

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5830 - L2 Version 4
Chandra X-Ray Center

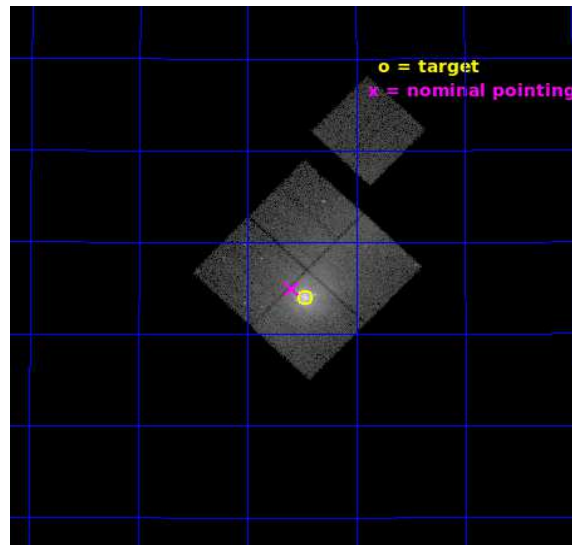
L2 Processing Date : Oct 6 2020

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1 Front

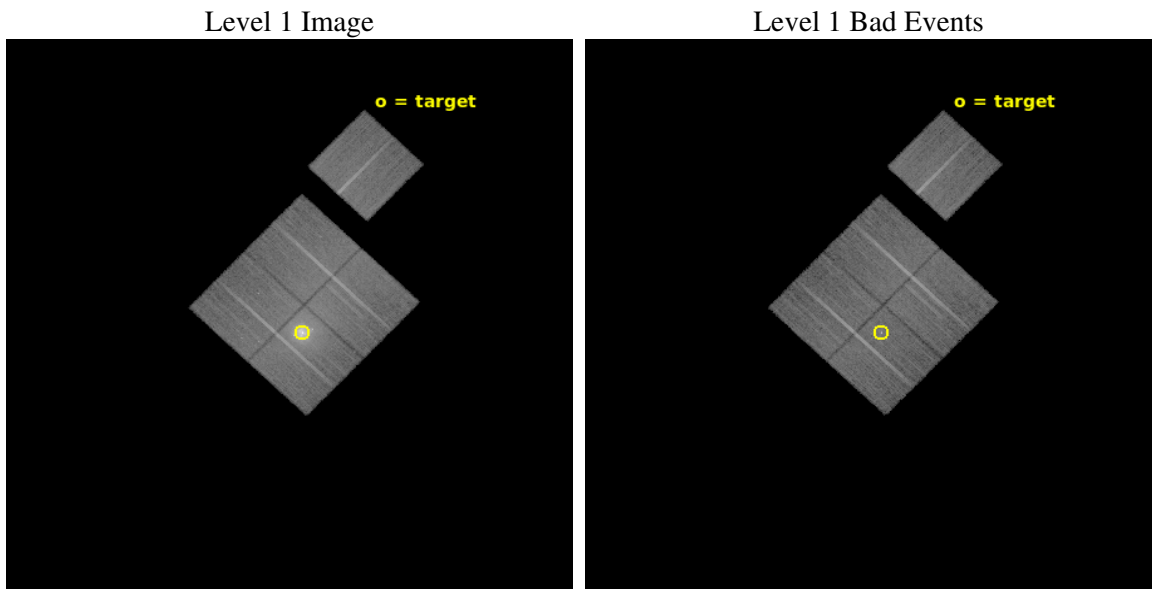
seq_num	800540	Sequence number
obs_id	5830	Observation id
title	Cygnus A --- Shock Heating of the Intra-Cluster Medium	Proposal ti
observer	Andrew Young	Principal investigator
object	Cygnus A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	299.867917	Observer's specified target RA [deg]
dec_targ	40.733889	Observer's specified target Dec [deg]
ra_nom	299.89814806692	Nominal RA [deg]
dec_nom	40.749211840612	Nominal Dec [deg]
roll_nom	43.682551174979	Nominal Roll [deg]
revision	4	Processing version of data
ontime	23764.518003881	Sum of GTIs [s]
livetime	23454.017080977	Livetime [s]
ontime0	23761.377153128	Sum of GTIs [s]
ontime1	23764.518003881	Sum of GTIs [s]
ontime2	23770.799954265	Sum of GTIs [s]
ontime3	23770.799954265	Sum of GTIs [s]
ontime6	23770.799954265	Sum of GTIs [s]
l2events	216827	Number of level 2 events



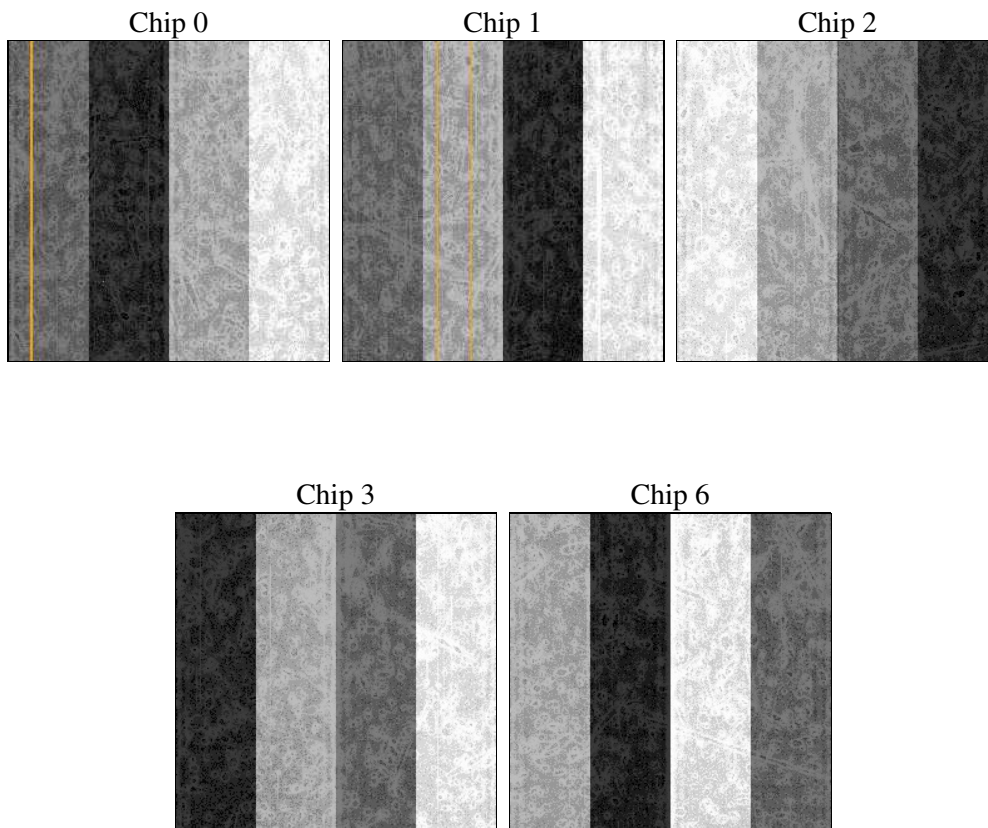
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	23592.773000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	23764.518003881	Sum of GTIs [s]
caldbver	4.9.2	 	ontime0	23761.377153128	Sum of GTIs [s]
date	2020-10-06T21:55:41	Date and time of file creation	ontime1	23764.518003881	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	23770.799954265	Sum of GTIs [s]
			ontime3	23770.799954265	Sum of GTIs [s]
			ontime6	23770.799954265	Sum of GTIs [s]
			l1events	879441	Number of level 1 events

