

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5747 - L2 Version 4  
Chandra X-Ray Center

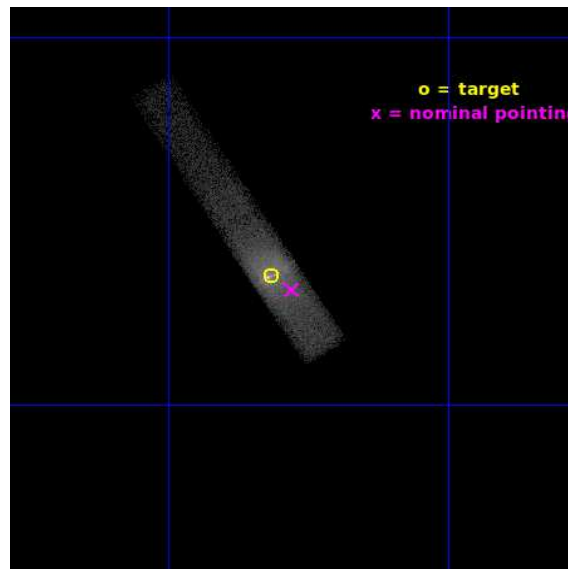
L2 Processing Date : Oct 8 2020

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# 1 Front

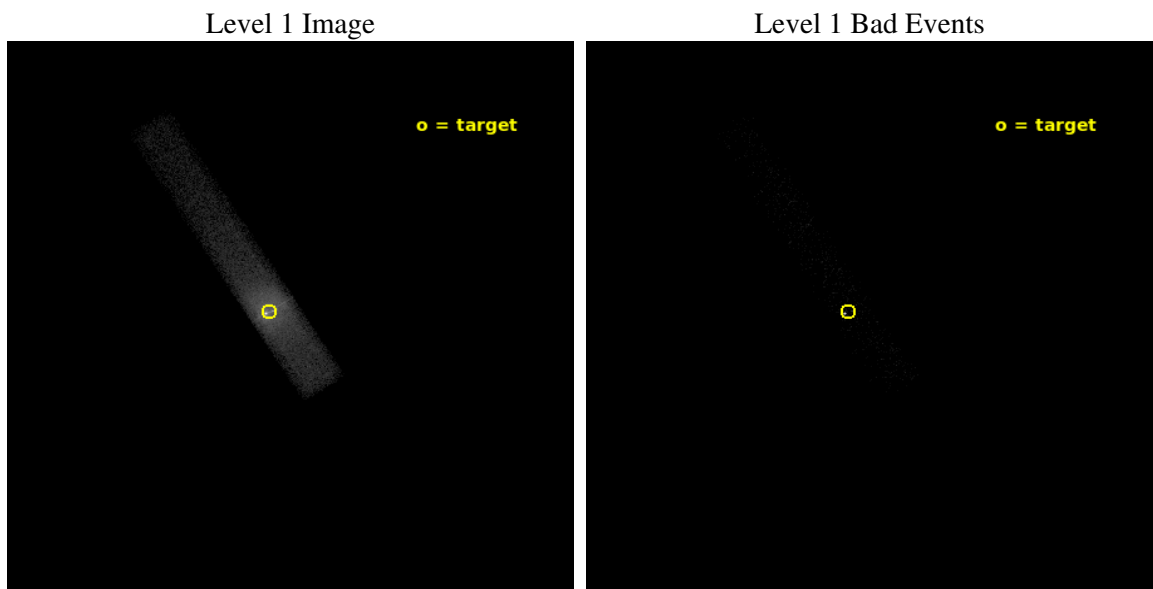
seq_num	701169	Sequence number
obs_id	5747	Observation id
title	The X-ray Flares of Knot 'HST-1' in the M87 Jet (monitoring)	Pro
observer	Dr. John Biretta	Principal investigator
object	M87	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.704167	Observer's specified target RA [deg]
dec_targ	12.391667	Observer's specified target Dec [deg]
ra_nom	187.69475687619	Nominal RA [deg]
dec_nom	12.385559821519	Nominal Dec [deg]
roll_nom	237.65325120605	Nominal Roll [deg]
revision	4	Processing version of data
ontime	5183.2000772059	Sum of GTIs [s]
livetime	4700.888878293	Livetime [s]
ontime7	5183.2000772059	Sum of GTIs [s]
l2events	59070	Number of level 2 events



## 2 OBI

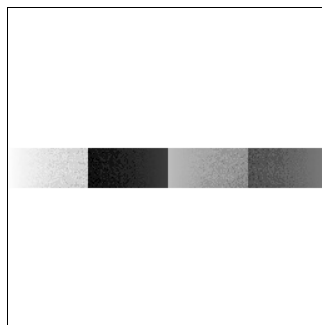
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	5183.2000772059	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime7	5183.2000772059	Sum of GTIs [s]
date	2020-10-08T11:55:59	Date and time of file creation	l1events	76218	Number of level 1 events
revision	4	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	76218
rejected events	16566
rejected %	21%

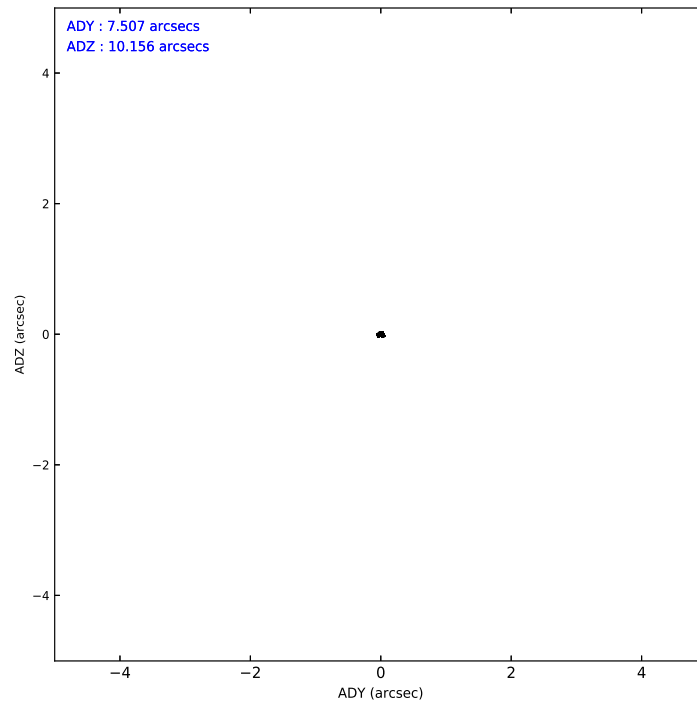
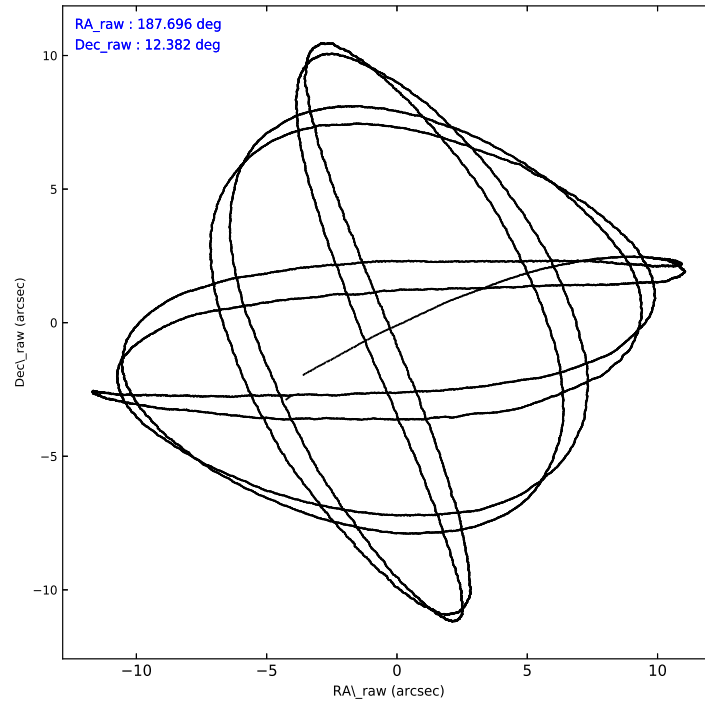
	<b>ccd 7</b>
grade 0 events	18357
	24%
grade 1 events	437
	0%
grade 2 events	15340
	20%
grade 3 events	7065
	9%
grade 4 events	6910
	9%
grade 5 events	2965
	3%
grade 6 events	14265
	18%
grade 7 events	10879
	14%

