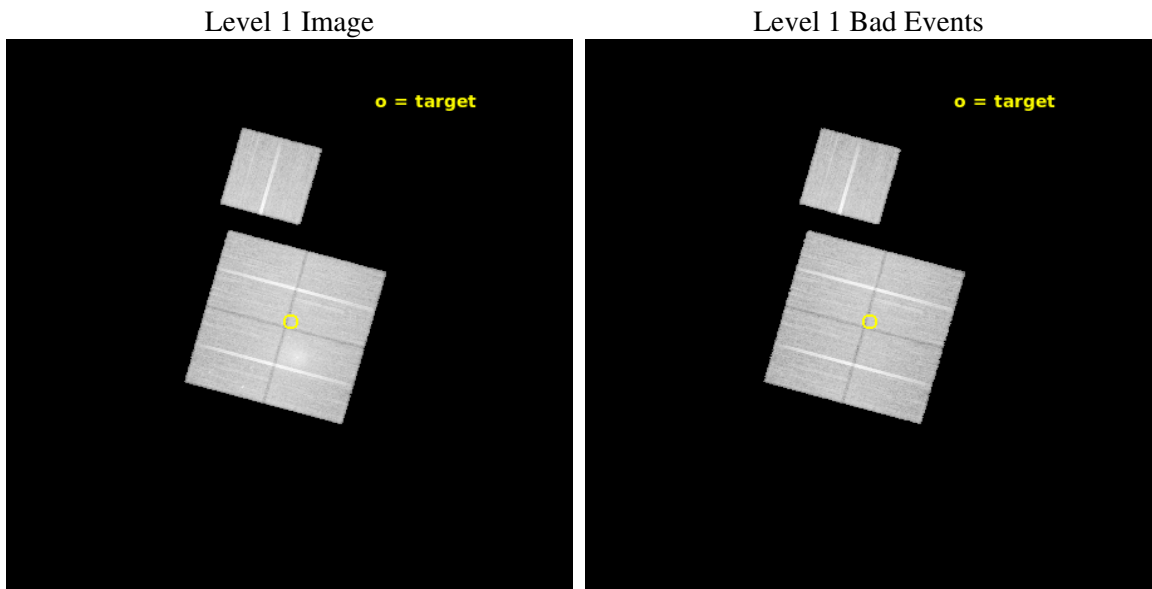
seq_num	800418	Sequence number
obs_id	4973	Observation id
title	High resolution observations of the merging cluster Abell 3921	Pro
observer	Dr. Chiara Ferrari	Principal investigator
object	Abell 3921	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	342.5125	Observer's specified target RA [deg]
dec_targ	-64.365278	Observer's specified target Dec [deg]
ra_nom	342.52033861105	Nominal RA [deg]
dec_nom	-64.369243228892	Nominal Dec [deg]
roll_nom	15.580765595764	Nominal Roll [deg]
revision	4	Processing version of data
ontime	29762.457792789	Sum of GTIs [s]
livetime	29373.589370923	Livetime [s]
ontime0	29771.757633418	Sum of GTIs [s]
ontime1	29765.516722918	Sum of GTIs [s]
ontime2	29762.416762739	Sum of GTIs [s]
ontime3	29762.457792789	Sum of GTIs [s]
ontime6	29765.434593111	Sum of GTIs [s]
l2events	129431	Number of level 2 events



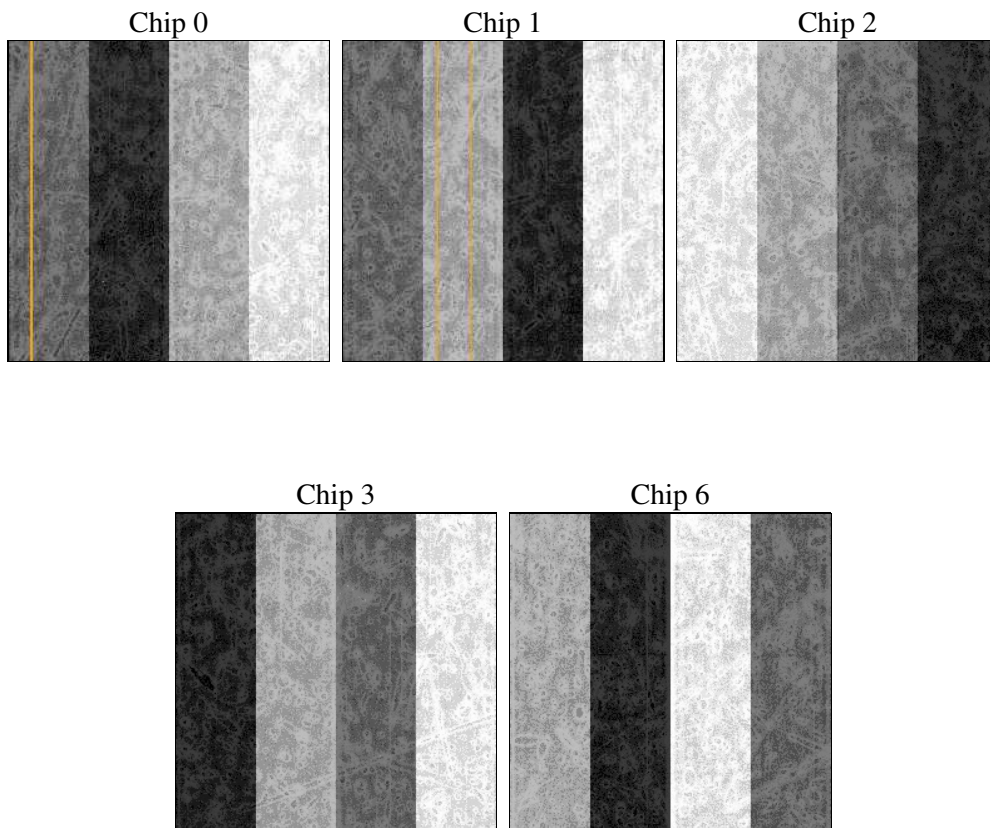
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	29762.457792789	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime0	29771.757633418	Sum of GTIs [s]
date	2020-09-29T07:42:44	Date and time of file creation	ontime1	29765.516722918	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	29762.416762739	Sum of GTIs [s]
			ontime3	29762.457792789	Sum of GTIs [s]
			ontime6	29765.434593111	Sum of GTIs [s]
			l1events	988956	Number of level 1 events

### 2.1.4 Events

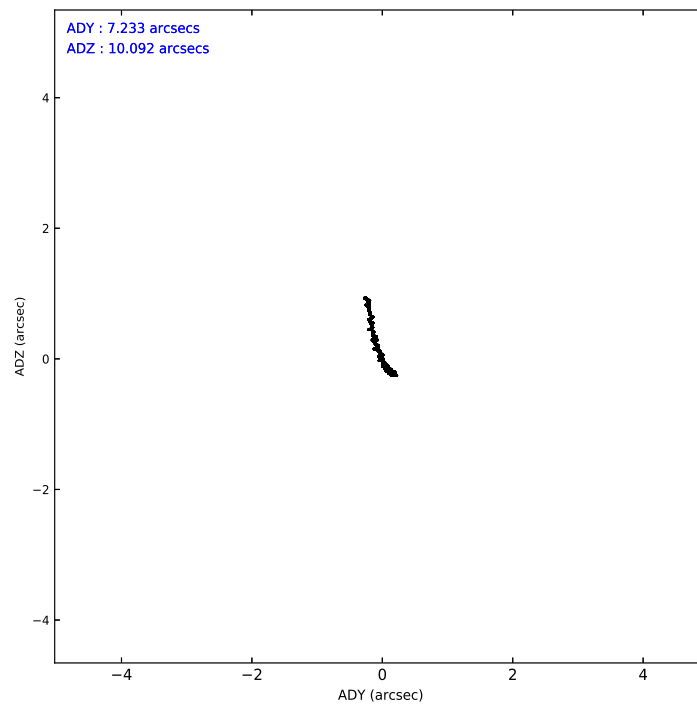
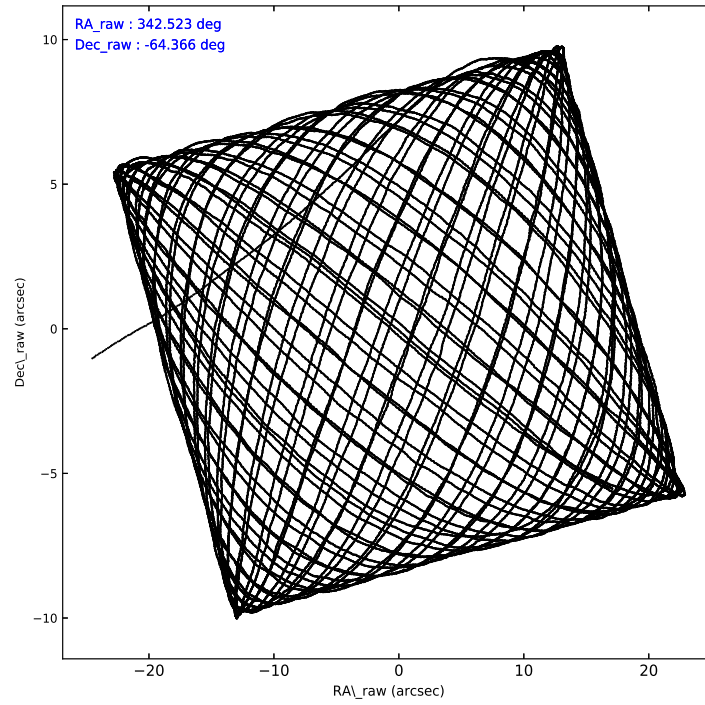
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	183917	215503	199533	196521	193482
rejected events	155768	155992	179688	173435	174499
rejected %	84%	72%	90%	88%	90%

