

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 4577 - L2 Version 4
Chandra X-Ray Center

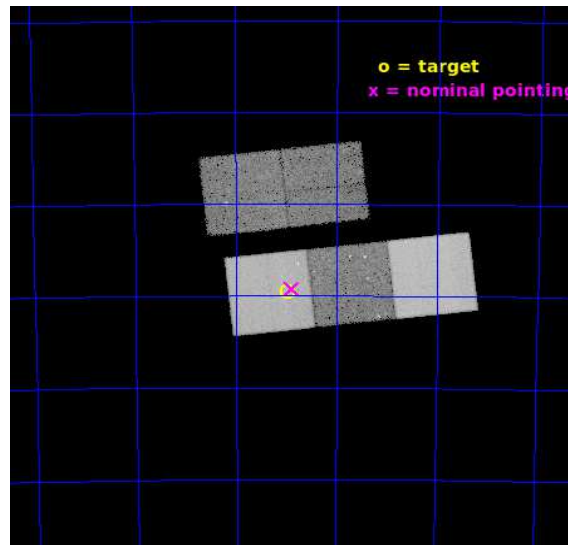
L2 Processing Date : Oct 8 2020

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 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

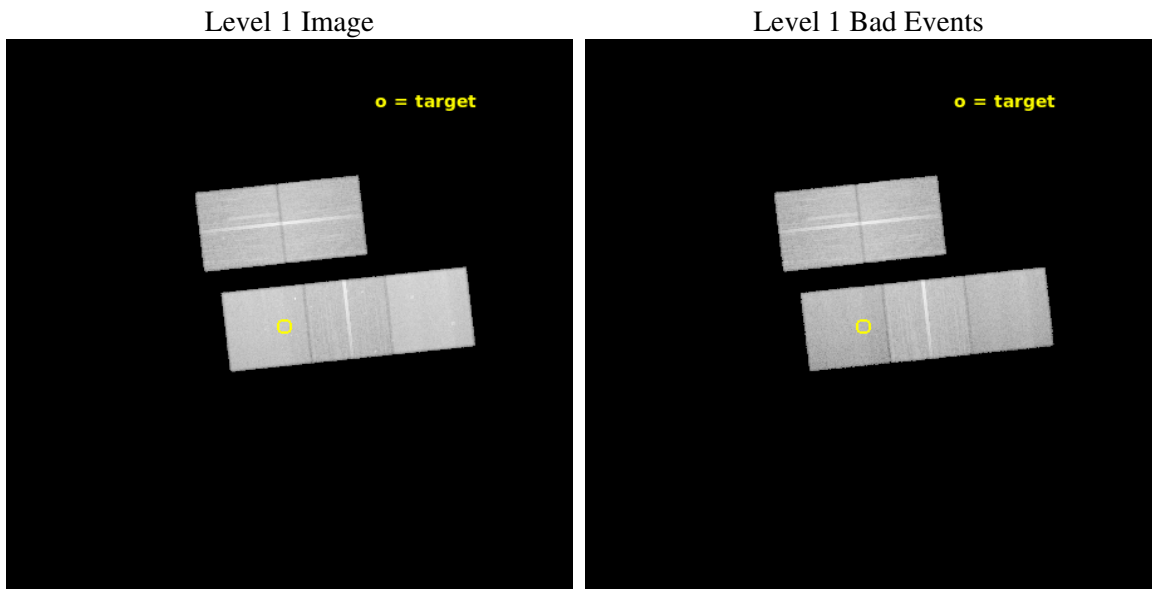
seq_num	400359	Sequence number
obs_id	4577	Observation id
title	Finding Black Holes and Understanding Star Cluster Evolution with Chandra	Proposal title
observer	Dr. Simon Portegies Zwart	Principal investigator
object	NGC 2136/NGC 2137	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	88.241667	Observer's specified target RA [deg]
dec_targ	-69.492778	Observer's specified target Dec [deg]
ra_nom	88.221356517239	Nominal RA [deg]
dec_nom	-69.487325680623	Nominal Dec [deg]
roll_nom	173.69536763116	Nominal Roll [deg]
revision	4	Processing version of data
ontime	37454.199927956	Sum of GTIs [s]
livetime	36964.833232516	Livetime [s]
ontime2	37447.917977422	Sum of GTIs [s]
ontime3	37447.91799745	Sum of GTIs [s]
ontime5	37454.199927956	Sum of GTIs [s]
ontime6	37447.91799745	Sum of GTIs [s]
ontime7	37454.199927956	Sum of GTIs [s]
l2events	330623	Number of level 2 events



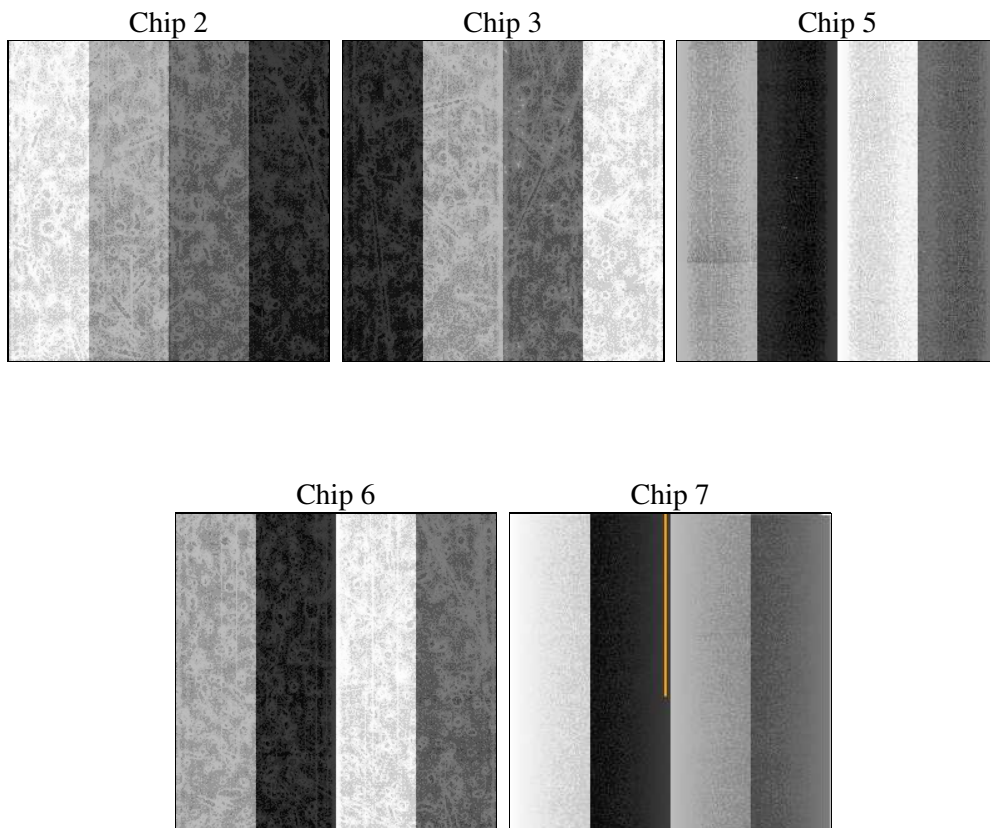
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37300.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	37454.199927956	Sum of GTIs [s]
caldbver	4.9.2	 	ontime2	37447.917977422	Sum of GTIs [s]
date	2020-10-09T02:08:12	Date and time of file creation	ontime3	37447.91799745	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	37454.199927956	Sum of GTIs [s]
			ontime6	37447.91799745	Sum of GTIs [s]
			ontime7	37454.199927956	Sum of GTIs [s]
			l1events	1313923	Number of level 1 events

