

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 19371 - L2 Version 3
Chandra X-Ray Center

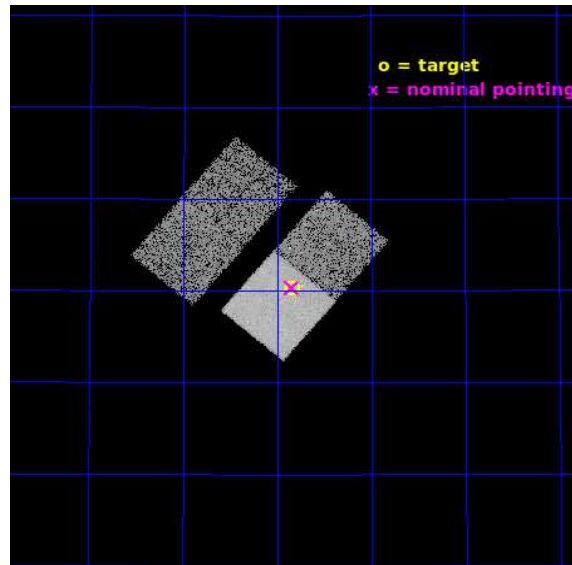
L2 Processing Date : Oct 26 2020

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

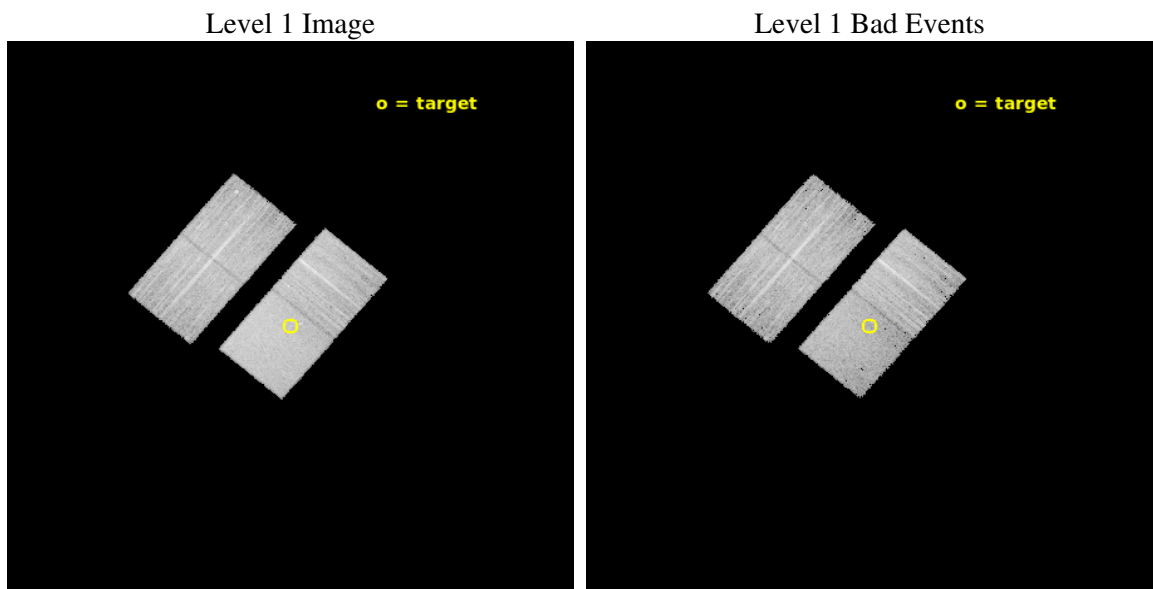
seq_num	601328	Sequence number
obs_id	19371	Observation id
title	A Statistically Complete High Resolution Chandra and Radio (eMERLIN) Survey of the Palomar Nearby Galaxies Sample	Proposal title
observer	Ian McHardy	Principal investigator
object	NGC 5448	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	210.70875	Observer's specified target RA [deg]
dec_targ	49.172639	Observer's specified target Dec [deg]
ra_nom	210.7112965023	Nominal RA [deg]
dec_nom	49.172576387156	Nominal Dec [deg]
roll_nom	130.11131539855	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10064.826776981	Sum of GTIs [s]
livetime	9933.3224055224	Livetime [s]
ontime2	10064.703657031	Sum of GTIs [s]
ontime3	10064.744696975	Sum of GTIs [s]
ontime6	10064.785737038	Sum of GTIs [s]
ontime7	10064.826776981	Sum of GTIs [s]
l2events	60573	Number of level 2 events



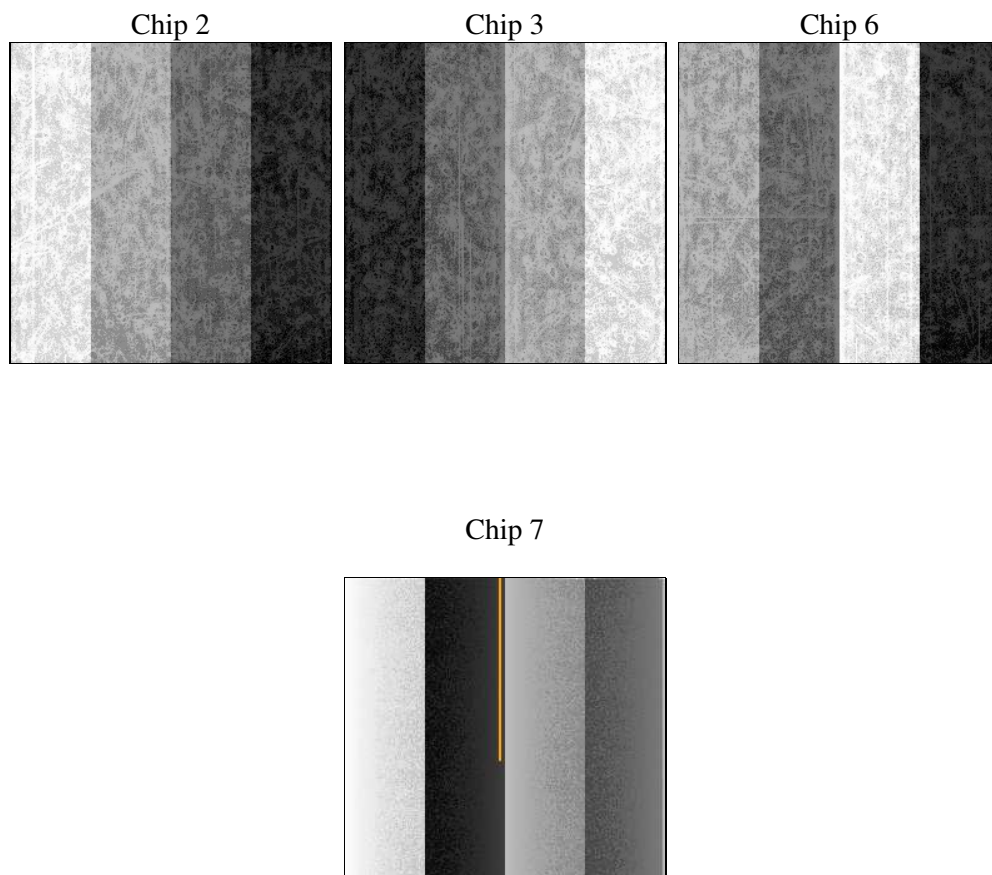
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	10064.826776981	Sum of GTIs [s]
caldsver	4.9.3	 	ontime2	10064.703657031	Sum of GTIs [s]
date	2020-10-27T00:13:58	Date and time of file creation	ontime3	10064.744696975	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	10064.785737038	Sum of GTIs [s]
			ontime7	10064.826776981	Sum of GTIs [s]
			l1events	326448	Number of level 1 events

2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	76017	73166	81610	95655
rejected events	68295	65762	72967	54231
rejected %	89%	89%	89%	56%