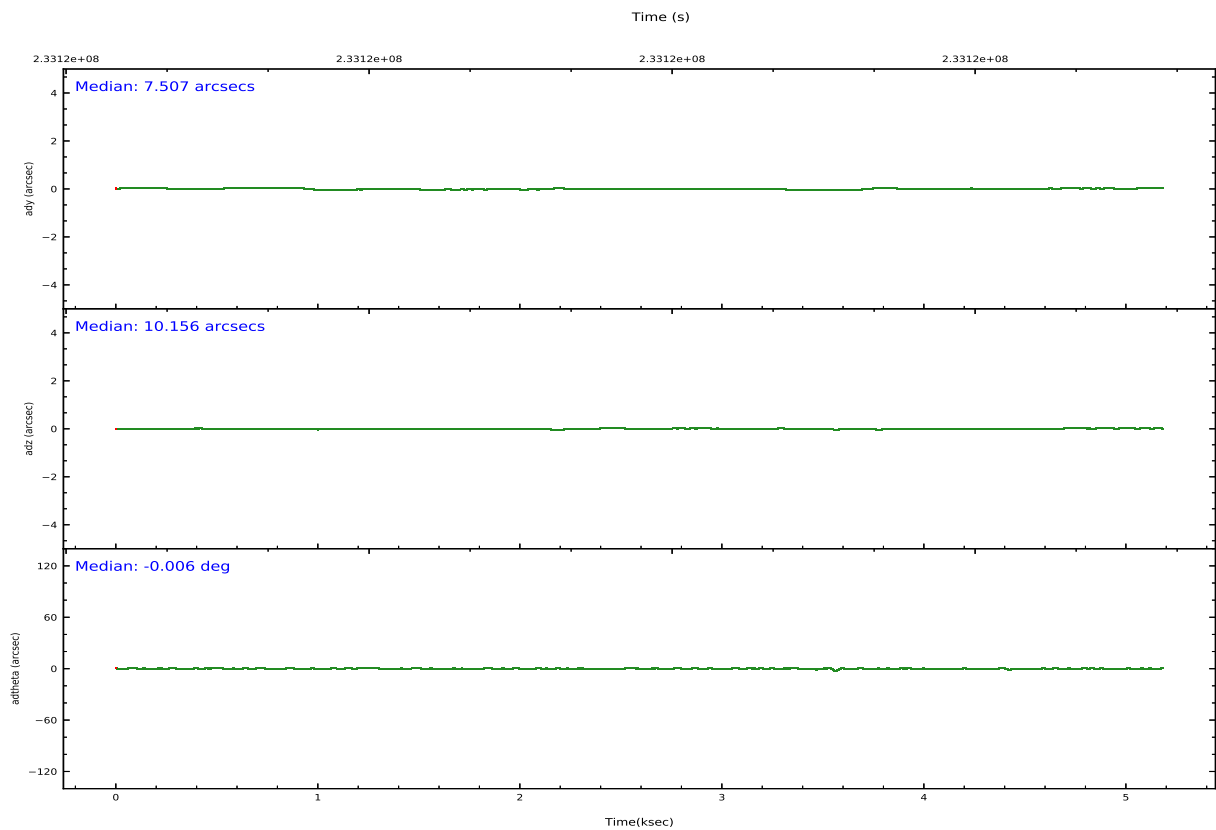
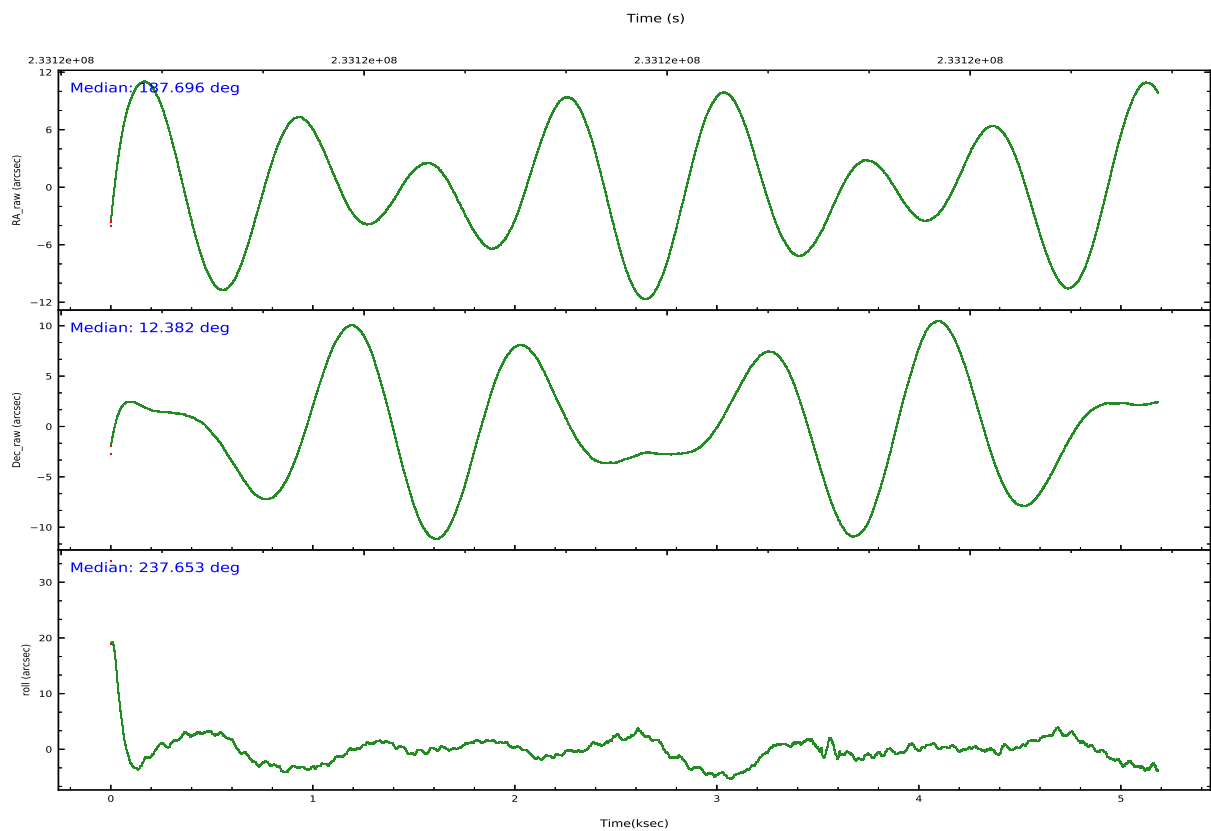


## 2.2 Compared Parameters

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	187.696686	187.69475687619	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	12.409364	12.385559821519	Subarray start row	449	449
[deg] Pointing Roll	237.499760	237.65325120605	Subarray row count	128	128
[s] Window start time (MET)	232588864.184000	232588864.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	233193664.184000	233193664.184000	[s] Primary exposure time	0.000000	0.4
[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)	233120930.184000	233119236.92729			
Observation start date	2005-05-22T03:47:46	2005-05-22T03:20:36			
[s] Observation end time (MET)	233125930.184000	233126223.8401			
Observation end date	2005-05-22T05:11:06	2005-05-22T05:17:03			
Read mode	TIMED	TIMED			

