

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20505 - L2 Version 2
Chandra X-Ray Center

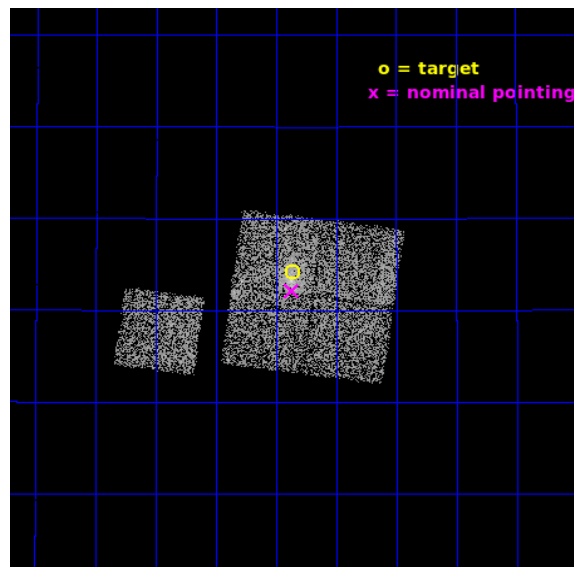
L2 Processing Date : Oct 27 2020

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

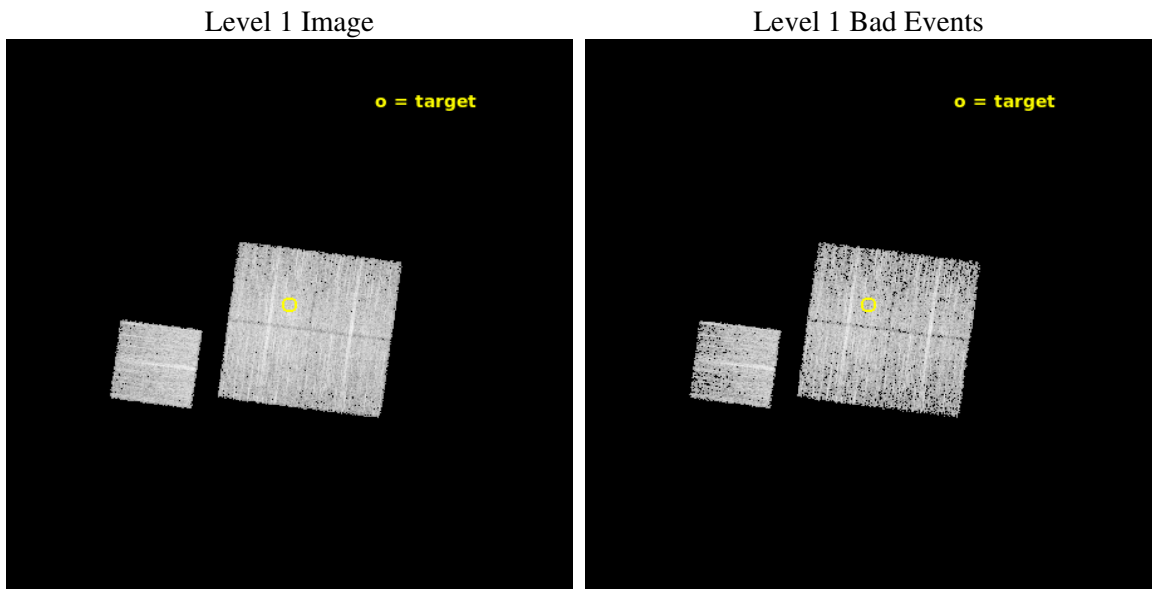
seq_num	801719	Sequence number
obs_id	20505	Observation id
title	Enabling precision cosmology with optically selected galaxy clusters	
observer	Roger Morris	Principal investigator
object	CIG J160022+331318	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	240.089583	Observer's specified target RA [deg]
dec_targ	33.235611	Observer's specified target Dec [deg]
ra_nom	240.09218146496	Nominal RA [deg]
dec_nom	33.202629061831	Nominal Dec [deg]
roll_nom	277.5831435394	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5071.6000391245	Sum of GTIs [s]
livetime	5005.3358509557	Livetime [s]
ontime0	5071.6000391245	Sum of GTIs [s]
ontime1	5068.4590489864	Sum of GTIs [s]
ontime2	5071.6000391245	Sum of GTIs [s]
ontime3	5071.6000391245	Sum of GTIs [s]
ontime6	5071.6000391245	Sum of GTIs [s]
l2events	19404	Number of level 2 events



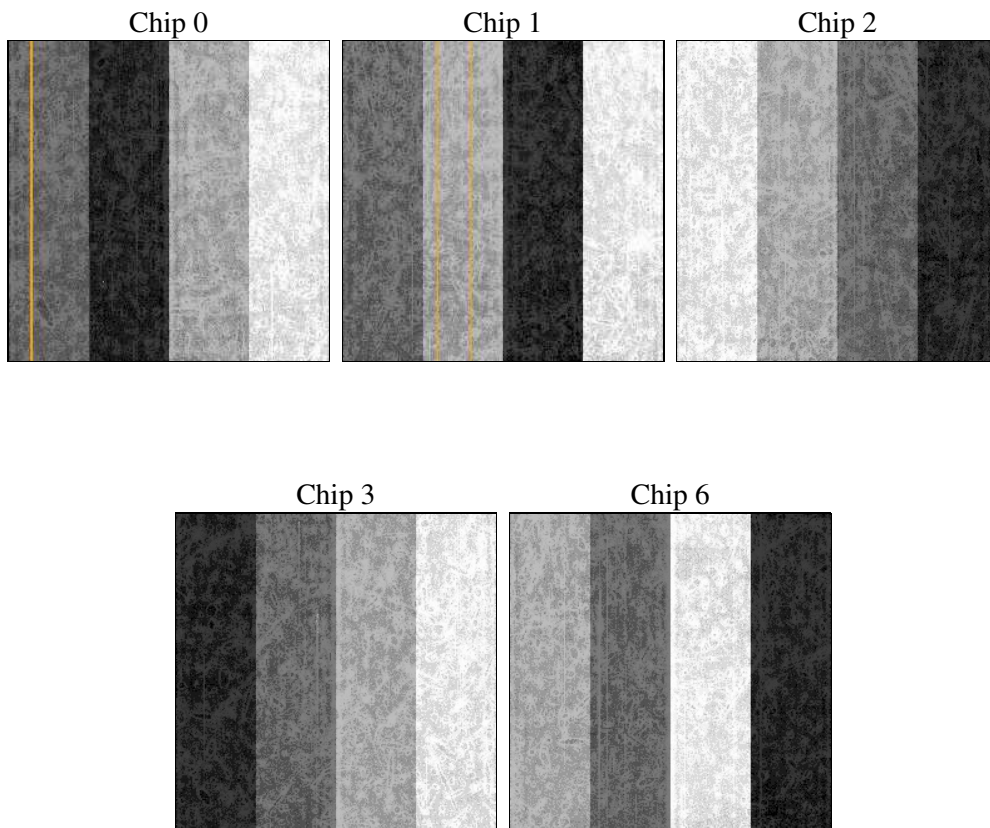
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	5071.6000391245	Sum of GTIs [s]
caldsver	4.9.3	 	ontime0	5071.6000391245	Sum of GTIs [s]
date	2020-10-27T18:23:49	Date and time of file creation	ontime1	5068.4590489864	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	5071.6000391245	Sum of GTIs [s]
			ontime3	5071.6000391245	Sum of GTIs [s]
			ontime6	5071.6000391245	Sum of GTIs [s]
			l1events	179749	Number of level 1 events

2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	32826	34187	38728	37195	36813
rejected events	28572	29529	34356	31776	32679
rejected %	87%	86%	88%	85%	88%

