

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 19751 - L2 Version 3
Chandra X-Ray Center

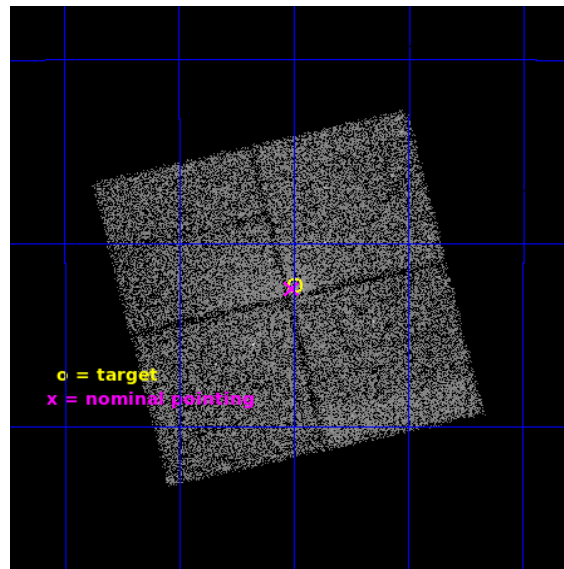
L2 Processing Date : Oct 26 2020

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1 Front

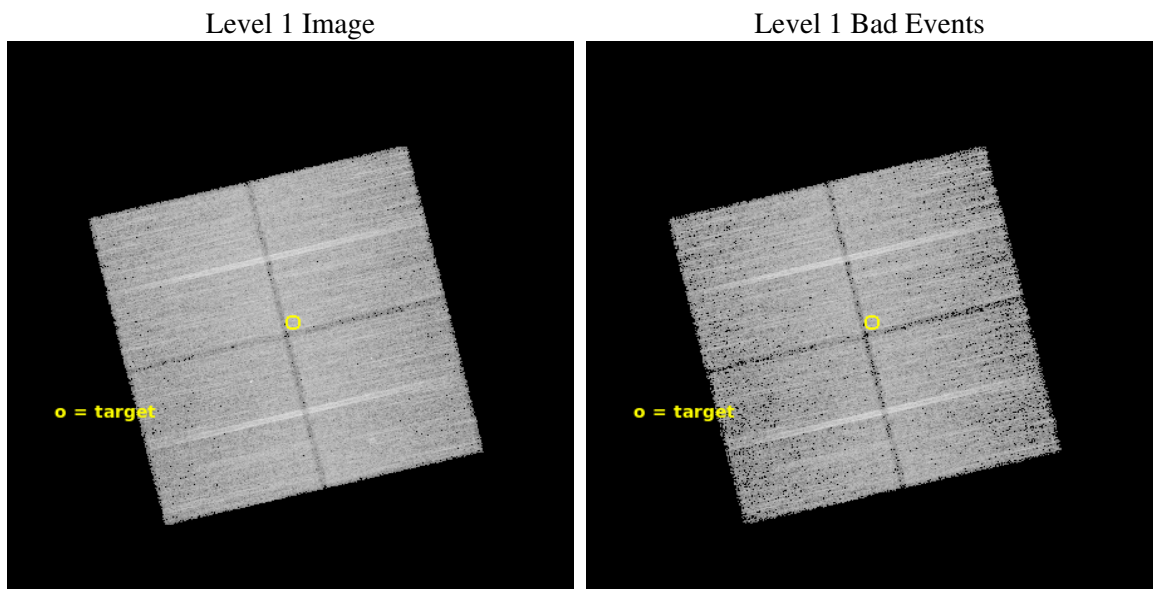
seq_num	801688	Sequence number
obs_id	19751	Observation id
title	Observations of Radio Relic Galaxy Clusters	Proposal title
observer	Ralph Kraft	Principal investigator
object	1RXS J125029.7-370220	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	192.62375	Observer's specified target RA [deg]
dec_targ	-37.038889	Observer's specified target Dec [deg]
ra_nom	192.62701862563	Nominal RA [deg]
dec_nom	-37.041430434164	Nominal Dec [deg]
roll_nom	346.42608769962	Nominal Roll [deg]
revision	3	Processing version of data
ontime	22078.200169921	Sum of GTIs [s]
livetime	21789.732230966	Livetime [s]
ontime0	22078.200169921	Sum of GTIs [s]
ontime1	22078.200169921	Sum of GTIs [s]
ontime2	22078.200169921	Sum of GTIs [s]
ontime3	22078.200169921	Sum of GTIs [s]
l2events	63082	Number of level 2 events



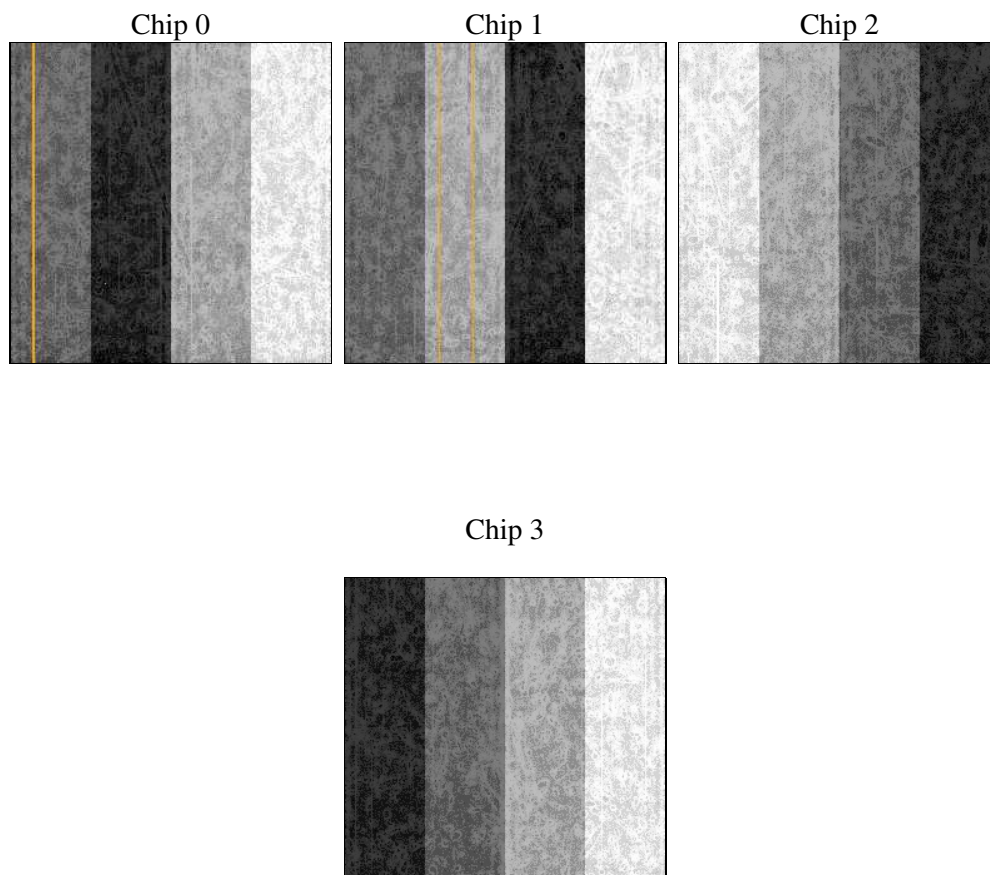
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	22000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	22078.200169921	Sum of GTIs [s]
caldsver	4.9.3	 	ontime0	22078.200169921	Sum of GTIs [s]
date	2020-10-27T00:47:54	Date and time of file creation	ontime1	22078.200169921	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	22078.200169921	Sum of GTIs [s]
			ontime3	22078.200169921	Sum of GTIs [s]
			l1events	622678	Number of level 1 events

