

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 6108 - L2 Version 4
Chandra X-Ray Center

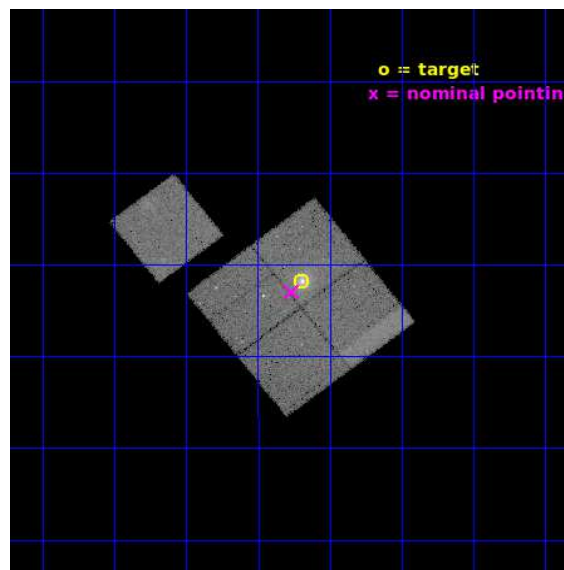
L2 Processing Date : Oct 5 2020

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1 Front

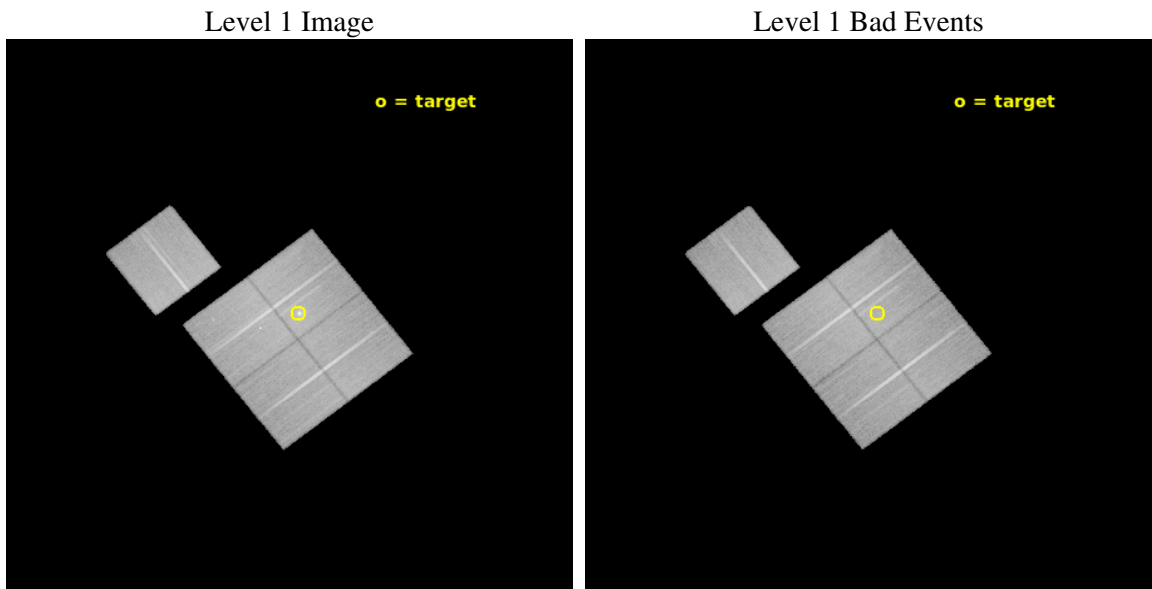
seq_num	800556	Sequence number
obs_id	6108	Observation id
title	Probing dark energy using the X-ray gas mass fraction in dynamically relaxed galaxy clusters	Proposal title
observer	Steve Allen	Principal investigator
object	MACS0329.7-0212	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	52.423333	Observer's specified target RA [deg]
dec_targ	-2.196389	Observer's specified target Dec [deg]
ra_nom	52.440899697438	Nominal RA [deg]
dec_nom	-2.2158538243189	Nominal Dec [deg]
roll_nom	322.17459828095	Nominal Roll [deg]
revision	4	Processing version of data
ontime	40169.758912593	Sum of GTIs [s]
livetime	39644.911439854	Livetime [s]
ontime0	40166.618001938	Sum of GTIs [s]
ontime1	40166.61793229	Sum of GTIs [s]
ontime2	40160.335981607	Sum of GTIs [s]
ontime3	40169.758912593	Sum of GTIs [s]
ontime6	40169.759002119	Sum of GTIs [s]
l2events	144212	Number of level 2 events



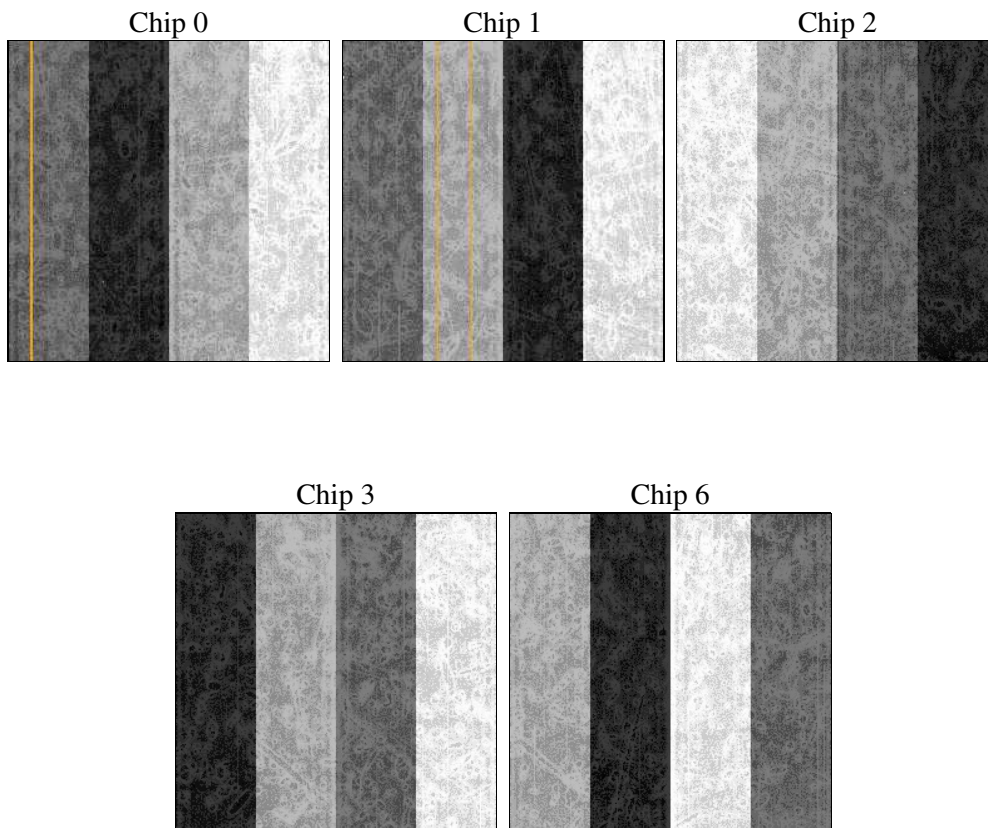
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	40169.758912593	Sum of GTIs [s]
caldbver	4.9.2	 	ontime0	40166.618001938	Sum of GTIs [s]
date	2020-10-05T11:31:43	Date and time of file creation	ontime1	40166.61793229	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	40160.335981607	Sum of GTIs [s]
			ontime3	40169.758912593	Sum of GTIs [s]
			ontime6	40169.759002119	Sum of GTIs [s]
			l1events	1472327	Number of level 1 events

