

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 19601 - L2 Version 3
Chandra X-Ray Center

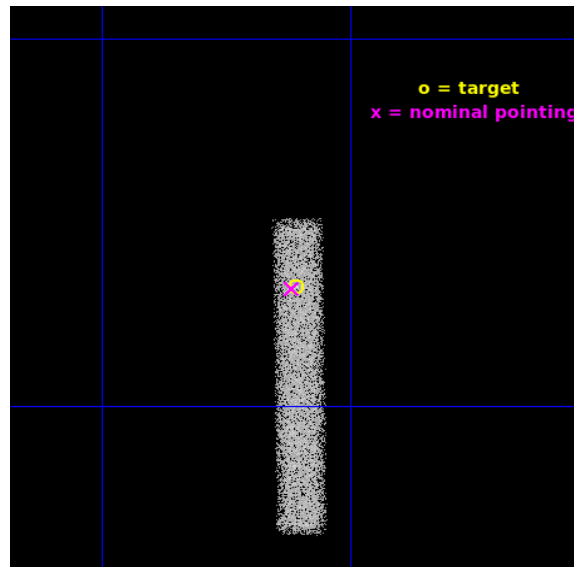
L2 Processing Date : Oct 24 2020

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 7	12
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
A	Summary	16
A.1	Status	16
A.2	Comments	16

1 Front

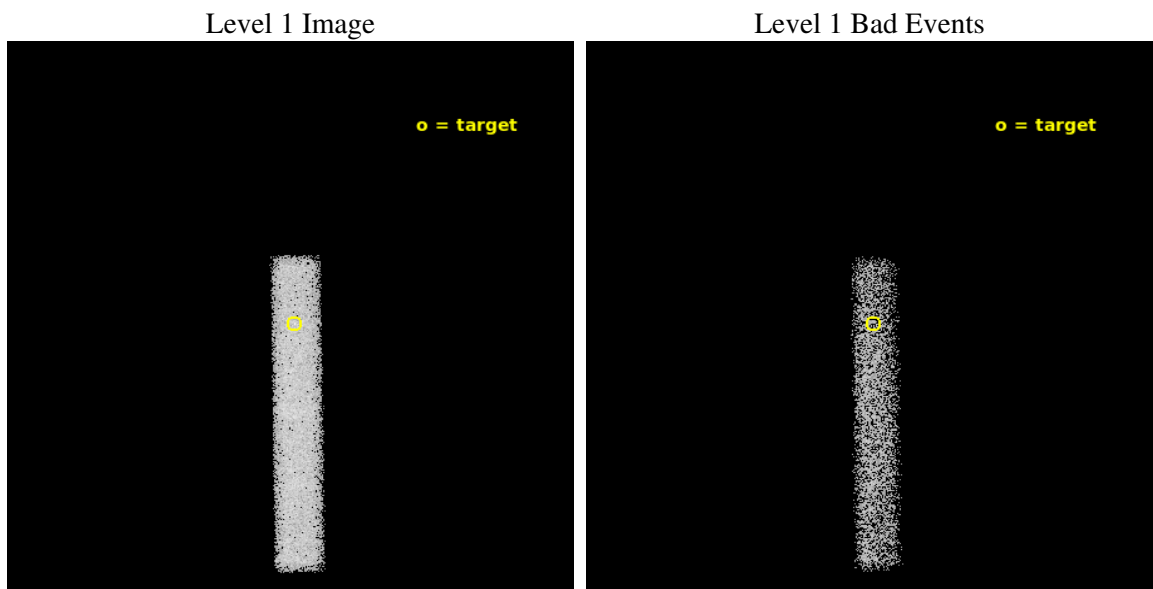
seq_num	401878	Sequence number
obs_id	19601	Observation id
title	Crust cooling of accretion-heated neutron stars	Proposal title
observer	Rudy Wijnands	Principal investigator
object	MXB 1659-298	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	255.52725	Observer's specified target RA [deg]
dec_targ	-29.945581	Observer's specified target Dec [deg]
ra_nom	255.52943568426	Nominal RA [deg]
dec_nom	-29.946672944714	Nominal Dec [deg]
roll_nom	89.157035464304	Nominal Roll [deg]
revision	3	Processing version of data
ontime	30069.555438042	Sum of GTIs [s]
livetime	27271.499581028	Livetime [s]
ontime7	30069.555438042	Sum of GTIs [s]
l2events	18164	Number of level 2 events



2 OBI

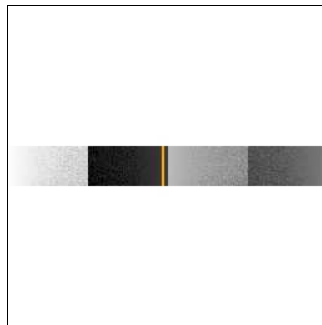
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	30069.555438042	Sum of GTIs [s]
caldsver	4.9.3	 	ontime7	30069.555438042	Sum of GTIs [s]
date	2020-10-24T14:32:06	Date and time of file creation	l1events	38361	Number of level 1 events
revision	3	Processing version of data			

2.1.4 Events

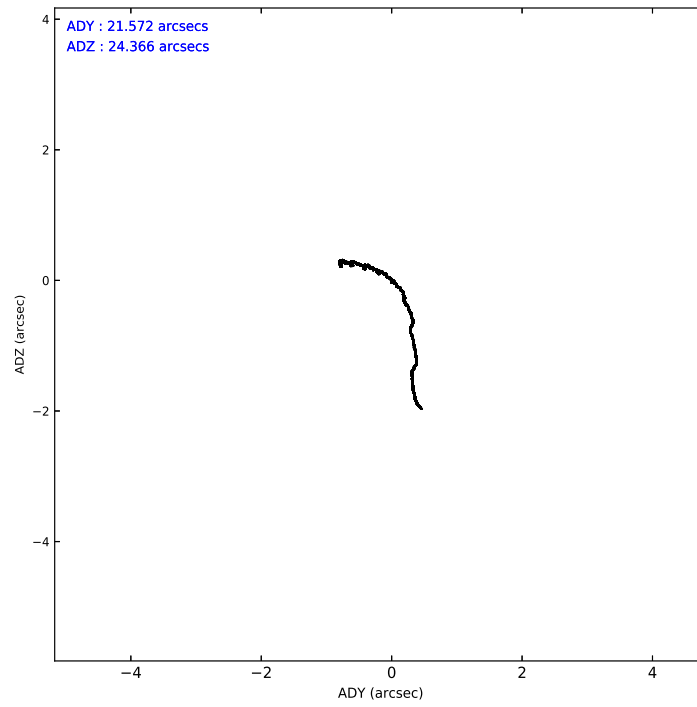
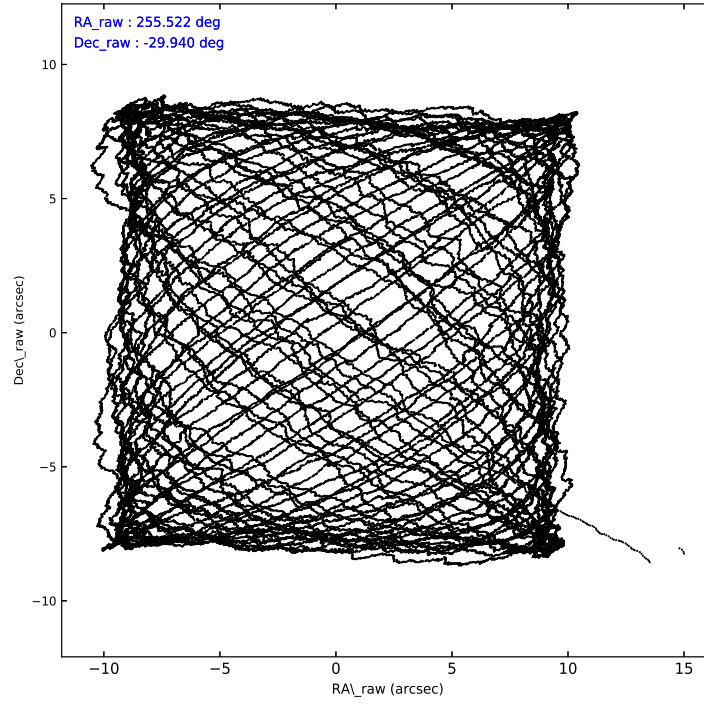
	ccd 7
level 1 events	38361
rejected events	19390
rejected %	50%

