

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4922 - L2 Version 4  
Chandra X-Ray Center

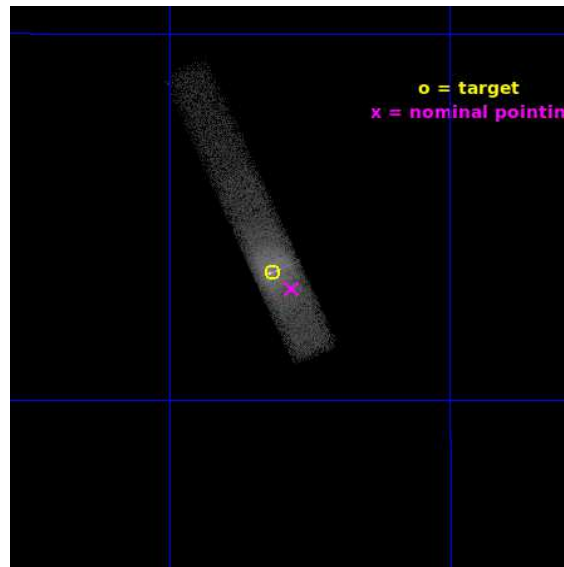
L2 Processing Date : Sep 26 2020

## 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

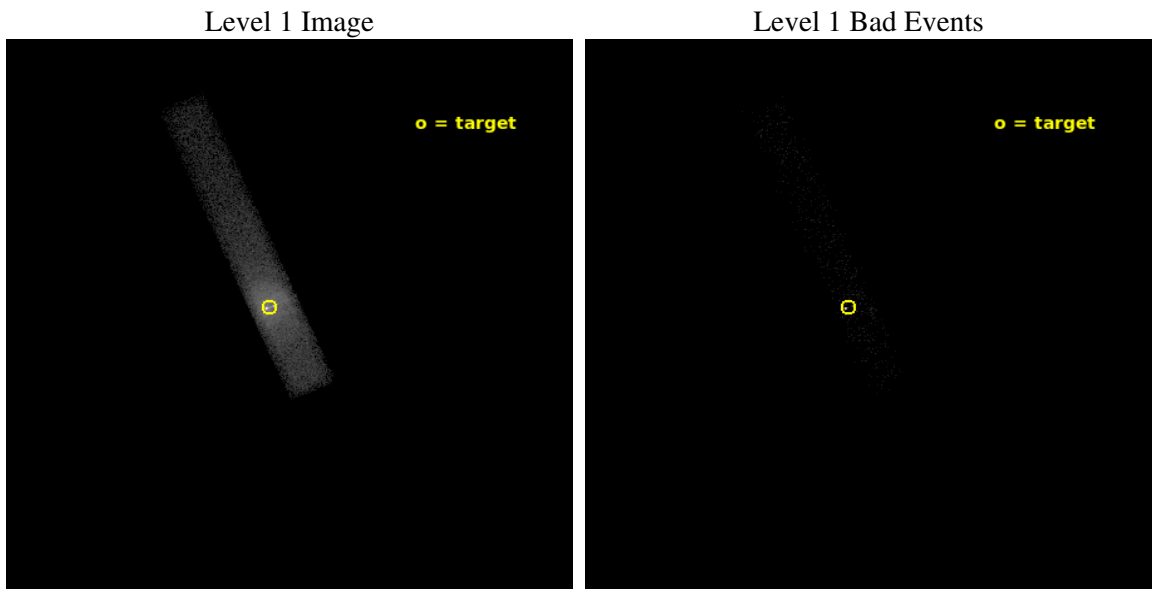
seq_num	701003	Sequence number
obs_id	4922	Observation id
title	HST/Chandra Monitoring of a Dramatic Flare in the M87 Jet	Proposal
observer	Dr. John Biretta	Principal investigator
object	M87	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.704167	Observer's specified target RA [deg]
dec_targ	12.391667	Observer's specified target Dec [deg]
ra_nom	187.69548020985	Nominal RA [deg]
dec_nom	12.38416204123	Nominal Dec [deg]
roll_nom	246.29657129496	Nominal Roll [deg]
revision	4	Processing version of data
ontime	5009.4490185976	Sum of GTIs [s]
livetime	4543.3058394682	Livetime [s]
ontime7	5009.4490185976	Sum of GTIs [s]
l2events	57705	Number of level 2 events



## 2 OBI

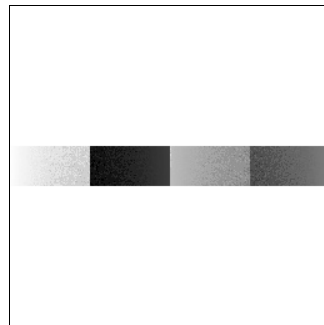
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	5009.4490185976	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime7	5009.4490185976	Sum of GTIs [s]
date	2020-09-26T20:14:19	Date and time of file creation	l1events	66529	Number of level 1 events
revision	4	Processing version of data			

### 2.1.4 Events

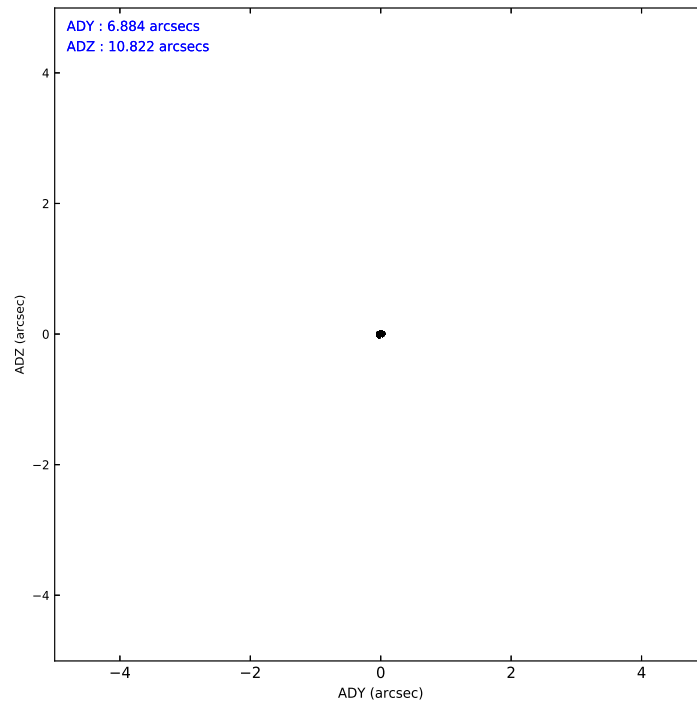
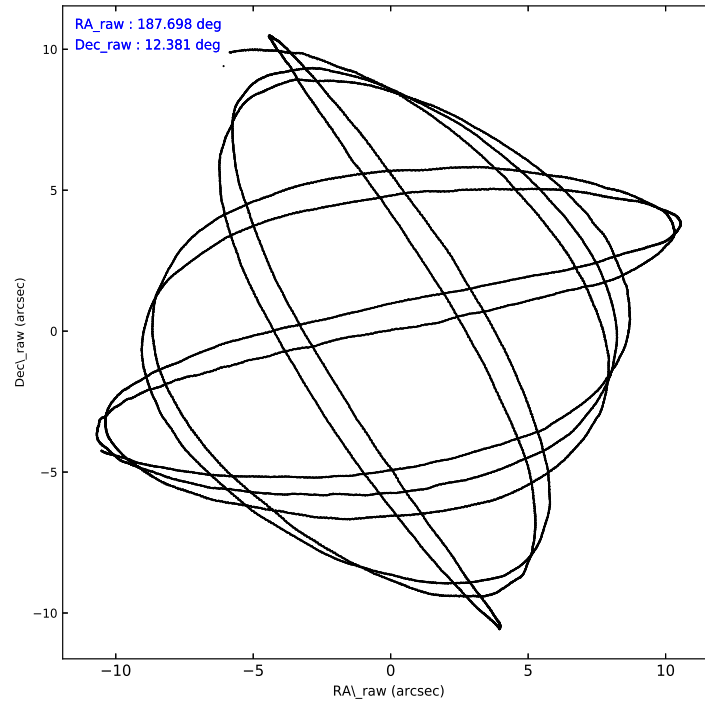
	<b>ccd 7</b>
level 1 events	66529
rejected events	8289
rejected %	12%

