

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 21015 - L2 Version 2
Chandra X-Ray Center

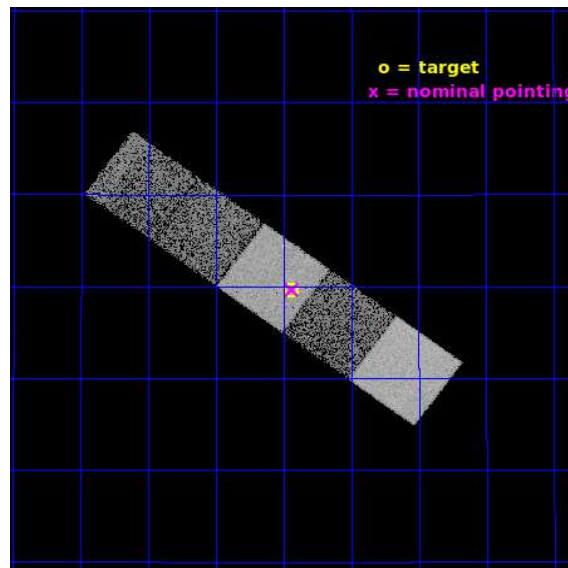
L2 Processing Date : Oct 25 2020

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1 Front

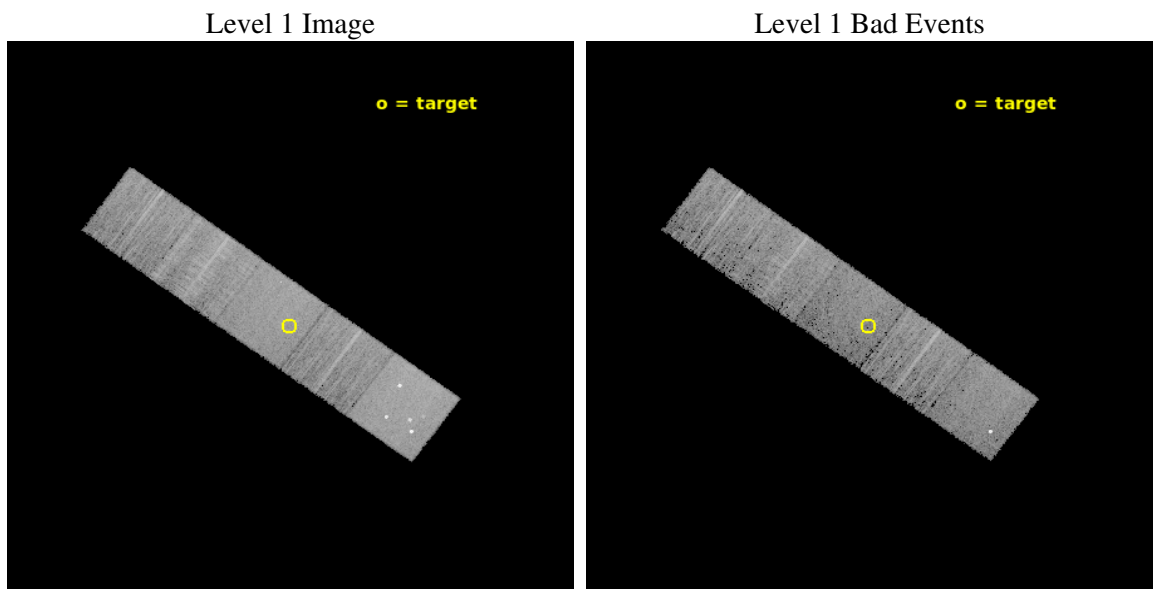
seq_num	703656	Sequence number
obs_id	21015	Observation id
title	LOW SURFACE BRIGHTNESS GALAXIES AND THE BLACK HOLE OCCUPATION FRACTION	Proposal title
observer	Elena Gallo	Principal investigator
object	UGC 06151	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	166.484583	Observer's specified target RA [deg]
dec_targ	19.826278	Observer's specified target Dec [deg]
ra_nom	166.484594786	Nominal RA [deg]
dec_nom	19.827627409022	Nominal Dec [deg]
roll_nom	216.19359866532	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6990.5000538826	Sum of GTIs [s]
livetime	6899.1640243474	Livetime [s]
ontime5	6990.5000538826	Sum of GTIs [s]
ontime6	6987.3590036631	Sum of GTIs [s]
ontime7	6990.5000538826	Sum of GTIs [s]
ontime8	6981.0769425631	Sum of GTIs [s]
ontime9	6990.5000538826	Sum of GTIs [s]
l2events	84311	Number of level 2 events



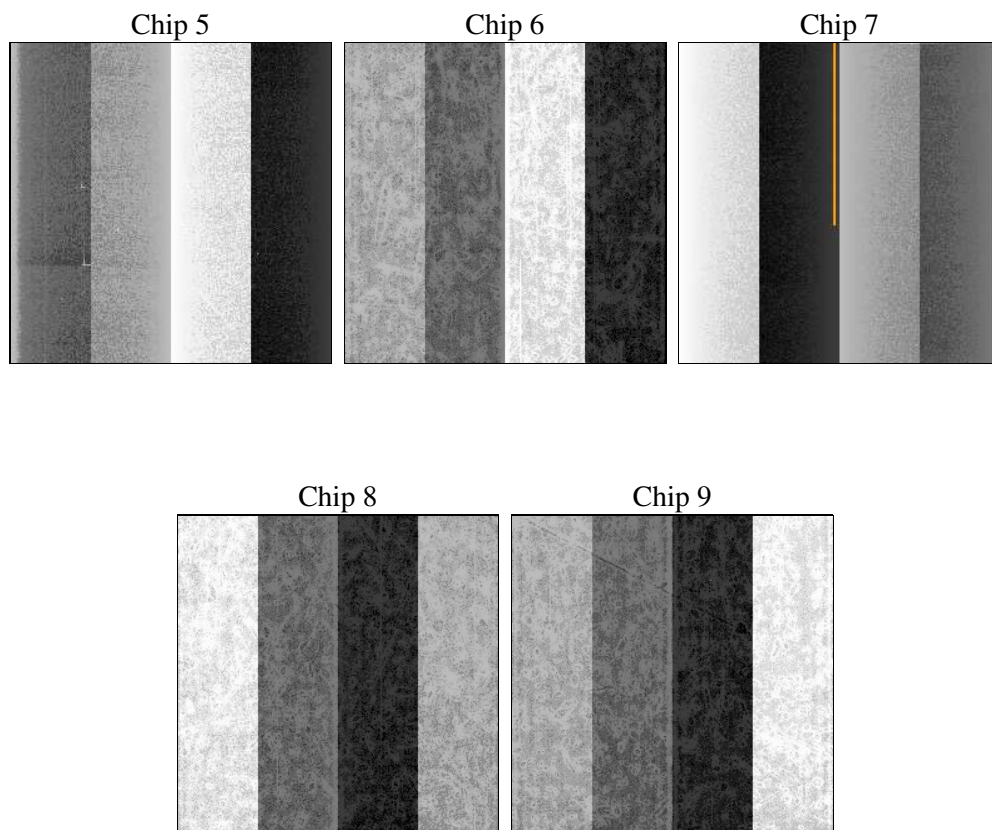
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7100.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	6990.5000538826	Sum of GTIs [s]
caldsver	4.9.3	 	ontime5	6990.5000538826	Sum of GTIs [s]
date	2020-10-25T04:04:57	Date and time of file creation	ontime6	6987.3590036631	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	6990.5000538826	Sum of GTIs [s]
			ontime8	6981.0769425631	Sum of GTIs [s]
			ontime9	6990.5000538826	Sum of GTIs [s]
			l1events	339389	Number of level 1 events