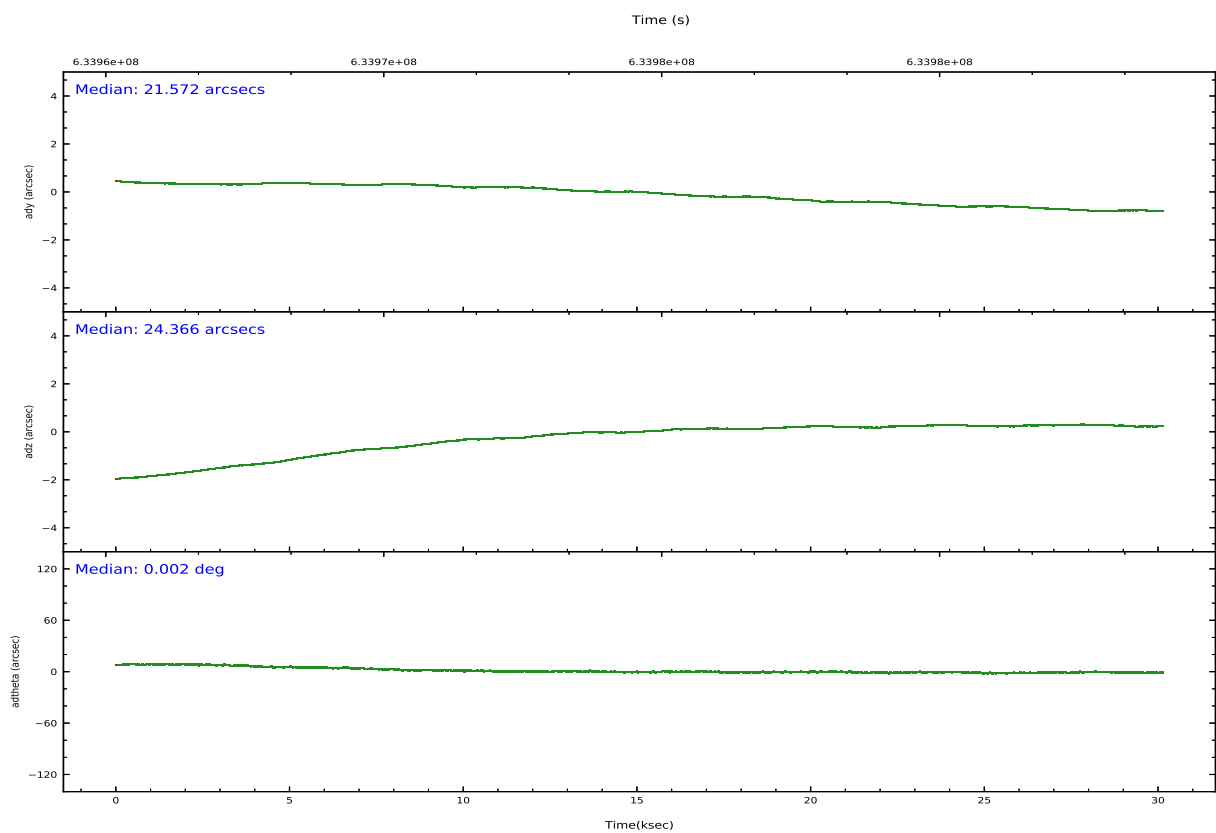
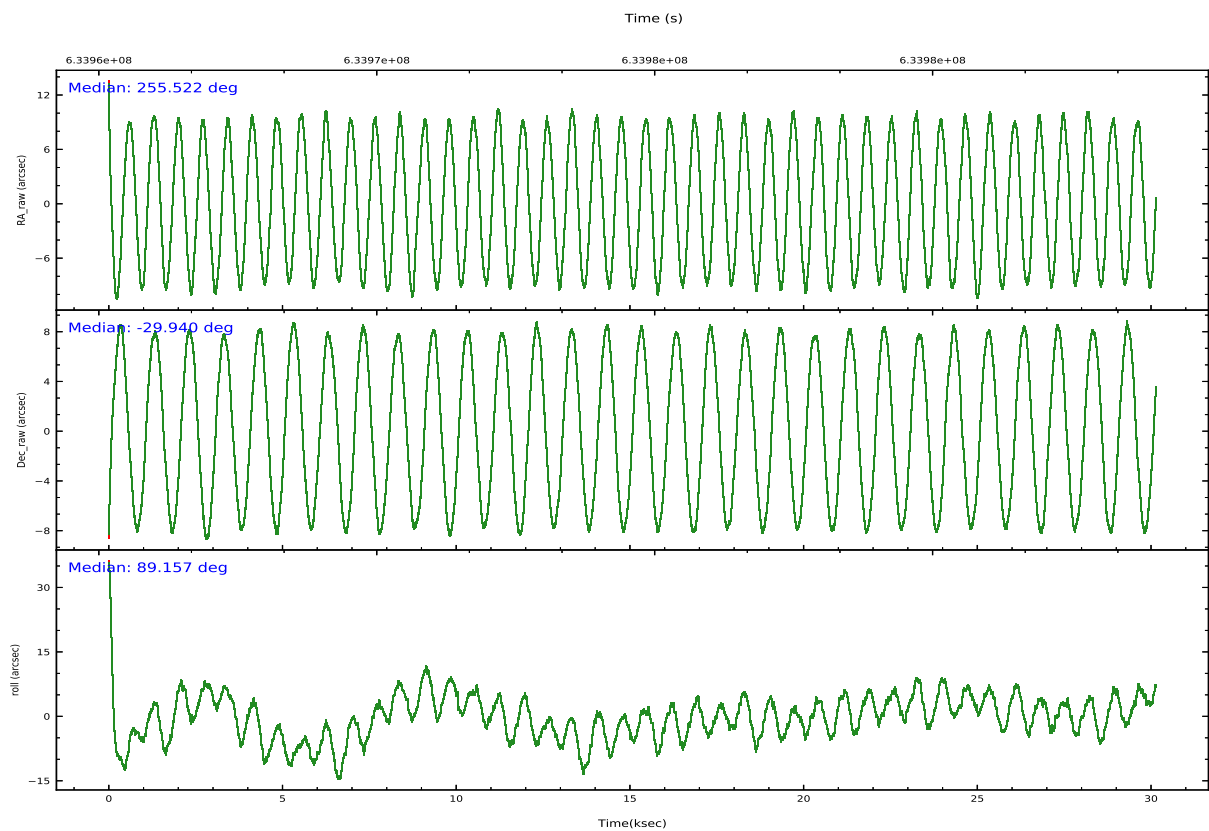
	ccd 7
grade 0 events	1992
	5%
grade 1 events	59
	0%
grade 2 events	3795
	9%
grade 3 events	2418
	6%
grade 4 events	2410
	6%
grade 5 events	3907
	10%
grade 6 events	8356
	21%
grade 7 events	15424
	40%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	255.537389	255.52943568426	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-29.964156	-29.946672944714	Subarray start row	449	449
[deg] Pointing Roll	89.021104	89.157035464304	Subarray row count	128	128
[s] Window start time (MET)	633139269.184000	633139269.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	635817669.184000	635817669.184000	[s] Primary exposure time	0.000000	0.4
[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)	633960434.184000	633959199.26724			
Observation start date	2018-02-02T12:06:05	2018-02-02T11:46:39			
[s] Observation end time (MET)	633990434.184000	633991427.83164			
Observation end date	2018-02-02T20:26:05	2018-02-02T20:43:47			
Read mode	TIMED	TIMED			