2.1.4 Events

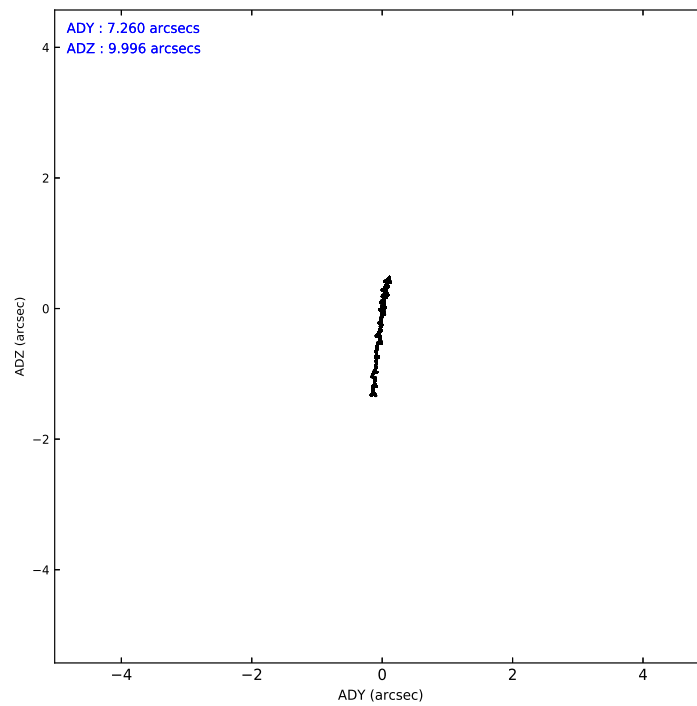
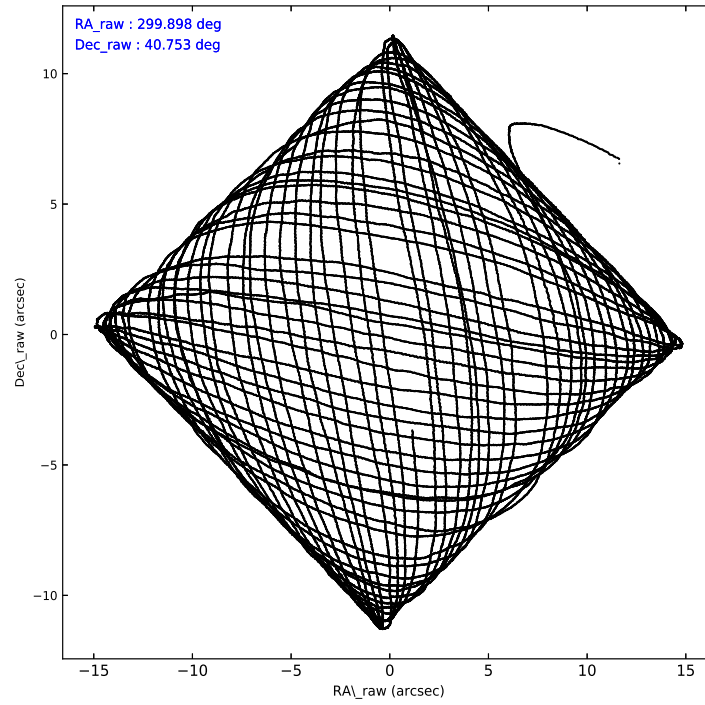
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	149901	248686	161472	170376	149006
rejected events	120768	124230	131870	132331	131446
rejected %	80%	49%	81%	77%	88%

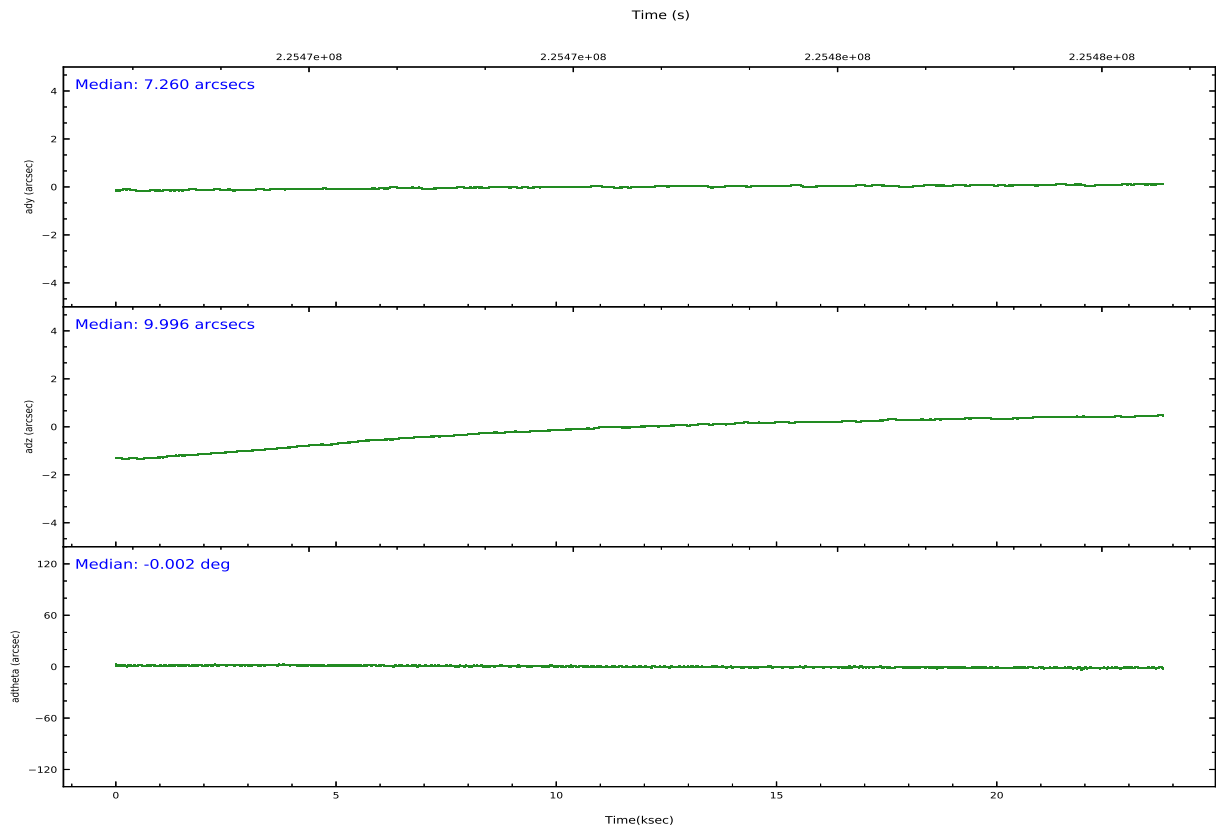
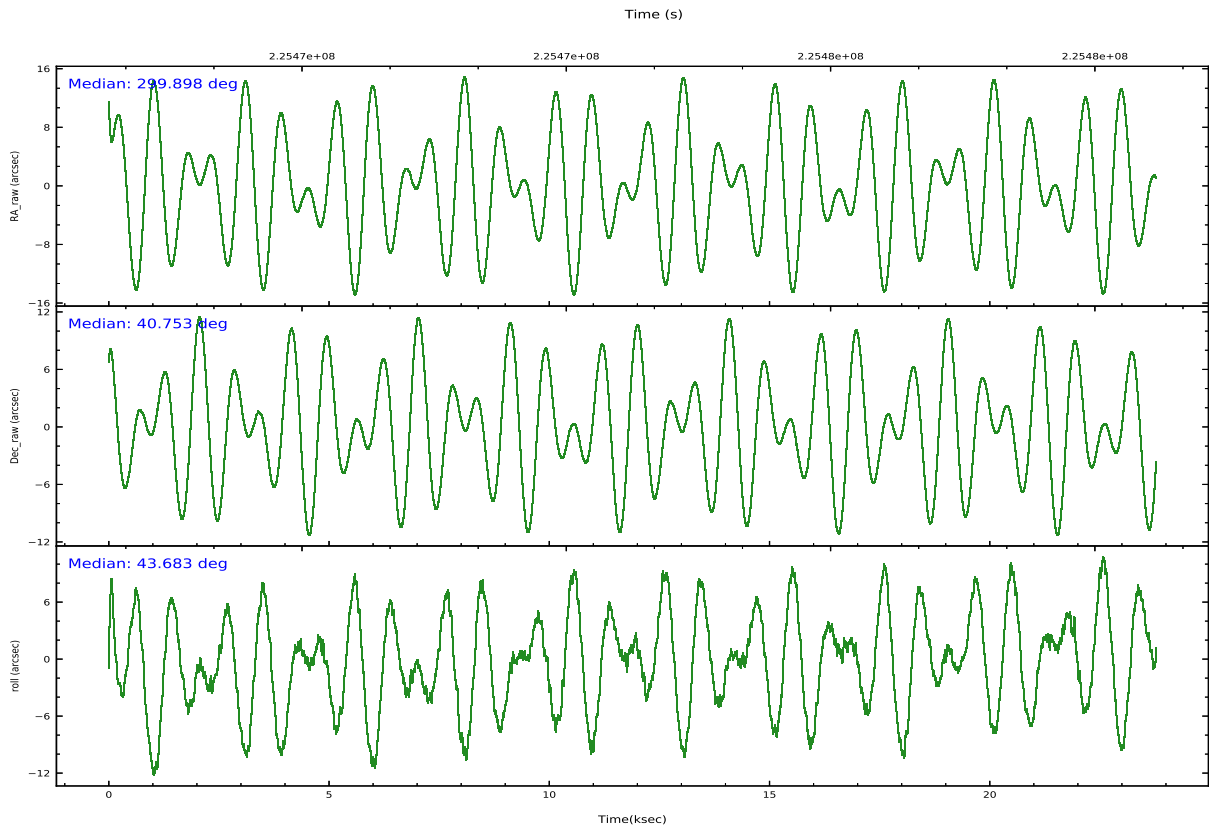
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	16604	90350	17529	24250	7329
	11%	36%	10%	14%	4%
grade 1 events	110	800	146	191	78
	0%	0%	0%	0%	0%
grade 2 events	5073	15800	4797	5548	3498
	3%	6%	2%	3%	2%
grade 3 events	2143	5588	2167	2367	1785
	1%	2%	1%	1%	1%
grade 4 events	2098	5643	2124	2390	1679
	1%	2%	1%	1%	1%
grade 5 events	5130	6246	4920	5817	5726
	3%	2%	3%	3%	3%
grade 6 events	3240	7210	3024	3547	3288
	2%	2%	1%	2%	2%
grade 7 events	115503	117049	126765	126266	125623
	77%	47%	78%	74%	84%