## 2.3 Aspect



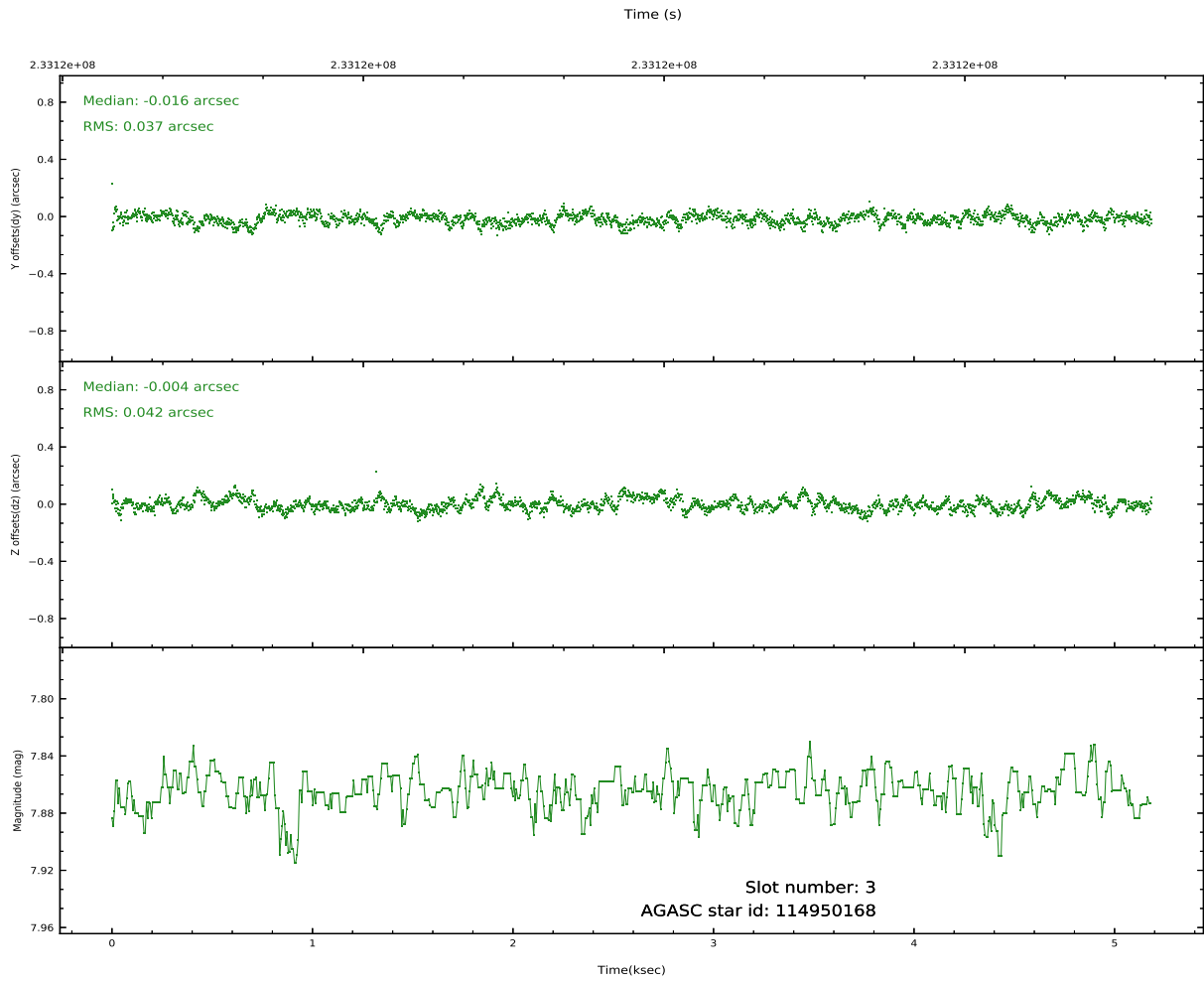
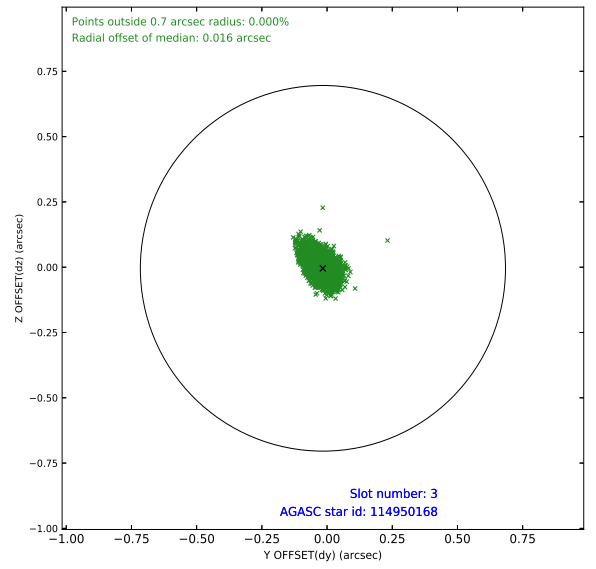
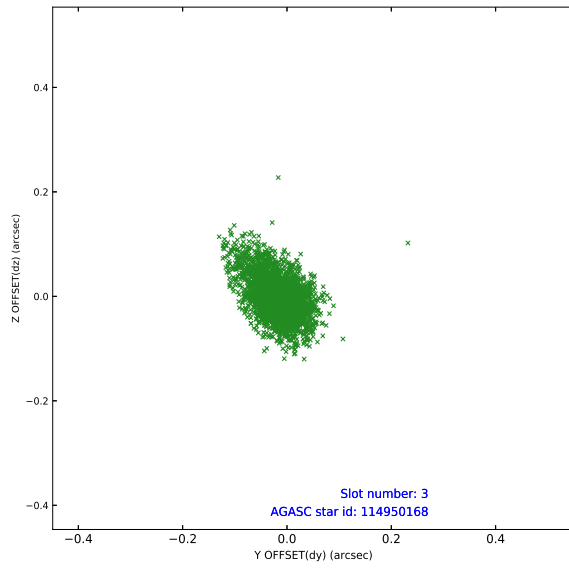