2.3 Aspect



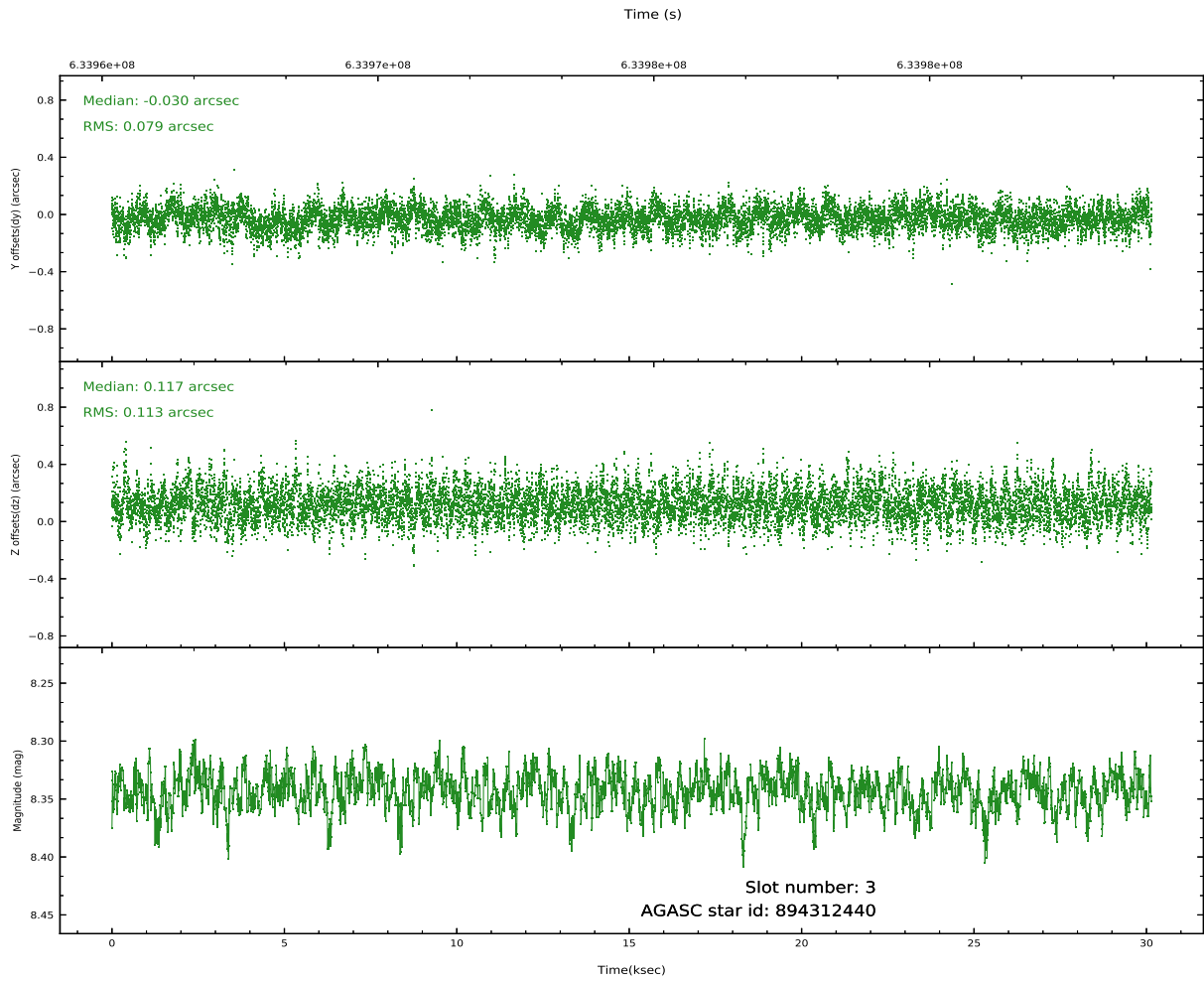
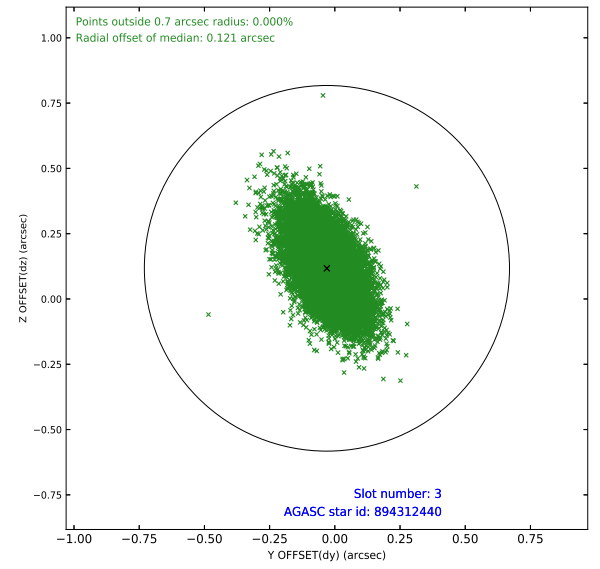
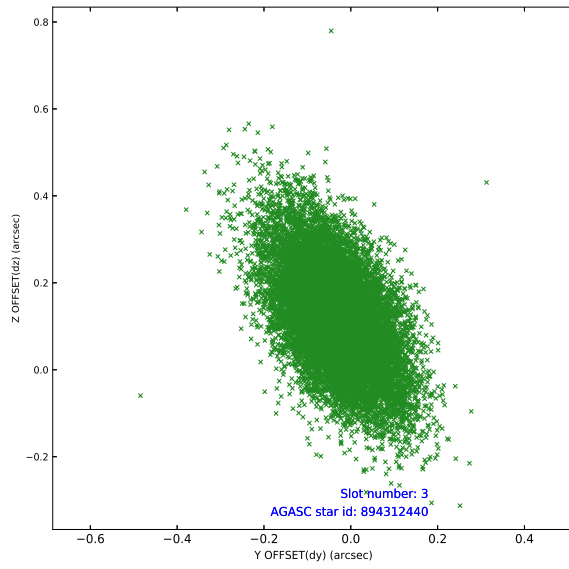


