

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 6228 - L2 Version 4
Chandra X-Ray Center

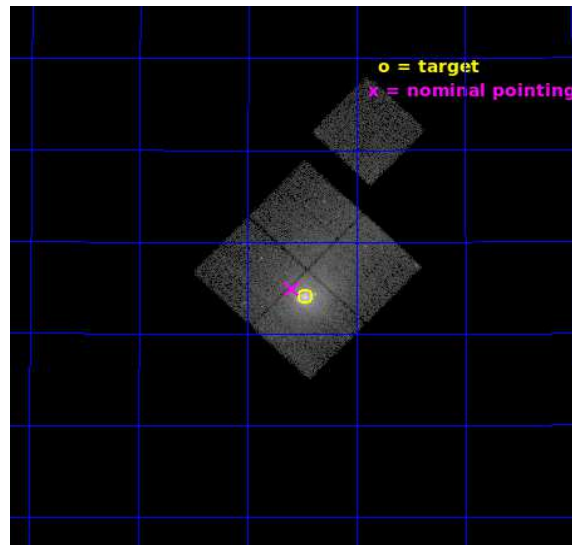
L2 Processing Date : Oct 6 2020

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1 Front

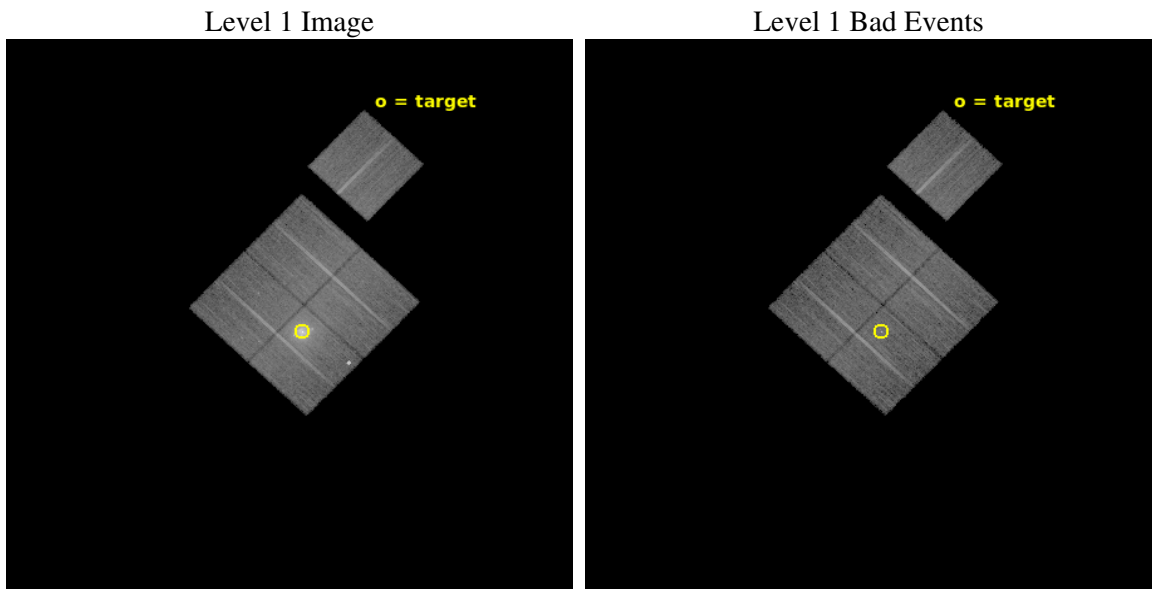
seq_num	800540	Sequence number
obs_id	6228	Observation id
title	Cygnus A --- Shock Heating of the Intra-Cluster Medium	Proposal ti
observer	Andrew Young	Principal investigator
object	Cygnus A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	299.867917	Observer's specified target RA [deg]
dec_targ	40.733889	Observer's specified target Dec [deg]
ra_nom	299.89854587667	Nominal RA [deg]
dec_nom	40.748776353701	Nominal Dec [deg]
roll_nom	43.683534469151	Nominal Roll [deg]
revision	4	Processing version of data
ontime	16250.199968725	Sum of GTIs [s]
livetime	16037.879142911	Livetime [s]
ontime0	16250.199968725	Sum of GTIs [s]
ontime1	16250.199968725	Sum of GTIs [s]
ontime2	16250.199968725	Sum of GTIs [s]
ontime3	16250.199968725	Sum of GTIs [s]
ontime6	16250.199968725	Sum of GTIs [s]
l2events	149193	Number of level 2 events



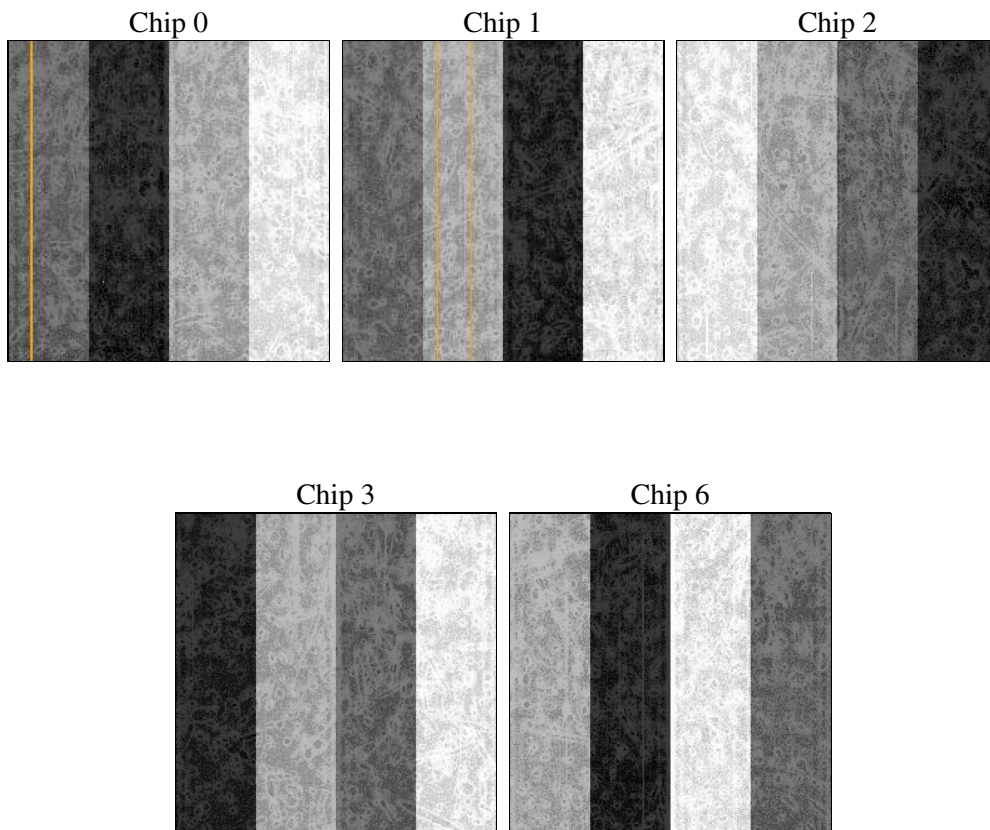
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	16198.982000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	16250.199968725	Sum of GTIs [s]
caldbver	4.9.2	 	ontime0	16250.199968725	Sum of GTIs [s]
date	2020-10-06T22:43:09	Date and time of file creation	ontime1	16250.199968725	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	16250.199968725	Sum of GTIs [s]
			ontime3	16250.199968725	Sum of GTIs [s]
			ontime6	16250.199968725	Sum of GTIs [s]
			l1events	618188	Number of level 1 events