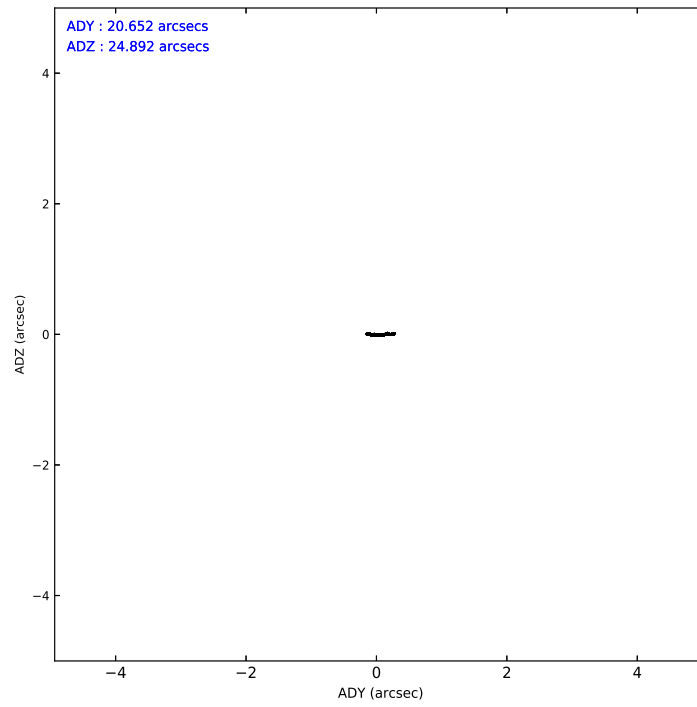
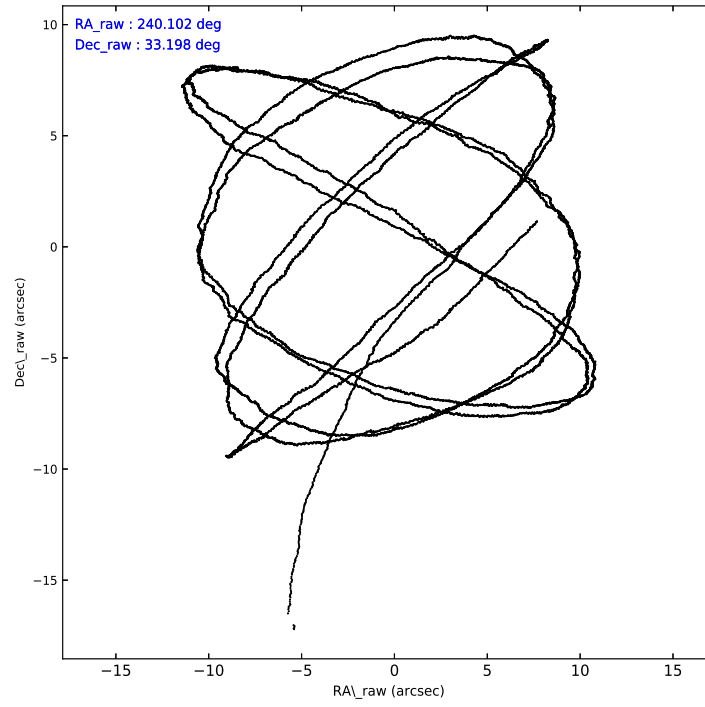
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1449	1578	1669	2577	1377
	4%	4%	4%	6%	3%
grade 1 events	15	18	29	37	16
	0%	0%	0%	0%	0%
grade 2 events	1063	1224	1094	1061	950
	3%	3%	2%	2%	2%
grade 3 events	443	412	423	443	402
	1%	1%	1%	1%	1%
grade 4 events	409	425	399	450	443
	1%	1%	1%	1%	1%
grade 5 events	1570	1698	1590	1782	1704
	4%	4%	4%	4%	4%
grade 6 events	892	1024	787	890	964
	2%	2%	2%	2%	2%
grade 7 events	26985	27808	32737	29955	30957
	82%	81%	84%	80%	84%

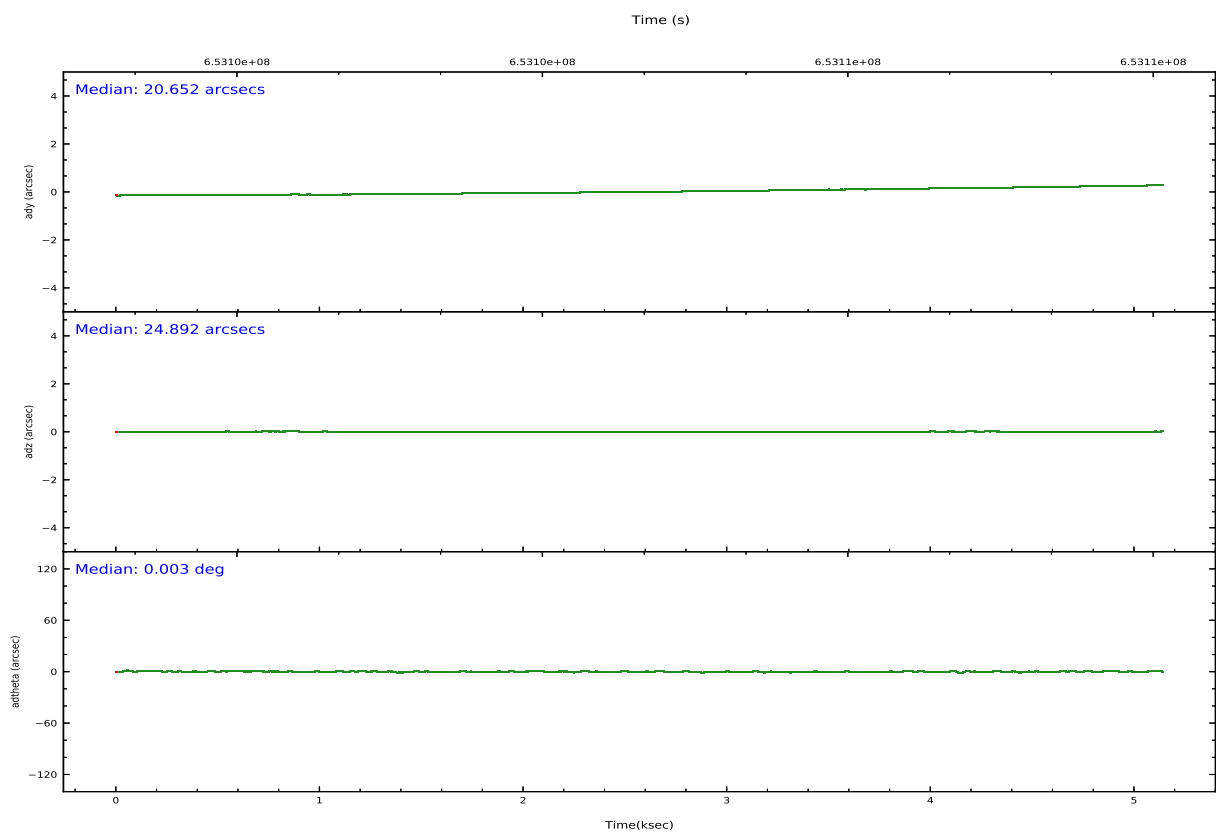
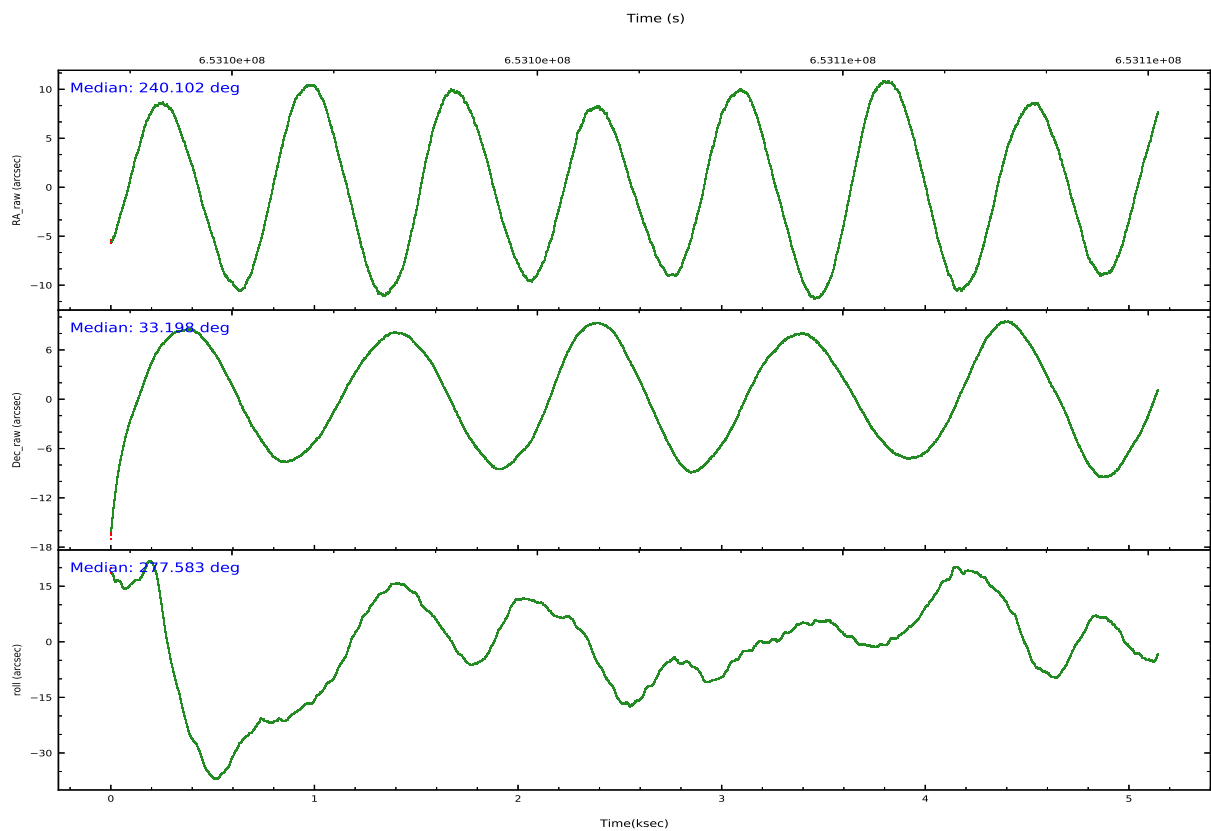
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-01236	ACIS-01236
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	240.081352	240.09218146496
[deg] Pointing Dec	33.219409	33.202629061831
[deg] Pointing Roll	277.393819	277.5831435394
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-228.472463	-228.4808600833603
[mm] SIM translation stage offset	-5.12	-5.111592919569347
[s] Observation start time (MET)	653102048.184000	653100554.18656
Observation start date	2018-09-12T01:12:59	2018-09-12T00:49:14
[s] Observation end time (MET)	653107048.184000	653107945.9744999
Observation end date	2018-09-12T02:36:19	2018-09-12T02:52:25
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar version number	8	8
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	Y	Y
CCD I1 on	Y	Y
CCD I2 on	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	O1	Y
CCD S3 on	N	N
CCD S4 on	N	N
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect



