

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20498 - L2 Version 3
Chandra X-Ray Center

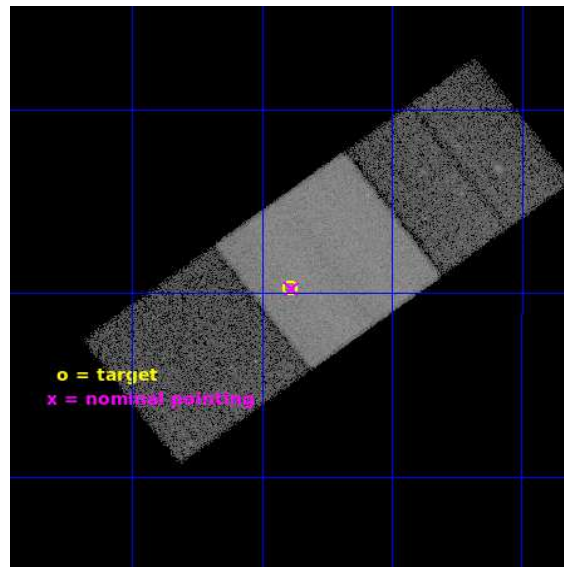
L2 Processing Date : Oct 25 2020

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1 Front

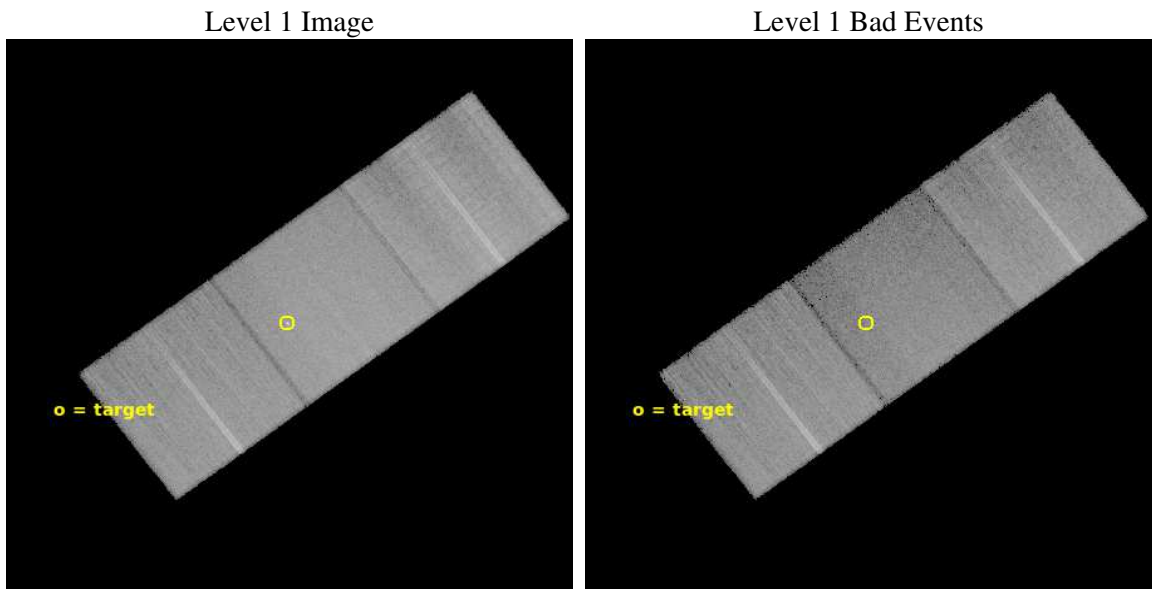
seq_num	703599	Sequence number
obs_id	20498	Observation id
title	NGC 3393: Resolving Feedback in the Narrow Line Region on 50-pc Scales	Proposal title
observer	Walter Maksym	Principal investigator
object	NGC 3393	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	162.0975	Observer's specified target RA [deg]
dec_targ	-25.162028	Observer's specified target Dec [deg]
ra_nom	162.09617323099	Nominal RA [deg]
dec_nom	-25.162615016261	Nominal Dec [deg]
roll_nom	323.15225086085	Nominal Roll [deg]
revision	3	Processing version of data
ontime	45106.890052795	Sum of GTIs [s]
livetime	44517.535327046	Livetime [s]
ontime6	45106.849012852	Sum of GTIs [s]
ontime7	45106.890052795	Sum of GTIs [s]
ontime8	45100.525792122	Sum of GTIs [s]
l2events	248871	Number of level 2 events



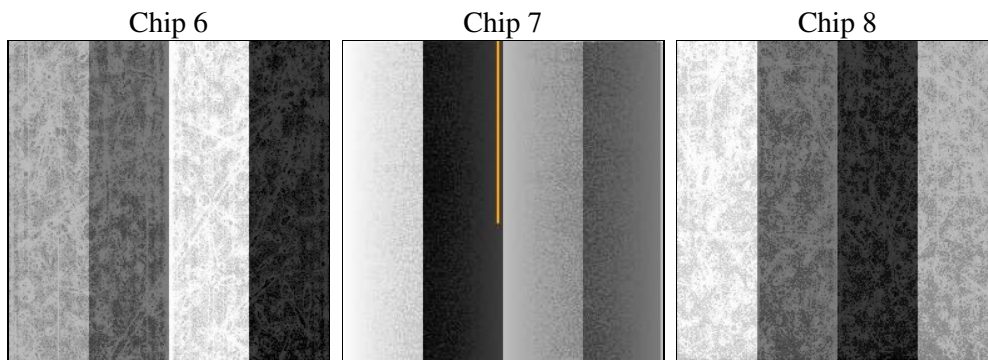
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	45106.890052795	Sum of GTIs [s]
caldbver	4.9.3	 	ontime6	45106.849012852	Sum of GTIs [s]
date	2020-10-25T03:56:11	Date and time of file creation	ontime7	45106.890052795	Sum of GTIs [s]
revision	3	Processing version of data	ontime8	45100.525792122	Sum of GTIs [s]
			l1events	1213534	Number of level 1 events