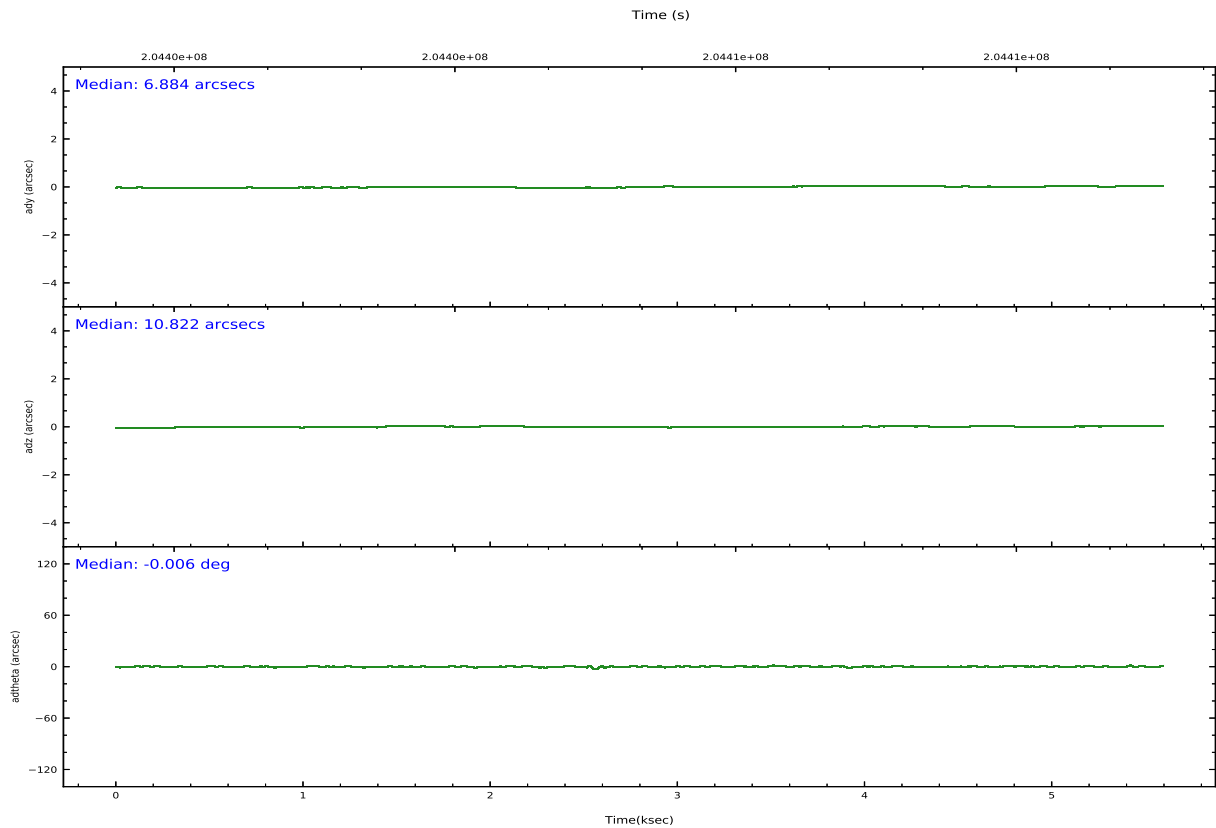
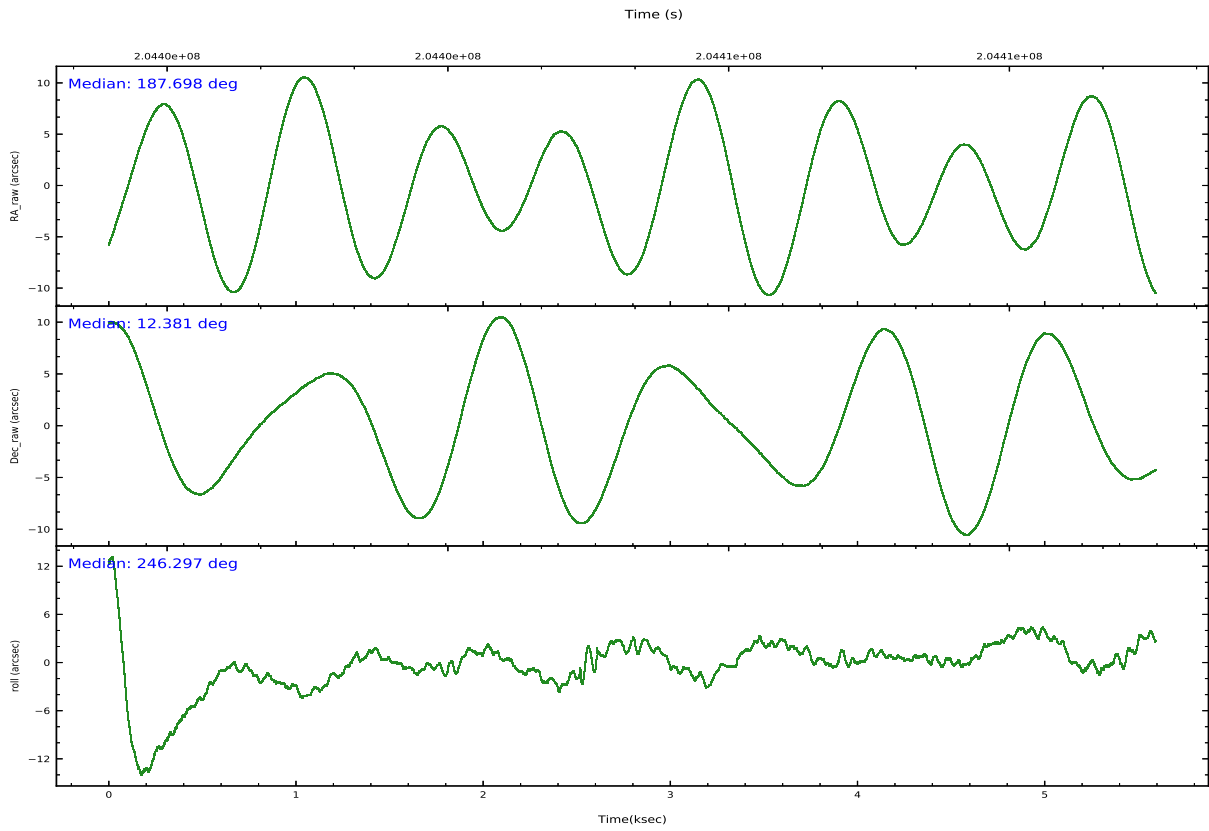
	<b>ccd 7</b>
grade 0 events	17784
	26%
grade 1 events	423
	0%
grade 2 events	14701
	22%
grade 3 events	6793
	10%
grade 4 events	6530
	9%
grade 5 events	2415
	3%
grade 6 events	12441
	18%
grade 7 events	5442
	8%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-7	ACIS-7	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	187.694052	187.69548020985	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	12.408061	12.38416204123	Subarray start row	449	449
[deg] Pointing Roll	246.144500	246.29657129496	Subarray row count	128	128
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.4
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	204403284.184000	204402395.39876			
Observation start date	2004-06-23T18:40:20	2004-06-23T18:26:35			
[s] Observation end time (MET)	204408284.184000	204409155.78656			
Observation end date	2004-06-23T20:03:40	2004-06-23T20:19:15			
Read mode	TIMED	TIMED			

