

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5740 - L2 Version 4
Chandra X-Ray Center

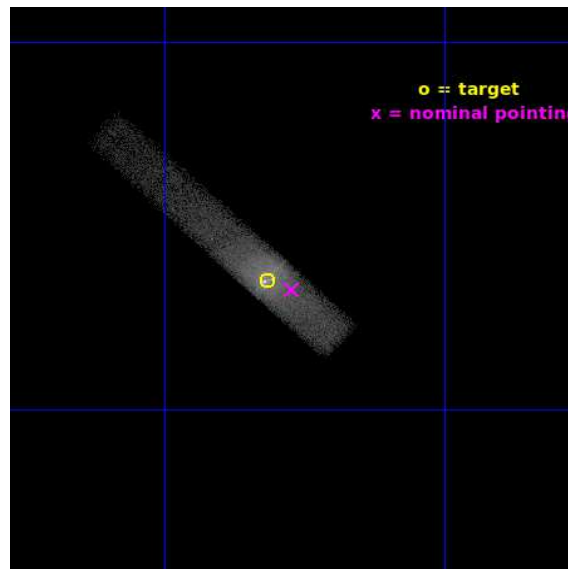
L2 Processing Date : Oct 7 2020

Contents

1	Front	2
2	OBI	3
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
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

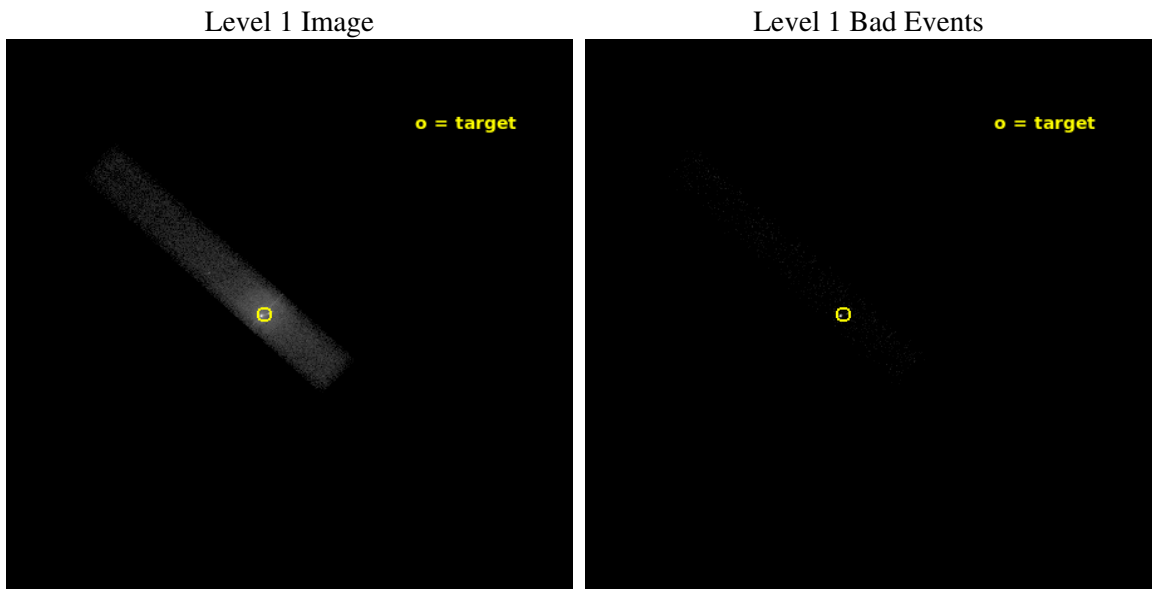
seq_num	701162	Sequence number
obs_id	5740	Observation id
title	The X-ray Flares of Knot 'HST-1' in the M87 Jet (monitoring)	Pro
observer	Dr. John Biretta	Principal investigator
object	M87	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.704167	Observer's specified target RA [deg]
dec_targ	12.391667	Observer's specified target Dec [deg]
ra_nom	187.69317547023	Nominal RA [deg]
dec_nom	12.387516204666	Nominal Dec [deg]
roll_nom	223.21256744915	Nominal Roll [deg]
revision	4	Processing version of data
ontime	5180.8000771701	Sum of GTIs [s]
livetime	4698.712204943	Livetime [s]
ontime7	5180.8000771701	Sum of GTIs [s]
l2events	59386	Number of level 2 events



2 OBI

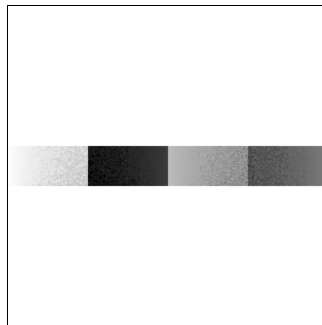
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	5180.8000771701	Sum of GTIs [s]
caldsver	4.9.2	 	ontime7	5180.8000771701	Sum of GTIs [s]
date	2020-10-07T23:37:29	Date and time of file creation	l1events	76496	Number of level 1 events
revision	4	Processing version of data			

2.1.4 Events

	ccd 7
level 1 events	76496
rejected events	16540
rejected %	21%

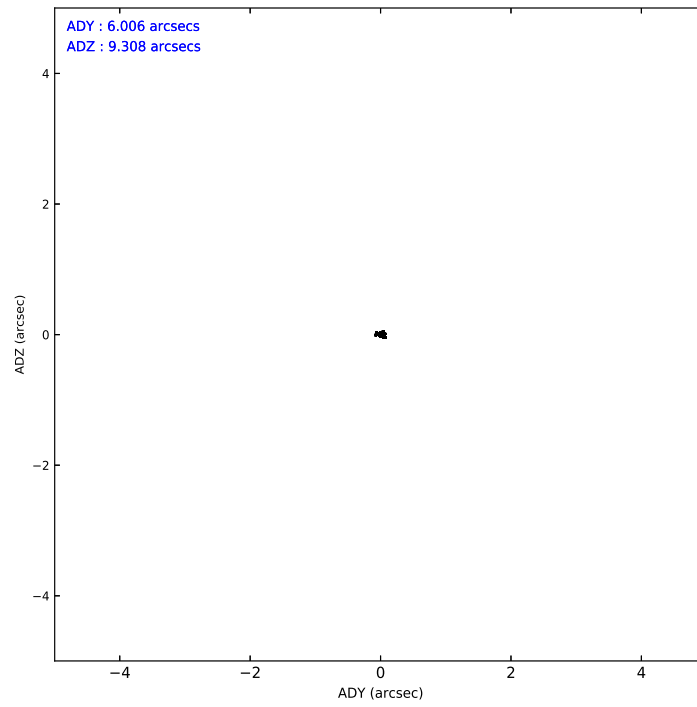
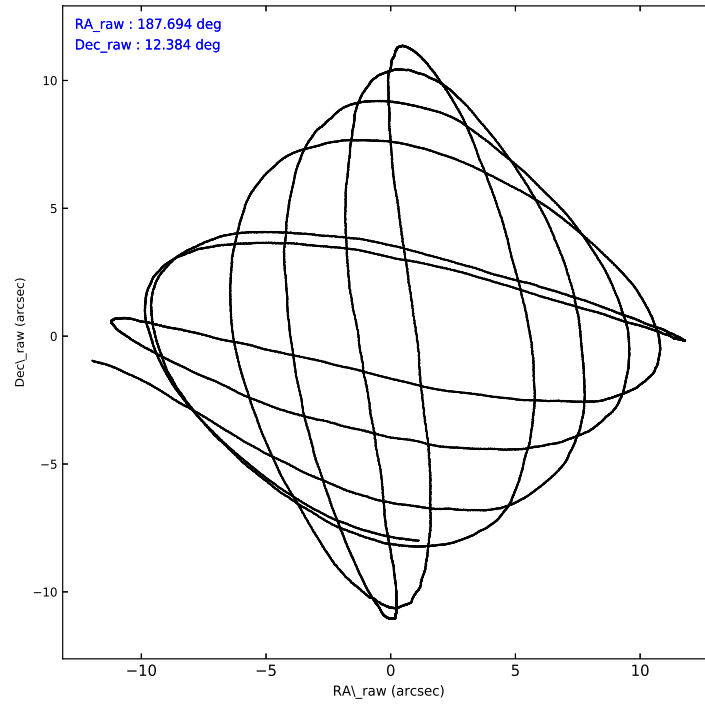
	ccd 7
grade 0 events	18834
	24%
grade 1 events	443
	0%
grade 2 events	15197
	19%
grade 3 events	7039
	9%
grade 4 events	6728
	8%
grade 5 events	2865
	3%
grade 6 events	14180
	18%
grade 7 events	11210
	14%

