

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20522 - L2 Version 2
Chandra X-Ray Center

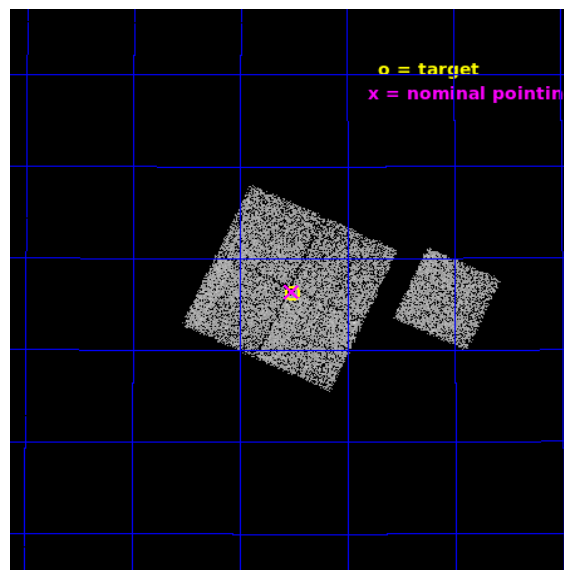
L2 Processing Date : Oct 27 2020

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1 Front

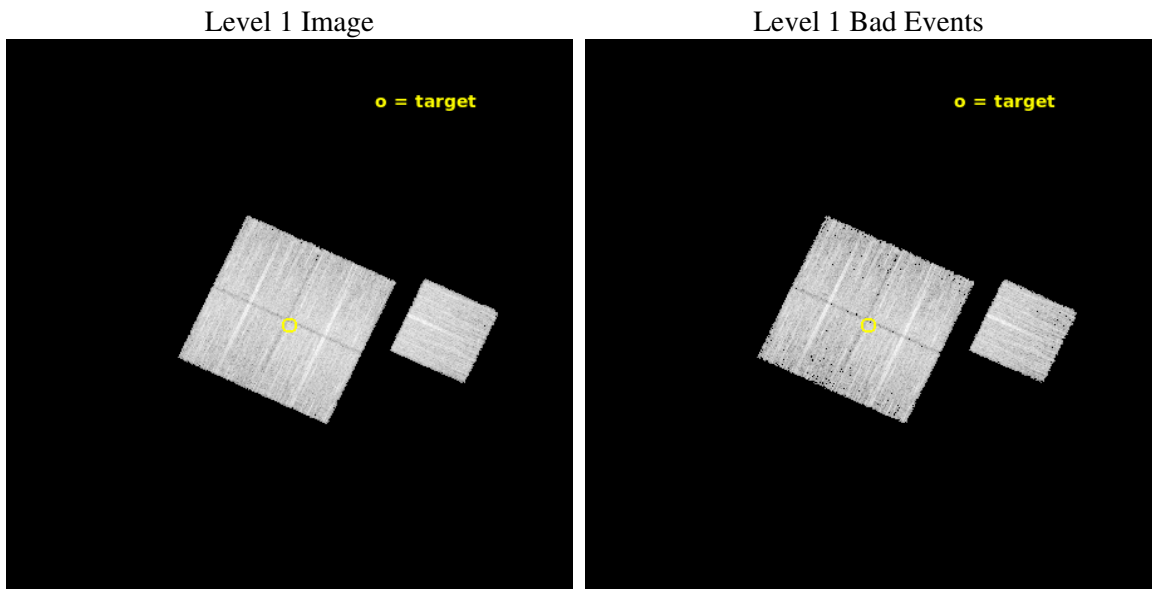
seq_num	801736	Sequence number
obs_id	20522	Observation id
title	Unravelling gas clumping in the outskirts of the Perseus cluster	P
observer	Stephen Walker	Principal investigator
object	Perseus r200 W	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	48.12875	Observer's specified target RA [deg]
dec_targ	41.602778	Observer's specified target Dec [deg]
ra_nom	48.129315406675	Nominal RA [deg]
dec_nom	41.606299269003	Nominal Dec [deg]
roll_nom	115.03366217207	Nominal Roll [deg]
revision	2	Processing version of data
ontime	8063.0590718985	Sum of GTIs [s]
livetime	7957.7092691864	Livetime [s]
ontime0	8066.2000621557	Sum of GTIs [s]
ontime1	8066.2000621557	Sum of GTIs [s]
ontime2	8066.2000621557	Sum of GTIs [s]
ontime3	8063.0590718985	Sum of GTIs [s]
ontime6	8063.0590817928	Sum of GTIs [s]
l2events	29601	Number of level 2 events



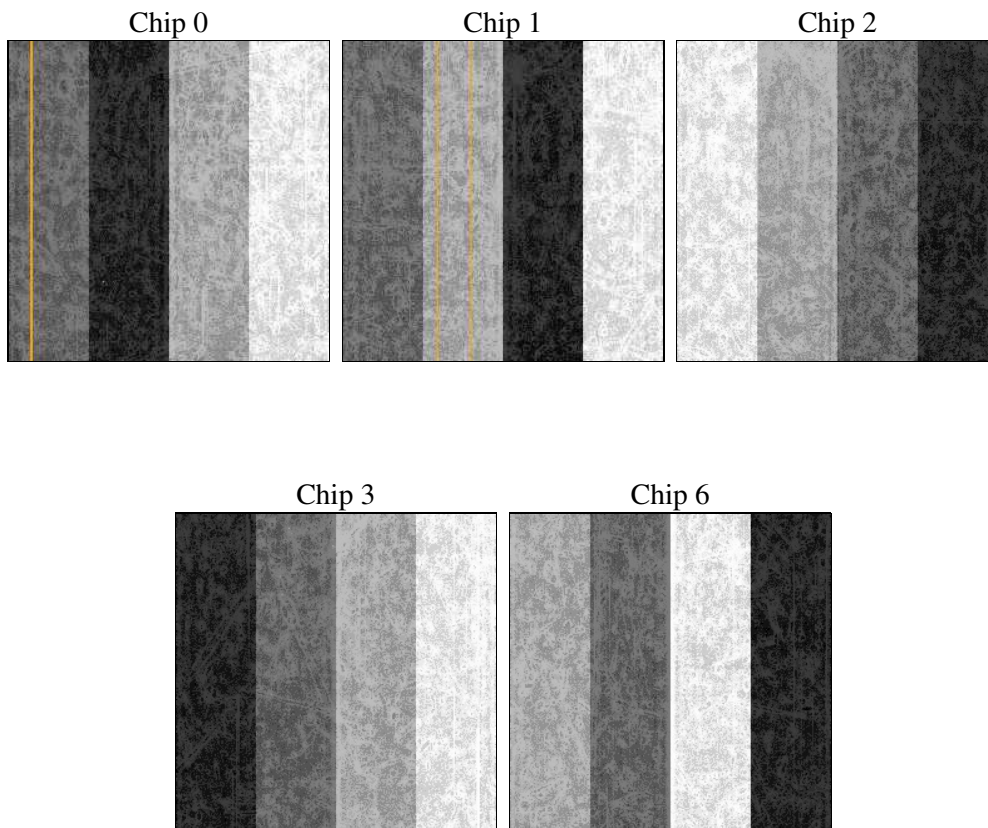
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	8063.0590718985	Sum of GTIs [s]
caldsver	4.9.3	 	ontime0	8066.2000621557	Sum of GTIs [s]
date	2020-10-27T17:48:35	Date and time of file creation	ontime1	8066.2000621557	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	8066.2000621557	Sum of GTIs [s]
			ontime3	8063.0590718985	Sum of GTIs [s]
			ontime6	8063.0590817928	Sum of GTIs [s]
			l1events	297208	Number of level 1 events