## 2.3 Aspect





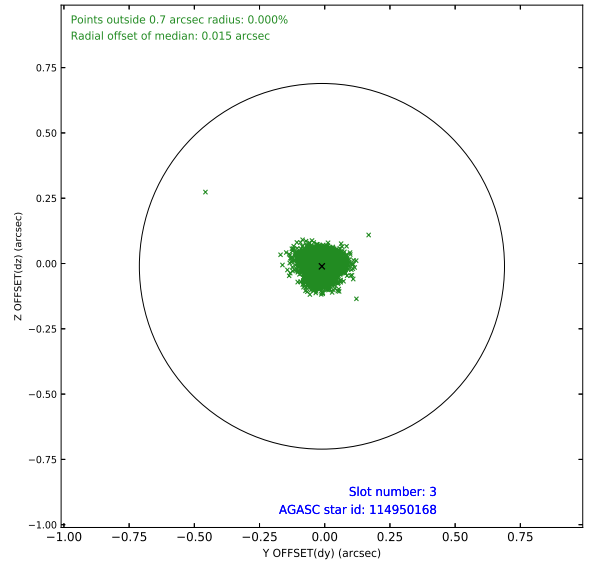
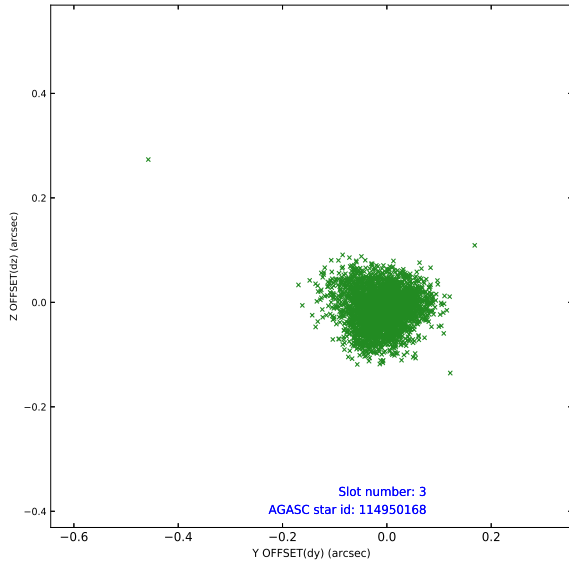
### Slot Statistics

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	1365	1.000	-0.036	-0.050	0.006	0.010	0.000000	0.000000	-759.61	-1732
1	FID		ACIS-S-5	7.24	1365	1.000	-0.048	-0.011	0.007	0.011	0.000000	0.000000	-1813.28	168
2	FID		ACIS-S-6	7.34	1365	1.000	0.058	0.069	0.006	0.009	0.000000	0.000000	400.86	813
3	GUIDE	used	114950168	7.85	2730	1.000	-0.011	-0.011	0.061	0.095	187.143398	12.117441	1739.65	-1350
4	GUIDE	used	114950584	9.21	2730	1.000	0.016	-0.016	0.092	0.159	187.487323	11.827248	2207.79	179
5	GUIDE	used	114952824	8.58	2730	1.000	-0.041	0.090	0.061	0.097	187.703904	12.486727	-271.69	-82
6	GUIDE	used	114955056	8.31	2731	1.000	-0.128	0.160	0.068	0.107	187.914001	12.127854	609.35	1115
7	GUIDE	used	114957008	8.26	2730	1.000	0.171	-0.222	0.077	0.141	186.894794	12.099160	2152.46	-2124

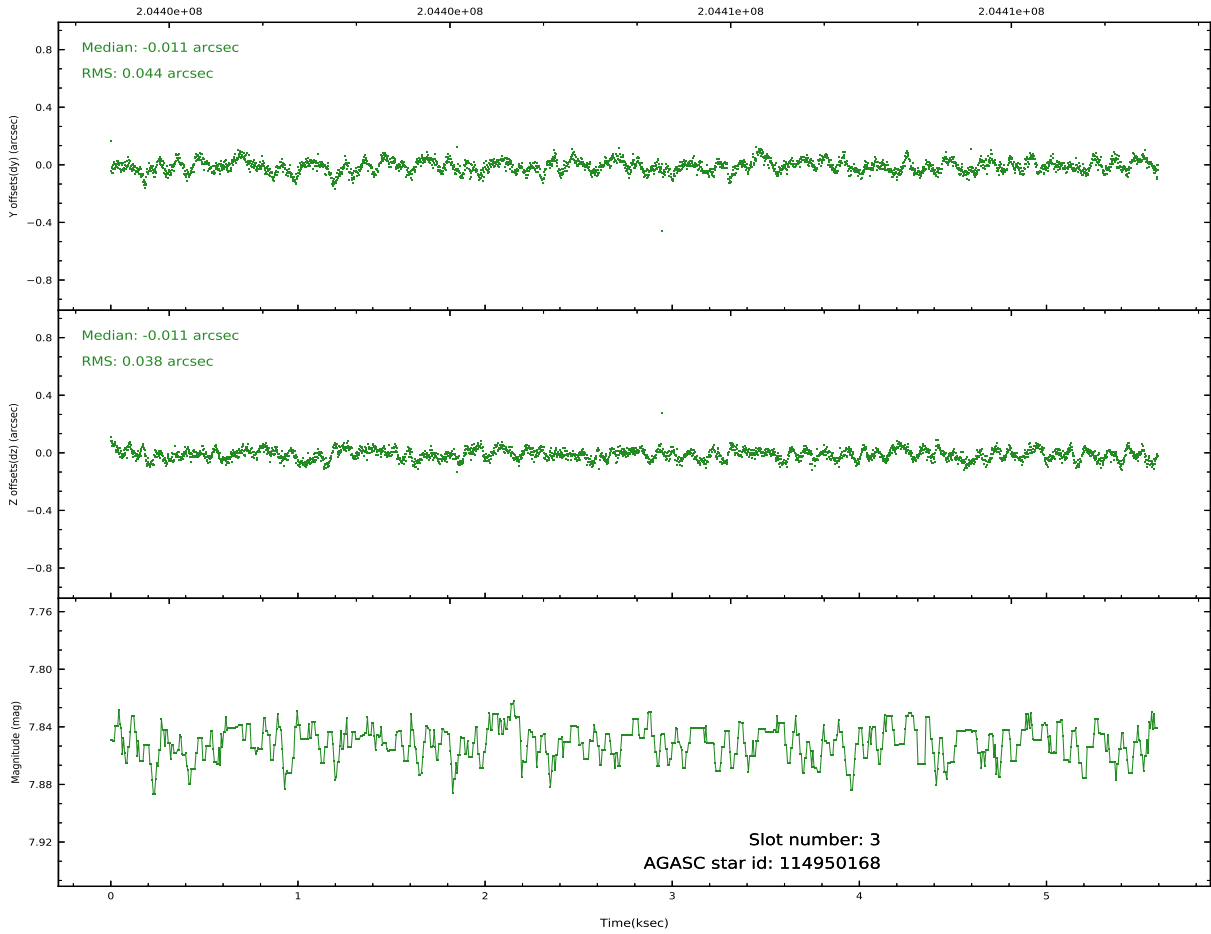
∞

## 2.4 Star Slots

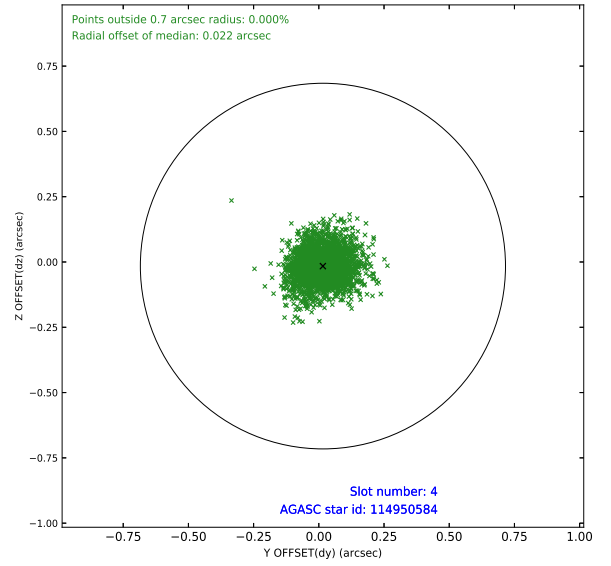
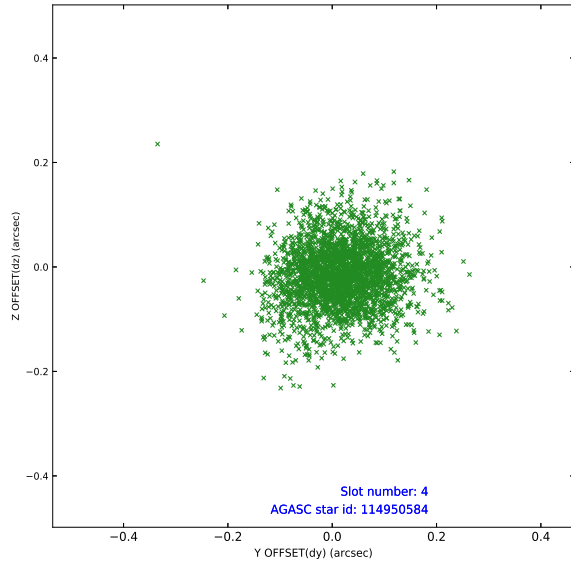
### 2.4.1 Slot 3