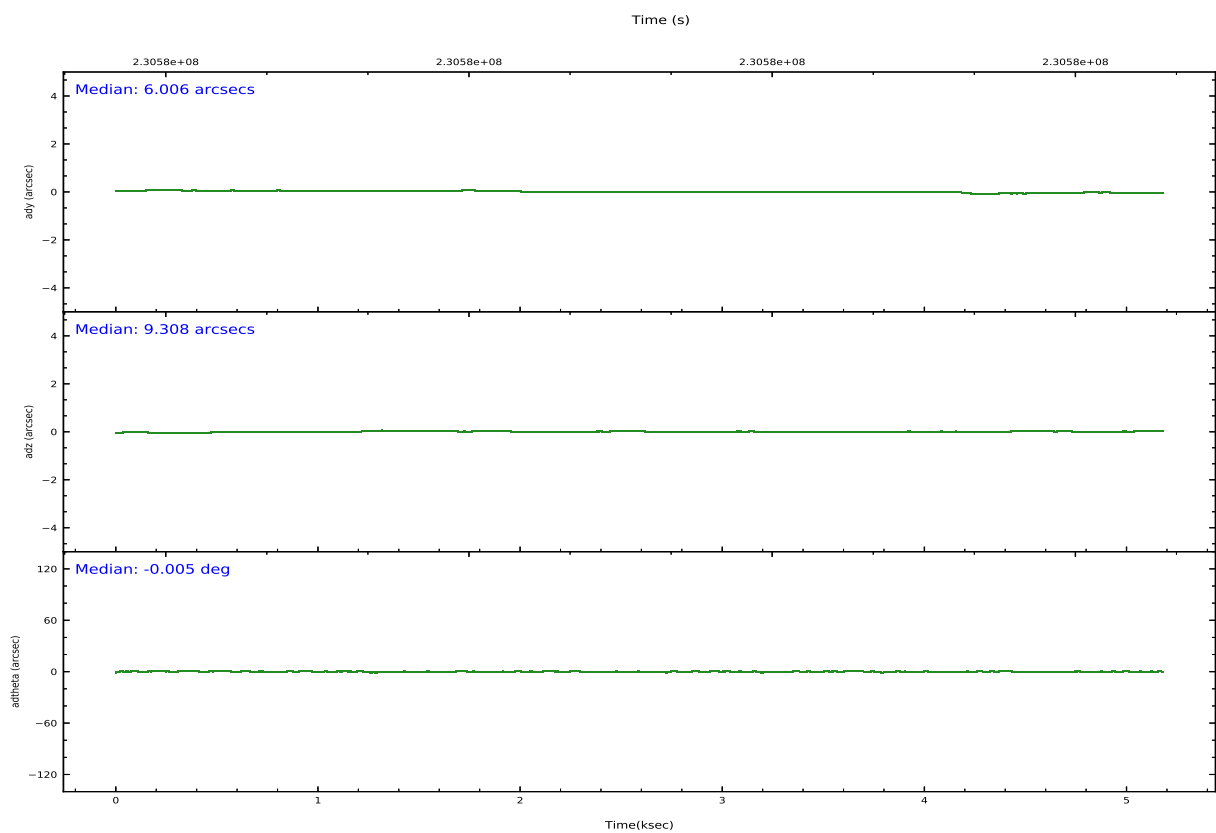
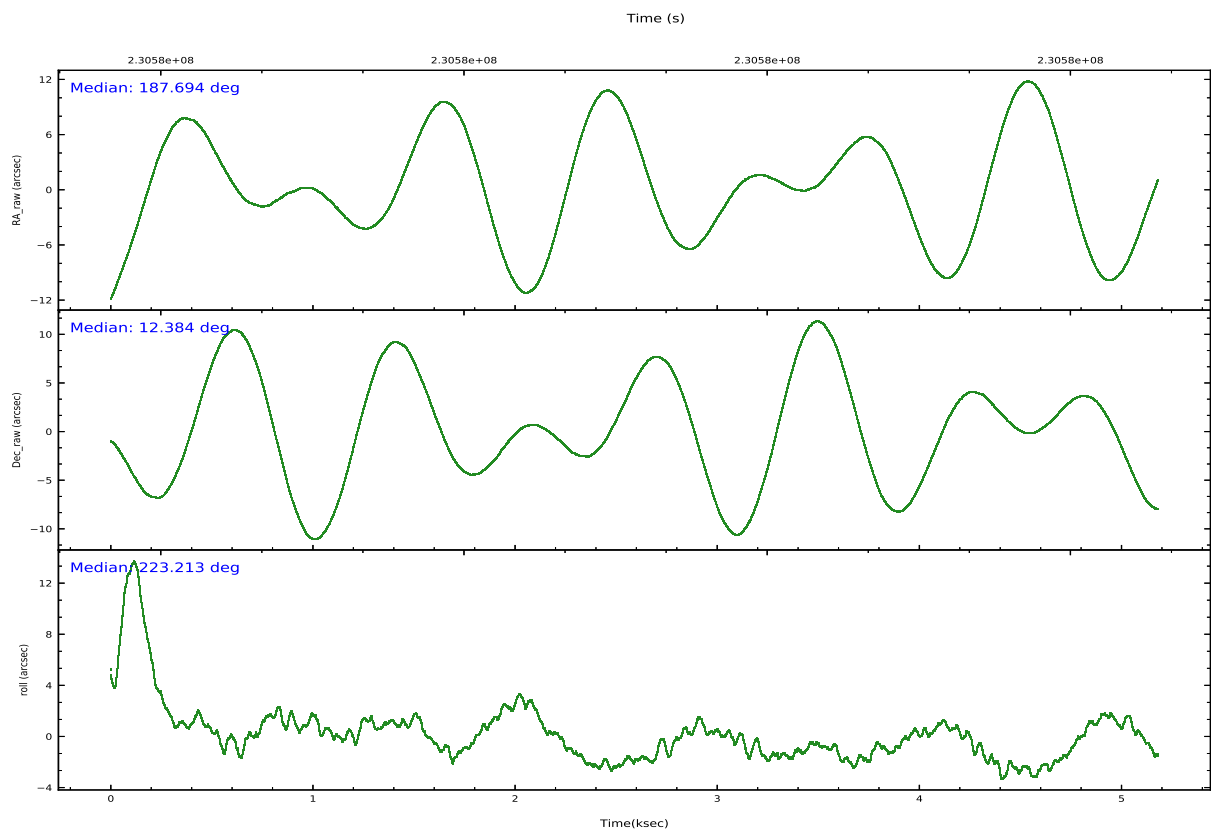
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-7	ACIS-7
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	187.701441	187.69317547023
[deg] Pointing Dec	12.410629	12.387516204666
[deg] Pointing Roll	223.054294	223.21256744915
[s] Window start time (MET)	230169664.184000	230169664.184000
[s] Window stop time (MET)	230774464.184000	230774464.184000
[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)	230574933.184000	230574031.1239
Observation start date	2005-04-22T16:34:29	2005-04-22T16:20:31
[s] Observation end time (MET)	230579933.184000	230581771.92425
Observation end date	2005-04-22T17:57:49	2005-04-22T18:29:31
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar version number	8	8
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/8
Subarray start row	449	449
Subarray row count	128	128
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	0.4

