

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20464 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Oct 27 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

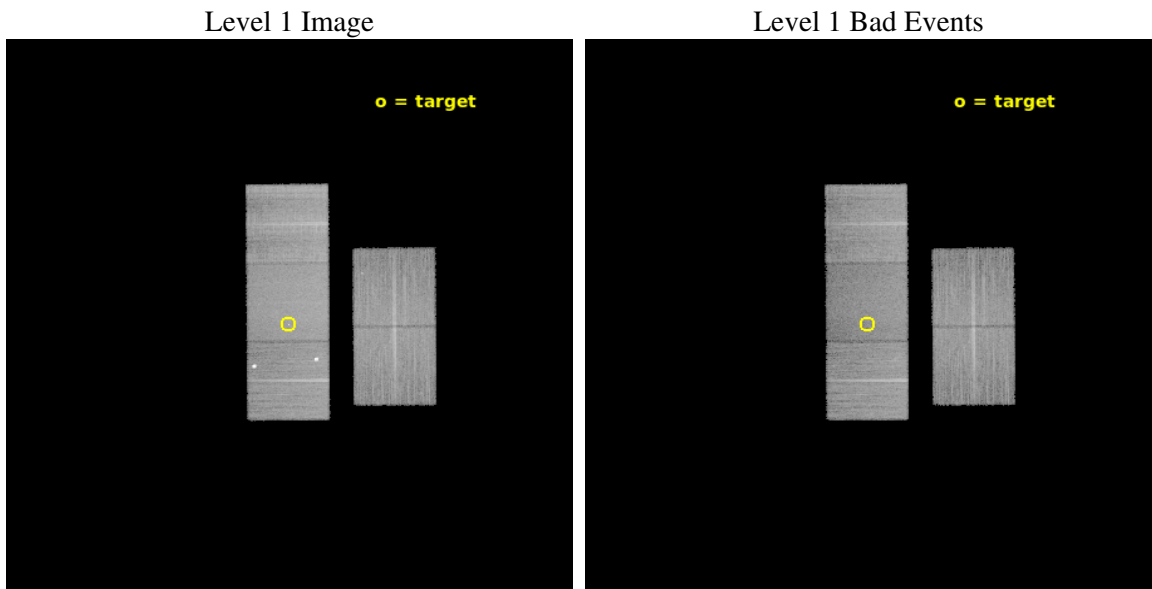
seq_num	703567	Sequence number
obs_id	20464	Observation id
title	Understanding AGN Accretion State Transitions with a Statistical Sample of Changing-Look Quasars	Proposal title
observer	John Ruan	Principal investigator
object	SDSS J160111.25+474509.6	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	240.297083	Observer's specified target RA [deg]
dec_targ	47.752694	Observer's specified target Dec [deg]
ra_nom	240.29528023822	Nominal RA [deg]
dec_nom	47.753202324958	Nominal Dec [deg]
roll_nom	269.64161093318	Nominal Roll [deg]
revision	2	Processing version of data
ontime	18054.19899857	Sum of GTIs [s]
livetime	17818.307597346	Livetime [s]
ontime2	18054.034838557	Sum of GTIs [s]
ontime3	18054.116918564	Sum of GTIs [s]
ontime6	18051.016948342	Sum of GTIs [s]
ontime7	18054.19899857	Sum of GTIs [s]
ontime8	18047.793917775	Sum of GTIs [s]
l2events	124719	Number of level 2 events



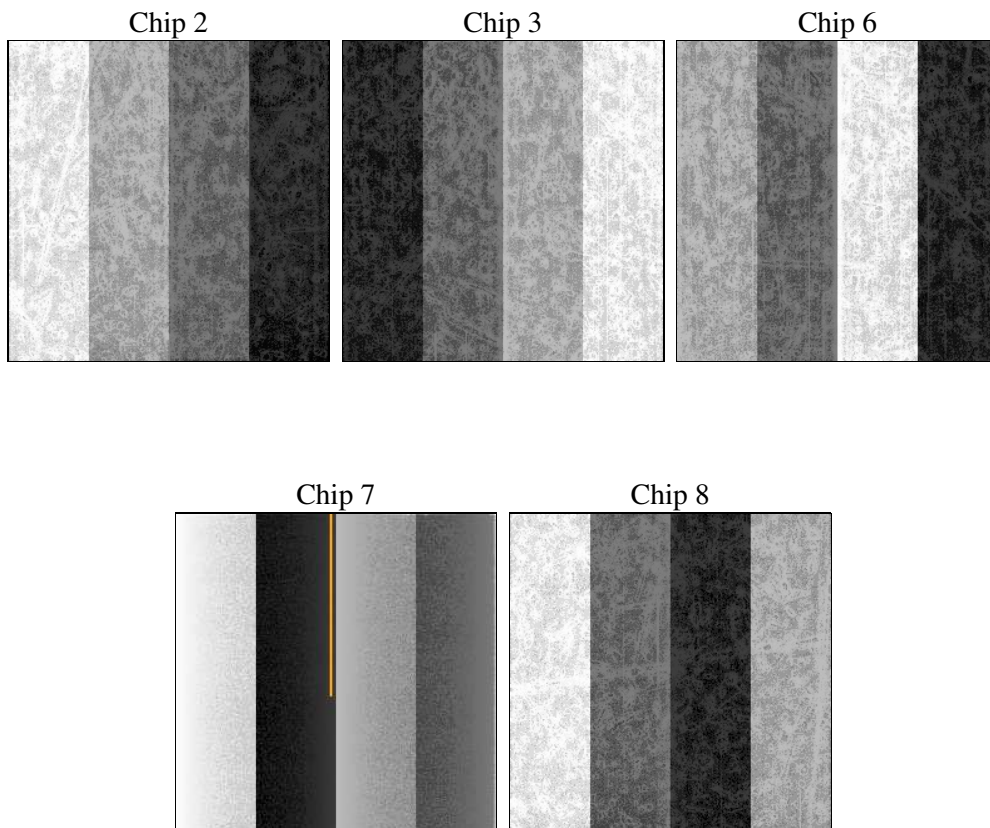
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	18000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	18054.19899857	Sum of GTIs [s]
caldbver	4.9.3	 	ontime2	18054.034838557	Sum of GTIs [s]
date	2020-10-27T10:10:36	Date and time of file creation	ontime3	18054.116918564	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	18051.016948342	Sum of GTIs [s]
			ontime7	18054.19899857	Sum of GTIs [s]
			ontime8	18047.793917775	Sum of GTIs [s]
			l1events	788086	Number of level 1 events

2.1.4 Events

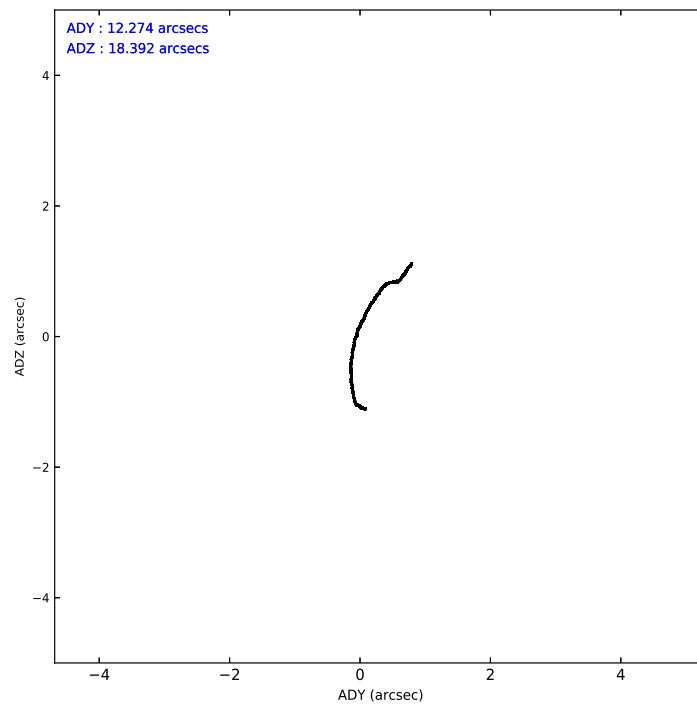
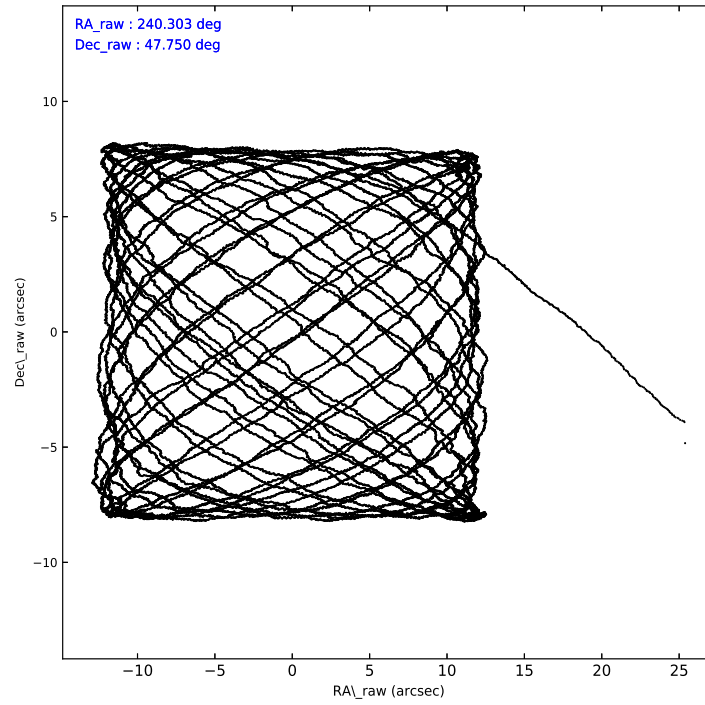
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	136615	133704	157898	173799	186070
rejected events	122847	119843	131779	98928	139918
rejected %	89%	89%	83%	56%	75%