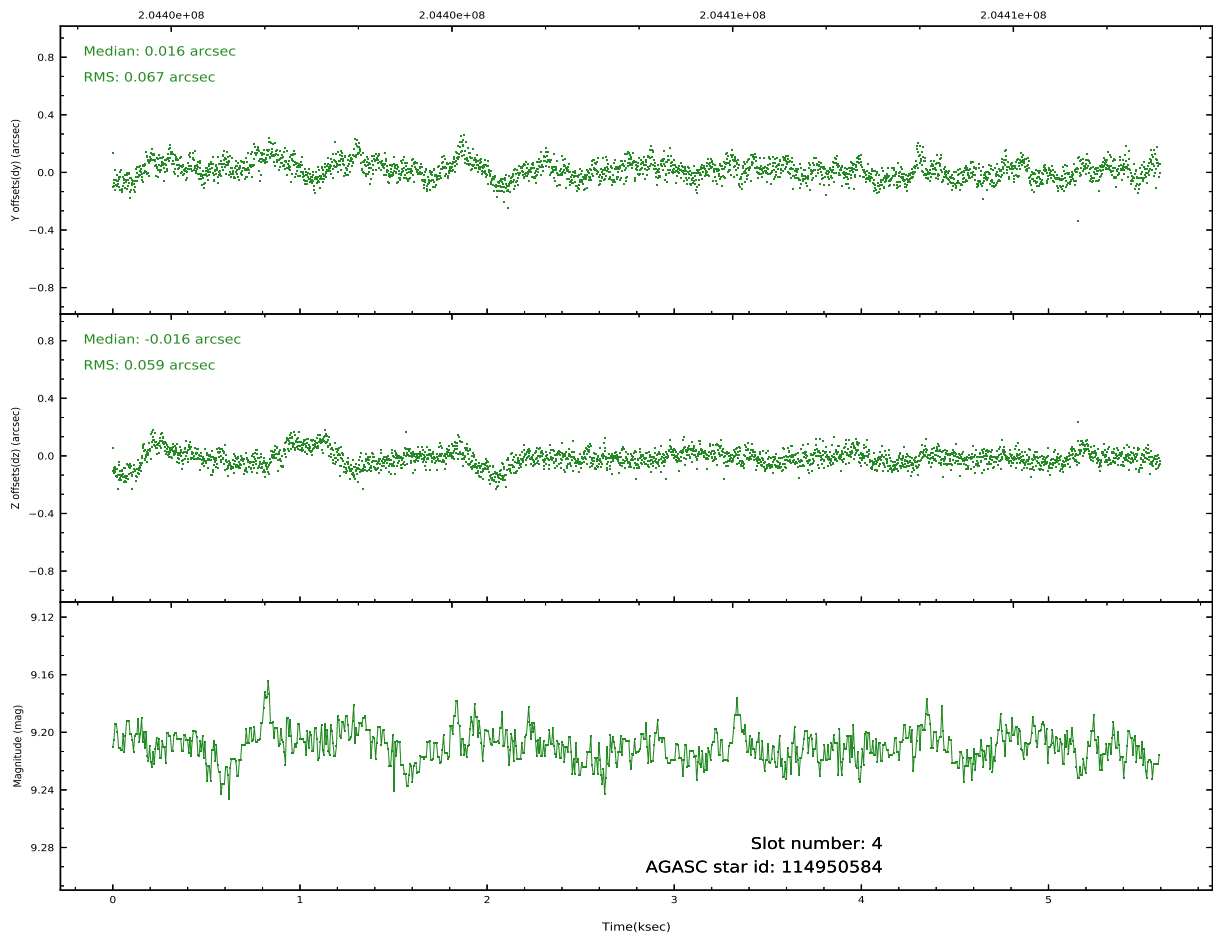
Time (s)



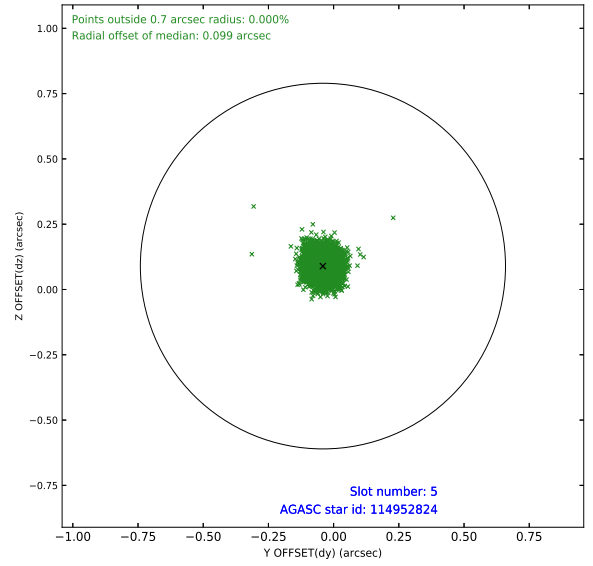
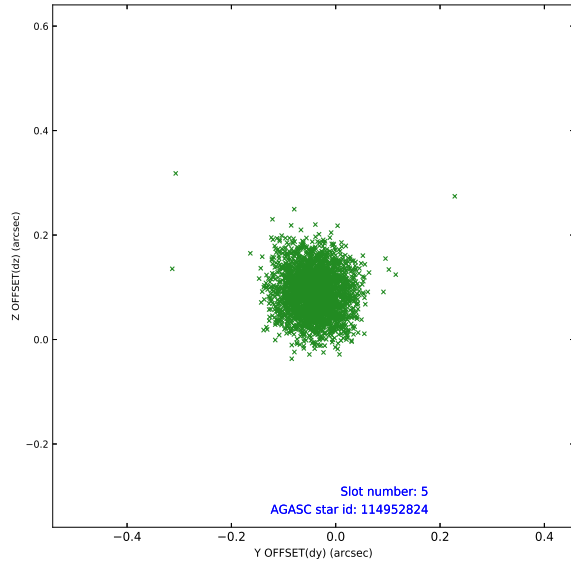
## 2.4.2 Slot 4