2.1.4 Events

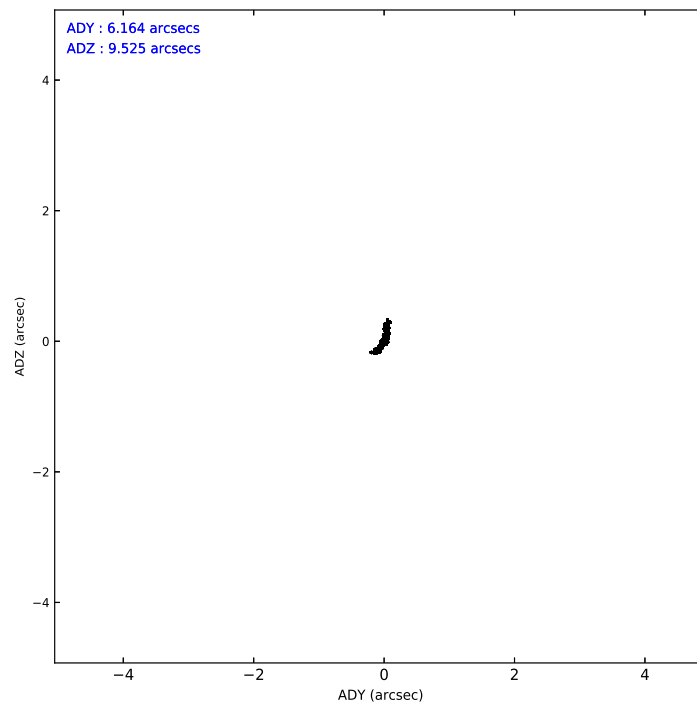
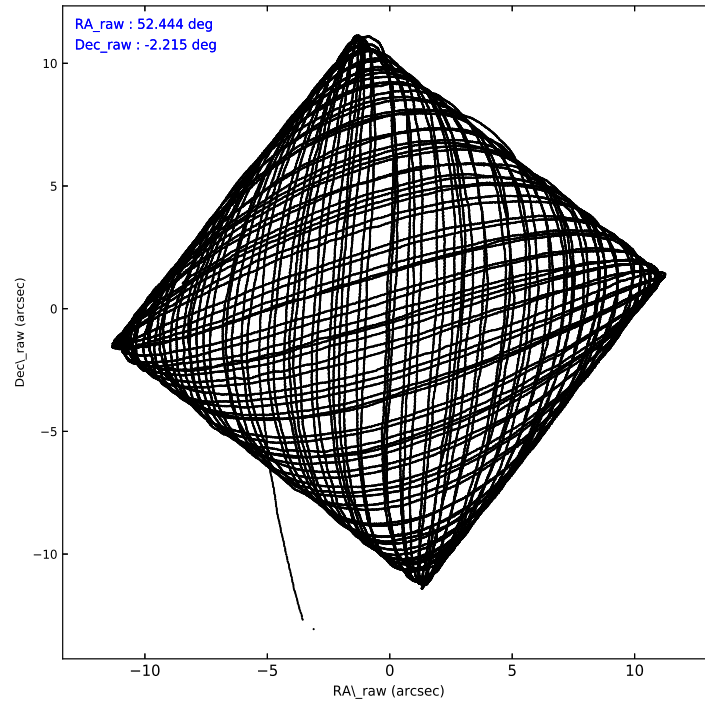
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	265213	276429	321209	308803	300673
rejected events	232344	239339	283151	268756	264244
rejected %	87%	86%	88%	87%	87%

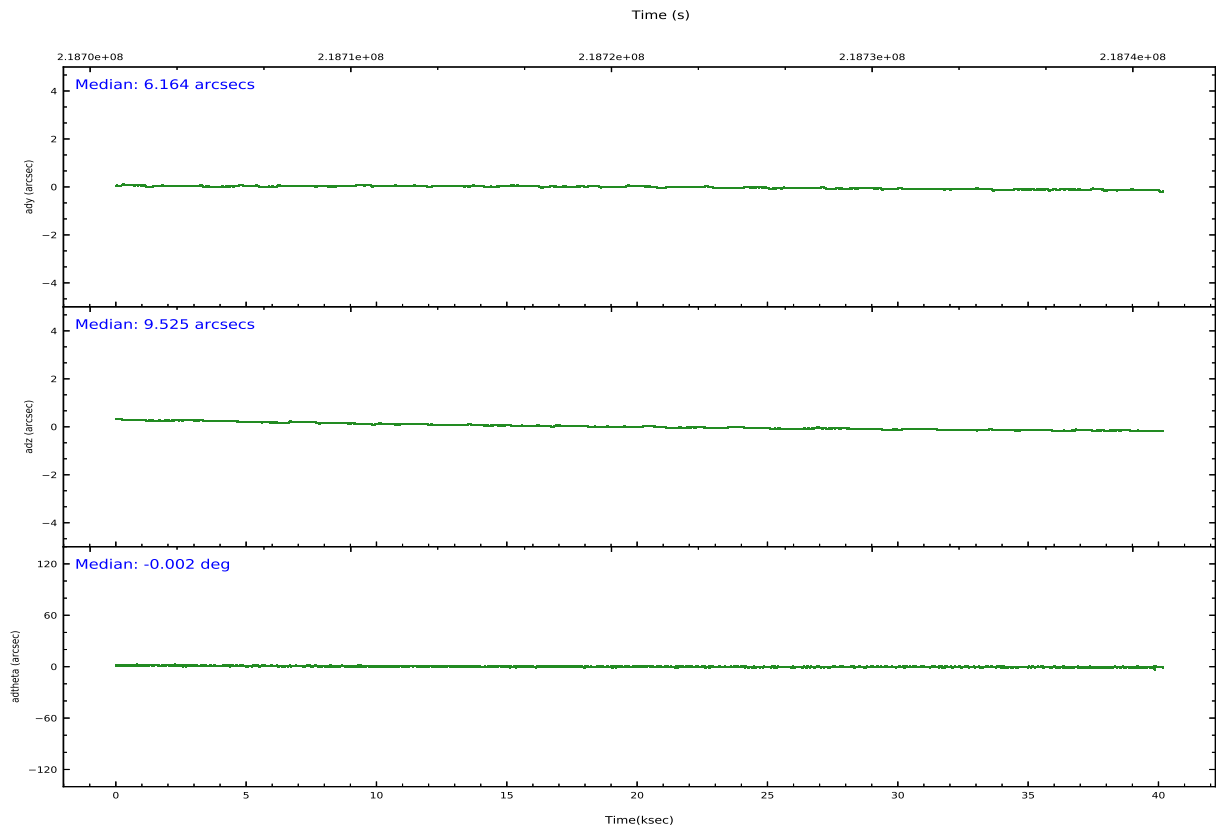
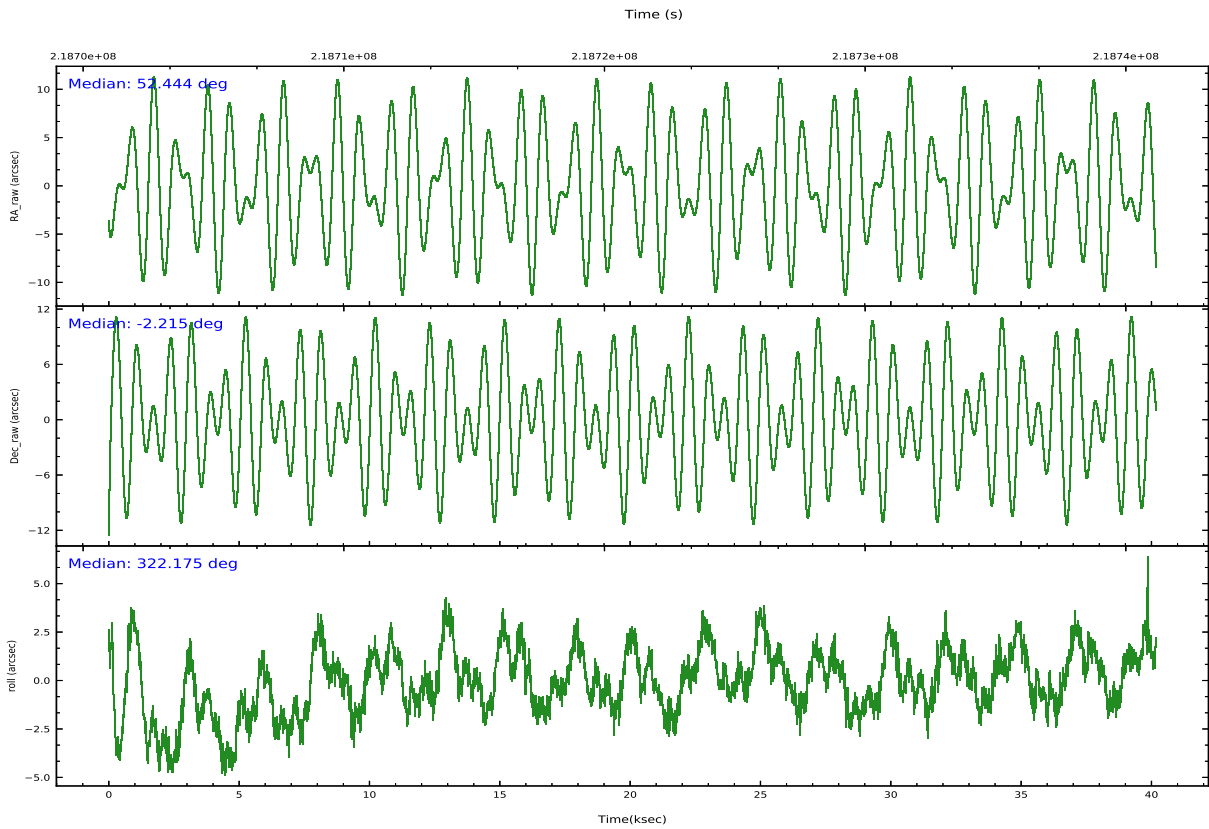
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	15250	16144	19028	22159	18207
	5%	5%	5%	7%	6%
grade 1 events	205	151	262	211	171
	0%	0%	0%	0%	0%
grade 2 events	7880	8646	8296	7283	7629
	2%	3%	2%	2%	2%
grade 3 events	3049	3656	3002	3341	3119
	1%	1%	0%	1%	1%
grade 4 events	2846	3358	4106	3329	3095
	1%	1%	1%	1%	1%
grade 5 events	8865	9620	8661	10338	9996
	3%	3%	2%	3%	3%
grade 6 events	5003	6692	5038	5103	5732
	1%	2%	1%	1%	1%
grade 7 events	222115	228162	272816	257039	252724
	83%	82%	84%	83%	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	52.416832	52.440899697438	Subarray requested	NONE	NONE
[deg] Pointing Dec	-2.211197	-2.2158538243189	Alternating exposures requested	N	N
[deg] Pointing Roll	321.971556	322.17459828095	[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	-229.442463	-229.4438428438578			
[mm] SIM translation stage offset	-4.15	-4.148610159071865			
[s] Observation start time (MET)	218701163.184000	218699417.88681			
Observation start date	2004-12-06T06:18:19	2004-12-06T05:50:17			
[s] Observation end time (MET)	218741163.184000	218742090.17623			
Observation end date	2004-12-06T17:24:59	2004-12-06T17:41:30			
Read mode	TIMED	TIMED			