Slot Statistics

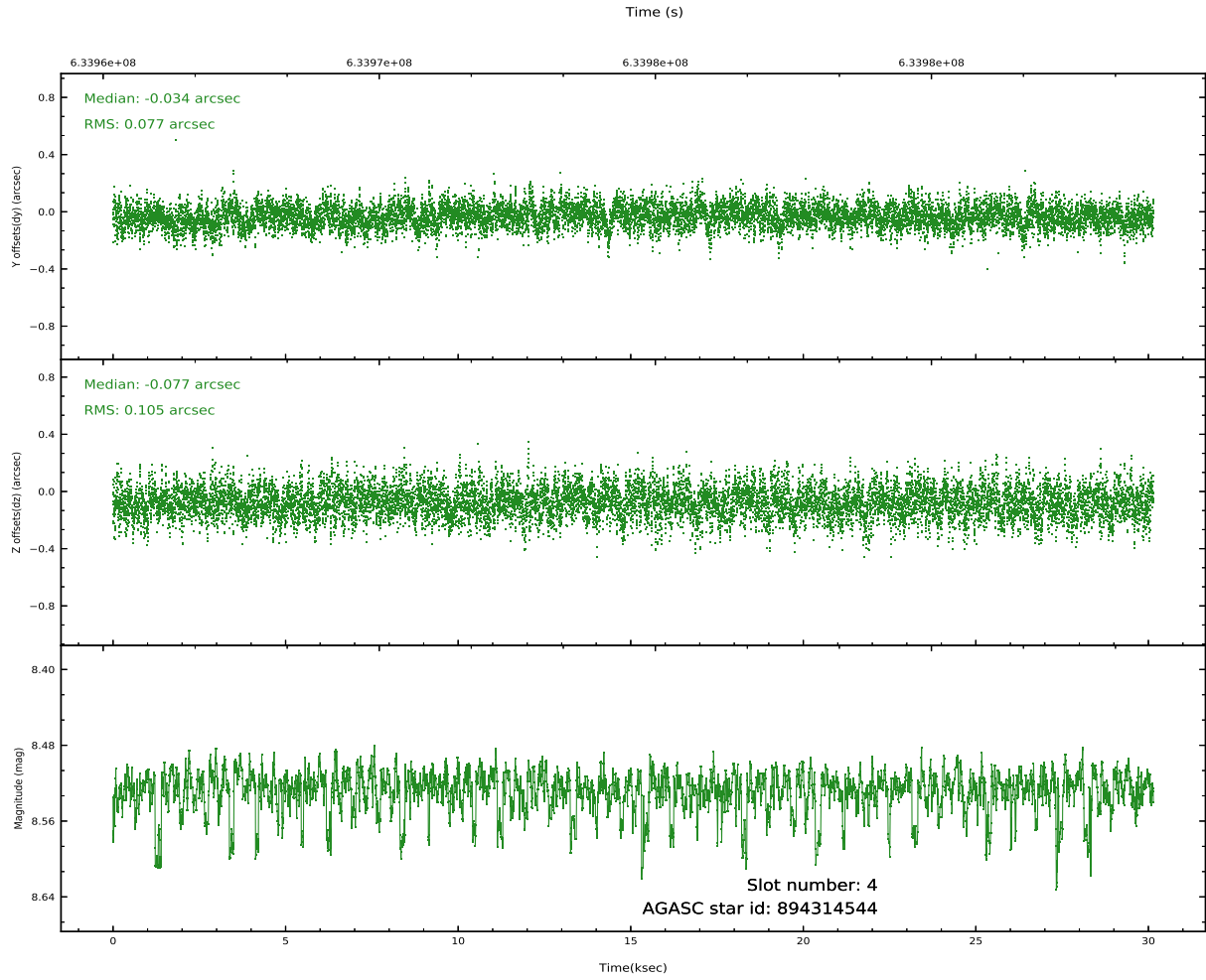
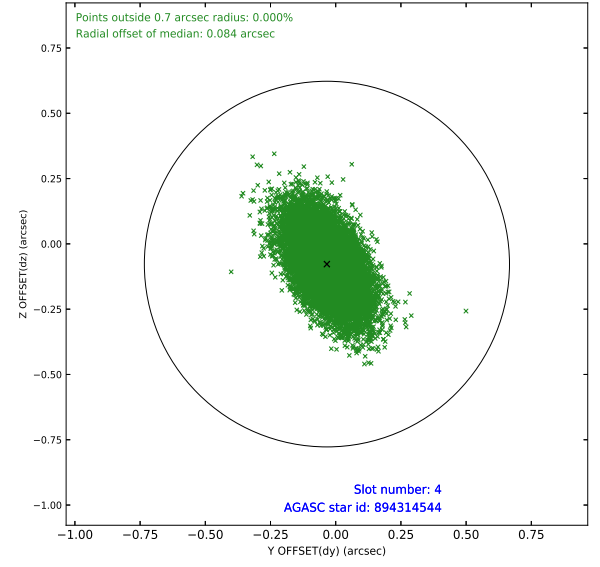
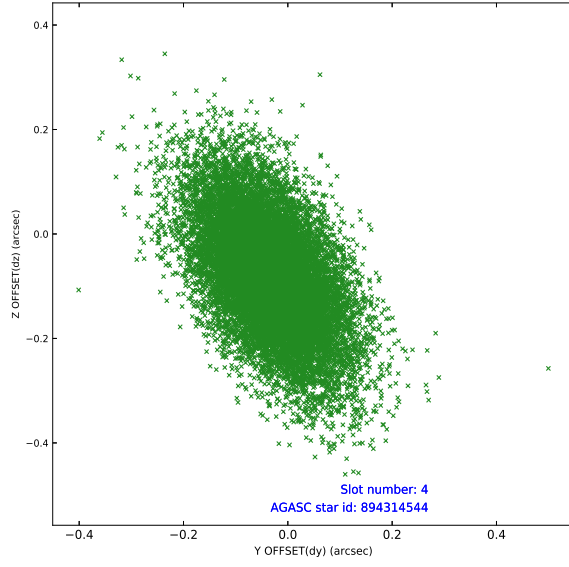
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.11	7354	1.000	0.251	-0.069	0.035	0.079	0.000000	0.000000	921.44	-1741
1	FID		ACIS-S-4	7.14	7353	1.000	0.001	-0.069	0.028	0.059	0.000000	0.000000	2138.87	162
2	FID		ACIS-S-5	7.16	7354	1.000	-0.279	0.149	0.029	0.052	0.000000	0.000000	-1827.63	156
3	GUIDE	used	894312440	8.34	14695	1.000	-0.030	0.117	0.140	0.253	256.267206	-29.720309	910.06	-2266
4	GUIDE	used	894314544	8.53	14696	1.000	-0.034	-0.077	0.134	0.237	255.921805	-29.699914	970.08	-1185
5	GUIDE	used	964690752	8.77	14692	1.000	0.287	-0.013	0.206	0.343	255.992274	-30.082811	-404.75	-1424
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
7	GUIDE	used	894311560	8.22	14699	1.000	-0.223	-0.030	0.152	0.263	255.968048	-29.561250	1471.12	-1323

