

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20497 - L2 Version 3
Chandra X-Ray Center

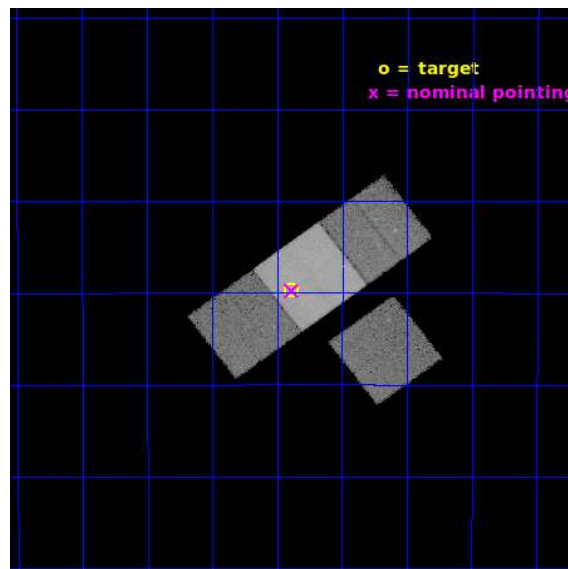
L2 Processing Date : Oct 25 2020

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1 Front

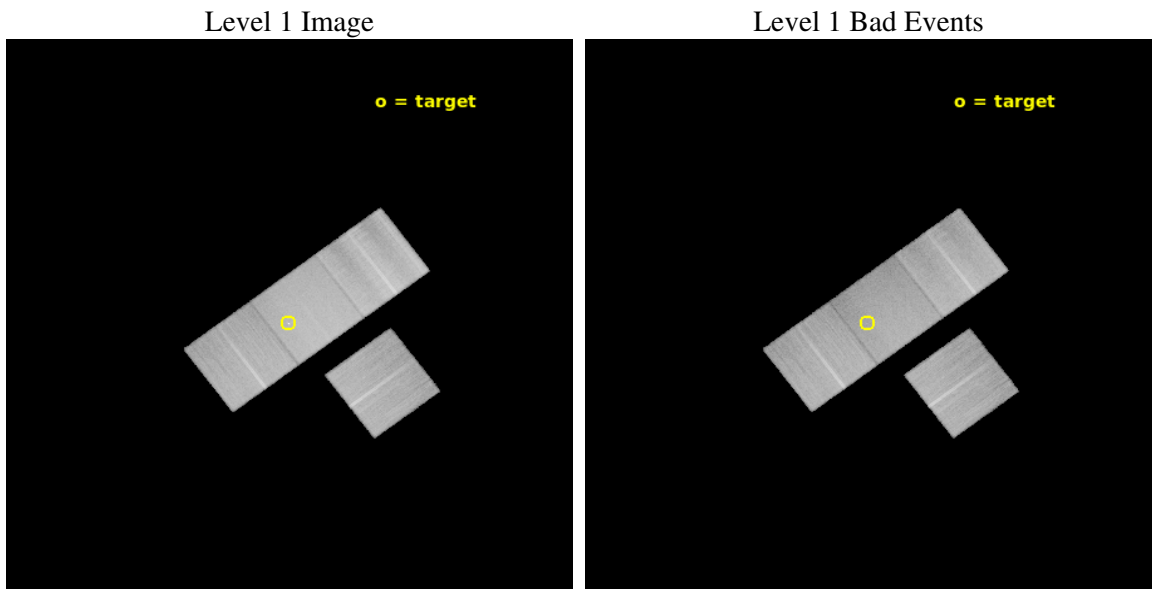
seq_num	703599	Sequence number
obs_id	20497	Observation id
title	NGC 3393: Resolving Feedback in the Narrow Line Region on 50-pc Scales	Proposal title
observer	Walter Maksym	Principal investigator
object	NGC 3393	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	162.0975	Observer's specified target RA [deg]
dec_targ	-25.162028	Observer's specified target Dec [deg]
ra_nom	162.09663785788	Nominal RA [deg]
dec_nom	-25.16282372457	Nominal Dec [deg]
roll_nom	323.15154999158	Nominal Roll [deg]
revision	3	Processing version of data
ontime	40064.400308251	Sum of GTIs [s]
livetime	39540.929423242	Livetime [s]
ontime3	40054.905810118	Sum of GTIs [s]
ontime6	40061.229080677	Sum of GTIs [s]
ontime7	40064.400308251	Sum of GTIs [s]
ontime8	40061.146960497	Sum of GTIs [s]
l2events	252969	Number of level 2 events



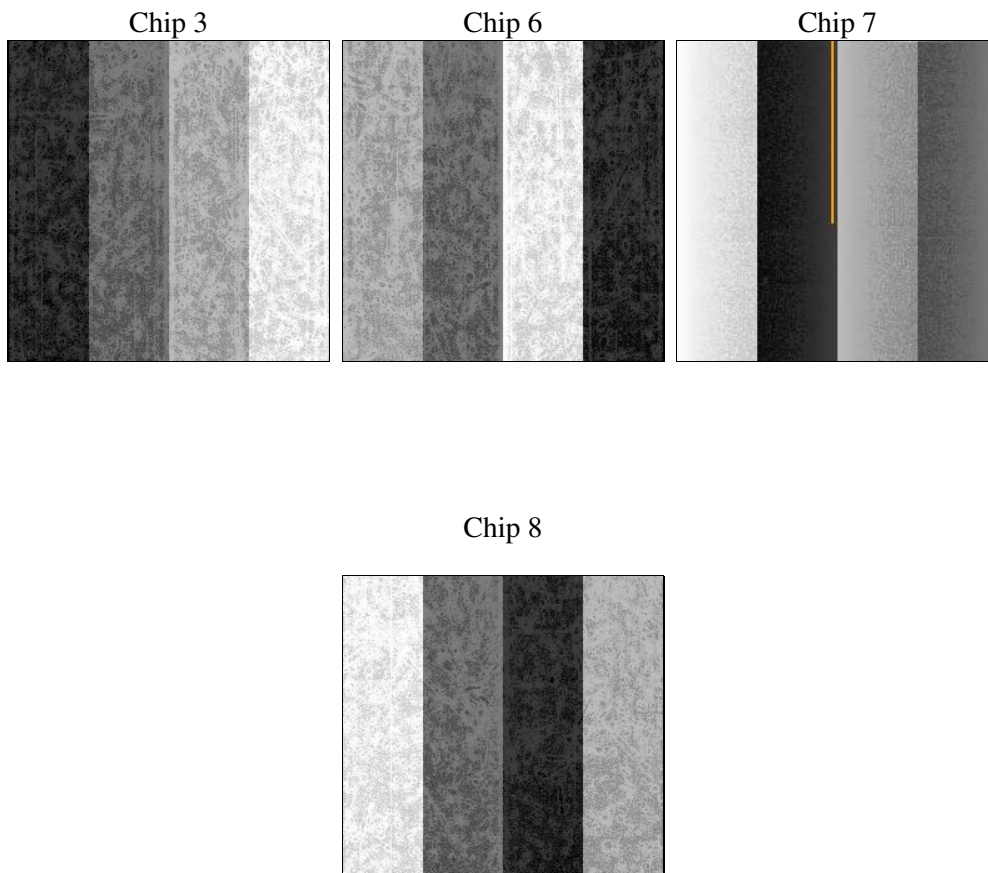
2 OBI

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	10.9.2	Processing system revision	ontime	40064.400308251	Sum of GTIs [s]
caldsver	4.9.3	 	ontime3	40054.905810118	Sum of GTIs [s]
date	2020-10-25T04:02:19	Date and time of file creation	ontime6	40061.229080677	Sum of GTIs [s]
revision	3	Processing version of data	ontime7	40064.400308251	Sum of GTIs [s]
			ontime8	40061.146960497	Sum of GTIs [s]
			l1events	1366176	Number of level 1 events