2.3 Aspect





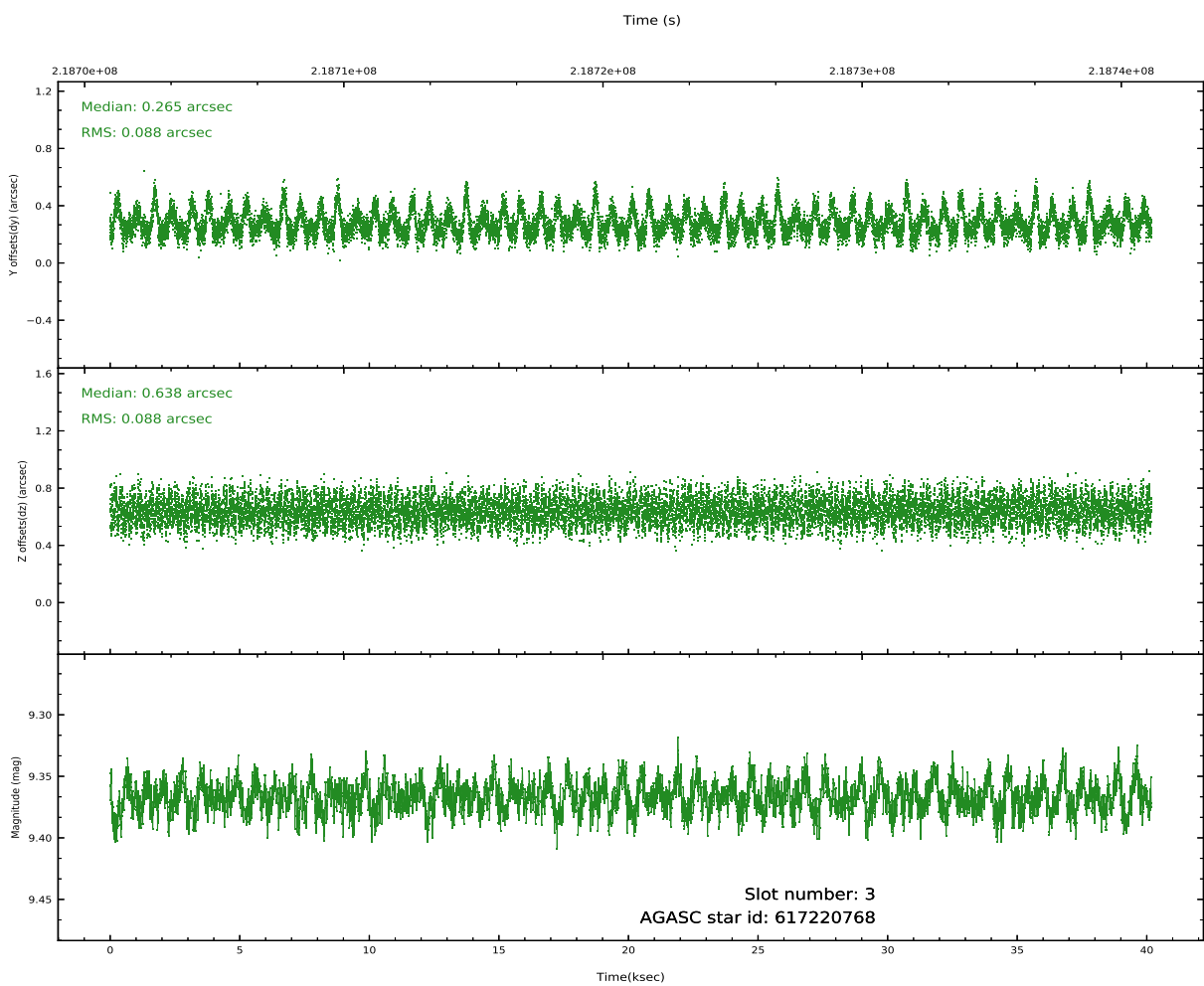
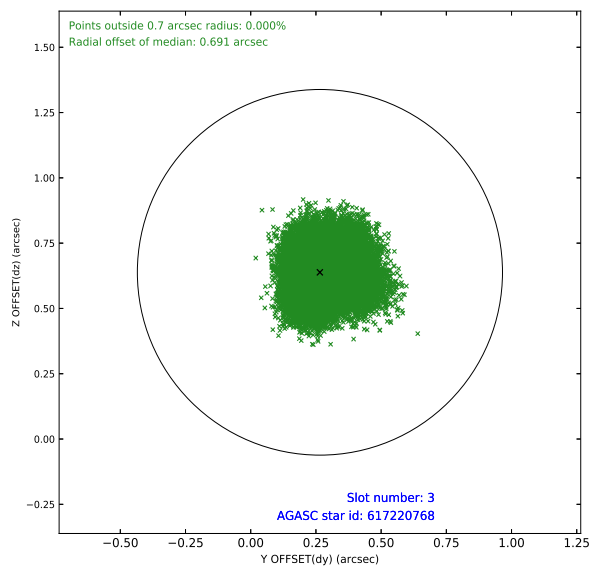
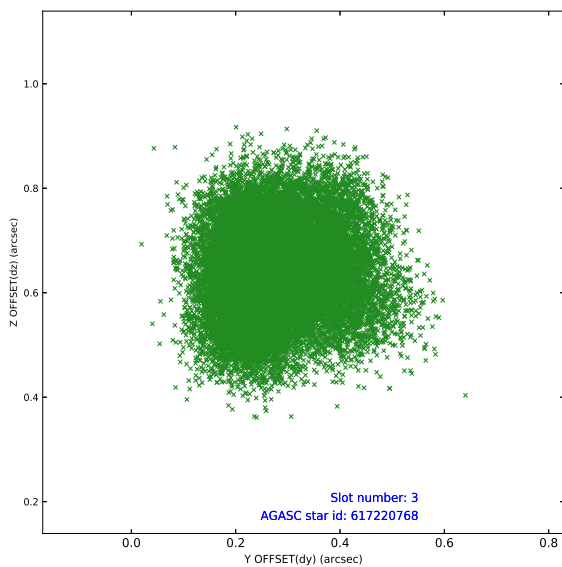
Slot Statistics

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	7.24	9799	1.000	0.062	-0.041	0.009	0.016	0.000000	0.000000	933.55	-918
1	FID		ACIS-I-5	7.23	9800	1.000	-0.246	0.053	0.007	0.012	0.000000	0.000000	-1814.86	979
2	FID		ACIS-I-6	7.25	9800	1.000	0.092	0.059	0.008	0.013	0.000000	0.000000	399.10	1623
3	GUIDE	used	617220768	9.37	19584	1.000	0.265	0.638	0.135	0.211	52.153820	-2.297712	-552.66	-827
4	GUIDE	used	617225208	8.93	19584	1.000	-0.036	-0.145	0.088	0.135	52.402007	-1.748912	-1066.96	1277
5	GUIDE	used	618135616	9.41	19585	1.000	0.023	-0.052	0.128	0.217	52.691139	-1.780604	-177.45	1828
6	GUIDE	used	618137256	6.99	19599	1.000	-0.329	-0.148	0.046	0.072	52.673789	-1.938766	123.85	1342
7	GUIDE	used	618529600	9.55	19593	1.000	0.070	-0.291	0.119	0.189	52.561469	-2.979434	2114.17	-1858