2.1.4 Events

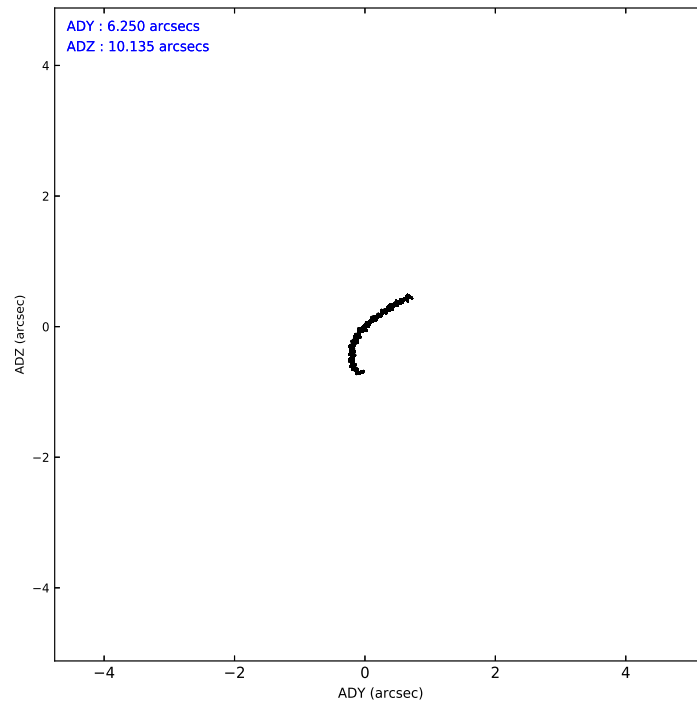
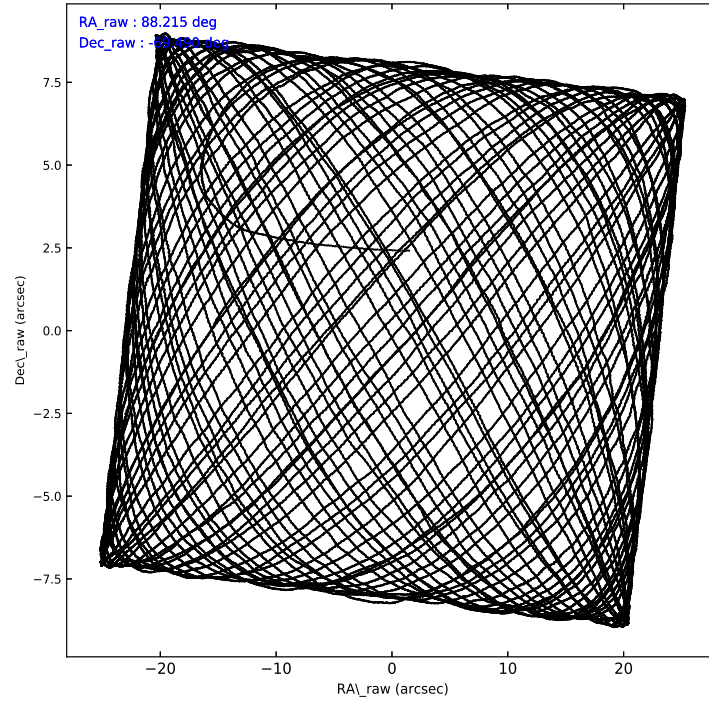
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	244526	237504	321269	241972	268652
rejected events	221418	214656	164952	216188	146532
rejected %	90%	90%	51%	89%	54%

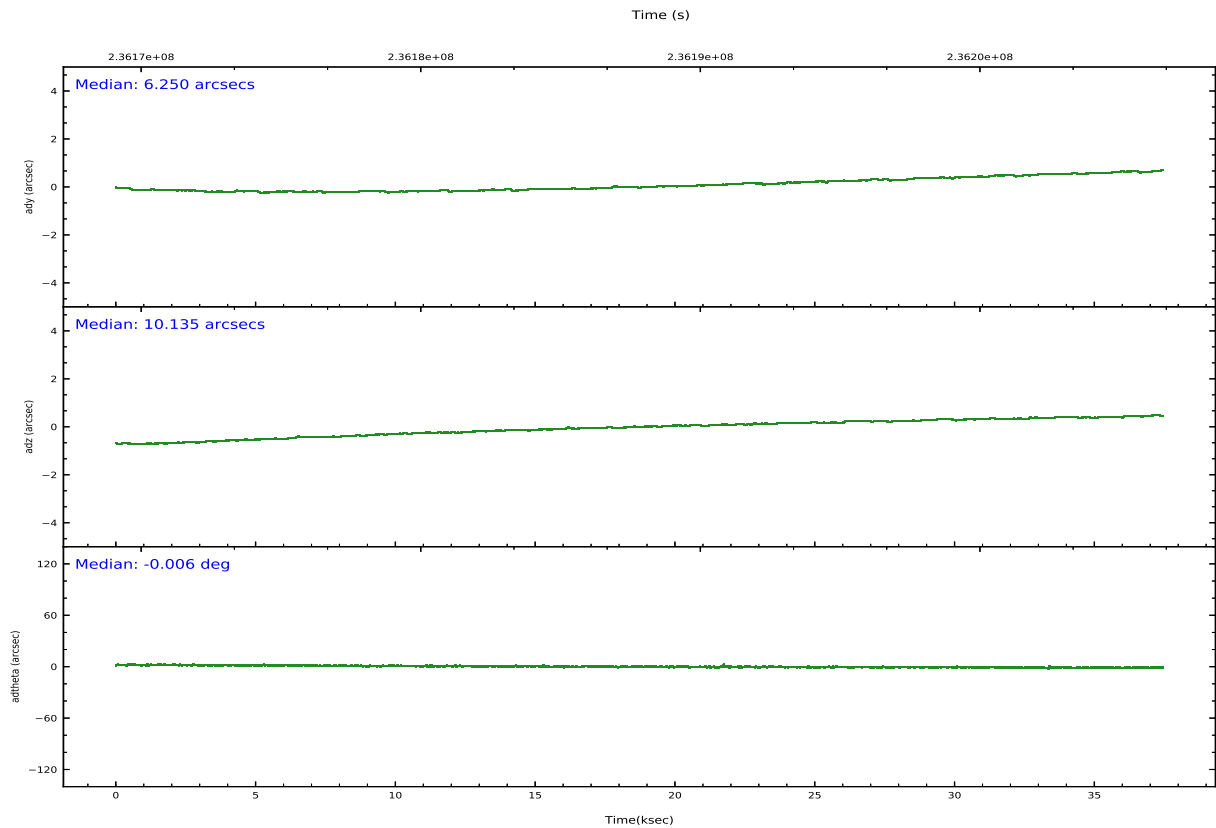
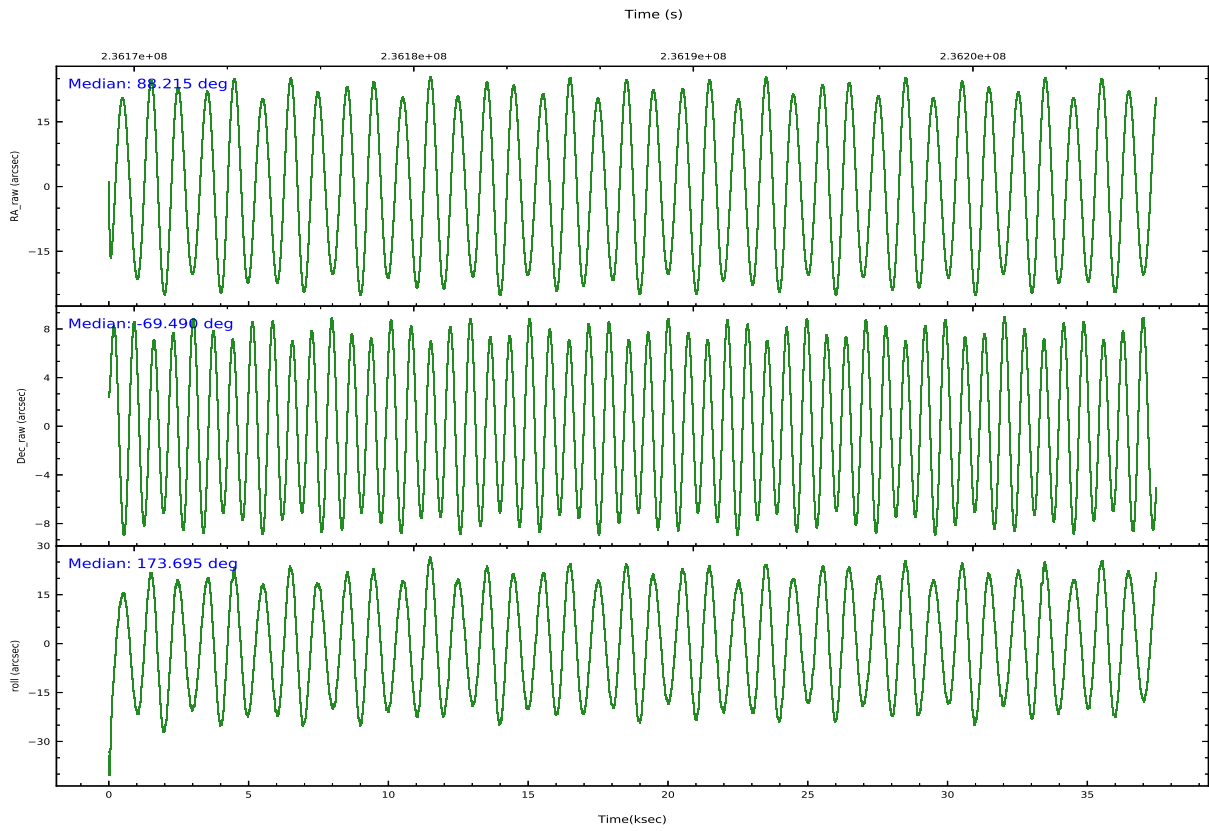
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	8219	8155	10392	9419	11041
	3%	3%	3%	3%	4%
grade 1 events	126	132	281	140	214
	0%	0%	0%	0%	0%
grade 2 events	5585	4950	46611	5533	24784
	2%	2%	14%	2%	9%
grade 3 events	2509	2670	7502	2786	11571
	1%	1%	2%	1%	4%
grade 4 events	2606	2620	7162	2782	11632
	1%	1%	2%	1%	4%
grade 5 events	7819	9534	26720	9638	28800
	3%	4%	8%	3%	10%
grade 6 events	4192	4456	84686	5266	63119
	1%	1%	26%	2%	23%
grade 7 events	213470	204987	137915	206408	117491
	87%	86%	42%	85%	43%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-23567	ACIS-23567	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	88.285910	88.221356517239	Subarray requested	NONE	NONE
[deg] Pointing Dec	-69.478759	-69.487325680623	Alternating exposures requested	N	N
[deg] Pointing Roll	173.601288	173.69536763116	[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)	236169254.184000	236168266.12891			
Observation start date	2005-06-26T10:33:10	2005-06-26T10:17:46			
[s] Observation end time (MET)	236206554.184000	236207132.08069			
Observation end date	2005-06-26T20:54:50	2005-06-26T21:05:32			
Read mode	TIMED	TIMED			