2.1.4 Events

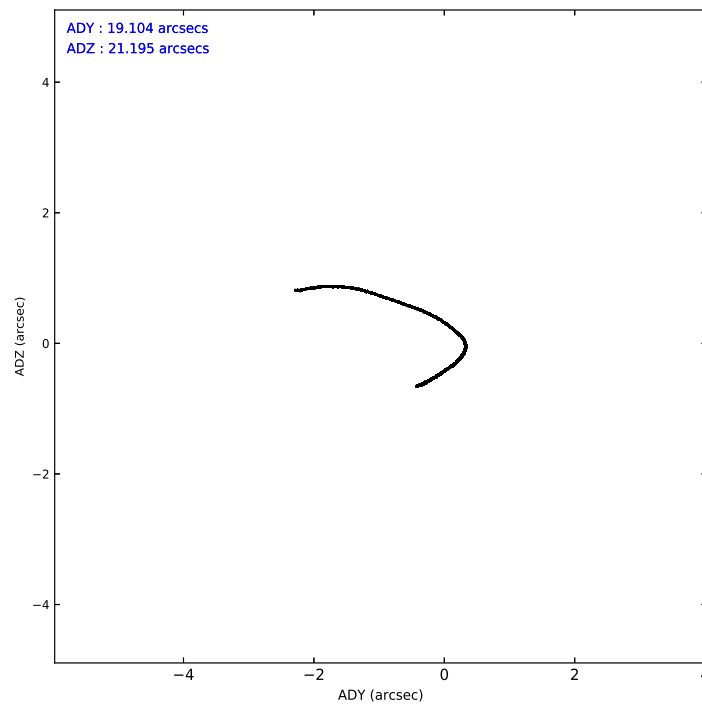
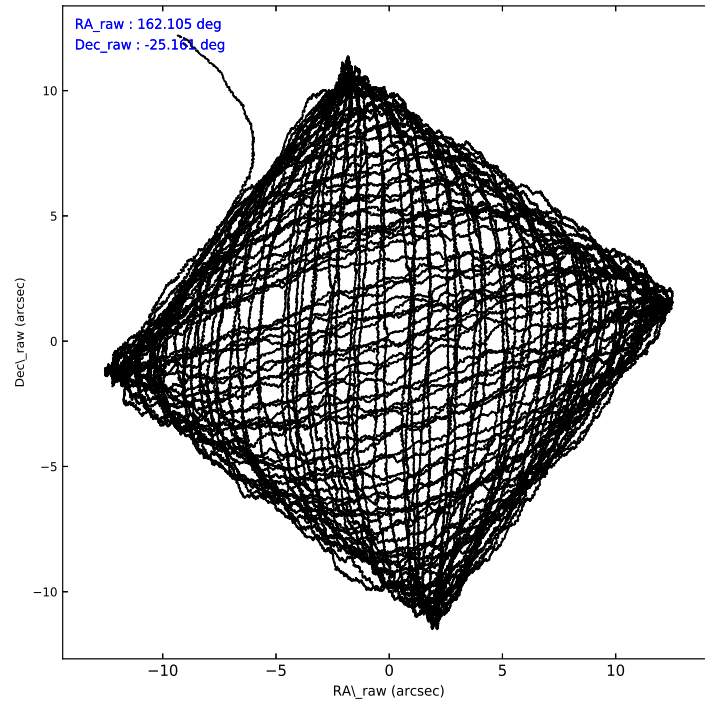
	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	287876	305171	381940	391189
rejected events	257638	271321	215246	285781
rejected %	89%	88%	56%	73%

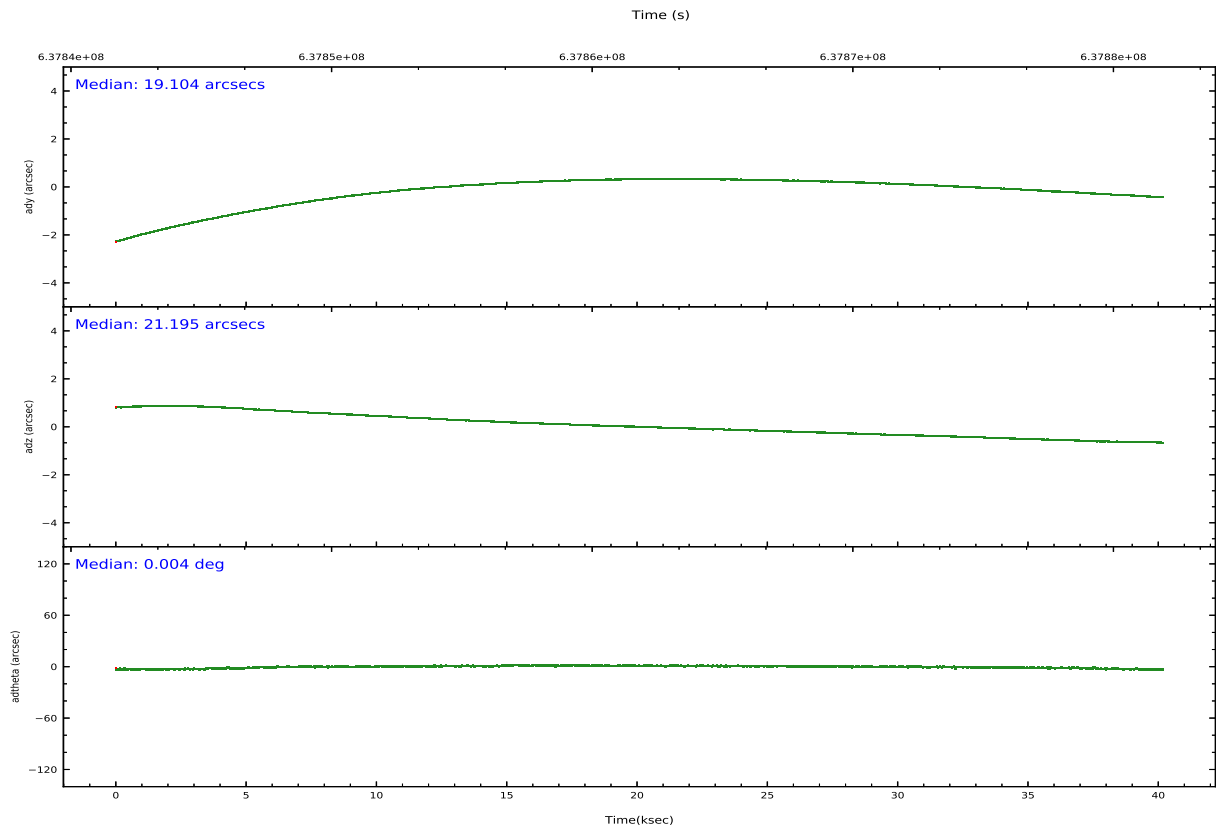
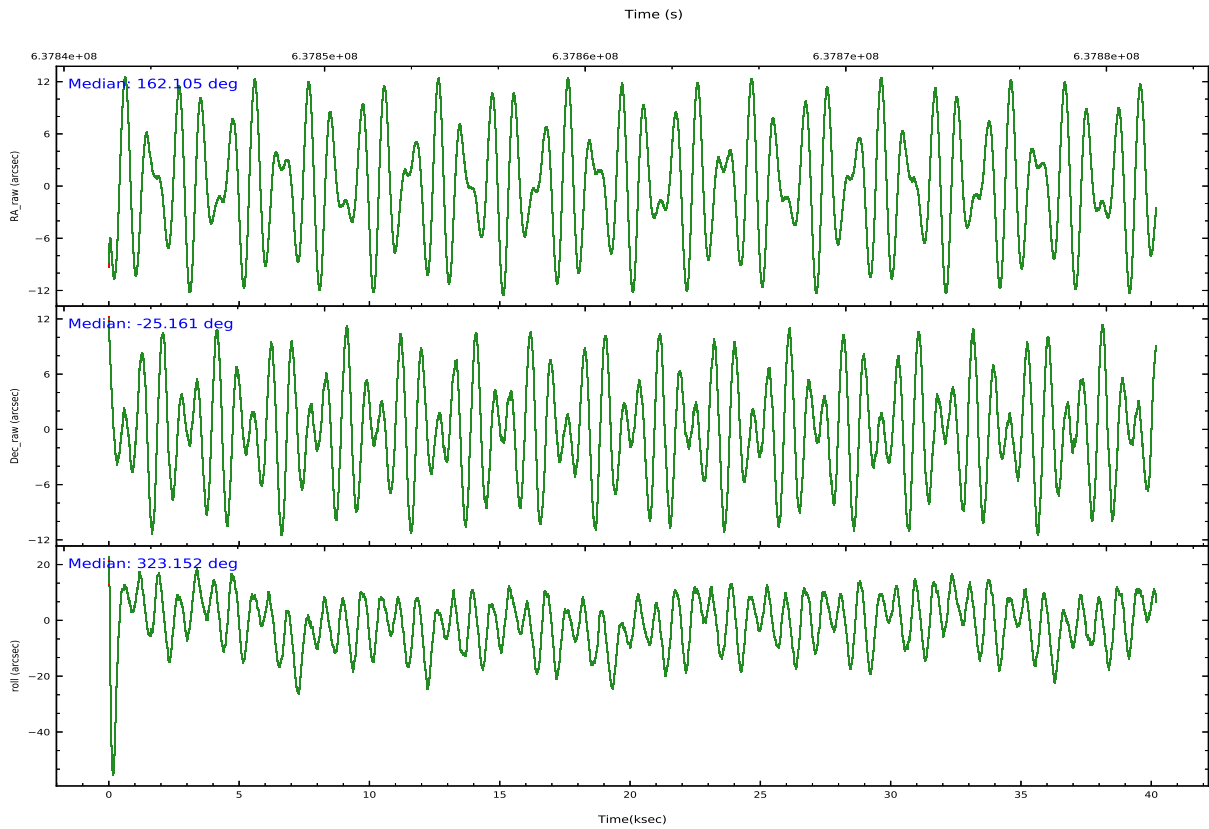
	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	10525	10994	14428	29321
	3%	3%	3%	7%
grade 1 events	172	140	554	302
	0%	0%	0%	0%
grade 2 events	6662	8163	35489	26061
	2%	2%	9%	6%
grade 3 events	3176	3308	13365	11071
	1%	1%	3%	2%
grade 4 events	3296	3207	13189	10124
	1%	1%	3%	2%
grade 5 events	14004	13921	37760	21123
	4%	4%	9%	5%
grade 6 events	6586	8182	90248	28858
	2%	2%	23%	7%
grade 7 events	243455	257256	176907	264329
	84%	84%	46%	67%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-3678	ACIS-3678	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	162.075386	162.09663785788	CCD I2 on	O2	N
[deg] Pointing Dec	-25.158234	-25.16282372457	CCD I3 on	O3	Y
[deg] Pointing Roll	322.990596	323.15154999158	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)	637841907.184000	637840859.63351	CCD S5 on	N	N
Observation start date	2018-03-19T10:17:18	2018-03-19T10:00:59	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	637881907.184000	637882667.33597	On-chip summing requested	N	N
Observation end date	2018-03-19T21:23:58	2018-03-19T21:37:47	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