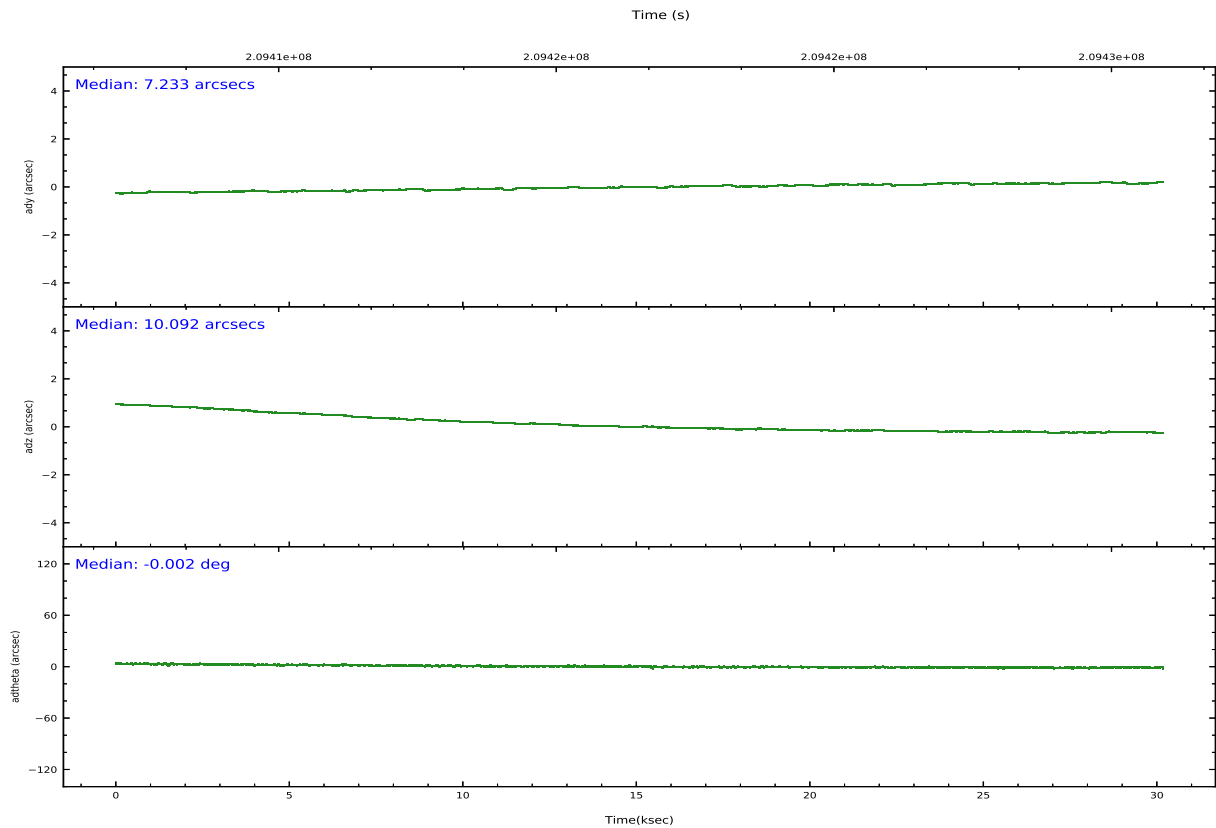
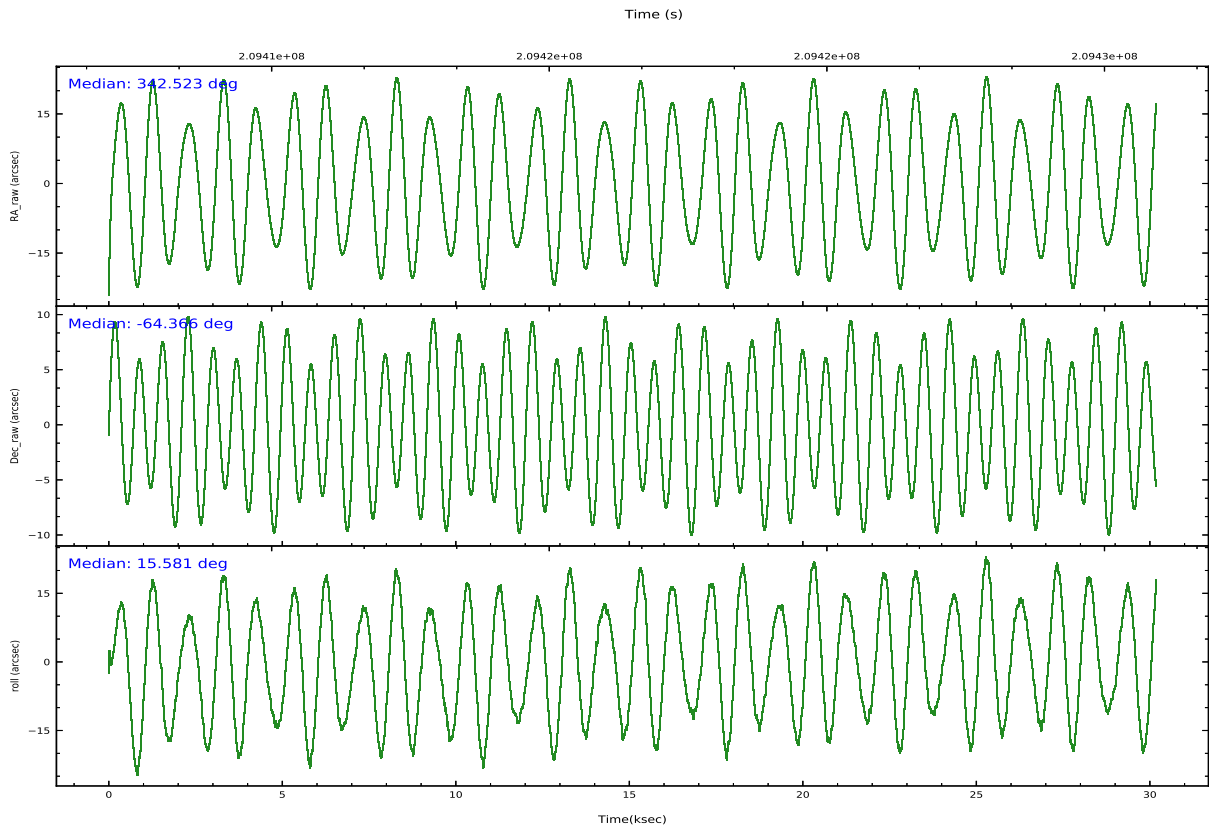
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	14324	39277	7672	10690	6494
	7%	18%	3%	5%	3%
grade 1 events	136	223	124	119	69
	0%	0%	0%	0%	0%
grade 2 events	5206	8255	4487	4358	4039
	2%	3%	2%	2%	2%
grade 3 events	2490	3401	2037	2237	2218
	1%	1%	1%	1%	1%
grade 4 events	2311	3434	2133	2189	2148
	1%	1%	1%	1%	1%
grade 5 events	6468	7130	6182	7440	7479
	3%	3%	3%	3%	3%
grade 6 events	3821	5156	3520	3620	4087
	2%	2%	1%	1%	2%
grade 7 events	149161	148627	173378	165868	166948
	81%	68%	86%	84%	86%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-01236	ACIS-01236	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	342.478982	342.52033861105	Subarray requested	NONE	NONE
[deg] Pointing Dec	-64.385499	-64.369243228892	Alternating exposures requested	N	N
[deg] Pointing Roll	15.337007	15.580765595764	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	209403488.184000	209402554.72084			
Observation start date	2004-08-20T15:37:04	2004-08-20T15:22:34			
[s] Observation end time (MET)	209433488.184000	209434196.98474			
Observation end date	2004-08-20T23:57:04	2004-08-21T00:09:56			
Read mode	TIMED	TIMED			