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	299.887572	299.89814806692	Subarray requested	NONE	NONE
[deg] Pointing Dec	40.726424	40.749211840612	Alternating exposures requested	N	N
[deg] Pointing Roll	43.487167	43.682551174979	[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	-242.392463	-242.3975952774949			
[mm] SIM translation stage offset	8.800000000000001	8.805142274565242			
[s] Observation start time (MET)	225461797.184000	225460794.30438			
Observation start date	2005-02-22T12:15:33	2005-02-22T11:59:54			
[s] Observation end time (MET)	225485390.184000	225485634.66801			
Observation end date	2005-02-22T18:48:46	2005-02-22T18:53:54			
Read mode	TIMED	TIMED			

2.3 Aspect





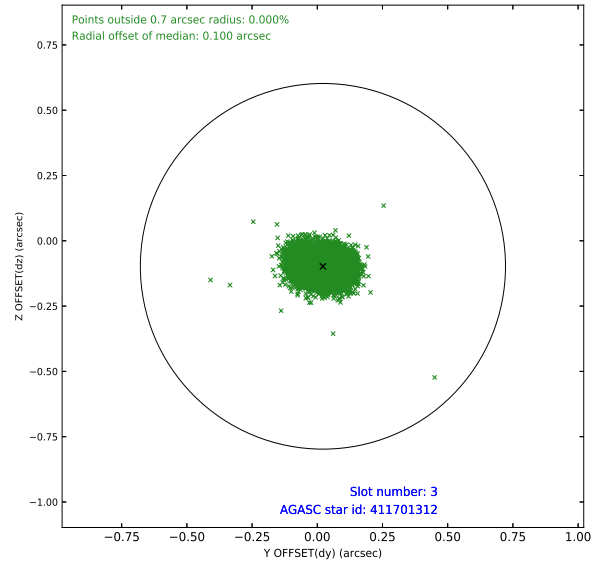
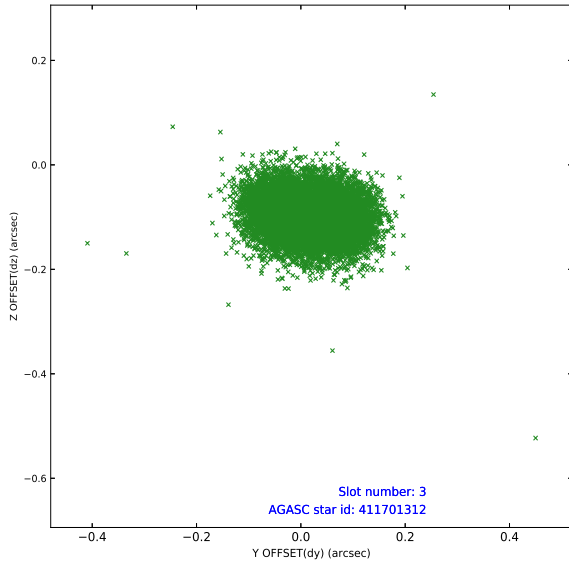
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.28	5800	1.000	-0.022	0.065	0.027	0.050	0.000000	0.000000	932.56	-652
1	FID		ACIS-I-5	7.24	5799	1.000	-0.143	0.010	0.008	0.014	0.000000	0.000000	-1815.59	1245
2	FID		ACIS-I-6	7.24	5800	1.000	0.074	-0.006	0.024	0.055	0.000000	0.000000	398.06	1889
3	GUIDE	used	411701312	8.72	11594	1.000	0.022	-0.098	0.075	0.119	298.889956	40.820220	-1728.83	2126
4	GUIDE	used	411707968	7.26	11600	1.000	0.025	0.025	0.050	0.080	299.509933	40.926839	-247.13	1232
5	GUIDE	used	413405352	8.35	11599	1.000	0.043	-0.191	0.059	0.095	300.290830	41.091941	1701.37	203
6	GUIDE	used	413418680	9.30	11596	1.000	0.065	0.208	0.094	0.155	300.860298	40.740057	1969.35	-1779
7	GUIDE	used	413421016	8.71	11598	1.000	-0.152	0.056	0.067	0.108	300.612426	40.446254	752.86	-2092

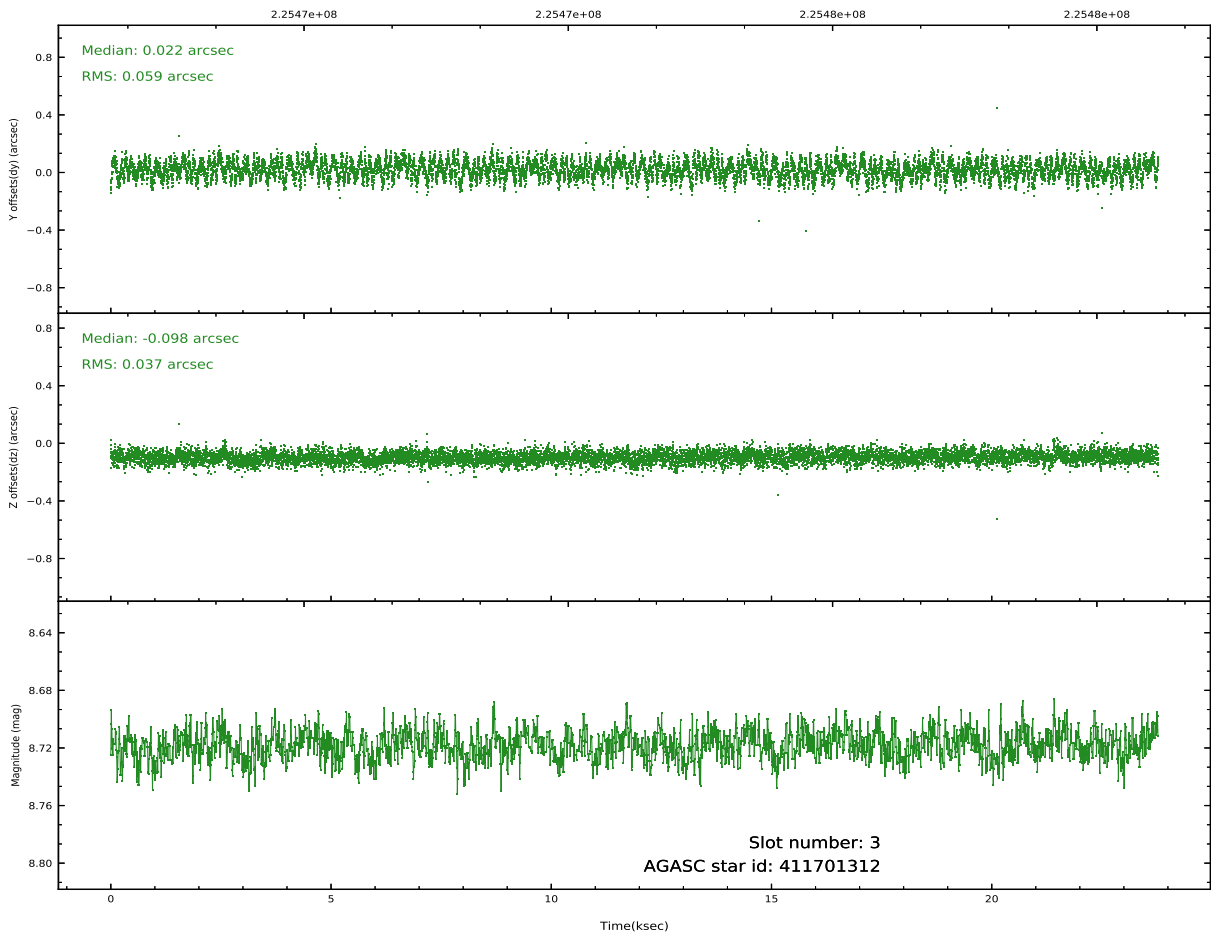
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2.4 Star Slots