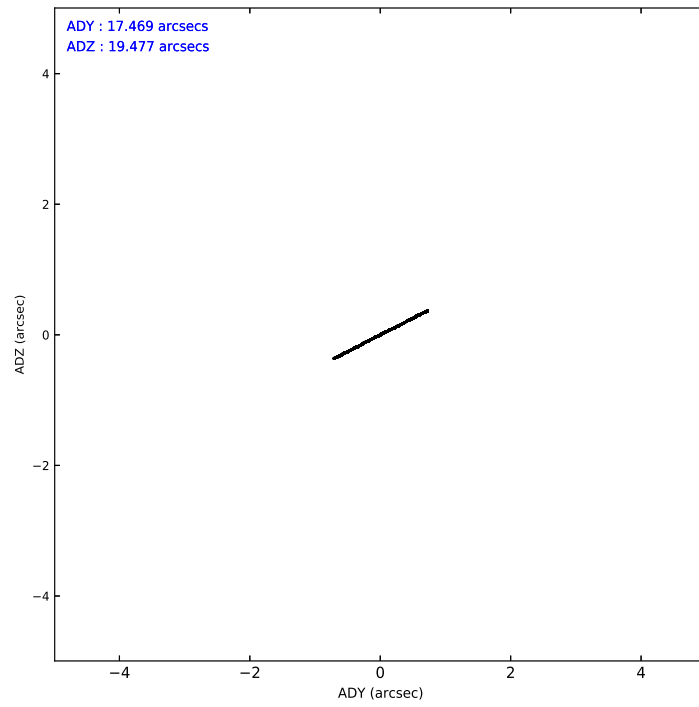
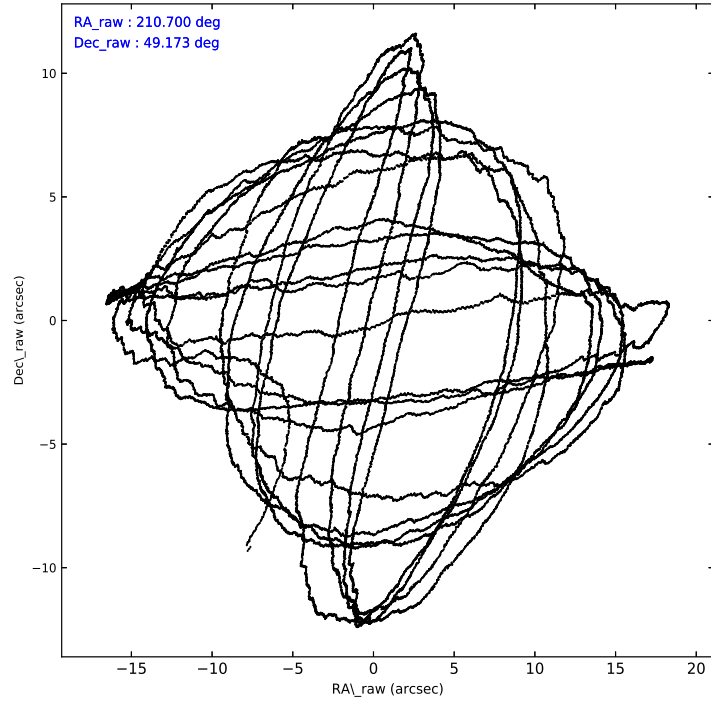
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	2871	2519	2645	3645
	3%	3%	3%	3%
grade 1 events	35	26	31	119
	0%	0%	0%	0%
grade 2 events	1774	1662	2303	8534
	2%	2%	2%	8%
grade 3 events	735	807	727	3274
	0%	1%	0%	3%
grade 4 events	818	779	723	3280
	1%	1%	0%	3%
grade 5 events	2702	3232	3249	9258
	3%	4%	3%	9%
grade 6 events	1529	1641	2252	22721
	2%	2%	2%	23%
grade 7 events	65553	62500	69680	44824
	86%	85%	85%	46%

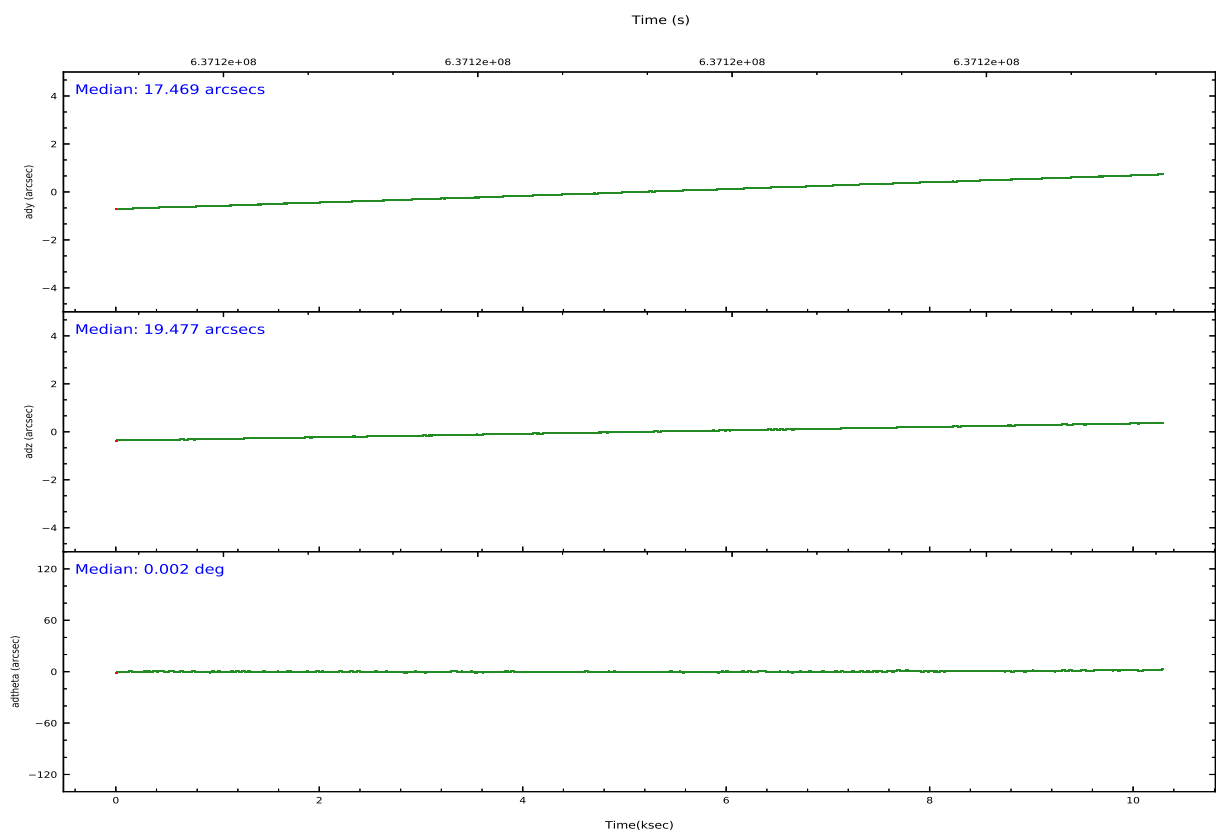
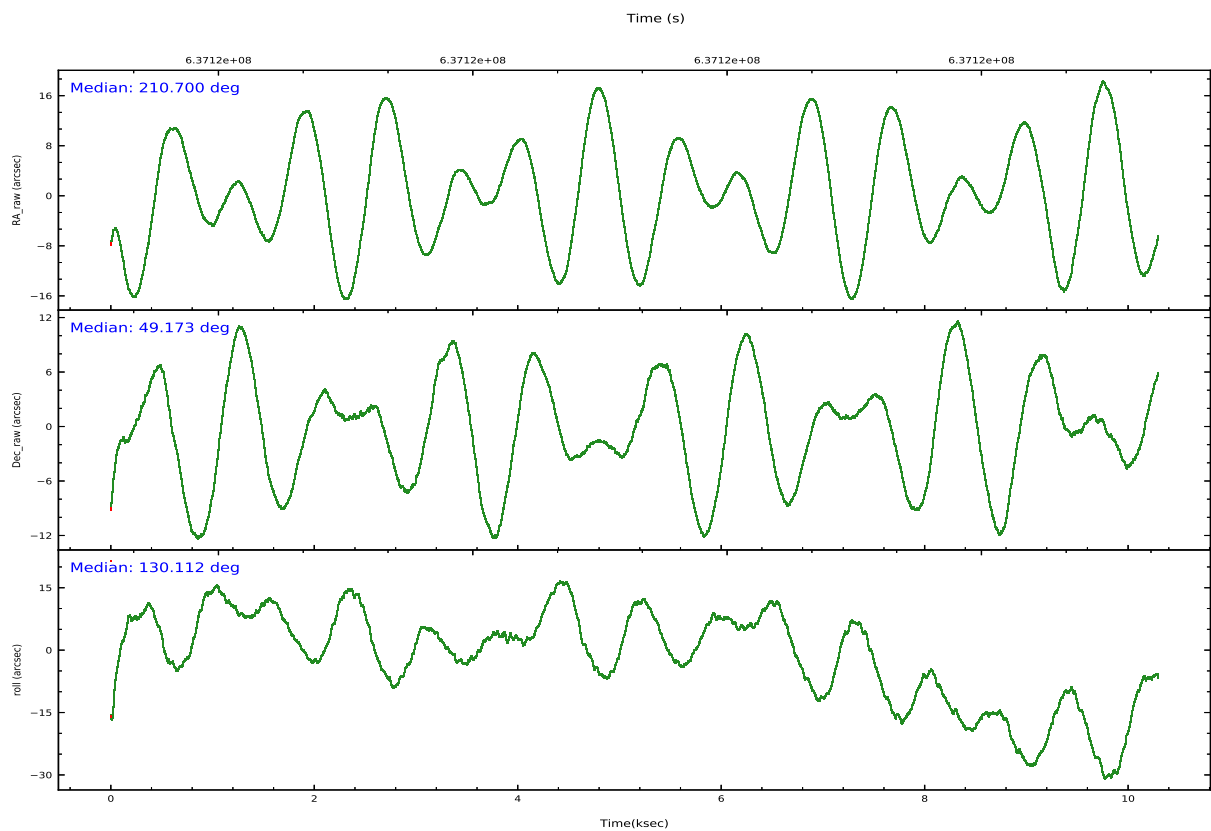
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-2367	ACIS-2367
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	210.739603	210.7112965023
[deg] Pointing Dec	49.163743	49.172576387156
[deg] Pointing Roll	129.931041	130.11131539855
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	637114238.184000	637113302.2905999
Observation start date	2018-03-11T00:09:29	2018-03-10T23:55:02
[s] Observation end time (MET)	637124238.184000	637124450.19125
Observation end date	2018-03-11T02:56:09	2018-03-11T03:00:50
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar version number	8	8
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
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