2.1.4 Events

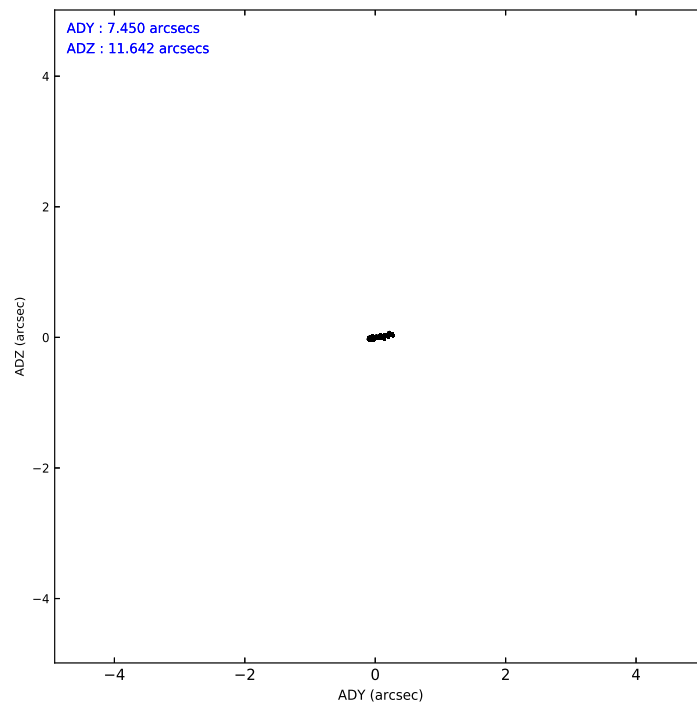
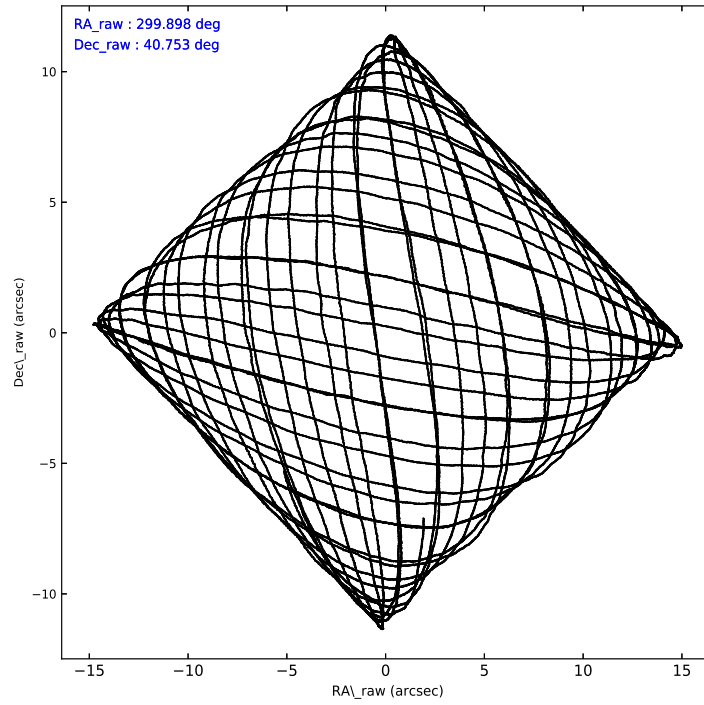
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	102103	176635	114221	118885	106344
rejected events	82012	86944	93454	92585	94064
rejected %	80%	49%	81%	77%	88%

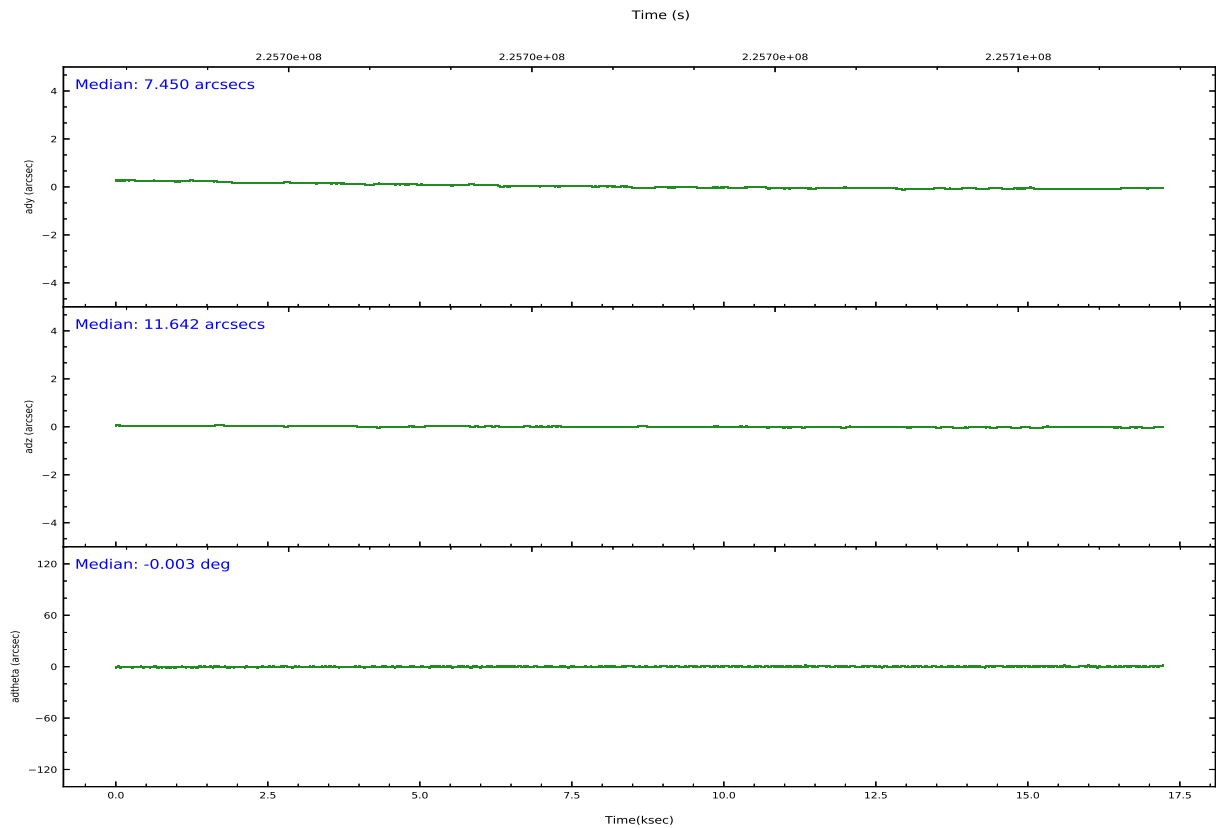
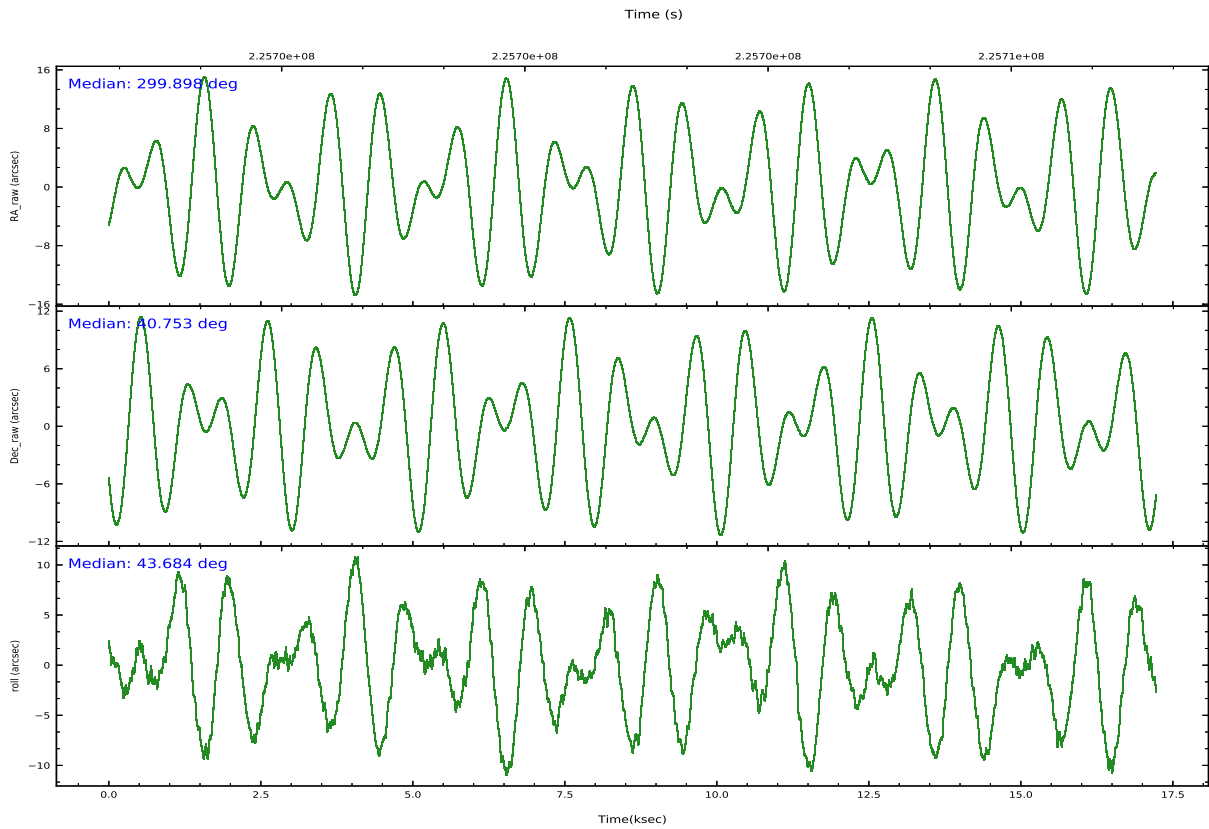
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	11439	61273	12367	16724	5102
	11%	34%	10%	14%	4%
grade 1 events	98	533	109	121	43
	0%	0%	0%	0%	0%
grade 2 events	3438	10776	3446	3817	2392
	3%	6%	3%	3%	2%
grade 3 events	1501	8753	1398	1676	1238
	1%	4%	1%	1%	1%
grade 4 events	1459	3743	1431	1649	1205
	1%	2%	1%	1%	1%
grade 5 events	3718	4452	3522	4087	4022
	3%	2%	3%	3%	3%
grade 6 events	2257	5167	2129	2438	2346
	2%	2%	1%	2%	2%
grade 7 events	78193	81938	89819	88373	89996
	76%	46%	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	299.89854587667	Subarray requested	NONE	NONE
[deg] Pointing Dec	40.726424	40.748776353701	Alternating exposures requested	N	N
[deg] Pointing Roll	43.487167	43.683534469151	[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)	225694185.184000	225692834.32739			
Observation start date	2005-02-25T04:48:41	2005-02-25T04:27:14			
[s] Observation end time (MET)	225710384.184000	225710625.25319			
Observation end date	2005-02-25T09:18:40	2005-02-25T09:23:45			
Read mode	TIMED	TIMED			