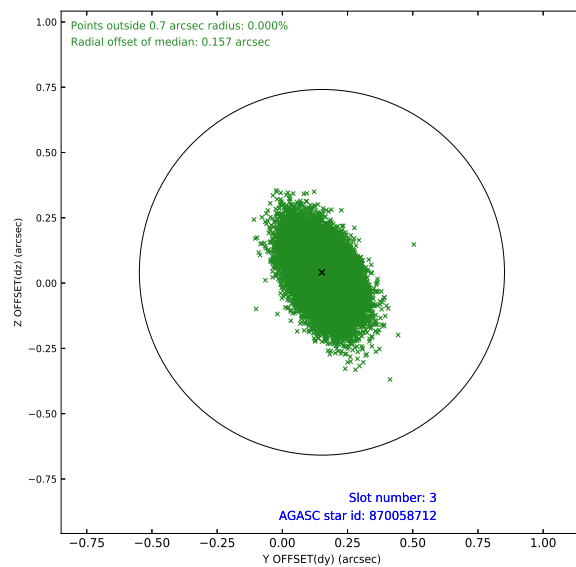
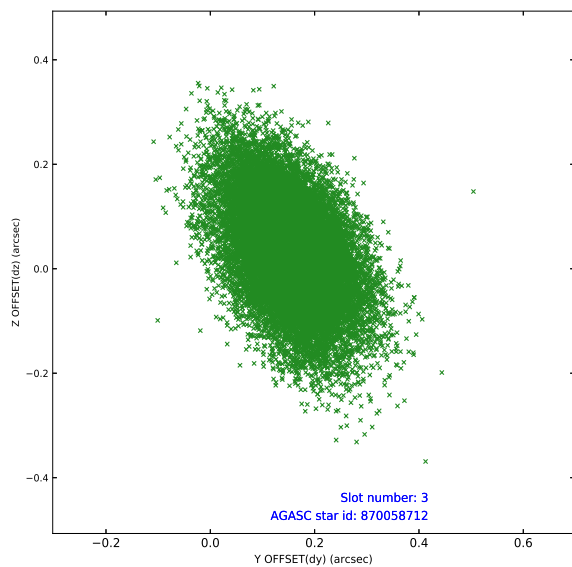
Slot Statistics

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	7.05	9802	1.000	0.111	-0.110	0.014	0.028	0.000000	0.000000	-772.10	-1742
1	FID		ACIS-S-4	7.17	9802	1.000	0.116	-0.024	0.018	0.032	0.000000	0.000000	2141.44	165
2	FID		ACIS-S-5	7.16	9800	1.000	-0.261	0.142	0.016	0.024	0.000000	0.000000	-1825.03	159
3	GUIDE	used	870058712	6.79	19603	1.000	0.152	0.041	0.121	0.210	161.694136	-25.533829	-174.16	-1826
4	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
5	GUIDE	used	870063952	8.27	19597	1.000	-0.033	0.074	0.149	0.258	161.785917	-24.549213	-2076.45	1179
6	GUIDE	used	870065008	8.94	19575	1.000	-0.093	0.095	0.171	0.297	161.653761	-24.585489	-2342.90	811
7	GUIDE	used	870060416	9.31	19575	1.000	-0.031	-0.210	0.243	0.368	162.151228	-25.161120	204.18	140