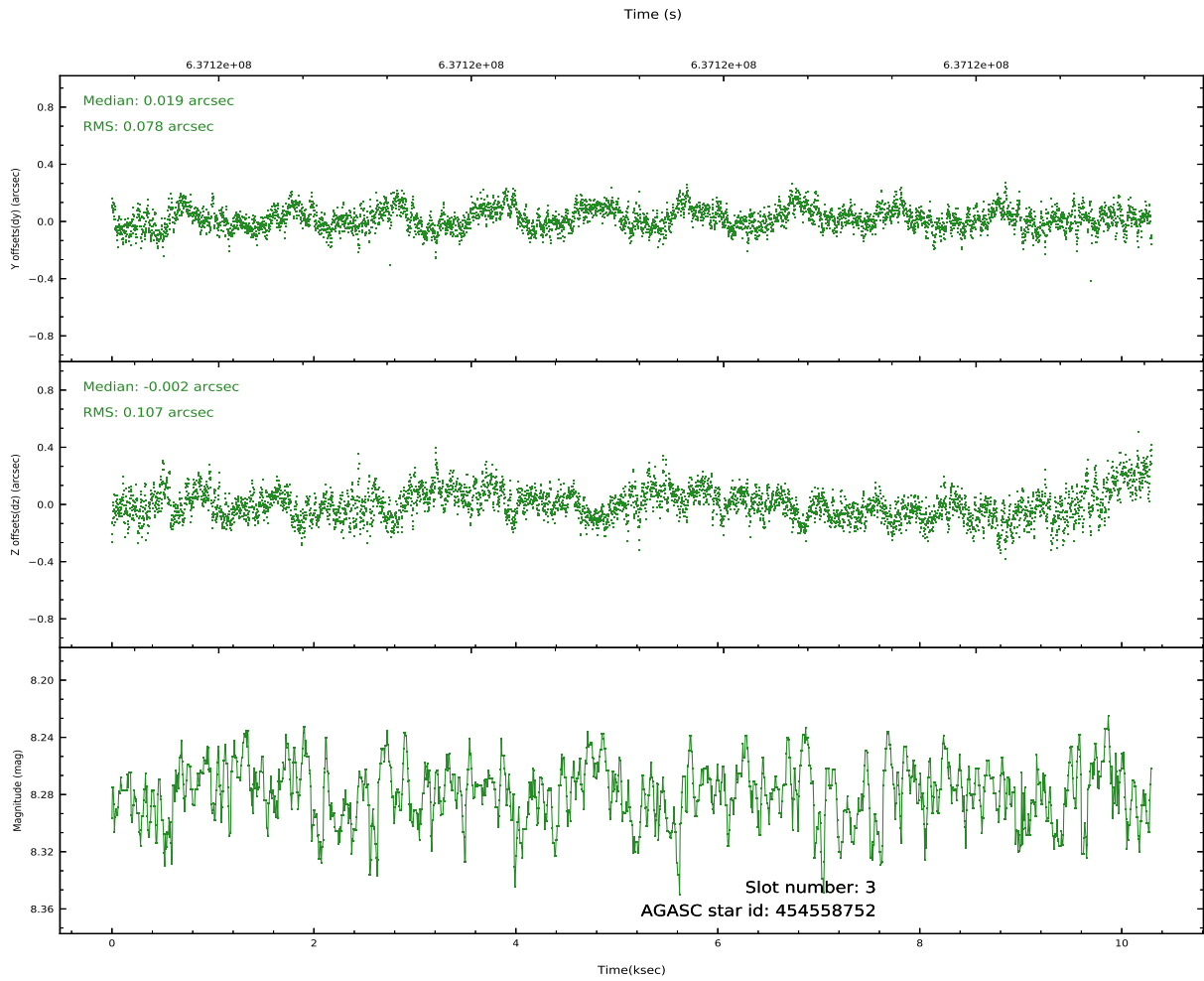
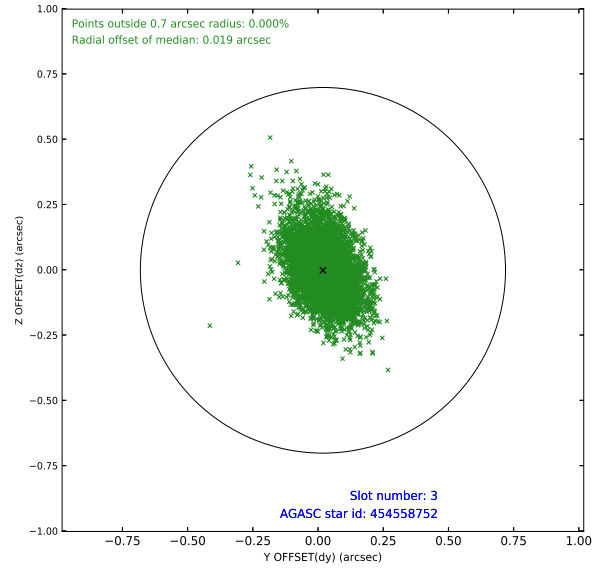
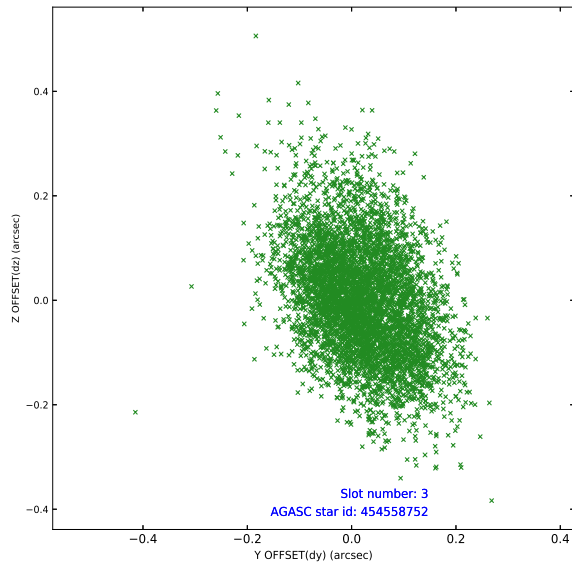