2.1.4 Events

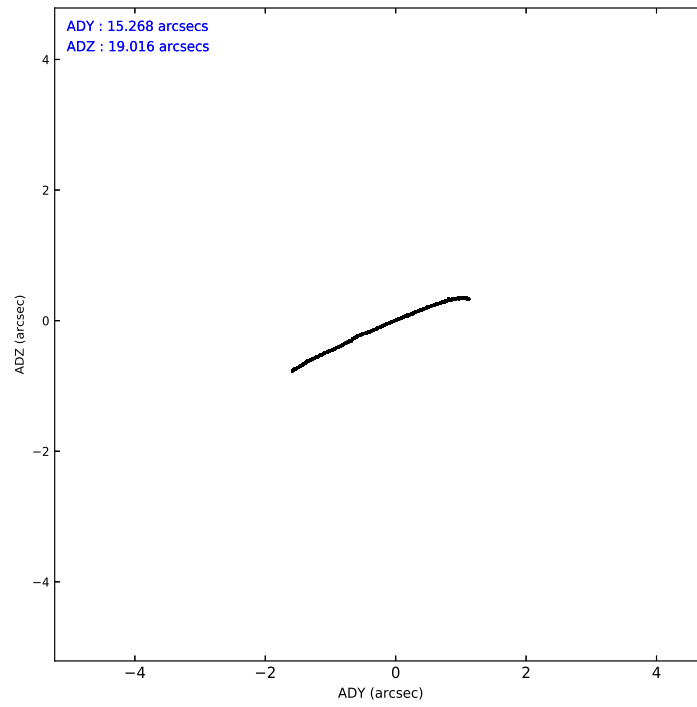
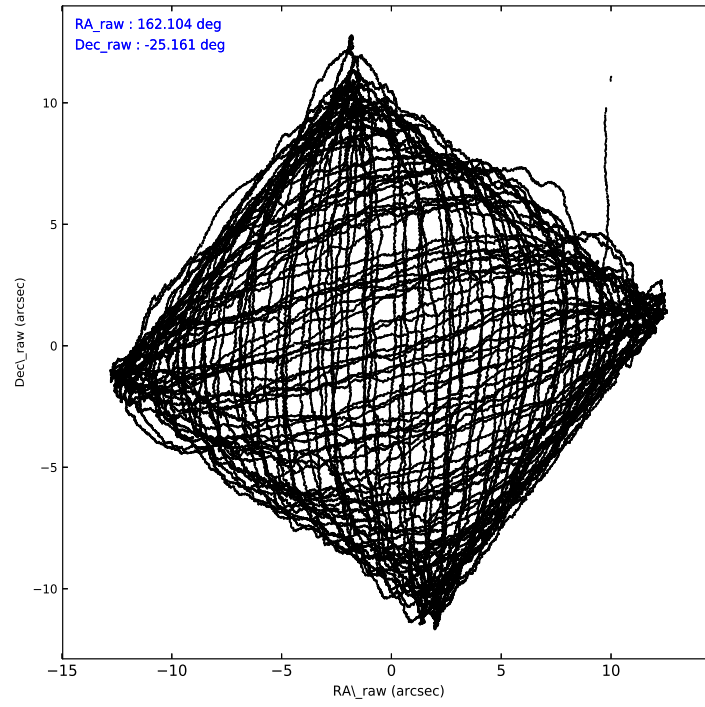
	ccd 6	ccd 7	ccd 8
level 1 events	354592	425055	433887
rejected events	317569	239442	327744
rejected %	89%	56%	75%

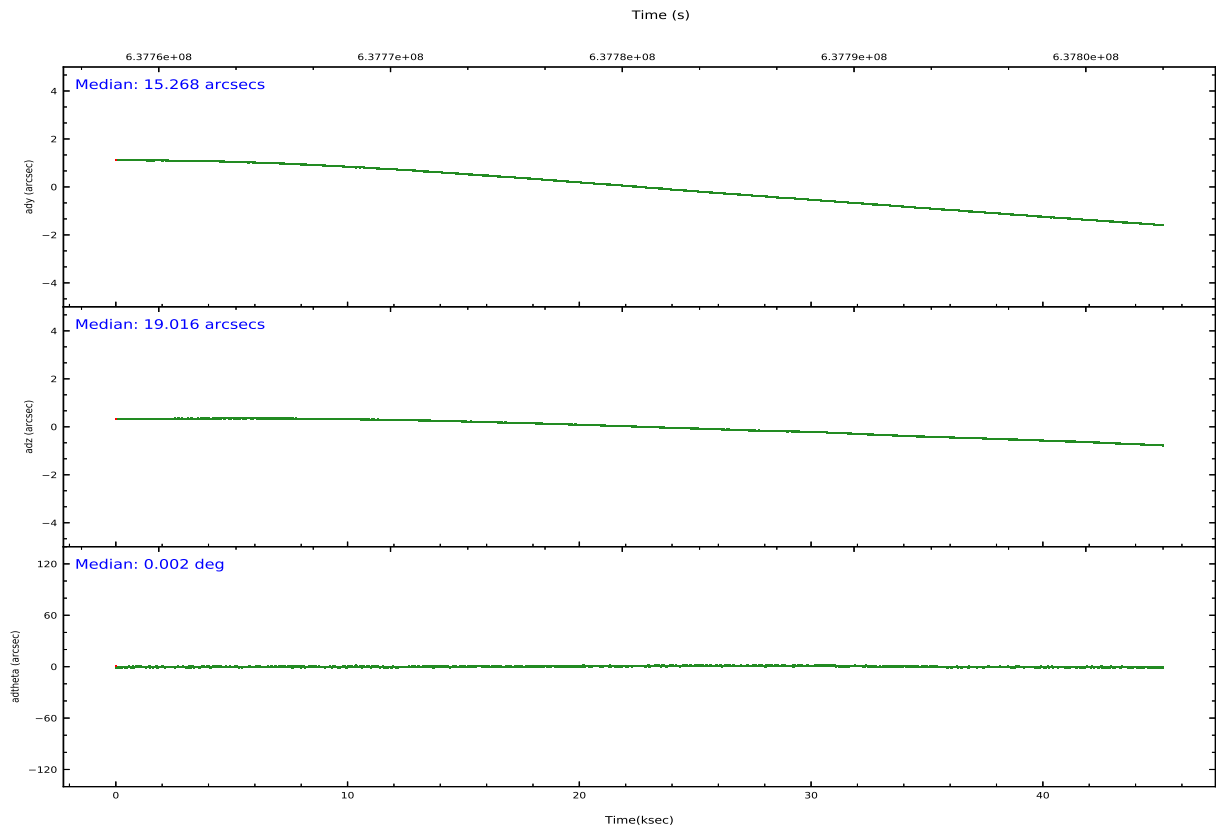
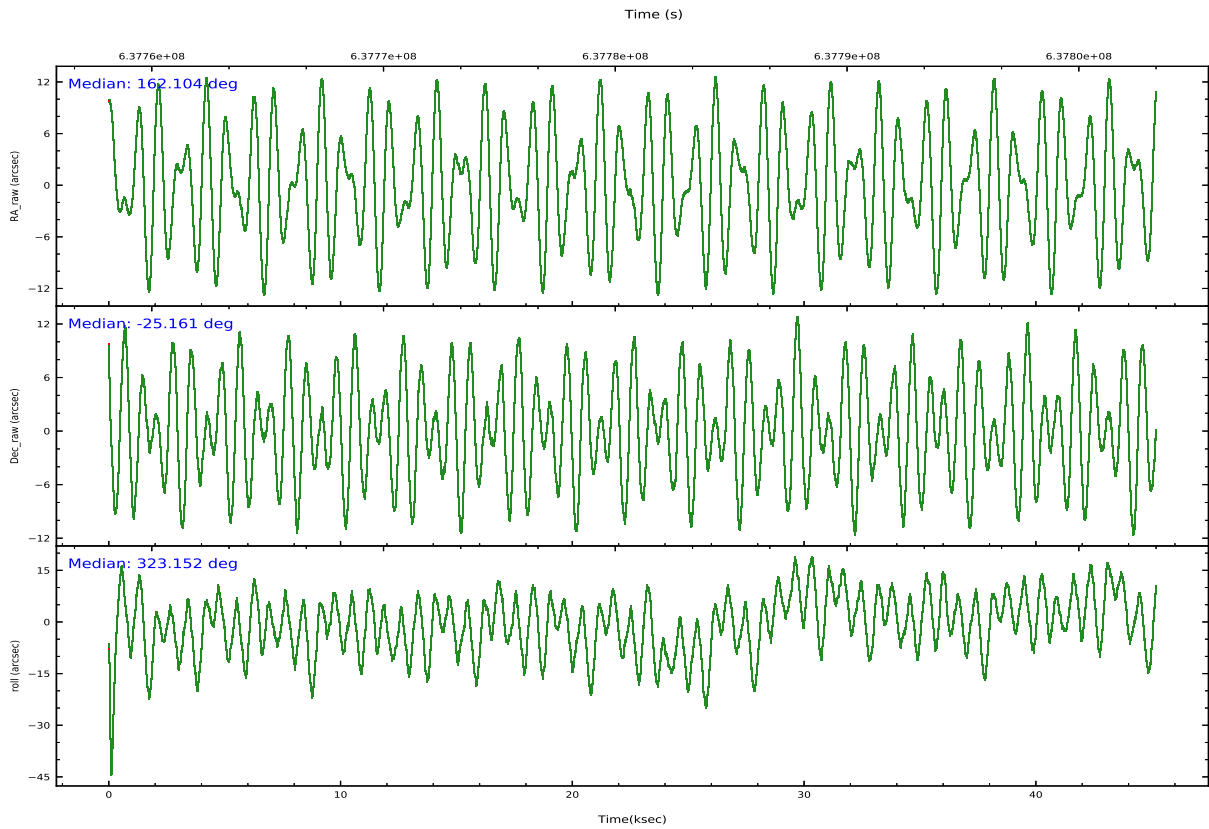
	ccd 6	ccd 7	ccd 8
grade 0 events	10053	16170	28750
	2%	3%	6%
grade 1 events	140	601	312
	0%	0%	0%
grade 2 events	10470	37920	27051
	2%	8%	6%
grade 3 events	2965	14921	10355
	0%	3%	2%
grade 4 events	2954	14776	9645
	0%	3%	2%
grade 5 events	13706	41553	21941
	3%	9%	5%
grade 6 events	10585	101846	30351
	2%	23%	6%
grade 7 events	303719	197268	305482
	85%	46%	70%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-678	ACIS-678	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	162.073573	162.09617323099	CCD I2 on	O2	N
[deg] Pointing Dec	-25.157911	-25.162615016261	CCD I3 on	O3	N
[deg] Pointing Roll	322.989829	323.15225086085	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O5	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	O4	Y
[s] Observation start time (MET)	637758336.184000	637757044.35356	CCD S5 on	N	N
Observation start date	2018-03-18T11:04:27	2018-03-18T10:44:04	Number of optional ACIS chips dropped	3	3
[s] Observation end time (MET)	637803336.184000	637804096.46884	On-chip summing requested	N	N
Observation end date	2018-03-18T23:34:27	2018-03-18T23:48:16	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



