

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20849 - L2 Version 2
Chandra X-Ray Center

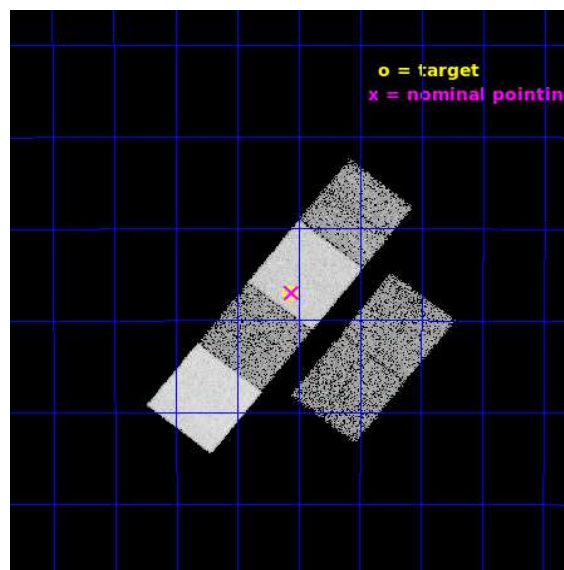
L2 Processing Date : Oct 24 2020

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1 Front

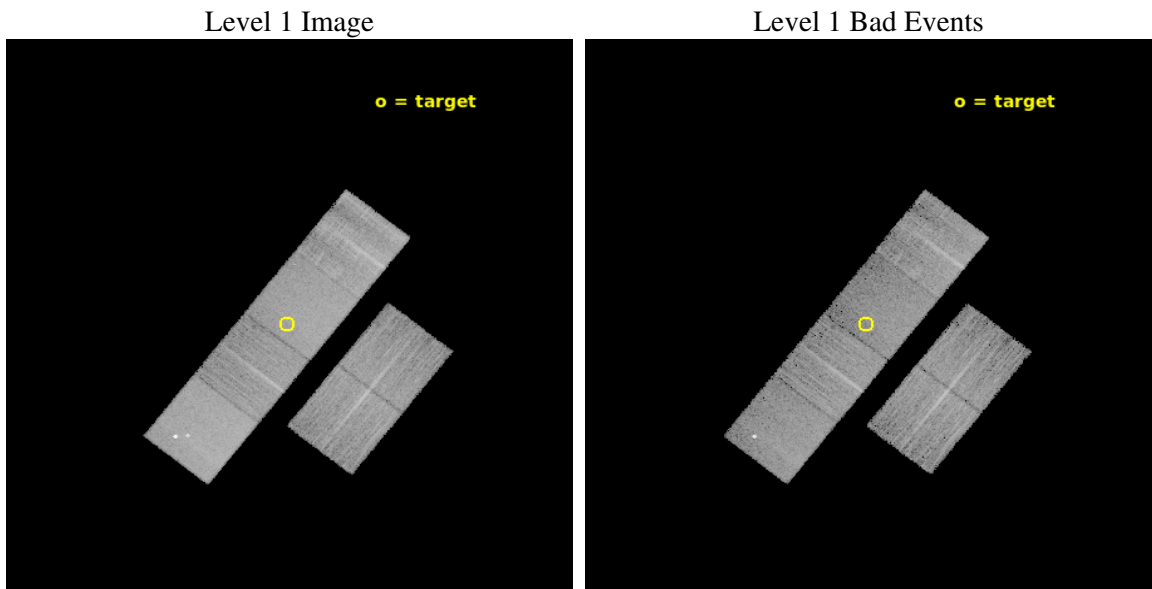
seq_num	601400	Sequence number
obs_id	20849	Observation id
title	The first X-ray study of NGC 2243, one of the most metal-poor Galactic open star clusters	Proposal title
observer	Dr Maureen van den Berg	Principal investigator
object	NGC 2243	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	97.391667	Observer's specified target RA [deg]
dec_targ	-31.283333	Observer's specified target Dec [deg]
ra_nom	97.388637369371	Nominal RA [deg]
dec_nom	-31.283249605671	Nominal Dec [deg]
roll_nom	308.16188591206	Nominal Roll [deg]
revision	2	Processing version of data
ontime	9952.0001482964	Sum of GTIs [s]
livetime	9825.9819300436	Livetime [s]
ontime2	9952.0001482964	Sum of GTIs [s]
ontime3	9952.0001482964	Sum of GTIs [s]
ontime5	9952.0001482964	Sum of GTIs [s]
ontime6	9952.0001482964	Sum of GTIs [s]
ontime7	9952.0001482964	Sum of GTIs [s]
ontime8	9952.0001482964	Sum of GTIs [s]
l2events	122278	Number of level 2 events



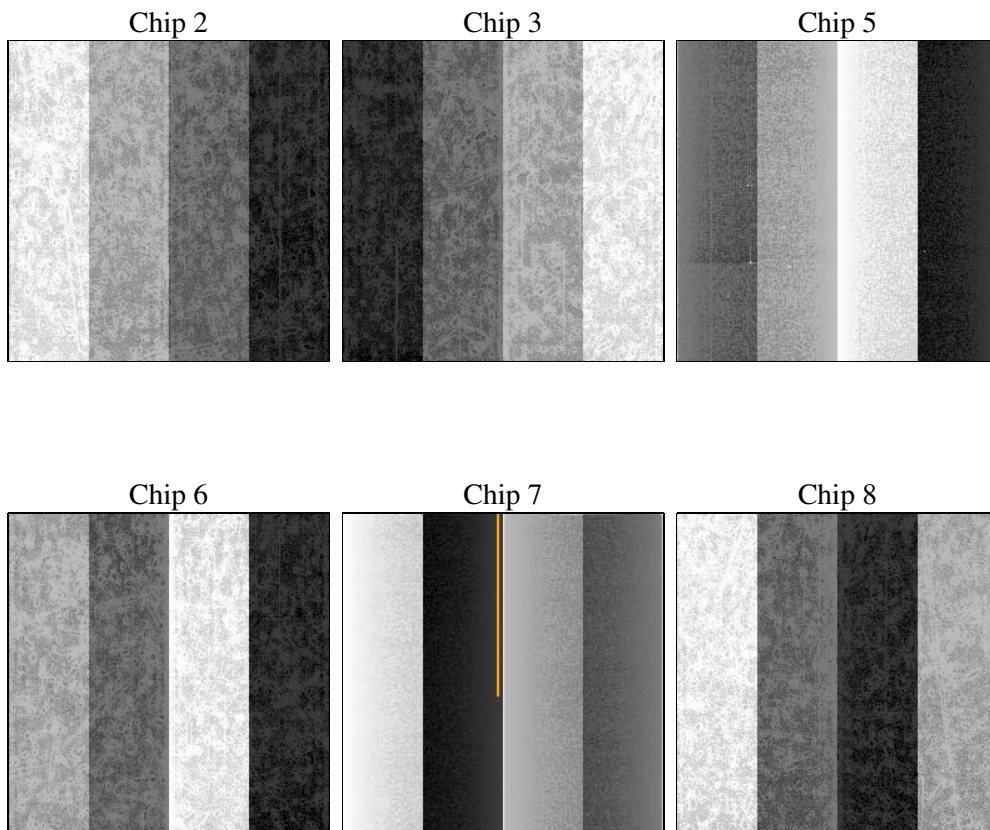
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	9952.0001482964	Sum of GTIs [s]
caldbver	4.9.3	 	ontime2	9952.0001482964	Sum of GTIs [s]
date	2020-10-24T16:27:26	Date and time of file creation	ontime3	9952.0001482964	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	9952.0001482964	Sum of GTIs [s]
			ontime6	9952.0001482964	Sum of GTIs [s]
			ontime7	9952.0001482964	Sum of GTIs [s]
			ontime8	9952.0001482964	Sum of GTIs [s]
			l1events	532295	Number of level 1 events

