

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5742 - L2 Version 4
Chandra X-Ray Center

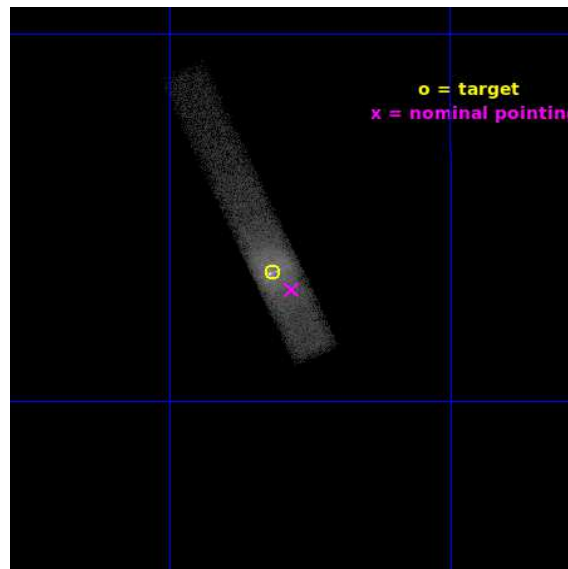
L2 Processing Date : Oct 8 2020

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1 Front

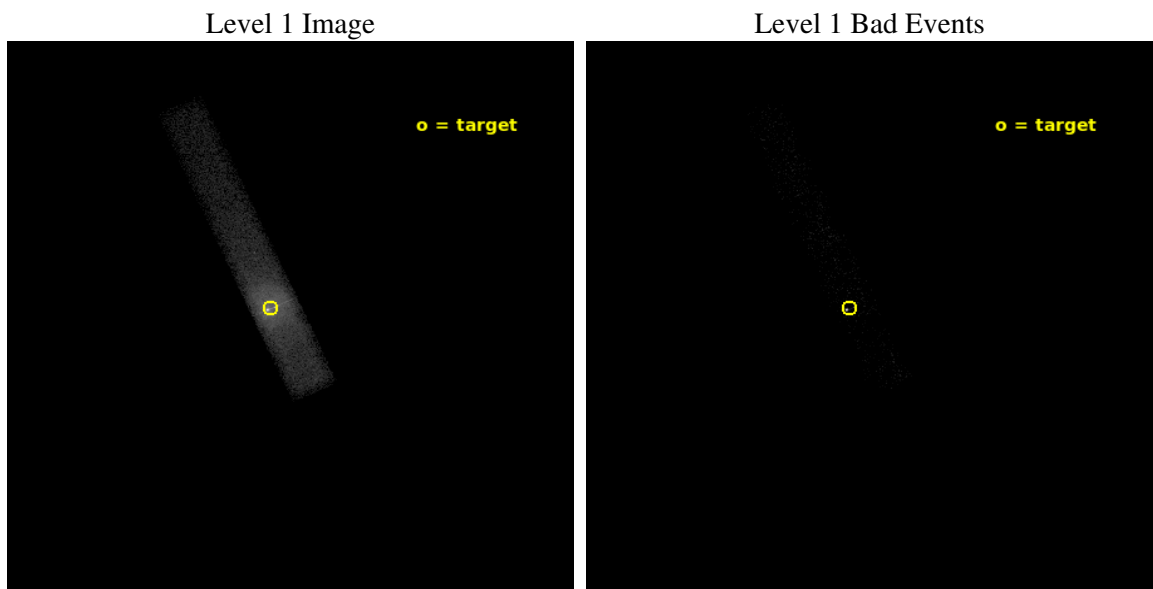
seq_num	701164	Sequence number
obs_id	5742	Observation id
title	The X-ray Flares of Knot 'HST-1' in the M87 Jet (monitoring)	Pro
observer	Dr. John Biretta	Principal investigator
object	M87	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.704167	Observer's specified target RA [deg]
dec_targ	12.391667	Observer's specified target Dec [deg]
ra_nom	187.69551797443	Nominal RA [deg]
dec_nom	12.383860867537	Nominal Dec [deg]
roll_nom	245.58938524023	Nominal Roll [deg]
revision	4	Processing version of data
ontime	5185.6000772417	Sum of GTIs [s]
livetime	4703.0655516431	Livetime [s]
ontime7	5185.6000772417	Sum of GTIs [s]
l2events	59362	Number of level 2 events



2 OBI

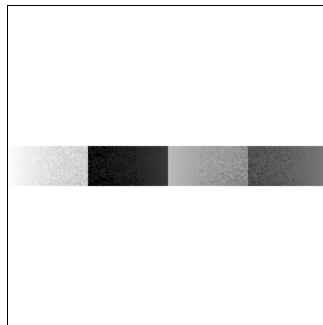
2.1 OBI

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	5185.6000772417	Sum of GTIs [s]
caldsver	4.9.2	 	ontime7	5185.6000772417	Sum of GTIs [s]
date	2020-10-09T00:44:34	Date and time of file creation	l1events	76353	Number of level 1 events
revision	4	Processing version of data			

2.1.4 Events

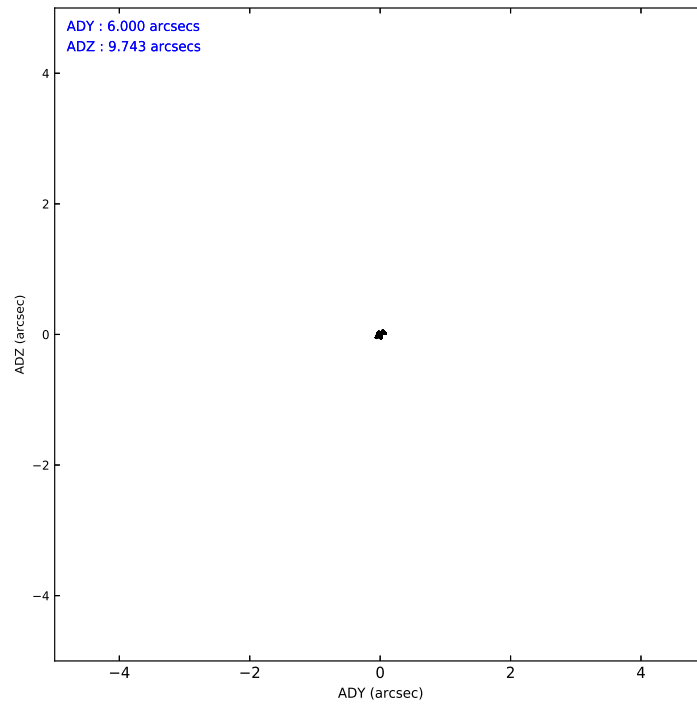
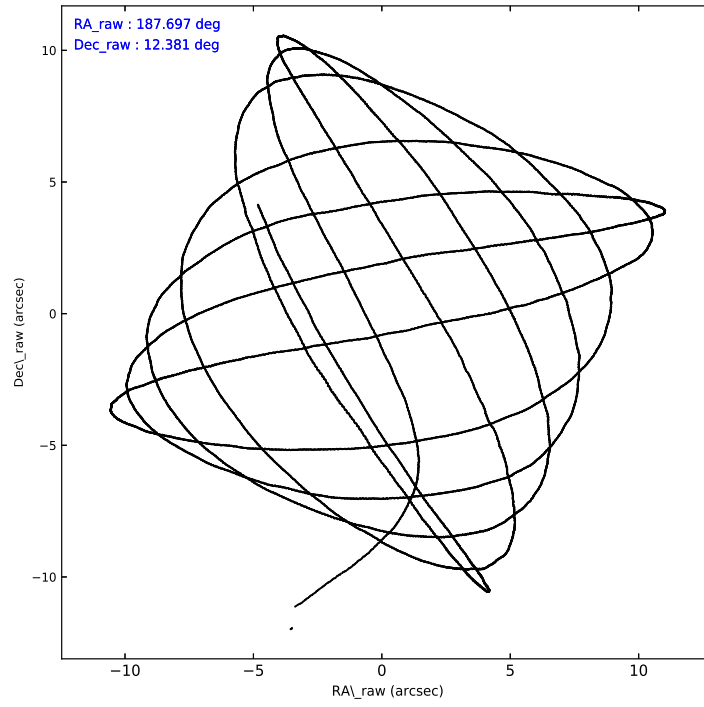
	ccd 7
level 1 events	76353
rejected events	16405
rejected %	21%