Slot Statistics

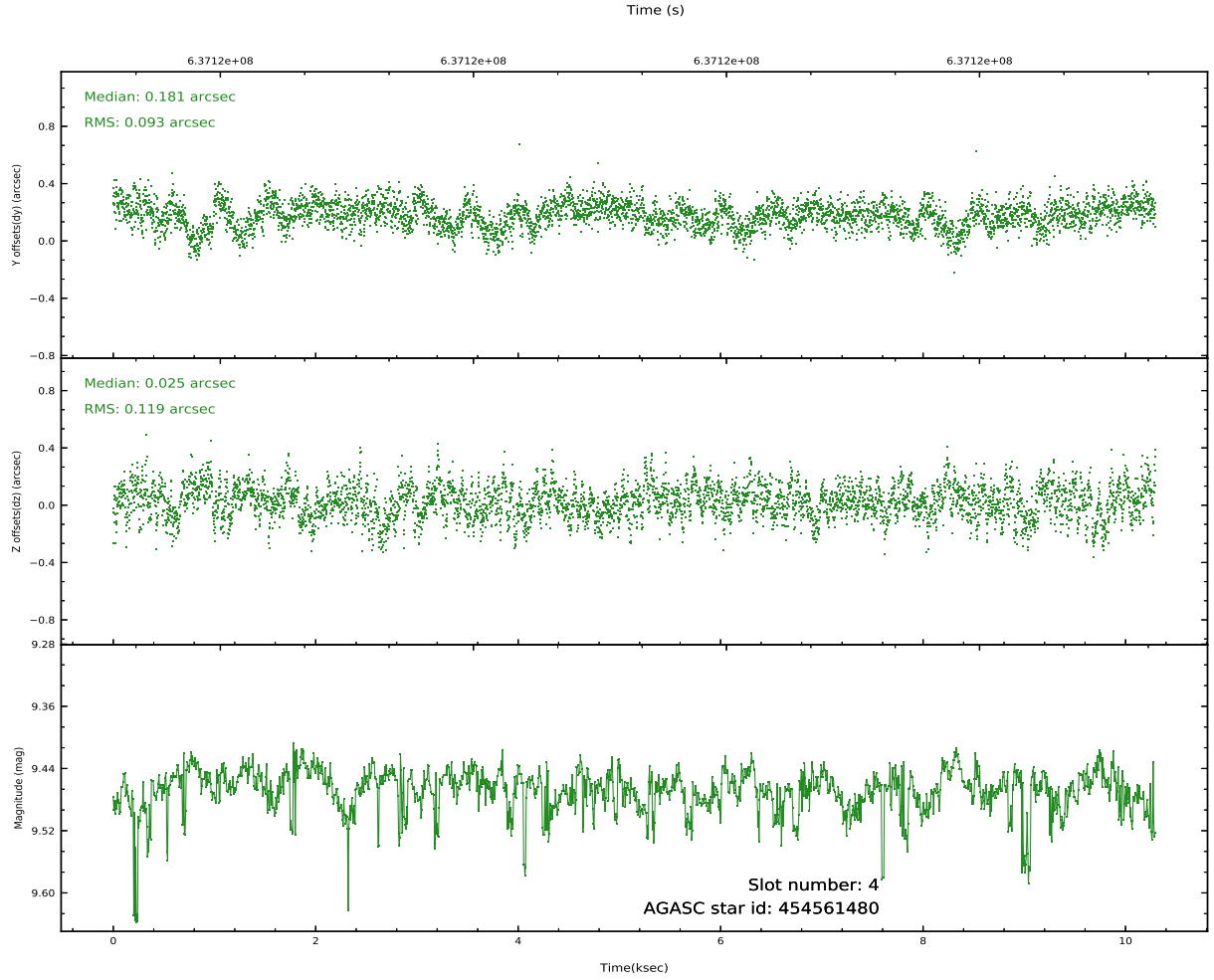
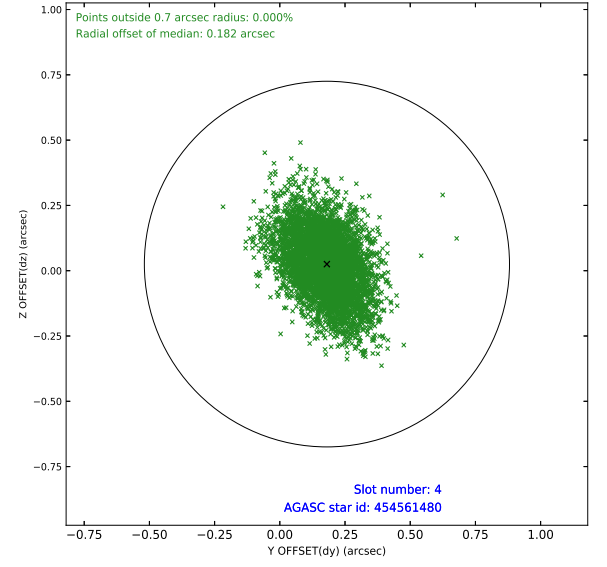
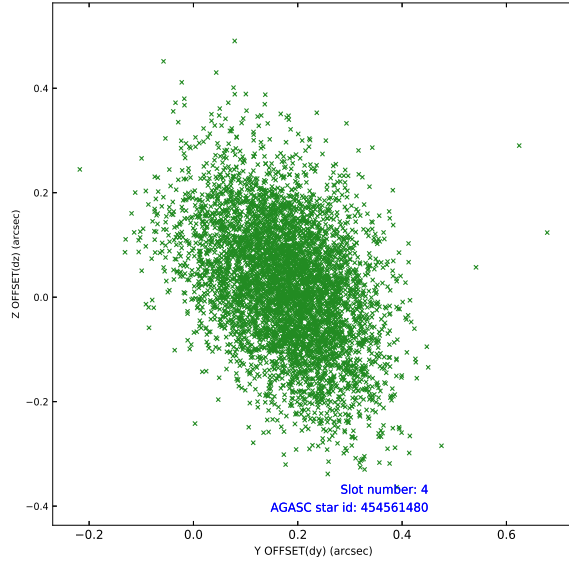
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.16	2511	1.000	0.112	-0.111	0.008	0.014	0.000000	0.000000	-770.58	-1740
1	FID		ACIS-S-4	7.26	2512	1.000	0.156	-0.024	0.010	0.017	0.000000	0.000000	2142.70	166
2	FID		ACIS-S-5	7.25	2510	1.000	-0.301	0.144	0.009	0.016	0.000000	0.000000	-1822.98	161
3	GUIDE	used	454558752	8.28	5022	1.000	0.019	-0.002	0.137	0.232	210.225405	49.469043	1616.91	215
4	GUIDE	used	454561480	9.46	5013	1.000	0.181	0.025	0.156	0.269	210.811699	48.989871	-588.43	271
5	GUIDE	used	454562128	7.06	5022	1.000	-0.045	0.189	0.126	0.221	211.585377	48.880863	-2057.58	-888
6	GUIDE	used	454562552	9.01	5017	1.000	-0.186	-0.094	0.127	0.226	210.836146	48.559368	-1816.94	1221
7	GUIDE	used	454563840	9.79	4940	1.000	0.023	-0.128	0.227	0.378	210.496887	48.565522	-1280.72	1825