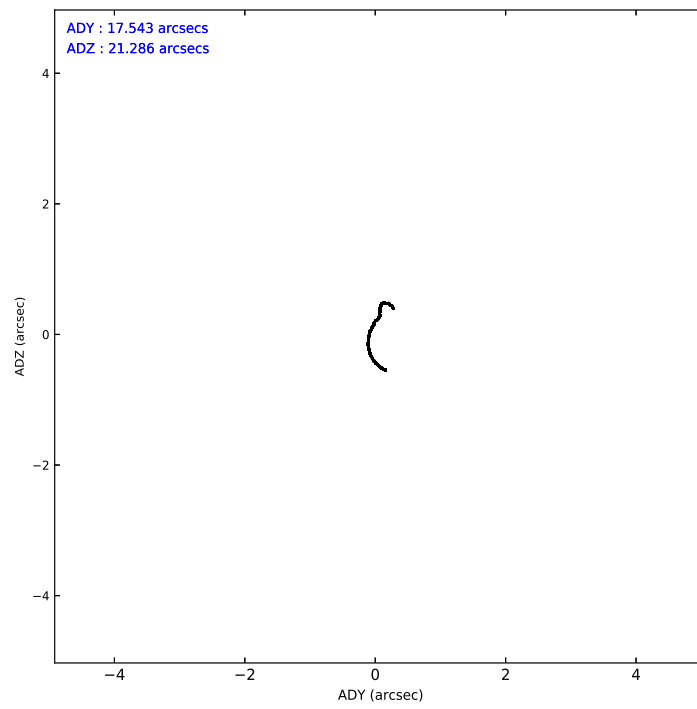
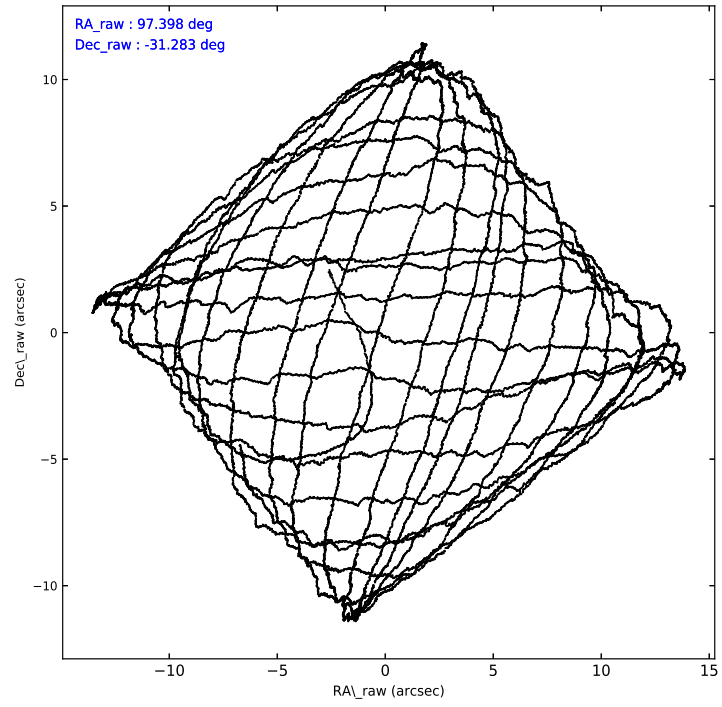
2.1.4 Events

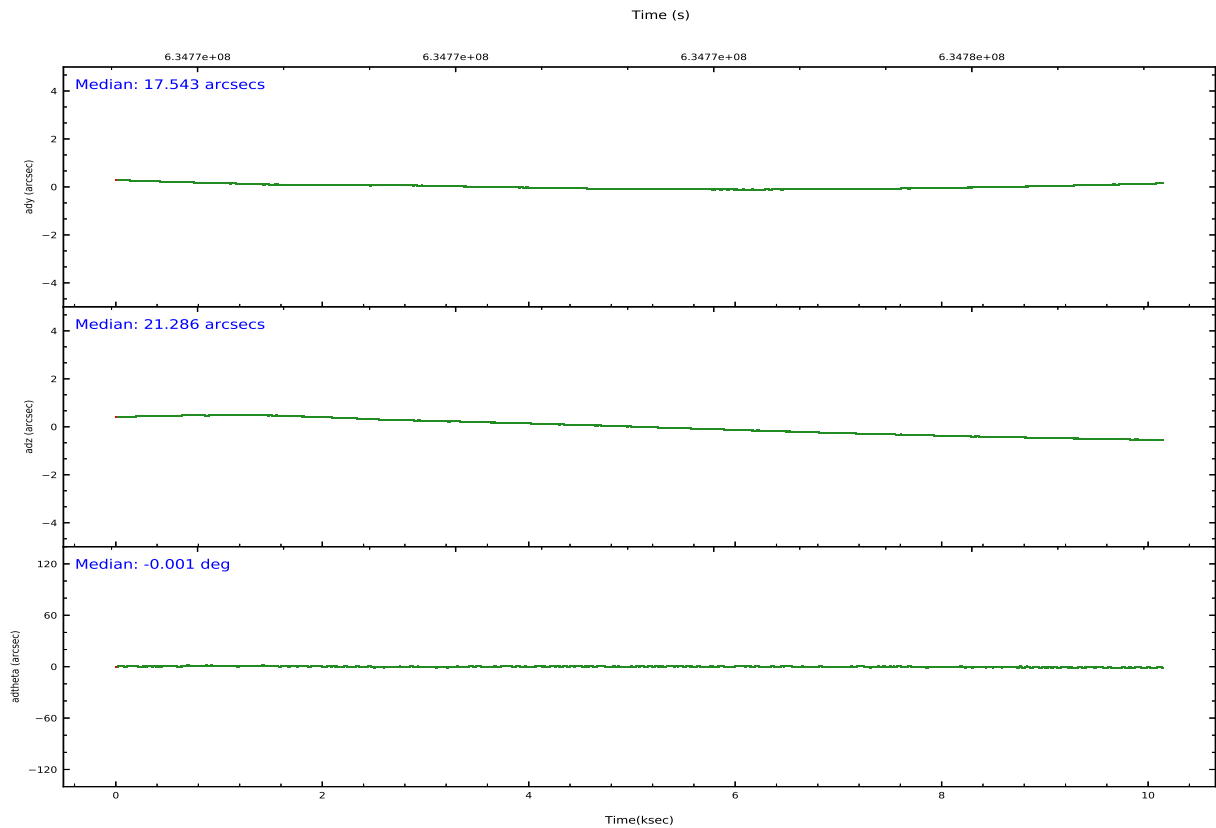
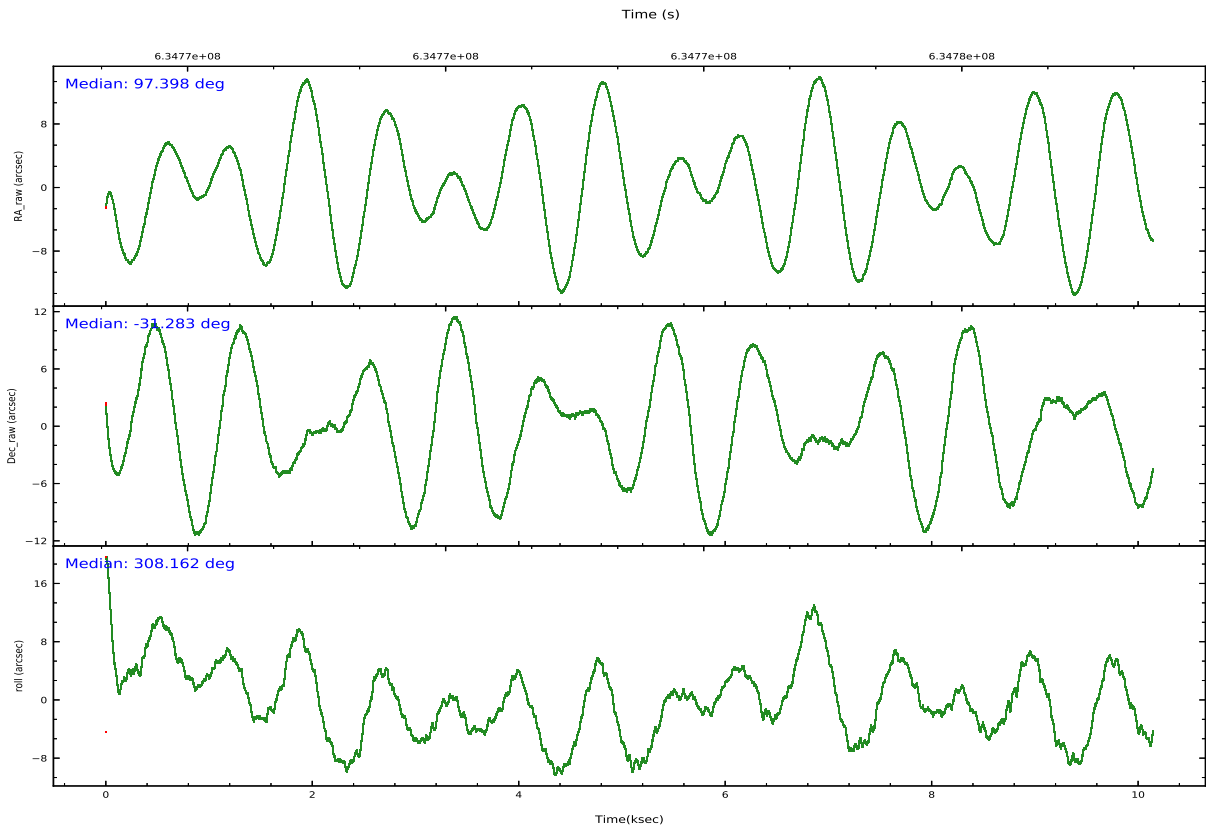
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	76113	69186	120402	74656	94130	97808	grade 0 events	2857	2931	4339	2754	3460	7602
rejected events	68001	61481	63023	66360	52889	71200		3%	4%	3%	3%	3%	7%
rejected %	89%	88%	52%	88%	56%	72%	grade 1 events	43	40	311	29	130	82
								0%	0%	0%	0%	0%	0%
							grade 2 events	2060	1635	18906	1950	8806	6517
								2%	2%	15%	2%	9%	6%
							grade 3 events	790	809	1796	779	3323	2765
								1%	1%	1%	1%	3%	2%
							grade 4 events	841	785	1703	861	3316	2563
								1%	1%	1%	1%	3%	2%
							grade 5 events	2951	3426	8581	3419	9510	5141
								3%	4%	7%	4%	10%	5%
							grade 6 events	1569	1554	30678	1954	22368	7183
								2%	2%	25%	2%	23%	7%
							grade 7 events	65002	58006	54088	62910	43217	65955
								85%	83%	44%	84%	45%	67%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	97.368018	97.388637369371	CCD I2 on	O2	Y
[deg] Pointing Dec	-31.273587	-31.283249605671	CCD I3 on	Y	Y
[deg] Pointing Roll	307.987729	308.16188591206	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	634766854.184000	634765821.52724	CCD S5 on	N	N
Observation start date	2018-02-11T20:06:25	2018-02-11T19:50:21	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	634776854.184000	634778296.8029799	On-chip summing requested	N	N
Observation end date	2018-02-11T22:53:05	2018-02-11T23:18:16	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