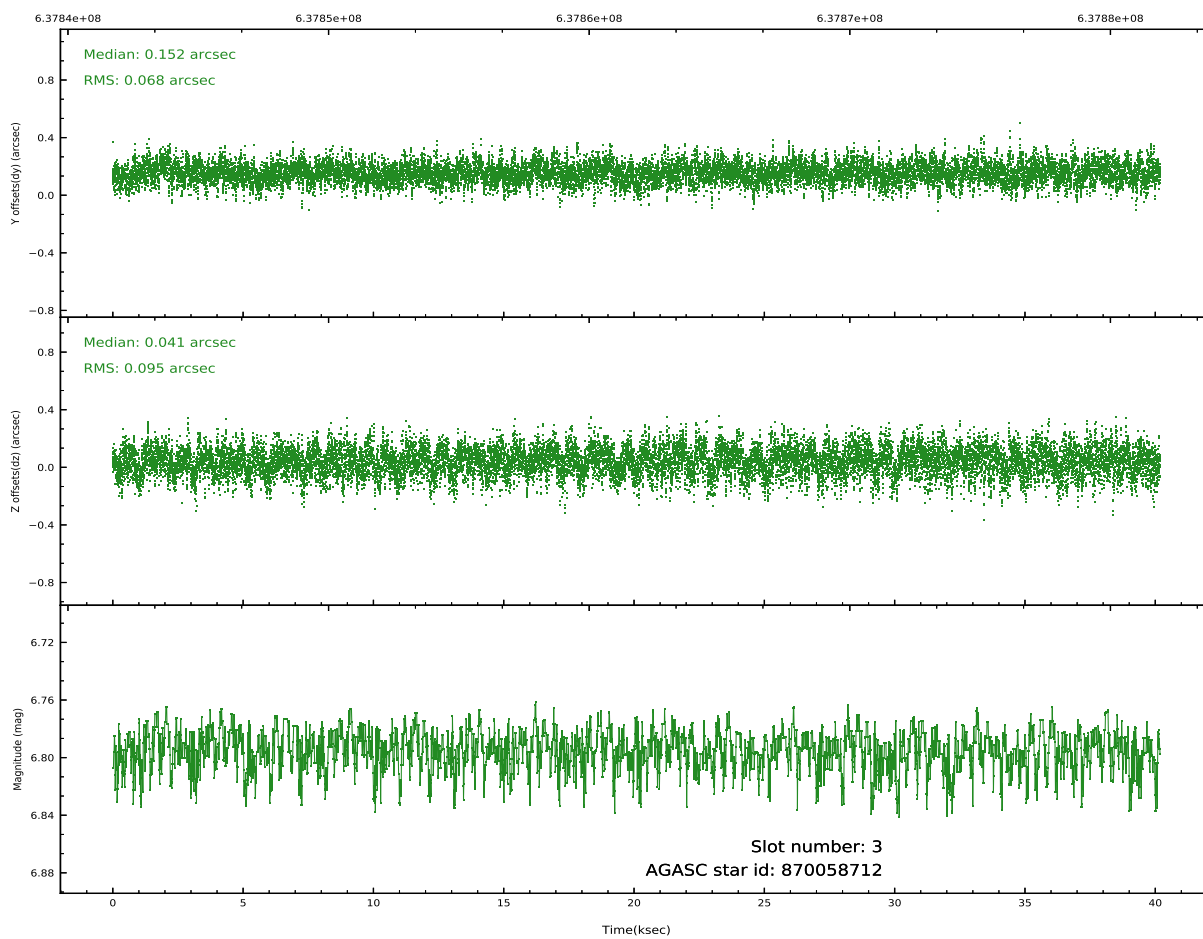
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2.4 Star Slots

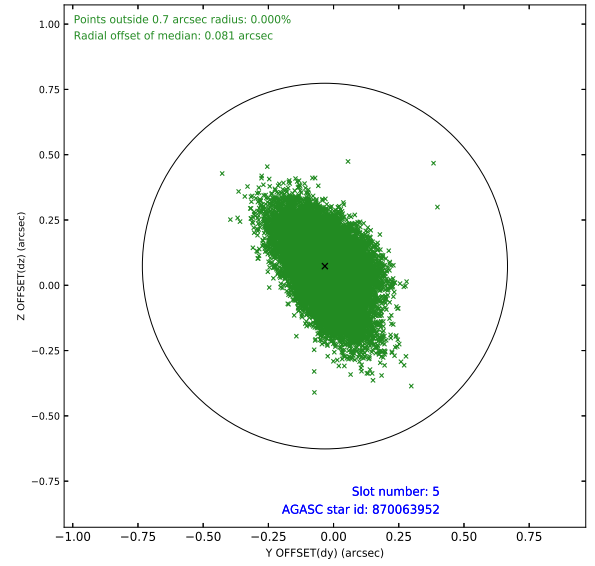
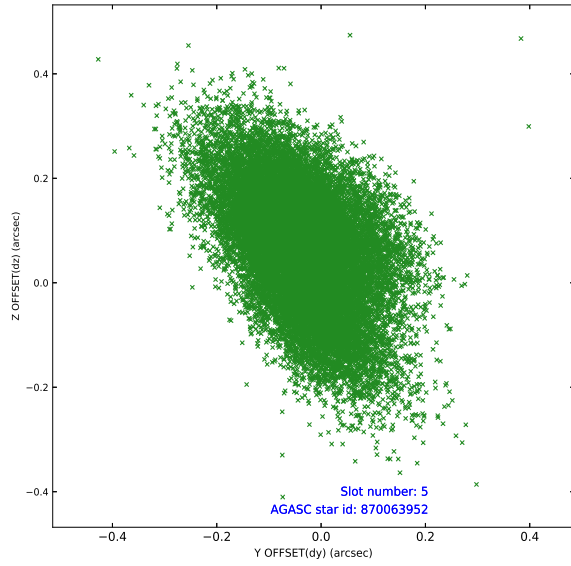
2.4.1 Slot 3



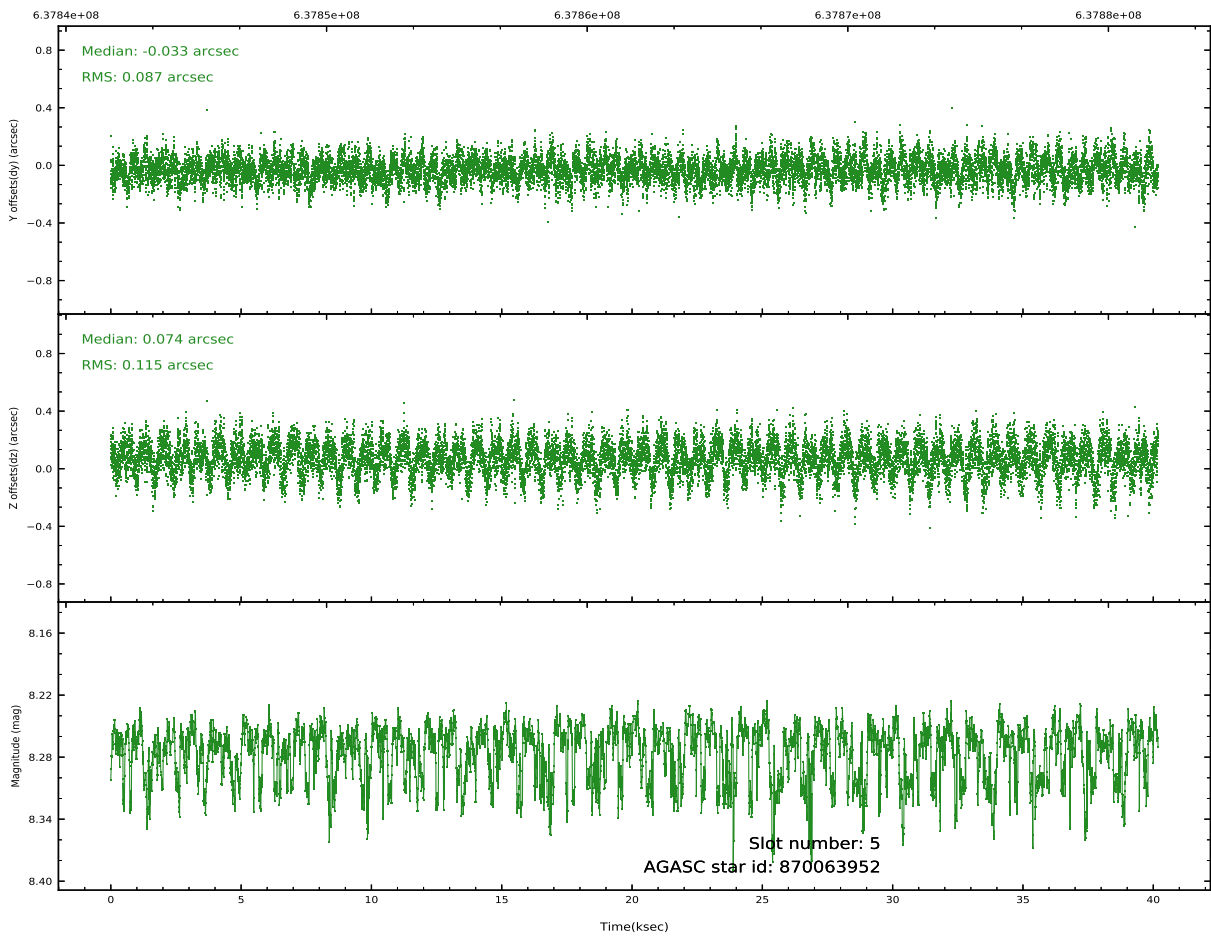
Time (s)



