

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5587 - L2 Version 4
Chandra X-Ray Center

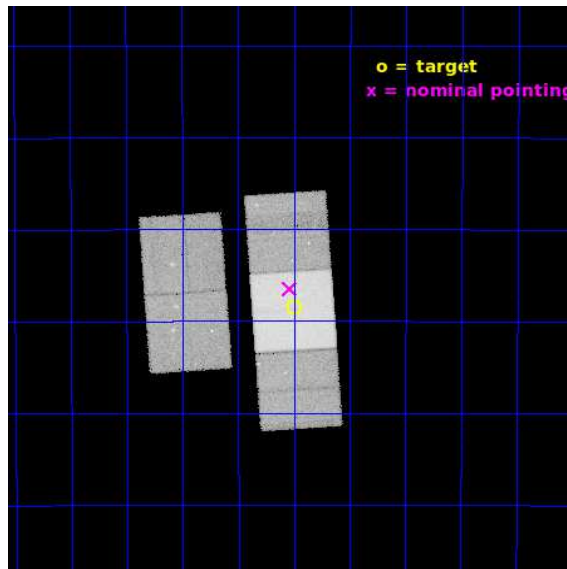
L2 Processing Date : Oct 9 2020

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1 Front

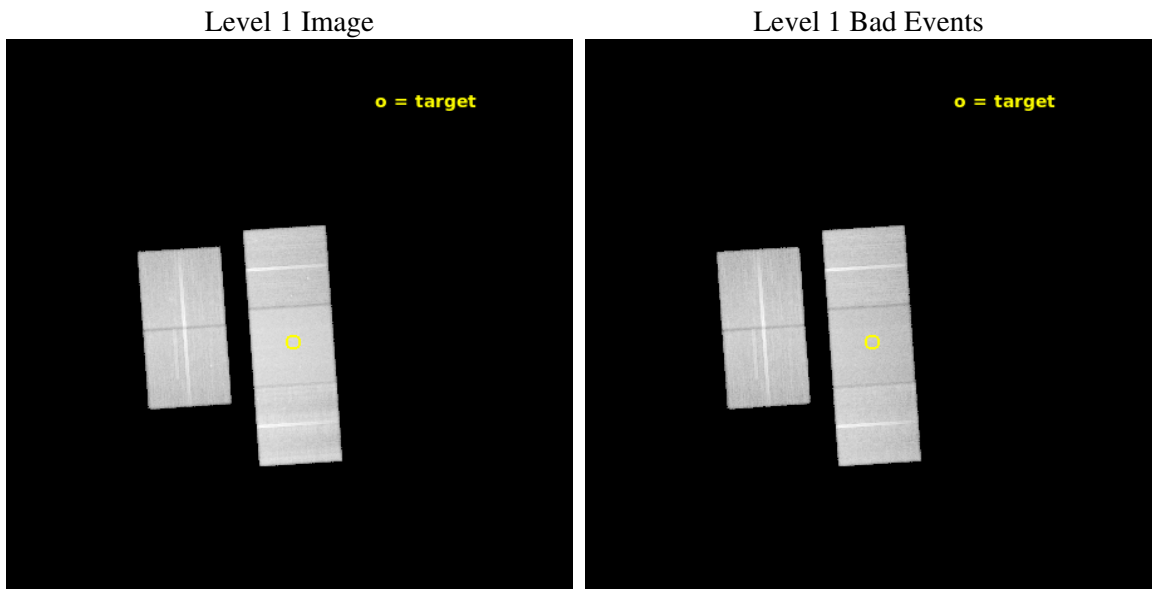
seq_num	500576	Sequence number
obs_id	5587	Observation id
title	Short-Hard Gamma-Ray Burst Afterglows with Chandra	Proposal title
observer	Dr. Dale Frail	Principal investigator
object	GRB050709	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	345.375	Observer's specified target RA [deg]
dec_targ	-38.975833	Observer's specified target Dec [deg]
ra_nom	345.38411125566	Nominal RA [deg]
dec_nom	-38.941199822407	Nominal Dec [deg]
roll_nom	86.094629822162	Nominal Roll [deg]
revision	4	Processing version of data
ontime	44159.327149779	Sum of GTIs [s]
livetime	43582.353030943	Livetime [s]
ontime2	44152.88100934	Sum of GTIs [s]
ontime3	44152.963198841	Sum of GTIs [s]
ontime6	44156.145119548	Sum of GTIs [s]
ontime7	44159.327149779	Sum of GTIs [s]
ontime8	44159.204029769	Sum of GTIs [s]
l2events	353441	Number of level 2 events



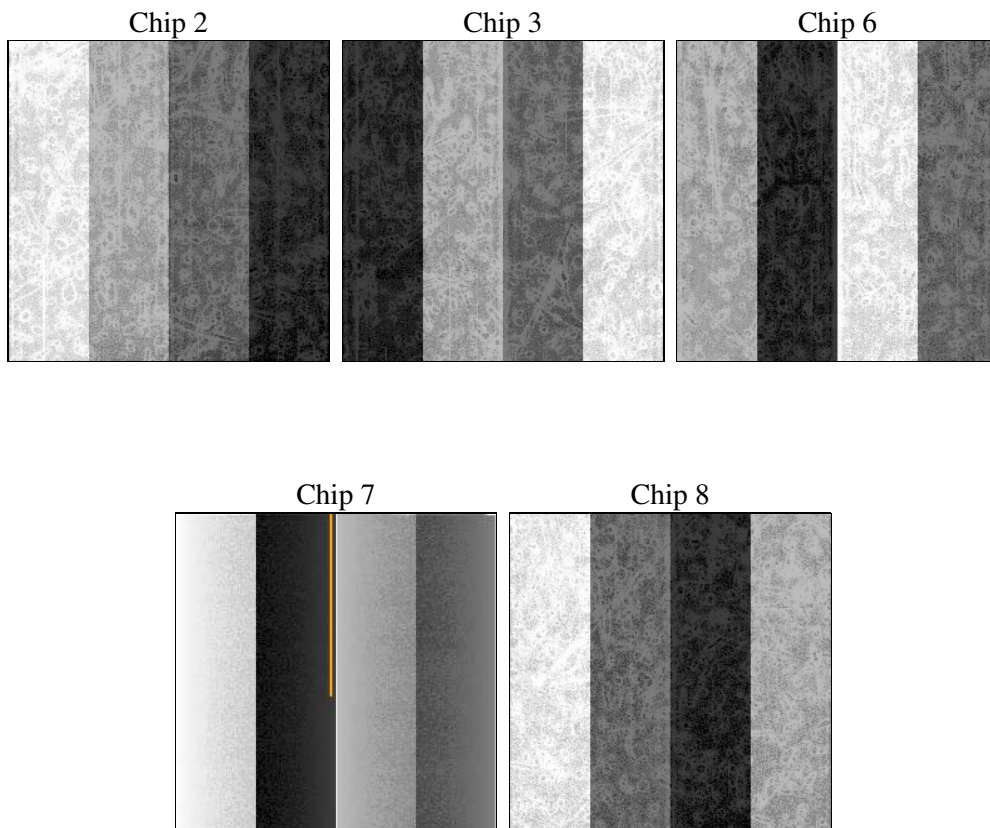
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	44000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	44159.327149779	Sum of GTIs [s]
caldbver	4.9.2	 	ontime2	44152.88100934	Sum of GTIs [s]
date	2020-10-09T08:58:31	Date and time of file creation	ontime3	44152.963198841	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	44156.145119548	Sum of GTIs [s]
			ontime7	44159.327149779	Sum of GTIs [s]
			ontime8	44159.204029769	Sum of GTIs [s]
			l1events	1911233	Number of level 1 events