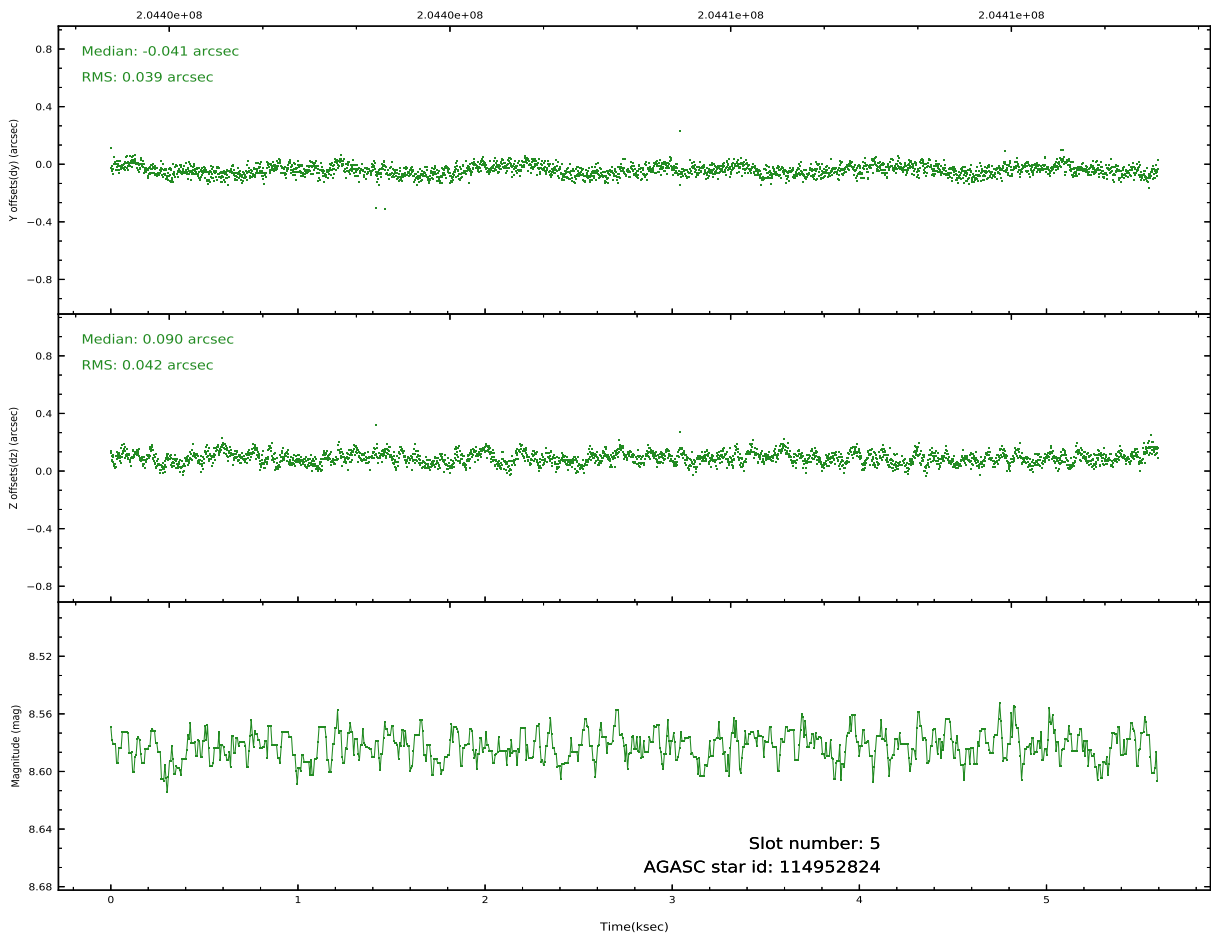
Time (s)



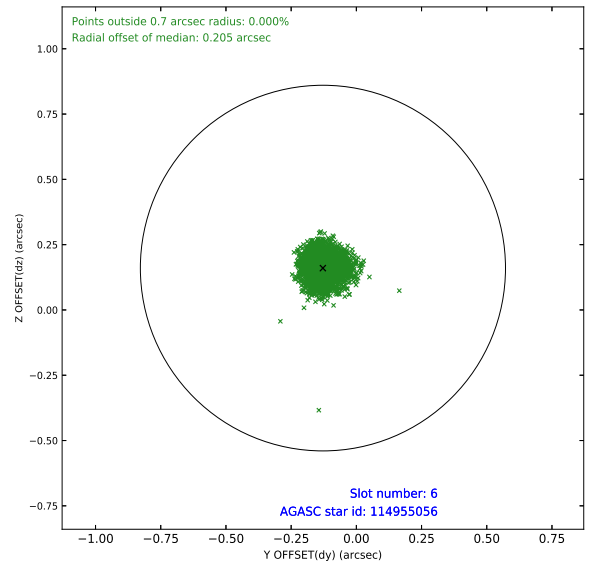
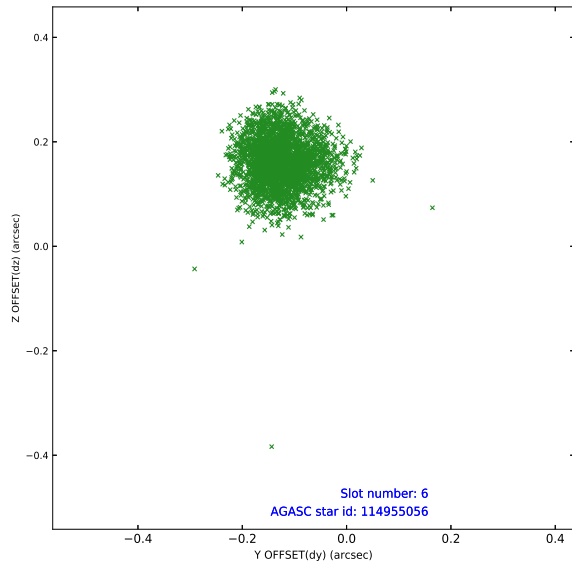
### 2.4.3 Slot 5



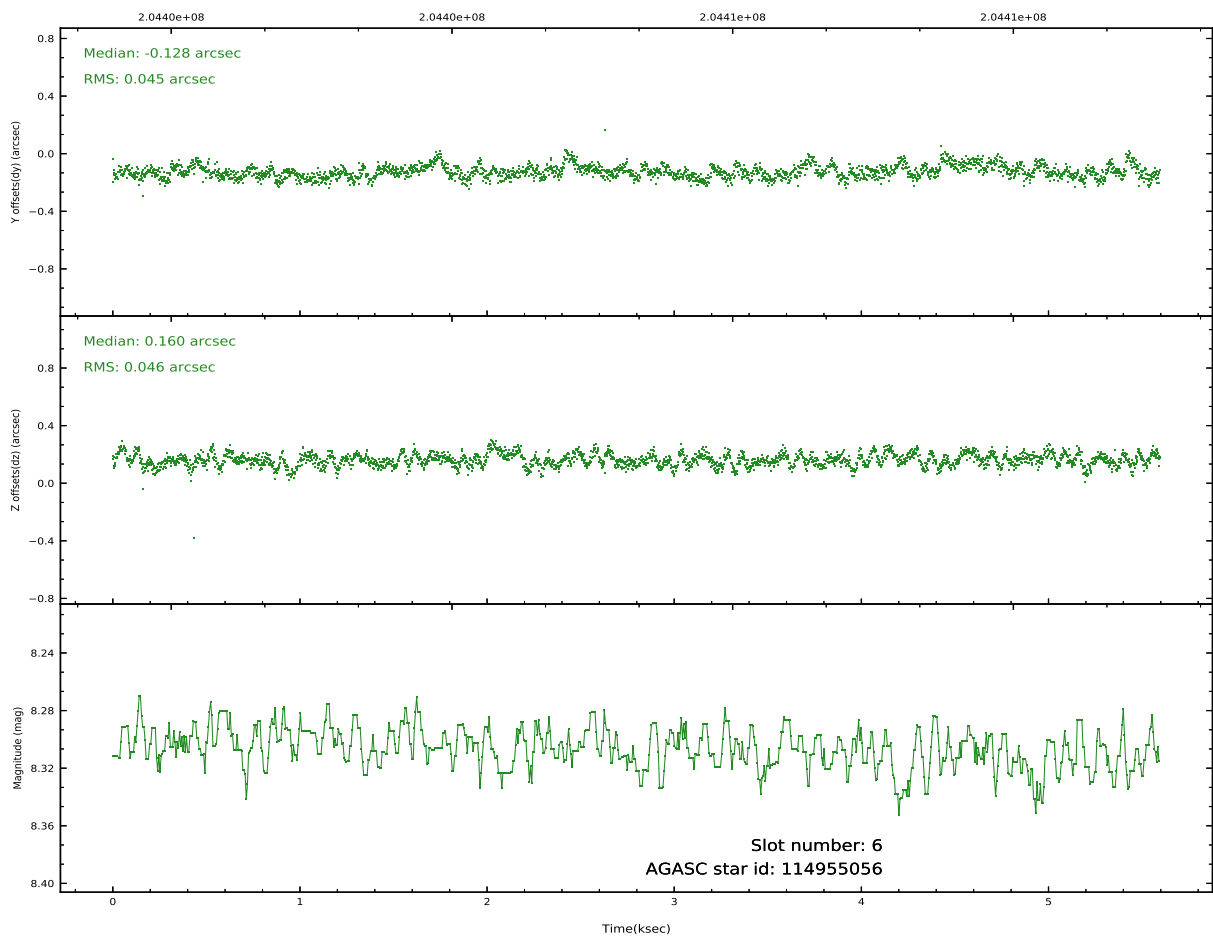
Time (s)