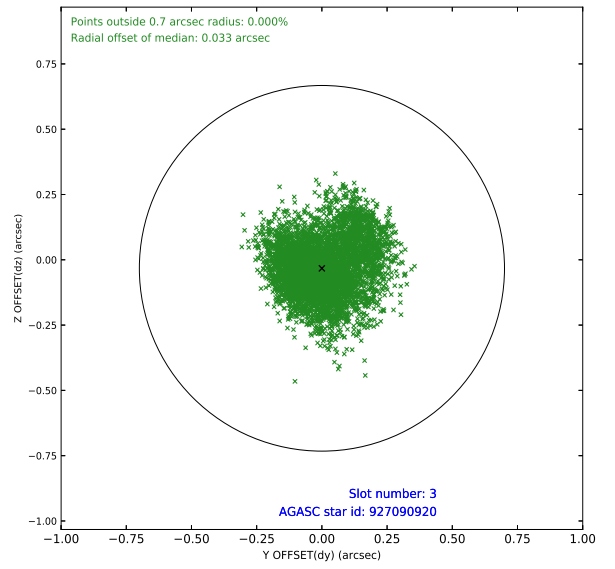
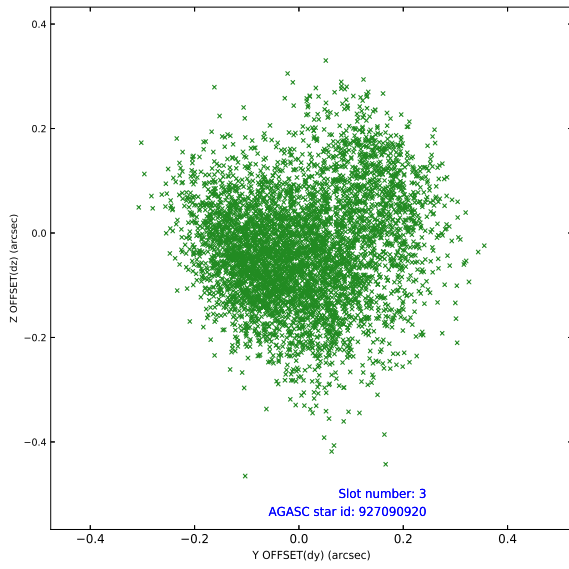
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.05	2475	1.000	0.288	-0.202	0.010	0.015	0.000000	0.000000	925.58	-1738
1	FID		ACIS-S-5	7.07	2475	1.000	-0.236	0.226	0.009	0.014	0.000000	0.000000	-1823.50	158
2	FID		ACIS-S-6	7.22	2475	1.000	-0.074	-0.012	0.014	0.022	0.000000	0.000000	390.42	803
3	GUIDE	used	927090920	8.19	4948	1.000	0.000	-0.033	0.169	0.266	96.357245	-31.152224	-2249.53	-2193
4	GUIDE	used	927205848	9.16	4946	1.000	0.031	-0.046	0.171	0.282	97.800577	-31.737487	2133.46	14
5	GUIDE	used	927210360	8.84	4941	1.000	-0.068	0.106	0.154	0.252	97.559173	-31.118939	-75.12	807
6	GUIDE	used	927213352	8.00	4947	1.000	0.031	-0.025	0.148	0.254	97.502570	-31.174473	-25.61	546
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0