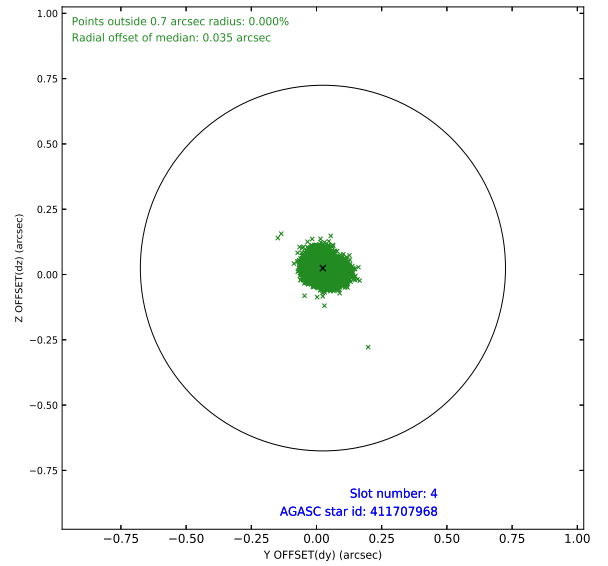
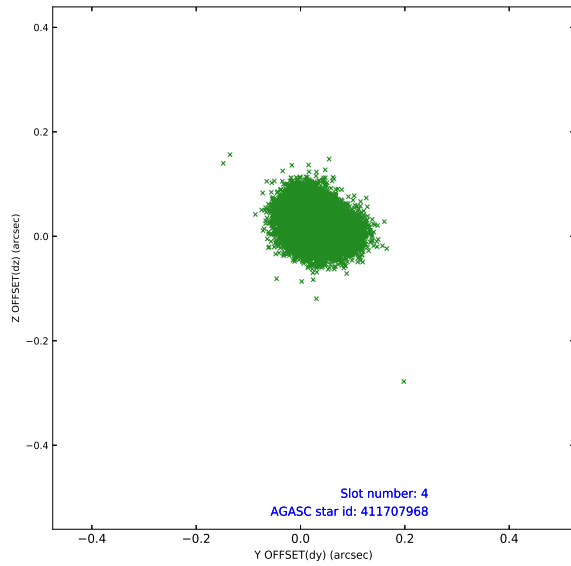
2.4.1 Slot 3



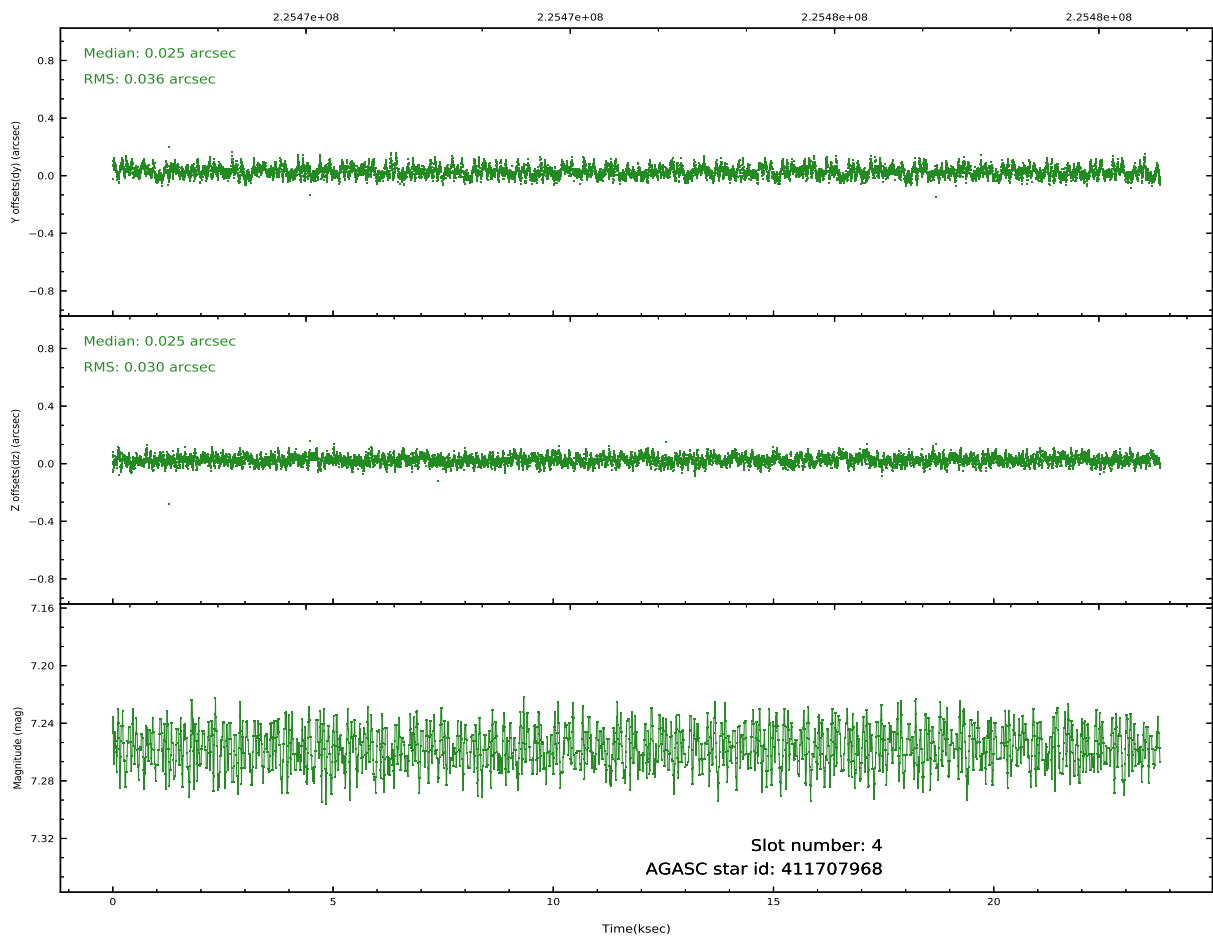
Time (s)



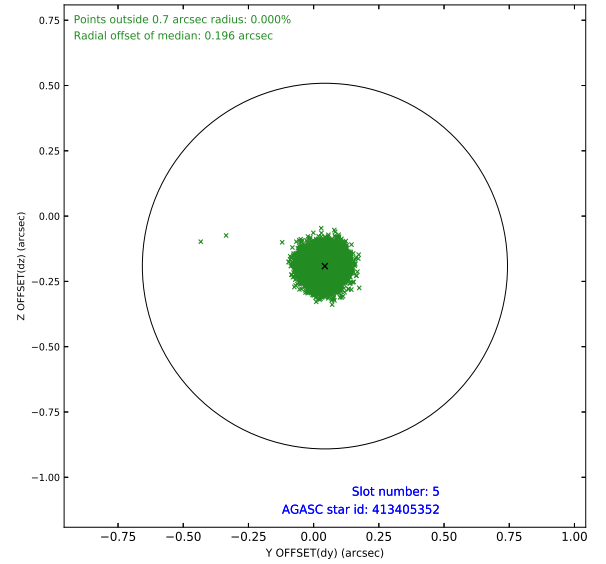
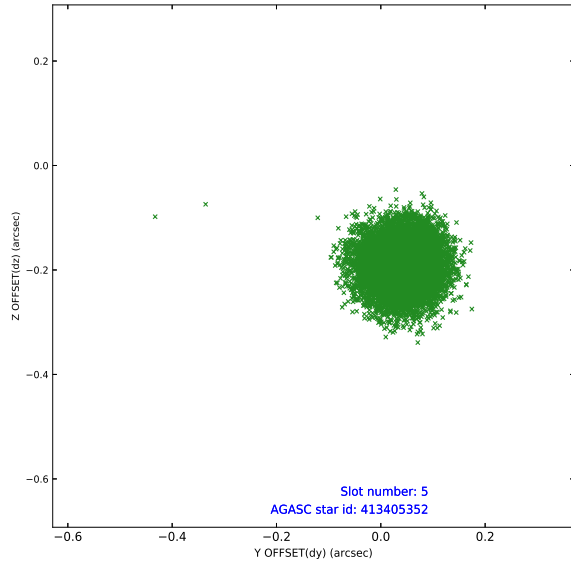
2.4.2 Slot 4