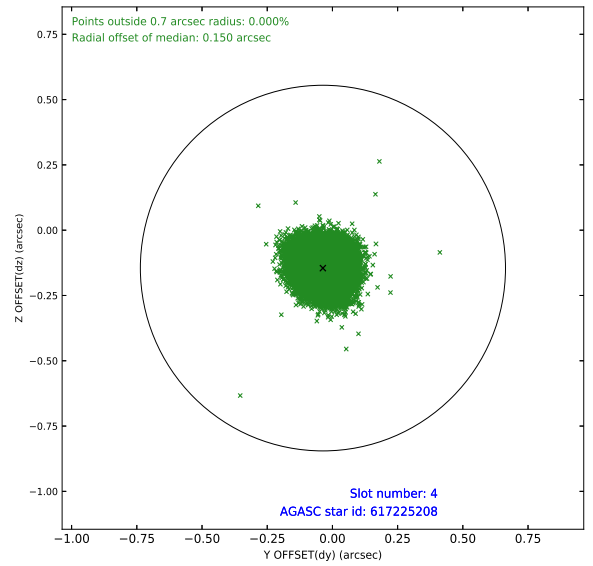
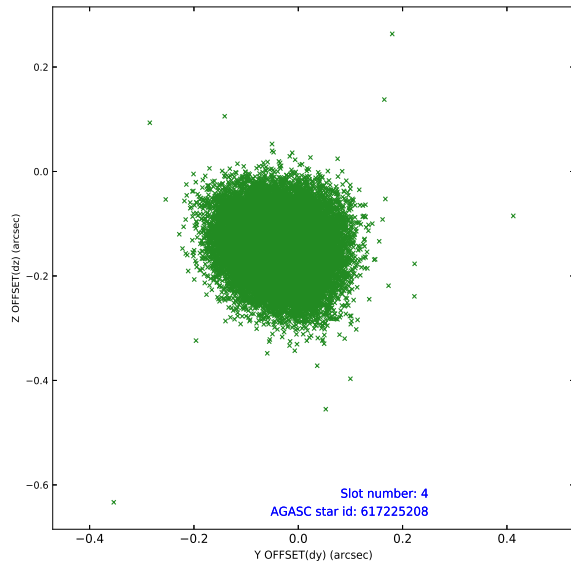
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2.4 Star Slots

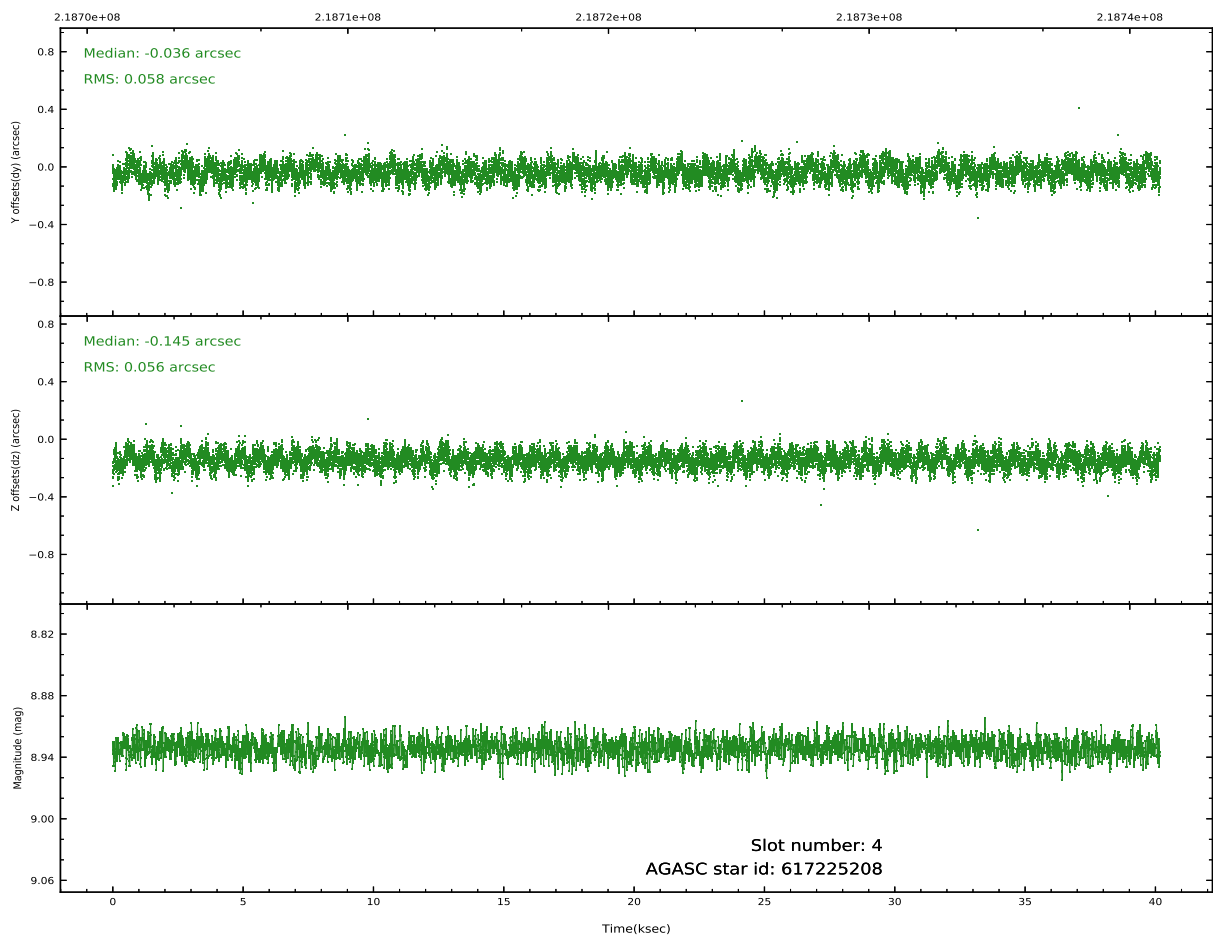
2.4.1 Slot 3



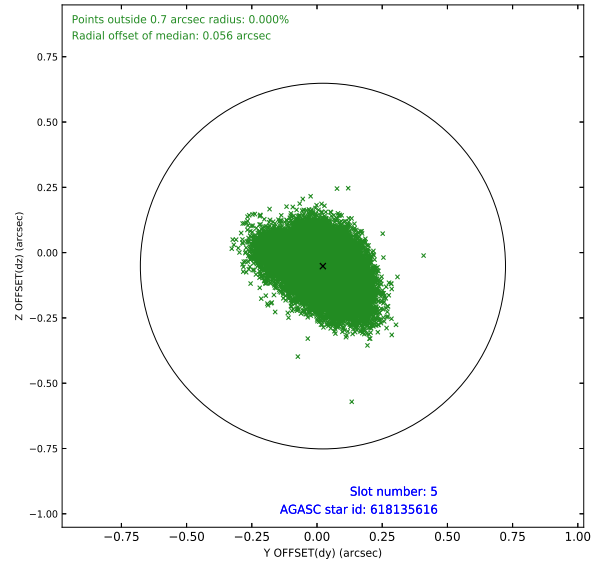
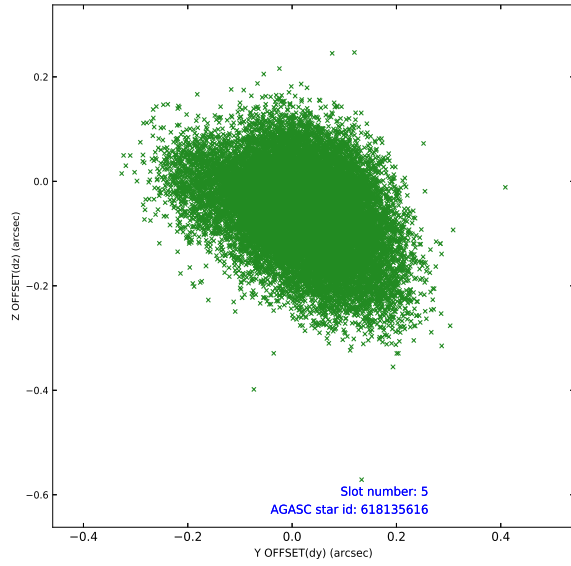
2.4.2 Slot 4