2.4 Star Slots

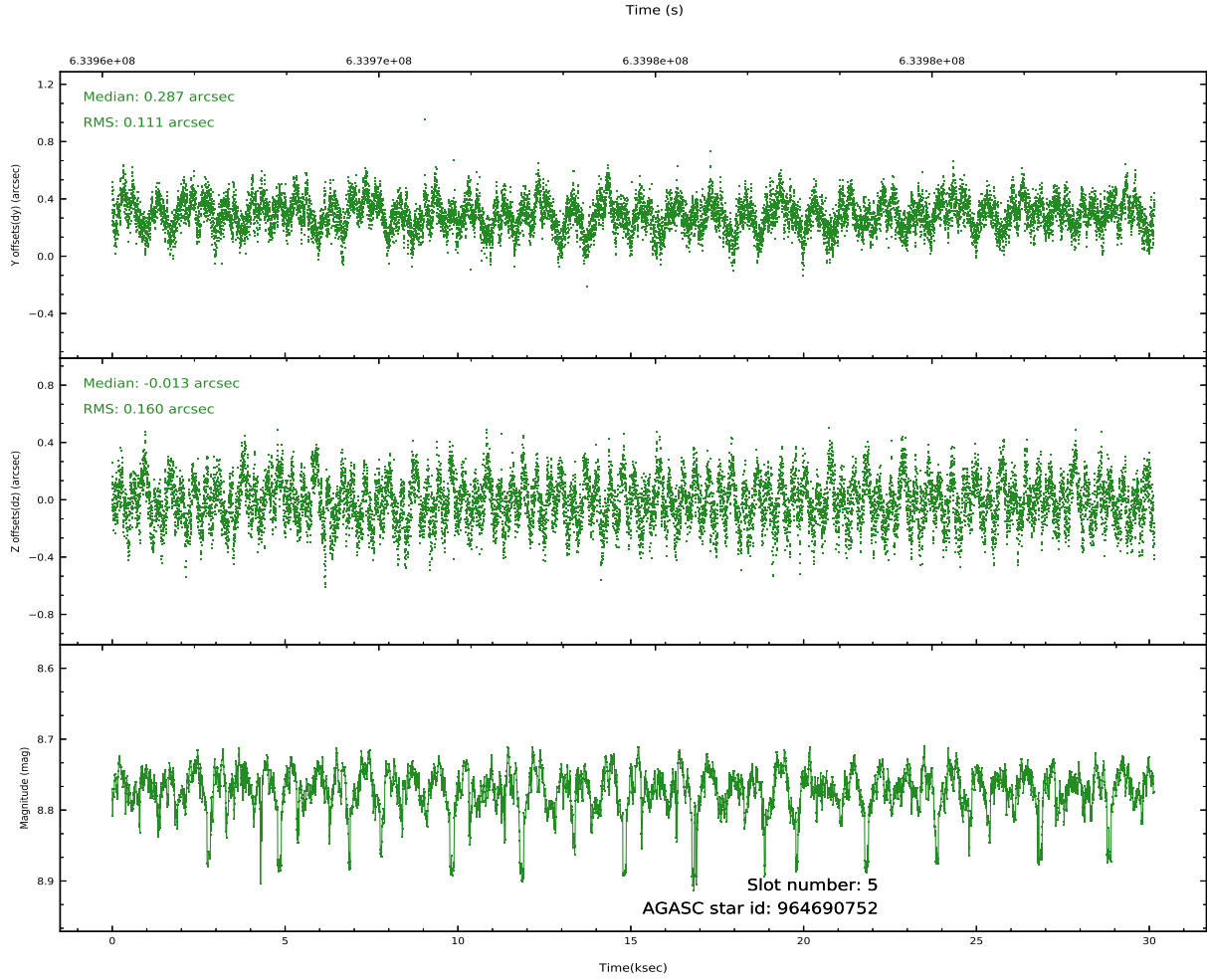
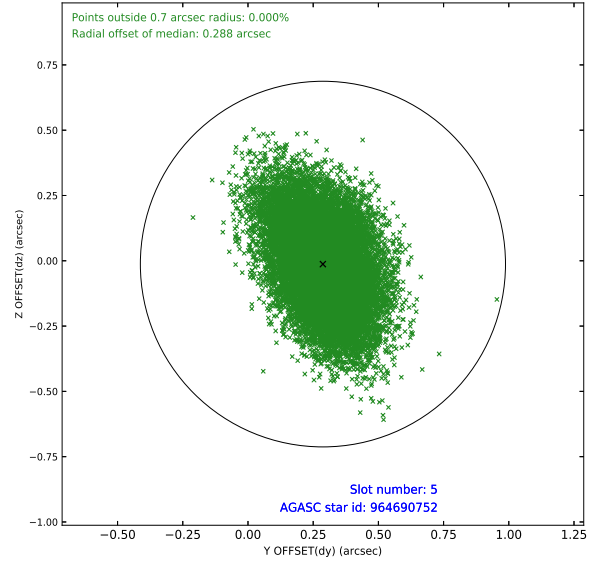
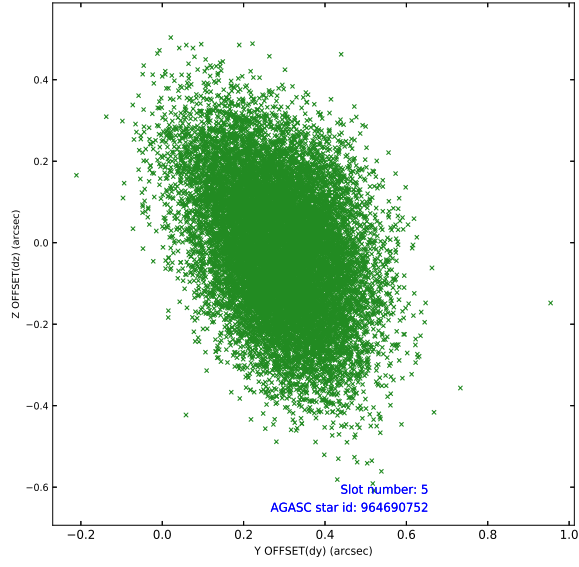
2.4.1 Slot 3