2.1.4 Events

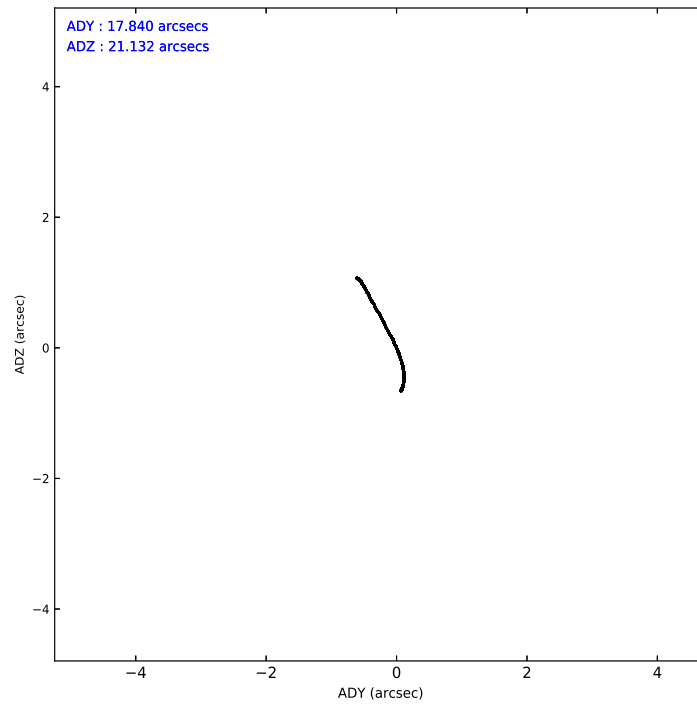
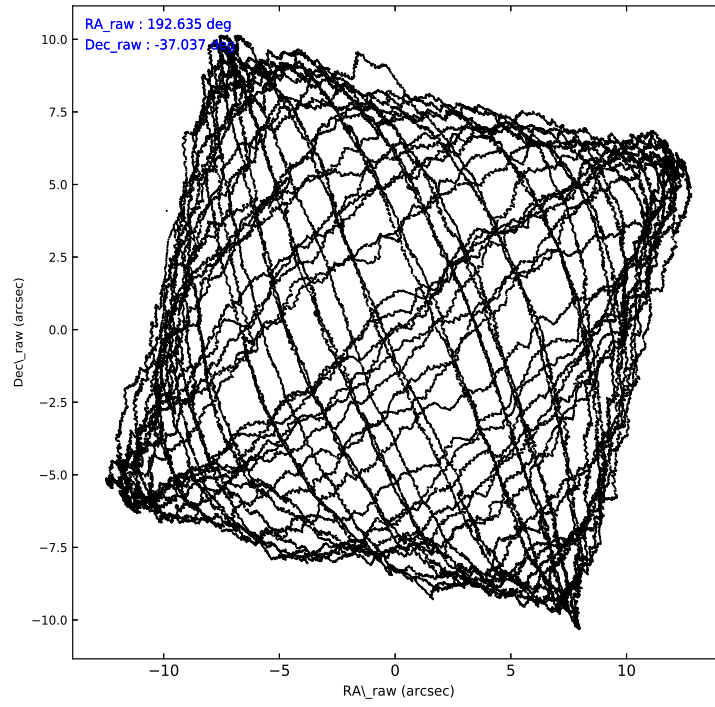
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	143332	150911	165127	163308
rejected events	124320	130830	146370	145399
rejected %	86%	86%	88%	89%

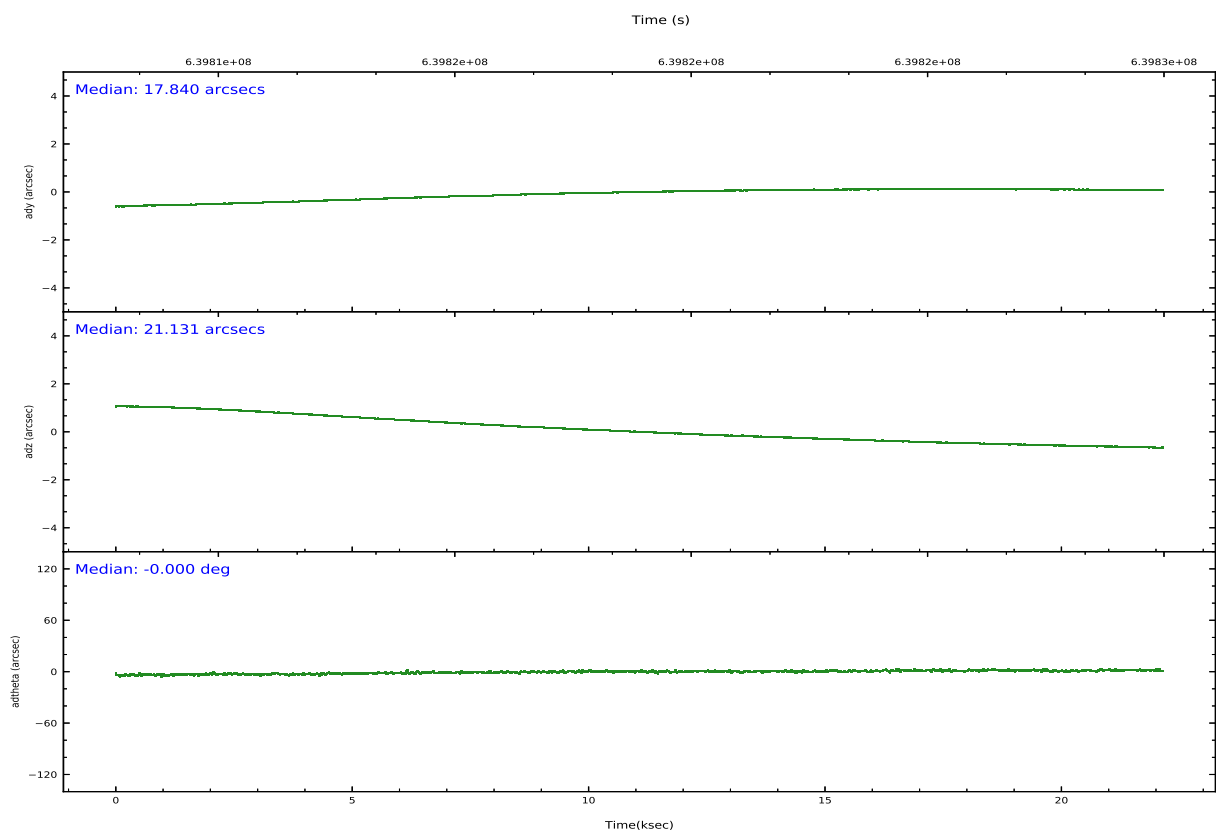
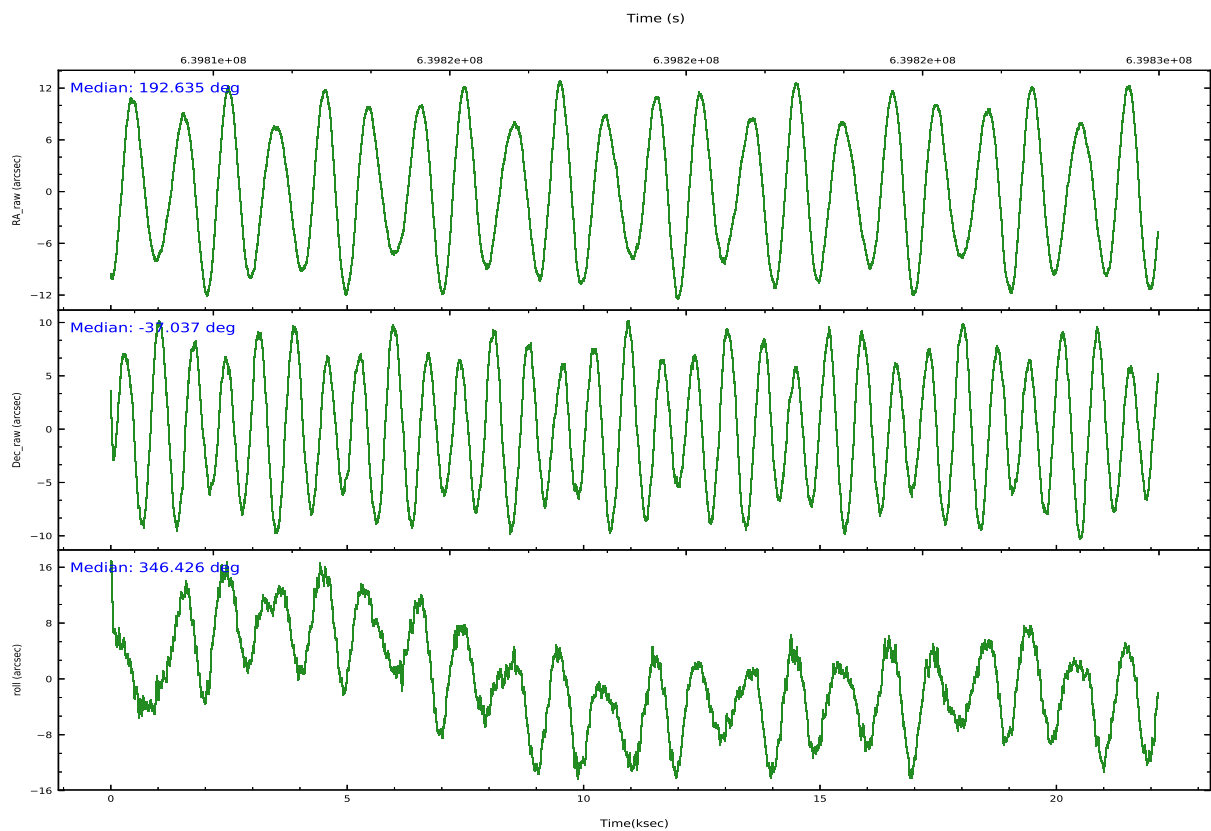
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	6708	6947	7144	6635
	4%	4%	4%	4%
grade 1 events	79	101	112	108
	0%	0%	0%	0%
grade 2 events	4722	5022	4572	4014
	3%	3%	2%	2%
grade 3 events	1845	1844	1821	1807
	1%	1%	1%	1%
grade 4 events	1861	1842	1827	1802
	1%	1%	1%	1%
grade 5 events	6947	7433	6465	7827
	4%	4%	3%	4%
grade 6 events	3880	4428	3398	3656
	2%	2%	2%	2%
grade 7 events	117290	123294	139788	137459
	81%	81%	84%	84%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-0123	ACIS-0123	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	192.601991	192.62701862563	CCD I2 on	Y	Y
[deg] Pointing Dec	-37.044605	-37.041430434164	CCD I3 on	Y	Y
[deg] Pointing Roll	346.205904	346.42608769962	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O2	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	639807983.184000	639806815.89948	CCD S5 on	N	N
Observation start date	2018-04-11T04:25:14	2018-04-11T04:06:55	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	639829983.184000	639831284.70092	On-chip summing requested	N	N
Observation end date	2018-04-11T10:31:54	2018-04-11T10:54:44	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