Slot Statistics

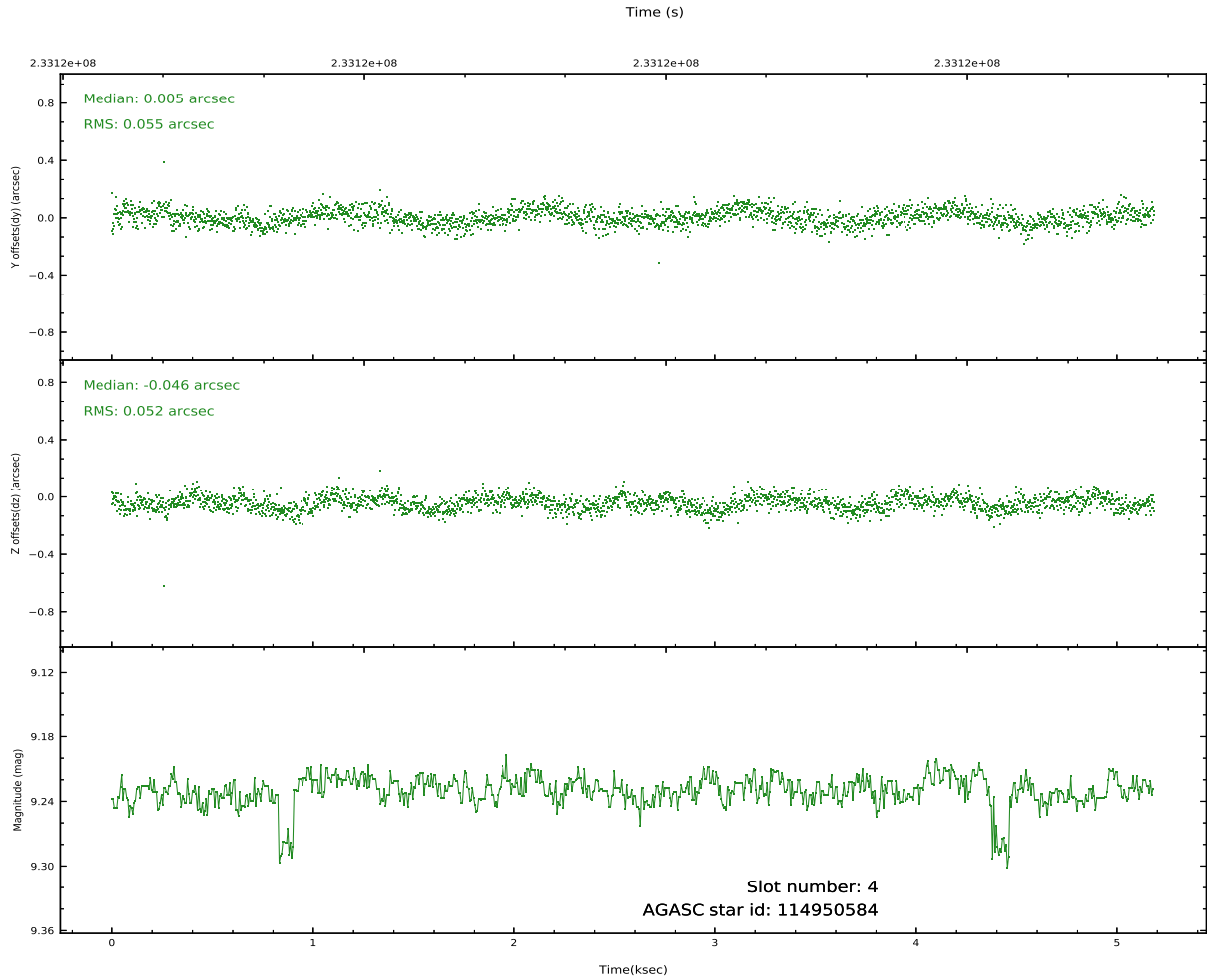
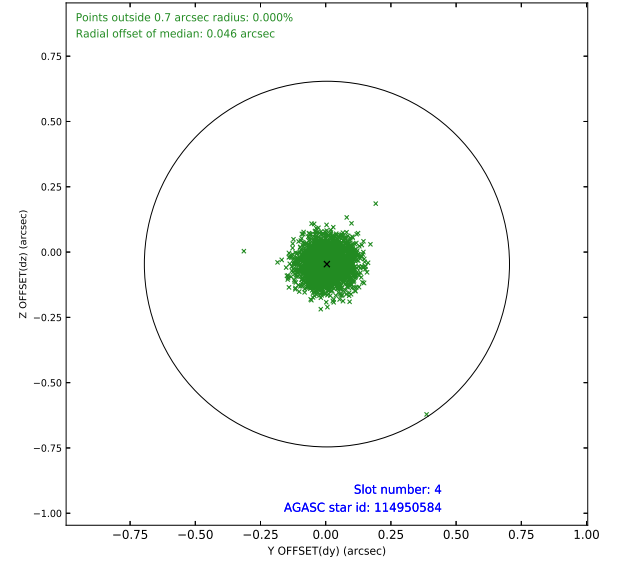
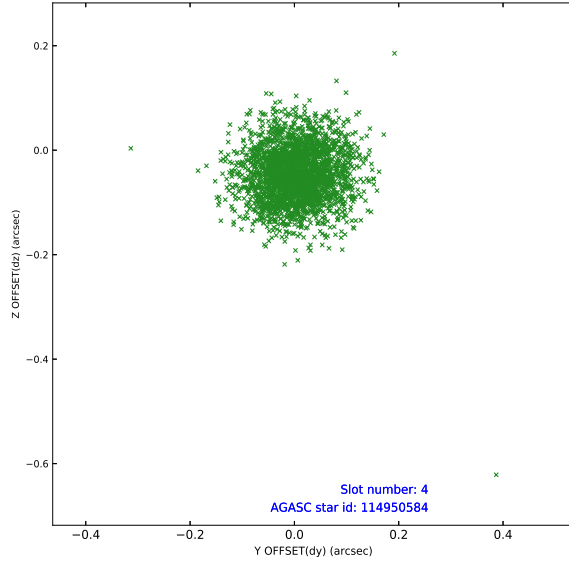
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	1265	1.000	-0.078	-0.058	0.006	0.011	0.000000	0.000000	-760.27	-1731
1	FID		ACIS-S-4	7.21	1265	1.000	0.165	0.053	0.006	0.011	0.000000	0.000000	2152.64	176
2	FID		ACIS-S-5	7.23	1265	1.000	-0.118	0.013	0.006	0.010	0.000000	0.000000	-1811.73	170
3	GUIDE	used	114950168	7.86	2530	1.000	-0.016	-0.004	0.057	0.099	187.143398	12.117441	1931.81	-1078
4	GUIDE	used	114950584	9.23	2530	1.000	0.005	-0.046	0.080	0.128	187.487323	11.827248	2164.90	503
5	GUIDE	used	114952824	8.57	2530	1.000	0.003	0.062	0.089	0.135	187.703904	12.486727	-246.97	-128
6	GUIDE	used	114954440	9.19	2529	1.000	0.131	-0.159	0.084	0.135	186.915066	12.219118	2052.66	-1953
7	GUIDE	used	114955056	8.32	2529	1.000	-0.121	0.144	0.061	0.098	187.914001	12.127854	444.71	1188

## 2.4 Star Slots

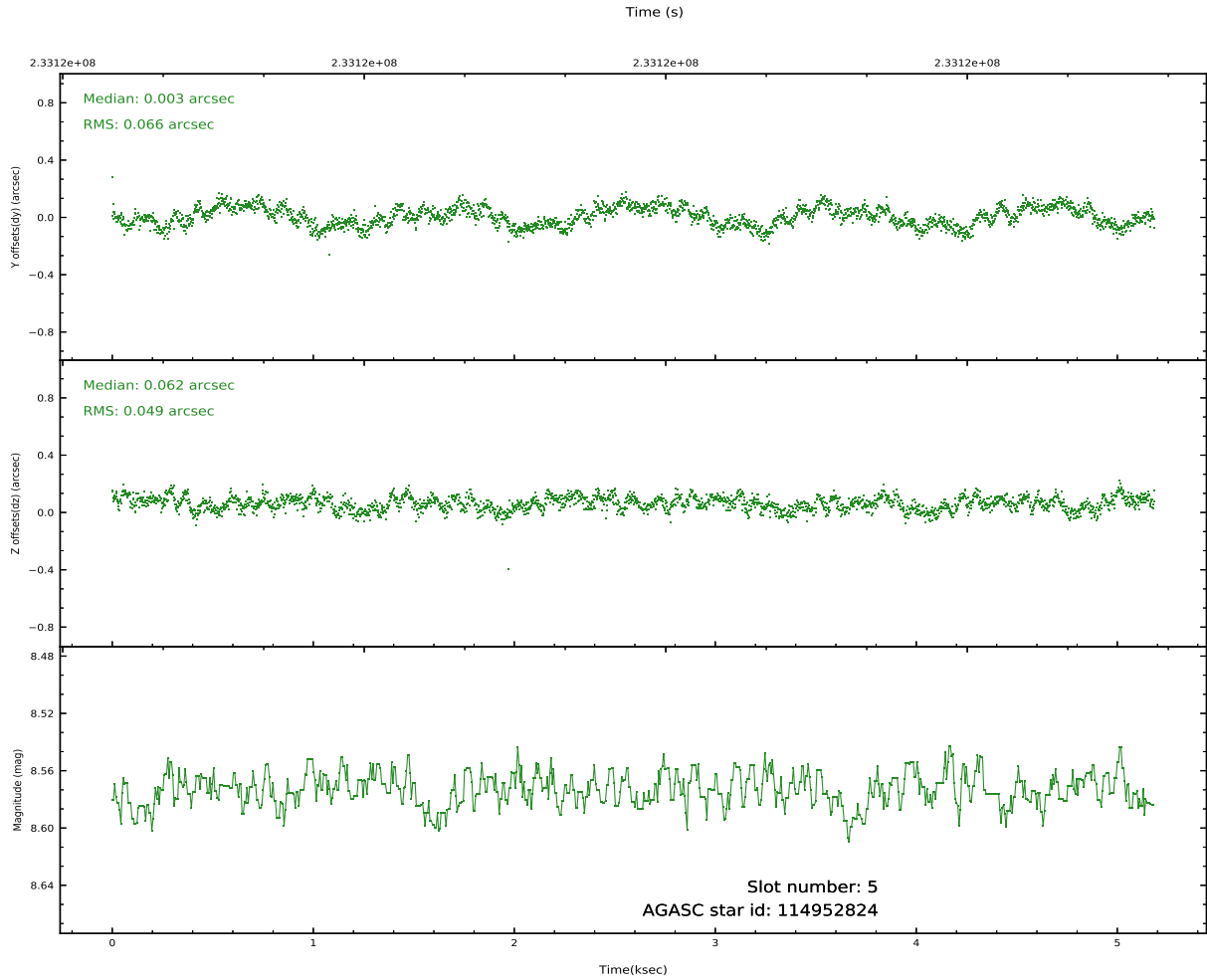
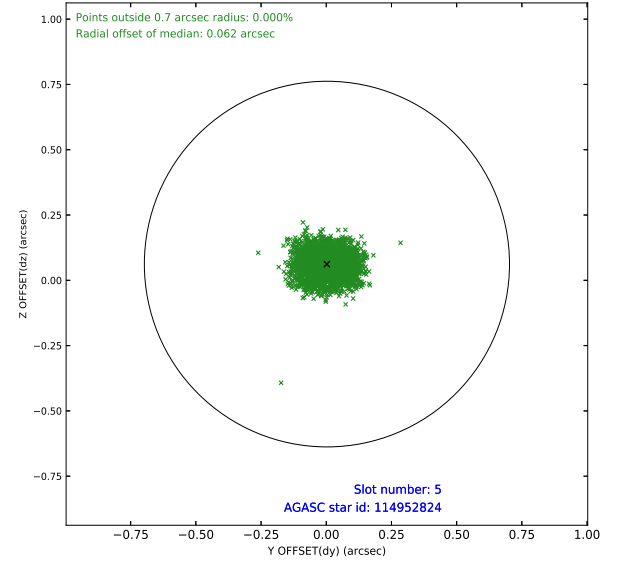
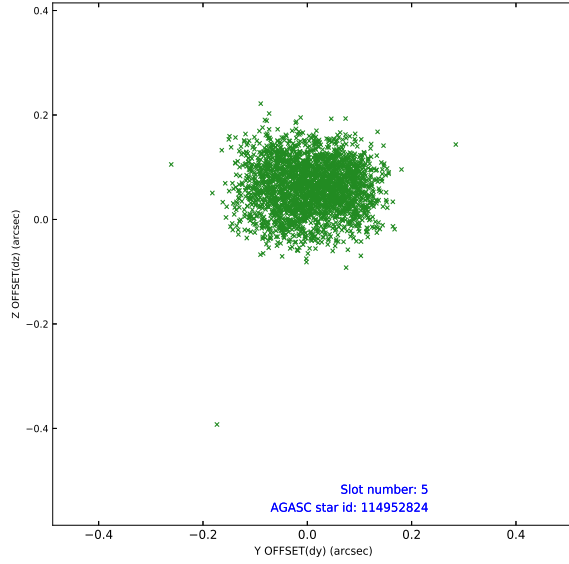
### 2.4.1 Slot 3