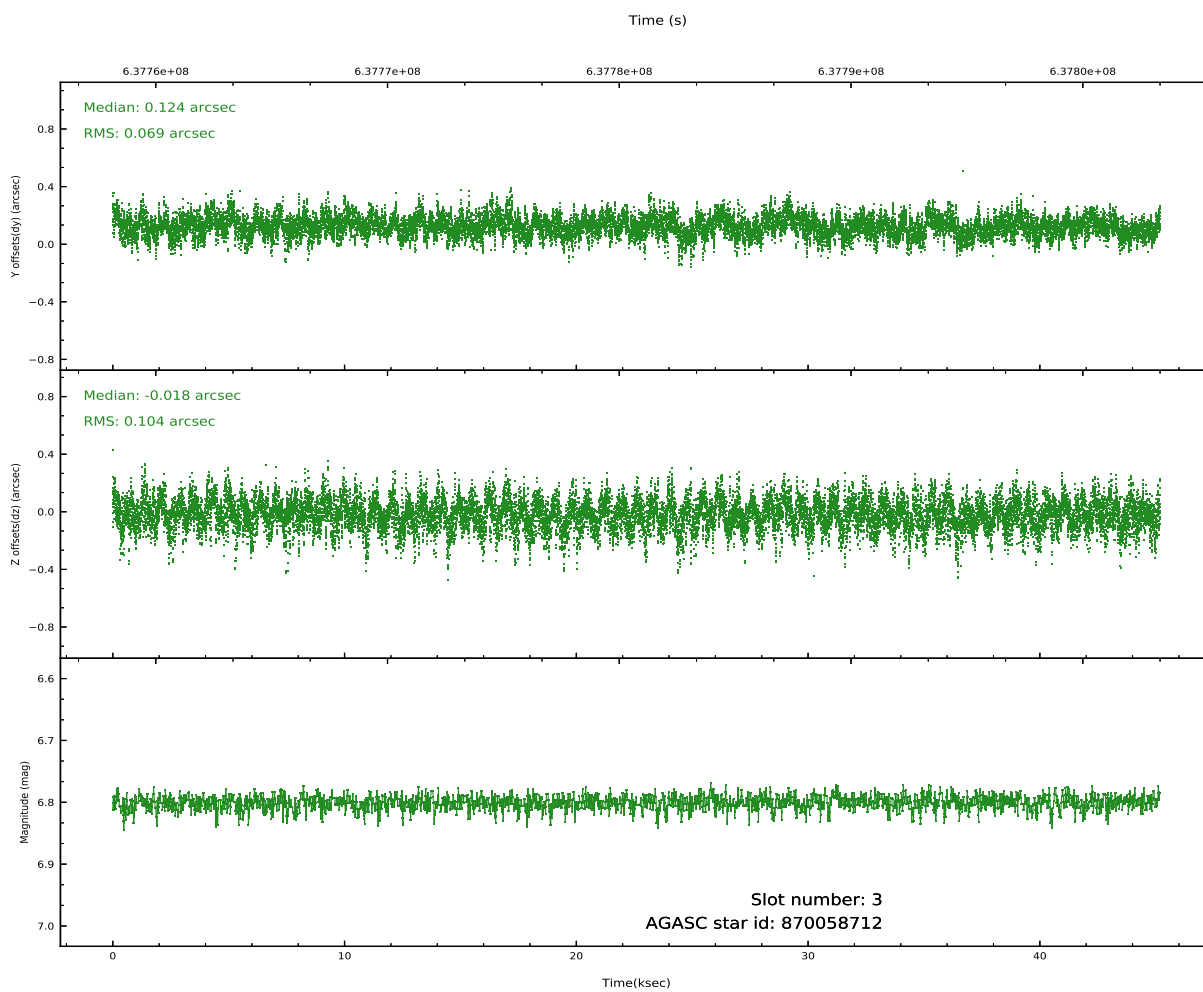
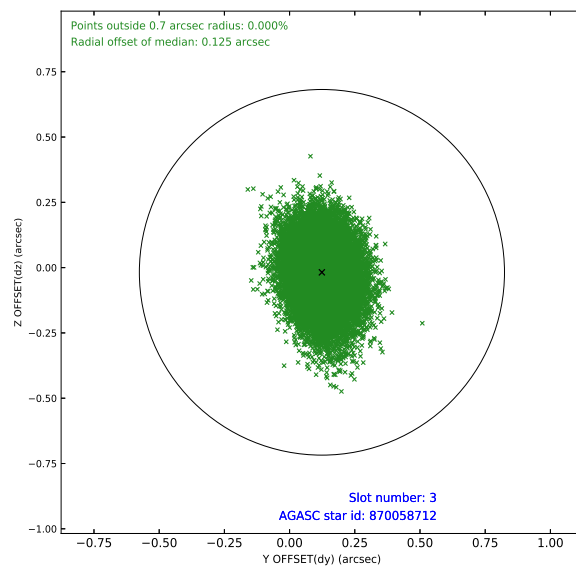
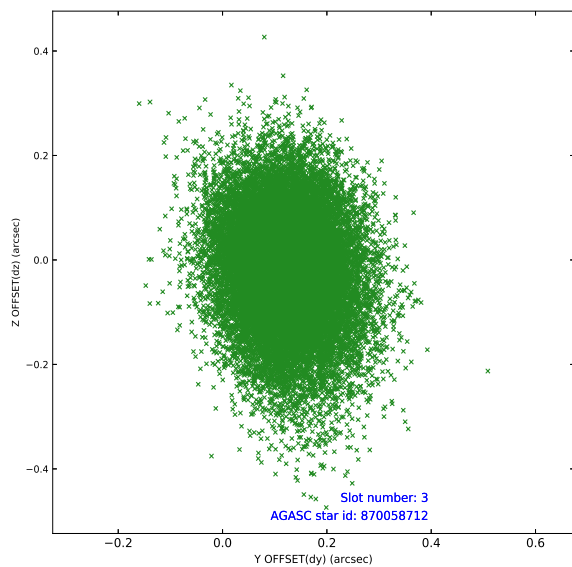