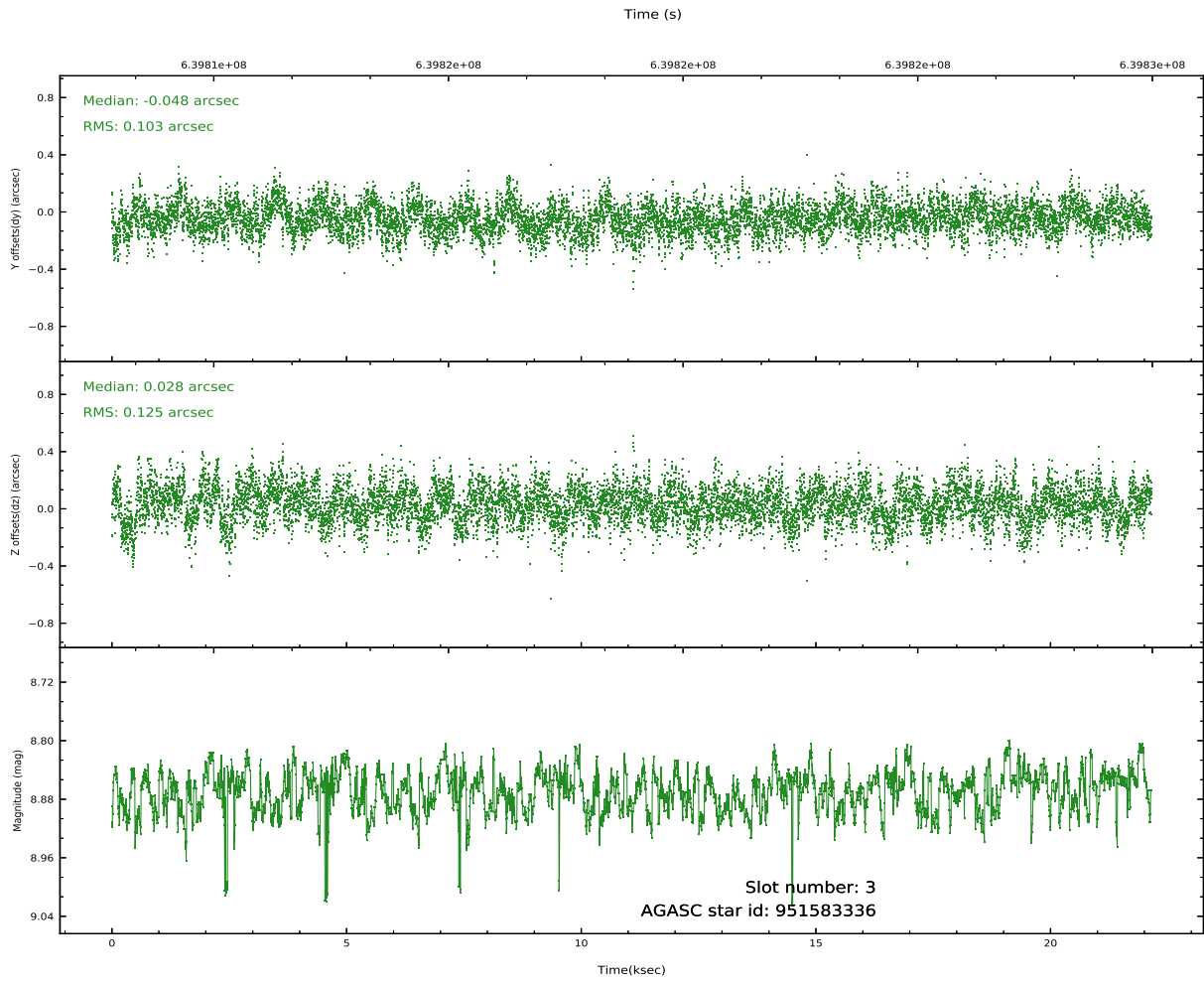
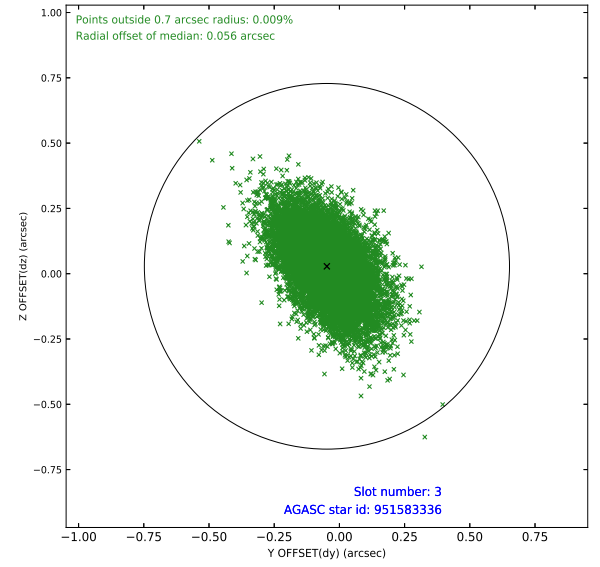
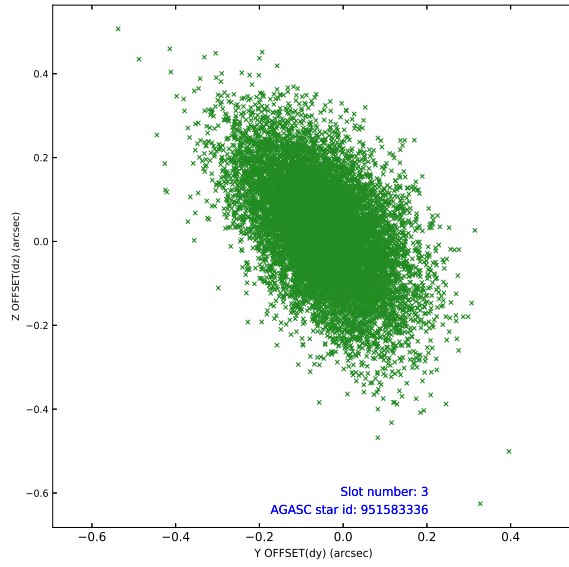