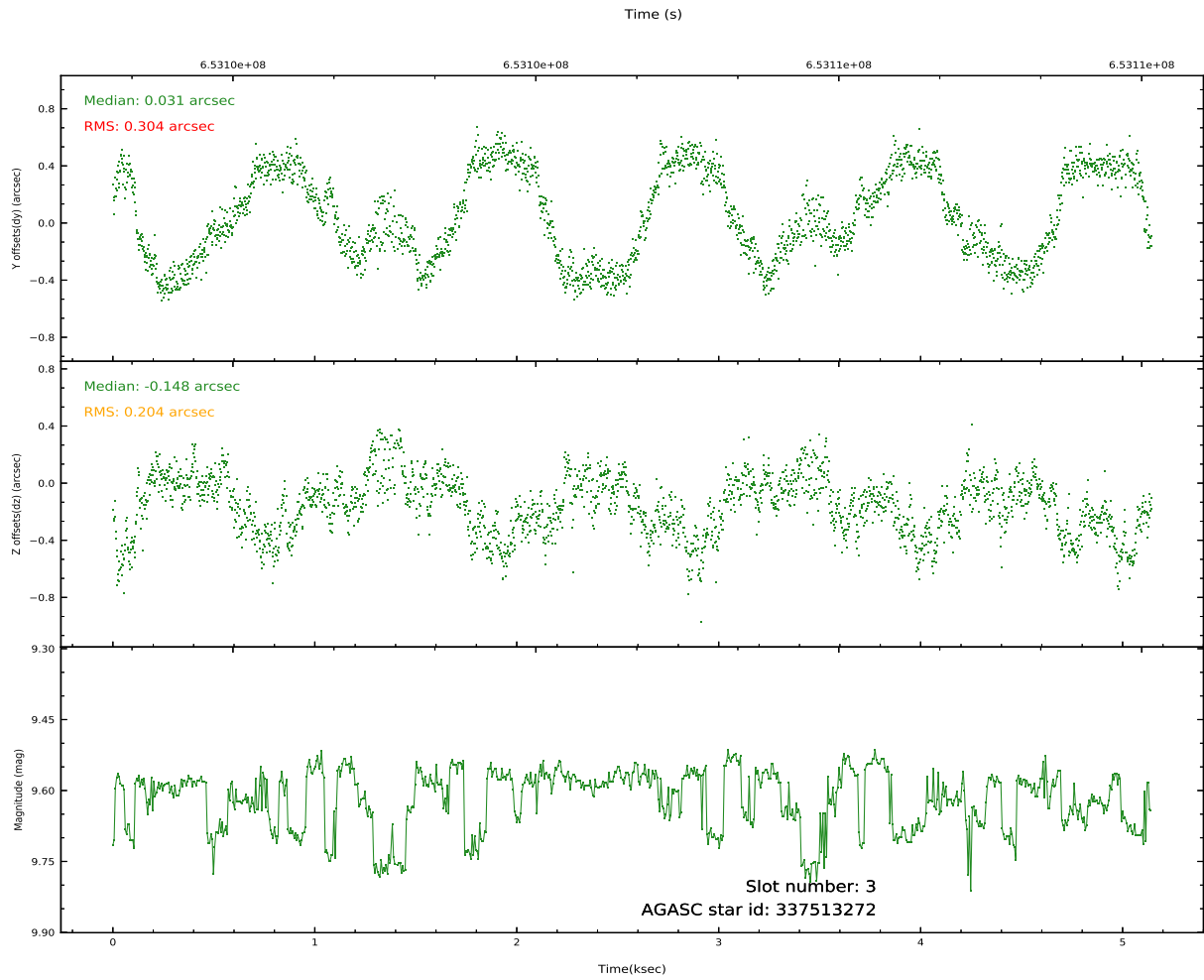
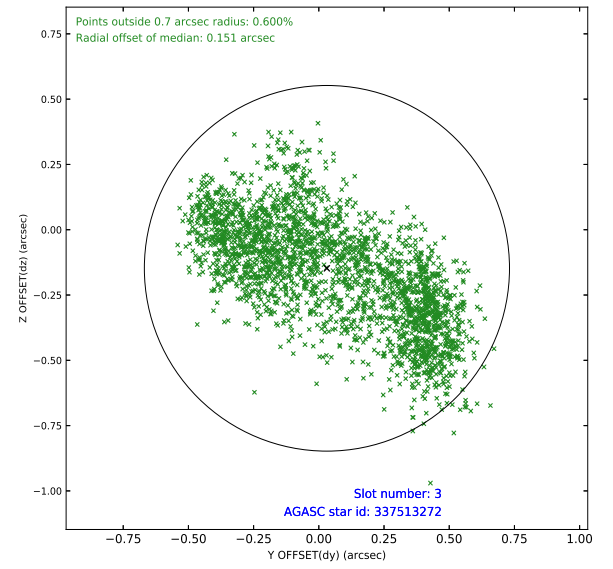
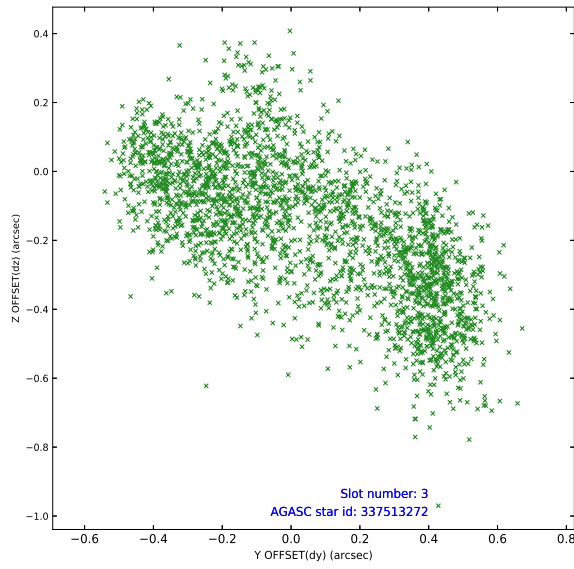