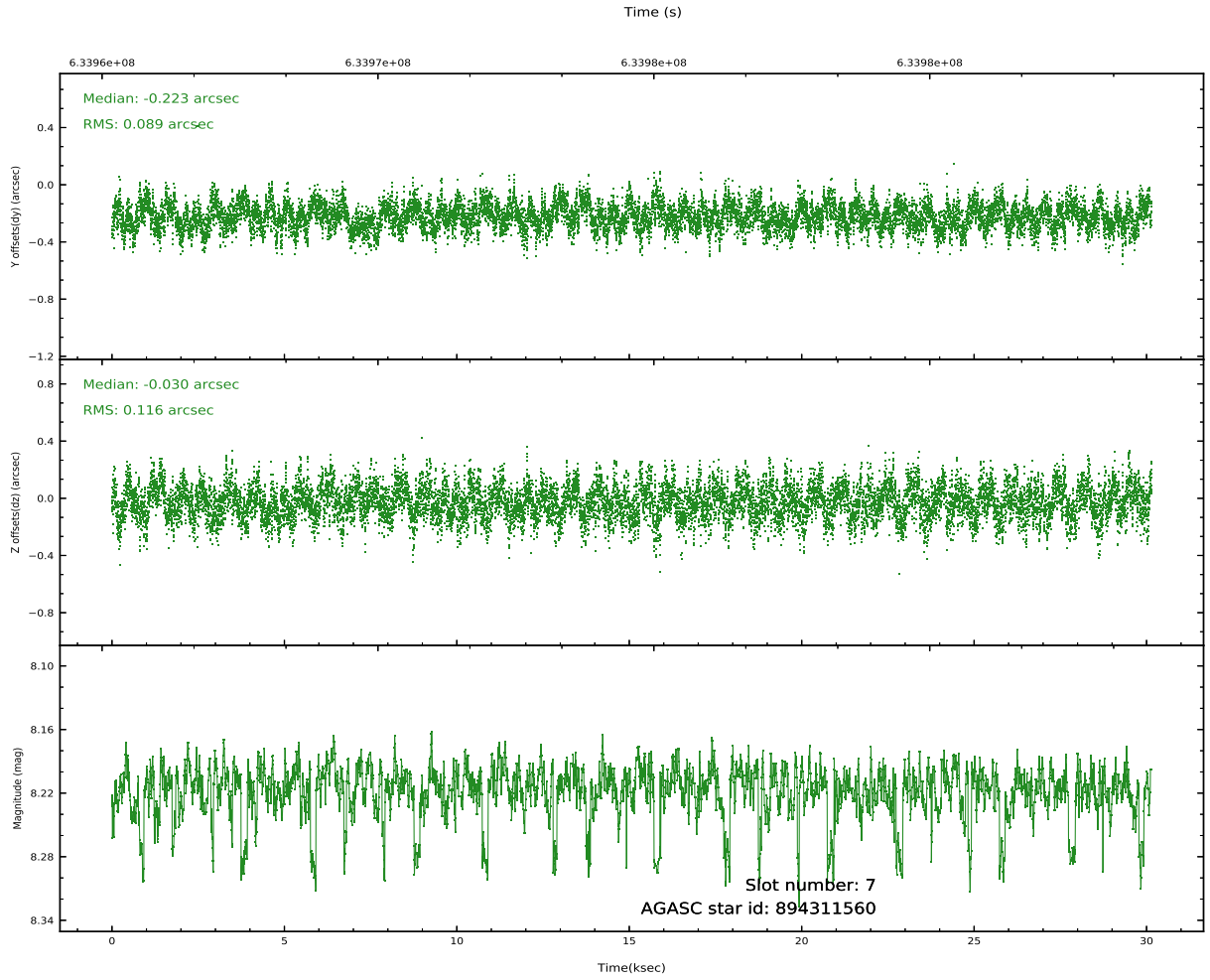
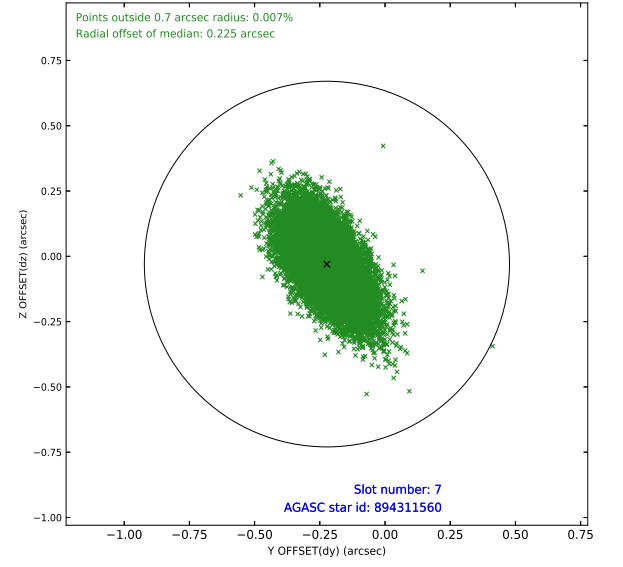
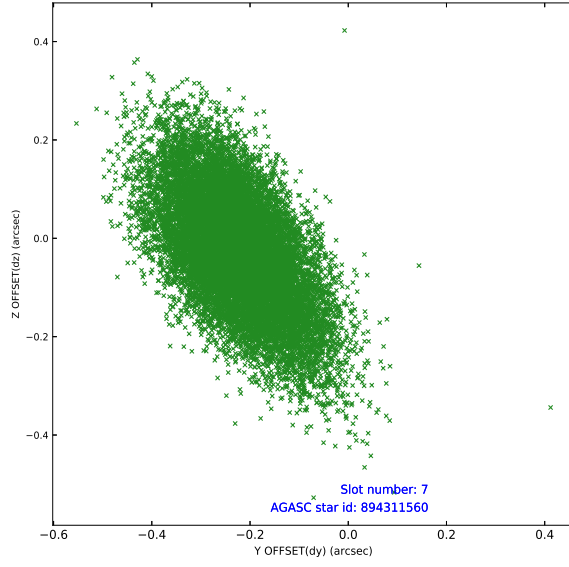
2.4.2 Slot 4



2.4.3 Slot 5

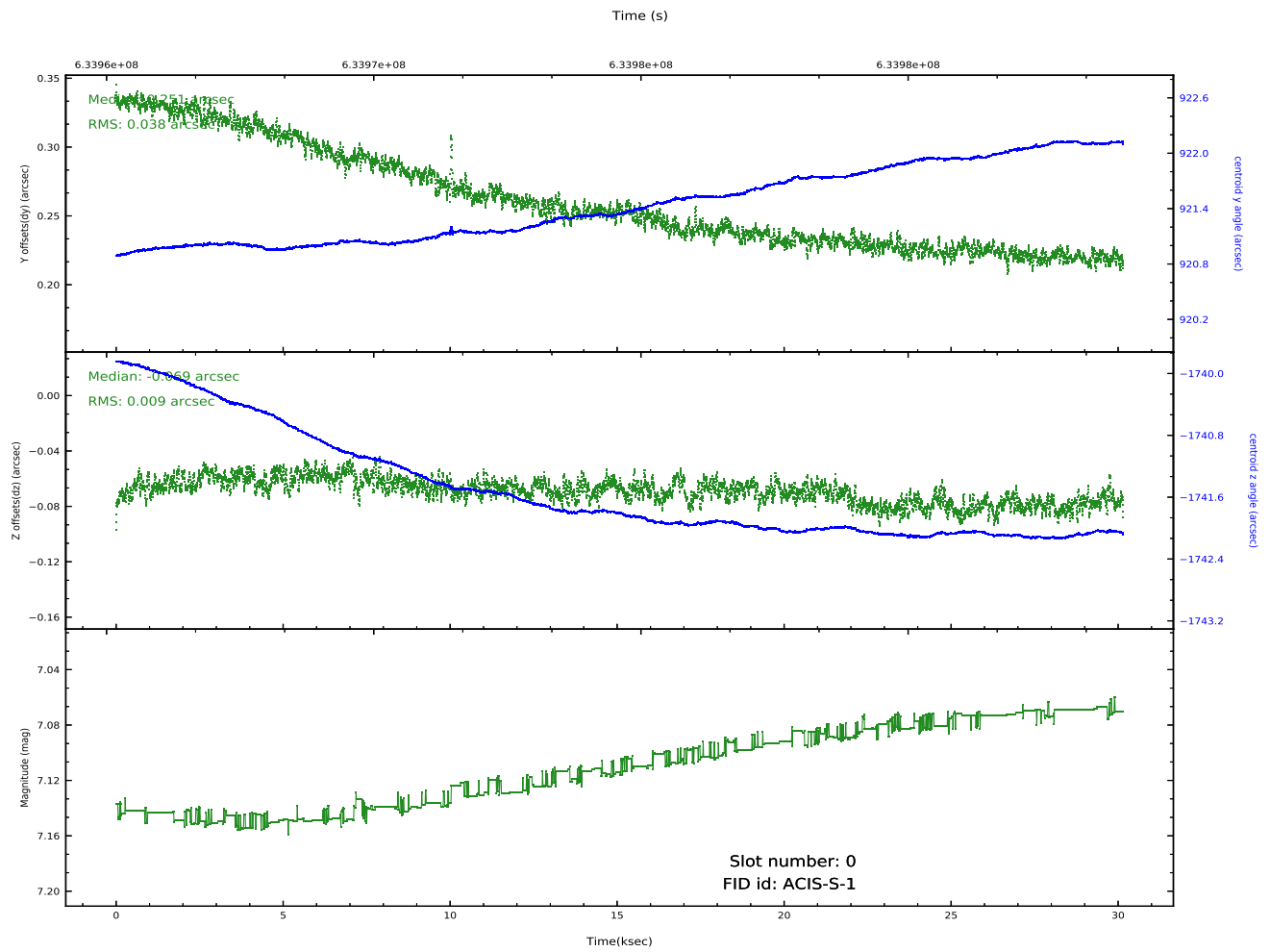
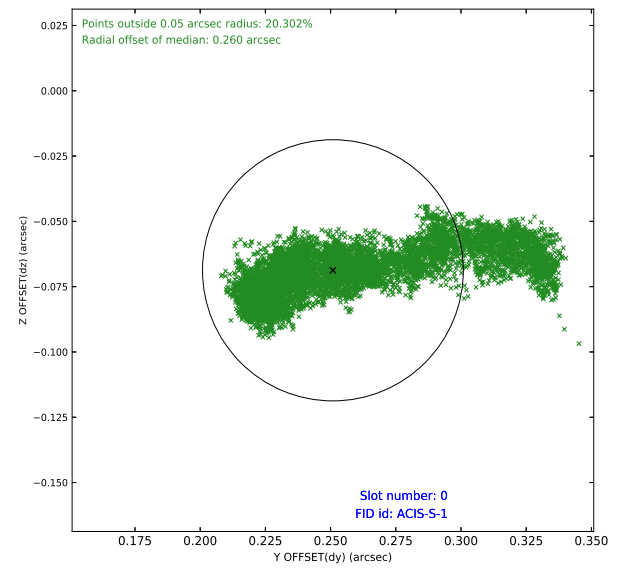
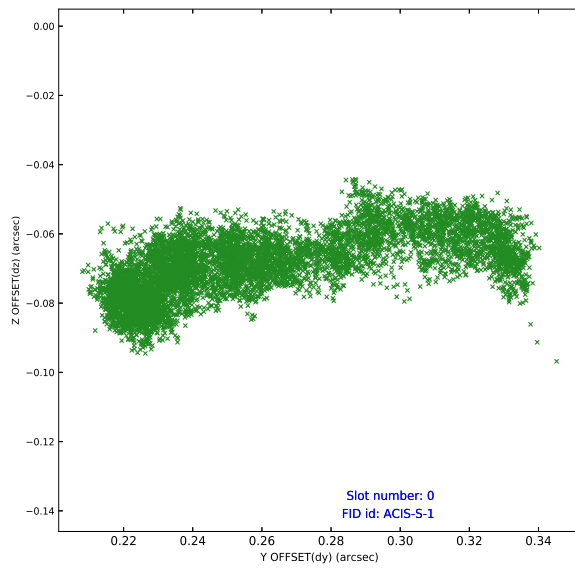