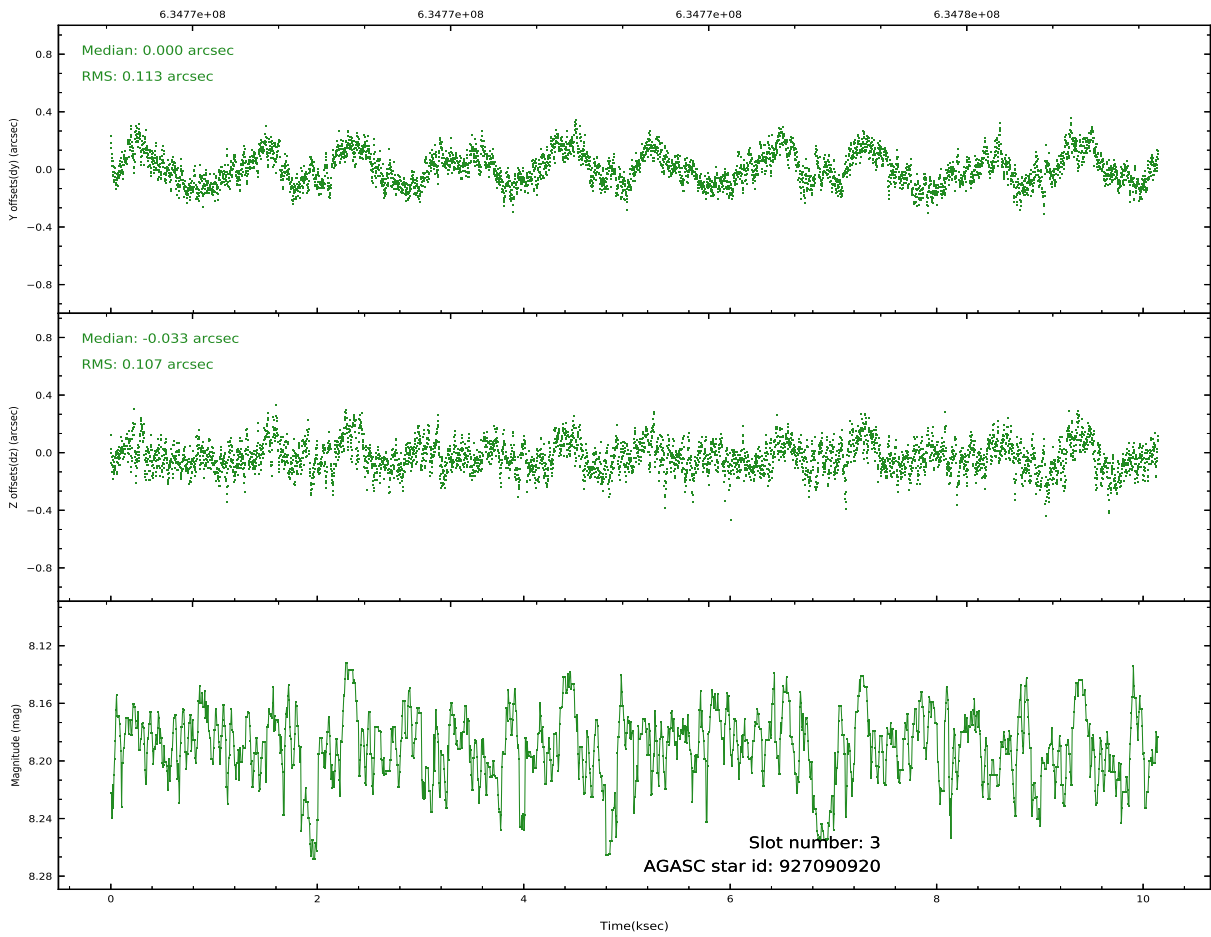
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2.4 Star Slots

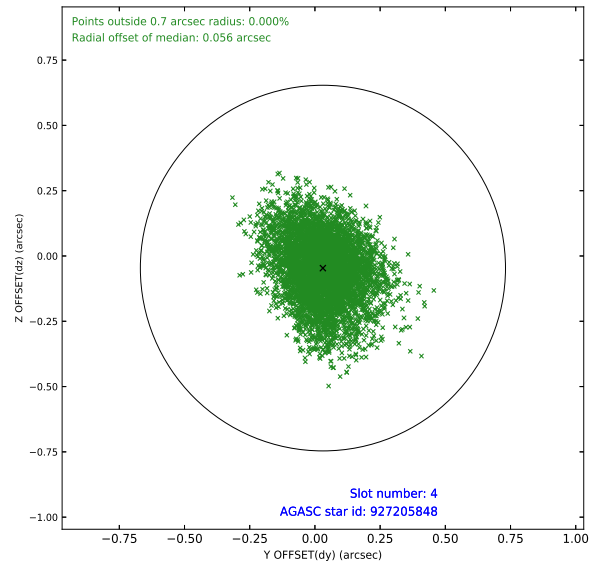
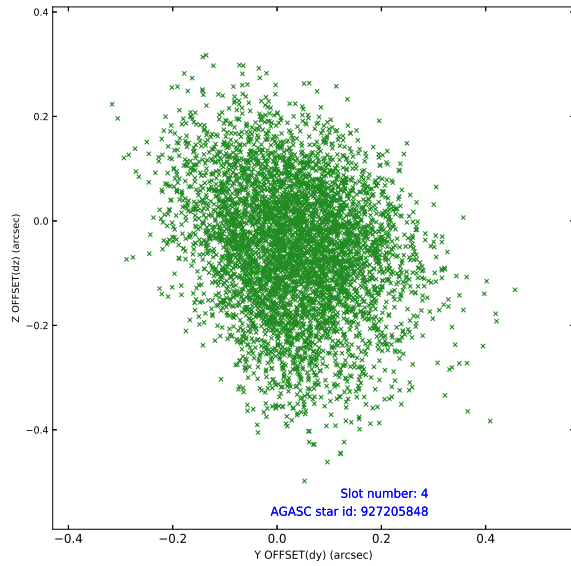
2.4.1 Slot 3



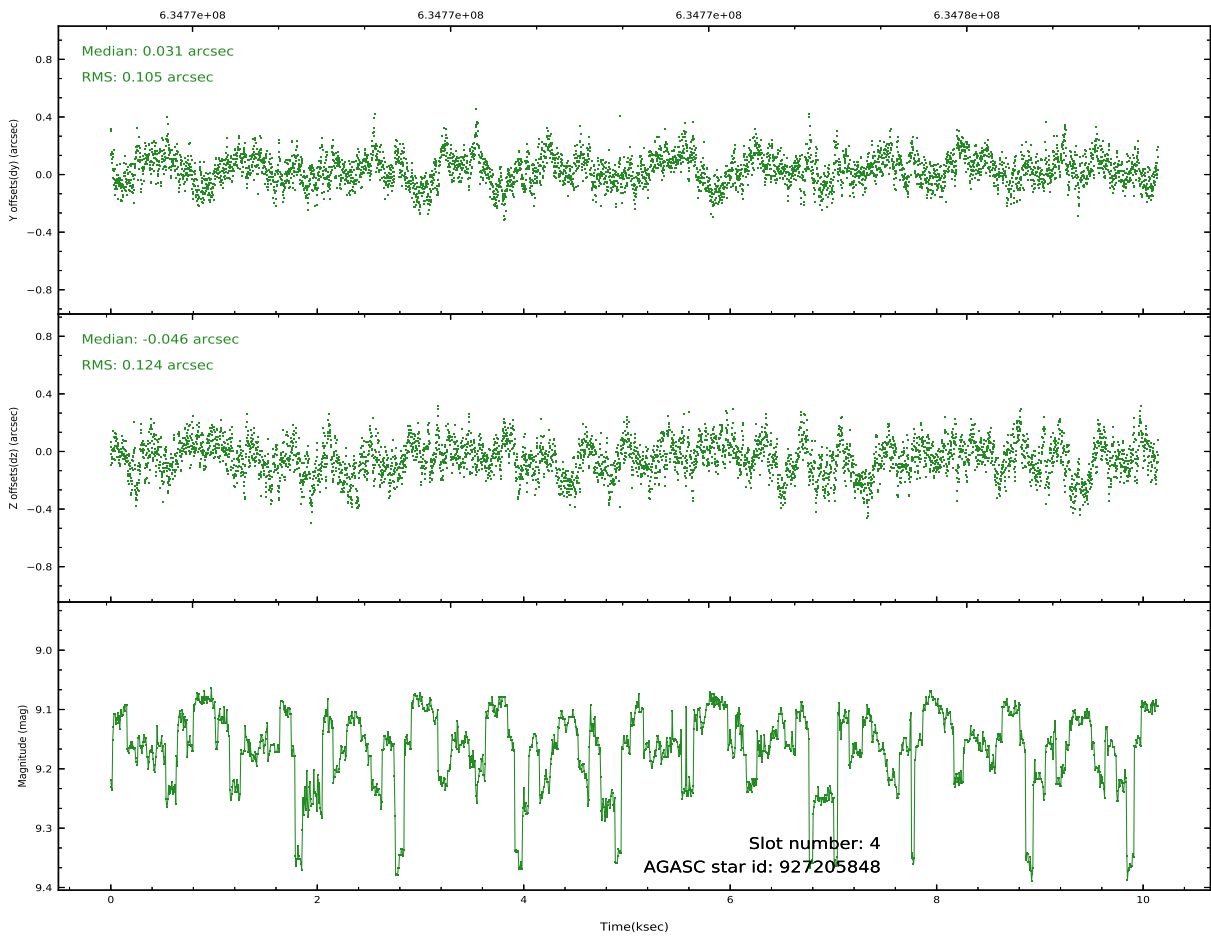
Time (s)