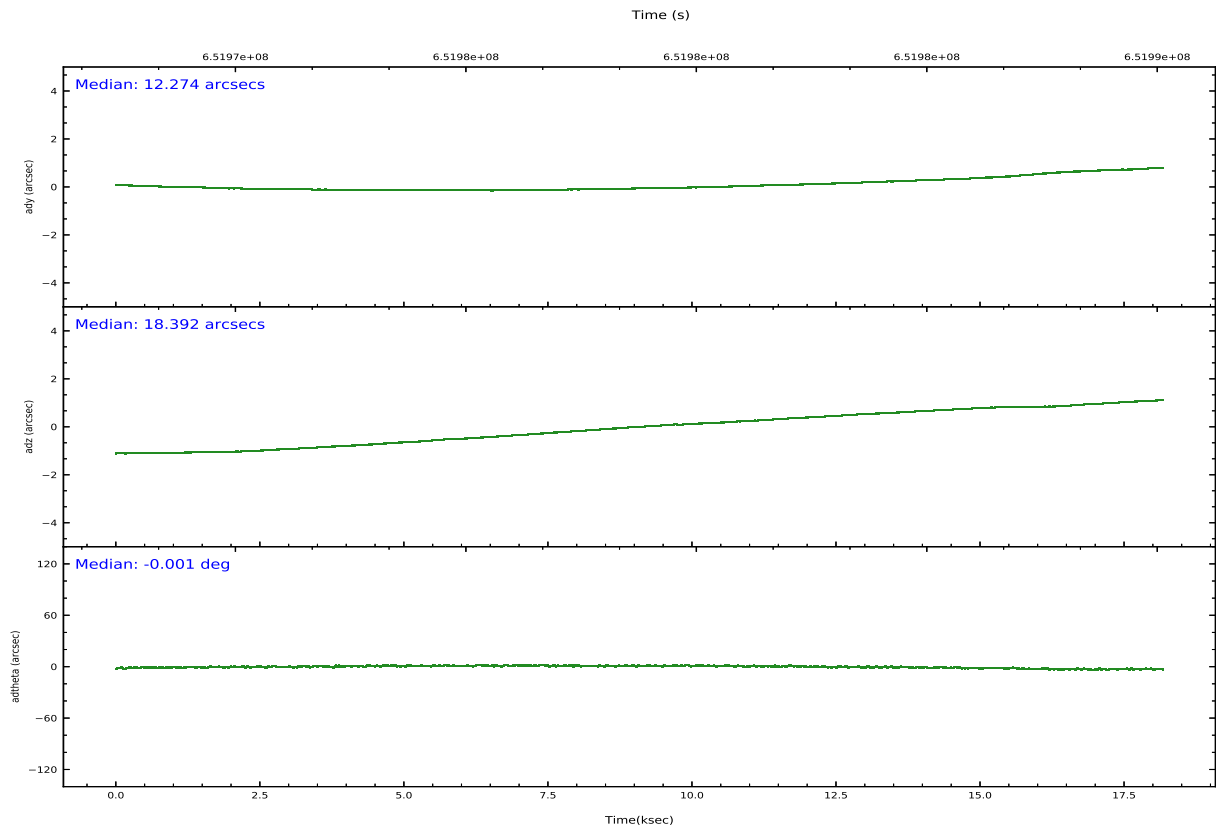
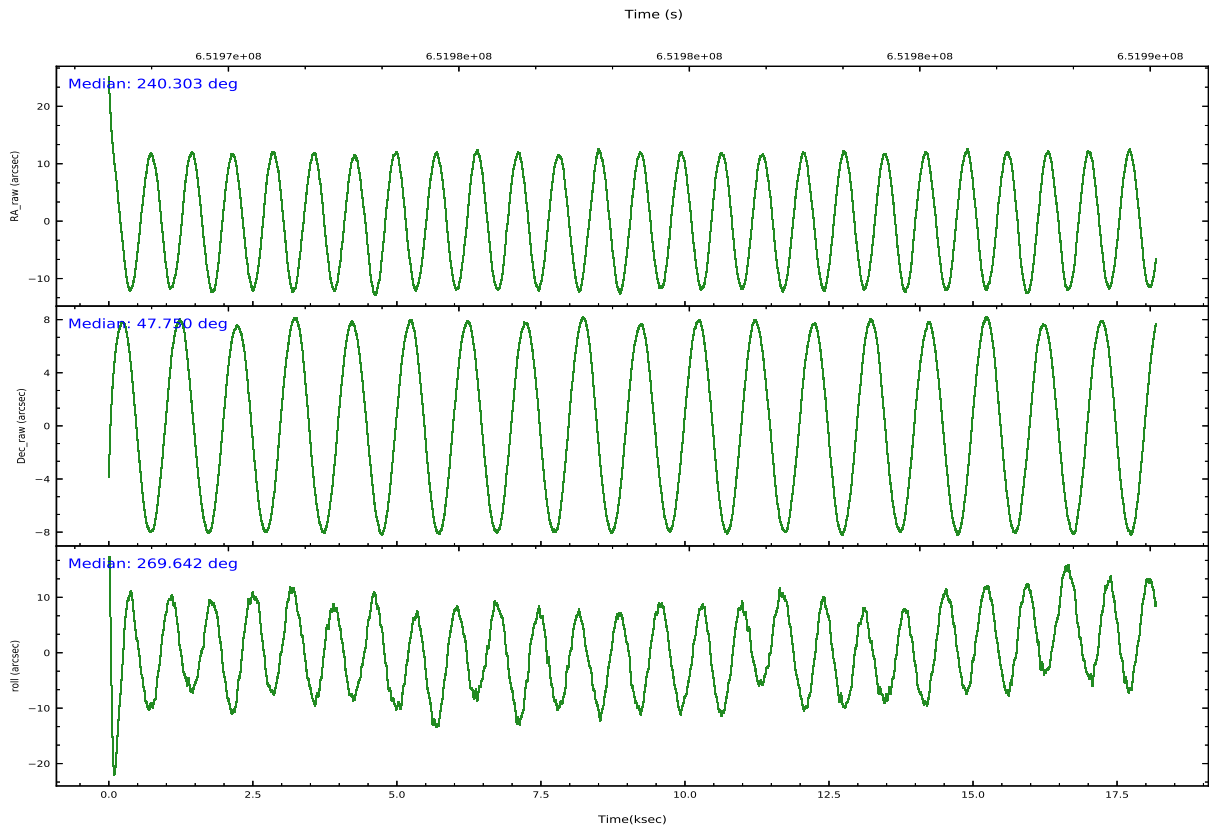
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	4990	4847	15092	6412	13112
	3%	3%	9%	3%	7%
grade 1 events	71	64	96	284	140
	0%	0%	0%	0%	0%
grade 2 events	3288	3072	4246	15703	11232
	2%	2%	2%	9%	6%
grade 3 events	1383	1429	1309	5853	4734
	1%	1%	0%	3%	2%
grade 4 events	1383	1445	1239	5590	4399
	1%	1%	0%	3%	2%
grade 5 events	4888	5881	5642	16980	9162
	3%	4%	3%	9%	4%
grade 6 events	2728	3070	4239	41327	12692
	1%	2%	2%	23%	6%
grade 7 events	117884	113896	126035	81650	130599
	86%	85%	79%	46%	70%