2.3 Aspect





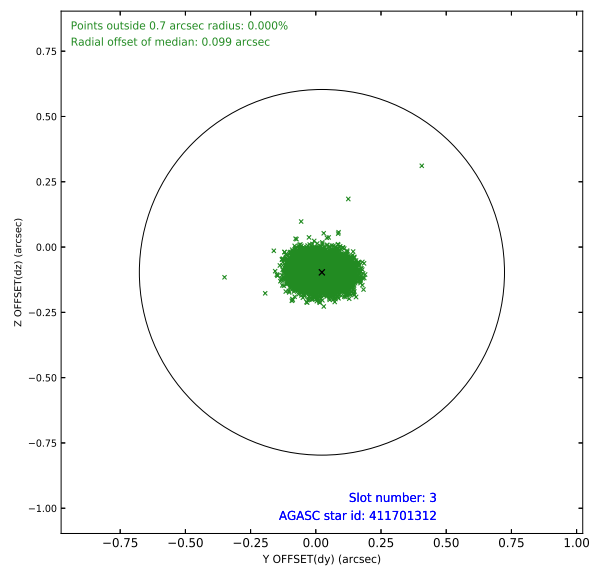
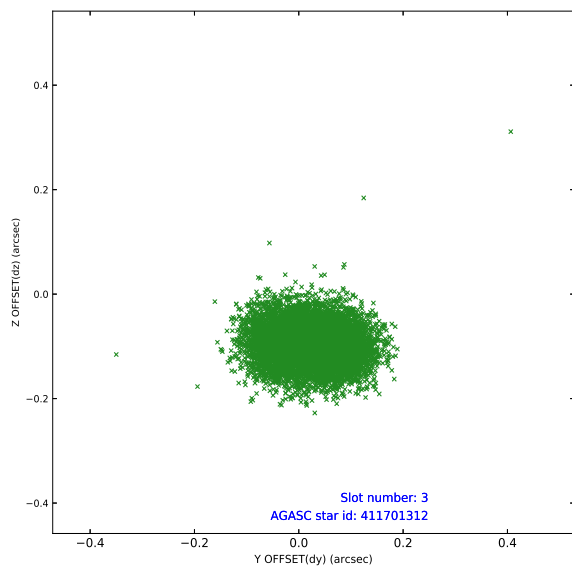
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-I-1	7.28	4202	1.000	-0.038	0.087	0.008	0.014	0.000000	0.000000	932.32	-654
1	FID		ACIS-I-5	7.24	4202	1.000	-0.137	0.001	0.007	0.011	0.000000	0.000000	-1815.79	1243
2	FID		ACIS-I-6	7.24	4201	1.000	0.084	-0.018	0.007	0.011	0.000000	0.000000	397.68	1887
3	GUIDE	used	411701312	8.72	8403	1.000	0.023	-0.097	0.075	0.118	298.889956	40.820220	-1728.77	2126
4	GUIDE	used	411707968	7.26	8404	1.000	0.026	0.026	0.053	0.083	299.509933	40.926839	-247.13	1232
5	GUIDE	used	413405352	8.35	8399	1.000	0.033	-0.189	0.056	0.092	300.290830	41.091941	1701.41	203
6	GUIDE	used	413418680	9.30	8402	1.000	0.067	0.204	0.095	0.156	300.860298	40.740057	1969.48	-1778
7	GUIDE	used	413421016	8.71	8400	1.000	-0.148	0.054	0.068	0.109	300.612426	40.446254	752.99	-2092

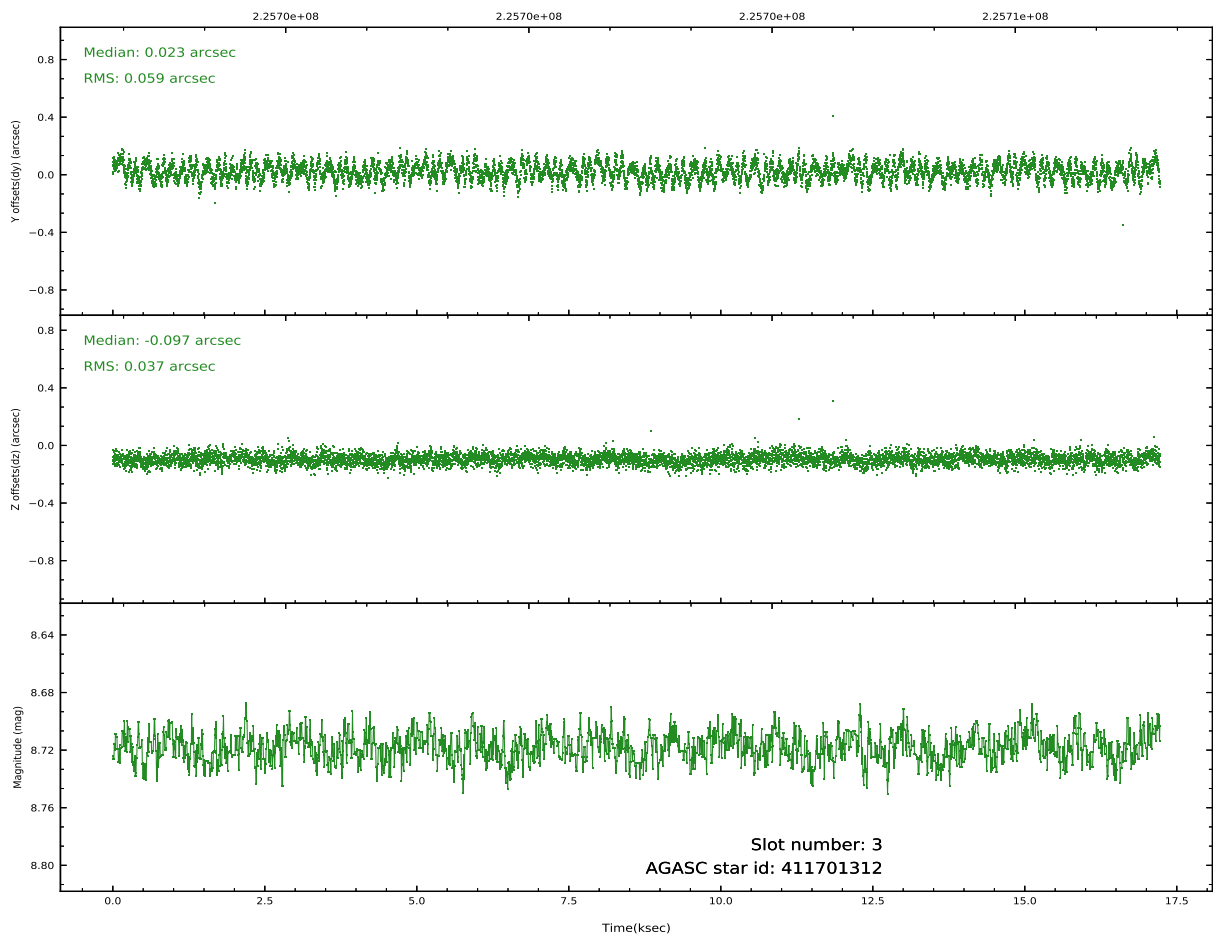
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2.4 Star Slots