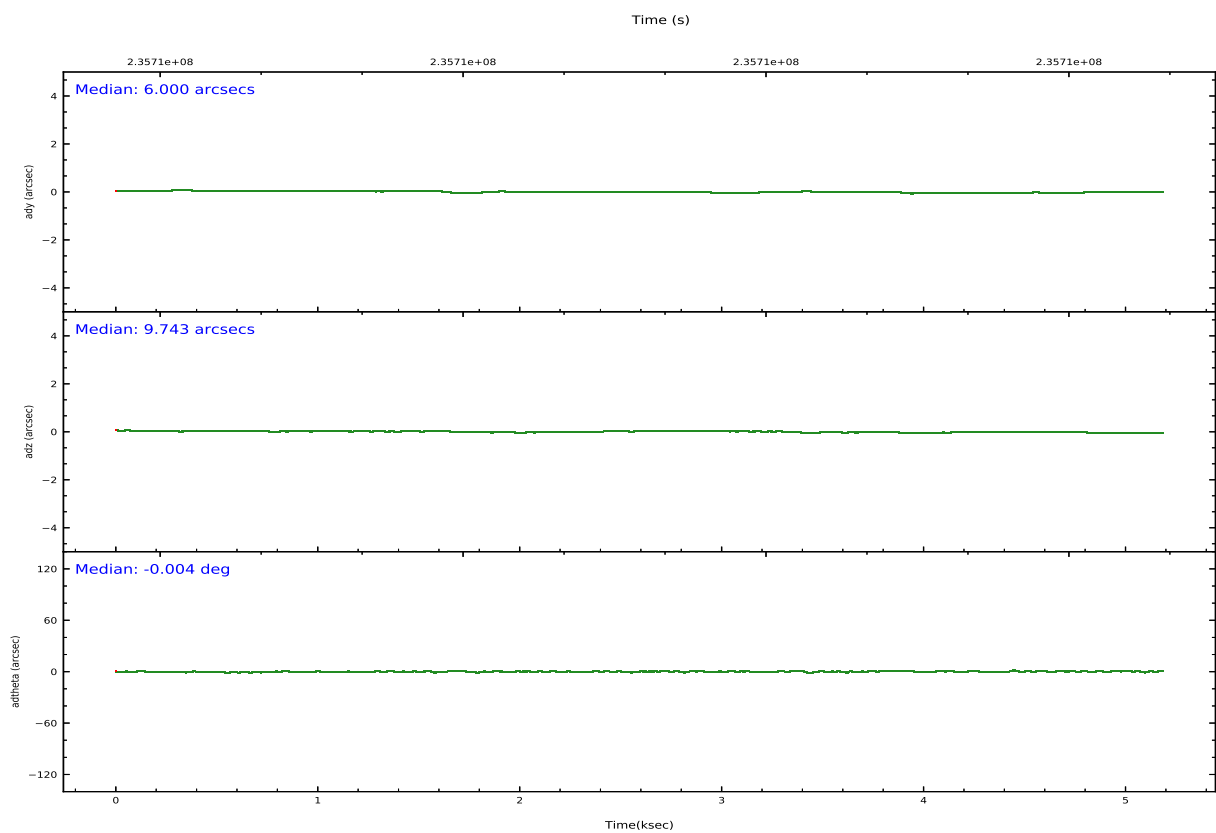
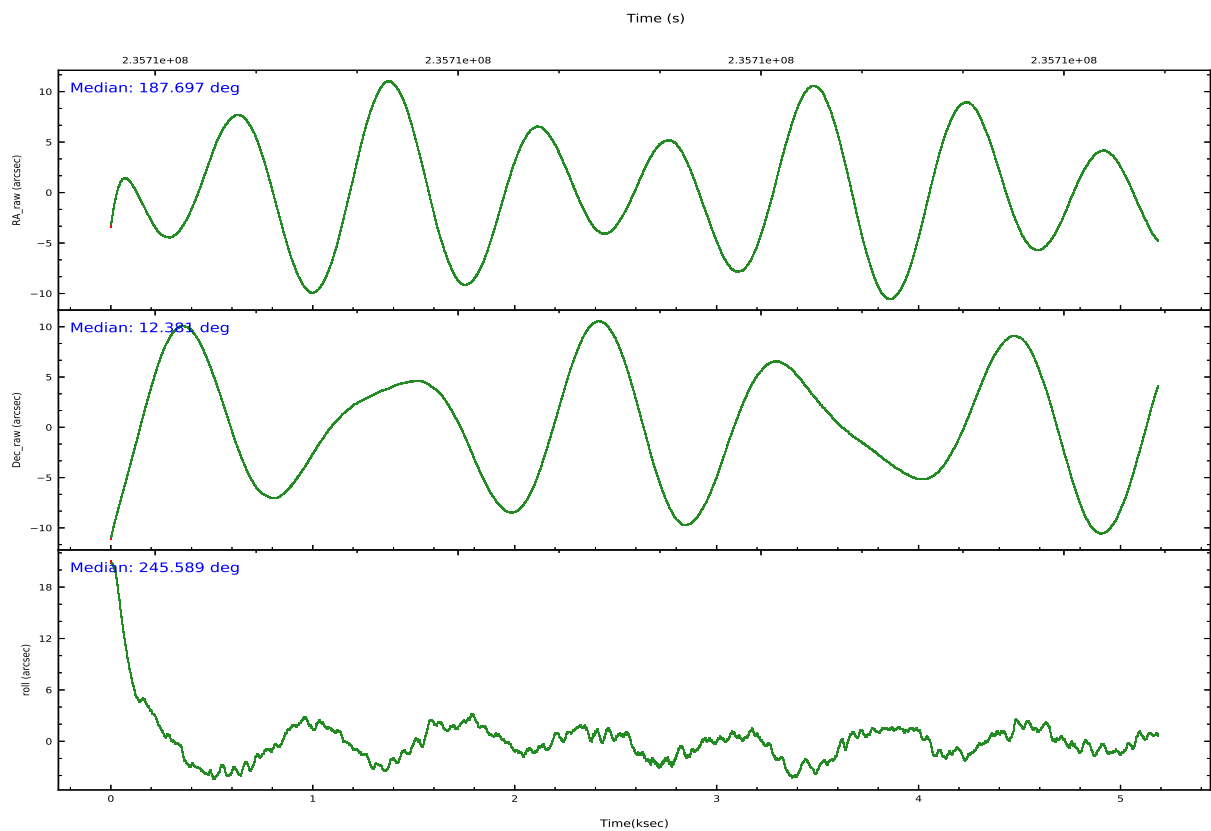
	ccd 7
grade 0 events	18193
	23%
grade 1 events	471
	0%
grade 2 events	15564
	20%
grade 3 events	7086
	9%
grade 4 events	6971
	9%
grade 5 events	3058
	4%
grade 6 events	14586
	19%
grade 7 events	10424
	13%

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	187.694256	187.69551797443	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	12.408188	12.383860867537	Subarray start row	449	449
[deg] Pointing Roll	245.439015	245.58938524023	Subarray row count	128	128
[s] Window start time (MET)	235612864.184000	235612864.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	236217664.184000	236217664.184000	[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)	235706467.184000	235705161.88275			
Observation start date	2005-06-21T02:00:03	2005-06-21T01:39:21			
[s] Observation end time (MET)	235711467.184000	235711982.23307			
Observation end date	2005-06-21T03:23:23	2005-06-21T03:33:02			
Read mode	TIMED	TIMED			