2.1.4 Events

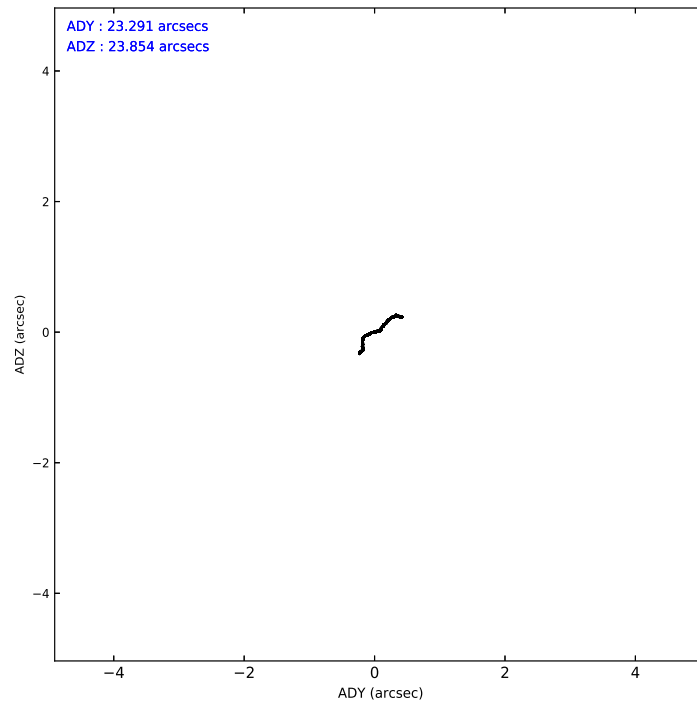
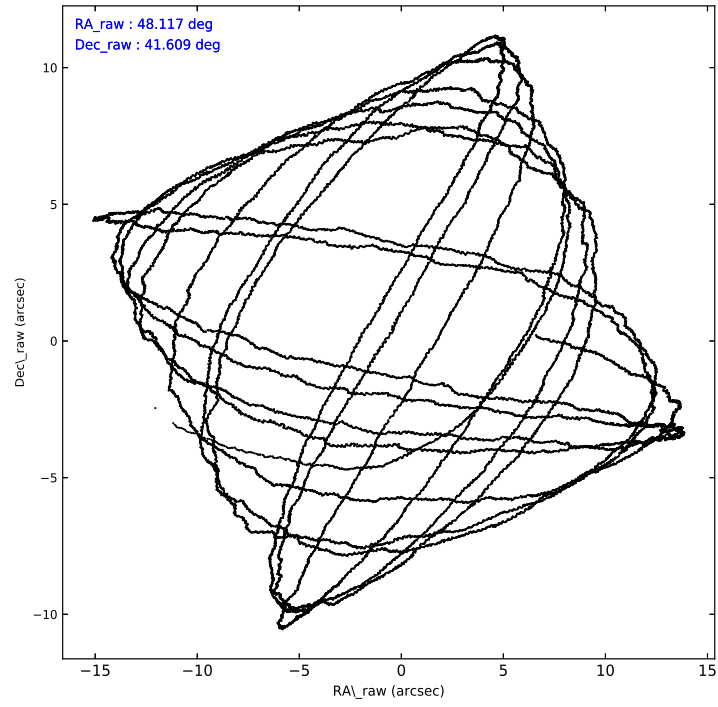
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	55623	56430	61707	60714	62734
rejected events	48619	48714	54981	53624	55894
rejected %	87%	86%	89%	88%	89%

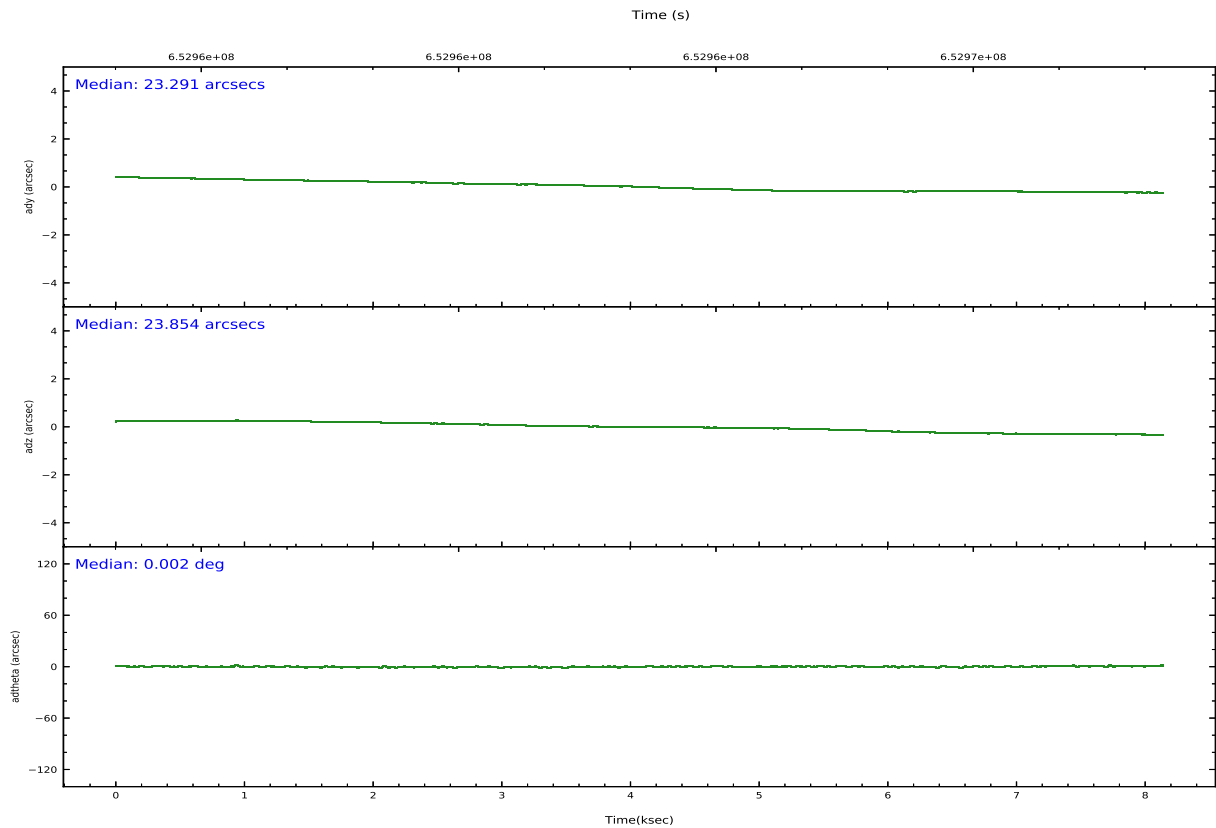
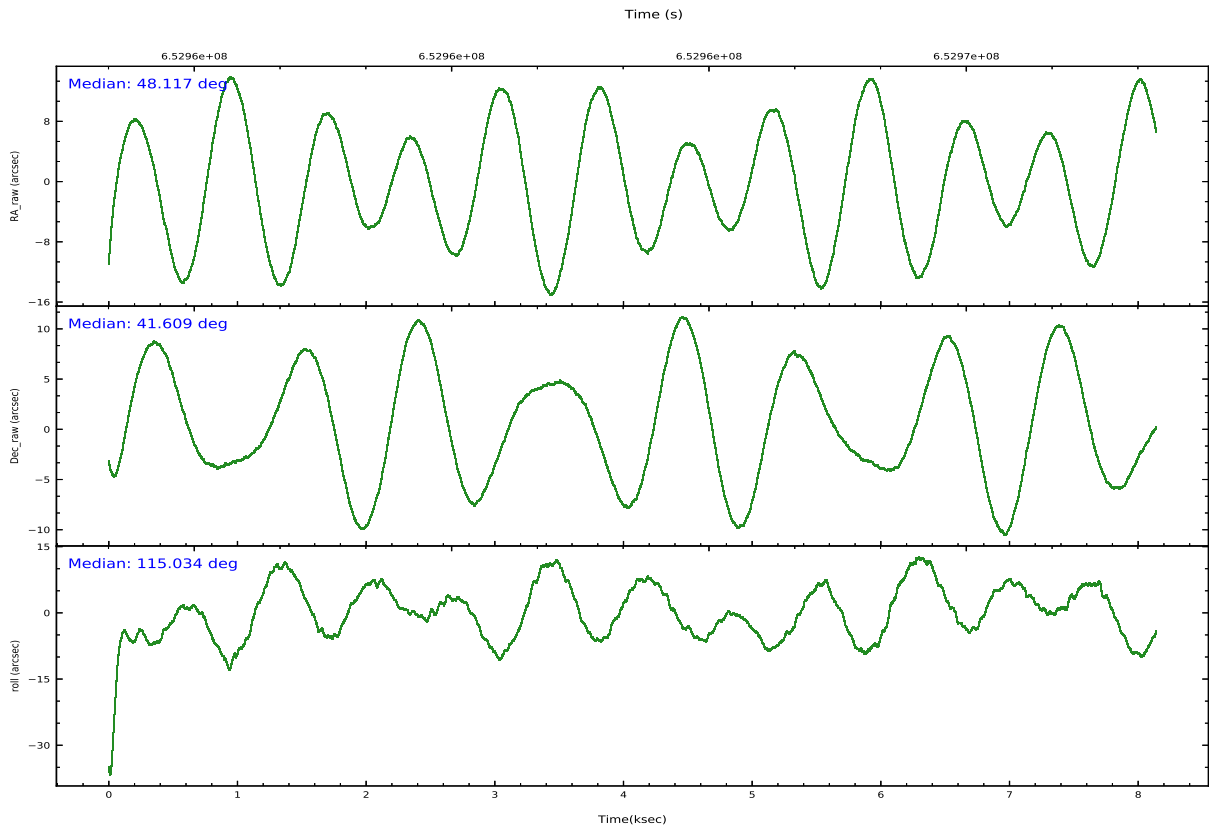
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2443	2540	2390	2851	2234
	4%	4%	3%	4%	3%
grade 1 events	34	37	35	36	33
	0%	0%	0%	0%	0%
grade 2 events	1704	1977	1663	1486	1657
	3%	3%	2%	2%	2%
grade 3 events	695	793	653	674	689
	1%	1%	1%	1%	1%
grade 4 events	681	719	681	689	705
	1%	1%	1%	1%	1%
grade 5 events	2576	2718	2496	2930	2867
	4%	4%	4%	4%	4%
grade 6 events	1484	1693	1345	1395	1556
	2%	3%	2%	2%	2%
grade 7 events	46006	45953	52444	50653	52993
	82%	81%	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	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	48.147453	48.129315406675	CCD I2 on	Y	Y
[deg] Pointing Dec	41.593815	41.606299269003	CCD I3 on	Y	Y
[deg] Pointing Roll	114.803561	115.03366217207	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	652959476.184000	652958426.14062	CCD S5 on	N	N
Observation start date	2018-09-10T09:36:47	2018-09-10T09:20:26	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	652967476.184000	652968200.5412	On-chip summing requested	N	N
Observation end date	2018-09-10T11:50:07	2018-09-10T12:03:20	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