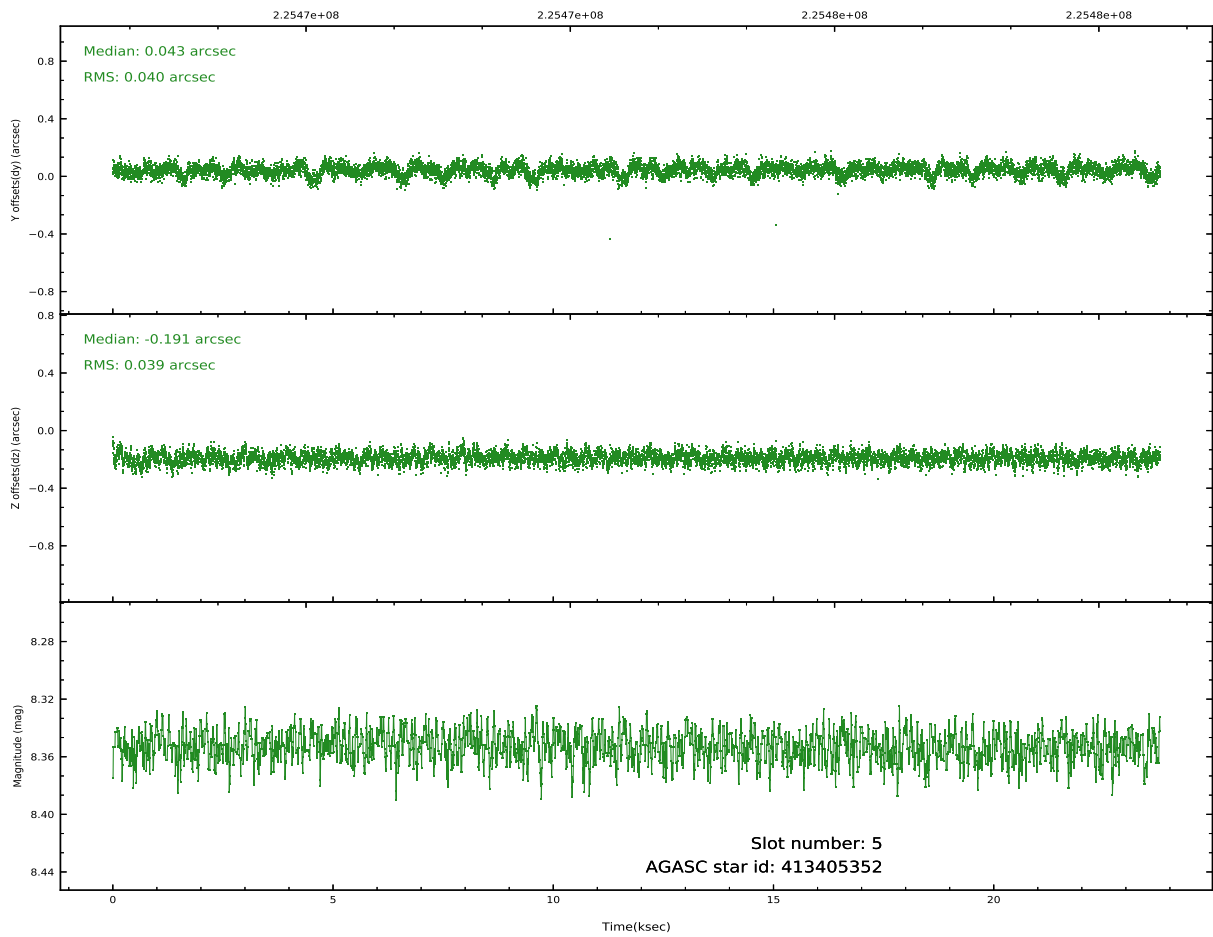
Time (s)



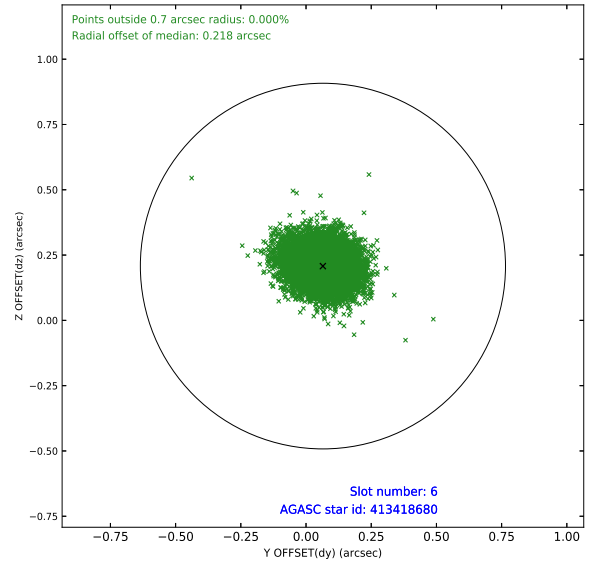
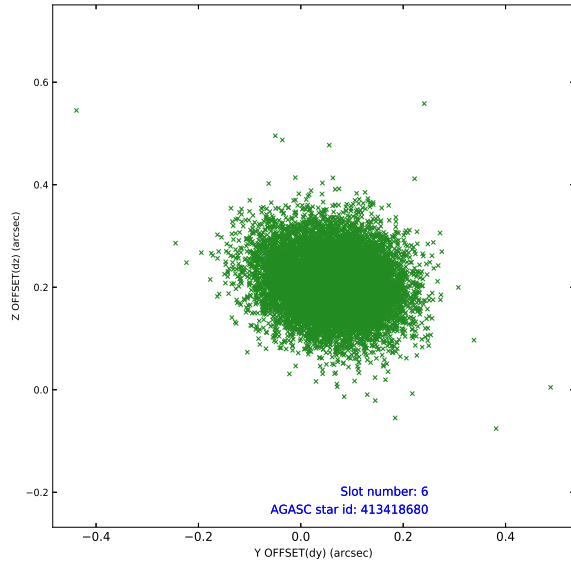
2.4.3 Slot 5



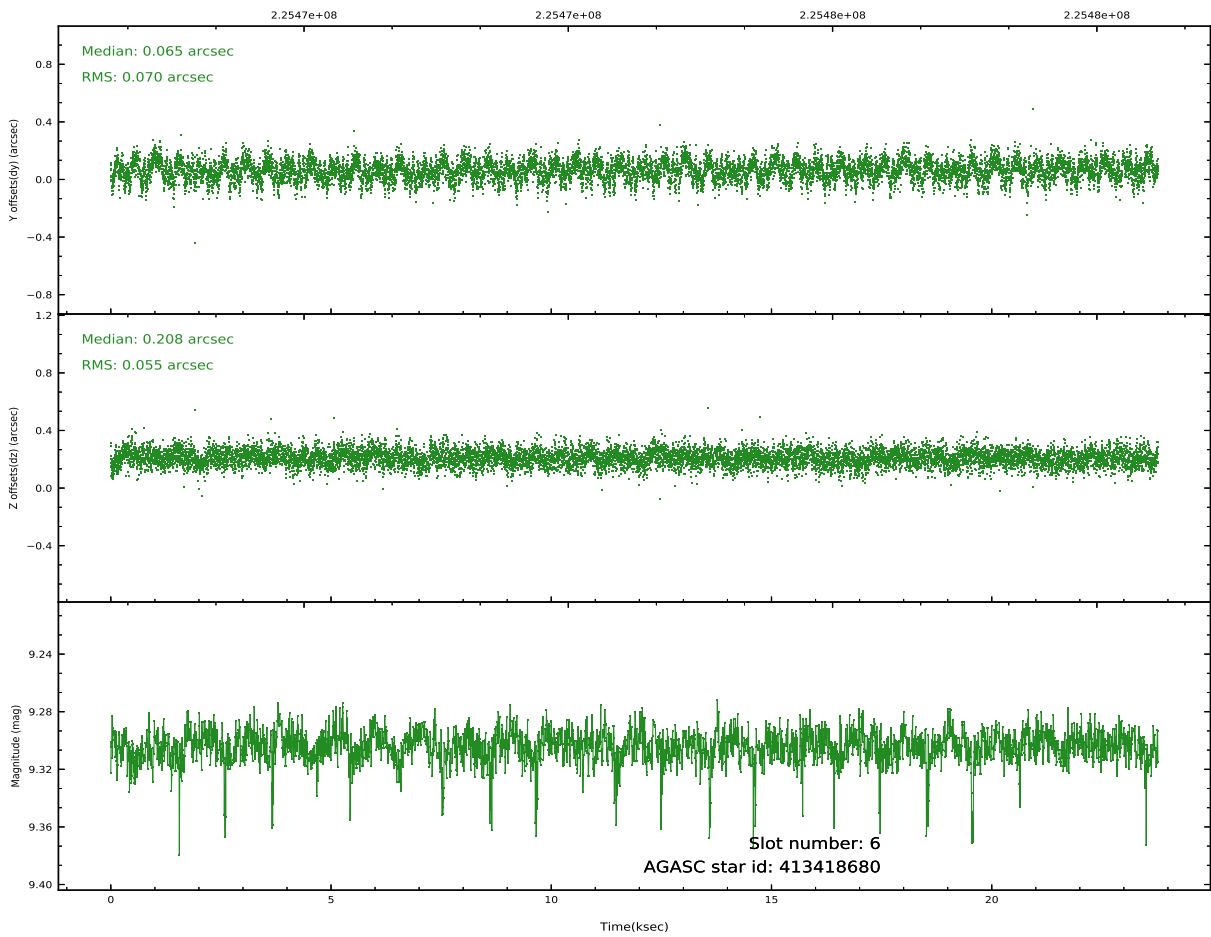
Time (s)