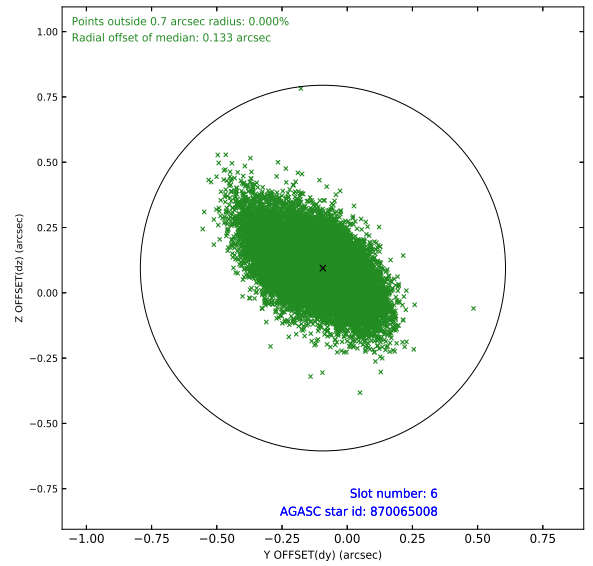
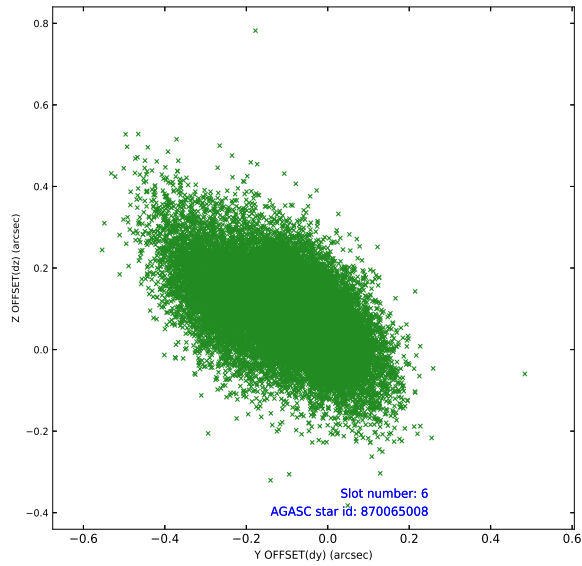
2.4.2 Slot 5



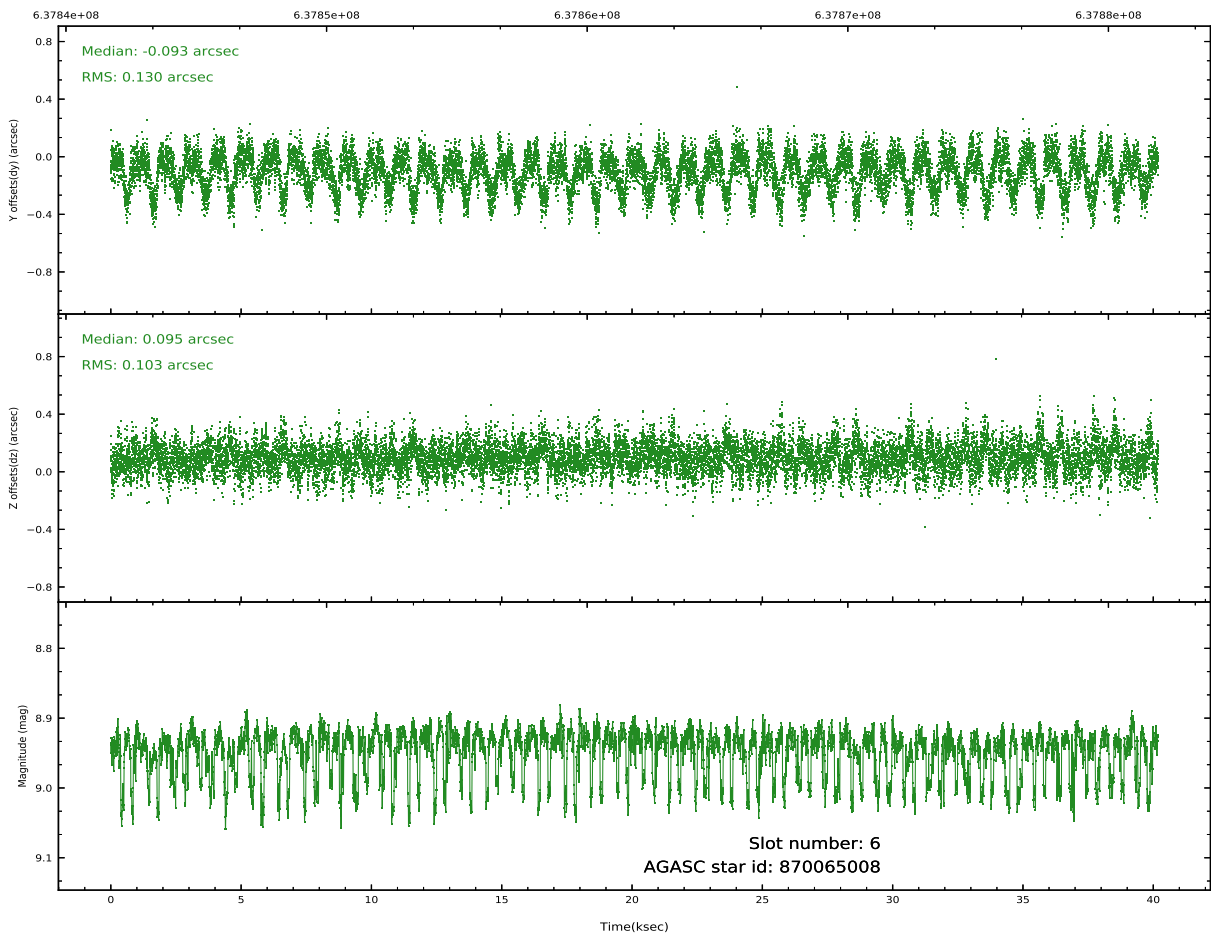
Time (s)



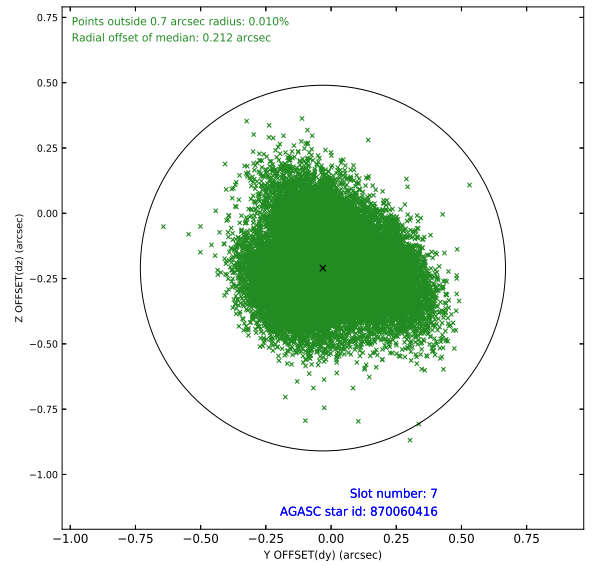
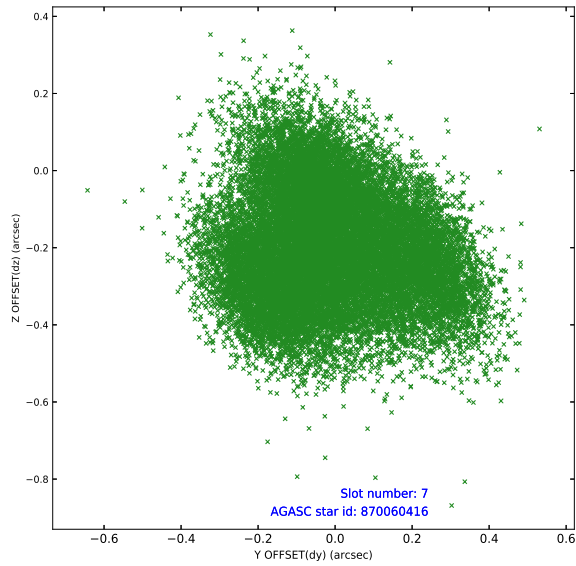
2.4.3 Slot 6