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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	240.282455	240.29528023822	CCD I2 on	O1	Y
[deg] Pointing Dec	47.773161	47.753202324958	CCD I3 on	O2	Y
[deg] Pointing Roll	269.504691	269.64161093318	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	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	Y	Y
[s] Observation start time (MET)	651970102.184000	651969007.4193701	CCD S5 on	N	N
Observation start date	2018-08-29T22:47:13	2018-08-29T22:30:07	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	651988102.184000	651988933.93305	On-chip summing requested	N	N
Observation end date	2018-08-30T03:47:13	2018-08-30T04:02:13	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



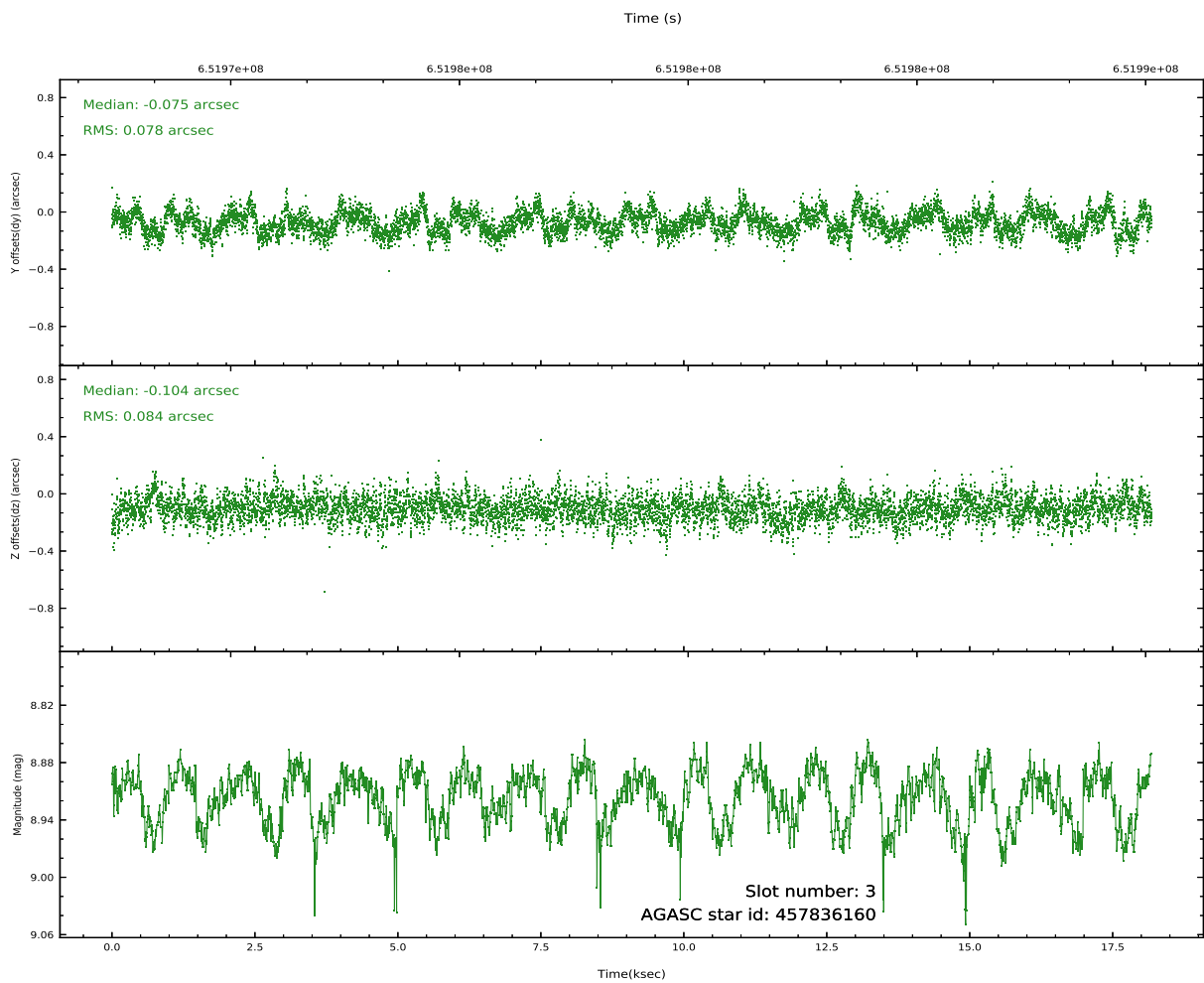
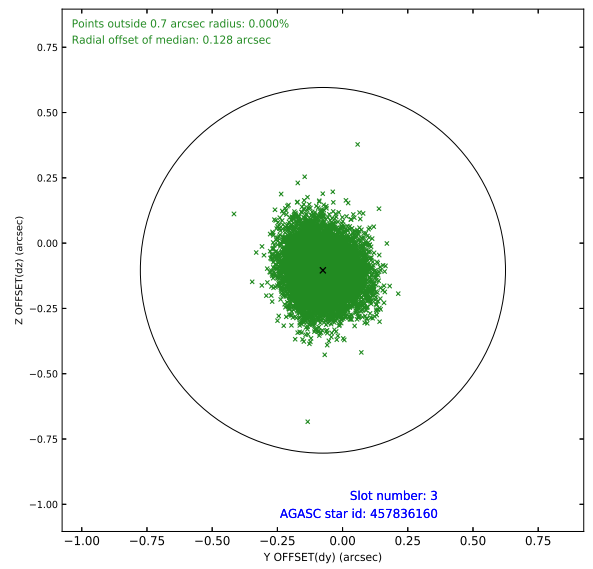
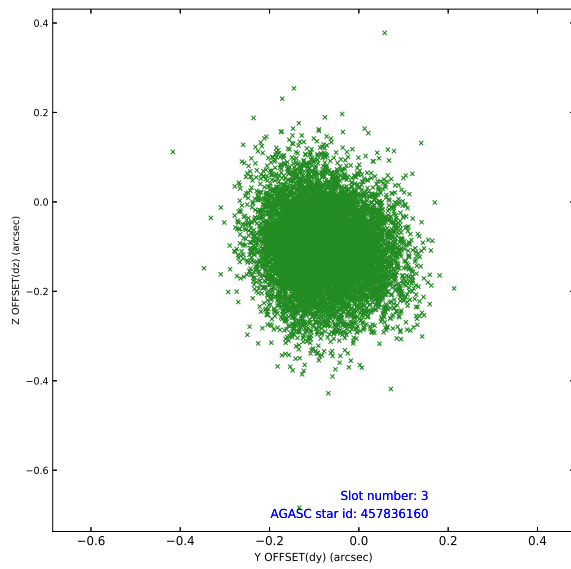