2.4.4 Slot 7

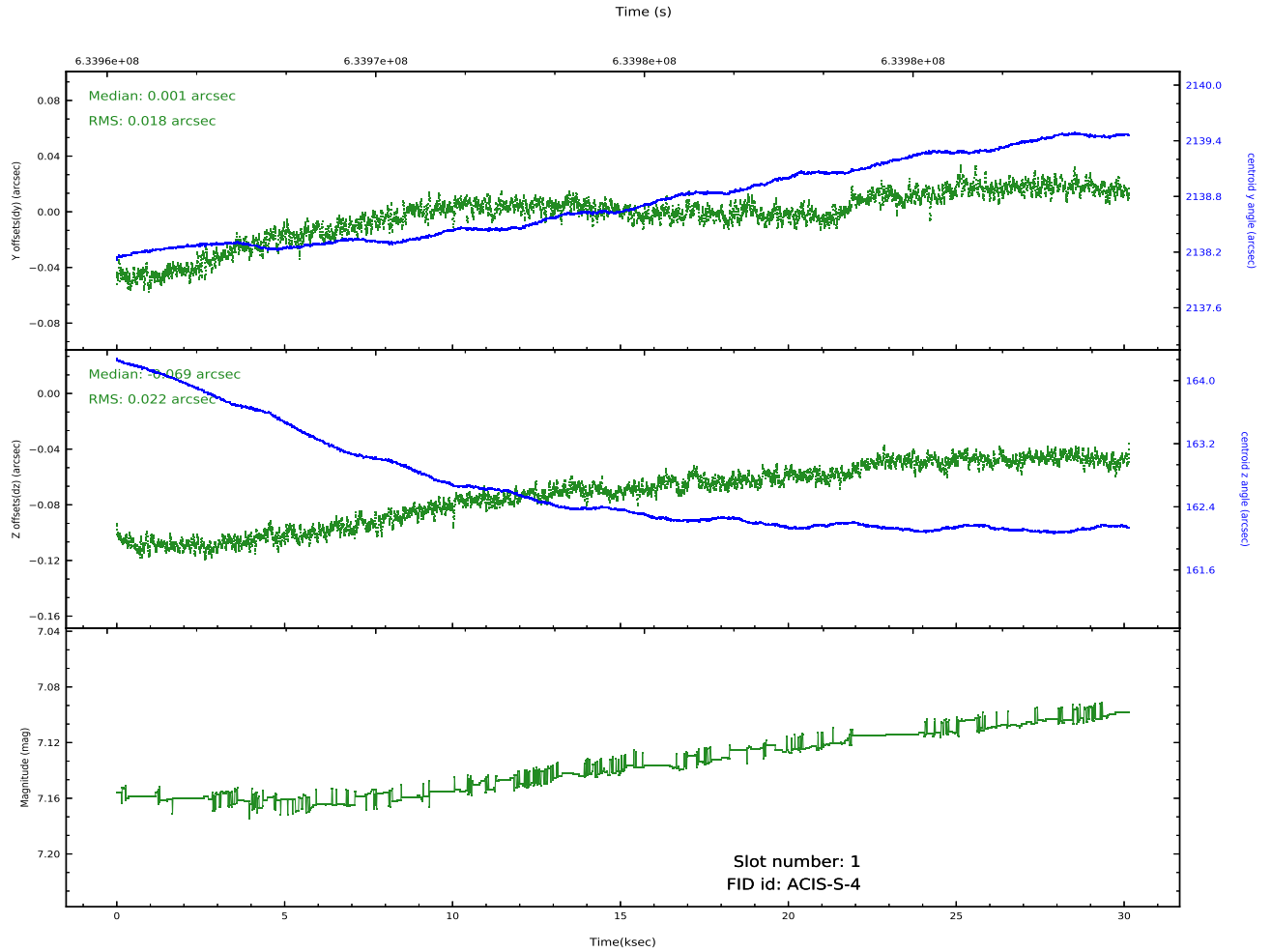
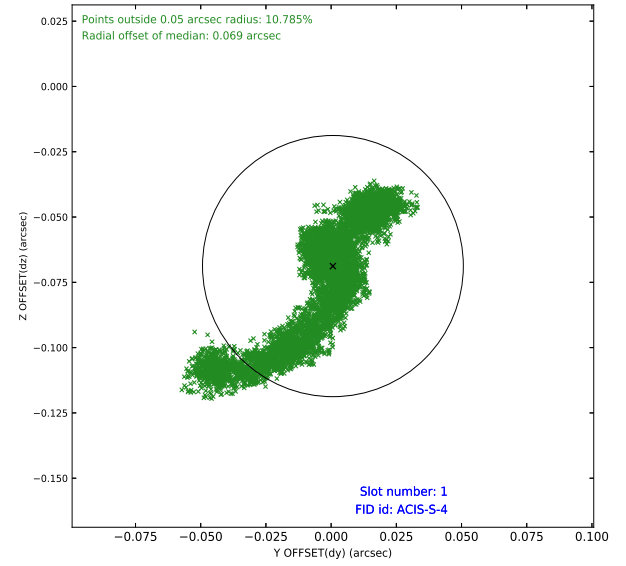
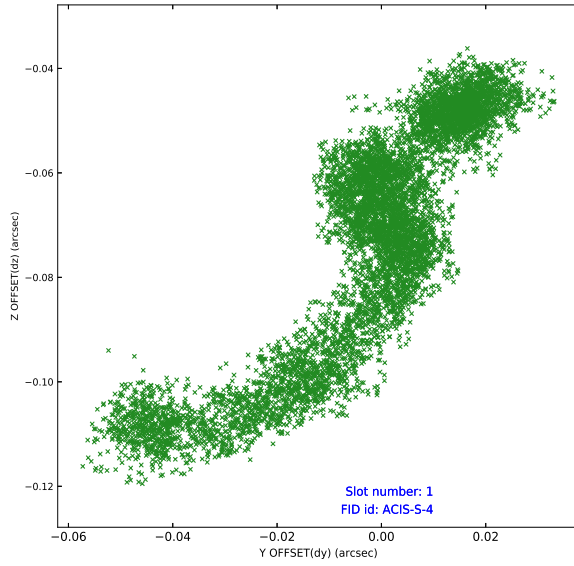