2.3 Aspect



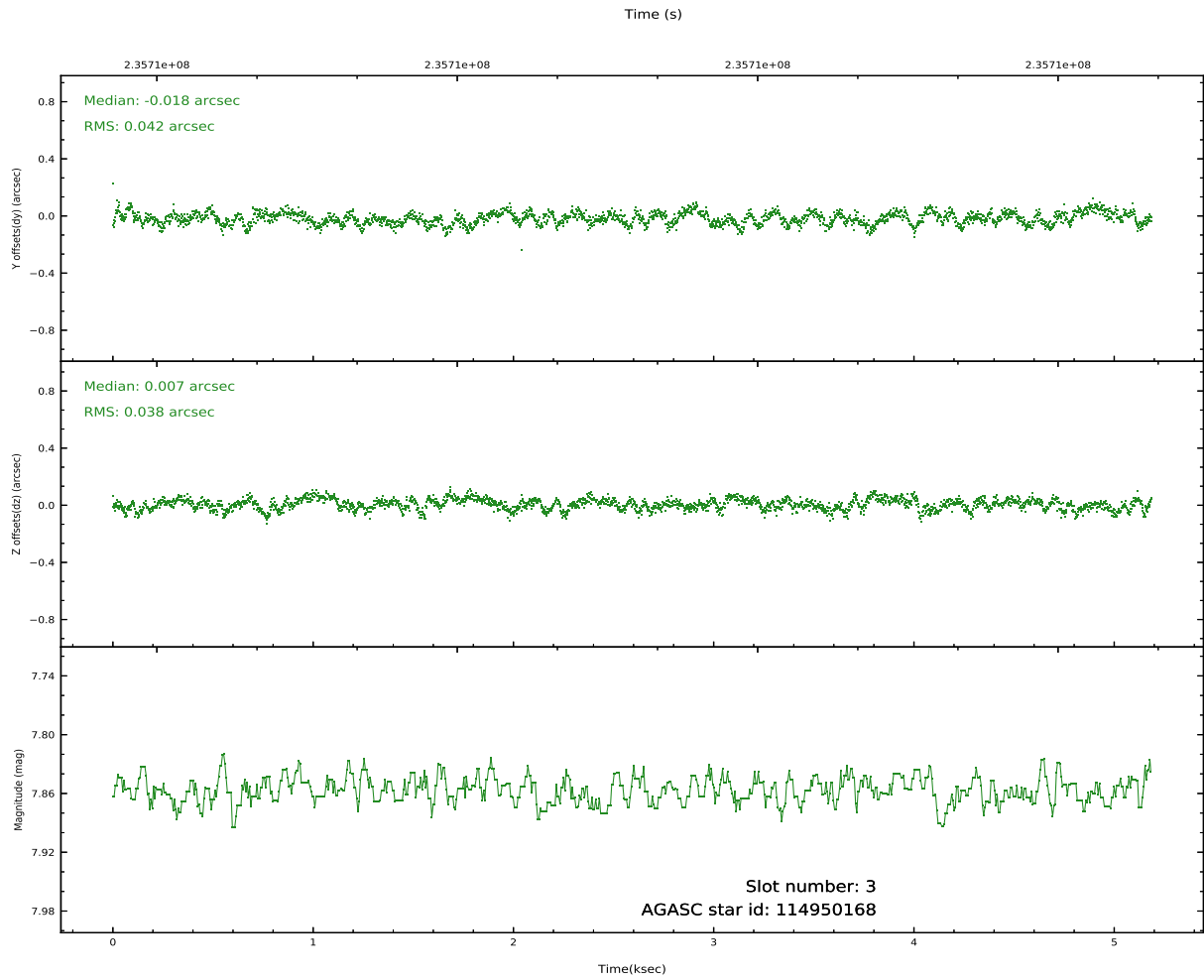
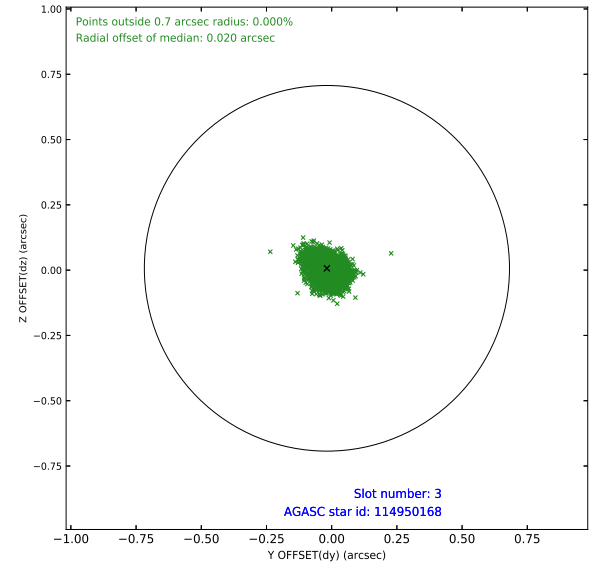
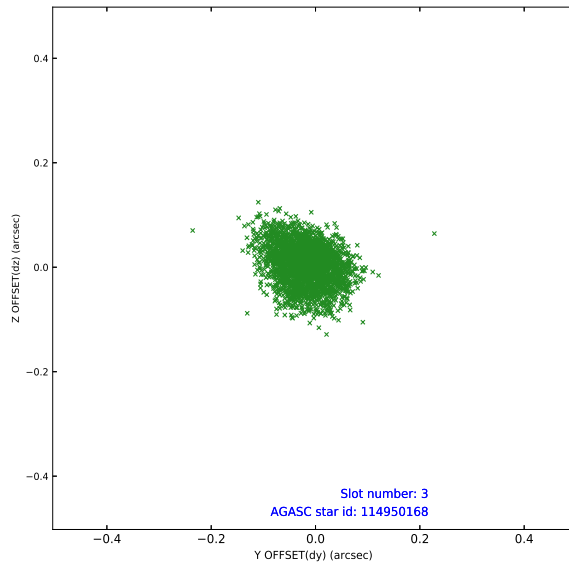