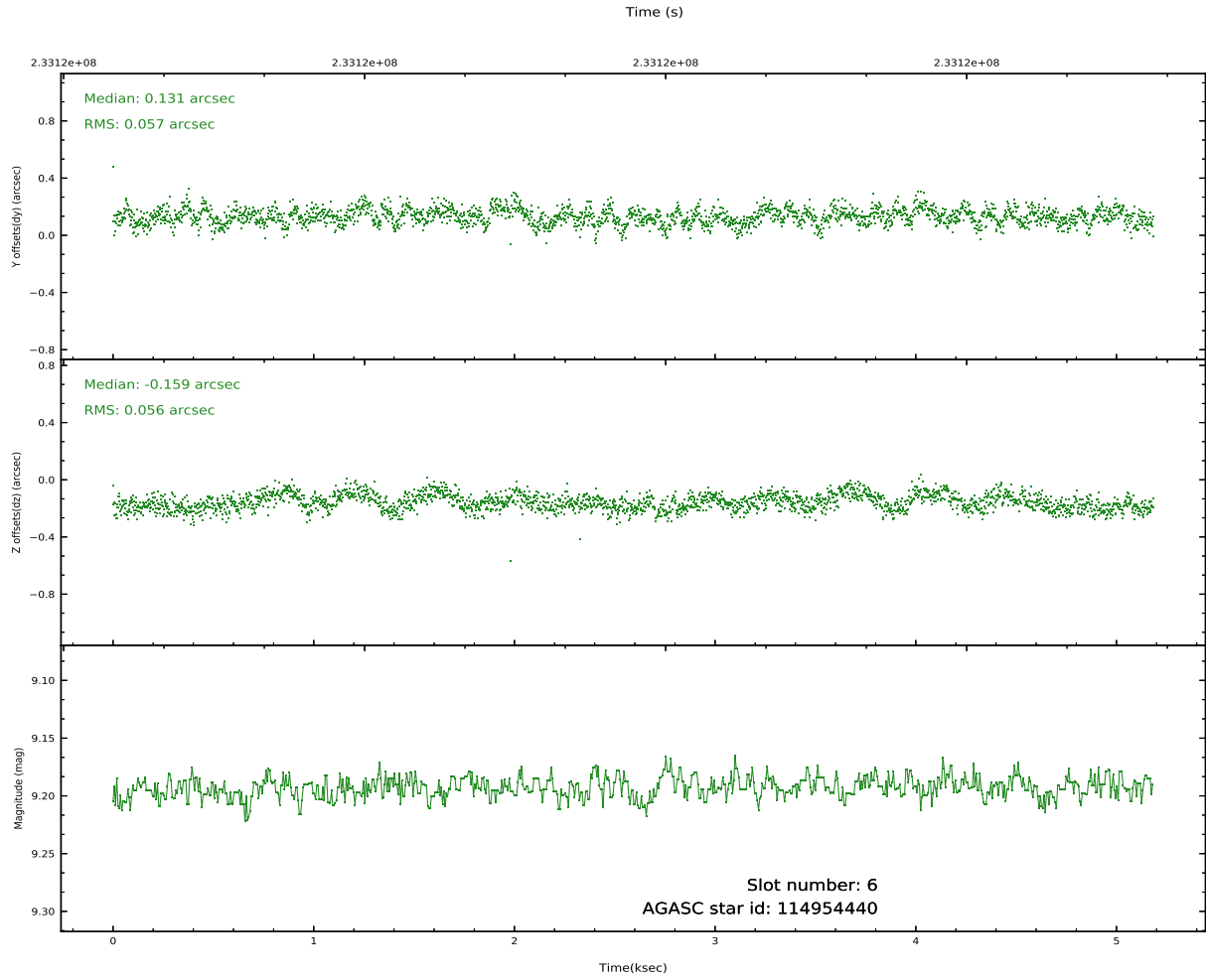
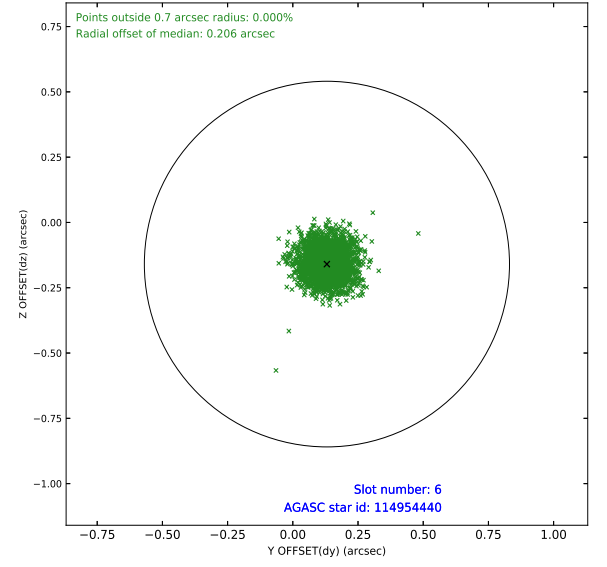
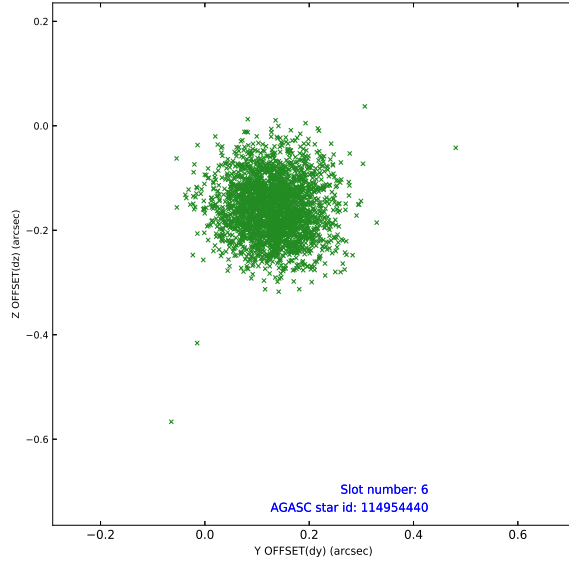
## 2.4.2 Slot 4