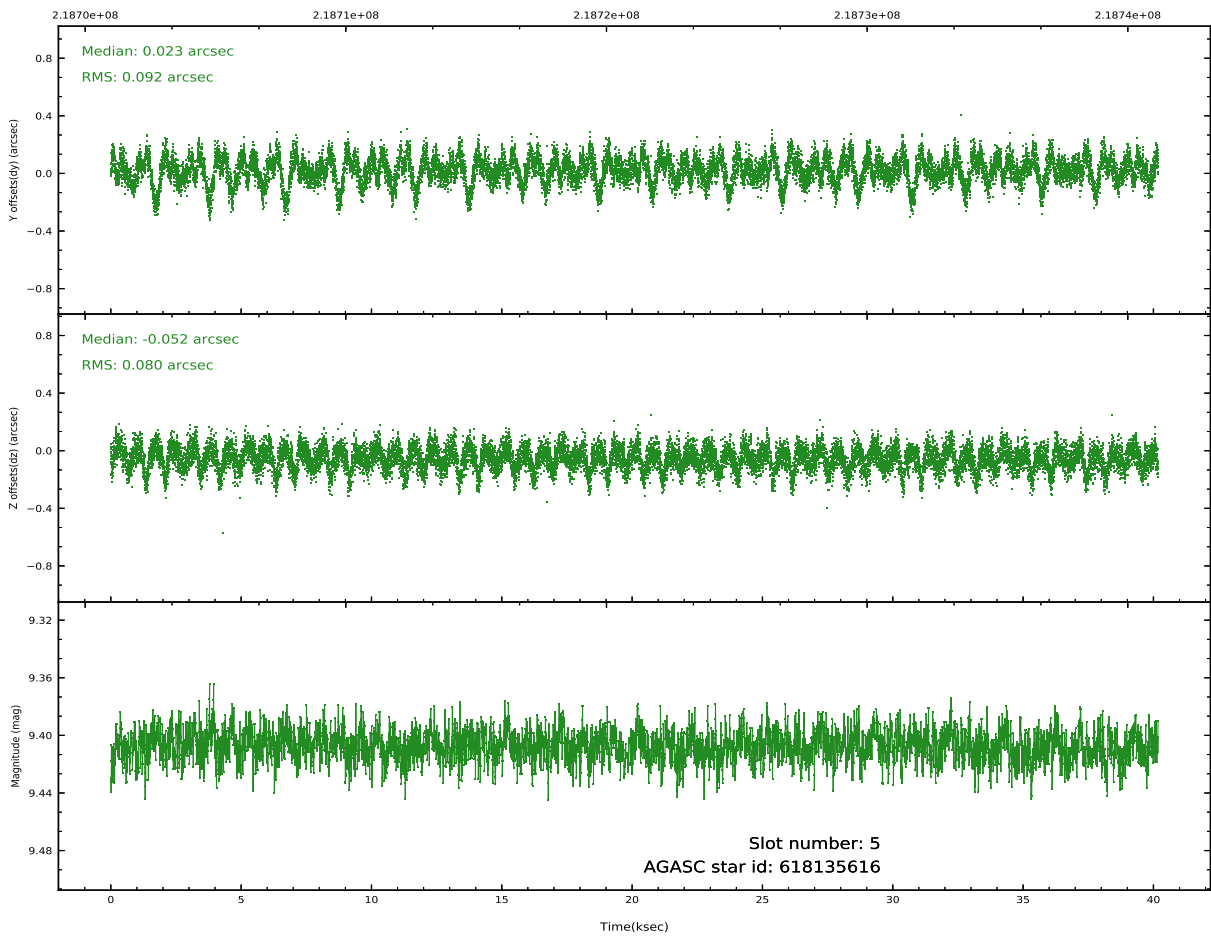
Time (s)



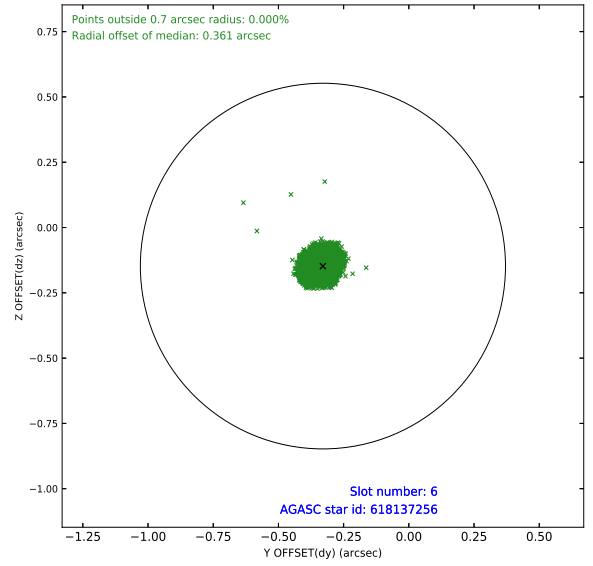
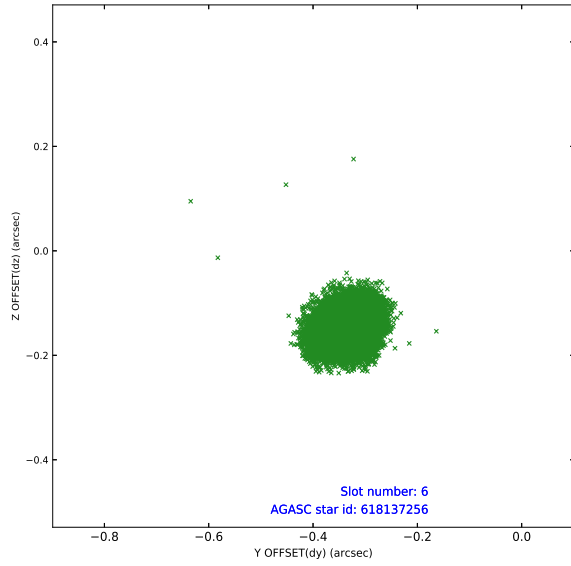
2.4.3 Slot 5



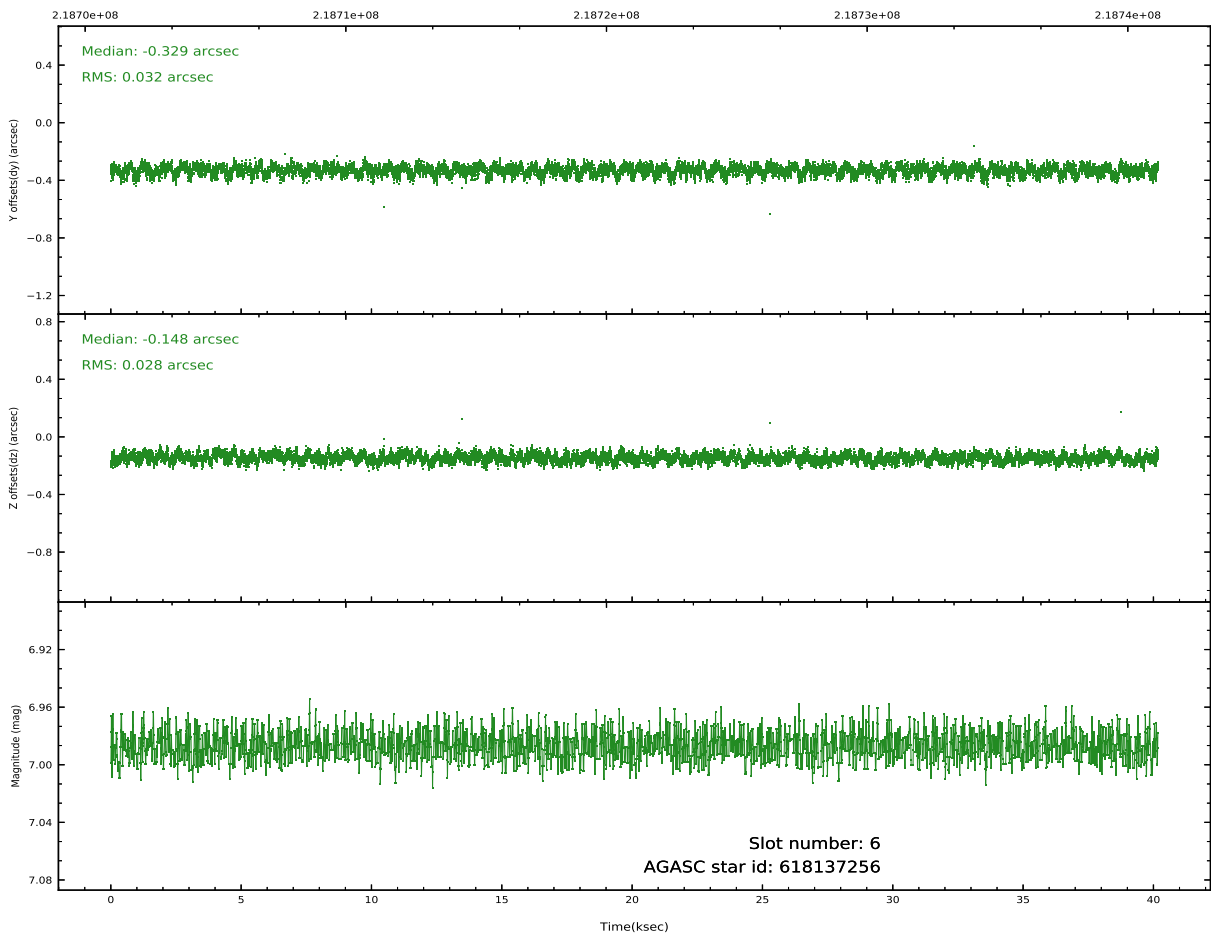
Time (s)