Slot Statistics

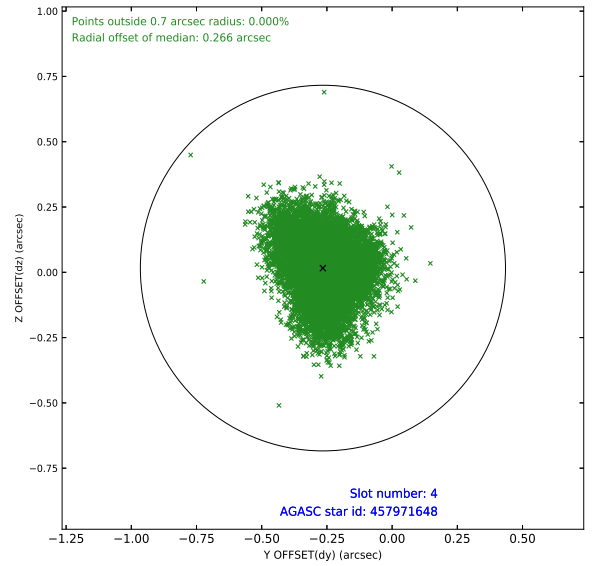
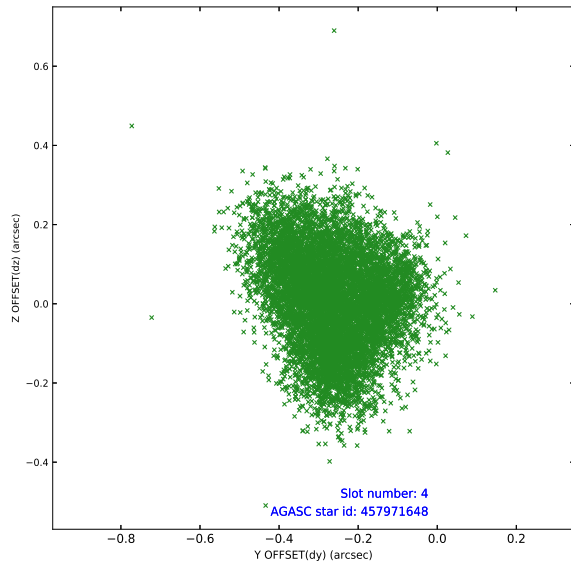
slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.15	4433	1.000	0.142	-0.110	0.022	0.036	0.000000	0.000000	-765.23	-1739
1	FID		ACIS-S-5	7.29	4435	1.000	-0.184	0.188	0.017	0.039	0.000000	0.000000	-1818.67	162
2	FID		ACIS-S-6	7.43	4434	1.000	0.015	-0.069	0.011	0.024	0.000000	0.000000	396.16	805
3	GUIDE	used	457836160	8.91	8853	1.000	-0.075	-0.104	0.122	0.196	239.491294	47.684202	327.69	-1914
4	GUIDE	used	457971648	9.08	8859	1.000	-0.265	0.016	0.168	0.260	240.261599	48.053613	-1008.82	-58
5	GUIDE	used	457975496	9.13	8860	1.000	-0.148	0.114	0.131	0.211	240.166690	48.314139	-1945.52	-294
6	GUIDE	used	457442944	8.36	8861	1.000	0.330	0.072	0.126	0.215	239.598110	47.117462	2369.23	-1655
7	GUIDE	used	457574424	9.51	8855	1.000	0.160	-0.089	0.180	0.295	240.424618	47.184820	2115.73	366

2.4 Star Slots

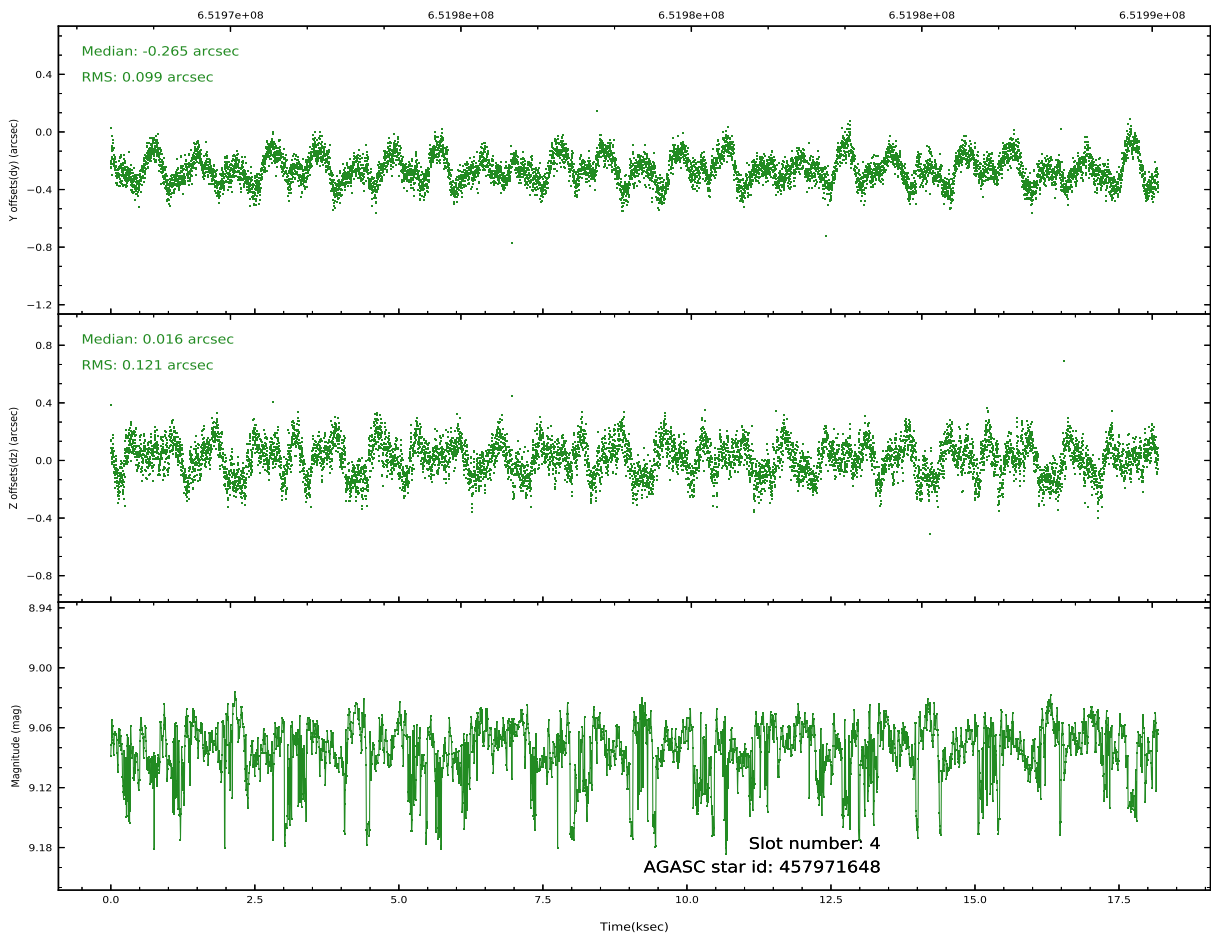
2.4.1 Slot 3



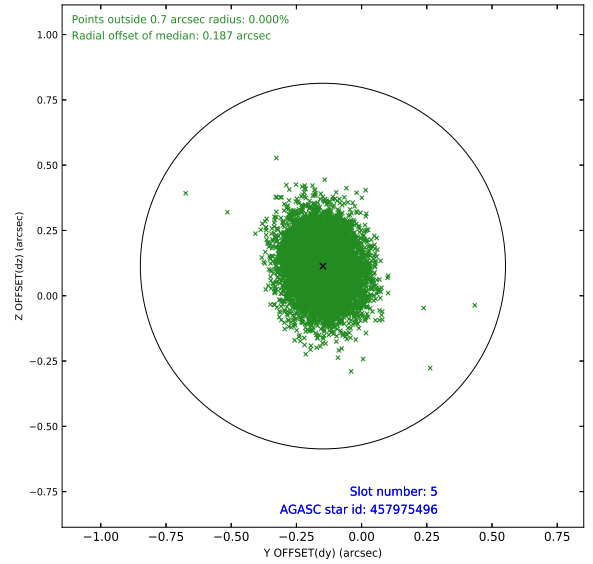
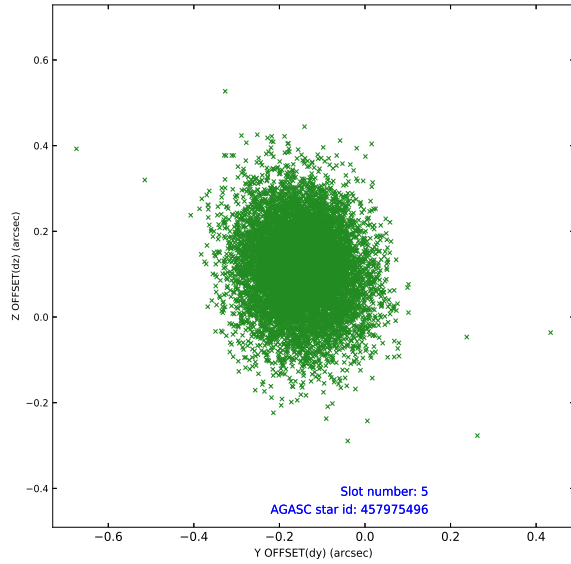
2.4.2 Slot 4