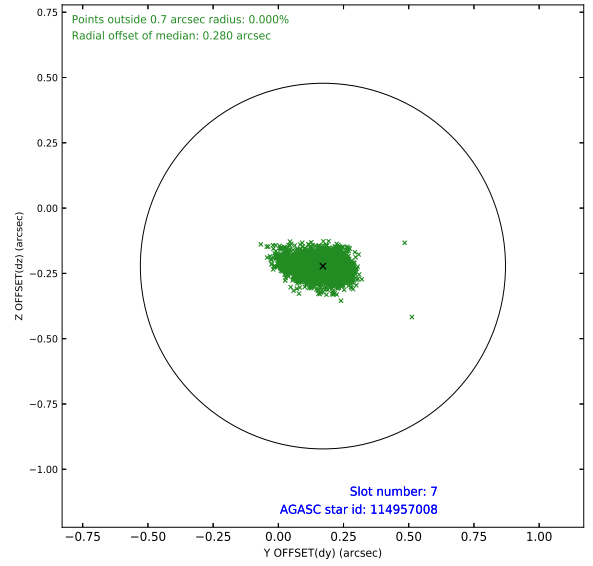
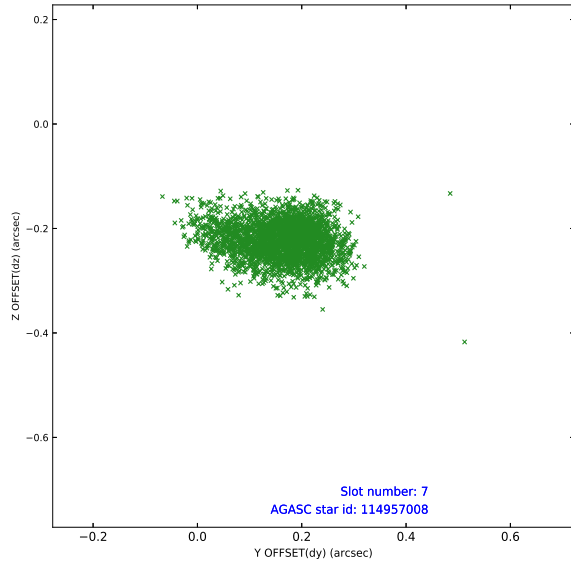
## 2.4.4 Slot 6



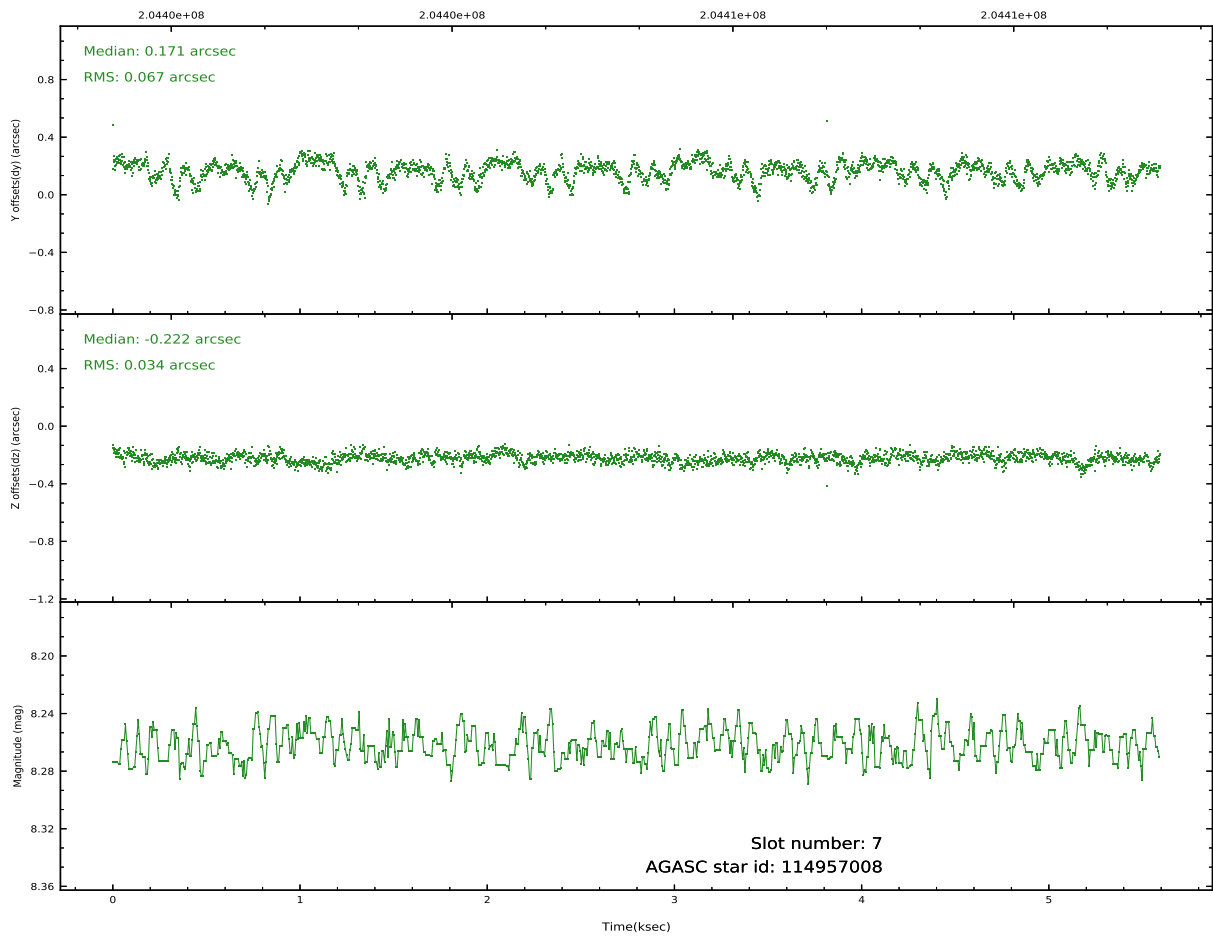
Time (s)