2.3 Aspect





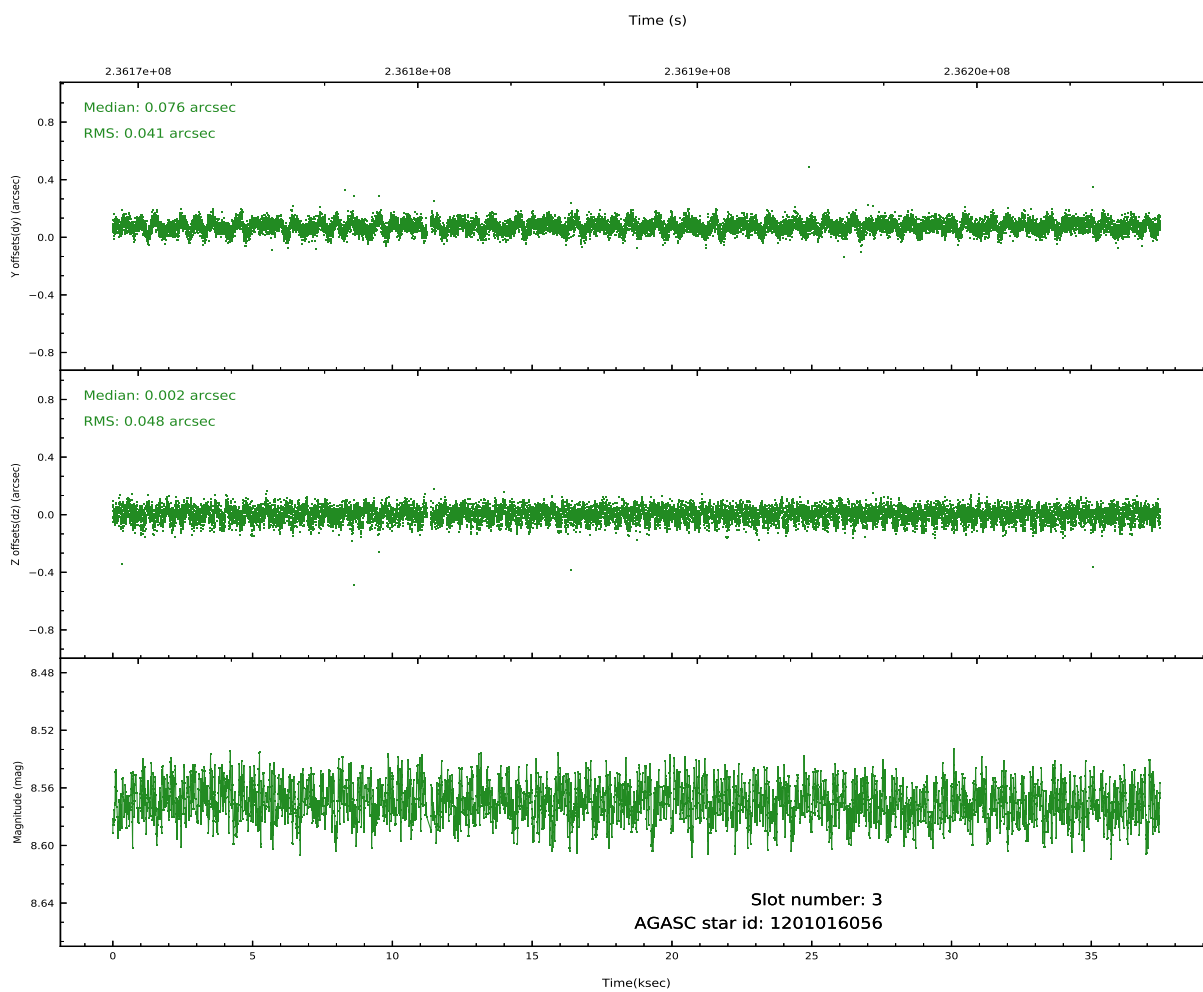
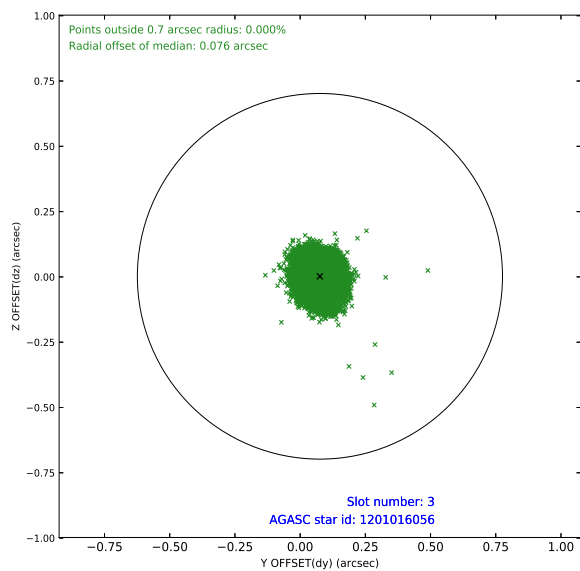
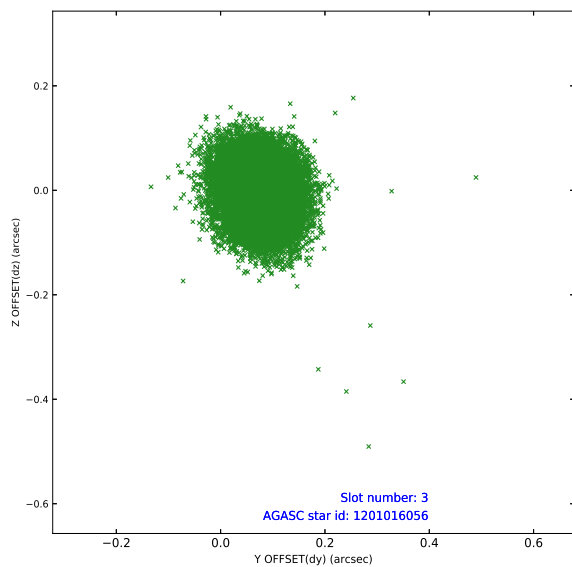
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	9137	1.000	-0.098	-0.068	0.010	0.018	0.000000	0.000000	-759.12	-1731
1	FID		ACIS-S-4	7.21	9137	1.000	0.168	0.066	0.008	0.014	0.000000	0.000000	2154.35	177
2	FID		ACIS-S-5	7.23	9137	1.000	-0.102	0.011	0.009	0.016	0.000000	0.000000	-1811.99	170
3	GUIDE	used	1201016056	8.57	18193	1.000	0.076	0.002	0.067	0.107	88.122740	-68.971148	413.28	-1791
4	GUIDE	used	1201538432	8.14	18272	1.000	0.005	0.100	0.066	0.107	89.309186	-69.477902	-1284.17	-136
5	GUIDE	used	1201539152	9.23	18268	1.000	0.012	-0.012	0.103	0.171	89.978520	-69.970583	-2274.36	1555
6	GUIDE	used	1201540816	7.94	18273	1.000	-0.102	-0.057	0.053	0.083	86.998494	-69.749817	1483.35	1165
7	GUIDE	used	1201540944	8.18	18268	1.000	0.009	-0.033	0.061	0.096	87.496877	-69.685010	896.71	854