2.4 Star Slots

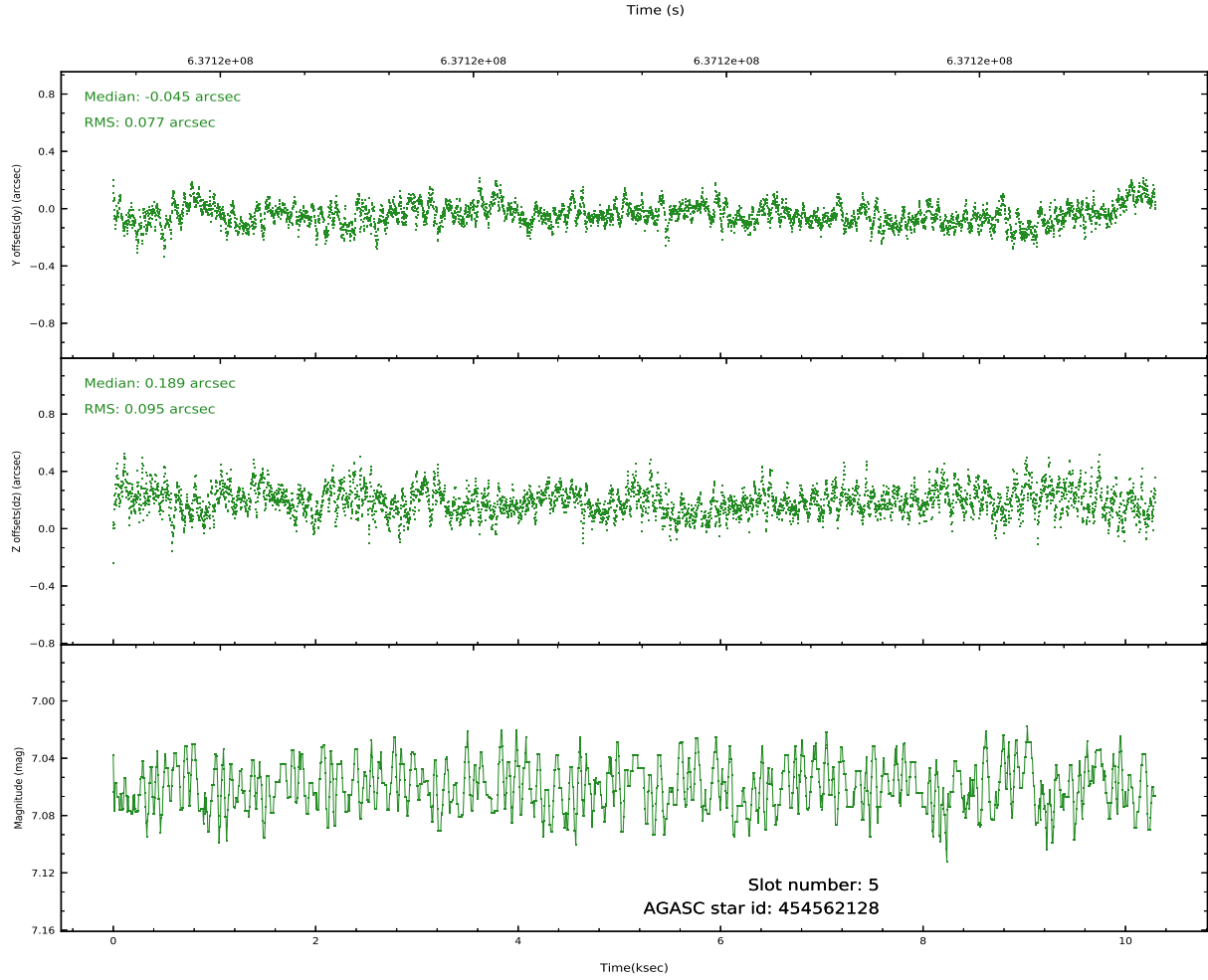
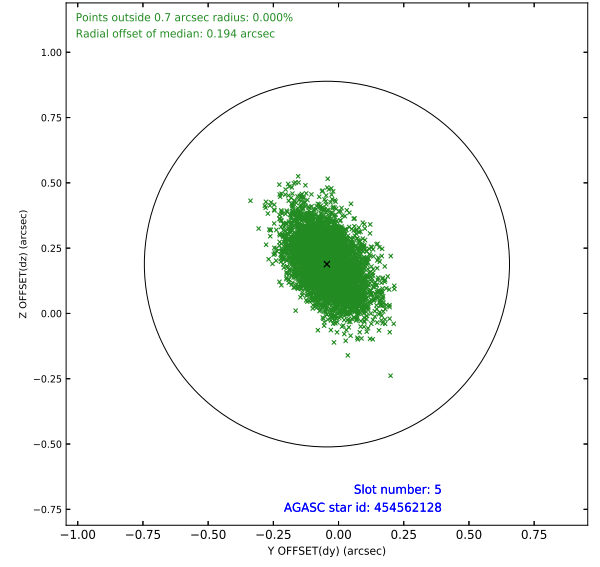
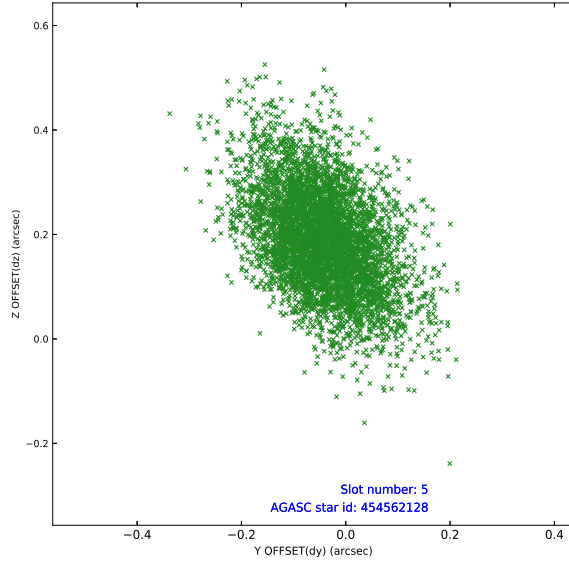
2.4.1 Slot 3



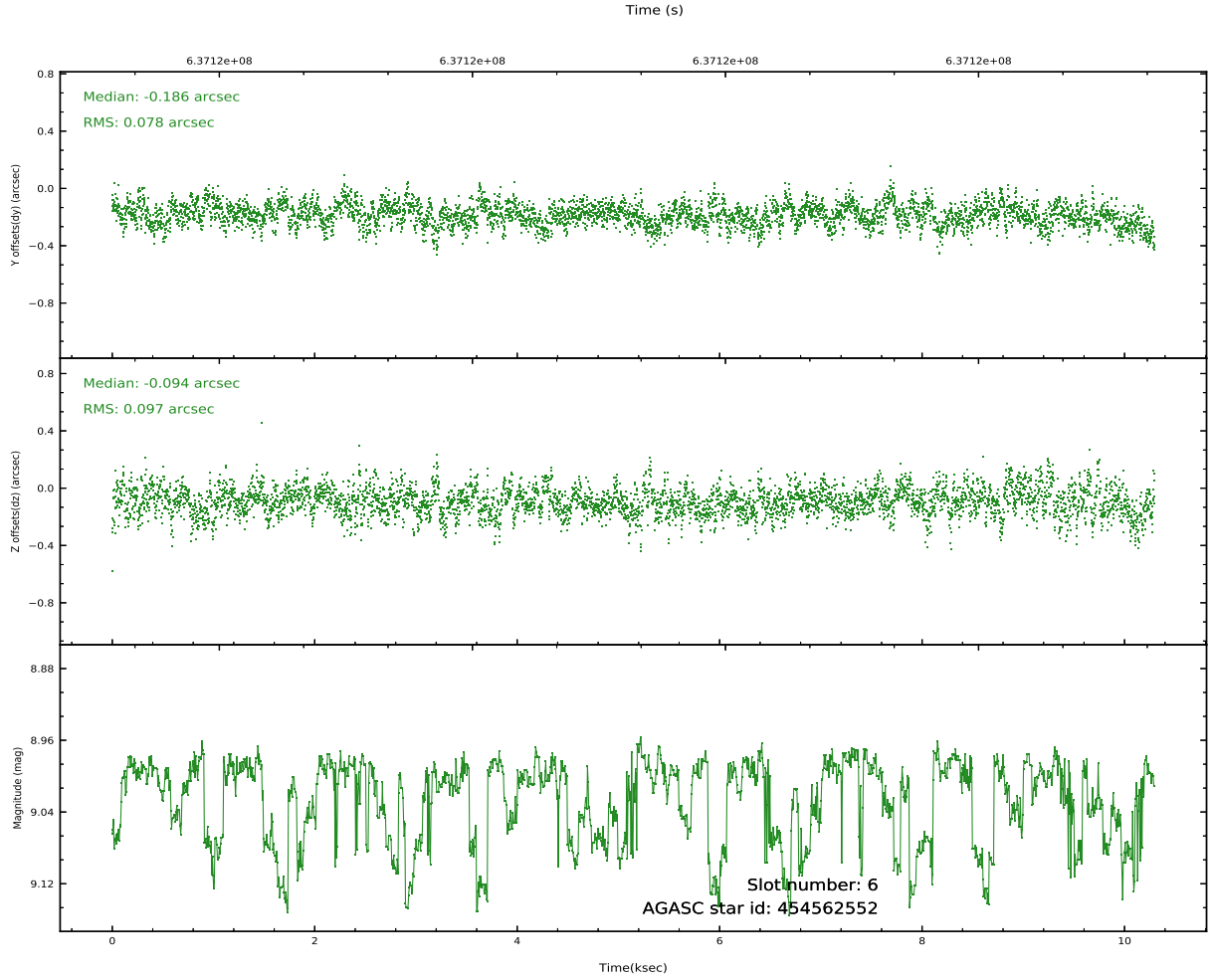
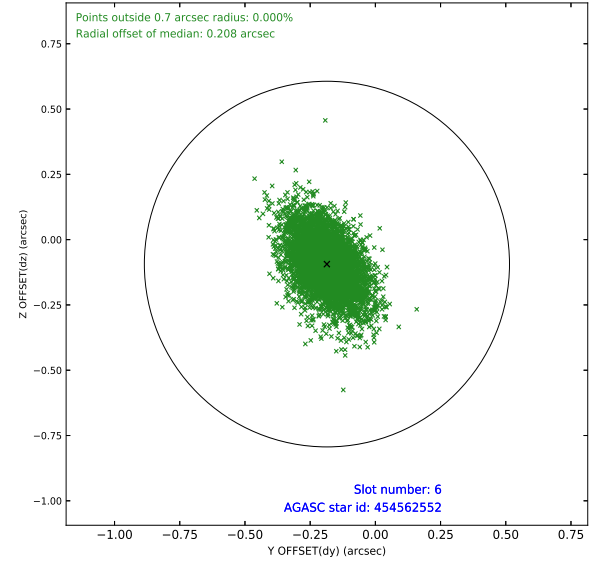
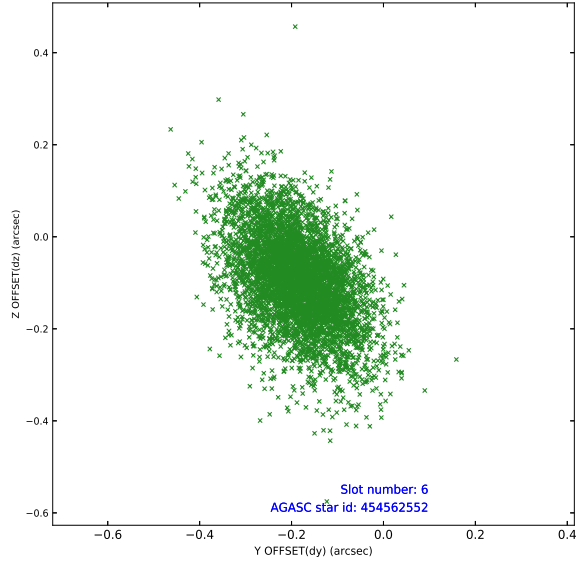
2.4.2 Slot 4