2.1.4 Events

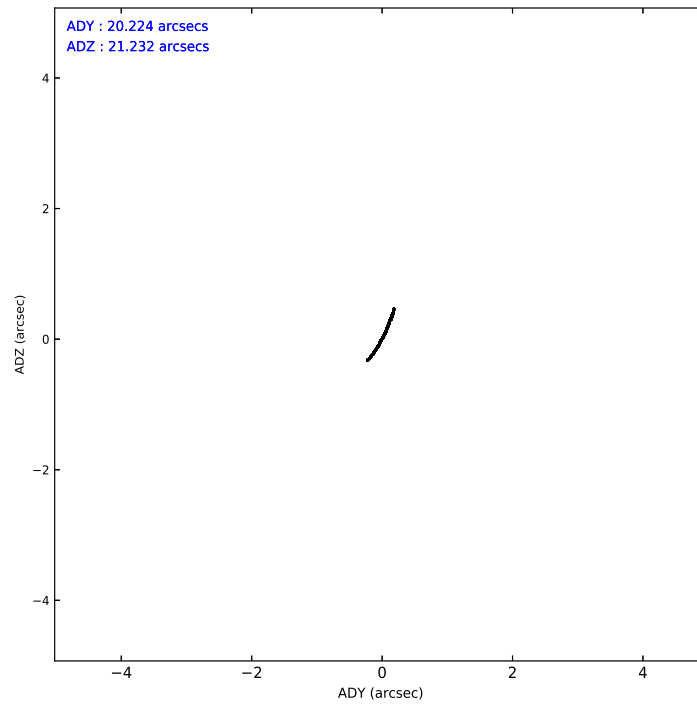
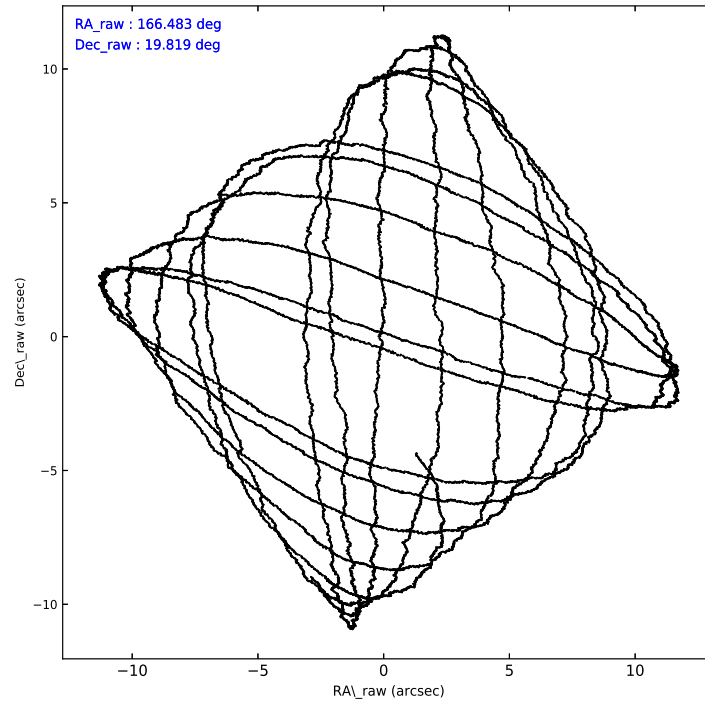
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	91808	53911	68235	70655	54780
rejected events	46291	48071	38400	52386	48210
rejected %	50%	89%	56%	74%	88%

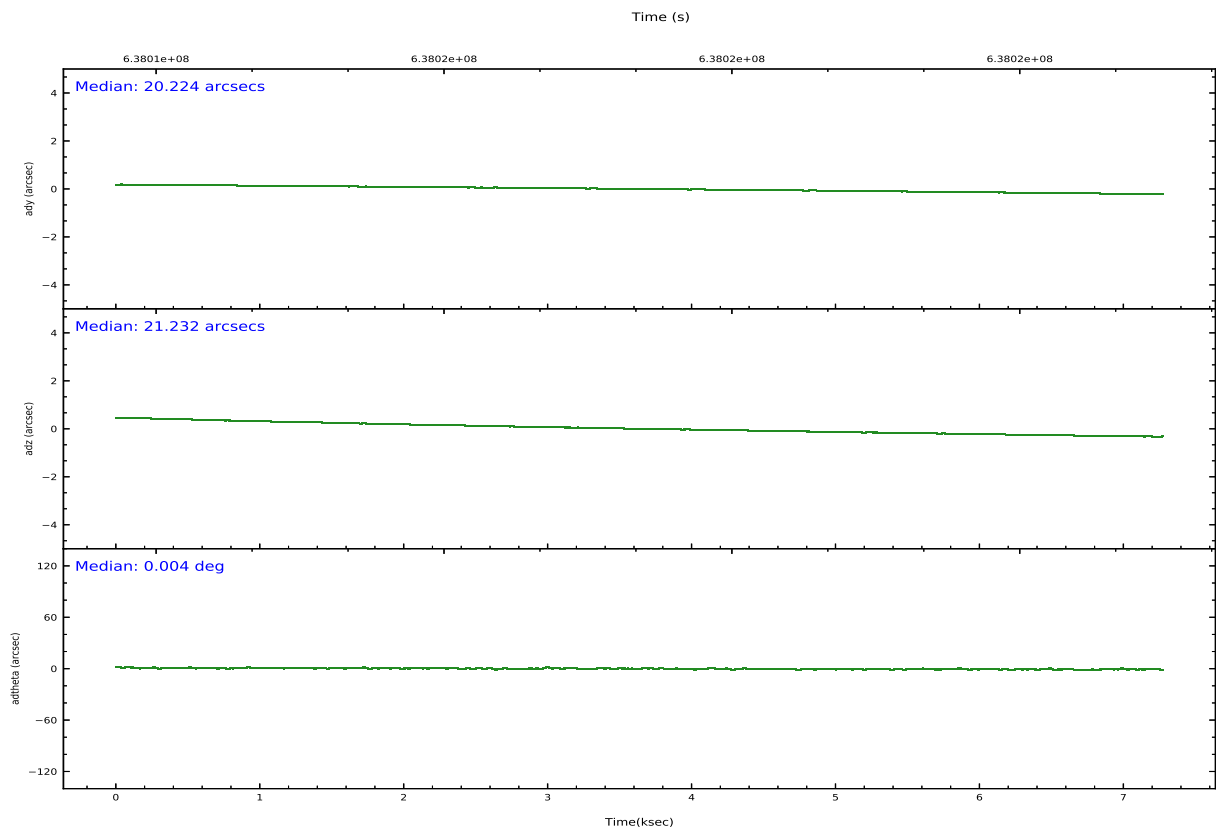
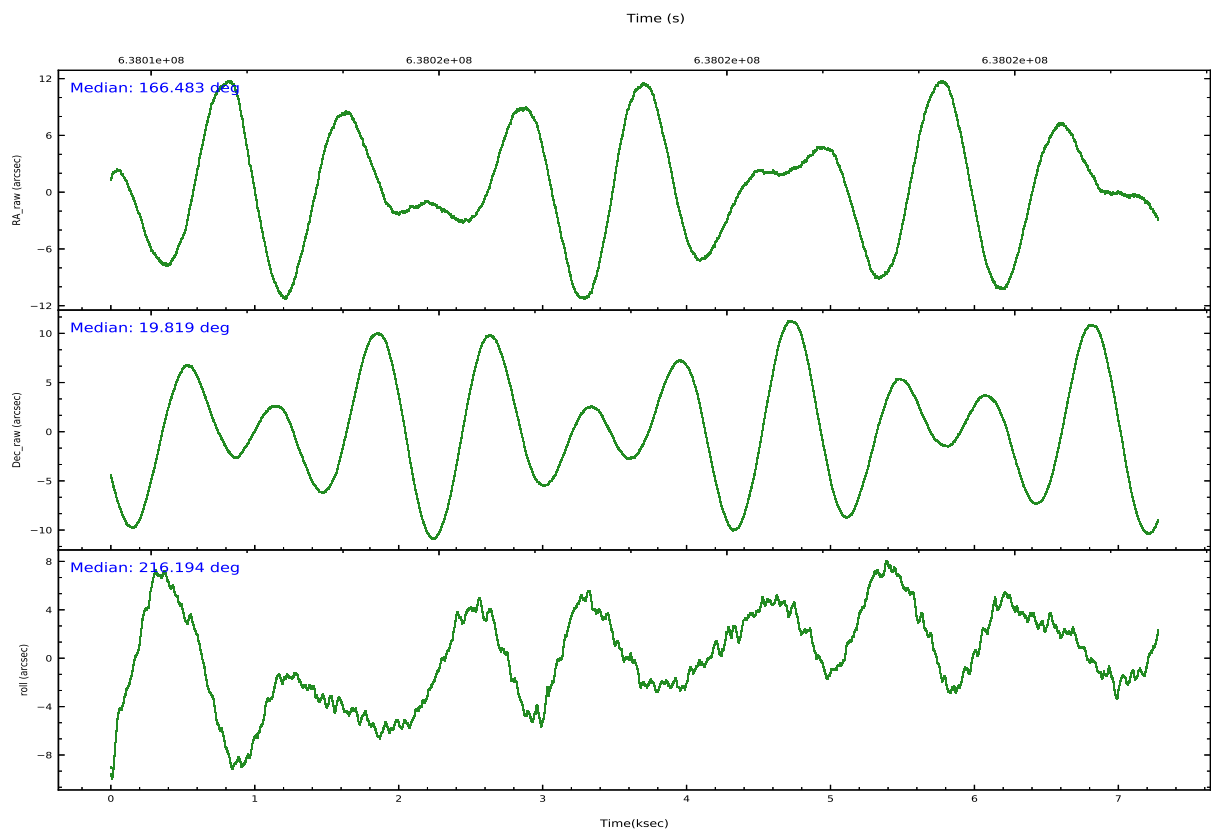
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	7323	1926	2503	5059	2274
	7%	3%	3%	7%	4%
grade 1 events	190	30	102	50	40
	0%	0%	0%	0%	0%
grade 2 events	13533	1396	6445	4562	1487
	14%	2%	9%	6%	2%
grade 3 events	1187	556	2420	1829	647
	1%	1%	3%	2%	1%
grade 4 events	1171	594	2375	1752	651
	1%	1%	3%	2%	1%
grade 5 events	5944	2486	6715	3742	2840
	6%	4%	9%	5%	5%
grade 6 events	22319	1372	16102	5068	1514
	24%	2%	23%	7%	2%
grade 7 events	40141	45551	31573	48593	45327
	43%	84%	46%	68%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-56789	ACIS-56789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	166.494793	166.484594786	CCD I2 on	N	N
[deg] Pointing Dec	19.844576	19.827627409022	CCD I3 on	N	N
[deg] Pointing Roll	216.040976	216.19359866532	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	638013895.184000	638013256.95618	CCD S5 on	O2	Y
Observation start date	2018-03-21T10:03:46	2018-03-21T09:54:16	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	638020995.184000	638021343.69415	On-chip summing requested	N	N
Observation end date	2018-03-21T12:02:06	2018-03-21T12:09:03	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