### 2.4.3 Slot 5

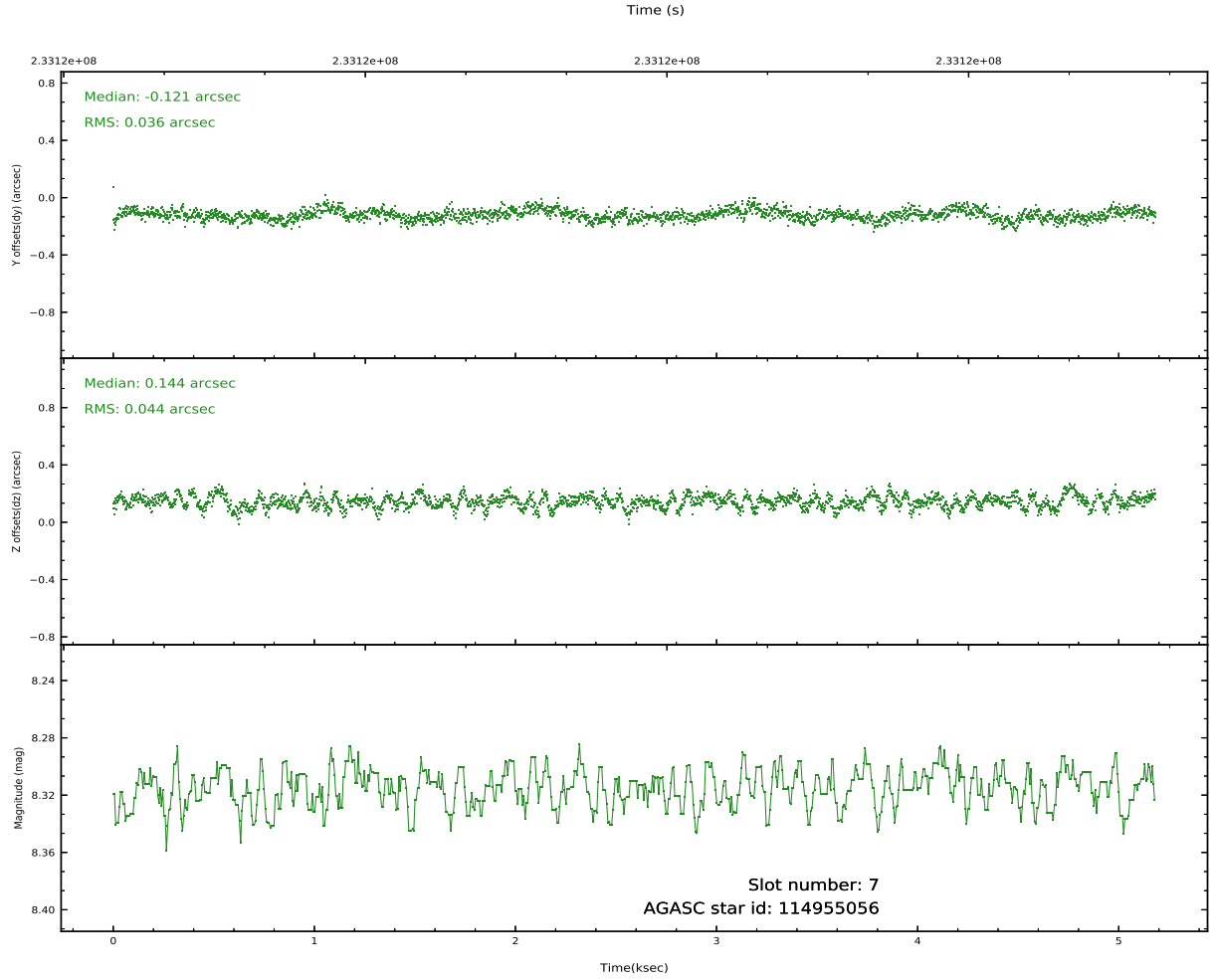
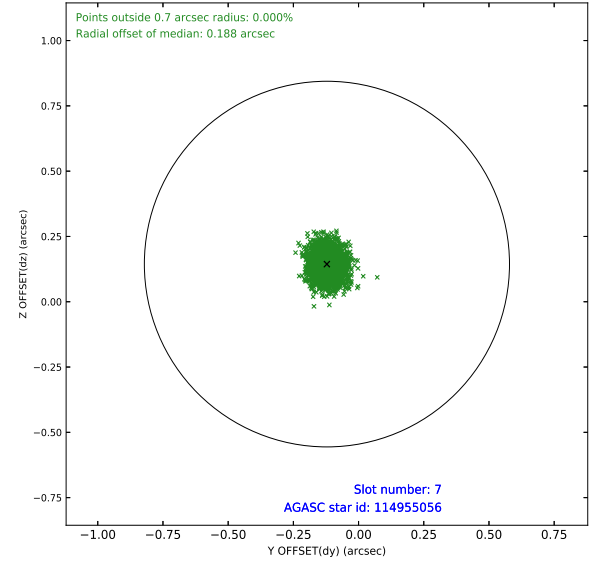
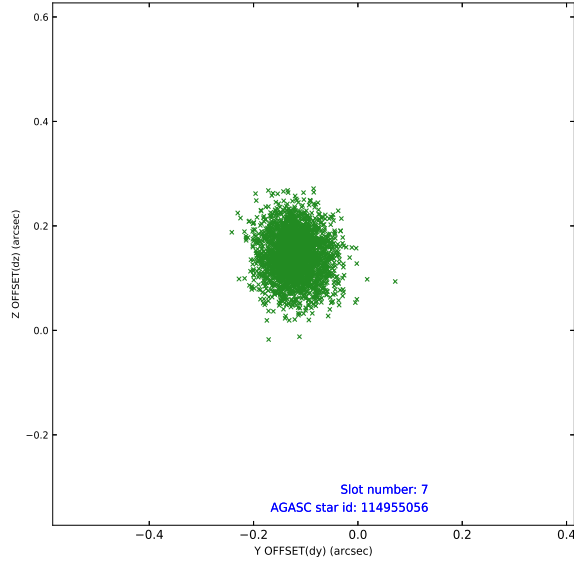