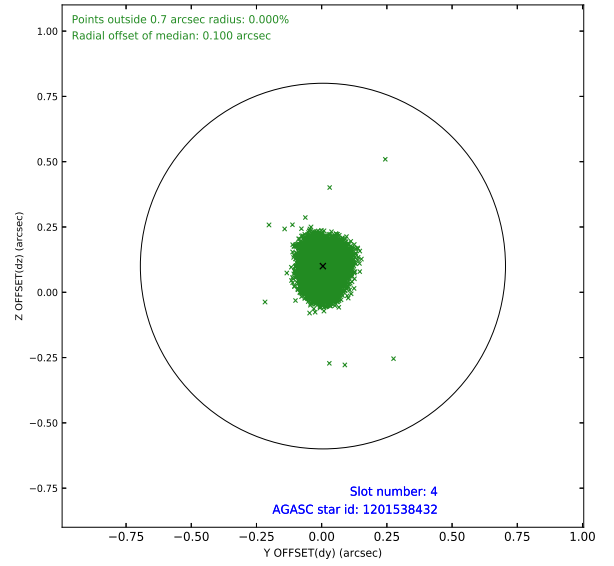
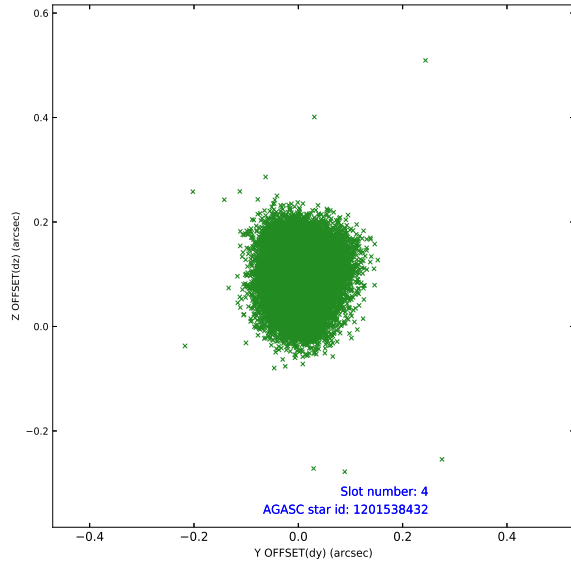
∞

2.4 Star Slots

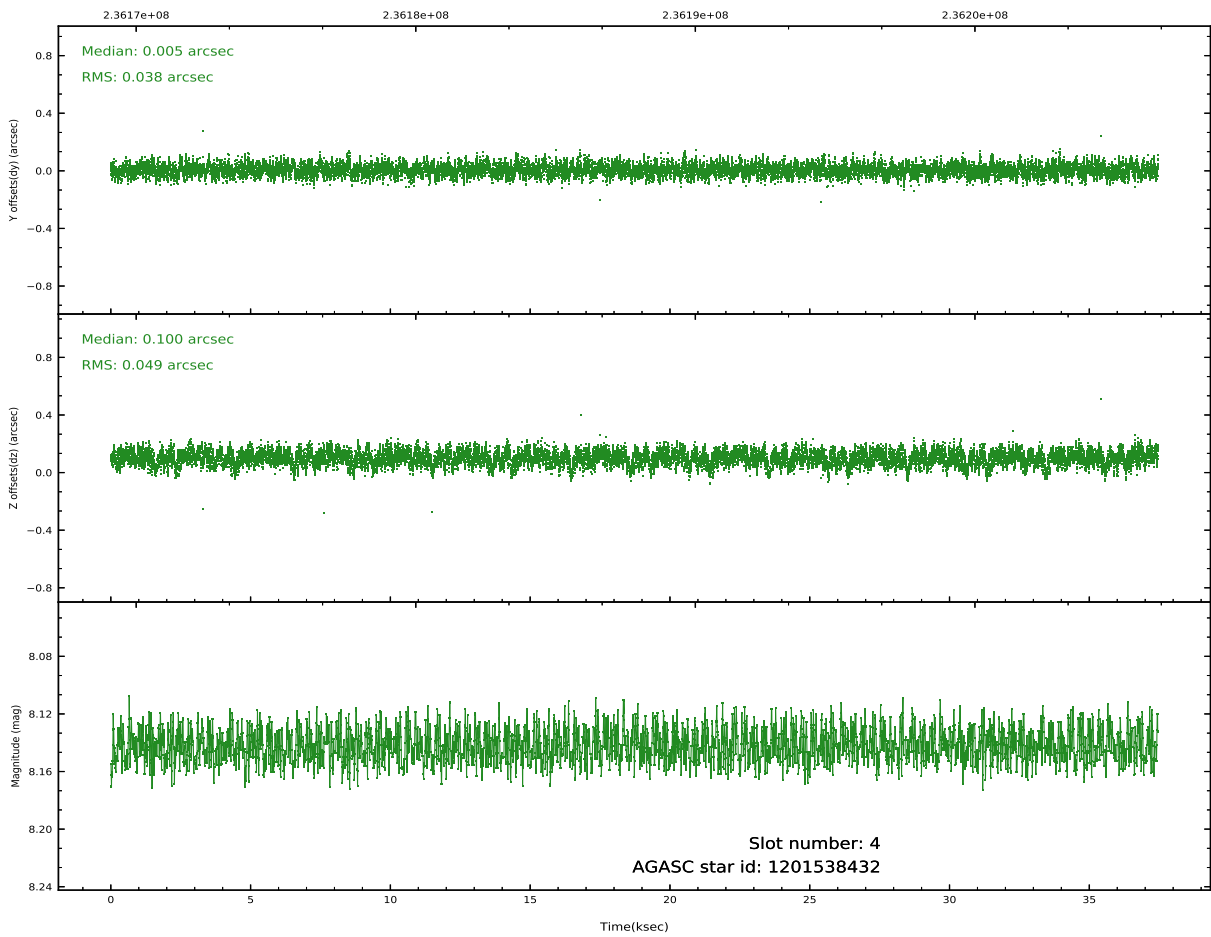
2.4.1 Slot 3



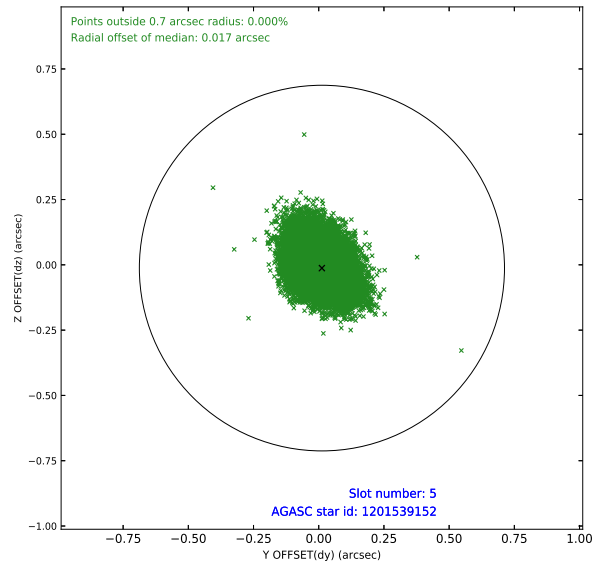
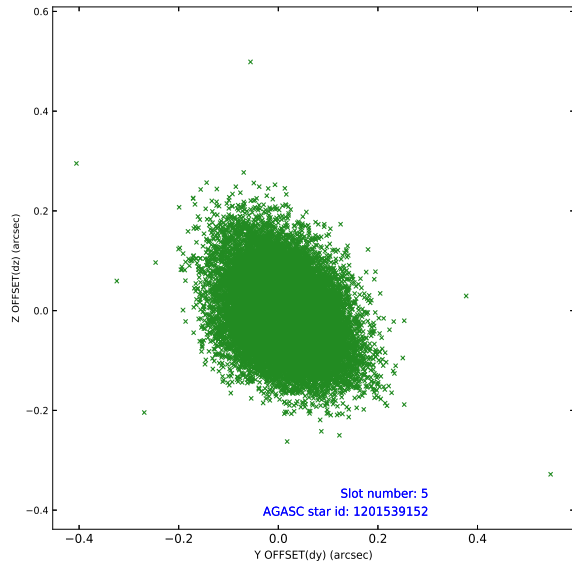
2.4.2 Slot 4