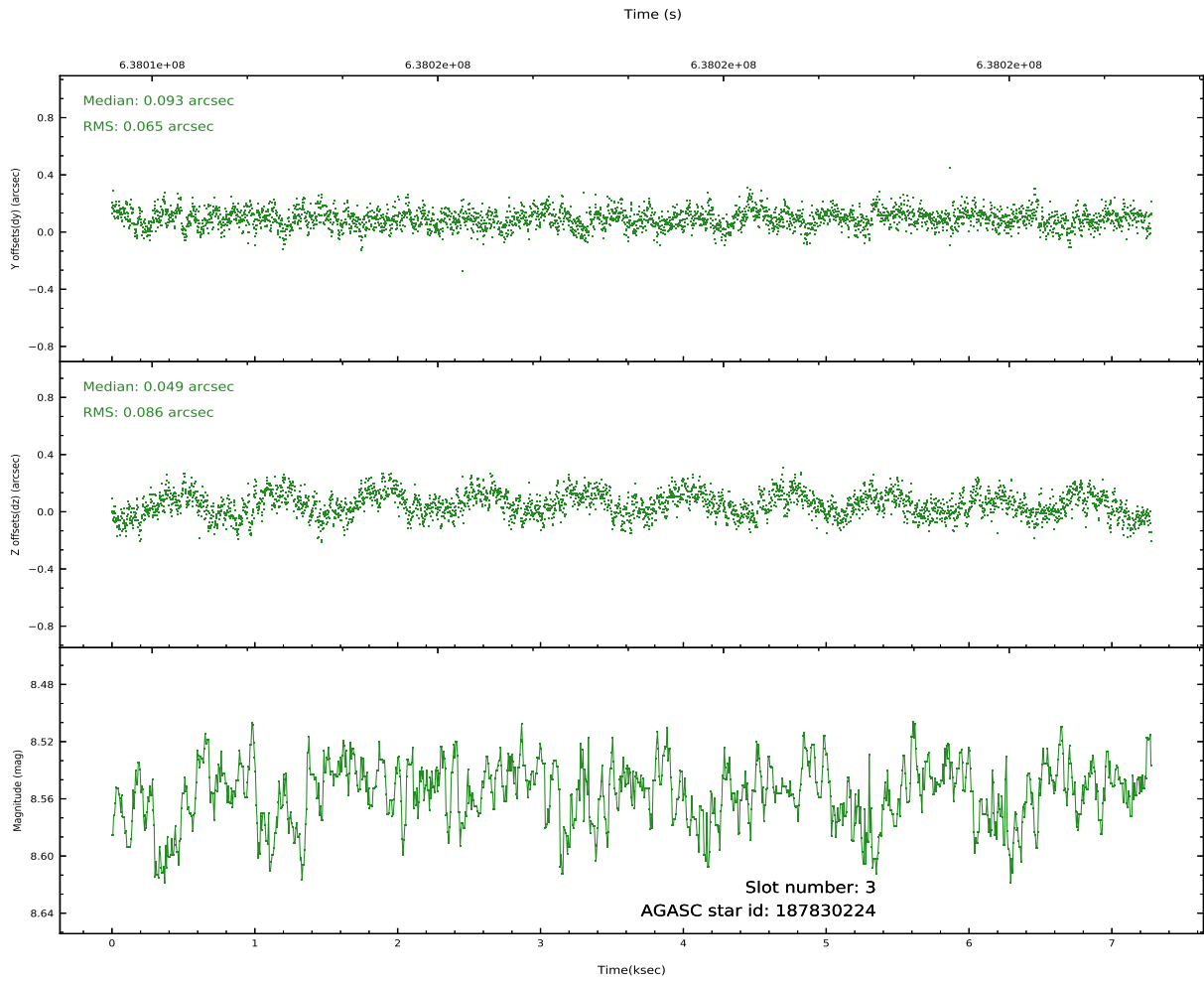
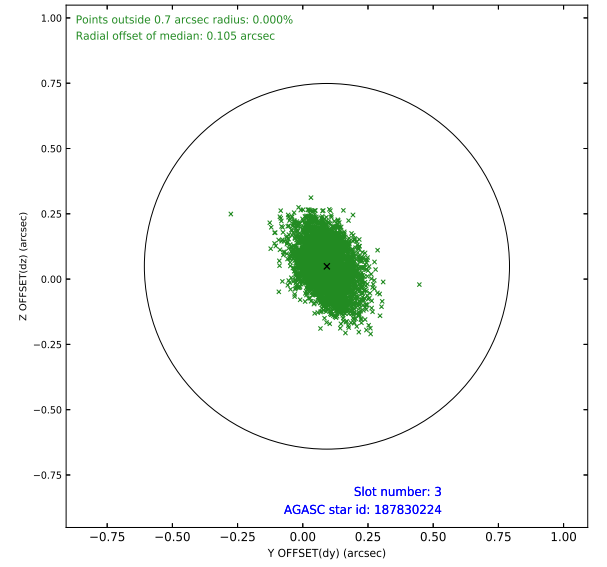
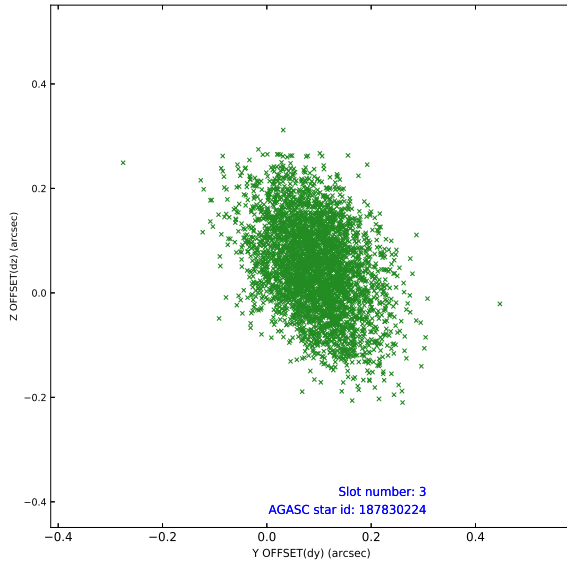