## 2.3 Aspect





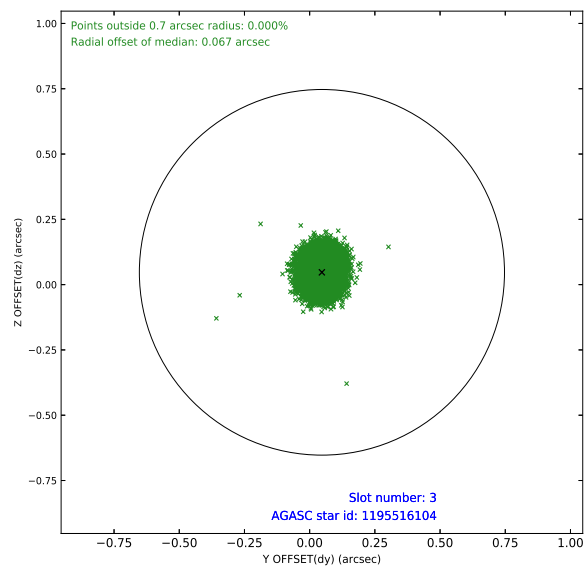
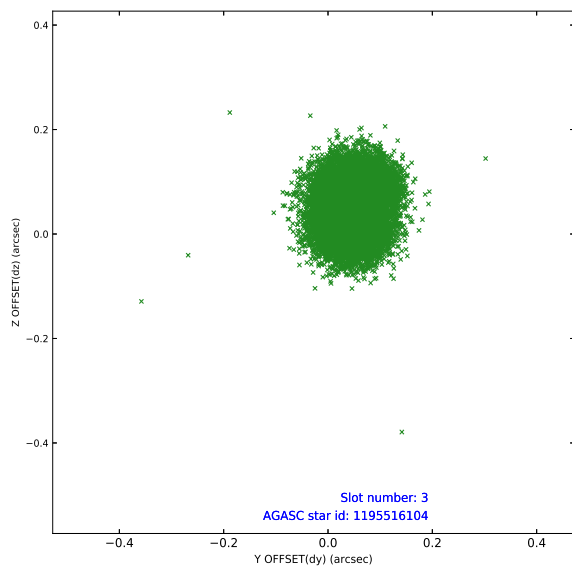
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-I-1	7.24	7361	1.000	0.012	-0.005	0.017	0.041	0.000000	0.000000	932.48	-833
1	FID		ACIS-I-5	7.23	7362	1.000	-0.193	0.019	0.009	0.021	0.000000	0.000000	-1815.81	1063
2	FID		ACIS-I-6	7.25	7361	1.000	0.088	0.058	0.014	0.025	0.000000	0.000000	398.00	1708
3	GUIDE	used	1195516104	8.22	14716	1.000	0.047	0.047	0.065	0.102	342.199615	-64.457745	-487.02	-137
4	GUIDE	used	1195519584	7.37	14720	1.000	-0.065	-0.052	0.077	0.132	341.141289	-63.953912	-1634.39	2036
5	GUIDE	used	1196435400	7.73	14722	1.000	0.029	-0.036	0.053	0.085	343.317051	-63.764930	1874.84	1793
6	GUIDE	used	1196439480	8.97	14714	1.000	0.070	0.047	0.078	0.128	343.915909	-64.377153	2158.86	-586
7	GUIDE	used	1196439840	7.24	14719	1.000	-0.094	-0.007	0.051	0.085	343.200523	-64.907990	563.77	-2111

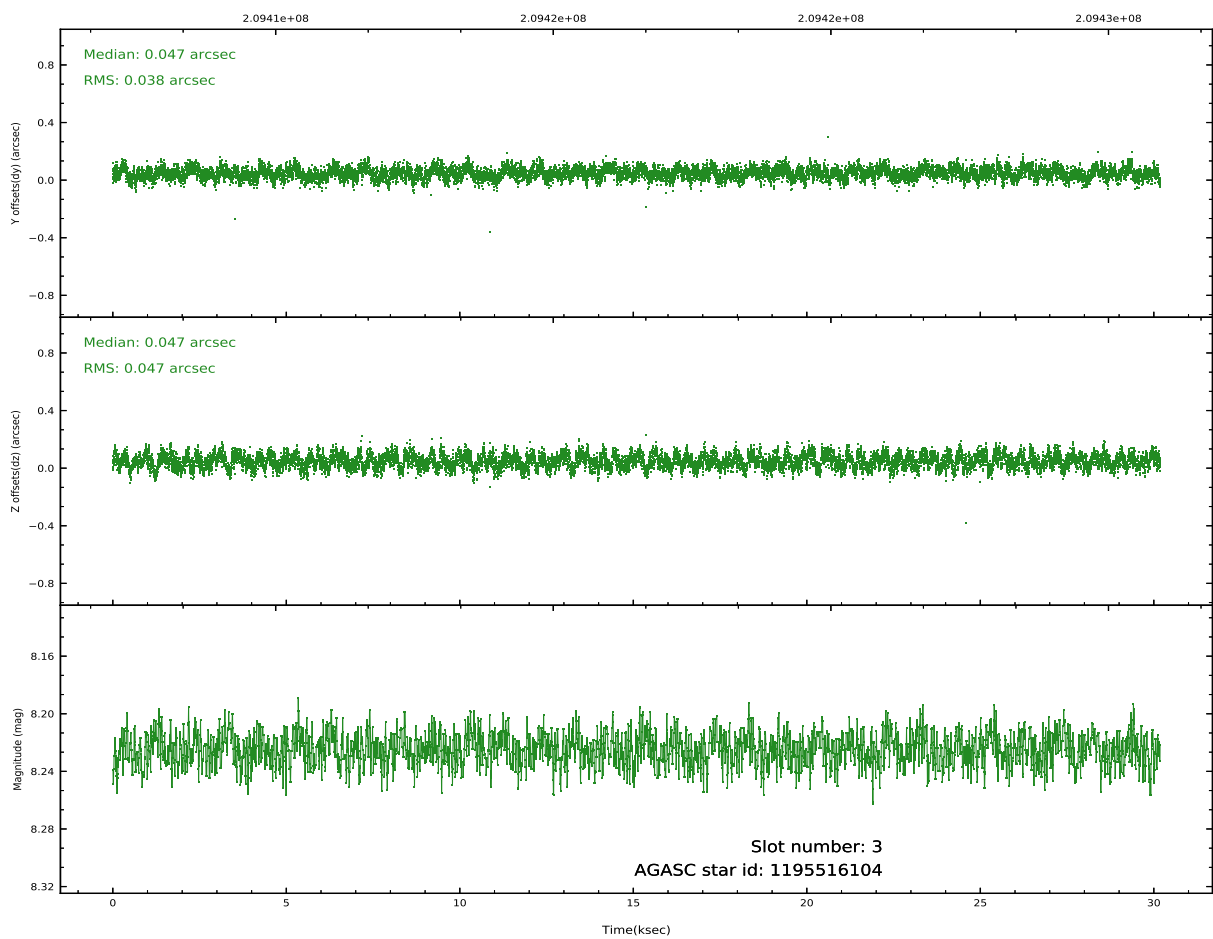
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## 2.4 Star Slots