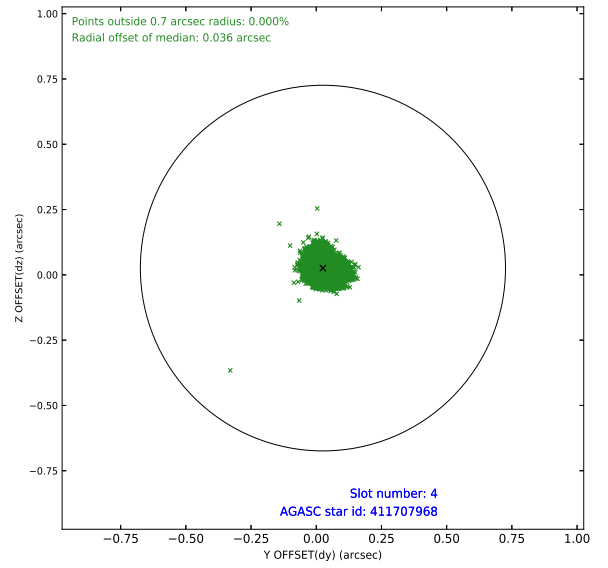
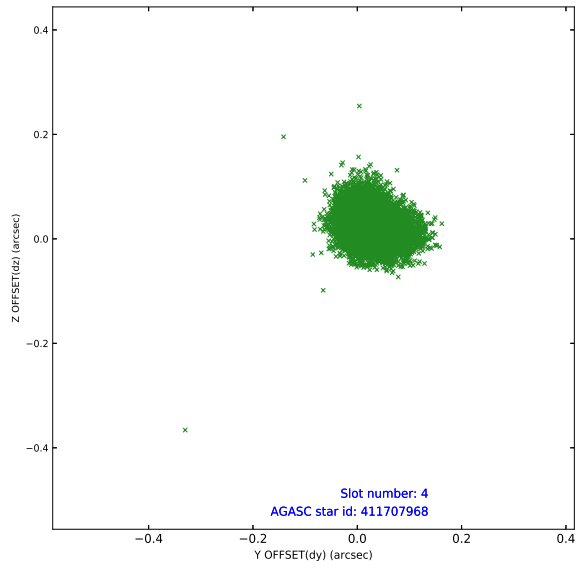
2.4.1 Slot 3



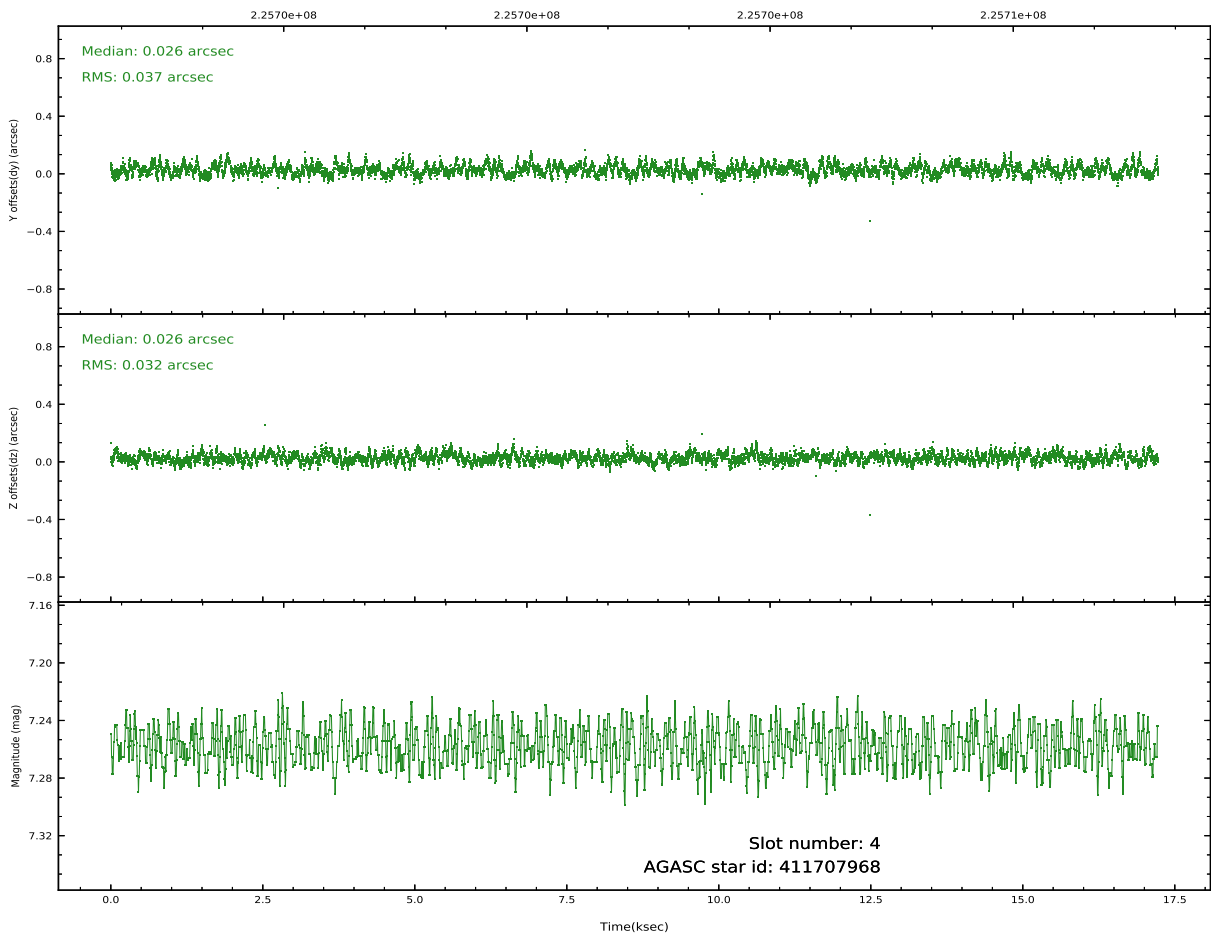
Time (s)



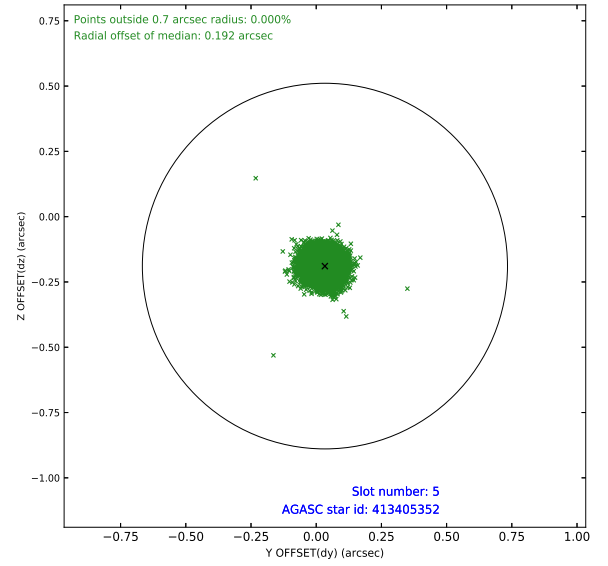
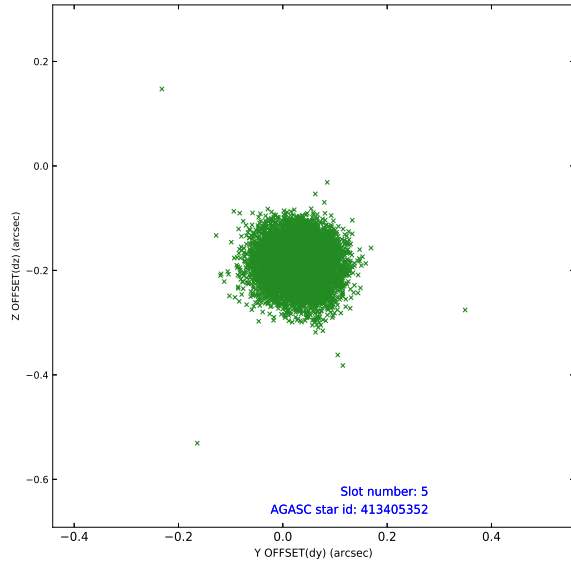
2.4.2 Slot 4