Slot Statistics

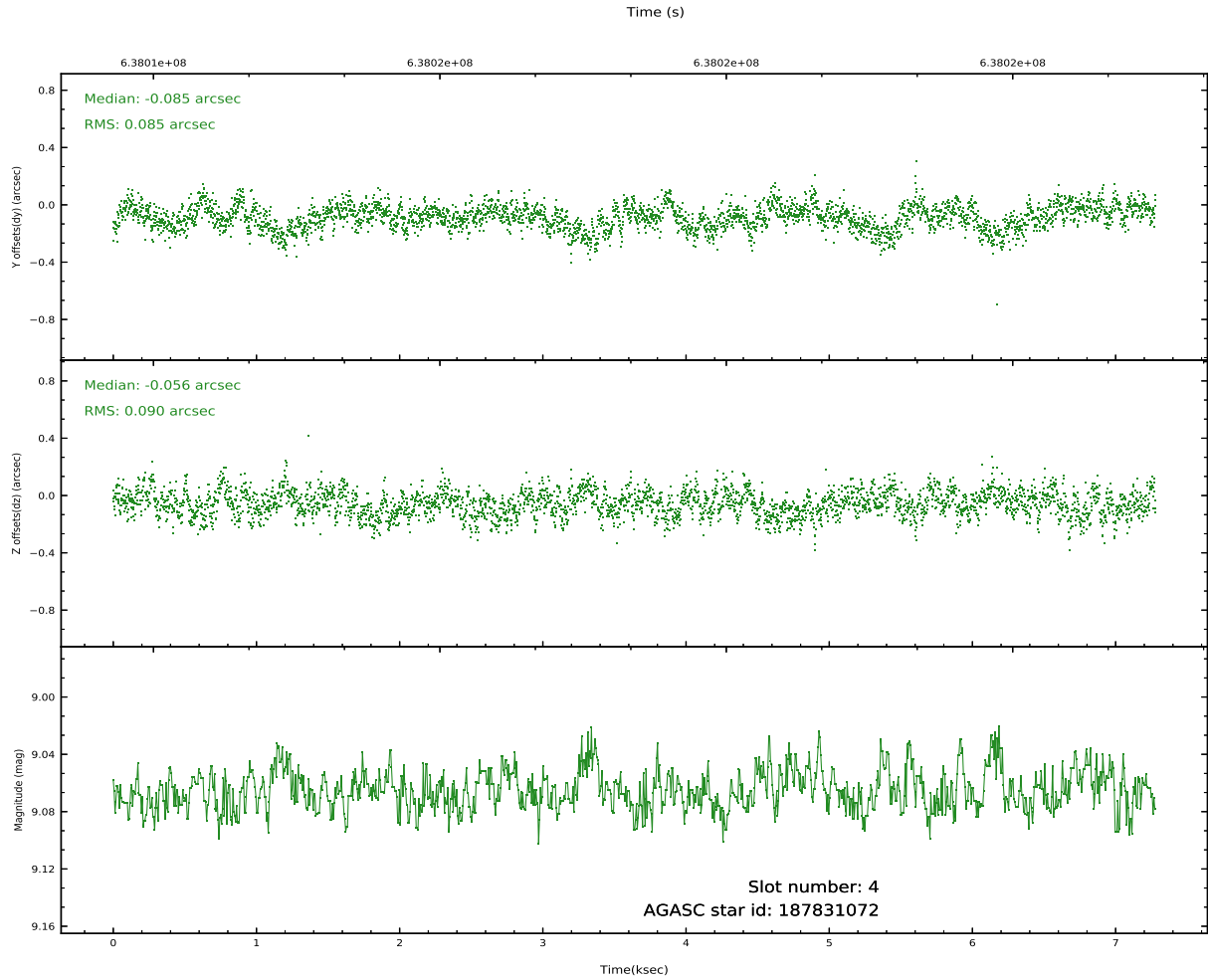
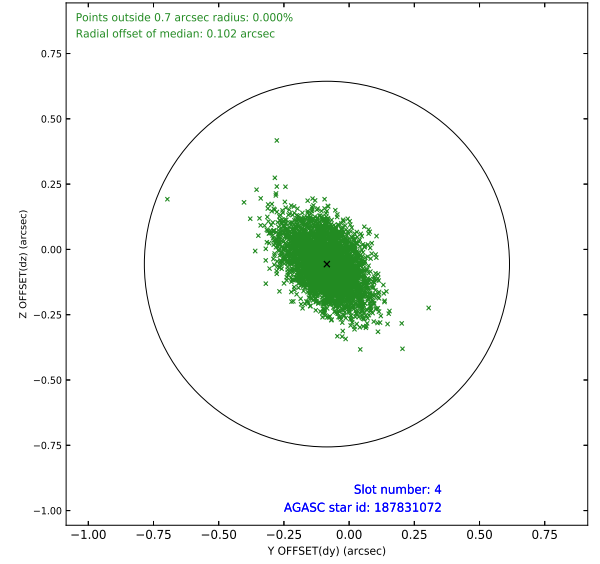
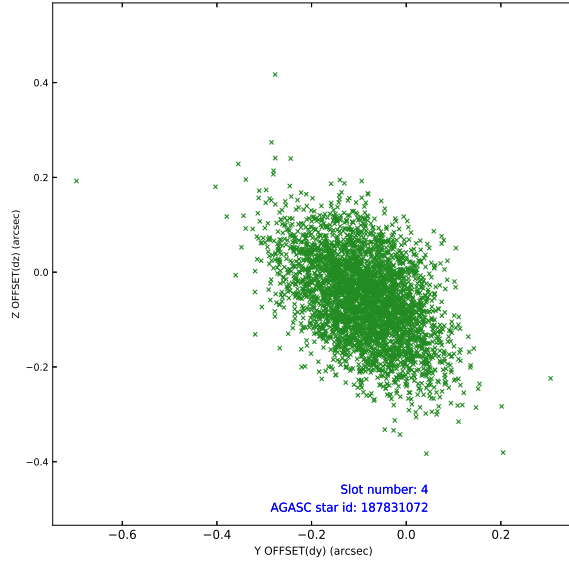
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.00	1774	1.000	0.117	-0.080	0.013	0.020	0.000000	0.000000	-773.47	-1742
1	FID		ACIS-S-4	7.11	1775	1.000	0.071	-0.034	0.010	0.017	0.000000	0.000000	2139.67	164
2	FID		ACIS-S-5	7.10	1776	1.000	-0.220	0.123	0.013	0.018	0.000000	0.000000	-1825.37	159
3	GUIDE	used	187830224	8.55	3548	1.000	0.093	0.049	0.114	0.190	165.904753	19.600278	2133.96	-468
4	GUIDE	used	187831072	9.06	3549	1.000	-0.085	-0.056	0.128	0.216	166.731559	19.717671	-379.80	841
5	GUIDE	used	188225064	7.32	3550	1.000	-0.141	0.077	0.110	0.193	166.730563	20.483508	-1996.01	-1392
6	GUIDE	used	187831520	8.95	3548	1.000	0.126	-0.064	0.151	0.262	165.916790	19.928113	1402.90	-1397
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0