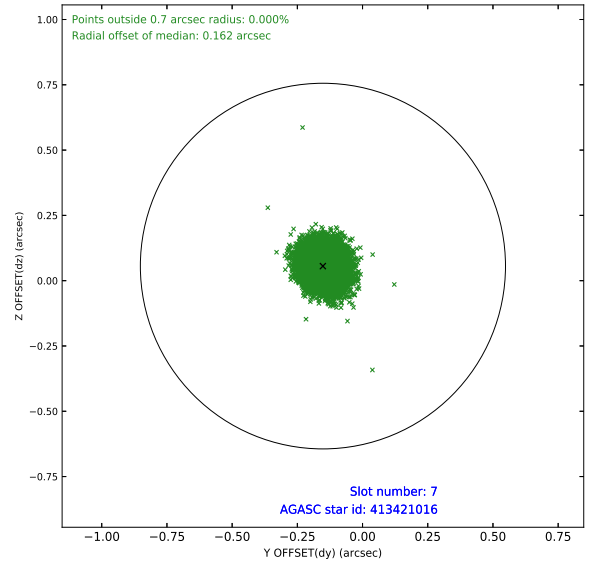
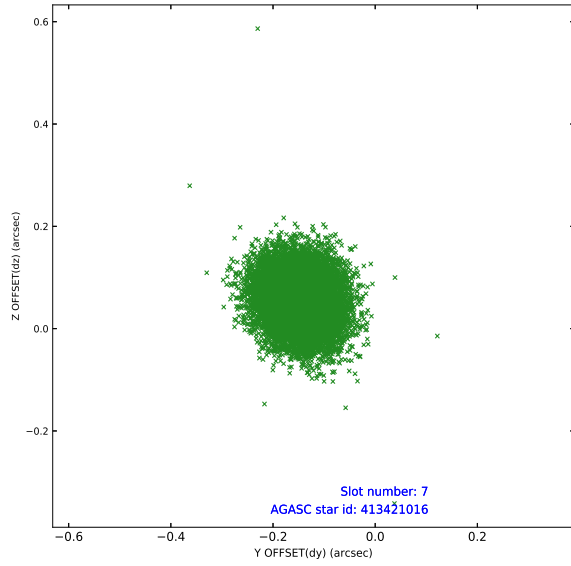
2.4.4 Slot 6



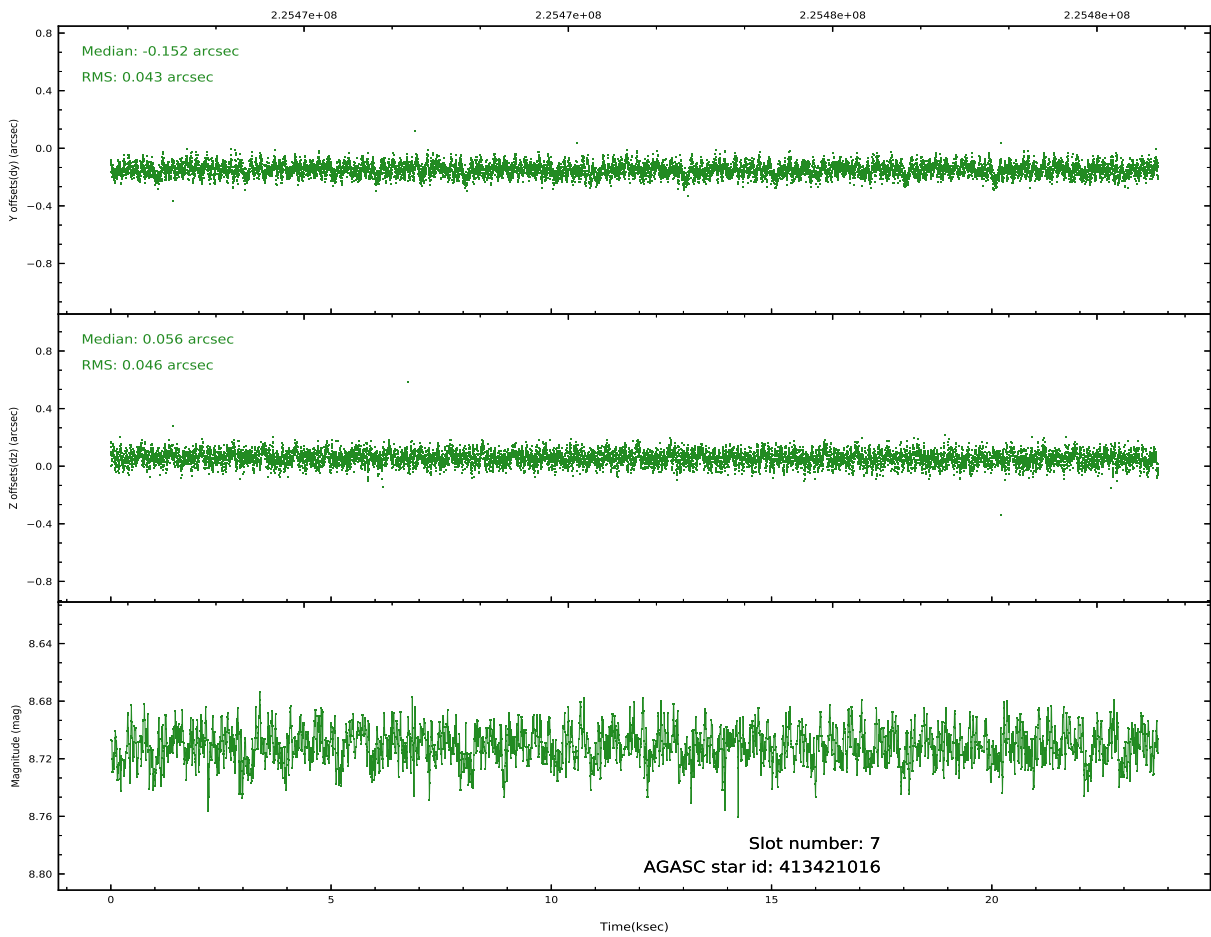
Time (s)



2.4.5 Slot 7

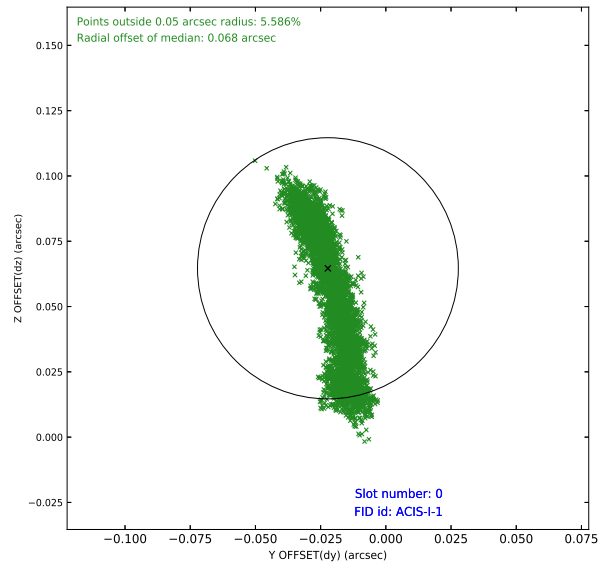
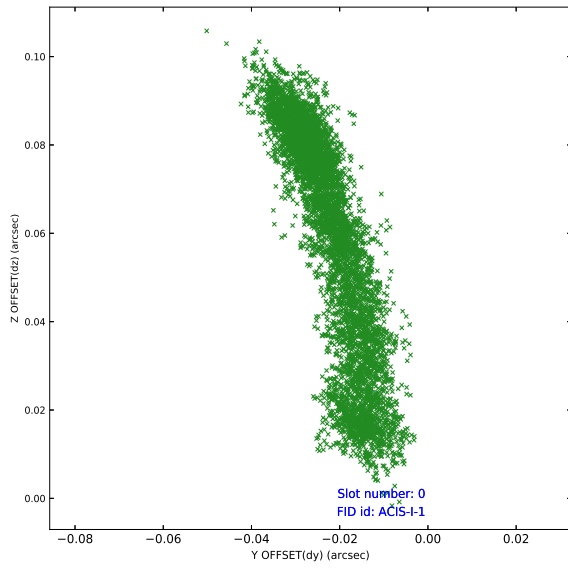