2.3 Aspect



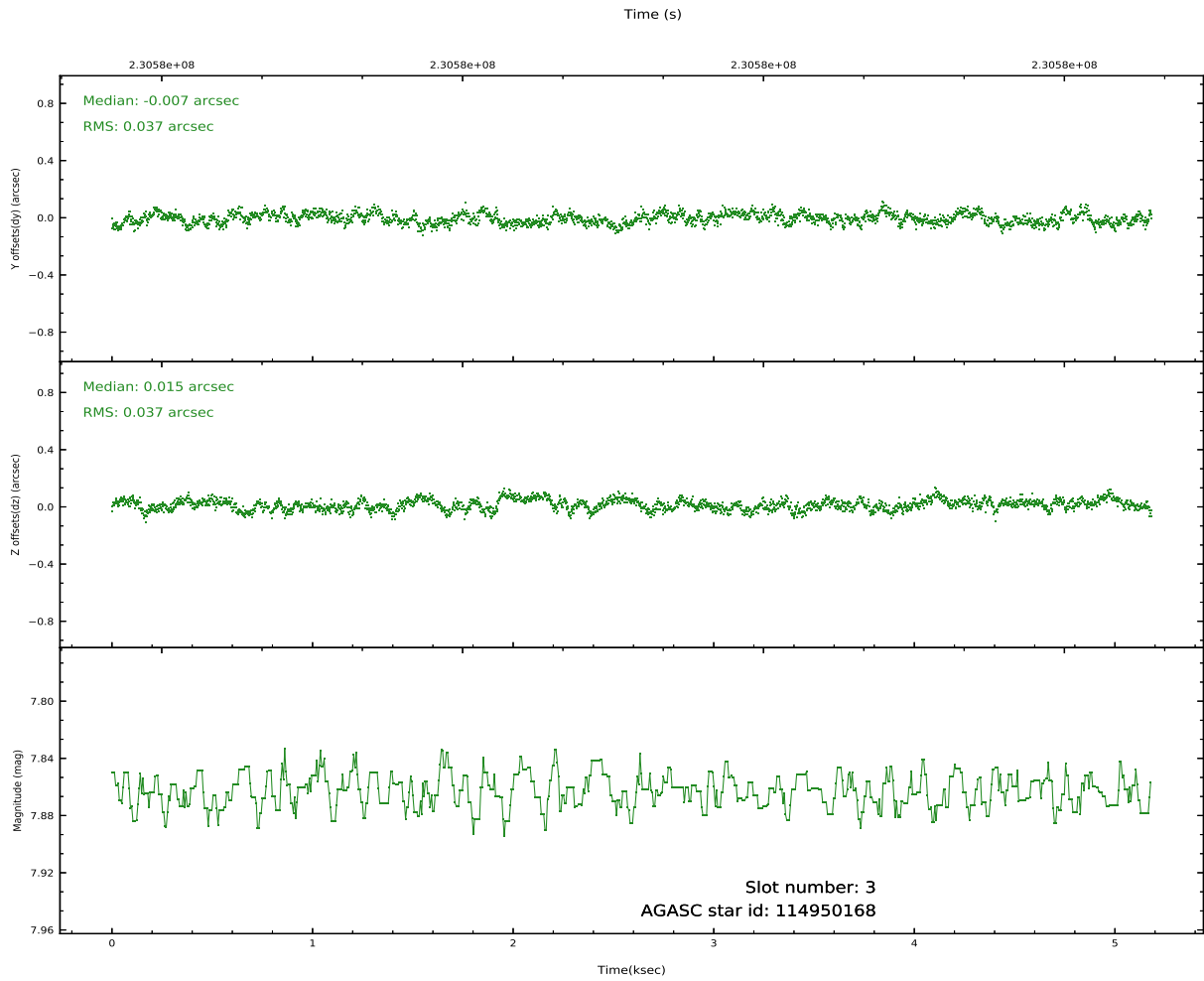
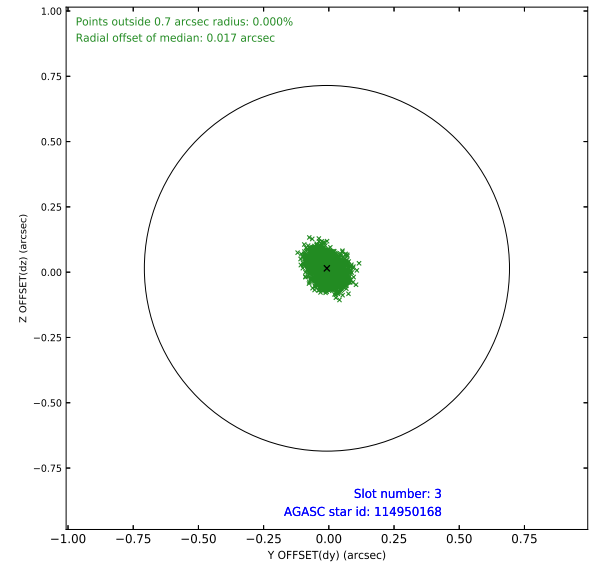
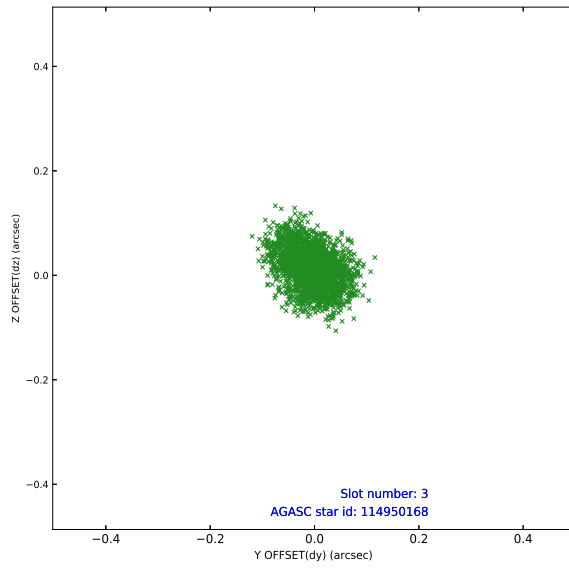


Slot Statistics

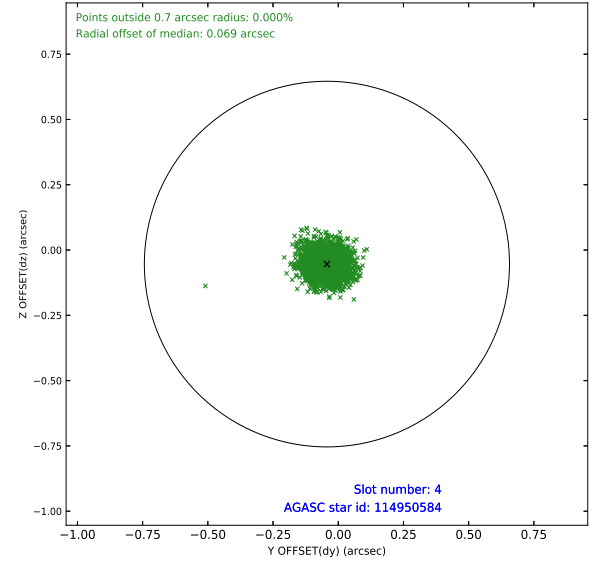
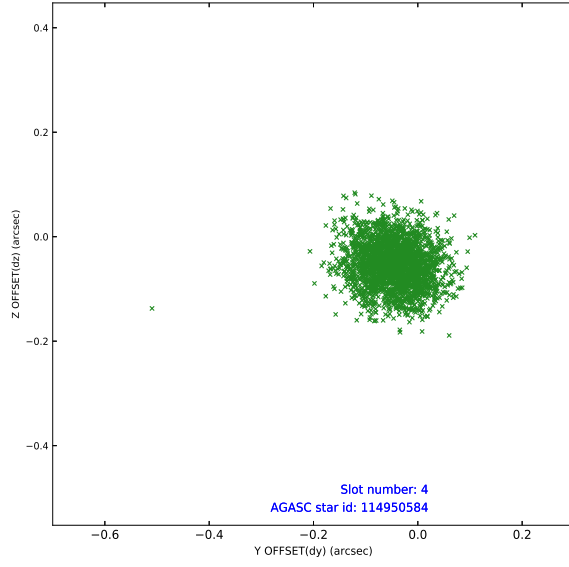
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	1264	1.000	-0.090	-0.081	0.007	0.012	0.000000	0.000000	-758.79	-1730
1	FID		ACIS-S-4	7.20	1264	1.000	0.167	0.065	0.006	0.011	0.000000	0.000000	2154.17	176
2	FID		ACIS-S-5	7.23	1264	1.000	-0.108	0.025	0.007	0.012	0.000000	0.000000	-1810.19	171
3	GUIDE	used	114950168	7.86	2529	1.000	-0.007	0.015	0.056	0.090	187.143398	12.117441	2154.44	-570
4	GUIDE	used	114950584	9.22	2527	1.000	-0.043	-0.054	0.068	0.109	187.487323	11.827248	1985.65	1019
5	GUIDE	used	114952824	8.58	2528	1.000	0.055	-0.009	0.070	0.113	187.703904	12.486727	-192.41	-194
6	GUIDE	used	114955056	8.32	2529	1.000	-0.119	0.051	0.057	0.091	187.914001	12.127854	147.97	1254
7	GUIDE	used	114956608	9.66	2527	1.000	0.117	0.003	0.108	0.180	187.452443	11.725979	2324.16	1202