## 2.4.5 Slot 7

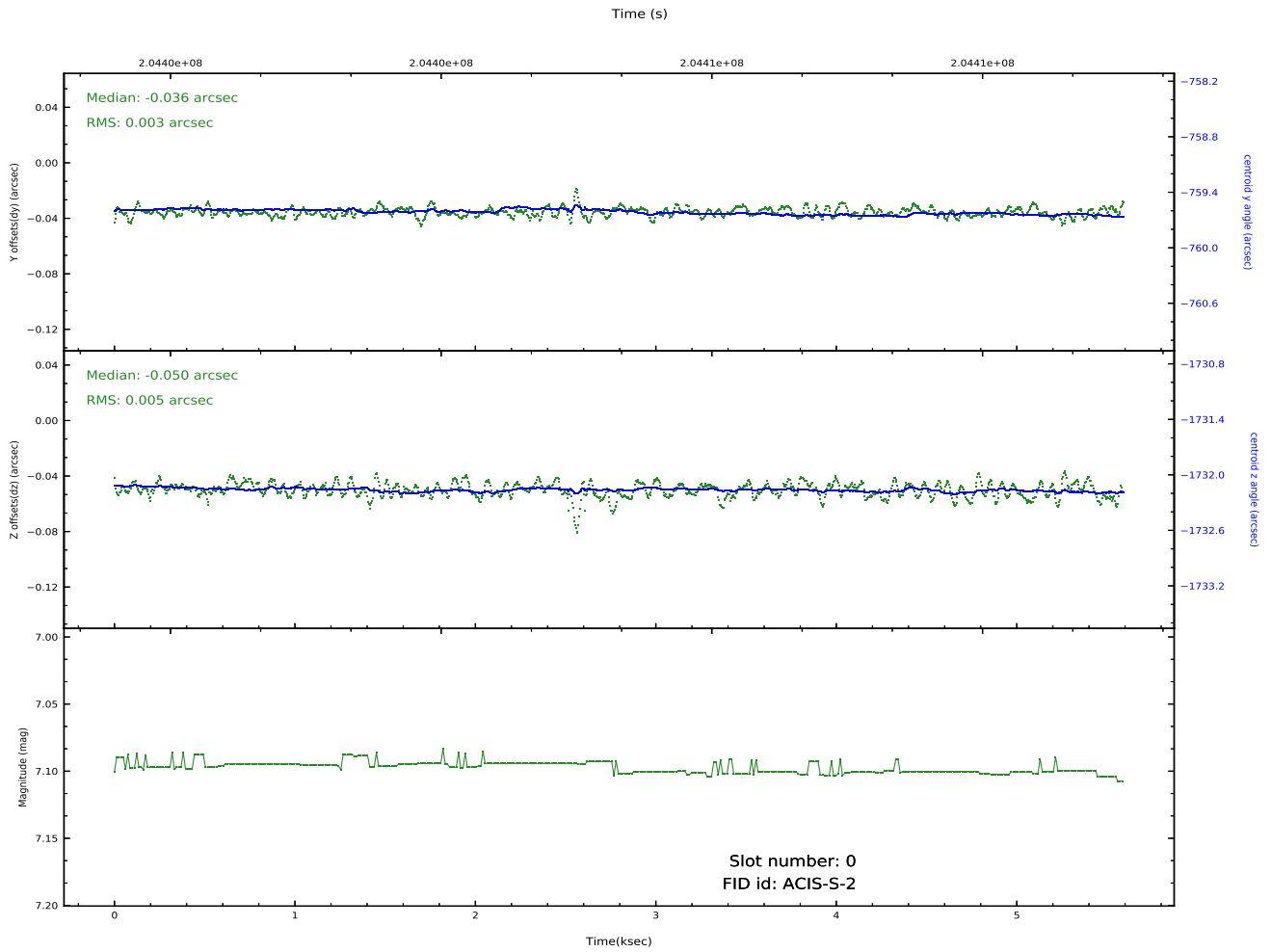
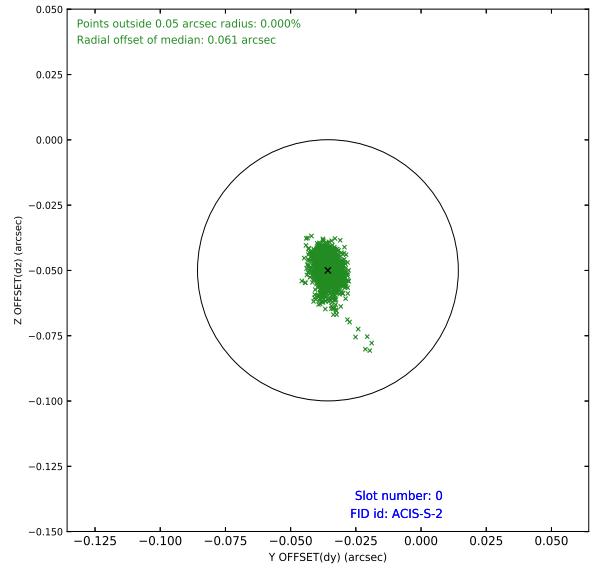
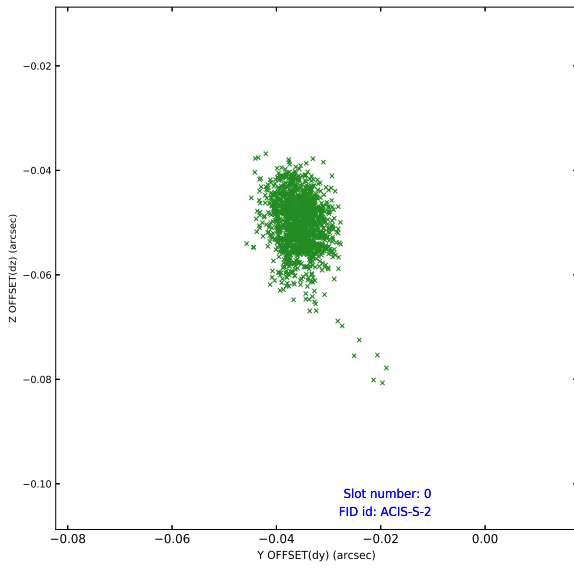


Time (s)

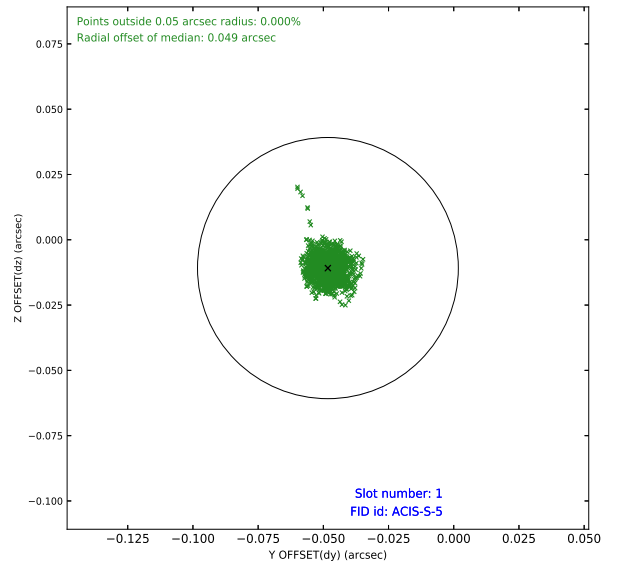
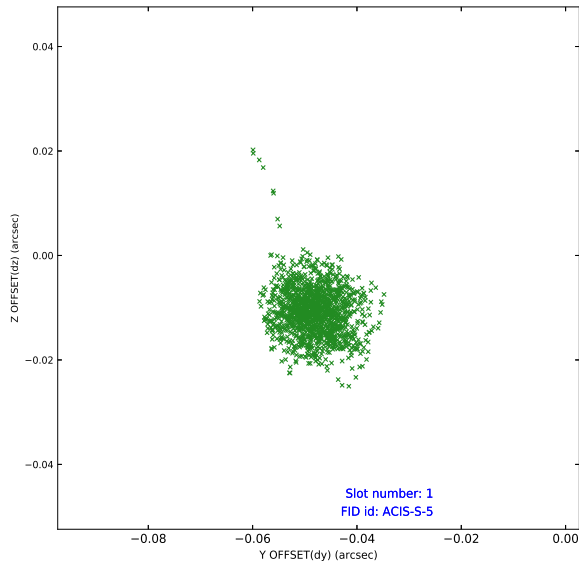