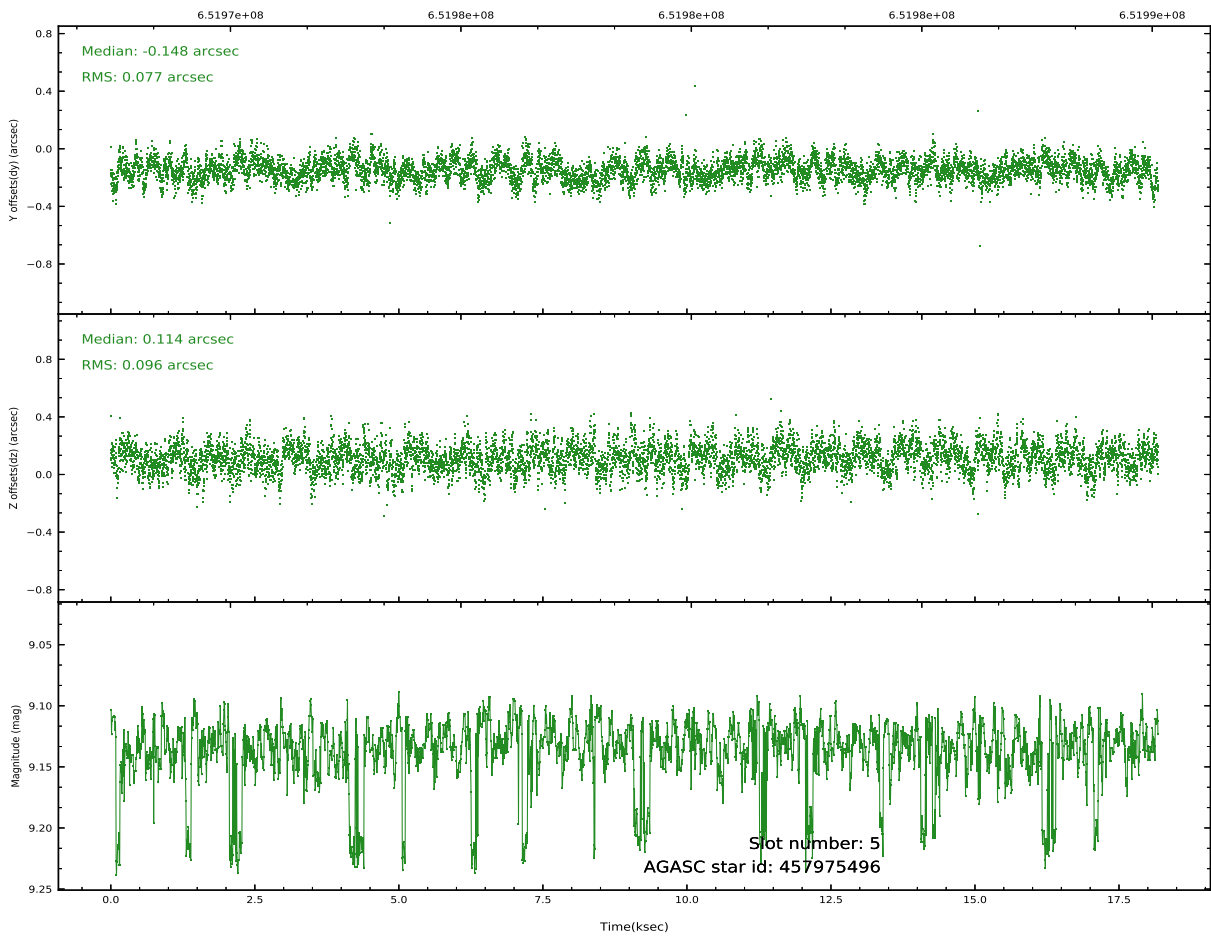
Time (s)



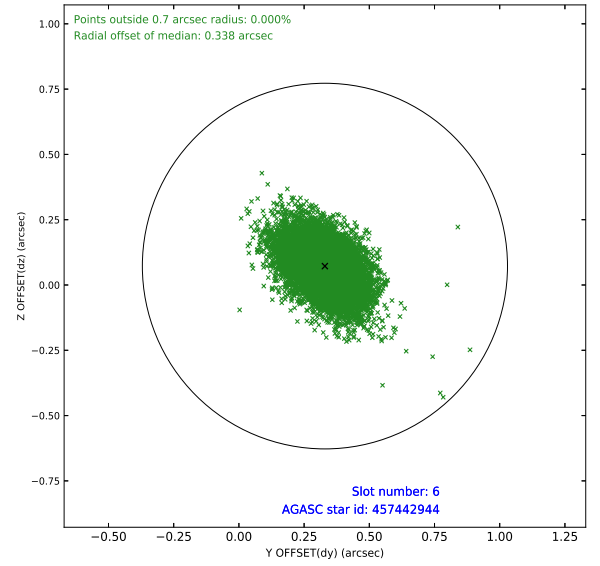
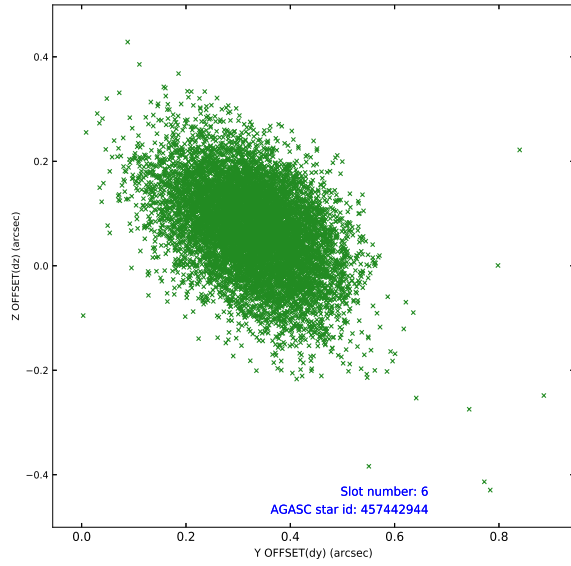
2.4.3 Slot 5



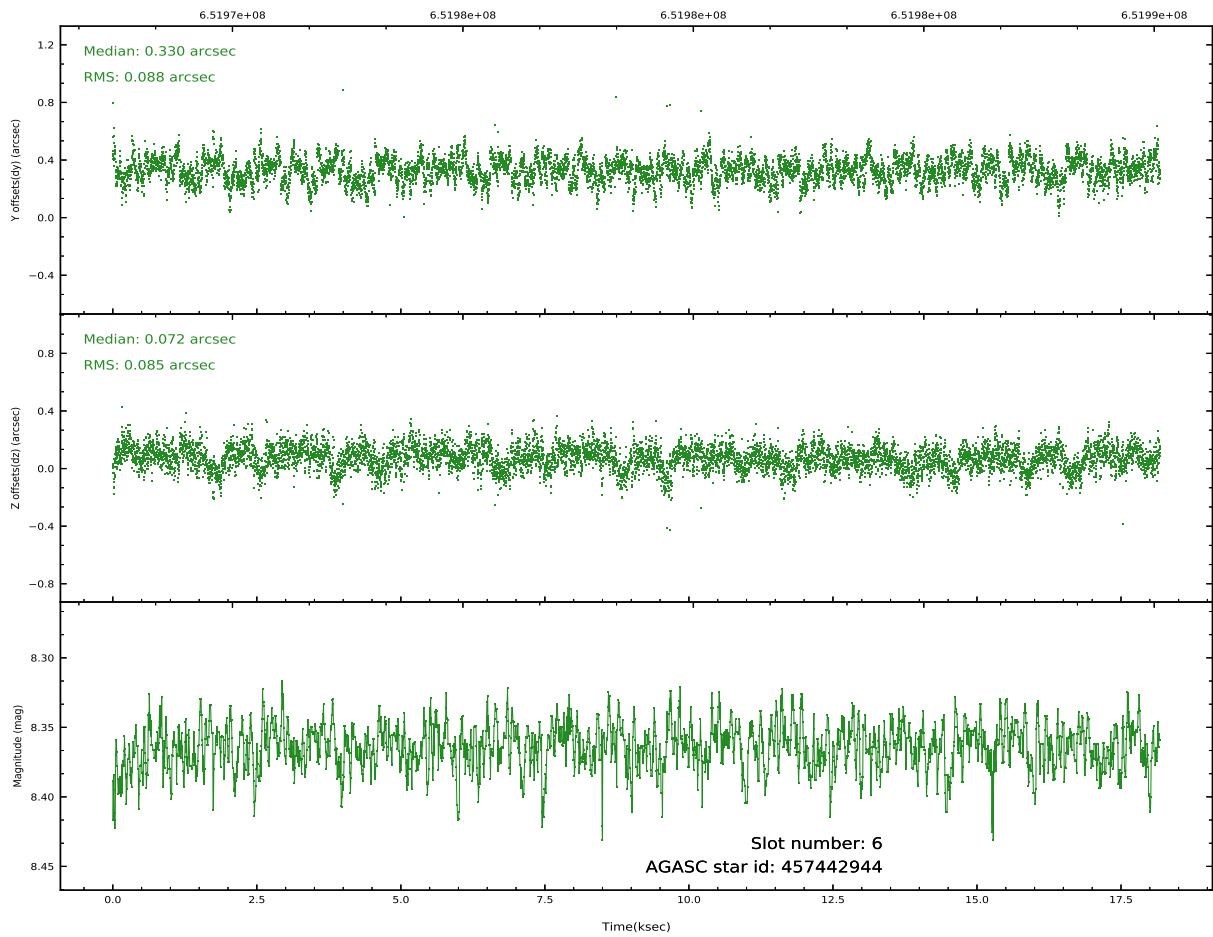
Time (s)