Slot Statistics

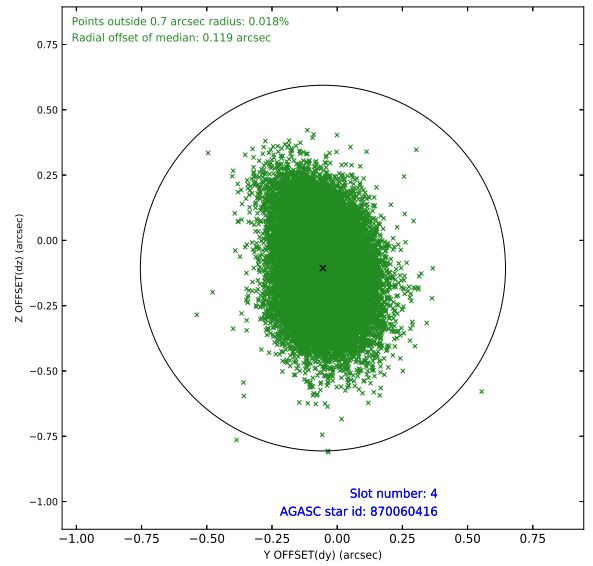
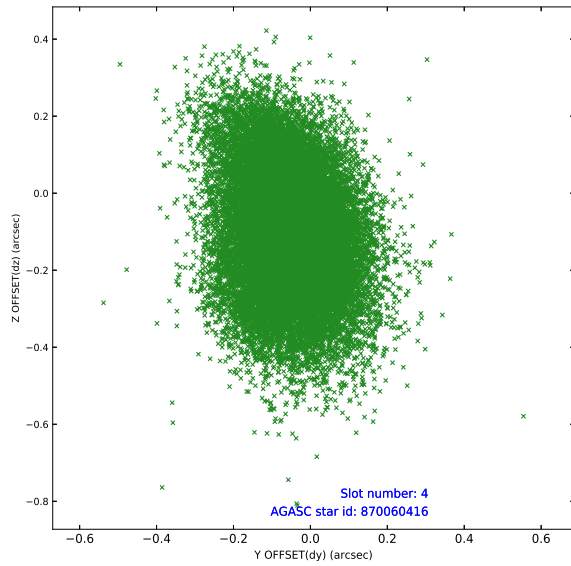
slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.18	11022	1.000	0.083	-0.122	0.025	0.038	0.000000	0.000000	-768.30	-1740
1	FID		ACIS-S-4	7.29	11022	1.000	0.182	-0.006	0.017	0.046	0.000000	0.000000	2145.28	167
2	FID		ACIS-S-5	7.28	11021	1.000	-0.289	0.134	0.021	0.046	0.000000	0.000000	-1821.32	162
3	GUIDE	used	870058712	6.80	22045	1.000	0.124	-0.018	0.130	0.222	161.694136	-25.533829	-168.76	-1824
4	GUIDE	used	870060416	9.32	22014	1.000	-0.055	-0.106	0.195	0.324	162.151228	-25.161120	209.67	143
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
6	GUIDE	used	870063952	8.26	22037	1.000	-0.030	0.031	0.134	0.241	161.785917	-24.549213	-2071.01	1181
7	GUIDE	used	870065008	8.94	22022	1.000	-0.041	0.097	0.137	0.233	161.653761	-24.585489	-2337.40	813