Slot Statistics

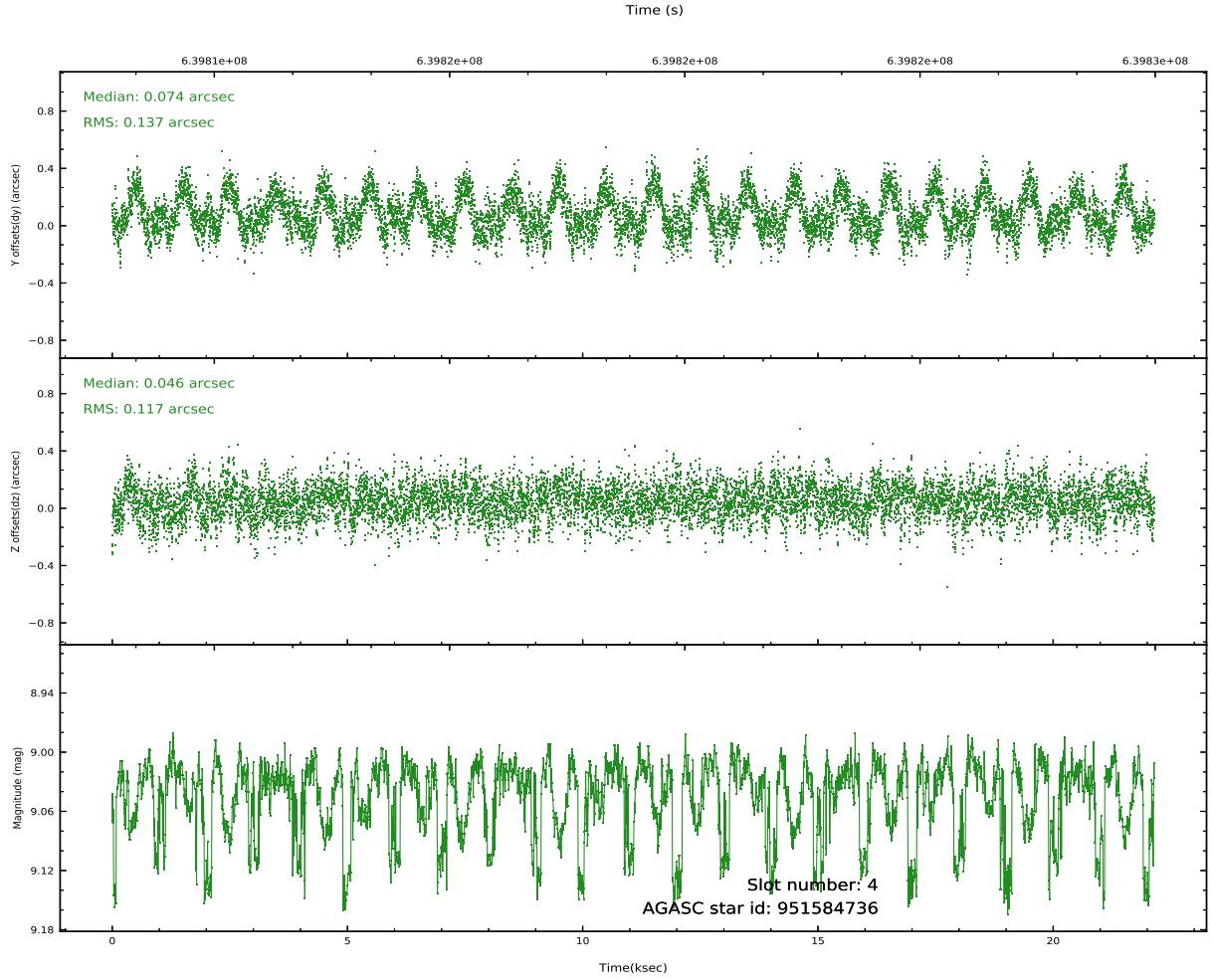
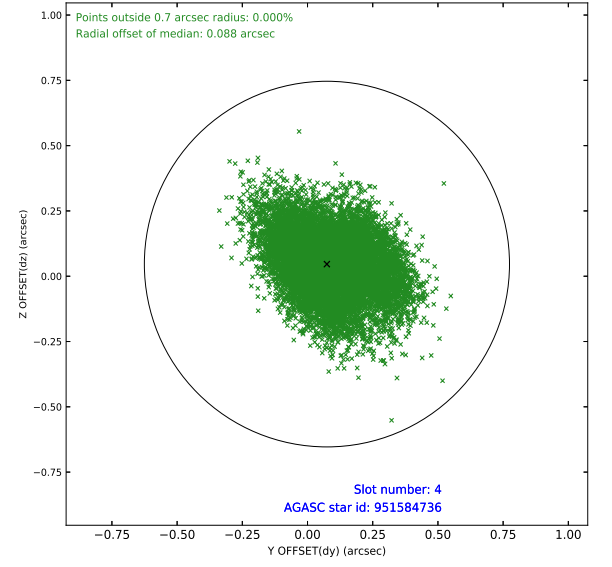
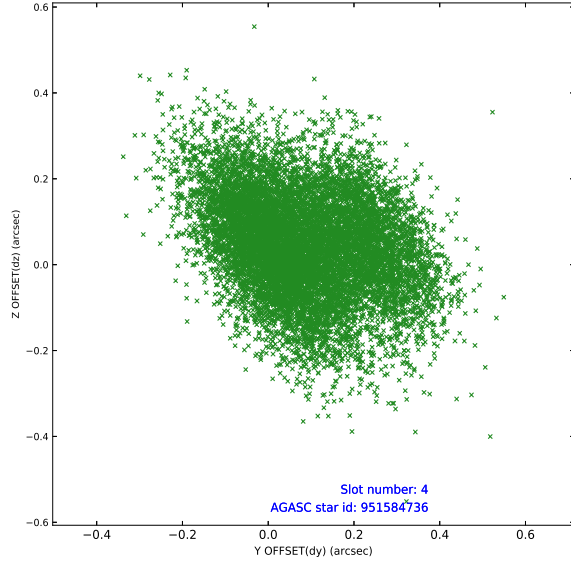
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.13	5403	1.000	-0.042	-0.086	0.016	0.026	0.000000	0.000000	921.57	-845
1	FID		ACIS-I-4	7.06	5401	1.000	0.050	0.044	0.017	0.025	0.000000	0.000000	2141.86	1054
2	FID		ACIS-I-6	7.12	5403	1.000	-0.103	0.111	0.013	0.038	0.000000	0.000000	387.70	1697
3	GUIDE	used	951583336	8.87	10795	1.000	-0.048	0.028	0.167	0.290	192.981775	-37.423183	1380.62	-1066
4	GUIDE	used	951584736	9.04	10793	1.000	0.074	0.046	0.191	0.309	192.211241	-37.340181	-831.41	-1302
5	GUIDE	used	951591976	7.99	10803	1.000	-0.094	-0.034	0.145	0.271	192.202518	-36.582022	-1517.98	1339
6	GUIDE	used	951594056	9.17	10794	1.000	0.061	0.100	0.200	0.333	192.348345	-36.809708	-911.26	645
7	GUIDE	used	1018695664	8.22	10803	1.000	0.003	-0.134	0.152	0.267	192.799422	-37.512090	949.08	-1500