Slot Statistics

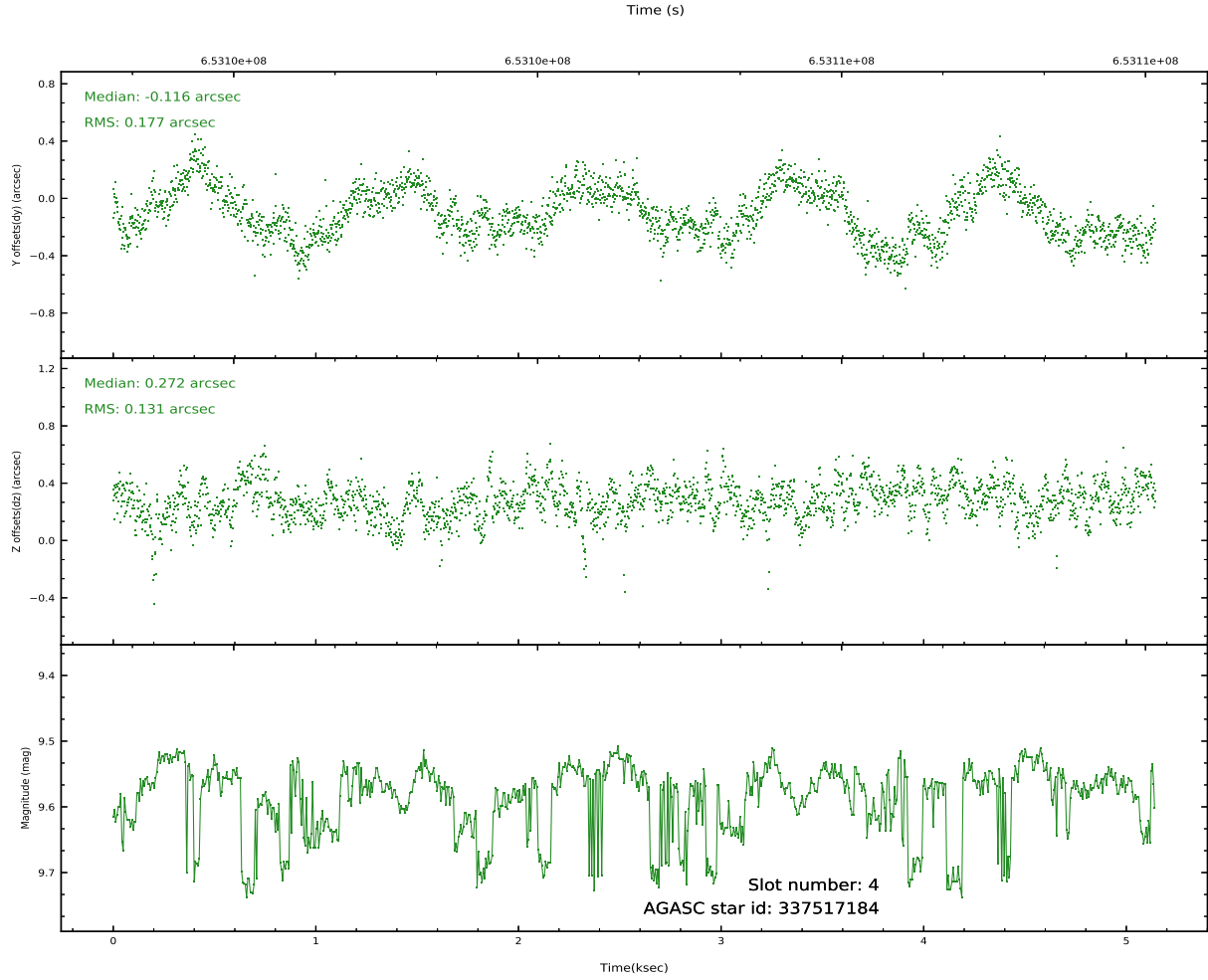
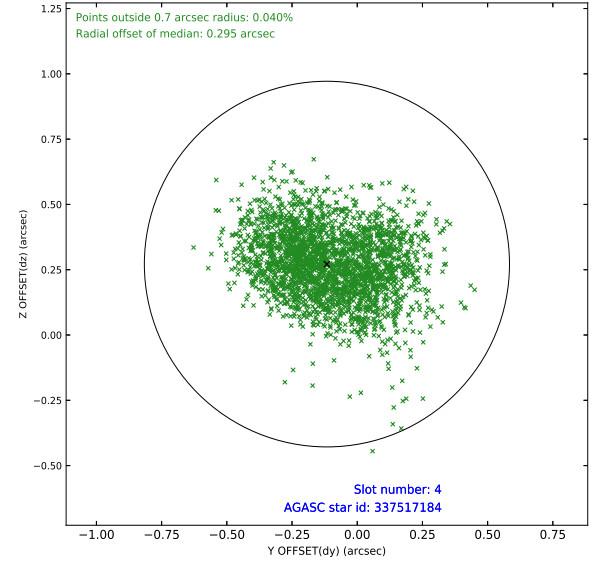
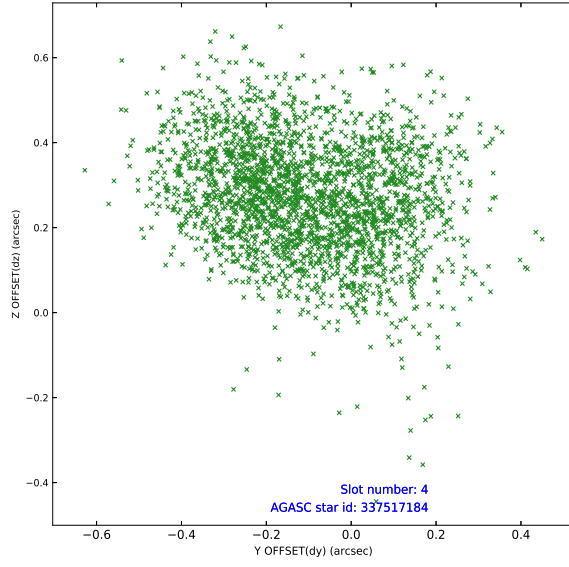
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.10	1254	1.000	0.295	-0.238	0.007	0.011	0.000000	0.000000	918.74	-953
1	FID		ACIS-I-5	7.10	1254	1.000	-0.378	0.234	0.006	0.012	0.000000	0.000000	-1829.24	943
2	FID		ACIS-I-6	7.11	1255	1.000	-0.008	0.075	0.006	0.010	0.000000	0.000000	382.90	1589
3	GUIDE	used	337513272	9.60	2498	1.000	0.031	-0.148	0.415	0.567	239.535335	33.028793	465.14	-1722
4	GUIDE	used	337517184	9.57	2510	1.000	-0.116	0.272	0.233	0.375	239.935742	33.768007	-2014.16	-178
5	GUIDE	used	337523264	9.53	2508	1.000	0.232	-0.049	0.196	0.300	239.618548	33.610884	-1579.51	-1194
6	GUIDE	used	337648184	9.93	2505	1.000	-0.124	0.000	0.211	0.351	240.669974	33.420063	-492.72	1847
7	GUIDE	used	337651760	10.13	2502	1.000	-0.079	-0.074	0.383	0.595	240.337975	32.933893	1118.35	637