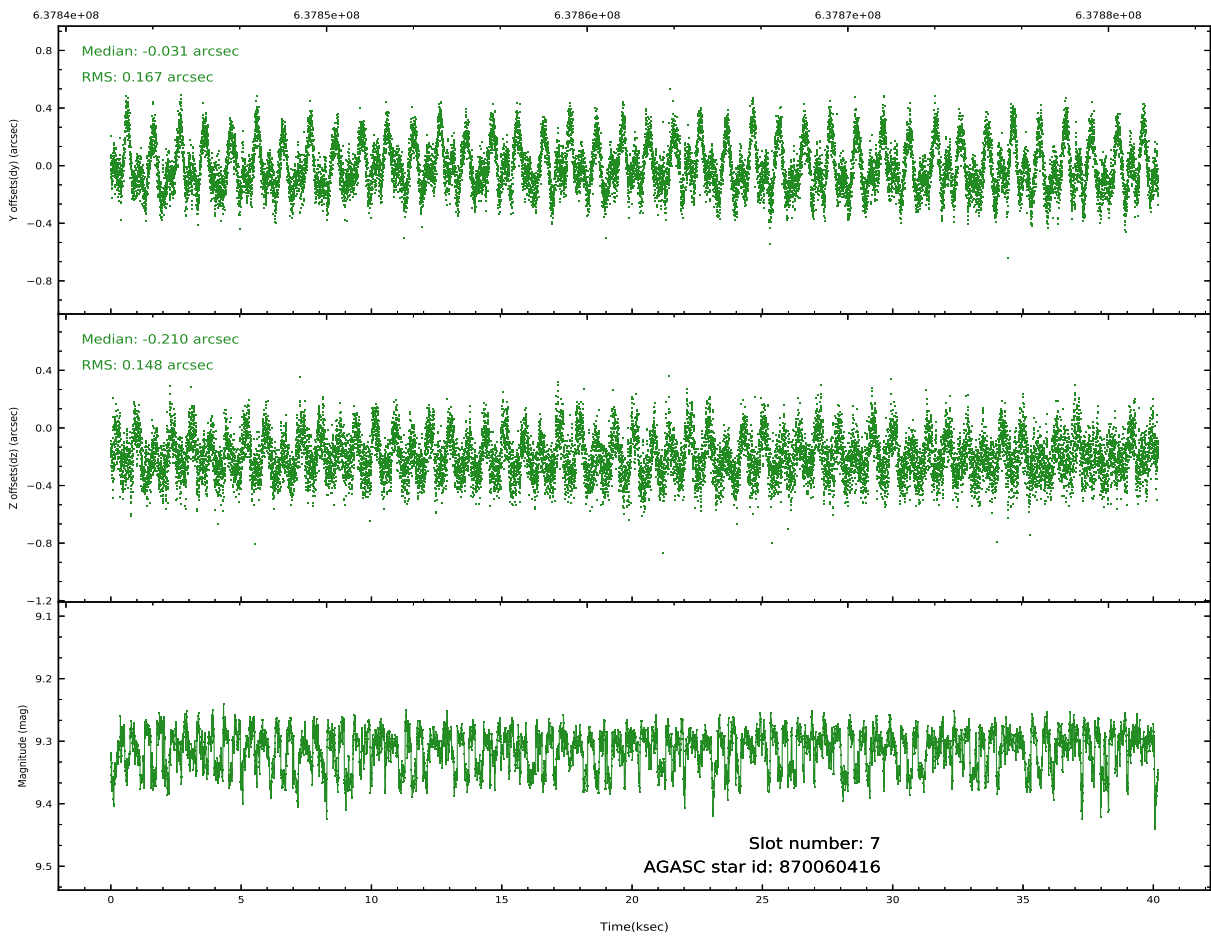
Time (s)