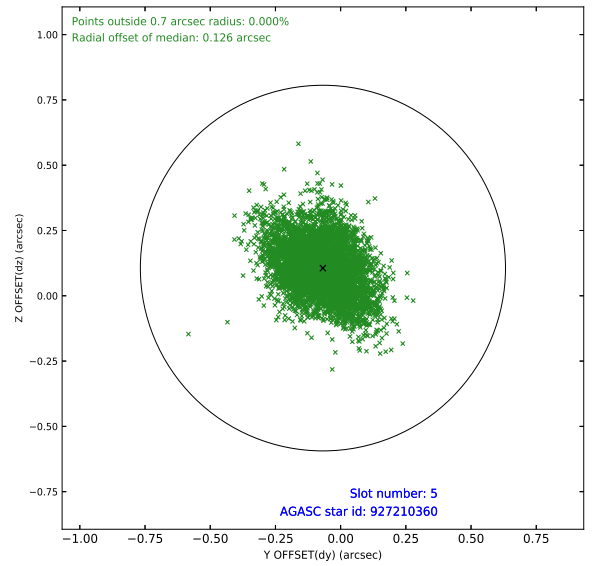
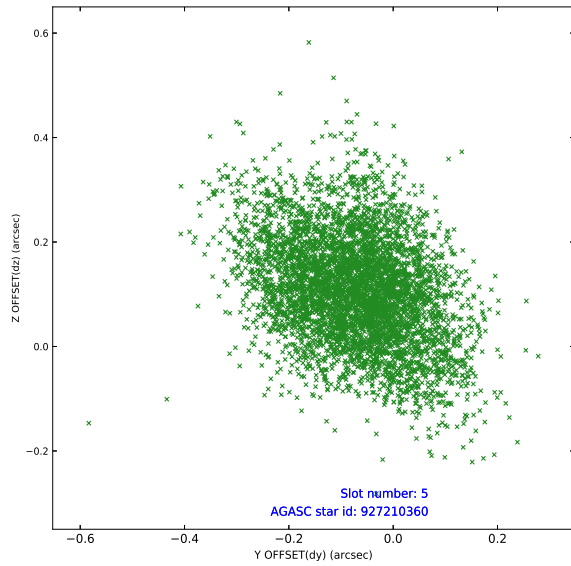
2.4.2 Slot 4



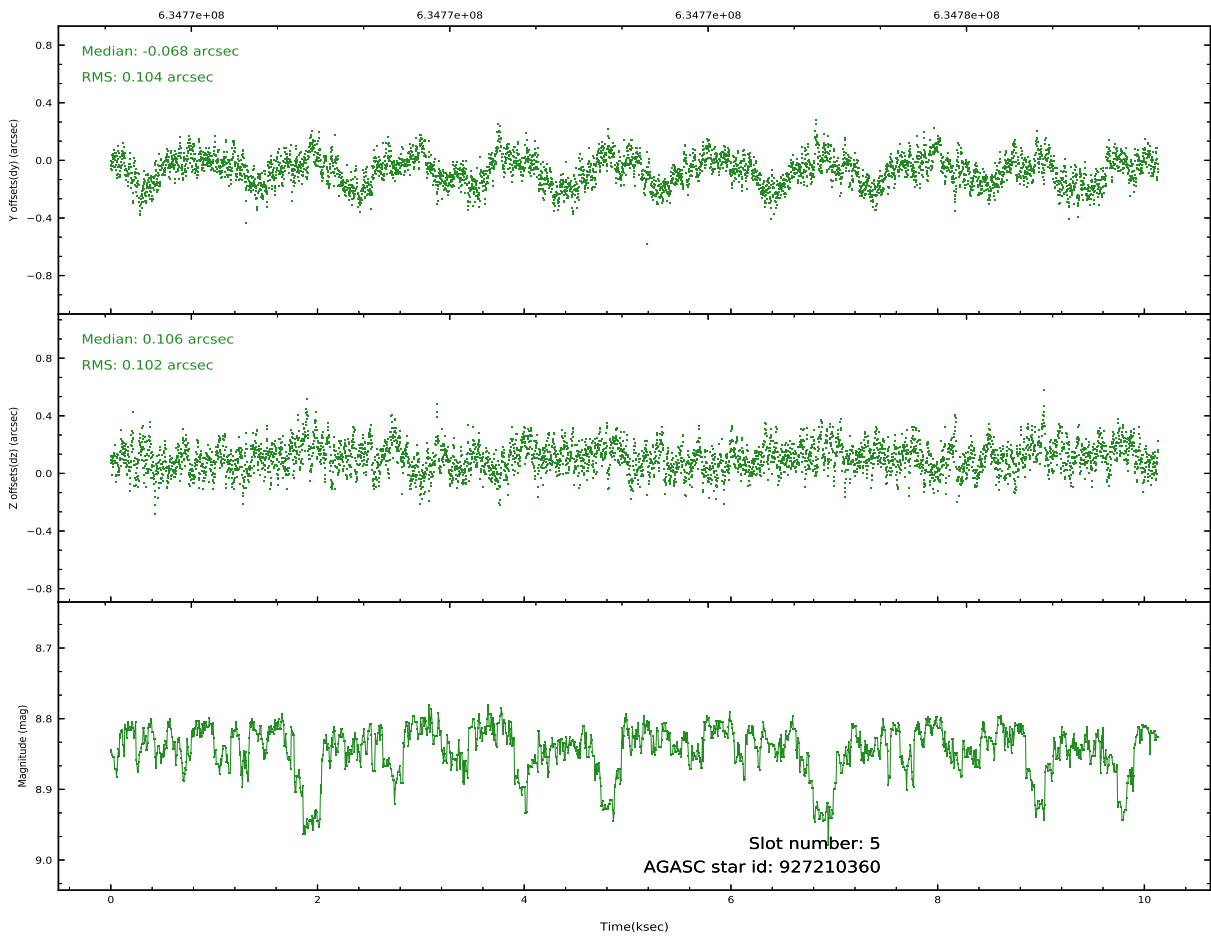
Time (s)