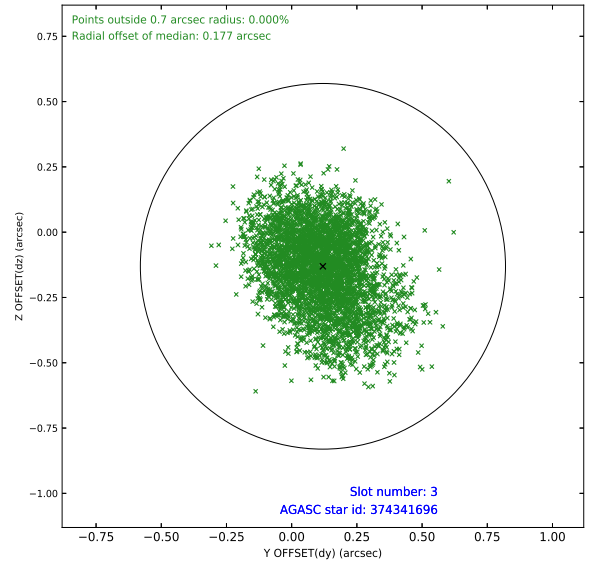
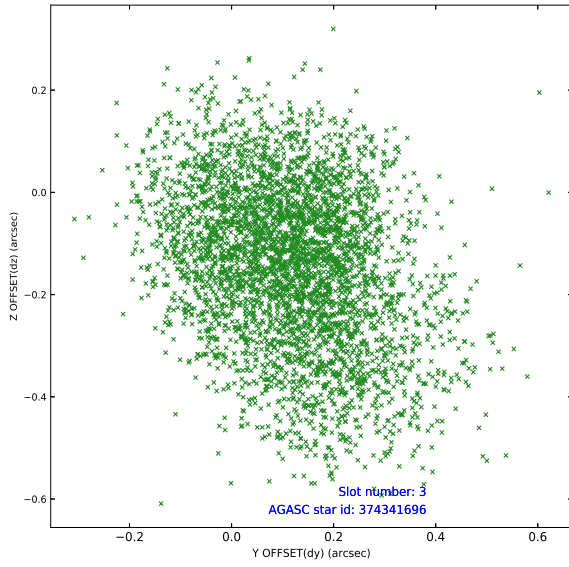
Slot Statistics

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	7.15	1985	1.000	0.191	-0.056	0.007	0.013	0.000000	0.000000	916.04	-847
1	FID		ACIS-I-5	7.12	1986	1.000	-0.282	0.187	0.007	0.011	0.000000	0.000000	-1832.04	1049
2	FID		ACIS-I-6	7.15	1986	1.000	-0.001	-0.060	0.007	0.013	0.000000	0.000000	380.81	1694
3	GUIDE	used	374341696	9.42	3964	1.000	0.120	-0.131	0.220	0.357	48.090921	41.493062	-264.47	290
4	GUIDE	used	374345008	9.33	3962	1.000	0.201	0.148	0.169	0.268	48.768668	41.619367	-612.90	-1558
5	GUIDE	used	374355168	8.55	3971	1.000	0.023	0.182	0.156	0.235	48.517523	41.466988	-831.77	-715
6	GUIDE	used	374359480	8.69	3970	1.000	-0.249	-0.025	0.273	0.394	48.054064	42.164482	1969.32	-635
7	GUIDE	used	374353904	8.35	3970	1.000	-0.039	-0.190	0.121	0.200	48.175092	41.439059	-536.43	165

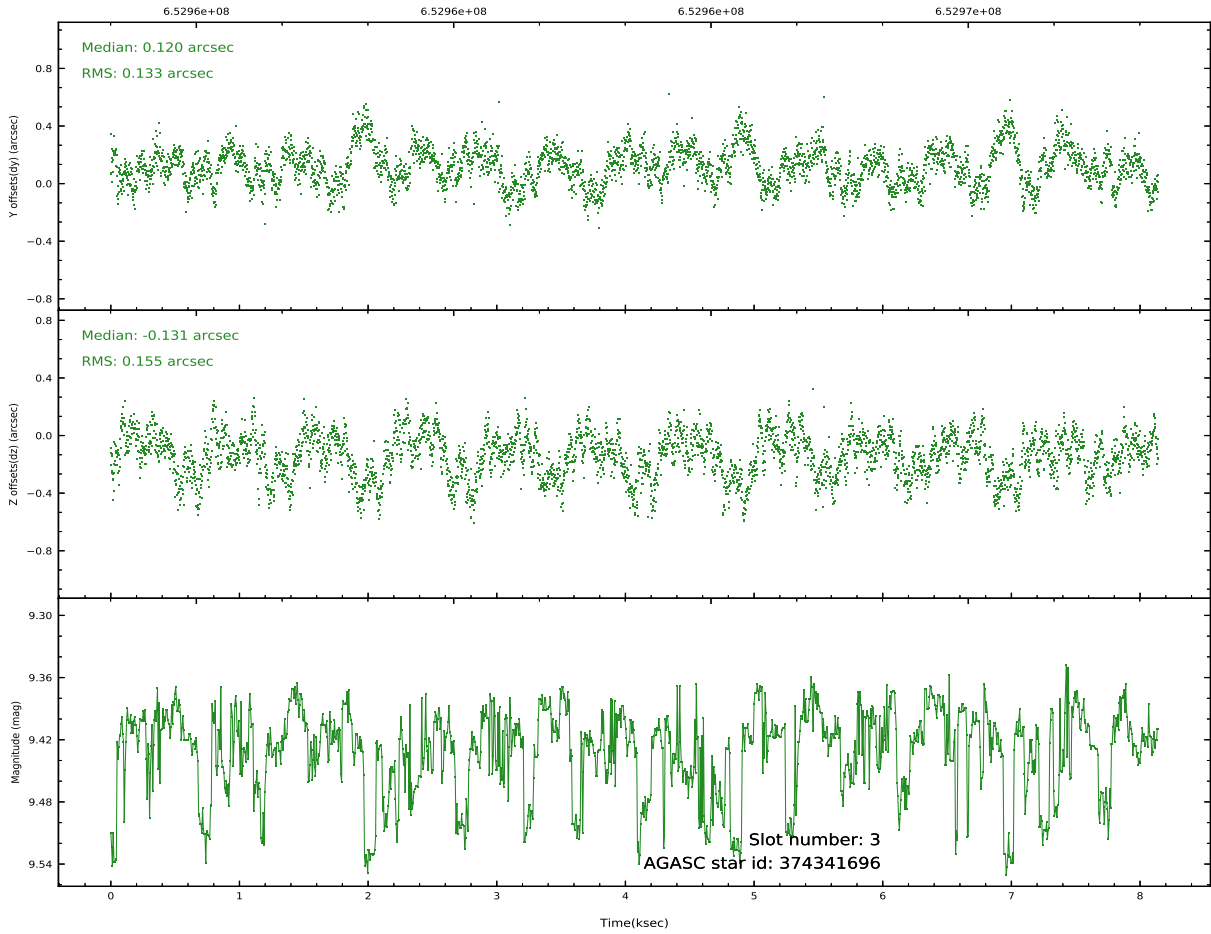
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2.4 Star Slots