## 2.4.4 Slot 6



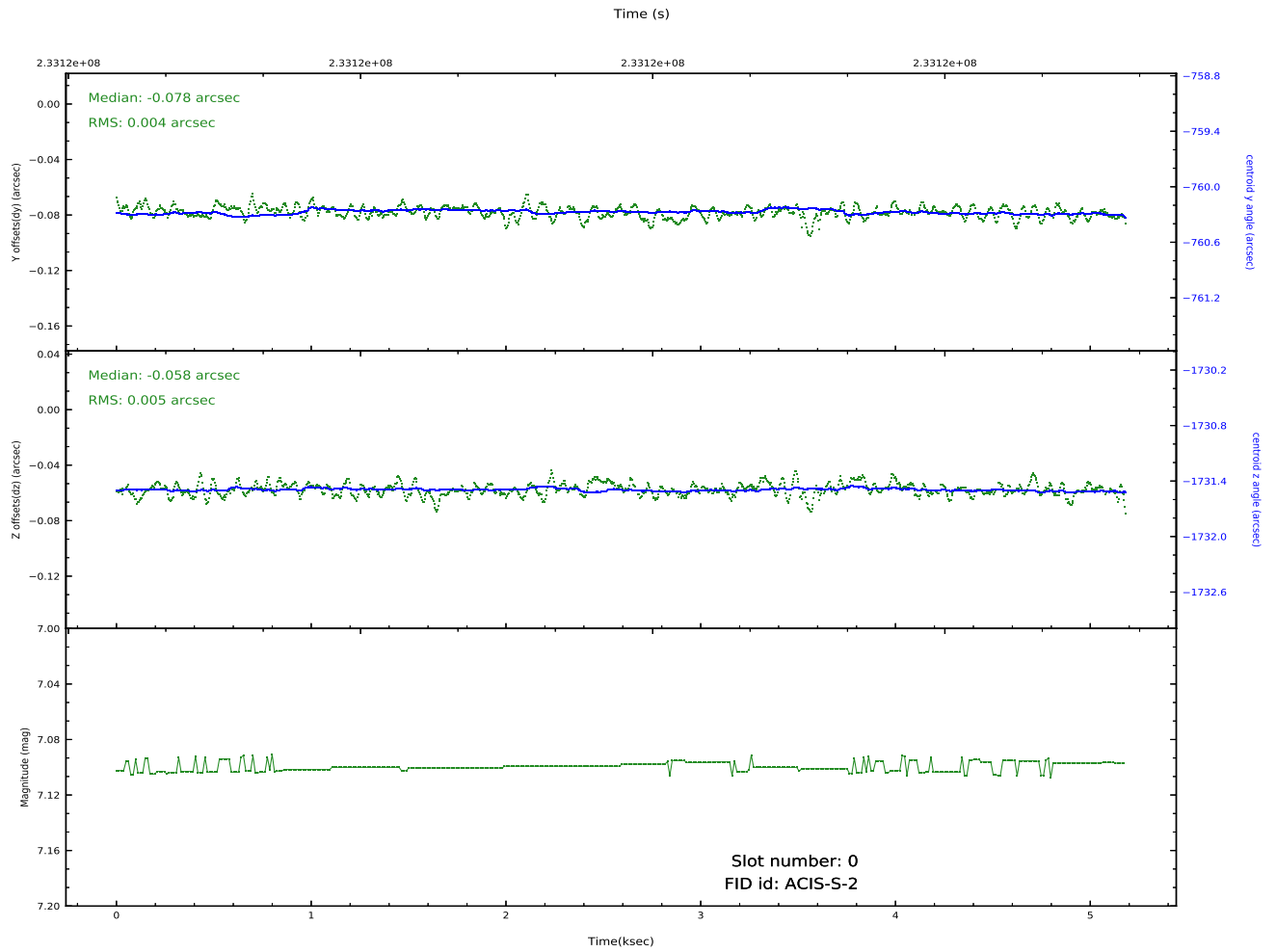
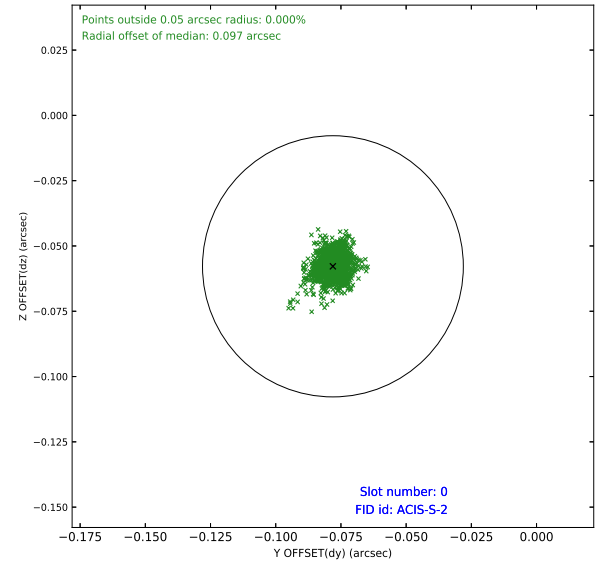
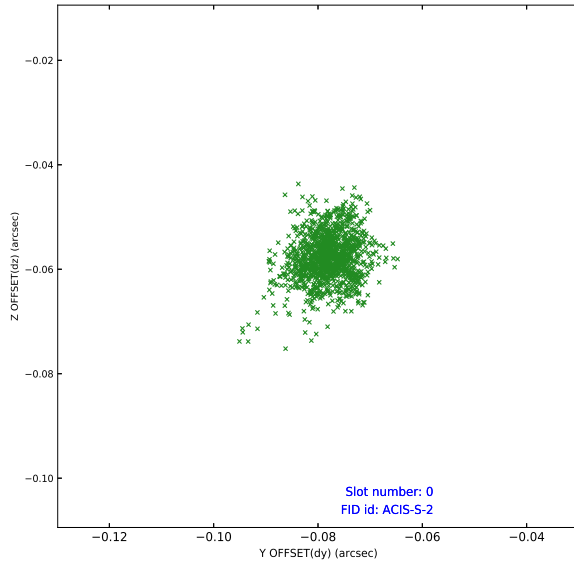


## 2.4.5 Slot 7

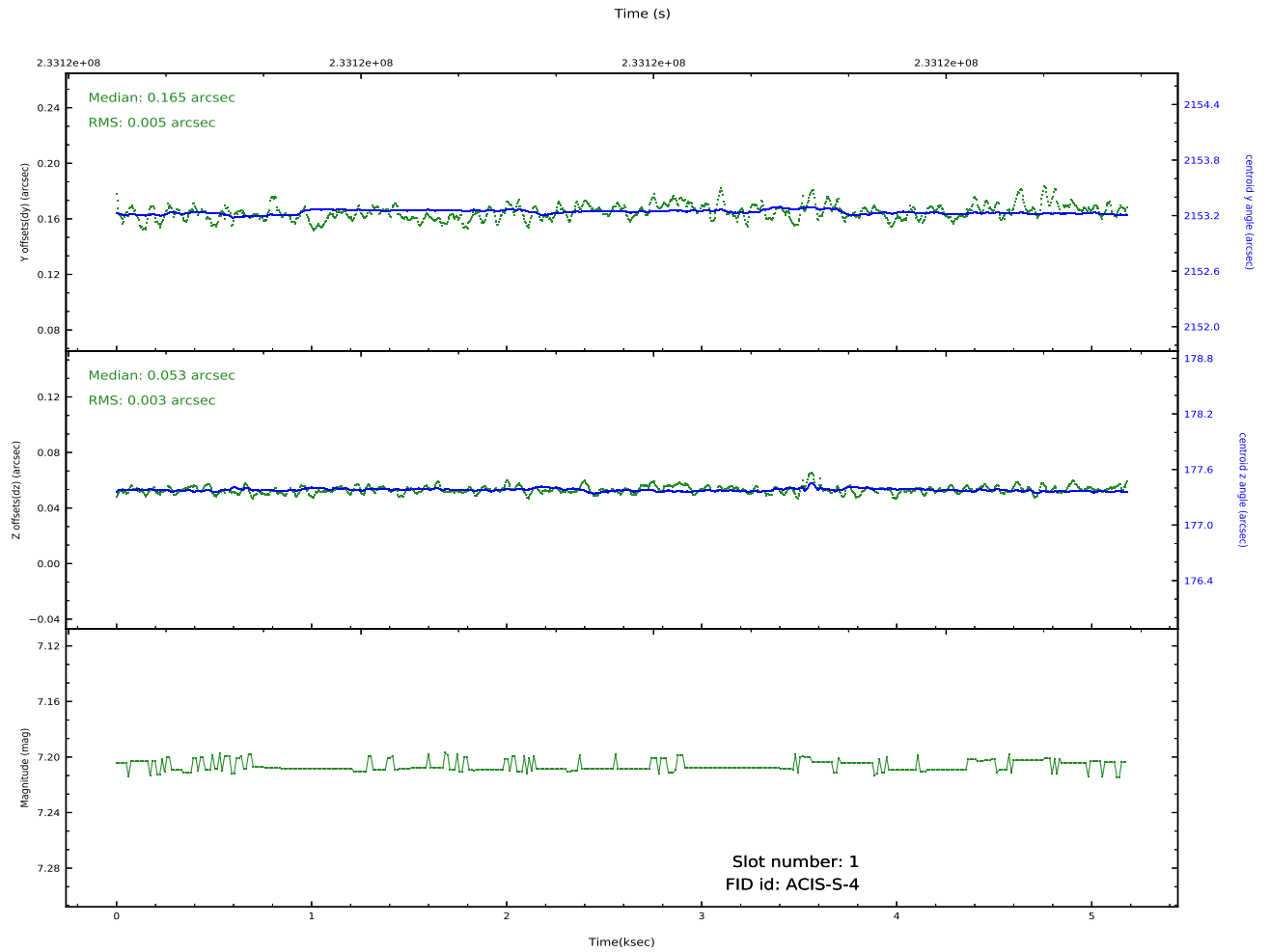
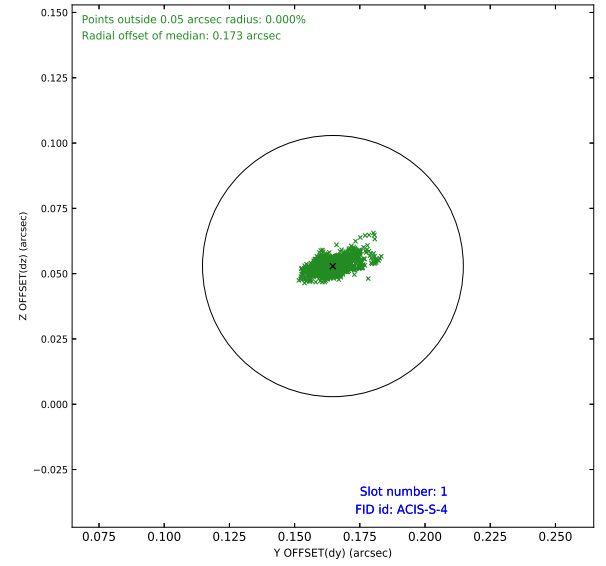
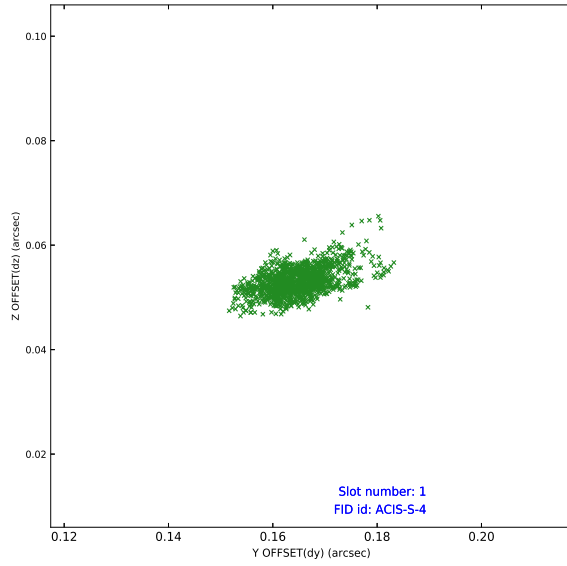