## 2.5 FID Slots

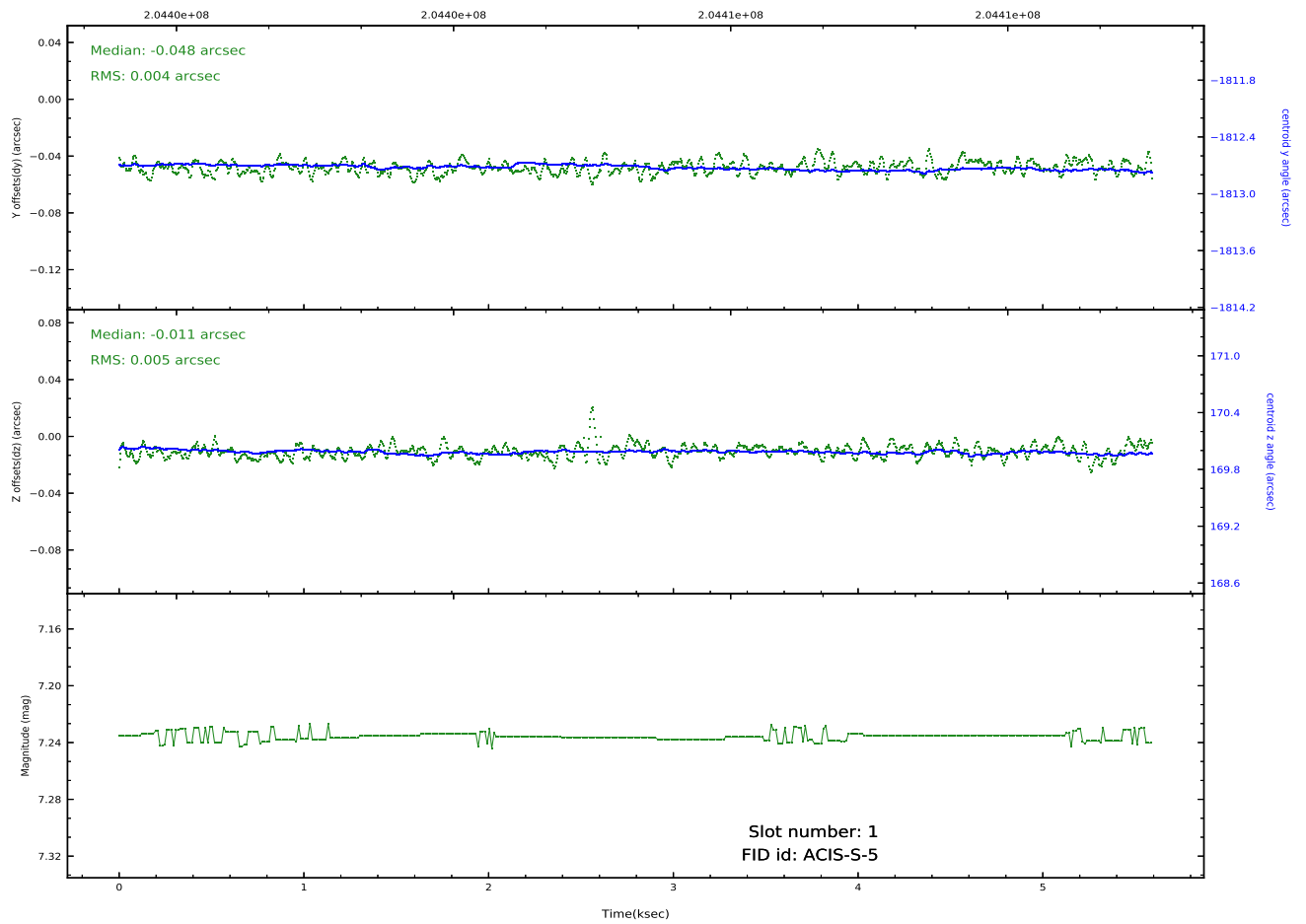
### 2.5.1 Slot 0



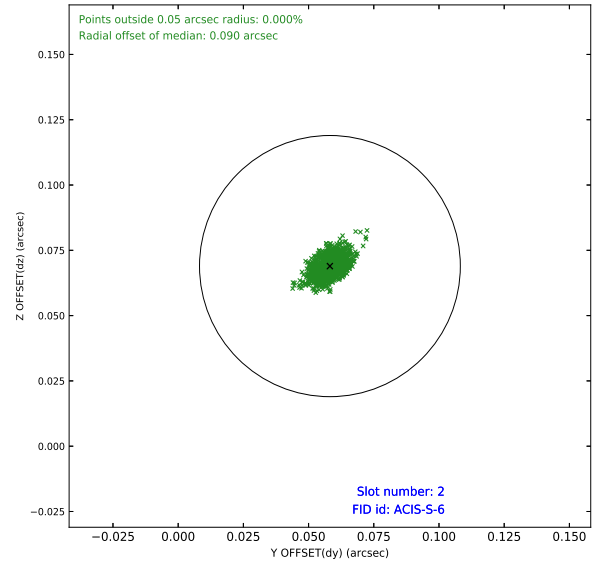
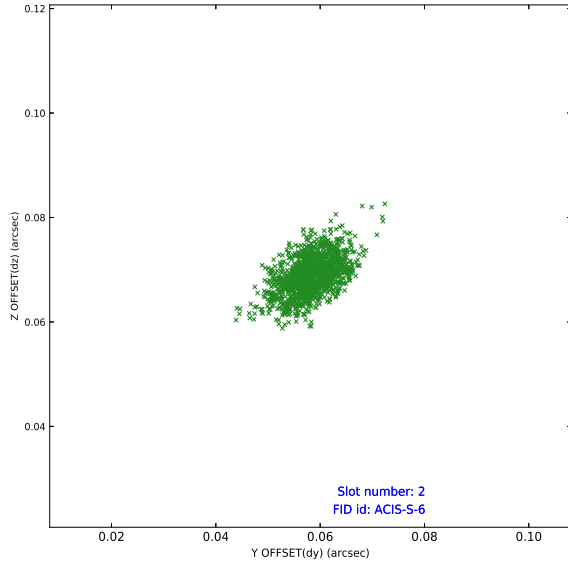
## 2.5.2 Slot 1



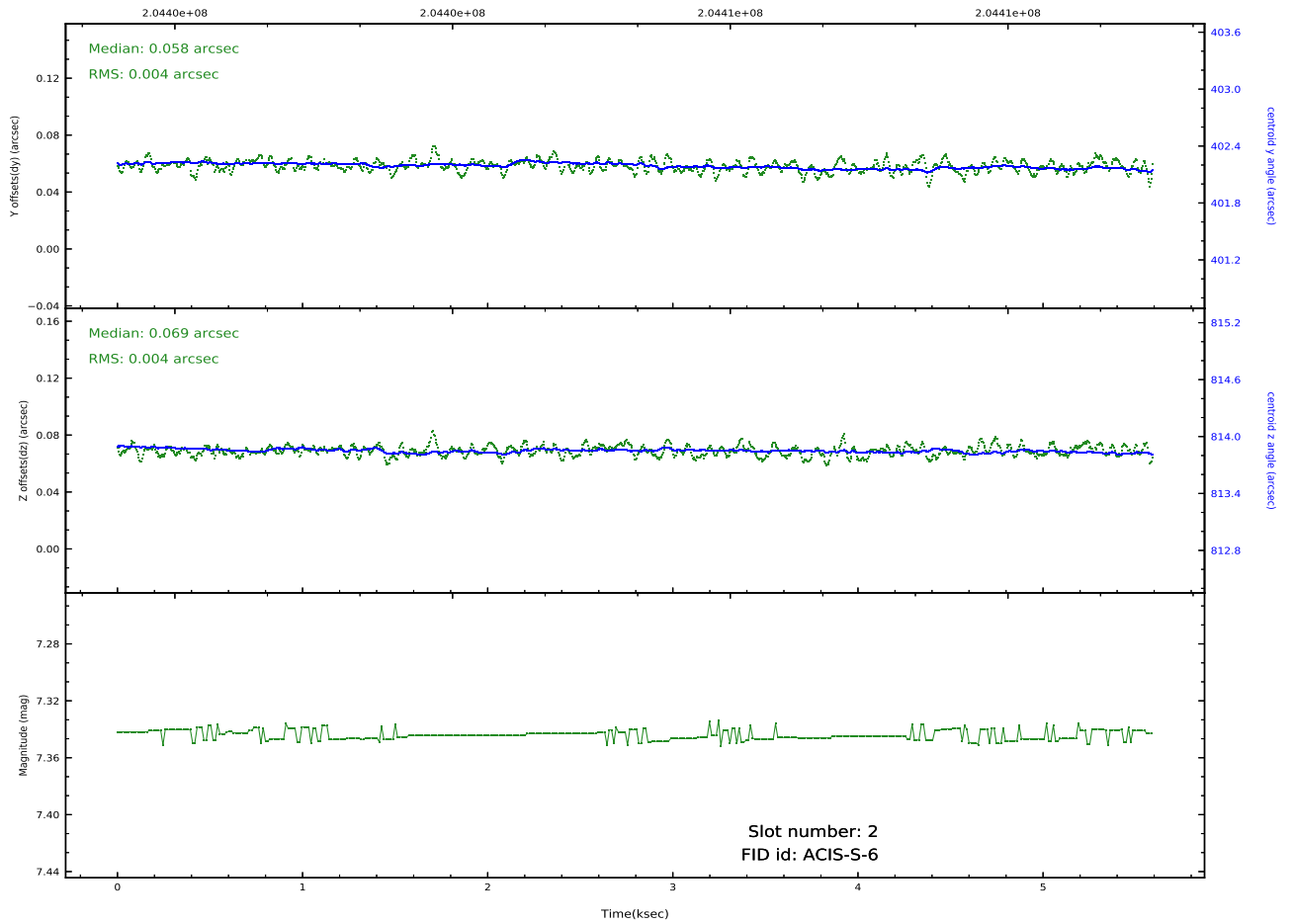
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.09.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.009

## A.2 Comments

Joint proposal with HST.