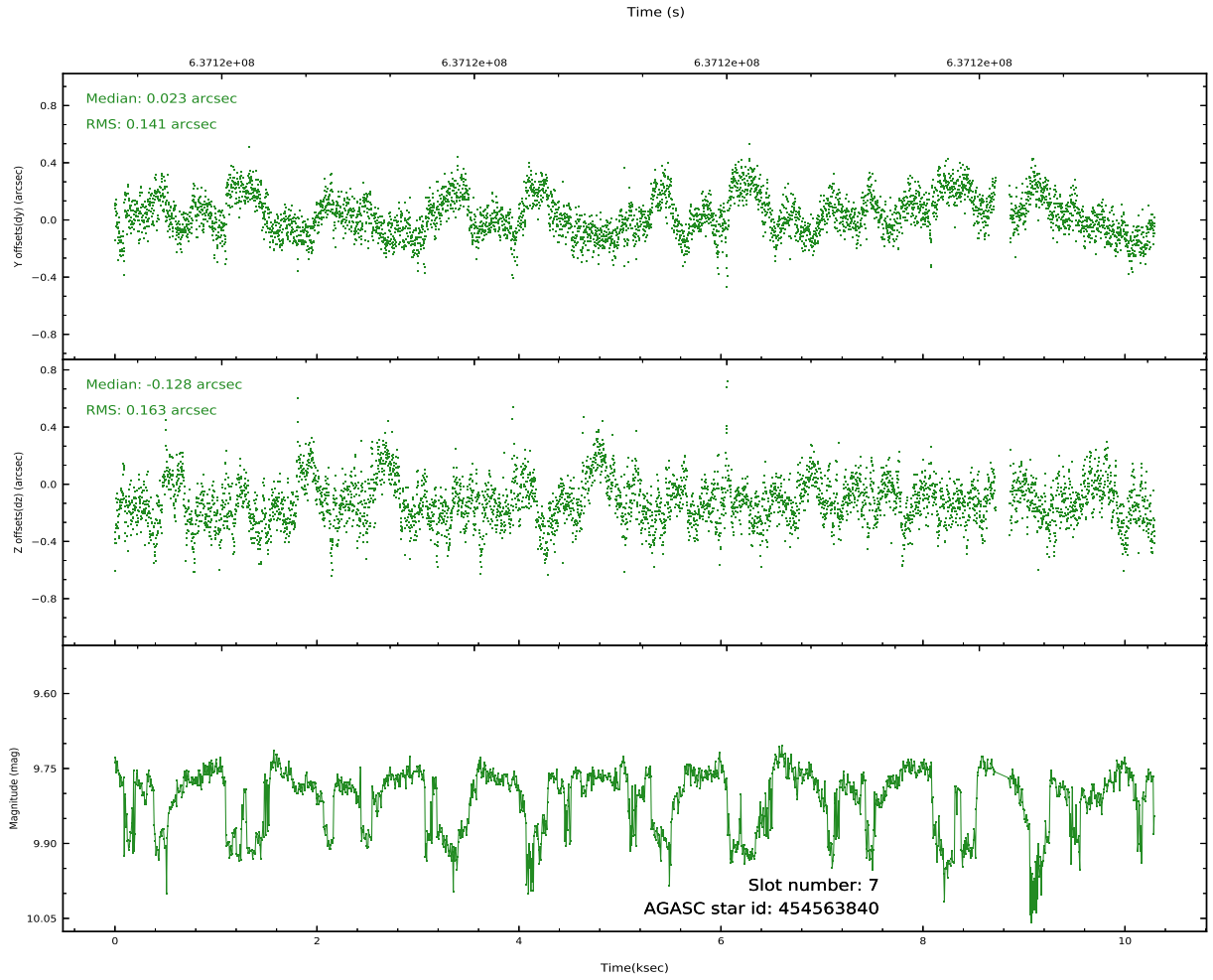
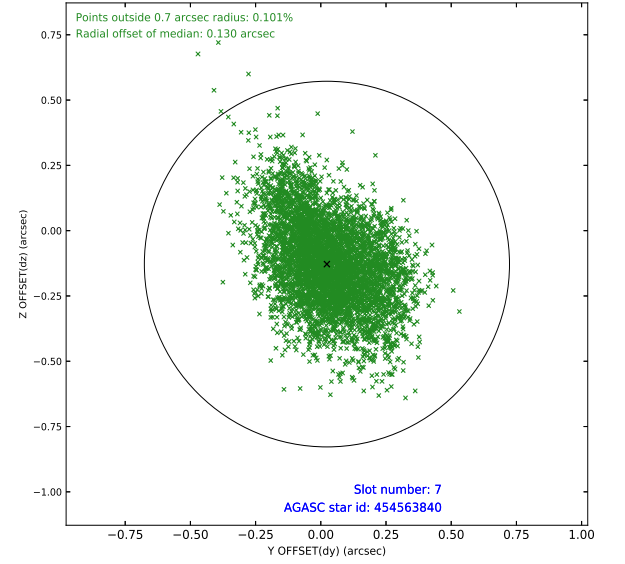
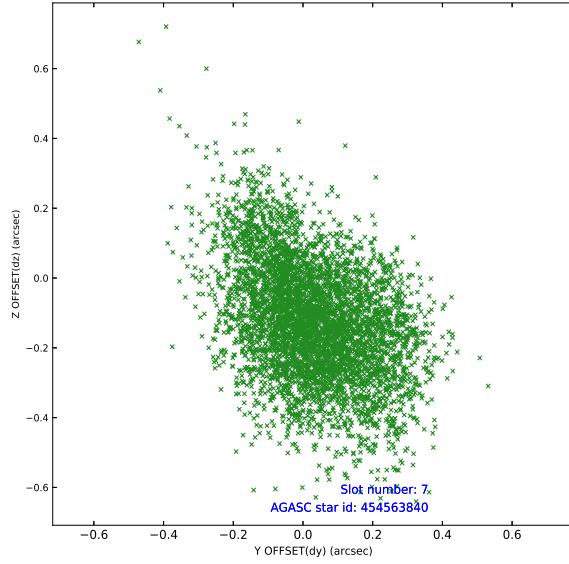
2.4.3 Slot 5