2.4 Star Slots

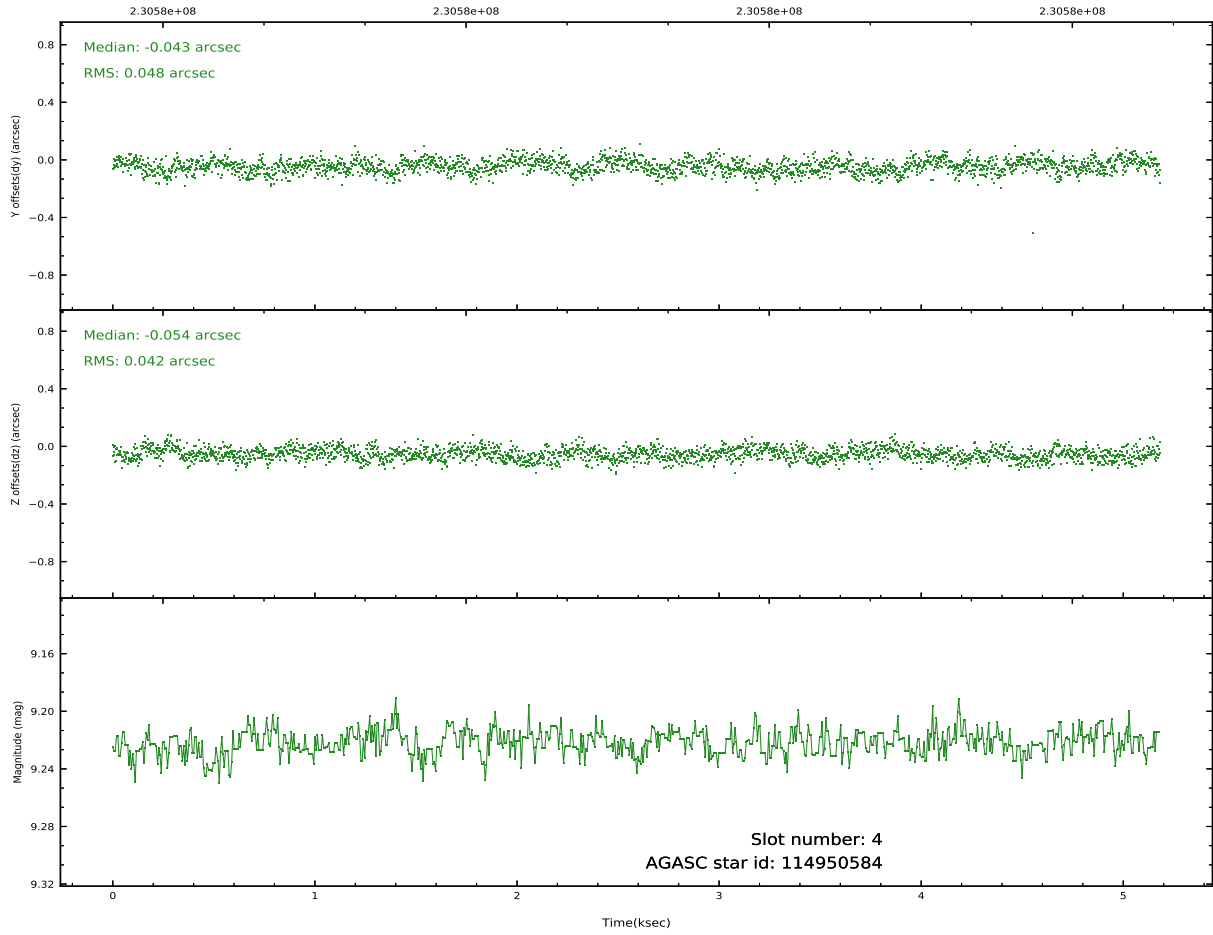
2.4.1 Slot 3



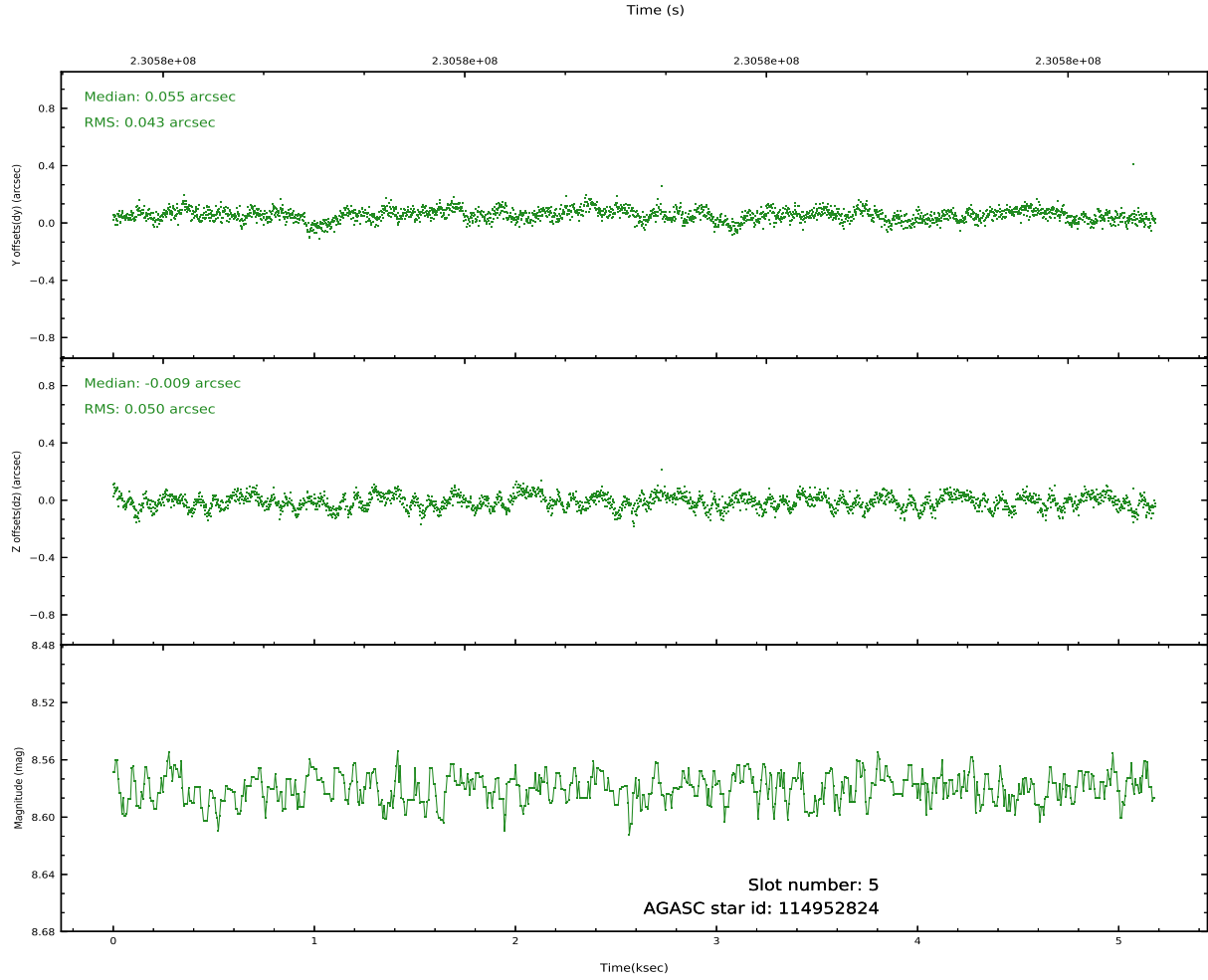
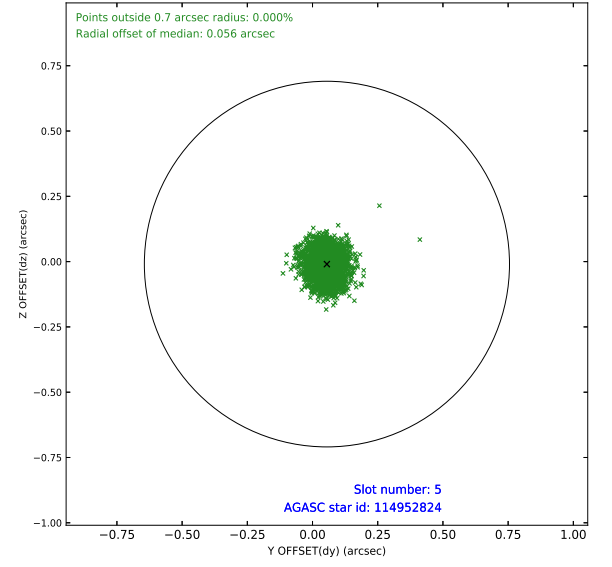
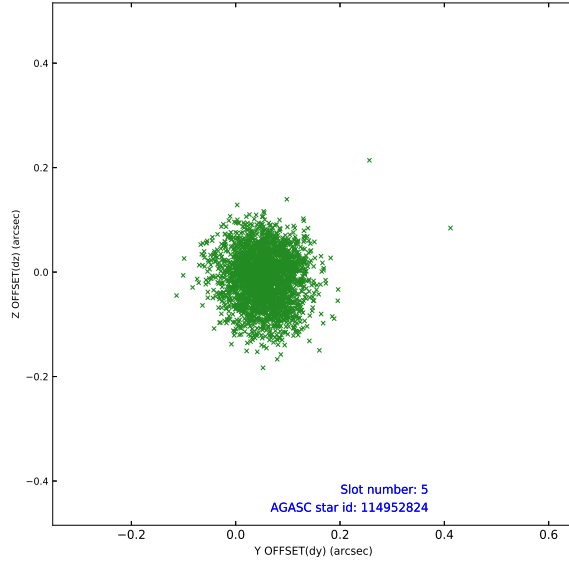
2.4.2 Slot 4