2.4.4 Slot 7

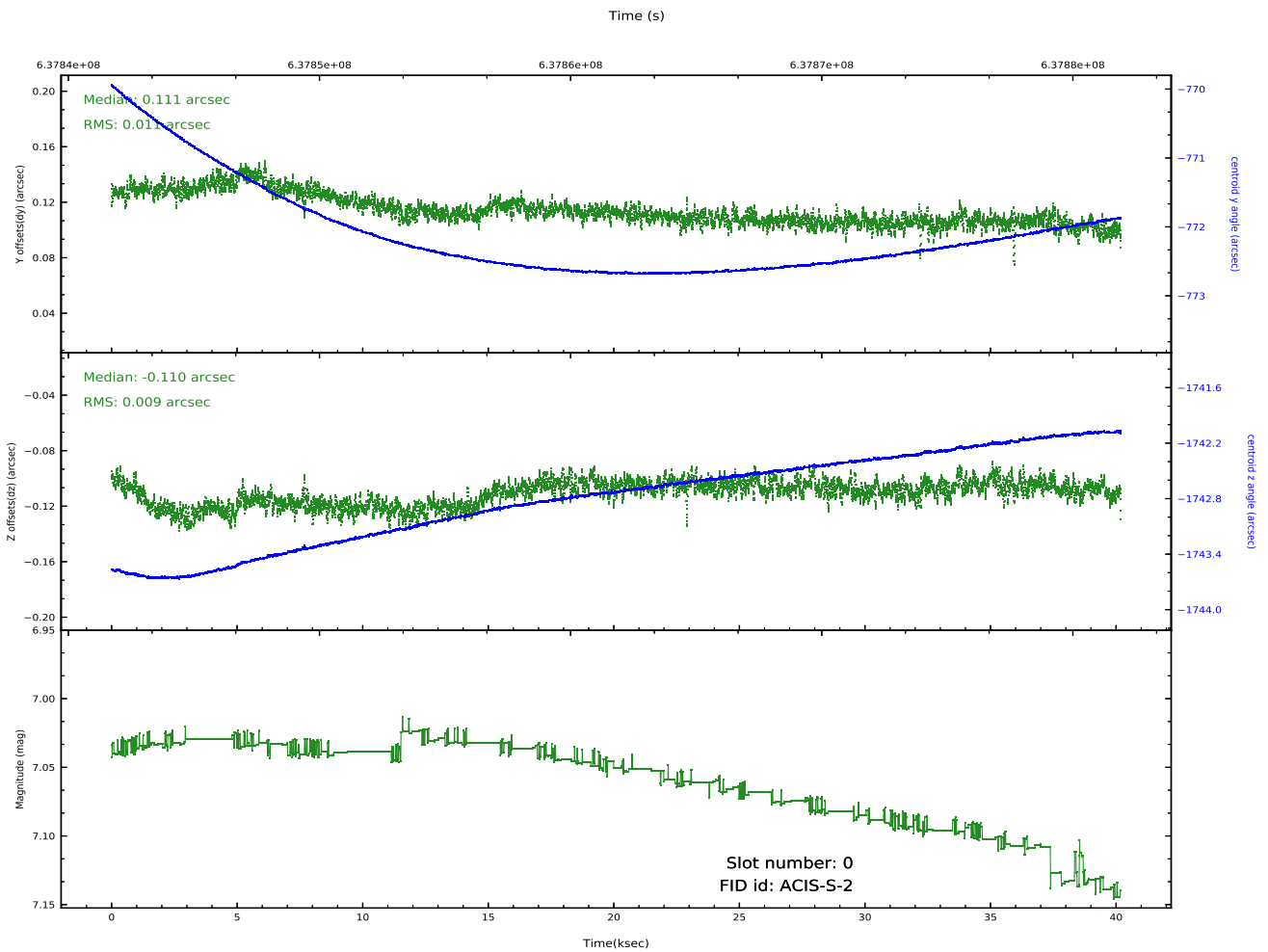
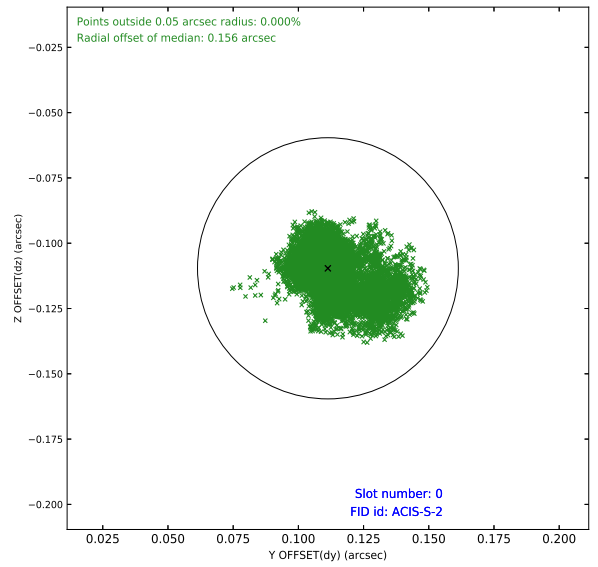
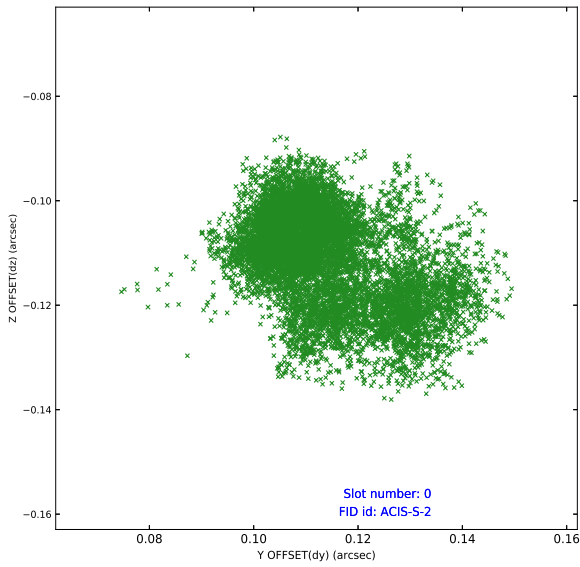


Time (s)

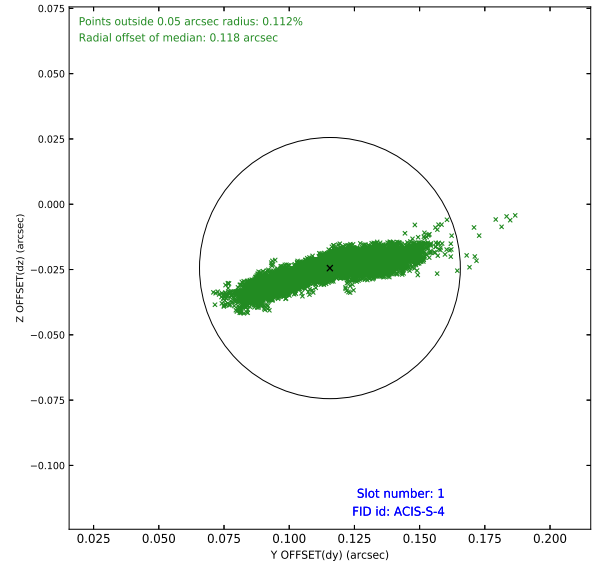
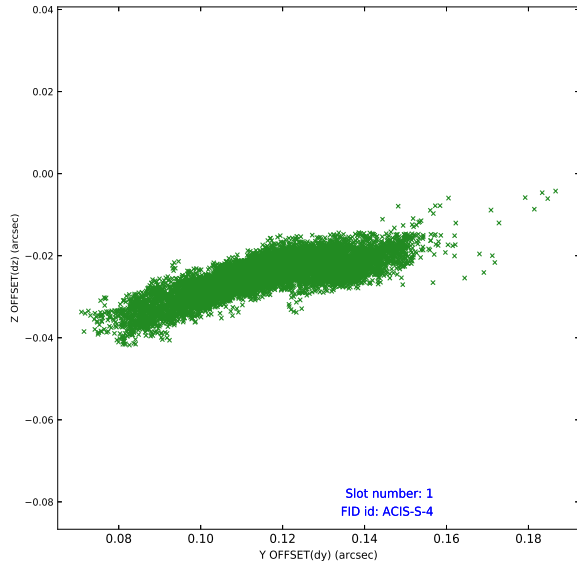