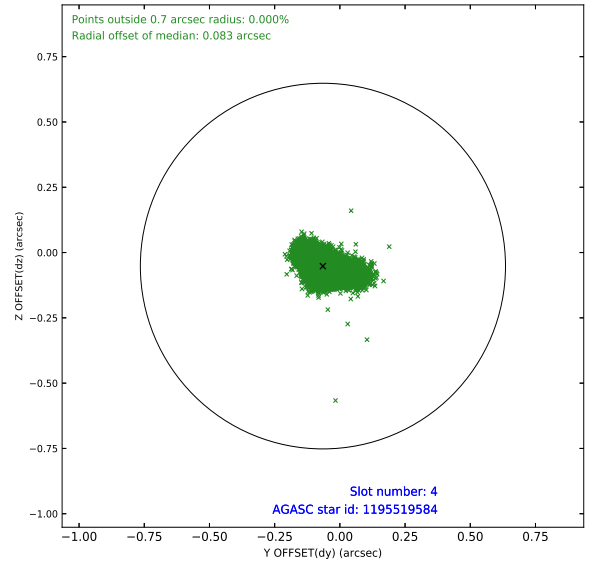
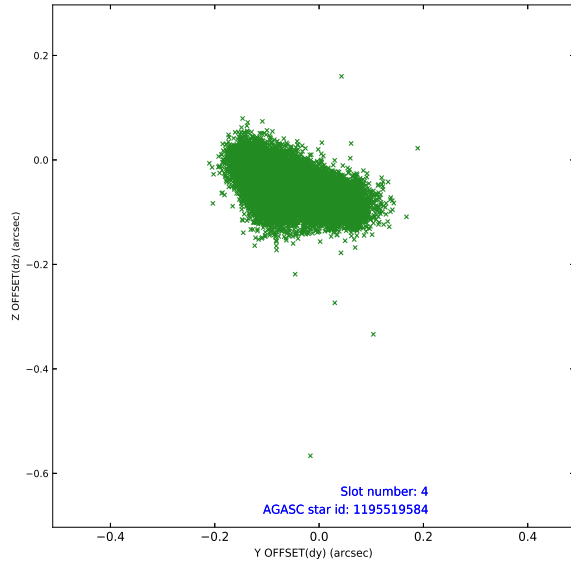
### 2.4.1 Slot 3



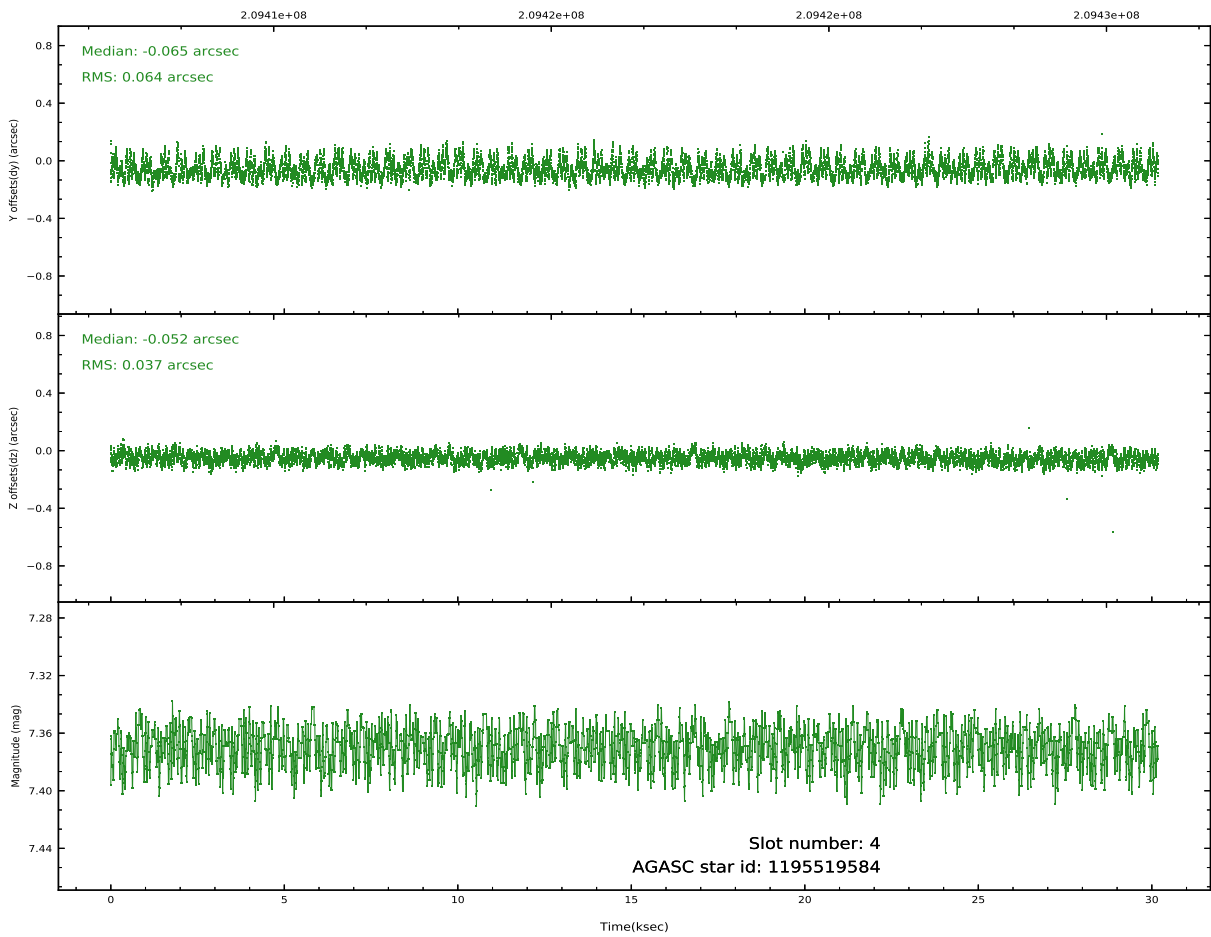
Time (s)



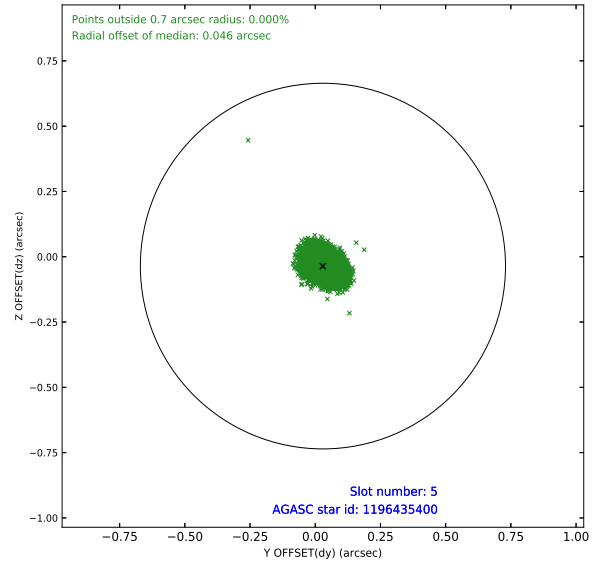
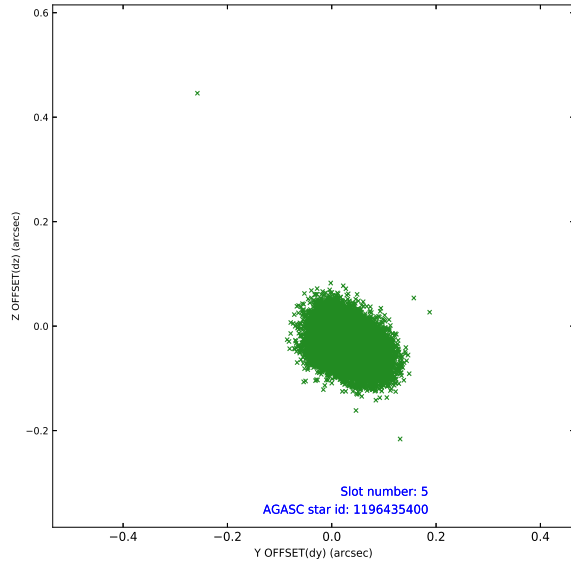
## 2.4.2 Slot 4