2.4 Star Slots

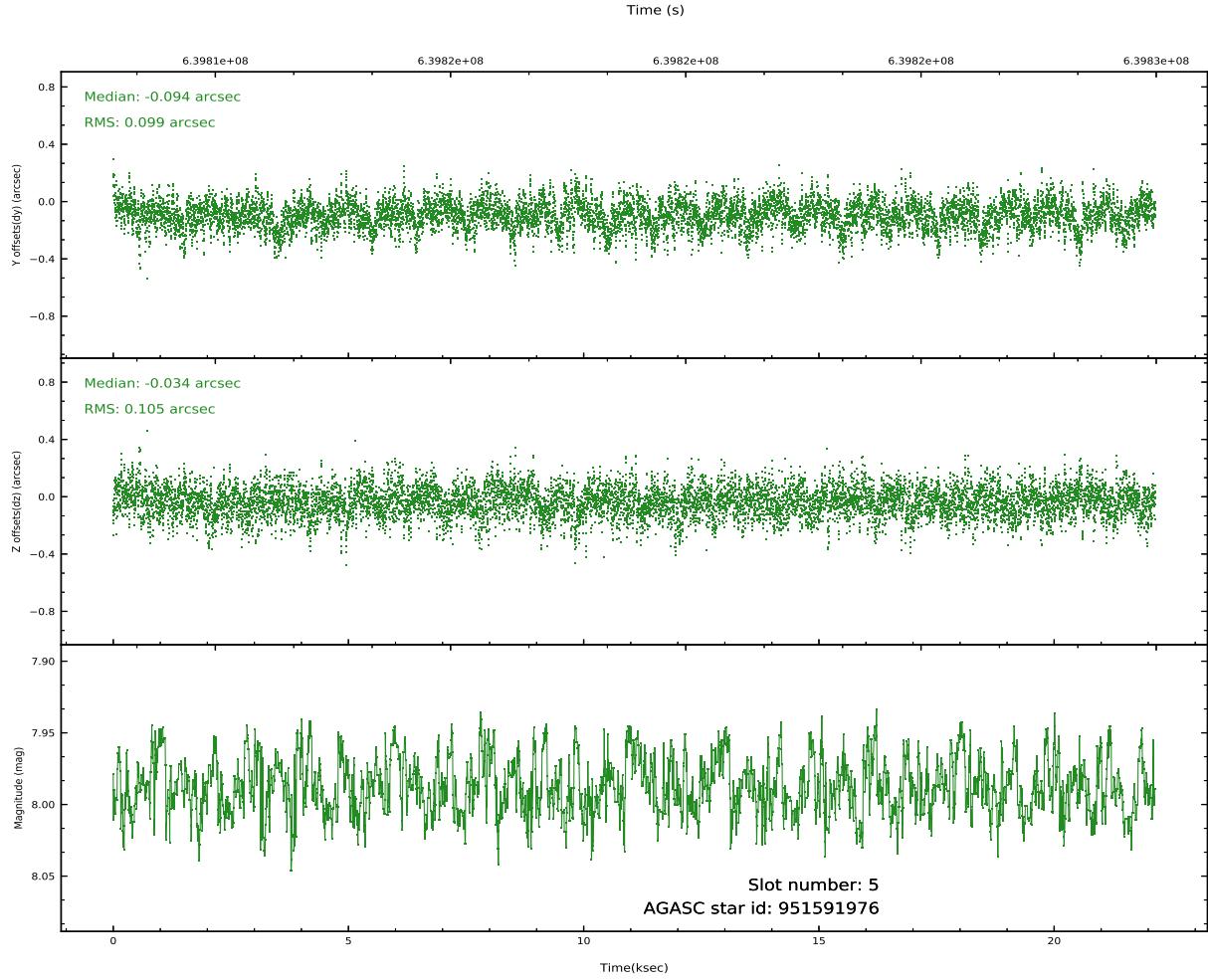
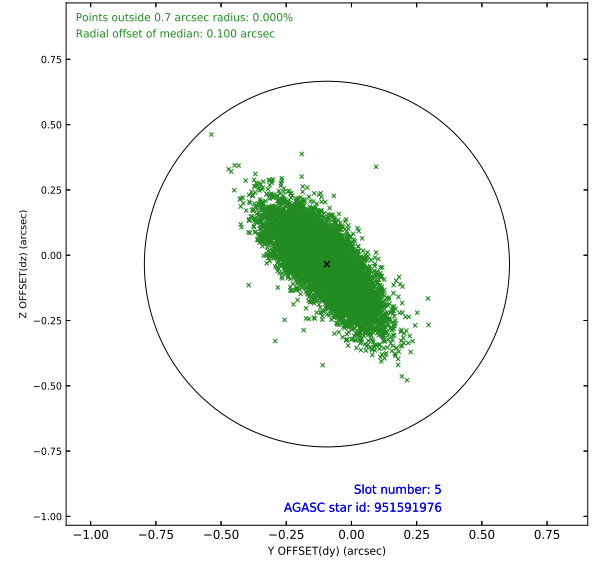
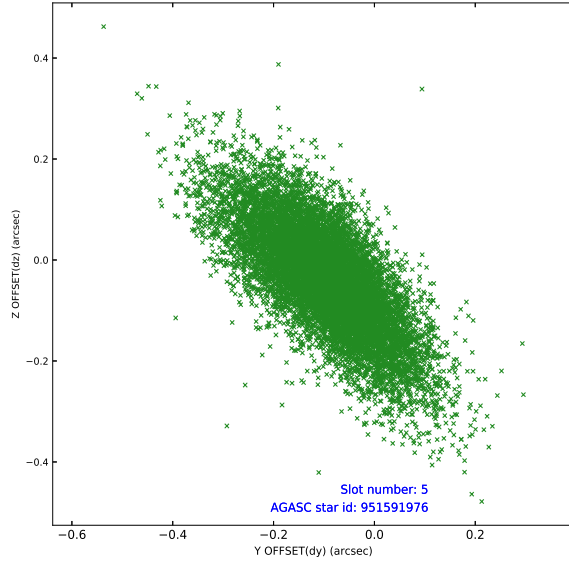
2.4.1 Slot 3



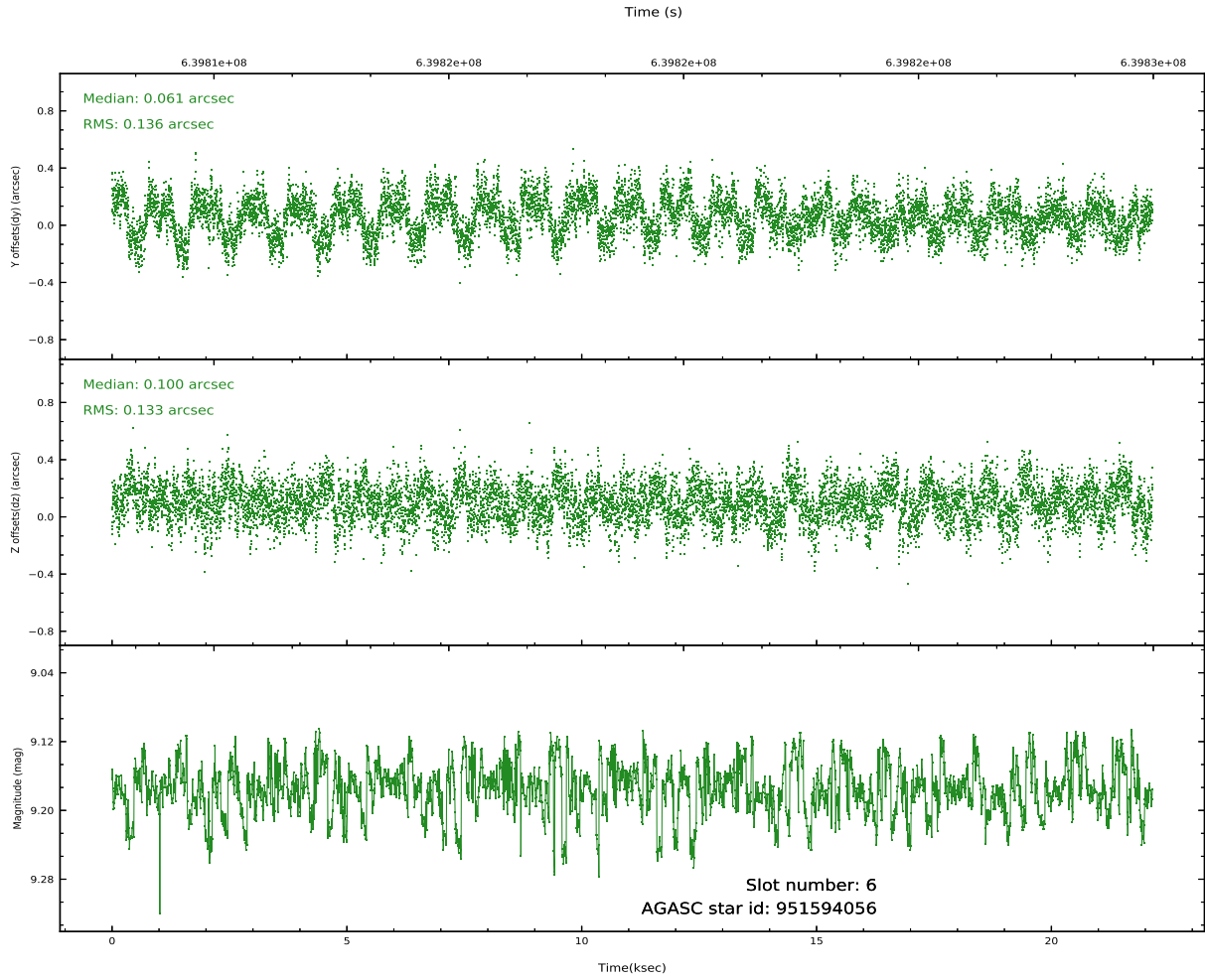
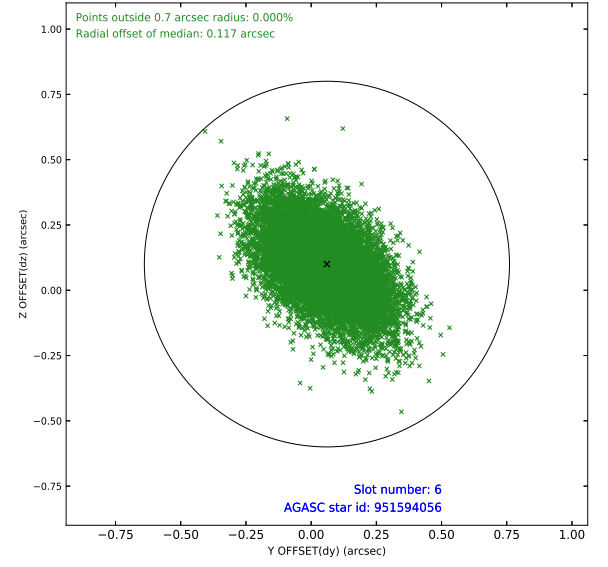
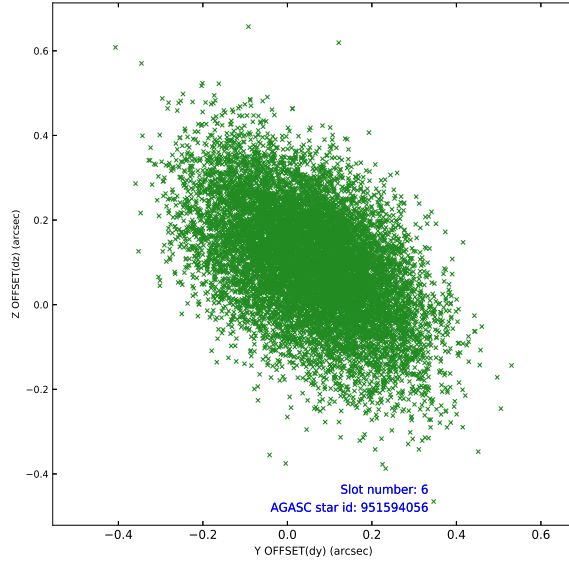
2.4.2 Slot 4