Time (s)

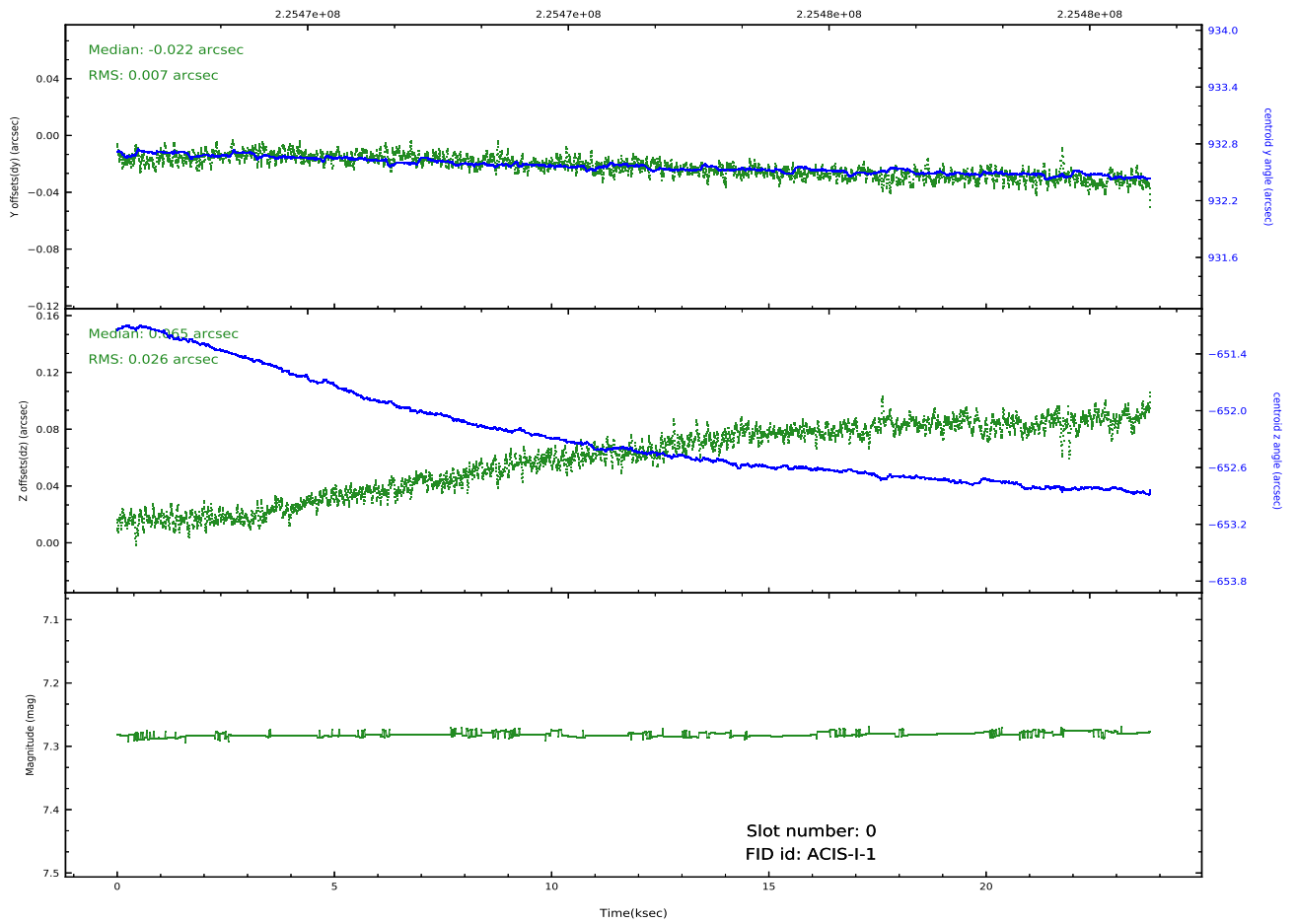


2.5 FID Slots

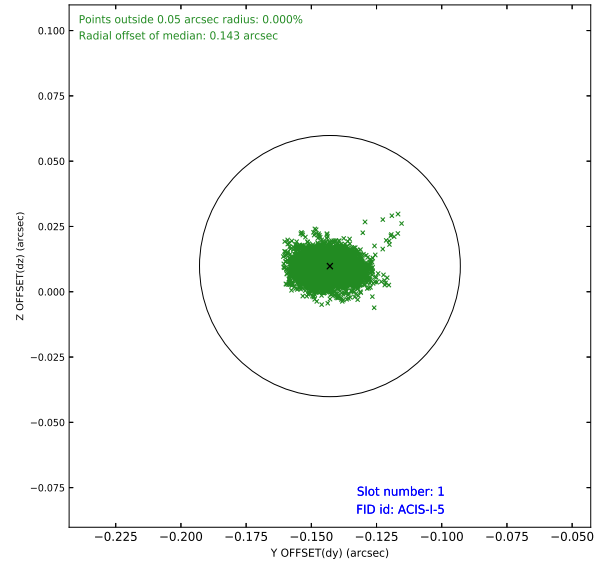
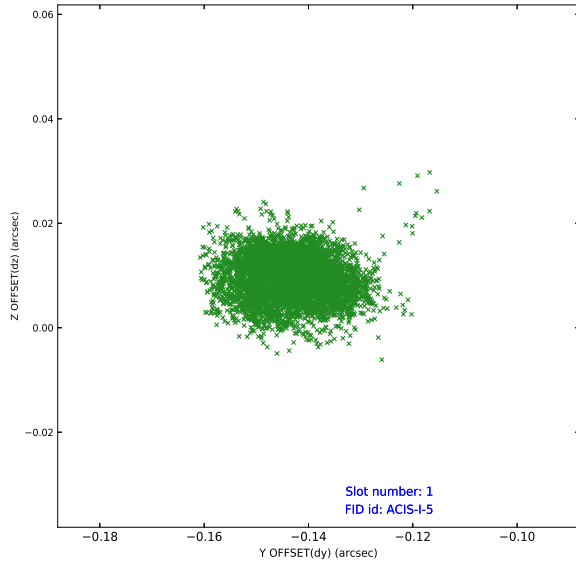
2.5.1 Slot 0