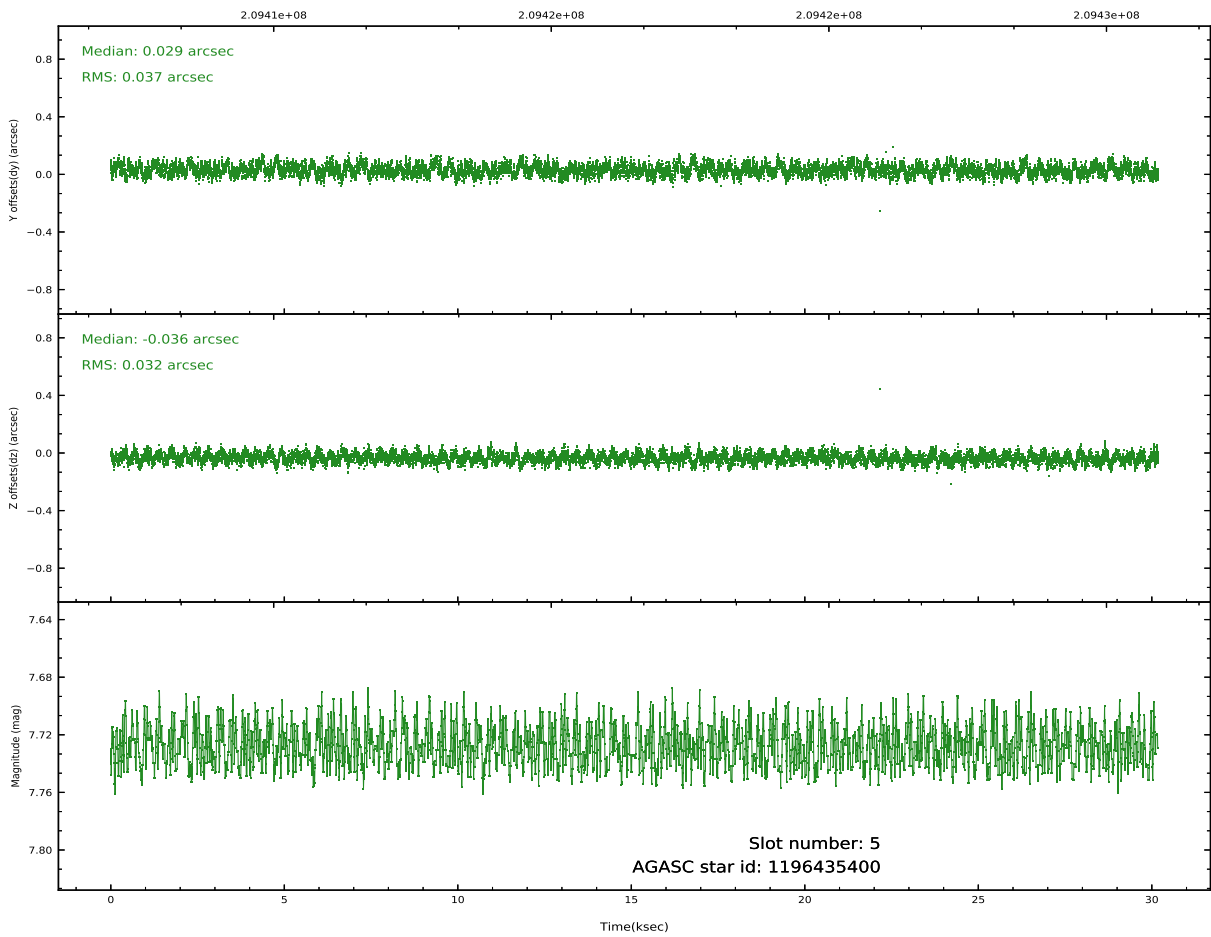
Time (s)



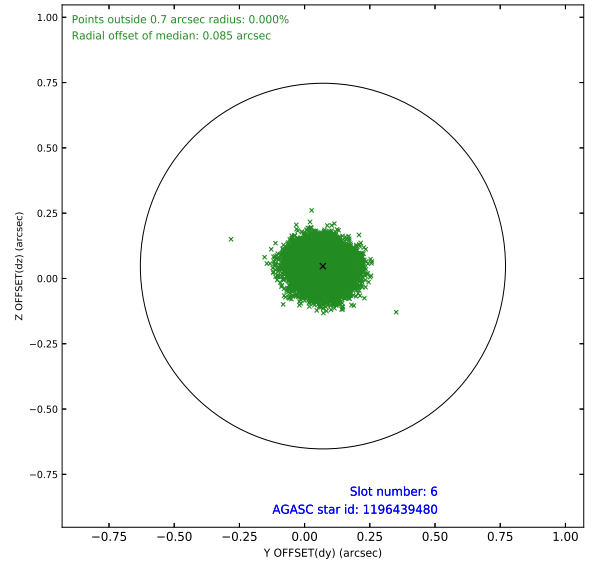
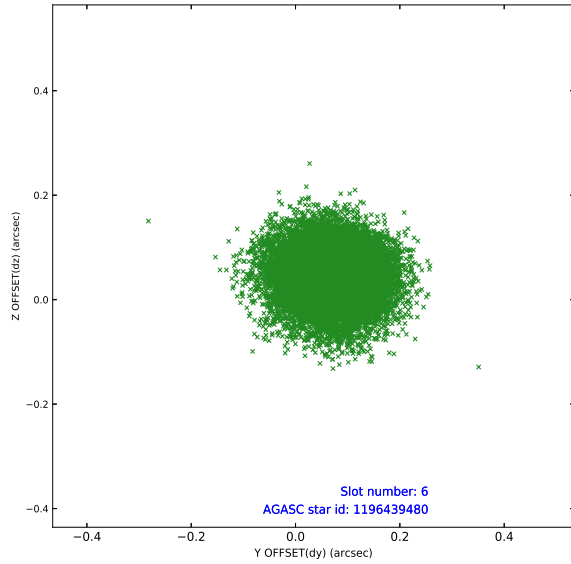
### 2.4.3 Slot 5



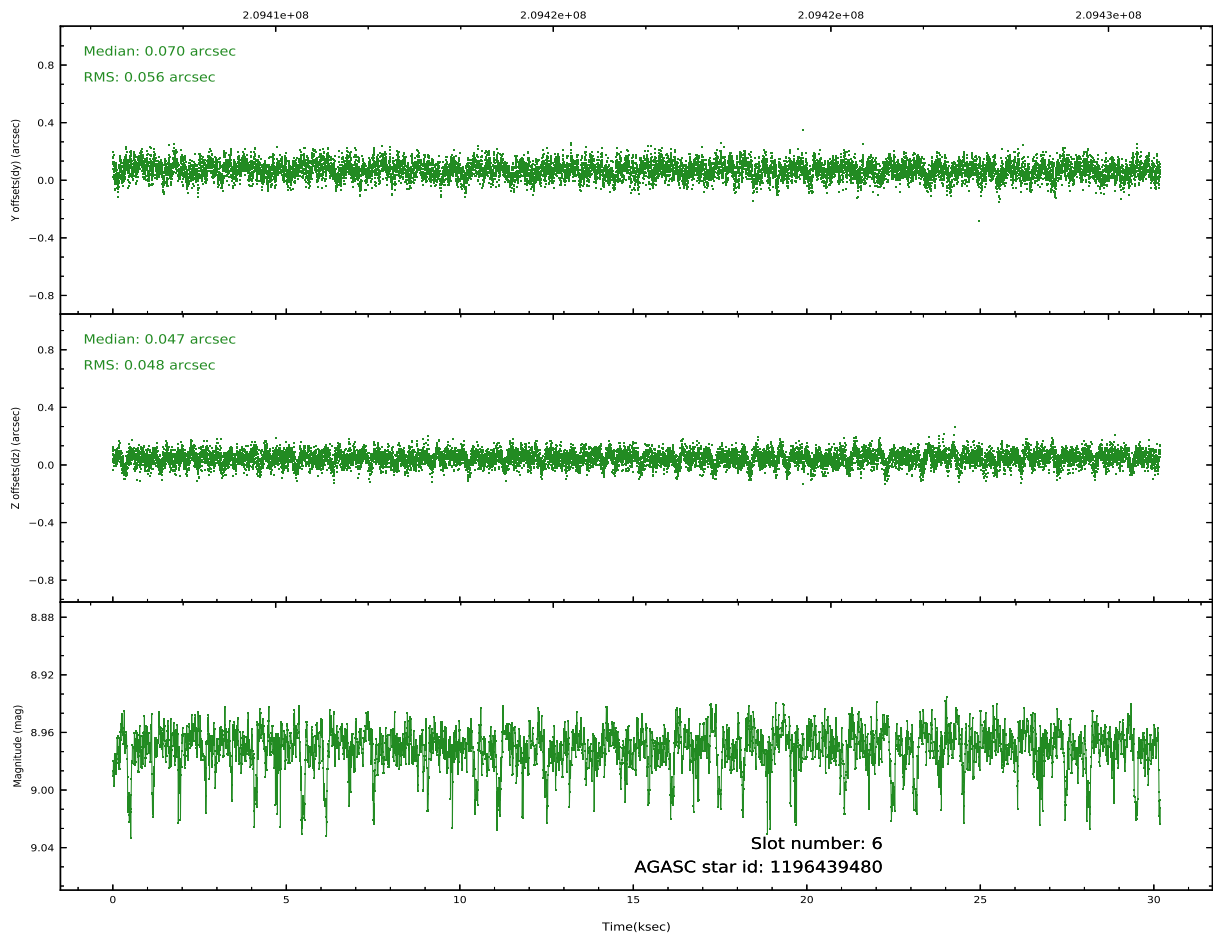
Time (s)