2.4.4 Slot 6

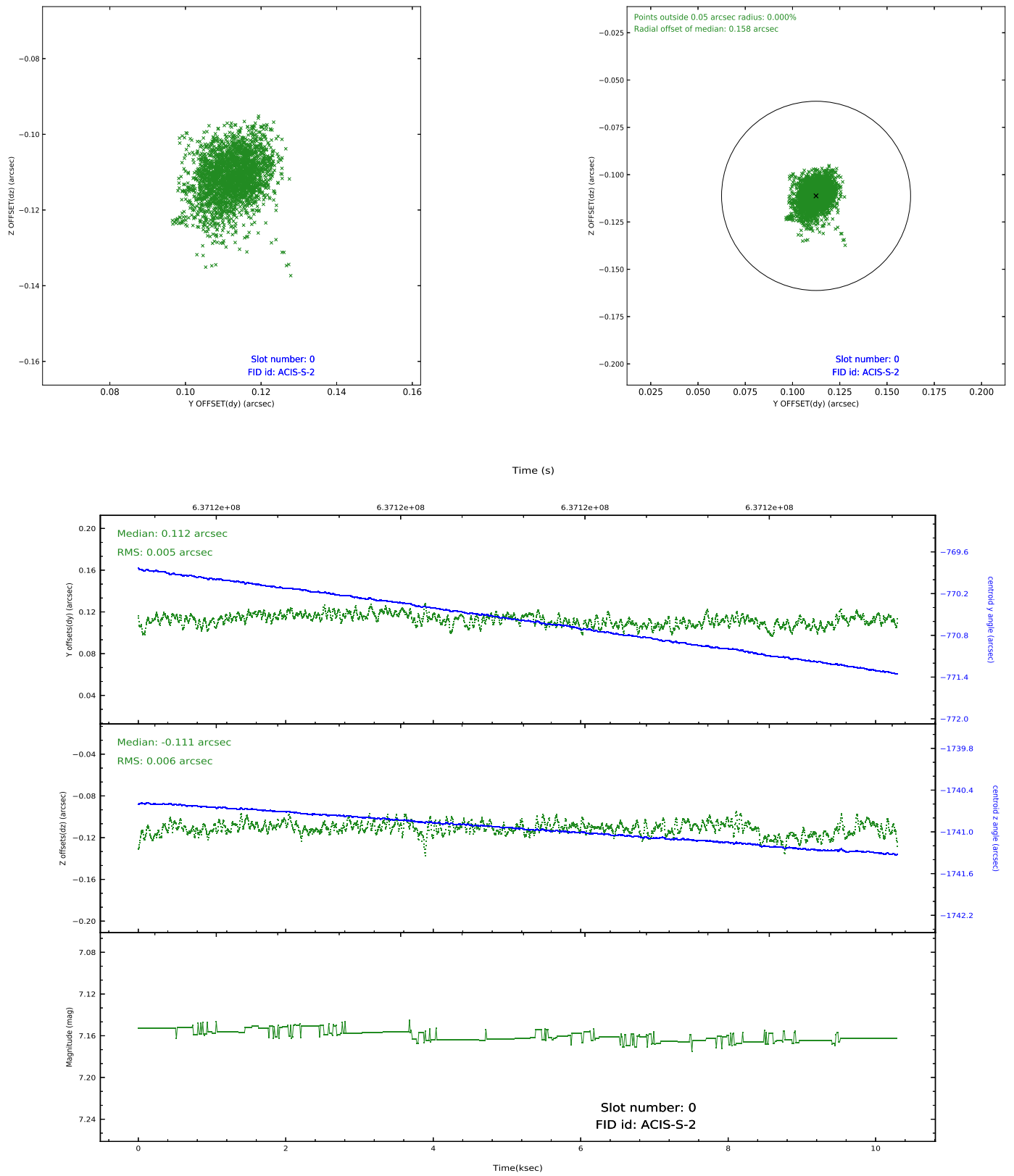


2.4.5 Slot 7

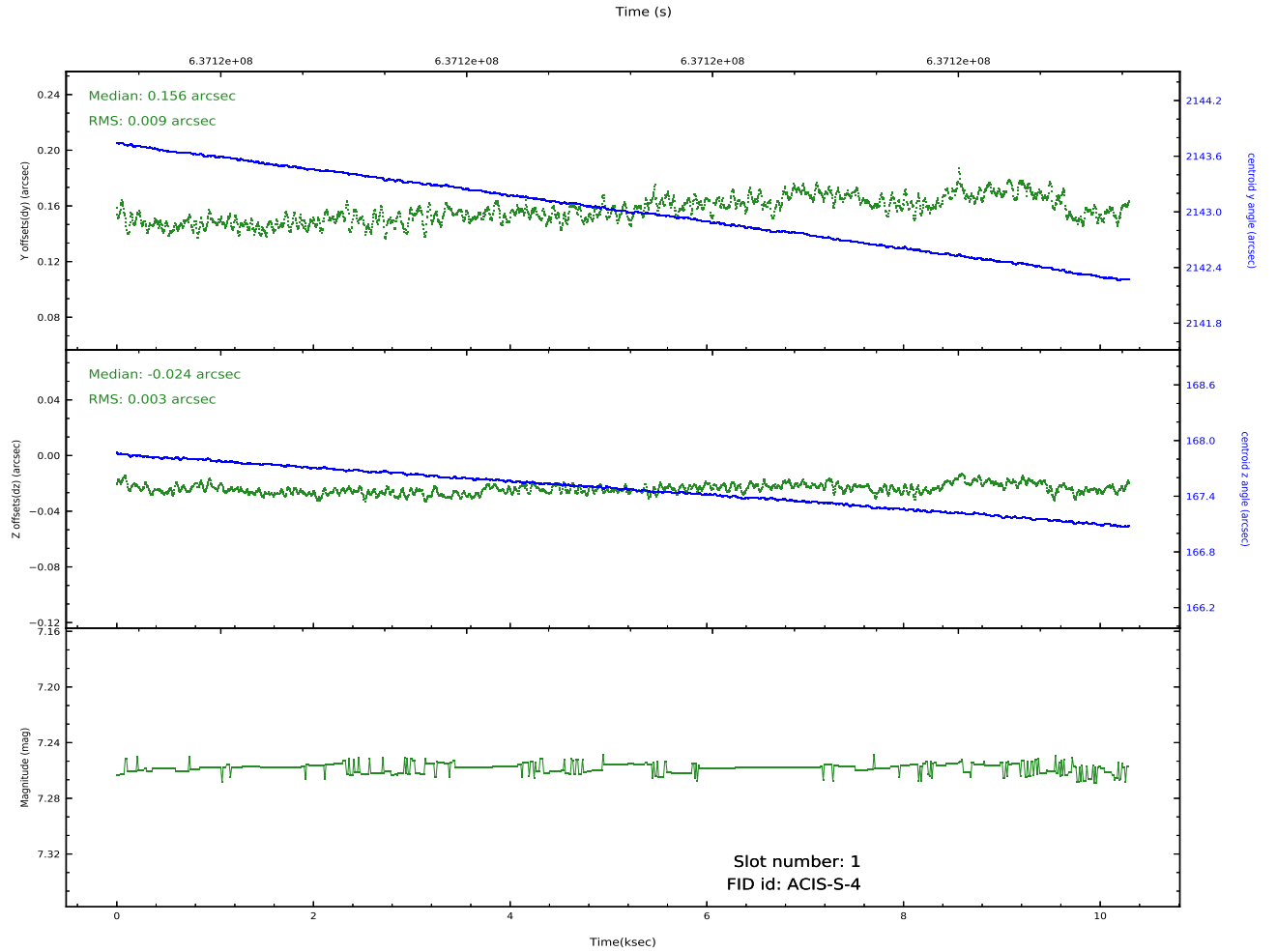
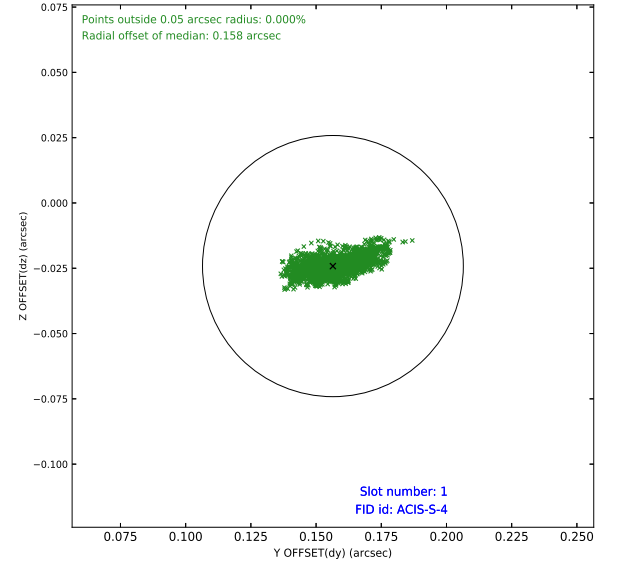
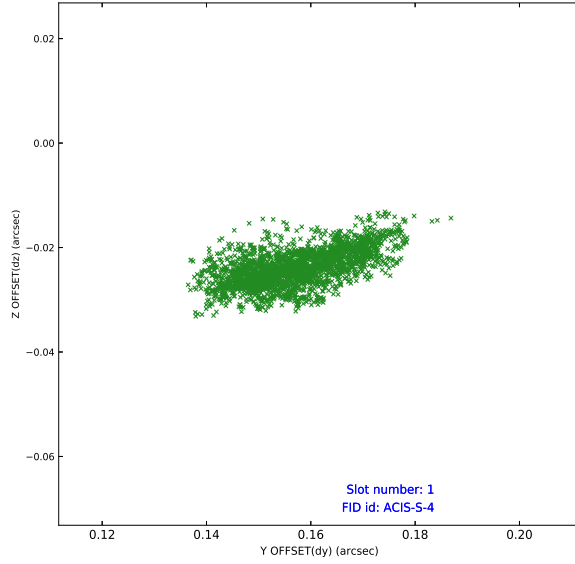