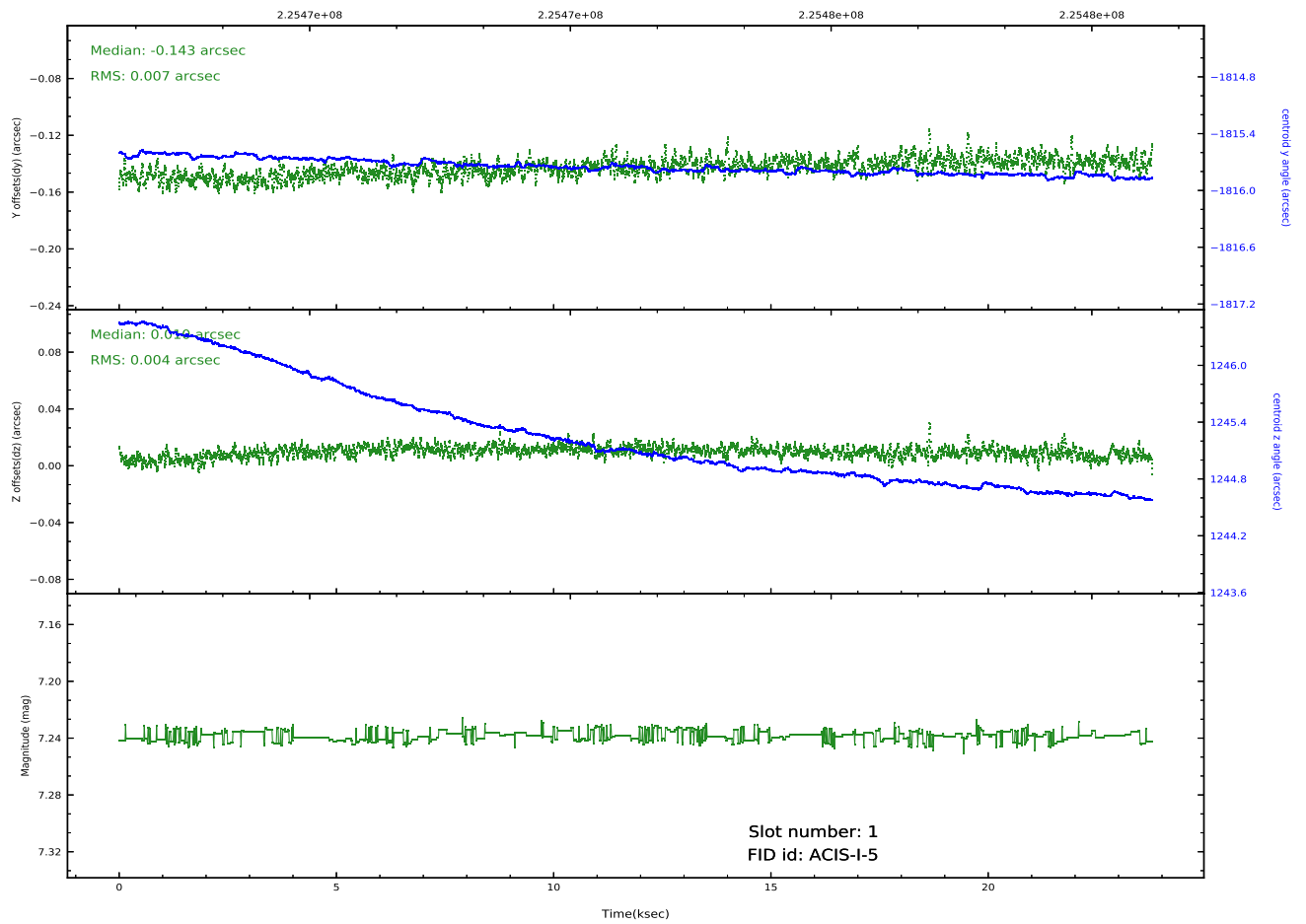
Time (s)



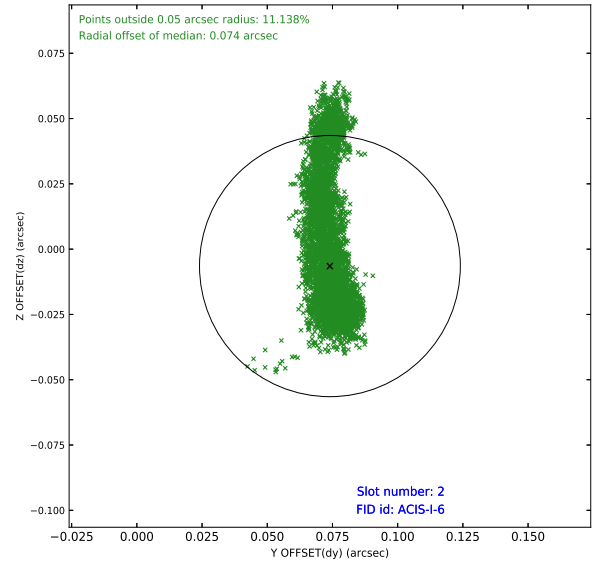
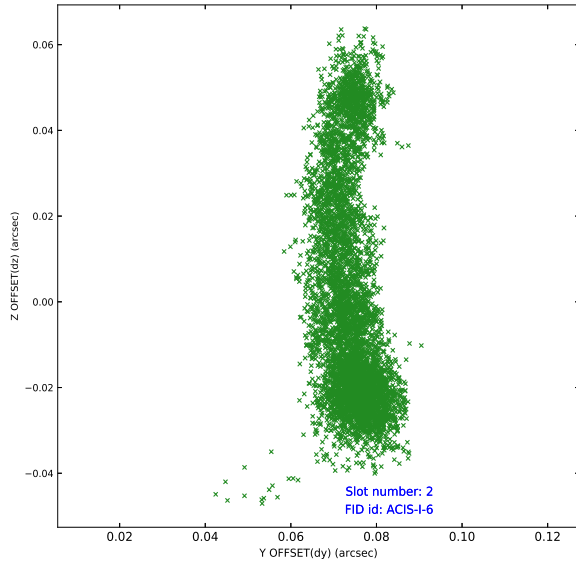
2.5.2 Slot 1



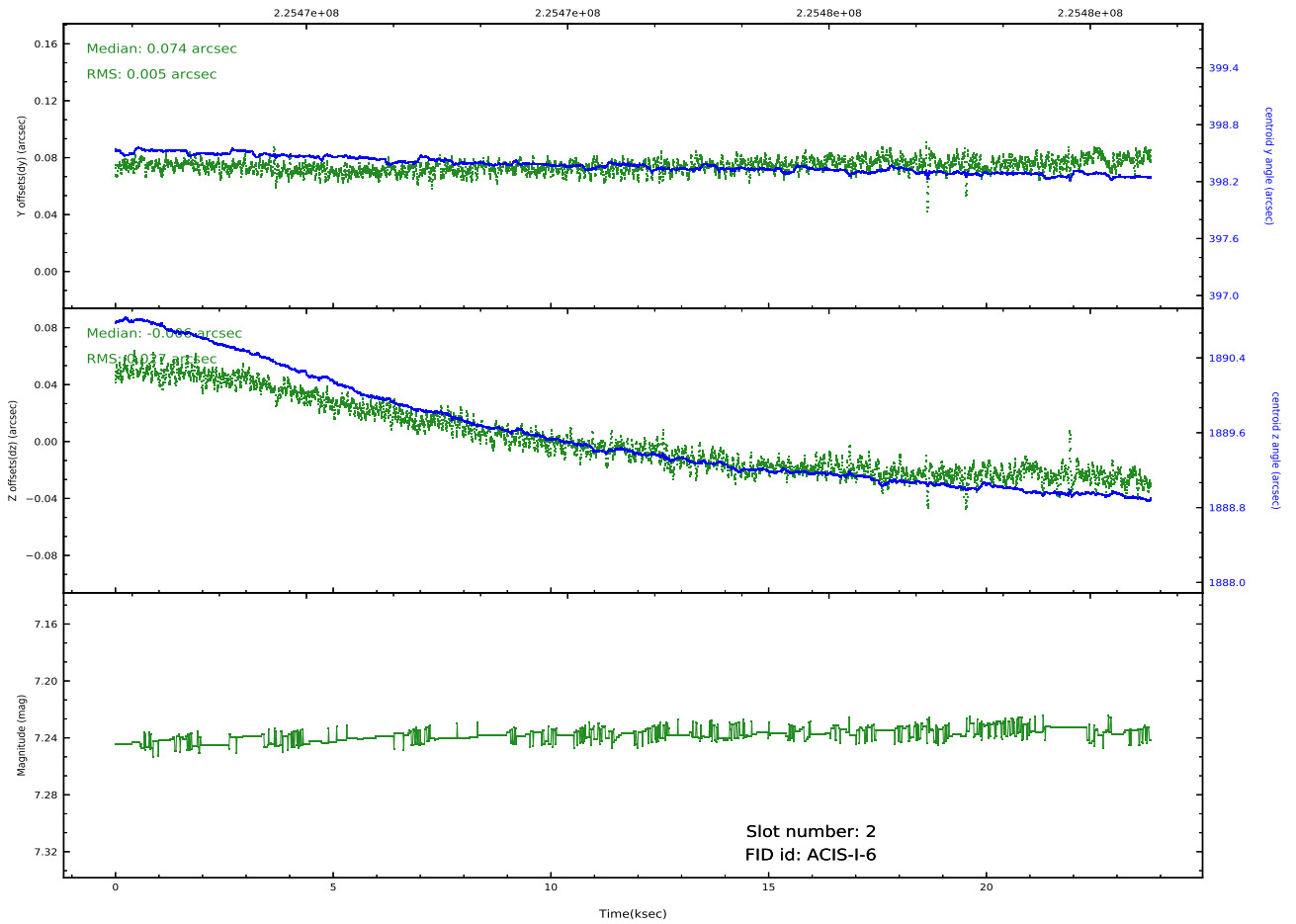
Time (s)



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.76451

A.2 Comments