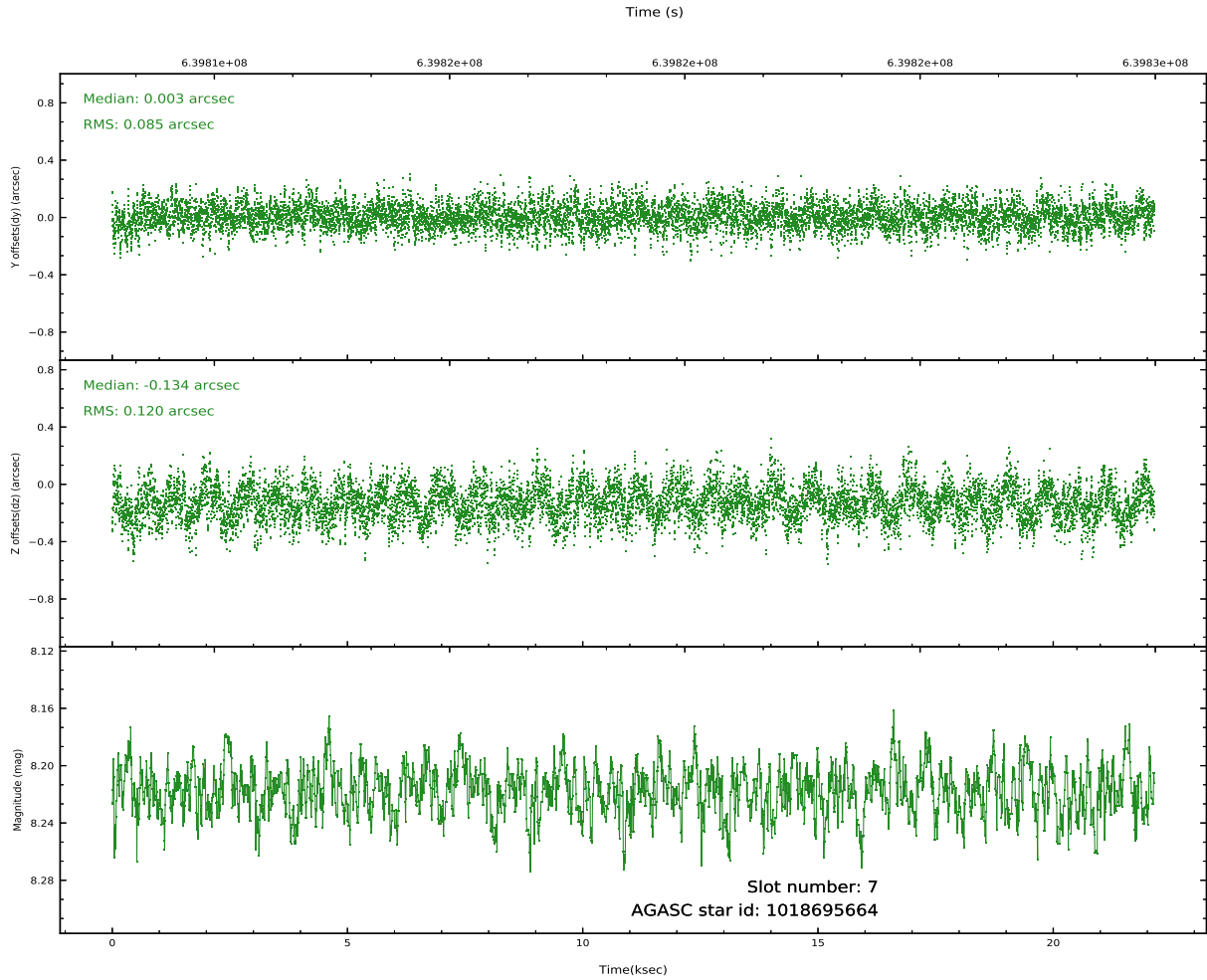
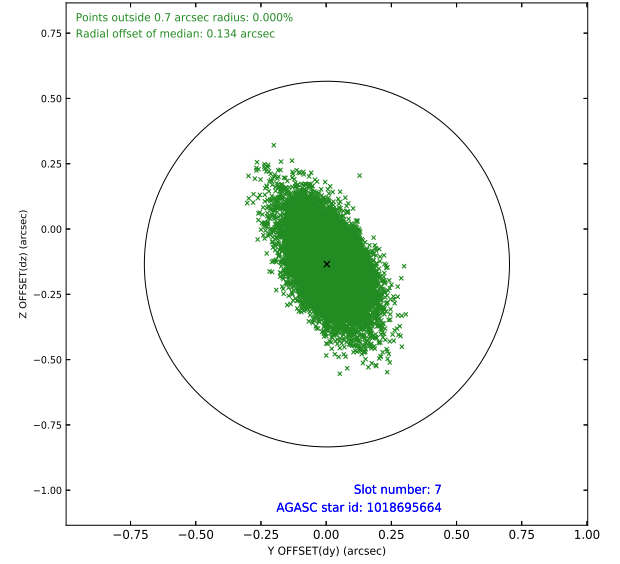
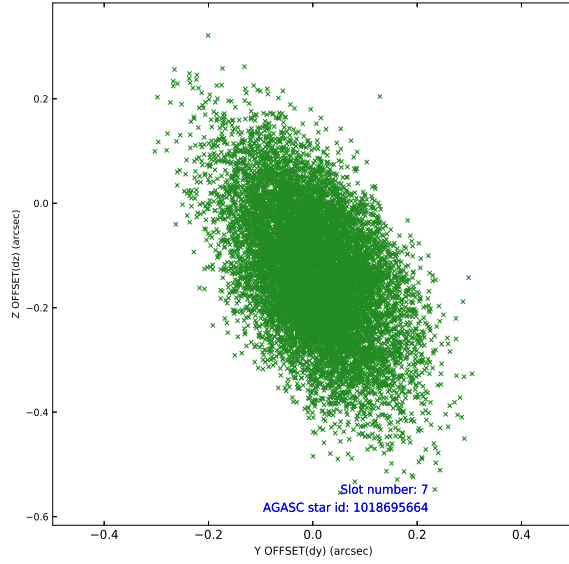
2.4.3 Slot 5