2.4 Star Slots

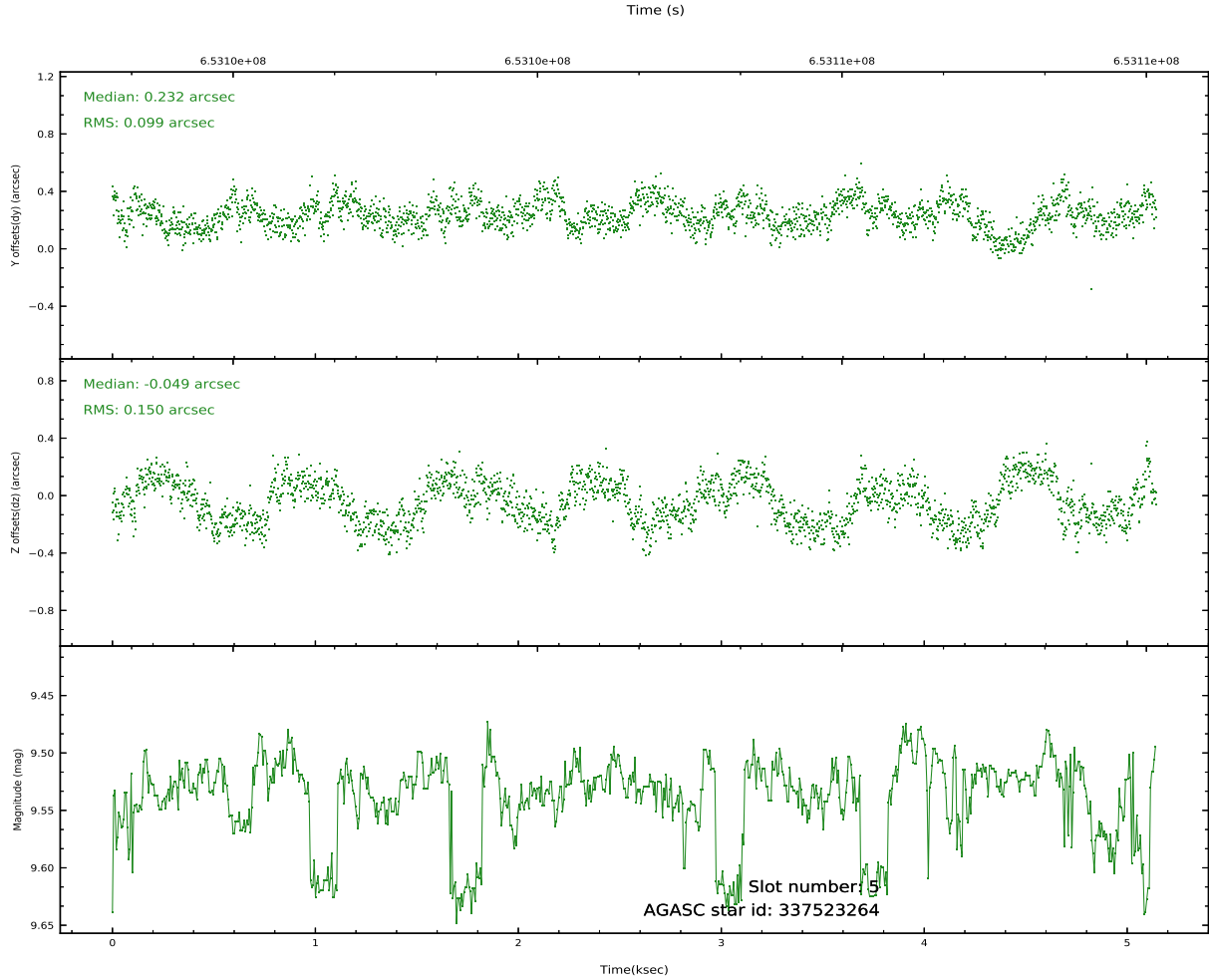
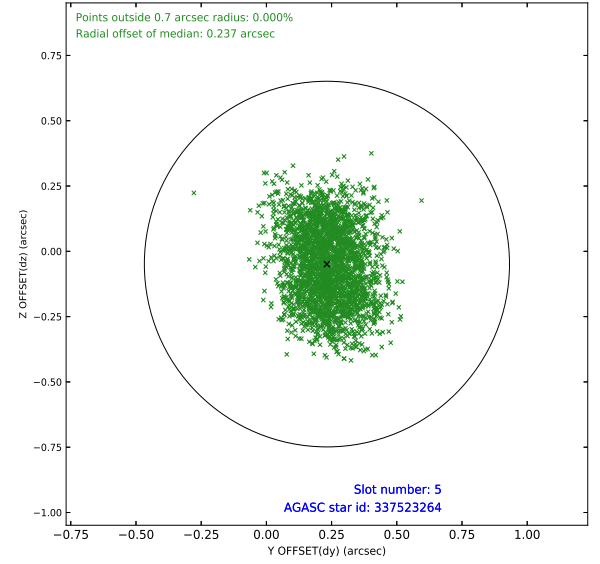
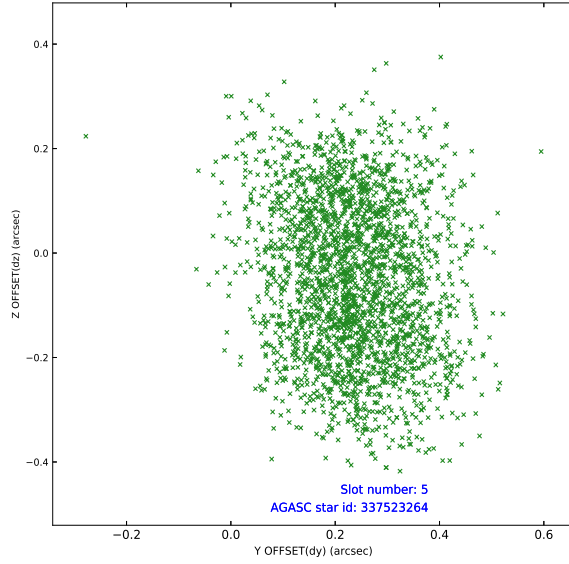
2.4.1 Slot 3



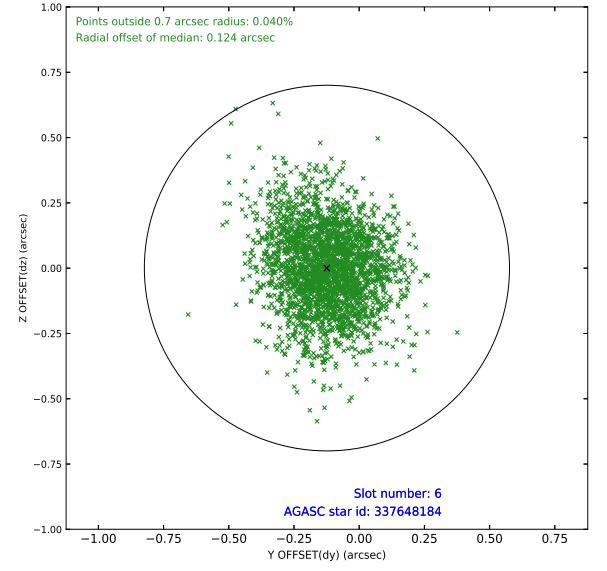
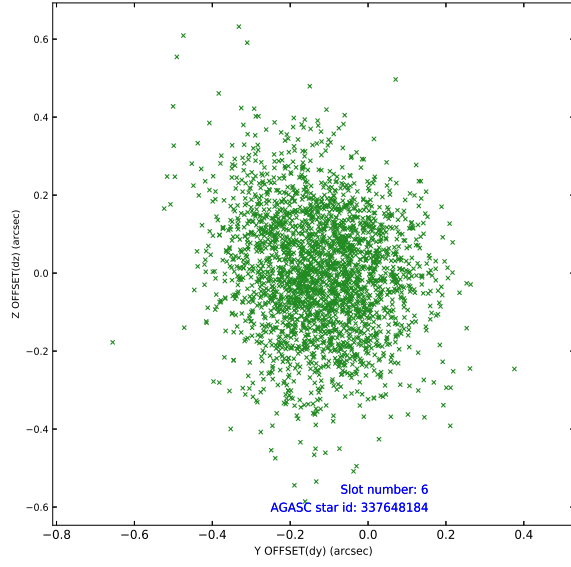
2.4.2 Slot 4