2.5 FID Slots

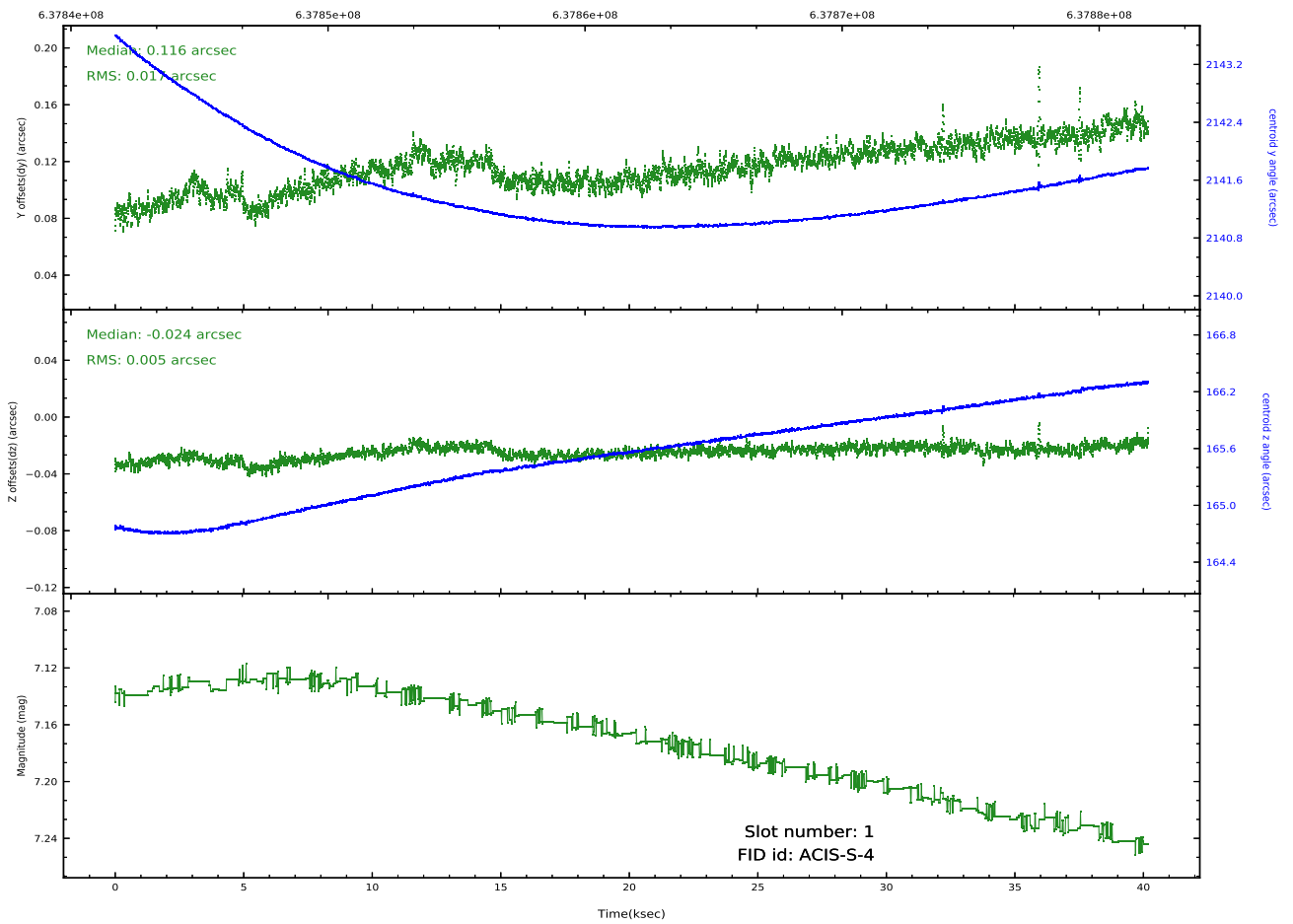
2.5.1 Slot 0



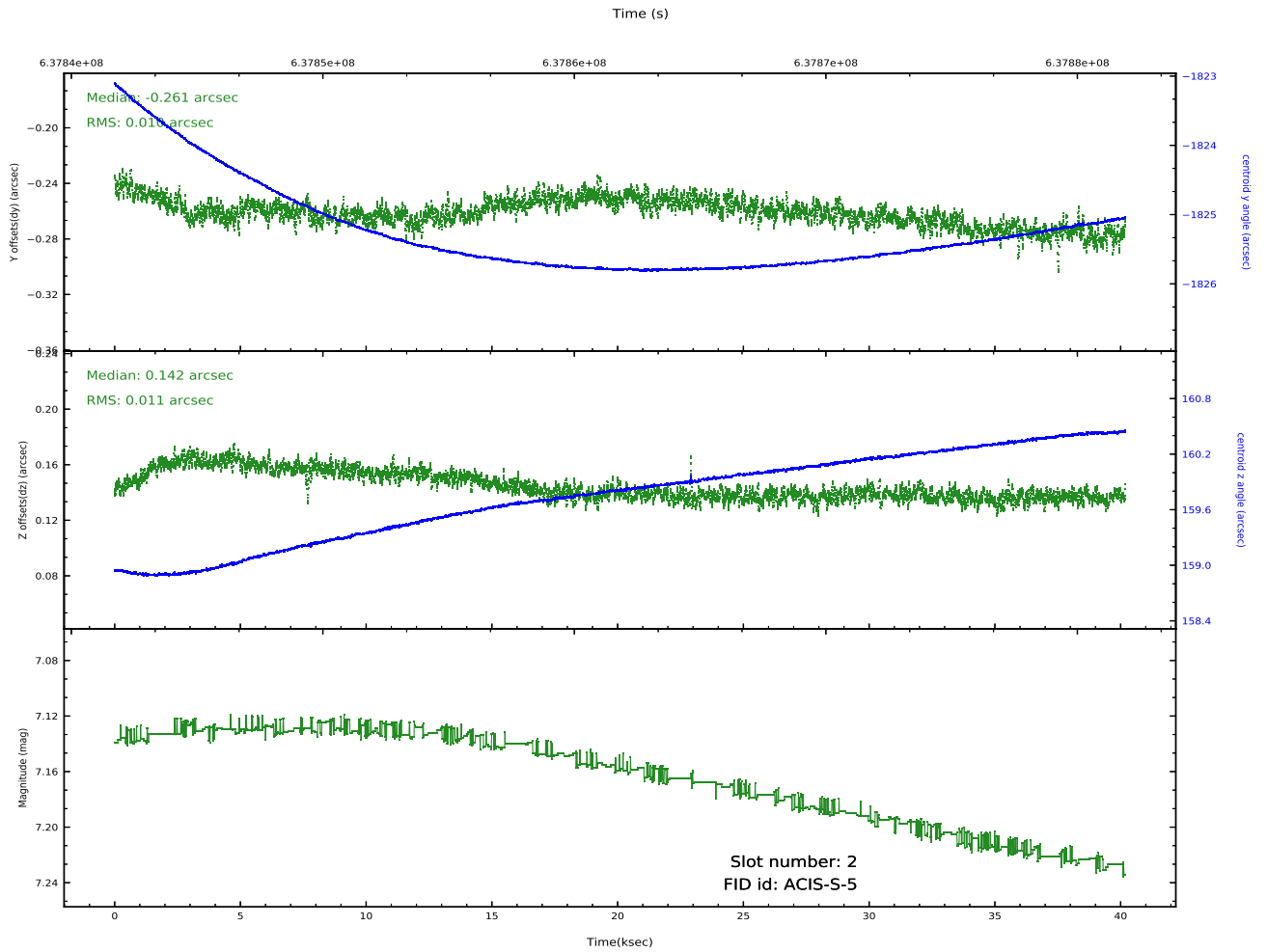
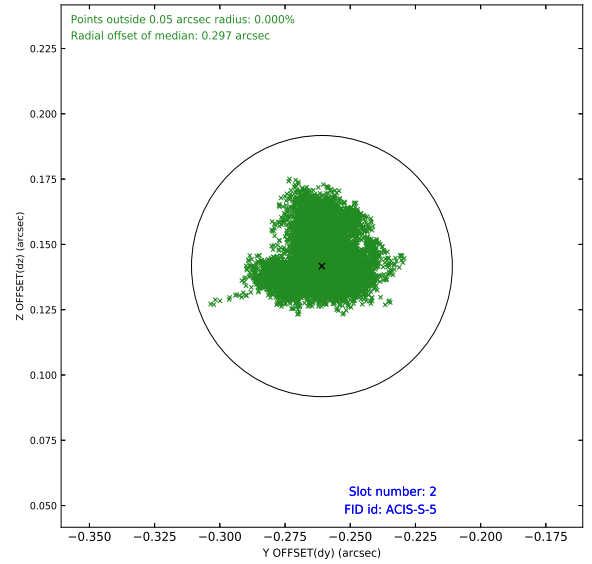
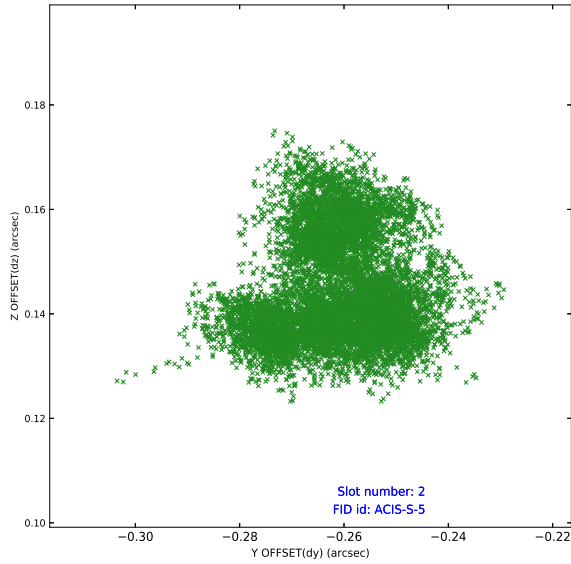
2.5.2 Slot 1



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	40.064400308251

A.2 Comments

The guide star in slot 4 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.

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Joint proposal with NRAO.

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Two optional chips were dropped.