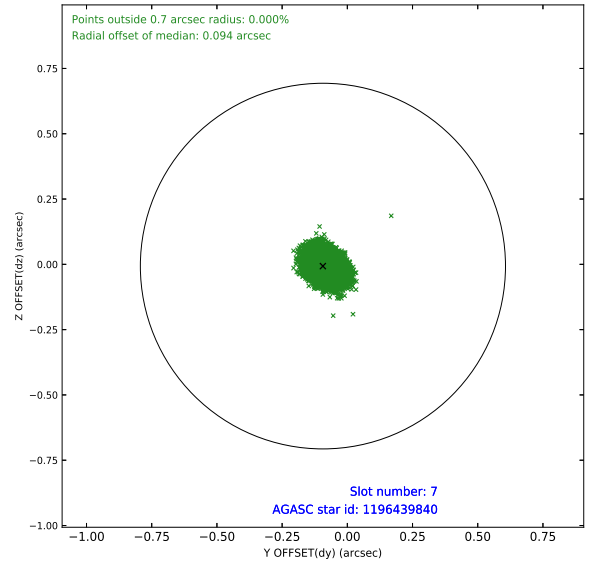
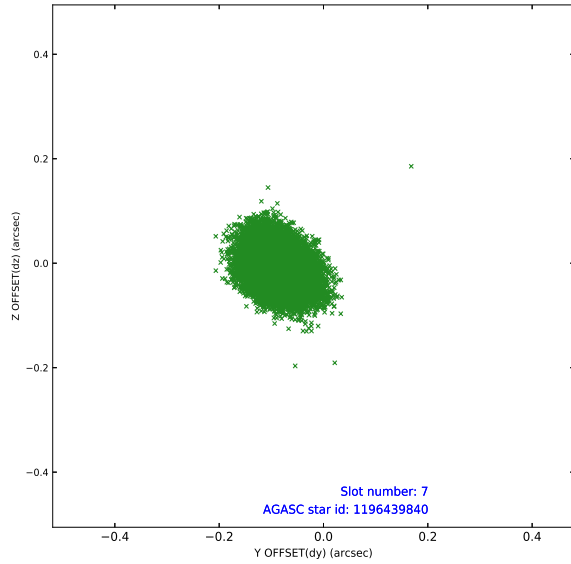
## 2.4.4 Slot 6



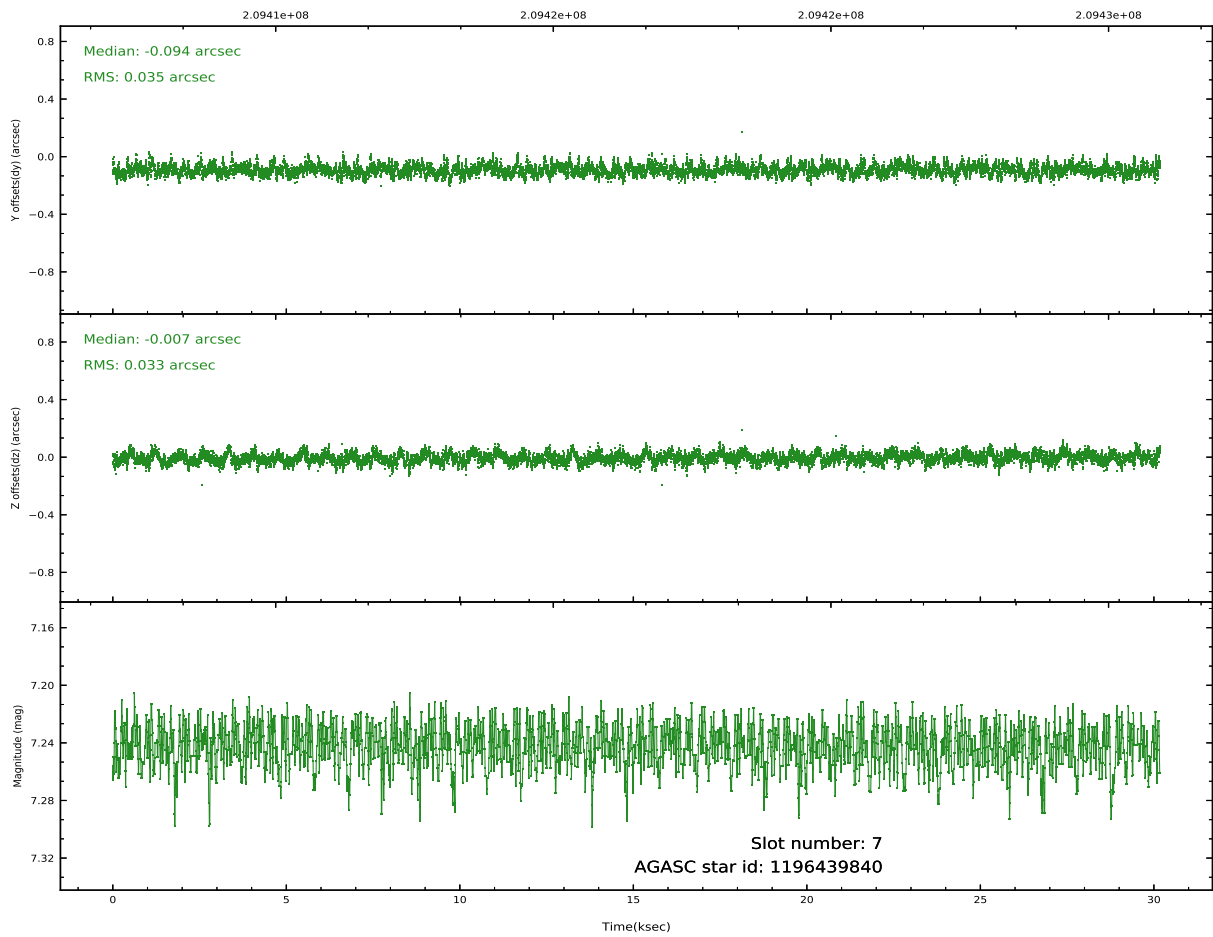
Time (s)