2.1.4 Events

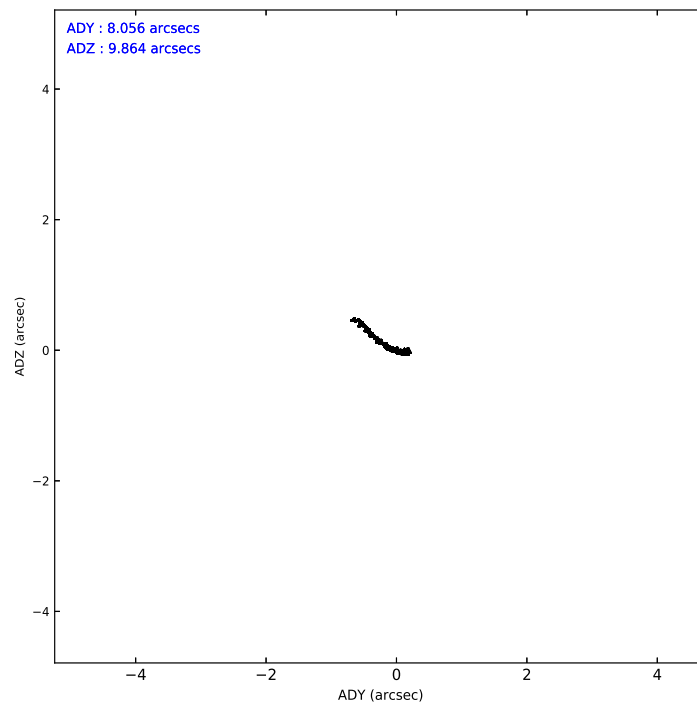
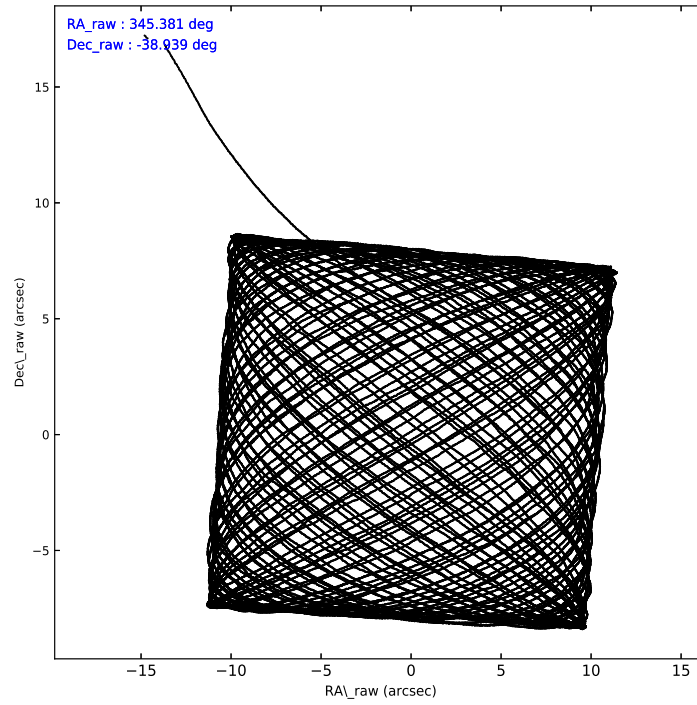
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	325725	332751	344624	458827	449306
rejected events	280896	287164	297490	264951	331029
rejected %	86%	86%	86%	57%	73%

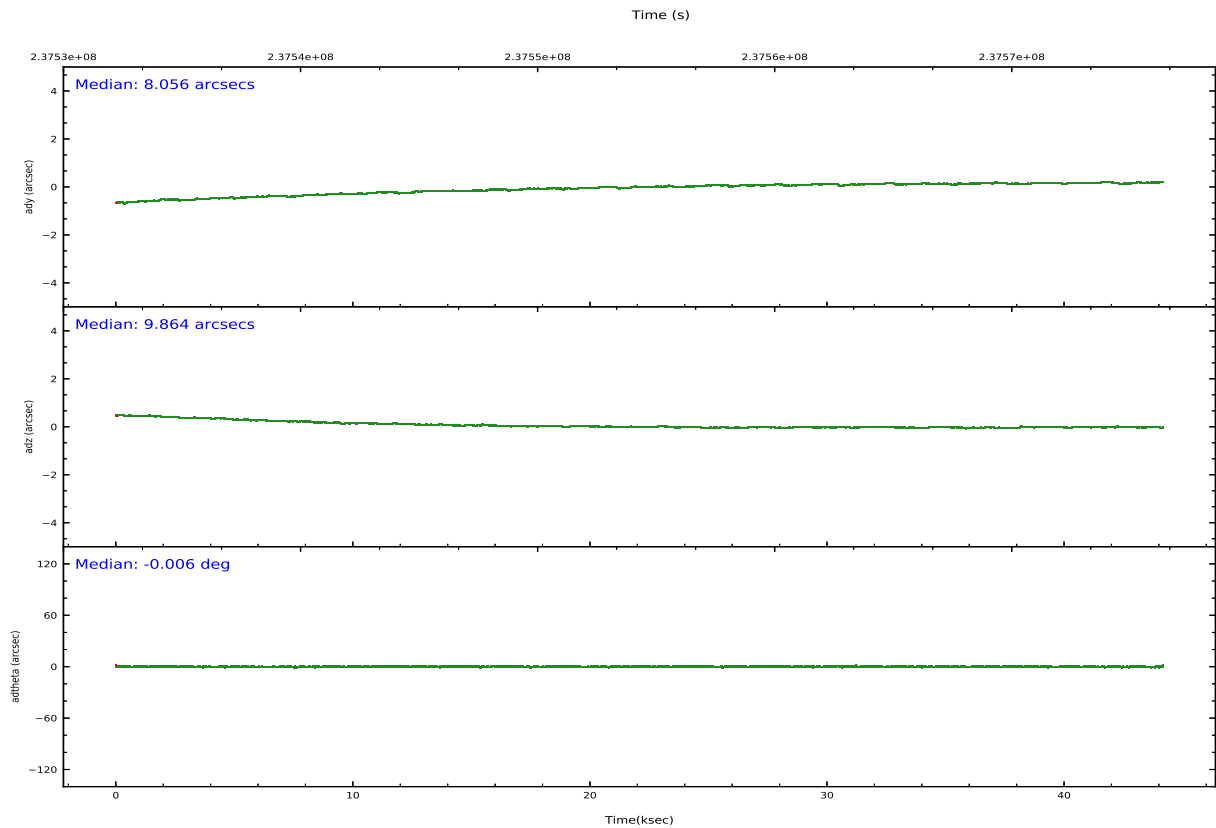
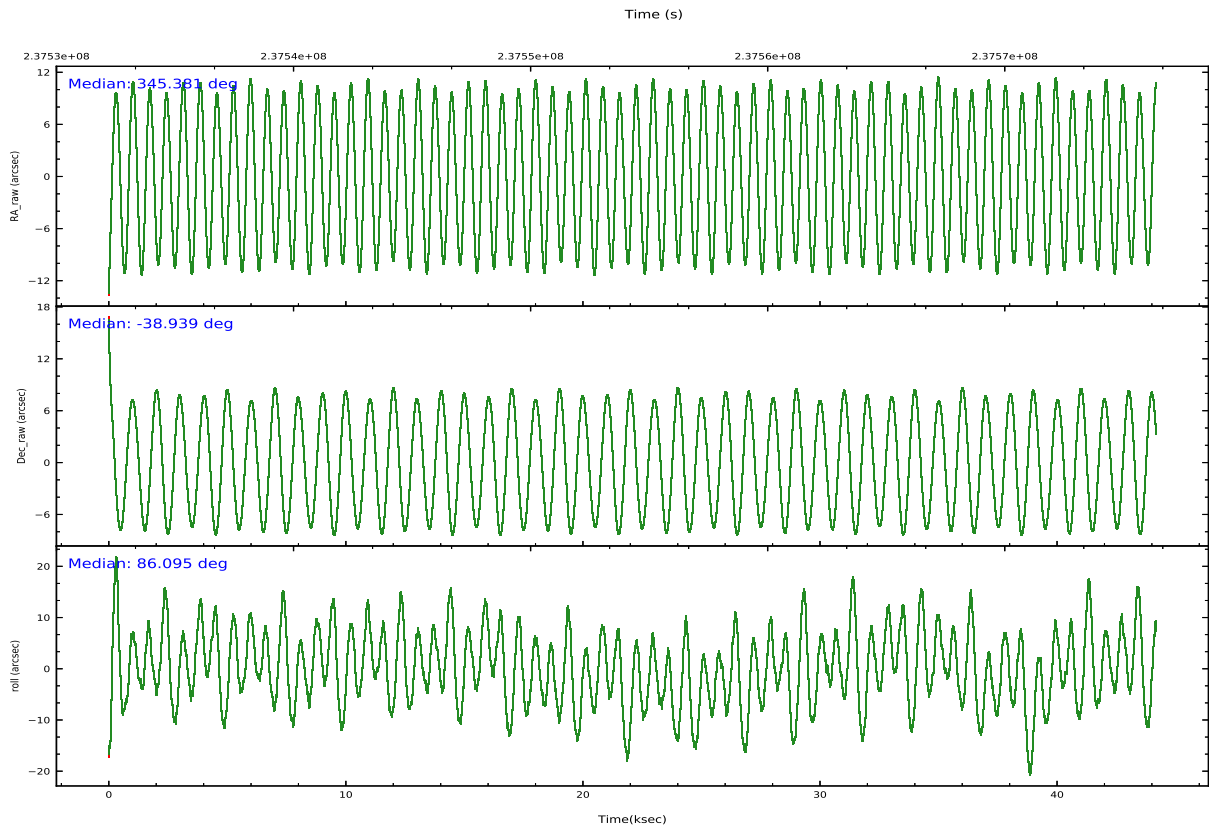
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	20257	20157	19539	17221	40808
	6%	6%	5%	3%	9%
grade 1 events	188	224	175	440	339
	0%	0%	0%	0%	0%
grade 2 events	9573	9779	10838	38095	23456
	2%	2%	3%	8%	5%
grade 3 events	3764	3781	3908	16842	14400
	1%	1%	1%	3%	3%
grade 4 events	3857	3949	3904	16875	13192
	1%	1%	1%	3%	2%
grade 5 events	12781	14812	15247	42927	20502
	3%	4%	4%	9%	4%
grade 6 events	7381	7925	8946	104855	26428
	2%	2%	2%	22%	5%
grade 7 events	267924	272124	282067	221572	310181
	82%	81%	81%	48%	69%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-23678	ACIS-23678	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	345.396381	345.38411125566	Subarray requested	NONE	NONE
[deg] Pointing Dec	-38.962983	-38.941199822407	Alternating exposures requested	N	N
[deg] Pointing Roll	85.943283	86.09462982216201	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	237532387.184000	237531398.82875			
Observation start date	2005-07-12T05:12:03	2005-07-12T04:56:38			
[s] Observation end time (MET)	237576387.184000	237576790.44332			
Observation end date	2005-07-12T17:25:23	2005-07-12T17:33:10			
Read mode	TIMED	TIMED			