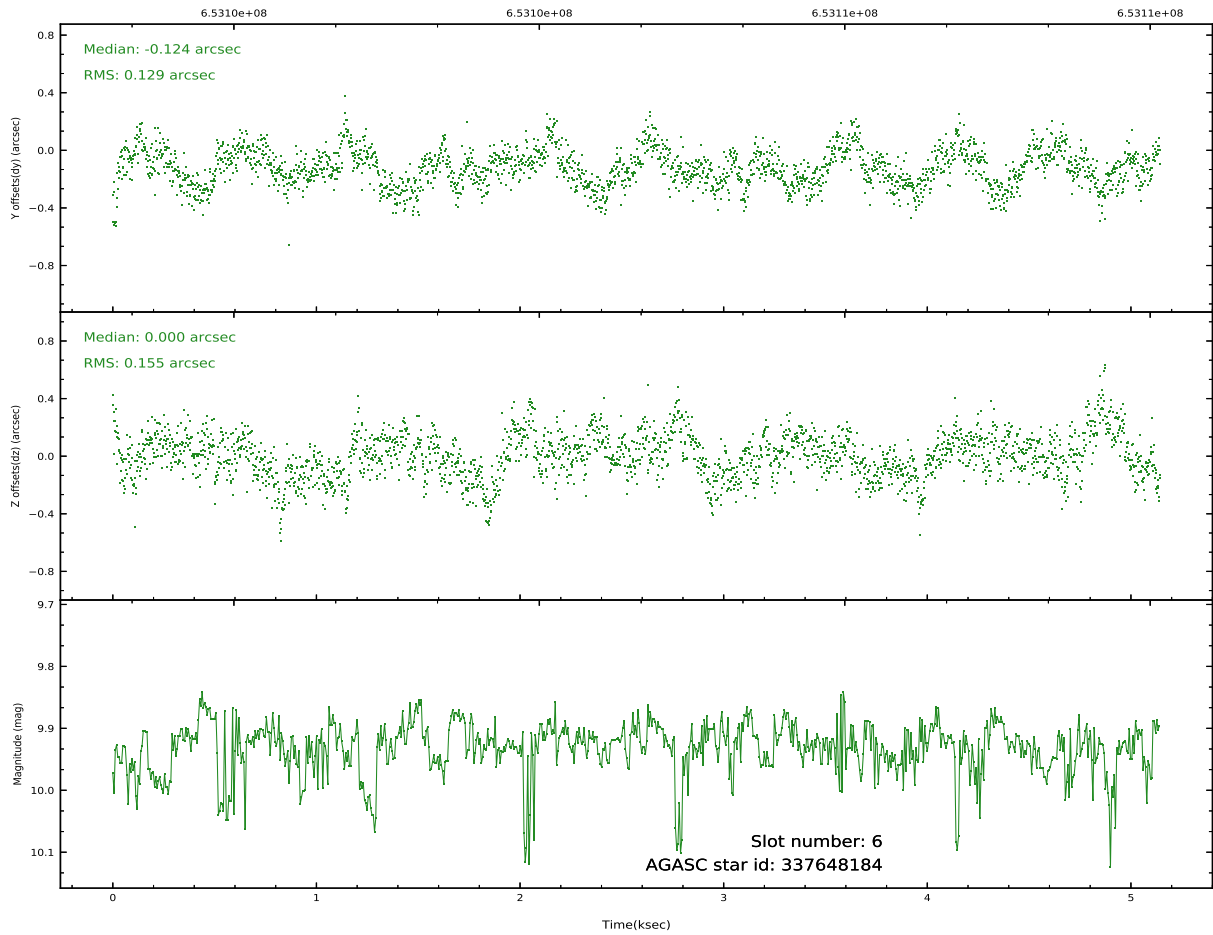
2.4.3 Slot 5



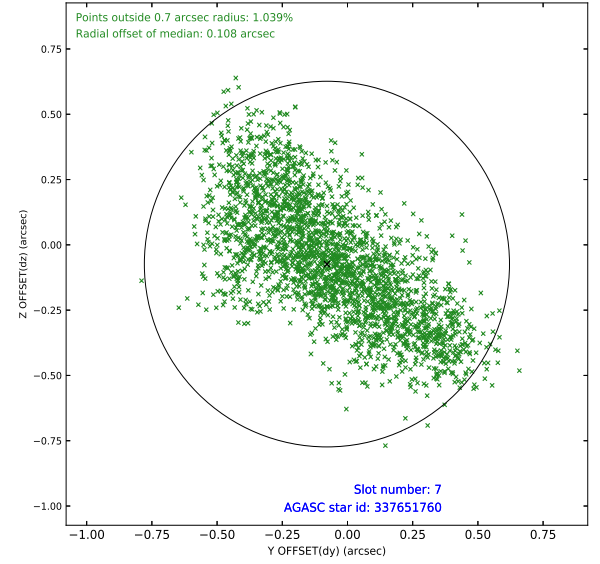
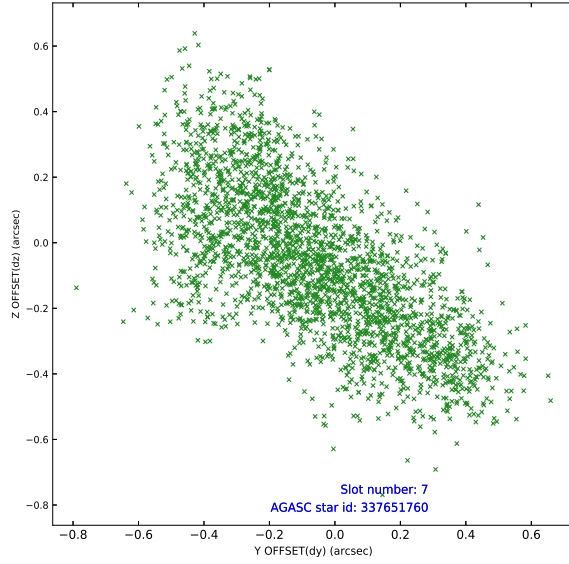
2.4.4 Slot 6



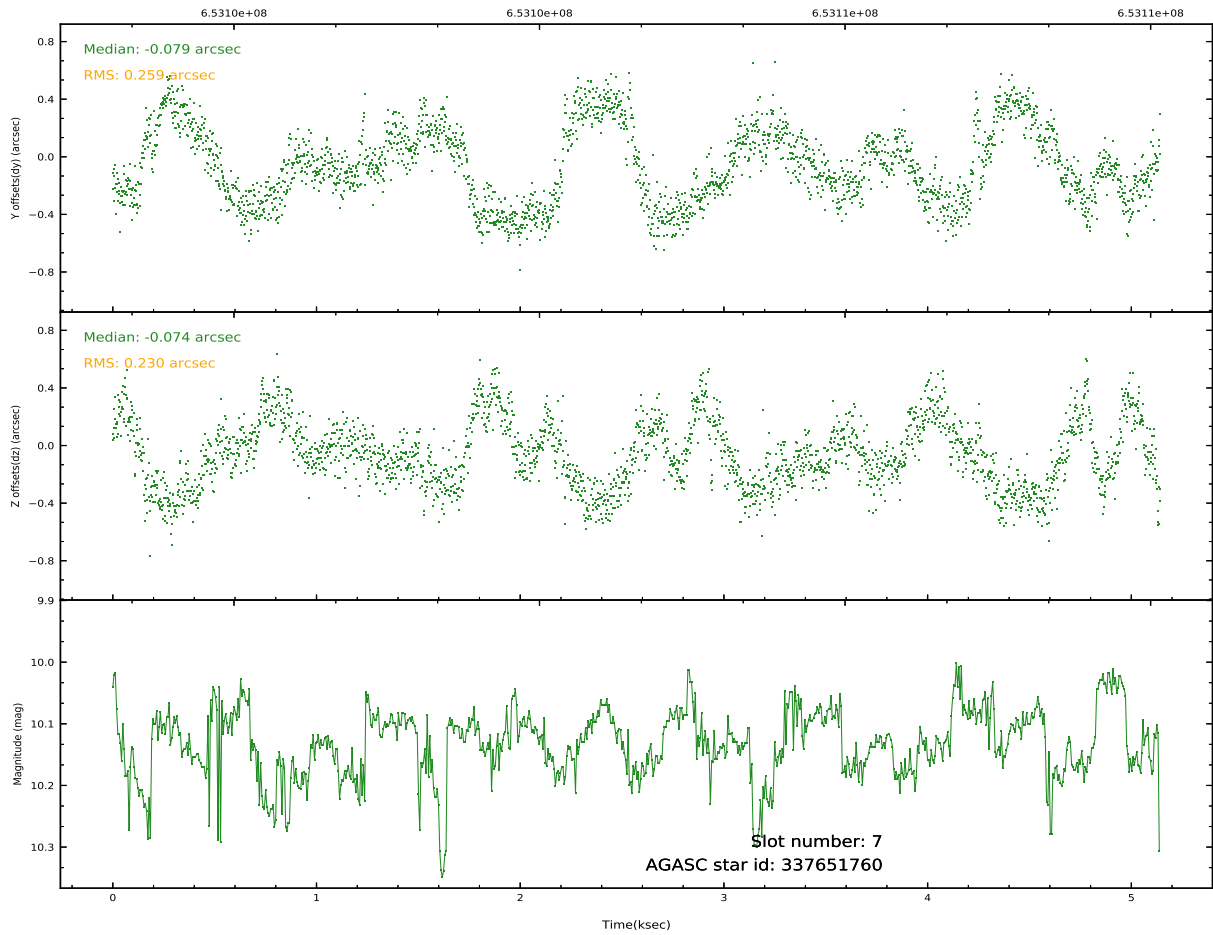
Time (s)