## 2.5 FID Slots

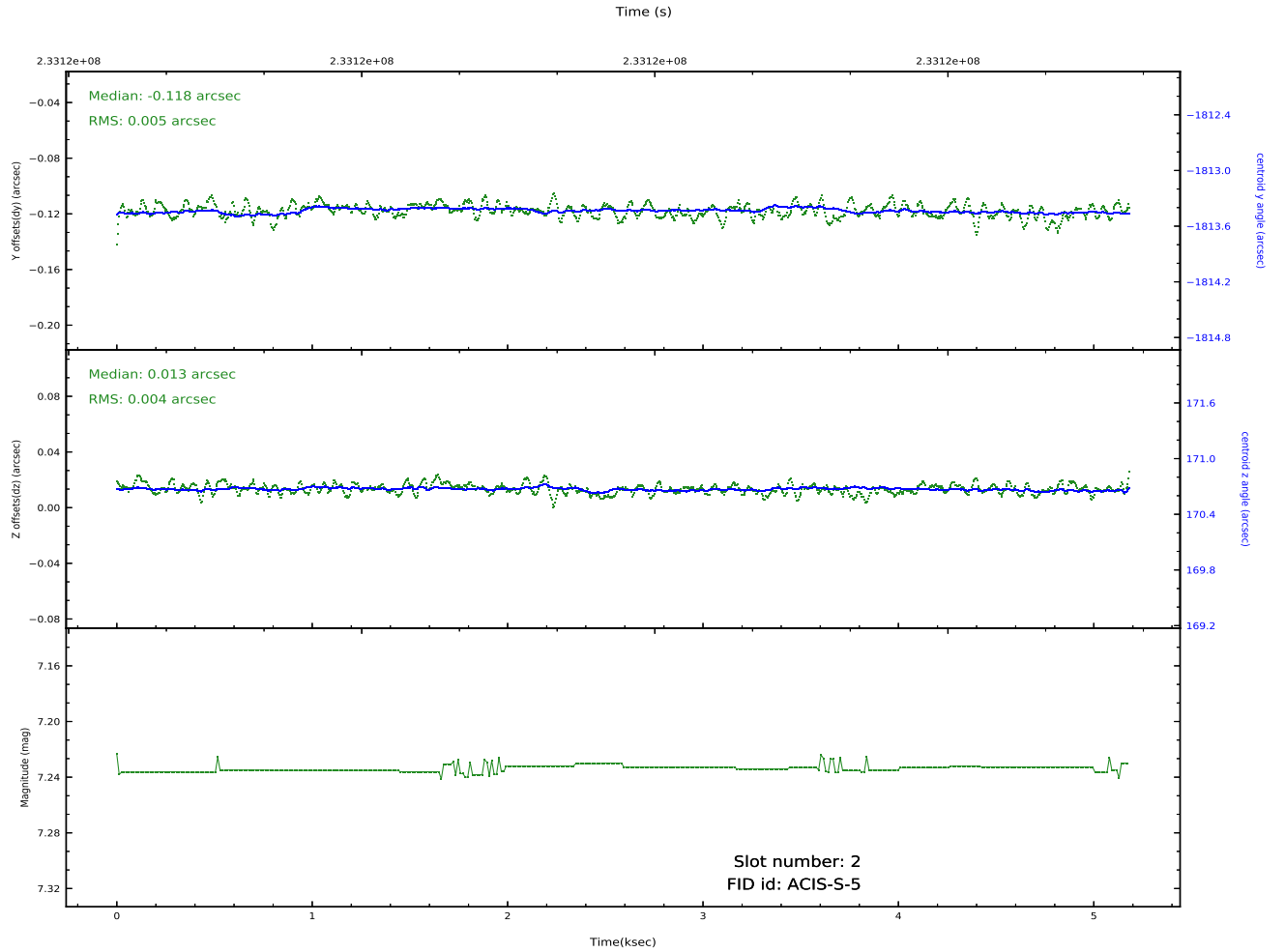
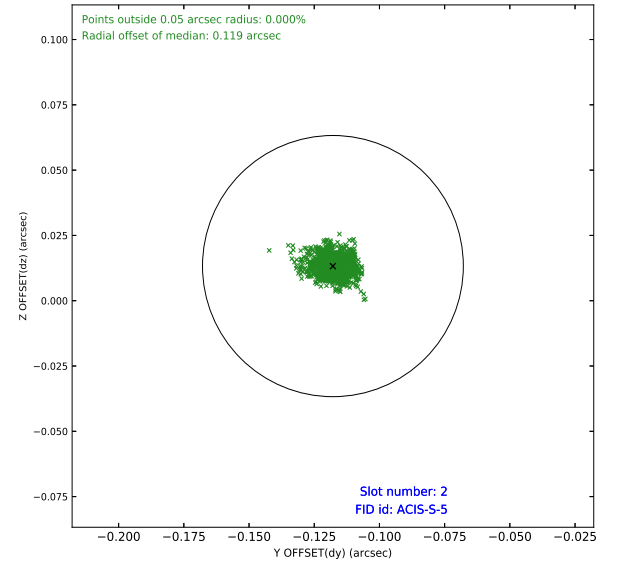
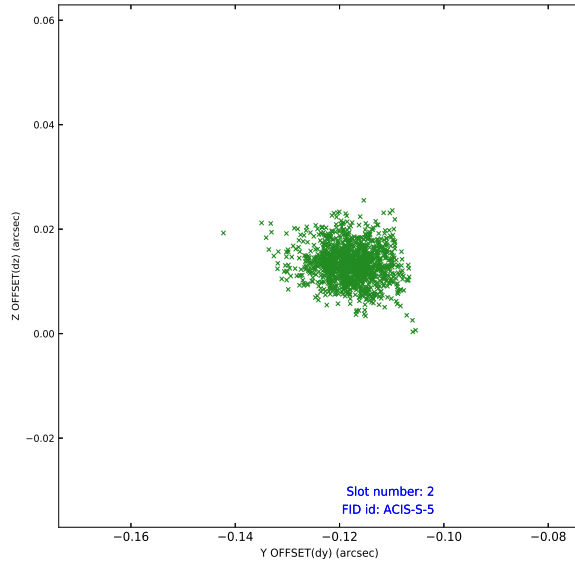
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.1832

## A.2 Comments

Joint proposal with HST.  
Window constraint was met.