2.3 Aspect





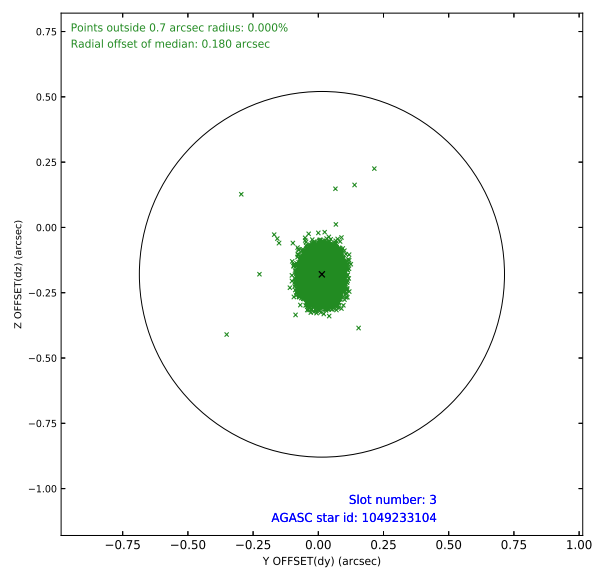
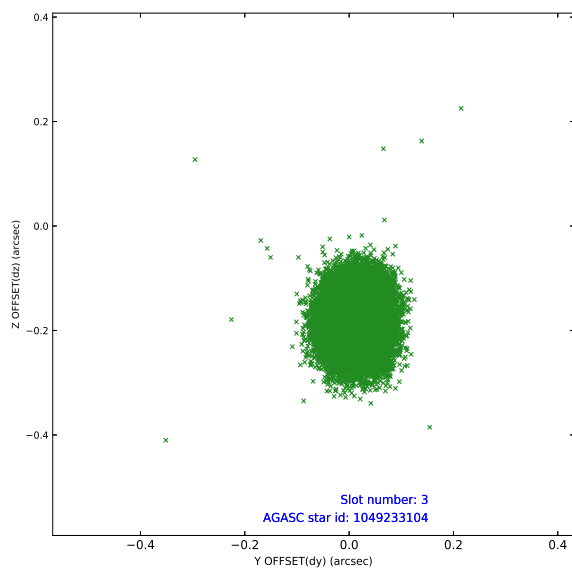
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.10	10776	1.000	-0.074	-0.070	0.008	0.015	0.000000	0.000000	-760.75	-1731
1	FID		ACIS-S-4	7.20	10775	1.000	0.183	0.054	0.014	0.023	0.000000	0.000000	2152.70	177
2	FID		ACIS-S-5	7.23	10776	1.000	-0.142	0.025	0.015	0.030	0.000000	0.000000	-1813.74	170
3	GUIDE	used	1049233104	7.90	21550	1.000	0.014	-0.180	0.063	0.097	345.317260	-38.843726	412.62	251
4	GUIDE	used	1049234872	6.69	21551	1.000	-0.216	0.140	0.055	0.086	345.874120	-38.433441	1993.43	-1208
5	GUIDE	used	1049235968	9.64	21535	1.000	0.075	0.068	0.089	0.144	345.601758	-39.176537	-726.59	-625
6	GUIDE	used	1049240648	9.62	21540	1.000	0.126	-0.028	0.102	0.165	345.398802	-39.445998	-1733.72	-129
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0