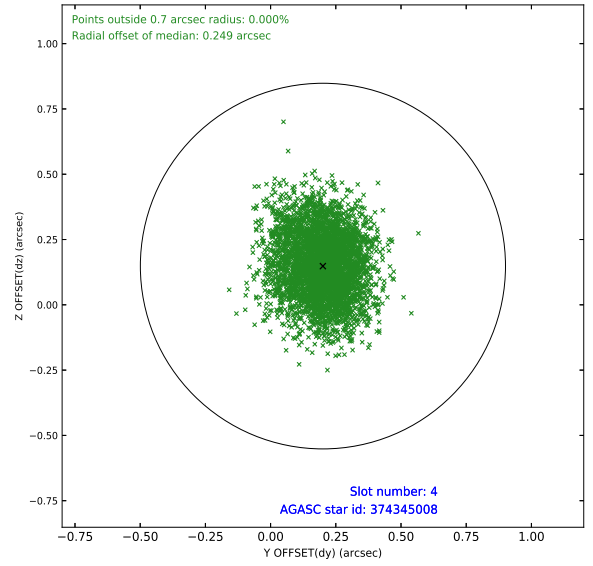
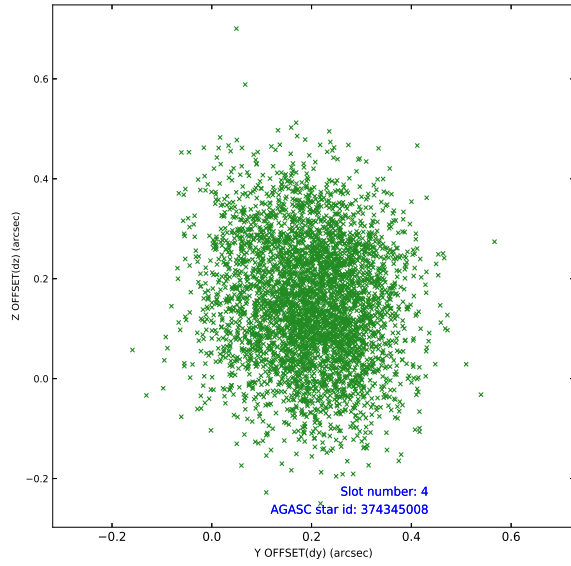
2.4.1 Slot 3



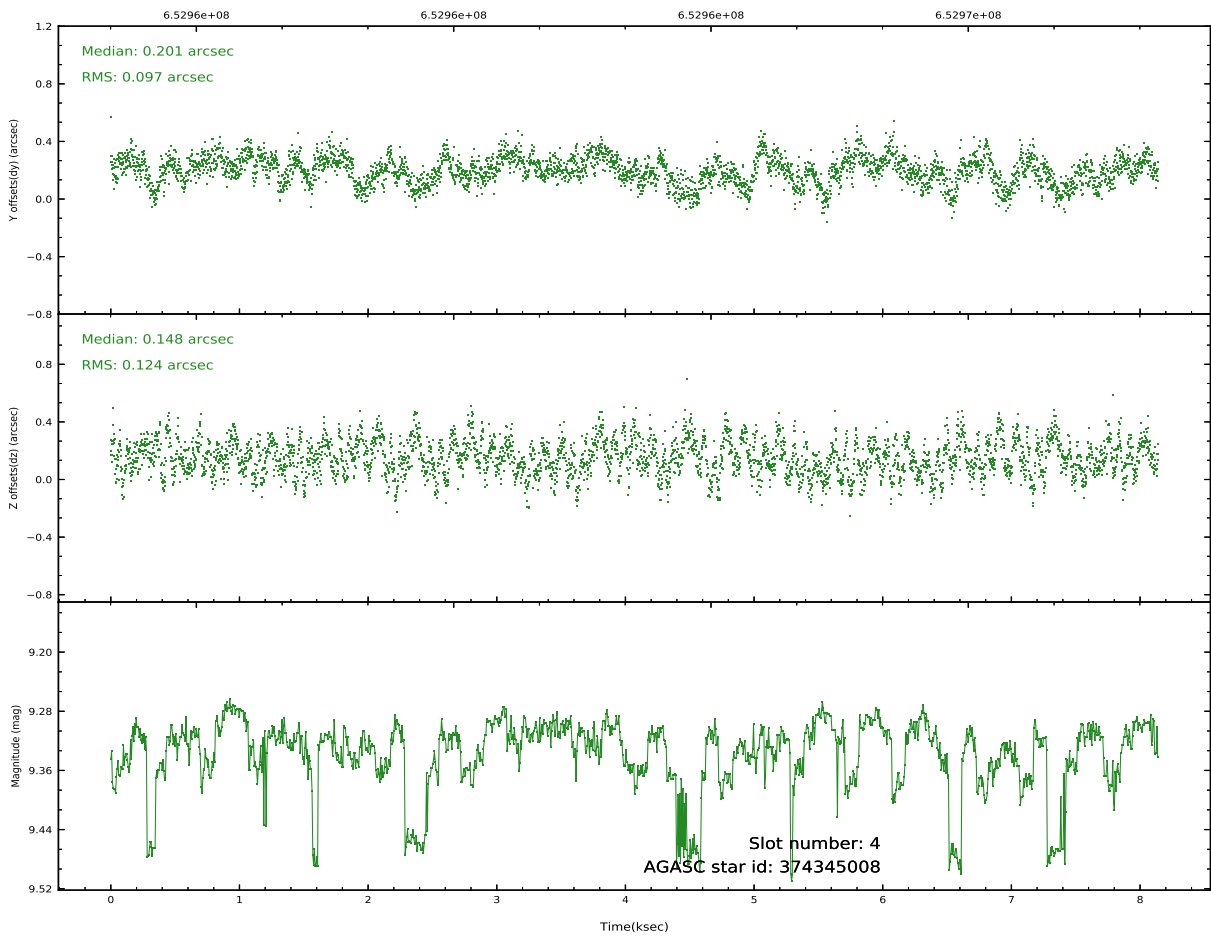
Time (s)



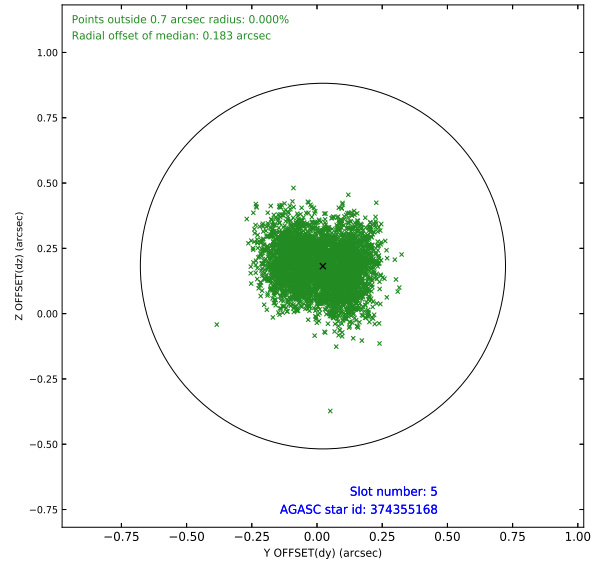
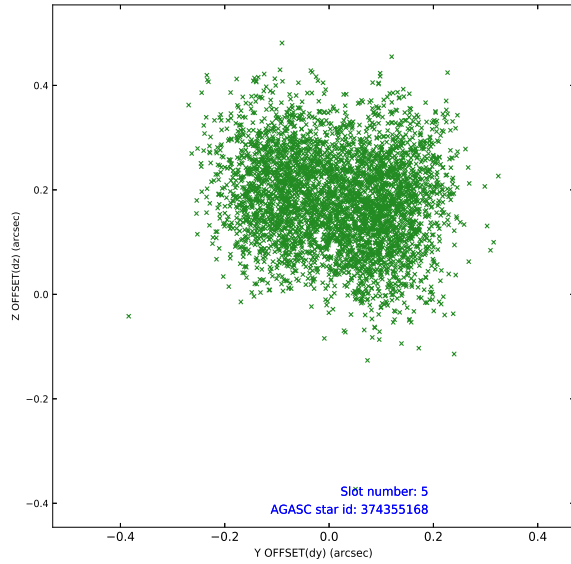
2.4.2 Slot 4