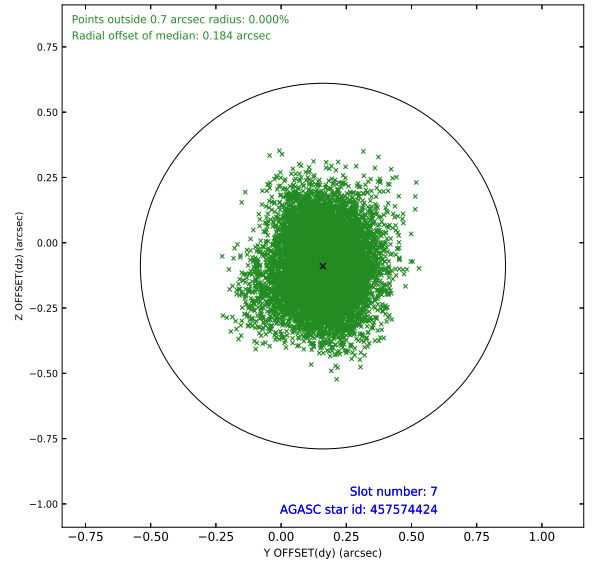
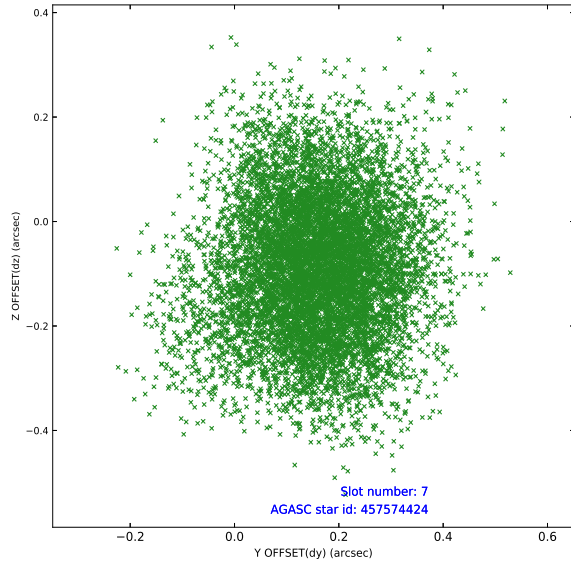
2.4.4 Slot 6



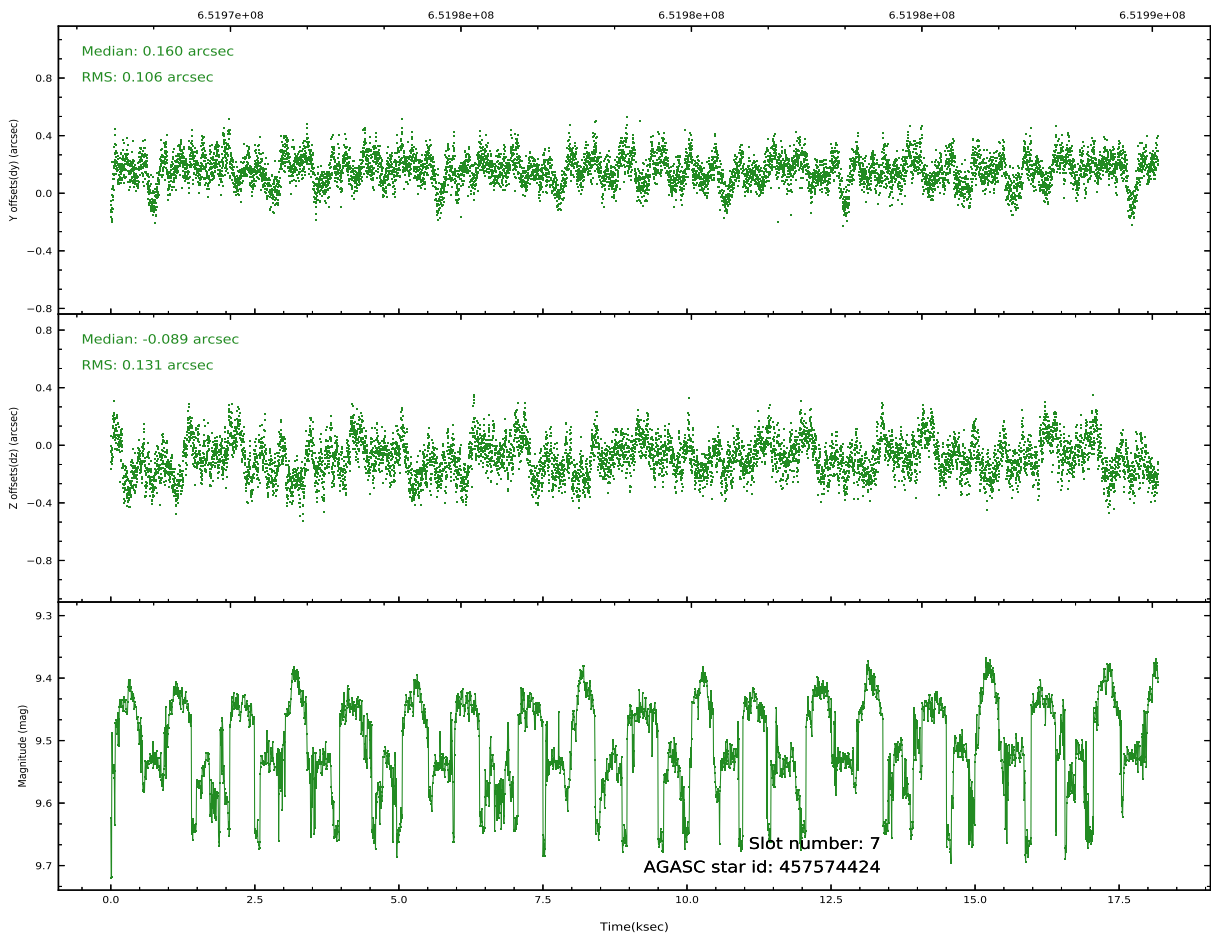
Time (s)