2.4 Star Slots

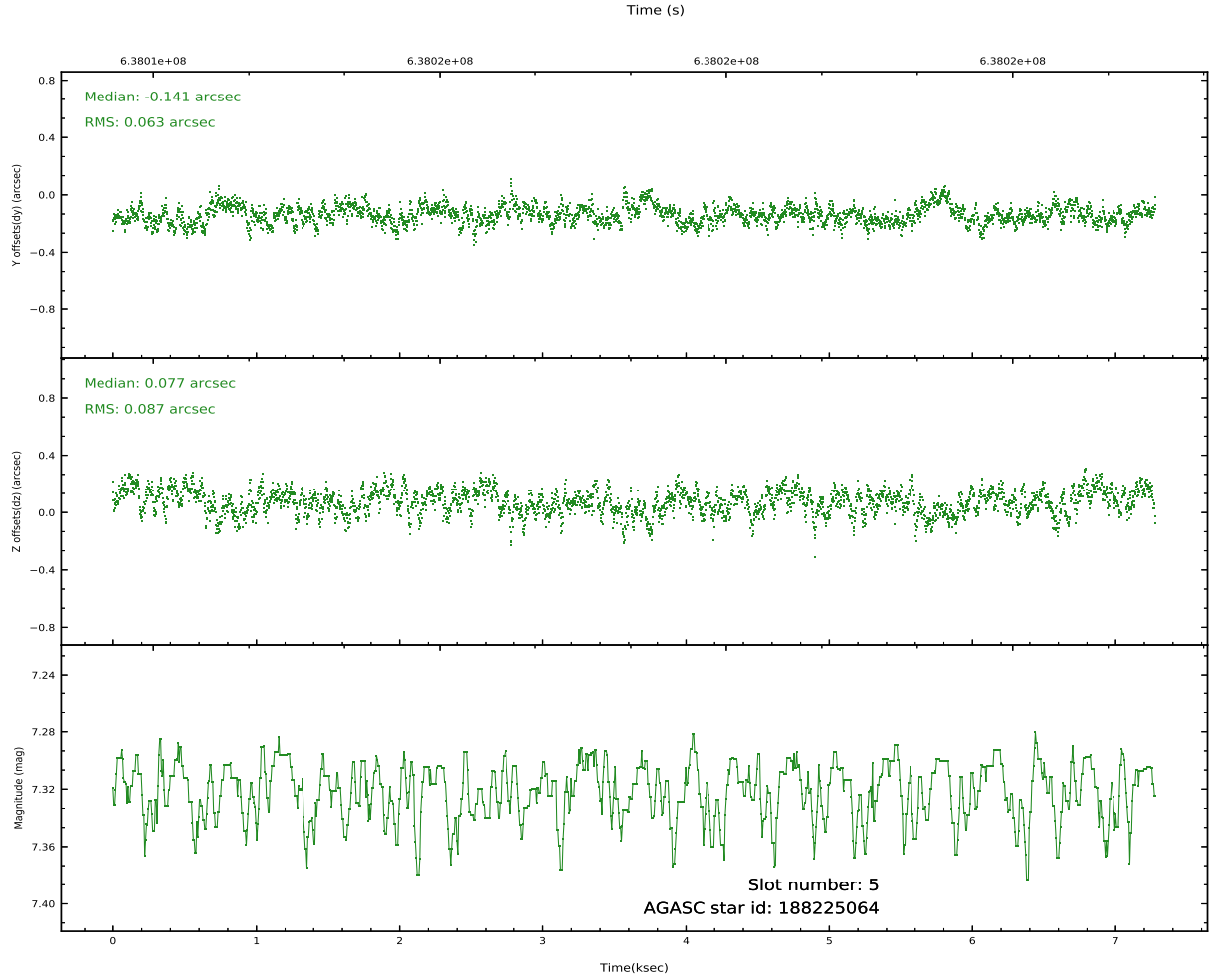
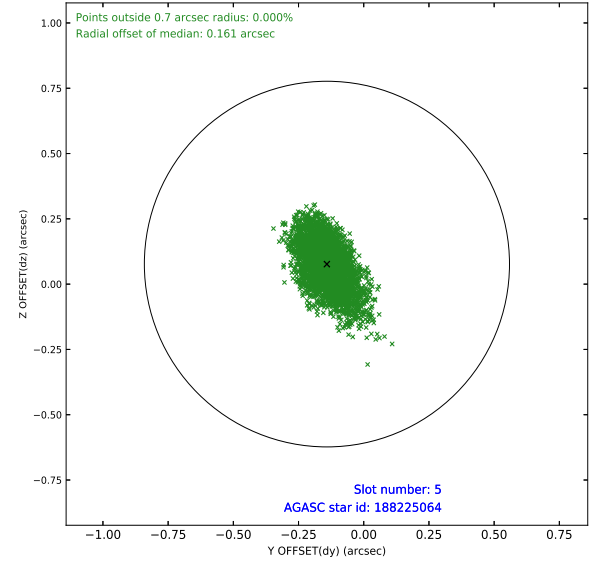
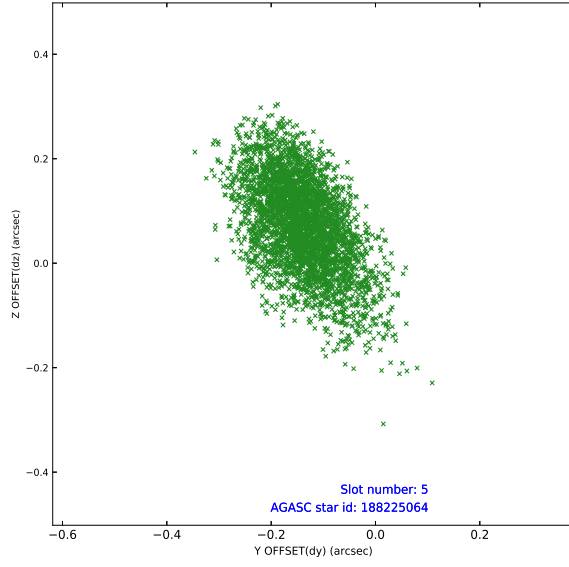
2.4.1 Slot 3