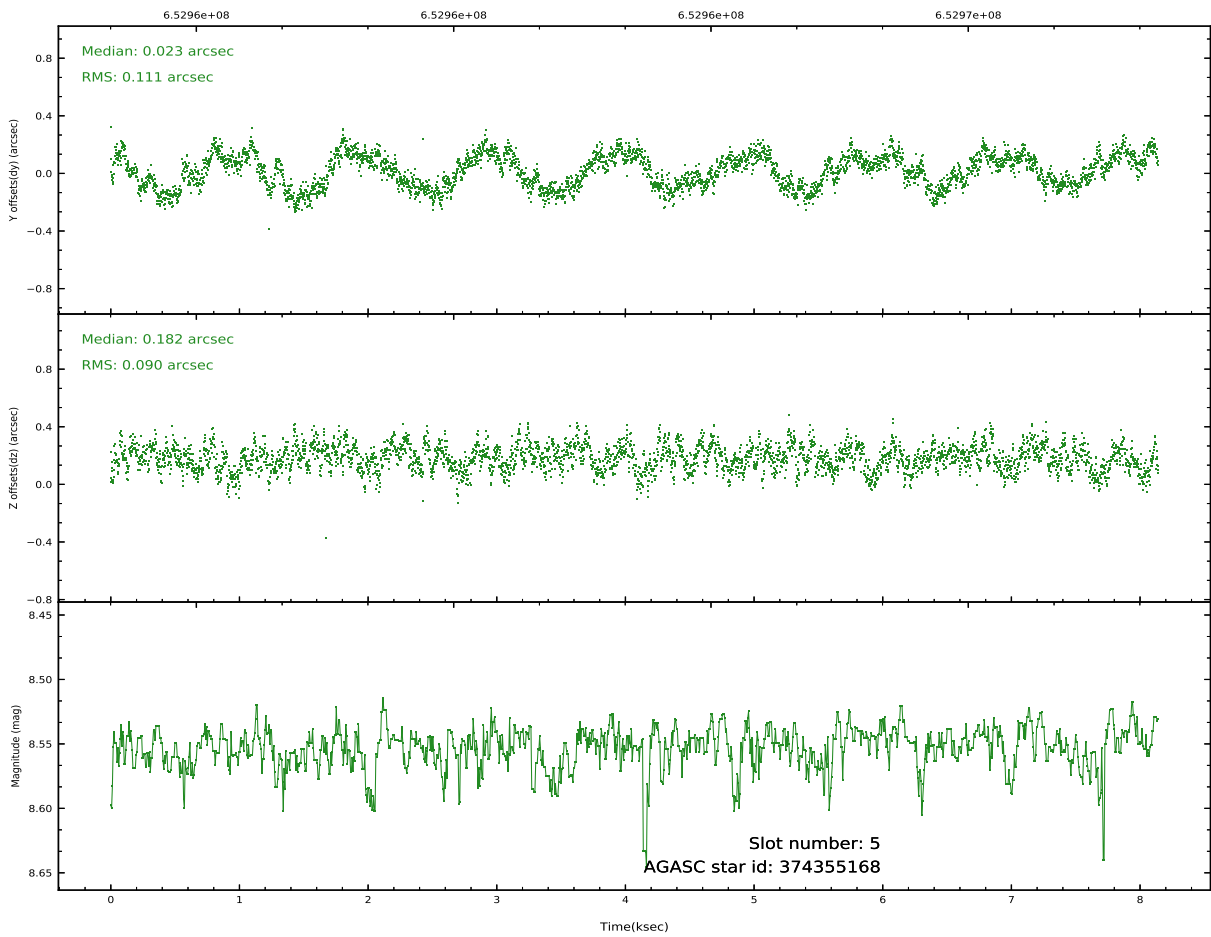
Time (s)



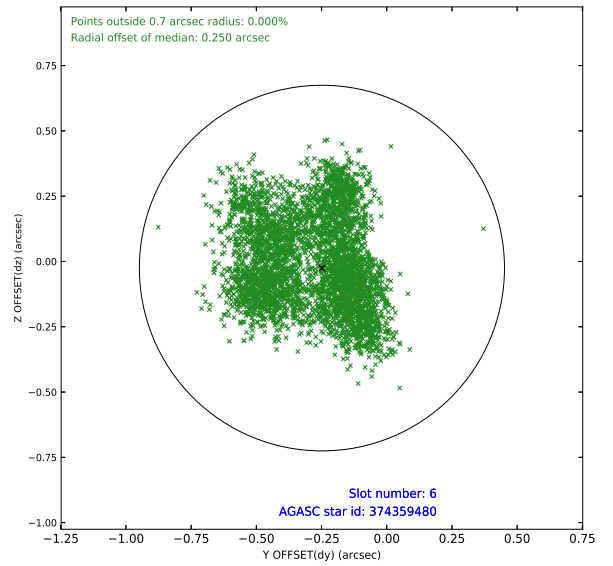
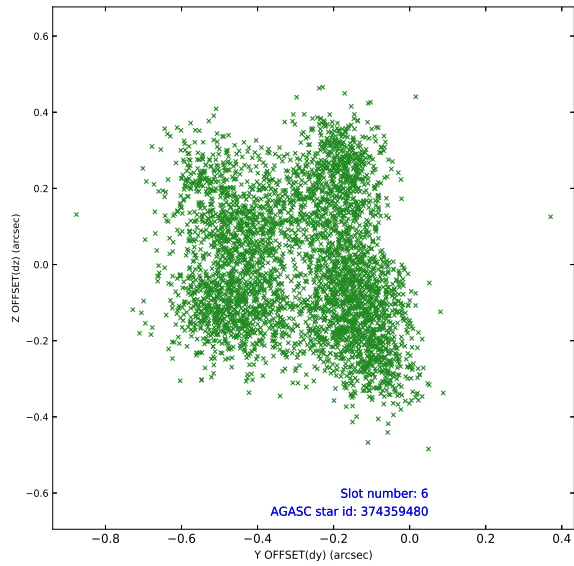
2.4.3 Slot 5



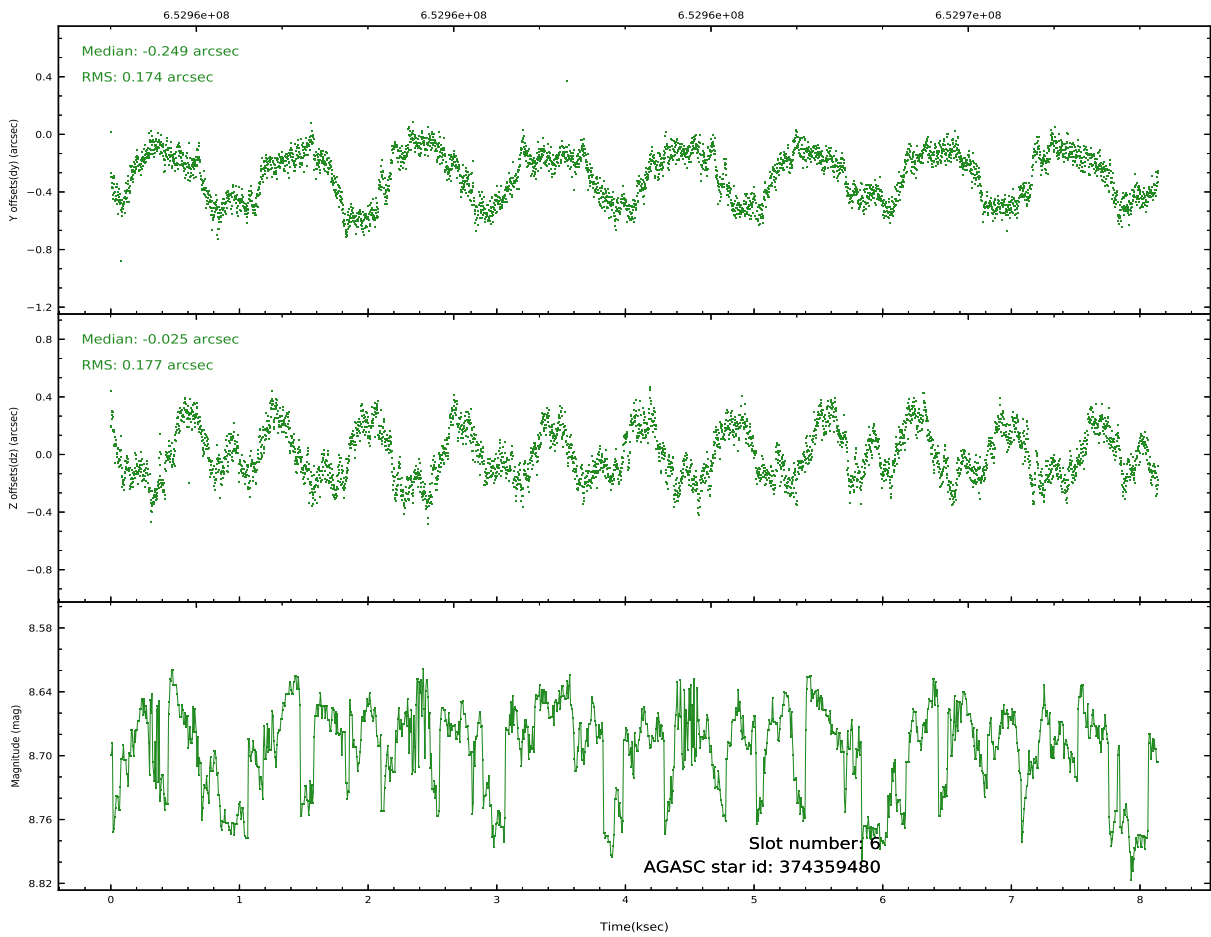
Time (s)