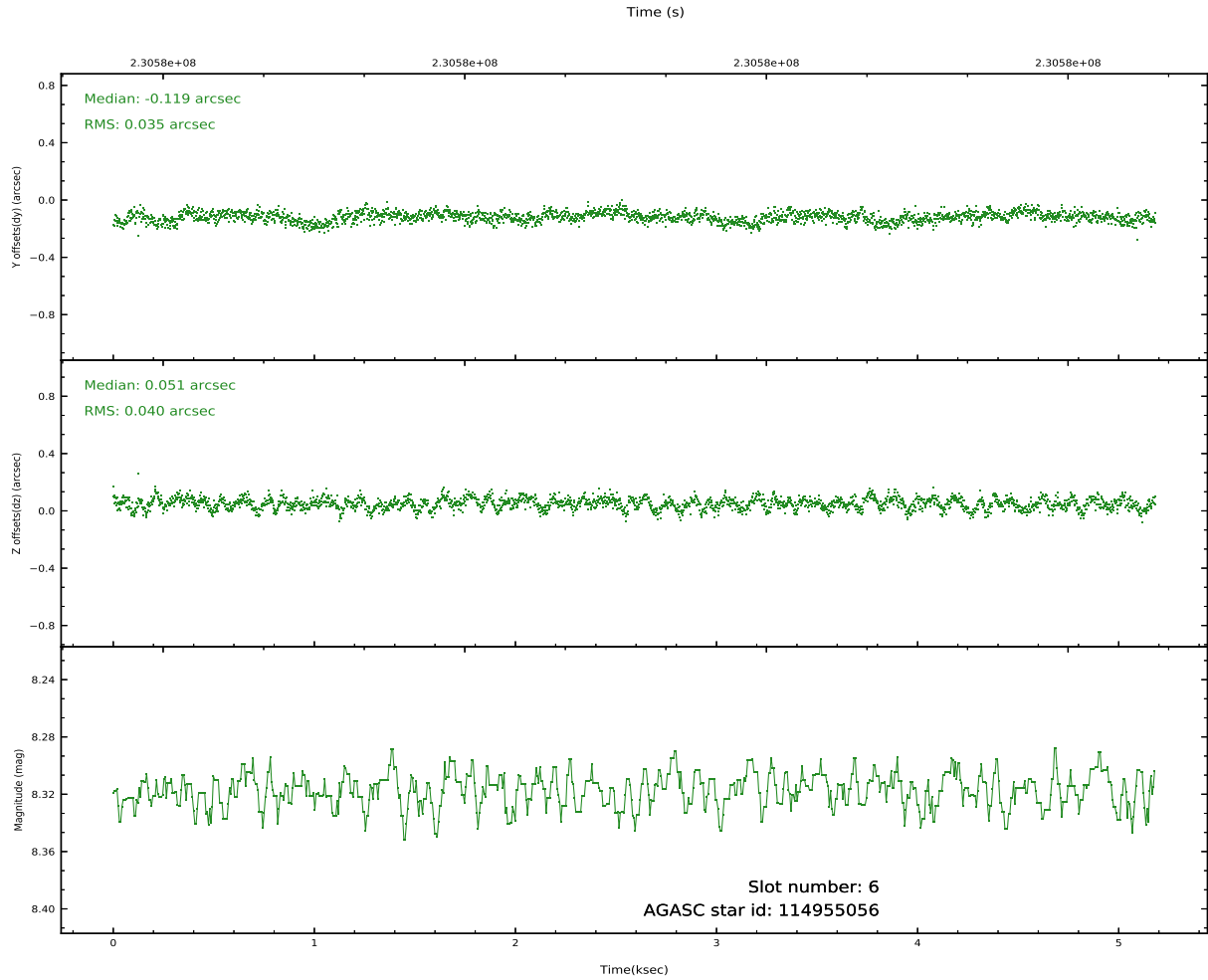
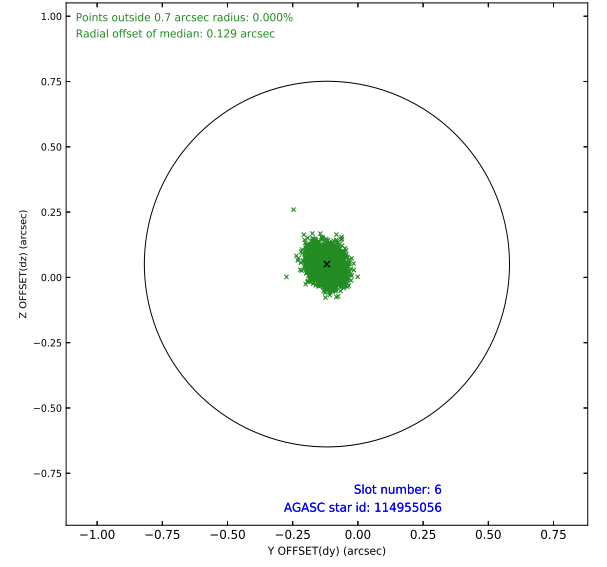
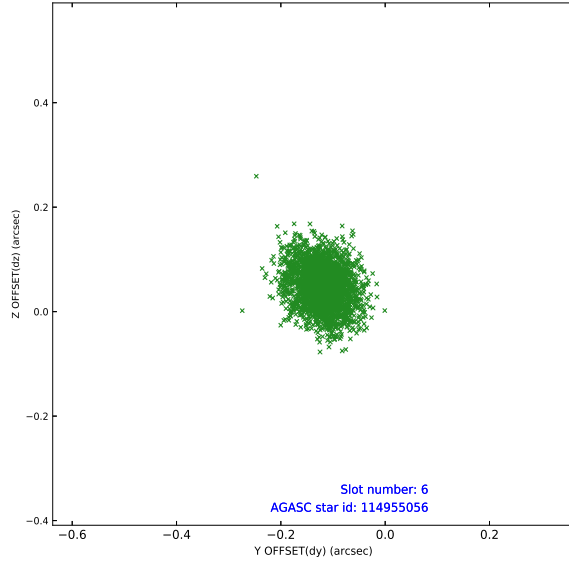
Time (s)