2.4.5 Slot 7

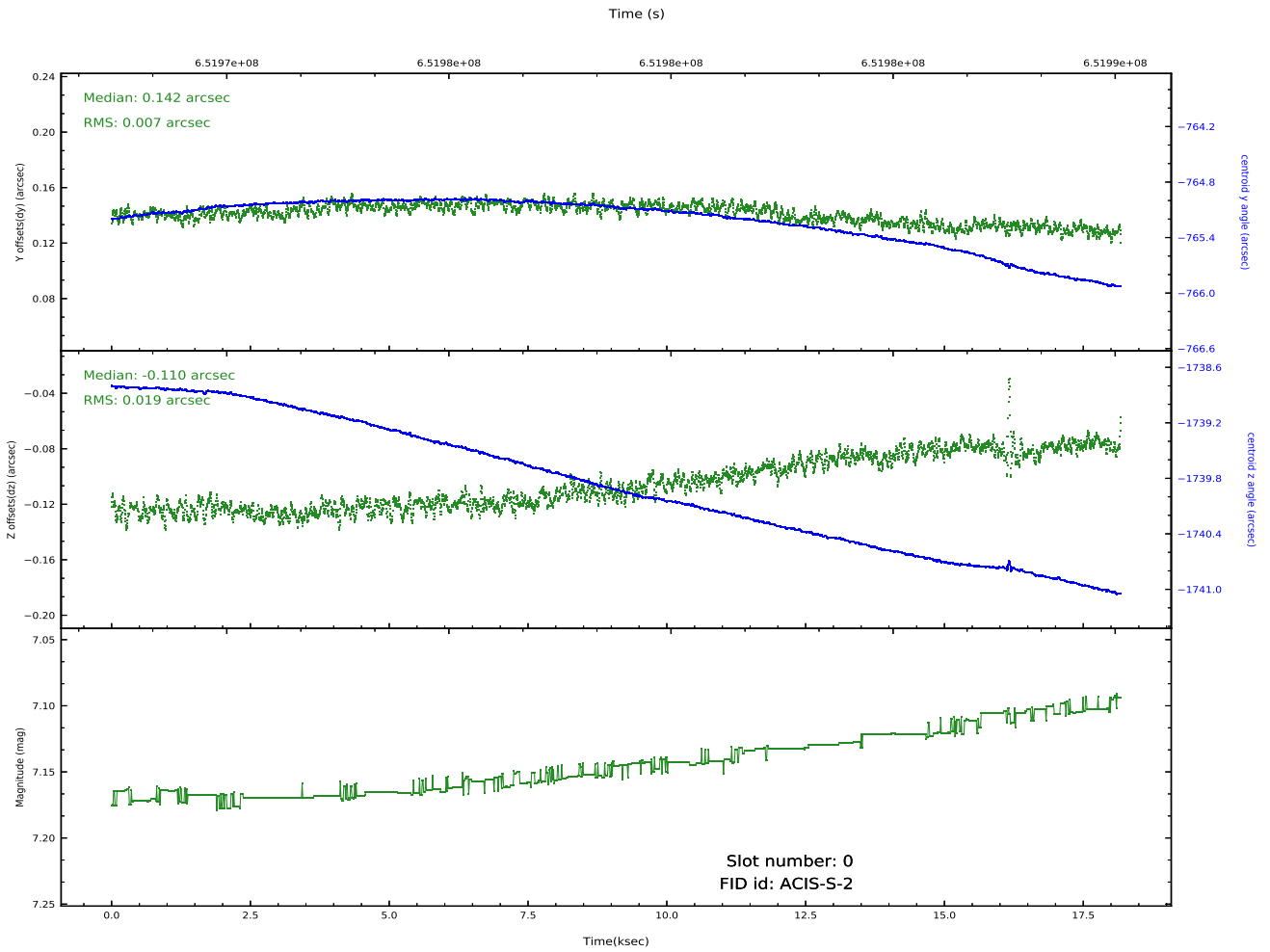
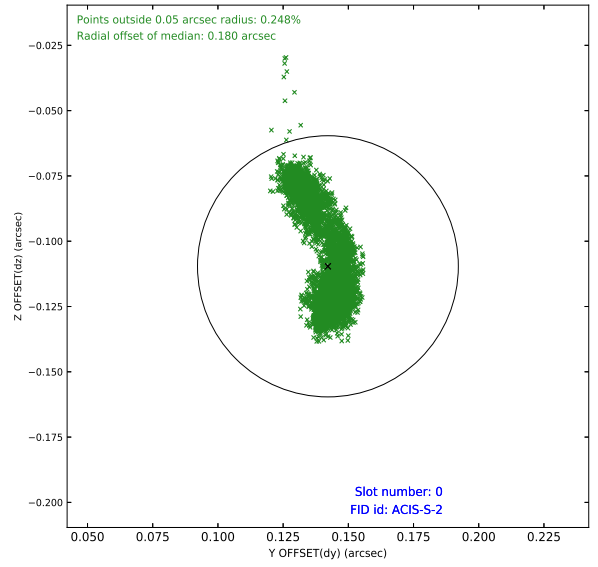
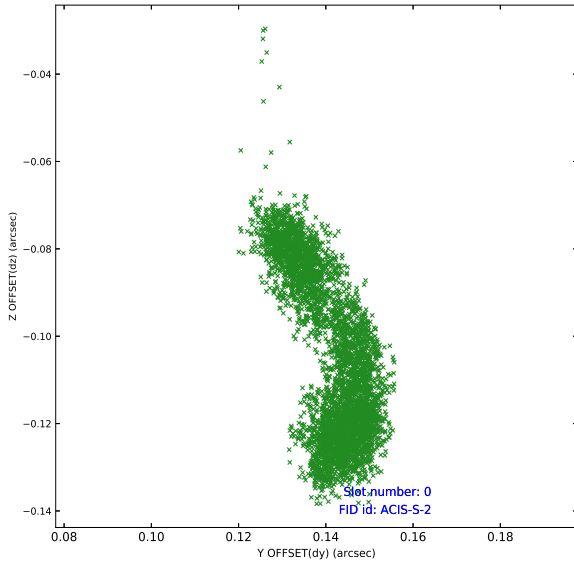


Time (s)

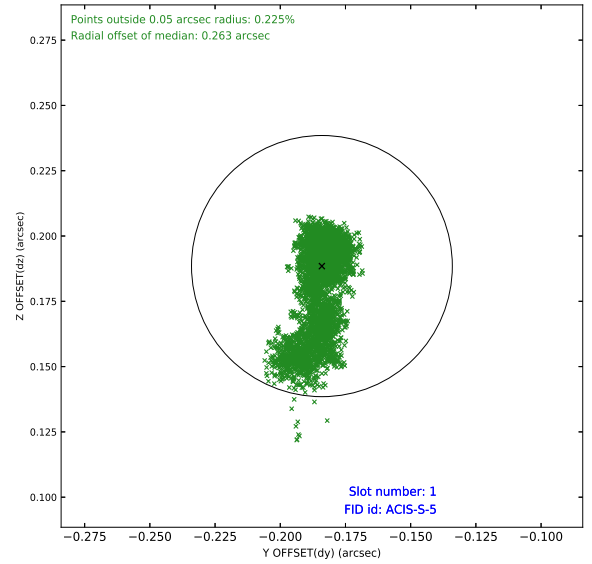
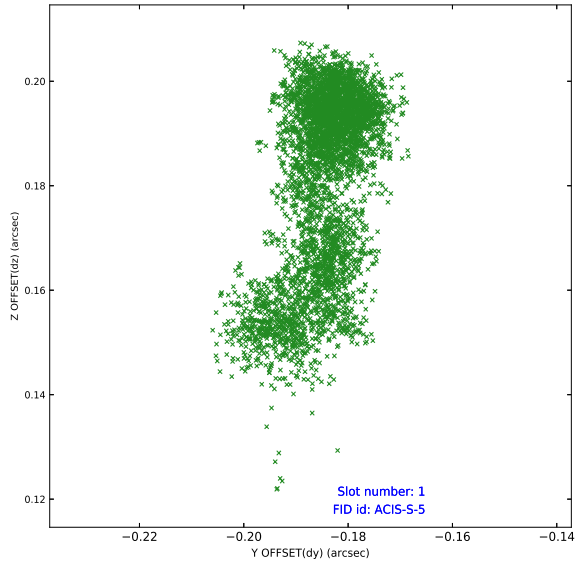