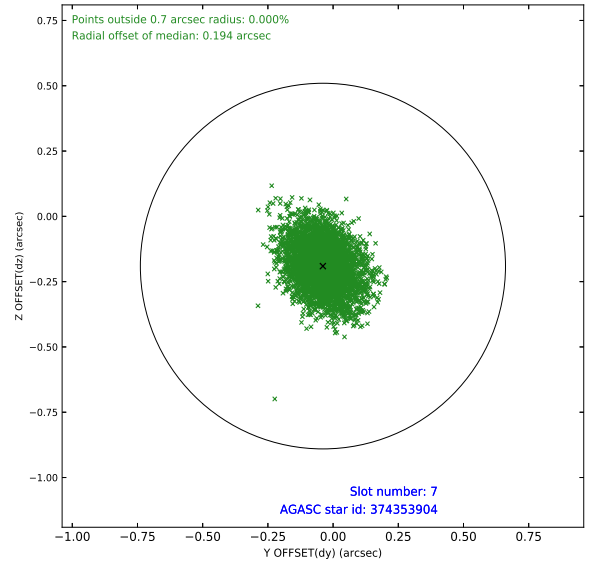
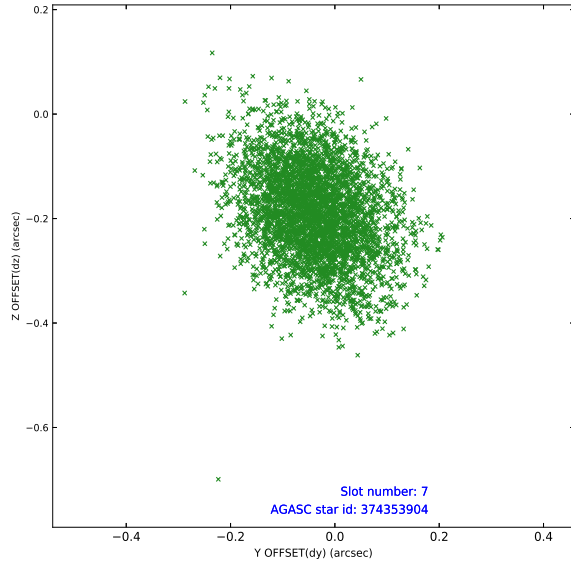
2.4.4 Slot 6



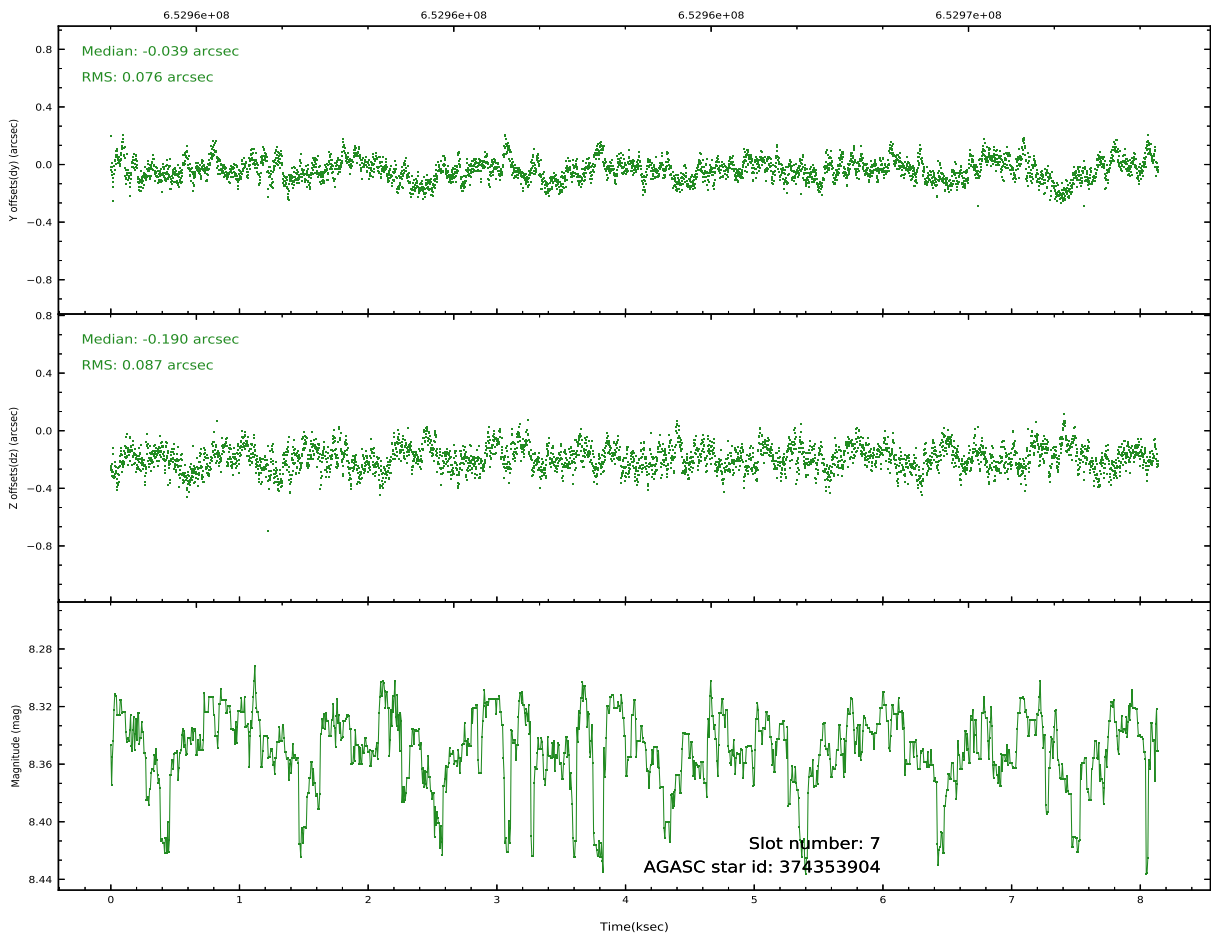
Time (s)