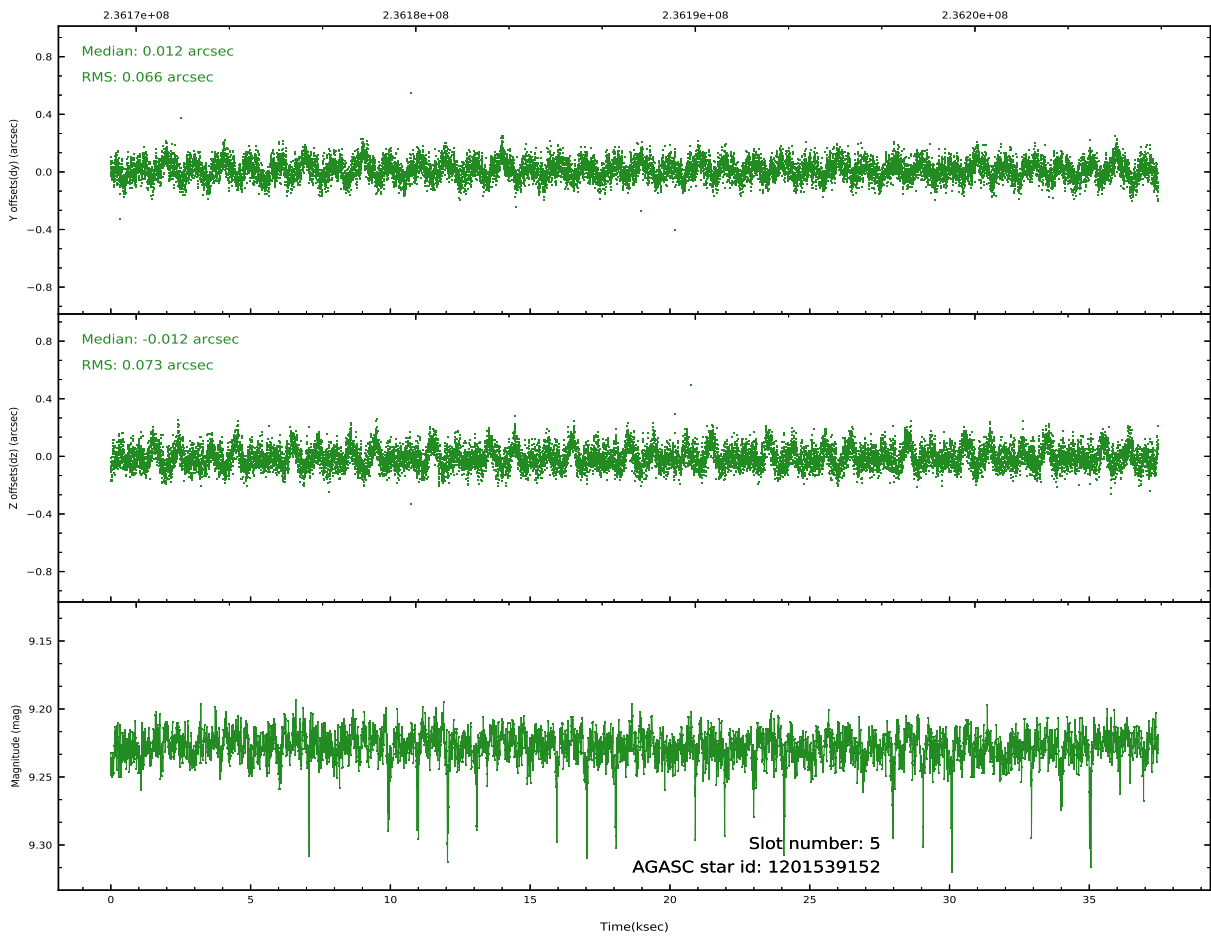
Time (s)



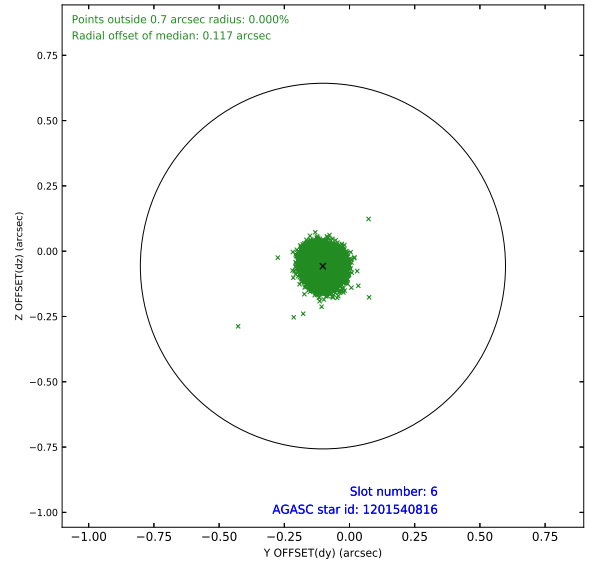
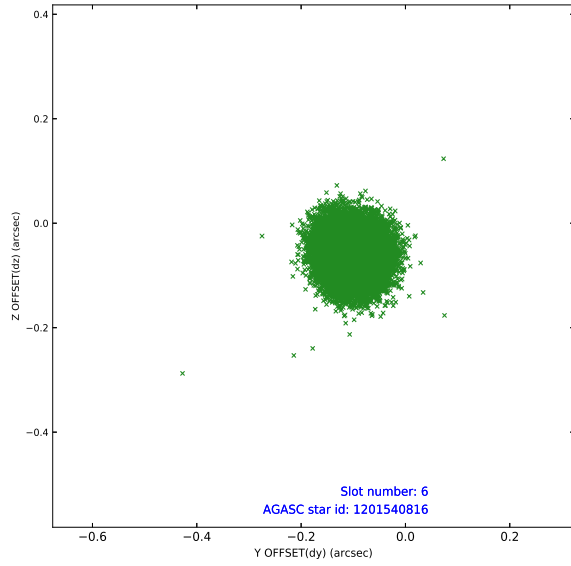
2.4.3 Slot 5



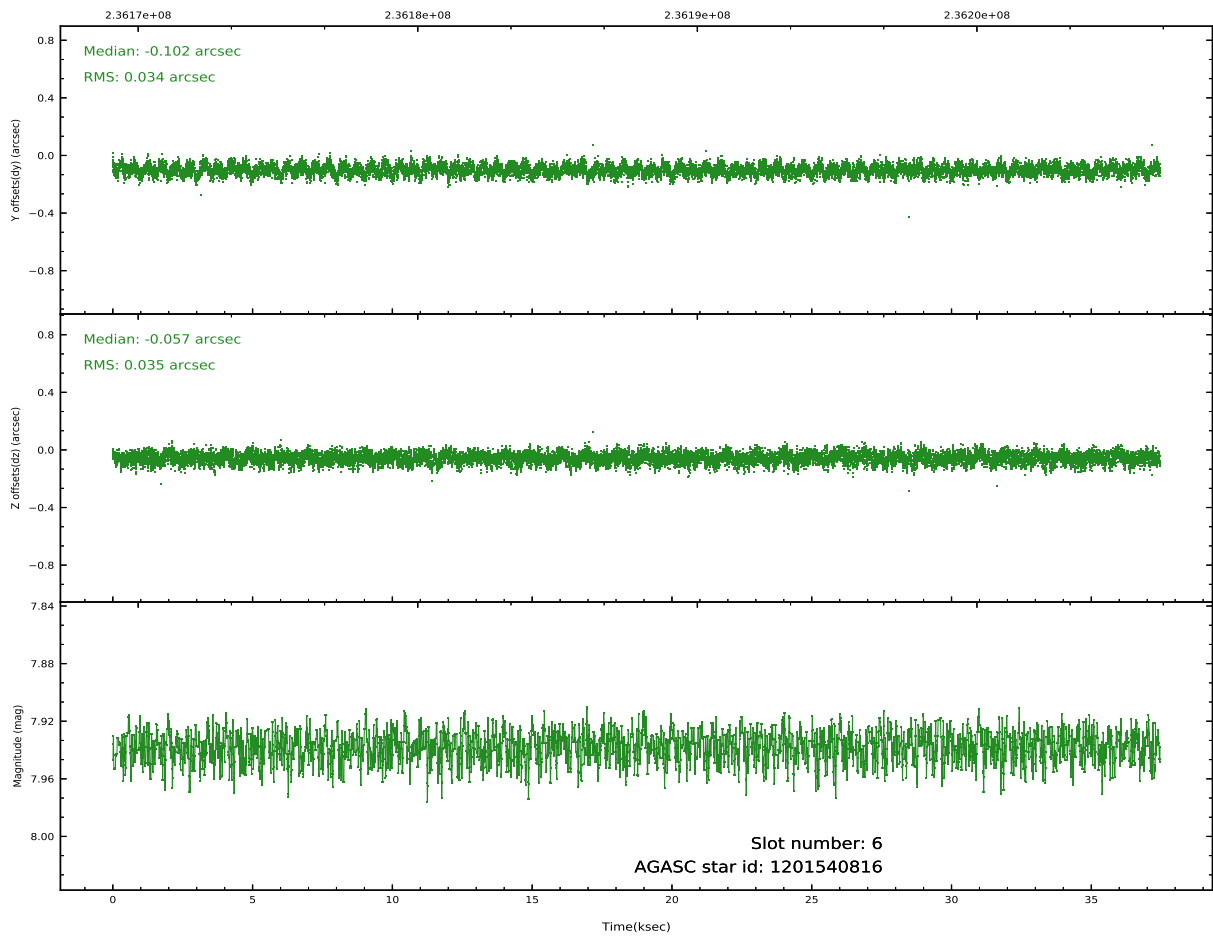
Time (s)