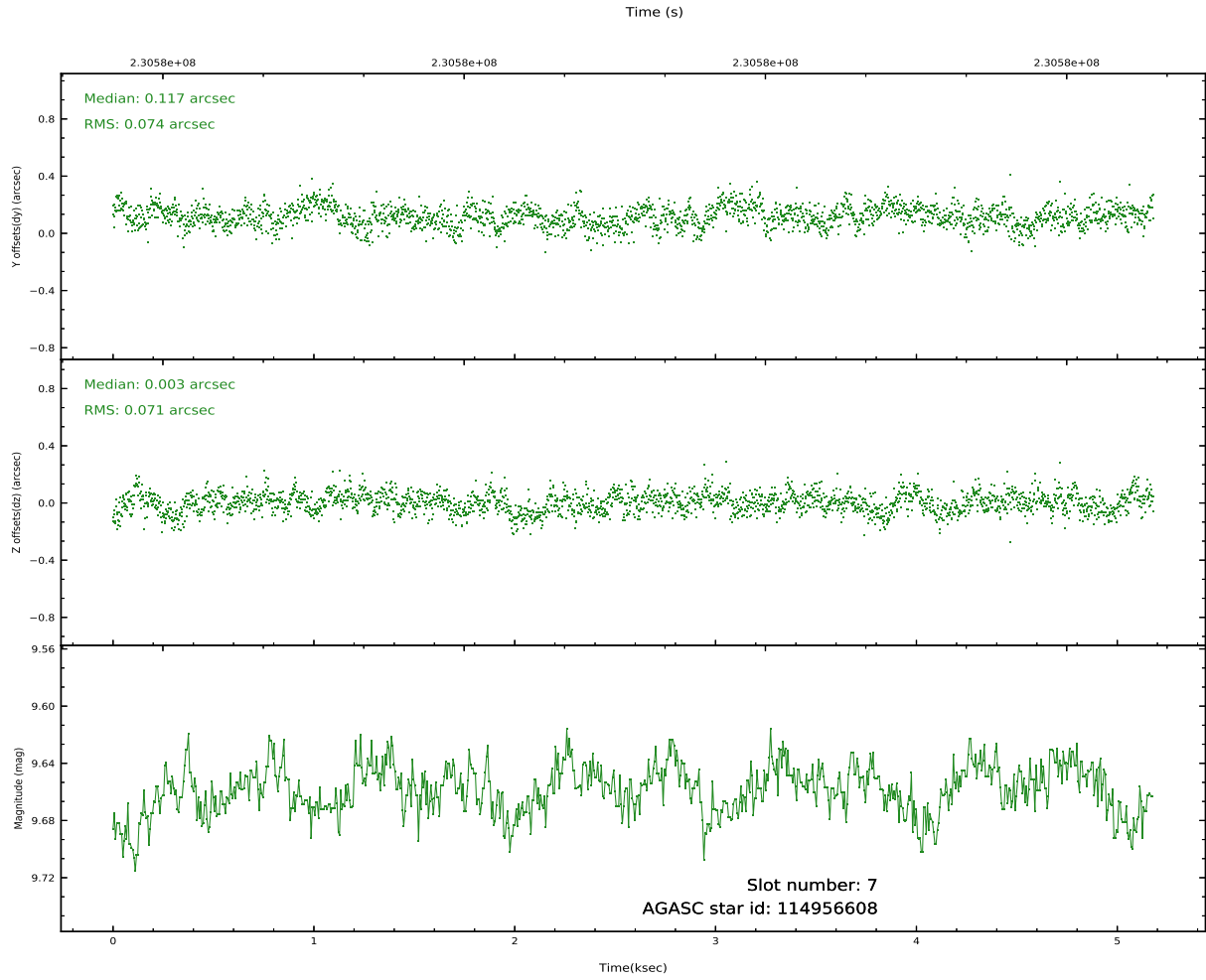
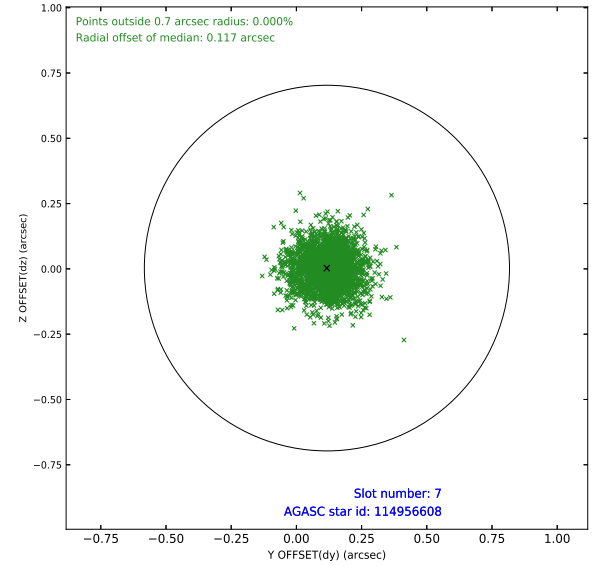
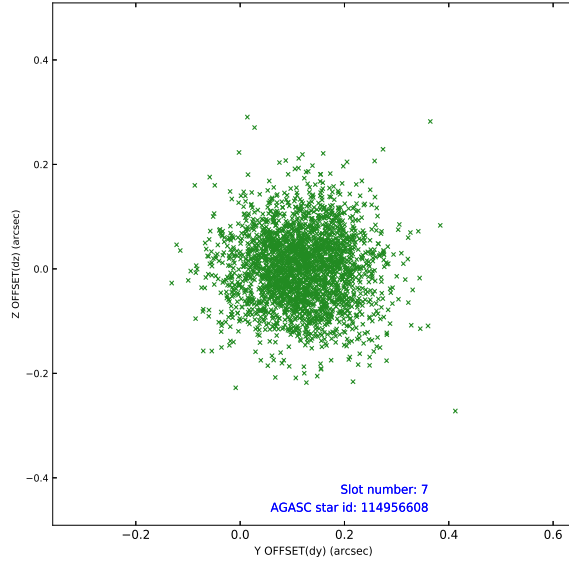
2.4.3 Slot 5