2.4.5 Slot 7

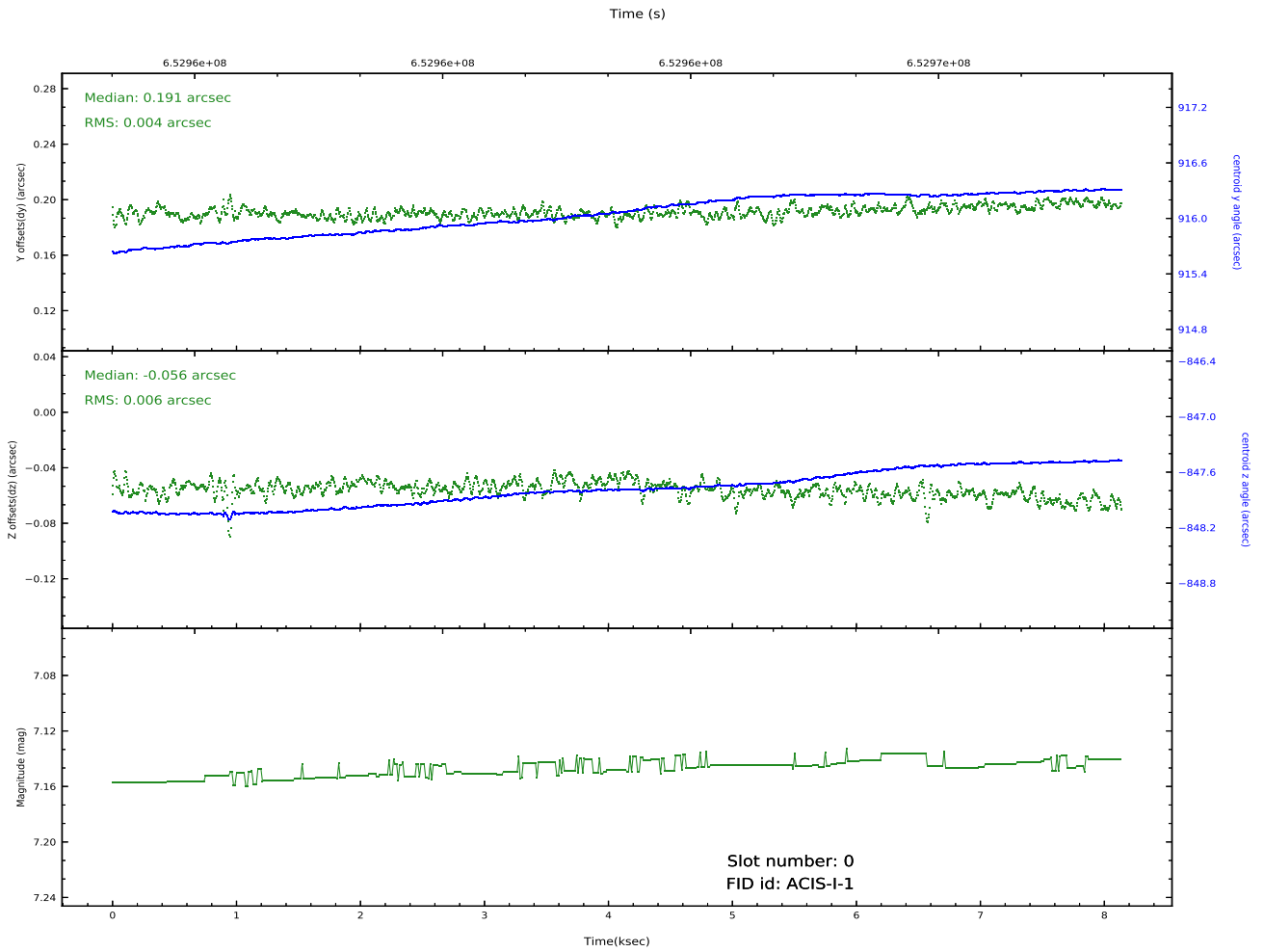
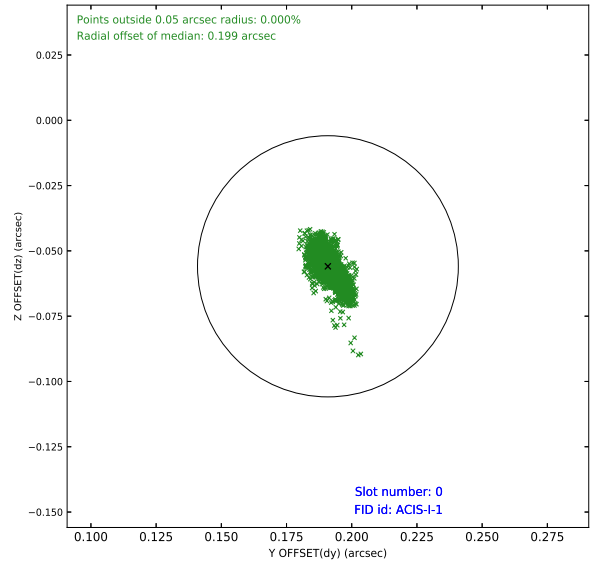
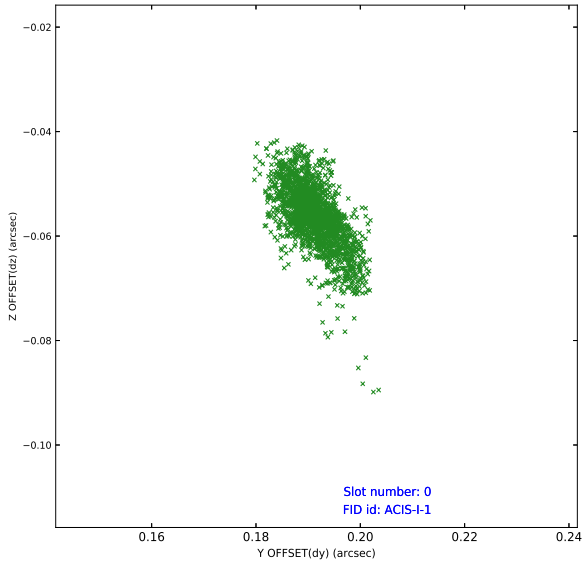


Time (s)

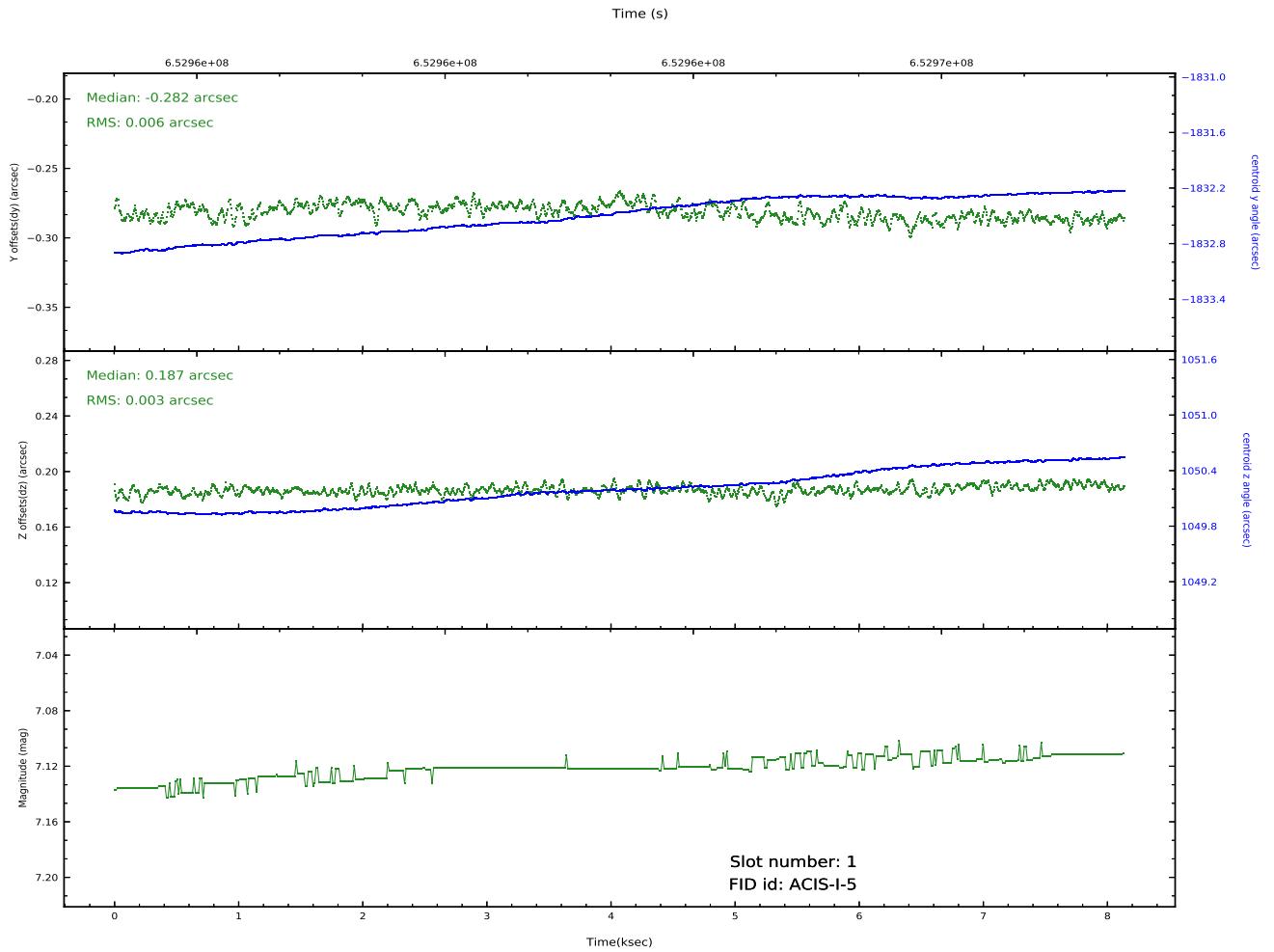
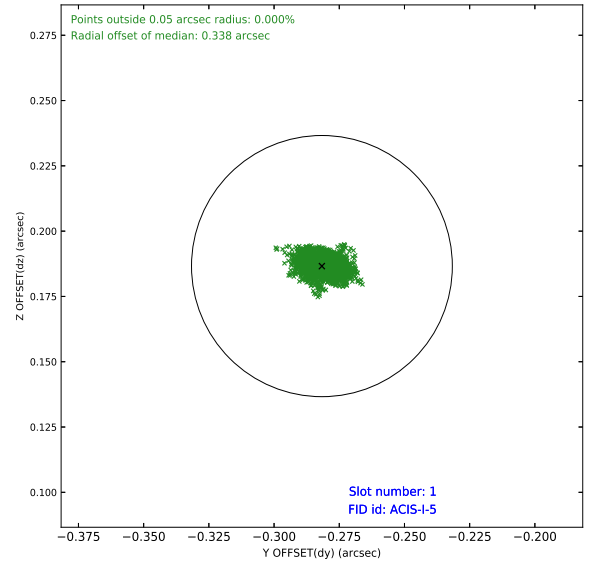
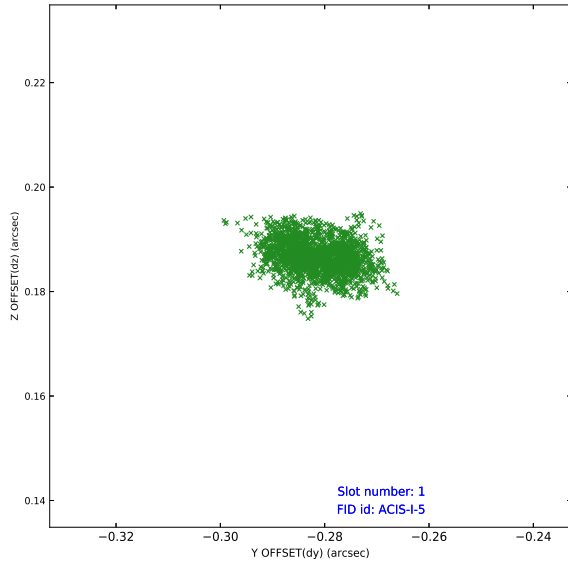