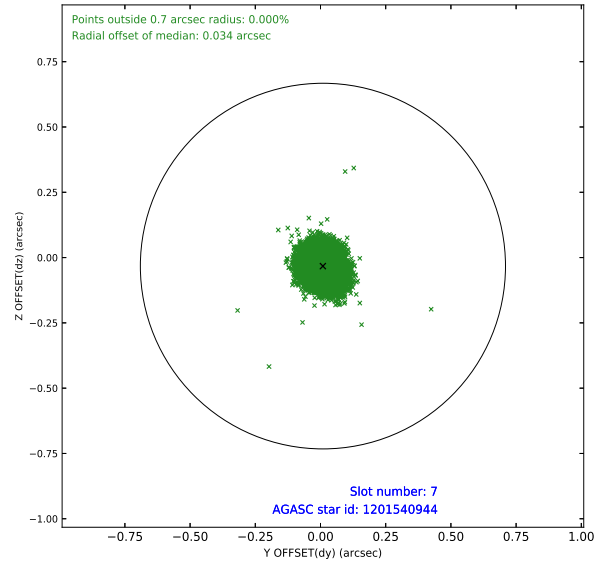
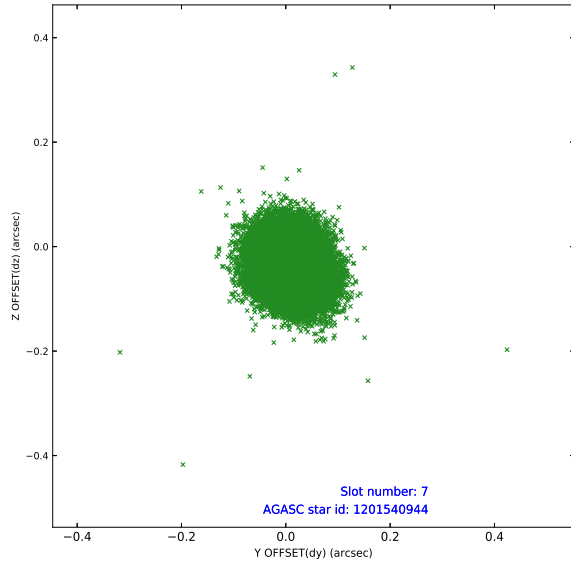
2.4.4 Slot 6



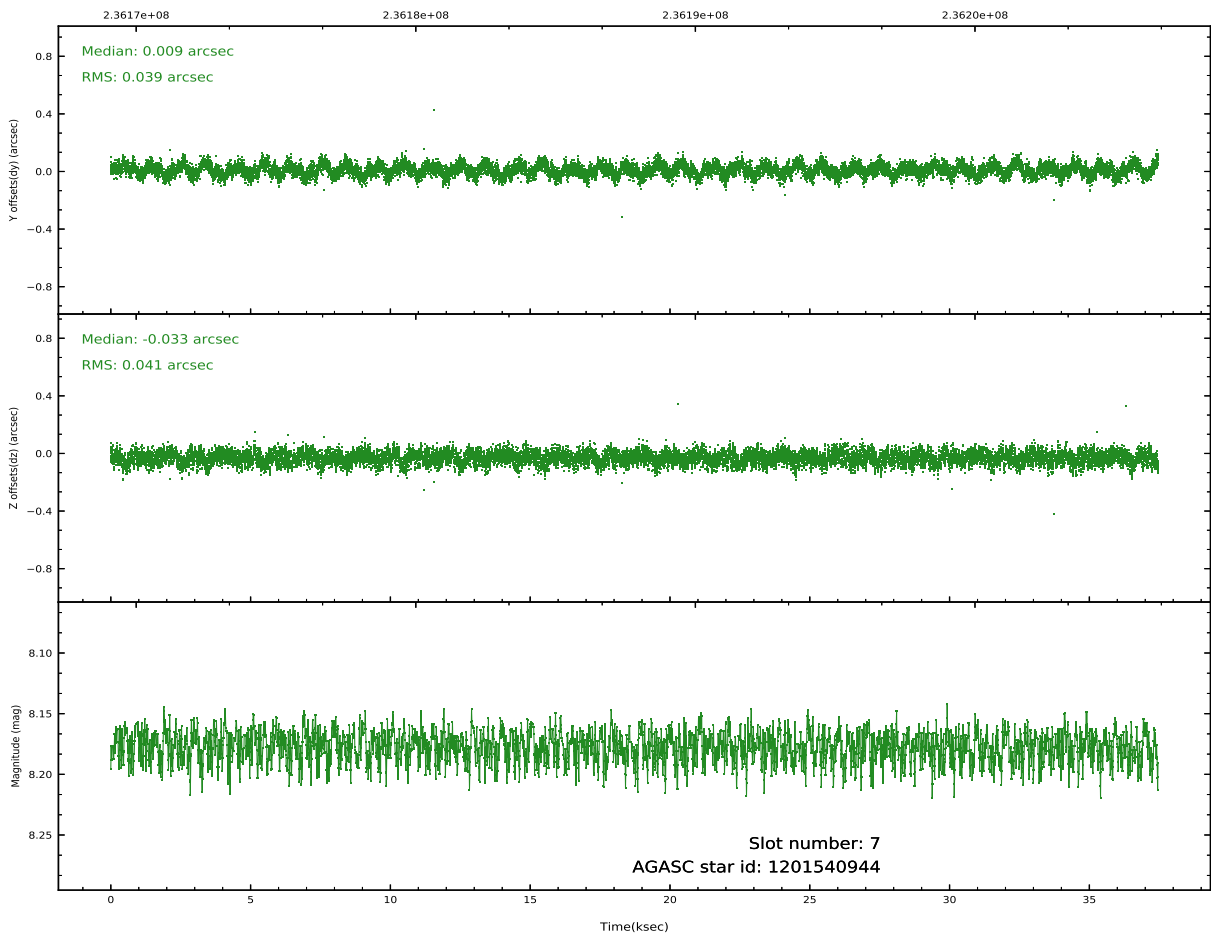
Time (s)