Slot Statistics

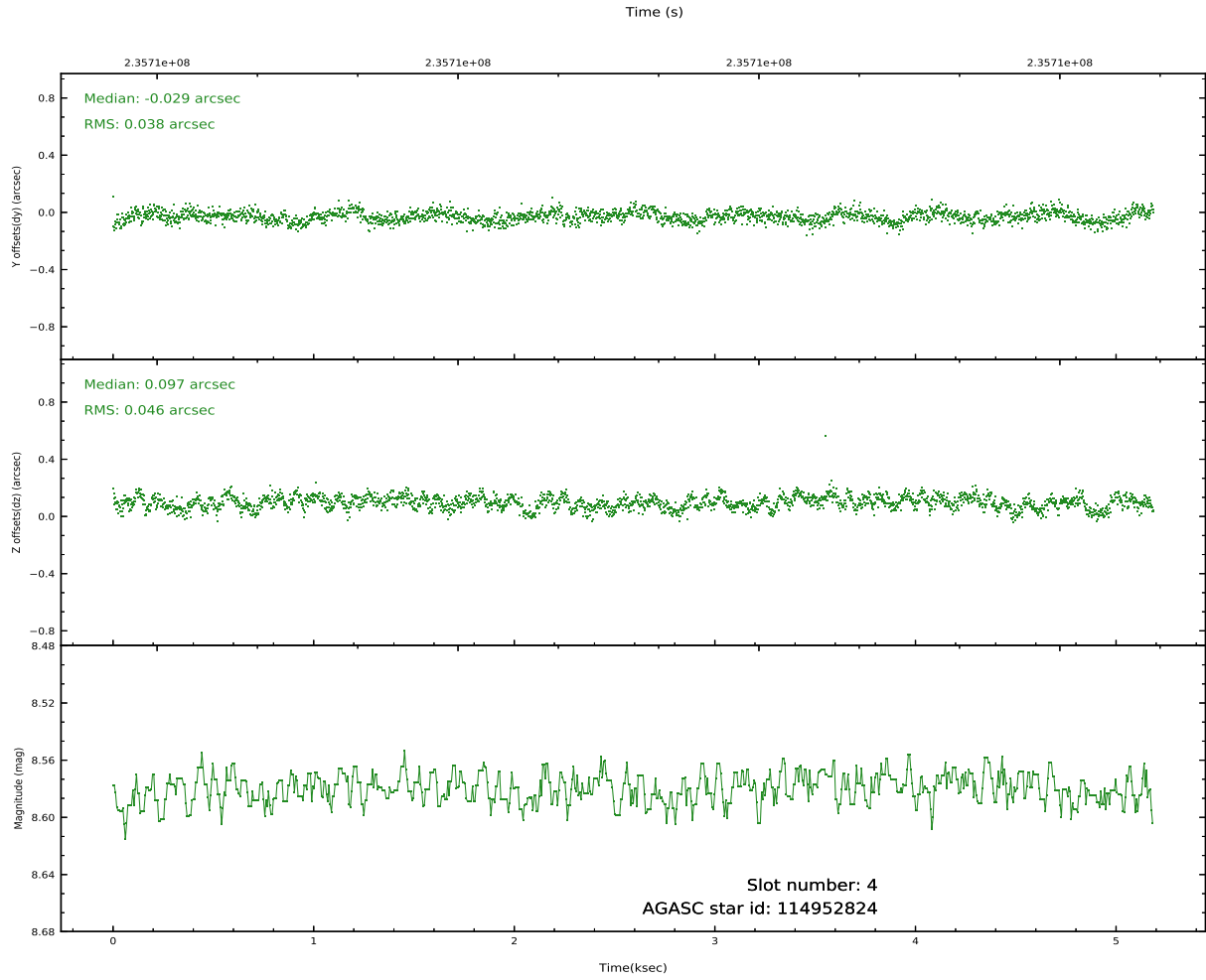
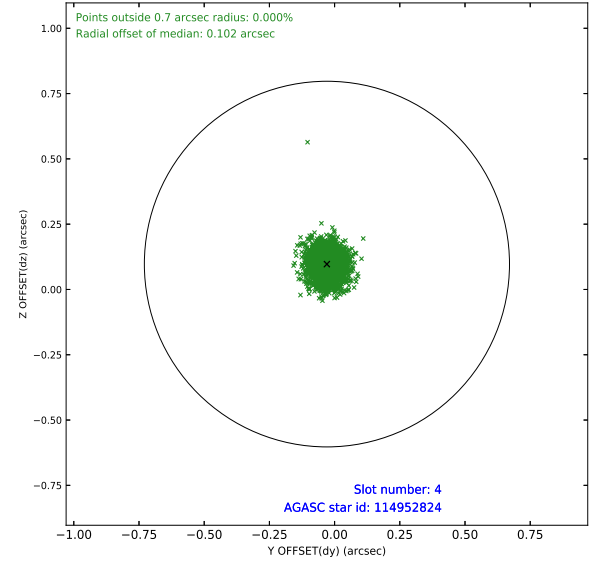
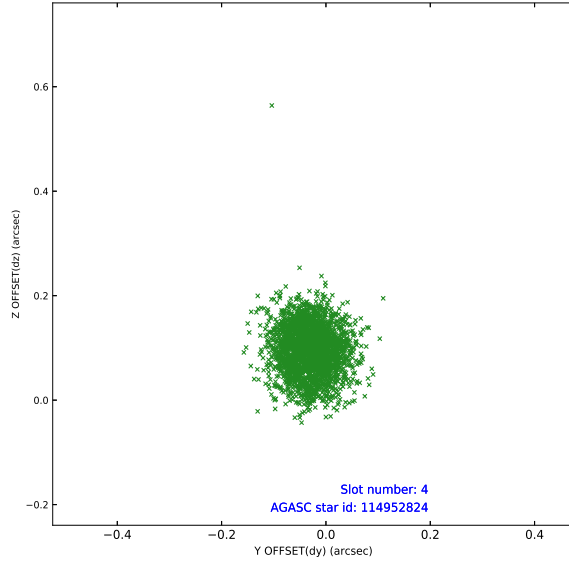
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	1266	1.000	-0.033	-0.069	0.006	0.010	0.000000	0.000000	-758.75	-1731
1	FID		ACIS-S-5	7.24	1266	1.000	-0.080	-0.007	0.006	0.010	0.000000	0.000000	-1812.45	169
2	FID		ACIS-S-6	7.35	1266	1.000	0.088	0.084	0.006	0.009	0.000000	0.000000	401.71	815
3	GUIDE	used	114950168	7.86	2531	1.000	-0.018	0.007	0.060	0.097	187.143398	12.117441	1756.61	-1328
4	GUIDE	used	114952824	8.58	2529	1.000	-0.029	0.097	0.063	0.100	187.703904	12.486727	-270.28	-87
5	GUIDE	used	114954440	9.19	2531	1.000	0.053	-0.098	0.091	0.159	186.915066	12.219118	1755.48	-2211
6	GUIDE	used	114955056	8.33	2529	1.000	-0.121	0.177	0.065	0.103	187.914001	12.127854	596.83	1121
7	GUIDE	used	114957008	8.26	2530	1.000	0.117	-0.177	0.067	0.114	186.894794	12.099160	2178.93	-2098

2.4 Star Slots

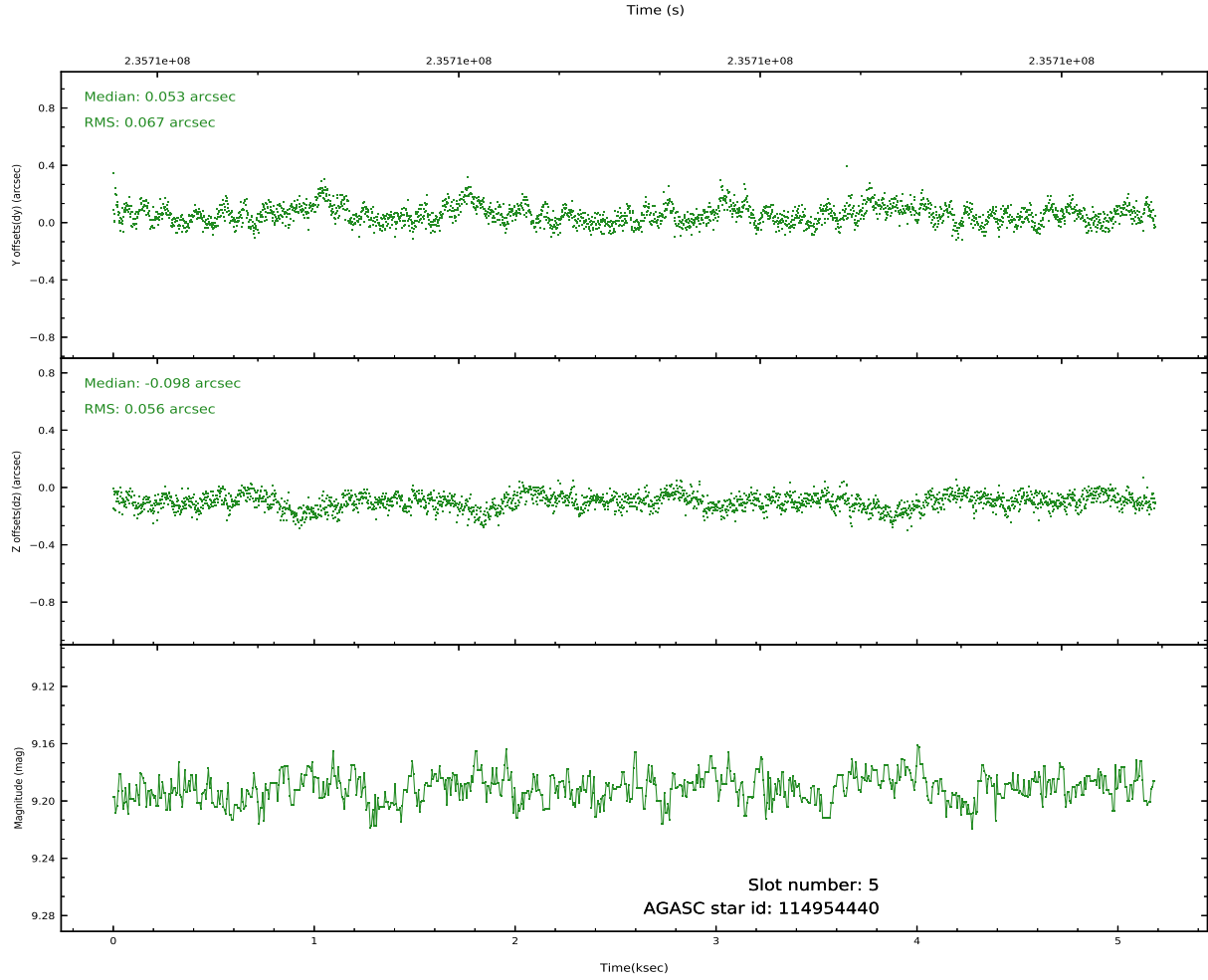
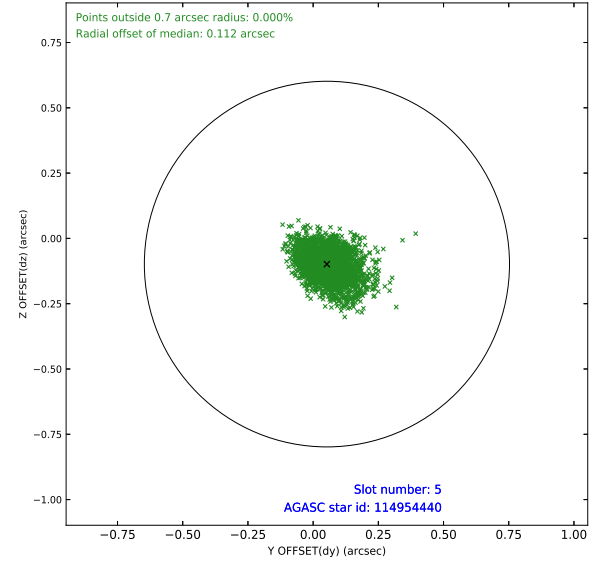
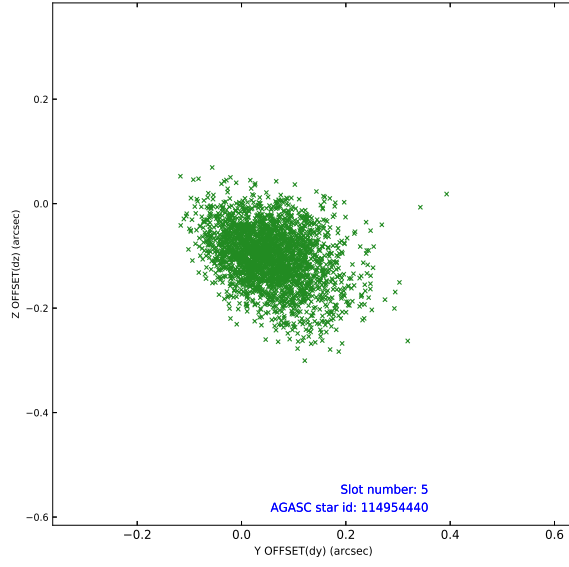
2.4.1 Slot 3