2.4.4 Slot 6

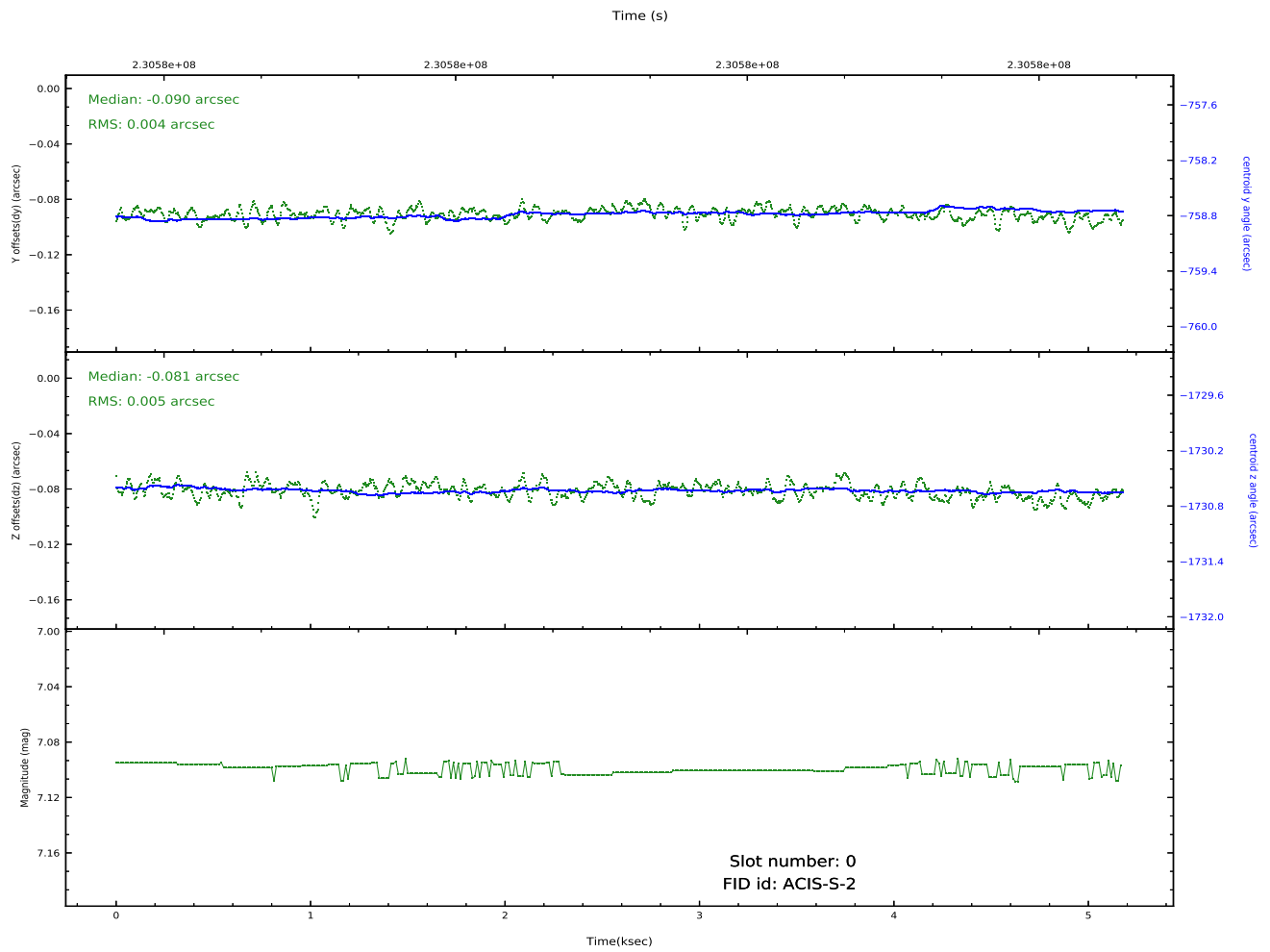
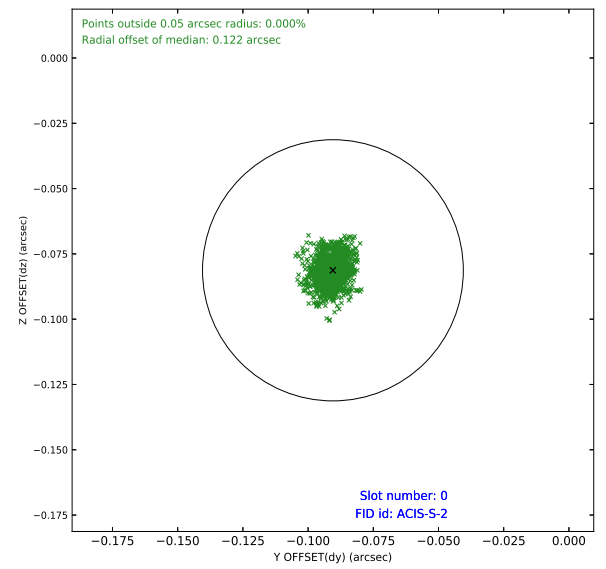
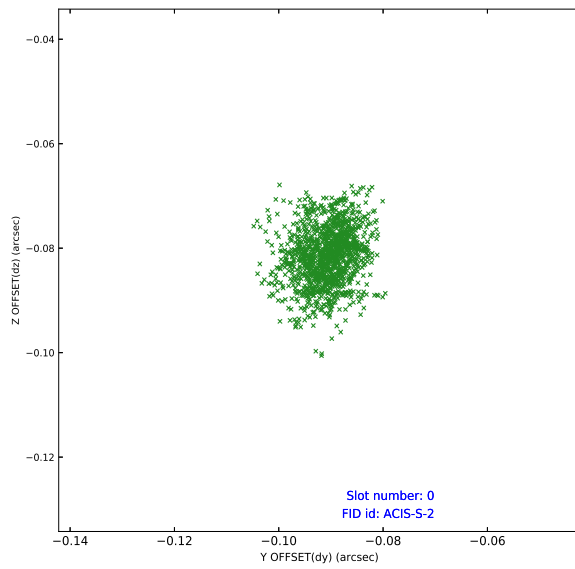


2.4.5 Slot 7

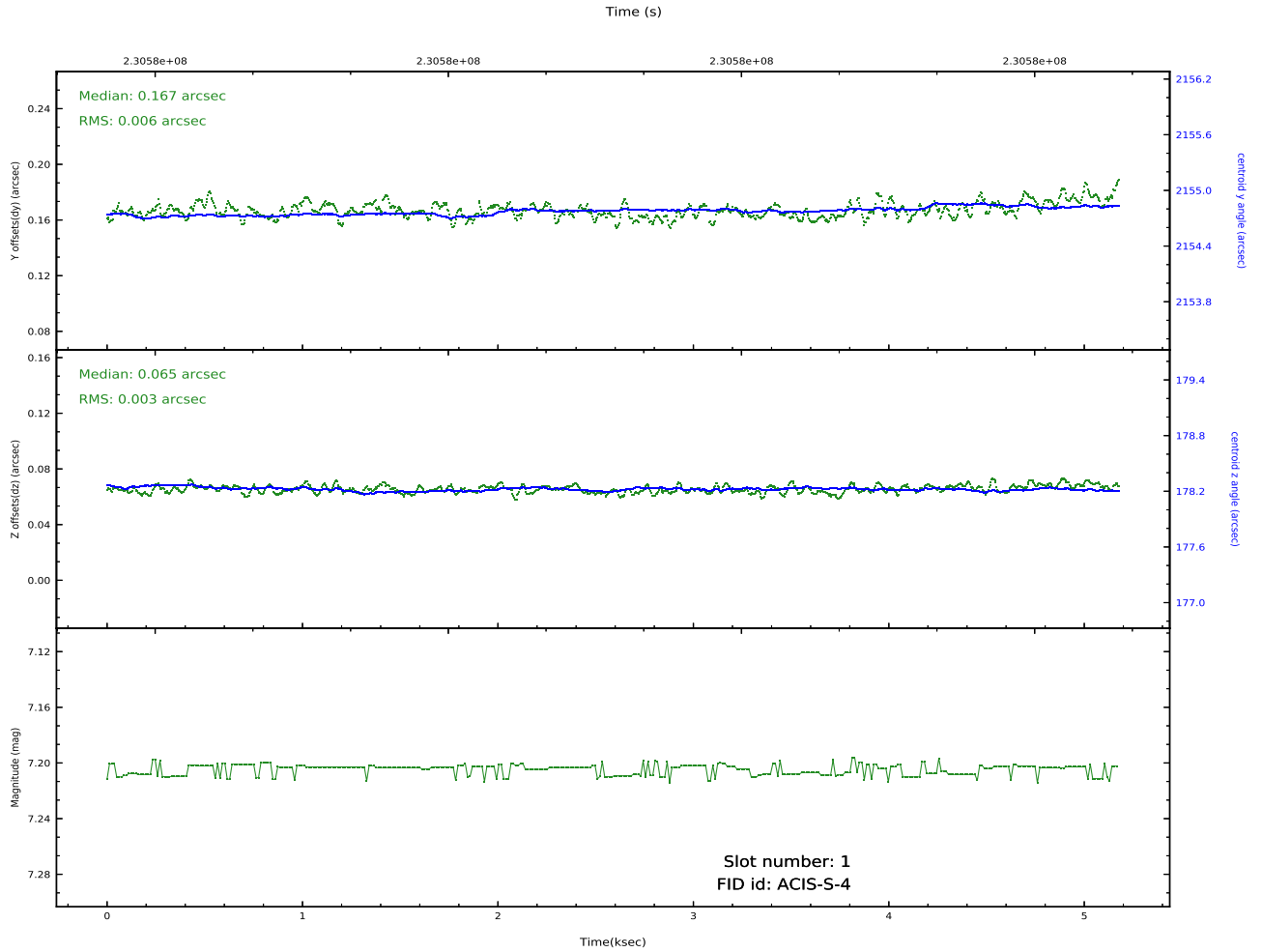
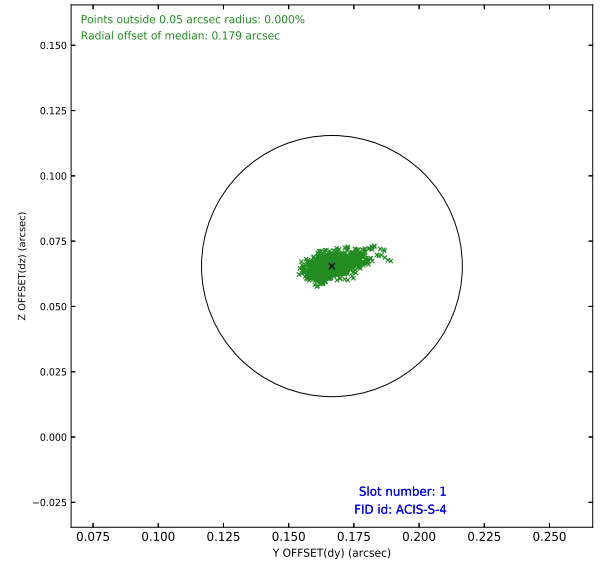
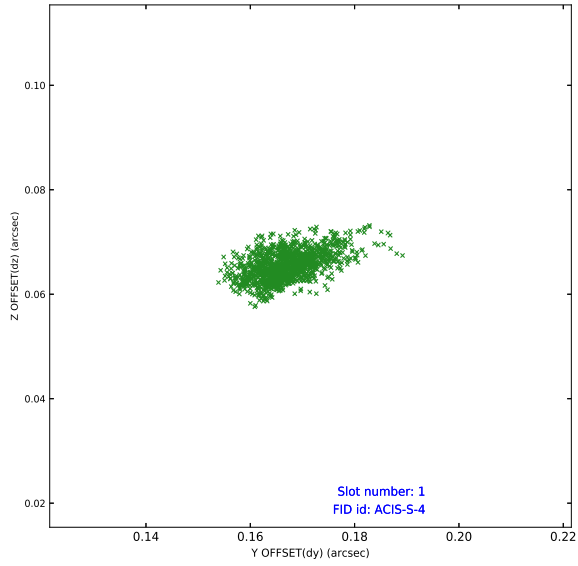