2.4.5 Slot 7

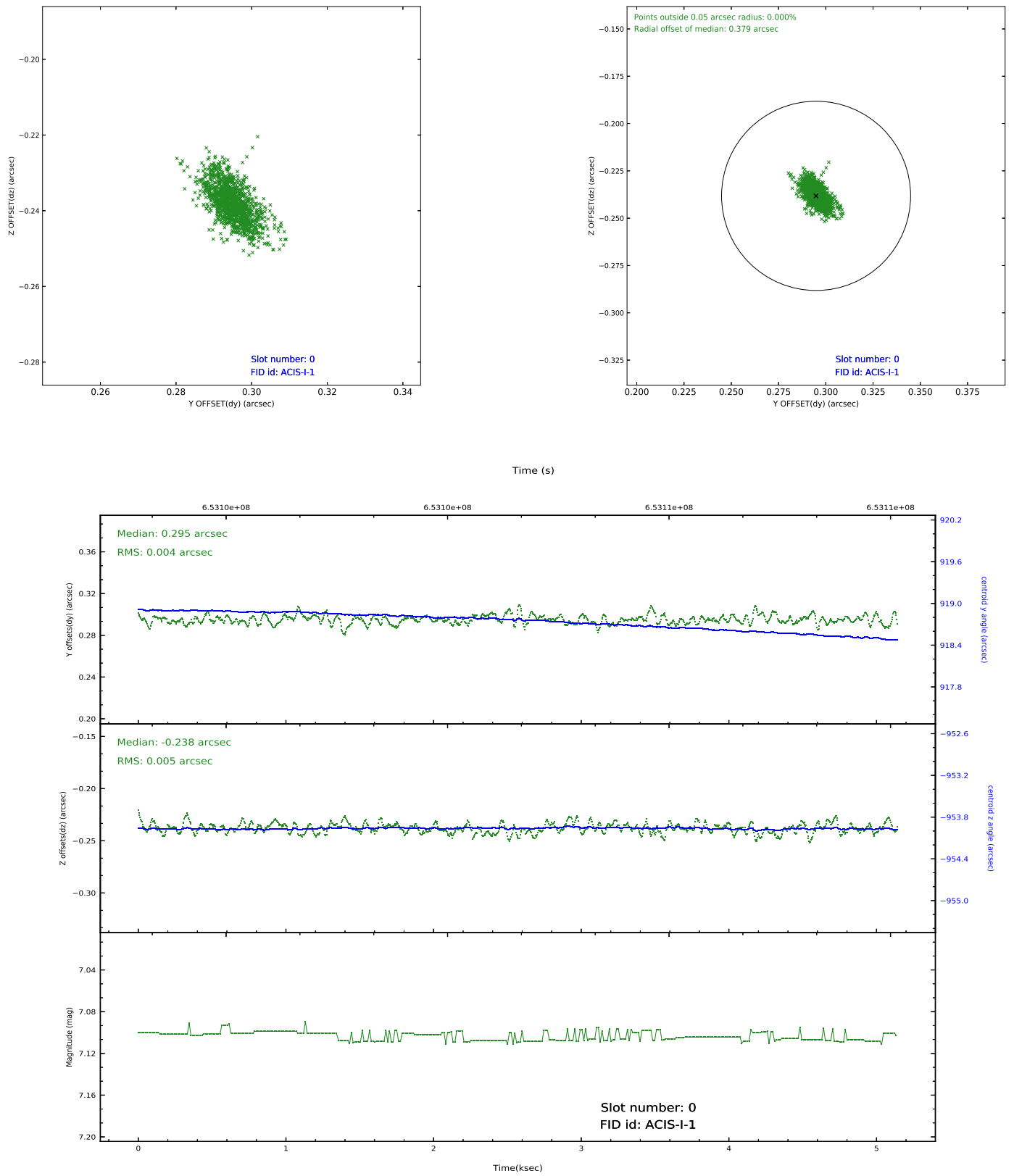


Time (s)

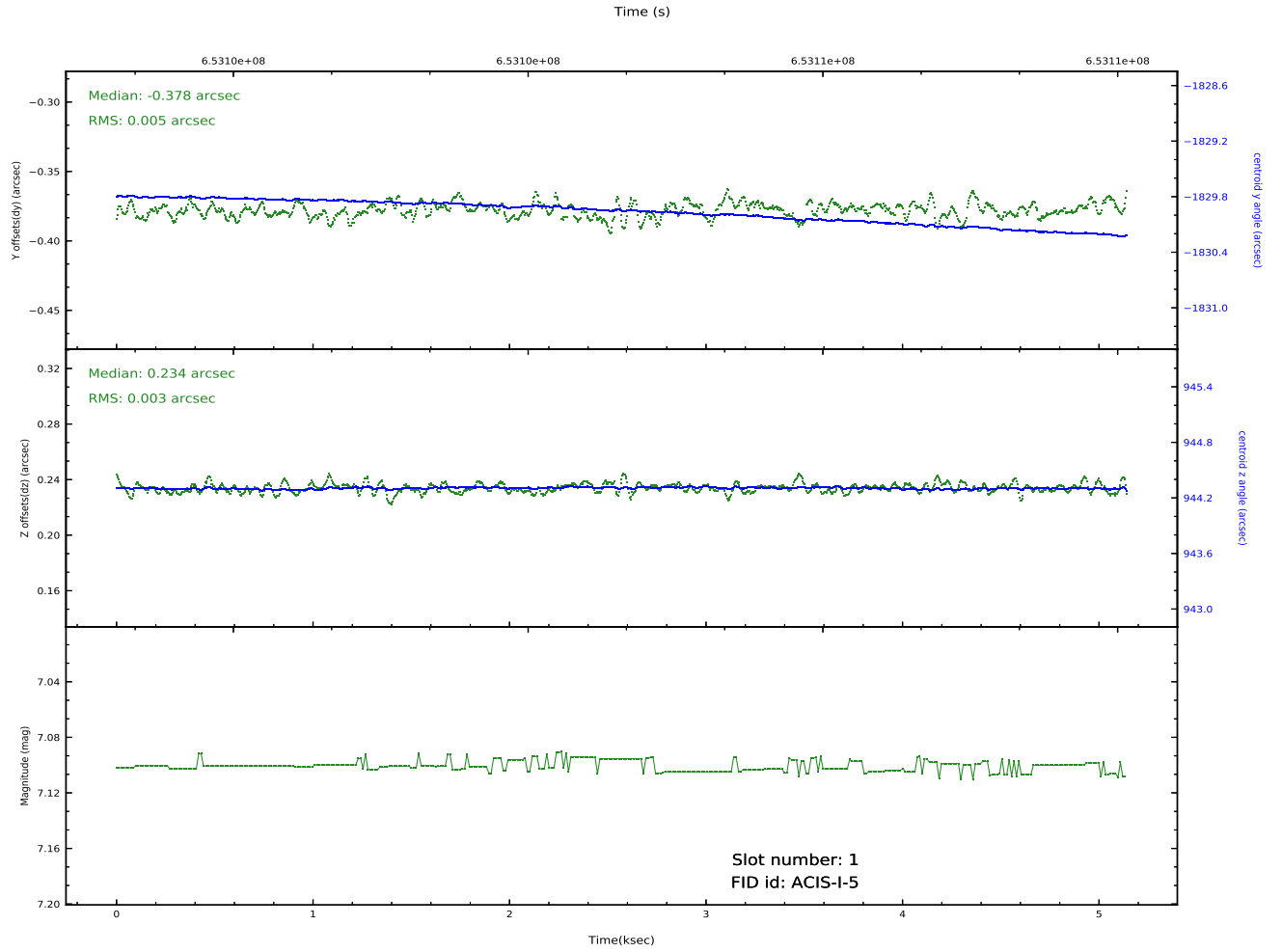
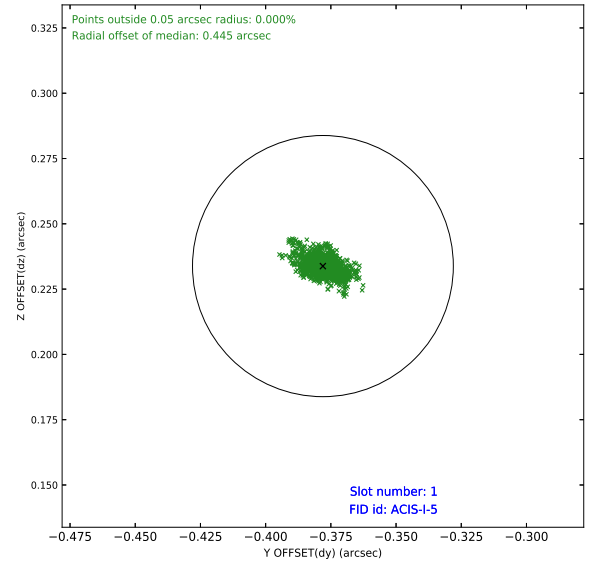
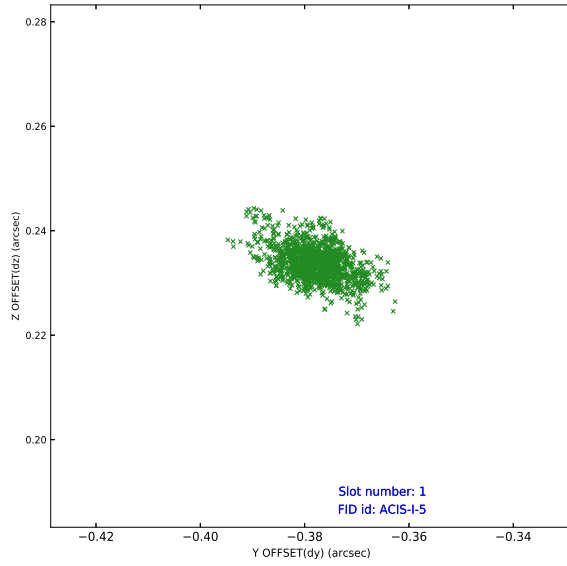