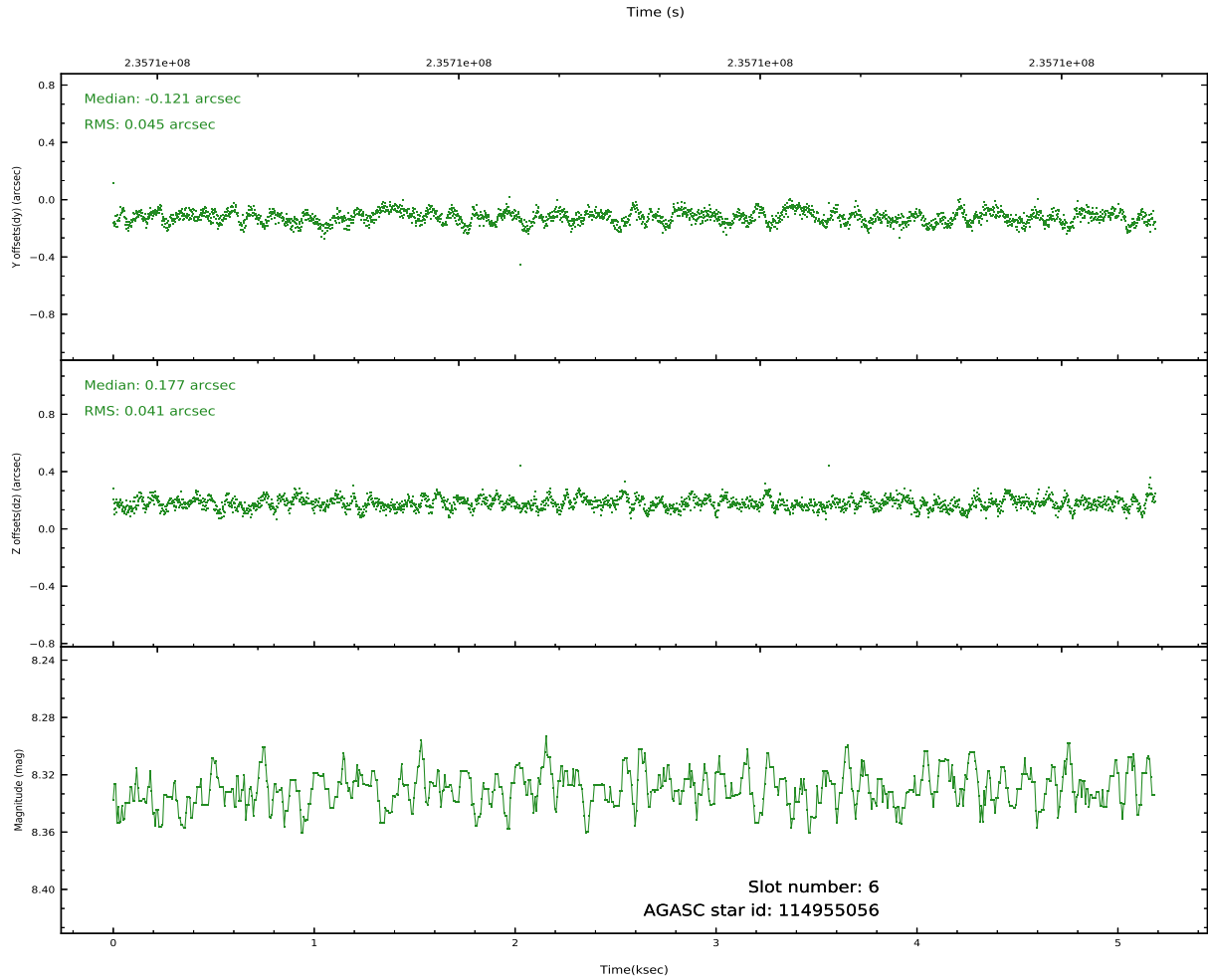
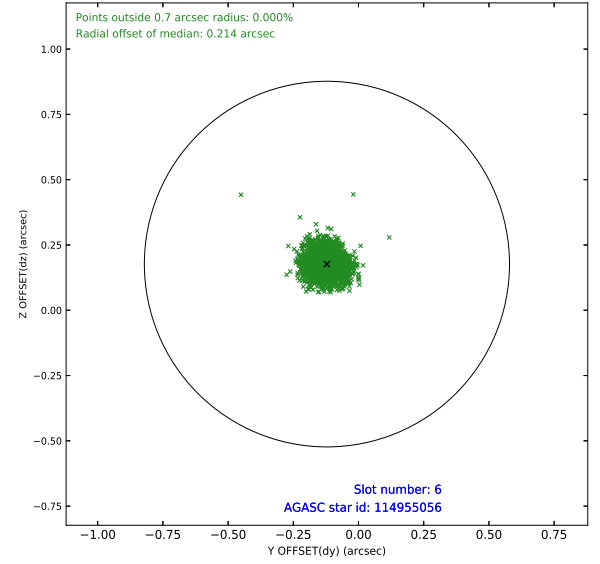
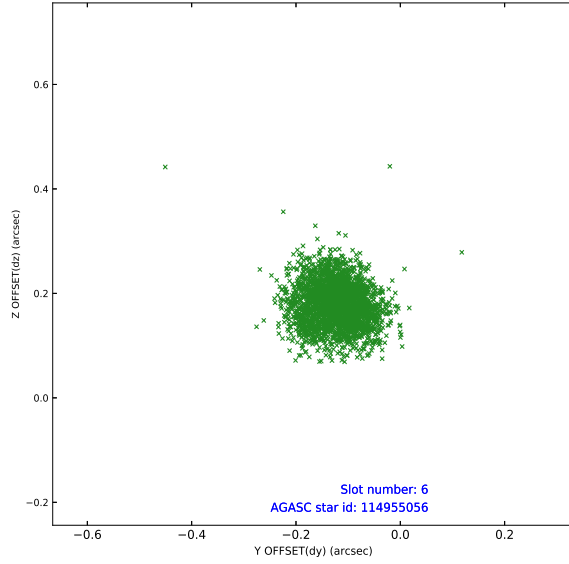
2.4.2 Slot 4