2.5 FID Slots

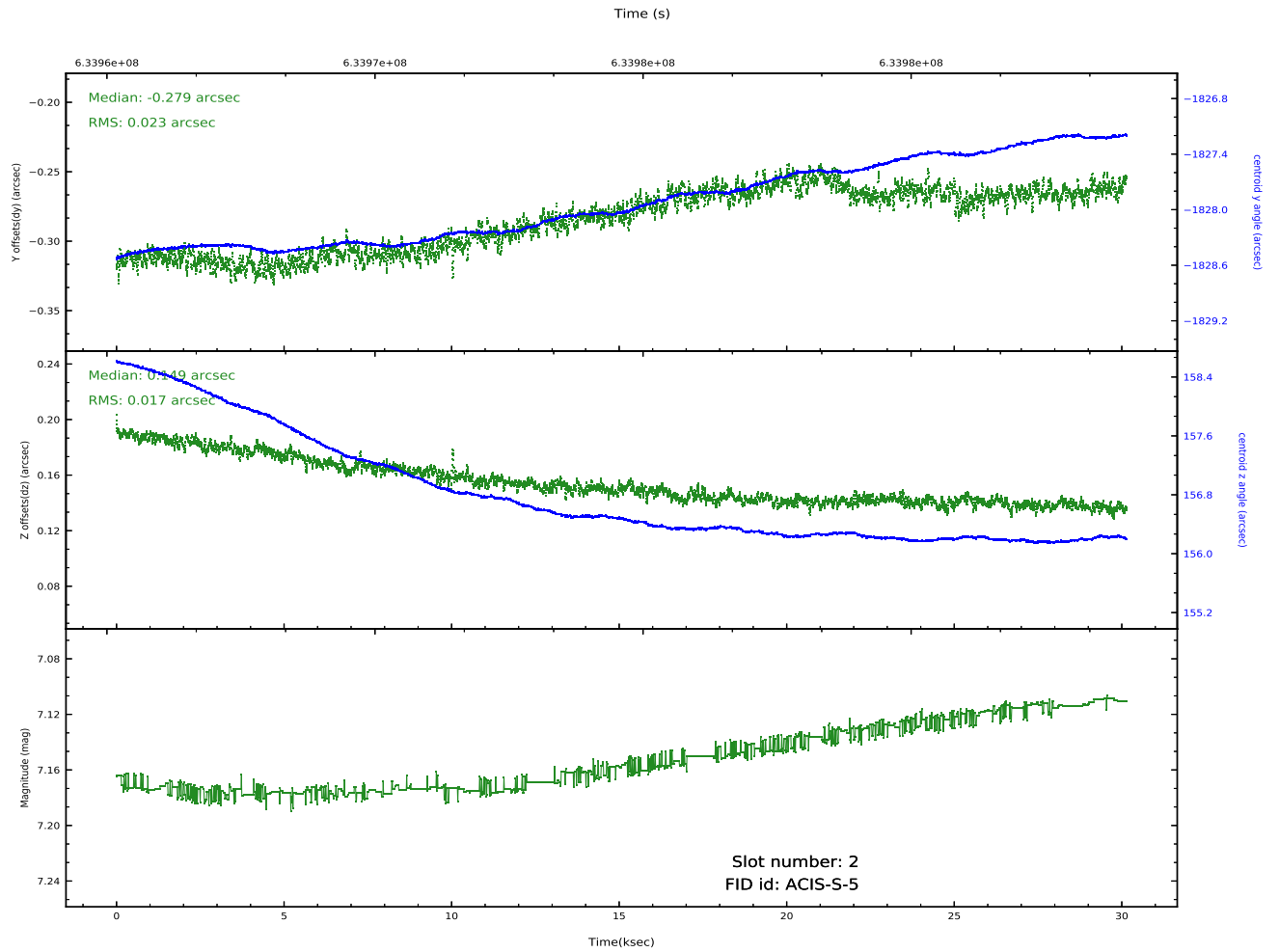
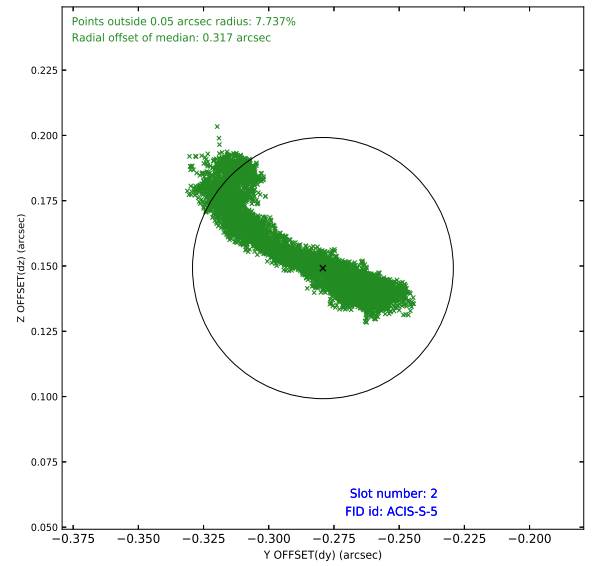
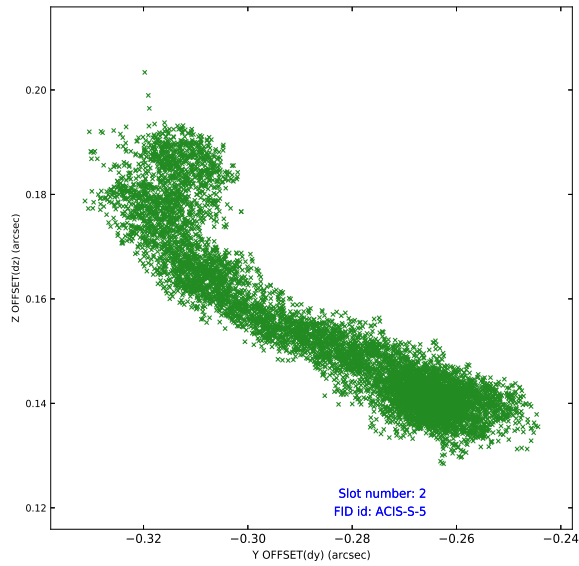
2.5.1 Slot 0



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)	2020.10.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.069555435181

A.2 Comments

Window constraint was met.

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The guide star in slot 6 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.