2.5 FID Slots

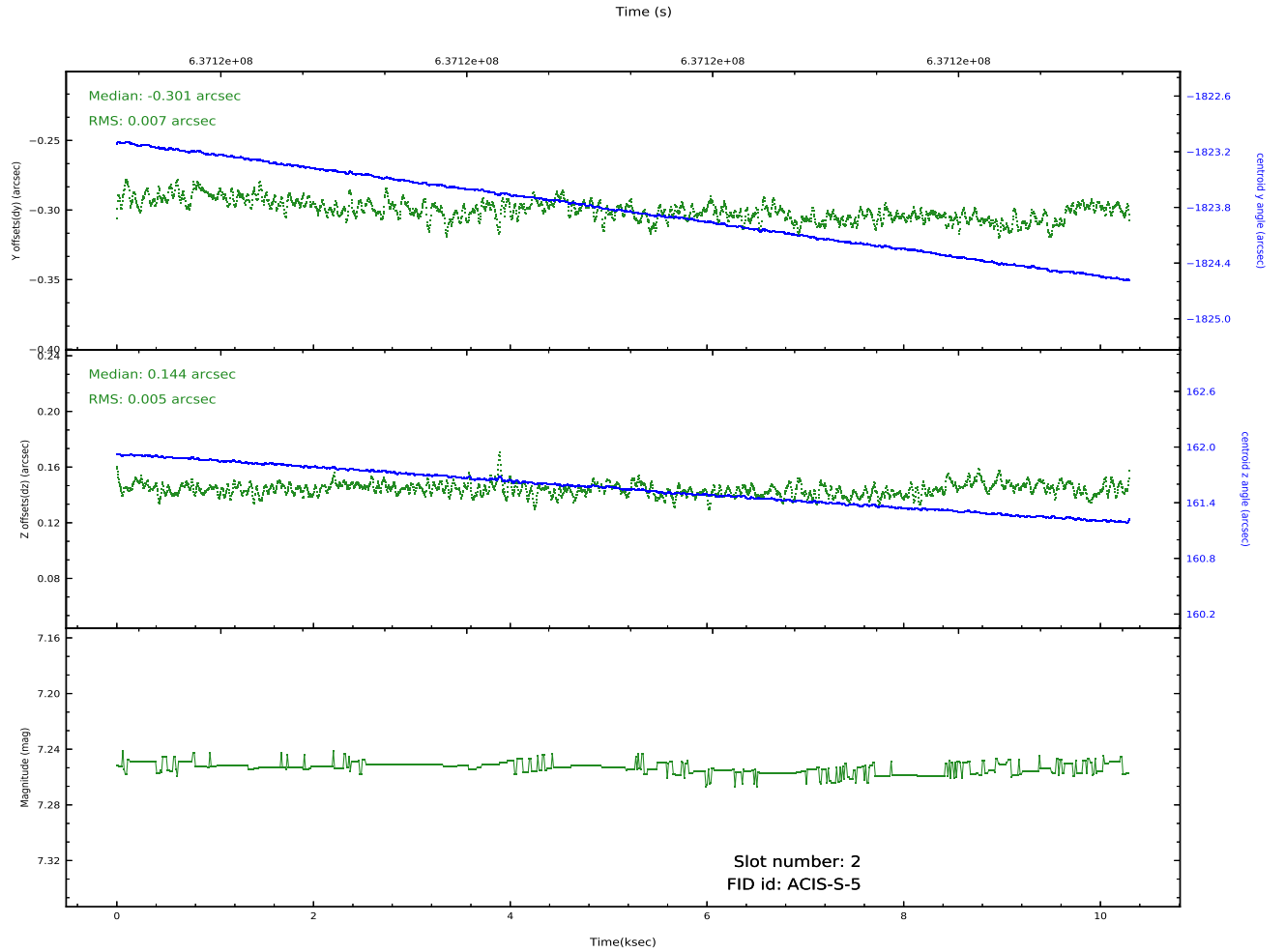
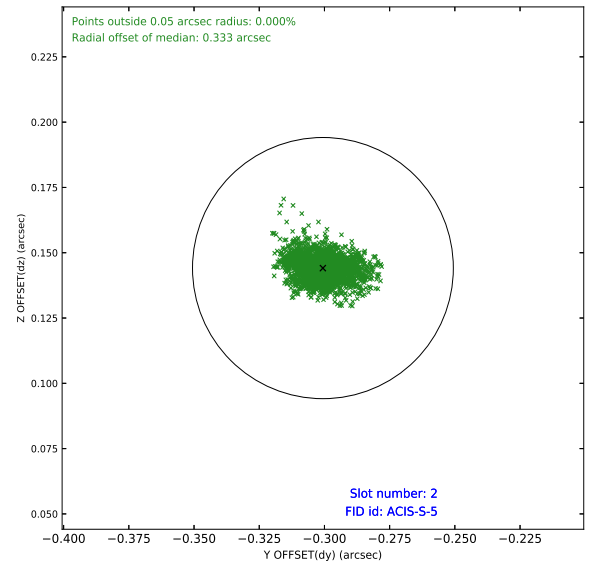
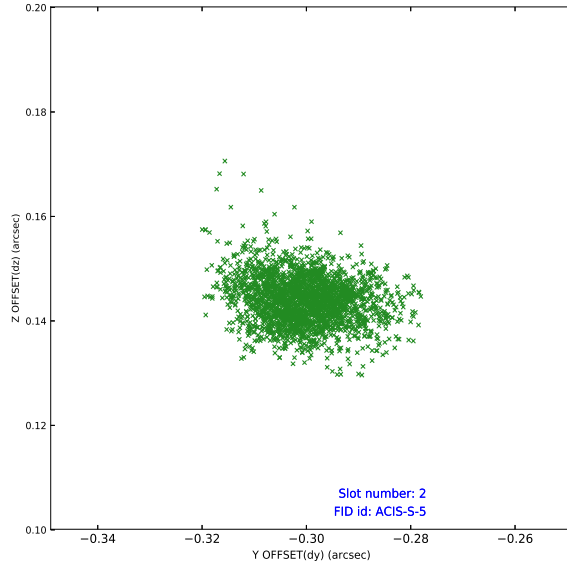
2.5.1 Slot 0



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)	2020.10.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.064826776385

A.2 Comments

A spatial region of the original bias map for CCD = 3 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 3 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords: (210.97670,49.14177), (210.98118,49.14421), (210.84408,49.25111), (210.83959,49.24866).