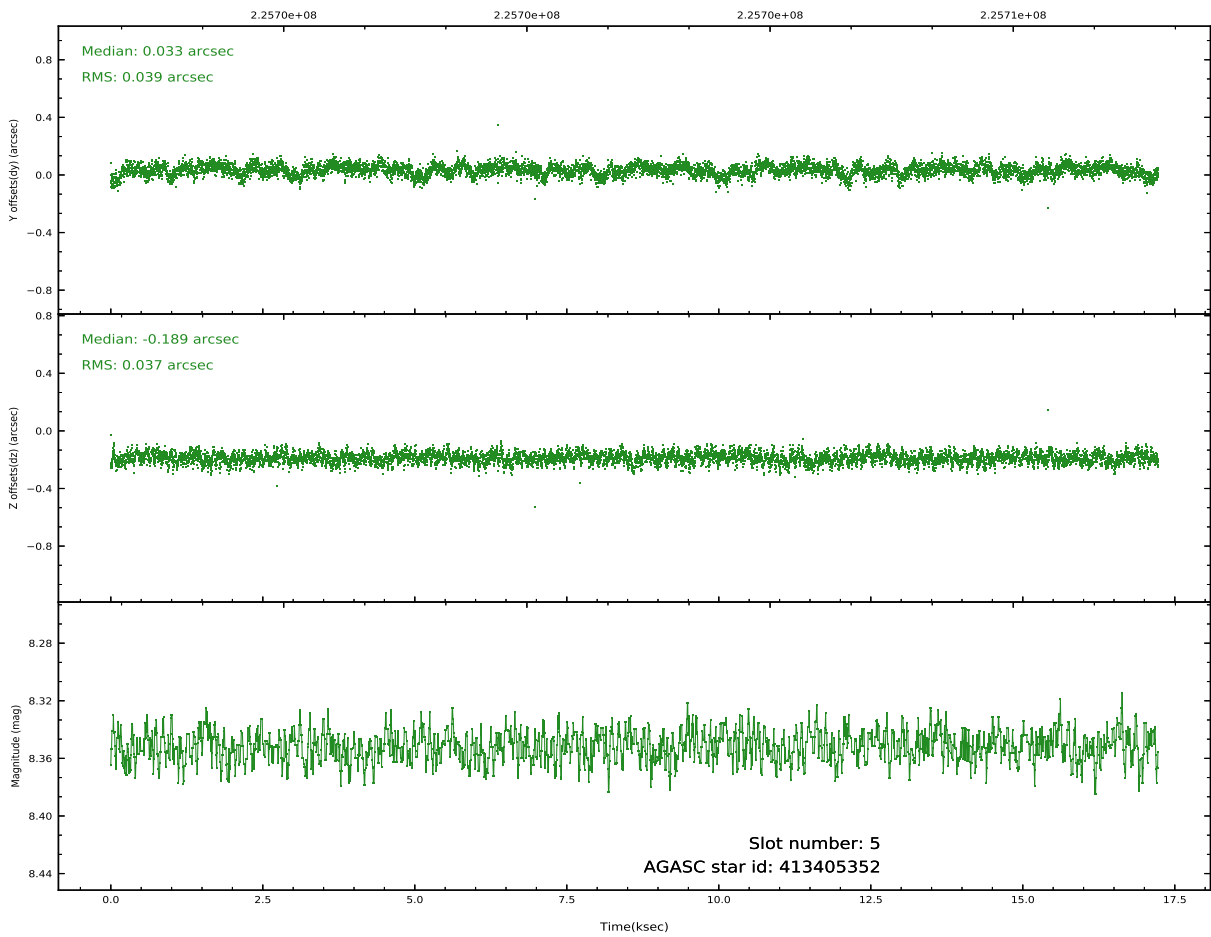
Time (s)



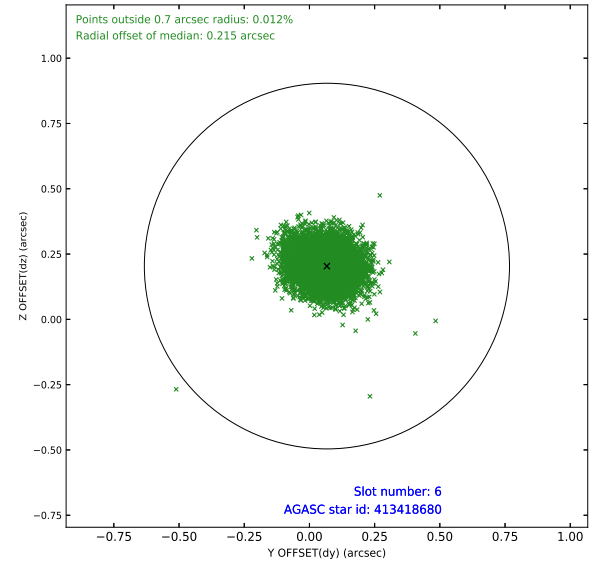
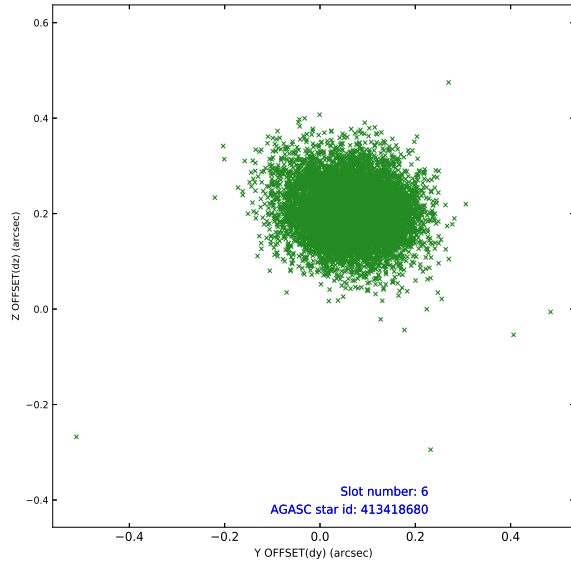
2.4.3 Slot 5



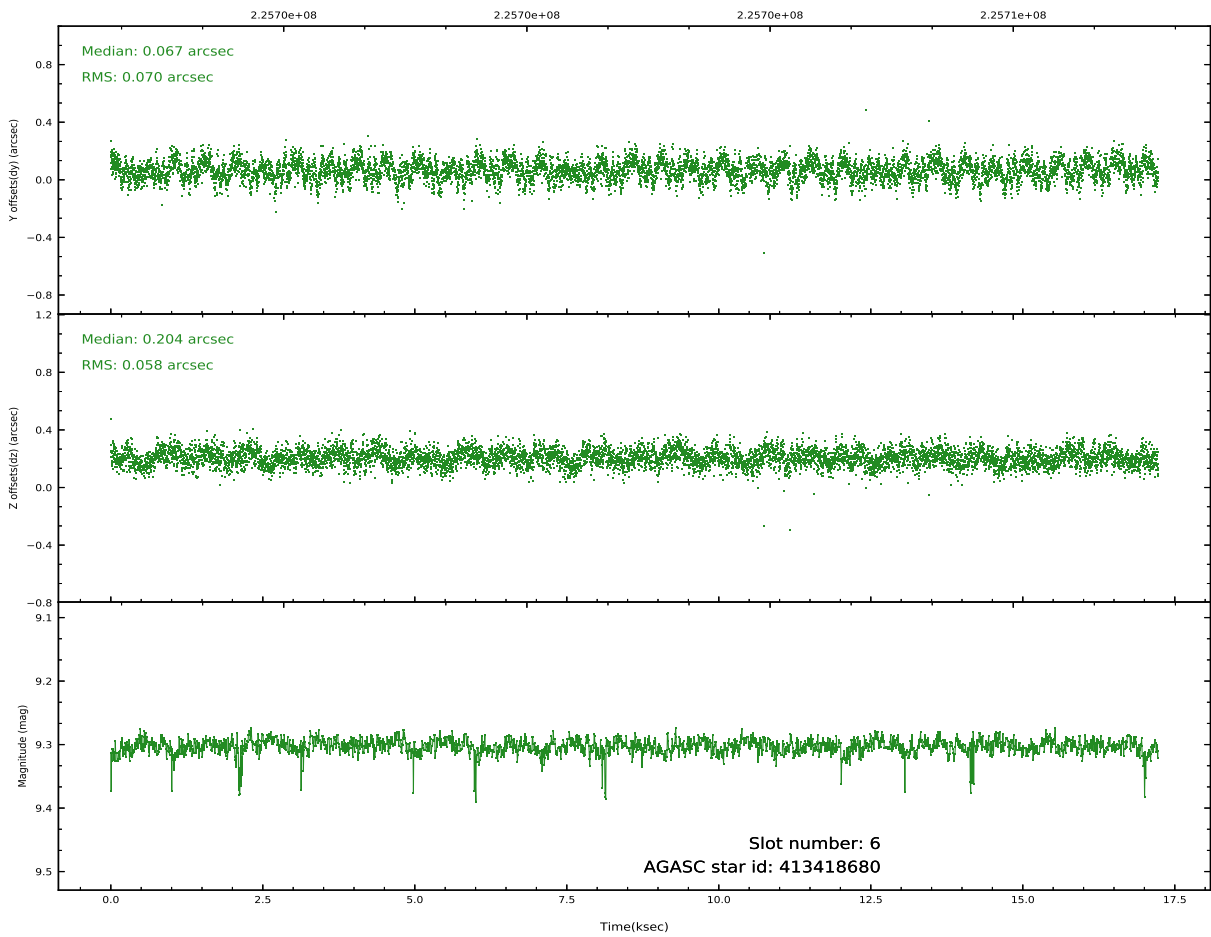
Time (s)