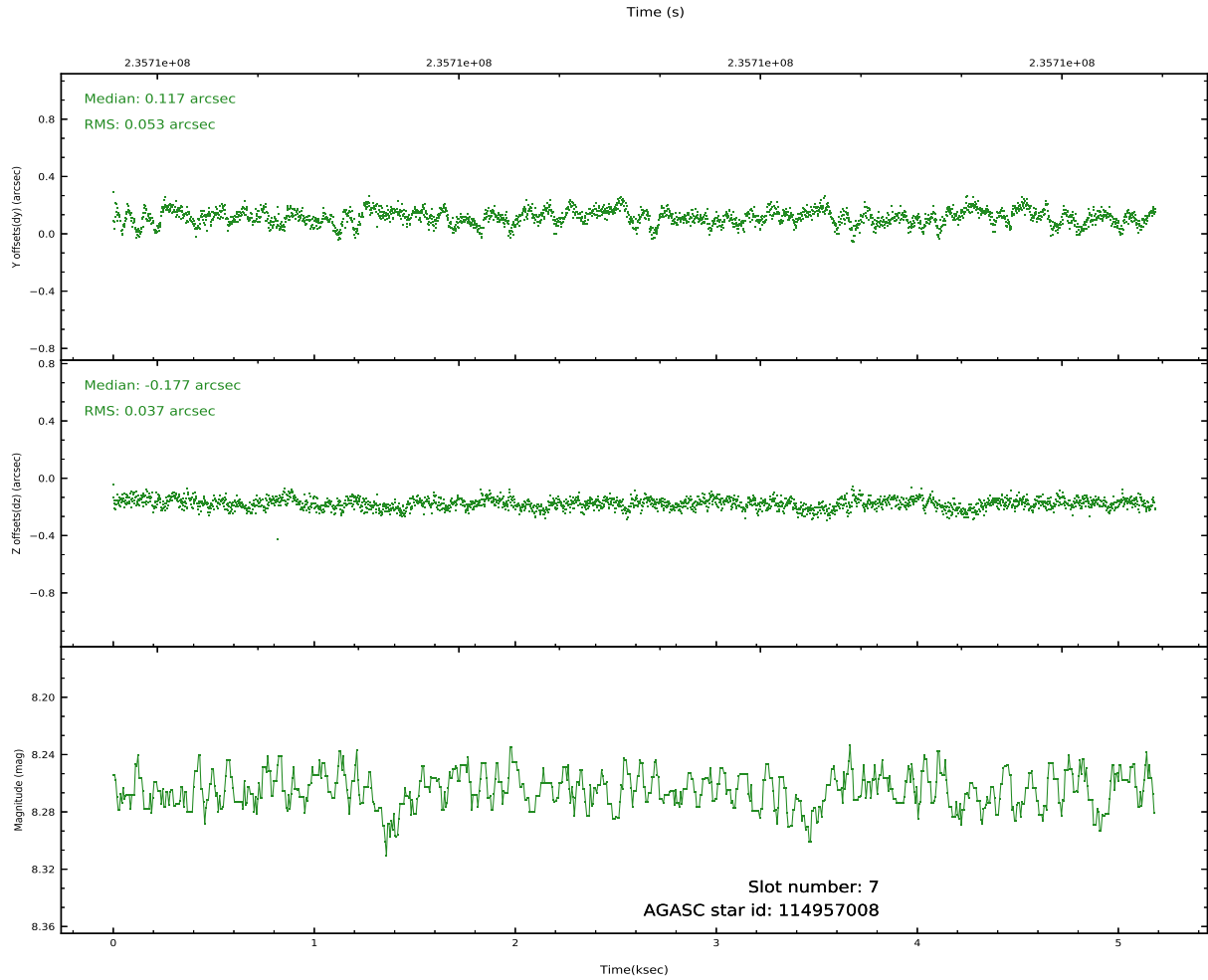
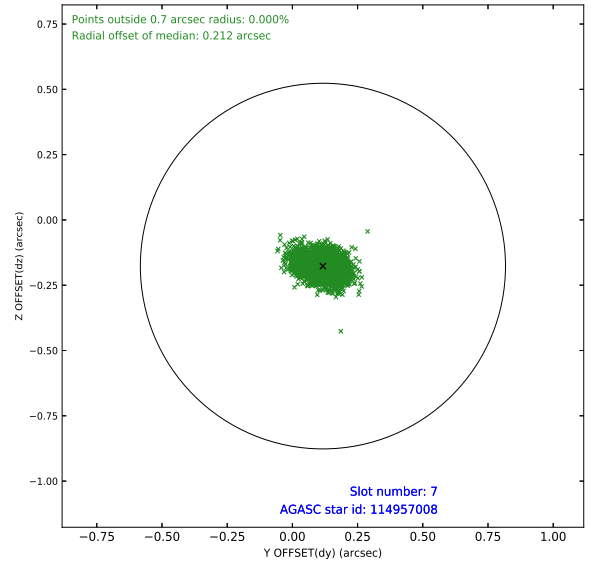
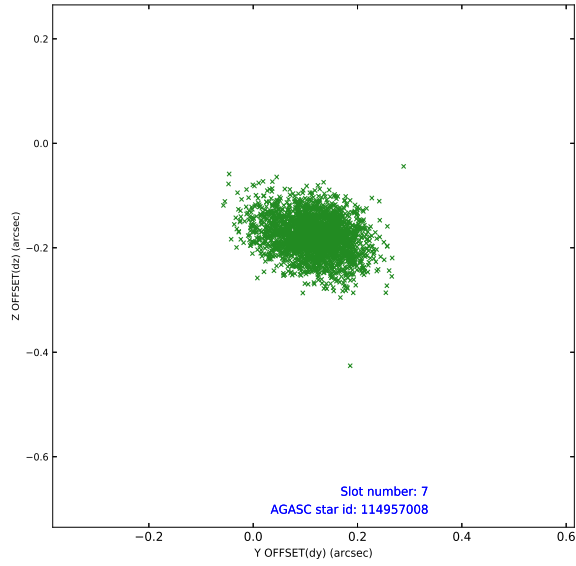
2.4.3 Slot 5