2.5 FID Slots

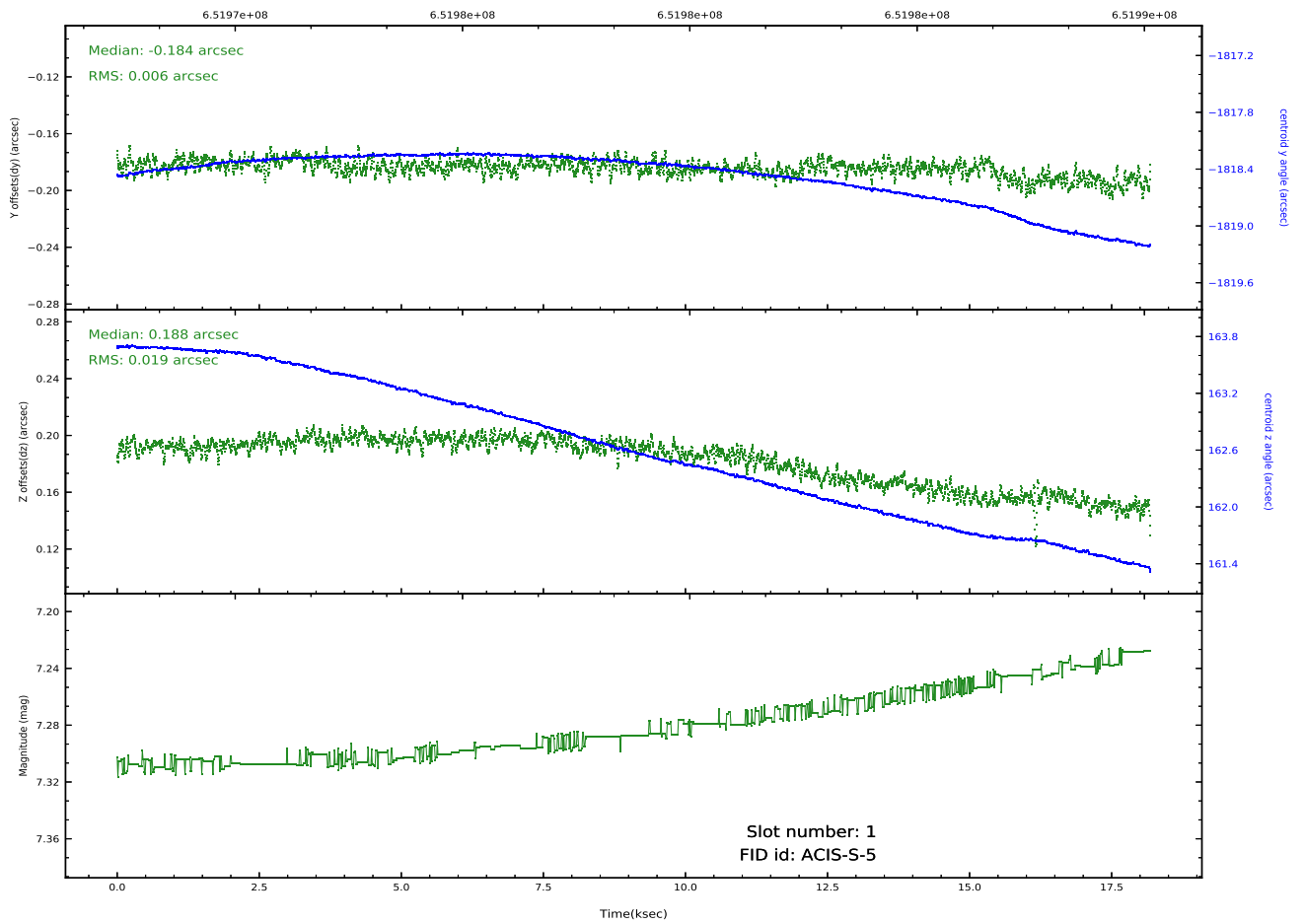
2.5.1 Slot 0



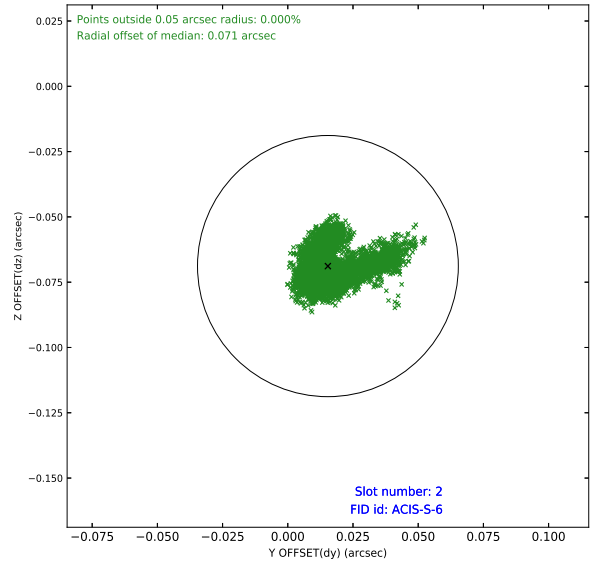
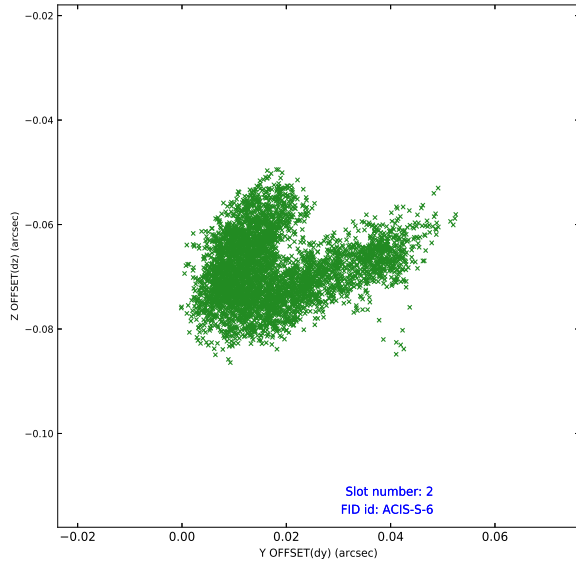
2.5.2 Slot 1



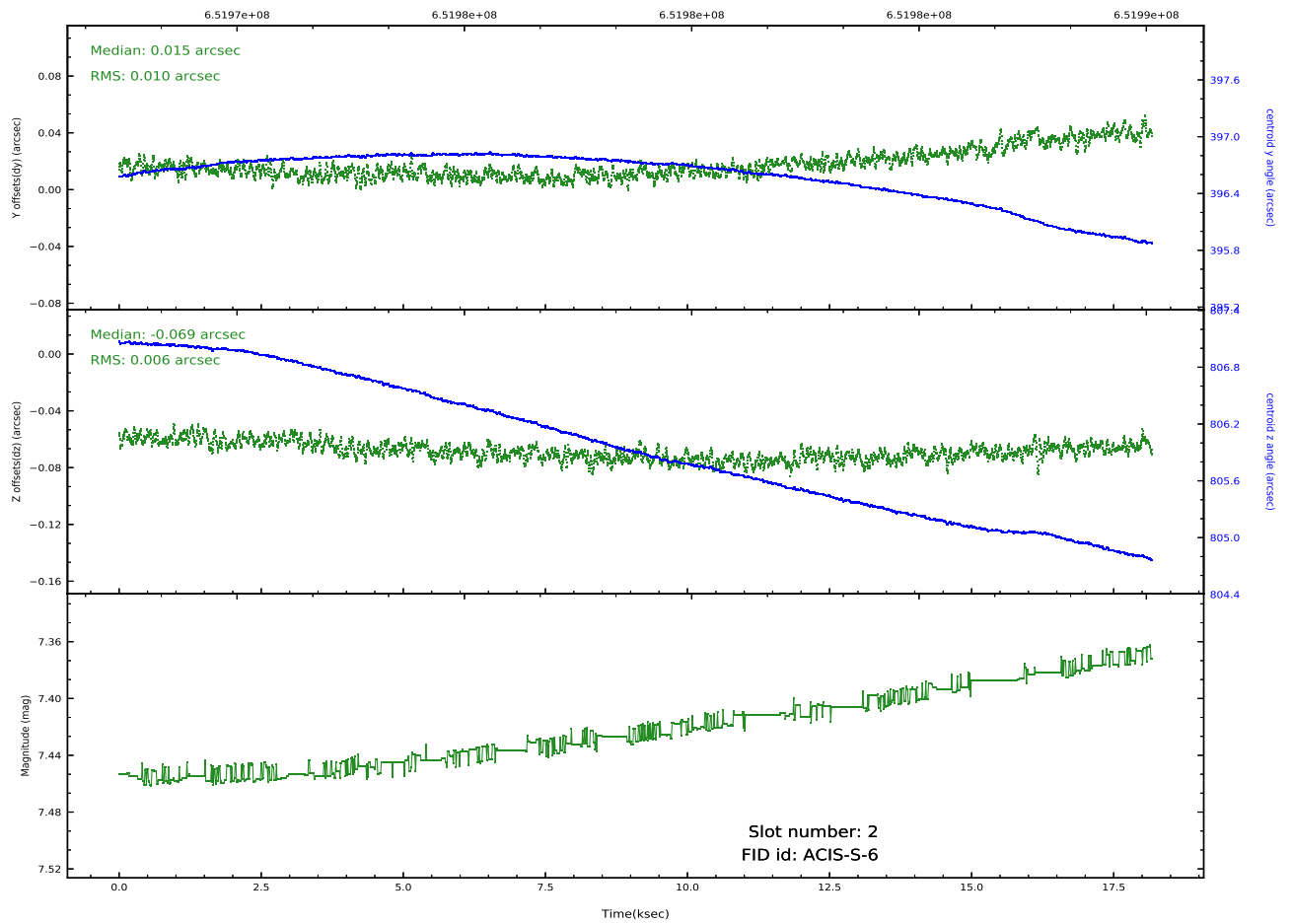
Time (s)



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	18.054198995233

A.2 Comments