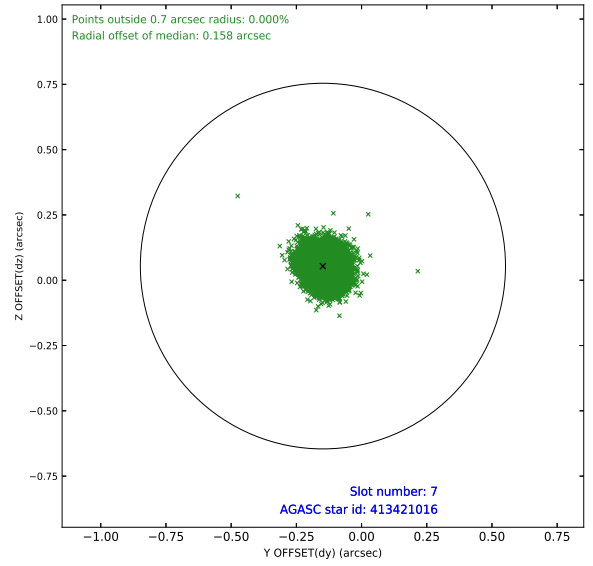
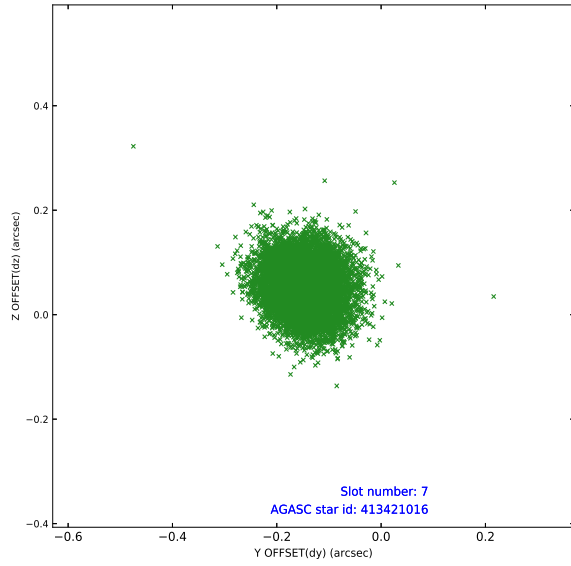
2.4.4 Slot 6



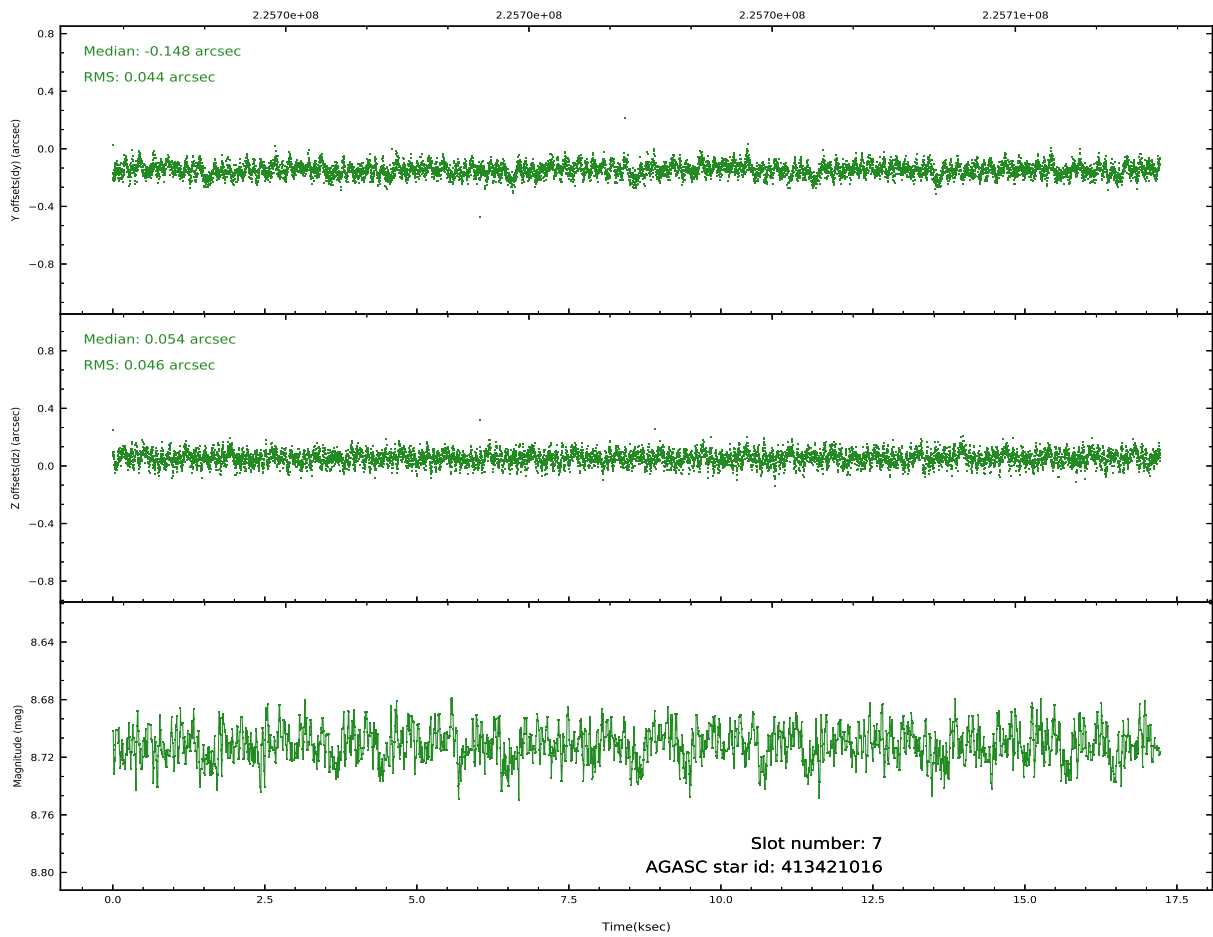
Time (s)



2.4.5 Slot 7

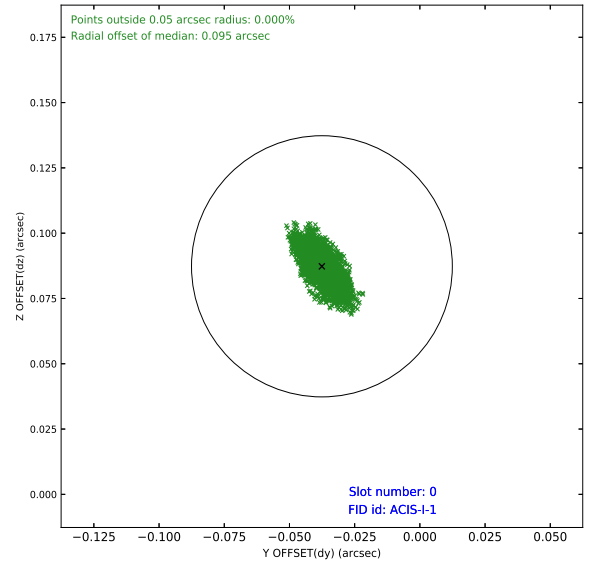
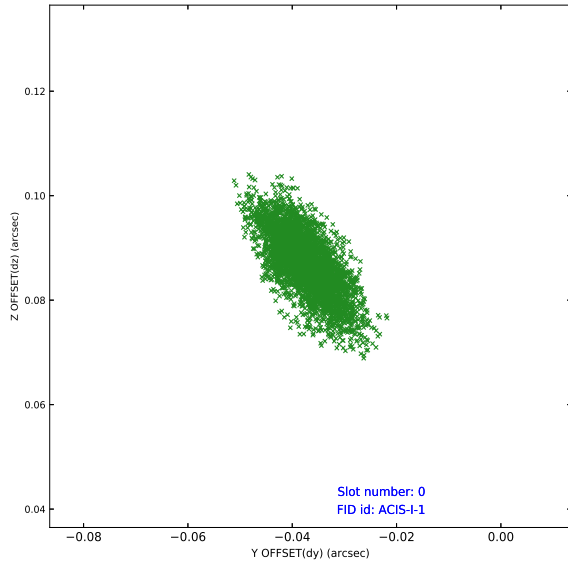