2.4.4 Slot 6

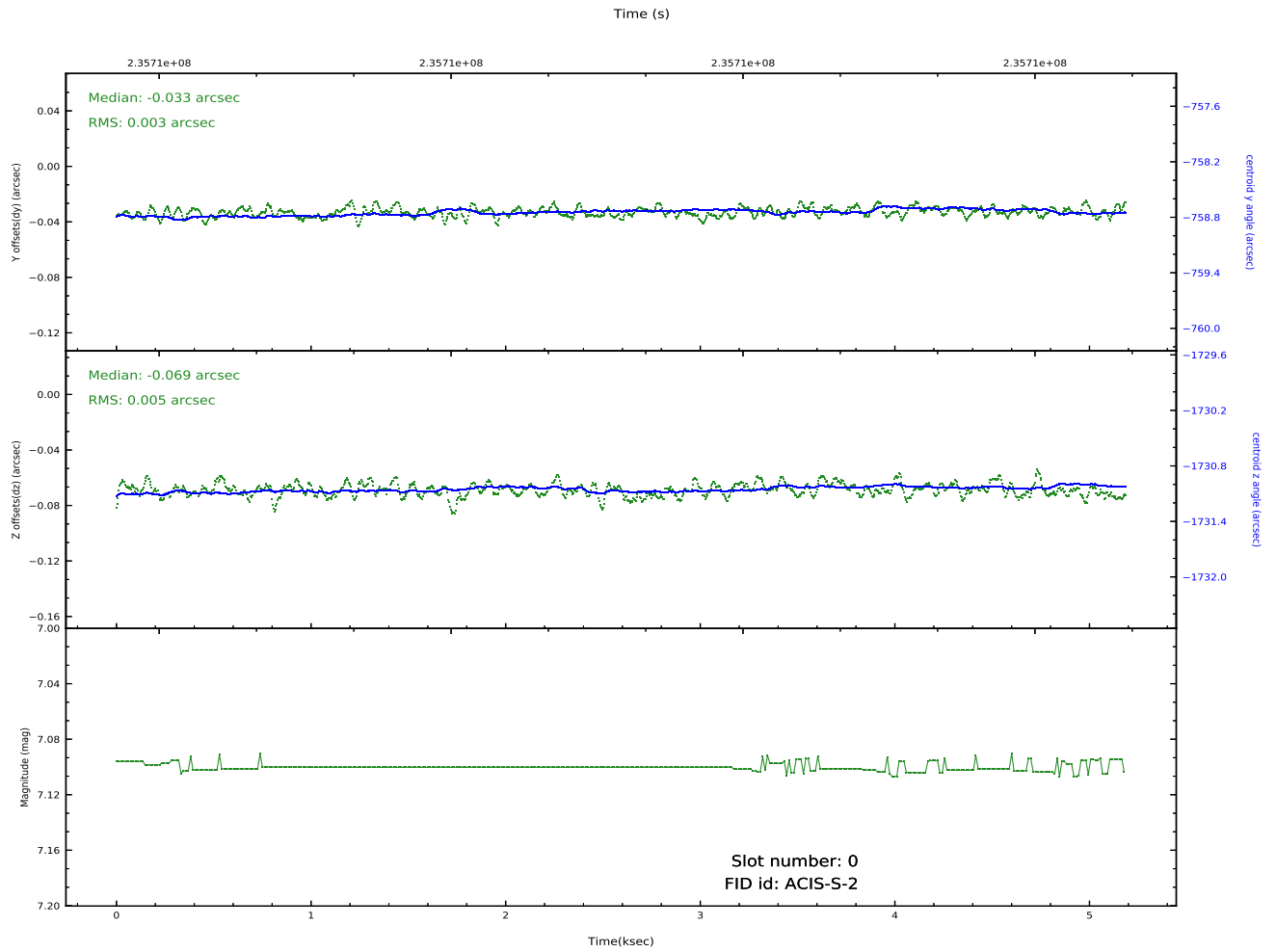
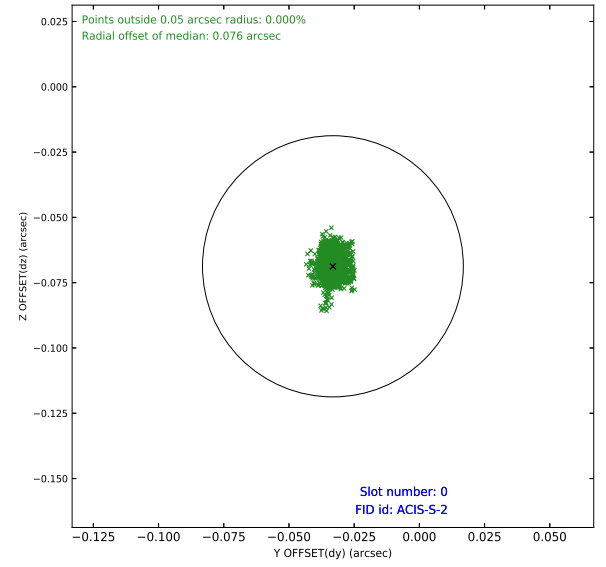
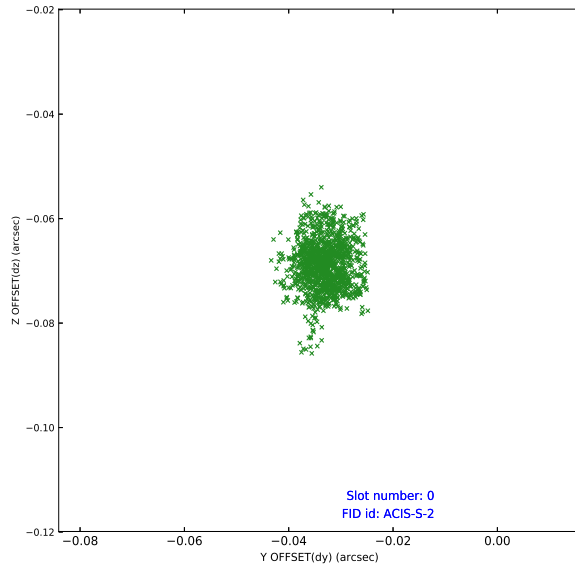


2.4.5 Slot 7

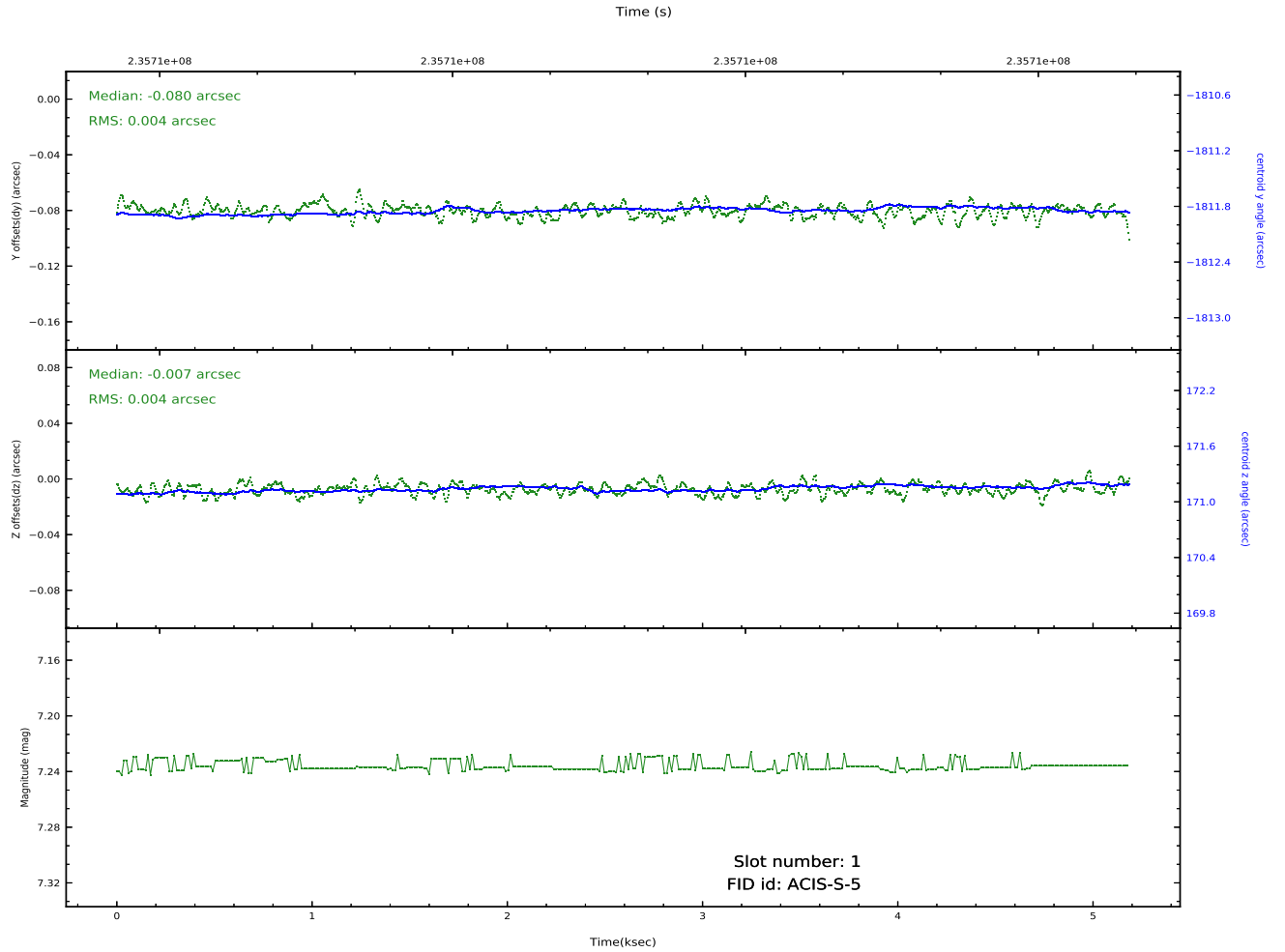
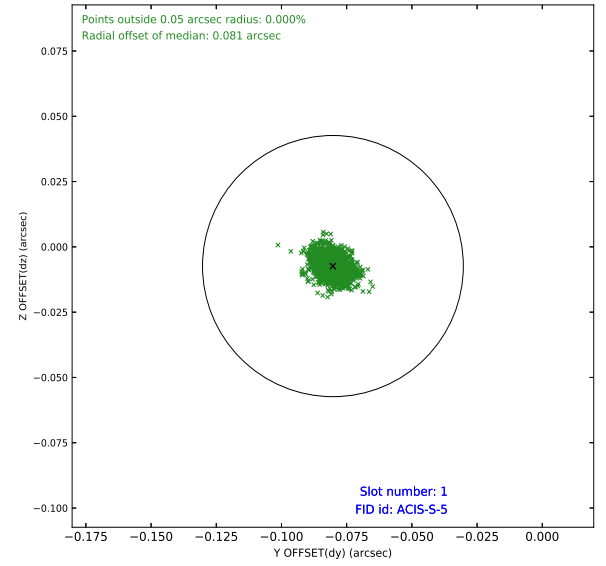
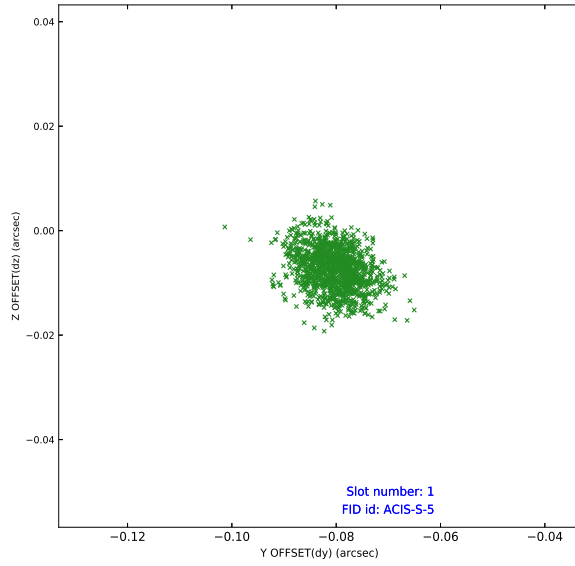