2.4.5 Slot 7

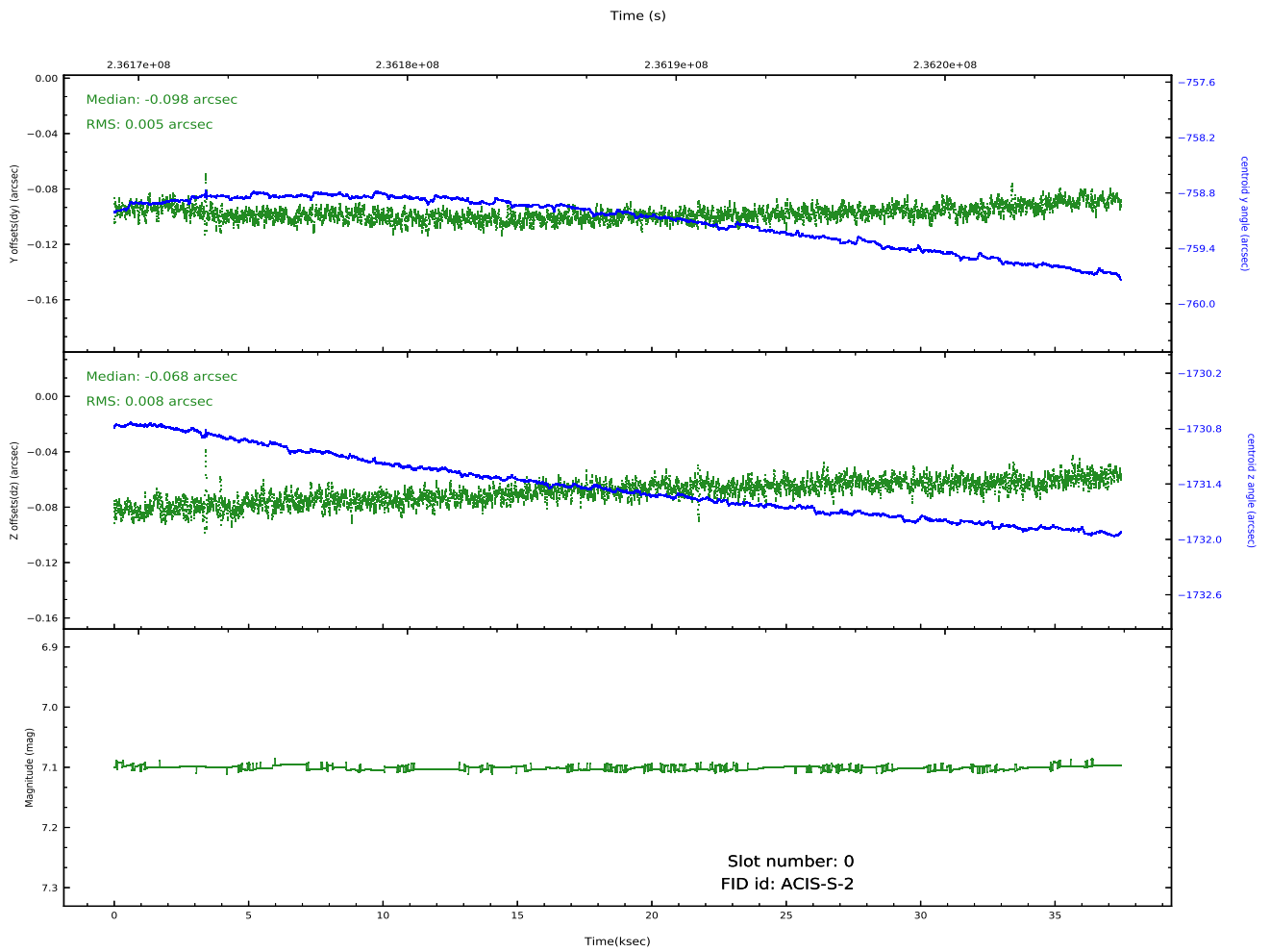
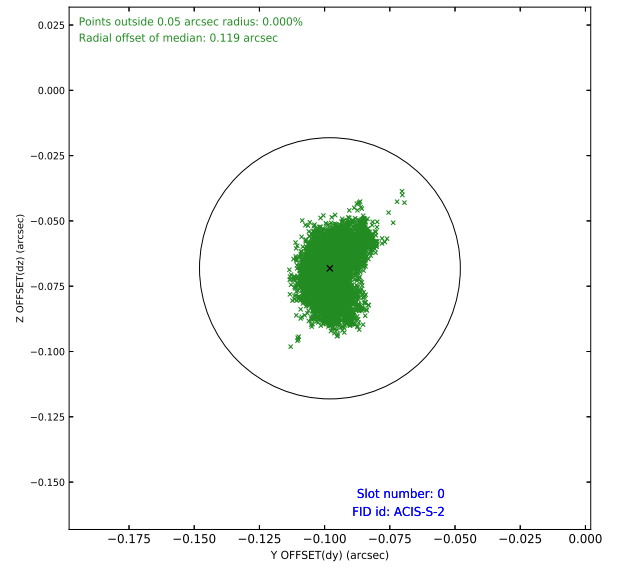
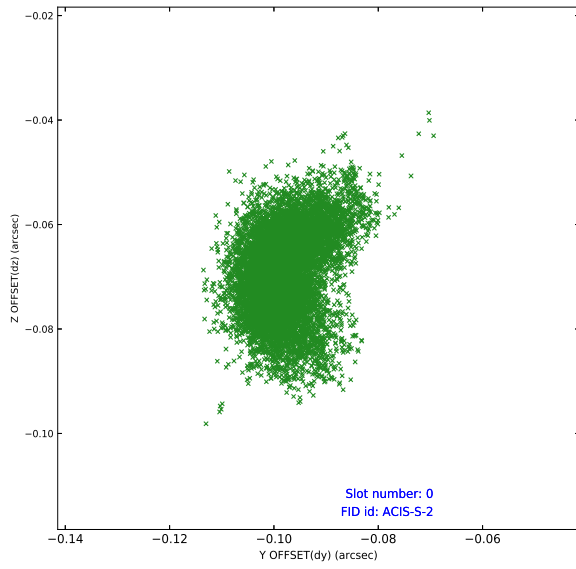


Time (s)

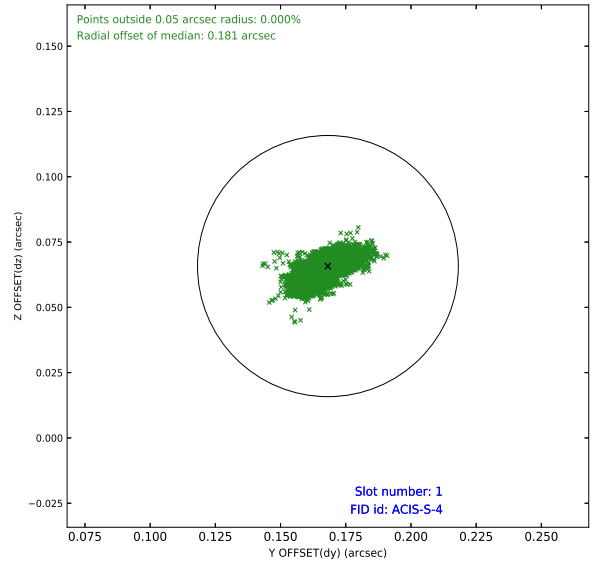
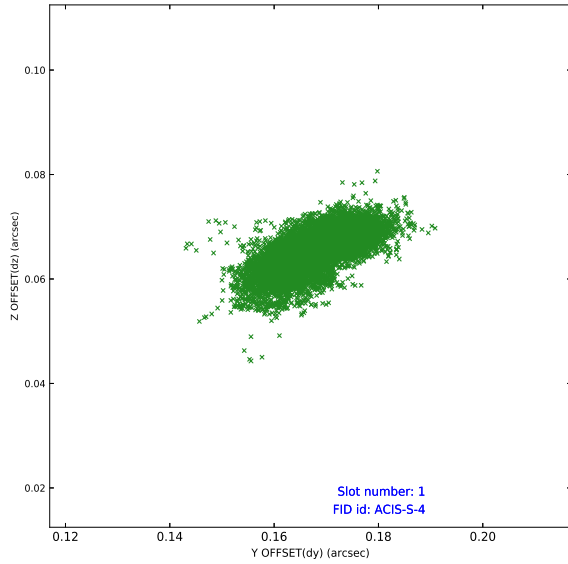