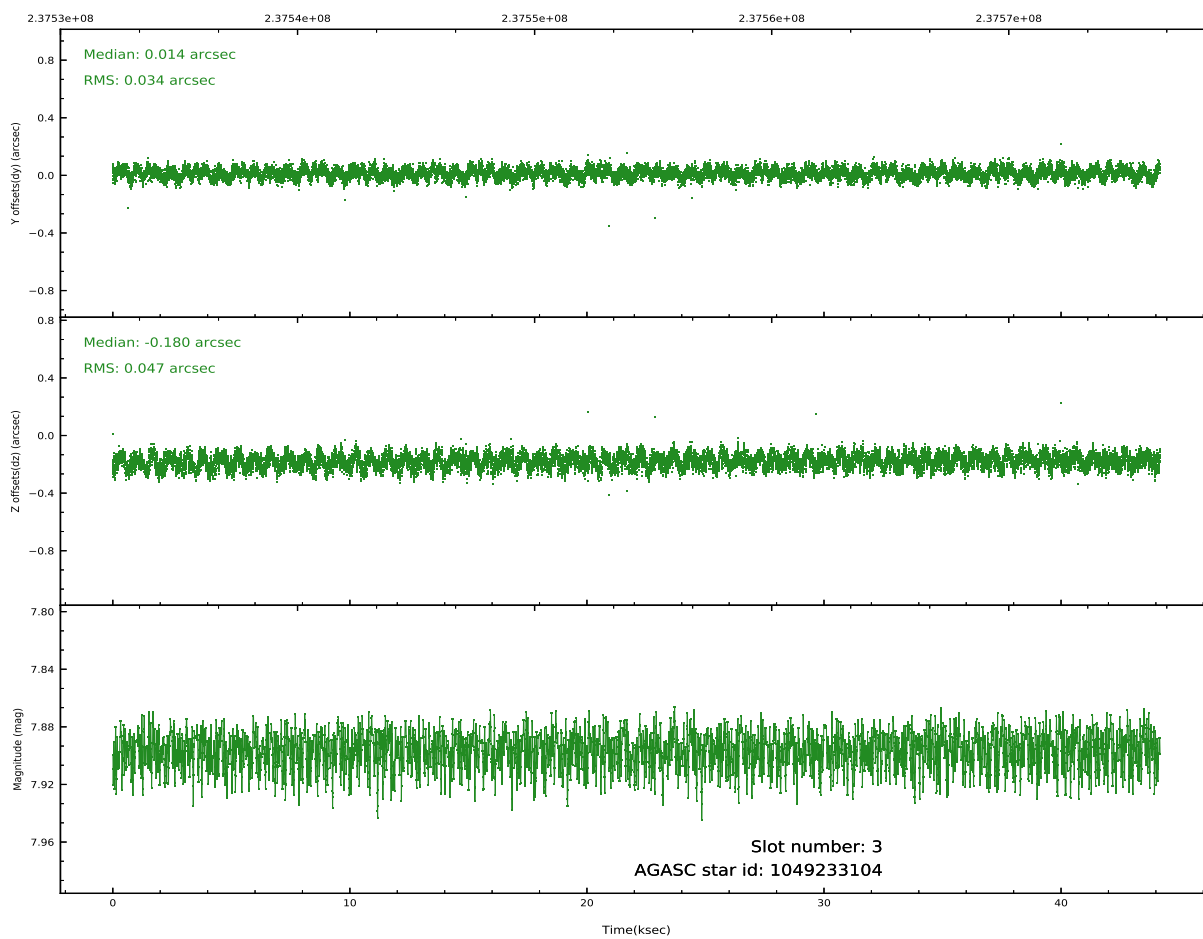
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2.4 Star Slots

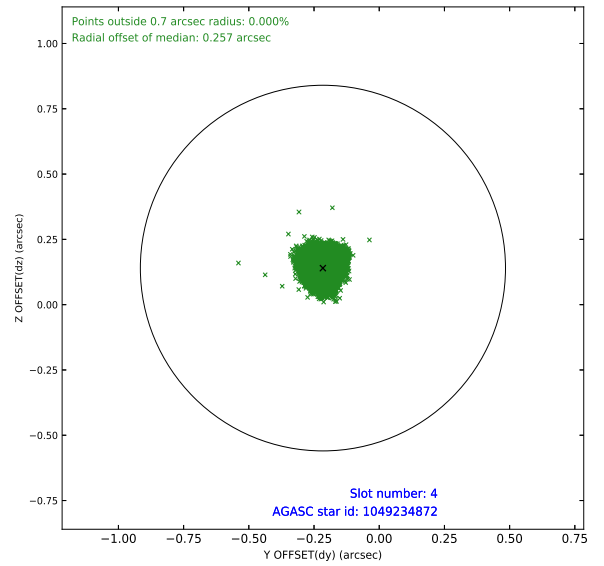
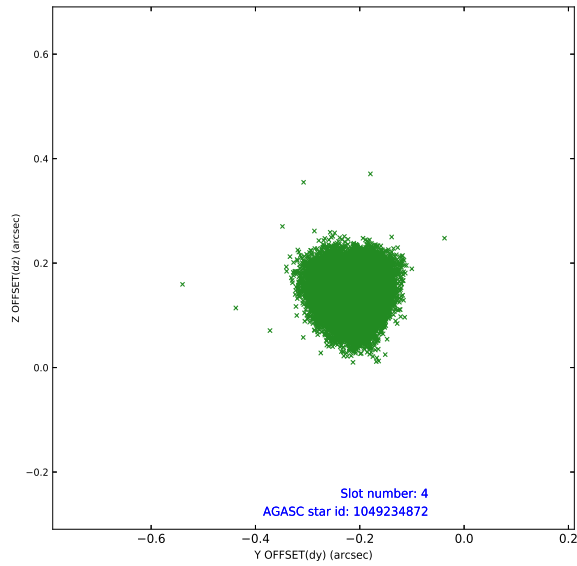
2.4.1 Slot 3



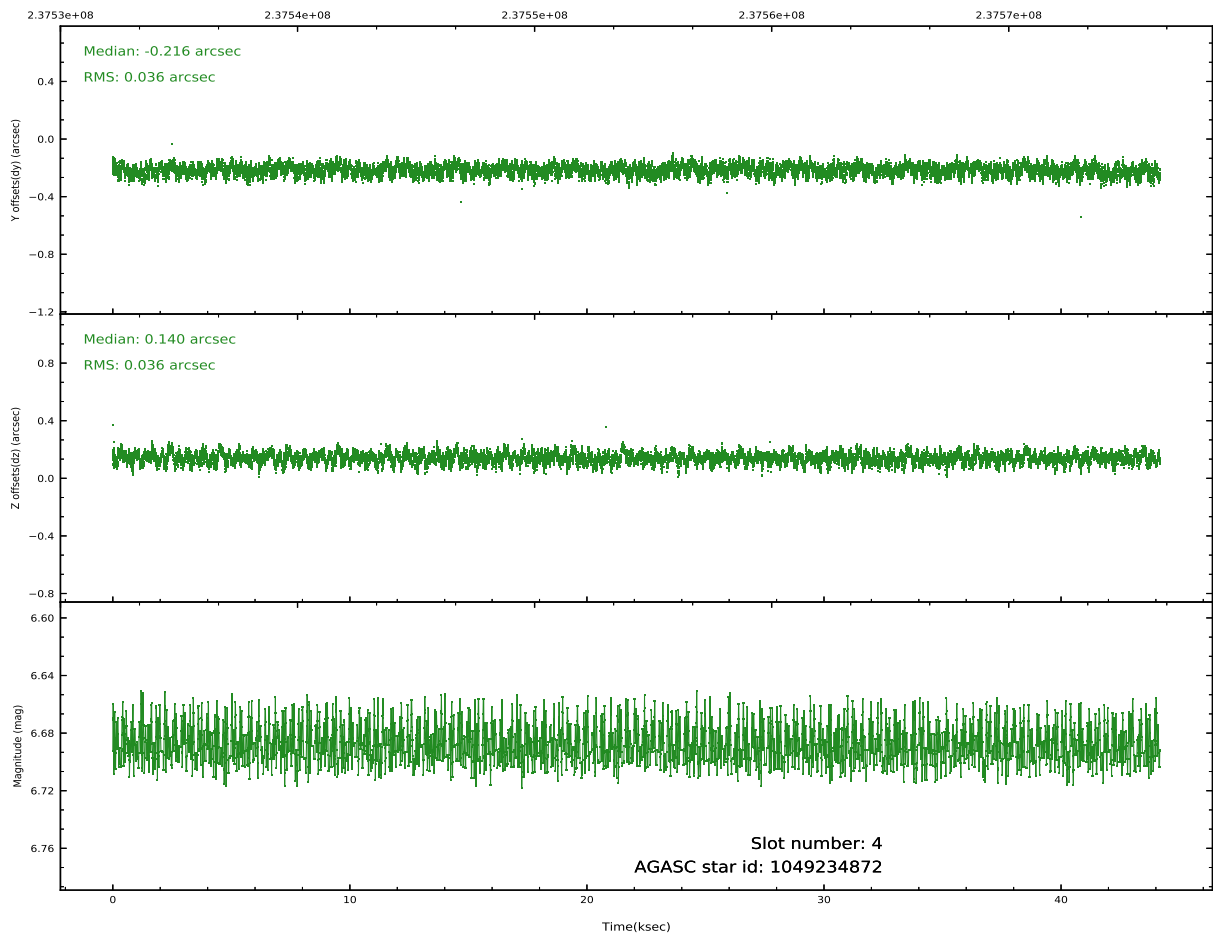
Time (s)