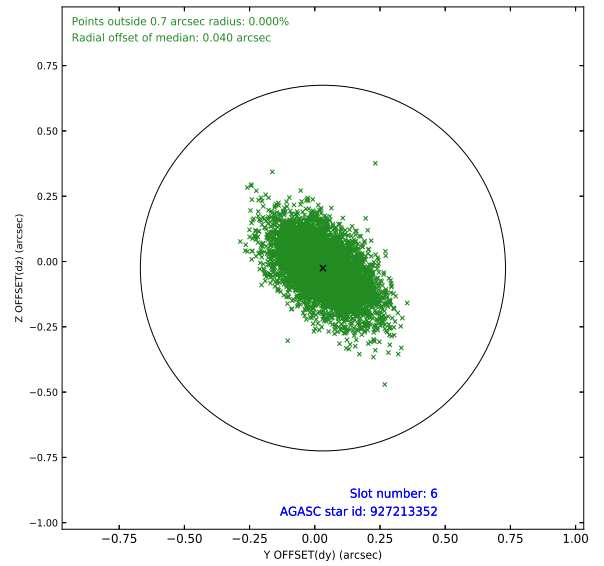
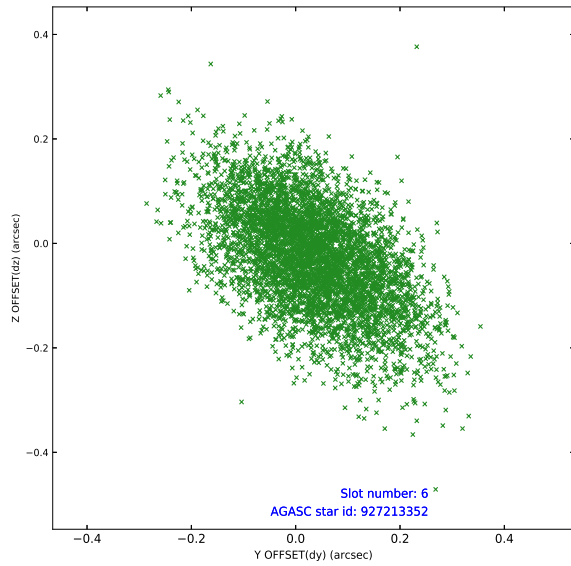
2.4.3 Slot 5



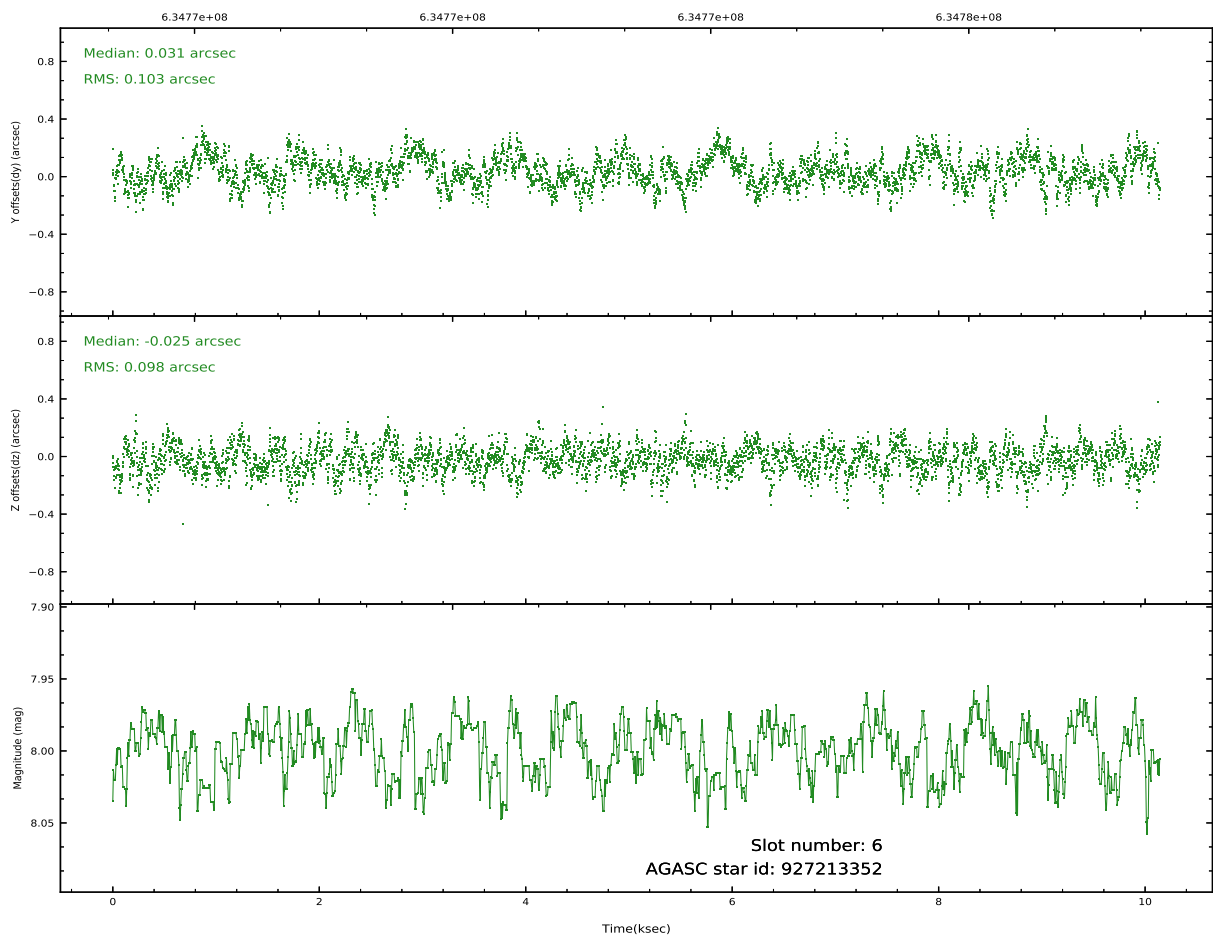
Time (s)