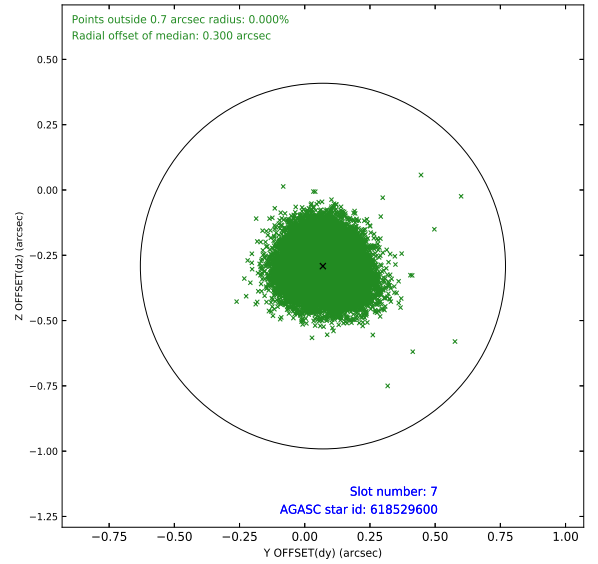
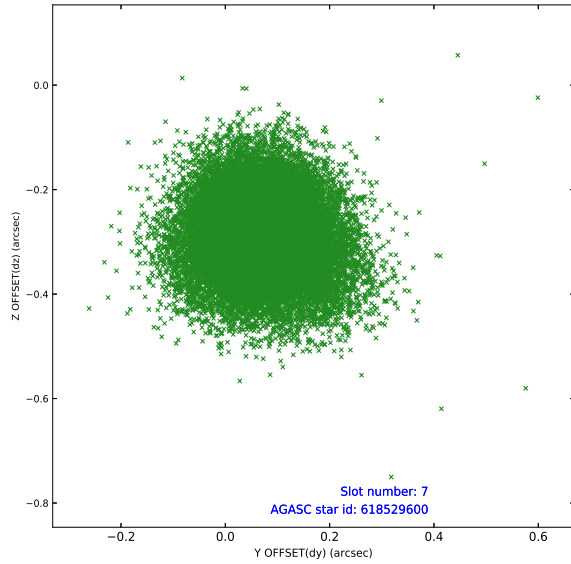
2.4.4 Slot 6



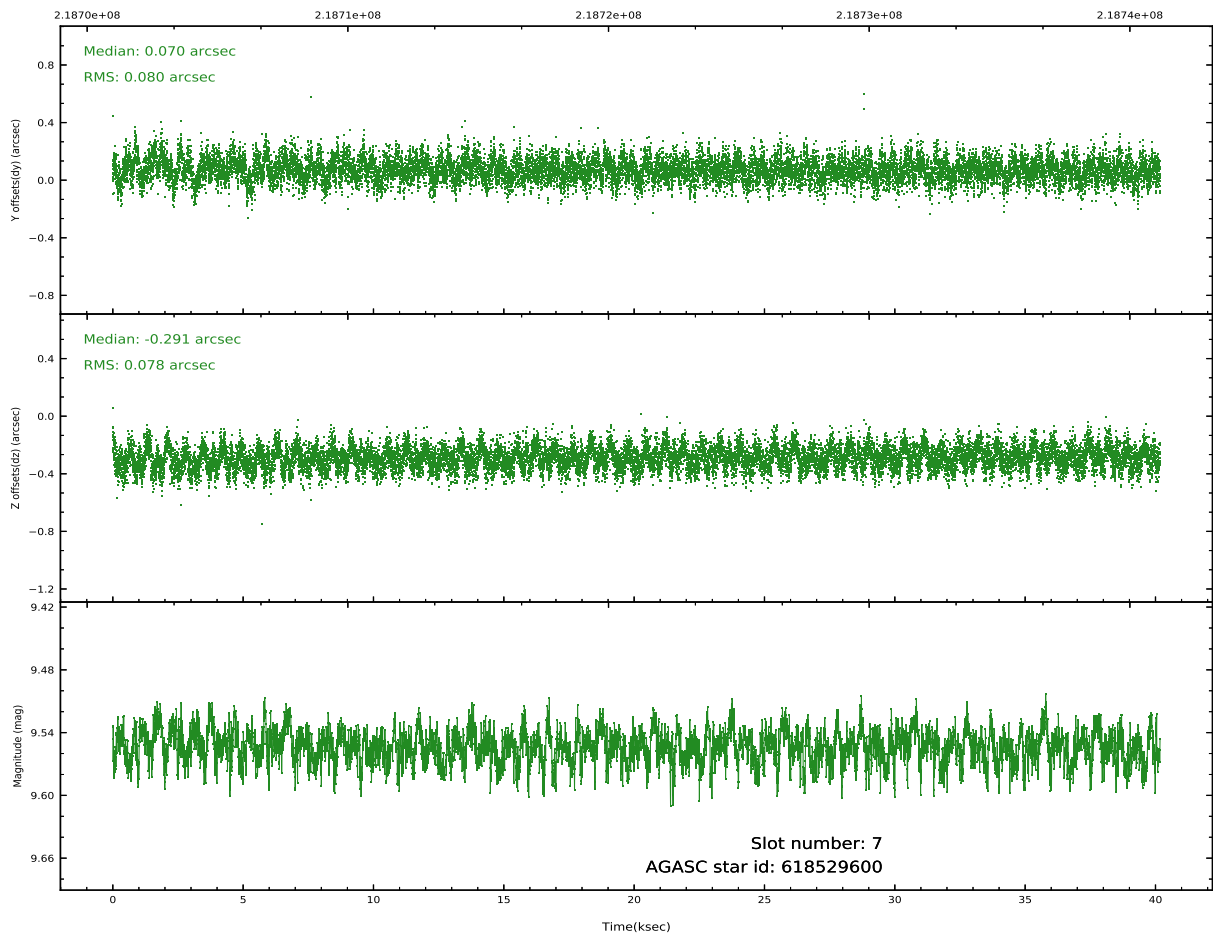
Time (s)