2.5 FID Slots

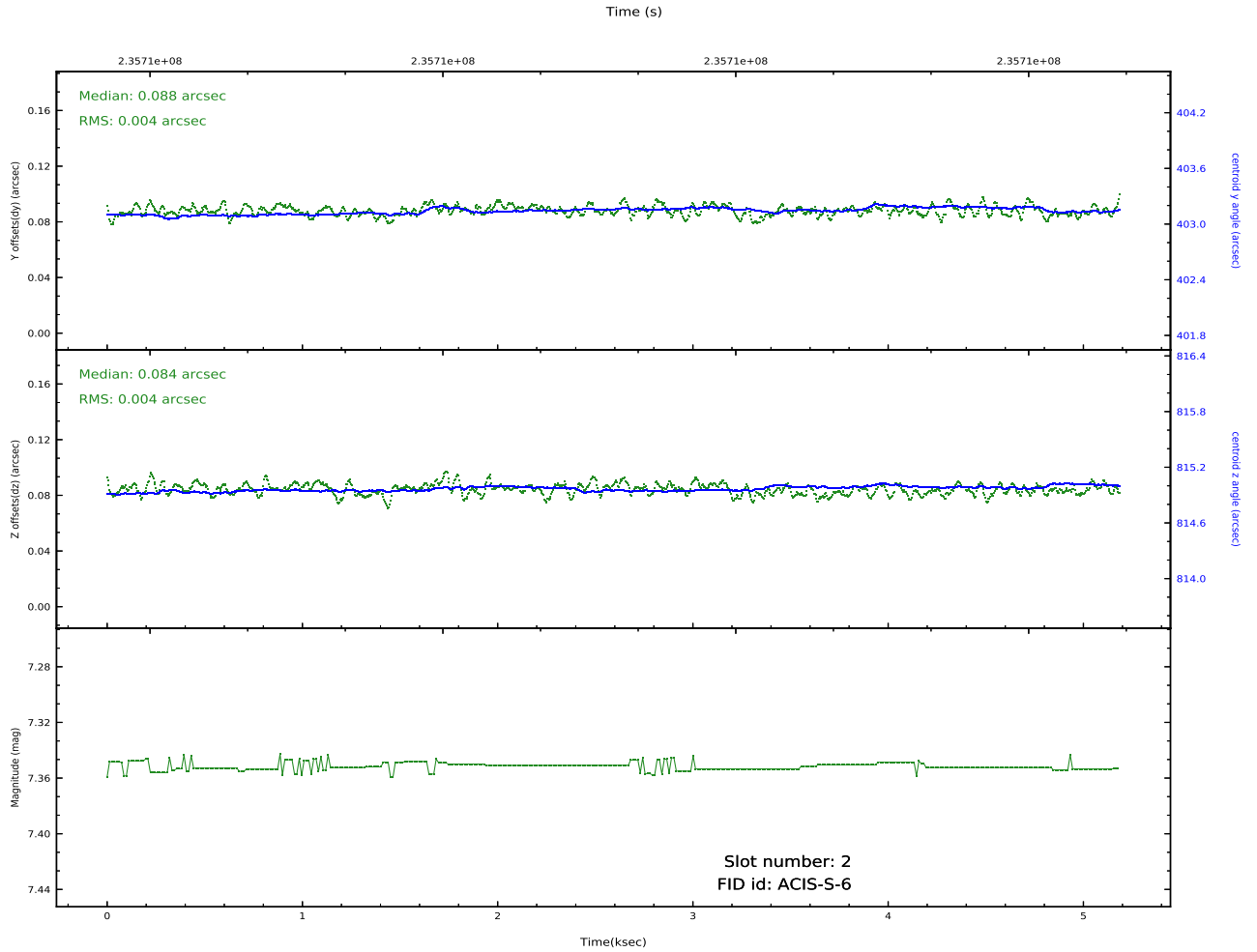
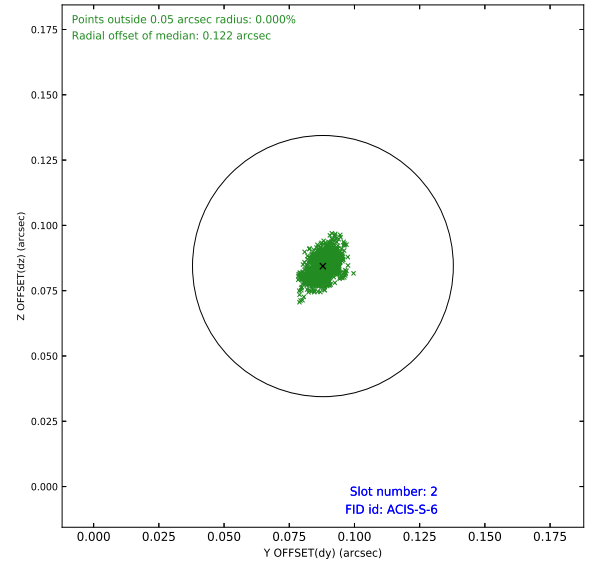
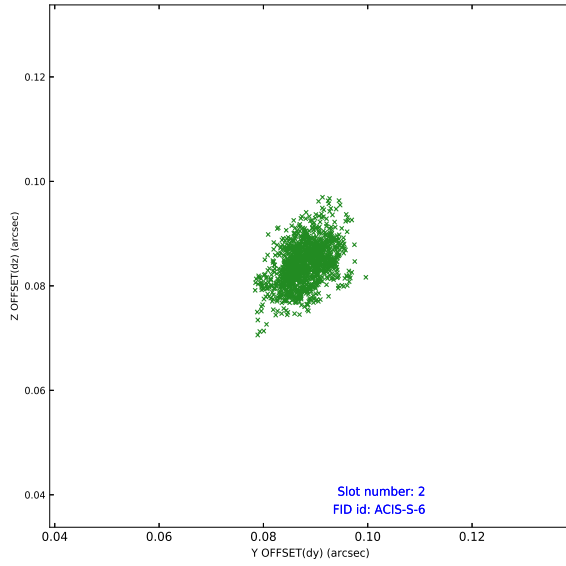
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.1856

A.2 Comments

Window constraint met. Roll angle preference not met. The knot in the jet does fall on the readout streak, which is what the observer was trying to avoid. Since request for off-nominal roll was a preference rather than a constraint, all required constraints have been met.

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Joint Proposal: CXO-HST