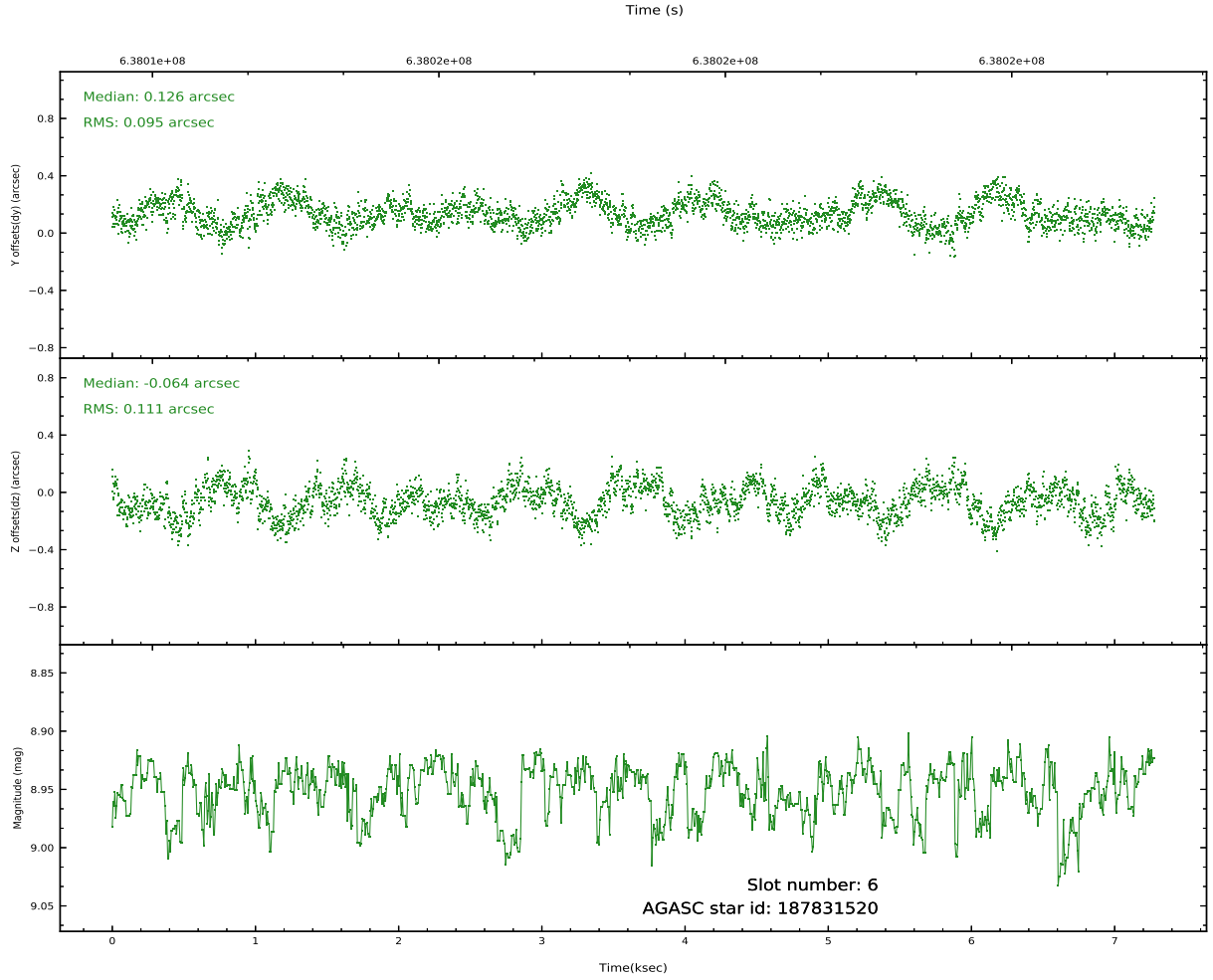
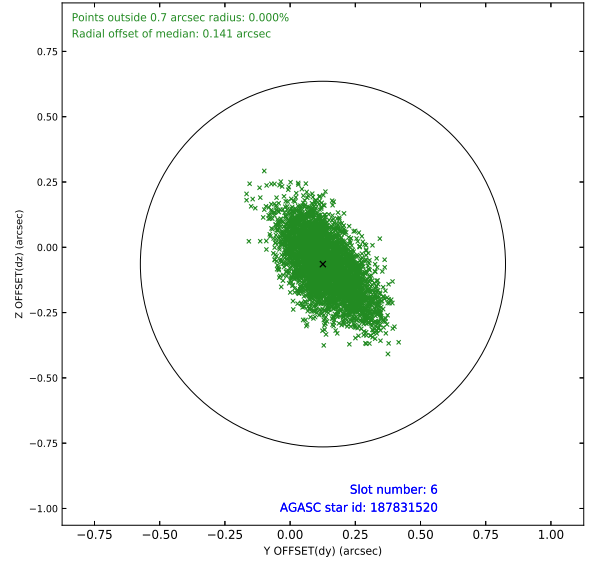
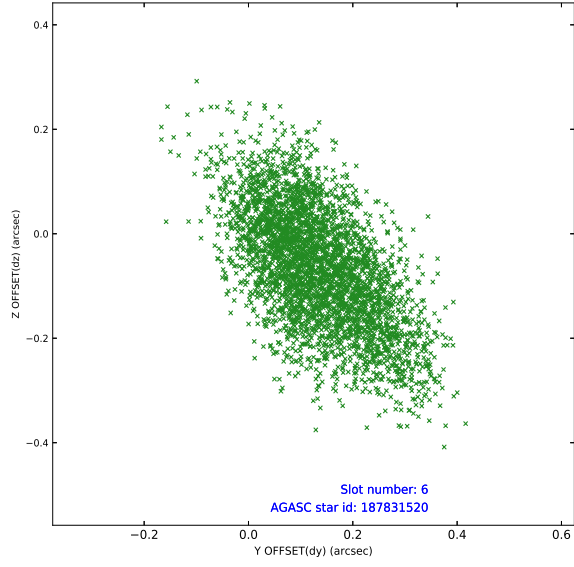
2.4.2 Slot 4