2.5 FID Slots

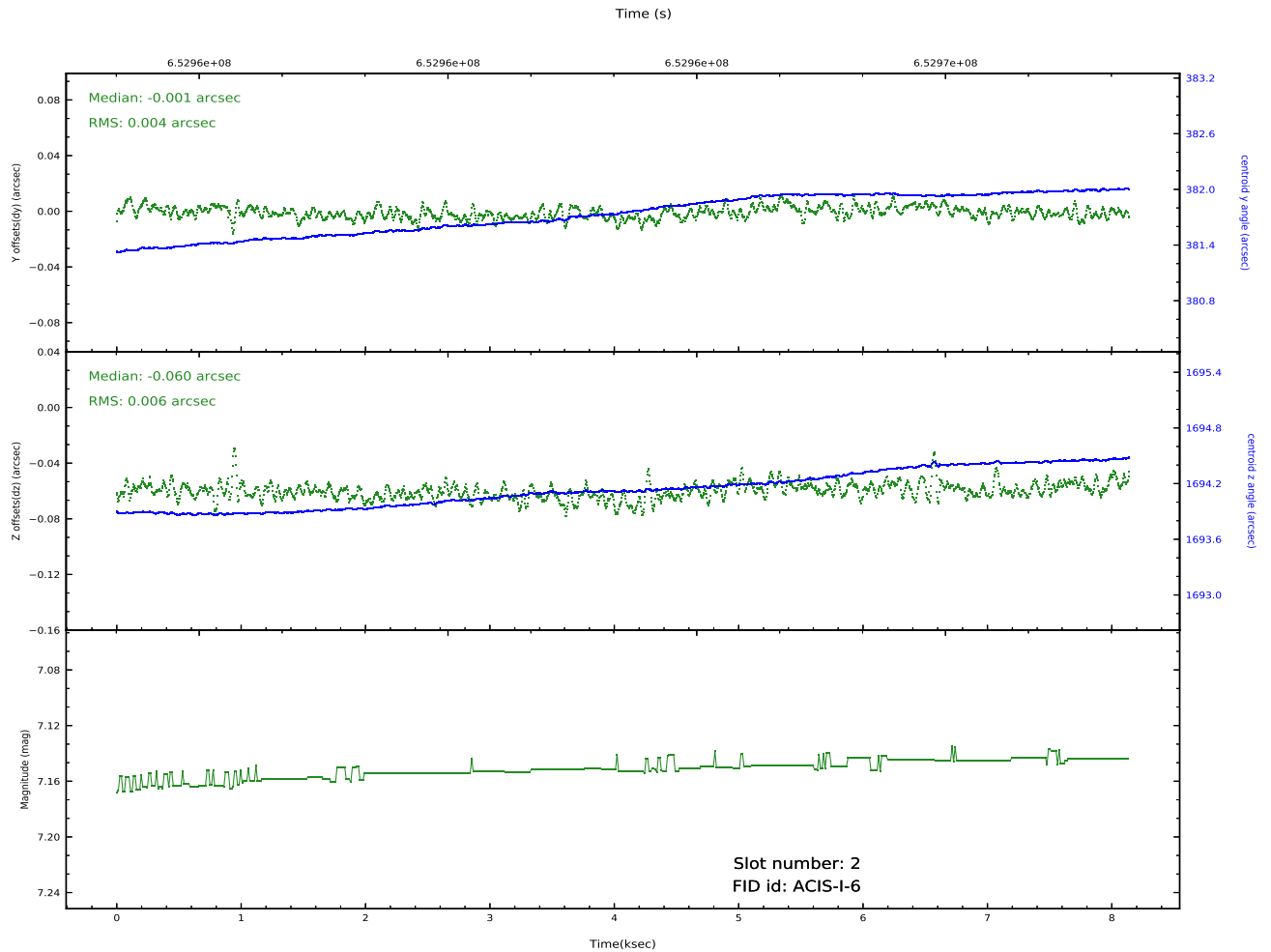
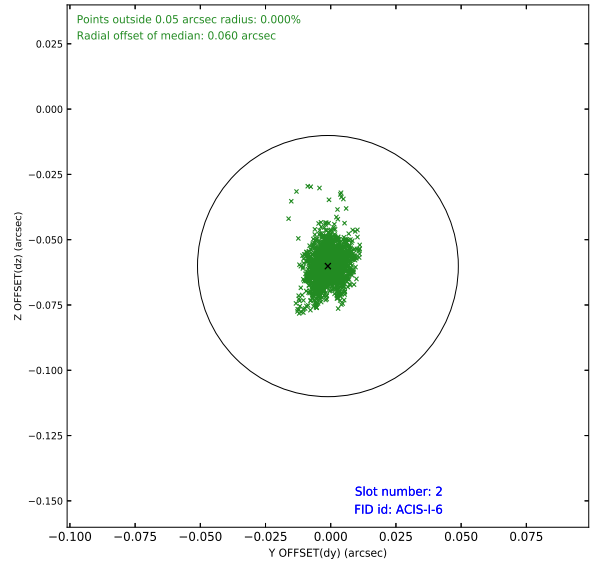
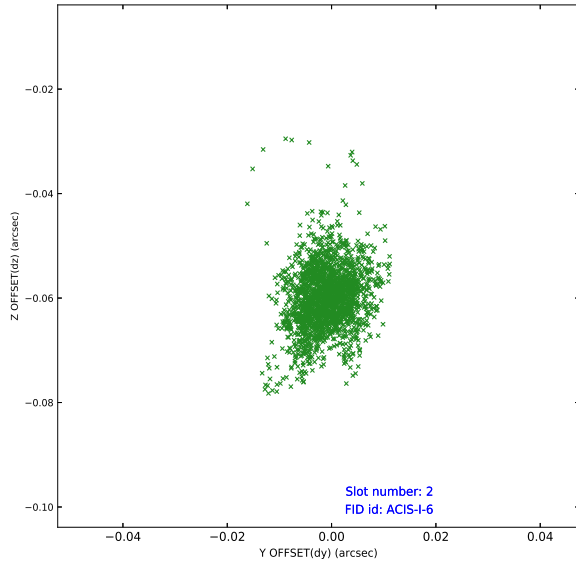
2.5.1 Slot 0



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)	2020.10.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.0630590717793

A.2 Comments