## 2.4.5 Slot 7

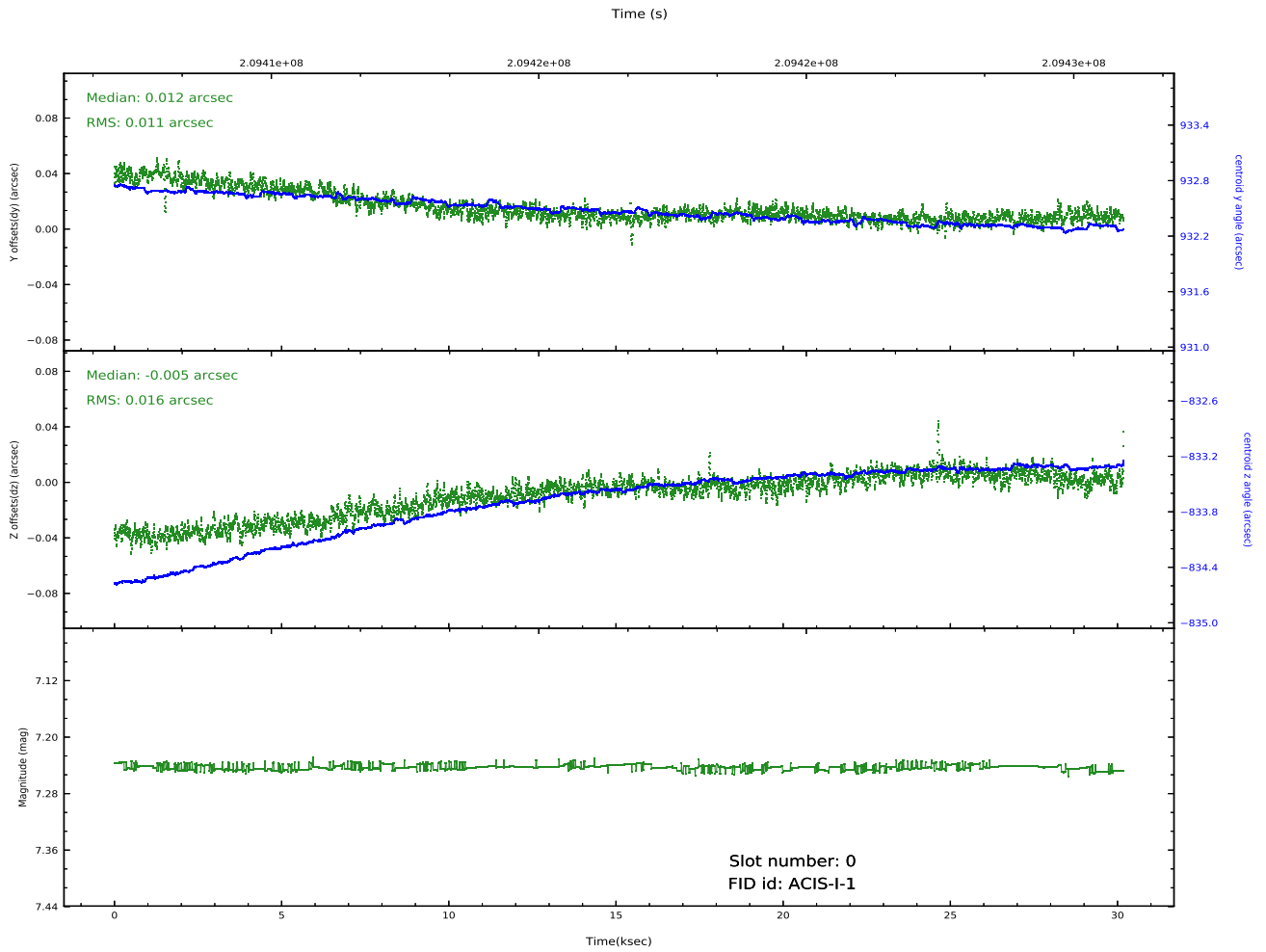
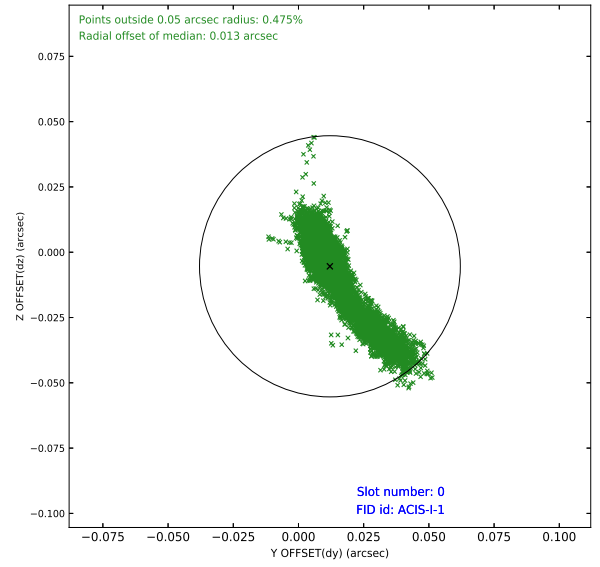
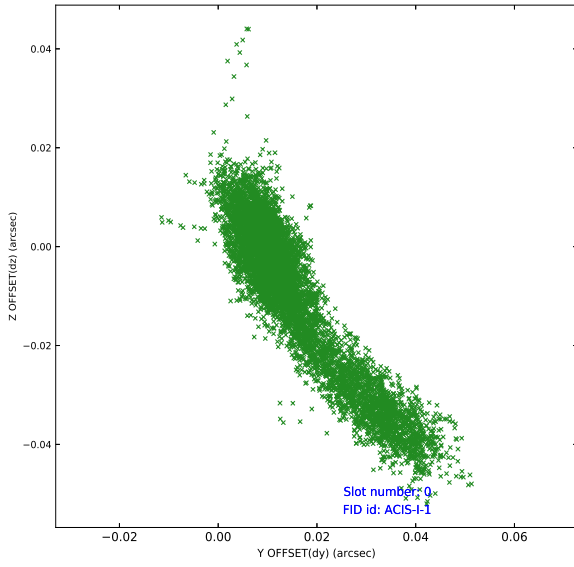


Time (s)

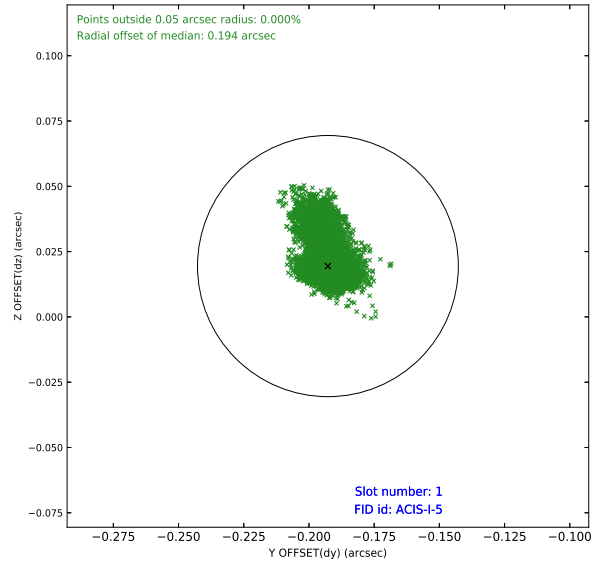
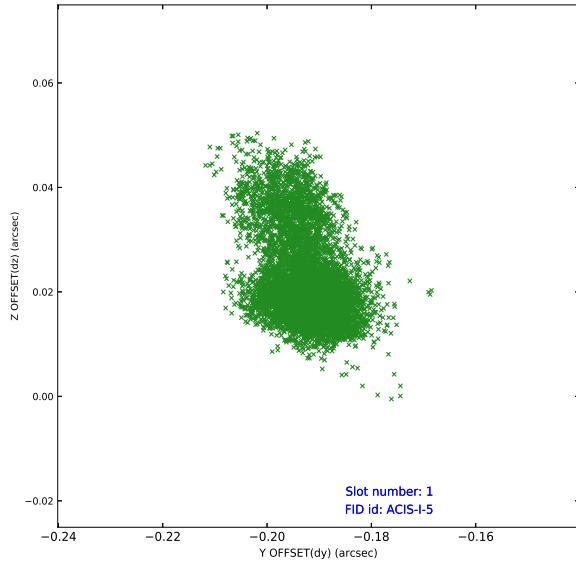