2.4.5 Slot 7

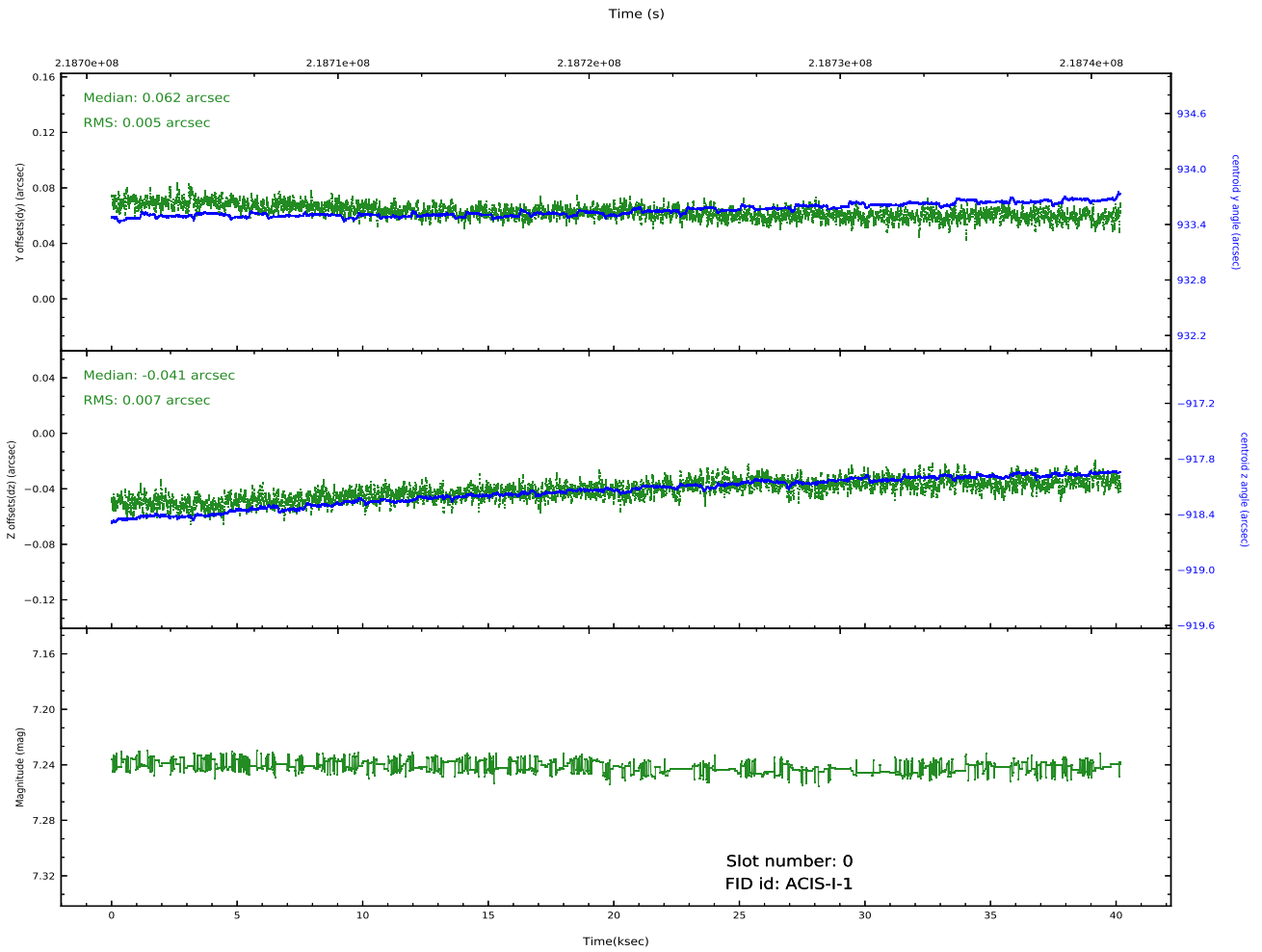
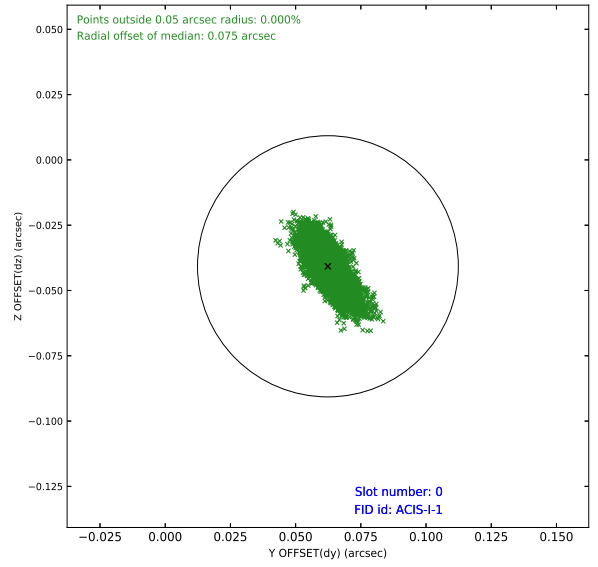
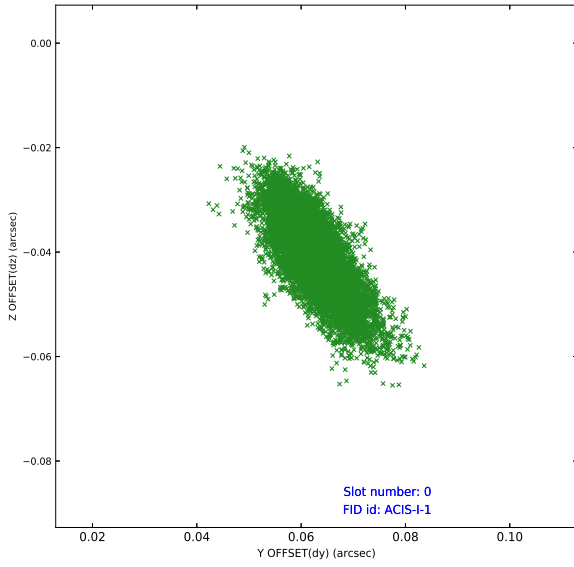


Time (s)

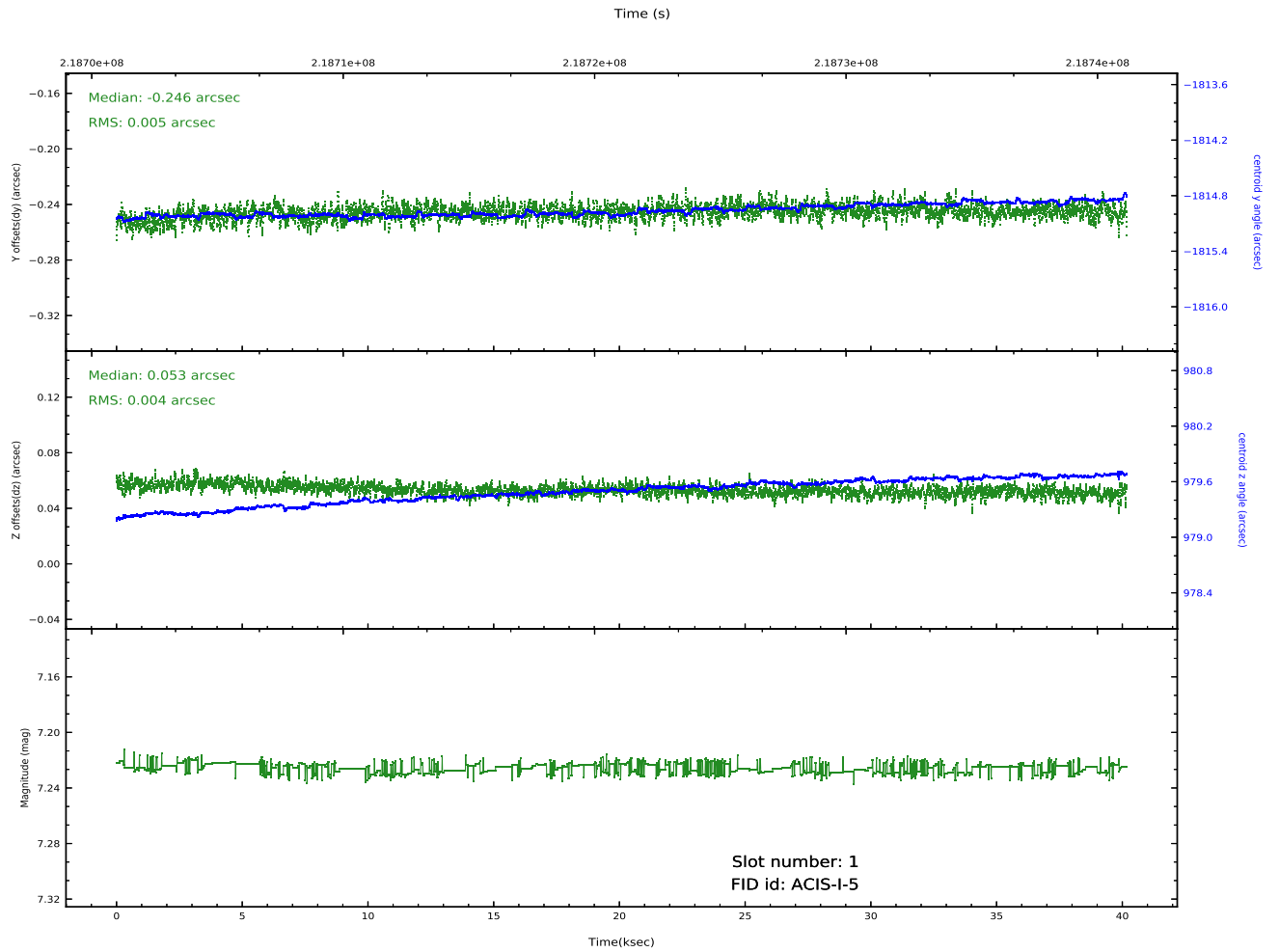
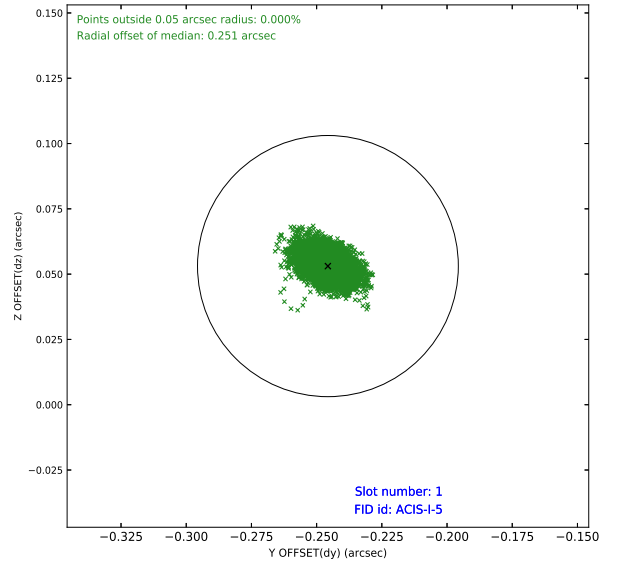
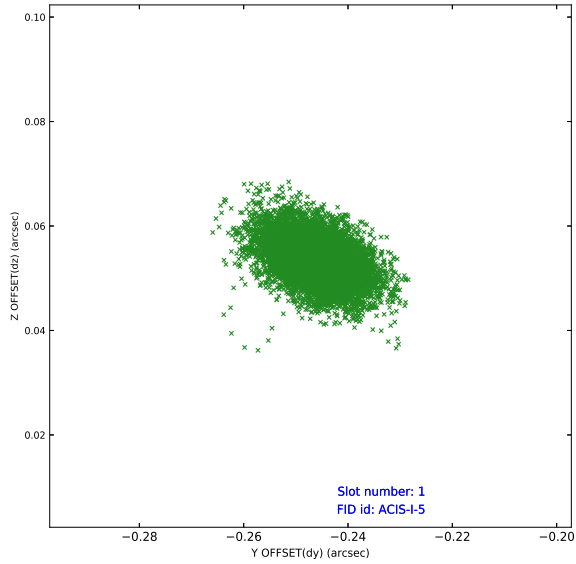