2.4.4 Slot 6

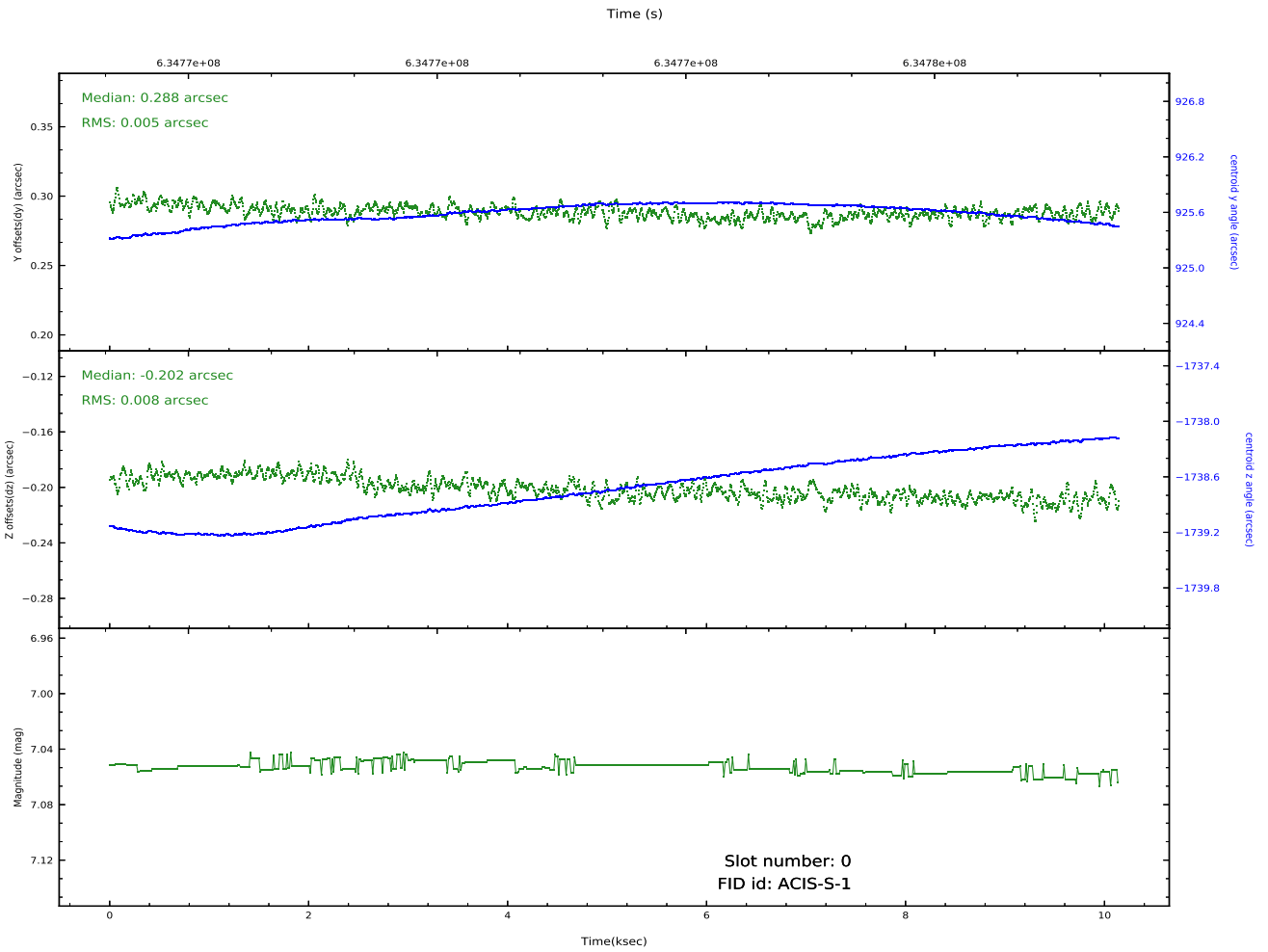
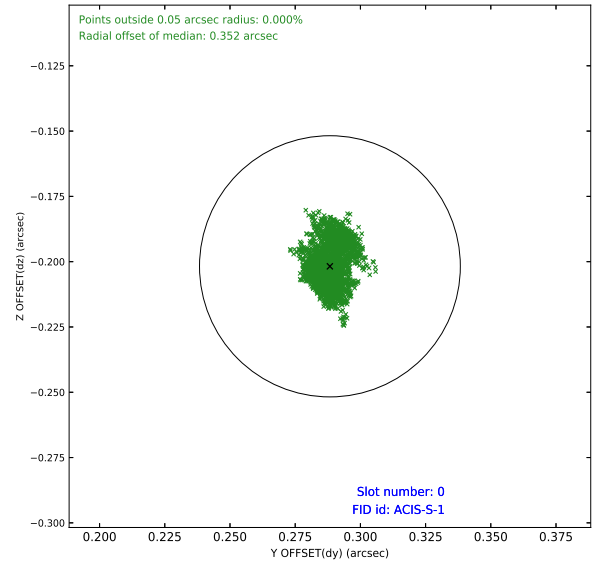
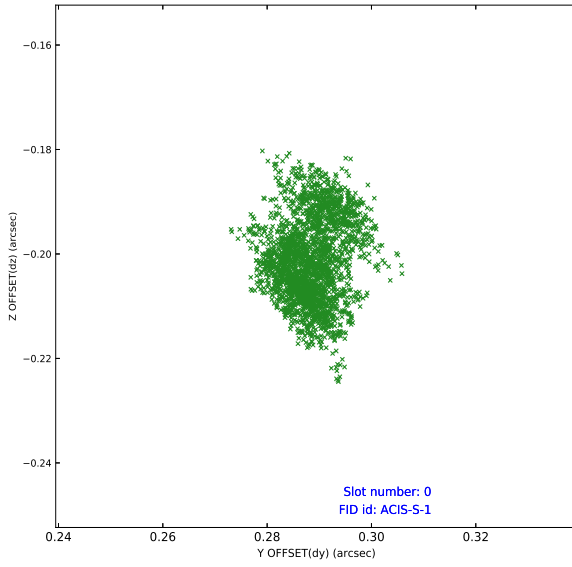


Time (s)

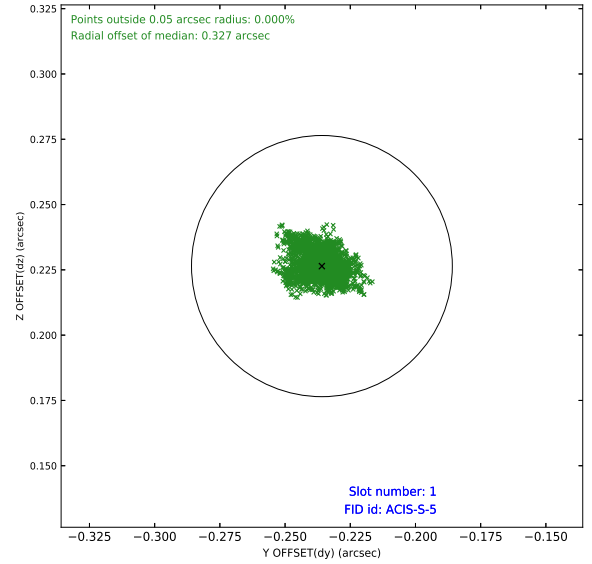
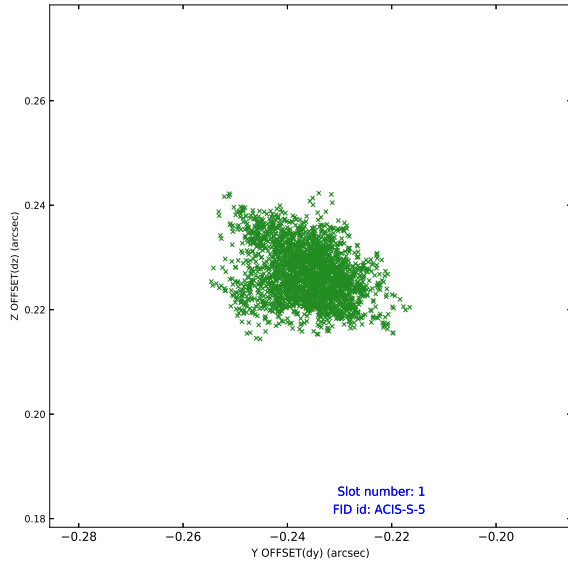