2.5 FID Slots

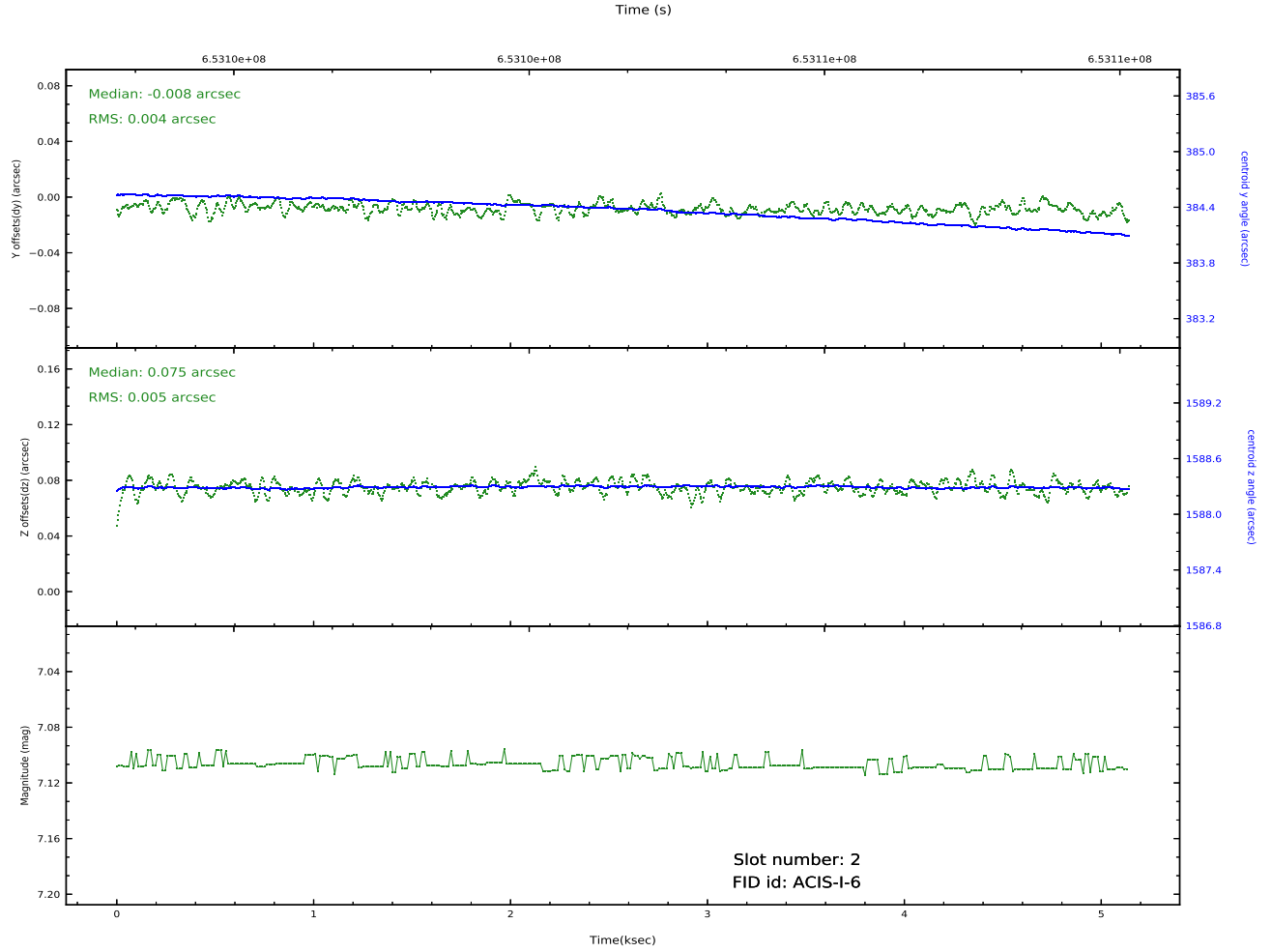
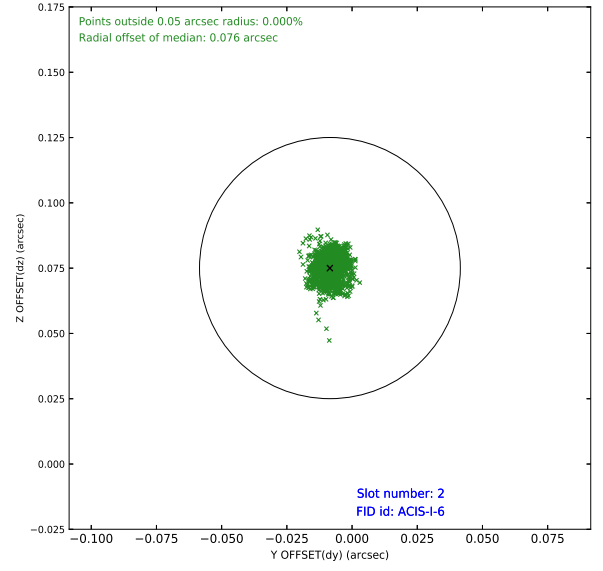
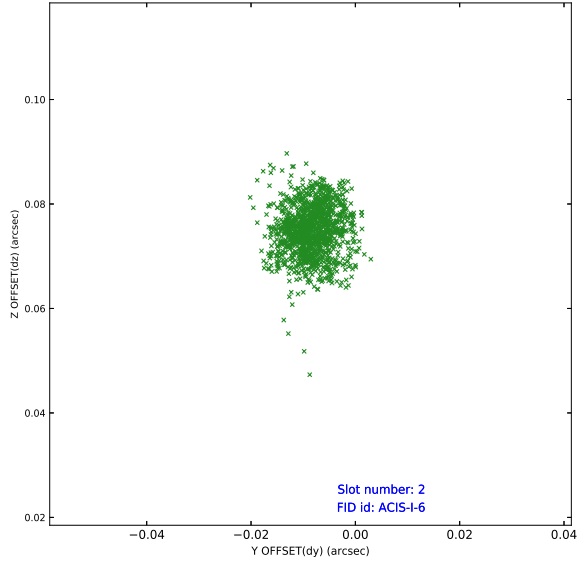
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



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	5.0716000391245

A.2 Comments