2.5 FID Slots

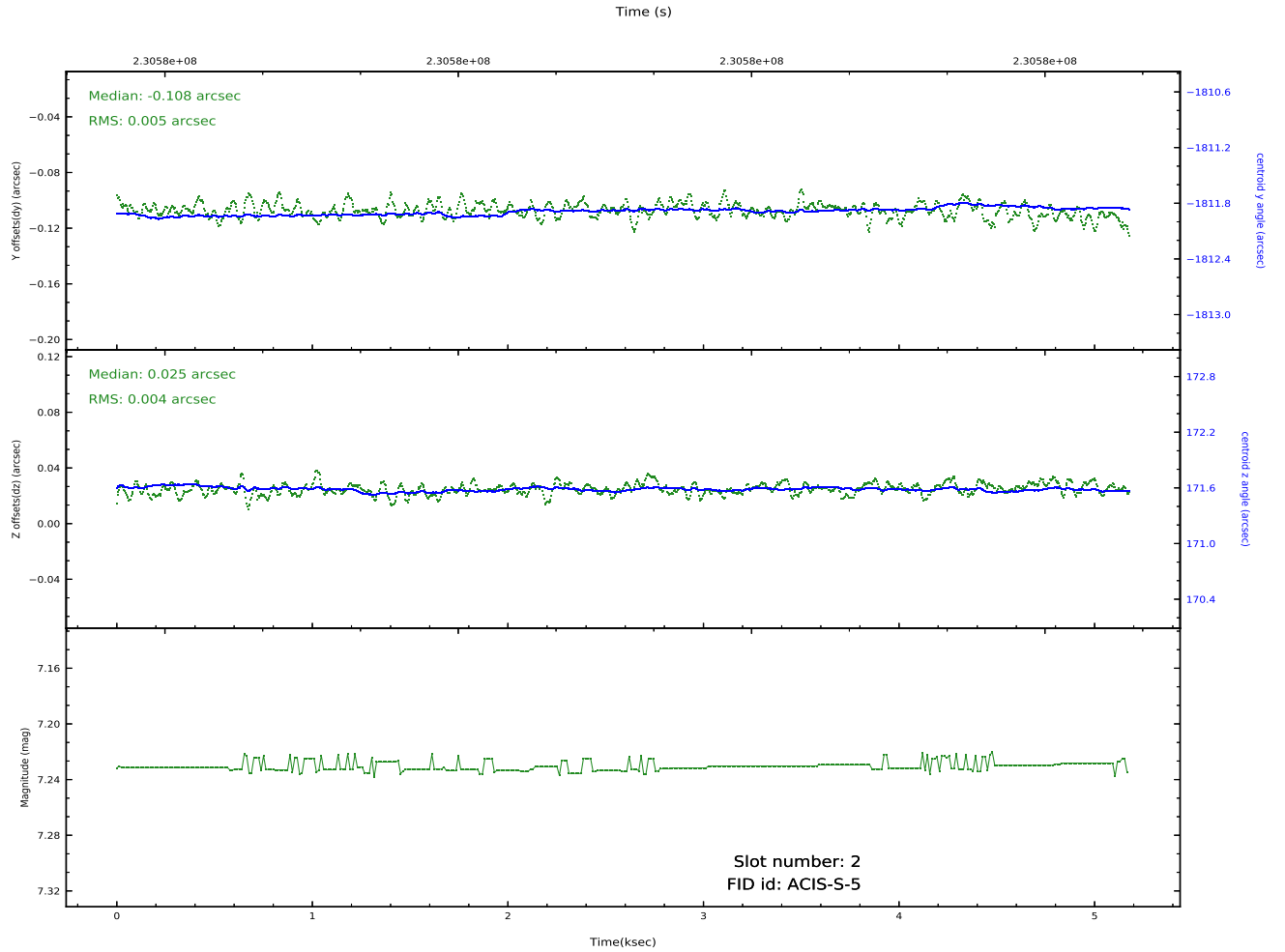
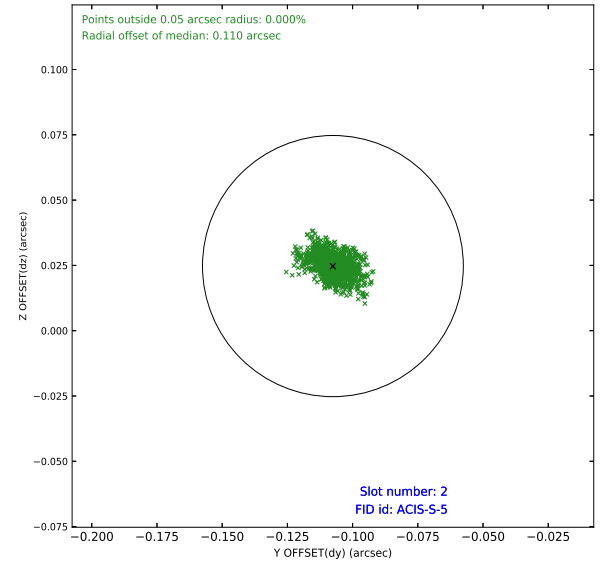
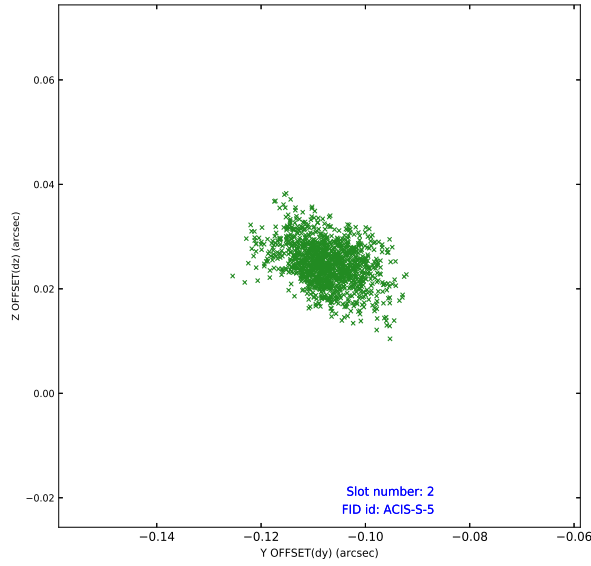
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.1808

A.2 Comments

Window constraint met. Joint Proposal: CX0-HST