2.4 Star Slots

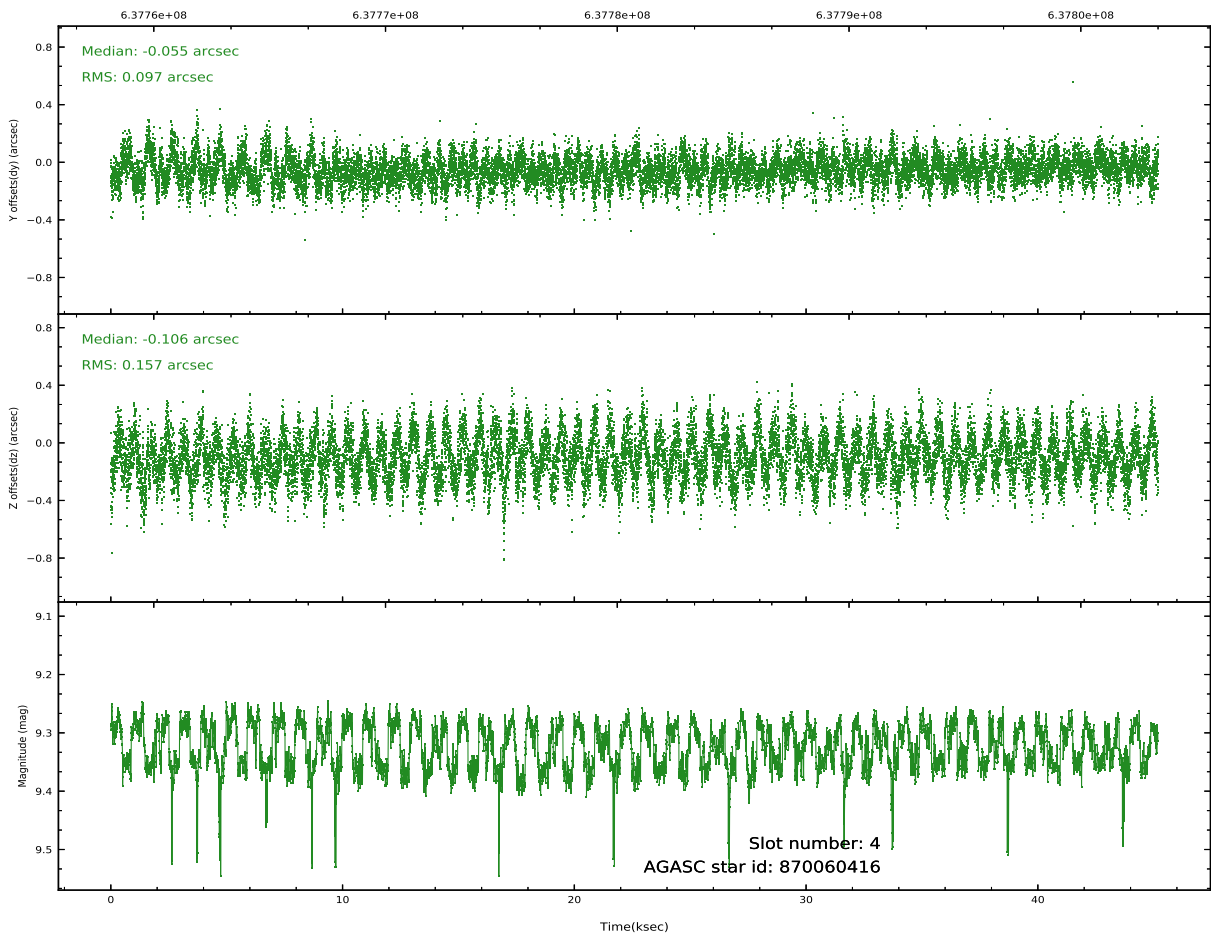
2.4.1 Slot 3



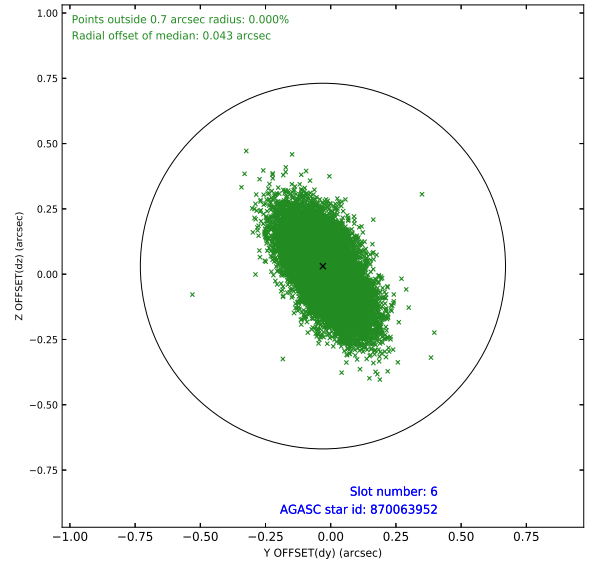
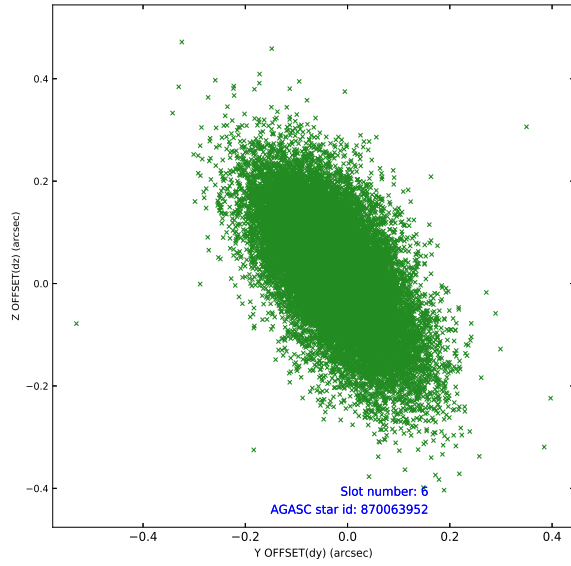
2.4.2 Slot 4



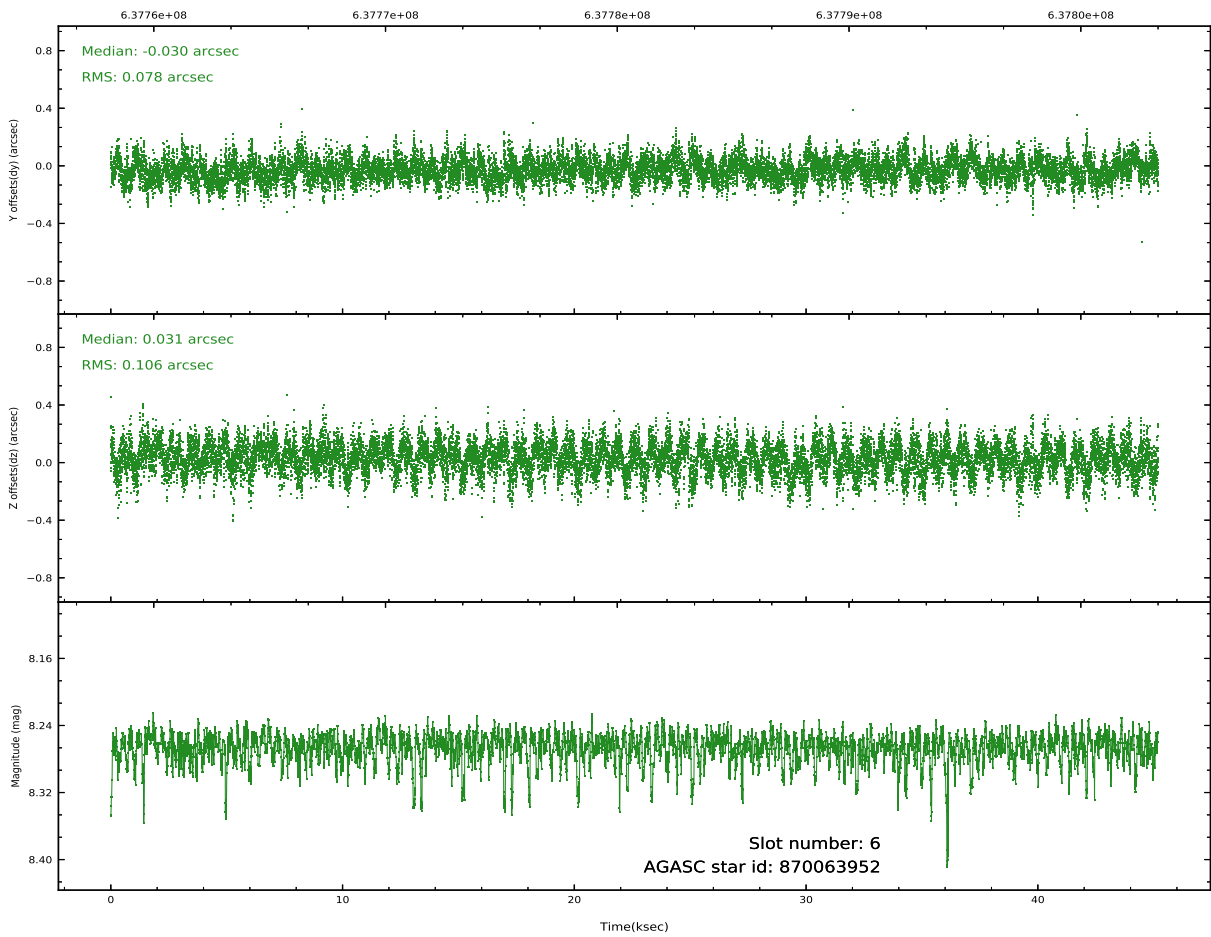
Time (s)



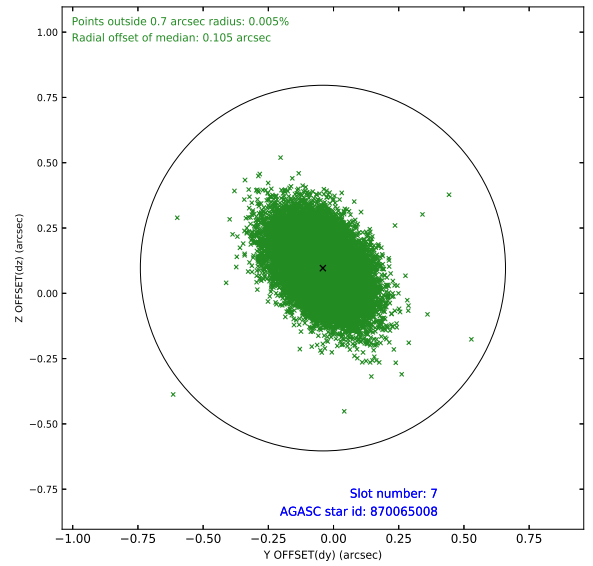
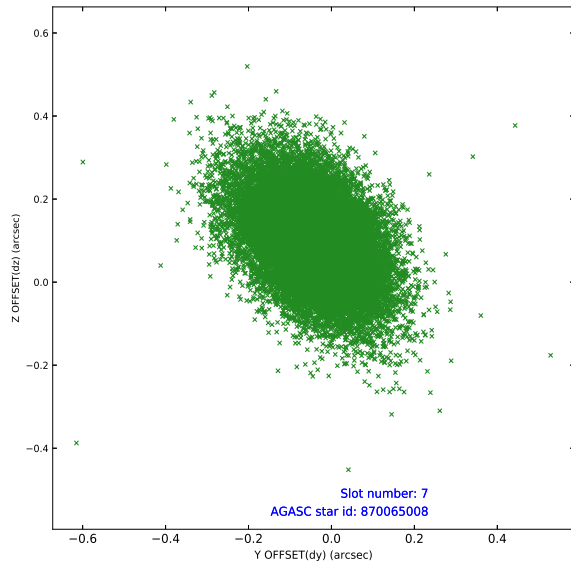
2.4.3 Slot 6