## 2.5 FID Slots

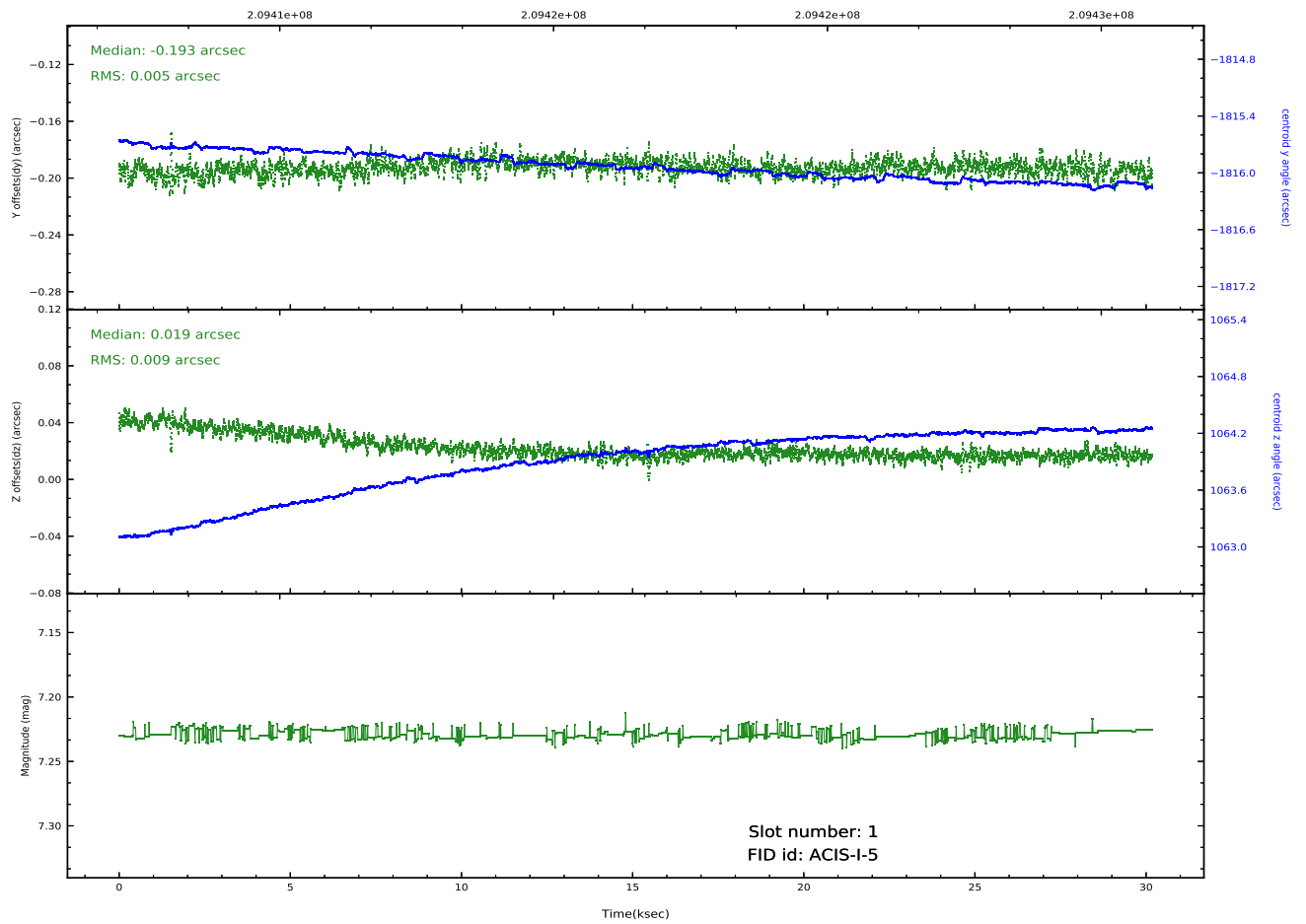
### 2.5.1 Slot 0



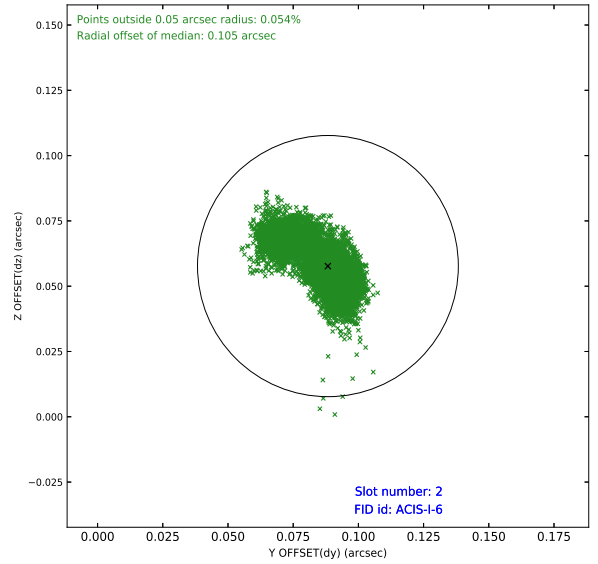
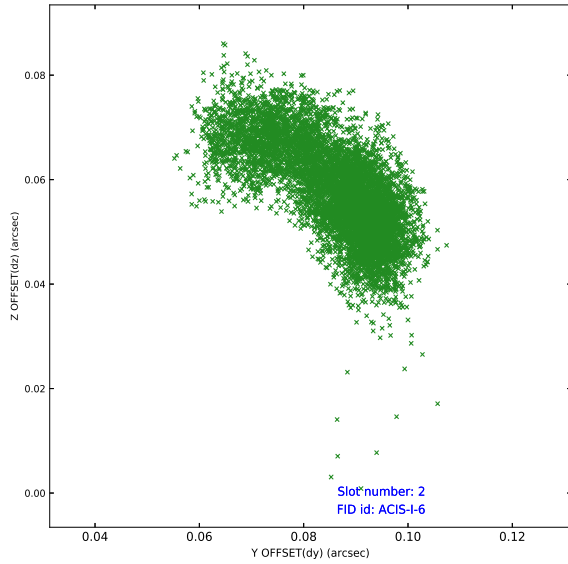
## 2.5.2 Slot 1



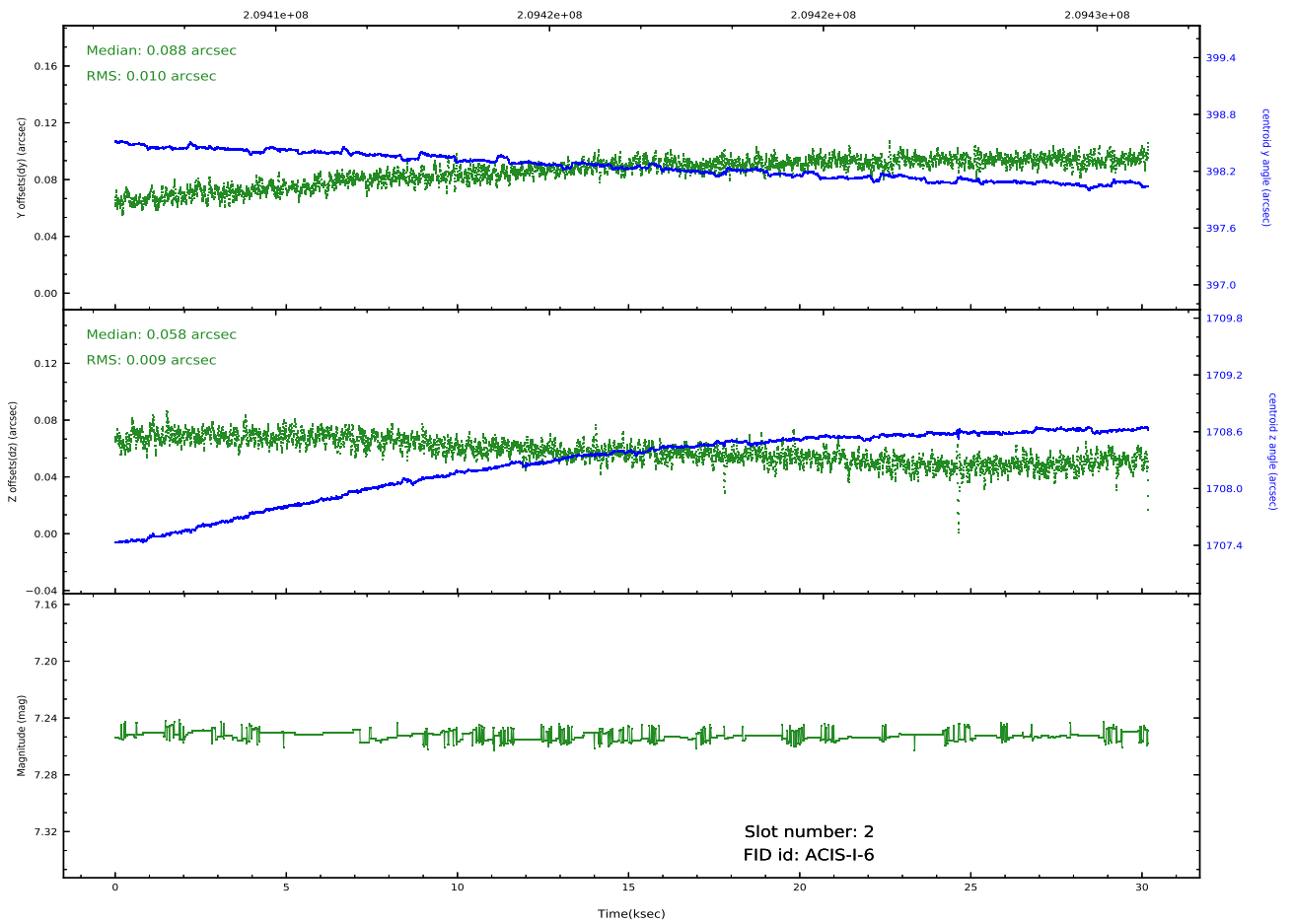
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.09.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.762

## A.2 Comments