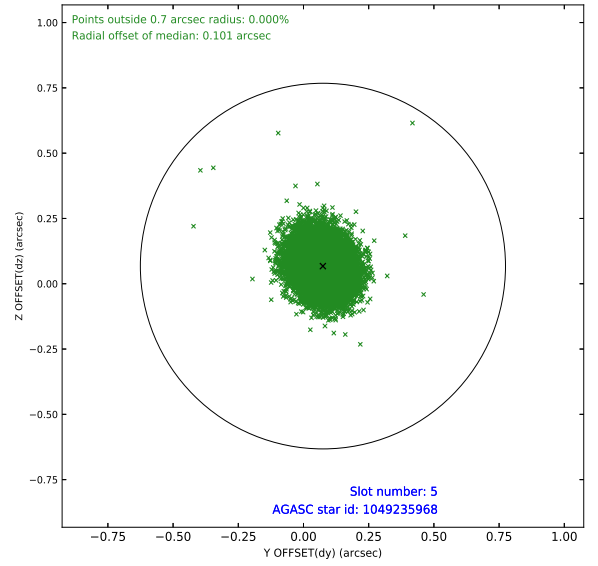
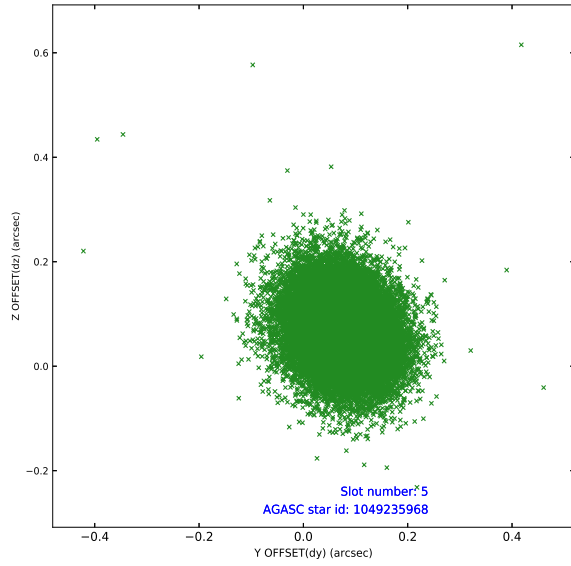
2.4.2 Slot 4



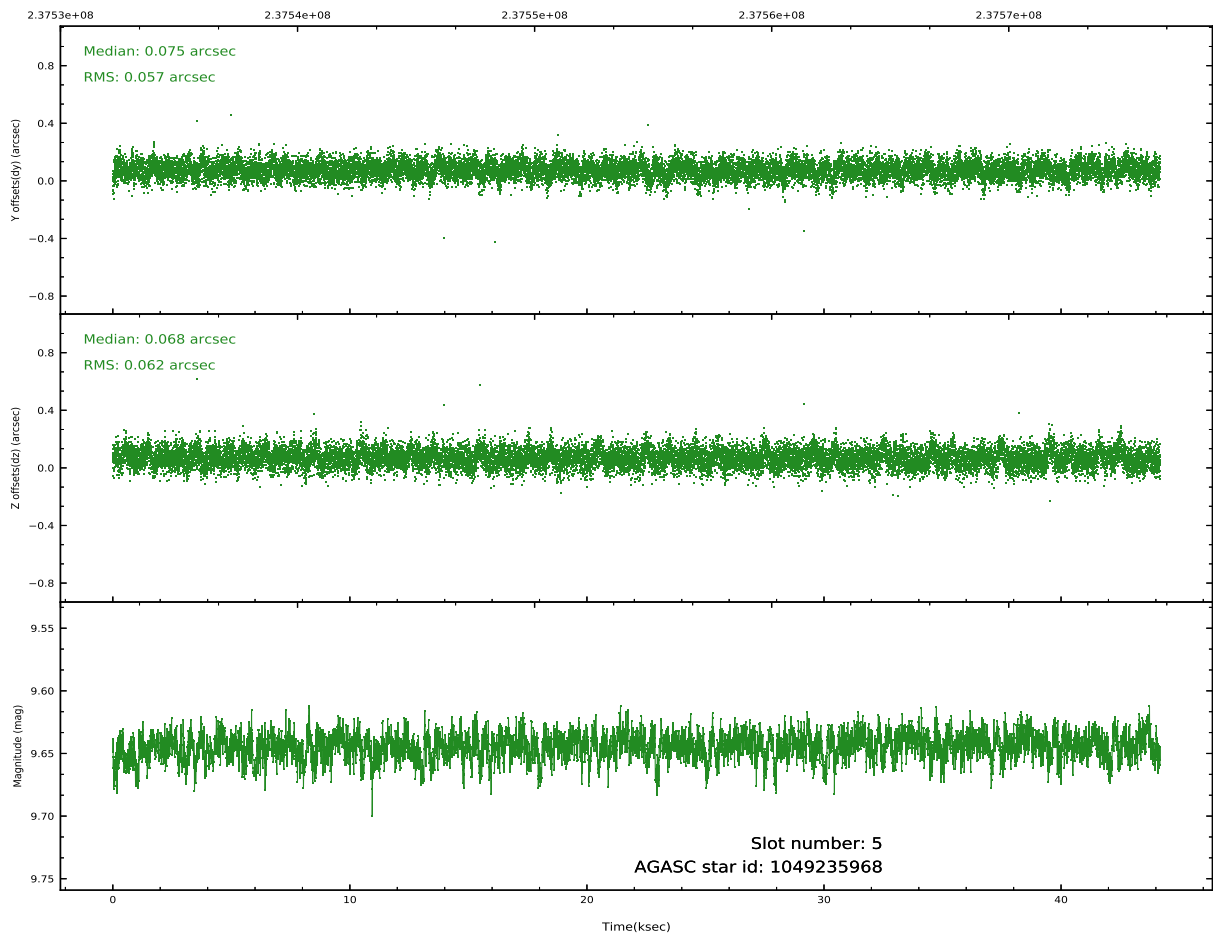
Time (s)