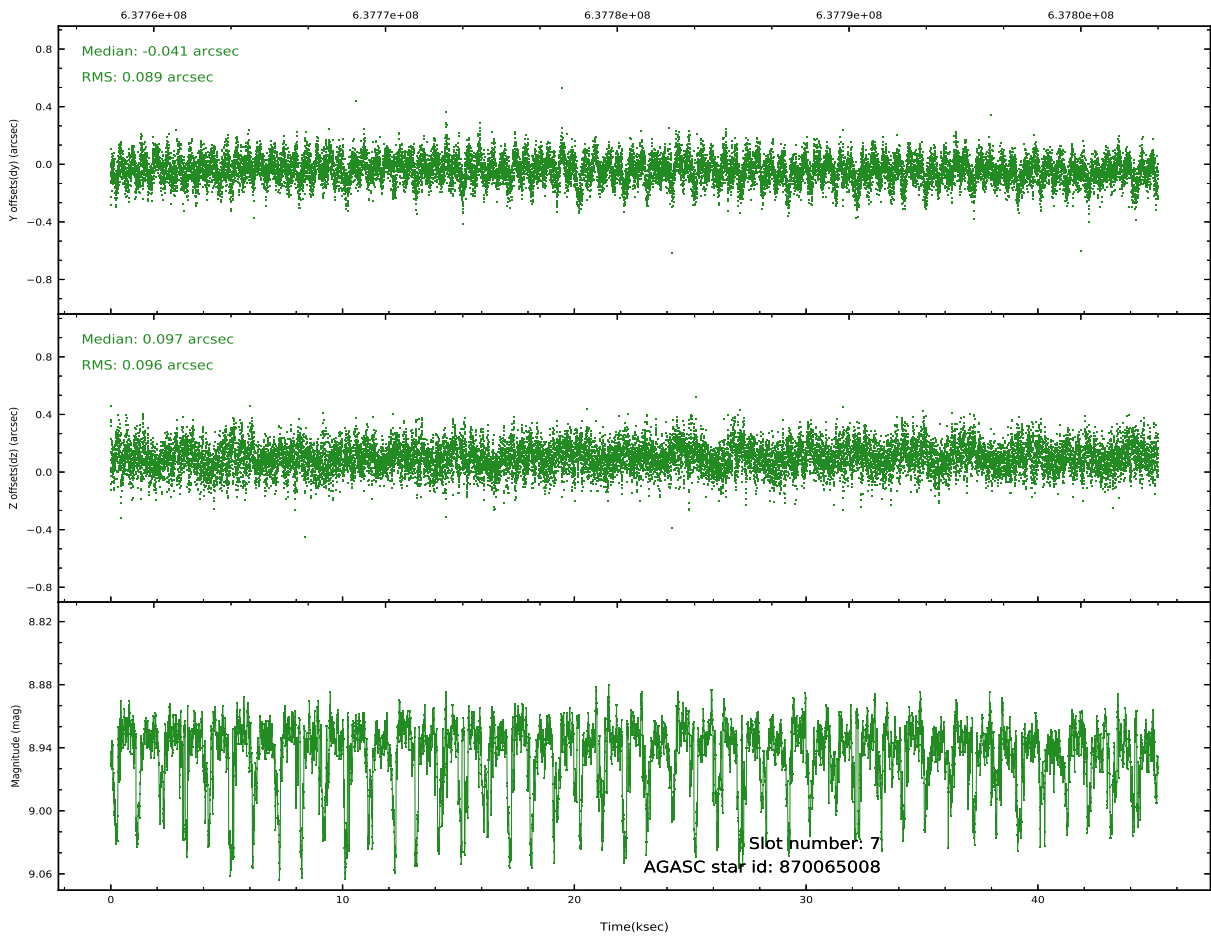
Time (s)



2.4.4 Slot 7

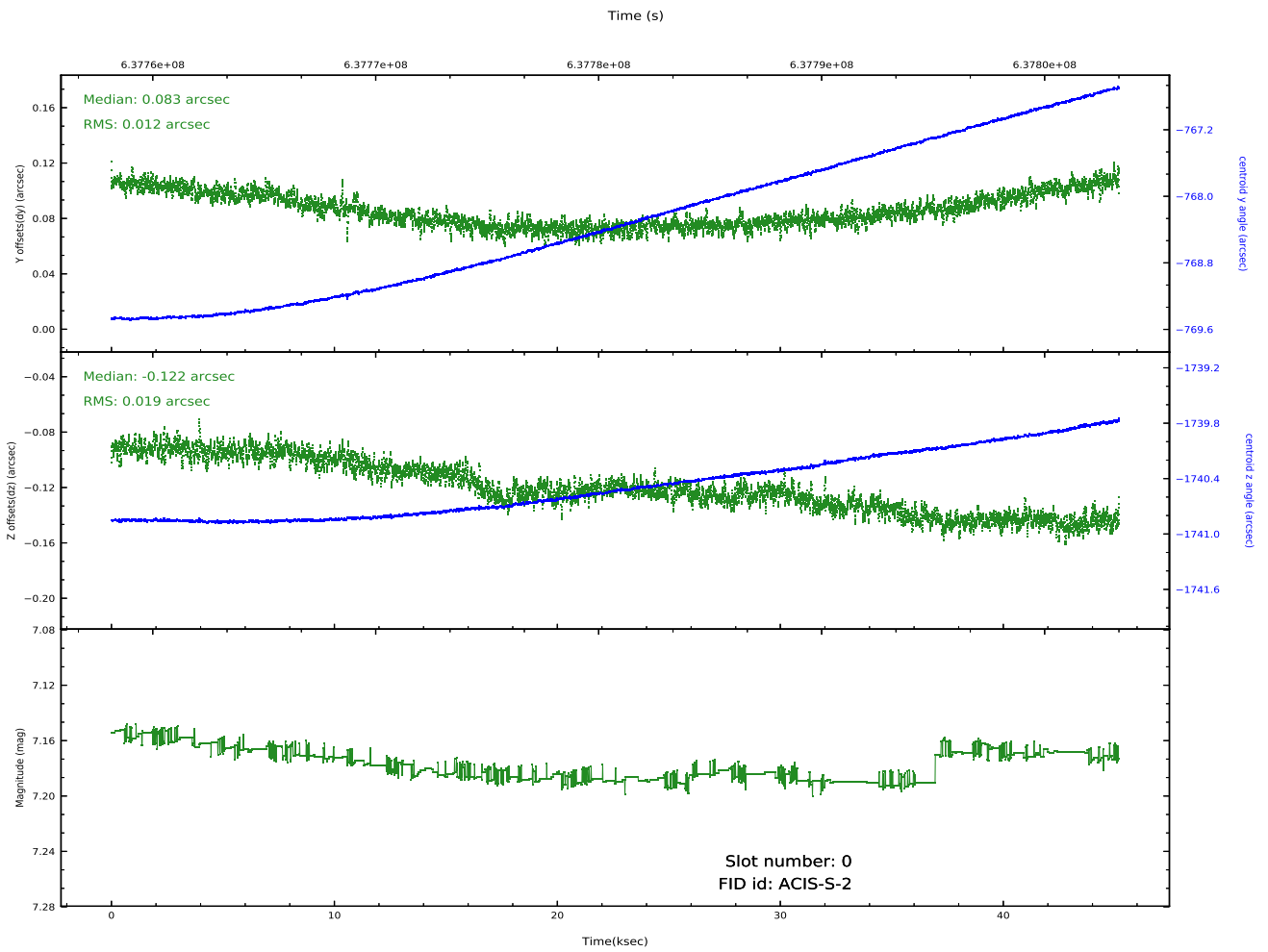
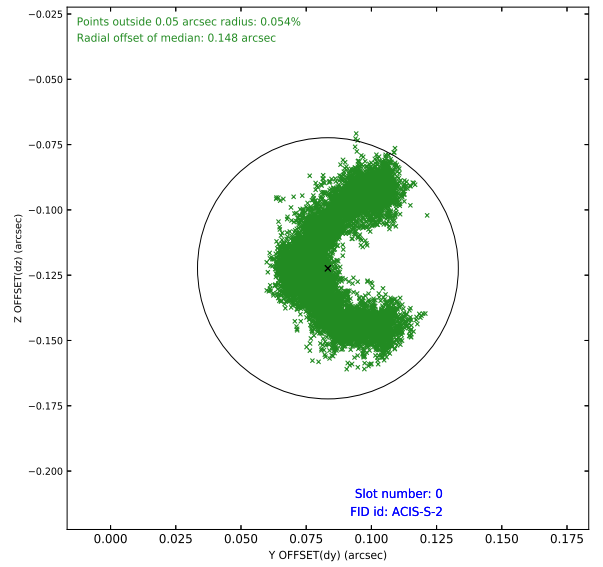
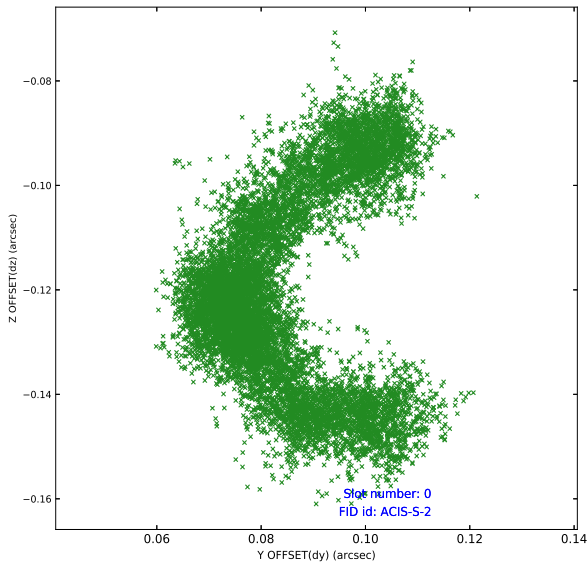