2.4.3 Slot 5

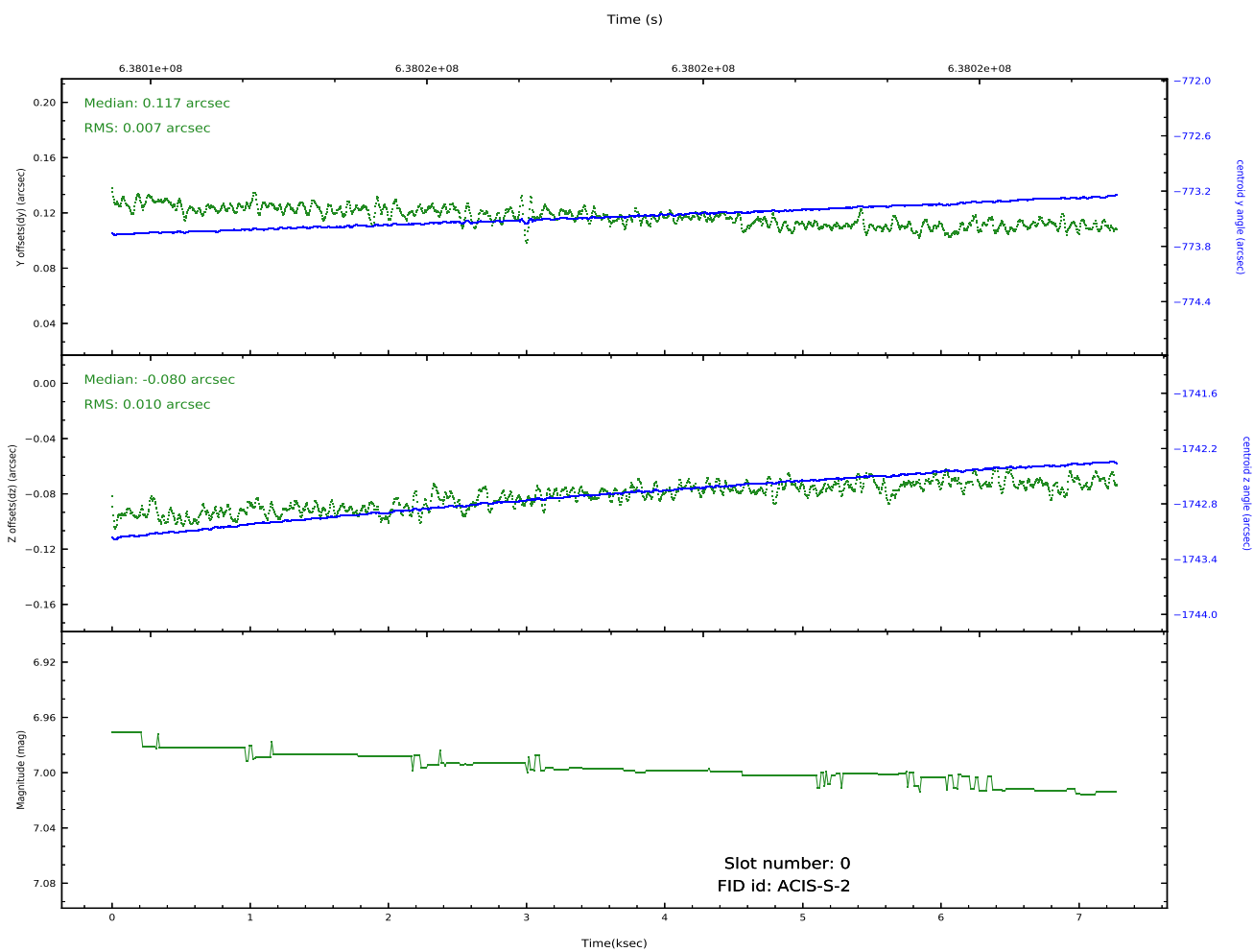
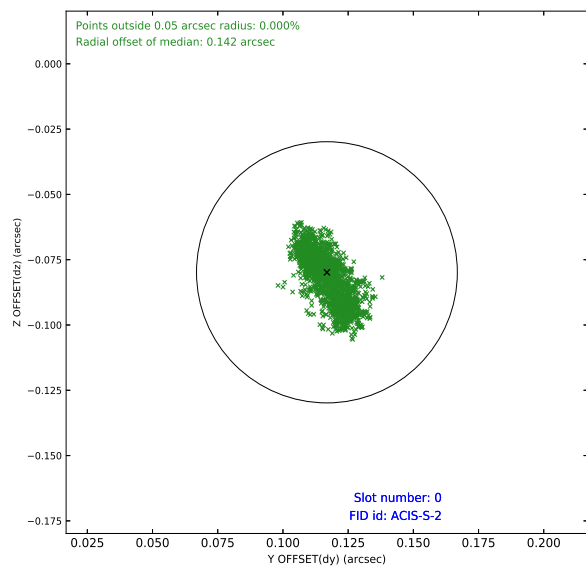
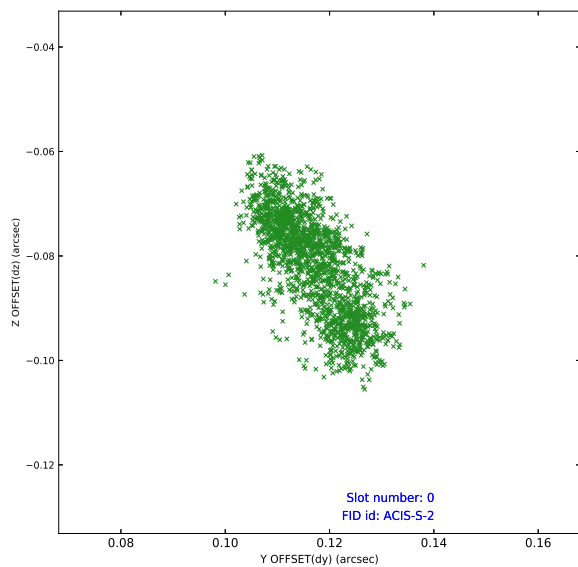


2.4.4 Slot 6

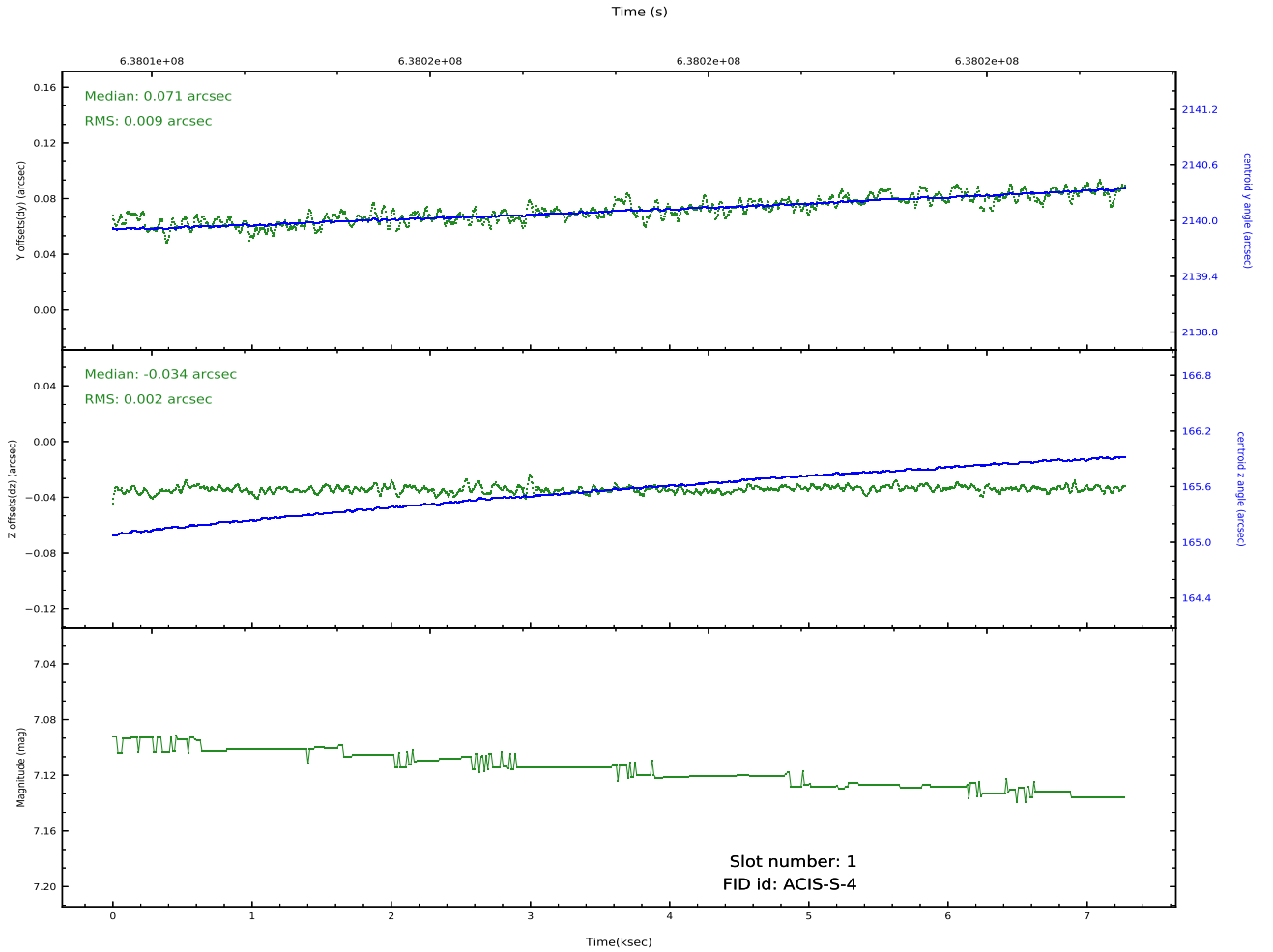
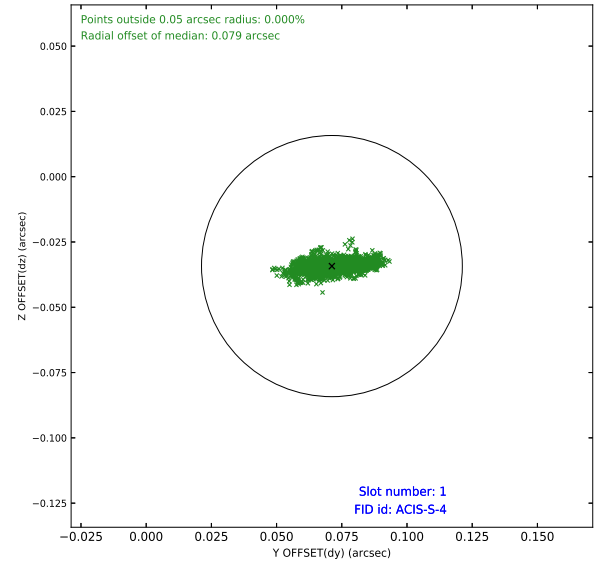
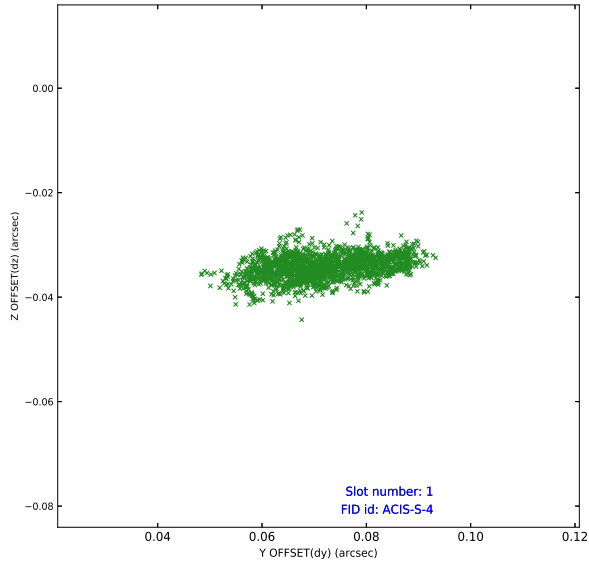