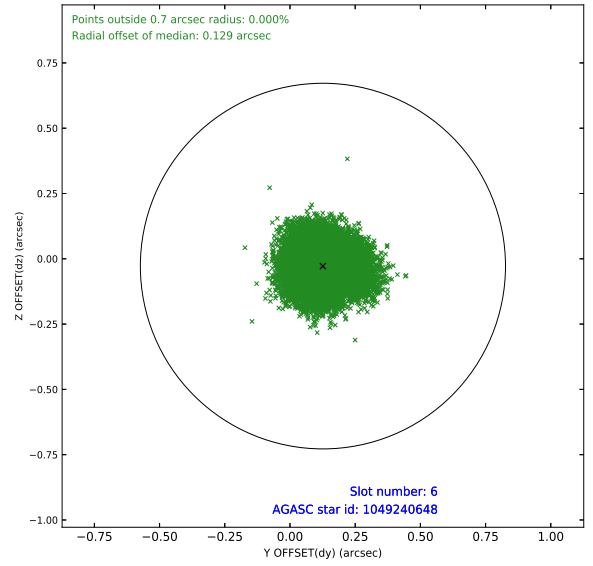
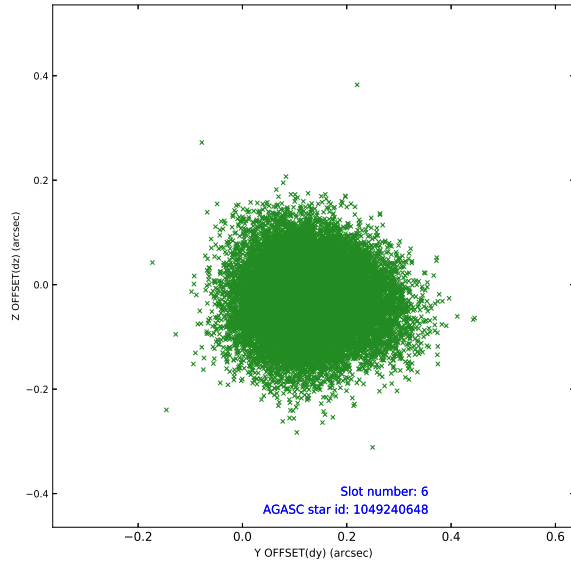
2.4.3 Slot 5



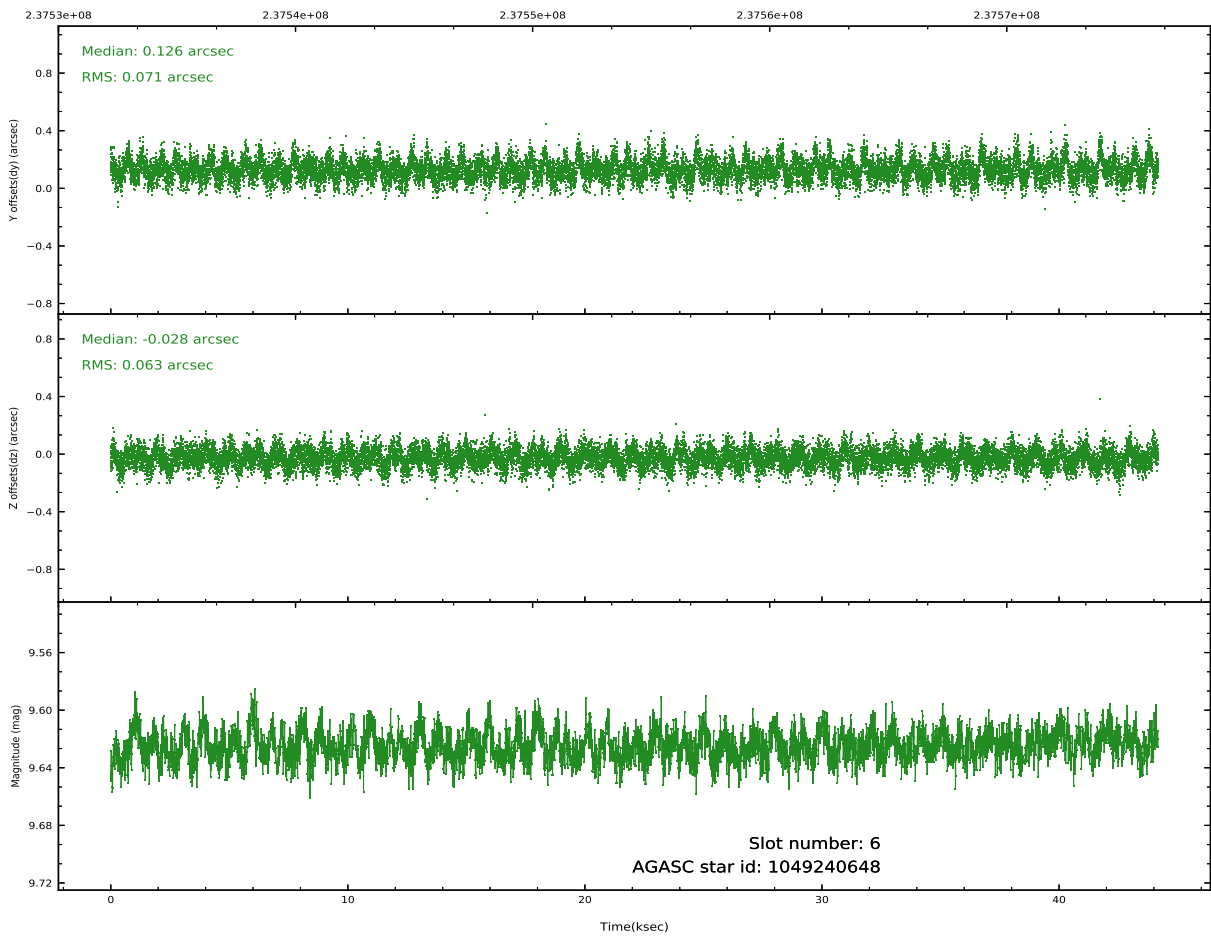
Time (s)