Time (s)

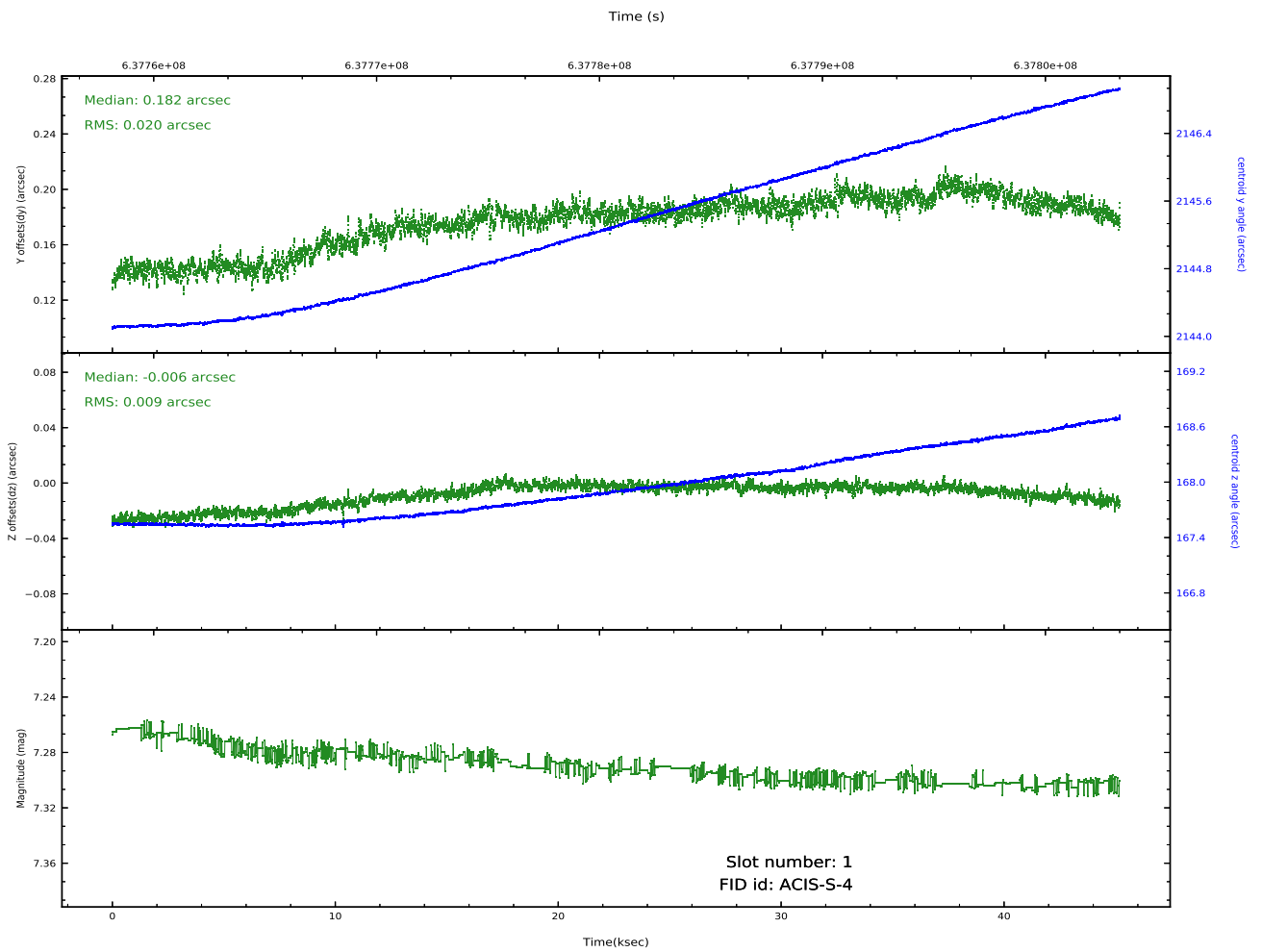
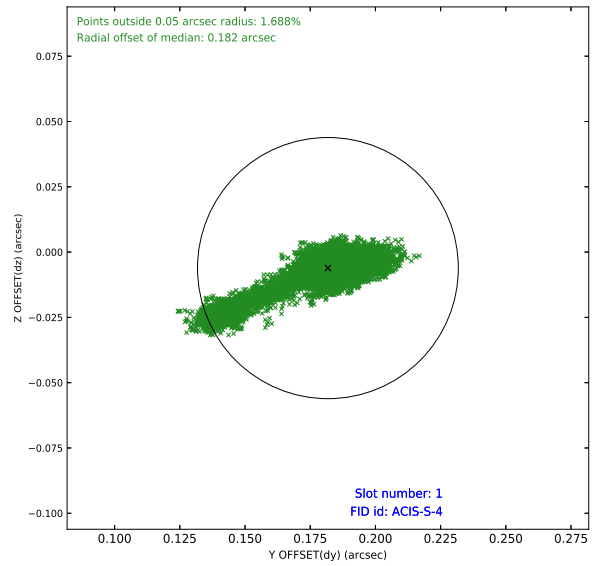
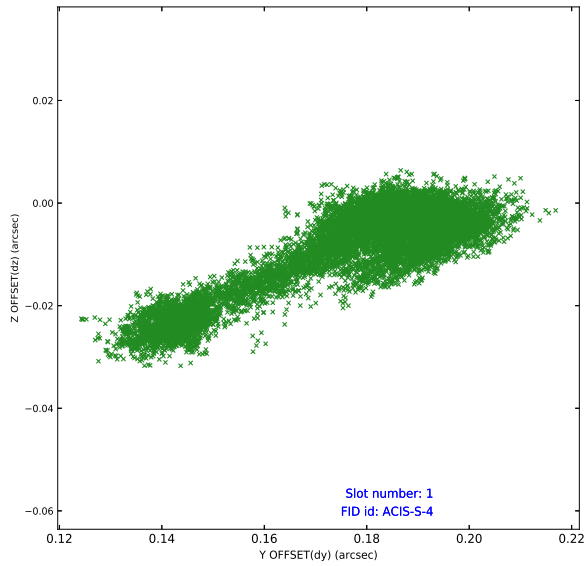