2.4.4 Slot 6

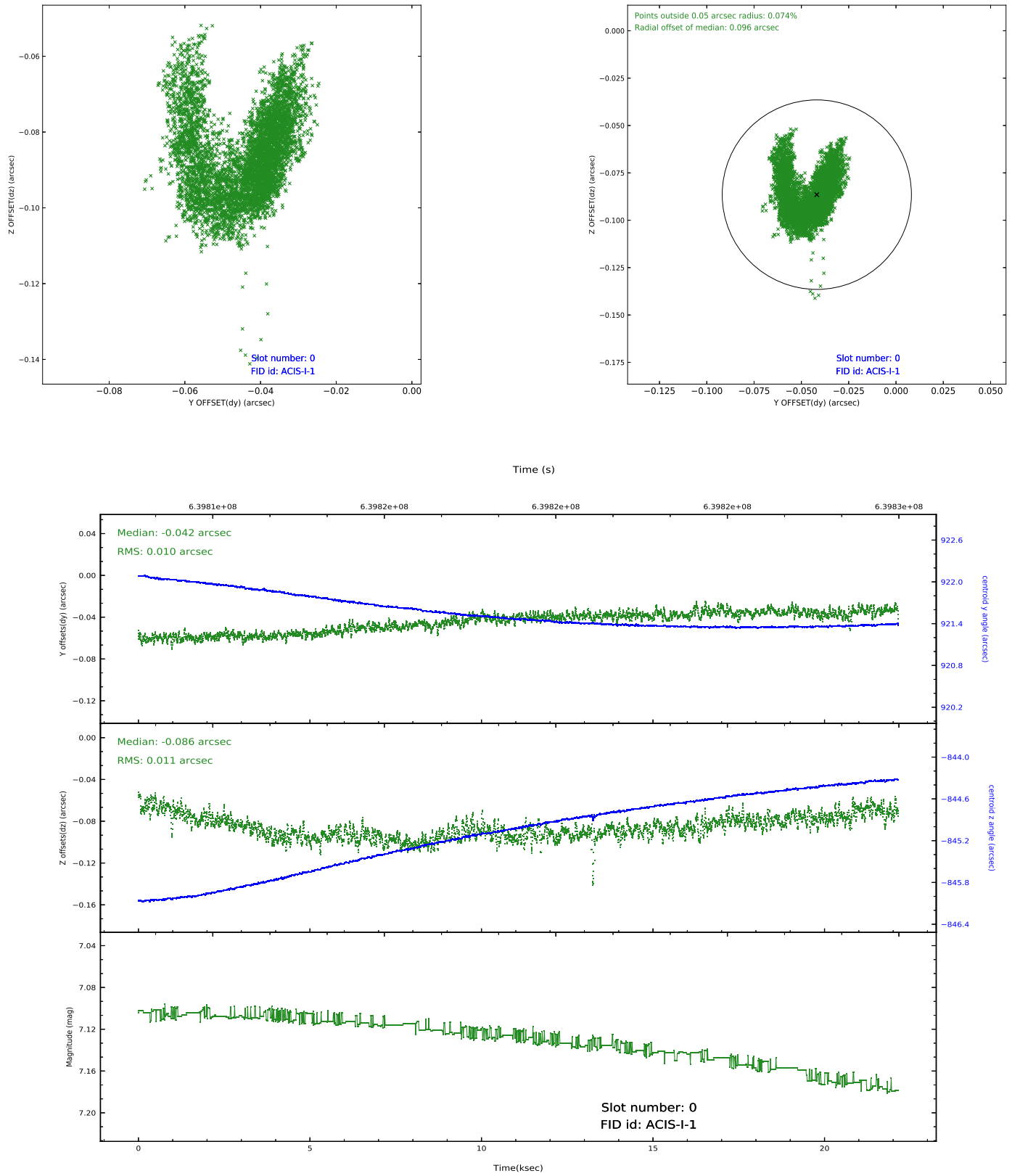


2.4.5 Slot 7

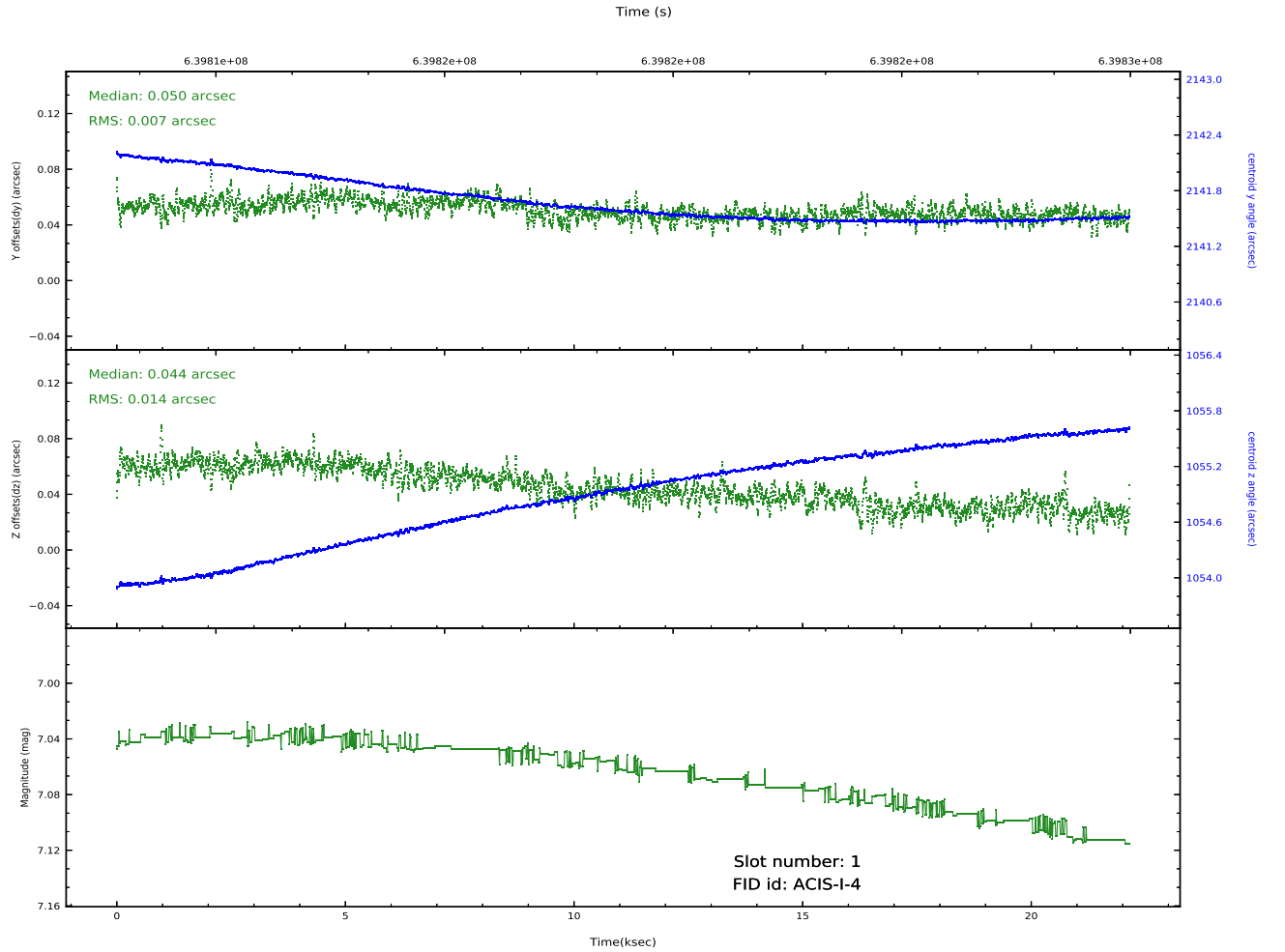
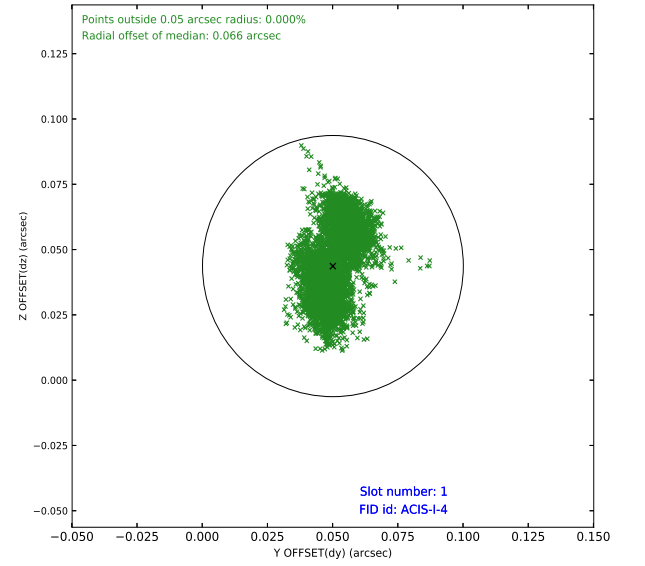
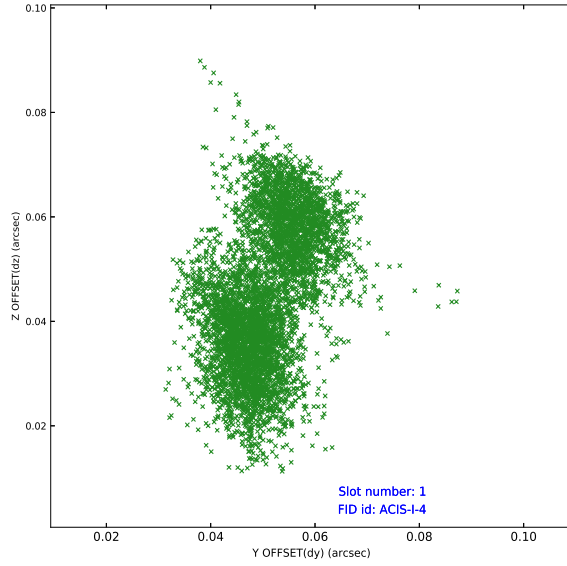