2.4.4 Slot 6

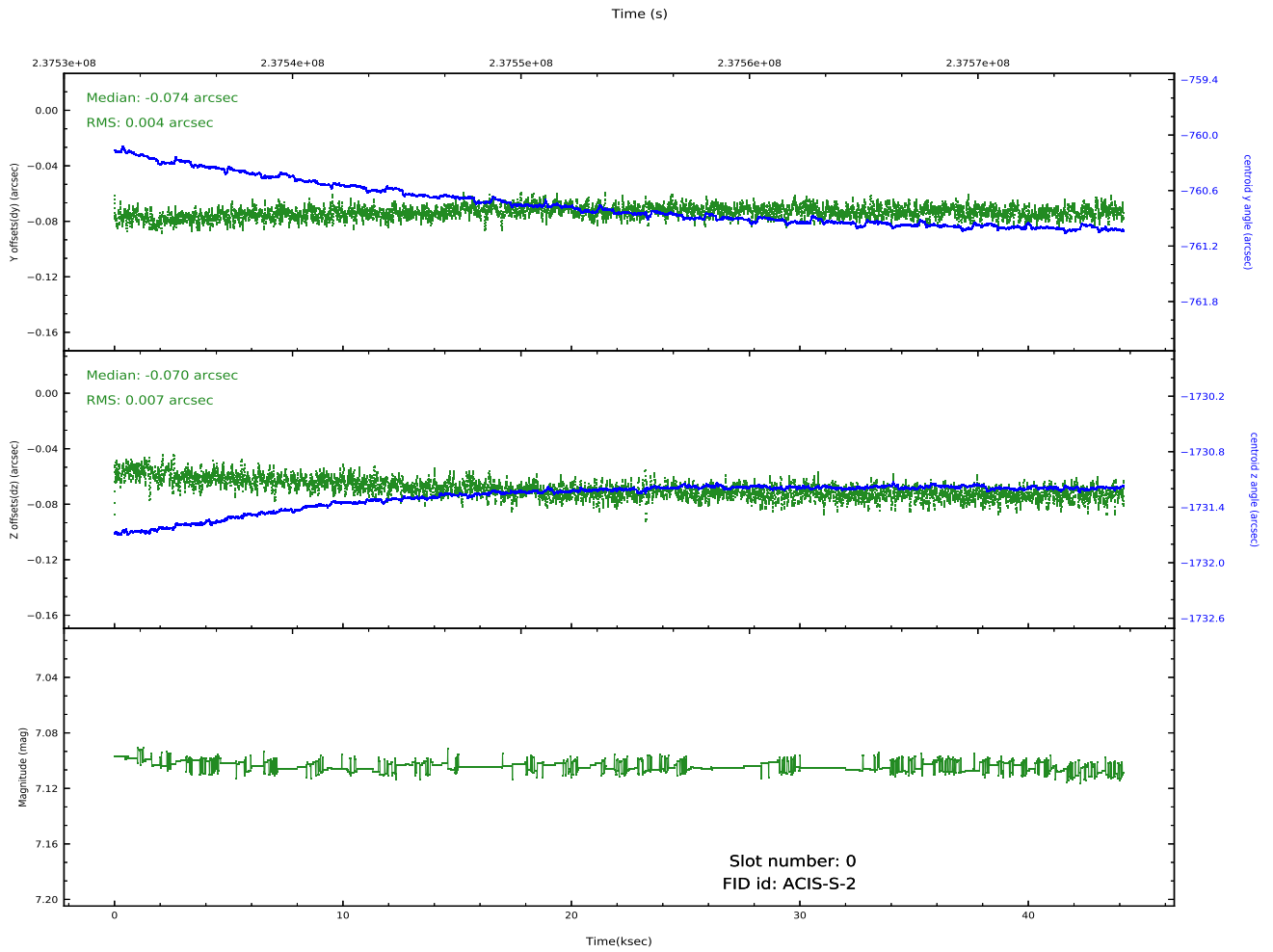
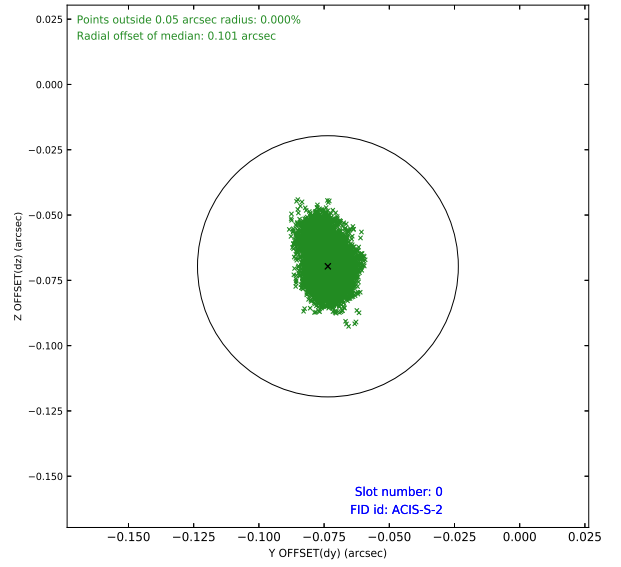
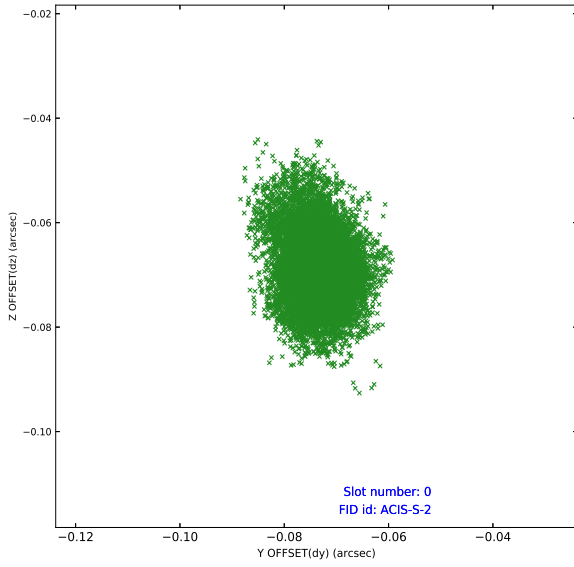


Time (s)

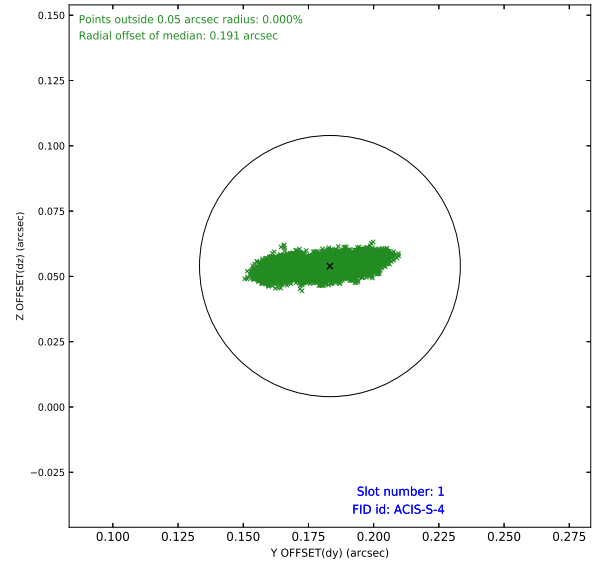
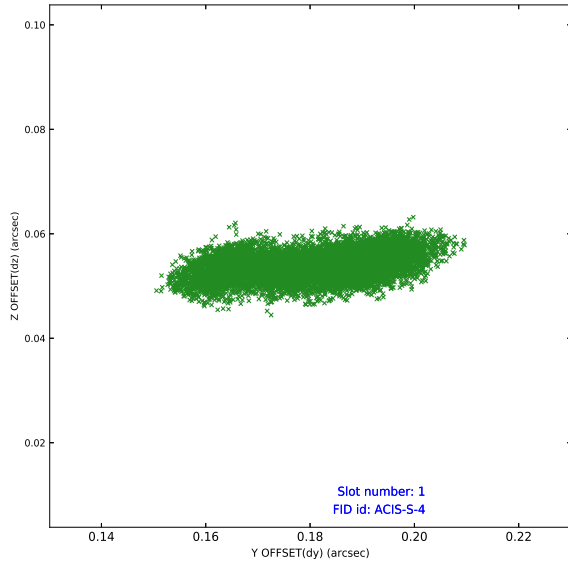