2.5 FID Slots

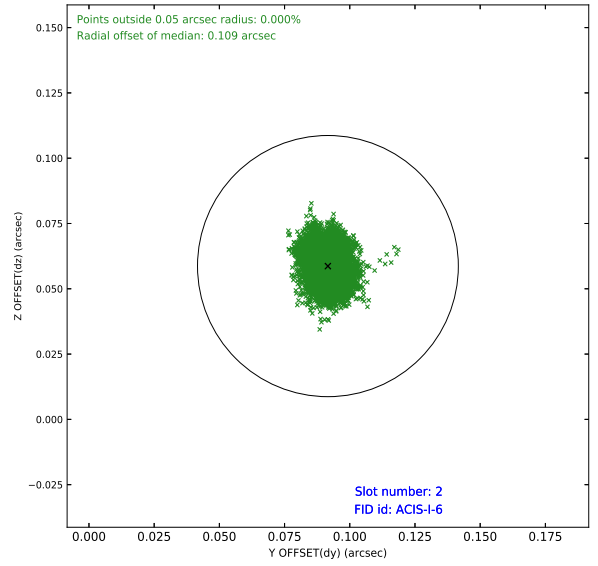
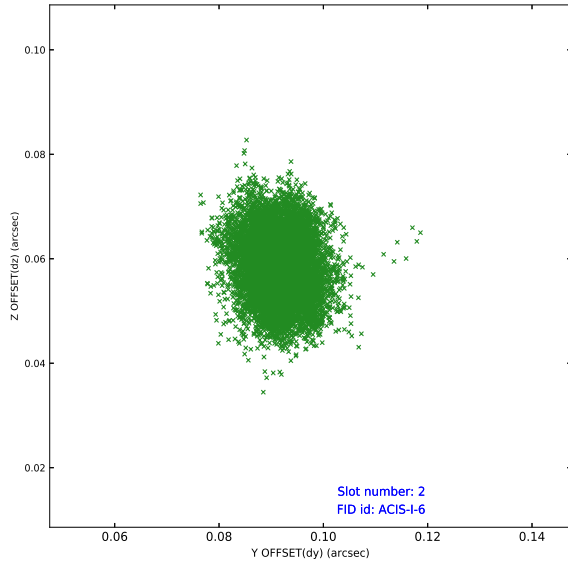
2.5.1 Slot 0



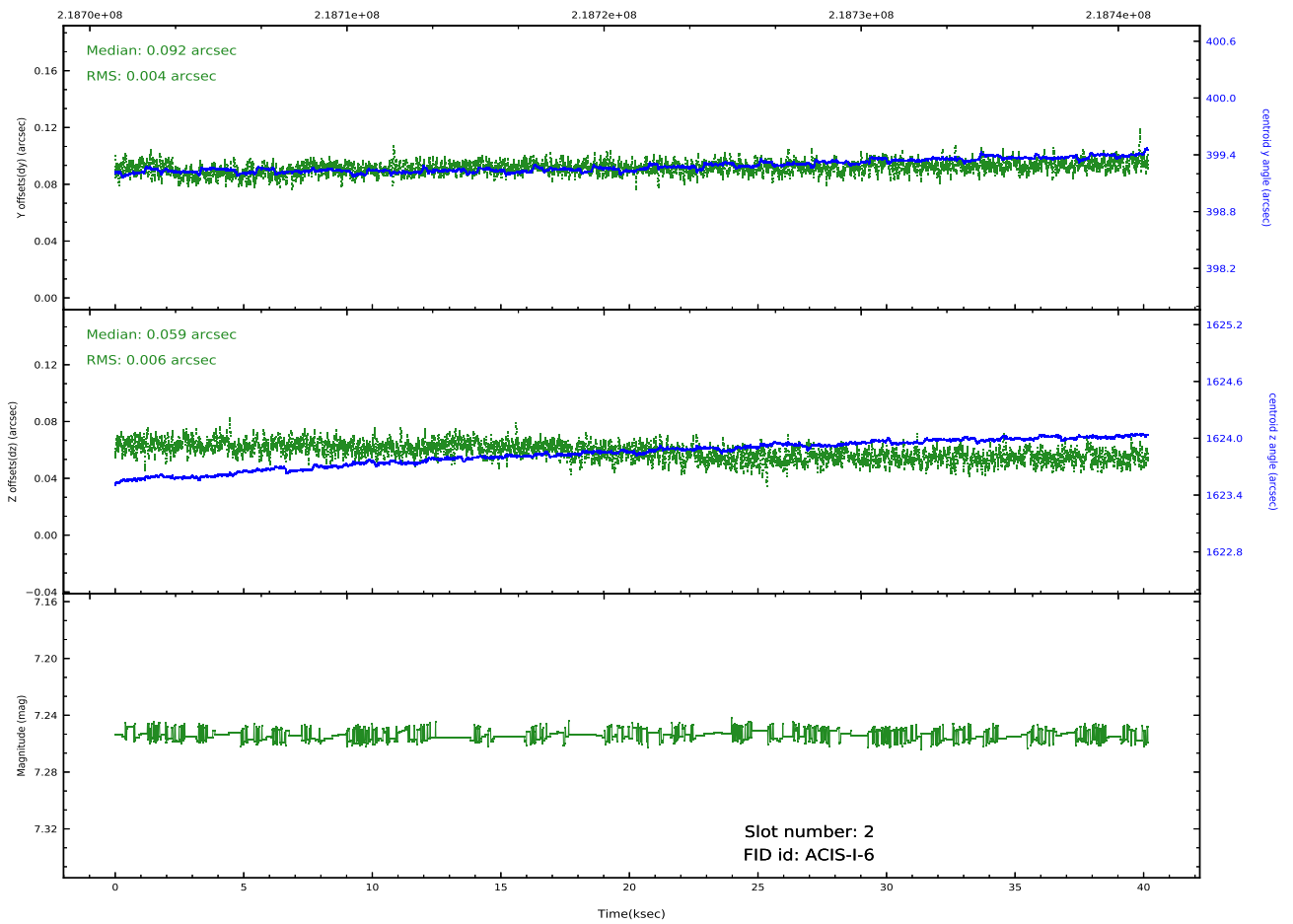
2.5.2 Slot 1



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.16975

A.2 Comments