2.5 FID Slots

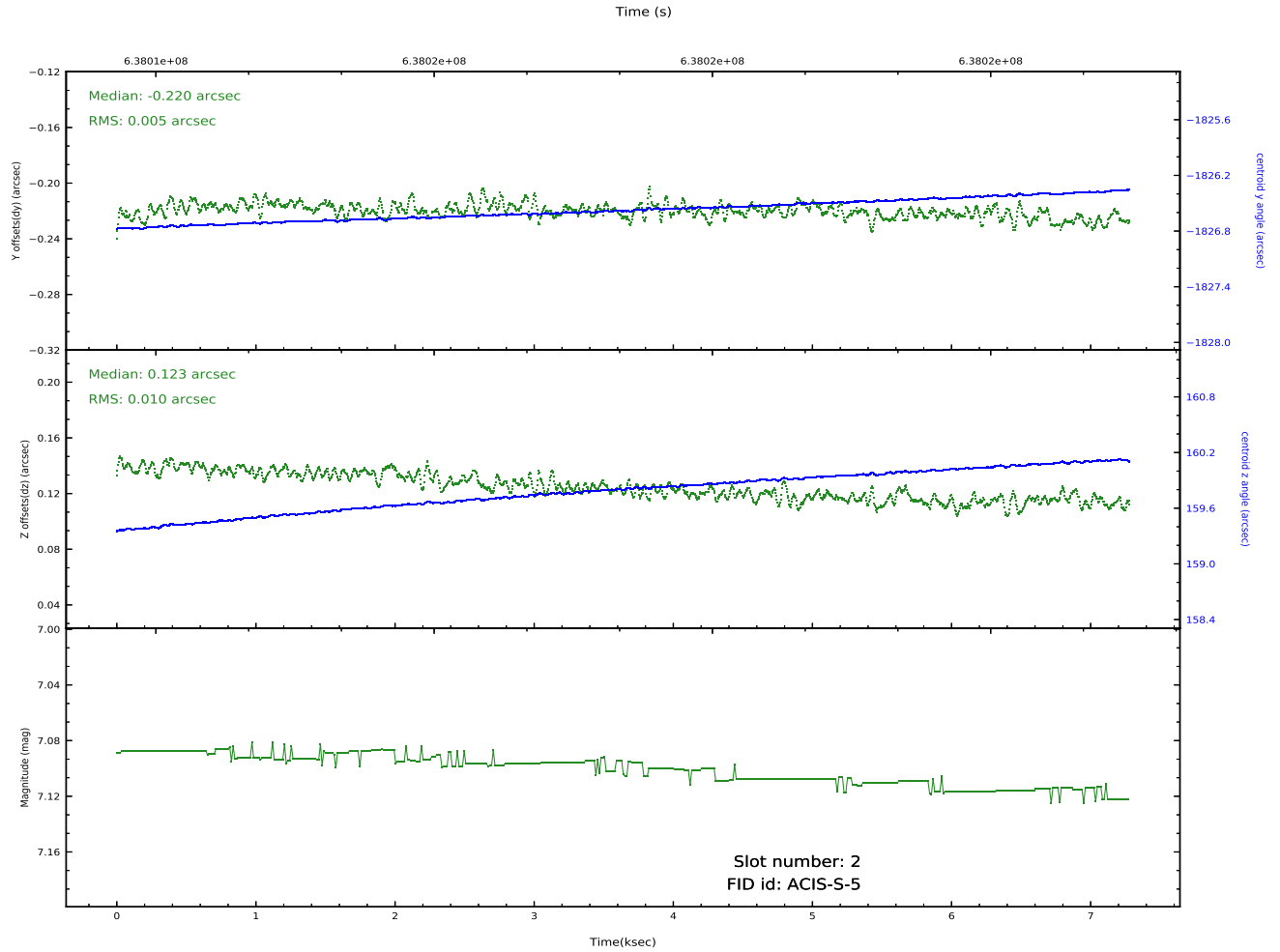
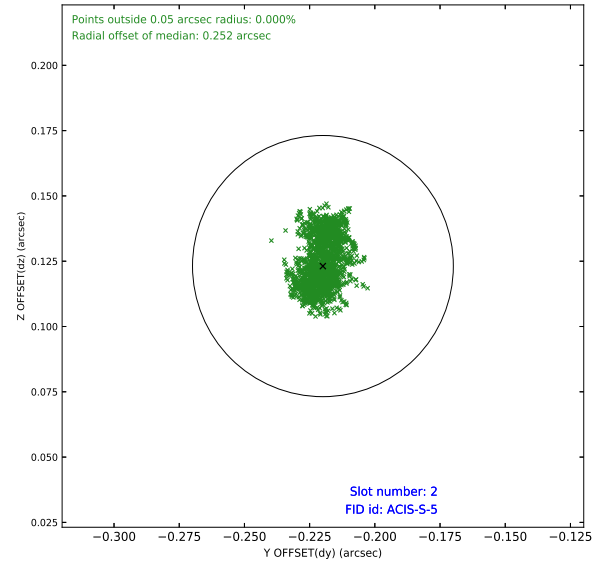
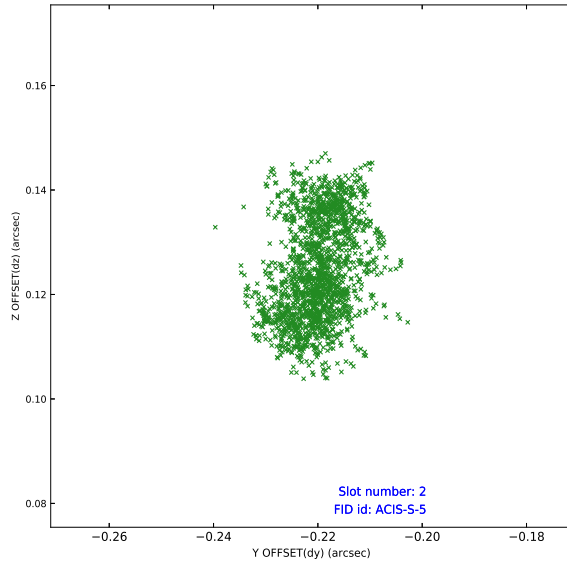
2.5.1 Slot 0



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)	2020.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.9905000538826

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.