2.5 FID Slots

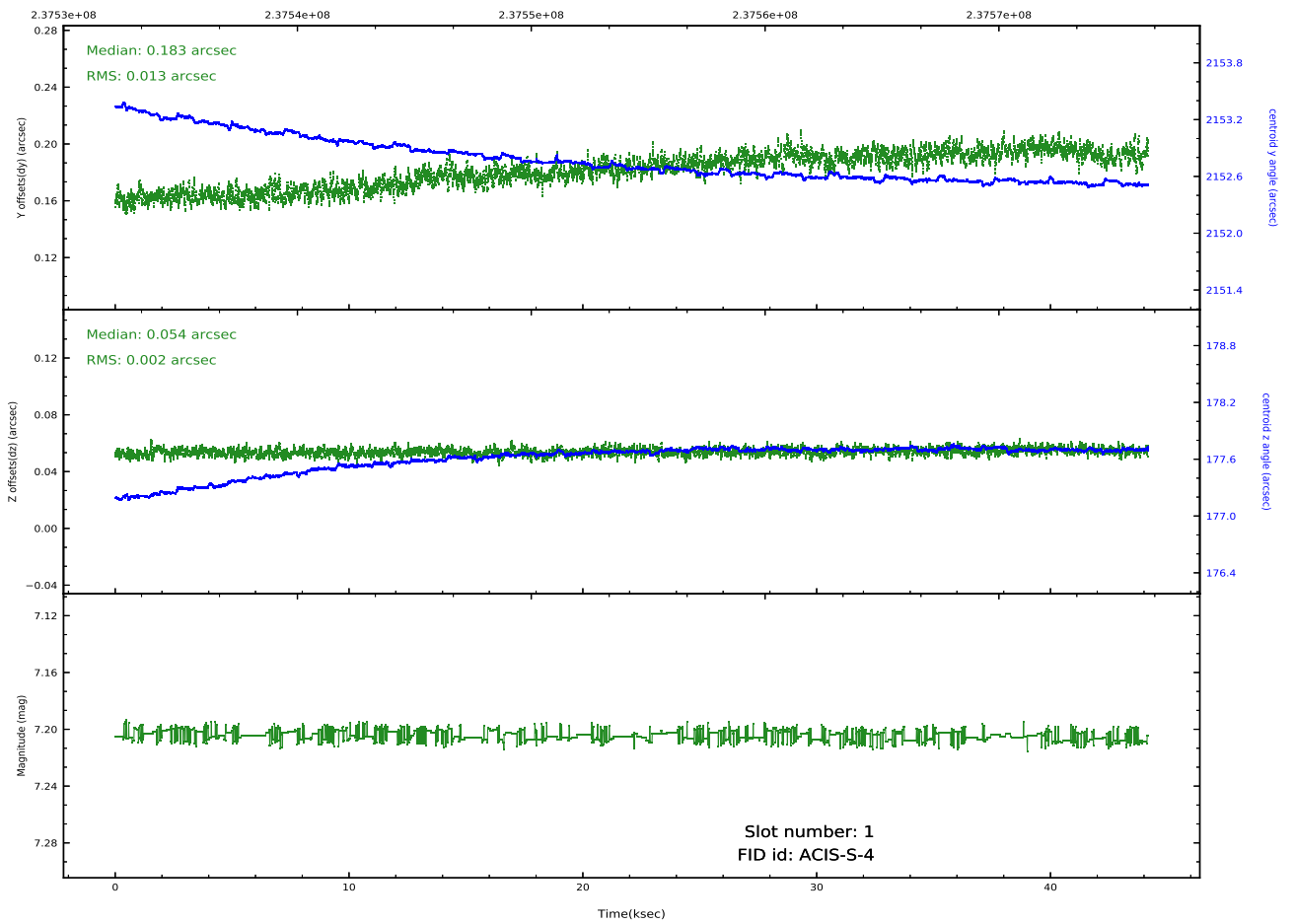
2.5.1 Slot 0



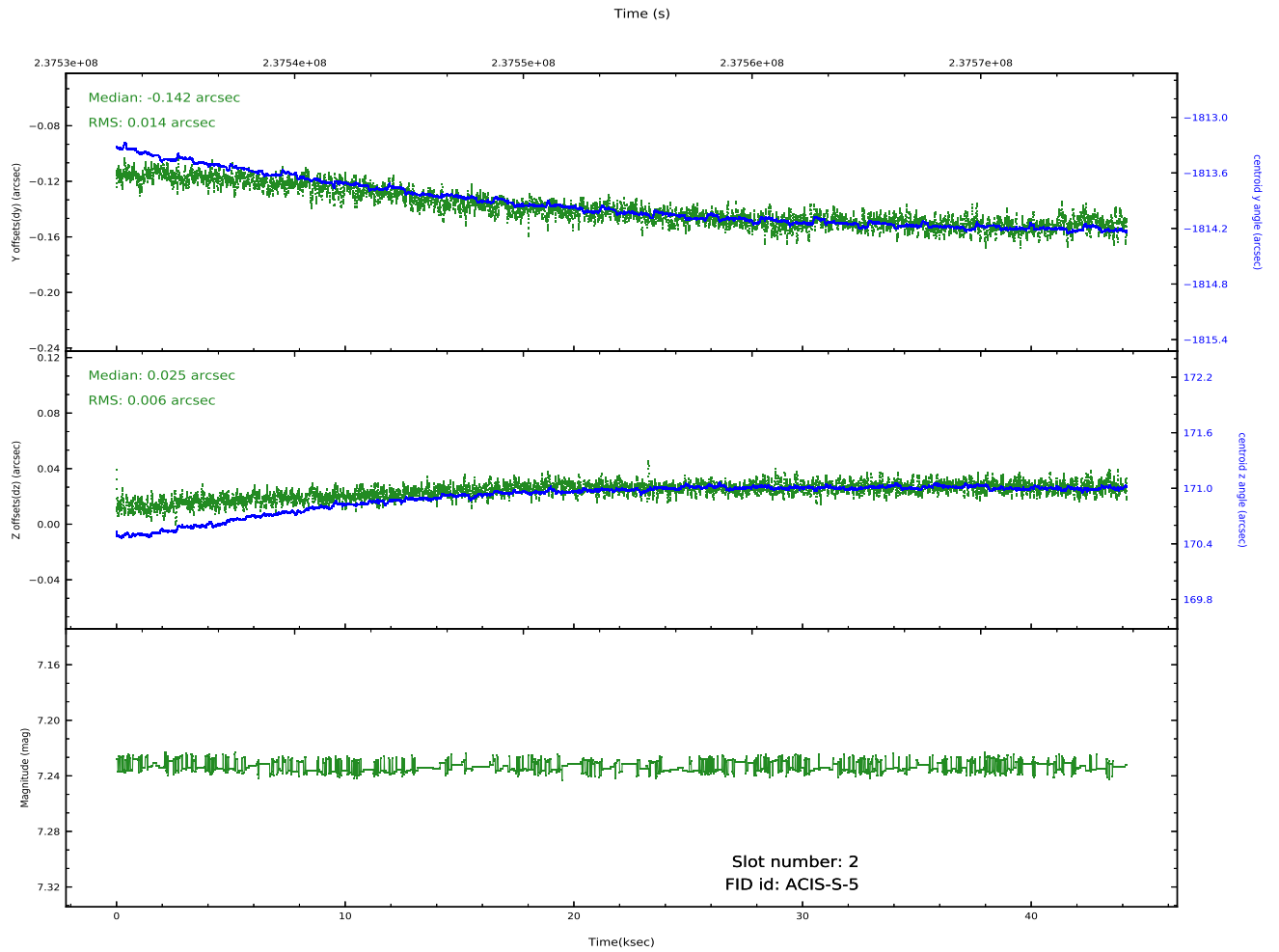
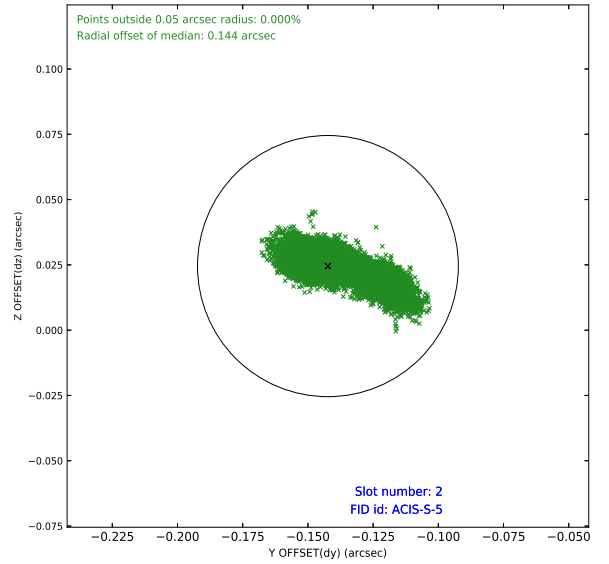
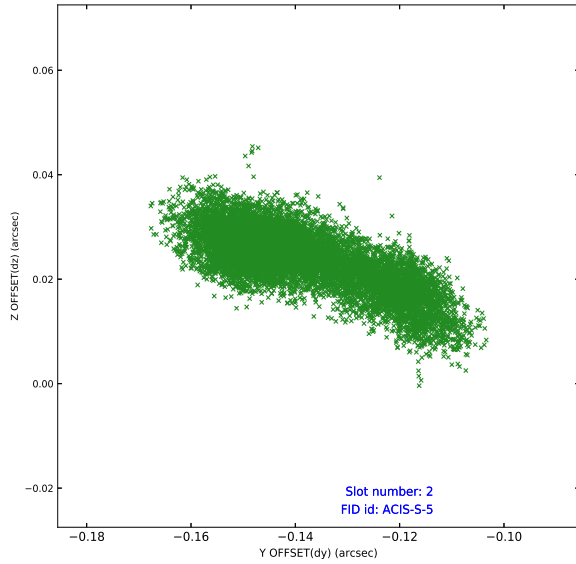
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	44.15949

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 guide star from the solution.