2.5 FID Slots

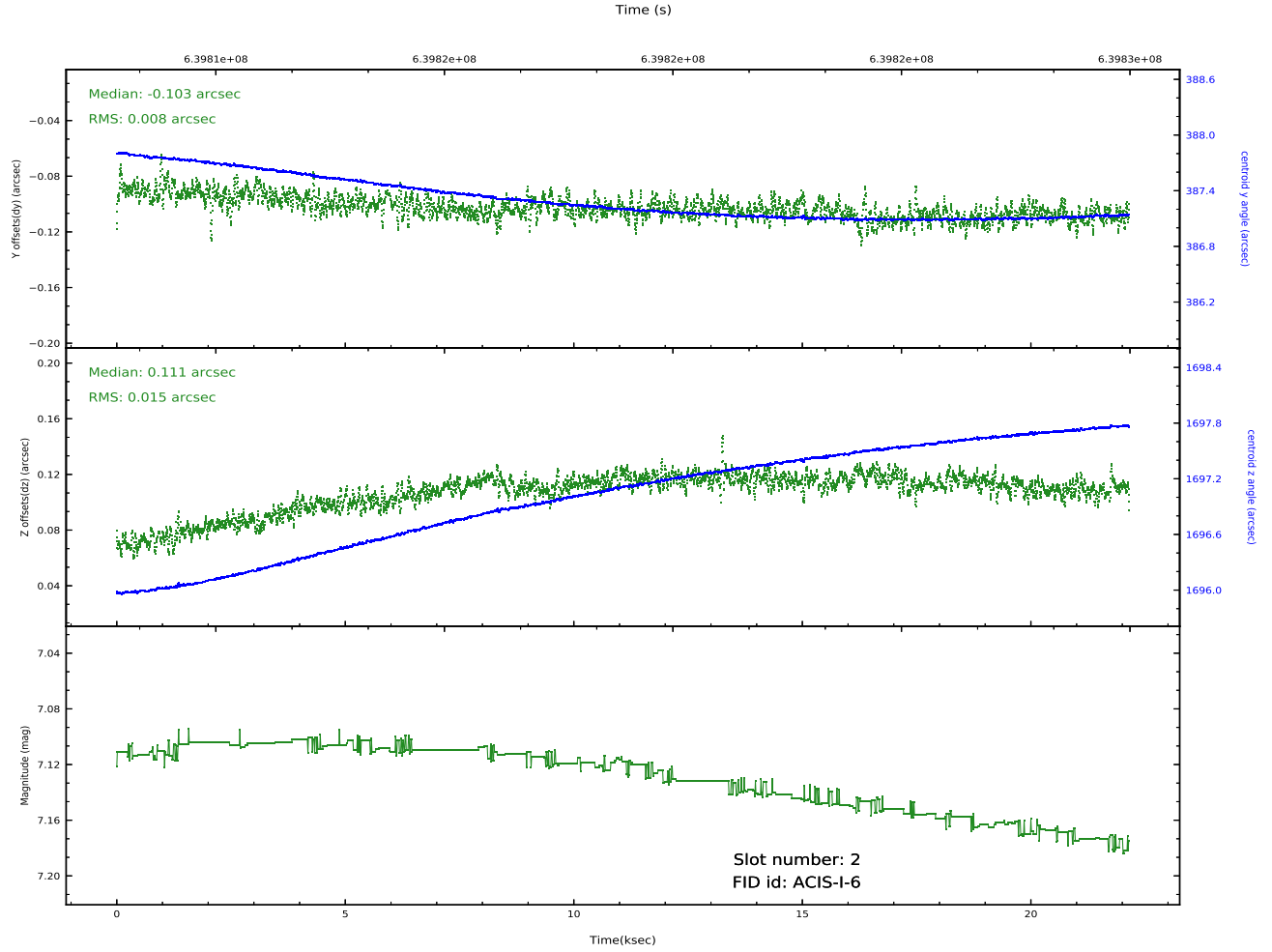
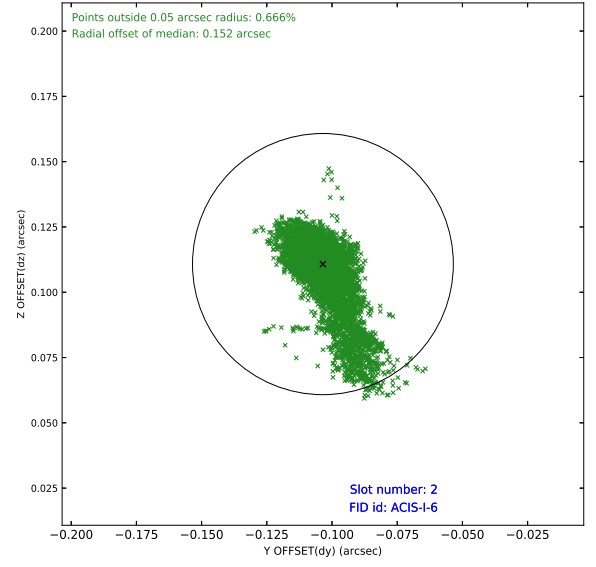
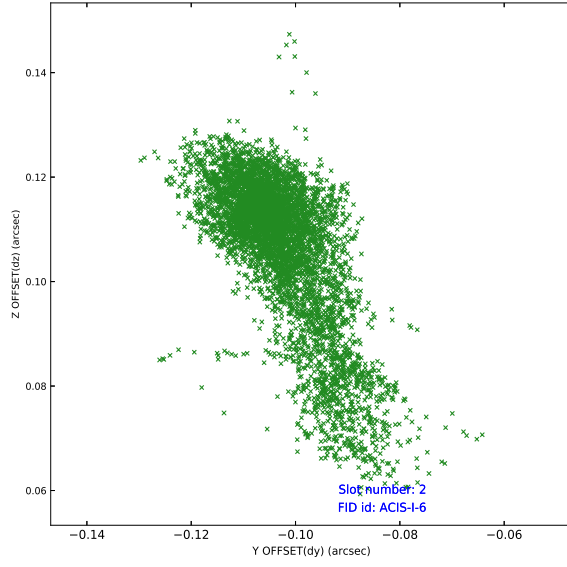
2.5.1 Slot 0



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	22.078200169921

A.2 Comments

Two optional chips were dropped.

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A spatial region of the original bias map for CCD = 0 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 = 0 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:

(192.79014,-37.12804), (192.79107,-37.12499), (192.68301,-37.10429),
(192.68208,-37.10734).