2.5 FID Slots

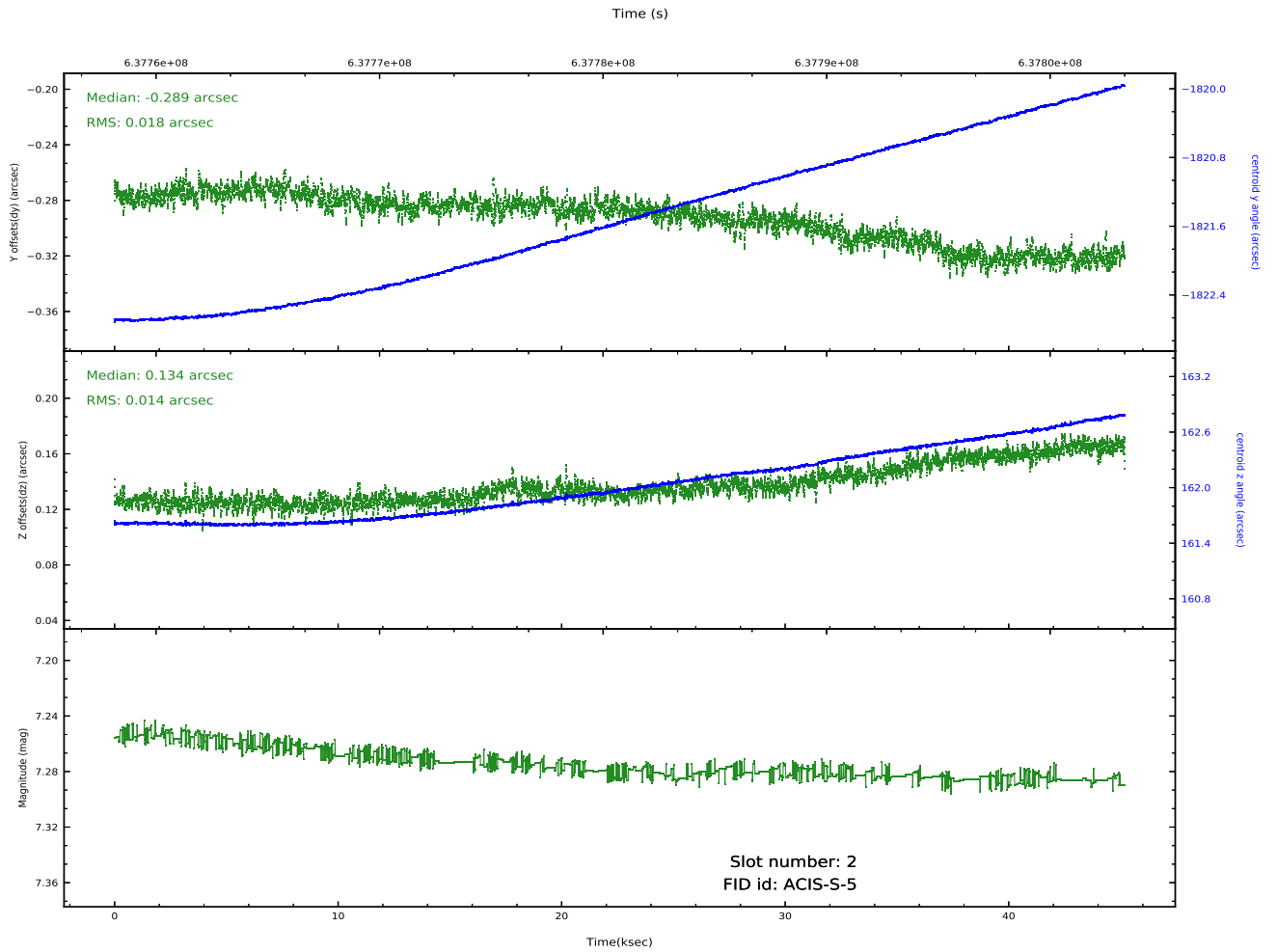
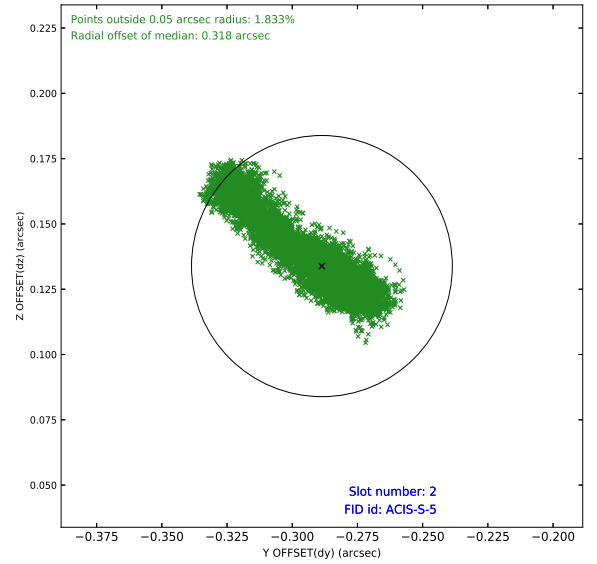
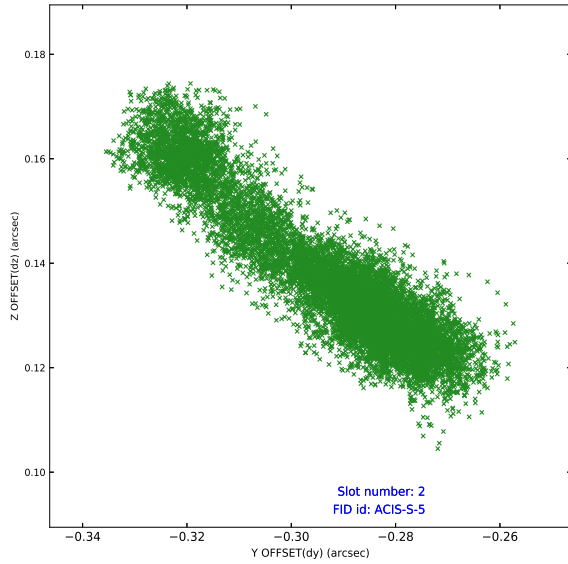
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	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	45.106890057325

A.2 Comments

The guide star in slot 5 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.

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Joint proposal with NRAO.

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Three optional chips were dropped.