2.5 FID Slots

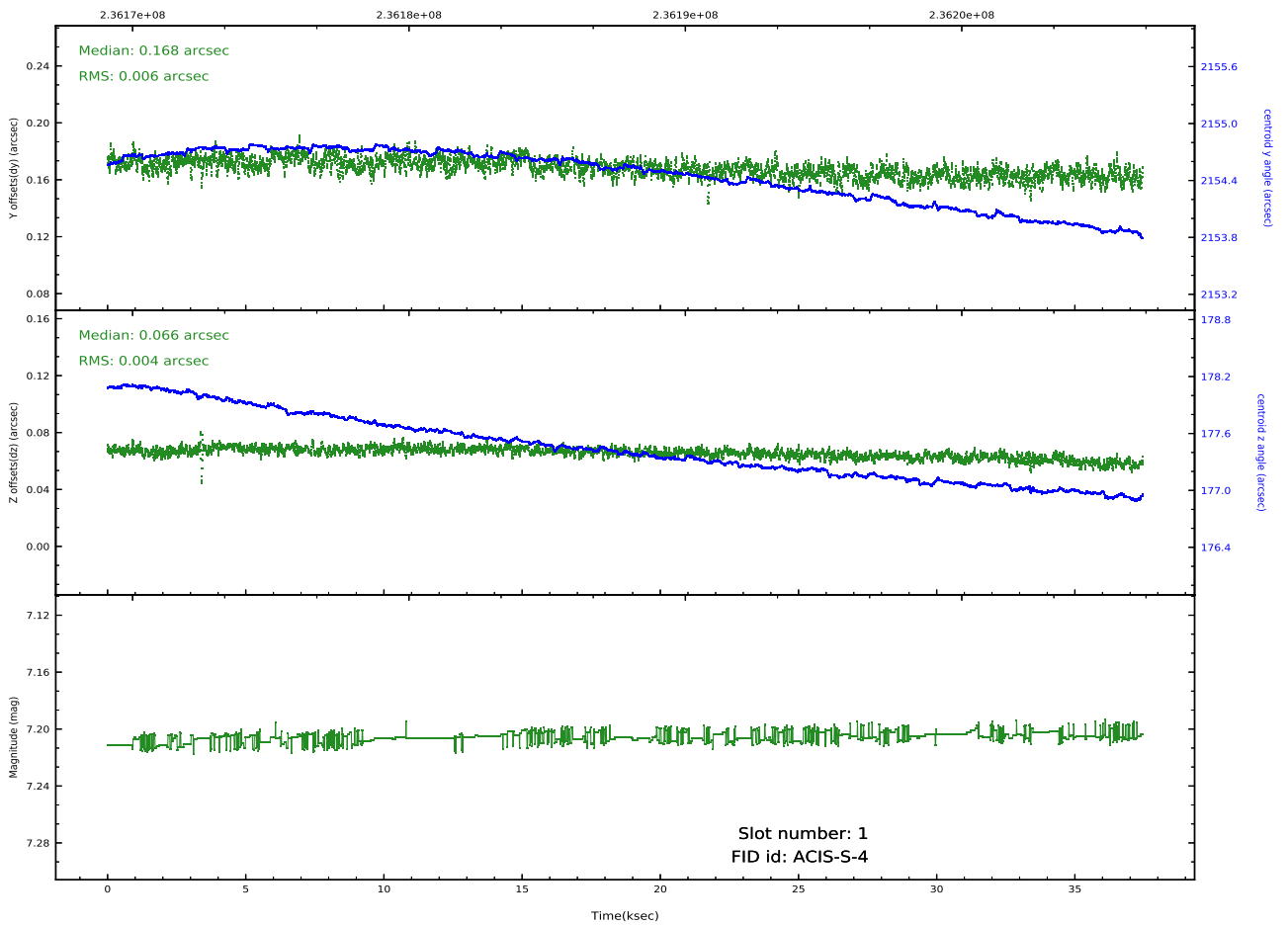
2.5.1 Slot 0



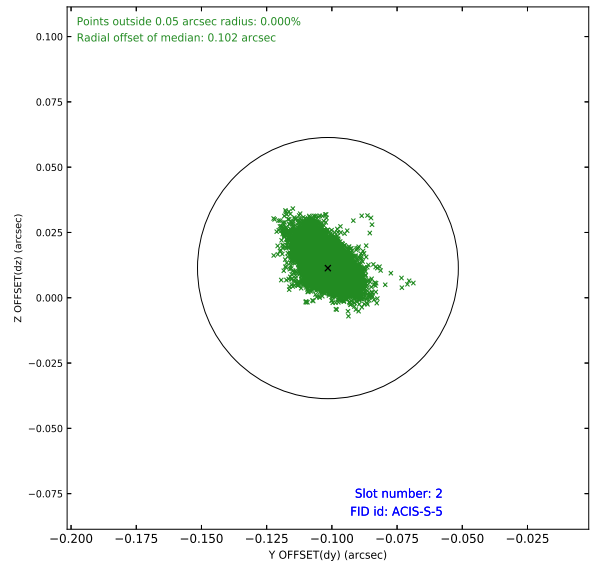
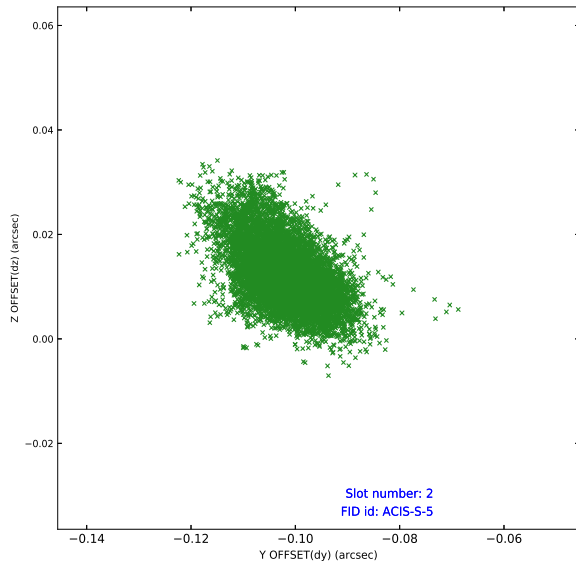
2.5.2 Slot 1



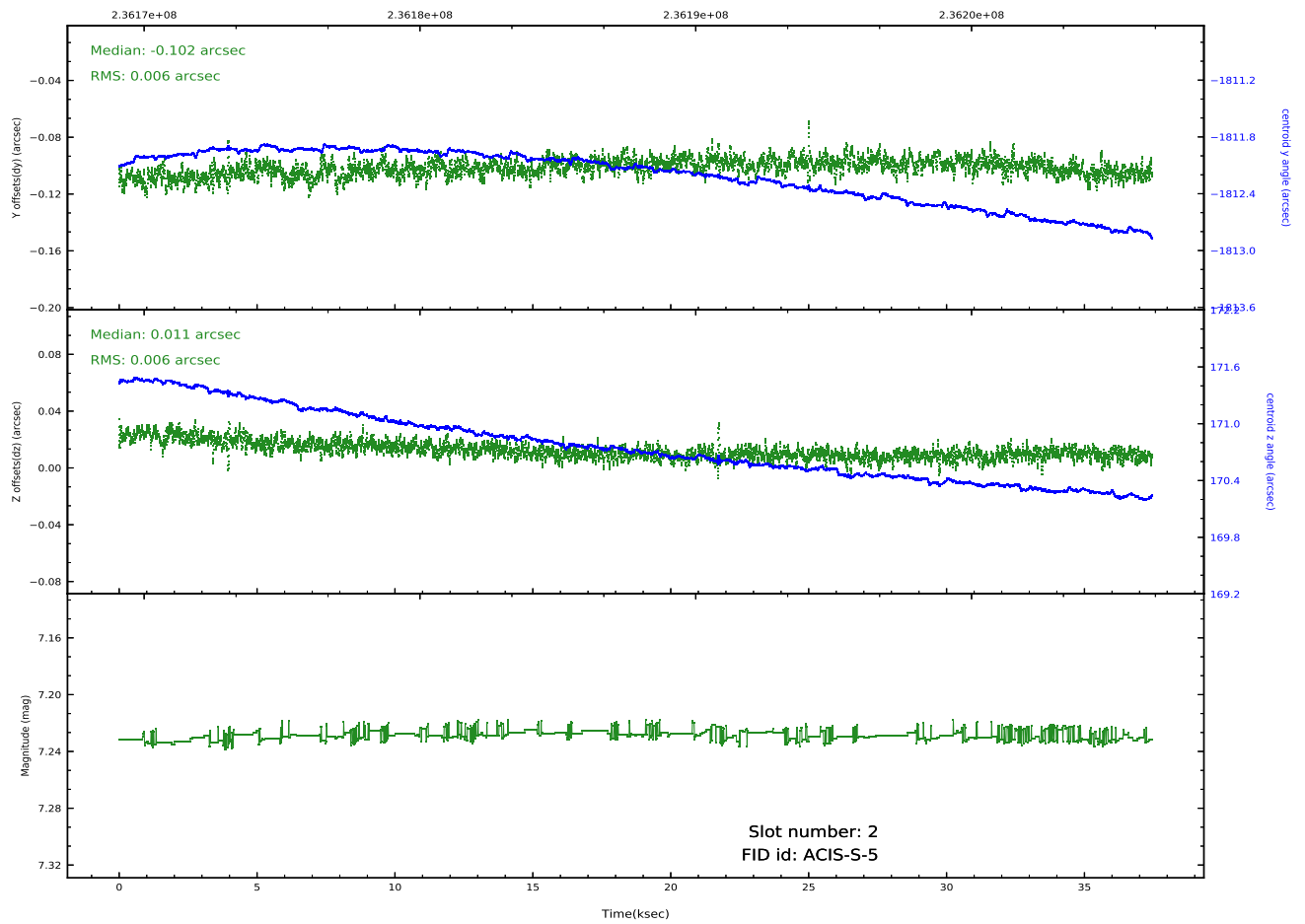
Time (s)



2.5.3 Slot 2



Time (s)



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	37.45419

A.2 Comments