Time (s)

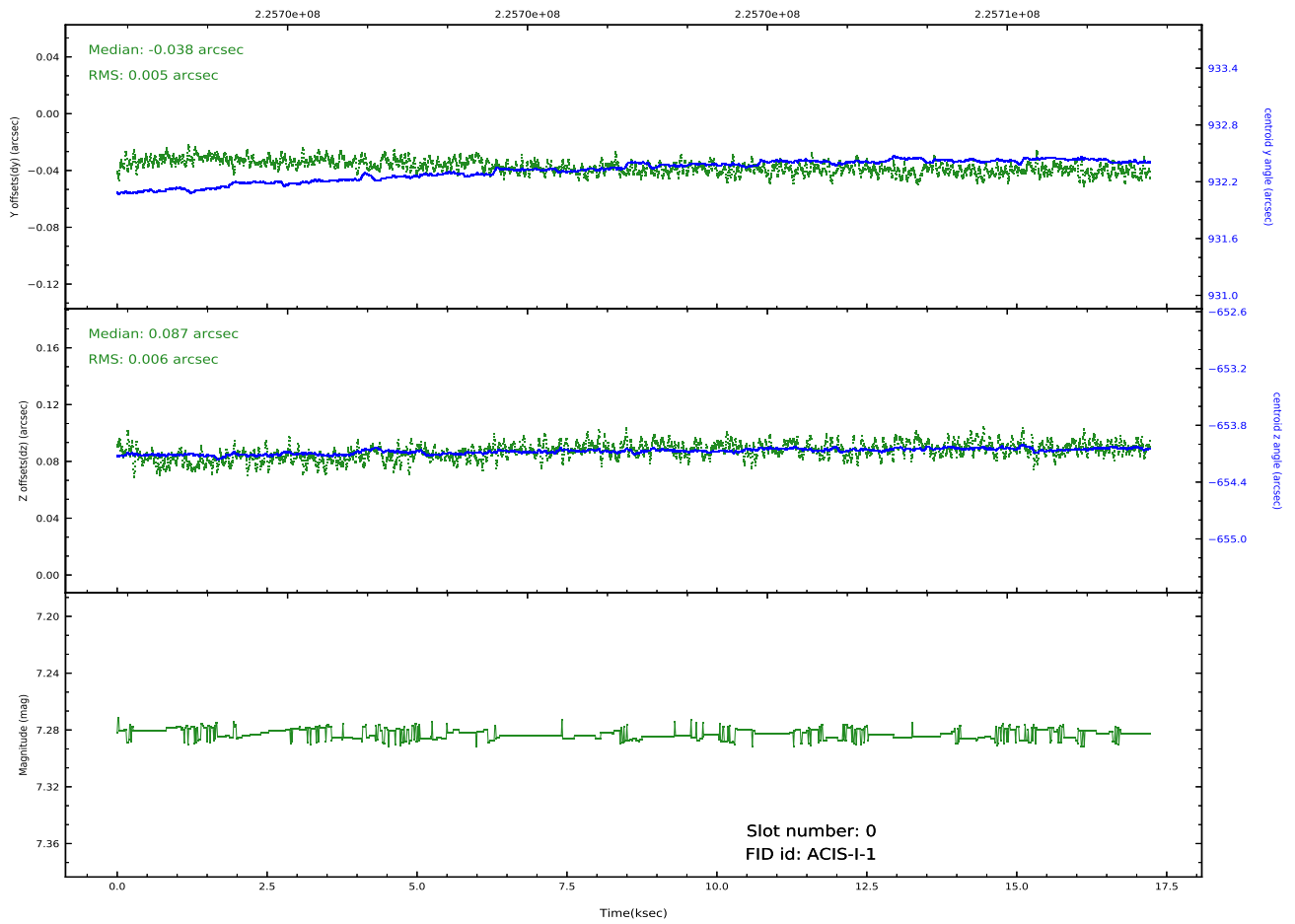


2.5 FID Slots

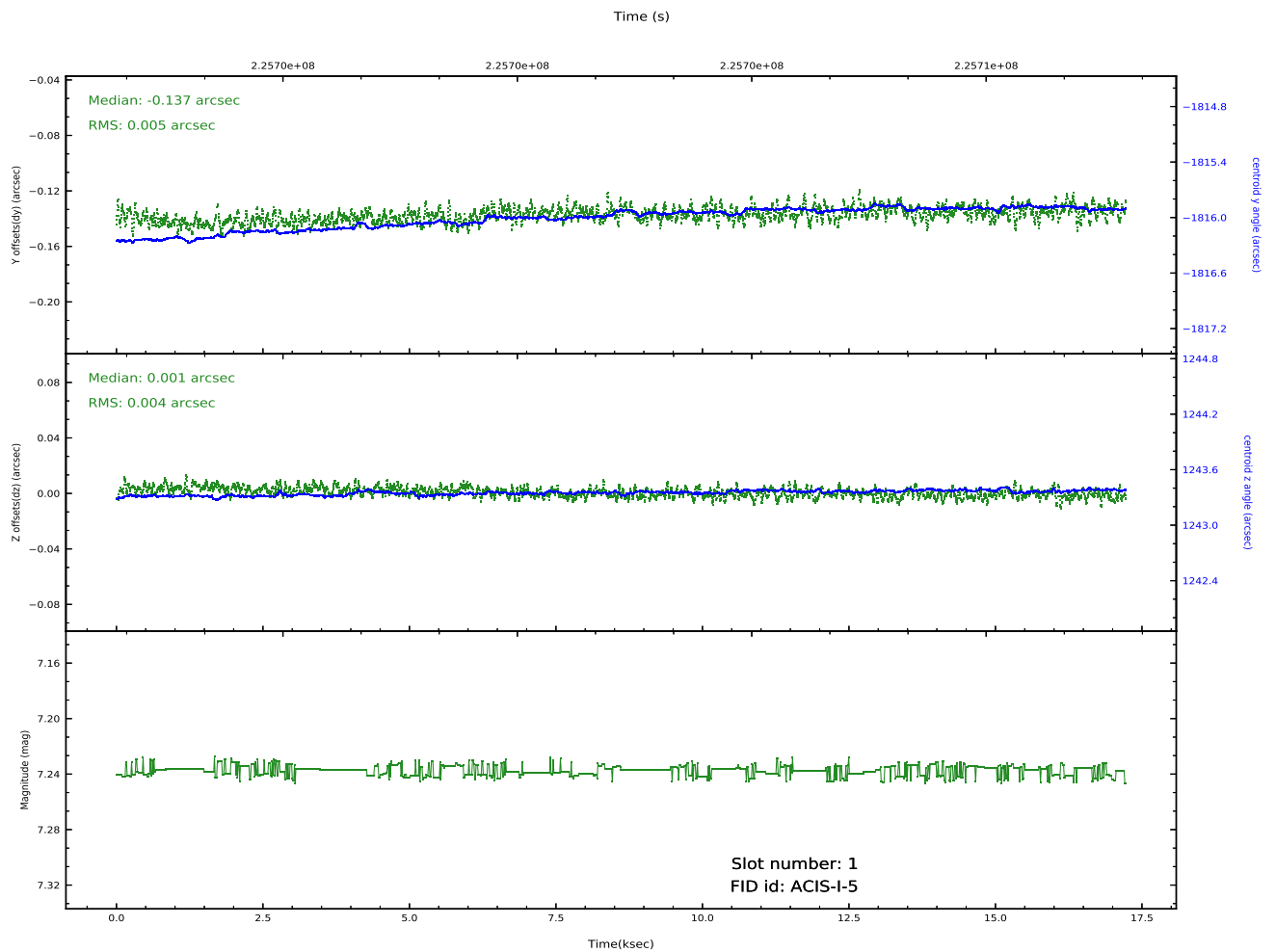
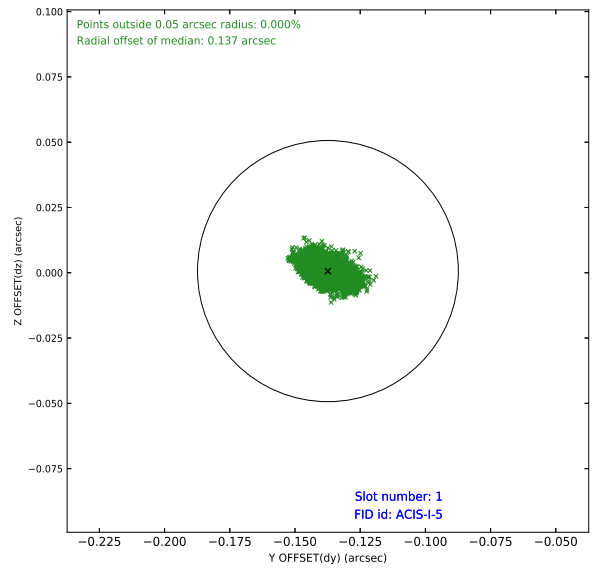
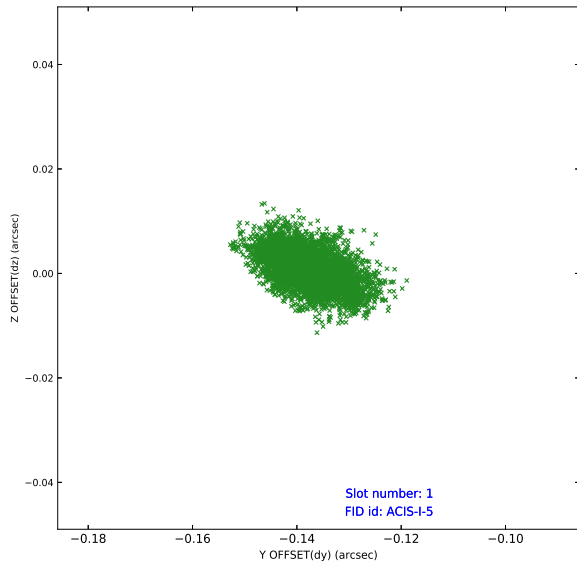
2.5.1 Slot 0