2.5 FID Slots

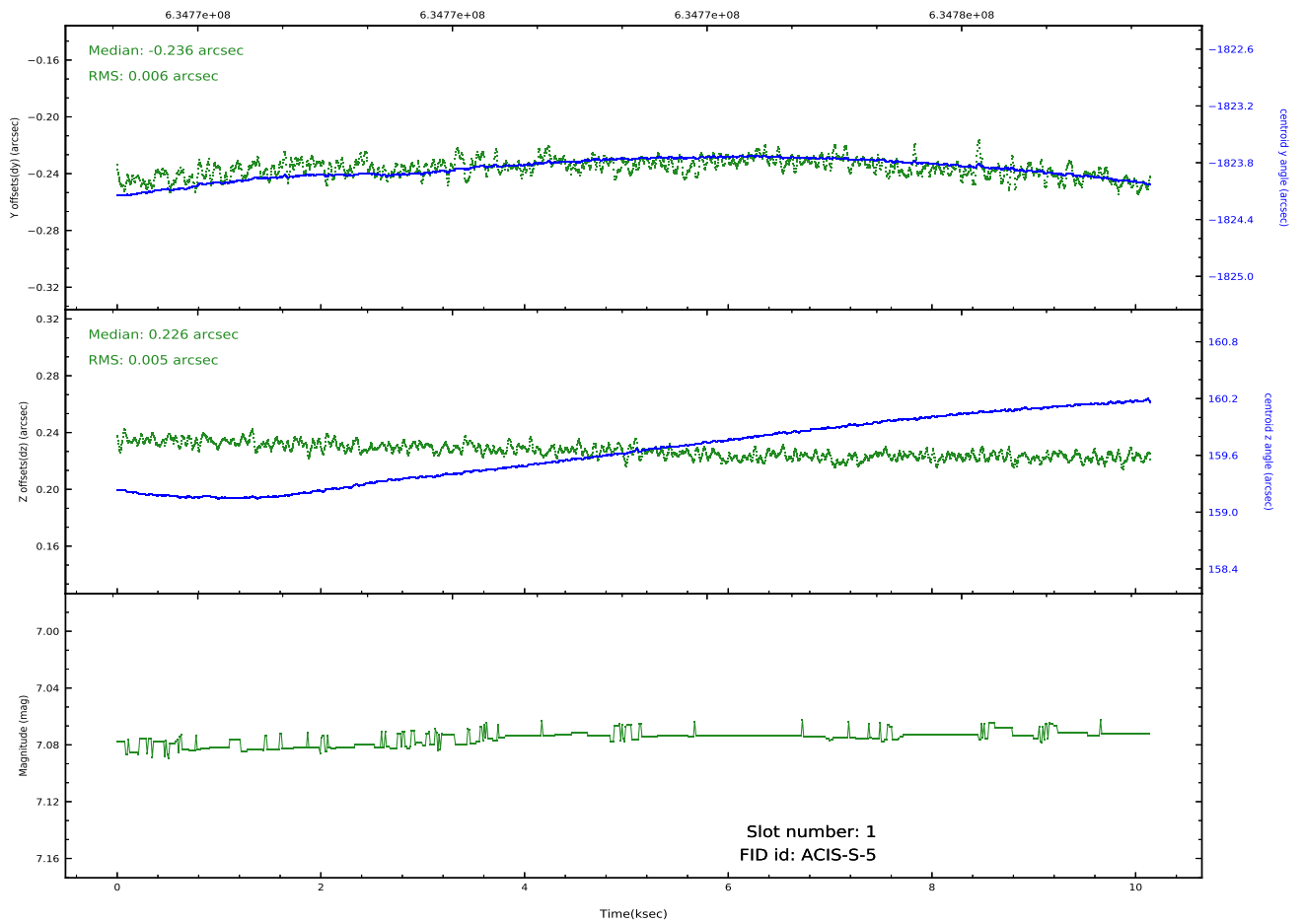
2.5.1 Slot 0



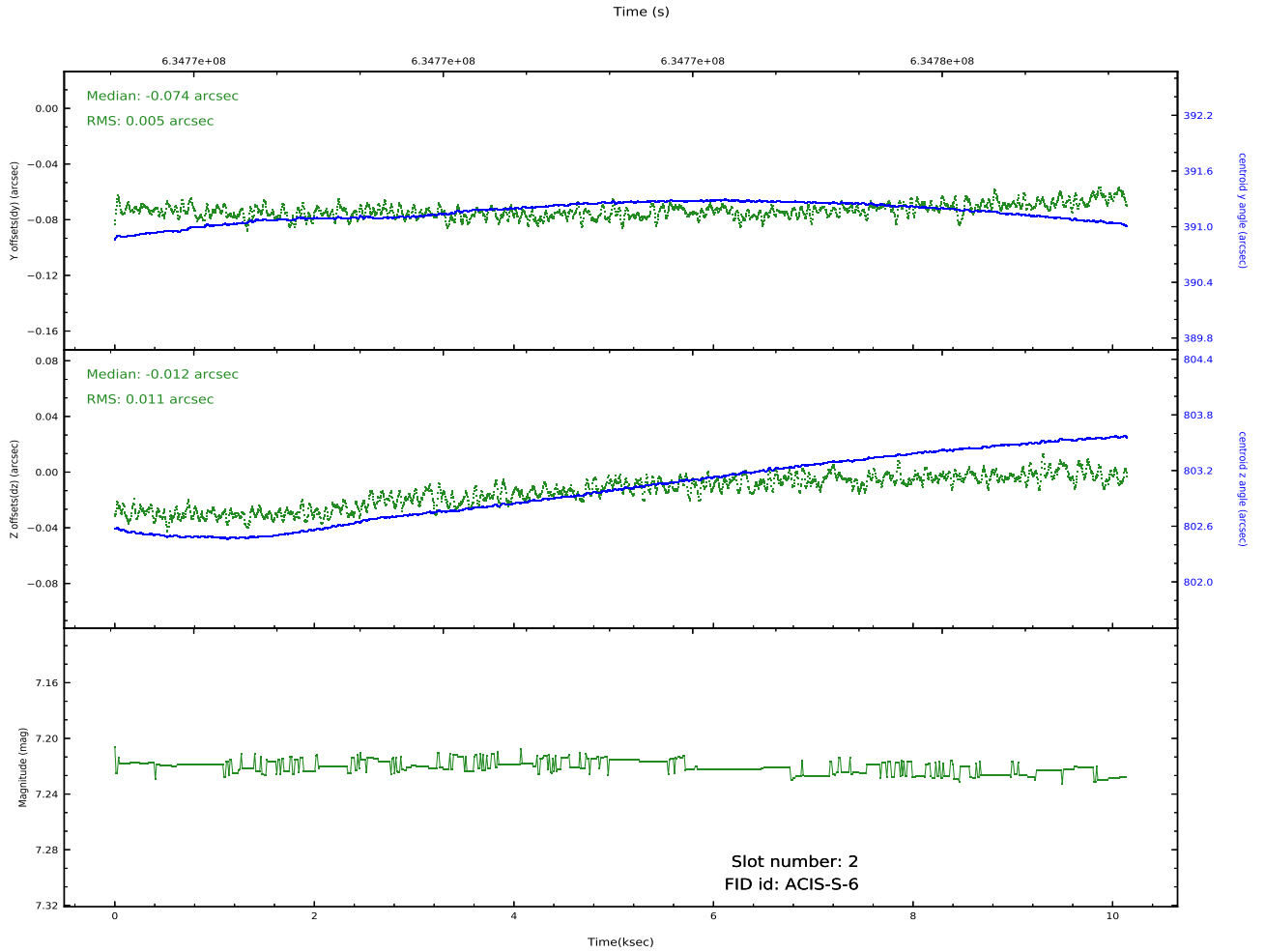
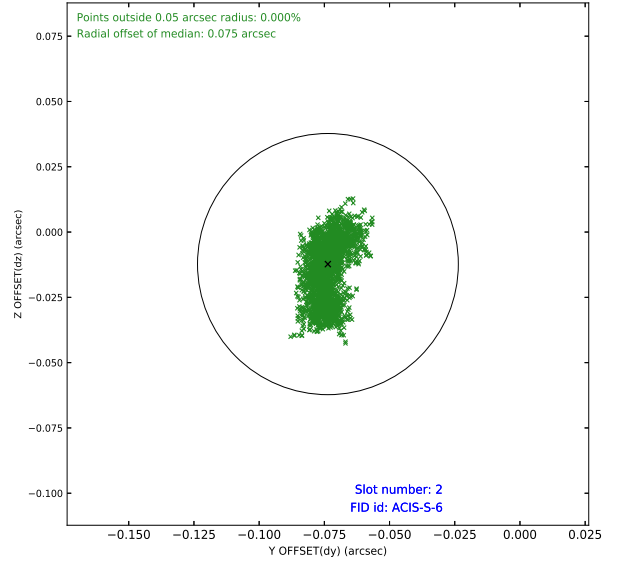
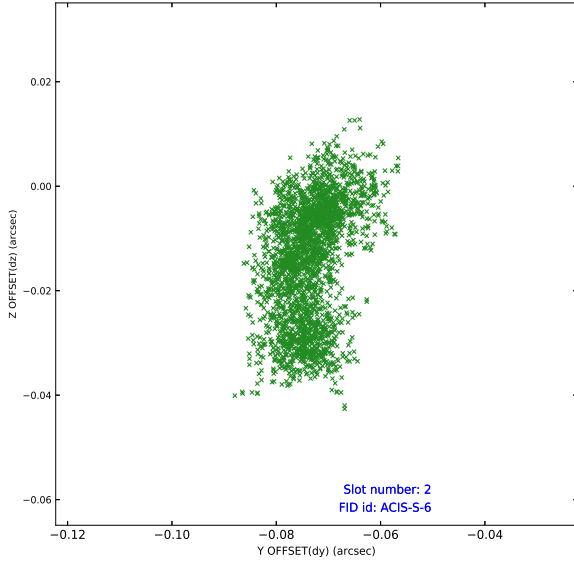
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.9520001482964

A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.