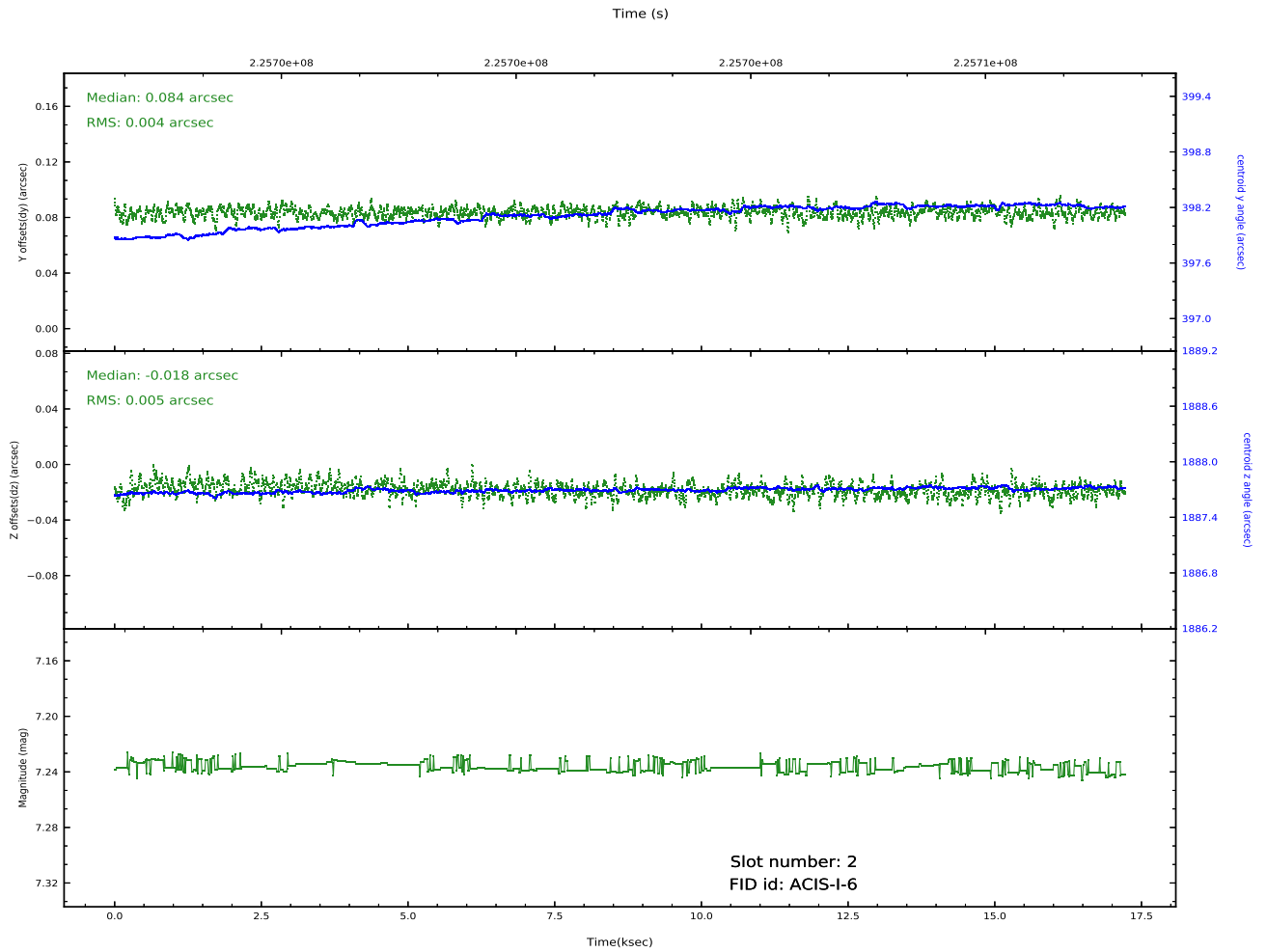
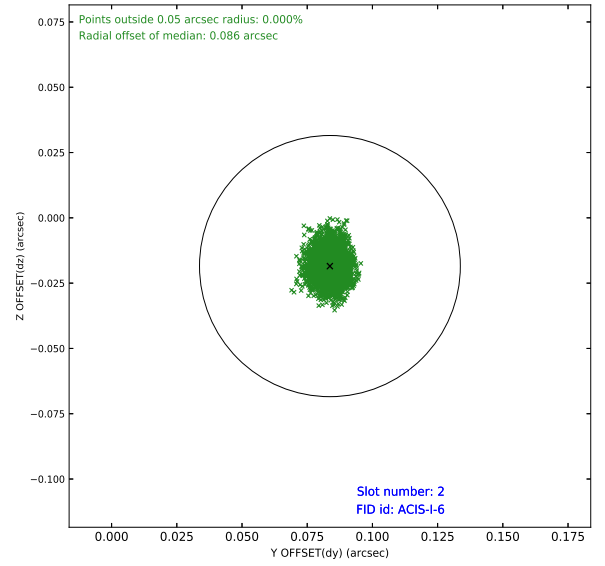
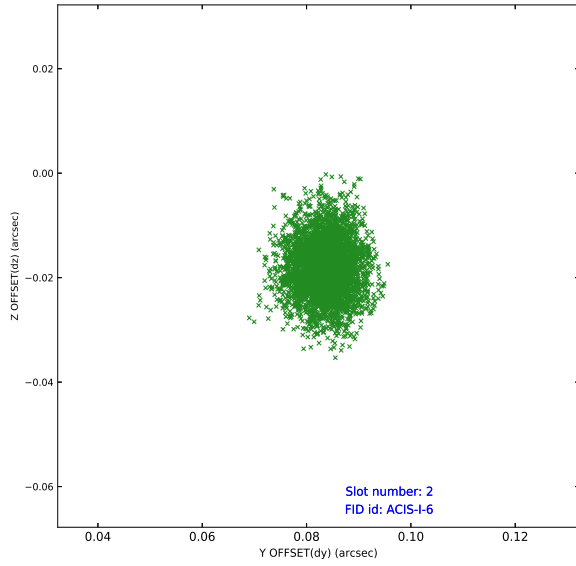
Time (s)



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.25019

A.2 Comments